A BIOLOGICAL SURVEY OF THE MID NORTH AND YORKE PENINSULA SOUTH AUSTRALIA 2003 – 2004:

VOLUME 1: ASSESSMENT OF BIODIVERSITY ASSETS AT RISK

VOLUME 2: APPENDICES

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Mid North and Yorke Peninsula Biological Survey

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View north along the Tothill Range.

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PREFACE

Since 1971, the South Australian Department for Environment and Heritage has been conducting systematic biological surveys of the vegetation and vertebrate fauna of most regions of the state as part of the Biological Survey of South Australia.

From 1984, the survey has been overseen by the South Australian Biological Survey Coordinating Committee, which currently comprises representatives from the Department for Environment and Heritage, the South Australian Museum, the Department of Water, Land and Biodiversity Conservation, and the South Australian Research and Development Institute.

The Biological Survey of South Australia has dramatically increased our knowledge about South Australia's diverse range of native plants and animals.

This knowledge is helping the State Government meet a major target in *South Australia's Strategic Plan 2007*, which is to lose no known native species as a result of human impacts.

Our goal is to survey and map the vegetation and vertebrate fauna of the entire state by 2015, which will be a huge step towards conserving our biodiversity, particularly in the face of climate change.

The following report, *A Biological Survey of the Mid North and Yorke Peninsula, South Australia, 2003–2004: Assessment of Biodiversity Assets at Risk*, is one of the recent products of the Biological Survey of South Australia.

The report identifies biodiversity assets at risk from the impacts of salinity in the Mid North and Yorke Peninsula Natural Resources Management region.

Salinity occurs to some extent in all major agricultural regions of the state, and is one of the most significant forms of land degradation, having major impacts on our ecosystems and biodiversity as well as our land use and water quality.

I urge you to consider the report carefully, and thank you for your valuable efforts in helping to conserve our state's precious natural heritage.

GAIL GAGO
MINISTER FOR ENVIRONMENT AND CONSERVATION

EXECUTIVE SUMMARY

A biological survey was conducted in the Mid North and Yorke Peninsula between October 2003 and November 2004 in conjunction with the Northern and Yorke Natural Resources Management Board with funding from the National Action Plan for Salinity and Water Quality. A total of 140 sites were sampled. These sites were selected to represent the broad biological and geographical diversity within remnant native vegetation in the region. A further aim was to choose sites to represent the range of surface soil salinity classes present in the area in order to assess the potential risk of groundwater driven salinity to biodiversity.

Data from 21 other vegetation surveys conducted in the region were included in an analysis of plant site data for the region using PC-ORD software. This resulted in the identification and description of 83 floristic vegetation groups. A complete vegetation map of the region was produced combining data from six mapping projects. These projects described and mapped a total of 259 distinct vegetation groups. From these a consolidated set of 45 broad floristic mapping groups were determined based on dominant overstorey species, structure and, in some cases, understorey or environmental similarity for display in the regional map.

Pre-European vegetation mapping was also undertaken for the region based largely on historical research of the journals of early explorers and pastoralists, surveyor's maps and early scientific papers on the region's geology, soils and vegetation. More contemporary information was gained from site data from recent biological surveys and extensive inspection of current vegetation occurrence.

Similar analyses were undertaken for fauna incorporating data from this survey and five other smaller surveys in the region. However, the low number of mammal, reptile and frog species recorded precluded any detailed analysis. The bird analysis resulted in the recognition of seven communities with definite habitat preferences for the species defined.

A total of 748 plant taxa were recorded during the survey, comprising 577 natives and 171 exotics. Exotic taxa accounted for 31% of all records. Six taxa of national conservation significance were recorded – Lehmann's Apple-berry, White Beauty Spider-orchid, Winter Spider-orchid, Osborn's Eyebright, Silver Daisy-bush and Silver Candles.

Of the 19 native mammal species recorded in the region in the last 50 years all but two were recorded during the Mid North and Yorke Peninsula Survey. This includes the Large Forest Bat that was detected at four sites using 'Anabat' recording equipment, but is not represented by a specimen from the region. A further 12 exotic mammal species were also recorded. Small and medium sized native terrestrial mammal captures and observations were very low, which raises serious concerns for their long-term survival in the region.

Fifty-nine of the sixty-nine reptile species that are dependent on habitats represented in the region were recorded on the survey, including two not previously known for the region. These were the Saltbush Ctenotus and Sandplain Ctenotus. Two species of national conservation significance were recorded - Pygmy Bluetongue and Flinders Worm Lizard. All seven of the frog species known from the region were recorded during the survey.

The survey recorded 207 of an estimated 290 bird species recorded for the region, including the Square-tailed Kite that had not previously been recorded in the region. Seven exotic species were recorded at sites during the survey. Three species of national conservation significance were recorded – Slender-billed Thornbill, Malleefowl and Western Whipbird.

At least 663 macro-invertebrate taxa were recorded during the Mid North and Yorke Peninsula Survey, comprising 363 insect taxa (from 19 Orders) and 300 non-insect taxa (from 16 Orders).

The potential risk salinity poses for biodiversity has been assessed. However, the over-riding impact of native vegetation clearance in the region clouds the issue to some extent. Those areas where salinity risk is greatest, particularly in the Mid North, are the low points in the landscape where groundwater comes to the surface, e.g. the river valleys between the north-south ridgelines. These are also among the most productive areas for agriculture in the region and have consequently had much of their original native vegetation cover removed. Hence what remnants of native vegetation remain are small, highly fragmented, isolated and thus prone to an array of threats, not merely salinity.

The species and communities that appear to be most at risk are those that are associated with riparian systems, floodplains or freshwater wetlands. These are all associated with low points in the landscape where groundwater driven salinity is most likely to be apparent.

The total number of records contributed to the Department for Environment and Heritage's Survey database as a result of this survey were – 6475 plants, 2269 birds, 540 mammals, 509 reptiles and 31 frogs. A further 3149 records were collected away from sites during the survey and contributed to DEH's Opportunistic Sightings database, comprising 688 plants, 1679 birds, 486 mammals, 285 reptiles and 11 frogs. In addition 2704 terrestrial macro-invertebrate records were also collected.

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Floristic Vegetation Map for the Mid North
Floristic Vegetation Map for Yorke Peninsula
Salinity Risk Map

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SUMMARY

N. Neagle[1]

The Mid North and Yorke Peninsula Study Area

The Mid North and Yorke Peninsula study area covers approximately 27,155 square kilometres in the agricultural zone between Adelaide and the semi-arid pastoral zone to the north and east. It encompasses a range of environments and includes portions of two main IBRA bioregions (the Flinders Lofty Block and the Eyre Yorke Block) and a small area of a third (Murray Darling Depression).

Much of the Mid North features broad undulating valleys separated by low north-south aligned ridges covered with open woodlands. Drier ranges mark the eastern boundary and, particularly in the north east, feature extensive native grasslands. The northern Adelaide Plains and northern Yorke Peninsula are areas of undulating plains with calcrete development and shallow soils with occasional indistinct sand dunes. Much of the remnant vegetation of the area is mallee or samphire shrubland. The latter occurs in association with salt lakes, low-lying areas and coastal flats. The undulating calcrete plain of southern Yorke Peninsula contains extensive mallee communities, low woodlands, coastal shrublands and sedgelands.

The Mid North and Yorke Peninsula also lies in a transition zone between two major zoogeographic regions – the Bassian region of temperate southern and eastern Australia and the Eyrean region of the semi-arid and arid inland (Common and Waterhouse 1972). As a result the vertebrate fauna of the survey area comprise species with either Bassian or Eyrean affinities, and many of the species (both flora and fauna) associated with the region are occurring on the margin of their distribution. The Mid North and Southern Flinders Ranges also lie across a transition zone between the arid and Mediterranean climatic regions and, as a result, will suffer disproportionately from any shifts in climatic patterns brought about by climate change.

Biological Communities

A floristic vegetation analysis of site data using PC-ORD identified 83 floristic groups in the Mid North and Yorke Peninsula study area based on the similarity of their floristic composition (perennial species only). These groups were summarised into 13 vegetation community clusters (refer Table 1).

Floristic vegetation mapping of the area was determined from survey sites, PATN analysis, interpretation of aerial photography, literature review and field checking. A total of 259 vegetation groups were identified from six separate mapping projects in the study area. These have been summarised into 45 groups for the purpose of map display according to structure and dominant overstorey species.

The region has been extensively cleared for agriculture and only 13.1% of the original native vegetation cover remains, the majority of which occurs on soils least suitable for agriculture. The structural groups best represented are shrublands <1m, mallee woodlands and woodlands.

Analysis of bird site data found bird species tend to occur in one of the following seven habitat-specific groups:-

- Southern Yorke Peninsula mallee and shrublands;
- Drier mallee areas of the Mid North;
- Mallee areas on Yorke Peninsula and the eastern Mid North;
- Smooth-barked woodlands;
- Rough-barked woodlands;
- Shrublands; and
- Grasslands, sedgelands and samphire shrublands.

Both reptile and native mammal species richness are too low to detect clear patterns. However, some species-habitat affinities were detected based on higher than expected relative abundances in particular vegetation clusters. Of the most common reptiles recorded, the Sleepy Lizard appeared to favour chenopod shrublands. Likewise, the Dwarf Skink, Common Snake-eye and Bougainville's Skink appeared to favour grassy woodlands and open forests of the Mid North; Three-toed Earless Skink the sheoak low woodlands of the Mid North; Mallee Snake-eye the open mallee; and Southern Four-toed Slider and Four-toed Earless Skink the coastal shrublands.

Of the most commonly recorded mammals, the Western Grey Kangaroo appeared to favour chenopod shrublands; Short-beaked Echidna the open shrublands and mallee in drier areas; all bats the watercourse communities; Western Pygmy-possum the Yorke

[1] Biological Survey and Monitoring Section, Science and Conservation Directorate, Department for Environment and Heritage, GPO Box 1047, Adelaide SA 5001.

Table 1.
Floristic vegetation groups and clusters (in bold type) resulting from the PC-ORD analysis.

Grp No.	No. of Sites	Floristic Group Name
Grasslands		
1	63	*Austrostipa blackii*, *Aristida behriana*, *Lomandra multiflora* ssp. *dura*, *Austrostipa scabra* ssp. Tussock Grassland
2	3	*Themeda triandra* Tussock Grassland
3	9	*Lomandra multiflora* ssp. *dura* Open Tussock Grassland
4	19	*Austrostipa scabra* ssp. +/- *Austrodanthonia caespitosa* Tussock Grassland +/- an Open Mallee overstorey
5	6	*Aristida behriana* +/- *Themeda triandra* Tussock Grassland
6	16	*Lomandra multiflora* ssp. *dura* and/or *L. effusa* Open Tussock Grassland
7	12	*Lomandra effusa* Open Tussock Grassland
8	10	*Austrodanthonia caespitosa* Open Tussock Grassland
9	59	*Austrostipa eremophila*, *Austrodanthonia caespitosa* +/- *Austrostipa nitida* +/- *Lomandra effusa* Open Tussock Grassland
10	2	*Triodia scariosa* Open Hummock Grassland
11	4	*Maireana aphylla* Low Open Shrubland
Sheoak Low Woodlands of the Mid North		
12	22	*Triodia bunicola* Hummock Grassland +/- an overstorey of *Allocasuarina verticillata* Low Woodland
13	35	*Allocasuarina verticillata* Low Woodland
14	8	*Bursaria spinosa* ssp. *spinosa* +/- *Pomaderris paniculosa* ssp. *paniculosa* Shrubland +/- emergent *Eucalyptus odorata*
15	19	*Allocasuarina verticillata*, *Xanthorrhoea quadrangulata* +/- *Eucalyptus odorata* Low Woodland
16	6	*Eucalyptus macrorhyncha* ssp. *macrorhyncha* Low Woodland
Grassy Woodlands and Open Forests of the Mid North		
17	69	*Eucalyptus odorata* Low Woodland over grasses
18	7	*Callitris glaucophylla* +/- *Eucalyptus odorata* Low Open Forest
19	1	*Acacia salicina* Low Open Forest
20	40	*Eucalyptus leucoxylon* ssp. Open Forest over grasses
21	4	*Eucalyptus leucoxylon* ssp. +/- *E. odorata* +/- *Allocasuarina verticillata* Woodland over *Acacia pycnantha*, *A. paradoxa*
22	20	*Callitris gracilis* Low Open Forest over grasses
23	1	*Hymenanthera dentata* Low Open Shrubland
Open Shrublands and Mallees of drier areas		
24	38	*Eucalyptus porosa* Open Mallee over grasses and sparse chenopods
25	12	*Senna artemisioides* ssp. *coriacea* +/- *Templetonia egena* Shrubland
26	15	*Geijera linearifolia* Tall Shrubland with emergent mallee
27	6	*Maireana brevifolia* Low Shrubland
28	1	*Casuarina pauper*, *Myoporum platycarpum* Low Open Woodland over *Maireana sedifolia*
29	8	*Nitraria billardierei* Low Open Shrubland
Chenopod Shrublands		
30	7	*Maireana pyramidata*, *Atriplex vesicaria* ssp. Low Open Shrubland
31	10	*Atriplex vesicaria* ssp. Low Open Shrubland +/- an Open Mallee overstorey
Open Mallee		
32	60	*Eucalyptus oleosa* ssp. +/- *E. gracilis* Open Mallee
33	39	*Eucalyptus gracilis* +/- *E. brachycalyx* Open Mallee
34	51	*Eucalyptus socialis* ssp. +/- *E. gracilis* Open Mallee
35	10	*Eucalyptus dumosa* Open Mallee
Blackoak Woodland		
36	4	*Casuarina pauper* Low Woodland over sparse chenopods and grasses
Semi-arid Shrublands		
37	6	*Dodonaea viscosa* ssp. *angustissima* Low Open Shrubland
38	8	*Acacia calamifolia* Open Shrubland
39	2	*Dodonaea lobulata* Shrubland
40	6	*Acacia victoriae* ssp. *victoriae* Tall Open Shrubland
River Box Woodland		
41	1	*Eucalyptus largiflorens* Very Low Open Forest

Grp No.	No. of Sites	Floristic Group Name
Yorke Peninsula Mallee and Sedgelands		
42	52	*Eucalyptus diversifolia* ssp. *diversifolia* Open Low Mallee
43	5	*Melaleuca lanceolata*, *Eucalyptus socialis* ssp. Tall Open Shrubland
44	5	*Gahnia lanigera* Sedgeland
45	7	*Triodia compacta* Hummock Grassland
46	8	*Lepidosperma congestum*, *Lomandra effusa*, *Gahnia lanigera* Sedgeland
47	20	*Eucalyptus porosa* +/- *E. leptophylla* +/- *Allocasuarina verticillata* Open Mallee
48	10	*Allocasuarina verticillata*, *Melaleuca lanceolata* Very Low Woodland
49	17	*Eucalyptus rugosa*, *E. diversifolia* ssp. *diversifolia* Mallee
50	23	*Melaleuca lanceolata* Tall Shrubland
51	9	*Eucalyptus incrassata*, *Melaleuca uncinata* +/- *E. socialis* Open Mallee
52	4	*Eucalyptus incrassata* Mallee
53	9	*Eucalyptus leptophylla*, *E. phenax* +/- *E. socialis* ssp. Mallee
Coastal Shrublands		
54	14	*Alyxia buxifolia* +/- *Leucopogon parviflorus* Shrubland
55	5	*Callitris gracilis* +/- *Eucalyptus brachycalyx* Low Woodland over *Alyxia buxifolia*
56	9	*Acacia nematophylla* Shrubland +/- an overstorey of *Allocasuarina verticillata* Low Woodland
57	20	*Acacia ligulata* Tall Open Shrubland
58	48	*Olearia axillaris* +/- *Acacia ligulata* Tall Open Shrubland
59	25	*Leucopogon parviflorus*, *Olearia axillaris* Shrubland
60	11	*Nitraria billardierei* +/- *Olearia axillaris* +/- *Atriplex cinerea* Shrubland
61	1	*Acacia cyclops* Tall Closed Shrubland
62	18	*Templetonia retusa* +/- *Beyeria lechenaultii* Shrubland
63	10	*Leucophyta brownii*, *Scaevola crassifolia* Low Shrubland
64	2	*Scaevola crassifolia* Low Closed Shrubland
65	2	*Suaeda australis* Low Shrubland
66	8	*Spinifex hirsutus* Open Tussock Grassland
Saline Shrublands		
67	10	*Halosarcia pergranulata* ssp. Low Shrubland
68	6	*Halosarcia indica* ssp. *leiostachya* Low Shrubland
69	7	*Atriplex paludosa* ssp. *cordata* +/- *Halosarcia indica* ssp. Low Shrubland
70	2	*Halosarcia syncarpa* Low Shrubland
71	24	*Halosarcia halocnemoides* ssp. +/- *H. indica* ssp. *leiostachya* Low Shrubland
72	4	*Lawrencia squamata* Low Shrubland
73	13	*Melaleuca halmaturorum* Very Low Open Forest
74	30	*Sclerostegia arbuscula*, *Sarcocornia quinqueflora* Low Shrubland
75	3	*Gahnia filum* Sedgeland
76	3	*Avicennia marina* ssp. *marina* Very Low Closed Forest
Watercourse Communities		
77	5	*Myoporum montanum* Tall Open Shrubland over *Typha domingensis*, *Cyperus gymnocaulos* +/- an overstorey of *Eucalyptus camaldulensis* var. *camaldulensis* Open Forest
78	1	*Bolboschoenus caldwellii* Sedgeland
79	10	*Juncus kraussii* Sedgeland
80	5	*Eucalyptus camaldulensis* var. *camaldulensis* Woodland over *Phragmites australis*
81	6	*Phragmites australis* Tussock Grassland
82	6	*Muehlenbeckia florulenta* Shrubland
83	13	*Eucalyptus camaldulensis* var. *camaldulensis* Open Forest over grasses and herbs

Peninsula mallee and sedgelands; and Common Brushtail Possum the grassy woodlands and open forests of the Mid North.

Vegetation

A total of 1330 vegetation survey sites were collated from 25 separate surveys within the study area, representing 43,999 plant records. A further 688 records come from opportunistic sightings, i.e. not from survey sites. From this, 1,282 individual plant taxa were identified, of which 951 were native and 331 introduced. The Mid North and Yorke Peninsula Biological Survey sampled 140 sites, compiled 6,475 plant records for a total of 748 unique plant taxa. Of these, 577 were native and 171 introduced.

Many of the most commonly recorded plant taxa were introduced. This is not surprising given the nature of much of the remnant native vegetation in the region. It is generally confined to small, highly fragmented islands in a sea of agricultural land. The two most commonly recorded species at sites were both exotic,

Avena barbata (Bearded Oat) at 50.5% of sites and *Sonchus oleraceus* (Common Sow-thistle) at 45.8% of sites. The most commonly recorded natives were *Dianella brevicaulis*/*revoluta* var. (Black-anther Flax-lily) at 38.5% of sites, *Enchylaena tomentosa* var. *tomentosa* (Ruby Saltbush) at 33.5% of sites, *Oxalis perennans* (Native Sorrel) at 30.0% of sites and *Austrodanthonia caespitosa* (Common Wallaby-grass) at 29.7% of sites.

The extent of grasslands and grassy woodlands in the Mid North is reflected in the number of abundant grass (and related) taxa recorded - *Austrostipa elegantissima* (Feather Spear-grass) at 292 sites, *Lomandra effusa* (Scented Mat-rush) at 248 sites, *Lomandra multiflora* ssp. *dura* (Hard Mat-rush) at 243 sites, *Austrostipa scabra* ssp. (Rough Spear-grass) at 214 sites, *A. nitida* (Balcarra Spear-grass) at 207 sites and *Ptilotus spathulatus* f. *spathulatus* (Pussy-tails) at 192 sites.

Fauna

Mammals

In addition to the 140 sites where fauna were trapped on this survey, data from a further 28 sites from five other small-scale surveys were also collated in this report. Seventeen native mammal species were recorded - one monotreme (Short-beaked Echidna), one wombat (Southern Hairy-nosed Wombat), one carnivorous marsupial (Common Dunnart), two possums (Western Pygmy-possum and Common Brushtail Possum), three Kangaroos (Western Grey, Red and Euro), and nine species of bat (two free-tail and seven evening bats).

The most commonly recorded native mammal species were the Western Grey Kangaroo (*Macropus fuliginosus*), Short-beaked Echidna (*Tachyglossus aculeatus*), Euro (*Macropus robustus*) and Lesser Long-eared Bat (*Nyctophilus geoffroyi*).

Birds

A total of 170 survey sites from six surveys have been sampled for birds in the study area. This survey sampled 140, resulting in 170 bird species being recorded, with a further 37 from opportunistic observations. An additional 101 species are known for the region from other sources. Only nine of this total of 308 are introduced.

The bird species most commonly recorded at survey sites were the Galah (*Cacatua roseicapilla*), Little Raven (*Corvus mellori*), Australian Magpie (*Gymnorhina tibicen*), Grey Shrike-thrush (*Colluricincla harmonica*), Spiny-cheeked Honeyeater (*Acanthagenys rufogularis*), Red Wattlebird (*Anthochaera carunculata*), Grey Currawong (*Strepera versicolor*), Variegated Fairy-wren (*Malurus lamberti*) and Singing Honeyeater (*Lichenostomus virescens*).

Reptiles

Sixty-nine reptile species are known to occur in the Mid North and Yorke Peninsula. Of these, 59 (or 85%) were recorded from the 168 survey sites and opportunistic records collated for this report. The Mid North and Yorke Peninsula recorded three species that were previously unknown within the region - Saltbush Ctenotus (*Ctenotus olympicus*), Sandplain Ctenotus (*Ctenotus schomburgkii*) and Murray River Tortoise (*Emydura maquarii*) - though the latter is likely to be an accidental or deliberate introduction.

The most commonly recorded species were Sleepy Lizard (*Tiliqua rugosa*), Dwarf Skink (*Menetia greyii*), Common Snake-eye (*Morethia boulengeri*), Mallee Snake-eye (*M. obscura*), Three-toed Earless Skink (*Hemiergis decresiensis*), Southern Four-toed Slider (*Lerista dorsalis*) and Four-toed Earless Skink (*Hemiergis peronii*).

Frogs

All seven of the frog species known to occur in the region were recorded during this survey, but only one (Painted Frog) of the two known to inhabit Yorke Peninsula. The most commonly recorded species was the Common Froglet (*Crinia signifera*) which was detected in watercourses and swamp communities in the central Mid North. The next most common were the Painted Frog (*Neobatrachus pictus*) and Spotted Grass Frog (*Limnodynastes tasmaniensis*). The former appeared to favour sand plains on Yorke Peninsula and the latter, watercourses and lakes.

Terrestrial Macro-invertebrates

Invertebrates were sampled at the 140 sites of this survey resulting in 2,704 site records. At least 363 insect taxa were recorded, representing 110 Families and 19 Orders. In addition, at least 300 non-insect taxa were also recorded, from 76 Families and 13 Orders. The most commonly recorded insect Orders were Diptera, Coleoptera, Orthoptera, Hemiptera, Blattodea and Hymenoptera, while for non-insects it was Araneae Araneomorphae, Collembola and Acarina.

Salinity and Biodiversity

One of the specific objectives of the Mid North and Yorke Peninsula Biological Survey was to identify biodiversity assets at risk from changes in salinity. This has been undertaken using salinity (induced by water table) information supplied with soil and landscape mapping (DWLBC Soil and Land Information 2002).

Floristic Groups

The 83 floristic groups determined from the PC-ORD analysis were categorised according to the range of soil salinity classes in which sites comprising each group occurred. This was used in conjunction with a consideration of whether the floristic group was known to occur in naturally saline conditions to determine its salinity risk.

Seven floristic groups were identified as potentially the most at risk to increased salinity in the study area.

1. *Muehlenbeckia florulenta* Shrubland. While it is recognised that this group is able to tolerate slightly

saline conditions, four of the six sites where it was recorded were in areas of moderately high salinity on the floodplain of the lower Broughton River.

2. *Geijera linearifolia* Tall Shrubland with emergent mallee. Mainly recorded on the sub-coastal plain of northern Yorke Peninsula with four sites in areas of the slight, nine in the moderately high and one in the high salinity categories (out of a total of 15 sites where it was recorded).

3. *Phragmites australis* Tussock Grassland. Recorded at one site with moderately high salinity and three with slight salinity. Although capable of coping with brackish water, its occurrence at one site with moderately high salinity and generally beside watercourses at low points in the landscape (where evidence of salinity is first apparent) make it potentially at risk should salt levels rise.

4. *Allocasuarina verticillata*, *Melaleuca lanceolata* Very Low Woodland. Six of the ten sites where recorded were in areas of slight salinity.

5. *Acacia salicina* Low Open Forest. Recorded at only one site, beside a watercourse in an area of slight salinity. This, and the next floristic group, both occur at low points in the landscape and as such are potentially most at risk should salt levels rise.

6. *Myoporum montanum* Tall Open Shrubland over *Typha domingensis*, *Cyperus gymnocaulos* +/- an overstorey of *Eucalyptus camaldulensis* var. *camaldulensis* Open Forest. Three of the five sites where recorded were in areas of slight salinity.

7. *Lomandra multiflora* ssp. *dura* Open Tussock Grassland. With five of its nine sites in areas with slight salinity this floristic group, listed as critically endangered under the *EPBC Act 1999*, appears to be at risk to increased salinity.

Vegetation

The 84 plant taxa of State or national conservation significance were categorised according to the range of soil salinity classes at sites where each taxon was recorded. This was used in conjunction with a consideration of whether the taxon was known to occur in naturally saline conditions to determine its salinity risk.

Eleven of these plant taxa were thus identified as being the most at risk to increased salinity in the study area.

1-5. *Poa drummondiana* (Knotted Poa), *Caladenia brumalis* (Winter Spider-orchid), *Senecio macrocarpus* (Large-fruit Groundsel), *Caladenia bicalliata* ssp. *bicalliata* (Western Daddy-long-legs) and *Austrostipa echinata* (Spiny Spear-grass). At least 20% of the sites where these five species were recorded are in areas of moderately high salinity. *Caladenia brumalis* and *Senecio macrocarpus* are of particular significance, as both are rated as nationally vulnerable.

6-7. *Juncus radula* (Hoary Rush) and *Mentha satureioides* (Native Pennyroyal). Although these two species were only recorded once, both were found in areas of slight salinity. As these were low-lying, seasonally wet habitats (where increases in salinity are likely to be experienced first) these species are potentially at risk.

8-9. *Acacia enterocarpa* (Jumping-jack Wattle) and *Caladenia* sp. Brentwood (R.J.Bates 53510) (Ghost Spider-orchid). These two species were also only recorded once and in areas of slight salinity. As such their susceptibility to increased salinity is difficult to assess but, given their national endangered rating and limited distribution, it would seem prudent to include both as potentially at risk.

10-11. *Austrodanthonia duttoniana* (Brown-back Wallaby-grass) and *Carex inversa* var. *major* (Knob Sedge). At least 50% of occurrences of these two species were in areas of slight salinity. As both occur in areas prone to inundation (i.e. low points in the landscape where salinity is likely to be experienced first) these species are potentially at risk.

The nationally threatened *Lachnagrostis limitanea* (Spalding Blown Grass), which occurs in degraded remnant riparian grasslands in the Mid North, is also at risk from increased salinity levels. As this is a shallow rooted species its root mass is concentrated in the top layer of soil where salinity is highest. Recent trials (Lofts 2007) have shown that increased salinity levels lead to a reduction in the plant's root system, with potential implications for plant stability and its ability to recover after disturbance.

Birds

Bird species of conservation significance were also categorised according to the range of soil salinity classes at sites where they were recorded. This information was then analysed in conjunction with each taxon's known habitat preferences.

For birds, and all fauna groups, their potential risk from changes in salinity was assessed based on the potential risk to their habitat.

Two species were thus identified as being the most at risk to increased salinity in the study area.

1. Diamond Firetail (*Stagonopleura guttata*). Although only recorded at sites with nil salinity, this species is potentially still at risk from habitat loss due to salinity. This is due to its preference for eucalypt woodlands, often along watercourses, the fragmented nature of this habitat and the species' mainly resident nature.

2. Crested Shrike-tit (*Falcunculus frontatus*). This species was recorded from only one site in an area with

nil salinity. However, as it too occurs in eucalypt woodlands and appears to be mainly resident with some local movement, this species is also potentially at risk from habitat loss should salinity levels rise.

Bird Groups

The seven bird groups determined from the PC-ORD analysis were categorised according to the range of soil salinity classes in which sites comprising each group occurred. Consideration was then made of the vegetation communities described at these sites and their degree of tolerance to the salinity level they occur in, to provide an indication as to whether this presented a threat to the associated bird species.

Three bird groups (or sub-groups thereof) were identified as being potentially most at risk due to increased salinity causing loss of preferred habitat in the study area.

1. Birds of Shrublands. It is only those bird species associated with the *Muehlenbeckia florulenta* (Lignum) Shrubland sub-group that are potentially at risk to rising salinity, as it may result in the degradation of the habitat. This shrubland was recorded on the floodplain of the lower Broughton River.

2. Birds of Grasslands, Sedgelands and Samphire Shrublands. Within this group it is only those bird species associated with grasslands or sedgelands occurring along watercourses (in particular *Phragmites australis* Tussock Grassland and *Juncus kraussii* Sedgeland) that are potentially at risk to rising salinity. Sites within these communities occur on stream channels and floodouts of watercourses throughout the Mid North.

3. Birds of Smooth-barked Woodlands. Six of this group's 23 sites are located on watercourses, mostly in *Eucalyptus camaldulensis* var. *camaldulensis* (River Red Gum) Woodlands. While only two of these sites are in areas of slight salinity at present, they could be at risk in future if salinity levels rise, as they occur at low points in the landscape.

Mammals

The paucity of native mammal species in the region and the low abundance of many that are present make it difficult to assess the level of threat a rise in salinity may pose.

Only two small native ground dwelling mammal species were recorded, and these only in the two regions that support larger areas of native vegetation (south west tip of Yorke Peninsula and the eastern ranges of the Mid North). The Western Pygmy-possum (*Cercartetus concinnus*) was found in all salinity classes except for highly saline sites. Although its populations on southern Yorke Peninsula are isolated, the potential threat to habitat from salinity appears low, and its area of occupancy within Innes NP and Warrenben CP are such that its future in the region is likely to be secure. By contrast the Common Dunnart (*Sminthopsis murina*) was only found at sites in the nil salinity class. As these were all on either hill slopes or crests they would appear to be at no apparent risk from salinity.

The Common Brushtail Possum (*Trichosurus vulpecula*) is probably the mammal species most at risk to rising salinity. Along with most bat species recorded in the study area, woodlands associated with watercourses provide important habitat for this species. Such habitats, being at low points in the landscape, are most at risk should soil salinity levels rise. However, while the mobility of bats enhances their chances of survival the Common Brushtail Possum is more restricted by the fragmentation of suitable remnants, and is thus at greater risk.

Frogs

The very low site frequencies and capture rates for frogs in the study area make it difficult to assess their risk from rising salinity. However, given that all seven species were recorded in association with either watercourses or lakes it would seem likely that all would be potentially at risk from increased levels of salinity.

Reptiles

A trend of decreased species richness with increased salinity is apparent for reptiles in the study area. As with other fauna groups, it is those species associated with habitats most at risk to salinity that are in turn facing the greatest potential risk themselves. And again it is the watercourse communities, occurring as they do at low points in the landscape, that are most at risk. Only two reptile species appeared to favour this vegetation alliance – Garden Skink (*Lampropholis guichenoti*) and Burton's Legless Lizard (*Lialis burtonis*) – though both were also positively associated with other alliances.

In addition, the nationally vulnerable *Notechis ater ater* (Krefft's Tiger Snake) that inhabits riparian corridors, is indirectly at risk from increased salinity through the potential loss of its primary food source – frogs (see above).

Terrestrial Macro-invertebrates

The assessment of salinity risk to invertebrates is also problematical due to difficulties in taxonomic identification, a dearth of information on habitat preferences and variations in search effort at sites (affecting site comparisons). Nevertheless some taxa groups did appear to prefer non-saline environments. For insects these included most grasshoppers and cockroaches, vinegar flies and termites, while for non-insects it was millipedes, scorpions, false scorpions and mites.

Summary

While groundwater driven salinity is an issue for the region (NYAD INRM Committee 2003) and poses a threat to the above species and communities, the degree

of threat is obscured by the over-riding impact of vegetation clearance. Much of the area already affected by salinity in the region (or potentially at threat in the future) has already been wholly or partially cleared of native vegetation, and what remains is in isolated fragments. Hence it is the clearance (and its associated degradation, e.g. reduction of suitable habitat, weed invasion and genetic isolation of remnants) that has had a more profoundly deleterious impact on native species and communities than any subsequent salinisation.

This is exemplified in Figure 1 (an extract from the salinity risk map presented on the CD provided in Volume 2 of this report), which displays soil salinity classes across the landscape as well as remnant native vegetation and survey sites for a target area of the region – the Apoinga 1:50000 map sheet (a map of the entire study area is presented on the CD accompanying this report). This is an area to the south of Burra that includes the township of Farrell Flat, the saline Porter Lagoon and the north end of the Tothill Range. The remnant vegetation is mainly associated with the Tothill Range (in the south east), its continuation to the north, and with minor ranges to its west. Soil salinity is highest in the vicinity of Farrell Creek (in the north west) and associated with creeks leading into Porter Lagoon (centre of map). The course of the Wakefield River (in the south west) also stands out as an area of moderate salinity. Areas of slight (or higher) salinity are mostly offset from patches of remnant native vegetation. This approximates a watercourse/valley versus range association.

Sites with floristic groups associated with watercourses (e.g. groups 78, 79 and 80) can be seen on the eastern and western margins of the map, as well as east of Porter Lagoon and on the Wakefield River. These are all located in small remnants and mostly within areas of slight or moderate salinity. By contrast, sites representing floristic groups 15 and 17 (both woodland communities) occur on hill slopes, where soil salinity is negligible, and in the larger remnants of native vegetation. These communities are not threatened by salinity.

The species and communities described above that are now most at risk are generally those that are associated with riparian systems, floodplains or freshwater wetlands. These all occur at low points in the landscape where groundwater driven salinity is most likely to be apparent.

The significance of the remnant native vegetation patch size is emphasised in Table 2, where it can be seen that just over 80% of all such patches are less than 10ha and 98% are less than 100ha. This highlights the extremely fragmented nature of the remaining native vegetation in the study area. Figures 2-5 show the distribution of the relative patch sizes. Only 13.1% of the original native vegetation cover remains in the region and these maps illustrate the nature of remnants as being predominantly small isolated patches. The only sizeable remnants occur on southern Yorke Peninsula, the hills north of Burra, and along the coast north of Adelaide and near Port Pirie.

Table 2.
The range of remnant native vegetation patch sizes in study area.

Patch Size Range (ha)	No. of Patches	% of Total Patches	Estimated Area (ha)	% of Total Native Vegetation
<10	8,153	80.2	26,457	7.4
10-100	1,809	17.8	47,355	13.3
100-1000	180	1.8	44,831	12.6
>1000	25	0.2	236,787	66.6
Total	10,167		355,430	

Species Requiring Further Investigation

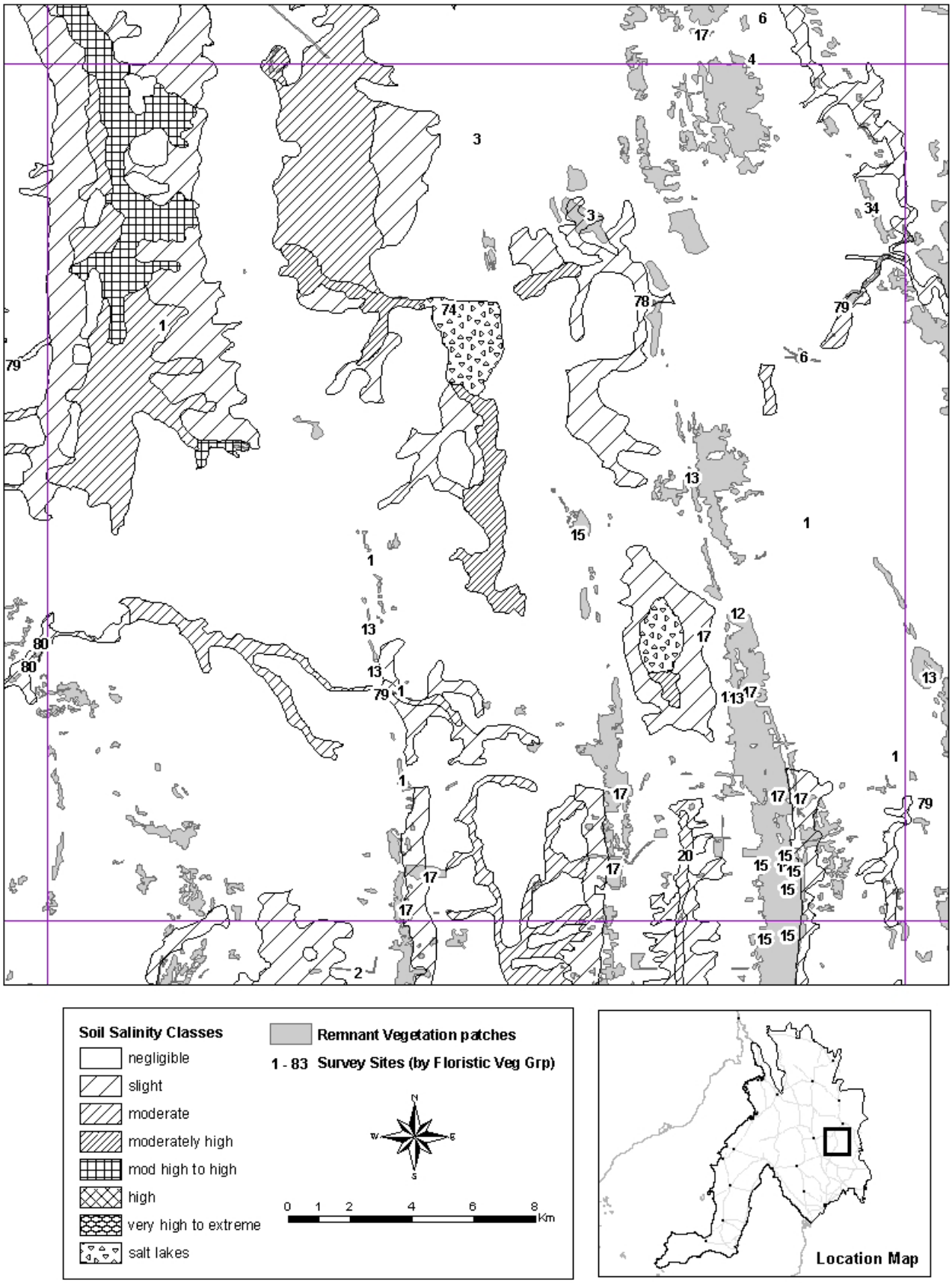
Biological surveys aim to provide an inventory of the vascular plants, vertebrate fauna and, to a lesser extent, the terrestrial macro-invertebrate fauna of the target area. Survey sites are generally located within the larger remnants of native vegetation (particularly for fauna). Hence rare species, plant communities of limited extent and smaller remnants are not specifically targeted.

Flora

With 1330 vegetation survey sites the study area would appear to be adequately covered. However, the coverage of grasslands, even allowing for two specific surveys in the region (Temperate Grasslands 1991-95 and Lofty Block Grasslands 1995-96) could still be improved, particularly the mapping of their true extent.

In addition there are a number of threatened plants and plants of limited distribution for which little is known. These include:

- *Caladenia* sp. Brentwood (R.J.Bates 53510) (Ghost Spider-orchid) is known from only one location on Yorke Peninsula.
- *Caladenia brumalis* (Winter Spider-orchid) on YP.
- *Caladenia conferta* (Coast Spider-orchid) on YP.
- *Prasophyllum goldsackii* (Goldsack's Leek-orchid) on YP.
- *Dodonaea subglandulifera* (Hopbush) on YP and Mid North (status requiring review in the latter).
- *Dodonaea procumbens* (Trailing Hop-plant) in MN.
- *Daviesia sejugata* (Disjunct Bitter-pea) on southern YP.
- *Billardiera* sp. Yorke Peninsula (P.C.Heyligers 80164) on YP.
- *Phebalium glandulosum* ssp. *glandulosum* (Glandular Phebalium) on YP and MN.
- *Lepidium pseudotasmanicum* (Shade Peppercress), *Rhodanthe anthemoides* (Chamomile Everlasting) and *Stenopetalum* sp. aff. *lineare* (unusual in that it is a perennial species in this genus) all occur in tiny populations on the slopes of Mt Bryan.
- *Leptorhynchos scaber* (Annual Buttons) occurs in the Ardrossan Parklands.



Data Source: Native vegetation mapping supplied by the Department for Environment and Heritage.
Soil salinity data sourced from DWLBC Soil and Land Information (2002).

Figure 1.
Soil salinity (induced by watertable) and remnant native vegetation map for the Apoinga 1:50000 map sheet showing the location of survey sites (labelled with the floristic vegetation group of which they are a member).

Figure 2.
Remnant native vegetation patches <10 ha.

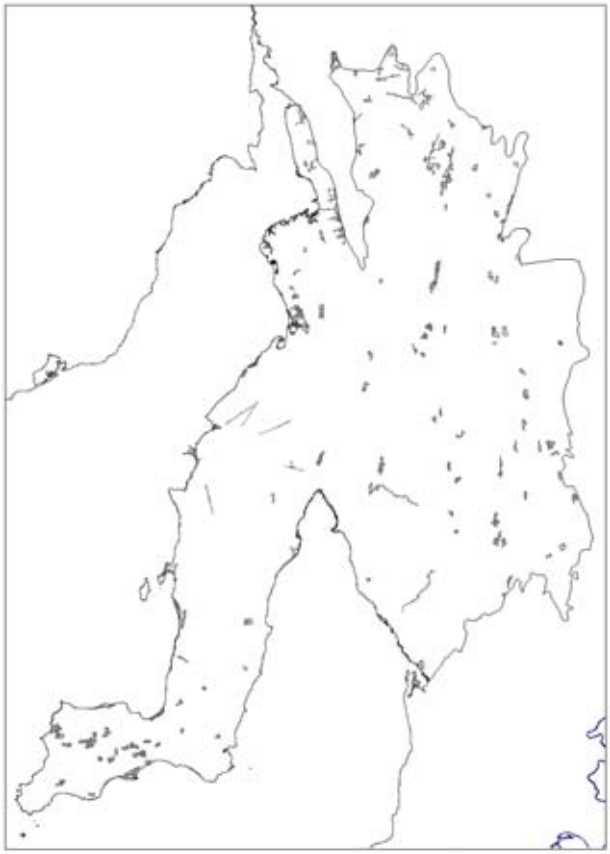


Figure 4.
Remnant native vegetation patches 100-1000 ha.

Figure 3.
Remnant native vegetation patches 10-100 ha.

Figure 5.
Remnant native vegetation patches >1000 ha.

- Plus all other nationally threatened species in the region - *Lachnagrostis limitanea* (Spalding Blown Grass), *Acacia enterocarpa* (Jumping-jack Wattle), *Acacia glandulicarpa* (Hairy-pod Wattle), *Acacia rhetinocarpa* (Resin Wattle), *Acanthocladium dockeri* (Spiny Everlasting), *Caladenia argocalla* (White Beauty Spider-orchid), *Caladenia macroclavia* (Winter Spider-orchid), *Cullen parvum* (Small Scurf-pea), *Euphrasia collina* ssp. *osbornii* (Osborn's Eyebright), *Glycine latrobeana* (Clover Glycine), *Halosarcia flabelliformis* (Bead Samphire), *Olearia pannosa* ssp. *pannosa* (Silver Daisy-bush), *Pleuropappus phyllocalymmeus* (Silver Candles), *Pterostylis despectans* (Lowly Greenhood), *Pterostylis* sp. Halbury (R.Bates 8425) (Halbury Greenhood), *Senecio macrocarpus* (Large-fruit Groundsel), *Senecio megaglossus* (Superb Groundsel) and *Stackhousia annua* (Annual Candles).

Other species occurring in populations that are relict outliers to their main range, and thus requiring further study, include:-

- *Eucalyptus camaldulensis* ssp. *camaldulensis* (River Red Gum) at Gum Flat on YP.
- *Eucalyptus odorata* (Peppermint Box) has isolated occurrences on YP.
- *Acacia genistifolia* (Broom Wattle) - a single mature shrub on a roadside near Mintaro in the Mid North.
- *Xanthorrhoea semiplana* ssp. *semiplana* (Yacca) and *X. semiplana* ssp. *tateana* (Tate's Grass-tree) - both subspecies recorded from same location west of Stansbury. Taxonomic issue surrounding separation of subspecies.

Nine plant communities occurring in the study area have been identified as rare or threatened in South Australia (DEH 2001). Of these, three have been listed as critically endangered under the *EPBC Act 1999*. Further investigation is required of the remaining six communities, in particular their distribution (past and current), most commonly occurring and/or characteristic species in each community, their typical physical environment, extent in protected areas and threats.

These communities are:-

- *Themeda triandra* +/- *Danthonia* spp. Tussock Grassland on heavy, fertile soils of plains and hill slopes
- *Eucalyptus macrorhyncha* ssp. *macrorhyncha* Open Forest
- *Eucalyptus leucoxylon* ssp. *pruinosa* +/- *E. odorata* Grassy Low Woodland on loams of hill slopes
- *Allocasuarina verticillata* Grassy Low Woodland on clay loams of low hills
- *Gahnia filum* Sedgeland in drainage lines and depressions
- *Triodia compacta* Hummock Grassland on sandy consolidated dunefields

Fauna

This survey constitutes the only systematic vertebrate fauna survey of the Mid North and Yorke Peninsula. This is not to say the fauna of the area was not already well known. The contrary is the case, as is evidenced by the results of the survey confirming the presence and distribution of most species and identifying only four previously unrecorded for the region – Square-tailed Kite (*Lophoictinia isura*), Sandplain Ctenotus (*Ctenotus schomburgkii*), Saltbush Ctenotus (*C. olympicus*) and (from Anabat recordings only) Large Forest Bat (*Vespadelus darlingtoni*). There are, however, a number of apparently rare species in the study area that warrant further investigation. These include:-

- Fat-tailed Dunnart (*Sminthopsis crassicaudata*). Only four records in the last 50 years (near Mambray Creek and Yatina) and none during this survey. If this species is still present in region, then it is at low densities at isolated locations.
- Southern Hairy-nosed Wombat (*Lasiorhinus latifrons*). This species is known from a number of isolated locations on Yorke Peninsula. However, most of these populations, if not all, are not in protected areas and the extent of these, numbers of individuals, threats and their long-term survival requires investigation.
- Short-beaked Echidna (*Tachyglossus aculeatus*). There are very few records, current or historical, of this species on Yorke Peninsula. Possible diggings were observed on this survey in a Heritage Agreement near Pine Point and a roadkill specimen was picked up near Minlaton early this year and lodged with the SA Museum.
- Water Rat (*Hydromys chrysogaster*). Probably unlikely to occur in region though one Museum specimen from Laura in 1977.
- Common Brushtail Possum (*Trichosurus vulpecula*). Relies on habitat that has largely been cleared for agriculture in this region. What remains is small, fragmented, isolated and, particularly along watercourses, could be at threat should salinity levels increase. Appears to only occur in and around a few towns on Yorke Peninsula, though is more widespread in the higher rainfall areas of the Mid North. The Common Brushtail Possum's actual distribution in the region is not well known, nor whether its numbers are currently declining. It is, however, less common than its name suggests.
- Western Pygmy-possum (*Cercartetus concinnus*). The collection of a specimen from mallee north east of Mount Bryan is of interest as it represents a northward extension of its range in the region.
- Large Forest Bat (*Vespadelus darlingtoni*). The Large Forest Bat was recorded from four sites in the Clare - Burra Hills area using 'Anabat' recording equipment, but no specimens were captured. These are the first records for this species in the region and represent a significant range extension.
- Sandplain Ctenotus (*Ctenotus schomburgkii*). Five specimens were collected from three disparate sites

on Yorke Peninsula (Clements Gap CP, between Stansbury and Minlaton, and near Pine Point) on this survey. These are the first recordings of the Sandplain Ctenotus for the region. Further work is required to determine the extent of its distribution in the region.

- Krefft's Tiger Snake (*Notechis ater ater*). Only known locations within the region are on Spring Creek, east of Mount Remarkable, and the lower Broughton River.
- Carpet Python (*Morelia spilota*). Only three Museum specimens for the region – from Clare, Robertstown and Kapunda.
- Sand Goanna (*Varanus gouldii*) and Heath Goanna (*V. rosenbergi*). The Sand Goanna is known in the region from only a few Museum records from Yorke Peninsula and the northern Adelaide Plains. The species was also observed in the Hallelujah Hills, near Robertstown, just prior to this survey. The Heath Goanna is known from only a single Museum specimen collected near Marion Bay on southern Yorke Peninsula in 1988.
- Threatened woodland birds. Woodlands provide a variety of feeding and breeding features for birds including hollows, nectar, peeling bark and seed-bearing grasses in the understorey. The degradation, fragmentation and isolation of native woodland remnants threaten species such as Diamond Firetail (*Stagonopleura guttata*), Crested Shrike-tit (*Falcunculus frontatus*), Gilbert's Whistler (*Pachycephala inornata*) and Brown Treecreeper (*Climacteris picumnus*).
- Continuation of existing species and community recovery plan projects in the region, e.g. threatened orchids, native grasslands, Tammar Wallaby (*Macropus eugenii*) and Pygmy Bluetongue (*Tiliqua adelaidensis*).
- The taxonomy of many of the terrestrial macro-invertebrates collected on this survey is uncertain. Much work remains on their identification and description.

Recommendations for Further Research/Survey Work

In addition to the species and communities described above there are a number of broader subjects requiring further research or survey in the region. These include:-

- The condition and conservation of freshwater wetlands and riparian systems. These areas represent some of the most severely impacted by European settlement. Occurring as they do in low points in the landscape they are also the most likely to be impacted by increased salinity.
- An investigation of the true extent and condition of native grasslands and the vertebrate and invertebrate fauna they support. With less than 2% of Australia's native temperate grasslands remaining (Carter *et al.* 2003), grassland habitats are considered Australia's most threatened ecological community. The conservation status of grasslands in SA is similarly critical, though the exact extent remaining is still to be determined. The difficulty of identifying native grasslands remotely (i.e. from aerial photography or satellite imagery) has resulted in this community being under-represented to date in surveys and incompletely mapped. This survey sampled 14 grassland sites across the whole region, but more is required to aid in understanding their fauna species composition.
- The implications of climate change on the species and ecological communities in the region, particularly those in the southern Flinders Ranges and the Mid North.
- There is a dearth of biological information for the region immediately north of this survey's study area. This area, which can be referred to as the Upper Mid North, is a gap between areas surveyed in the Flinders Ranges, North Olary Plains and Mid North. It includes the Willochra Plain and ranges between Peterborough and Hawker. It requires a biological survey to provide baseline information on the flora, vertebrate and terrestrial macro-invertebrate fauna, and plant communities that occur in the region, and to facilitate vegetation mapping.
- A systematic broadscale program to assess the condition of native vegetation remnants to prioritise areas for habitat restoration.
- A systematic evaluation of all the flora and fauna species in the region, to determine their conservations status on a National, State and Regional level.
- Identify remnants for inclusion in the protected area network that fulfil CARRS (Comprehensive, Adequate and Representative Reserve System) priorities for the region.
- A program integrating the previous two points to develop a system of core protected areas that are linked by areas of land managed for conservation that enable ecological flows and mitigate the potential of species loss.

Conservation Management Issues

The Mid North and Yorke Peninsula is one of the most extensively cleared regions in South Australia, with only 13% of the original native vegetation cover remaining. Much of what remains is highly fragmented and/or modified to some extent, and there are only two areas where extensive areas of native vegetation still exist – southern Yorke Peninsula and the hills east of Mount Bryan. Nevertheless, the woodland remnants that exist on the ridge tops of the Mid North's ranges are likely to provide a degree of ecological connectivity from the southern Flinders Ranges through to the Mount Lofty Ranges, and from the extensive mallee areas to the east of the region through to the mallee on eastern Eyre Peninsula.

Isolation, pest plants and animals, inappropriate fire, phytophthora, dieback, salinity and stock grazing further threaten these fragmented remnants. However, simply retaining what remnants are left will not safeguard against further species loss. Many of these remnants are

small. Only 20% of remnant native vegetation blocks in the region are larger than 10ha and 2% are greater than 100ha. As a result many remnants are too small to be able to maintain viable native flora and fauna populations. In many instances it is only through the sustained efforts of small groups of committed individuals that the biological integrity of such blocks can be maintained. Bushcare sites are a prime example of this.

The 'Integrated Natural Resource Management Plan for the Northern and Yorke Agricultural District' (NYAD INRM Committee 2003) outlines comprehensive recommendations for managing natural biodiversity. Among the key outcomes it plans to achieve in this regard are: -

- *Comprehensive biological survey and information base regarding populations of native flora and fauna in the region.*
  The main gaps for the region are the Upper Mid North area, native grassland habitats and populations of threatened species (including regionally threatened – refer species listed above requiring further investigation).
- *Regional monitoring programs in place to assess trends in ecosystem condition and effects of relevant actions.*
  As well as maintaining the existing programs for threatened species (such as orchids) in the region a range of other monitoring programs are required to study population trends in apparently declining species, e.g. Common Brushtail Possum and Southern Hairy-nosed Wombat.
- *Natural biodiversity adequately represented and conserved in the protected areas network, and managed to prevent degradation by threatening processes.*
  Protected areas in the Mid North and Yorke Peninsula consist of NPWSA reserves and Heritage Agreements on private property. Despite significant recent additions to the NPWSA reserve system (Tourilie Gorge adjacent Caroona Creek Conservation Park, Wills Creek near Price and Ramsay Way near Port Vincent) there are still major gaps in the protected area network of the region.

  As a measure of the adequacy of the reserve system, the Department for Environment and Heritage CARRS (Comprehensive, Adequate and Representative Reserve System) Program regards the inclusion of at least 15% of each IBRA bioregion, subregion and environmental association as a reasonable goal (JANIS Forest Reserve criteria, Commonwealth of Australia 1997).

  All subregions and bioregions in the study area fail to meet this target (refer Table 3). In fact, only Innes Environmental Association (refer Figure 5), which contains Innes National Park, Warrenben and Point Davenport Conservation Parks, plus a number of large Heritage Agreements, does meet it. The only other Environmental Associations with greater than 5% in protected areas are Mongolata with 12.0% and Parham with 8.2% (Table 3). Mongolata contains part of Caroona Creek CP and one Heritage Agreement, while Parham includes Clinton and Port Gawler Conservation Parks.
  As such all IBRA subregions (and all environmental associations except one) in the study area are priorities for increases in formally protected areas.

- *Local native vegetation re-established to expand, link and buffer areas of remnant native vegetation.*
  The highly fragmented and isolated nature of the remnant native vegetation of the region is a severe impediment to genetic movement. In addition to an increase in remnants within the protected areas network there is also an urgent need for habitat restoration to link and buffer these core areas. This is a key component of ecological reconstruction of the landscape (DEH 2003).

With the limited resources available for biodiversity conservation initiatives, the nature and location of remedial or restorative programs should be decided in a strategic fashion. Such actions should focus on areas identified in both the 'Integrated Natural Resource Management Plan for the Northern and Yorke Agricultural District' (NYAD INRM Committee 2003) and the 'Biodiversity Plan for the Northern Agricultural Districts' (Graham *et al.* 2001) as being priority biodiversity conservation areas. These are the southern Flinders Ranges (Flinders-Olary NatureLink), southern Yorke Peninsula, Mid North native grasslands and the north-south ranges of the Mid North. The implementation of these actions should follow the principles laid out in the *No Species Loss* and *Wild Country* philosophies, i.e. (i) managing at a landscape-scale following landscape-ecology principles and (ii) the management of fragmented populations as meta-populations.

There are several biodiversity conservation programs currently under way that follow these principles, including the Declining Woodland Birds Recovery Program, the Grassy Habitats Recovery Program and the Pygmy Bluetongue Lizard Recovery Program.

The Major Threats to Biodiversity

The major threats to biodiversity in the Mid North and Yorke Peninsula have been detailed in both the 'Biodiversity Plan for the Northern Agricultural Districts of South Australia' (Graham *et al.* 2001) and the 'Integrated Natural Resource Management Plan for the Northern and Yorke Agricultural District' (NYAD INRM Committee 2003). As such they will only be summarised here.

- Fragmentation and isolation of remnant native vegetation. Large blocks of native vegetation have the capacity to withstand detrimental impacts

Table 3.
Protected area statistics for IBRA Bioregions, Subregions and Environmental Associations in the study area.

IBRA Bioregion/Subregion	Environmental Association	Env Ass Code	Total Area (ha)	Area (ha)					Total PA (ha)	% of Total Area
				DEH	CP	NP	HA	LF		
Eyre Yorke Block Bioregion										
Southern Yorke	Innes	4.5.1	104423	809	4359	9403	14445		29016	27.8
	Corny	4.5.2	47638	4	411		81		497	1.0
	Yorketown	4.5.3	75382	183	106				289	0.4
	Urania	4.5.4	210108		22		777		799	0.4
Subregion Total			**437552**	**996**	**4898**	**9403**	**15303**	**0**	**30600**	**7.0**
St Vincent	Weetulta	4.6.1	49714		61		22		82	0.2
	Arthurton	4.6.2	48650				16		16	0.0
	Boor Plain	4.6.3	154316		382				382	0.2
	Parham	4.6.4	41447	1072	2327				3399	8.2
	Kallora	4.6.5	39161	17	4		22		43	0.1
	Mallala	4.6.6	182233	11	40		80		132	0.1
	Alma	4.6.7	12755				25		25	0.2
	Kybunga	4.6.8	38207						0	0.0
	Boowillia	4.6.9	33182						0	0.0
	Bumbunga	4.6.10	30673						0	0.0
	Barung	4.6.11	86033				1		1	0.0
	Wokurna	4.6.12	134764		790				790	0.6
	Crystal Brook	4.6.13	91124				32		32	0.0
	Nurom	4.6.14	36673						0	0.0
	Port Pirie	4.6.15	46315				755		755	1.6
	Glendella	4.6.16	46261		1513	179	315		2008	4.3
Subregion Total			**1071509**	**1100**	**5118**	**179**	**1267**	**0**	**7664**	**0.7**
BIOREGION TOTAL			**1509060**	**2096**	**10017**	**9582**	**16569**	**0**	**38264**	**2.5**
Flinders Lofty Block Bioregion										
Broughton	Freeling	3.3.2	26160						0	0.0
	Stockport	3.3.3	13110						0	0.0
	Tarlee	3.3.4	49046				274		274	0.6
	Shearers Hill	3.3.5	6339				59		59	0.9
	Mopami	3.3.6	77335				105		105	0.1
	Rufus	3.3.7	17418				3		3	0.0
	Neales Flat	3.3.8	42300	236			126		362	0.9
	Burra Hill	3.3.9	72811	278	790		437		1505	2.1
	Apoinga	3.3.10	2407						0	0.0
	Hansen	3.3.11	142924	213	26		23		262	0.2
	Bald Hill	3.3.12	14794						0	0.0
	Clare	3.3.13	154548		396		80	18	494	0.3
	Yongala	3.3.14	140262						0	0.0
	Yacka	3.3.15	54644				18		18	0.0
	Appila	3.3.16	135353						0	0.0
	Tarcowie	3.3.17	79308						0	0.0
Subregion Total			**1028759**	**727**	**1213**	**0**	**1124**	**18**	**3083**	**0.3**
Olary Spur	Mongolata	5.1.1	22988	2387*			383		2769	12.0
	Terowie	5.2.1	328886	2340*	1051		1066		4457	1.4
Subregion Total			**351874**	**4726**	**1051**	**0**	**1449**	**0**	**7226**	**2.1**
Southern Flinders	Wirrabara	3.3.18	31587				38	2	40	0.1
Subregion Total			**31587**	**0**	**0**	**0**	**38**	**2**	**40**	**0.1**
BIOREGION TOTAL			**1412220**	**5454**	**2264**	**0**	**2611**	**21**	**10349**	**0.7**
Murray Darling Depression Bioregion										
South Olary Plain	Florieton	5.1.2	351287		698				698	0.2
BIOREGION TOTAL			**351287**	**0**	**698**	**0**	**0**	**0**	**698**	**0.2**
STUDY AREA TOTAL			**3272567**	**7550**	**12979**	**9582**	**19180**	**21**	**49312**	**1.5**

Notes: DEH = awaiting proclamation as park; CP = Conservation Park; NP = National Park; HA = Heritage Agreement; LF = Locality Forest.
* = potential significant addition to Caroona Creek CP currently being negotiated is in addition to these figures.
Source: Parks, pending parks & HAs – DEH; LFs – Forestry SA; Bioregions, Subregions & Environmental Associations – DEH & DWLBC.

simply due to their size. The isolation and size of small blocks, however, puts them and their associated native flora and fauna at greater risk to catastrophic event, genetic isolation, weed infestation and chemical drift from adjacent agricultural land.

- Pest animals. Exotic predators constitute a major threat to native fauna, particularly medium sized mammals in the weight range of 100g to 5kg. This fauna group is severely reduced in this region. Exotic herbivores have been responsible for considerable habitat modification, provided major competition for resources and aided in the spread of exotic plant species. Increases in the populations of some native species (e.g. Western Grey Kangaroo, Red Kangaroo, Little Corella and Australian Plague Locust) have also impacted native ecosystems through increased grazing pressure and competition for nesting sites.
- Pest plants. The impacts on native vegetation of the invasion by exotic species (Figure 6) include the competition for resources, prevention or reduction of recruitment, alteration of nutrient content of soil and alteration of fire regimes.

Figure 6.
Bridal Creeper (*Asparagus asparagoides*), seen here on a southern Yorke Peninsula roadside, is a major pest plant species in the region. (Photo: N. Neagle).

- Inappropriate fire regimes. Changes in the intensity and frequency of fire in the region since European settlement have altered the balance of species composition and abundance in some plant communities.
- Groundwater driven salinity. The removal of perennial native vegetation and its replacement with exotic annual crop species has affected groundwater levels in some areas, resulting in saline groundwater rising to the surface at low points in the landscape. This has degraded native vegetation and the native fauna communities it supports.
- Continued loss of biodiversity through vegetation clearance (under legal exemptions and illegally). This is much reduced since the introduction of the *Native Vegetation Act 1991* and more recent amendments. One area of concern that remains is the conversion of previously grazed native grasslands to cropping land.
- Disruption to natural environmental flows. The clearance of riparian vegetation, damming of watercourses, pollution from industrial and agricultural run-off, streambank erosion and increased nutrient levels from direct stock access affect the water quality and natural flows in the region's watercourses.

Figure 7.
***Eucalyptus camaldulensis* ssp. *camaldulensis* (River Red Gum) Woodland over *Phragmites australis* (Common Reed) at Appila Springs. (Photo: N. Neagle).**

- Stock grazing of natural ecosystems. Stock grazing causes ongoing degradation of native vegetation through alteration to species composition and abundance, disturbance to soil, spread of exotic species and increasing nutrient levels.
- Phytophthora. Dieback caused by the root rot fungus *Phytophthora cinnamomi* has generally been recorded in areas with at least 500mm of annual rainfall. As such the potential exists for it to be an issue in the Clare Hills. Its known to cause major disruption to community structure in native vegetation, extinction of some native flora populations and habitat loss and degradation for dependent flora and fauna (Environment Australia 1999).

INTRODUCTION

N. Neagle[1]

Background and Aims

The Biological Survey of South Australia is a program of systematic surveys, developed and implemented in 1971, conducted across the state to provide a broad baseline inventory of the state's flora and fauna. It was established under the auspices of the Biological Survey Coordinating Committee, an interdepartmental group comprising representatives from the SA Museum, Environment and Heritage, SA Research and Development Institute, and Primary Industries and Resources SA (Foulkes and Gillen 2000). The aim of these surveys is to systematically and consistently sample a representative range of the ecological habitats found in South Australia (Brandle 2001a). The information is collected to assist with long-term natural resource management and the conservation of the state's biological diversity.

The Mid North and Yorke Peninsula Biological Survey was conducted in conjunction with the Northern and Yorke Natural Resources Management Board with funding from the National Action Plan for Salinity and Water Quality.

The specific objectives of the Mid North and Yorke Peninsula (MNYP) Biological Survey were:

1. To observe, collect and identify species of plants and vertebrate fauna present in the area by sampling an array of fixed quadrats representing the geographical and biological diversity of the region. In particular the survey conducted during 2003-04 was the first systematic survey of vertebrates over the entire study region. The floristic component of this survey supplemented a number of previous flora surveys within the region.
2. To establish a comprehensive database of the flora and associated vertebrate communities of the MNYP that is amenable to ecological analyses.
3. To identify areas of biodiversity conservation significance at risk from changes in salinity and water quality.
4. To document and classify the patterns of species and communities across the region and their relationship with salinity and other physical parameters.
5. To evaluate the conservation status of species and communities within the MNYP, as a basis for conservation strategies.
6. To provide the South Australian Plant Biodiversity Centre and South Australian Museum with collections representative of the diversity of plants, vertebrates and invertebrates in the region.
7. To establish a long-term monitoring system and associated database to enable subsequent measurement of environmental change.

Biological Surveys Included in This Report

Data from 26 surveys have been used in this report. Field data for all of these surveys has been extracted from the Department for Environment and Heritage's Survey and Opportune databases.

The 26 surveys are:

- Mt Lofty, 1986, focussed on areas having tree or shrub cover while excluding coastal sites (vegetation only). Few sites within MNYPBS study area and none included in analysis.
- Flinders, 1986 - broad regional vegetation survey of Flinders Ranges, but few sites within MNYPBS study area.
- Innes National Park, 1976-77 & 1999 - survey of park only; revisited in 1999 (vegetation and vertebrates). Vegetation sites not used in analysis.
- South Olary Plains, 1991 (Forward and Robinson 1996) - broad regional survey conducted as part of the Biological Survey of SA (vegetation and vertebrates). Few sites within MNYPBS study area.
- Mid North & Western Murray Flats, 1980 (Rowett *et al*. 1981) - survey and assessment of the conservation significance of remnant native vegetation (vegetation only). Sites not used in the analysis.
- Western Murray Flats, 1992 - regional survey conducted as part of the Biological Survey of SA (vegetation only). Few sites within MNYPBS study area.
- Temperate Grasslands (World Wildlife Fund grant), 1991-95 (Hyde 1995a) - focussed on temperate grassland communities in SA (vegetation only).
- Mid North, 1992 - broad regional survey conducted as part of the Biological Survey of SA (vegetation only).
- Railway Corridors (Nature Conservation Society), 1992 (Hyde 1994) - focussed on remnant

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vegetation on disused rail corridors in the Mid North (vegetation only).

- Grassy Woodlands, 1993-94 (Hyde 1995b) - an assessment of community diversity and conservation status of *Eucalyptus odorata* Woodland in SA (vegetation only). Few sites within MNYPBS study area.
- Angaston District Council, 1993 - an assessment of conservation significance of remnant native vegetation in DC Angaston area (vegetation only). Few sites within MNYPBS study area.
- Pygmy Bluetongue Project, 1992-96 - survey restricted to remnant native grassland on the slopes of ranges near Burra and Hallett (vegetation and vertebrates).
- Burra Hills, 1994 (Playfair and Heard 1995) - regional vegetation survey with focus on *Lomandra* grasslands (vegetation only).
- Yorke Peninsula, 1994 (Kenny *et al.* 2000) - broad regional survey conducted as part of the Biological Survey of SA (vegetation only).
- Tidal and Saltmarsh Communities, 1993 - 2000 (Fotheringham 2000) - mangrove and coastal saltmarsh communities in SA (vegetation only).
- Coastal Dune and Clifftop, 1997 (Oppermann 1999) - dune and clifftop communities along the entire coast of mainland SA (vegetation only).
- Lofty Block Grasslands, 1995-96 (Robertson 1998) - grassland and grassy woodland communities in the Lofty Block Bioregion with an emphasis on gaps in pre-existing survey coverage (vegetation only).
- Upper Mid North, 1996 - regional survey conducted as part of the Biological Survey of SA in the transition area between the Flinders Ranges and the semi-arid Eastern pastoral region (vegetation only).
- Northern Spencer Gulf, 1996 - regional survey conducted as part of the Biological Survey of SA in an area between the coast and the ranges north of Port Germein (vegetation only). Few sites within MNYPBS study area.
- Northern Adelaide Plains, 1996 - regional survey conducted as part of the Biological Survey of SA on the plains between Adelaide and the Mid North (vegetation only).
- Mid North Reserves (Nature Conservation Society), 1997 (Robertson 2000) - inventory of native vegetation remnants in cemeteries, parklands and other council managed reserves in the Mid North (vegetation only).
- Mt Cone Baseline Survey, 1997 (Hyde 2000) - beginning of a monitoring program within Mokota CP (vegetation and vertebrates).
- Thidna (YP) Saline Vegetation, 2002 - survey of Thidna reserve, Yorke Peninsula (vegetation only).
- Mid North and Yorke Peninsula, 2003-04 - broad regional survey conducted as part of the Biological Survey of SA (vegetation, vertebrates and invertebrates). Sites selected within a range of soil salinity classes.
- Hopkins Creek (Nature Conservation Society), 2003 (Rouse 2004) - survey of Hopkins Creek CP (vegetation and vertebrates).
- Warrenben CP (SA Mammal and Herpetology Clubs), 2004 (Matejcic 2005) - survey of Warrenben CP (vegetation and vertebrates). Only vertebrate sites used in analysis.

A complete list of all 1336 sites from these surveys, including the date of survey, AMG coordinates, location, landform pattern and element, surface soil texture, surface soil salinity class, dominant overstorey plant species and vegetation structural description are provided in Appendix 1.

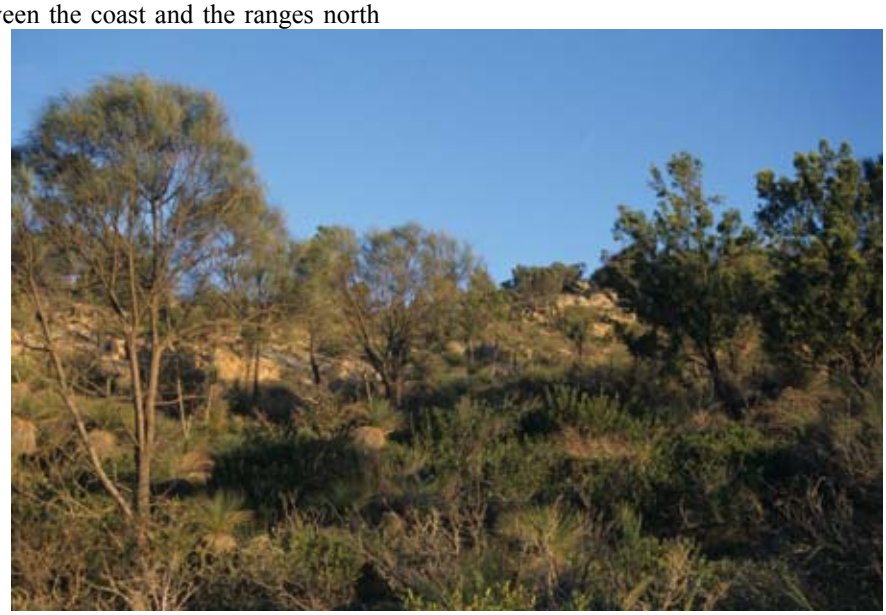

Figure 8.
***Allocasuarina verticillata* (Drooping Sheoak) Low Woodland at Niblett Gap in the Tothill Range. (Photo: L.M.B. Heard).**

THE PHYSICAL ENVIRONMENT

Introduction

The Mid North and Yorke Peninsula Biological Survey (MNYPBS) study area is based on the Interim Biogeographic Regionalisation of Australia (IBRA) subregions Southern Yorke (EYB1), St Vincent (EYB2) and Broughton (FLB2). Part of the Southern Flinders (FLB4) was also included, to fill a gap within the Flinders Ranges Biological Survey (Brandle 2001a) study area, as well as parts of the Olary Spur (FLB3) and South Olary Plain, Murray Basin Sands (MDD1), in order to include the Burra Hills and two recently dedicated conservation parks - Red Banks CP and Caroona Creek CP (including Tourilie Gorge).

The study area is bounded to the west and south west by the coastline from north of Adelaide to Yatala Harbor in Upper Spencer Gulf; in the north by the Southern Flinders Ranges and the northern limit of agricultural cultivation; in the east by the semi-arid plains of the Eastern Districts; and in the south by the Barossa Valley, South Mount Lofty Ranges and the northern limits of metropolitan Adelaide.

IBRA Bioregions, Subregions and Environmental Associations

The MNYPBS study area is within three Interim Biogeographic Regionalisation of Australia (IBRA) bioregions, seven subregions and 40 environmental associations. This method of landscape description is a nested hierarchical system with bioregions being the broadest unit. These are distinctive landscapes with characteristic patterns of landforms, soils and vegetation (Thackway and Cresswell 1995). The bioregions, subregions and environmental associations within the study area are listed in Table 4 and each subregion is described below (adapted from Laut *et al*. 1977). The location of each environmental association is shown in Figure 9.

Flinders Lofty Block Bioregion
Mount Lofty Ranges Subregion (FLB1)

As a result of changes in subregion boundaries since the commencement of this survey a small portion of this subregion (south of the Gawler River) is now included within the MNYPBS study area. It includes the floodplain of the Gawler River and the adjacent undulating plain - an area of market gardens almost completely cleared of native vegetation.

Broughton Subregion (FLB2)

This subregion is characterised by a series of wide undulating intramontane basins with red duplex soils, separated by low but distinct northerly trending strike ridges. In the north the region leads into the Southern Flinders Ranges with no sharply defined landform boundary but a land use boundary marking the northern extremity of cropping land.

Due to widespread clearing for farming, remnant areas of native vegetation are confined to small isolated patches on the steeper ridges. These are dominated by *Eucalyptus odorata* (Peppermint Box) and *Allocasuarina verticillata* (Drooping Sheoak) Low Woodlands, with *Eucalyptus leucoxylon* ssp. *pruinosa* (Inland South Australian Blue Gum) Low Woodland on the lower slopes. Many of the hills in the north east of the subregion have scattered remnants of *Lomandra multiflora* ssp. *dura* (Hard Mat-rush) and *L. effusa* (Scented Mat-rush) Open Tussock Grassland.

Olary Spur Subregion (FLB3)

The Olary Spur is a low easterly trending upland branching off the northerly trending Flinders Ranges. A small portion in the south west of this subregion was included within the MNYPBS study area. This comprised the hills between Burra and Hallett and their eastern slopes and took in the Mongolata and part of the Terowie Environmental Associations.

It is an area of deeply dissected northerly trending quartzite and siltstone ridges, separated by narrow pediments and colluvial plains. On the eastern margin are a series of low angle coalescing alluvial fans that have isolated quartzite and calcrete rises along their lower margins and that merge upslope with talus fans. The vegetation consists of Open Mallee communities, variously dominated by *Eucalyptus oleosa* ssp. (Red Mallee), *E. gracilis* (Yorrell), *E. socialis* (Beaked Red Mallee) and/or *E. brachycalyx* (Gilja), and Low Open Shrublands dominated by *Atriplex vesicaria* (Bladder Saltbush) and/or *Maireana pyramidata* (Black Bluebush).

Southern Flinders Subregion (FLB4)

This subregion is characterised by a series of high quartzite hogback ridges with shallow loamy soils and intervening plains and lowlands with red duplex soils. It is only the Wirrabara and the northern section of the Appila Environmental Associations from this subregion that are included within the MNYPBS study area. This takes in an area adjacent to the eastern side of the Southern Flinders Ranges featuring low strike ridges, footslopes, alluvial fans and an undulating plain. Most of the native vegetation has been cleared for agriculture though small remnants of *Eucalyptus odorata* (Peppermint Box) +/- *E. leucoxylon* ssp. *pruinosa* (Inland South Australian Blue Gum) Low Woodland still exist on ridges.

TABLE 4.
Bioregions, Subregions and Environmental Associations included within the MNYPBS study area and the number of flora and fauna survey sites within each.

Bioregion	Subregion	Environmental Association	Env Ass Code	No. of Flora Sites	No. of Fauna Sites
Flinders Lofty Block	**Mount Lofty Ranges (FLB1)**	Mallala (part only)	4.6.6	1	
Flinders Lofty Block	**Broughton (FLB2)**	Freeling	3.3.2	6	
		Stockport	3.3.3	8	
		Tarlee	3.3.4	26	6
		Shearers Hill	3.3.5	10	1
		Mopami	3.3.6	24	1
		Rufus	3.3.7	15	1
		Neales Flat	3.3.8	26	5
		Burra Hill	3.3.9	71	21
		Apoinga	3.3.10	4	
		Hansen	3.3.11	36	3
		Bald Hill	3.3.12	12	2
		Clare	3.3.13	83	21
		Yongala	3.3.14	24	
		Yacka	3.3.15	21	4
		Appila (part only)	3.3.16	27	3
		Tarcowie	3.3.17	53	10
Flinders Lofty Block	**Olary Spur (FLB3)**	Mongalata	5.1.1	21	5
		Terowie (part only)	5.2.1	55	13
Flinders Lofty Block	**Southern Flinders (FLB4)**	Appila (part only)	3.3.16	28	
		Wirrabara	3.3.18	22	
Eyre Yorke Block	**Southern Yorke (EYB1)**	Innes	4.5.1	189	32
		Corny	4.5.2	43	4
		Yorketown	4.5.3	31	6
		Urania	4.5.4	95	10
Eyre Yorke Block	**St Vincent (EYB2)**	Weetulta	4.6.1	30	
		Arthurton	4.6.2	10	
		Boor Plain	4.6.3	48	
		Parham	4.6.4	62	3
		Kallora	4.6.5	5	
		Mallala (part only)	4.6.6	50	
		Alma	4.6.7	5	
		Kybunga	4.6.8	6	
		Boowillia	4.6.9	9	
		Bumbunga	4.6.10	11	2
		Barung	4.6.11	26	3
		Wokurna	4.6.12	46	5
		Crystal Brook	4.6.13	20	1
		Nurom	4.6.14	7	
		Port Pirie	4.6.15	42	7
		Glendella	4.6.16	19	
Murray Darling Depression	**South Olary Plain, Murray Basin Sands (MDD1)**	Florieton (part only)	5.1.2	3	1
Total Sites				1330	170

Eyre Yorke Block Bioregion
Southern Yorke Subregion (EYB1)
This subregion, which comprises the southern half of Yorke Peninsula, is an undulating calcrete plain rising to a maximum of 200 metres in the centre of the Peninsula. Remnants of *Melaleuca lanceolata* (Dryland Teatree) Low Woodland and *Allocasuarina verticillata* (Drooping Sheoak) Low Woodland occur throughout the subregion. In the south, both active and relict coastal dunes are prominent, with *Eucalyptus diversifolia* (Coastal White Mallee) +/- *E. rugosa* (Kingscote Mallee) Open Mallee dominant in this area. *Melaleuca halmaturorum* (Swamp Paper-bark) Low Woodland and *Gahnia filum* (Thatching Grass) Sedgeland occur in association with salt lakes in the Warooka-Yorketown area. Most native vegetation in the far south west of the subregion remains intact, as the white calcareous sands are unsuitable for intensive agriculture. The rest of the subregion has been cleared for agriculture and grazing with only roadside vegetation and isolated patches of mallee and woodland remaining.

St Vincent Subregion (EYB2)
Includes the northern half of Yorke Peninsula and the plains and fans between St Vincent and Spencer Gulfs and the Mount Lofty Ranges. The region consists of undulating plains with calcrete development and shallow reddish earths. The plains are mainly dune free

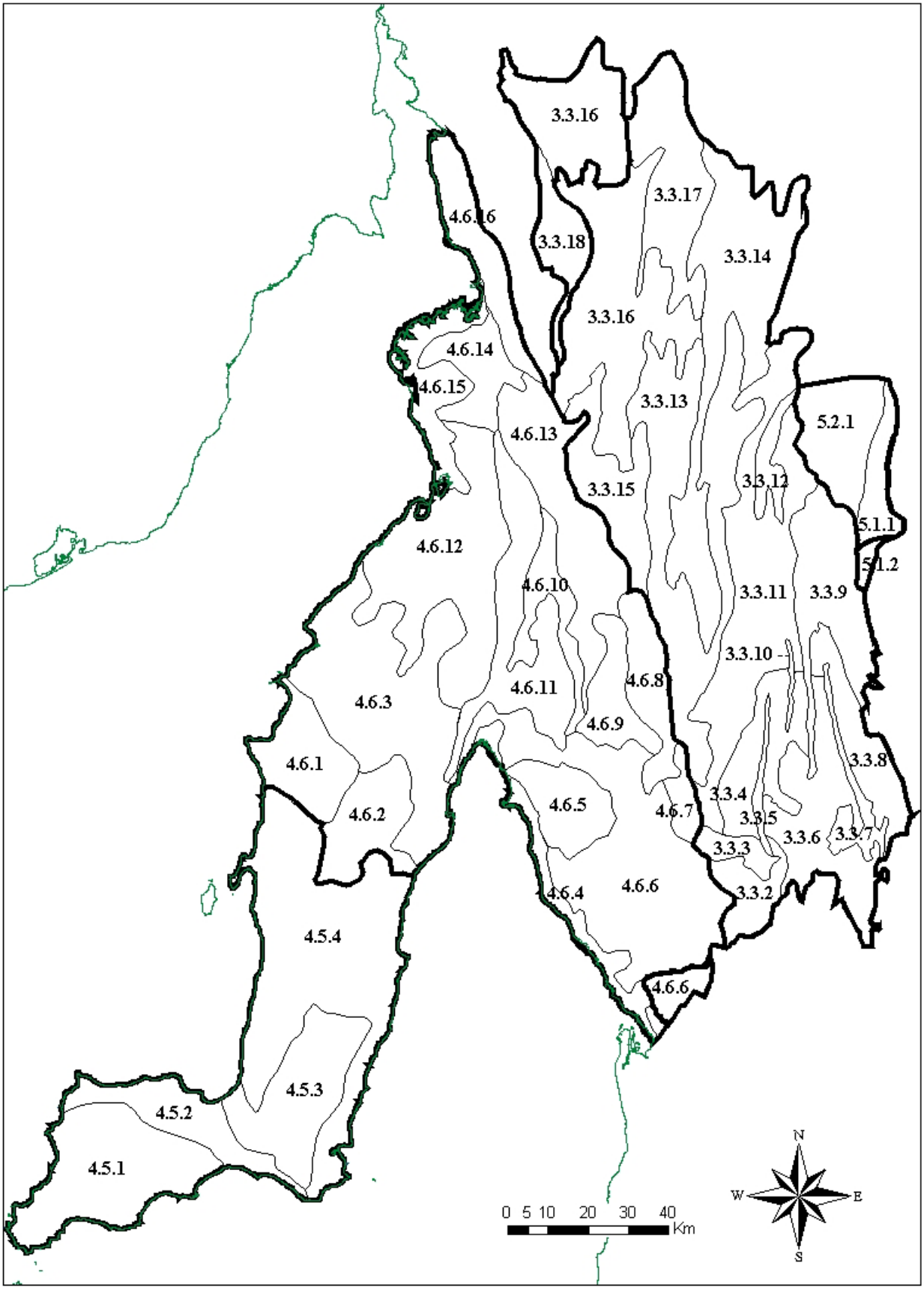

Figure 9.
Environmental associations in the MNYPBS study area (bold lines indicate IBRA subregion boundaries). Refer Table 4 for names.

but isolated areas are overlain by low indistinct sand dunes. Near the Mt Lofty Ranges the plains have a definite westerly gradient and merge eastwards with the alluvial fans from the ranges. Moderately deep red duplex soils occur on fans and footslopes. *Eucalyptus socialis* (Beaked Red Mallee), *E. gracilis* (Yorrell) Open Mallee occurs throughout the region with some *E. porosa* (Mallee Box) Low Woodland on the plains or *E. odorata* (Peppermint Box) Low Woodland on the hills and footslopes. Samphire Low Shrublands occur in association with salt lakes and low lying areas east of Lochiel, at the head of Gulf St Vincent and on coastal flats near Port Pirie. The subregion has been extensively cleared and sown to crops or exotic pastures, leaving little of the original natural vegetation. What does remain is mostly confined to small, isolated remnants.

Murray Darling Depression Bioregion
South Olary Plain Subregion (MDD1)
A very small part of this subregion was included within the study area. It is found on the east side of the Burra Hills within the Florieton Environmental Association, and includes Red Banks Conservation Park. It is an undulating calcrete plain used for extensive livestock grazing vegetated with *Eucalyptus oleosa* ssp. (Red Mallee) Open Mallee and *Maireana pyramidata* (Black Bluebush) Low Open Shrubland.

Geology and Soils

The geology and soils have been summarised for the study area in the 'Natural History of Yorke Peninsula' (Corbett and Scrymgour 1973), 'Biodiversity Plan for the Northern Agricultural Districts' (Graham *et al.* 2001) and 'Integrated Natural Resource Management Plan' (NYAD INRM Committee 2003) and will not be discussed in this report.

Climate and Rainfall

The MNYPBS region has a temperate or Mediterranean climate with mild wet winters and hot dry summers. These conditions vary slightly throughout the study area due mainly to altitude and latitude. Rainfall is highest at Clare (632mm) coinciding with an elevation of around 600m in the adjacent hills. Nearby areas on the plains to the east and west receive around 400mm annually (NYAD INRM Committee 2003). There is also a west to east gradient in rainfall with areas in the east and north east of the study area having the lowest annual average of around 300mm (NYAD INRM Committee 2003).

The pattern is similar for temperature with inland localities and those at altitude generally experiencing greater extremes compared to those subject to milder coastal influences. Average daily winter minimum temperatures in Yongala and Clare are around 3°C to 4°C (refer Figures 10 and 11) compared to 6°C to 8°C in Kadina and Warooka (refer Figures 12 and 13) (BOM 2006). Average daily summer maximum temperatures vary less across the region, with that of Yongala, Clare and Kadina being 27°C to 30.5°C compared to 25°C to 27°C in Warooka (Figures 10-13) (BOM 2006).

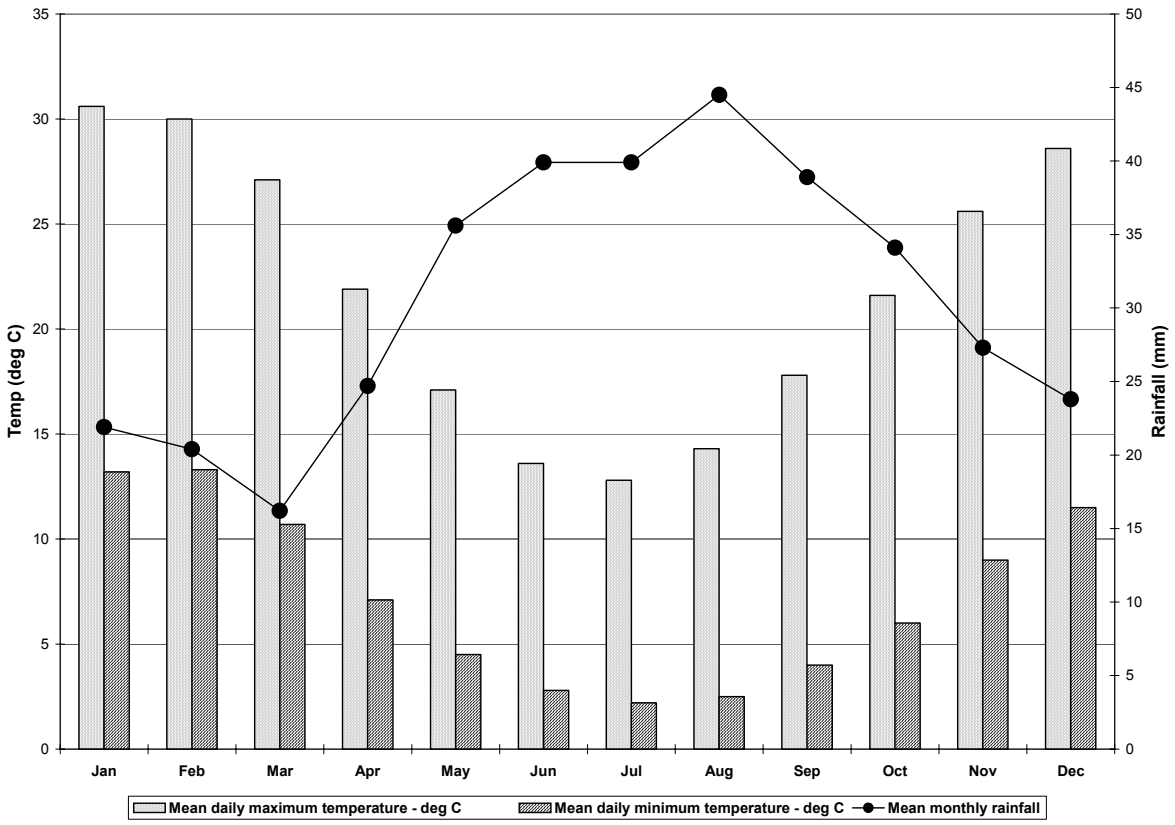

Figure 10.
Mean daily maximum and minimum temperatures and mean monthly rainfall for Yongala.

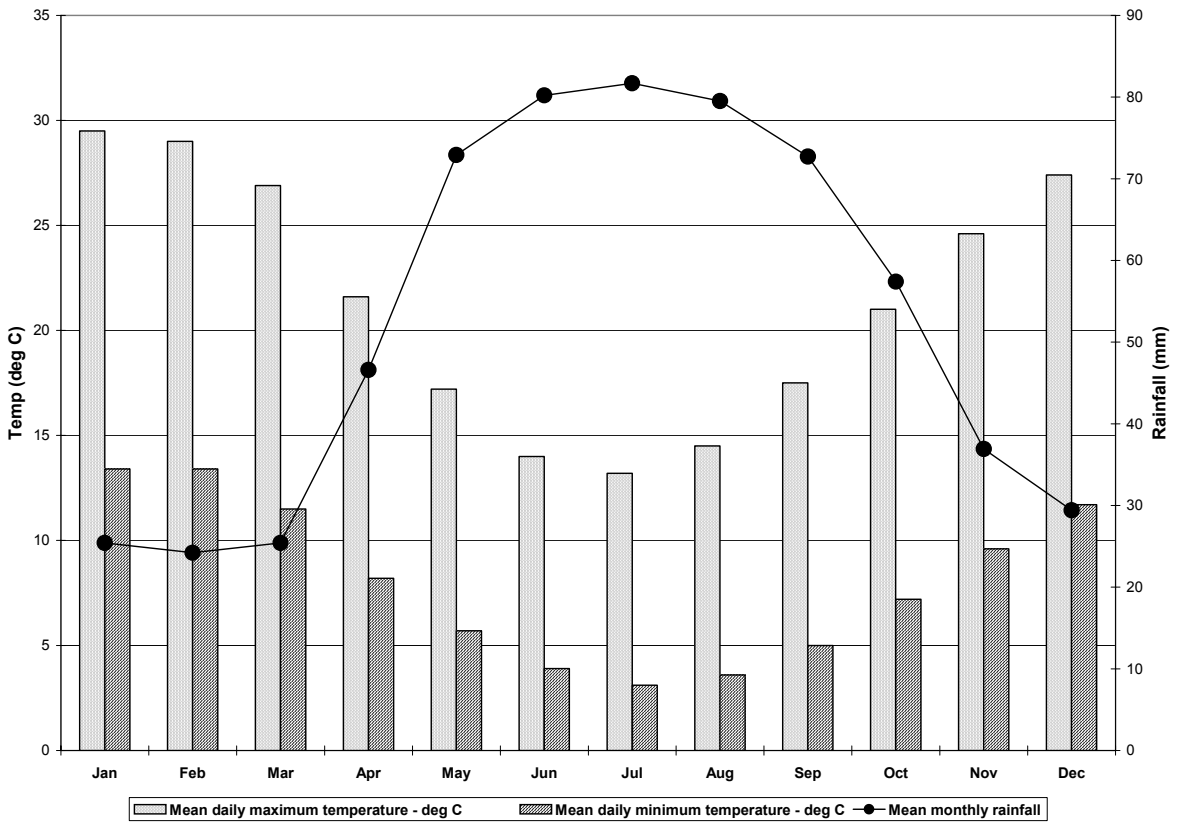

Figure 11.
Mean daily maximum and minimum temperatures and mean monthly rainfall for Clare.

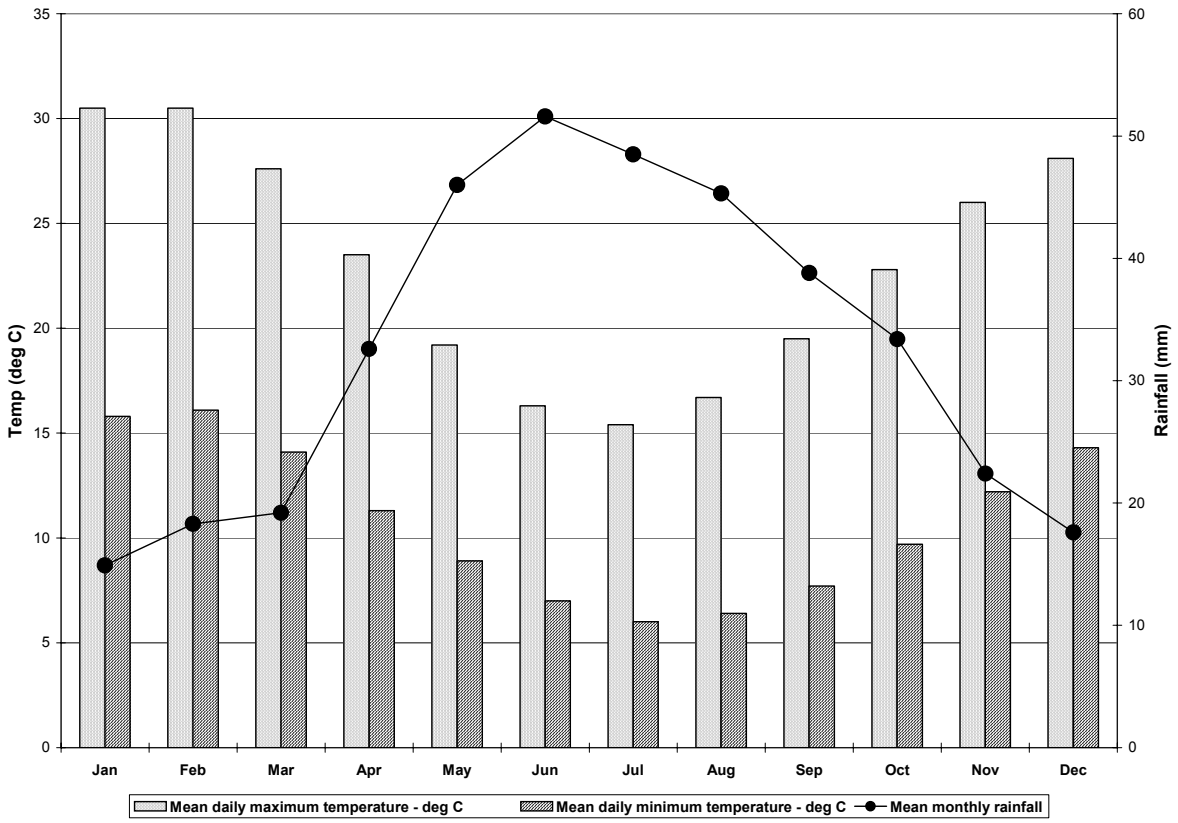

Figure 12.
Mean daily maximum and minimum temperatures and mean monthly rainfall for Kadina.

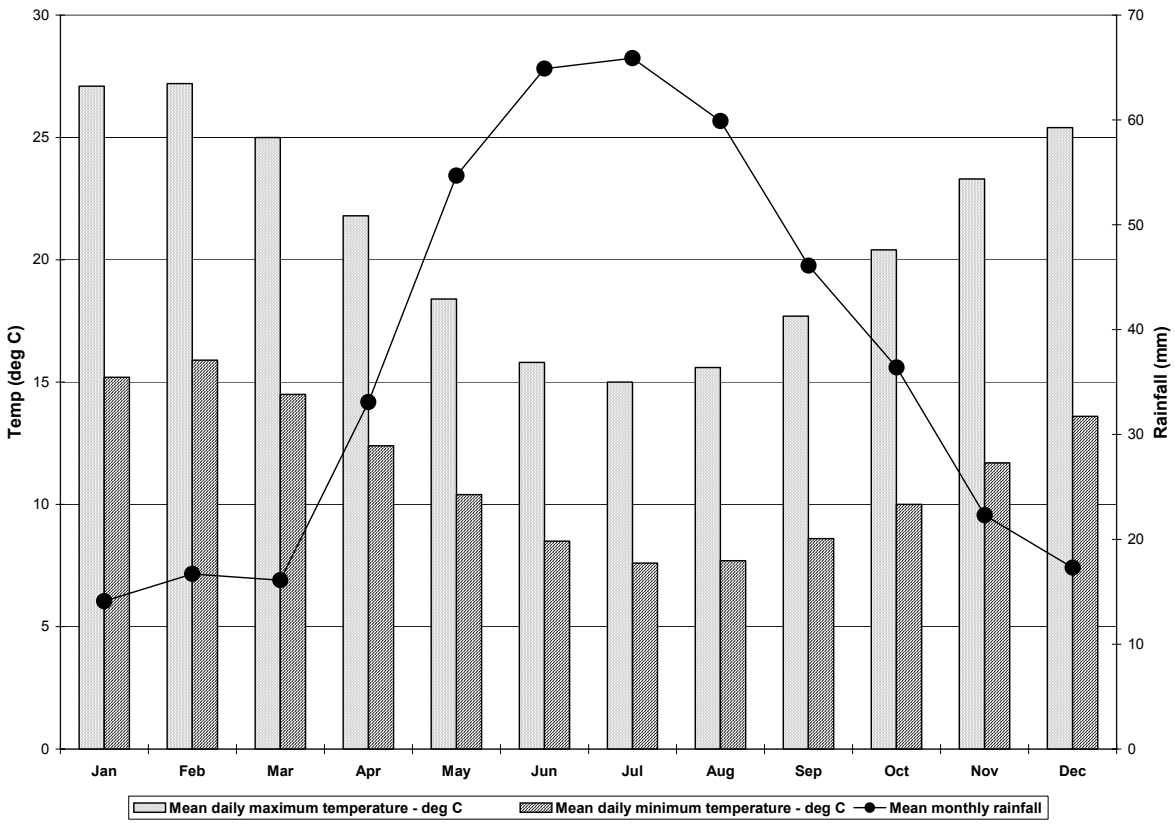

Figure 13.
Mean daily maximum and minimum temperatures and mean monthly rainfall for Warooka.

Figure 14.
***Leucophyta brownii* (Coast Cushion Bush) Low Shrubland on foredune north of Gleesons Landing, Yorke Peninsula. (Photo: N. Neagle).**

PREVIOUS BIOLOGICAL RESEARCH

Vegetation

As with the rest of South Australia early botanical work in the Mid North and Yorke Peninsula consisted of specimen collections by prominent botanists at various locations. Kraehenbuehl (1986) has summarised this work including mention of significant early collecting trips by Behr, Mueller and Tepper in the 19th Century.

Several general statewide vegetation descriptions have been made for South Australia which have included vegetation maps of the State (Prescott 1929, Wood 1937 and Specht 1972), but little work has been attempted on anything but a local scale for the MNYPBS study area.

One of the earliest published accounts for the region was a description of the vegetation around Ardrossan (Tepper 1880) which included a list of species collections and brief notes on the habitat in which they were found. Other early descriptions were made by Tate (1890) of the vegetation communities of southern Yorke Peninsula, by Johncock (1901a and 1901b) of the Willochra Valley, and Osborn and Wood (1923), who studied the relationship between soil salinity and dominant chenopod species along a transect from the coast at Port Wakefield. Wood (1930) discussed similarities in the vegetation between Kangaroo Island and southern Yorke Peninsula.

Several broader studies were made in the mid 20th Century, including Boomsma's (1946) description and map of the vegetation of the Southern Flinders (which included the coastal plain and the plain east of the ranges), and Jessup's (1948) classification, description and map of the vegetation in an area that included the ranges on the eastern margin of the MNYPBS study area.

A number of regional soil studies around that time also provided information on the associated vegetation, e.g. around Jamestown (Stephens *et al*. 1945), marginal cropping lands in the north of the region (Blackburn and Baker 1952 and 1953), and for most of the study area (French *et al*. 1969).

Localised vegetation descriptions have also been made for the sand dunes between Gawler, Two Wells and Mallala (Cleland 1953), Tiddy Widdy Beach area (Brock 1963), roadside vegetation near Bute (Kraehenbuehl 1964), at Penguin Point (Brock 1970), the Bute District (Copley *et al*. 1984), in the Mallala District Council area (Pedler and Matheson 1993), reserves in the Northern Areas Council (Slattery undated) and Red Banks Conservation Park (Regional Council of Goyder 2001).

Species studies in the region include *Eucalyptus macrorhyncha* (Boomsma 1946), *Lomandra* species habitats and descriptions (Cleland 1962), the eucalypts around Clare (Todd 1965), mangroves (Butler *et al.* 1977), mistletoes and host plant communities in the Clare Valley (Rast 1988) and a recovery plan for threatened orchids throughout the region (Quarmby 2006).

Several vegetation studies were conducted on Yorke Peninsula in the 1970s. The vegetation communities of the region were summarised by Kenny (1973) in 'Yorke Peninsula: A Natural History'. Barritt and Mowling (1975) described and mapped significant areas of inland native vegetation while the Super Environment Design and Research Studio (1975) described and assessed the region's coastal vegetation. Symon and Alcock (1975) summarised the vegetation communities of Innes National Park as well as listing plant species collected in the park. Weber and Carrick (1975) described the vegetation communities of the Minlaton District and also listed species recorded in each.

Specialised Vegetation Surveys Since 1975

Numerous regional or localised vegetation surveys have been conducted in the study area in the past 30 years. These are described in the section 'Biological Surveys Included in This Report' earlier in this chapter.

In addition to this a number of roadside vegetation surveys have been commissioned by both Transport SA and local councils in the study area using the standard 'drive-by' method outlined by Stokes *et al*. (2006). Data from these resides within the ROADSIDE VEGETATION database, a component of the Environmental Databases of South Australia administered by the Department for Environment and Heritage.

Fauna

Prior to this survey there had been no large scale vertebrate surveys conducted in the study area. A number of localised surveys have, however, been carried out, particularly in the last ten years. These include the South Australian Field Naturalists' Society Mammal Club's trapping and searching exercises at Tourilie Gorge (Hutchinson 1998), English Scrub near Saddleworth (Hutchinson *et al*. 1999), Innes National Park (Matejcic 2003 and 2004) and Warrenben Conservation Park (Matejcic 2005). The latter two were done in conjunction with the South Australian

Herpetology Group. Trapping has also been undertaken at Red Banks Conservation Park (Regional Council of Goyder 2001).

Several published surveys have been used in the analyses for this study. The Biological Survey and Monitoring Section conducted two of these – Innes National Park and the South Olary Plains (Forward and Robinson 1996). The study area of the latter overlapped with that of the current study in the Burra Hills. The Nature Conservation Society of South Australia has conducted two surveys in the Burra region - at Mount Cone (Hyde 2000) and Hopkins Creek (Rouse 2004). Data from the Warrenben survey mentioned above has also been included in this report.

A number of regional fauna summaries have also been compiled. 'Yorke Peninsula: A Natural History' (Corbett 1973) included descriptions of frogs (Tyler 1973), reptiles (Ehmann 1973), birds (Paton 1973) and mammals (Aitken 1973) known to have occurred in the region. Copley *et al*. (1984) described the fauna of the Bute District, past and present, and Taylor (1987) summarised the birds of the Port Wakefield district between 1968 and 1985. The distribution of bird species provided in a bird atlas of the Adelaide region (Paton *et al*. 1994) includes that portion of the study area south of a line from approximately Port Wakefield to Eudunda.

Species studies in the region include Southern Hairy-nosed Wombat (Aitken 1971), Common Death Adder (Mirtschin 1983), Little Egret breeding at Price on Yorke Peninsula (Treloar *et al.* 1986), Krefft's Black Tiger Snake (Mirtschin and Bailey 1990), Slender-billed Thornbill (Matthew 1994), Pygmy Bluetongue (Hutchinson *et al*. 1994, Milne 1999, Milne *et al*. 2002 and Haby 2004), Western Pygmy Possum (Pestell 2005) and Painted Dragon (Niejalke 2006).

Figure 15.
Rugged sea cliffs like these at West Cape are a feature of the coastline of Innes National Park. (Photo: N. Neagle).

Figure 16.
Spinifex (*Triodia* sp.) grasslands interspersed with Mallee Box (*Eucalyptus porosa*) in the Yackamoorundie Hills. (Photo: N. Neagle).

Figure 17.
***Eucalyptus oleosa* (Red Mallee) and *E. gracilis* (Yorrell) Mallee in low hills north east of Hallett. (Photo: N. Neagle).**

Figure 18.
Pool in Hopkins Creek lined with River Red Gum (*Eucalyptus camaldulensis* var. *camaldulensis*). (Photo: L.M.B. Heard).

Figure 19.
Grey Mangroves (*Avicennia marina* ssp. *marina*) and Beaded Samphire (*Sarcocornia quinqueflora*) at Clinton Conservation Park. (Photo: N. Neagle).

Figure 20.
Extensive areas of remnant native grasslands exist on private land in the Burra Hills, though most, if not all, are grazed by sheep. (Photo: L.M.B. Heard).

Figure 21.
***Eucalyptus leucoxylon* ssp. *pruinosa* (Inland SA Blue Gum) Woodland over *Triodia bunicola* (Flinders Ranges Spinifex) in the Narien Range at Yatina Gorge. (Photo: N. Neagle).**

Figure 22.
***Allocasuarina verticillata* (Drooping Sheoak) Very Low Woodland over *Xanthorrhoea quadrangulata* (Rock Grass-tree) adjacent cleared agricultural land in the Campbell Range. (Photo: L.M.B. Heard).**

Figure 23.
A narrow strip of native vegetation lines the Broughton River as it winds through the Yackamoorundie Hills. (Photo: N. Neagle).

Figure 24.
Due to extensive clearance for agriculture much of the remnant native vegetation on central Yorke Peninsula is now restricted to roadsides. (Photo: N. Neagle).

PRE-EUROPEAN VEGETATION

T. Croft[1]

Introduction

The Mid North and Yorke Peninsula was highly important in the early development and success of the then Province of South Australia, through the discovery of rich copper deposits and its successful development of extensive cereal grain growing areas. This resulted in early widespread modification and use of the region's native vegetation and the introduction of non-native plants and animals. The mines in particular consumed large amounts of wood for the shaft props as well as in the smelting process. In the case of the Burra mines, the wood for smelting came from the mallee areas to the nearby east (Yelland 1970). The region subsequently became the most developed agricultural region of South Australia.

The consideration and mapping of the region's pre-European native vegetation cover has drawn on a range of historical and contemporary sources of information. Early impressions of the region's native vegetation can be found in the accounts of the 1801-1804 Flinders and Baudin voyages of discovery, and early explorers of the region in the late 1830s and early 1840s (Eyre and Sturt). Following the explorers came the pastoralists. By the 1850s to 1870s, the region was being surveyed into Hundreds and Sections for agricultural development. Following this formal surveying of the land, rapid agricultural development occurred, leading to more dramatic alteration of the landscape. In amongst this are some interesting accounts and descriptions of the early European days of the region, giving an insight to the region's vegetative cover.

Additional information came from more scientific consideration of the State and region's geology, soils and vegetation made by members of the University of Adelaide, Government and others (Tate 1890, Osborn and Wood 1923, Jessup 1948, Boomsma 1949, Todd 1965). Contemporary information came from site data from various Biological Surveys of the region. The resultant map of the pre-European vegetation of the region is provided on the CD supplied with this report.

Seaward Exploration

The French Baudin and English Flinders expeditions described the eastern shores of upper St Vincent Gulf as low, swampy, sand and rock, and clothed with a few small trees (Flinders 1814, Cooper 1952). While the western side of the head of the Gulf was described by Flinders as a "sandy shore which soon rose, in an undulating manner, to hills covered in grass; and several clumps of trees scattered over them" Flinders attempted to climb "Hummock Mount" but ran out of time before sunset, describing "grass upon the pleasant looking hills to be thinly set, the trees small, and the land poor in vegetable soil. The mountainous ridge on the east side of the inlet passes within a few miles of Hummock Mount, and appeared to be more sandy; but the wood upon was abundant, and of larger growth. Between the two ranges is a broad valley, swampy at the bottom; and into it the water runs down from both sides in rainy weather, and is discharged into the gulph, which may be considered as the lower and wider part of the valley." On further exploring by ship down the eastern shores of Yorke Peninsula, Flinders described "…western hills come down nearly to the water side here, and have the same pleasant appearance as at the head of the gulph, being grassy, with clumps of wood scattered over them; the coast line some-what cliffy…".

For the upper Spencer Gulf eastern shore, Flinders noted mangroves and extensive salt swamps. Further down the gulf, along the Yorke Peninsula coast, Flinders observed from Point Riley to beyond Point Pearce, low sandy land moderately rising, and "not ill-clothed with small trees."

Inland Exploration

Away from the coast, inland explorers also made observations of the countryside. During Sturt's time in the colony (1838-1851), he observed that the country towards the Wakefield River valley became more denuded of trees until "not a tree of any kind can be seen." He also noted "extensive and open downs are, nevertheless, well grassed, and covered with a profusion of orchideous plants."

Edward Eyre in his 1840 ground breaking journey to Western Australia, followed north along a series of rivers to the head of Spencer Gulf. By then, stock Stations already existed as far as the Clare District.

Eyre described the ranges "confining the waters" of the Light River as grassy and well wooded. He wrote of the Light River forming a fertile valley nearly running north-south, with well wooded irregular ranges grassed nearly to their summits to the west, and dark looking,

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more heavily timbered ranges to the east. The Light River itself, as with the other rivers he observed in the Mid North, was a chain of ponds not connected by a stream most of the year, although occasionally swollen to a broad and rapid current.

From the Light River headwaters Eyre travelled westward to the headwaters of the Gilbert and Wakefield Rivers and beyond, describing an extensive area of "fine open and very grassy plains, from which we ascended the low ridges forming the division of the waters to the south and north." Sturt also described immense tracks of land through which the Wakefield River flowed as "rich in soil and abundant in pasture" with scarcely a tree (Sturt 1849). Crossing these low ridges Eyre further described the Hill River as a "fine chain of ponds taking its course through a very extensive and grassy valley, but with very little timber of any kind growing near it." However, Eyre did note traces and remains of timber in what he had described as a "fine and valuable grazing district, with grass of an excellent description, and of great luxuriance."

From the Hill River Eyre crossed to the Hutt River, following it to the Broughton River. The Broughton River he described to be of considerable width, with long, wide and very deep water holes connected by a strongly running stream, and stony barren banks with prickly grass (Spinifex). To the west, the general course of the river travelled in a southwesterly direction through "barren and precipitous hills" covered with prickly grass and patches of mallee at intervals, before changing to a more northerly direction out of the hills, through extensive plains. However, Eyre followed north along a reedy creek into the Campbell Range, describing the range as comprising pretty, well rounded grassy hills, considerably timbered to their summits.

From the Campbell Range Eyre and his party travelled west to the Rocky River at Devils Glen, an area described as of inferior quality covered with the prickly grass. Here he observed the river emerging from the hills into plains to the southwest, interspersed with patches of scrub. Following down the Rocky River the river became lined with gum trees, he described as "the first gum-trees seen upon any of watercourses for many miles, as all those we had recently crossed, traversed open plains which were quite without trees or shrubs of any kind."

The Crystal Brook he also observed as lined with gum trees, but surrounded by open, inferior country. Between the hills above Crystal Brook and Spencers Gulf was low scrubby land and, like Flinders, noted swampy land along the shore subject to tidal inundation.

Colonists

As with other areas of the State and Australia the pastoral industry preceded agricultural development. Early accounts of the Mid North can be found in Daniel Brock's letters from 1843 (Peake-Jones 1981) and 1851 from articles written by 'Old Colonist' (identity unknown) published in the South Australian Register (Yelland 1970). At about the same time drawings and paintings were made by colonial artists, such as S.T. Gill and George French Angas. Their descriptions and drawings reinforced the observations by the earlier explorers.

Daniel Brock travelled as far north as the Clare district. The later 'Old Colonist' journeyed to the then recently established Burra copper mines, returning via an alternative route. Both descriptions are similar describing parkland settings for some areas, although the 'Old Colonist' was more descriptive of the scenery and is quoted more extensively below.

By 1851 surveyed land largely extended as far north as the Barossa and Clare, beyond which was a mix of small settlements, limited agriculture, pastoral country and mining settlements such as Kapunda and Kooringa. In the 'Old Colonist' journey he and his companions travelled via the road from Truro to Kapunda, describing undulating country as "open and bare, scarcely a trace of vegetation for some miles", while the range north west of Kapunda to Hamilton was an "alternation of wood and downs". South west of Hamilton he wrote of the "Mary Vale" as "one of the most lovely and Park-like valleys" in what was generally described as a wooded area. Looking west from the edge of the Light Range escarpment above "Ryelands", then the head station of a pastoral lease, they viewed "not a trace of cultivation, scarcely of vegetation, was discoverable (a miserable looking tree or two standing out in black relief, and strips of foliage, just marking the course of the Gilbert, excepted)." The area around Black Springs and Apoinga was largely described as desolate, with coarse, wiry, sour looking grass and a few stunted sheoaks on the ranges. Apoinga itself was described as a village "in a dense forest of peppermint-gums…and scrub".

Travelling from Burra to Clare, the 'Old Colonist' found the countryside open and largely devoid of vegetation until, beyond the Hill River closer to Clare, the ranges and lower slopes were described as covered in peppermint, gum and sheoak, including really fine trees, beautiful glades and woodland. Between Clare and Penwortham he noted that "white and red gum-trees are seen of a fine large size" interspersed occasionally with sheoak. The hills were also noted to be "beautifully timbered" on either side of the road.

From Auburn, the countryside was described as largely plain and at time wooded. East of Templers was the "Gawler Scrub" the 'Old Colonist' visited by following a dry watercourse to patches of "close wood, open plain and cypresses", the latter used for huts, fences and out-buildings. Beyond Templers the road to Gawler was mostly through a "cheerless plain".

Agricultural Development

Following the pastoralists in the 1850s the land was progressively surveyed into Hundreds and Sections.

Here the focus was on the agricultural value and capability of the land, particularly for cultivation and grazing by domestic stock. In their Hundred Survey Diagram books and note books these early surveyors frequently noted the vegetation cover in their land descriptions. Often this information described mallee, arable land, open plain or other generalisations, but at times there could be more detailed information. As much of the region was native grassland and grassy woodlands it was readily and speedily taken up for cereal and mixed farming with domestic stock, forming a valuable export industry for the colony. With greater accessibility of machinery and soil fertility improvements in the 1950s came further development of mallee areas for agriculture.

The Pre-European Vegetation Mapping

As part of the Biological Survey program the probable pre-European vegetation cover has been mapped for most of the more southerly areas of the Mid North and all of Yorke Peninsula. These mapped plant communities may at times differ from that currently mapped or described elsewhere in this report as they relate to historical sources extrapolated to more recent information.

Generally, the Mid North and Yorke Peninsula contained a diverse range of vegetation, from high rainfall stringybark woodland in the Clare district to a range of semi-arid vegetation on the margins of the agricultural areas. Using the above sources of information, what were considered the major vegetation communities for the Mid North and Yorke Peninsula at the time of European settlement are described below.

Forest

The region was not a typical area for forest vegetation, instead forest formations were limited to specialised areas. In the case of the coastal *Avicennia marina* var. *marina* and saline swamp fringing *Melaleuca halmaturorum* Low Open Forests, these were largely left intact due to their limited agricultural value.

Avicennia marina var. *marina* (Grey Mangrove) Low Closed Forest

Avicennia marina var. *marina* Low Closed Forest was restricted to fringing coastal tidal flats along stretches of the upper Yorke Peninsula (e.g. Clinton Conservation Park), and the Mid North (eg. Port Broughton and Port Pirie) gulf coasts. They occurred in shallow areas subject to regular daily tidal flooding, following estuaries and drainage channels into the backing salt marshes only as far as regular tides occurred (Osborn and Wood 1923, Wood 1937).

Historically little was recorded of the plant community's understorey, however it is likely to be the same as current remnants with few other associated plants.

The current distribution of the mangroves compared to the Hundred survey plans of the 1800s indicates there has been limited change in the distribution of this plant community since European settlement, although there has been some loss where tidal flows into channels have been restricted.

Callitris gracilis (Southern Cypress Pine) Low Open Forest

Early land surveyors noted areas of 'pine' in their Hundred Section plans. This *Callitris gracilis* Low Open Forest was primarily restricted to lower sandy rises and dunes through the region, particularly the Mid North (e.g. northern Adelaide Plains). As the dunes became higher it tended to grade into typical dune vegetation, such as *Eucalyptus incrassata* Mallee.

Little was recorded historically of the understorey. The Biological Survey data implies it was largely grassy, dominated by tussock grasses.

A high percentage of this community has been retained or has regenerated.

Melaleuca halmaturorum (Swamp Paper-bark) Low Open Forest

Melaleuca halmaturorum Low Open Forest could be found fringing lagoons on southern Yorke Peninsula, primarily in the Peesey Swamp and Gypsum Lakes districts (Tate 1890). Early land surveyors noted these areas as swampy, tea-tree swamp, or occasionally high tea-tree.

Little is recorded of the understorey composition for this plant community, except what is inferred from Biological Survey site data.

As it occurred on naturally more saline and swampy land, this plant community tended not to be cleared for agriculture.

Woodland

The region contained significant areas of open grassy (savannah) woodlands that were important grazing areas for pastoralists as the newly established colony expanded and established export industries. In most cases their understorey has now been highly modified and replaced by exotic plants.

Allocasuarina verticillata (Drooping Sheoak) Low Woodland

In the Mid North *Allocasuarina verticillata* Low Woodland occurred on a number of the stony ridge crests and upper slopes with skeletal soils (Jessup 1948, Todd 1965), while within Yorke Peninsula it primarily occurred on rises around and within salt lagoons (Tate 1890). The early land surveyors in the Hundred Sections usually recorded areas of sheoak. Little of this low woodland now occurs for a number of these areas, particularly on Yorke Peninsula.

The land surveyor comments imply the understorey was probably open and grassy with a few sparse shrubs present. In areas *Gahnia lanigera* or *Xanthorrhoea*

quadrangulata could dominate the understorey. The Biological Survey site data indicates *Bursaria spinosa*, *Lomandra multiflora* ssp. *dura* and *Austrodanthonia* and *Austrostipa* tussock grasses could be usually found in the ground cover, particularly in the Mid North.

The original extent of this plant community has been considerably diminished since the advent of European settlement. This has been due to the preferential exploitation of the trees for timber and firewood; the grassy nature of the understorey being preferred for domestic stock grazing; altered fire regimes; and grazing of the palatable sheoak seedlings by domestic stock and rabbits.

***Eucalyptus camaldulensis var. camaldulensis* (River Red Gum) Woodland**
This plant community was largely restricted to the moister drainage lines of the Mid North, in addition to a restricted area of Gum Flat on the eastern edge of Minlaton on Yorke Peninsula. It was most developed in the wetter areas such as Penwortham, where it could be also found up the lower slopes (Todd 1965), and Melrose. The understorey was typically open, dominated by grasses and bulb species (e.g. Liliaceae species), but with also sparse small tree and shrub cover (Boomsma 1949).

Along some rivers and creeks the understorey was reedy, comprising *Phragmites australis* and at times *Acacia salicina*.

***Eucalyptus goniocalyx* (Long-leaved Box*)* Low Woodland**
Eucalyptus goniocalyx Low Woodland occurred on the slopes of higher rainfall ridges of the Mid North, such as parts of the Tothill, Clare and Mount Remarkable ranges and hills.

Due to its occurrence on rugged hill slopes it was largely not cleared for agriculture, but was partially grazed by domestic stock.

***Eucalyptus largiflorens* (Black/River Box*) +/- E. porosa* (Mallee Box) Woodland**
Eucalyptus largiflorens +/- E. porosa Woodland had a restricted occurrence in the Mid North, associated with drainage flood plain areas of the Gawler River in the south and the Wakefield River further north (eg north-east of Balaklava). It was absent from Yorke Peninsula.

Little is known historically of the composition of its understorey.

***Eucalyptus leucoxylon* ssp. *pruinosa* (Inland SA Blue Gum) Woodland**
This was an important plant community in the hilly undulating country in the higher rainfall districts of the Mid North, but was absent from Yorke Peninsula. It was mainly associated with the lower slopes and valleys of creeks and rivers and, in drier areas, some drainage lines. Away from the drainage lines it graded into *Eucalyptus odorata + E. leucoxylon* ssp. *pruinosa* Low Woodland.
It was typically grassy woodland with a few shrubs and small trees and a ground cover dominated by *Austrodanthonia* and *Austrostipa* tussock grasses and herbs (e.g. *Plantago gaudichaudii*). *Allocasuarina verticillata* could also often be found as an understorey tree.

***Eucalyptus macrorhyncha* ssp. *macrorhyncha* (Red Stringybark) Woodland**
A tree widespread and common on drier well-drained foothills and tablelands of south-eastern Australia *Eucalyptus macrorhyncha* ssp. *macrorhyncha* Woodland was an unusual western outlier in the Clare Hills west of Penwortham (Boomsma 1949, Todd 1965). Here, at its northern limit, it graded into the *Eucalyptus goniocalyx* Low Woodland.

The understorey appeared to be mostly open, though at times some shrubs were present.

Due its occurrence in rugged terrain most of this plant community was not cleared, but was used for grazing of domestic stock. A portion of its extent has subsequently been conserved in Spring Gully Conservation Park.

***Eucalyptus odorata* (Peppermint Box) Low Open Woodland**
The *Eucalyptus odorata* Low Open Woodland community mainly occurred on the hilly country throughout the Mid North, at times with skeletal soils (Todd 1965). On lower slopes it graded into *Eucalyptus odorata + E. leucoxylon* ssp. *pruinosa* Low Woodland.

Historical indications from the early land surveyors were for a grassy understorey. From Biological Survey site data there appeared to be a sparse cover of shrubs such as *Bursaria spinosa* and *Acacia pycnantha.*

As this plant community occurred on the crest of the ranges and was therefore difficult to clear, areas were left as remnants but used for grazing of domestic stock.

***Eucalyptus odorata* (Peppermint Box) + *E. leucoxylon* ssp. *pruinosa* (Inland SA Blue Gum) Low Woodland**
Eucalyptus odorata + E. leucoxylon ssp. *pruinosa* Low Woodland occurred primarily on the lower slopes to drainage lines, grading to *E. odorata* Low Open Woodland higher up the slopes, and to *E. leucoxylon* ssp. *pruinosa* Woodland in the vicinity of the drainage lines.

At times *Callitris gracilis* was a co-dominant or a prominent understorey tree, while the understorey was mainly open and grassy.

***Eucalyptus porosa* (Mallee Box) Woodland**
Large areas of *Eucalyptus porosa* Woodland occurred on Yorke Peninsula from Edithburgh north, becoming more frequent northwards. In the Mid North its occurrence was more restricted, primarily to localities

associated with drainage in drier areas. It was also restricted to drainage areas near the east coast of northern Yorke Peninsula. Typically this plant community appeared to occur where there was a better water profile from surface or underground water.

Understorey was probably open and sparse, containing low trees of *Pittosporum angustifolium,* shrubs, and groundcover dominated by *Gahnia lanigera*, *Lepidosperma viscidum* and tussock grasses. Early surveyors in the 1800s at times noted areas of the woodland on the Hundred Survey Diagram books as open plain or Black Grass (*Gahnia lanigera* or *Lepidosperma viscidum*), but not always the *Eucalyptus porosa* overstorey.

This plant community was not widely cleared for cultivation, as on Yorke Peninsula it usually occurred on shallow soil over calcrete. However, it was extensively used for grazing of domestic stock due to the open nature of its understorey and prevalence of grasses and other feed.

***Casuarina pauper* (Black Oak) Low Woodland**
Patches of *Casuarina pauper* Low Woodland occurred on northern Yorke Peninsula south of Ilford, becoming more frequent further north. In the Port Broughton District it frequently occurred at the base of sand dunes near the coast. Inland, it occurred north of Peterborough.

From Biological Survey site data there appeared to be a sparse cover of shrubs including *Enchylaena tomentosa* var. *tomentosa*, *Rhagodia parabolica*, *R. spinescens* and sparse *Austrodanthonia* and *Austrostipa* tussock grasses.

***Acacia salicina* (Willow Wattle) +/- *Eucalyptus camaldulensis* var. *camaldulensis* (River Red Gum) Low Woodland**
Acacia salicina Low Woodland primarily occurred on the floodplain of the River Broughton and some of its tributaries, particularly from the Koolunga District west. It frequently graded into *Eucalyptus camaldulensis* var. *camaldulensis* Woodland more closely associated with the main river channels.

Little is known historically of its understorey, which now tends to be highly disturbed.

***Melaleuca lanceolata* (Dryland Tea-tree) + *Allocasuarina verticillata* (Drooping Sheoak) Low Open Woodland**
Melaleuca lanceolata + *Allocasuarina verticillata* Low Open Woodland formed a major plant community for southern areas of Yorke Peninsula, particularly in the Warooka to Edithburgh Districts and north towards Maitland. The early land surveyors noted these areas as covered in tea tree and sheoak.

The understorey was probably open and grassy with a few, sparse shrubs or understorey trees, and was perhaps similar to that of *Eucalyptus porosa* Woodland. It is difficult to determine the understorey components of this community as today's remnants are highly disturbed and little historical description of it remains.

Areas of this plant community have largely been cleared and used for stock grazing. At best a few scattered and disturbed examples remain. Grazing, altered fire regimes and rabbit grazing have particularly decimated its *Allocasuarina verticillata* component.

***Myoporum platycarpum* ssp. *platycarpum* (False Sandalwood) Low Open Woodland**
Myoporum platycarpum ssp. *platycarpum* Low Open Woodland occurred on specific areas of higher ground near the coast on the eastern side of Gulf St Vincent, behind the *Atriplex paludosa* ssp. *cordata +/- Maireana brevifolia* Low Shrubland. On Yorke Peninsula it also occurred near the coast around Port Victoria and further north from Wallaroo to Tickera, and near Port Broughton.

Few remnants are left within the region, except for a few trees on roadsides and some degraded and altered examples on Yorke Peninsula. *Austrodanthonia* and *Austrostipa* tussock grasses were considered an important feature of the ground cover.

Mallee

Extensive areas of the region were covered with mallee at the time of European settlement and were generally described by the early land surveyors of the 1800s as mallee or mallee scrub, with little or no differentiation between types. However, this mallee cover can be divided into a number of distinct plant communities, although for most of Yorke Peninsula this distinction was more blurred. For a number of the Yorke Peninsula plant communities one or more of the dominant mallee eucalypts of one mallee community could be found in another. This posed difficulties in the mallee mapping over the 'leg' and 'foot' of the peninsula. Although not initially cleared they were used as a source of timber fuel for the mines. However, they were later extensively cleared primarily for cereal production.

***Eucalyptus behriana* (Broad-leaf Box) +/- *E. odorata* (Peppermint Box) Mallee**
Small patches of *Eucalyptus behriana +/- E. odorata* Mallee occurred in the southern areas of the Mid North. What remnants that still occur in the region were not surveyed in the Biological Survey, and there is no specific historical information on this plant community.

Remnants areas appear to be small, isolated and degraded. Some areas of its original extent have been cleared for agriculture.

***Eucalyptus calycogona* ssp. *trachybasis* (Square-fruit Mallee) + *E. phenax* ssp. (White Mallee) + *E. brachycalyx* (Gilja) Mallee**
Small areas of this mallee community occurred on heavier soils of northern Yorke Peninsula and southern Mid North. A number of eucalypts can be found in the

community including at times *Eucalyptus oleosa* ssp. *ampliata* and *E. gracilis*, but with *Eucalyptus calycogona* ssp. *trachybasis* as a constant at various densities. In the original land surveys of the region the surveyors included it in a general mallee description. Little is known of the original understorey composition.

As this plant community occurred on better soil types it was selectively cleared for agriculture, with only remnants on roadside vegetation largely surviving.

***Eucalyptus gracilis* (Yorrell) +/- *Eucalyptus oleosa* ssp. *ampliata* (Red Mallee) +/- *E. brachycalyx* (Gilja) Mallee**

This mallee plant community complex was widely distributed across the region on loam and calcareous loam soils. It was treated as two plant communities - *Eucalyptus gracilis* + *E. oleosa* ssp. *ampliata* Mallee and *Eucalyptus oleosa* ssp. *ampliata* + *E. brachycalyx* Mallee - by Jessup (1948) and elsewhere mapped as several variations on these. For pre-European mapping purposes it was treated as one due to difficulties in differentiation between the two communities. *Eucalyptus gracilis* was often present in *Eucalyptus oleosa* ssp. *ampliata* + *E. brachycalyx* Mallee, while *Eucalyptus oleosa* ssp. *ampliata* + *E. gracilis* Mallee was more prevalent in the north of the region (Jessup 1948).

The open sparse shrub understorey was probably dominated by chenopod species, as is inferred from Biological Survey site data. Chenopod species such as *Maireana brevifolia*, *M. pentatropis*, *M. triptera*, *Enchylaena tomentosa* var. *tomentosa*, *Rhagodia parabolica*, *R. candolleana* ssp. *candolleana* have been recorded at Biological Survey sites, as well as other shrubs such as *Olearia muelleri* and *Westringia rigida.*

Considerable areas were subsequently cleared for agriculture.

***Eucalyptus diversifolia* ssp. *diversifolia* (Coastal White Mallee) Mallee**

Eucalyptus diversifolia Mallee occurred over a large part of the "foot" of southern Yorke Peninsula on rocky calcrete, usually with shallow soil (Wood 1937). Smaller areas also occurred on the western part of the peninsula near the coast. At times other mallee eucalypts were present (e.g. *Eucalyptus oleosa* ssp. *ampliata* and *E. phenax*).

Little was recorded historically of the understorey, but it is inferred to have been shrubby with a groundcover of Black Grass, probably *Gahnia lanigera* and *Lepidosperma congestum*, by some of the early land surveyors. Biological Survey data from sites in remnants indicated a diverse shrub cover of species typically associated with calcrete.

Due to its occurrence on heavy rocky and shallow soils most of this plant community was not cleared for agriculture.

***Eucalyptus dumosa* (White Mallee) + *E. phenax* ssp. (White Mallee) Open Mallee**

This *Eucalyptus dumosa* + *E. phenax* Open Mallee community occurred on heavier loam soils in usually higher rainfall areas compared to the previous mallee community (Jessup 1948). *Eucalyptus socialis* ssp. *socialis* was often found in association.

Little is known historically of this community's understorey, as the early land surveyors did not differentiate it from other mallee communities.

A large part of this plant community has been cleared for mostly wheat growing, with most remaining areas having a depleted and disturbed understorey (Jessup 1948).

***Eucalyptus incrassata* (Ridge-fruited Mallee) +/- *E. socialis* ssp. *socialis* (Beaked Red Mallee) Open Mallee**

Eucalyptus incrassata +/- E. socialis ssp. socialis Open Mallee occurred on sandier soils in the region, becoming confined to distinct sand dunes on northern Yorke Peninsula and the northern Adelaide Plains south of Balaklava. On more southern areas of Yorke Peninsula it occurred on sandy plains covering extensive areas, particularly from Stansbury north to Curramulka.

Little is known historically of this community's understorey, as the early land surveyors did not differentiate it from other mallee communities. Wood (1937) described it as "heath-like" or "mallee-heath", although he did not recognise it for the Mid North and Yorke Peninsula. Its understorey is inferred from Biological Survey site data to be shrubby in the most part, especially on Yorke Peninsula where annual rainfall is higher.

On Yorke Peninsula, much of this plant community was cleared for agriculture. However, where the community occurred on distinct higher sand dunes it was often left uncleared amid the agricultural development of the region.

***Eucalyptus rugosa* (Kingscote Mallee) +/- *E. diversifolia* ssp. *diversifolia* (Coastal White Mallee) Mallee**

Parts of the Yorke Peninsula "foot" surveyed by land surveyors of the 1800s as Mallee Scrub were *Eucalyptus rugosa +/- E. diversifolia* ssp. *diversifolia* Mallee. This plant community at times graded into *Eucalyptus diversifolia* ssp. *diversifolia* Mallee on slightly higher, rockier ground. Other mallee eucalypts, such as *Eucalyptus oleosa* ssp. *ampliata* and *E. gracilis*, could also be present.

Although little was described of the understorey, Biological Survey data from sites in remnants indicates a shrubby understorey, including *Melaleuca lanceolata*, *Acacia triquetra*, *A. rupicola* and *Pomaderris obcordata*.

Parts of this plant community on the northern part of the peninsula "foot" were cleared for agriculture, but generally, due to the shallow soil and rocky nature of the area, large areas were also retained.

***Eucalyptus socialis* ssp. *socialis* (Beaked Red Mallee) +/- *Callitris gracilis* (Southern Cypress Pine) +/- *E. gracilis* (Yorrell) Open Mallee**
Eucalyptus socialis ssp. *socialis +/- Callitris preissii +/- E. gracilis* Open Mallee occurred on sandy loam and loam soils of higher ground in the Mid North, such as east of Bute and Port Broughton, and north of Robertstown.

Little was written historically about its understorey. From Biological Survey data from sites in remnants the understorey was typically open with a sparse, mainly chenopod shrub cover, including *Rhagodia parabolica* and *Enchylaena tomentosa* var. *tomentosa*. *Pittosporum angustifolium* and *Exocarpos aphylla* were also likely to be present.

Shrubland

A large part of the region's landscape, particularly the Mid North, comprised various types of shrubland. These shrublands varied from low to tall, and from saline areas associated with the low gulf coastlines to open areas on drier inland plains.

While the saline samphire and fringing shrublands have been largely retained, and in some areas increased due to increased salinity, the areas described as open plain shrublands by the early land surveyors were later used for grazing and cultivation.

***Acacia victoriae ssp. victoriae* (Elegant Wattle) Tall Shrubland**
Acacia victoriae ssp. *victoriae* Tall Shrubland occurred on open plains in the more northern part of the Mid North (e.g. Mount Bryan and Orroroo).

Little historical information was found for this plant community's understorey, but from Biological Survey data for sites in remnants, it was probably sparse and comprised chenopod shrubs such *as Atriplex stipitata*, *Enchylaena tomentosa* var. *tomentosa* and *Rhagodia parabolica*.

***Alyxia buxifolia* (Sea Box) Shrubland**
Alyxia buxifolia Shrubland occurred on some coastal sand dunes of Yorke Peninsula's southern coast, primarily Sturt Bay. It is related to the similar typical coastal *Leucopogon parviflorus + Olearia axillaris* Shrubland. However, it has been described as a separate community due to its extent along this stretch of coast and the obvious dominance of Alyxia buxifolia.

***Atriplex paludosa* ssp. *cordata* (Marsh Saltbush) +/- *Maireana brevifolia* (Short-leaf Bluebush) Low Shrubland**
Grading from the *Halosarcia* spp. Low Closed Shrubland, *Atriplex paludosa* ssp. *cordata +/- Maireana brevifolia* Low Shrubland occupied the higher areas of the coastal plains around the gulfs (Osborn and Wood 1923). These areas were noted as saltbush on the early land surveyors' plans.

Little other historical information exists for this plant community.

***Atriplex vesicaria* ssp. (Bladder Saltbush) Low Open Shrubland**
Atriplex vesicaria ssp. Low Open Shrubland occurred in areas of plains of increasing aridity where the tree cover gave out (Wood 1937). This plant community occurred on the northern and eastern edge of the Mid North and was more associated with the adjacent semi-arid pastoral areas of the State. It was not a typical plant community of the Mid North and did not occur on Yorke Peninsula. It has not been considered in depth here.

***Halosarcia* spp. (Samphire) Low Closed Shrubland**
Halosarcia spp. Low Closed Shrubland occurred at the head of Gulf St Vincent, other areas backing the low-lying gulf coasts, and around inland saline lagoons and/or swampy ground. In the Port Wakefield district it occurred on swampy land resulting from drainage from higher land during winter, and occasionally flooded by high water spring tides. *Sclerostegia arbuscula* Shrubland lined the drainage channels dissecting this samphire community (Osborn and Wood 1923). Inland, it occurred surrounding saline lagoons and other swampy poorly drained land, formed from drainage of the higher surrounding ground unable to drain to sea, in both the Mid North and southern Yorke Peninsula.

Biological Survey site data since the 1980s indicates this samphire community was dominated by a number of *Halosarcia* species, such as *Halosarcia halocnemoides* ssp. *halocnemoides*, *H. pergranulata* ssp. *pergranulata*, *H. indica* ssp. *leiostachya*, *H. syncarpa* and *H. pterygosperma* ssp. *pterygosperma*. As *Halosarcia* species are difficult to determine in the field without considerable experience and identification of vegetative material is problematic, it is difficult to determine a pattern for the different habitats of this samphire complex. Generally, *Halosarcia halocnemoides ssp. halocnemoides* appears to predominate in the coastal areas where there can be occasional tidal flooding, and *H pergranulata* ssp. *pergranulata* and *H. indica* ssp. *leiostachya* in more inland sites.

From Biological Survey site data other salt tolerant shrubs, such as *Lawrencia squamata*, *Maireana oppositifolia* and *Frankenia pauciflora* ssp. *fruticulosa* are often associated with this plant community. In spring, a number of short-lived ephemeral species can be present, such as *Brachyscome lineariloba*, *B. ciliaris* var. *ciliaris*, *Gnaphalium indutum*, *Hydrocotyle medicaginoides*, *Pogonolepis muelleriana* and *Senecio glossanthus*.

Due to the highly saline nature of the samphire areas they were usually not cleared. However, construction of roads and other barriers could have affected water flows affecting some areas. Additionally, there is some indication from survey plans from the 1800s that there has been an increase in the extent of this community, due to an increase in land affected by salinity.

***Maireana aphylla* (Cotton-bush) Low Shrubland**
In the drier parts of South Australia *Maireana aphylla* Low Shrubland occurred in isolated swamps and flood plains of rivers (Wood 1937, Specht 1972). In the Mid North this plant community occurred on the flood plain and drainage zone around some saline swamps and lagoons (e.g. Lake Bumbunga), flood plains of rivers (e.g. River Light) and gullies and creeks.

It is difficult to determine the original composition of this plant community as little remains in the region except for disturbed areas along roadsides. Biological Survey data from sites in the Mid North indicates it had a grassy ground cover of *Austrodanthonia* and *Austrostipa* tussock grasses.

Most areas where this plant community once occurred have since been cleared, ploughed and cultivated.

***Maireana brevifolia* (Short-leaf Bluebush) Low Shrubland**
Maireana brevifolia Low Shrubland occurred on widespread areas of rising plains, inland from low gulf coasts of the northern Adelaide Plains to Port Germein, and around saline lakes and lagoons (e.g. west of Blyth). The early surveyors of the Hundred Sections noted these areas as Bluebush or Bluebush and Saltbush. On lower land it graded into *Halosarcia* spp. Low Shrubland, *Nitraria billardierei* Open Shrubland or *Maireana aphylla* Low Shrubland. On higher ground it graded to Tall Shrubland or Mallee. *Atriplex paludosa* ssp. *cordata* was frequently associated with this plant community.

There appears to be no historical information on the community's understorey. From Biological Survey site data understorey and other associated plant species appeared to be sparse, but included other chenopod species.

In more southern areas of the Mid North and northern Yorke Peninsula it was extensively cultivated for cereal cropping, probably due to its lack of timber cover. More areas were retained and used for grazing in northern areas of the Mid North.

***Maireana pyramidata* (Black Bluebush) Low Open Shrubland**
Maireana pyramidata Low Open Shrubland occurred on lower lying flood plains (Wood 1937) on the northern edge of the Mid North, and was more associated with the adjacent semi-arid pastoral areas of the State. It was not a typical plant community of the Mid North and did not occur on Yorke Peninsula, and has not been considered in depth here.

From Biological Survey site data *Atriplex vesicaria* ssp. was often found in association along with other, mainly chenopod, species.

***Melaleuca lanceolata* (Dryland Tea-tree) +/- *Callitris gracilis* (Southern Cypress Pine) Tall Open Shrubland**
Along coastal stretches of the eastern side of Gulf St Vincent, and north of Port Clinton on Yorke Peninsula, the early land surveyors of the 1890s noted tea-tree bushes, at times box, or tea-tree and pines. The tea-tree was often noted as dense in the surveyors' description. The *Melaleuca lanceolata* of this plant community was a tall shrub in contrast to the tree form found in *Melaleuca lanceolata* + *Allocasuarina verticillata* Low Open Woodland over most of Yorke Peninsula.

The box probably referred to *Alyxia buxifolia* (commonly called Sea Box) which is known from South Australian Herbarium records to occur in coastal vegetation in areas of this plant community. The rest of the understorey was described as low bushes or sand scrub, and can only be inferred from Biological Survey site data from remnant coastal vegetation to be shrubs such as *Rhagodia candolleana* ssp. *candolleana* and *Threlkeldia diffusa*.

Although not cleared for agriculture parts of this plant community have subsequently been cleared or degraded through coastal subdivision of the gulf coasts.

***Melaleuca uncinata* (Broombush) Tall Shrubland**
Small localised areas of this plant community occurred on heavier soils of lower Yorke Peninsula, inland from Port Vincent. The early surveyors in the Hundred Survey Diagram books described such areas as broom and low bushes. There are at times emergent mallee eucalypts present, and it tends to grade into surrounding mallee communities.

Little of this plant community remains except on road reserves as it was selectively cleared for agriculture.

***Nitraria billardierei* (Nitre-bush) +/- *Maireana brevifolia* (Short-leaf Bluebush) +/- *Atriplex paludosa* ssp. *cordata* (Marsh Saltbush) +/- *M. aphylla* (Cotton-bush) Open Shrubland**
This plant community occurred both inland on better-drained land fringing saline lagoons and near the coast. In the Port Wakefield district it occurred on mounded shell grit islands amongst the *Halosarcia* spp. Low Closed Shrubland behind the *Avicennia marina* ssp. *marina* Low Open Forest (Osborn and Wood 1923). Inland it graded into *Halosarcia* spp. Low Closed Shrubland on lower lying land and *Maireana brevifolia* or *M. aphylla* Low Shrubland on better drained ground.

***Leucopogon parviflorus* (Coast Beard-heath) + *Olearia axillaris* (Coast Daisy-bush) Shrubland**
As with much of coastal South Australia, *Leucopogon parviflorus* + *Olearia axillaris* Shrubland formed the basic coastal dune plant community along the region's coast. This plant community could locally vary considerably, as other plant species became dominant, but essentially the structure remained the same with these two dominant shrub species present to varying degrees. The early land surveyors of the 1800s generally described the coastal dunes as covered in low to high bushes or coastal scrub. Early publications referred to this community as a dwarf shrubland dominated by *Olearia axillaris* and *Leucopogon parviflorus* coming in where the fore dune was stabilised (Wood 1937).

***Sclerostegia arbuscula* (Shrubby Glasswort) Shrubland**
Sclerostegia arbsucula Shrubland occurred fringing the channels behind the coastal *Avicennia marina* var. *marina* Low Closed Forest (Osborn and Wood 1923). These channels comprise constantly wet, highly saline muddy soil. Away from the channels this community grades into the adjacent *Halosarcia* spp. Low Closed Shrubland. The early land surveyors of the 1800s described it as 'high samphire'.

Little is recorded of its understorey except what is inferred from Biological Survey site data, where *Sarcocornia quinqueflora* was described as the dominant understorey species.

Due to its occurrence along tidal channels adjacent to the coast this plant community was not cleared or used for agriculture.

***Senna artemisioides* ssp. *petiolaris* (Flat-stalk Senna) +/- *Eremophila longifolia* (Weeping Emubush) Tall Shrubland complex**
Areas of open plain, sometimes described as having 'wattle and bushes' or 'bushes and black grass', were noted by early land surveyors for northern Yorke Peninsula and in the Mid North. These 'open plains' occurred largely in mallee areas. Generally the tall shrublands were similar in appearance but differed in terms of dominant shrub species. Typically, *Senna artemisioides ssp. petiolaris* or clumps of *Eremophila longifolia* were present for most parts of the region. In the eastern part of the Mid North however, *Dodonaea viscosa* ssp. *angustissima* became the dominant shrub. For the practicality of pre-European mapping the tall shrublands were all considered as one complex, albeit with local variation.

Composition of the tall shrubland can be inferred from roadside remnants and Biological Survey site data.

The open nature of these tall shrublands meant they were preferred areas for cultivation for cereal cropping and stock grazing, as they required much less clearing to that of the surrounding mallee.

Sedgeland
The region's sedgelands were a minor component of the landscape at the time of European settlement. They were largely restricted to areas where fresher water occurred intermittently on southern Yorke Peninsula, and in association with rivers, creeks and drainage lines of the Mid North. However, this association with fresher water would have meant they were important areas to the early pastoralists and colonists for water supplies and fresher feed in drier months.

***Gahnia filum* (Thatching Grass) Sedgeland**
Within the Mid North and Yorke Peninsula *Gahnia filum* Sedgelands were confined to brackish swamps with a freshwater influence in southern Yorke Peninsula and a small area in what is now the Lewiston Golf Course in the Northern Agricultural District. *Gahnia filum* swamps also occurred in sub-coastal areas south of Port Gawler. In southern Yorke Peninsula they were most frequent in the lower lying land around Warooka and Yorketown and north to Minlaton. Early land surveyors noted the areas of *Gahnia filum* Sedgeland as "swampy" or "rushy flats" with little other description.

There is no historical description of the understorey. Understorey that may have existed is inferred from Biological Survey site data, but remnants surveyed were highly degraded.

Early settlers cleared most of the *Gahnia filum* Sedgeland, although some areas have regrown. Remnants are highly disturbed and grazed. Increased salinity of the region may have also resulted in the loss of some areas of this plant community.

***Gahnia lanigera* (Black Grass Saw-sedge) Sedgeland**
Early land surveyors of the Hundred Sections in the 1800s noted areas of Black Grass, particularly on western Yorke Peninsula from Hardwicke Bay north to Balgowan, and Ardrossan and Price on the eastern side. Although some areas of Black Grass were understorey to other plant communities, such as *Eucalyptus porosa* Woodland and *Allocasuarina verticillata* Low Woodland, other areas were noted as open (i.e. without tree cover). Most of the areas were behind coastal dunes, and could be mixed in with porcupine grass (*Triodia compacta*). Some of the Black Grass may also be other species from other genera (e.g. *Lepidosperma* species).

***Juncus kraussii* (Sea Rush) Sedgeland**
Juncus kraussii Sedgeland occurred on the small creeks, flood plains and upper reaches of rivers in the Mid North, largely between Clare and Eudunda. As noted by the early explorers and colonists, a number of the rivers in the Mid North were treeless, at least for part of their course. In a number of cases *Phragmites australis* Sedgeland defined the watercourse channel with *Juncus kraussii* Sedgeland occurring on the floodplains.

Remnants of the rush vegetation along some of the creeks and rivers still occur, however little is really known of their historical floristic structure.

***Phragmites australis* (Common Reed) +/- *Juncus* sp. (Rush) +/- *Typha* sp. (Bulrush) Sedgeland**
As noted, a number of the rivers of the Mid North were observed by the early explorers and colonists to be devoid of trees and shrubs, particularly in their upper reaches. Instead the channels were primarily defined by *Phragmites australis* Sedgeland reed beds, as recorded by Eyre in 1840 (e.g. 'reedy watercourse') and a number of times by the early land surveyors. In the lower reaches of the rivers the *Phragmites australis* Sedgeland becomes an understorey to *Eucalyptus camaldulensis* var. *camaldulensis* Woodland.

In most cases the reedy nature of the river and major creek channels has been retained.

Grassland

A large part of the Mid North, and small areas of northern Yorke Peninsula such as the hills slopes around Kulpara, comprised grasslands dominated by various species of tussock and hummock grasses and/or *Lomandra*, interspersed with occasional shrubs. In a number of cases the grasslands graded into each other, with similar species composition but different dominants, depending on their location in the landscape and average rainfall. Commonly, early land surveyors described these areas as having no timber, as being arable (or other similar descriptions), and no shrubs were noted. Additional areas of hummock grassland could be found near the lower to middle coast on Yorke Peninsula.

***Aristida behriana* (Brush Wire-grass) + *Austrostipa nodosa* (Tall Spear-grass) Tussock Grassland Complex**
Early surveys for Hundred Sections and other evidence suggested that *Lomandra multiflora* ssp. *dura* +/- *Lomandra effusa* Open Tussock Grassland graded to tussock grass or black grass in the base of valleys and drainage lines of the Northern Agricultural District.

In a number of cases this was considered to be *Aristida behriana* + *Austrostipa nodosa* Tussock Grassland, although other tussock grasses, particularly *Austrostipa* species, were likely present. Little is known of this plant community's composition, which is only historically inferred here. However, there is early field evidence (land surveyors records) that *Lomandra multiflora* ssp. *dura* +/- *Lomandra effusa* Open Tussock Grassland was not present in the base of valleys of the Mid North.

This plant community has been highly modified through grazing, cultivation and altered fire regimes. It has been replaced by introduced species (particularly grasses) over much of its distribution.

***Lomandra effusa* (Scented Mat-rush) Open Tussock Grassland**
In the southern areas of the Mid North *Lomandra effusa* Open Tussock Grassland occurred on higher hill slopes, grading to *Lomandra multiflora* ssp. *dura* +/- *Lomandra effusa* Open Tussock Grassland on the lower slopes, particularly near the River Light in the Kapunda District. Elsewhere in the Mid North *Lomandra effusa* became more prominent than *L. multiflora* ssp. *dura* higher up the hill slopes onto the hill crests. However, it was difficult to differentiate between the two plant communities in more northern areas of the Mid North.

***Lomandra multiflora* ssp. *dura* (Hard Mat-rush) +/- *Lomandra effusa* (Scented Mat-rush) Open Tussock Grassland**
Many of the northern hills appear not to have been clothed in trees but were covered in *Lomandra multiflora* ssp. *dura* and *Lomandra effusa* Open Tussock Grassland, with *Lomandra effusa* became more common higher up the slopes. Primarily occurring in hilly, stony areas this plant community also extended across the broad valleys with a lower density of *Lomandra* (Jessup 1948), grading to the tussock grassland complex in the bottom of the valleys. The largest area of this plant community extended from north of Clare east to the hills of Burra and northward to Peterborough and Jamestown. However, this plant community also occurred elsewhere on hill slopes and hills on northern Yorke Peninsula and east of the Light River in the Kapunda District.

Early explorers and the land surveyors indicated this plant community to have been grassy (e.g. 'valuable grazing district, with grass of excellent description, and of great luxuriance', Eyre 1845). These were probably *Austrodanthonia* and *Austrostipa* tussock grasses and other species, as recorded for the area at Biological Survey sites. Likewise, sparse emergent shrubs such as *Cryptandra sp.* Long hypanthium (C.R. Alcock 10626), *Bursaria spinosa*, *Vittadinia* species and *Maireana rohrlachii, M. enchylaenoides* and *M. excavata* probably also occurred.

This plant community was used for sheep grazing from the very early days of settlement (Wood 1937). With later agricultural development suitable areas were cultivated for cereal crops, while the more stony areas continued to be grazed and, over time, highly modified.

***Themeda triandra* (Kangaroo Grass) Tussock Grassland complex**
Around the Gawler River there were historical descriptions of Kangaroo Grass "growing as tall as corn, with a few flowers amongst them" (Lendon 1927). Further areas were described as arable by the early land surveyors or "cheerless plain with nothing to note" by the 'Old Colonist', which possibly supported similar tussock grasslands. There were no descriptions of these areas containing trees or shrubs and they were not typical areas that supported the *Lomandra* Tussock Grasslands.

Little is known of these tussock grasslands as they were rapidly settled and used for agriculture by the first European settlers, sometimes subject to special rapid surveys to speed development for cropping.

***Triodia compacta* (Spinifex) + *Gahnia lanigera* (Black Grass Saw-sedge) Hummock Grassland**

On the flat plains behind the coastal dunes of western Yorke Peninsula the land surveyors in the 1800s described open areas of Black and Porcupine Grass, most probably *Triodia compacta* + *Gahnia lanigera* Hummock Grassland.

Small remnants of this plant community remain in the region, especially near the coast. The early land survey notes indicate this plant community was probably more widespread. Due to its open nature and prevalence of grasses it was quickly used for grazing of domestic stock by early pastoralists. Altered fire regimes, grazing, cultivation and introduced plants are all considered to have contributed to the loss of this plant community.

***Triodia bunicola* (Flinders Ranges Spinifex) Hummock grassland**

In his explorations through the Mid North Eyre noted "stony barren banks with prickly grass (Spinifex)" along the Broughton River (Eyre 1845). *Triodia bunicola* Hummock Grassland occurred along the river valley slopes of the Broughton River and other hilly slopes north of the river (e.g. Yackamoorundie and Burra Hills). Further north, it was also associated with the Narien and Pekina Ranges. On higher hill crests it at times graded into *Allocasuarina verticillata* Low Woodland over a similar understorey.

Like other similar plant communities in the region *Bursaria spinosa* ssp. *spinosa* was probably an emergent shrub, as inferred from Biological Survey site data. Likewise, *Lomandra multiflora* ssp. *dura* and *Austrodanthonia* and *Austrostipa* tussock grasses were probably associated.

As this plant community occurred on steeper slopes areas where it occurred were often retained and used for grazing, and rarely cultivated.

SURVEY METHODS

N. Neagle[1]

The Mid North and Yorke Peninsula Biological Survey

This survey forms part of the Biological Survey of South Australia. The methods used for it and the other surveys included in this report, are consistent with the methodologies outlined for vegetation surveys in 'Guide to a Native Vegetation Survey (Agricultural Region) Using the Biological Survey of South Australia Methodology' (Heard and Channon 1997) and vertebrate fauna surveys in 'Guidelines for Vertebrate Surveys in South Australia Using the Biological Survey of South Australia' (Owens 2000).

Site Selection and Nomenclature

As with other regional biological surveys in South Australia sites were chosen to represent the biological and geographical diversity of the study area. A further requirement of this survey was to represent the range of surface soil salinity classes (based on DWLBC Soil and Land Information 2002 mapping).

In addition, the location of sites where biological data had already been collected (using the same or very similar methodology) was taken into consideration to avoid the duplication of sampling effort. Several pre-existing sites were reused in this survey, however, as they had not previously been sampled for fauna.

The pre-existing sites for vertebrate fauna trapping were limited to six in Innes National Park, five from the South Olary Plains Biological Survey (Forward and Robinson 1996) on the eastern margin of the study area, and six in Mokota Conservation Park (Hyde 2000). Two more localised surveys were also conducted whilst this survey was in progress – at Hopkins Creek (seven sites) and at Warrenben Conservation Park (six sites).

As a preliminary to site selection for this survey 1:40,000 colour aerial photography was used in conjunction with knowledge of the area from existing vegetation survey sites, consultation with (mostly local) expert botanists, and reference to existing published studies to locate general areas for site locations. Proposed areas were then inspected and liaison with landholders and physical factors (such as land condition, level of disturbance, representativeness of a range of habitats and surface salt classes, plus accessibility) were used to determine final site locations.

These locations were generally selected to avoid ecotones and disturbed areas. However, in an effort to adequately represent the range of surface soil salinity classes, sites that were located in the most highly saline areas (particularly in the Mid North) were generally beside watercourses. This meant they were often in narrow, linear native vegetation remnants that were small, disturbed and isolated from other remnants, all factors that would usually negate their selection.

Where possible sites were selected in larger, less disturbed remnants and within 200m of vehicle access tracks. In several instances, however, effort was made to place sites distant to tracks in the expectation of having the least amount of disturbance. Such examples were in Tourilie Gorge and the Tothill Range.

Practical survey logistics also had some influence on the selection process, particularly landholder permission and accessibility. As well as (mostly) being near tracks, sites were also grouped in sets of ten within range of a 'camp'. Each group of ten sites was selected to represent the major landform and habitat types, as well as surface soil salinity classes, present in a 'camp' area.

The distances between sites varied but were mostly determined by the location of the different landform and habitat types in relation to the presence and condition of access tracks. This is important, as the time taken to travel to and check all ten sites is critical. Traps at sites need to be checked each morning before rising temperatures threaten the survival of captured fauna. As a result the spread of sites within a 'camp' area was generally within 30km.

Site codes followed the standard nomenclature system for biological surveys in the agricultural region of the State (Heard and Channon 1997). As such an eight character alpha-numeric code was used based on the 1:50,000 map sheet on which a site occurred. The first three characters match the first three letters of the map sheet name, e.g. CLA for the Clare map. Sites are then numbered sequentially (three characters) for each map sheet and succeed any previous sites from existing surveys. Sites within the same block of native vegetation are usually also numbered sequentially (two characters) on vegetation surveys in the agricultural zone. However, this was not followed for this fauna

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survey and each site had the suffix '01'. Hence site CLA02901 is site 29 on the Clare map sheet.

Salinity

In order to incorporate the impact of groundwater driven salinity on biodiversity into the survey process it was necessary to also select sites across the range of surface soil salinity levels present in the region. Department of Water, Land and Biodiversity Conservation (DWLBC) Soil and Land Information mapping was used as a guide in this process. This mapping is based on soil landscape units that have been assessed with respect to a range of attributes which influence agricultural use, including salinity (induced by water table), surface texture, wind and water erosion potential, susceptibility to waterlogging, depth to hard rock and soil chemistry. The 'salinity (induced by water table)' attribute of the soil landscape unit was scored according to the severity and proportion of land affected. Seven classes were defined (Table 5).

Table 5.
Surface soil salinity classes.

Class	Nature of Water Table Induced Salinity (and amount of land affected by highly saline seepage)	No. of Sites
A	negligible	89
B	slight salinity; <2%	13
C	moderate salinity; 2-10%	7
D	moderately high salinity; 10-30%	11
E	moderately high to high salinity; 30-50%	2
F	high salinity: >50%	10
G	very high to extreme salinity	8

Source: DWLBC Soil and Land Information (2002).

As most of the water table induced salinity evident in the region is in areas where native vegetation has been cleared it was impossible to select a similar number of sites within each surface soil salinity class. Much of the remnant native vegetation is in class A, hence over 60% of survey sites were within these soil landscape units. The breakdown of sites in this survey (total = 140) per surface soil salinity class is also provided in Table 5.

Sampling

A total of 140 sites were selected and sampled for vegetation, vertebrates and terrestrial macro-invertebrates for this survey. The field survey involved two teams of six or seven biologists working in separate areas for a minimum of four nights based at one location or 'camp'. The teams generally comprised a botanist and assistant, a mammalogist, a herpetologist, two ornithologists and an invertebrate specialist (when available) or a technical assistant. All sites were permanently marked with two iron droppers placed 10m apart. An identification disc was attached to one of these droppers.

Sampling generally occurred in two week blocks (except for the September 2004 trip) with teams shifting camp at the end of the first week. Each team sampled ten sites each week.

As a result ten sites were sampled at each of 14 'camps' spread over five survey trips between October 2003 and November 2004. A list of sites by camp and date of survey is provided in Table 6 and their distribution is shown in Figure 27.

Forty sites were sampled for both flora and fauna in late October 2003 in the Clare – Burra area, based at the Mintaro, Brady Creek (two weeks) and Mongolata camps. Fauna trapping only was conducted in mid-March 2004 at 40 sites in the north of the study area, with camps at Koolunga, Munduney (Spalding), Tooralie (Hallett) and Tarcowie. Vegetation sampling at these sites was delayed until early November 2004 in order to include annual species and to generally have the plants in better condition.

Twenty sites were sampled for flora and fauna in early September 2004 between Port Wakefield and Port Pirie, with camps at Wandearah and the Hummocks. In mid-October 2004 a further 40 sites were sampled for flora and fauna on Yorke Peninsula. Camps were at Maitland, Yorketown, Foul Bay and Innes.

Figure 25.
Members of a survey team putting in a pitfall trap line in southern Yorke Peninsula. (Photo: L.M.B. Heard).

Vegetation

At each site a 30m x 30m vegetation quadrat was sampled and physical information recorded following the method described in Heard and Channon (1997). The physical description of a site included information on its location (using 1:50,000 topographic maps, AMG zone and coordinates and a hand drawn 'mud map') and the physical environment (landform pattern and element, slope, aspect, outcrop and surface strew lithology, and the surface soil texture) using standard data sheets. All vascular plants were recorded along with a measure of their cover/abundance and a structural classification of lifeform. Dominant species in both the overstorey and understorey were also noted at each site.

For each camp area a representative collection of all species recorded was vouchered for later verification and incorporation into the State Herbarium collection.

Table 6.
Camps, sites and visit dates for the Mid North and Yorke Peninsula Biological Survey.

Camp	Site Codes	Visit Dates
Mintaro	CLA02101, CLA02201, CLA02301, CLA02401, CLA02501, CLA02601, CLA02701, CLA02801, CLA02901, CLA0801	Oct 2003
Brady Creek 1	RIV01901, RIV02001, RIV02101, RIV02201, RIV0503, RIV0701, RIV0802, APO02801, APO02901, APO03001	Oct 2003
Mongolata	CAR02301, CAR02401, CAR02501, HB00303, 058BUR11, MON01701, MON01801, MON01901, MON02001, MON02101	Oct 2003
Brady Creek 2	APO02301, APO02401, APO02501, APO02601, APO02701, WOR01901, WOR02001, WOR02101, WOR02201, WOR02301	Oct 2003
Koolunga	GLA01401, GLA01501, GLA01601, GLA01701, KOO01201, KOO01301, KOO01401, KOO01501, SPA01601, SPA01701	Mar 2004 – fauna Nov 2004 - vegetation
Tooralie	CAR02601, CAR02701, CAR02801, CAR02901, CAR03001, HAL02301, HAL02401, HAL02501, HAL02601, HAL02701	Mar 2004 – fauna Nov 2004 - vegetation
Munduney	BUN01001, BUN01101, BUN01201, BUN01301, BUN01401, SPA01201, SPA01301, SPA01401, SPA01501, SPA01801	Mar 2004 – fauna Nov 2004 - vegetation
Tarcowie	JAM01101, JAM01201, JAM01301, JAM01401, BOO01301, LAU01201, PEK01701, PEK01801, PEK01901, PEK02001	Mar 2004 – fauna Nov 2004 - vegetation
Wandearah	CRY01201, CRY01301, CRY01401, MUN01201, MUN01301, WAN01601, WAN01701, WAN01801, WAN01901, WAN02001	Sept 2004
Hummocks	BLY01501, BLY01601, BLY01701, LOC01901, WAK01301, WAK01401, WAK01501, WAK01601, WAK01701, WAK01801	Sept 2004
Yorketown	COO01101, COO01201, COO01301, MIN01101, MIN01201, MIN01301, TUR01301, TUR01401, TUR01501, TUR01601	Oct 2004
Maitland	WAR00301, WAR00401, WAR00501, WAR00601, MAI01801, CUR01401, CUR01501, CUR01601, POR01101, POR01201	Oct 2004
Innes	ALT01101, ALT01201, COR01301, COR01401, HIL01801, PON01301, PON01401, PON01501, PON01601, PON01701	Oct 2004
Foul Bay	COO01401, COO01501, HIL02001, HIL02101, HIL02201, HIL02301, HIL02401, HIL02501, HIL02601, HIL02701	Oct 2004

Interesting plant species observed outside the specified quadrats were also collected, but recorded as opportunistic sightings on separate data sheets with location and habitat details.

Fauna

Fauna sampling followed the standard Biological Survey method described in Owens (2000). At each site reptiles, small terrestrial mammals and frogs (where possible) were sampled using a single fenced pitfall line consisting of six pits (40cm deep and 15cm in diameter) dug 10m apart along a 55m flywire drift-fence. Associated with each pitfall trap-line was a line of 15 baited Elliott traps with a baited wire cage trap at each end. A mixture of peanut butter and rolled oats was used as bait. Each site was sampled for four days and nights. Trapping was consistent for all 140 sites except two. Elliott traps could only be used for three out of the four nights at two grassland sites in the Burra Hills due to strong winds at the time of survey and lack of cover causing the traps to blow away. Explosives were required to create holes for pits at several sites on sheet limestone on southern Yorke Peninsula.

Mammals and reptiles were also recorded by an hour of active searching at each site for individuals or signs, such as scats, diggings or burrows. Spotlight searches were made at night at some sites where time, weather and habitat permitted.

Bats were sampled using harp traps, mist nets and 'Anabat' recording equipment. It was not possible to have consistent effort with this across all sites due to the number of harp traps and Anabats available, weather conditions at time of survey, suitability of habitat at sites and presence of preferable opportune locations (particularly for harp traps).

Birds were sampled via two one hour search efforts, one in the early morning and one in the late afternoon.

Figure 26.
An Anabat sound recording kit set up at a site to capture bat calls overnight (the microphone is housed in a waterproof tube and is here attached to the site marker dropper). (Photo: R. Brandle).

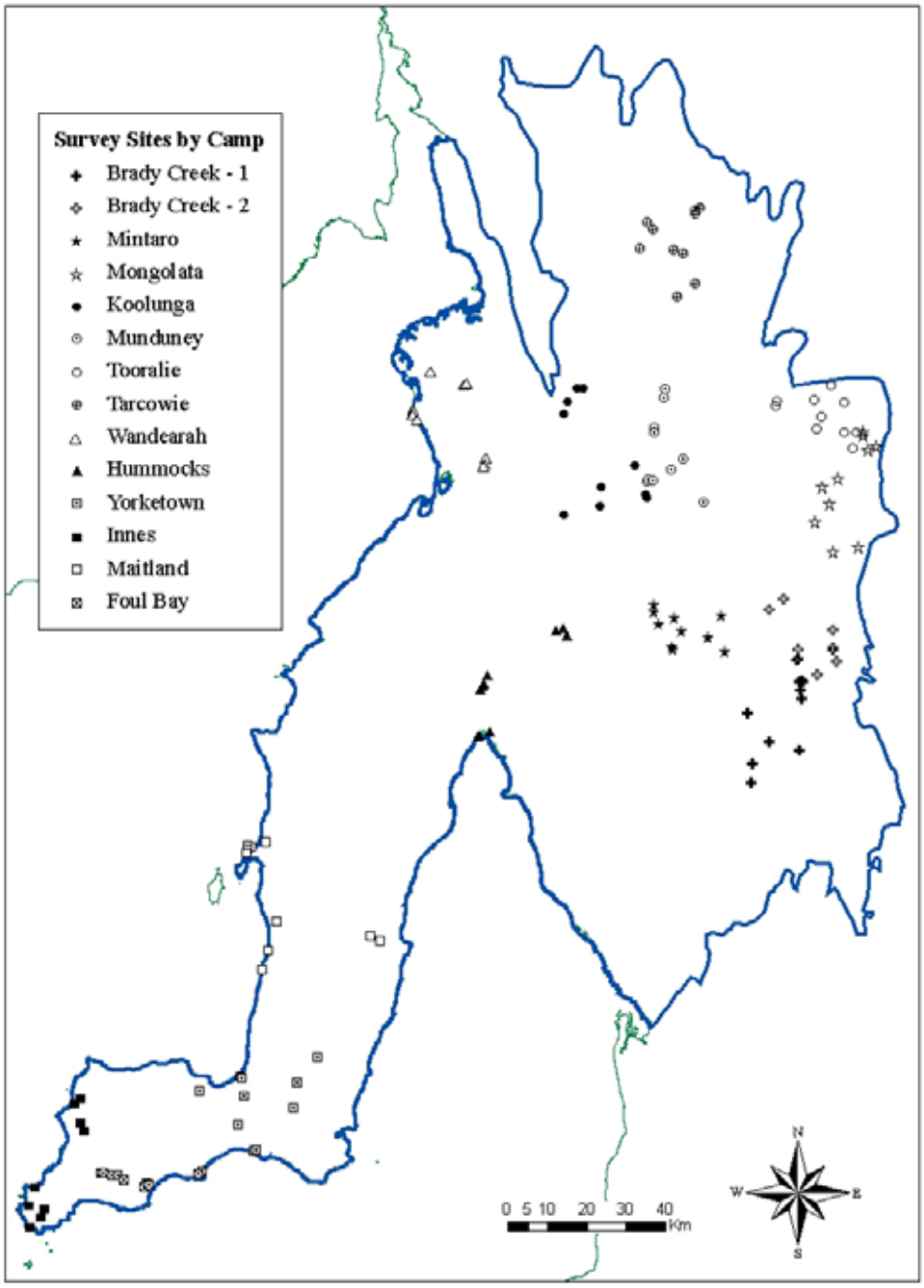


Figure 27.
Survey sites by camp for the Mid North and Yorke Peninsula Biological Survey.

All fauna observations were recorded on standard data sheets and included location, method of capture or sighting, microhabitat, number of individuals and (for small mammals) weight. Generally one specimen of each reptile, small mammal and frog species from each camp area was preserved as a museum specimen depending on the advice of museum curators. Standard collection, killing and preservation methods were employed with approval from the Department for Environment and Heritage's Animal Ethics Committee. Samples of liver tissue were taken from all specimens collected, plus tissue samples from some released animals, and stored in liquid nitrogen for the Evolutionary Biology Unit of the South Australian Museum to use in DNA studies.

Terrestrial macro-invertebrates were sampled using a line of six plastic micro-pitfall vials (10cm deep, 2cm in diameter and filled with 70% alcohol) laid parallel to the main vertebrate fauna pitfalls. Invertebrates were also collected during the one hour vertebrate fauna searches conducted at each site. Specimens were preserved in alcohol for later identification.

A summary of trapping effort at sites is provided in Table 7. In addition to this, any fauna encountered

outside the specific sites were recorded as opportunistic sightings on separate data sheets with location and habitat details. These records provide a more thorough inventory of the fauna of each camp area, particularly species using smaller or more heterogeneous habitats not sampled by the sites. This was particularly the case for birds, for which many significant observations were made away from sites.

Table 7.
Trapping effort at each camp. Trap effort is summarised as trap nights (number of traps x number of nights) and the number of sites where harp traps and Anabats were used.

Week	Group	Camp	Pit Trap Nights	Elliott Trap Nights	Cage Trap Nights	Harp Trap Sites	Anabat Sites
1	1	Mintaro	600	240	80	1	2
	2	Brady Creek	600	240	80	2	6
2	1	Mongolata	570	240	80		
	2	Brady Creek	600	240	80	3	7
3	1	Koolunga	600	240	80	2	9
	2	Tooralie	600	240	80	2	9
4	1	Munduney	600	240	80	2	7
	2	Tarcowie	600	240	80	2	3
5	1	Wandearah	600	240	80	2	1
	2	Hummocks	600	240	80	2	6
6	1	Yorketown	600	240	80	4	3
	2	Maitland	600	240	80	2	7
7	1	Innes	600	240	80	6	4
	2	Foul Bay	600	240	80		1
Total			**8370**	**3360**	**1120**	**30**	**65**

Figure 28.
Survey team members identifying and processing captured animals at night at a base camp. (Photo: L.M.B. Heard).

Data Analysis

The vegetation and vertebrate fauna site data were analysed using PC-ORD exploratory data analysis software (McCune and Mefford 1999) to detect patterns in the data. Unfortunately this was only possible for vegetation and bird data, as there was insufficient mammal, reptile and frog records at sites for numerical analysis to be undertaken, and thus clear patterns to be detectable.

Vegetation

The PC-ORD floristic vegetation analysis clustered sites into groups based on the similarity of cover/abundance scores for perennial species present at 1209 sites from 22 surveys conducted in the study area. Cover/abundance information was chosen as this generally reflects how people perceived the vegetation communities as they observed them in the field.

The complete plant species matrix contained 43,999 records, 1258 species and 1330 sites. In preparation for the analysis a number of sites and species (particularly annuals) were masked out. For full details of this process refer to the Results - Vegetation chapter. The final vegetation matrix used in the analysis contained 20,867 records, 470 perennial species and 1209 sites.

The results displayed a dendrogram of similarity between sites. The dendrogram can be cut at any level of dissimilarity to display a desired number of groupings and should be cut at a level where the vegetation groups represented by the sites in these groupings reflect ecologically meaningful groups (Robertson 1998). The purpose of such a classification is to identify vegetation groups in which many species commonly and repeatedly occur together (and in similar relative abundances) due to particular environmental factors (Robertson 1998).

Descriptions of the 83 floristic vegetation groups defined are provided in the Results - Vegetation chapter.

Fauna

Presence/absence data for species recorded at 170 sites from six surveys were used in the PC-ORD analysis for birds. The final bird matrix contained 2,171 records, 118 bird species and 170 sites. Details of the data preparation for the bird analysis and descriptions of the seven bird groups defined are provided in the Birds chapter.

Figure 29.
Baiting an elliott trap at commencement of four day trapping period. (Photo: L.M.B. Heard).

Figure 30.
A pitfall line showing the drift fence positioned across the top of one of the pitfall traps. (Photo: N. Neagle).

Figure 31.
Digging holes for pitfall traps at a site in the Tothill Range. (Photo: L.M.B. Heard).

Figure 32.
Survey team members showing captured animals to students from the Robertstown Primary School. (Photo: L.M.B. Heard).

VEGETATION MAPPING METHODS

L.A. Malcolm[1], F.M. Smith[1] and L.C. Jones[1]

Introduction

As plant species tend to occur naturally in particular assemblages across the landscape, their distribution is usually associated with the complex interaction of environmental factors such as landform, soil type and rainfall. By producing vegetation maps of this region we have aimed to identify where these plant species or species assemblages occur.

Floristic mapping projects are generally carried out as discrete projects that include a vegetation survey (forming part of the Biological Survey of South Australia) and a floristic analysis. Several vegetation surveys, floristic analyses and subsequent vegetation mapping projects for areas within the MNYPBS study area were completed prior to the MNYPBS floristic analysis presented in this report. These regional mapping projects include Mid North, Yorke Peninsula, Southern Mt. Lofty Ranges, Western Murray Flats and South Olary Plains (Figure 33). The extent of the Mid North and Yorke Peninsula vegetation mapping projects make up the majority of the MNYPBS region (Table 8). Consequently, the floristic groups described in the Results – Vegetation chapter of this report have not been mapped. These floristic groups differ somewhat to those described in the Vegetation Mapping section of the Results Chapter and can be compared in Table 21 and Appendix 12. This difference reflects variations in data availability, analysis methods, results and interpretation at the time of these earlier mapping projects.

The general process for vegetation mapping described in this chapter applies to the above mentioned regional vegetation mapping projects. Table 8 indicates floristic mapping region, details of aerial photography, mapping scale and percentage area of the MNYPBS study area. The South Olary Plains and Spencer Gulf vegetation mapping scales differ significantly.

The foundation to the floristic vegetation mapping within the agricultural region is to map the extent of native vegetation cover. This was digitally captured from DEH 1:50,000 topographic map sheets for regions within the agricultural district and updated generally using 1:40,000 aerial photography. Roads and other mapped cultural features assisted in delineating these boundaries. Generally vegetation cover greater than 1ha was digitally captured within the agricultural region. This provided the distribution (presence/absence) of native vegetation and formed the basis for mapping floristic boundaries. For the South Olary Plains, largely a pastoral region of continuous native vegetation, presence/absence vegetation cover mapping was minimal.

Native vegetation cover maps were produced on a 1:50,000 map sheet tile basis (1:100,000 for South Olary Plains) on transparent mylar. This allowed for interpretation of vegetation boundaries from aerial photographs. Date of photography used differed between and within regions as it depended on time of mapping and most recent available imagery (Table 8).

Pre-mapping Floristic Analysis

Analysis of floristic survey data was completed for each regional mapping project (except Spencer Gulf) to determine floristic mapping groups. This was done using the CSIRO's exploratory data analysis package PATN (Belbin 1994). PATN analysis provided an

Table 8.
Regional Survey Mapping Projects within the MNYPBS Study Area.

Floristic Mapping Region	Aerial Photography Date (Note: some imagery dates outside MNYPBS study area not included)	Colour Aerial Photography Scale	Mapping Scale	% Area of MNYPBS Study Area
Mid North	1987 to 1994	1:40,000	1:40,000	52
Yorke Peninsula	1991 – 1993	1:40,000	1:40,000	26
Western Murray Flats	1985 – 1991	1:40,000	1:40,000	3
Spencer Gulf Coastal	2002	1:80,000	1:27,000	2
South Olary Plains	unknown	1:86,600	1:100,000	4
Southern Mt. Lofty Ranges	1996, 2000 (predominantly)	1:40,000	1:40,000	3

[1] Environmental Information and Analysis Branch, Environmental Information, Department for Environment and Heritage, GPO Box 1047, Adelaide SA 5001.

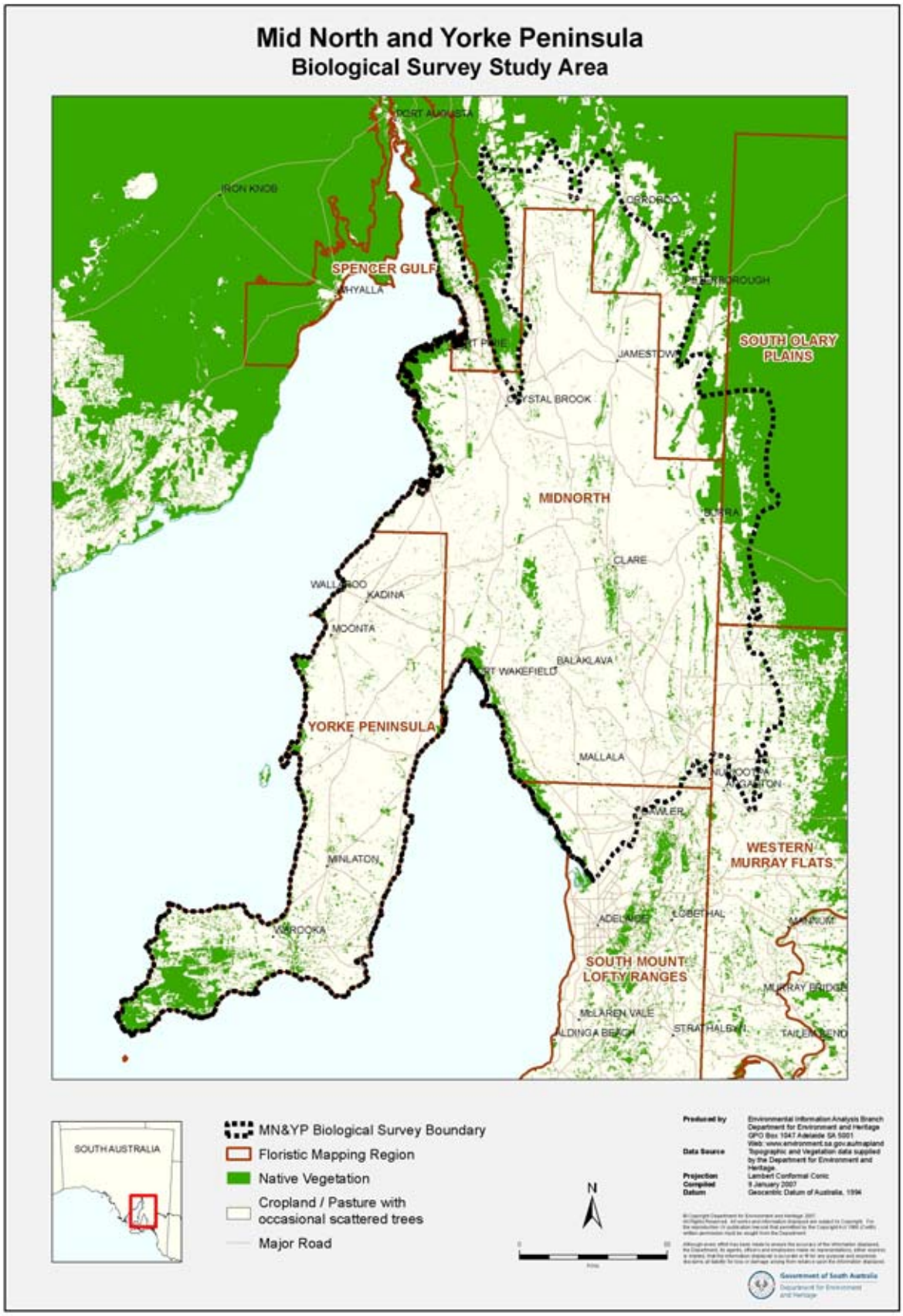


Figure 33.
Mid North and Yorke Peninsula Biological Survey study area with major floristic vegetation mapping boundaries.

objective, repeatable summary of the data from each surveyed quadrat, by applying, either singly or collectively, analytical procedures to the multivariate dataset. These procedures include sorting, classification and ordination of the dataset. The analytical process chosen within PATN followed that used in previous studies.

Analysis techniques and masking out of specific records varied between regional project analyses. These included the removing of records such as sites with less than four species, species poor quadrats, unique sites and species occurring once. Numerical ranking applied to a species' Braun Blanquet cover/abundance score in PATN may have varied between regional analyses. In all the regional analyses only perennial species were used (although the perennial nature of some species may have varied between regions). Refer to the published biological survey reports for Southern Mount Lofty Ranges (Armstrong, Croft and Foulkes 2003) and South Olary Plains (Forward and Robinson 1996), and unpublished reports for Yorke Peninsula (Sherrah 1997) and Western Murray Flats (Lock and Goodwins 1993) for details on analysis and mapping.

PATN analysis provides a dendrogram of similarity between surveyed sites from which a number of floristic groups can be derived. Statistical analysis of the resulting floristic groups provided information on species composition, distribution of cover/abundance scores and proportion of occurrence of each species. These were used to help describe a floristic name to use for mapping. The technique for determining floristic group structural description varied between each region. In the case of the original Mid North mapping project, survey site structure was determined in the field using canopy cover and life form/height. Following PATN analysis and determination of vegetation groups, structure was then determined by 'averaging' the surveyed structural descriptions. These were then translated to the SA Vegetation Structural Formation table (Appendix 2).

In the case of the Mid North mapping project, PATN analysis provided a good indication of many floristic groups. However, further sub-division of many groups was required to provide meaningful sub-groups from which to map the landscape.

In a number of regional mapping projects new floristic mapping groups known to exist in the region (but not recorded at sites) were created. These were largely the result of additional field checking knowledge within the region. Hence the analysis was often a useful tool which established a significant floristic base from which to expand on and map.

The Spencer Gulf Coastal vegetation mapping project methodology differed from the above regional projects. In this case overstorey, understorey and structure from biological survey sites from a number of surveys within the study area were summarised to derive vegetation mapping group descriptions.

Floristic Mapping

Using Geographic Information System (Environmental Systems Research Institute's ARC/Info) software, individual mylar film map sheets were produced with base information including vegetation cover. These were printed at the scale of the aerial photography being used. Using stereo pairs of colour aerial photographs viewed through a stereoscope, vegetation types were mapped, extrapolating descriptions from survey site locations and floristic groups assigned to them. This required recognising textural (height, canopy size and spacing) and tonal (foliage colour) qualities and patterns characteristic of each floristic group at a known location along with any identifiable landform, soil and surface stone characteristics. Floristic mapping was aided by additional references, including unpublished field notes, published references, Heritage Agreement and NPWSA Reserve plant species, vegetation association lists and any existing mapped resource. Early references found useful for the Mid North regional mapping project were Wood (1937), Boomsma (1946), Boomsma (1949) and Todd (1965).

Vegetation groups were extrapolated into surrounding blocks of native vegetation (polygons) where surveyed sites were absent. Delineating boundaries between changing vegetation types can be difficult, as in reality these boundaries are often gradual. These areas represent changing species composition and their associated environmental factors. Therefore, boundary lines drawn between two vegetation types should not be interpreted as definitive but used as an indication of local change. Native vegetation does not always occur as discrete discernible units that are mappable. They may be intergrading or occur in complex mosaic patterns where several vegetation groups may occur in a delineated block or area. In these situations where the pattern is more complex, a mosaic of one or more floristic groups in order of dominance are indicated in the mapping. In the case of the South Olary Plains primary, secondary and tertiary vegetation mapping units were mapped (Forward and Robinson 1996).

To aid in the mapping process ground truthing was conducted where possible. This was particularly useful, for example, when discerning between mallee communities where tones and textures are similar on aerial photos.

Vegetation boundaries and floristic codes drafted onto map sheets were digitised and coded. Once completed and checked all map sheets were appended into a regional coverage and mapping and coding across map sheet boundaries checked (edge matched). Once complete, appropriate lookup tables were compiled for mapping of individual 1:50,000 map sheets (except for South Olary Plains where mapping was done at 1:100,000). Appropriate floristic lookup tables were

then created to produce regional scale maps, generally at 1:250,000.

The Southern Mount Lofty Ranges mapping (which comprises a small proportion of the MNYPBS study area) was updated since the original analysis and mapping project in 1986. Original vegetation groups from the analysis were used as a guide to define vegetation groups and were altered based on significant additional site information and their appropriateness as a vegetation mapping unit. Additional vegetation groups were created using post-1986 vegetation site data, extensive field checking, expert knowledge and relevant literature.

The Western Murray Flats floristic descriptions were revised and updated in 1998 from the original 1993 analysis and mapping project using 1985-1991 colour aerial photography and extensive field checking.

National Vegetation Information System

More recently the regional vegetation mapping datasets for all of South Australia were translated into the National Vegetation Information System (NVIS), a part of the South Australian Vegetation Information System Database (SAVEG). This now represents the State Government's key native floristic vegetation mapping layer for SA. The vegetation map for the MNYPBS study area presented in this report is derived from NVIS attribution.

The vegetation mapping descriptions have been translated into the NVIS structure (ESCAVI 2003). This is floristic information and structural (height, cover and growth form) information summarised into height layers. In the compilation of a statewide layer each regional mapping group is compared for similarity to create a unique list of vegetation groups for the State based on dominant species, structure and environmental (including location) variables. Each unique group is given a unique statewide code (SAVEGID), relating to an original regional code. The vegetation information is based on a subjective interpretation of each regional vegetation mapping group in this format. The Mid North Native Grasslands mapping project which includes 'known' grassland locations not included in floristic mapping has also been attributed using NVIS.

The species, growth form and structural information are based on the site data or field work undertaken by the mapper. Structure is generally determined from height and cover data collected from surveys and re-summarised into a structural description. The completeness of the NVIS information is variable and based on the available biological survey site data. The structural descriptions for groups described in NVIS (Appendix 3) are slightly different to those defined as part of Biological Survey of SA (Appendix 2).

Vegetation groups compiled to meet the NVIS attribute standards can be summarised to the NVIS hierarchy that is consistent for all national vegetation data. All vegetation attribute data is stored in an Oracle database called SAVEG. NVIS descriptions supersede the major regional mapping datasets. The vegetation mapping data is stored and maintained within the Department for Environment and Heritage Environmental GIS (EGIS) databases.

The mapped vegetation communities described in this chapter and the broad vegetation mapping groups in the accompanying maps are derived from the primary vegetation code. Any mosaiced vegetation groups have not been described. Where floristic mapping does not exist native vegetation cover is represented only. This vegetation is considered not cleared but could have any degree of modification.

Mapping vegetation groups often indicates the presence of associated understorey species. However, since it is the overstorey tones and textures that are interpreted from aerial photography, presence, absence and extent of modification of the understorey layer is often unknown. It is also important to note some vegetation communities may be omitted or under-represented in the mapping. This is due to the difficulty in delineating some boundaries, especially grasslands, from the aerial photography and communities not being represented in the survey sampling or covered in field checking. The most under-represented plant communities in the MNYPBS mapping are native grasslands, sedgelands/reedbeds, samphire/chenopod shrublands, less common communities and roadside vegetation. Narrow strips of roadside vegetation, small vegetated areas (<1ha) and scattered trees generally have not been mapped. Users also need to take into account land cover changes and vegetation growth since the date of the aerial photography used.

RESULTS

VEGETATION

N. Neagle[1]

Introduction

The vegetation of the Mid North and Yorke Peninsula consists of a broad diversity of communities resulting from the wide range of environmental factors (topography, soil, substrate and rainfall) present across the region. Along with the South East it is one of the most extensively cleared regions in South Australia, with only 13.1% native vegetation cover[2] present today. What remains is also highly fragmented.

The survey area is bounded to the west and south west by the sea, to the south by the Southern Mount Lofty Ranges and the northern limits of metropolitan Adelaide, to the east by the semi-arid plains of the Eastern Districts, and to the north by the Southern Flinders Ranges and northern extremity of agricultural cultivation.

The region is characterised by gently undulating plains and low hills, with a series of low ridgelines in the Mid North aligned north-south (Graham *et al.* 2001) that link the Southern Mount Lofty Ranges with the Southern Flinders Ranges. These reach a highpoint at Mount Bryan (elevation 936m), while much of the nearby Burra Hills are above 600m and the Narien Range north of Jamestown has areas above 700m.

The drier inland ranges are vegetated mainly with native grasslands dominated by Mat-rushes (*Lomandra* spp.), Spear-grasses (*Austrostipa* spp.), Common Wallaby-grass (*Austrodanthonia caespitosa*), Kangaroo Grass (*Themeda triandra*) and Spinifex (*Triodia* spp.), and by Drooping Sheoak (*Allocasuarina verticillata*) and Southern Cypress Pine (*Callitris gracilis*) Low Woodlands.

Throughout the Mid North, the broad intervening valleys have been extensively cleared for agriculture and little intact native vegetation remains. What does remain is restricted to narrow, linear remnants fringing watercourses such as Burra Creek and the Broughton, Wakefield, Light and Rocky Rivers. Here are found Sea Rush (*Juncus kraussii*) Sedgelands, Common Reed (*Phragmites australis*) and Narrow-leaf Bulrush (*Typha domingensis*) Tussock Grasslands, Native Myrtle (*Myoporum montanum*) Tall Shrublands and, at moister sites, River Red Gum (*Eucalyptus camaldulensis* var. *camaldulensis*) Woodlands.

The moister ranges (Clare Hills, Tothill Range, Yackamoorundie Hills and Narien Range) support woodlands and open forests of Inland South Australian Blue Gum (*Eucalyptus leucoxylon* ssp. *pruinosa*) and Peppermint Box (*E. odorata*). The lower hills and plains adjacent to these ridgelines support Mallee Box (*E. porosa*), Red Mallee (*E. oleosa* ssp.), Yorrell (*E. gracilis*), Beaked Red Mallee (*E. socialis*) and Gilja (*E. brachycalyx*) Open Mallee.

On the semi-arid northern margins of the survey area, east of the Burra Hills and the coastal plain north of Port Pirie are limited examples of Black Bluebush (*Maireana pyramidata*) and Bladder Saltbush (*Atriplex vesicaria*) Low Shrublands, Black Oak (*Casuarina pauper*) Low Woodlands, plus Narrow-leaf Hopbush (*Dodonaea viscosa* ssp. *angustissima*), Wallowa (*Acacia calamifolia*) or Elegant Wattle (*A. victoriae* ssp. *victoriae*) Tall Shrublands.

The sands and sandy loams, generally overlying calcrete or limestone, on Yorke Peninsula support a variety of mallee and sedgeland communities. Mallee Box (*Eucalyptus porosa*), Narrow-leaf Mallee (*E. leptophylla*) and Ridge-fruited Mallee (*E. incrassata*) Mallee communities dominate the few remnants of central Yorke Peninsula. The more extensive blocks of native vegetation at the foot of the Peninsula occur on sheet limestone and are dominated by Coastal White Mallee (*E. diversifolia* ssp. *diversifolia*) and Kingscote Mallee (*E. rugosa*). The former may often occur as a low mallee community on the windswept clifftops along the coast. Also present in southern Yorke Peninsula in sandy sub-coastal areas are Dryland Tea-tree (*Melaleuca lanceolata*) Tall Shrublands and Clustered Sword-sedge (*Lepidosperma congestum*), Scented Mat-rush (*Lomandra effusa*) and Black Grass Saw-sedge (*Gahnia lanigera*) Sedgelands.

[1] Biological Survey and Monitoring Section, Science and Conservation Directorate, Department for Environment and Heritage, GPO Box 1047, Adelaide SA 5001.
[2] Based on DEH native vegetation mapping for the Mid North and Yorke Peninsula Biological Survey study area.

Much of the remaining vegetation of Yorke Peninsula and the northern Adelaide Plain is confined to a thin strip along the coastline. Here are found shrublands variously dominated by Umbrella Bush (*Acacia ligulata*), Coast Daisy-bush (*Olearia axillaris*) and Coast Beard-heath (*Leucopogon parviflorus*).

The survey area also contains extensive areas of naturally saline land that support a number of halophytic vegetation communities. These areas are distributed along the coast north of Adelaide, the head of Gulf St Vincent, in a low-lying area east of Lochiel, saline swamps between Warooka and Yorketown, and along the coast between Port Pirie and Port Broughton. A variety of low shrublands inhabit these areas, dominated by Grey Samphire (*Halosarcia halocnemoides*), Brown-head Samphire (*H. indica* ssp. *leiostachya*), Marsh Saltbush (*Atriplex paludosa* ssp. *cordata*) or Shrubby Samphire (*Sclerostegia arbuscula*). Thatching Grass (*Gahnia filum*) Sedgelands are found in the saline swamps of southern Yorke Peninsula, as are Swamp Paper-bark (*Melaleuca halmaturorum*) Low Open Forests. Grey Mangrove (*Avicennia marina* ssp. *marina*) Low Closed Forests occur on tidal flats north of Adelaide, at the head of Gulf St Vincent and near Port Pirie.

This chapter summarises the results of the field survey conducted for the Mid North and Yorke Peninsula Biological Survey plus data compiled from 24 other surveys undertaken in the study area (Table 9). The combined data sets have been used for the floristic analysis. The regional vegetation mapping had occurred earlier in several stages following each of the vegetation surveys conducted by the former Geographic and Analysis Unit (Department for Environment and Planning; Department of Housing and Urban Development) - the Mid North (1992), Western Murray Flats (1992), Yorke Peninsula (1994) and Northern Adelaide Plains (1996). As can be seen many vegetation surveys have been conducted in the Mid North and Yorke Peninsula, but this is the first time a floristic analysis has been made using data from across the whole region.

Survey Coverage

This chapter has compiled data from 1330 vegetation survey sites sampled within the study area from 25 separate surveys (Table 9). Of these sites 1209 (from 22 surveys) have been used in the floristic analysis. Locations of all 1330 sites are presented in Figure 34 and all sites used in the floristic analysis are displayed by Survey in Figures 35-38.

Most of the sites that were omitted from the analysis were from Innes National Park and Mid North and Western Murray Flats Surveys, where no cover/ abundance data were collected, and the Mount Lofty Survey, which used 10m x 10m sites (inconsistent with the 30m x 30m site size employed on all other surveys).

With 1330 sites distributed across an extensively cleared region where the remnant vegetation is highly fragmented, the site coverage appears to be very good. Perhaps the only possible gap is in native grassland communities in the north and east of the study area. Despite increased awareness of these communities they remain inadequately mapped.

Site representation per landform element category is shown in Figure 39. The major landform elements present in the region - hills (total of hill crest, slope and footslope - 27.1%), plains (total of all types of plain - 25.9%) and dunes (total of all dune types - 15.9%) - are all well represented. Sites on watercourses, identified by the stream channel, stream bed, drainage depression, flood out and channel bench categories, are under represented at only 3.2%. However, this may reflect the paucity of intact native vegetation remaining in these areas.

The predominant soil types across the region of loams, sandy loams and clay loams (on hills and plains) are very well represented, with 57.0% of sites. Sites on sand are also well represented, with 21.7%. As expected many of these are in coastal areas. Clay soils of plains and valleys are less well represented with only 10.0%, which again is possibly due to the absence of native vegetation on these soils (refer Figure 40).

Site representation for each soil salinity class closely reflects the extent of each class in the study area. As such 66.8% of sites are located in class A land units and 13.5% in class B units. Class C-G land units all have less than 7.0% each (and <20% in total), reflecting their relatively limited extent across the study area (Figure 41).

Total Plant Records

The 1330 vegetation survey sites in the study area represent 43999 plant records. A further 688 records come from opportunistic sightings. A total of 1282 plant taxa were recorded, of which 951 (74.2%) were native and 331 (25.8%) introduced.

The Mid North and Yorke Peninsula Biological Survey alone sampled 140 vegetation sites, compiled 6475 plant records and had a total of 748 unique plant taxa. Of these, 577 (77.1%) were native and 171 (22.9%) introduced. The survey collected 3546 vouchered specimens for identification and incorporation into the State Herbarium collection. A list of all the distinct plant taxa from all surveys and opportunistic sightings in the study area together with conservation status, sampling frequency and comments on taxonomy and nomenclature are presented in Appendix 4. In addition, the sampling frequency of each plant taxa for each of the 25 surveys in the study area, plus opportunistic sightings, is provided in Appendix 5.

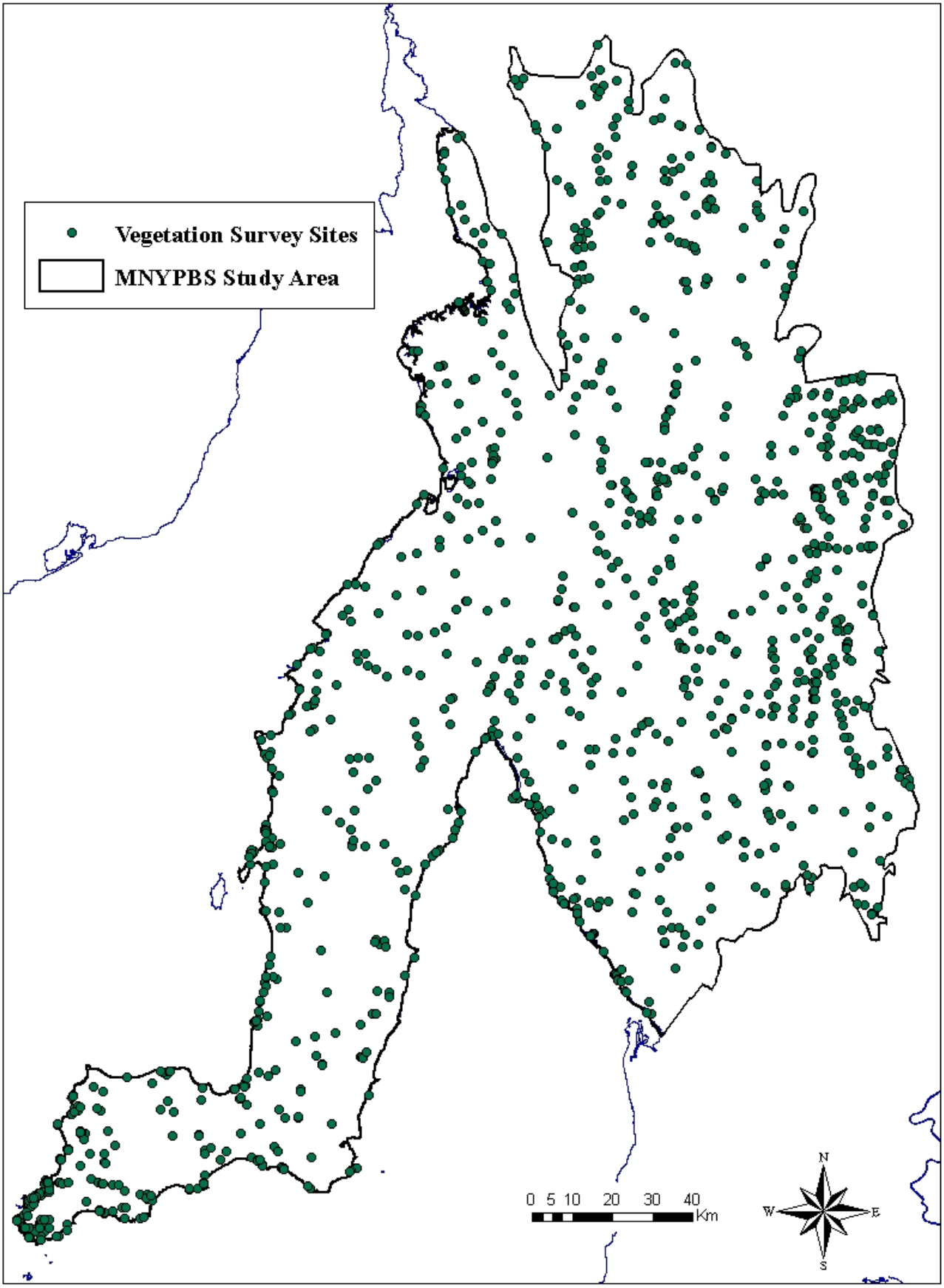


Figure 34.
Location of all vegetation survey sites in the Mid North and Yorke Peninsula Biological Survey study area.

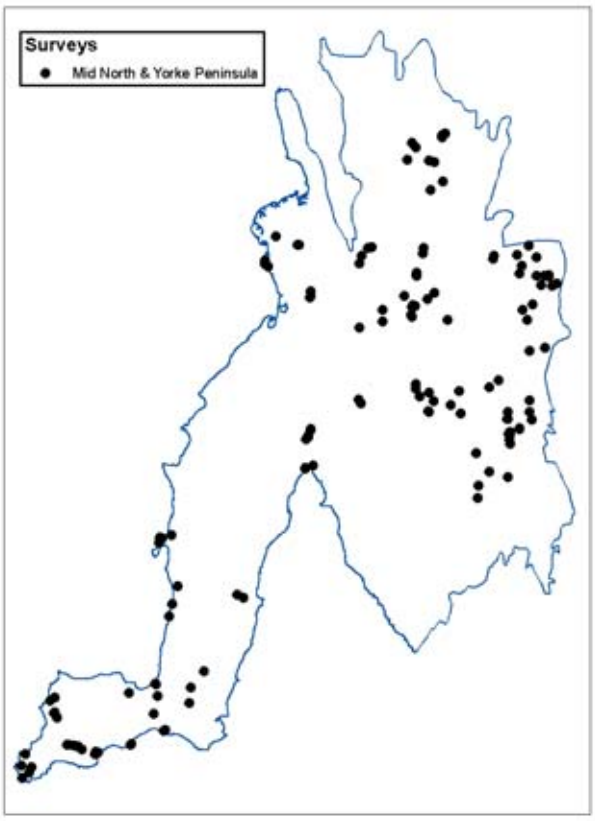


Figure 35.
Location of Mid North and Yorke Peninsula Biological Survey sites.

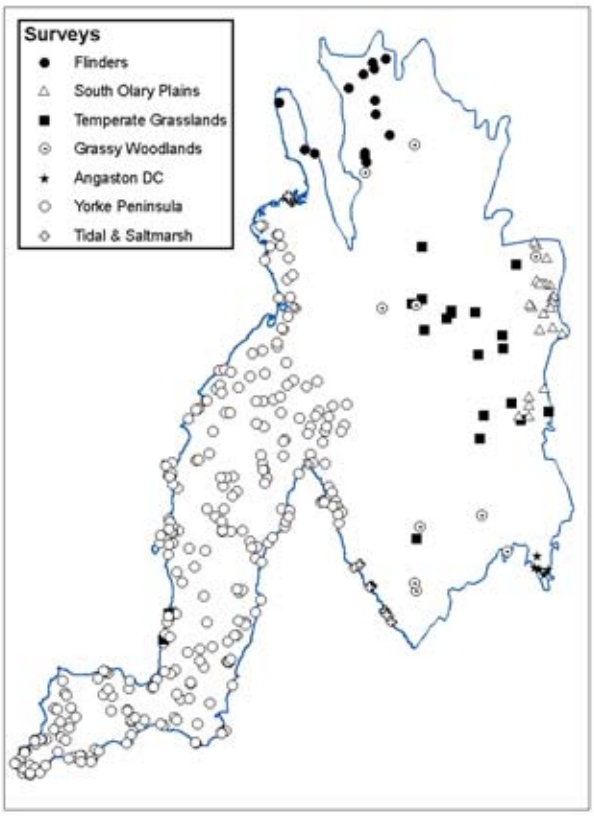


Figure 37.
Location of vegetation survey sites from surveys conducted in the study area - part 2.

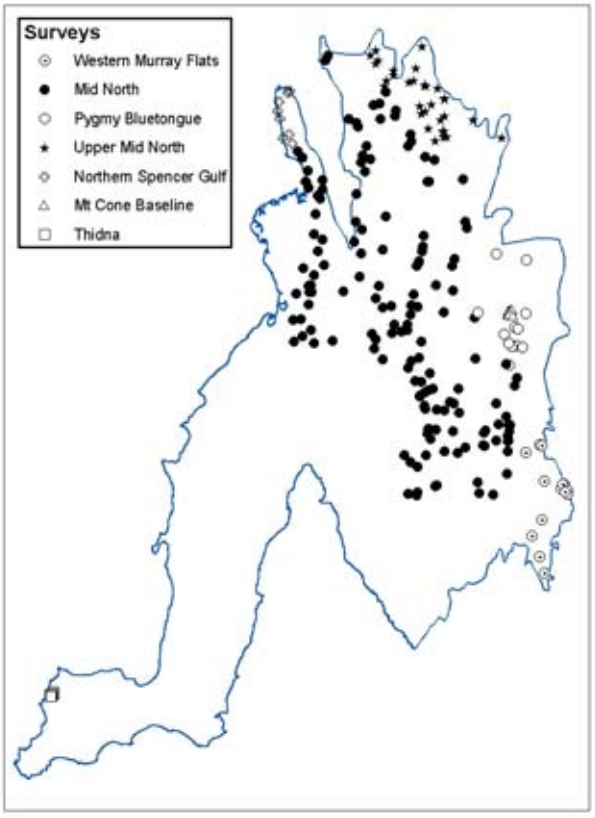


Figure 36.
Location of vegetation survey sites from surveys conducted in the study area - part 1.

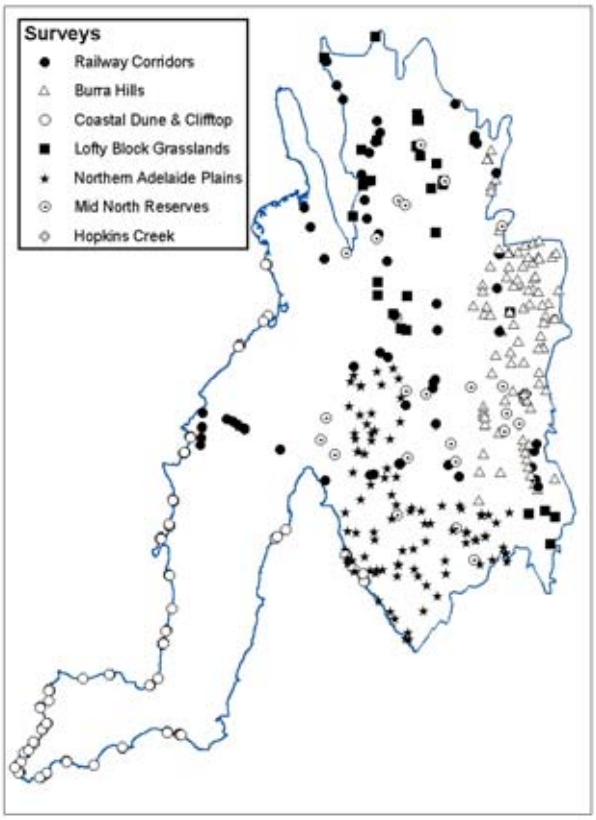


Figure 38.
Location of vegetation survey sites from surveys conducted in the study area - part 3.

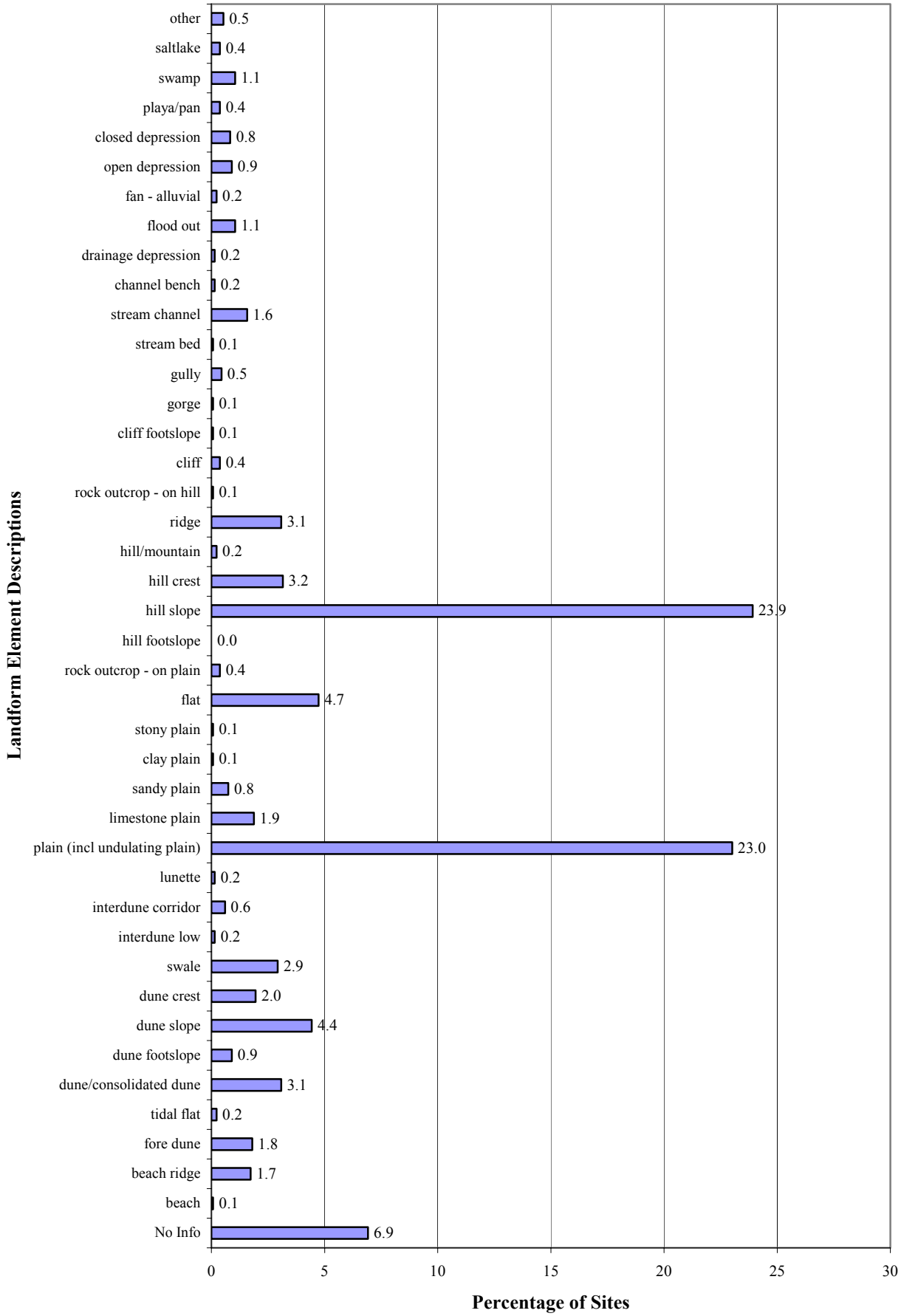


Figure 39.
Percent frequency of sites sampled in each landform element type.

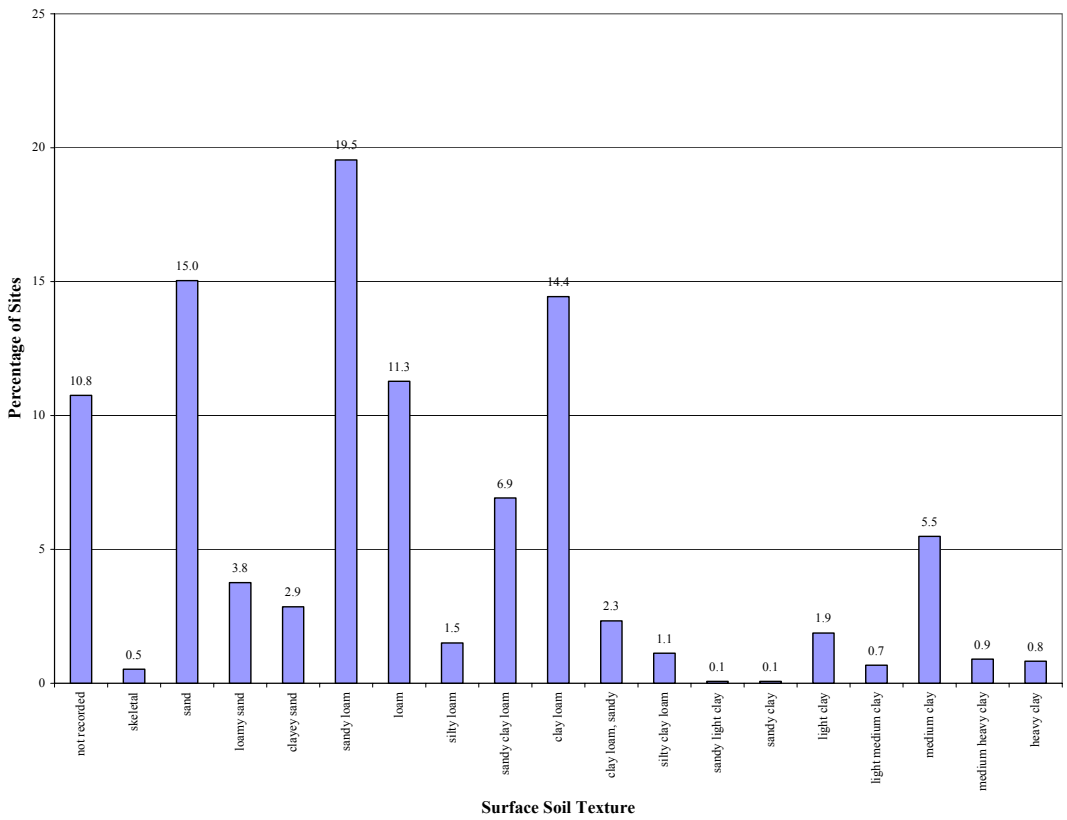


Figure 40.
Percent frequency of sites sampled in each surface soil category.

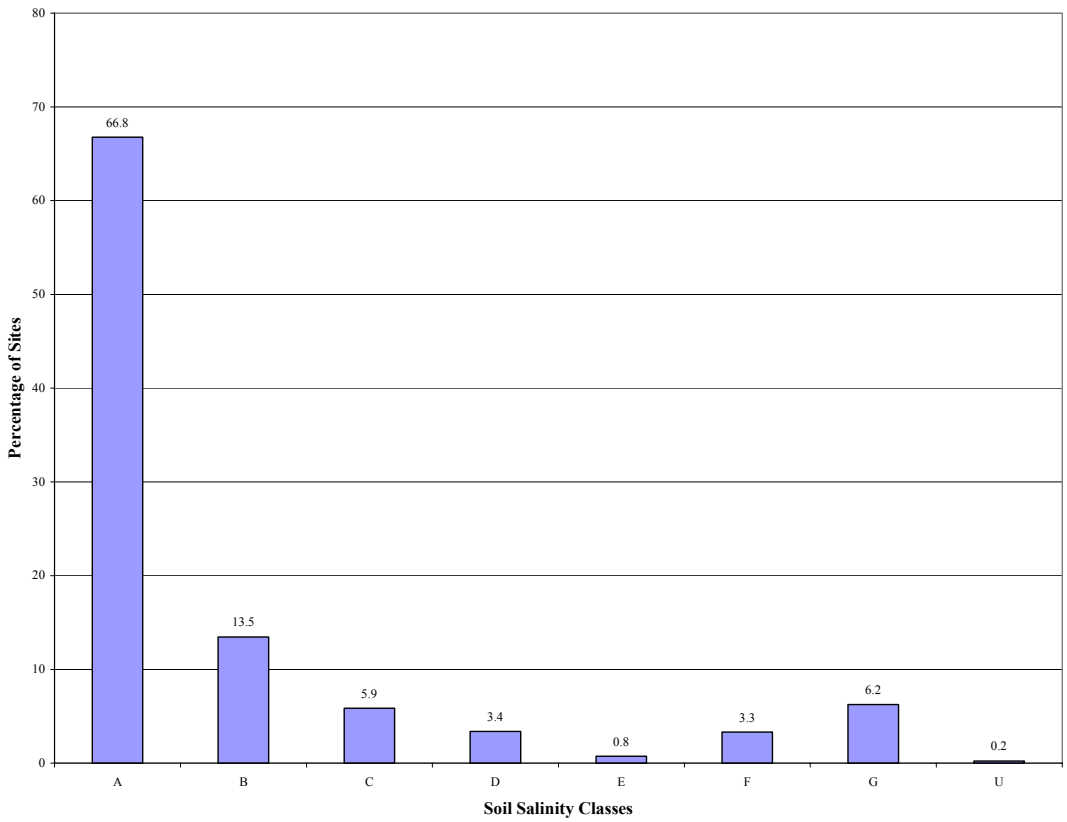


Figure 41.
Percent frequency of sites sampled in each soil salinity class, where class A = nil salinity and class G = extreme salinity (class U = urban locality, no information).

TABLE 9.
Biological survey effort within the study area, plus the total number of vegetation sites and the number contributing to the Mid North and Yorke Peninsula floristic analysis.

Survey No.	Survey Name	Dates	No. of Vegetation Sites Within the Study Area	No. of Vegetation Sites Used in the Floristic Analysis
5	Mt Lofty	1986	6	0
6	Flinders	1986	15	14
13	Innes National Park	1976 - 1977 & 1999	56	0
24	South Olary Plains	1991	25	24
31	Mid North & Western Murray Flats	1980	35	0
45	Western Murray Flats	1992	15	14
46	Temperate Grasslands – WWF	1991 - 1995	22	21
49	Mid North	1992	163	159
51	Railway Corridors (NCS)	1992	58	55
54	Grassy Woodlands	1993 - 1994	10	10
55	Angaston District Council	1993	5	5
58	Pygmy Bluetongue Project	1992 - 1996	14	13
62	Burra Hills	1994	92	91
63	Yorke Peninsula	1994	270	263
78	Tidal & Saltmarsh Communities	1993 - 2000	42	40
82	Coastal Dune & Clifftop	1997	139	139
83	Lofty Block Grasslands	1995 - 1996	32	32
86	Upper Mid North	1996	34	34
87	Northern Spencer Gulf	1996	8	8
88	Northern Adelaide Plains	1996	97	97
96	Mid North Reserves (NCS)	1997	27	27
116	Mt Cone Baseline Survey	1997	12	12
148	Thidna (YP) Saline Vegetation	2002	6	6
162	Mid North & Yorke Peninsula	2003 - 2004	140	138
168	Hopkins Creek (NCS)	2003	7	7
196	Warrenben CP Flora & Fauna Survey	2004	#	0
	Total Sites (from 26 Surveys)		**1330**	**1209**

= Six sites were surveyed and fauna data only has been included in this report.

Plant Families

Plant taxa from a total of 92 Families are represented in survey and opportunistic sighting records for the study area. The two Families with the greatest number of taxa recorded were Compositae (169 taxa or 13.2% of all taxa) and Gramineae (160 taxa or 12.5%) (refer Table 10). The latter, particularly, is evidence of the extent and diversity of grassland and grassy woodland communities throughout the study area. There are, however, a high number of exotic grass taxa, 67 or 41.9% of all Gramineae taxa, in this total. By comparison, 43 exotic daisy taxa were recorded. This represents 25.4% of all recorded Compositae taxa. The number of taxa and plant records for each of the 92 Families is presented in Appendix 6.

Species Richness

Of the 1330 vegetation survey sites in the study area 41 have been omitted from this species richness analysis. These are five sites from the 1986 Mount Lofty Survey, which employed 10m x 10m sites (and not 30m x 30m as per all other surveys), and 36 sites from the 1980 Mid North and Western Murray Flats Survey, where plant taxa were recorded along a transect, rather than in sites (Rowett *et al.* 1981). Species richness at the remaining 1289 sites varied from 1 to 98 taxa, and within the 140 Mid North and Yorke Peninsula Biological Survey sites from 9 to 90.

Table 10.
Families with the most number of taxa recorded.

Family	Native Taxa	Exotic Taxa	Total Taxa
Compositae	126	43	169
Gramineae	93	67	160
Leguminosae	79	27	106
Chenopodiaceae	83	2	85
Orchidaceae	61		61
Cyperaceae	40	1	41
Liliaceae	28	10	38
Myrtaceae	38		38
Cruciferae	9	17	26
Goodeniaceae	26		26
Caryophyllaceae	1	23	24

The wide variety of vegetation communities and landforms, as well as the large number of surveys conducted across the study area (and hence the

Figure 42.
Gahnia filum **(Thatching Grass) Closed Sedgeland in a swamp north of Yorketown. (Photo: N. Neagle).**

Figure 43.
Pultenaea kraehenbuehlii **(Tothill Bush-pea) is a shrub species endemic to the Tothill Ranges. (Photo: P. Lang).**

Figure 44.
The recently rediscovered ***Acanthocladium dockeri*** **(Spiny Everlasting) is now known to occur in a few very small roadside populations in the Mid North. (Photo: P. Lang).**

Figure 45.
A single population of ***Eucalyptus globulus*** **ssp.** ***bicostata*** **(Southern Blue Gum) occurs in South Australia on the slopes of Mt Bryan. (Photo: P. Lang).**

Figure 46.
The nationally vulnerable ***Olearia pannosa*** **ssp.** ***pannosa*** **(Silver Daisy-bush) was recorded at three widespread sites on the current survey – Scrubby Range, Narien Range and South Hummocks. (Photo: A. Robinson).**

Figure 47.
A widespread and abundant weed of the region, ***Avena barbata*** **(Bearded Oat) was recorded at more sites (672) than any other species. In this scene it dominates the understorey of an** ***Allocasuarina verticillata*** **(Drooping Sheoak) Low Woodland remnant. (Photo: N. Neagle).**

variability in sampling effort), complicate the interpretation of variations in species richness. One problem is the small sample size for many of the physical attribute categories for sites.

The frequency histogram of species richness (Figure 49) shows sites within the MNYPBS to be more species rich than the average of all surveys in the study area. This is indicated by it having a higher percentage (60.0% compared to 31.7% for all surveys) of sites with high numbers of taxa (41-90 per site). This is supported by it having a mean of 46.3 and median of 45 taxa per site compared to all surveys with a mean of 33.8 and a median of 32 taxa per site. The reason for this variation is not entirely evident but is most likely due to three main factors. Firstly, the MNYPBS sampled a wide range of vegetation types across the study area, and secondly, each site was sampled in spring (between September 7th and November 6th). In contrast some of the other surveys were either specific to habitats with low species richness (e.g. SU78 - Tidal and Saltmarsh Communities) or confined to sub-regions within the study area with semi-arid habitats with low species richness (e.g. SU6 - Flinders and SU24 - South Olary Plains) (refer Figure 50). Thirdly, local experts were consulted during the site selection phase for advice on the best (i.e. most floristically intact) patches of native vegetation worth sampling. This likely resulted in a selection of sites with above average floristic diversity.

Among the other surveys with high species richness were the Hopkins Creek (NCS) Survey (SU168) with sites in open forest and woodland communities on hill slopes and in stream channels, and two grassland surveys – Grassy Woodlands (SU54) and Lofty Block Grasslands (SU83).

Figure 48.
This *Eucalyptus diversifolia* ssp. *diversifolia* Very Open Low Mallee near the Gap in Innes NP was one of the most species rich communities sampled. (Photo: N. Neagle).

The very open low mallee is the most species rich of all structural vegetation formations (Figures 48 and 51). The five sites in this formation are all on loamy sands or sandy loams on southern Yorke Peninsula, dominated by *Eucalyptus diversifolia* ssp. *diversifolia* and contain a variety of sandy heath species.

In general, many of the structural formations with the greatest species richness are among the open forests and woodlands. These tend to be either grassy woodlands, rich in herb and grass species, or multi-layered communities. Several grassland formations also have high species richness, in particular the open hummock grassland, hummock grassland and (tussock) grassland. These tend to be scattered across hill slopes in the Mid North and coastal dunes of southern Yorke Peninsula.

Many of the structural formations with least species richness are those with closed canopies, often occurring in saline areas, in particular very low and low closed forests (dominated by either *Melaleuca halmaturorum* or *Avicennia marina* ssp. *marina*). Low closed shrublands (including many samphire sites), closed sedgelands (swamp communities), closed mallees and tall closed shrublands (many of which are dense shrublands on coastal dunes).

Of the landform pattern categories with at least ten sites, hills, low hills and consolidated dunefields have the greatest species richness (Figure 52). Saline tidal flats are by far the least species rich of all landform patterns.

The most species rich landform element categories are based on small sample sizes and therefore possibly misleading. These are rock outcrops on plains, rock outcrops on hills and gorges (Figure 54) (all features that retain moisture, thus supporting a proliferation of herbs). Limestone plains and sandy plains (mostly southern Yorke Peninsula) have the greatest species richness among those landform elements with at least ten sites. Flats have the least species rich sites, with many of these being saline tidal flats. Other categories with low species richness include flood outs (either saline tidal flats again or on the floodplains of Mid North watercourses, often with soil salinity classes of C or greater), closed depressions (in coastal dunes), open depressions (many saline sites on plains) and swamps (all with soil salinity classes of C or greater).

While sites on sand and loam soils have similar species richness, those on clay soils were generally less species rich, particularly the light clay and heavy clay soil types (Figure 55). The latter are associated with tidal flats, floodplains, stream channels and swamps where soil salinity classes are mostly C or greater.

The first four classes of soil salinity (A-D, negligible to moderately high salinity) have very similar species richness (Figure 56). However, it is in the next three (higher) soil salinity classes that a decline in species richness is evident. Sites in class E (moderately high to high salinity) had an average of 29.3 taxa, in class F (high salinity) 25.6 taxa and in class G (very high to extreme salinity) 10.9 taxa.

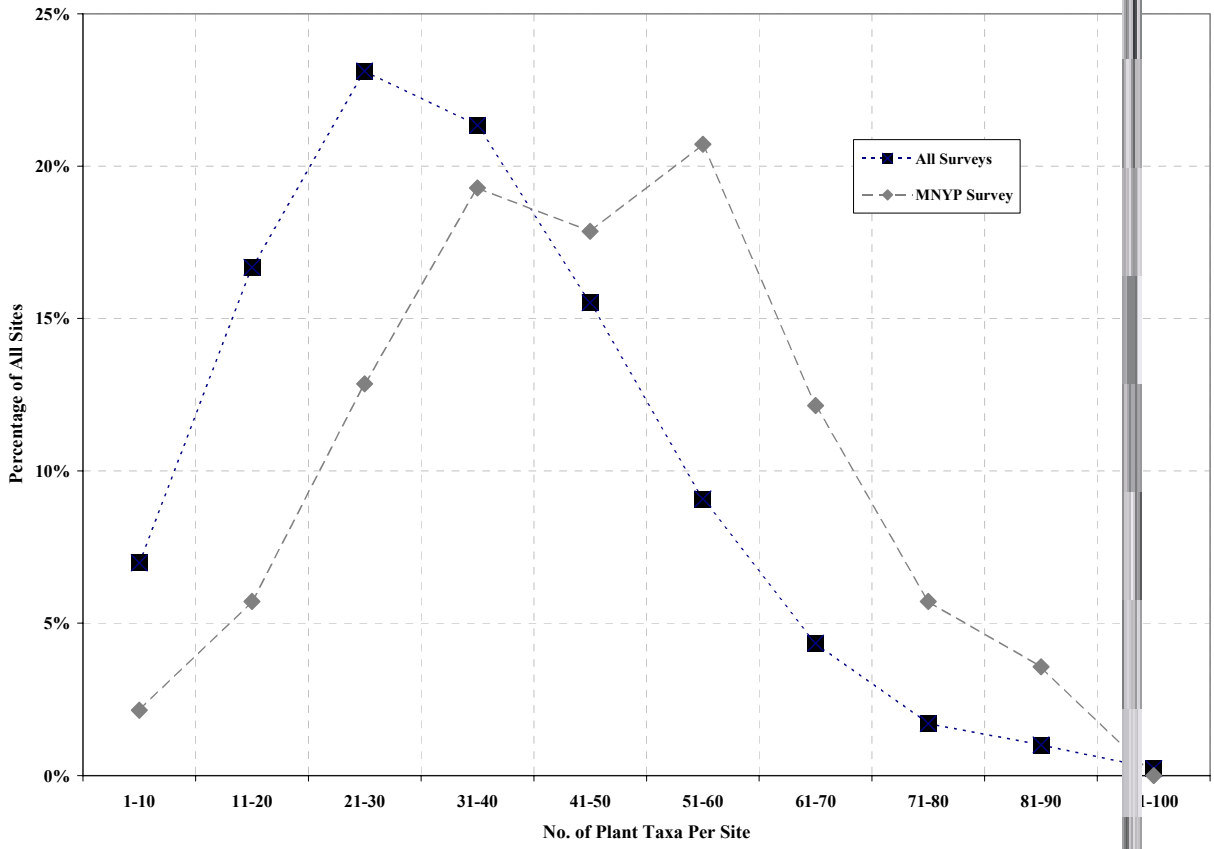


Figure 49.
Frequency histogram of plant species richness (categories of plant taxa per site are grouped in multiples of ten). The MNYP Survey refers to the Mid North and Yorke Peninsula Biological Survey and is a subset of All Surveys.

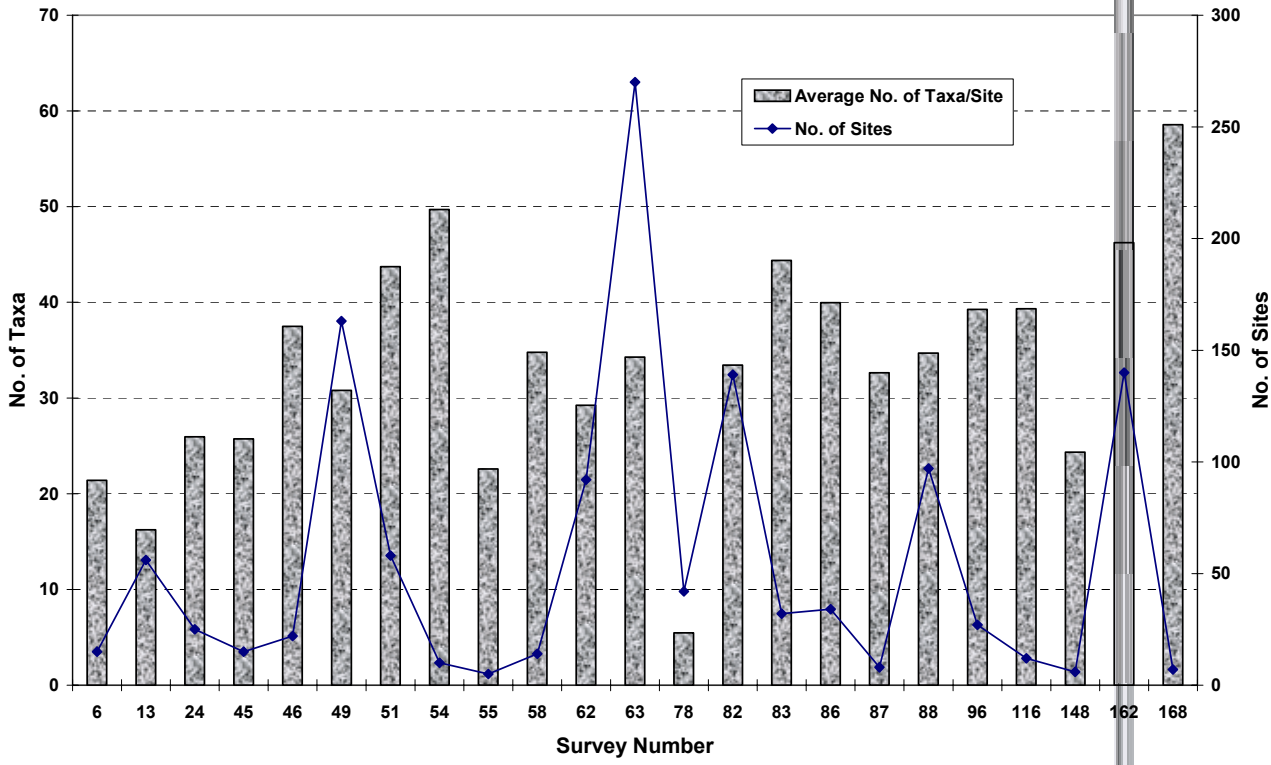


Figure 50.
Average species richness of sites per survey (refer Table 9 for survey names).

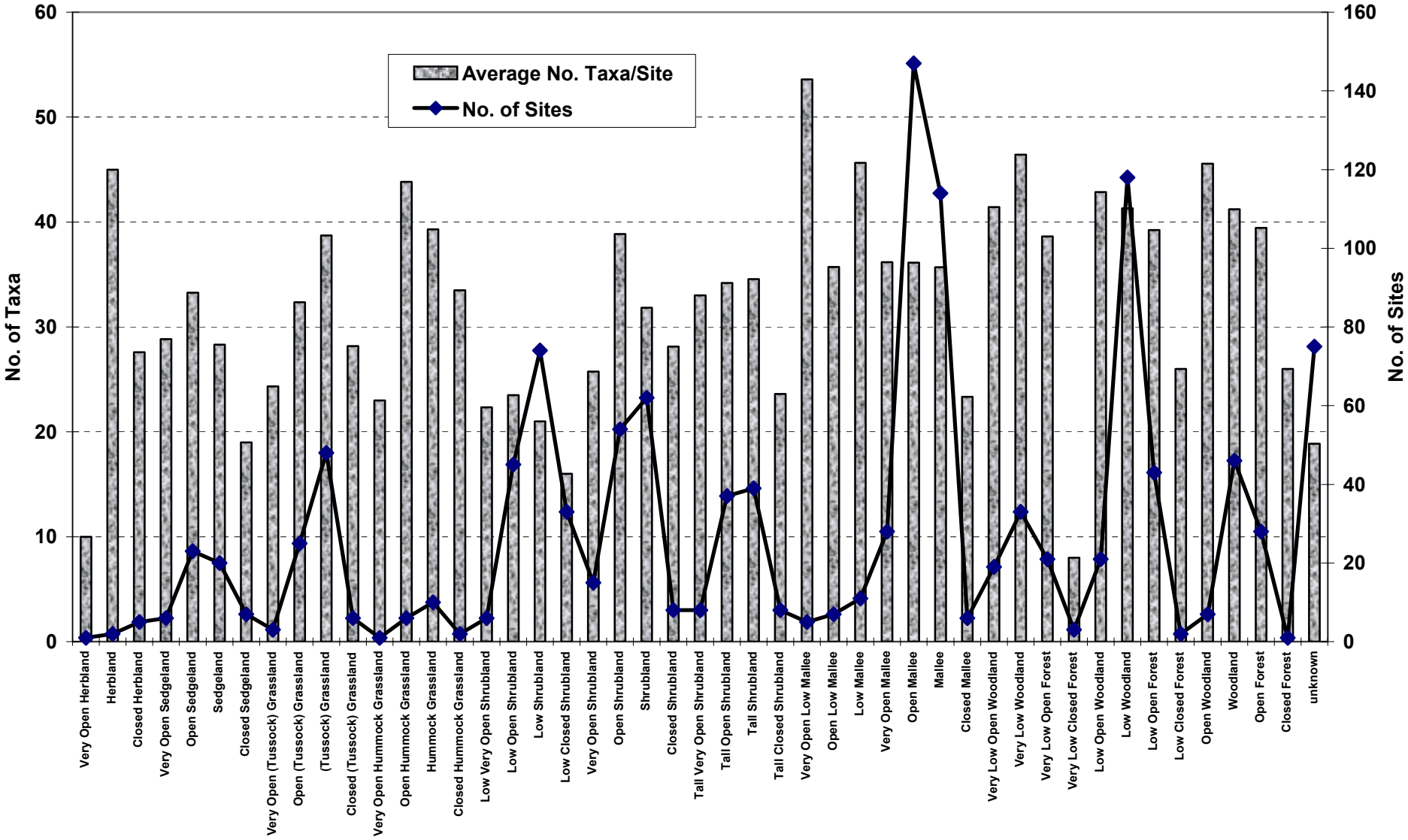


Figure 51.
Average species richness of sites in each structural vegetation formation category.

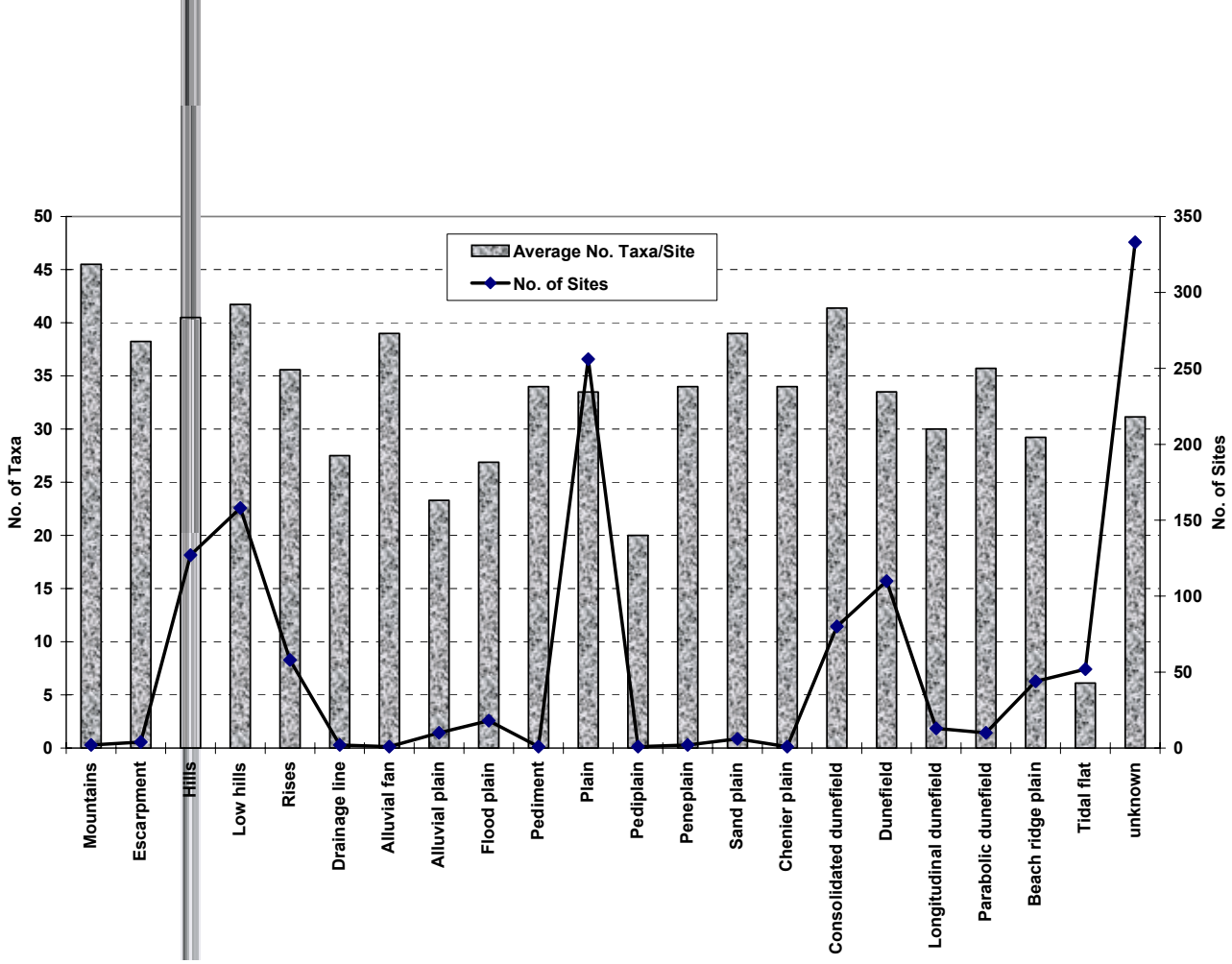


Figure 52.
Average species richness of sites in each landform pattern category.

Figure 53.
***Codonocarpus pyramidalis* (Slender Bell-fruit) is a small tree of semi-arid areas of the state, particularly the Flinders Ranges and Eastern Districts. It was recorded opportunistically near Tourilie Gorge on this survey. (Photo: A. Robinson).**

Significant Taxa

Of the 951 native plant taxa recorded from all surveys and opportunistic sightings in the study area, 510 (53.6%) have a conservation rating in at least one of the six Herbarium Regions (Lang and Kraehenbuehl 2006) where they were recorded. Appendix 7 provides for a full listing of all rated taxa, with regional ratings where they apply and their frequency of occurrence where rated. A total of 84 taxa have State and 17 have national ratings. By comparison, of the 577 native taxa recorded on the MNYPBS, 312 (54.1%) have a regional rating, 34 are rated at State level and six nationally. The high percentage of rated taxa for both reflects the extent of clearance in the study area and the ongoing degree of threat to the mostly fragmented remnant native vegetation.

Three of the nationally rated species were not discussed in the Biodiversity Plan for the Northern Agricultural Districts of South Australia (Graham *et al.* 2001). Of these, two have only been described since that publication, *Billardiera* sp. Yorke Peninsula (P.C.Heyligers 80164) and *Caladenia* sp. Brentwood (R.J.Bates 53510). The third, *Codonocarpus pyramidalis*, was recorded just outside the Biodiversity Plan boundary. For detailed descriptions of threatened species see Graham *et al*. (2001).

The plant taxa with State and national ratings recorded on the MNYPBS are listed in Table 11 and the general location and habitat of the new populations of the six nationally threatened taxa discovered on this survey are provided in Table 12. The most significant of the latter is the population of *Caladenia argocalla* recorded at a site near Sevenhill in the Clare Valley. Although this species was already known to occur in the area, this population has been assessed as being by far the most extensive yet found, with over half of all known individuals (Quarmby 2006).

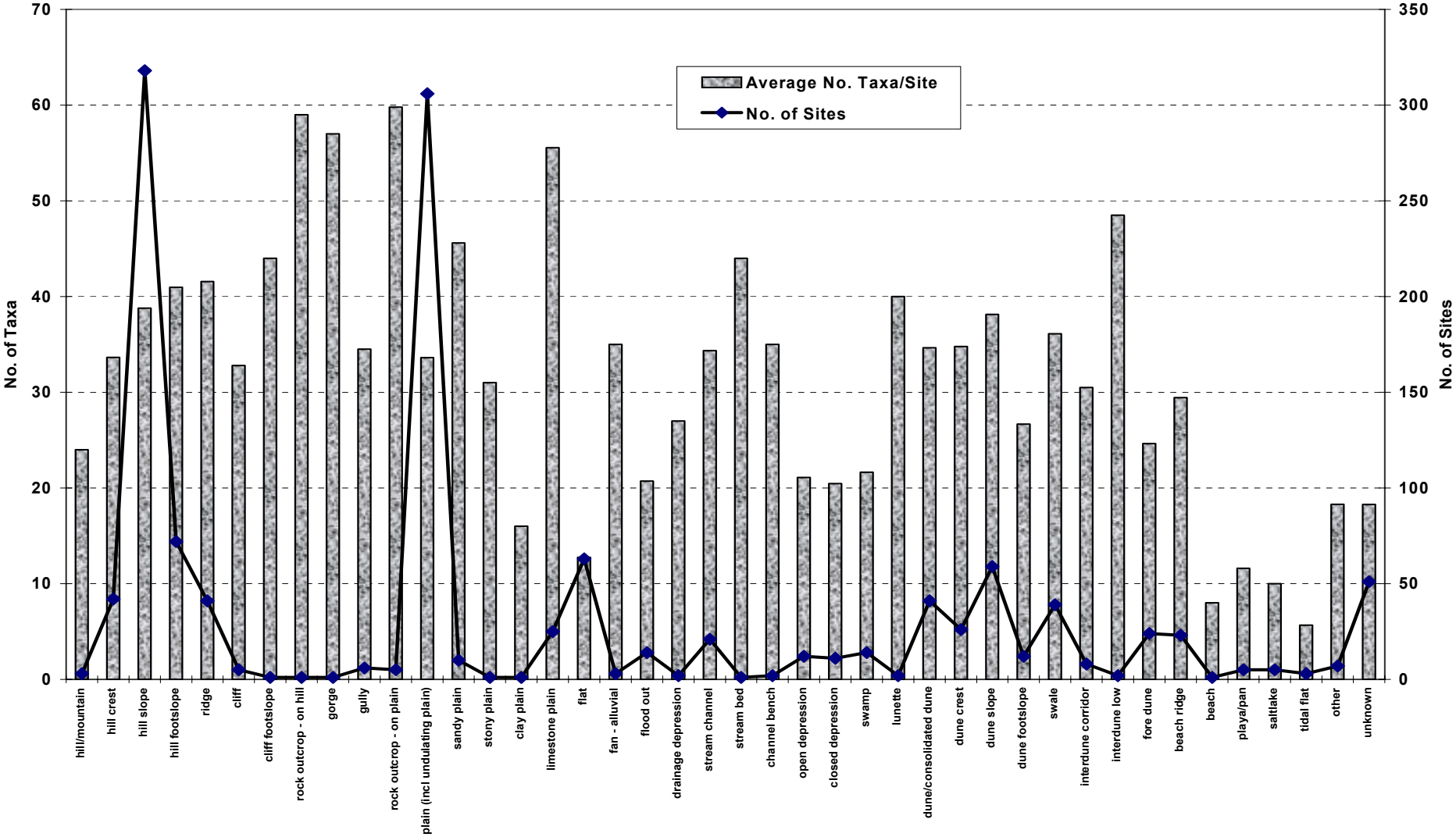


Figure 54.
Average species richness of sites in each landform element category.

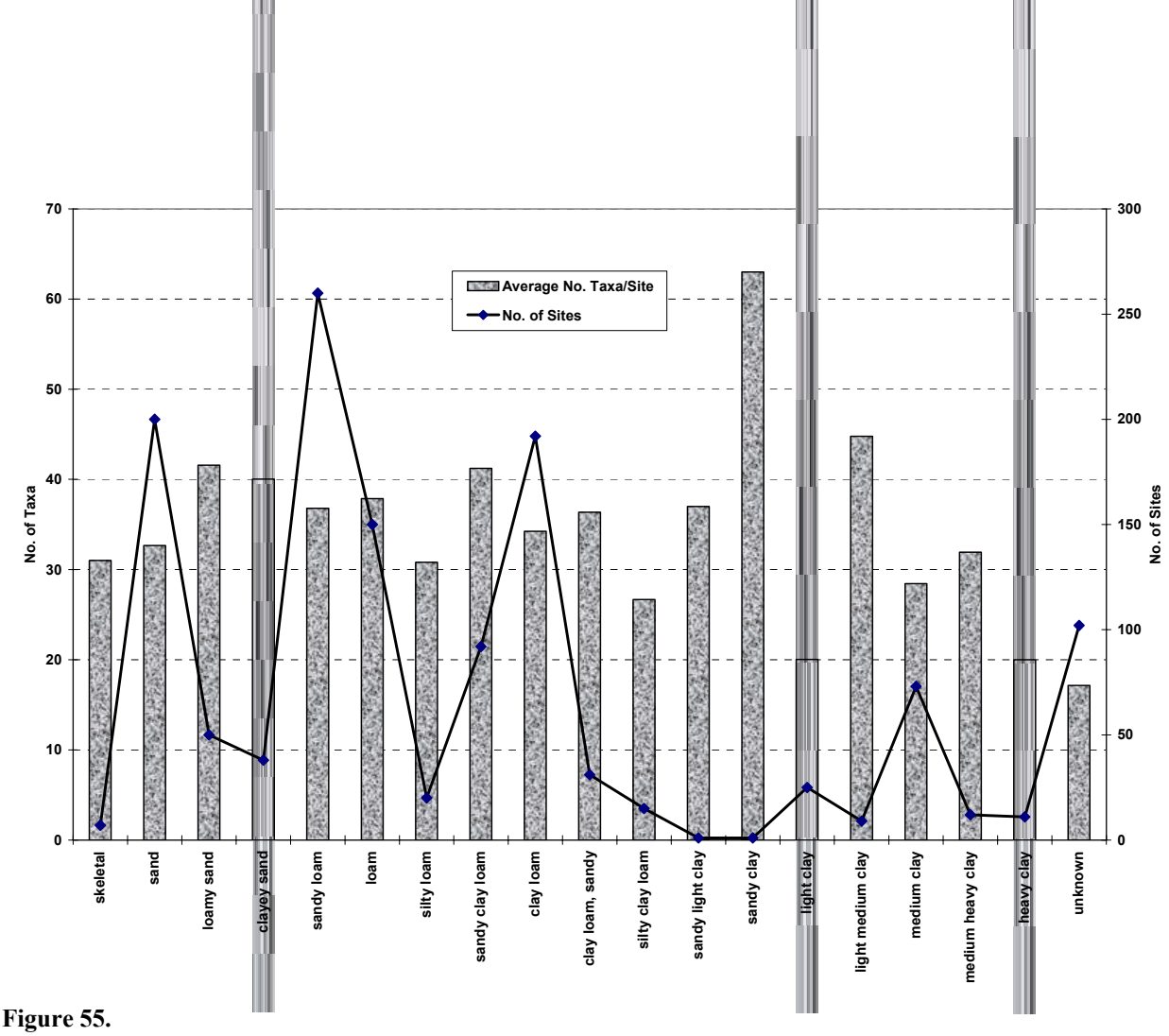


Figure 55.
Average species richness of sites in each surface soil category.

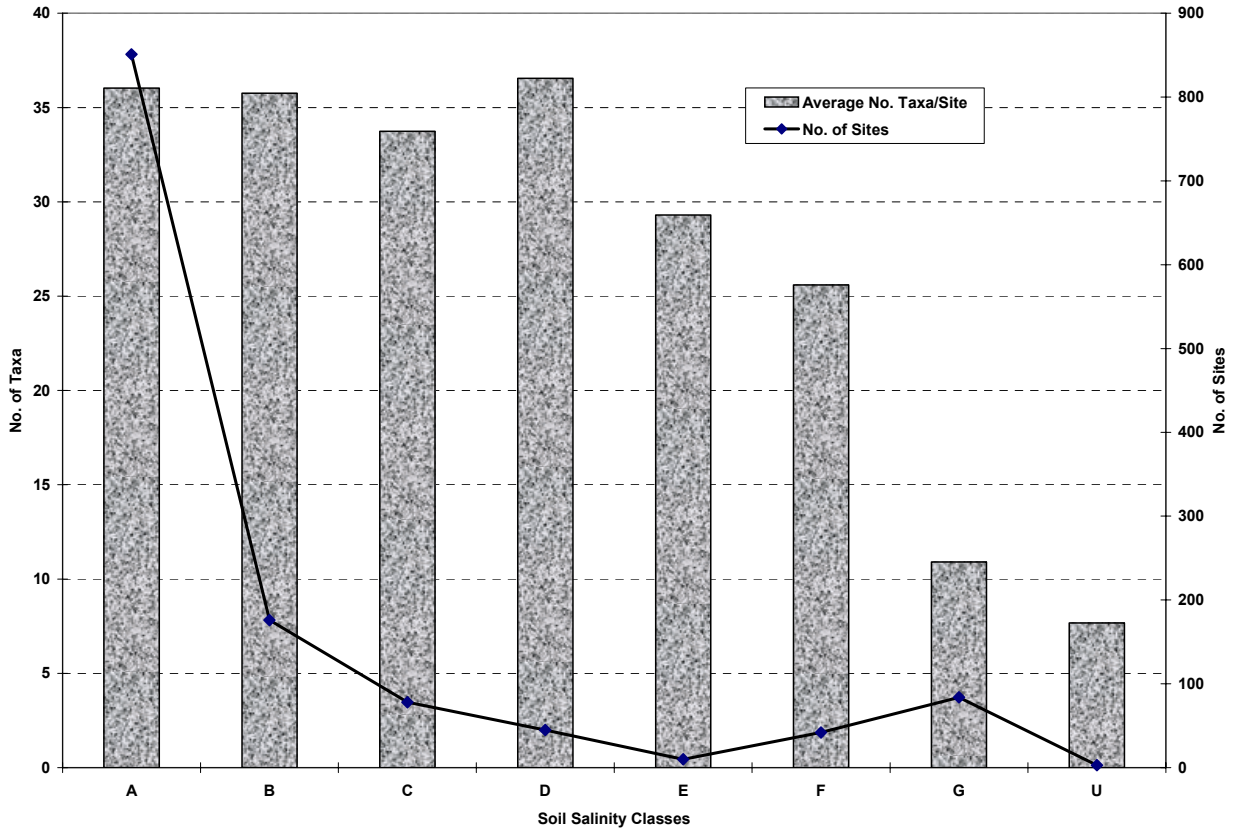


Figure 56.
Average species richness of sites in each soil salinity class, where class A = nil salinity and class G = extreme salinity (class U = urban locality, no information).

Table 11.
State and Nationally rated plant taxa recorded on the Mid North and Yorke Peninsula Biological Survey.

Scientific Name	Common Name	Aus	SA	No. of Records
Acacia spilleriana	Spiller's Wattle		V	1
Austrodanthonia laevis	Smooth Wallaby-grass		R	1
Austrodanthonia tenuior	Short-awn Wallaby-grass		R	2
Austrostipa breviglumis	Cane Spear-grass		R	1
Austrostipa echinata	Spiny Spear-grass		R	2
Austrostipa pilata	Prickly Spear-grass		V	8
Austrostipa puberula	Fine-hairy Spear-grass		R	8
Billardiera sp. Yorke Peninsula (P.C.Heyligers 80164)	Lehmann's Apple-berry	E	E	1
Caladenia argocalla	White Beauty Spider-orchid	E	E	1
Caladenia bicalliata ssp. *bicalliata*	Western Daddy-long-legs		R	1
Caladenia brumalis	Winter Spider-orchid	V	V	1
Cryptandra sp. Long hypanthium (C.R. Alcock 10626)	Long-flower Cryptandra		R	11
Daviesia benthamii ssp. *humilis*	Mallee Bitter-pea		R	1
Eryngium rostratum	Blue Devil		V	1
Eucalyptus macrorhyncha ssp. *macrorhyncha*	Red Stringybark		R	2
Euphrasia collina ssp. *osbornii*	Osborn's Eyebright	E	E	1
Haeckeria punctulata	Sticky Haeckeria		R	1
Haegiela tatei	Small Nut-heads		R	1
Isotoma scapigera	Salt Isotome		R	2
Levenhookia stipitata			R	1
Maireana excavata	Bottle Fissure-plant		V	2
Myoporum parvifolium	Creeping Boobialla		R	1
Olearia pannosa ssp. *pannosa*	Silver Daisy-bush	V	V	3
Philotheca verrucosa	Bendigo Wax-flower		V	1
Phlegmatospermum eremaeum	Spreading Cress		R	1
Pleuropappus phyllocalymmeus	Silver Candles	V	V	1
Poa drummondiana	Knotted Poa		R	7
Polypogon tenellus			V	1
Prasophyllum occultans	Hidden Leek-orchid		R	1
Ptilotus erubescens	Hairy-tails		R	4
Pultenaea kraehenbuehlii	Tothill Bush-pea		R	1
Pycnosorus globosus	Drumsticks		V	1
Swainsona behriana	Behr's Swainson-pea		V	1
Triglochin minutissumum	Tiny Arrowgrass		R	1

Table 12.
Location and habitat of nationally rated plant taxa recorded on the Mid North and Yorke Peninsula Biological Survey (SU162).

Scientific Name	Aus	SA	C/A	Location	Habitat
Billardiera sp. Yorke Peninsula (P.C.Heyligers 80164)	E	E	N	south of Port Rickaby	*Triodia compacta* Hummock Grassland
Caladenia argocalla	E	E	N	Sevenhill	*Eucalyptus leucoxylon* ssp. *pruinosa* Woodland
Caladenia brumalis	V	V	T	near Point Pearce	*Allocasuarina verticillata*, *Eucalyptus porosa* Mallee
Euphrasia collina ssp. *osbornii*	E	E	1	Clare	*Eucalyptus odorata* Mallee
Olearia pannosa ssp. *pannosa*	V	V	1 N T	Scrubby Range Narien Range Sth Hummocks	*Eucalyptus brachycalyx*, *E. oleosa*, *E. socialis* Mallee *Eucalyptus leucoxylon* ssp. *pruinosa* Low Woodland *Allocasuarina verticillata* Low Open Forest
Pleuropappus phyllocalymmeus	V	V	2	near Warooka	*Halosarcia indica* ssp. *leiostachya* Low Shrubland

Status: E = endangered; V = vulnerable.
C/A: Cover/abundance (N = 1-10 plants, <5% cover; T = sparsely present, <5% cover; 1 = plentiful but <5% cover; 2 = 5-25% cover).

Floristic Group 17 (*Eucalyptus odorata* Low Woodland over grasses) had the most State rated plant taxa with 19, while Group 47 (*Eucalyptus porosa* +/- *E. leptophylla* +/- *Allocasuarina verticillata* Open Mallee had the most nationally rated taxa with 4.

Significant Taxa and Salinity

The soil salinity classes in which the State and nationally rated taxa were recorded are provided in Table 13, along with an indication as to whether they are likely to occur in naturally saline environments and a brief description of where they were recorded in the region.

Figure 57.
A new population of *Caladenia argocalla* (White Beauty Spider-orchid) was discovered on the survey in a Blue Gum Woodland at Sevenhill. (Photo: J. Quarmby).

The 84 State rated species may be separated into seven groups based on the range of soil salinity classes they have been recorded in. Many are represented by only one, or at best very few records, and hence caution is required when analysing their salinity risk. The taxa recorded from sites in the highest soil salinity classes (Group 1) are all but one of those identified as occurring in naturally saline environments (refer Table 13). These include two nationally vulnerable species, *Halosarcia flabelliformis* and *Pleuropappus phyllocalymmeus*.

In the next group of six taxa each has at least 20% of records from sites with a moderate degree of soil salinity. All but one (*Polypogon tenellus*) of these are not recognised as occurring in naturally saline environments, and consequently may be considered to be potentially at risk to any increase in soil salinity. This group contains two nationally vulnerable species, *Caladenia brumalis* and *Senecio macrocarpus*.

Figure 58.
***Acacia enterocarpa* (Jumping-jack Wattle) was recorded at only one site (in the slightly saline soil class) in the study area, near Port Vincent. (Photo: B. Pavy).**

Group 3 consists of three species that were predominantly recorded at sites in soil salinity class A (nil), but were also observed at sites in higher salt classes. As a whole, species in this group were mainly recorded on hill slopes and plains across the Mid North and northern Yorke Peninsula. However, all but one of the sites where they occur in the higher salt classes is on low-lying sub-coastal plains on Yorke Peninsula or near St Kilda. This suggests that, in part of their distribution in the study area at least, they are at risk to salinity.

Each taxon in group 4 was only recorded once in the study area. Each of these sites is within soil salinity classes B or C, which indicate slight salinity. While it is difficult to infer a level of salinity risk from a single site, two of these species (*Juncus radula* and *Mentha satureioides*) occur in low-lying, seasonally wet habitats and thus may be at risk to increased groundwater salinity levels. Both species were recorded in Tothill Creek.

Two others in group 4, *Acacia enterocarpa* and *Caladenia* sp. Brentwood (R.J.Bates 53510), are both nationally endangered (the latter unofficially). Given their rating and limited distribution it would seem prudent to include them as potentially at risk.

At least 50% of records for each group 5 taxon are from sites with slight soil salinity. Of these only *Billardiera* sp. Yorke Peninsula (P.C.Heyligers 80164), with six records, was recorded from more than three sites. The two taxa from this group that may be most at risk to increased salinity levels are *Austrodanthonia duttoniana* and *Carex inversa* var. *major*, as both occur in wet areas or at least in areas prone to seasonal inundation.

Figure 59.
***Eryngium rostratum* (Blue Devil) is a summer flowering herb of grasslands. As a third of the 18 sites it was recorded at are in the slight salt class and the rest in the nil class, this species is in risk group 6. (Photo: Y. Steed).**

Taxa in group 6 were mainly recorded at sites with nil soil salinity, but also had up to 40% of occurrences at sites with slight salinity. As most of these taxa were recorded on ridges and low hills across the Mid North

Table 13.
Plant taxa with State conservation ratings and the soil salinity classes in which they were recorded in the Mid North and Yorke Peninsula Biological Survey study area.

Group	Scientific Name	Common Name	Naturally Saline?	Conservation Rating								Tot Recs	% of Records Per Salt Class				Notes on Distribution and Salinity Tolerance
				Aus	SA	EP	FR	MU	NL	SL	YP		Nil (A)	Slight (BC)	Mod (DE)	High (FG)	
1	*Halosarcia flabelliformis*	Bead Samphire	S	V	V				T		T	3				100	Dublin, Port Broughton & Thidna
	Pleuropappus phyllocalymmeus	Silver Candles	S	V	V						V	1				100	saltmarsh near Yorketown
	Haegiela tatei	Small Nut-heads	S		R				K		R	4			25	75	"often growing in samphire flats" (FloraVic); saltmarshes at Diamond Lake, Lochiel & Innes NP
	Triglochin minutissumum	Tiny Arrowgrass	CS		R						R	3	33			67	coastal saltmarshes near Port Pirie, Cape Elizabeth & Point Davenport
	Isotoma scapigera	Salt Isotome	S		R						R	2			50	50	"Moist mudflats often around salt marshes" (FloraSA); saltmarshes of southern YP
	Poa fax	Scaly Poa	CS		R				K		R	5	40	20		40	"on stabilised coastal dunes; sometimes associated with saline conditions" (GrassSA); Pt Wakefield & Pt Pirie saltmarshes & 3 sites in coastal dunes in Innes NP
	Centrolepis cephaloformis ssp. *cephaloformis*	Cushion Centrolepis	S		R				R		E	5	60		20	20	YP coastal & isolated MN sites
2	*Poa drummondiana*	Knotted Poa	C		R				X		K	9	56	11	22	11	sub-coastal sites on sth YP & scattered across MN
	Caladenia brumalis	Winter Spider-orchid	U	V	V						V	11	36	27	27	9	sub-coastal central YP
	Polypogon tenellus		S		V							1			100		saline swamp in Innes NP
	Senecio macrocarpus	Large-fruit Groundsel	No	V	V						E	1			100		1 site only – sub-coastal near Daly Head
	Caladenia bicalliata ssp. *bicalliata*	Western Daddy-long-legs	C		R						R	2		50	50		coastal sands near Thidna & Edithburgh
	Austrostipa echinata	Spiny Spear-grass	C		R						R	4	25	50	25		YP coastal
3	*Austrostipa puberula*	Fine-hairy Spear-grass	U		R			K	T	R	T	13	85		8	8	"has been collected in a samphire swamp" (GrassSA); scattered MN
	Maireana rohrlachii	Rohrlach's Bluebush	No		R			R	V		K	9	89		11		scattered isolated MN sites
	Podolepis jaceoides	Showy Copper-wire Daisy	C		R		R				V	14	64	29	7		nth YP
4	*Acacia enterocarpa*	Jumping-jack Wattle	No	E	E						E	1		100			near Port Vincent, YP
	Caladenia conferta	Coast Spider-orchid	C		E						E	1		100			sub-coastal near Port Julia
	Caladenia sp. Brentwood (R.J.Bates 53510)	Ghost Spider-orchid	No	E*	E*						E	1		100			Brentwood Cemetery; sub-coastal calcareous sand (* = unofficial ratings, yet to be listed)
	Choretrum glomeratum var. *chrysanthum*	Yellow-flower Sour-bush	No		R				T			1		100			1 site in low hills near Wirrabara
	Eucalyptus albens	White Box	No		R		R					1		100			eastern footslope of Mt Remarkable
	Juncus radula	Hoary Rush	U		V				V			1		100			"in seasonally wet places in climatically rather dry regions" (FloraSA); Tothill Ck
	Leucopogon clelandii	Cleland's Beard-heath	No		R						T	1		100			"in mallee scrub and heath communities on sand" (FloraSA); 1 site SW of Warooka
	Levenhookia stipitata		U		R							1		100			1 site west of Stansbury
	Mentha satureioides	Native Pennyroyal	U		R				V			1		100			"on heavy, seasonally wet soils" (FloraVic); Tothill Ck
	Podolepis muelleri	Button Podolepis	No		V				K			1		100			"stony sites" (FloraSA); 1 site in low hills near Wirrabara

Group	Scientific Name	Common Name	Naturally Saline?	Conservation Rating								Tot Recs	% of Records Per Salt Class				Notes on Distribution and Salinity Tolerance
				Aus	SA	EP	FR	MU	NL	SL	YP		Nil (A)	Slight (BC)	Mod (DE)	High (FG)	
5	*Austrodanthonia duttoniana*	Brown-back Wallaby-grass	U		R		K		K			3	33	67			"in damp or seasonally inundated sites including road drains and swamp edges" (GrassSA); scattered isolated MN sites
	Billardiera sp. Yorke Peninsula (P.C.Heyligers 80164)	Lehmann's Apple-berry	U	E	E						E	6	50	50			coastal dunes of YP near Minlaton
	Carex inversa var. *major*	Knob Sedge	P?		R		R		R			2	50	50			Tothill Ck & Stony Ck (near Wilmington)
	Cullen parvum	Small Scurf-pea	U	E	V				E			2	50	50			Mokota CP
	Microlepidium pilosulum	Hairy Shepherd's-purse	U		R						K	2	50	50			"usually associated with saltmarsh vegetation" (FloraVic); coastal dunes in Innes NP
	Prasophyllum goldsackii	Goldsack's Leek-orchid	No		R						R	2	50	50			2 sites in & near Warrenben CP
	Stackhousia annua	Annual Candles	C	V	V						V	2	50	50			"sandy soil…in near-coastal woodland" (FloraSA); coastal dune in Innes NP & on plain near Warrenben CP
6	*Austrodanthonia carphoides*	Short Wallaby-grass	No		R				R			5	60	40			grasslands on low hills Burra to Mannanarie
	Daviesia benthamii ssp. *humilis*	Mallee Bitter-pea	No		R			R	E		K	5	60	40			scattered on central YP & eastern MN ridges
	Austrodanthonia tenuior	Short-awn Wallaby-grass	No		R				K			11	64	36			hills near Burra, Yacka & Gladstone
	Eryngium rostratum	Blue Devil	No		V				V			18	67	33			grasslands on ridges Tothill Rge to Hallett
	Rumex dumosus	Wiry Dock	U		R		T					3	67	33			"plains country on heavy clayey soils" (FloraVic); hill slopes in Narien Rge & on Willochra Ck near Melrose
	Ptilotus erubescens	Hairy-tails	No?		R			R	T			22	68	32			scattered on ridges in MN
	Maireana excavata	Bottle Fissure-plant	No		V		K		E			29	69	31			low hills throughout MN
	Eucalyptus macrorhyncha ssp. *macrorhyncha*	Red Stringybark	No		R				R			4	75	25			Spring Gully CP
	Euphrasia collina ssp. *osbornii*	Osborn's Eyebright	No	E	E				E		E	8	75	25			Clare Hills, central YP & Innes NP
	Myoporum parvifolium	Creeping Boobialla	U		R						R	4	75	25			"often on saline flats" (FloraVic); coastal dunes of YP
	Pimelea curviflora var.	Curved Riceflower	No?		R		K		K			5	80	20			scattered on hills in MN
	Cryptandra sp. Long hypanthium (C.R. Alcock 10626)	Long-flower Cryptandra	No		R		R	K	R			53	83	17			in grasslands on hills throughout northern MN
	Austrostipa gibbosa	Swollen Spear-grass	No?		R				T			15	87	13			scattered on ridges in MN
	Olearia pannosa ssp. *pannosa*	Silver Daisy-bush	No	V	V		V	V	V		V	17	94	6			hills north of Jamestown, Scrubby Rge & northern YP
7	*Acacia glandulicarpa*	Hairy-pod Wattle	No	V	E				E			2	100				hills near Hanson
	Acacia gracilifolia	Graceful Wattle	No		R		R					2	100				creekline near Wilmington
	Acacia iteaphylla	Flinders Ranges Wattle	No		R				R			4	100				western footslopes of Sth Flinders
	Acacia spilleriana	Spiller's Wattle	No		V			K				6	100				Scrubby Range
	Acanthocladium dockeri	Spiny Everlasting	U	X	E				E			3	100				roadsides east of Laura
	Aristida australis		No?		R				K			1	100				low hills near Mannanarie
	Austrodanthonia laevis	Smooth Wallaby-grass	U		R							5	100				“often in damp sites” (GrassSA); scattered isolated MN sites
	Austrostipa breviglumis	Cane Spear-grass	No		R	R			R			8	100				“ often in seasonally wet areas’ (GrassSA); coastal plain nth of Pt Pirie, Nth Tothill Rge & near Kapunda
	Austrostipa densiflora	Fox-tail Spear-grass	No		R			K				1	100				"most common in drier elevated sites" (FloraVic); Angaston
	Austrostipa multispiculis		U		R						K	2	100				near Maitland

Group	Scientific Name	Common Name	Naturally Saline?	Conservation Rating								Tot Recs	% of Records Per Salt Class				Notes on Distribution and Salinity Tolerance
				Aus	SA	EP	FR	MU	NL	SL	YP		Nil (A)	Slight (BC)	Mod (DE)	High (FG)	
7	*Austrostipa petraea*	Flinders Range Spear-grass	No?		R		R					2	100				hills near Orroroo
	Austrostipa pilata	Prickly Spear-grass	U		V		K	T	T			14	100				scattered throughout MN
	Austrostipa tenuifolia		No?		R				E			2	100				hills nth of Nuriootpa
	Brachyscome ciliaris var. *subintegrifolia*		U		R		R	K	R			10	100				mostly in far nth of region
	Caladenia argocalla	White Beauty Spider-orchid	No	E	E				E			1	100				1 site in Clare Hills
	Codonocarpus pyramidalis	Slender Bell-fruit	No	V	E			E				1	100				in hills near Tourilie Gorge
	Derwentia decorosa	Showy Speedwell	No		R		R					1	100				"in rocky gorges and gullies and on ridge-tops" (FloraSA); Yatina Gorge
	Dianella longifolia var. *grandis*	Pale Flax-lily	No		R				T			1	100				"usually near rocky outcrops" (FloraVic); Clare Hills
	Diuris behrii	Behr's Cowslip Orchid	No		R		R					1	100				1 site in low hills near Murray Town
	Dodonaea procumbens	Trailing Hop-bush	No	V	V				V			5	100				"in low-lying, winter-wet areas" (FloraVic); Mokota CP & Holm Hill Reserve
	Dodonaea subglandulifera		No	E	E			E				1	100				"semi-arid mallee areas" (FloraSA); hills NE of Eudunda
	Echinopogon ovatus	Rough-beard Grass	No		R				R			1	100				Nth Tothill Rge
	Eremophila subfloccosa ssp. Glandulosa (R.Bates 32961)	Green-flower Emubush	U		R				R			1	100				plain near Hamley Bridge
	Haeckeria punctulata	Sticky Haeckeria	No		R		R	K				4	100				"on rocky hillslopes" (FloraSA); hills near Tourilie Gorge & footslope north of Melrose
	Leptorhynchos elongatus	Lanky Buttons	U		R						E	2	100				Ardrossan and coast south of Stansbury
	Logania saxatilis	Rock Logania	No		R				R			1	100				occurs among rocks; hill slope in Campbell Rge
	Olearia picridifolia	Rasp Daisy-bush	No		R			R				1	100				hill slope in Hopkins Ck CP
	Phebalium glandulosum ssp. *glandulosum*	Glandular Phebalium	No		E						E	1	100				1 site northern YP
	Philotheca angustifolia ssp. *angustifolia*	Narrow-leaf Wax-flower	No		R			R				2	100				hills near Tourilie Gorge
	Philotheca verrucosa	Bendigo Wax-flower	No		V				V			5	100				Tothill Rge & nearby
	Phlegmatospermum eremaeum	Spreading Cress	No?		R				V			1	100				Clements Gap CP
	Prasophyllum calcicola	Limestone Leek-orchid	C		V						V	1	100				1 site in Innes NP
	Prasophyllum occultans	Hidden Leek-orchid	No		R						R	1	100				1 site near Pine Point
	Pultenaea kraehenbuehlii	Tothill Bush-pea	No		R				R			33	100				Tothill Rge & nearby
	Pycnosorus globosus	Drumsticks	No?		V		T	E	E			6	100				Yatina Gorge, Brown Rge & hills east of Hallett
	Swainsona behriana	Behr's Swainson-pea	No?		V			T	T			3	100				hills near Burra & north of Nuriootpa
	Swainsona tephrotricha	Ashy-haired Swainson-pea	No?		R			E				1	100				1 site in hills north of Point Pass
		Total		**17**	**84**	**1**	**17**	**18**	**45**	**1**	**32**	**453**	**75**	**18**	**3**	**4**	

Naturally Saline? S = occurs in naturally saline environments. No? = unlikely to occur in naturally saline environments, though insufficient information to be certain.
C = occurs in coastal environments. U = insufficient information available on taxon as to whether it is likely to occur in naturally saline environments.
No = does not occur in naturally saline environments.

Soil Salinity Classes Source: Northern Agricultural Districts, Land Resource Information (DWLBC Soil and Land Information 2002)

Note on Distribution References used: FloraSA = Flora of South Australia (Jessop and Toelken 1986); FloraVic = Flora of Victoria (Walsh and Entwisle 1994); GrassSA = Grasses of South Australia (Jessop *et al.* 2006).

and northern Yorke Peninsula, they may be considered to be at low risk to increased soil salinity.

Group 7 taxa were only recorded at sites with nil soil salinity. Although many of these were recorded at very few sites they can also mostly be considered to be at low risk to increased soil salinity. The possible exceptions are those taxa, whose occurrence in naturally saline environments is uncertain, that were recorded on plains or low-lying sites, such as *Acanthocladium dockeri*, *Austrostipa multispiculis*, *Eremophila subfloccosa* ssp. Glandulosa (R.Bates 32961) and *Leprtorhynchos elongatus*.

In general, the majority of taxa with State and national ratings were recorded at sites with nil (75%) or only slight (18%) soil salinity, with the remaining 7% (or 31 records) at sites with moderate to extreme soil salinity. Based on these survey site and opportunistic sighting locations the taxa discussed above that are potentially most at risk in the study area are listed in Table 14.

Significant Floristic Groups

The vegetation groups defined in the floristic analysis are described later in this chapter. Of these, ten correspond to ecosystems (a plant association occurring on a particular soil type and landform) considered to be threatened at the State level and one corresponds to an ecosystem rated as rare in SA (DEH 2001) (refer Table 15). Six floristic groups also correspond to priority plant associations listed by Neagle (1995).

In addition, two ecological communities that have been listed as Critically Endangered under the *EPBC Act 1999* are represented by floristic groups in the study area. These are Peppermint Box (*Eucalyptus odorata*) Grassy Woodland, represented by floristic group 17 - *Eucalyptus odorata* Low Woodland over grasses, and Iron-grass Natural Temperate Grassland, represented by floristic groups 3 - *Lomandra multiflora* ssp. *dura* Open Tussock Grassland, 6 - *Lomandra multiflora* ssp. *dura* and/or *L. effusa* Open Tussock Grassland, and 7 - *Lomandra effusa* Open Tussock Grassland. The MNYPBS study area is extremely significant to these communities as it contains the majority of their remaining distribution (EPBC Act List of Threatened Ecological Communities - http://www.environment.gov.au/cgi-bin/sprat/public/publiclookupcommunities.pl).

Figure 60.
***Eucalyptus odorata*, *E. leucoxylon* ssp. *pruinosa* Grassy Low Woodland in low hills at Peppermint Gully, north east of Hallett. (Photo: N. Neagle).**

Floristic Groups and Salinity

The 83 floristic groups may be divided into six categories based on the range of soil salinity classes in which sites comprising each floristic group have been recorded (refer Table 16). Caution is advised when interpreting these categories, as a number of the floristic groups are represented by a very small sample size,

Table 14.
State and nationally rated plant taxa potentially most at risk to increased salinity in the study area.

Scientific Name	Common Name	Aus Rating	SA Rating	Salinity Risk Group
Poa drummondiana	Knotted Poa		R	2
Caladenia brumalis	Winter Spider-orchid	V	V	2
Senecio macrocarpus	Large-fruit Groundsel	V	V	2
Caladenia bicalliata ssp. *bicalliata*	Western Daddy-long-legs		R	2
Austrostipa echinata	Spiny Spear-grass		R	2
Juncus radula	Hoary Rush		V	4
Mentha satureioides	Native Pennyroyal		R	4
Acacia enterocarpa	Jumping-jack Wattle	E	E	4
Caladenia sp. Brentwood (R.J.Bates 53510)	Ghost Spider-orchid	E*	E*	4
Austrodanthonia duttoniana	Brown-back Wallaby-grass		R	5
Carex inversa var. *major*	Knob Sedge		R	5
Acanthocladium dockeri	Spiny Everlasting	X	E	7
Austrostipa multispiculis			R	7
Eremophila subfloccosa ssp. Glandulosa (R.Bates 32961)	Green-flower Emubush		R	7
Leptorhynchos elongatus	Lanky Buttons		R	7

* = unofficial rating, yet to be formally listed.

either a single or very few sites. It does, however, provide a useful guide to the potential salinity risk facing some of the floristic groups.

Figure 61.
***Triodia compacta* Hummock Grassland in dunes at Barkers Rocks on the west coast of Yorke Peninsula. (Photo: N. Neagle).**

Category 1 represents those floristic groups with at least 50% of their sites occurring in the moderate and high salinity classes (D-G). All but two of these are considered to occur in naturally highly saline environments. The first exception, *Muehlenbeckia florulenta* Shrubland, is represented by six sites, four of which are located in soil landscape units with moderately high salinity on the floodplain of the lower Broughton River. While it is recognised that this floristic group is able to tolerate slightly saline conditions (Walsh and Entwisle 1994), the salinity levels suggested for the lower Broughton River may mean that it is at risk to degradation.

Sites representing the second exception, *Acacia ligulata* Tall Open Shrubland, are located in coastal dunes of northern Yorke Peninsula, including nine on low relief dunes adjacent coastal saltmarshes near Port Broughton and Wandearah. Its presence in this area possibly indicates an ability to tolerate a variety of salinity levels.

Category 1 includes *Gahnia filum* Sedgeland, considered to be vulnerable in SA (DEH 2001). This community is recognised as occurring on naturally saline clay loam soils of seasonal swamps on southern Yorke Peninsula.

The floristic groups in category 2 have between 20 and 50% of their sites in moderate and high salinity classes. With two exceptions, these floristic groups either occur naturally in coastal habitats (on sands derived from the former sea-bed [Specht 1972] and/or subject to saline sea spray) or in slightly saline areas. The presence of the first, *Casuarina pauper* Low Woodland over sparse chenopods and grasses, in this category is the result of one unrepresentative outlier site (in soil salinity class G) on a low sand rise adjacent saltmarshes near Port Broughton. This is not indicative of its usual habitat.

Table 15.
Floristic vegetation groups of conservation significance in the study area.

Ecosystem/Plant Association	Aus Rating	SA Rating	Corresponding Floristic Group(s)
	EPBC Act	**DEH (2001)**	
Eucalyptus odorata +/- *E. leucoxylon* Grassy Low Woodland on loamy soils of low hills	*Critically Endangered	Endangered	17
Lomandra effusa Tussock Grassland on shallow loams in low hills	*Critically Endangered	Endangered	7 and 6
Lomandra multiflora ssp. *dura* Tussock Grassland on shallow clay loams in low hills	*Critically Endangered	Endangered	3 and 6
Themeda triandra +/- *Danthonia* spp. Tussock Grassland on heavy, fertile soils of plains and hill slopes		Endangered	2
Eucalyptus macrorhyncha ssp. *macrorhyncha* Open Forest		Vulnerable	16
Eucalyptus leucoxylon ssp. *pruinosa* +/- *E. odorata* Grassy Low Woodland on loams of hill slopes		Vulnerable	20 and 21
Allocasuarina verticillata Grassy Low Woodland on clay loams of low hills		Vulnerable	13
Gahnia filum Sedgeland in drainage lines and depressions		Vulnerable	75
Triodia compacta Hummock Grassland on sandy consolidated dunefields		Rare	45
		Neagle (1995)	
Lomandra effusa +/- *L. multiflora* ssp. *dura* (Open) Tussock Grassland	*Critically Endangered	Priority 1	3, 6 and 7
Danthonia spp., *Themeda triandra* Tussock Grassland		Priority 2	2
Eucalyptus odorata +/- *E. porosa* (Low) Woodland	*Critically Endangered	Priority 3	17
Eucalyptus macrorhyncha Low Open Forest		Priority 9	16

* = Equivalent to ecological communities listed as Critically Endangered.

Table 16.
Floristic vegetation groups and the soil salinity classes in which they were recorded.

Cat.	Grp	Floristic Group Description	Naturally Saline?	No. of Sites	SALT CLASSES								% of Sites Per Group			
					A	B	C	D	E	F	G	U	Nil (A)	Slight (BC)	Mod (DE)	High (FG)
1	65	*Suaeda australis* Low Shrubland	coastal	2						1	1					**100**
	70	*Halosarcia syncarpa* Low Shrubland	yes	2							2					**100**
	76	*Avicennia marina* ssp. *marina* Very Low Closed Forest	yes	3							2	1				**100**
	74	*Sclerostegia arbuscula*, *Sarcocornia quinqueflora* Low Shrubland	yes	30					1	1	28				**3**	**97**
	71	*Halosarcia halocnemoides* ssp. +/- *H. indica* ssp. *leiostachya* Low Shrubland	yes	24	1			1			22		**4**		**4**	**92**
	73	*Melaleuca halmaturorum* Very Low Open Forest	yes	13				1	1	10	1				**15**	**85**
	68	*Halosarcia indica* ssp. *leiostachya* Low Shrubland	yes	6		1					4	1		**20**		**80**
	72	*Lawrencia squamata* Low Shrubland	yes	4				1		2	1				**25**	**75**
	75	*Gahnia filum* Sedgeland	slight	3				1		2					**33**	**67**
	69	*Atriplex paludosa* ssp. *cordata* +/- *Halosarcia indica* ssp. Low Shrubland	yes	7				3		2	2				**43**	**57**
	67	*Halosarcia pergranulata* ssp. Low Shrubland	yes	10	2		1	1			5	1	**22**	**11**	**11**	**56**
	82	*Muehlenbeckia florulenta* Shrubland	slight	6	1	1		2	2				**17**	**17**	**67**	
	57	*Acacia ligulata* Tall Open Shrubland	coastal	20	6		4	1		9			**30**	**20**	**5**	**45**
	29	*Nitraria billardierei* Low Open Shrubland	yes	8	4			1		1	2		**50**		**13**	**38**
2	46	*Lepidosperma congestum*, *Lomandra effusa*, *Gahnia lanigera* Sedgeland	coastal	8	3	1	2			2			**38**	**38**		**25**
	36	*Casuarina pauper* Low Woodland over sparse chenopods and grasses	no	4	3						1		**75**			**25**
	50	*Melaleuca lanceolata* Tall Shrubland	coastal	23	7	2	5	3	1	5			**30**	**30**	**17**	**22**
	27	*Maireana brevifolia* Low Shrubland	slight	6	2	1	2				1		**33**	**50**		**17**
	58	*Olearia axillaris* +/- *Acacia ligulata* Tall Open Shrubland	coastal	48	26	3	9	5		2	3		**54**	**25**	**10**	**10**
	26	*Geijera linearifolia* Tall Shrubland with emergent mallee	no	15	1	9		4		1			**7**	**60**	**27**	**7**
	44	*Gahnia lanigera* Sedgeland	partly coastal	5	3		1	1					**60**	**20**	**20**	
3	42	*Eucalyptus diversifolia* ssp. *diversifolia* Open Low Mallee	coastal	52	25	9	9	6	1	1	1		**48**	**35**	**13**	**4**
	60	*Nitraria billardierei* +/- *Olearia axillaris* +/- *Atriplex cinerea* Shrubland	coastal	11	6	3		2					**55**	**27**	**18**	
	81	*Phragmites australis* Tussock Grassland	slight	6	2	3		1					**33**	**50**	**17**	
	45	*Triodia compacta* Hummock Grassland	coastal	7	3		3	1					**43**	**43**	**14**	
	79	*Juncus kraussii* Sedgeland	slight	10	2		7	1					**20**	**70**	**10**	
4	19	*Acacia salicina* Low Open Forest	no	1		1								**100**		
	78	*Bolboschoenus caldwellii* Sedgeland	slight	1		1								**100**		
	48	*Allocasuarina verticillata*, *Melaleuca lanceolata* Very Low Woodland	no	10	1	3	6						**10**	**90**		
	51	*Eucalyptus incrassata*, *Melaleuca uncinata* +/- *E. socialis* Open Mallee	no	9	2	7							**22**	**78**		
	77	*Myoporum montanum* Tall Open Shrubland over *Typha domingensis*, *Cyperus gymnocaulos* +/- an overstorey of *Eucalyptus camaldulensis* var. *camaldulensis* Open Forest	no	5	2	3							**40**	**60**		
	3	*Lomandra multiflora* ssp. *dura* Open Tussock Grassland	no	9	4	5							**44**	**56**		
5	31	*Atriplex vesicaria* ssp. Low Open Shrubland +/- an Open Mallee overstorey	no	10	9						1		**90**			**10**
	54	*Alyxia buxifolia* +/- *Leucopogon parviflorus* Shrubland	coastal	14	11	1		1			1		**79**	**7**	**7**	**7**
	24	*Eucalyptus porosa* Open Mallee over grasses and sparse chenopods	no	38	33	2	1			2			**87**	**8**		**5**
	32	*Eucalyptus oleosa* ssp. +/- *E. gracilis* Open Mallee	no	60	42	11	5		1	1			**70**	**27**	**2**	**2**
	35	*Eucalyptus dumosa* Open Mallee	no	10	7	2		1					**70**	**20**	**10**	
	25	*Senna artemisioides* ssp. *coriacea* +/- *Templetonia egena* Shrubland	no	12	11			1					**92**		**8**	
	59	*Leucopogon parviflorus*, *Olearia axillaris* Shrubland	coastal	25	17	5	1		2				**68**	**24**	**8**	
	47	*Eucalyptus porosa* +/- *E. leptophylla* +/- *Allocasuarina verticillata* Open Mallee	no	20	14	4	1	1					**70**	**25**	**5**	
	22	*Callitris gracilis* Low Open Forest over grasses	no	20	17	1	1	1					**85**	**10**	**5**	
	33	*Eucalyptus gracilis* +/- *E. brachycalyx* Open Mallee	no	39	27	8	3	1					**69**	**28**	**3**	

Cat.	Grp	Floristic Group Description	Naturally Saline?	No. of Sites	SALT CLASSES								% of Sites Per Group			
					A	B	C	D	E	F	G	U	Nil (A)	Slight (BC)	Mod (DE)	High (FG)
	9	*Austrostipa eremophila*, *Austrodanthonia caespitosa* +/- *Austrostipa nitida* +/- *Lomandra effusa* Open Tussock Grassland	no	59	49	9		1					**83**	**15**	**2**	
	18	*Callitris glaucophylla* +/- *Eucalyptus odorata* Low Open Forest	no	7	4	3							**57**	**43**		
	63	*Leucophyta brownii*, *Scaevola crassifolia* Low Shrubland	coastal	10	6	4							**60**	**40**		
	80	*Eucalyptus camaldulensis* var. *camaldulensis* Woodland over *Phragmites australis*	no	5	3	2							**60**	**40**		
	66	*Spinifex hirsutus* Open Tussock Grassland	coastal	8	5	3							**63**	**38**		
	49	*Eucalyptus rugosa*, *E. diversifolia* ssp. *diversifolia* Mallee	coastal	17	11	5	1						**65**	**35**		
	2	*Themeda triandra* Tussock Grassland	no	3	2	1							**67**	**33**		
	5	*Aristida behriana* +/- *Themeda triandra* Tussock Grassland	no	6	4		2						**67**	**33**		
	56	*Acacia nematophylla* Shrubland +/- an overstorey of *Allocasuarina verticillata* Low Woodland	coastal	9	6	3							**67**	**33**		
	83	*Eucalyptus camaldulensis* var. *camaldulensis* Open Forest over grasses and herbs	no	13	9	3	1						**69**	**31**		
	1	*Austrostipa blackii*, *Aristida behriana*, *Lomandra multiflora* ssp. *dura*, *Austrostipa scabra* ssp. Tussock Grassland	no	63	47	15	1						**75**	**25**		
	21	*Eucalyptus leucoxylon* ssp. +/- *E. odorata* +/- *Allocasuarina verticillata* Woodland over *Acacia pycnantha*, *A. paradoxa*	no	4	3	1							**75**	**25**		
	53	*Eucalyptus leptophylla*, *E. phenax* +/- *E. socialis* Mallee	no	9	7	2							**78**	**22**		
	20	*Eucalyptus leucoxylon* ssp. Open Forest over grasses	no	40	32	7	1						**80**	**20**		
	16	*Eucalyptus macrorhyncha* ssp. *macrorhyncha* Low Woodland	no	6	5	1							**83**	**17**		
	40	*Acacia victoriae* ssp. *victoriae* Tall Open Shrubland	no	6	5		1						**83**	**17**		
	62	*Templetonia retusa* +/- *Beyeria lechenaultii* Shrubland	coastal	18	15	3							**83**	**17**		
	17	*Eucalyptus odorata* Low Woodland over grasses	no	69	58	11							**84**	**16**		
	6	*Lomandra multiflora* ssp. *dura* and/or *L. effusa* Open Tussock Grassland	no	16	14	2							**88**	**13**		
	14	*Bursaria spinosa* ssp. *spinosa* +/- *Pomaderris paniculosa* ssp. *paniculosa* Shrubland +/- emergent *Eucalyptus odorata*	no	8	7	1							**88**	**13**		
	34	*Eucalyptus socialis* ssp. +/- *E. gracilis* Open Mallee	no	51	46	5							**90**	**10**		
	7	*Lomandra effusa* Open Tussock Grassland	no	12	11	1							**92**	**8**		
	12	*Triodia bunicola* Hummock Grassland +/- an overstorey of *Allocasuarina verticillata* Low Woodland	no	22	21	1							**95**	**5**		
	13	*Allocasuarina verticillata* Low Woodland	no	35	34	1							**97**	**3**		
6	4	*Austrostipa scabra* ssp. +/- *Austrodanthonia caespitosa* Tussock Grassland +/- an Open Mallee overstorey	no	19	19								**100**			
	8	*Austrodanthonia caespitosa* Open Tussock Grassland	no	10	10								**100**			
	10	*Triodia scariosa* Open Hummock Grassland	no	2	2								**100**			
	11	*Maireana aphylla* Low Open Shrubland	no	4	4								**100**			
	15	*Allocasuarina verticillata*, *Xanthorrhoea quadrangulata* +/- *Eucalyptus odorata* Low Woodland	no	19	19								**100**			
	23	*Hymenanthera dentata* Low Open Shrubland	no	1	1								**100**			
	28	*Casuarina pauper*, *Myoporum platycarpum* Low Open Woodland over *Maireana sedifolia*	no	1	1								**100**			
	30	*Maireana pyramidata*, *Atriplex vesicaria* ssp. Low Open Shrubland	no	7	7								**100**			
	37	*Dodonaea viscosa* ssp. *angustissima* Low Open Shrubland	no	6	6								**100**			
	38	*Acacia calamifolia* Open Shrubland	no	8	8								**100**			
	39	*Dodonaea lobulata* Shrubland	no	2	2								**100**			
	41	*Eucalyptus largiflorens* Very Low Open Forest	no	1	1								**100**			
	43	*Melaleuca lanceolata*, *Eucalyptus socialis* ssp. Tall Open Shrubland	no	5	5								**100**			

Cat.	Grp	Floristic Group Description	Naturally Saline?	No. of Sites	SALT CLASSES								% of Sites Per Group			
					A	B	C	D	E	F	G	U	Nil (A)	Slight (BC)	Mod (DE)	High (FG)
	52	*Eucalyptus incrassata* Mallee	no	4	4								**100**			
	55	*Callitris gracilis* +/- *Eucalyptus brachycalyx* Low Woodland over *Alyxia buxifolia*	no	5	5								**100**			
	61	*Acacia cyclops* Tall Closed Shrubland	coastal	1	1								**100**			
	64	*Scaevola crassifolia* Low Closed Shrubland	coastal	2	2								**100**			
		Total Number of Sites		**1209**	**795**	**171**	**68**	**43**	**9**	**42**	**78**	**3**	**66**	**20**	**4**	**10**

Cat. = Category
Grp = Floristic Group No.
Salt Classes: Source: Northern Agricultural Districts, Land Resource Information (DWLBC Soil and Land Information 2002)
A = nil; B = slight salinity; C = moderate salinity; D = moderately high salinity; E = moderately high to high salinity; F = high salinity; G = very high to extreme salinity; and U = urban areas, no data.

As the second, *Geijera linearifolia* Tall Shrubland with emergent mallee, is mainly recorded on the sub-coastal plain of northern Yorke Peninsula at sites in soil land units with salt classes B or D (slight to moderate), it is potentially at risk to salinity.

Category 3 contains floristic groups with between 10 and 20% of their sites in moderate and high salinity classes. *Phragmites australis* Tussock Grassland, known to tolerate brackish water (Jessop *et al.* 2006), was recorded at one site with moderately high salinity and generally in watercourses. It is therefore potentially at risk should salinity levels rise. This category also includes *Triodia compacta* Hummock Grassland, considered rare in SA (DEH 2001), but which occurs naturally on dunes and plains on the west coast of Yorke Peninsula.

Figure 62.
***Lomandra effusa* Open Tussock Grassland on a plain west of Red Banks Conservation Park. With all but one of the sites where it was recorded being in the nil salinity class, this community is in salt risk category 5. (Photo: N. Neagle).**

The next category contains those floristic groups with more than 50% of their sites in the slight salinity class. Apart from *Bolboschoenus caldwellii* Sedgeland, which was recorded at only one site, they are all recognised as not occurring in naturally saline environments. Of these *Allocasuarina verticillata*, *Melaleuca lanceolata* Very Low Woodland appears to be at slight risk to salinity, as six of the ten sites are in soil salinity class C. Two watercourse communities – *Acacia salicina* Low Open Forest and *Myoporum montanum* Tall Open Shrubland over *Typha domingensis*, *Cyperus gymnocaulos* +/- an overstorey of *Eucalyptus camaldulensis* var. *camaldulensis* Open Forest – are also potentially at risk owing to their occurrence in salinity prone locations.

This category also contains *Lomandra multiflora* ssp *dura* Open Grassland (listed as critically endangered under the *EPBC Act 1999*) which, with five of its nine sites in the slight salinity class, appears to be at some risk to salinity, albeit low.

Category 5 floristic groups have less than 50% of their sites in the slight, moderate and high classes combined, while category 6 groups have all sites in the nil class. None of the floristic groups in either of these categories, including eight that are threatened at State level, appear to be at risk to salinity at present.

Common Species

A list of the most frequently observed plant species (at >10% of all survey sites) in the study area is presented in Appendix 8. Due to changes in taxonomy over the span of years of all surveys reported on here, plus difficulties in the field identification of some species, several species groups required lumping up to a broader taxonomic entity e.g. *Dianella brevicaulis*, *D. revoluta* (NC), *D. revoluta* var., *D. revoluta* var. *revoluta* and *D. brevicaulis*/*revoluta* var. are all combined in *D. brevicaulis*/*revoluta* var.

Much of the remnant native vegetation of the Mid North and Yorke Peninsula is confined to small, highly fragmented blocks in a sea of agricultural land. As a result many of these patches are heavily invaded by exotic species. This is exemplified by the high number of exotics amongst the most frequently recorded species (11 of the top 20). The two most commonly recorded species were *Avena barbata* (at 672 sites - 50.5% of all sites) and *Sonchus oleraceus* (599 sites – 45.0%). While exotic annuals feature extensively in this list, there was only one exotic perennial recorded at 10% or more of sites, *Lycium ferocissimum* (352 sites - 26.5%).

By comparison, the two most commonly recorded native species (and 3rd and 4th overall) were both perennial, the broad taxonomic entity *Dianella brevicaulis*/*revoluta* var. (512 sites - 38.5%) and *Enchylaena tomentosa* var. *tomentosa* (445 sites -

33.5%). The most common native annuals were *Oxalis perennans* (399 sites - 30.0%), *Daucus glochidiatus* (331 sites - 24.9%) and *Crassula colligata* ssp. (269 sites - 20.2%).

A reflection of the grasslands and grassy woodlands that characterise the Mid North is apparent here in the number of abundant grass (and related) species recorded – *Austrodanthonia caespitosa* (395 sites), *Austrostipa elegantissima* (292 sites), *Lomandra effusa* (248 sites), *L. multiflora* ssp. *dura* (243 sites), *Austrostipa scabra* ssp. (214 sites), *A. nitida* (207 sites), *A. blackii* (188 sites), *A. eremophila* (181 sites) and *Austrodanthonia setacea* (163 sites).

There are fewer tree or tall shrub species near the top of the list, with *Melaleuca lanceolata* (274 sites), *Bursaria spinosa* ssp. *spinosa* (271 sites), *Pittosporum angustifolium* (217 sites) and *Allocasuarina verticillata* (213 sites) being the most common. The most commonly recorded eucalypts were *E. odorata* (159 sites) and *E. gracilis* (135 sites).

Figure 63.
***Enchylaena tomentosa* var. *tomentosa* (Ruby Saltbush) was one of the most commonly recorded native species at survey sites in the region, being observed at 33.5% of all sites. (Photo: P. Lang).**

Coastal species are also prevalent in this list owing to much of the long length of coastline in the boundary of the study area still retaining at least a thin strip of native vegetation. These species include *Acrotriche patula* (244 sites), *Rhagodia candolleana* ssp. *candolleana* (230 sites), *Tetragonia implexicoma* (205 sites), *Pimelea serpyllifolia* ssp. *serpyllifolia* (204 sites), *Threlkeldia diffusa* (200 sites) and *Olearia axillaris* (177 sites).

Proclaimed Plants

The extent of exotic plants in the study area is further emphasised by the number of proclaimed plant species recorded, and the frequency of occurrence of each. Appendix 9 lists all species that are regarded as proclaimed plants under the regulations of the *Animal and Plant Control Act 1986* recorded at sites in the study area. A total of 36 such species were recorded at sites and one or more were recorded at 829 of the 1330 sites (62.3%) in the study area.

Figure 64.
***Pittosporum angustifolium* (Native Apricot) was one of the most frequently recorded low tree species at sites in the region. (Photo: N. Neagle).**

Species Patterns/Floristic Groups

The aim of the floristic analysis was to find patterns in species' distributions based on the cover/abundance of perennial species. In reality vegetation communities rarely exist as discrete entities as they are influenced by various environmental factors, such as depth and type of soil, available moisture, slope and aspect, and tend to grade into one another across the landscape.

In preparation for the data analysis a number of taxa and sites were excluded, while some taxa were combined. Taxa identified to generic level only were excluded, as were all annual species. Reference was made to the DEH FLORA database and the Flora of South Australia (Jessop and Toelken 1986) to determine the annual/perennial status of plant species. Species with infrequent occurrence (three sites or less) were also excluded from the analysis.

The lumping of some taxa up to a broader taxonomic entity was required. This occurred in instances where either identification to subspecies level has not occurred consistently or where changes in taxonomy over the course of all surveys reported on here now make it difficult to accurately interpret the current name of the taxon recorded.

A total of 1209 sites from 22 surveys (refer Table 9) contributed to the floristic analysis. In addition to sites without cover/abundance data (Mt Lofty, Innes National Park and Mid North and Western Murray Flats - 97

sites) a further 24 sites were removed from the original total of 1330 sampled in the study area. These include sites dominated by annuals or exotics, and sites in regrowth or ecotonal zones.

Following the removal of taxa as per above 20,867 records of 470 perennial taxa remained in the dataset for analysis. PC-ORD, a multivariate analysis program, was used to clump the 1209 sites into 83 floristic groups based on the similarity of species present and their cover/abundance values (refer Table 17). Appendix 10 provides a list of all plant taxa recorded at sites used in the floristic analysis and their site frequency within each floristic group. The site dendrogram resulting from the analysis is presented with annotations in Appendix 11.

It is important to note that there is no definitive point to cut the dendrogram and that the resultant classification used here could be one of many that could equally well summarise the data (Heard 2003). The total of 83 groups was selected to provide the most useful and ecologically meaningful set of vegetation groups to represent the study area. It is recognised that further splits are possible if subsets of the region are to be looked at in greater detail.

These floristic groups may be combined into clusters of 13 broader vegetation types.

Cluster 1: Grasslands (11 groups, 203 sites, 16.8%).
Groups 1 to 11 cover all the grassland communities of the Mid North. These occur on loam soils on hill slopes, footslopes and plains.

Groups 3, 6 and 7 are *Lomandra* grasslands mainly recorded on hill slopes from Eudunda to Peterborough. Commonly associated species include *Austrodanthonia caespitosa*, *Ptilotus spathulatus* f. *spathulatus* and *Vittadinia* spp.

Groups 1, 4, 8 and 9 are widespread on hill slopes and plains in the Mid North and dominated by *Austrostipa* and *Austrodanthonia* species. Commonly associated species include *Lomandra multiflora* ssp. *dura*, *Ptilotus spathulatus* f. *spathulatus* and *Vittadinia gracilis*, while *Allocasuarina verticillata*, *Eucalyptus porosa* and *Acacia pycnantha* are occasional emergents. Group 11 has a similar suite of grass species but with a low shrub overstorey of *Maireana aphylla*.

The grasslands of groups 2 and 5 are dominated by *Themeda triandra* and occur on clay and loam soils on hill slopes and plains approximately between Yacka and Burra. *Aristida behriana* is found in association, as are similar species to the previous groups.

Group 10 is a *Triodia scariosa* Hummock Grassland in the Yackamoorundie Hills.

Cluster 2: Sheoak Low Woodlands of the Mid North (5 groups, 90 sites, 7.4%).
Groups 12 to 16 describe the *Allocasuarina verticillata* Low Woodland communities on hill slopes in the Mid North.

Groups 12 to 15 are found on loam soils of hill slopes. On occasions *Eucalyptus odorata* may occur as a sub-dominant. In places the tree overstorey is absent and the common understorey species, such as *Bursaria spinosa* ssp. *spinosa*, *Xanthorrhoea quadrangulata*, *Pomaderris paniculosa* ssp. *paniculosa and Triodia bunicola*, assume a dominant position.

Group 16 represents a rare community of *Eucalyptus macrorhyncha* ssp. *macrorhyncha* Low Woodland confined to the Clare Hills.

Figure 65.
***Eucalyptus macrorhyncha* ssp. *macrorhyncha* Low Woodland occurs in a small area of the Clare Hills as a relict outlier of its main distribution in the Great Dividing Range of Eastern Australia. (Photo: L.M.B. Heard).**

Cluster 3: Grassy Woodlands and Open Forests of the Mid North (7 groups, 142 sites, 11.7%).
Groups 17 to 23 refer to grassy woodland and open forest communities on hill slopes and plains in the Mid North.

Table 17.
Floristic vegetation groups and clusters (in bold type) resulting from the PC-ORD analysis.

Grp No.	No. of Sites	Floristic Group Name
Grasslands		
1	63	*Austrostipa blackii*, *Aristida behriana*, *Lomandra multiflora* ssp. *dura*, *Austrostipa scabra* ssp. Tussock Grassland
2	3	*Themeda triandra* Tussock Grassland
3	9	*Lomandra multiflora* ssp. *dura* Open Tussock Grassland
4	19	*Austrostipa scabra* ssp. +/- *Austrodanthonia caespitosa* Tussock Grassland +/- an Open Mallee overstorey
5	6	*Aristida behriana* +/- *Themeda triandra* Tussock Grassland
6	16	*Lomandra multiflora* ssp. *dura* and/or *L. effusa* Open Tussock Grassland
7	12	*Lomandra effusa* Open Tussock Grassland
8	10	*Austrodanthonia caespitosa* Open Tussock Grassland
9	59	*Austrostipa eremophila*, *Austrodanthonia caespitosa* +/- *Austrostipa nitida* +/- *Lomandra effusa* Open Tussock Grassland
10	2	*Triodia scariosa* Open Hummock Grassland
11	4	*Maireana aphylla* Low Open Shrubland
Sheoak Low Woodlands of the Mid North		
12	22	*Triodia bunicola* Hummock Grassland +/- an overstorey of *Allocasuarina verticillata* Low Woodland
13	35	*Allocasuarina verticillata* Low Woodland
14	8	*Bursaria spinosa* ssp. *spinosa* +/- *Pomaderris paniculosa* ssp. *paniculosa* Shrubland +/- emergent *Eucalyptus odorata*
15	19	*Allocasuarina verticillata*, *Xanthorrhoea quadrangulata* +/- *Eucalyptus odorata* Low Woodland
16	6	*Eucalyptus macrorhyncha* ssp. *macrorhyncha* Low Woodland
Grassy Woodlands and Open Forests of the Mid North		
17	69	*Eucalyptus odorata* Low Woodland over grasses
18	7	*Callitris glaucophylla* +/- *Eucalyptus odorata* Low Open Forest
19	1	*Acacia salicina* Low Open Forest
20	40	*Eucalyptus leucoxylon* ssp. Open Forest over grasses
21	4	*Eucalyptus leucoxylon* ssp. +/- *E. odorata* +/- *Allocasuarina verticillata* Woodland over *Acacia pycnantha*, *A. paradoxa*
22	20	*Callitris gracilis* Low Open Forest over grasses
23	1	*Hymenanthera dentata* Low Open Shrubland
Open Shrublands and Mallees of drier areas		
24	38	*Eucalyptus porosa* Open Mallee over grasses and sparse chenopods
25	12	*Senna artemisioides* ssp. *coriacea* +/- *Templetonia egena* Shrubland
26	15	*Geijera linearifolia* Tall Shrubland with emergent mallee
27	6	*Maireana brevifolia* Low Shrubland
28	1	*Casuarina pauper*, *Myoporum platycarpum* Low Open Woodland over *Maireana sedifolia*
29	8	*Nitraria billardierei* Low Open Shrubland
Chenopod Shrublands		
30	7	*Maireana pyramidata*, *Atriplex vesicaria* ssp. Low Open Shrubland
31	10	*Atriplex vesicaria* ssp. Low Open Shrubland +/- an Open Mallee overstorey
Open Mallee		
32	60	*Eucalyptus oleosa* ssp. +/- *E. gracilis* Open Mallee
33	39	*Eucalyptus gracilis* +/- *E. brachycalyx* Open Mallee
34	51	*Eucalyptus socialis* ssp. +/- *E. gracilis* Open Mallee
35	10	*Eucalyptus dumosa* Open Mallee
Blackoak Woodland		
36	4	*Casuarina pauper* Low Woodland over sparse chenopods and grasses

Grp No.	No. of Sites	Floristic Group Name
Semi-arid Shrublands		
37	6	*Dodonaea viscosa* ssp. *angustissima* Low Open Shrubland
38	8	*Acacia calamifolia* Open Shrubland
39	2	*Dodonaea lobulata* Shrubland
40	6	*Acacia victoriae* ssp. *victoriae* Tall Open Shrubland
River Box Woodland		
41	1	*Eucalyptus largiflorens* Very Low Open Forest
Yorke Peninsula Mallee and Sedgelands		
42	52	*Eucalyptus diversifolia* ssp. *diversifolia* Open Low Mallee
43	5	*Melaleuca lanceolata*, *Eucalyptus socialis* ssp. Tall Open Shrubland
44	5	*Gahnia lanigera* Sedgeland
45	7	*Triodia compacta* Hummock Grassland
46	8	*Lepidosperma congestum*, *Lomandra effusa*, *Gahnia lanigera* Sedgeland
47	20	*Eucalyptus porosa* +/- *E. leptophylla* +/- *Allocasuarina verticillata* Open Mallee
48	10	*Allocasuarina verticillata*, *Melaleuca lanceolata* Very Low Woodland
49	17	*Eucalyptus rugosa*, *E. diversifolia* ssp. *diversifolia* Mallee
50	23	*Melaleuca lanceolata* Tall Shrubland
51	9	*Eucalyptus incrassata*, *Melaleuca uncinata* +/- *E. socialis* Open Mallee
52	4	*Eucalyptus incrassata* Mallee
53	9	*Eucalyptus leptophylla*, *E. phenax* +/- *E. socialis* ssp. Mallee
Coastal Shrublands		
54	14	*Alyxia buxifolia* +/- *Leucopogon parviflorus* Shrubland
55	5	*Callitris gracilis* +/- *Eucalyptus brachycalyx* Low Woodland over *Alyxia buxifolia*
56	9	*Acacia nematophylla* Shrubland +/- an overstorey of *Allocasuarina verticillata* Low Woodland
57	20	*Acacia ligulata* Tall Open Shrubland
58	48	*Olearia axillaris* +/- *Acacia ligulata* Tall Open Shrubland
59	25	*Leucopogon parviflorus*, *Olearia axillaris* Shrubland
60	11	*Nitraria billardierei* +/- *Olearia axillaris* +/- *Atriplex cinerea* Shrubland
61	1	*Acacia cyclops* Tall Closed Shrubland
62	18	*Templetonia retusa* +/- *Beyeria lechenaultii* Shrubland
63	10	*Leucophyta brownii*, *Scaevola crassifolia* Low Shrubland
64	2	*Scaevola crassifolia* Low Closed Shrubland
65	2	*Suaeda australis* Low Shrubland
66	8	*Spinifex hirsutus* Open Tussock Grassland
Saline Shrublands		
67	10	*Halosarcia pergranulata* ssp. Low Shrubland
68	6	*Halosarcia indica* ssp. *leiostachya* Low Shrubland
69	7	*Atriplex paludosa* ssp. *cordata* +/- *Halosarcia indica* ssp. Low Shrubland
70	2	*Halosarcia syncarpa* Low Shrubland
71	24	*Halosarcia halocnemoides* ssp. +/- *H. indica* ssp. *leiostachya* Low Shrubland
72	4	*Lawrencia squamata* Low Shrubland
73	13	*Melaleuca halmaturorum* Very Low Open Forest
74	30	*Sclerostegia arbuscula*, *Sarcocornia quinqueflora* Low Shrubland
75	3	*Gahnia filum* Sedgeland
76	3	*Avicennia marina* ssp. *marina* Very Low Closed Forest
Watercourse Communities		
77	5	*Myoporum montanum* Tall Open Shrubland over *Typha domingensis*, *Cyperus gymnocaulos* +/- an overstorey of *Eucalyptus camaldulensis* var. *camaldulensis* Open Forest
78	1	*Bolboschoenus caldwellii* Sedgeland
79	10	*Juncus kraussii* Sedgeland
80	5	*Eucalyptus camaldulensis* var. *camaldulensis* Woodland over *Phragmites australis*
81	6	*Phragmites australis* Tussock Grassland
82	6	*Muehlenbeckia florulenta* Shrubland
83	13	*Eucalyptus camaldulensis* var. *camaldulensis* Open Forest over grasses and herbs

Groups 17, 18 and 19 are dominated by *Eucalyptus odorata*, occasionally with *Callitris glaucophylla*, and found on loam soils of hill slopes throughout the Mid North. *Austrodanthonia caespitosa* and *Austrostipa* species are common in the ground layer.

Groups 20 and 21 also occur widely on hill slopes in the Mid North, but are centred more on the higher rainfall areas like the Clare Hills. These groups are dominated by *Eucalyptus leucoxylon*, may have a mid-storey of *Acacia pycnantha* and *A. paradoxa* and a ground layer with similar species to groups 17 to 19.

In group 22 the eucalypt overstorey is replaced by *Callitris gracilis* and the community is mainly confined to sandy loam soils of the Northern Adelaide Plains.

Group 23 is a *Hymenanthera dentata* Low Open Shrubland with a restricted distribution on slopes and crests of the higher hills in the North Mount Lofty Ranges.

Cluster 4: Open Shrublands and Mallees of drier areas (6 groups, 80 sites, 6.6%).
Groups 24 to 29 describe open shrubland and mallee communities on plains and hill slopes in drier parts of the region.

Group 24 is a *Eucalyptus porosa* Open Mallee widely distributed on plains and hill slopes across the study area.

Groups 25 and 26 represent tall shrubland communities, though from different habitats. The former, dominated by *Senna artemisioides* ssp. *coriacea*, is scattered on the margins of the Mid North, while the latter, dominated by *Geijera linearifolia*, was found on sub-coastal plains of northern Yorke Peninsula.

Groups 27 and 29 are low shrublands often found on plains, particularly the margins of saline lakes, and are dominated by *Maireana brevifolia* and *Nitraria billardierei* respectively.

Figure 66.
***Nitraria billardierei* Open Shrubland on low-lying, seasonally inundated plains east of Lochiel. (Photo: N. Neagle).**

Group 28 (*Casuarina pauper*, *Myoporum platycarpum* Low Open Woodland) is something of an anomaly to the study area, as it is far more common in semi-arid areas further north.

Cluster 5: Chenopod Shrublands (2 groups, 17 sites, 1.4%).
Groups 30 and 31 are chenopod shrublands dominated by *Atriplex vesicaria* and *Maireana pyramidata*. They occur mainly on loam soils of plains east of Burra and north of Port Pirie. Commonly associated understorey species include *Enchylaena tomentosa* var. *tomentosa* and *Sclerolaena obliquicuspis*.

Cluster 6: Open Mallee (4 groups, 160 sites, 13.2%).
Groups 32 to 35 comprise the open mallee communities on the drier plains of the region. The overstorey dominants vary, but are mainly *Eucalyptus oleosa*, *E. gracilis*, *E. socialis*, *E. brachycalyx* and *E. dumosa*. The understoreys, though often sparse, tend to be dominated by *Rhagodia parabolica*, *Enchylaena tomentosa* var. *tomentosa*, *Pittosporum angustifolium* and *Sclerolaena diacantha*.

Figure 67.
***Eucalyptus socialis* Open Mallee in Clements Gap Conservation Park. (Photo: N. Neagle).**

Cluster 7: Blackoak Woodland (1 group, 4 sites, 0.3%).
Group 36 is a *Casuarina pauper* Low Woodland found at scattered locations in the north of the study area. It has a limited distribution and is far more common in semi-arid areas further north.

Cluster 8: Semi-arid Shrublands (4 groups, 22 sites, 1.8%)
Groups 37 to 40 describe semi-arid shrublands on hill slopes and plains at the drier northern margins of the study area.

Groups 37 to 39 are *Dodonaea* and *Acacia* dominated shrublands on shallow, rocky soils on the slopes of the higher ranges near Mount Bryan. *Chrysocephalum semipapposum* and *Enchylaena tomentosa* var. *tomentosa* are common understorey components.

Group 40 differs in that it occurs in run on areas on plains. It is dominated by *Acacia victoriae* ssp. *victoriae*, with *Marrubium vulgare*, *Atriplex stipitata* and *Enchylaena tomentosa* var. *tomentosa* common in the understorey.

Cluster 9: River Box Woodland (1 group, 1 site, 0.1%).
Group 41 is a *Eucalyptus largiflorens* Very Low Open Forest represented by a single site at Angle Vale on the floodplain of the Gawler River. It is another example of a community with very limited occurrence in the study area but a much broader distribution elsewhere in South Australia, in this case along the River Murray.

Cluster 10: Yorke Peninsula Mallee and Sedgelands (12 groups, 169 sites, 14.0%).
Groups 42 to 53 comprise mallee and sedgeland communities occurring throughout Yorke Peninsula.

Groups 42 and 49 are coastal and sub-coastal mallee communities found on sand or loam over limestone on southern Yorke Peninsula and dominated by *Eucalyptus diversifolia* ssp. *diversifolia* and *E. rugosa*. Heath species dominate the dense understorey, with *Acrotriche patula*, *Melaleuca lanceolata*, *Beyeria lechenaultii*, *Templetonia retusa* and *Correa pulchella* being prevalent.

Groups 43, 47 and 53 are mallee communities occurring on loam soils of central Yorke Peninsula and isolated Mid North locations. The overstorey differs for each and may feature *Eucalyptus socialis*, *E. porosa*, *E. leptophylla* or *E. phenax*. The understorey is more open than for groups 42 and 49 and *features Melaleuca lanceolata*, *Acrotriche patula*, *Gahnia lanigera* and *Helichrysum leucopsideum*.

Figure 68.
***Lomandra effusa*, *Gahnia lanigera*, *Lepidosperma congestum* Sedgeland in a swale of coastal dunes at Hardwicke Bay, Yorke Peninsula. (Photo: L.M.B. Heard).**

Groups 51 and 52 are dominated by *Eucalyptus incrassata* and occur on low sandy dunes on Yorke Peninsula and the northern Adelaide Plains. The understorey differs between the two probably due to the depth of sand present. *Melaleuca uncinata* occurs as a dense sub-dominant layer in the former, while the drier mallee species *Rhagodia parabolica* and *Enchylaena tomentosa* var. *tomentosa* are common in the latter.

Groups 48 and 50 represent low woodland communities on sand or loam soils of mainly southern Yorke Peninsula plains dominated by *Allocasuarina verticillata* and/or *Melaleuca lanceolata*. The former shares similar heathy understorey species with the coastal mallee communities, while the latter has an understorey more aligned with coastal shrubland communities.

Groups 44, 45 and 46 are the sedgeland and hummock grassland communities of southern and central Yorke Peninsula coastal dunes. *Lepidosperma congestum*, *Gahnia lanigera*, *Lomandra effusa* and, in the latter only, *Triodia compacta*, dominate these groups.

Cluster 11: Coastal Shrublands (13 groups, 173 sites, 14.3%).
Groups 54 to 66 describe the shrublands of coastal dunes and clifftops. The dune communities share a common understorey and can be separated by overstorey dominants and distribution.

Groups 54, 56, 59 and 62 occur on southern Yorke Peninsula coastal dunes and are variously dominated by *Alyxia buxifolia*, *Leucopogon parviflorus*, *Acacia nematophylla*, *Olearia axillaris* or *Templetonia retusa*. They share common understorey species such as *Rhagodia candolleana* ssp. *candolleana*, *Tetragonia implexicoma*, *Carpobrotus rossii* and *Senecio pinnatifolius*.

Figure 69.
***Acacia ligulata*, *Olearia axillaris* Open Shrubland in dunes near Balgowan on the west coast of Yorke Peninsula. (Photo: N. Neagle).**

Group 55 is slightly different in that it occurs inland on the plains north of Adelaide and is a *Callitris gracilis* Low Woodland. It does, however, share some common understorey species with the coastal communities, such as *Alyxia buxifolia* and *Beyeria lechenaultii*.

Groups 58, 60 and 61 are found mainly on the central Yorke Peninsula and northern Adelaide coasts. Again

overstorey dominants vary, though *Olearia axillaris* is common. The understorey matches that of the southern Yorke Peninsula shrublands.

Group 57 is a *Acacia ligulata* dominated tall open shrubland of coastal dunes of northern Yorke Peninsula up to the head of Spencer Gulf. Again the understorey is consistent with the previous groups.

Groups 63, 64 and 66 represent low shrubland communities on coastal clifftops and foredunes. *Leucophyta brownii*, *Scaevola crassifolia* and *Spinifex hirsutus* variously dominate these communities.

Group 65 is a *Suaeda australis* Low Shrubland occurring on beach ridges and tidal flats on the coast north of Adelaide.

Cluster 12: Saline Shrublands (10 groups, 102 sites, 8.4%).
Groups 67 to 76 comprise all the salt tolerant communities of coastal saltmarshes and salt lake margins.

Groups 67 to 72 and 74 represent the saltmarsh communities. These are found along the coast north of Adelaide, in the Port Wakefield-Snowtown area, and on the coast near Port Pirie. *Halosarcia* species, *Sclerostegia arbuscula*, *Sarcocornia quinqueflora* and *Atriplex paludosa* ssp. *cordata* dominate these communities. Other commonly associated species include *Disphyma crassifolium* ssp. *clavellatum*, *Frankenia pauciflora* and *Maireana oppositifolia*.

Figure 70.
***Melaleuca halmaturorum* Low Closed Forest near Point Davenport on southern Yorke Peninsula. (Photo: N. Neagle).**

Group 73 is a *Melaleuca halmaturorum* Very Low Open Forest that occurs on the fringes of salt lakes and swamps on southern Yorke Peninsula. Commonly occurring understorey species include *Sarcocornia quinqueflora*, *Rhagodia candolleana* ssp. *candolleana*, *Samolus repens* and *Gahnia filum*.

Group 75 is a *Gahnia filum* Sedgeland associated with low-lying, seasonally inundated saline areas of southern Yorke Peninsula.

Group 76 is an *Avicennia marina* ssp. *marina* Very Low Closed Forest found on tidal flats on the coast north of Adelaide, the head of Gulf St Vincent and near Port Pirie.

Cluster 13: Watercourse Communities (7 groups, 46 sites, 3.8%).
Groups 77 to 83 represent communities associated with watercourses in the Mid North.

Groups 77, 80 and 83 are those dominated by *Eucalyptus camaldulensis* var. *camaldulensis*. They are associated with stream banks and channels and may, in the absence of Red Gums, be dominated by *Myoporum montanum*. *Cyperus gymnocaulos*, *Juncus kraussii* and *Cynara cardunculus* are common understorey components.

Groups 78 and 79 are sedgeland communities found in swamps and floodout areas dominated respectively by *Bolboschoenus caldwellii* and *Juncus kraussii*.

Group 81 is a *Phragmites australis* Tussock Grassland community occurring in the stream channel. Commonly associated species include *Cynara cardunculus*, *Phalaris aquatica* and *Distichlis distichophylla*.

Group 82 is a *Muehlenbeckia florulenta* Shrubland recorded on the floodplain of the lower Broughton River. *Cyperus gymnocaulos* and *Cynara cardunculus* were common understorey species.

Minor Plant Communities Not Sampled

Several plant communities known to occur in the study area are not listed here among the 83 floristic groups due to their very limited extent. These include *Eucalyptus microcarpa* Low Woodland/Open Mallee, *E. behriana* Open Mallee and *Maireana sedifolia* Low Open Shrubland. The first two of these communities only occur as small, isolated remnants in the Mid North, while the latter is found only on the periphery of the study area, being far more widespread in the semi arid pastoral region of the state.

A total of six sites from all surveys were sampled in grassy woodlands dominated by *E. microcarpa*. These are mainly included within the grassland community of floristic group 1. The other two communities are of such limited extent in the region as to be too small to warrant sampling.

Floristic Group Descriptions

Detailed descriptions of the 83 floristic Groups defined in the PC-ORD analysis are provided in the following format.

Floristic group number is in the order they appeared on the dendrogram.

Floristic group name is the descriptive title that includes the dominant (and possibly co-dominant and/or subdominant) overstorey species, the vegetation structural formation classification for South Australia (as per Heard and Channon 1997) and, in some cases, the dominant understorey species. Plant taxonomy and nomenclature follows the DEH FLORA database 2005 and Barker *et al.* (2005).

Description of group: a summary of the most common overstorey, mid-stratum (if necessary) and ground layer taxa (perennial and annual); the soil types and landforms where it typically occurs; and the range of soil salinity classes in which it was recorded.

Landform element: a list of the landform element types recorded for sites comprising the group, the frequency of each and percentage of all sites in the group.

Landform pattern: a list of the landform pattern types recorded for sites comprising the group, the frequency of each and percentage of all sites in the group.

Salt: a list of the soil salinity classes recorded for sites comprising the group, the frequency of each and percentage of all sites in the group.

Soil: a list of the surface soil types recorded for sites comprising the group, the frequency of each and percentage of all sites in the group.

Distribution map: displays the location of all sites used in the floristic analysis (small open circles) and the sites that represent the floristic group (larger black dots).

Number of sites in group is determined from the PC-ORD analysis.

Plant taxa summary: the total number of plant taxa recorded at sites defining the group, the number of annual and perennial native taxa within the group, and the number of annual and perennial exotic taxa within the group. (Taxa identified only to generic level have not been included here.)

Average number of taxa at a site: figures are provided to the nearest whole number for average, minimum and maximum numbers of native and exotic taxa, as well as for all taxa at a site.

Number of taxa of conservation significance: the number of conservation significant taxa (rated at least Rare) recorded at sites representing the group at Australian, South Australian and regional levels. The Australian ratings are based on the *Environment Protection and Biodiversity Conservation Act 1999*, the South Australian on the *National Parks and Wildlife Act 1972* (2000 update of Schedules 7, 8 and 9), and regional ratings as per Lang and Kraehenbuehl (2006).

Regional ratings are in relation to Herbarium Regions. The entire Yorke Peninsula (YP) Herbarium Region is within the study area, as is most of the Northern Lofty (NL), and portions of the Eyre Peninsula (EP), Flinders Ranges (FR), Murray (MU) and Southern Lofty (SL) regions. The figures presented for each Herbarium Region refer only to those regions of the six where sites representing the group have been recorded. Regions outside a floristic group's distribution are annotated with the code n/a (not applicable).

Group taxa list: provides a list with statistics of all perennial and annual taxa that were recorded at 30% or more of sites representing the floristic group. Also listed are any other significant perennial taxa (either dominant overstorey taxa or any taxa with a high indicator value but recorded at less than 30% of sites).

The statistics provided for each taxon are:-

- frequency of occurrence at sites in the group (Freq),
- percentage of all sites in the group at which they occurred (% Freq),
- frequency of occurrence in each cover/abundance category (N, T, 1, 2, 3, 4 and 5),
- average cover/abundance for sites at which they were recorded (C/A Ave),
- total number of records at sites in the analysis (Tot Recs),
- total number of floristic groups in which they were recorded (Tot Grps), and
- an indicator value (Ind Value) (derived in PC-ORD). This combines information on the concentration of species abundance in a particular group and the faithfulness of occurrence in that group. Values range from 0 (no indication) to 100 (perfect indication, i.e. that presence of a species points to this particular group without error, at least with the data provided) (McCune and Mefford 1999).

Figure: photograph of a site representing the floristic group.

Fauna at sites in Floristic Group: provides the number of sites representing the group where fauna trapping (survey effort) has occurred plus the number of sites where mammals, birds, reptiles and frogs were actually recorded. There then follows a list of all vertebrate fauna species (by class) recorded for the group with their site frequency and number of observations.

Floristic Group 1 *Austrostipa blackii*, *Aristida behriana*, *Lomandra multiflora* ssp. *dura*, *Austrostipa scabra* ssp. Tussock Grassland

This Tussock Grassland group is associated with loam soils on hill slopes, hill footslopes and ridges of the North Mount Lofty Ranges and is widespread north of Saddleworth, in particular the Burra Hills, around Spalding and north of Jamestown. It is dominated by *Austrostipa blackii*, *Aristida behriana*, *Lomandra multiflora* ssp. *dura* and *Austrostipa scabra* ssp. Several species may occur as emergents, including the trees *Allocasuarina verticillata* and *Eucalyptus leucoxylon* ssp., and the shrubs *Bursaria spinosa* ssp. *spinosa* and *Acacia pycnantha*. Less abundant perennial taxa that are also indicative of this group are *Cryptandra* sp. Long hypanthium (C.R. Alcock 10626), *Ptilotus erubescens*, *Eryngium rostratum* and *Austrodanthonia auriculata*.

As with all grassland groups in the region, introduced annual species (when present) comprise a high proportion of species diversity and abundance. *Avena barbata* and *Trifolium* spp. dominate the ephemeral spring component.

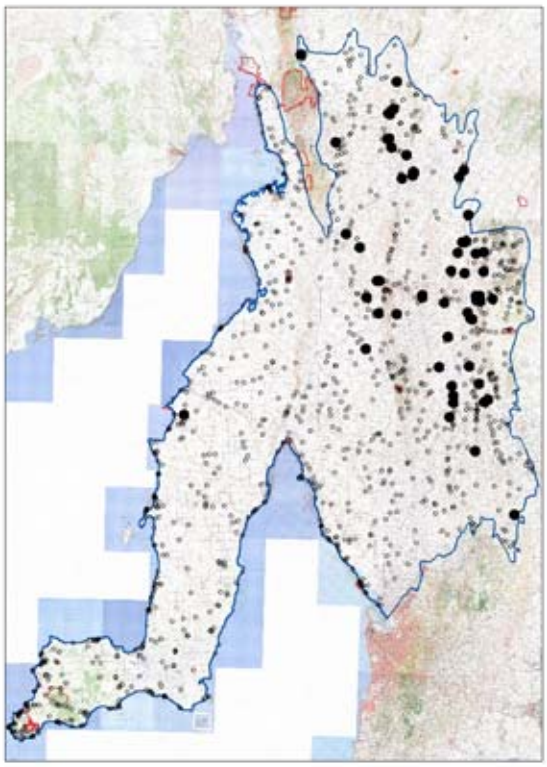
Sites within this group tend to occur in soil land units that are either unaffected or only slightly affected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Hill slope	31	49.2
Hill footslope	12	19.0
Plain	11	17.5
Ridge	5	7.9
Hill crest	1	1.6
Dune footslope	1	1.6
Stream channel	1	1.6
Not recorded	1	1.6

LANDFORM PATTERN	Frequency	%
Hills	17	27.0
Low hills	16	25.4
Rises	8	12.7
Plain	6	9.5
Not recorded	16	25.4

SALT	Frequency	%
Class A	47	74.6
Class B	15	23.8
Class C	1	1.6

SOIL	Frequency	%
Skeletal	3	4.8
Sand	3	4.8
Loam	46	73.0
Clay	9	14.3
Not recorded	2	3.2



Number of sites in group 63

PLANT TAXA SUMMARY

Number of taxa in group	381
Number of native taxa in group	252
Perennial	178
Annual	74
Number of introduced taxa in group	129
Perennial	21
Annual	108

Average Number of Taxa at a site:

Native perennial	19	Min: 4	Max: 45
Introduced perennial	1	Min: 0	Max: 6
Native annual	8	Min: 0	Max: 23
Introduced annual	14	Min: 4	Max: 24
All taxa	42	Min: 13	Max: 72

Number of Taxa of Conservation Significance:

Aust	3	SA	16			
Regions:		EP	n/a	FR	8	MU 14
		NL	36	SL	n/a	YP 3

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Lomandra multiflora ssp. *dura*	55	87.3	2	20	21	10	2			0.89	241	34	12
Austrostipa blackii	53	84.1		5	22	24	2			1.44	188	24	18
Aristida behriana	47	74.6	2	7	20	15	3			1.27	130	20	19
Austrostipa scabra ssp.	44	69.8		9	24	10	1			1.09	233	41	8
Vittadinia cuneata var.	37	58.7	2	18	17					0.51	152	34	8
Vittadinia gracilis	33	52.4	7	15	11					0.38	173	30	4
Ptilotus spathulatus f. *spathulatus*	30	47.6	8	13	9					0.35	186	35	3
Austrodanthonia setacea	29	46.0		5	11	11	2			1.36	163	38	7
Austrodanthonia caespitosa	27	42.9		11	13	3				0.74	394	53	1
Austrodanthonia auriculata	26	41.3		5	17	4				0.98	70	15	10
Dianella revoluta var. *revoluta*	26	41.3	3	15	7	1				0.41	306	47	1
Sida corrugata var.	26	41.3	3	18	5					0.26	117	23	3
Themeda triandra	24	38.1		7	9	6	2			1.15	88	22	3
Elymus scabrus var. *scabrus*	24	38.1	3	14	7					0.35	84	18	7
Bursaria spinosa ssp. *spinosa*	23	36.5	4	10	6	3				0.57	255	39	1
Chrysocephalum apiculatum	23	36.5	4	8	10	1				0.56	156	33	2
Convolvulus remotus	22	34.9	5	11	6					0.33	88	34	4
Cryptandra sp. Long hypanthium (C.R. Alcock 10626)	21	33.3	1	6	10	3	1			0.93	53	14	9
Austrostipa nodosa	19	30.2		4	10	5				1.07	106	26	3
Other Significant Perennial Taxa													
Allocasuarina verticillata	17	27.0	5	5	3	3	1			0.74	194	35	1
Acacia pycnantha	14	22.2	4	3	5	1	1			0.74	155	29	1
Ptilotus erubescens	14	22.2	4	6	4					0.33	23	9	14
Eryngium rostratum	12	19.0		4	6	2				0.87	16	5	12
Eucalyptus leucoxylon ssp.	8	12.7	1	3	1	2	1			1.04	95	12	
Annual Taxa Occurring at >30% of Sites													
**Avena barbata*	59	93.7		8	31	12	3	5		1.44	661	71	
**Trifolium angustifolium*	44	69.8		8	30	6				0.97	195	31	
**Echium plantagineum*	42	66.7	5	22	10	5				0.53	352	48	
**Trifolium campestre*	41	65.1		10	27	4				0.88	227	41	
Maireana enchylaenoides	39	61.9	1	31	7					0.26	254	33	
**Trifolium arvense* var. *arvense*	37	58.7	1	14	21	1				0.66	188	29	
**Hypochaeris glabra*	34	54.0		17	16	1				0.58	349	54	
Oxalis perennans	34	54.0	3	23	7	1				0.33	393	53	
**Carthamus lanatus*	33	52.4	6	13	12	2				0.53	151	35	
Wahlenbergia luteola	33	52.4	5	17	10	1				0.42	174	26	
Chamaesyce drummondii	31	49.2	4	23	4					0.20	120	26	
**Vulpia myuros* f. *myuros*	26	41.3		7	17	2				0.83	292	60	
**Bromus hordeaceus* ssp. *hordeaceus*	24	38.1	1	4	13	3	2	1		1.23	89	25	
**Hypochaeris radicata*	24	38.1	3	15	6					0.31	116	31	
Goodenia pinnatifida	23	36.5	2	13	7	1				0.45	163	29	
**Bromus diandrus*	22	34.9	1	7	11	3				0.81	310	54	
Triptilodiscus pygmaeus	21	33.3	3	8	10					0.52	73	18	
Calocephalus citreus	20	31.7	5	5	6	4				0.73	49	12	
**Brachypodium distachyon*	19	30.2		7	8	2	2			0.98	156	36	
**Bromus rubens*	19	30.2		6	13					0.72	365	57	
**Salvia verbenaca* var. *verbenaca*	19	30.2	5	6	8					0.46	95	32	

Figure 71.
***Austrostipa blackii*, *Aristida behriana*, *Lomandra multiflora* ssp. *dura*, *Austrostipa scabra* ssp. Tussock Grassland at site PEK00901 west of Pekina.**

Fauna at sites in Floristic Group 1

Trapping effort at 8 of 63 sites. Mammals recorded at 5 sites, birds at 8, reptiles at 7 and a frog at 1.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Macropus fuliginosus	Western Grey Kangaroo			4	5
Macropus robustus	Euro			2	6
Mus musculus	House Mouse			2	17
Oryctolagus cuniculus	Rabbit			2	2
Chalinolobus morio	Chocolate Wattled Bat			1	1
Tachyglossus aculeatus	Short-beaked Echidna			1	1
Vulpes vulpes	Fox			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Anthus novaeseelandiae	Richard's Pipit			6	38
Gymnorhina tibicen	Australian Magpie			6	23
Falco cenchroides	Nankeen Kestrel			4	6
Passer domesticus	House Sparrow			4	21
Aquila audax	Wedge-tailed Eagle			3	4
Cacatua roseicapilla	Galah			3	116
Mirafra javanica	Horsfield's Bushlark			3	3
Ocyphaps lophotes	Crested Pigeon			3	13
Alauda arvensis	Eurasian Skylark			2	4
Cincloramphus cruralis	Brown Songlark			2	8
Corvus mellori	Little Raven			2	9
Rhipidura leucophrys	Willie Wagtail			2	3
Sturnus vulgaris	Common Starling			2	21
Taeniopygia guttata	Zebra Finch			2	5
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			1	12
Aphelocephala leucopsis	Southern Whiteface			1	3
Barnardius zonarius	Australian Ringneck, (Ring-necked Parrot)			1	4
Columba livia	Rock Dove			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Dromaius novaehollandiae	Emu			1	6
Falco berigora	Brown Falcon			1	6
Falco longipennis	Australian Hobby			1	1
Falco subniger	Black Falcon			1	2
Hirundo neoxena	Welcome Swallow			1	1
Lichenostomus penicillatus	White-plumed Honeyeater			1	7
Lichenostomus virescens	Singing Honeyeater			1	1
Malurus leucopterus	White-winged Fairy-wren			1	3
Manorina flavigula	Yellow-throated Miner			1	8
Neophema elegans	Elegant Parrot			1	5
Pardalotus striatus	Striated Pardalote			1	1
Psephotus haematonotus	Red-rumped Parrot			1	10
Turnix velox	Little Button-quail			1	1

Reptile species	Common name	SA	Aus	Site freq	Number obs
Tiliqua rugosa	Sleepy Lizard			4	9
Lerista bougainvillii	Bougainville's Skink			3	5
Menetia greyii	Dwarf Skink			2	4
Morethia boulengeri	Common Snake-eye			2	6
Delma butleri	Spinifex Snake-lizard			1	3
Pogona vitticeps	Central Bearded Dragon			1	1

Frog species	Common name	Site freq	Number obs
Crinia signifera	Common Froglet	1	1

Floristic Group 2 *Themeda triandra* Tussock Grassland

This Tussock Grassland group is dominated by *Themeda triandra*. Other distinctive species are *Austrodanthonia caespitosa*, *A. setacea*, *Convolvulus remotus* and *Vittadinia blackii*. Less frequently occurring, but still indicative of the group, are *Triodia irritans*, *Whalleya proluta* and *Austrostipa gibbosa*. The most commonly occurring and abundant annuals are all exotics, including *Avena barbata*, *Brachypodium distachyon*, *Trifolium arvense* var. *arvense*, *T. angustifolium*, *T. campestre* and *Vulpia myuros* f. *myuros*. The group is associated with loam soils of hill slopes and footslopes and is represented by three scattered sites at Yacka, Mount Cone and Manoora.

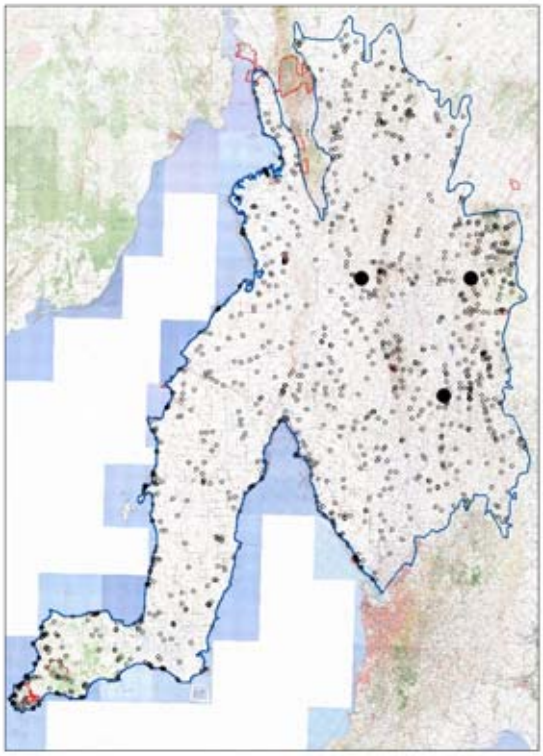
Sites within this group tend to occur in soil land units that are either unaffected or only slightly affected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Hill footslope	2	66.7
Hill slope	1	33.3

LANDFORM PATTERN	Frequency	%
Hills	1	33.3
Low hills	1	33.3
Not recorded	1	33.3

SALT	Frequency	%
Class A	2	66.7
Class B	1	33.3

SOIL	Frequency	%
Loam	3	100.0



Number of sites in group 3

PLANT TAXA SUMMARY

Number of taxa in group	79
Number of native taxa in group	48
Perennial	36
Annual	12
Number of introduced taxa in group	31
Perennial	3
Annual	28

Average Number of Taxa at a site:

Native perennial	16	Min:	9	Max:	24
Introduced perennial	1	Min:	1	Max:	1
Native annual	4	Min:	4	Max:	5
Introduced annual	14	Min:	9	Max:	18
All taxa	35	Min:	28	Max:	48

Number of Taxa of Conservation Significance:

Aust	0	SA	1			
Regions:		EP	n/a	FR	n/a	MU n/a
		NL	2	SL	n/a	YP n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at 2+ Sites													
Themeda triandra	3	100.0					2	1		3.33	88	22	52
Austrodanthonia caespitosa	3	100.0			3					1.00	394	53	7
Austrodanthonia setacea	2	66.7			1	1				1.50	163	38	15
Austrostipa blackii	2	66.7			2					1.00	188	24	8
Convolvulus remotus	2	66.7		1	1					0.55	88	34	27
Lomandra effusa	2	66.7		1	1					0.55	230	41	3
Stackhousia monogyna	2	66.7		1	1					0.55	159	31	8
Vittadinia blackii	2	66.7		1	1					0.55	62	19	21
Lomandra multiflora ssp. *dura*	2	66.7		2						0.10	241	34	1
Acacia pycnantha	2	66.7	2							0.01	155	29	
Other Significant Perennial Taxa													
Triodia irritans	1	33.3						1		4.00	12	4	24
Austrodanthonia pilosa	1	33.3			1					1.00	36	11	10
Austrostipa gibbosa	1	33.3			1					1.00	16	7	18
Glycine rubiginosa	1	33.3			1					1.00	82	29	11
Teucrium racemosum	1	33.3			1					1.00	17	11	14
Whalleya proluta	1	33.3			1					1.00	18	9	20
Annual Taxa Occurring at 2+ Sites													
**Avena barbata*	3	100.0			2	1				1.33	661	71	
**Trifolium arvense* var. *arvense*	3	100.0		1	2					0.70	188	29	
**Brachypodium distachyon*	2	66.7			2					1.00	156	36	
**Hypochaeris glabra*	2	66.7			2					1.00	349	54	
**Trifolium angustifolium*	2	66.7			2					1.00	195	31	
**Trifolium campestre*	2	66.7			2					1.00	227	41	
**Vulpia myuros* f. *myuros*	2	66.7			2					1.00	292	60	
**Carthamus lanatus*	2	66.7		1	1					0.55	151	35	
**Echium plantagineum*	2	66.7		1	1					0.55	352	48	
**Salvia verbenaca* var. *verbenaca*	2	66.7	1		1					0.51	95	32	
Maireana enchylaenoides	2	66.7	1		1					0.51	254	33	
**Sonchus oleraceus*	2	66.7	1	1						0.06	588	77	

Figure 72.
***Themeda triandra* Tussock Grassland at site BUR00501 in Mokota Conservation Park.**

Fauna at sites in Floristic Group 2

Trapping effort at 1 of 3 sites. Only birds recorded at it.

Bird species	Common name	SA	Aus	Site freq	Number obs
Alauda arvensis	Eurasian Skylark			1	1
Anthus novaeseelandiae	Richard's Pipit			1	1
Cacatua roseicapilla	Galah			1	4
Cincloramphus cruralis	Brown Songlark			1	1
Dromaius novaehollandiae	Emu			1	5
Falco cenchroides	Nankeen Kestrel			1	1

Floristic Group 3 *Lomandra multiflora* ssp. *dura* Open Tussock Grassland

This group, one of three *Lomandra* Grassland groups (refer Floristic Groups 6 and 7), is dominated by *Lomandra multiflora* ssp. *dura* and is associated with loam and clay soils on hill slopes and plains. Also indicative of this group is *Austrostipa setacea*, while *Aristida behriana*, *Chrysocephalum apiculatum* and *Austrodanthonia caespitosa* are common representatives. Frequently occurring annuals include the exotics *Avena barbata*, *Echium plantagineum*, *Erodium botrys* and *Trifolium campestre*, plus the native *Leptorhynchos squamatus* ssp. *squamatus*. While most sites that comprise this group are located in the Burra Hills, outliers were recorded at Pekina and Melrose.

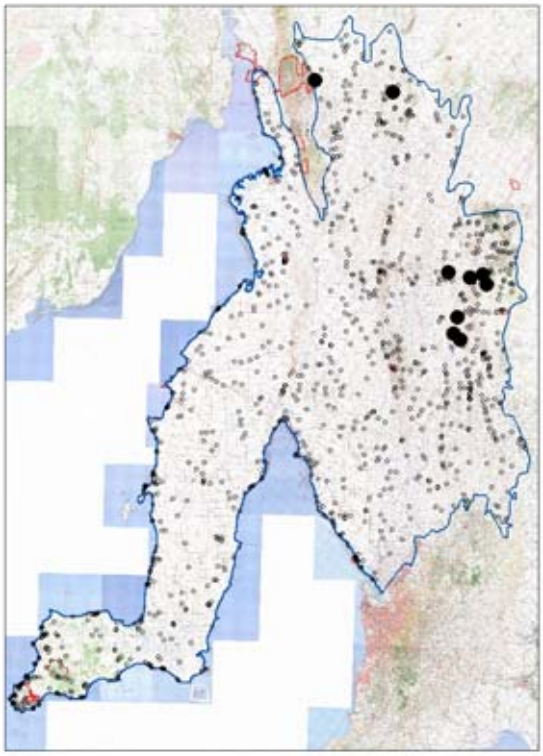
Sites within this group tend to occur in soil land units that are either unaffected or only slightly affected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Hill slope	4	44.4
Hill footslope	3	33.3
Plain	2	22.2

LANDFORM PATTERN	Frequency	%
Low hills	3	33.3
Hills	2	22.2
Plain	2	22.2
Rises	1	11.1
Not recorded	1	11.1

SALT	Frequency	%
Class A	4	44.4
Class B	5	55.5

SOIL	Frequency	%
Loam	4	44.4
Clay	5	55.5



Number of sites in group 9

PLANT TAXA SUMMARY

Number of taxa in group	120
Number of native taxa in group	77
Perennial	54
Annual	23
Number of introduced taxa in group	43
Perennial	4
Annual	39

Average Number of Taxa at a site:

Native perennial	13	Min:	7	Max:	23
Introduced perennial	1	Min:	0	Max:	2
Native annual	6	Min:	4	Max:	11
Introduced annual	12	Min:	6	Max:	18
All taxa	32	Min:	23	Max:	45

Number of Taxa of Conservation Significance:

Aust	0	SA	8				
Regions:		EP	n/a	FR	5	MU	8
		NL	7	SL	n/a	YP	n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Lomandra multiflora ssp. *dura*	9	100.0			6	3				1.33	241	34	24
Aristida behriana	8	88.9	1	6	1					0.20	130	20	4
Austrostipa setacea	6	66.7		1	4	1				1.02	38	11	34
Austrodanthonia caespitosa	5	55.6		5						0.10	394	53	
Chrysocephalum apiculatum	5	55.6	1	1	2	1				0.82	156	33	7
Austrodanthonia auriculata	4	44.4		1	2	1				1.03	70	15	12
Austrostipa blackii	4	44.4		4						0.10	188	24	
Dianella revoluta var. *revoluta*	3	33.3	1		1	1				1.00	306	47	2
Gonocarpus elatus	3	33.3	1		1	1				1.00	126	21	3
Cryptandra sp. Long hypanthium (C.R. Alcock 10626)	3	33.3	1	1	1					0.37	53	14	3
Austrodanthonia setacea	3	33.3		3						0.10	163	38	
Austrostipa scabra ssp.	3	33.3		3						0.10	233	41	
Maireana excavata	3	33.3		3						0.10	31	13	1
Stackhousia monogyna	3	33.3		3						0.10	159	31	
Vittadinia cuneata var.	3	33.3		3						0.10	152	34	1
Annual Taxa Occurring at >30% of Sites													
**Avena barbata*	9	100.0		2	4	3				1.13	661	71	
**Erodium botrys*	7	77.8		1	3	3				1.30	127	27	
**Echium plantagineum*	7	77.8		3	2	2				0.90	352	48	
**Trifolium campestre*	6	66.7		1	2	3				1.35	227	41	
Leptorhynchos squamatus ssp. *squamatus*	6	66.7		1	5					0.85	85	24	
**Carthamus lanatus*	6	66.7		4	2					0.40	151	35	
**Salvia verbenaca* var. *verbenaca*	6	66.7	1	4		1				0.40	95	32	
**Aira cupaniana*	5	55.6		1	3	1				1.02	135	30	
**Hypochaeris glabra*	5	55.6		2	2	1				0.84	349	54	
Triptilodiscus pygmaeus	5	55.6		2	3					0.64	73	18	
**Bromus hordeaceus* ssp. *hordeaceus*	5	55.6	1	2	2					0.44	89	25	
Maireana enchylaenoides	5	55.6	3	2						0.05	254	33	
Wahlenbergia luteola	5	55.6	4	1						0.03	174	26	
**Bromus diandrus*	4	44.4			4					1.00	310	54	
**Trifolium arvense* var. *arvense*	4	44.4		2	1	1				0.80	188	29	
**Romulea minutiflora*	4	44.4		1	3					0.78	98	18	
**Trifolium angustifolium*	4	44.4		2	2					0.55	195	31	
Calocephalus citreus	3	33.3		2		1				0.73	49	12	
Arthropodium strictum	3	33.3	1	1		1				0.70	254	36	
Velleia paradoxa	3	33.3		1	2					0.70	30	10	
Goodenia pinnatifida	3	33.3		2	1					0.40	163	29	
**Moraea setifolia*	3	33.3		3						0.10	335	60	
**Neatostema apulum*	3	33.3		3						0.10	43	20	
Chamaesyce drummondii	3	33.3	1	2						0.07	120	26	
Minuria leptophylla	3	33.3	1	2						0.07	77	25	
Oxalis perennans	3	33.3	1	2						0.07	393	53	

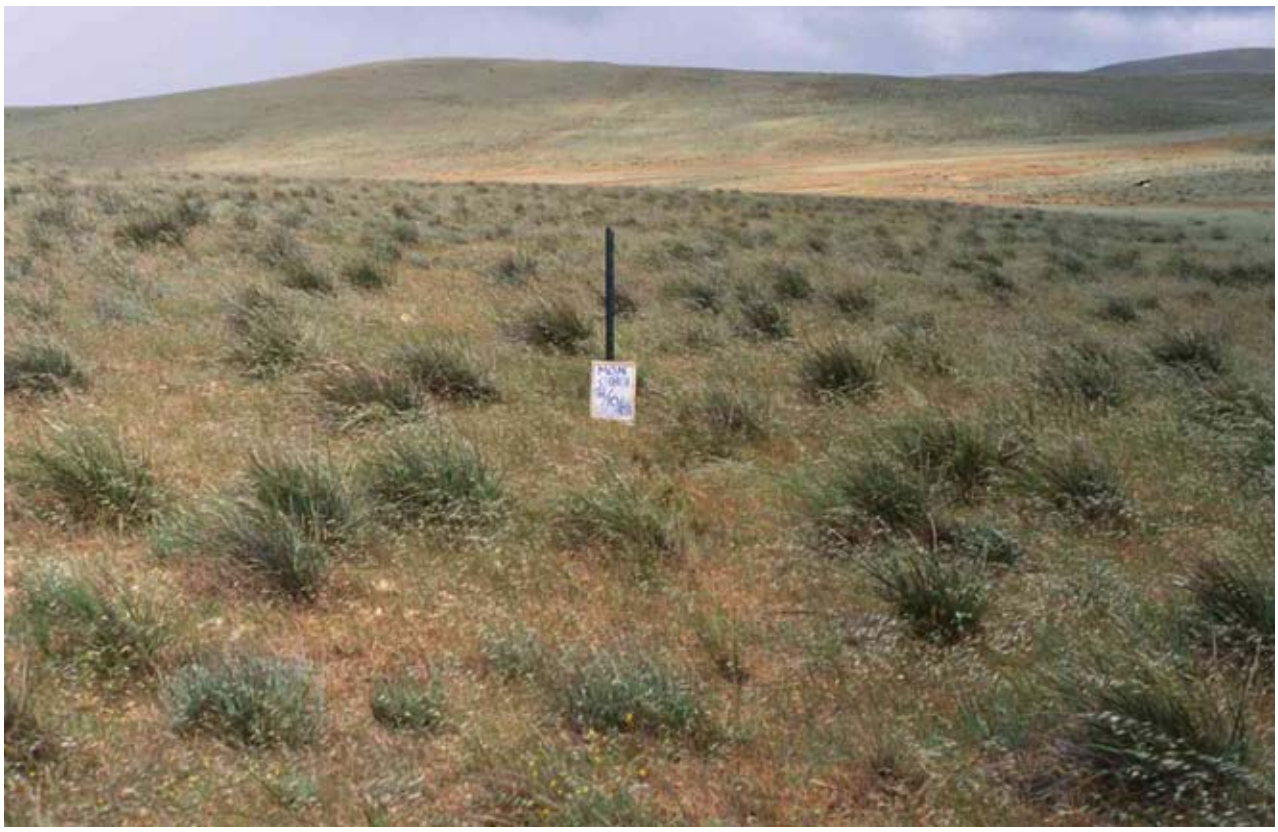


Figure 73.
***Lomandra multiflora* ssp. *dura* Open Tussock Grassland at site MON01801 in the hills east of Mokota Conservation Park.**

Fauna at sites in Floristic Group 3

Trapping effort at 3 of 9 sites. Mammals recorded at 2 sites, birds at 3 and reptiles at 3.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Macropus fuliginosus	Western Grey Kangaroo			1	3
Macropus robustus	Euro			1	1
Macropus sp.				1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Alauda arvensis	Eurasian Skylark			3	20
Anthus novaeseelandiae	Richard's Pipit			3	15
Cacatua roseicapilla	Galah			3	138
Cincloramphus cruralis	Brown Songlark			2	2
Corvus mellori	Little Raven			2	6
Aquila audax	Wedge-tailed Eagle			1	2
Gymnorhina tibicen	Australian Magpie			1	6
Turnix velox	Little Button-quail			1	4

Reptile species	Common name	SA	Aus	Site freq	Number obs
Aprasia pseudopulchella	Flinders Worm Lizard	V	VU	3	6
Menetia greyii	Dwarf Skink			2	5
Delma molleri	Adelaide Snake-lizard			1	1
Diplodactylus vittatus	Eastern Stone Gecko			1	1
Hemiergis decresiensis	Three-toed Earless Skink			1	2
Lerista bougainvillii	Bougainville's Skink			1	1
Tiliqua rugosa	Sleepy Lizard			1	4

Floristic Group 4 *Austrostipa scabra* ssp. +/- *Austrodanthonia caespitosa* Tussock Grassland +/- an Open Mallee overstorey

This Tussock Grassland group is dominated by *Austrostipa scabra* ssp. and occurs on loam soils of hill slopes and plains. Sites from this group are widespread across the Mid North from the northern Adelaide Plains (where there is usually an Open Mallee overstorey), the eastern ranges from Eudunda to Hallett, and hills in the far north near Orroroo. *Austrodanthonia caespitosa* may occur as a co-dominant. Other species commonly occurring in this group are *Vittadinia gracilis*, *Lomandra multiflora* ssp. *dura* and *Ptilotus spathulatus* f. *spathulatus*. Frequently occurring annuals include the exotics *Avena barbata*, *Bromus rubens* and *Echium plantagineum*, and the native *Oxalis perennans*. Where an Open Mallee overstorey is present the dominant species are usually *Eucalyptus porosa* or *E. gracilis*.

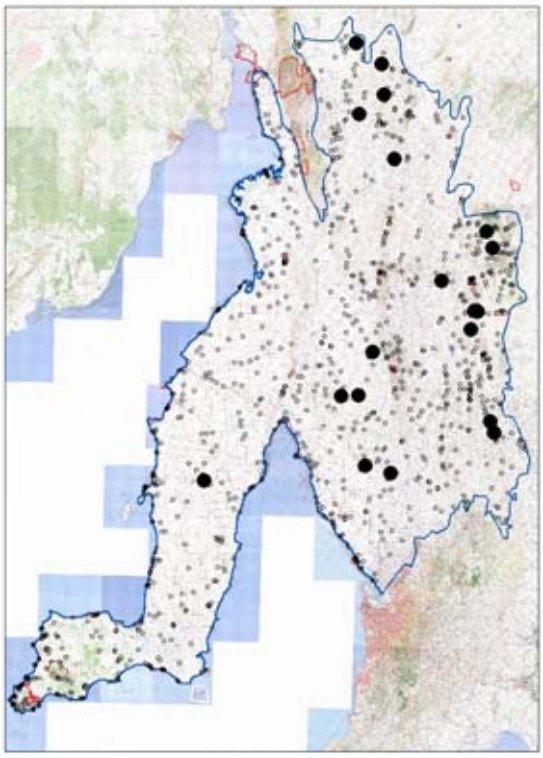
Sites within this group tend to occur in soil land units that are unaffected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Hill slope	8	42.1
Plain	6	31.6
Hill footslope	4	21.1
Not recorded	1	5.3

LANDFORM PATTERN	Frequency	%
Plain	6	31.6
Hills	5	26.3
Low hills	4	21.1
Not recorded	4	21.1

SALT	Frequency	%
Class A	19	100.0

SOIL	Frequency	%
Sand	1	5.3
Loam	13	68.4
Clay	1	5.3
Not recorded	4	21.1



Number of sites in group 19

PLANT TAXA SUMMARY

Number of taxa in group	217
Number of native taxa in group	139
Perennial	96
Annual	43
Number of introduced taxa in group	78
Perennial	9
Annual	69

Average Number of Taxa at a site:

Native perennial	13	Min:	5	Max:	24
Introduced perennial	1	Min:	0	Max:	4
Native annual	5	Min:	2	Max:	13
Introduced annual	13	Min:	4	Max:	20
All taxa	32	Min:	18	Max:	49

Number of Taxa of Conservation Significance:

Aust	0	SA	12			
Regions:		EP	n/a	FR	2	MU	7
		NL	16	SL	n/a	YP	4

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30 Sites													
Austrostipa scabra ssp.	19	100.0			7	10	2			1.74	233	41	27
Austrodanthonia caespitosa	12	63.2	1	1	4	6				1.34	394	53	4
Vittadinia gracilis	9	47.4		5	3	1				0.61	173	30	5
Ptilotus spathulatus f. *spathulatus*	9	47.4	4	5						0.06	186	35	
Lomandra multiflora ssp. *dura*	8	42.1	2	2	1	3				0.90	241	34	3
Sida corrugata var.	8	42.1	4	3	1					0.17	117	23	2
**Marrubium vulgare*	8	42.1	5	2	1					0.16	98	34	2
Lomandra effusa	7	36.8	4	1	1		1			0.59	230	41	1
Austrostipa eremophila	6	31.6		1	3	2				1.18	177	36	2
Enchylaena tomentosa var. *tomentosa*	6	31.6	1	2	2	1				0.70	425	58	1
Austrostipa blackii	6	31.6	2	2	1	1				0.54	188	24	1
Other Significant Perennial Taxa													
Austrodanthonia eriantha	5	26.3			2	3				1.60	45	12	10
Eucalyptus porosa	5	26.3	1	2	1	1				0.64	120	30	1
Eucalyptus gracilis	3	15.8			2	1				1.33	120	23	1
Annual Taxa Occurring at >30 Sites													
**Avena barbata*	16	84.2		3	4	6	2		1	1.71	661	71	
**Echium plantagineum*	11	57.9		5	3	3				0.86	352	48	
**Bromus rubens*	11	57.9		4	7					0.67	365	57	
Oxalis perennans	11	57.9	3	5	2	1				0.41	393	53	
**Salvia verbenaca* form	10	52.6		4	3	3				0.94	101	23	
**Moraea setifolia*	10	52.6		3	5	2				0.93	335	60	
**Medicago minima* var. *minima*	10	52.6		5	4		1			0.75	243	54	
**Carthamus lanatus*	9	47.4	1	4	2	1	1			0.82	151	35	
Maireana enchylaenoides	9	47.4	2	5	1	1				0.39	254	33	
**Bromus diandrus*	8	42.1		2	2	2	1	1		1.65	310	54	
**Vulpia myuros* f. *myuros*	8	42.1		1	6	1				1.01	292	60	
**Sonchus oleraceus*	8	42.1	2	6						0.08	588	77	
**Trifolium angustifolium*	7	36.8			6	1				1.14	195	31	
**Hypochaeris glabra*	7	36.8	1	3	3					0.47	349	54	
**Erodium botrys*	6	31.6			2	4				1.67	127	27	
**Trifolium arvense* var. *arvense*	6	31.6			3	2	1			1.67	188	29	
**Hordeum glaucum*	6	31.6		4	1	1				0.57	180	51	
**Medicago truncatula*	6	31.6		3	3					0.55	85	39	
Chamaesyce drummondii	6	31.6		4	2					0.40	120	26	
Wahlenbergia luteola	6	31.6	3	2	1					0.21	174	26	

Figure 74.
***Austrostipa scabra* ssp. +/- *Austrodanthonia caespitosa* Tussock Grassland +/- an Open Mallee overstorey at site BAL00301 north of Balaklava.**

Fauna at sites in Floristic Group 4 – no sites sampled for fauna

Floristic Group 5 *Aristida behriana* +/- *Themeda triandra* Tussock Grassland

The *Aristida behriana* +/- *Themeda triandra* Tussock Grassland group is associated with loam and clay soils on hill slopes and plains of the North Mount Lofty Ranges, particularly between Jamestown and Farrell Flat. *Aristida behriana* dominates the group, sometimes in association with *Themeda triandra*. Associated perennial species include *Whalleya proluta*, *Austrostipa nodosa*, *Haloragis aspera* and *Juncus flavidus*. The latter, which is more tolerant of dry soils than other *Juncus* species (Cunningham *et al.* 1992, Gray and Knight 2001), is one of the indicator species for this group. The commonly occurring annuals are all exotics - *Avena barbata*, *Echium plantagineum*, *Moraea setifolia*, *Trifolium* spp. and *Vulpia myuros* f. *myuros*.

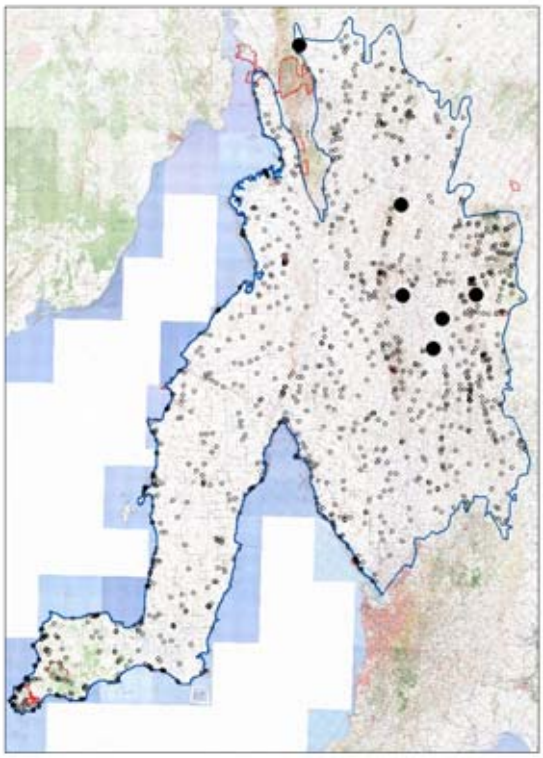
Sites within this group tend to occur in soil land units that are either unaffected or moderately affected by saline seepage. Those sites in the latter category occur lower in the landscape, where the water table is likely to be nearer the soil surface. This may suggest that, at the margin of its distribution, this floristic group may be at risk to modification due to rising salinity.

LANDFORM ELEMENT	Frequency	%
Plain	2	33.3
Hill slope	1	16.7
Hill footslope	1	16.7
Ridge	1	16.7
Not recorded	1	16.7

LANDFORM PATTERN	Frequency	%
Low hills	1	16.7
Plain	1	16.7
Not recorded	4	66.7

SALT	Frequency	%
Class A	4	66.7
Class C	2	33.3

SOIL	Frequency	%
Loam	2	33.3
Clay	3	50.0
Not recorded	1	16.7



Number of sites in group 6

PLANT TAXA SUMMARY

Number of taxa in group	106
Number of native taxa in group	60
Perennial	41
Annual	19
Number of introduced taxa in group	46
Perennial	5
Annual	41

Average Number of Taxa at a site:

Native perennial	9	Min:	2	Max:	18
Introduced perennial	1	Min:	0	Max:	2
Native annual	4	Min:	0	Max:	9
Introduced annual	11	Min:	2	Max:	21
All taxa	25	Min:	10	Max:	50

Number of Taxa of Conservation Significance:

Aust	0	SA	3			
Regions:		EP	n/a	FR	2	MU	n/a
		NL	5	SL	n/a	YP	n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Aristida behriana	6	100.0			5	1				1.17	130	20	32
Themeda triandra	3	50.0			2		1			1.67	88	22	7
Whalleya proluta	3	50.0		3						0.10	18	9	4
Austrostipa nodosa	2	33.3			2					1.00	106	26	3
Juncus flavidus	2	33.3			2					1.00	7	5	21
Haloragis aspera	2	33.3		1	1					0.55	13	9	10
Austrostipa scabra ssp.	2	33.3		2						0.10	233	41	
Sida corrugata var.	2	33.3		2						0.10	117	23	1
Annual Taxa Occurring at >30% of Sites													
**Avena barbata*	6	100.0		1	3			2		1.85	661	71	
**Echium plantagineum*	4	66.7			1	2	1			2.00	352	48	
**Moraea setifolia*	4	66.7	1		1	2				1.25	335	60	
**Trifolium angustifolium*	3	50.0			1	2				1.67	195	31	
**Trifolium campestre*	3	50.0		1	1	1				1.03	227	41	
**Vulpia myuros* f. *myuros*	3	50.0			3					1.00	292	60	
**Trifolium arvense* var. *arvense*	3	50.0		1	2					0.70	188	29	
Arthropodium strictum	3	50.0		2	1					0.40	254	36	
Maireana enchylaenoides	3	50.0		3						0.10	254	33	
**Bromus rubens*	2	33.3			1	1				1.50	365	57	
**Salvia verbenaca* form	2	33.3		1		1				1.05	101	23	
**Hordeum glaucum*	2	33.3		1	1					0.55	180	51	
**Medicago polymorpha* var. *polymorpha*	2	33.3		1	1					0.55	134	46	
**Bromus hordeaceus* ssp. *hordeaceus*	2	33.3	1		1					0.51	89	25	
**Hypochaeris glabra*	2	33.3		2						0.10	349	54	
**Trifolium subterraneum*	2	33.3		2						0.10	25	12	
Crassula colorata var. *acuminata*	2	33.3		2						0.10	100	34	
Chamaesyce drummondii	2	33.3	2							0.01	120	26	

Figure 75.
***Aristida behriana* +/- *Themeda triandra* Tussock Grassland at site TG016 in a road reserve west of Burra.**

Fauna at sites in Floristic Group 5 – no sites sampled for fauna

Floristic Group 6 *Lomandra multiflora* ssp. *dura* and/or *L. effusa* Open Tussock Grassland

This is the second of three *Lomandra* Grasslands groups (refer Floristic Groups 3 and 7) and the most variable. It may be dominated by either *Lomandra multiflora* ssp. *dura* or *L. effusa*, or the two may occur as co-dominants. The group is associated mainly with loam soils of hill slopes and plains of the eastern hills between Eudunda and Mount Bryan, as well as on hills in the north between Peterborough and Willowie, and the coast near Wallaroo. The most distinctive and frequently occurring species in this group is *Vittadinia gracilis*. Other commonly occurring perennials are *Austrodanthonia caespitosa*, *Austrostipa nitida* and *Ptilotus spathulatus* f. *spathulatus*. The most frequently occurring annuals are the exotics *Avena barbata* and *Bromus rubens*.

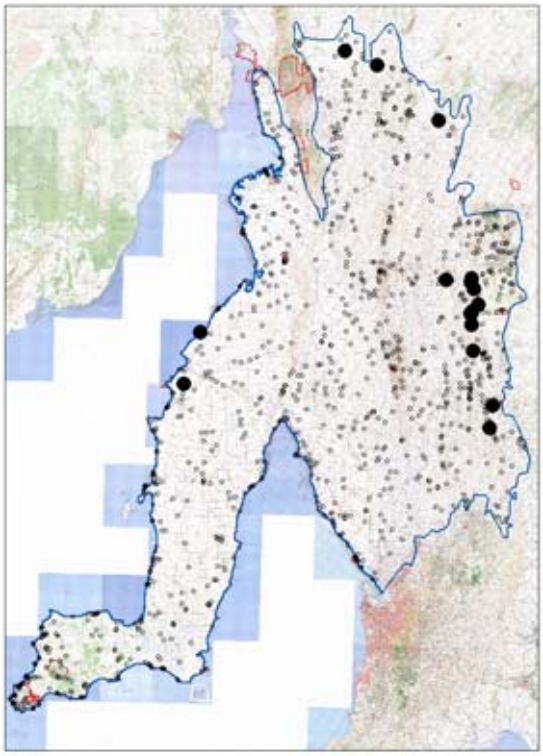
Sites within this group tend to occur in soil land units that are either unaffected or only slightly affected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Hill slope	4	25.0
Hill footslope	3	18.8
Plain	3	18.8
Hill crest	2	12.5
Ridge	2	12.5
Flat	1	6.3
Cliff	1	6.3

LANDFORM PATTERN	Frequency	%
Low hills	7	43.8
Hills	4	25.0
Rises	3	18.8
Alluvial plain	1	6.3
Not recorded	1	6.3

SALT	Frequency	%
Class A	14	87.5
Class B	2	12.5

SOIL	Frequency	%
Loam	11	68.8
Clay	4	25.0
Not recorded	1	6.3



Number of sites in group 16

PLANT TAXA SUMMARY

Number of taxa in group	177
Number of native taxa in group	117
Perennial	90
Annual	27
Number of introduced taxa in group	60
Perennial	6
Annual	54

Average Number of Taxa at a site:

Native perennial	14	Min:	5	Max:	25
Introduced perennial	1	Min:	0	Max:	3
Native annual	5	Min:	0	Max:	11
Introduced annual	11	Min:	4	Max:	17
All taxa	31	Min:	13	Max:	47

Number of Taxa of Conservation Significance:

Aust	0	SA	7			
Regions:		EP	n/a	FR	1	MU 0
		NL	8	SL	n/a	YP 2

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Vittadinia gracilis	16	100.0		1	14	1				1.01	173	30	40
Austrodanthonia caespitosa	10	62.5		3	7					0.73	394	53	2
Austrostipa nitida	9	56.3			9					1.00	206	42	4
Lomandra multiflora ssp. *dura*	9	56.3		3	6					0.70	241	34	4
Ptilotus spathulatus f. *spathulatus*	9	56.3		4	5					0.60	186	35	6
Lomandra effusa	8	50.0		2	6					0.78	230	41	2
Aristida behriana	8	50.0		5	3					0.44	130	20	3
Austrostipa blackii	7	43.8		4	2	1				0.63	188	24	2
Vittadinia cuneata var.	7	43.8		3	4					0.61	152	34	6
**Marrubium vulgare*	6	37.5		6						0.10	98	34	1
Austrostipa eremophila	5	31.3		1	4					0.82	177	36	1
Maireana brevifolia	5	31.3	1	2	1	1				0.64	126	33	2
Atriplex semibaccata	5	31.3	2	1	1	1				0.62	57	20	4
Enchylaena tomentosa var. *tomentosa*	5	31.3		4	1					0.28	425	58	
Annual Taxa Occurring at >30% of Sites													
**Avena barbata*	13	81.3			5	6	1	1		1.85	661	71	
**Bromus rubens*	10	62.5		7	2	1				0.47	365	57	
Oxalis perennans	8	50.0		5	3					0.44	393	53	
Maireana enchylaenoides	8	50.0	1	5	2					0.31	254	33	
**Carthamus lanatus*	7	43.8		4	3					0.49	151	35	
**Echium plantagineum*	7	43.8		5	2					0.36	352	48	
**Erodium botrys*	7	43.8		2	5					0.74	127	27	
**Hypochaeris radicata*	7	43.8		1	6					0.87	116	31	
**Salvia verbenaca* form	7	43.8	1	2	2	2				0.89	101	23	
**Moraea setifolia*	6	37.5		2	2	2				1.03	335	60	
**Salvia verbenaca* var. *verbenaca*	6	37.5		4	1	1				0.57	95	32	
Chamaesyce drummondii	6	37.5	1	4	1					0.24	120	26	
**Hypochaeris glabra*	6	37.5		1	5					0.85	349	54	
**Carrichtera annua*	5	31.3		2	2		1			1.04	204	40	
**Trifolium angustifolium*	5	31.3		1	3	1				1.02	195	31	
**Sonchus oleraceus*	5	31.3		3	2					0.46	588	77	
Goodenia pinnatifida	5	31.3	1	3	1					0.26	163	29	
Arthropodium strictum	5	31.3	3	1	1					0.23	254	36	
**Romulea minutiflora*	5	31.3		2	3					0.64	98	18	
**Trifolium campestre*	5	31.3		1	4					0.82	227	41	

Fauna at sites in Floristic Group 6 – no sites sampled for fauna

Figure 76.
***Lomandra multiflora* ssp. *dura* and/or *L. effusa* Open Tussock Grassland at site EUD2001 in the hills north of Eudunda.**

Floristic Group 7 *Lomandra effusa* Open Tussock Grassland

This third *Lomandra* Grassland group (refer Floristic Groups 3 and 6) is dominated solely by *Lomandra effusa*. The most commonly associated species are the perennial *Ptilotus spathulatus* f. *spathulatus* and exotic annuals, *Avena barbata*, *Bromus rubens*, *Medicago minima* var. *minima* and *Carthamus lanatus*. Although occurring only infrequently, *Maireana lobiflora* is a distinctive member of this group. The group is associated with loam soils on hill slopes mainly in the eastern hills between Eudunda and Peterborough.

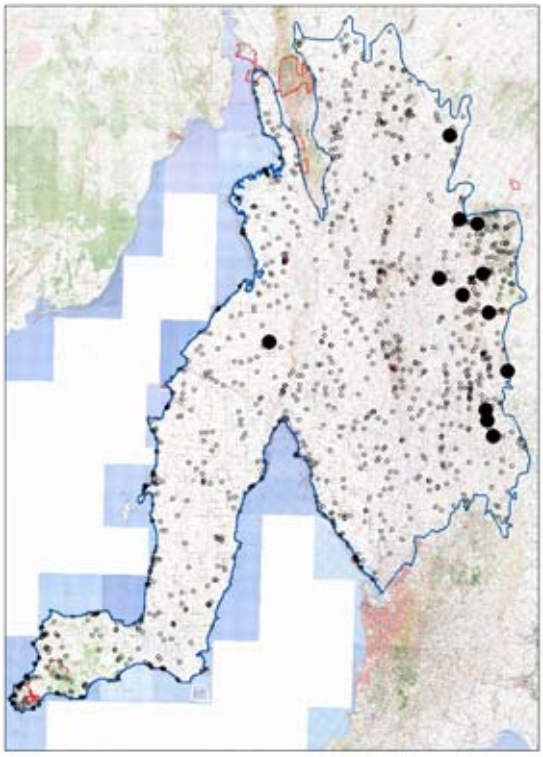
Sites within this group tend to occur in soil land units that are either unaffected or only slightly affected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Hill slope	5	41.7
Hill crest	2	16.7
Ridge	1	8.3
Hill footslope	1	8.3
Plain	1	8.3
Gully	1	8.3
Interdune corridor	1	8.3

LANDFORM PATTERN	Frequency	%
Low hills	4	33.3
Hills	2	16.7
Rises	1	8.3
Alluvial plain	1	8.3
Consolidated Dunefield	1	8.3
Not recorded	3	25.0

SALT	Frequency	%
Class A	11	91.7
Class B	1	8.3

SOIL	Frequency	%
Skeletal	1	8.3
Sand	2	16.7
Loam	8	66.7
Clay	1	8.3



Number of sites in group 12

PLANT TAXA SUMMARY

Number of taxa in group	181
Number of native taxa in group	127
Perennial	83
Annual	44
Number of introduced taxa in group	54
Perennial	3
Annual	51

Average Number of Taxa at a site:

Native perennial	14	Min:	3	Max:	29
Introduced perennial	1	Min:	0	Max:	1
Native annual	8	Min:	1	Max:	16
Introduced annual	12	Min:	6	Max:	21
All taxa	35	Min:	17	Max:	63

Number of Taxa of Conservation Significance:

Aust	0	SA	3			
Regions:		EP	n/a	FR	2	MU 8
		NL	5	SL	n/a	YP n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Lomandra effusa	12	100.0			6	5	1			1.58	230	41	19
Ptilotus spathulatus f. *spathulatus*	11	91.7	1	5	5					0.50	186	35	14
Vittadinia cuneata var.	6	50.0		4	2					0.40	152	34	5
Austrostipa nitida	6	50.0		2	4					0.70	206	42	2
Einadia nutans ssp.	5	41.7		4	1					0.28	215	44	4
Lomandra multiflora ssp. *dura*	5	41.7		4	1					0.28	241	34	1
Austrodanthonia caespitosa	4	33.3		2	2					0.55	394	53	
Glycine rubiginosa	4	33.3		2	2					0.55	82	29	6
Bursaria spinosa ssp. *spinosa*	4	33.3	1	1	2					0.53	255	39	1
Vittadinia gracilis	4	33.3		3	1					0.33	173	30	1
Austrostipa eremophila	4	33.3		4						0.10	177	36	
Enchylaena tomentosa var. *tomentosa*	4	33.3	1	3						0.08	425	58	
Other Significant Perennial Taxa													
Maireana lobiflora	2	16.7			2					1.00	5	4	16
Annual Taxa Occurring at >30% of Sites													
**Avena barbata*	12	100.0		1	8	2		1		1.34	661	71	
**Bromus rubens*	10	83.3		5	4		1			0.75	365	57	
**Medicago minima* var. *minima*	9	75.0		2	6	1				0.91	243	54	
**Carthamus lanatus*	9	75.0	1	4	4					0.49	151	35	
**Hordeum glaucum*	7	58.3		4	3					0.49	180	51	
**Erodium botrys*	6	50.0		2	4					0.70	127	27	
Oxalis perennans	6	50.0		4	2					0.40	393	53	
Wahlenbergia luteola	6	50.0	1	3	2					0.39	174	26	
Goodenia pusilliflora	5	41.7		1	4					0.82	74	27	
**Hypochaeris glabra*	5	41.7		2	3					0.64	349	54	
**Moraea setifolia*	5	41.7		2	3					0.64	335	60	
Goodenia pinnatifida	5	41.7		3	2					0.46	163	29	
Chamaesyce drummondii	5	41.7	1	4						0.08	120	26	
Maireana enchylaenoides	5	41.7	1	4						0.08	254	33	
**Rostraria cristata*	4	33.3		1	3					0.78	229	49	
**Vulpia myuros* f. *myuros*	4	33.3		1	3					0.78	292	60	
Calotis hispidula	4	33.3		1	3					0.78	67	29	
**Echium plantagineum*	4	33.3		3	1					0.33	352	48	
**Salvia verbenaca* var. *verbenaca*	4	33.3		3	1					0.33	95	32	
**Sonchus oleraceus*	4	33.3		3	1					0.33	588	77	
**Carrichtera annua*	4	33.3	1	2	1					0.30	204	40	

Fauna at sites in Floristic Group 7

Trapping effort at 2 of 12 sites. Mammals recorded at 2 sites, birds at 2 and reptiles at 2.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Chalinolobus gouldii	Gould's Wattled Bat			1	1
Chalinolobus morio	Chocolate Wattled Bat			1	1
Lepus capensis	Brown Hare			1	1
Macropus fuliginosus	Western Grey Kangaroo			1	8
Mormopterus sp.				1	1
Tadarida australis	White-striped Freetail-bat			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Cacatua roseicapilla	Galah			2	8
Corvus mellori	Little Raven			2	8
Gymnorhina tibicen	Australian Magpie			2	8
Ocyphaps lophotes	Crested Pigeon			2	4
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			1	3
Alauda arvensis	Eurasian Skylark			1	9
Anthochaera carunculata	Red Wattlebird			1	5
Anthus novaeseelandiae	Richard's Pipit			1	1
Barnardius zonarius	Australian Ringneck, (Ring-necked Parrot)			1	15
Chrysococcyx osculans	Black-eared Cuckoo			1	1
Colluricincla harmonica	Grey Shrike-thrush			1	2
Coracina novaehollandiae	Black-faced Cuckoo-shrike			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Cracticus torquatus	Grey Butcherbird			1	2
Dicaeum hirundinaceum	Mistletoebird			1	7
Falco cenchroides	Nankeen Kestrel			1	1
Malurus leucopterus	White-winged Fairy-wren			1	5
Phaps chalcoptera	Common Bronzewing			1	7
Pomatostomus superciliosus	White-browed Babbler			1	5
Struthidea cinerea	Apostlebird			1	16
Sturnus vulgaris	Common Starling			1	1

Reptile species	Common name	SA	Aus	Site freq	Number obs
Lerista bougainvillii	Bougainville's Skink			1	1
Morethia boulengeri	Common Snake-eye			1	1
Tiliqua rugosa	Sleepy Lizard			1	2

Figure 77.
***Lomandra effusa* Open Tussock Grassland at site MON02101 east of Burra.**

Floristic Group 8 *Austrodanthonia caespitosa* Open Tussock Grassland

This Open Tussock Grassland group is dominated by *Austrodanthonia caespitosa* and is associated with loam soils of plains, hill footslopes and ridges throughout much of the Mid North. On rare occasions *Austrostipa eremophila* may occur as a co-dominant. In some instances there may also be a sparse overstorey of one of several eucalypts or *Allocasuarina verticillata*. Although only occurring infrequently, *Juncus subsecundus* is a distinctive species in this group. The most commonly occurring annuals are the exotics *Avena barbata* and *Echium plantagineum*.

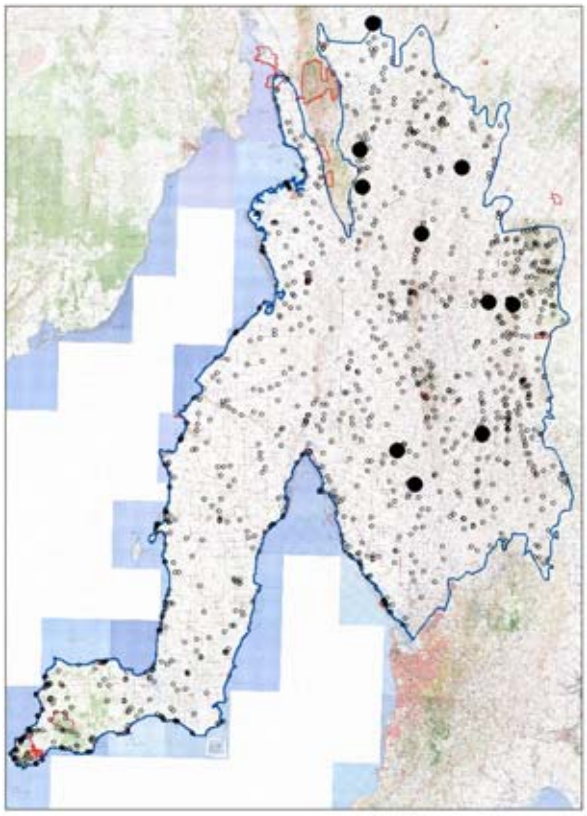
Sites within this group tend to occur in soil land units that are unaffected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Plain	4	40
Hill footslope	2	20
Ridge	2	20
Gully	1	10
Stream channel	1	10

LANDFORM PATTERN	Frequency	%
Low hills	2	20
Hills	1	10
Plain	1	10
Not recorded	6	60

SALT	Frequency	%
Class A	10	100

SOIL	Frequency	%
Loam	8	80
Clay	2	20



Number of sites in group 10

PLANT TAXA SUMMARY

Number of taxa in group	192
Number of native taxa in group	124
Perennial	84
Annual	40
Number of introduced taxa in group	68
Perennial	10
Annual	58

Average Number of Taxa at a site:

Native perennial	12	Min:	4	Max:	28
Introduced perennial	1	Min:	0	Max:	5
Native annual	6	Min:	1	Max:	14
Introduced annual	13	Min:	6	Max:	25
All taxa	32	Min:	16	Max:	53

Number of Taxa of Conservation Significance:

Aust	0	SA	3			
Regions:		EP	n/a	FR	1	MU	n/a
		NL	13	SL	n/a	YP	n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Austrodanthonia caespitosa	10	100			6	4				1.40	394	53	10
Austrostipa eremophila	3	30			2	1				1.33	177	36	2
Cheilanthes austrotenuifolia	3	30		1	2					0.70	108	22	2
Convolvulus remotus	3	30	1	1	1					0.37	88	34	4
**Lycium ferocissimum*	3	30		3						0.10	339	65	
Elymus scabrus var. *scabrus*	3	30		3						0.10	84	18	1
Lomandra multiflora ssp. *dura*	3	30	1	2						0.07	241	34	
Other Significant Perennial Taxa													
Juncus subsecundus	2	20			1		1			2.00	15	9	12
Eucalyptus largiflorens	1	10					1			3.00	3	3	
Eucalyptus microcarpa	1	10				1				2.00	9	6	4
Eucalyptus porosa	1	10			1					1.00	120	30	
Allocasuarina verticillata	1	10		1						0.10	194	35	
Eucalyptus camaldulensis var. *camaldulensis*	1	10		1						0.10	28	9	
Annual Taxa Occurring at >30% of Sites													
**Avena barbata*	8	80		2	2	2	1	1		1.65	661	71	
**Echium plantagineum*	5	50			1	2	2			2.20	352	48	
**Lolium rigidum*	4	40			2	2				1.50	218	48	
**Erodium botrys*	4	40			3	1				1.25	127	27	
**Salvia verbenaca* form	4	40		2		2				1.05	101	23	
**Bromus diandrus*	4	40		1	2	1				1.03	310	54	
**Trifolium arvense* var. *arvense*	4	40		1	2	1				1.03	188	29	
**Arctotheca calendula*	4	40		2	1	1				0.80	208	45	
Oxalis perennans	4	40		2	2					0.55	393	53	
Goodenia pinnatifida	4	40	1	2	1					0.30	163	29	
**Hypochaeris radicata*	3	30			2		1			1.67	116	31	
**Vulpia myuros* f. *myuros*	3	30			2	1				1.33	292	60	
Crassula colligata ssp.	3	30			2	1				1.33	234	45	
**Hordeum glaucum/leporinum*	3	30		1	1	1				1.03	68	24	
Arthropodium strictum	3	30		1	1	1				1.03	254	36	
**Medicago minima* var. *minima*	3	30			3					1.00	243	54	
**Aira cupaniana*	3	30		1	2					0.70	135	30	
**Bromus hordeaceus* ssp. *hordeaceus*	3	30		1	2					0.70	89	25	
**Hypochaeris glabra*	3	30		1	2					0.70	349	54	
**Romulea minutiflora*	3	30		1	2					0.70	98	18	
**Carthamus lanatus*	3	30		2	1					0.40	151	35	
**Hedypnois rhagadioloides*	3	30		2	1					0.40	104	36	
**Sonchus oleraceus*	3	30		2	1					0.40	588	77	
**Trifolium angustifolium*	3	30		2	1					0.40	195	31	
**Anagallis arvensis*	3	30		3						0.10	341	49	

Figure 78.
***Austrodanthonia caespitosa* Open Tussock Grassland at site LBGWIL01 south of Hammond.**

Fauna at sites in Floristic Group 8

Trapping effort at 1 of 10 sites. Mammals recorded at 1 site, birds at 1 and reptiles at 1.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Macropus fuliginosus	Western Grey Kangaroo			1	6
Macropus rufus	Red Kangaroo			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Anthus novaeseelandiae	Richard's Pipit			1	12
Aquila audax	Wedge-tailed Eagle			1	4
Dromaius novaehollandiae	Emu			1	16

Reptile species	Common name	SA	Aus	Site freq	Number obs
Aprasia pseudopulchella	Flinders Worm Lizard	V	VU	1	1
Menetia greyii	Dwarf Skink			1	4
Pseudonaja textilis	Eastern Brown Snake			1	1
Tiliqua rugosa	Sleepy Lizard			1	3

Floristic Group 9 *Austrostipa eremophila*, *Austrodanthonia caespitosa* +/- *Austrostipa nitida* +/- *Lomandra effusa*
Open Tussock Grassland

This widespread group is dominated by *Austrostipa eremophila* and *Austrodanthonia caespitosa,* and occasionally also by *Austrostipa nitida* or *Lomandra effusa* in an Open Tussock Grassland formation. A number of tall shrub and tree species may occur as emergents or a sparse to very sparse overstorey, including *Senna artemisioides* ssp. *coriacea*, *Bursaria spinosa* ssp. *spinosa*, *Acacia pycnantha*, *A. victoriae* ssp. *victoriae*, *A. ligulata*, *Callitris gracilis* and *Eucalyptus porosa*. Other commonly occurring perennial species include *Vittadinia gracilis*, *Enchylaena tomentosa* var. *tomentosa*, *Dianella revoluta* var. *revoluta* and *Lomandra multiflora* ssp. *dura*. As with all the grassland groups, exotics, and in particular *Avena barbata*, dominate the annual cover. Also regularly present are *Moraea setifolia*, *Echium plantagineum*, *Sonchus oleraceus*, *Bromus rubens*, *Salvia verbenaca* and *Medicago minima* var. *minima*. The group is associated mainly with loam soils on plains, hill slopes and ridges across most of the Mid North and northern Yorke Peninsula.

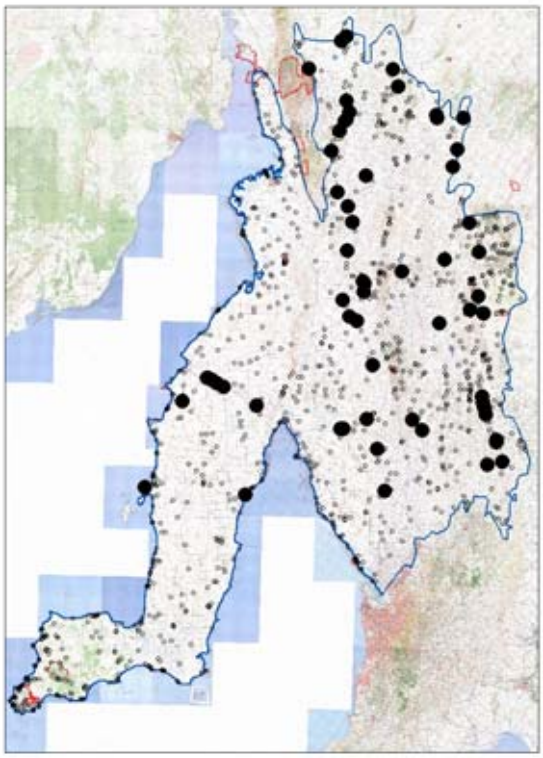
Sites within this group tend to occur in soil land units that are either unaffected or only slightly affected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Plain	25	42.4
Hill slope	16	27.1
Hill footslope	8	13.6
Ridge	4	6.8
Hill crest	3	5.1
Cliff	1	1.7
Stream channel	1	1.7
Not recorded	1	1.7

LANDFORM PATTERN	Frequency	%
Low hills	11	18.6
Hills	9	15.3
Plain	4	6.8
Rises	1	1.7
Not recorded	34	57.6

SALT	Frequency	%
Class A	49	83.0
Class B	9	15.3
Class D	1	1.7

SOIL	Frequency	%
Sand	6	10.2
Loam	40	67.8
Clay	12	20.3
Not recorded	1	1.7



Number of sites in group 59

PLANT TAXA SUMMARY

Number of taxa in group	401
Number of native taxa in group	271
Perennial	195
Annual	76
Number of introduced taxa in group	130
Perennial	24
Annual	106

Average Number of Taxa at a site:

Native perennial	17	Min:	5	Max:	41
Introduced perennial	2	Min:	0	Max:	9
Native annual	7	Min:	0	Max:	21
Introduced annual	15	Min:	5	Max:	30
All taxa	41	Min:	18	Max:	86

Number of Taxa of Conservation Significance:

Aust	1	SA	14			
Regions:		EP	n/a	FR	12	MU 12
		NL	16	SL	n/a	YP 12

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Austrodanthonia caespitosa	52	88.1		5	18	27	2			1.51	394	53	9
Austrostipa eremophila	50	84.7			13	32	5			1.84	177	36	20
Vittadinia gracilis	35	59.3	1	21	8	5				0.57	173	30	8
Lomandra effusa	33	55.9	2	7	13	10	1			1.11	230	41	4
Austrostipa nitida	32	54.2		4	12	14	2			1.45	206	42	5
Enchylaena tomentosa var. *tomentosa*	30	50.8	2	16	11	1				0.49	425	58	1
Dianella revoluta var. *revoluta*	24	40.7	2	11	8	3				0.63	306	47	1
Lomandra multiflora ssp. *dura*	23	39.0	2	8	9	4				0.77	241	34	2
Vittadinia blackii	21	35.6		7	8	6				0.99	62	19	11
Aristida behriana	21	35.6		11	5	5				0.77	130	20	3
Sida corrugata var.	21	35.6	1	11	6	3				0.62	117	23	5
Pimelea micrantha	21	35.6	1	11	7	2				0.58	62	21	5
Vittadinia cuneata var.	19	32.2	1	10	6	2				0.58	152	34	3
Ptilotus spathulatus f. *spathulatus*	19	32.2	3	12	4					0.28	186	35	1
Austrostipa drummondii	18	30.5		5	5	8				1.19	92	32	5
Senna artemisioides ssp. *coriacea*	18	30.5	1	9	4	2	2			0.83	94	26	2
Other Significant Perennial Taxa													
Bursaria spinosa ssp. *spinosa*	17	28.8		12	3	2				0.48	255	39	
Acacia pycnantha	16	27.1	2	2	7	4	1			1.14	155	29	2
Acacia ligulata	7	11.9	1	2		3	1			1.32	107	23	
Callitris gracilis	7	11.9		5		2				0.64	88	28	
Acacia victoriae ssp. *victoriae*	6	10.2		2	1	1	2			1.53	31	16	1
Eucalyptus porosa	6	10.2		3	3					0.55	120	30	
Annual Taxa Occurring at >30% of Sites													
**Avena barbata*	55	93.2		6	17	24	4	4		1.70	661	71	
**Moraea setifolia*	41	69.5	1	6	10	24				1.43	335	60	
**Echium plantagineum*	39	66.1	1	25	7	5	1			0.58	352	48	
**Sonchus oleraceus*	37	62.7	3	25	5	4				0.42	588	77	
**Bromus rubens*	36	61.0		11	15	10				1.00	365	57	
**Salvia verbenaca* form	32	54.2		9	7	15	1			1.28	101	23	
**Medicago minima* var. *minima*	30	50.8		10	12	7	1			1.00	243	54	
Goodenia pinnatifida	30	50.8		15	9	6				0.75	163	29	
Oxalis perennans	30	50.8	3	18	4	5				0.53	393	53	
Maireana enchylaenoides	29	49.2	4	21	3	1				0.25	254	33	
**Brachypodium distachyon*	25	42.4		5	6	13	1			1.42	156	36	
**Bromus diandrus*	25	42.4		6	9	10				1.18	310	54	
**Hypochaeris glabra*	24	40.7		6	14	4				0.94	349	54	
Chamaesyce drummondii	24	40.7	2	20	1	1				0.21	120	26	
**Vulpia myuros* f. *myuros*	23	39.0		5	9	9				1.20	292	60	
**Medicago polymorpha* var. *polymorpha*	23	39.0		8	9	6				0.95	134	46	
**Arctotheca calendula*	21	35.6	1	15	5					0.31	208	45	
**Carthamus lanatus*	21	35.6	4	14	3					0.21	151	35	
**Carrichtera annua*	20	33.9		7	7	6				0.99	204	40	
Arthropodium strictum	20	33.9	2	10	6	2				0.55	254	36	
**Oxalis pes-caprae*	18	30.5		5	8	5				1.03	169	47	
**Hordeum glaucum*	18	30.5		8	6	4				0.82	180	51	
**Rapistrum rugosum* ssp. *rugosum*	18	30.5		11	4	3				0.62	68	26	

Figure 79.
***Austrostipa eremophila*, *Austrodanthonia caespitosa* +/- *Austrostipa nitida* +/- *Lomandra effusa* Open Tussock Grassland at site PET01501 north east of Peterborough.**

Fauna at sites in Floristic Group 9

Trapping effort at 1 of 59 sites. Mammals recorded at 1 site, birds at 1 and reptiles at 1.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Macropus sp.				1	1
Mus musculus	House Mouse			1	3
Oryctolagus cuniculus	Rabbit			1	2

Bird species	Common name	SA	Aus	Site freq	Number obs
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			1	2
Alauda arvensis	Eurasian Skylark			1	13
Anthus novaeseelandiae	Richard's Pipit			1	3
Larus novaehollandiae	Silver Gull			1	19
Lichenostomus virescens	Singing Honeyeater			1	3
Neophema sp.				1	5
Ocyphaps lophotes	Crested Pigeon			1	2
Rhipidura leucophrys	Willie Wagtail			1	1

Reptile species	Common name	SA	Aus	Site freq	Number obs
Demansia psammophis	Yellow-faced Whipsnake			1	1
Hemiergis peronii	Four-toed Earless Skink			1	2
Menetia greyii	Dwarf Skink			1	1

Floristic Group 10 *Triodia scariosa* Open Hummock Grassland

This group is dominated by *Triodia scariosa* in an Open Hummock Grassland formation and is associated with skeletal or sandy soils on hill slopes and ridges. The two sites representing this group are located in the Yackamoorundie Hills. *Trymalium wayae* and *Acacia continua* occur as emergents, while *Dianella revoluta* var. *revoluta* and *Austrostipa nitida* are associated ground layer species. Other perennial species that appear to be indicative of the group include *Tricoryne elatior*, *Pimelea micrantha*, *Setaria constricta*, *Austrostipa drummondii* and the exotic *Vicia cracca*. Commonly occurring annuals are the exotics *Avena barbata*, *Bromus rubens* and *Vulpia myuros* f. *myuros*.

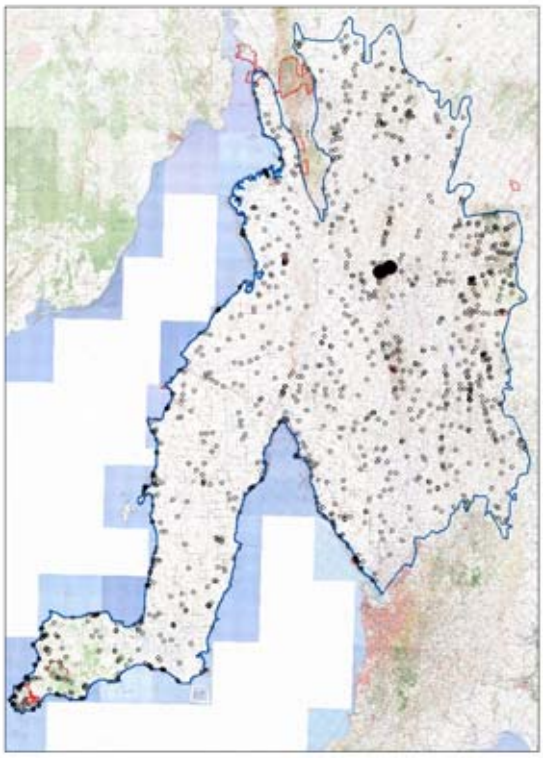
Sites within this group tend to occur in soil land units that are unaffected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Hill slope	1	50
Ridge	1	50

LANDFORM PATTERN	Frequency	%
Drainage line	1	50
Not recorded	1	50

SALT	Frequency	%
Class A	2	100

SOIL	Frequency	%
Skeletal	1	50
Sand	1	50



Number of sites in group 2

PLANT TAXA SUMMARY

Number of taxa in group	69
Number of native taxa in group	38
Perennial	33
Annual	5
Number of introduced taxa in group	31
Perennial	2
Annual	29

Average Number of Taxa at a site:

Native perennial	18	Min: 14	Max: 23
Introduced perennial	1	Min: 1	Max: 1
Native annual	3	Min: 2	Max: 3
Introduced annual	18	Min: 14	Max: 21
All taxa	40	Min: 38	Max: 41

Number of Taxa of Conservation Significance:

Aust	0	SA	0			
Regions:		EP	n/a	FR	n/a	MU	n/a
		NL	1	SL	n/a	YP	n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa													
Triodia scariosa	2	100					2			3.00	6	5	98
Trymalium wayae	2	100			2					1.00	9	6	94
Dianella revoluta var. *revoluta*	2	100		1	1					0.55	306	47	8
Austrostipa nitida	2	100		1	1					0.55	206	42	7
**Vicia cracca*	1	50			1					1.00	1	1	
Acacia calamifolia	1	50			1					1.00	49	18	7
Acacia continua	1	50			1					1.00	22	12	27
Austrodanthonia caespitosa	1	50			1					1.00	394	53	2
Austrostipa drummondii	1	50			1					1.00	92	32	11
Austrostipa nodosa	1	50			1					1.00	106	26	7
Bursaria spinosa ssp. *spinosa*	1	50			1					1.00	255	39	3
Lomandra effusa	1	50			1					1.00	230	41	3
Lomandra multiflora ssp. *dura*	1	50			1					1.00	241	34	5
Pimelea micrantha	1	50			1					1.00	62	21	17
Ptilotus spathulatus f. *spathulatus*	1	50			1					1.00	186	35	8
Tricoryne elatior	1	50			1					1.00	17	14	24
Xanthorrhoea quadrangulata	1	50			1					1.00	50	12	6
**Marrubium vulgare*	1	50		1						0.10	98	34	2
Acacia brachybotrya	1	50		1						0.10	17	13	6
Acacia notabilis	1	50		1						0.10	50	20	2
Cheilanthes lasiophylla	1	50		1						0.10	16	13	9
Cymbopogon ambiguus	1	50		1						0.10	14	7	8
Dodonaea baueri	1	50		1						0.10	45	19	2
Einadia nutans ssp.	1	50		1						0.10	215	44	2
Eutaxia microphylla var. *microphylla*	1	50		1						0.10	111	30	1
Glycine rubiginosa	1	50		1						0.10	82	29	2
Linum marginale	1	50		1						0.10	38	17	5
Lomandra collina	1	50		1						0.10	73	25	2
Melaleuca lanceolata	1	50		1						0.10	232	41	
Myoporum montanum	1	50		1						0.10	31	19	1
Scaevola albida	1	50		1						0.10	41	14	2
Setaria constricta	1	50		1						0.10	8	6	21
Convolvulus remotus	1	50	1							0.01	88	34	
Rhagodia parabolica	1	50	1							0.01	205	36	
Vittadinia blackii	1	50	1							0.01	62	19	
Annual Taxa													
**Avena barbata*	2	100			2					1.00	661	71	
**Bromus rubens*	2	100			2					1.00	365	57	
**Vulpia myuros* f. *myuros*	2	100			2					1.00	292	60	
**Brachypodium distachyon*	2	100		1	1					0.55	156	36	
**Echium plantagineum*	2	100		1	1					0.55	352	48	
**Sonchus oleraceus*	2	100		1	1					0.55	588	77	
**Arenaria leptoclados*	1	50			1					1.00	8	6	
**Avellinia michelii*	1	50			1					1.00	80	33	
**Buglossoides arvensis*	1	50			1					1.00	50	24	
**Bupleurum semicompositum*	1	50			1					1.00	90	32	
**Carthamus lanatus*	1	50			1					1.00	151	35	
**Galium murale*	1	50			1					1.00	268	49	
**Hedypnois rhagadioloides*	1	50			1					1.00	104	36	
**Hordeum glaucum*	1	50			1					1.00	180	51	
**Hypochaeris glabra*	1	50			1					1.00	349	54	
**Medicago minima* var. *minima*	1	50			1					1.00	243	54	
**Moraea setifolia*	1	50			1					1.00	335	60	
**Neatostema apulum*	1	50			1					1.00	43	20	
**Parapholis incurva*	1	50			1					1.00	101	36	
**Rapistrum rugosum* ssp. *rugosum*	1	50			1					1.00	68	26	
**Salvia verbenaca* var. *verbenaca*	1	50			1					1.00	95	32	
**Trifolium angustifolium*	1	50			1					1.00	195	31	
Arthropodium strictum	1	50			1					1.00	254	36	
Galium migrans	1	50			1					1.00	56	27	
**Limonium lobatum*	1	50		1						0.10	15	12	
**Onopordum acaulon*	1	50		1						0.10	26	13	

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
**Picnomon acarna*	1	50		1						0.10	6	6	
**Rostraria cristata*	1	50		1						0.10	229	49	
Brachyscome ciliaris var.	1	50		1						0.10	7	7	
Heliotropium asperrimum	1	50		1						0.10	4	4	
Nicotiana velutina	1	50		1						0.10	1	1	
**Crepis foetida* ssp. *foetida*	1	50	1							0.01	4	4	
**Schismus barbatus*	1	50	1							0.01	78	24	
**Sisymbrium irio*	1	50	1							0.01	30	16	

Figure 80.
***Triodia scariosa* Open Hummock Grassland at site TG036 in the Yackamoorundie Hills west of Spalding.**

Fauna at sites in Floristic Group 10 – no sites sampled for fauna

Floristic Group 11 *Maireana aphylla* Low Open Shrubland

This group is dominated by *Maireana aphylla* in a Low Open Shrubland formation. It is associated with loam soils on plains, hills slopes and gullies and is known from several widely scattered locations across the Mid North - Mallala, Hallett and Wandearah. Only four sites represent the group from the analysis. Most commonly occurring species are the native grasses *Austrodanthonia caespitosa*, *Austrostipa blackii* and *A. nitida*, and the exotic annuals, *Avena barbata*, *Moraea setifolia*, *Bromus diandrus*, *Echium plantagineum* and *Hordeum glaucum*.

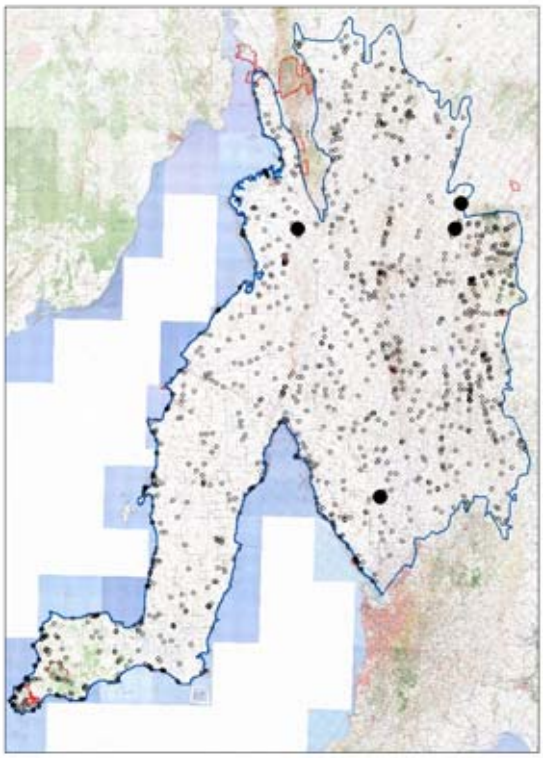
Sites within this group tend to occur in soil land units that are unaffected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Plain	2	50
Hill slope	1	25
Gully	1	25

LANDFORM PATTERN	Frequency	%
Low hills	1	25
Rises	1	25
Plain	1	25
Not recorded	1	25

SALT	Frequency	%
Class A	4	100

SOIL	Frequency	%
Sand	1	25
Loam	3	75



Number of sites in group 4

PLANT TAXA SUMMARY

Number of taxa in group	77
Number of native taxa in group	34
Perennial	27
Annual	7
Number of introduced taxa in group	43
Perennial	5
Annual	38

Average Number of Taxa at a site:

Native perennial	10	Min: 6	Max: 19
Introduced perennial	2	Min: 0	Max: 5
Native annual	3	Min: 2	Max: 3
Introduced annual	15	Min: 13	Max: 18
All taxa	30	Min: 24	Max: 40

Number of Taxa of Conservation Significance:

Aust	0	SA	3			
Regions:		EP	n/a	FR	n/a	MU n/a
		NL	4	SL	n/a	YP n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Maireana aphylla	4	100				2	2			2.50	24	15	85
Austrodanthonia caespitosa	3	75		2		1				0.73	394	53	3
Austrostipa nitida	3	75		2		1				0.73	206	42	5
Austrostipa blackii	3	75		1	2					0.70	188	24	7
Sida corrugata var.	3	75	1	2						0.07	117	23	3
**Marrubium vulgare*	2	50		2						0.10	98	34	2
Lomandra effusa	2	50		2						0.10	230	41	
Lomandra multiflora ssp. *dura*	2	50		2						0.10	241	34	
Maireana excavata	2	50		2						0.10	31	13	3
Annual Taxa Occurring at >30% of Sites													
**Avena barbata*	4	100			1	2	1			2.00	661	71	
**Moraea setifolia*	4	100		1	2	1				1.03	335	60	
**Bromus diandrus*	3	75			1	1	1			2.00	310	54	
**Echium plantagineum*	3	75		2		1				0.73	352	48	
**Hordeum glaucum*	3	75	1	1		1				0.70	180	51	
**Lolium rigidum*	3	75		2	1					0.40	218	48	
Chamaesyce drummondii	3	75		3						0.10	120	26	
**Medicago truncatula*	2	50		1		1				1.05	85	39	
**Bromus rubens*	2	50		1	1					0.55	365	57	
**Oxalis pes-caprae*	2	50		1	1					0.55	169	47	
**Vulpia myuros* f. *myuros*	2	50		1	1					0.55	292	60	
**Arctotheca calendula*	2	50		2						0.10	208	45	
**Lepidium africanum*	2	50		2						0.10	67	20	
**Sonchus oleraceus*	2	50		2						0.10	588	77	
**Trifolium arvense* var. *arvense*	2	50		2						0.10	188	29	
Maireana enchylaenoides	2	50		2						0.10	254	33	
Oxalis perennans	2	50	2							0.01	393	53	

Figure 81.
***Maireana aphylla* Low Open Shrubland at site HAL02401 in hills north west of Hallett.**

Fauna at sites in Floristic Group 11

Trapping effort at 1 of 4 sites. Mammals recorded at 1 site, birds at 1 and reptiles at 1.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Mus musculus	House Mouse			1	1
Vulpes vulpes	Fox			1	2

Bird species	Common name	SA	Aus	Site freq	Number obs
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			1	8
Anthus novaeseelandiae	Richard's Pipit			1	6
Epthianura aurifrons	Orange Chat			1	5
Falco berigora	Brown Falcon			1	1
Falco cenchroides	Nankeen Kestrel			1	1
Gymnorhina tibicen	Australian Magpie			1	5
Vanellus tricolor	Banded Lapwing			1	55

Reptile species	Common name	SA	Aus	Site freq	Number obs
Menetia greyii	Dwarf Skink			1	7
Pseudonaja textilis	Eastern Brown Snake			1	1

Floristic Group 12 *Triodia bunicola* Hummock Grassland +/- an overstorey of *Allocasuarina verticillata* Low Woodland

This Hummock Grassland community is characterised by *Triodia bunicola*. On occasions *Allocasuarina verticillata* may form a Low Woodland overstorey, while very rarely there may be an overstorey of *Eucalyptus leucoxylon* ssp. *pruinosa* Low Woodland or *E. socialis* Open Mallee. *Bursaria spinosa* ssp. *spinosa* may be present at some sites as an emergent. Commonly associated perennials include *Lomandra multiflora* ssp. *dura* and *Austrodanthonia caespitosa*, while *Scaevola humilis* and *Convolvulus angustissimus* ssp. *angustissimus* are less frequently occurring though still indicators of this group. The most frequently occurring annuals are the exotics *Avena barbata*, *Bromus rubens*, *Hypochaeris glabra*, *Sonchus oleraceus* and the native lily *Arthropodium strictum*. The group occurs on loam soils of hill slopes, particularly in the Narien and Pekina Ranges, Yackamoorundie Hills and Scrubby Range.

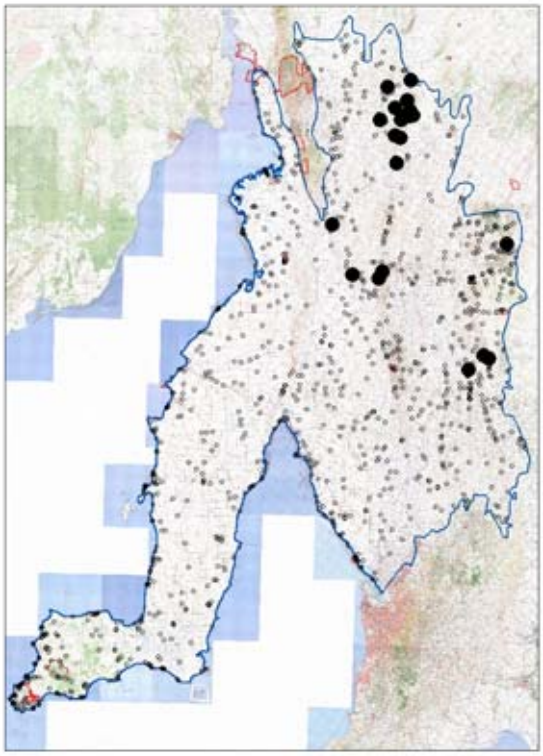
Sites within this group occur mostly in soil land units that are unaffected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Hill slope	17	77.3
Hill footslope	2	9.1
Ridge	1	4.5
Hill crest	1	4.5
Gully	1	4.5

LANDFORM PATTERN	Frequency	%
Low hills	11	50.0
Hills	10	45.5
Plain	1	4.5

SALT	Frequency	%
Class A	21	95.5
Class B	1	4.5

SOIL	Frequency	%
Sand	3	13.6
Loam	17	77.3
Clay	2	9.1



Number of sites in group 22

PLANT TAXA SUMMARY

Number of taxa in group	268
Number of native taxa in group	192
Perennial	130
Annual	62
Number of introduced taxa in group	76
Perennial	6
Annual	70

Average Number of Taxa at a site:

Native perennial	22	Min:	9	Max:	32
Introduced perennial	0	Min:	0	Max:	2
Native annual	9	Min:	0	Max:	21
Introduced annual	14	Min:	6	Max:	23
All taxa	46	Min:	20	Max:	67

Number of Taxa of Conservation Significance:

Aust	1	SA	8			
Regions:		EP	n/a	FR	14	MU 8
		NL	5	SL	n/a	YP n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Triodia bunicola	22	100.0				9	12	1		2.64	35	8	85
Bursaria spinosa ssp. *spinosa*	16	72.7	5	4		7				0.90	255	39	5
Lomandra multiflora ssp. *dura*	16	72.7		10	4	2				0.56	241	34	5
Austrodanthonia caespitosa	15	68.2		11	4					0.34	394	53	1
Dianella revoluta var. *revoluta*	12	54.5	2	7	2	1				0.39	306	47	2
Ptilotus spathulatus f. *spathulatus*	12	54.5	3	9						0.08	186	35	1
Allocasuarina verticillata	11	50.0	3	2		4	1	1		1.38	194	35	4
Lomandra densiflora	10	45.5	2	4	4					0.44	89	19	5
Austrostipa blackii	10	45.5	1	6	3					0.36	188	24	1
Stackhousia monogyna	10	45.5	2	6	2					0.26	159	31	2
Chrysocephalum apiculatum	9	40.9	1	5	3					0.39	156	33	2
Scaevola humilis	9	40.9		7	2					0.30	21	10	13
Austrostipa elegantissima	9	40.9	1	7	1					0.19	290	53	1
Glycine rubiginosa	8	36.4	4	4						0.06	82	29	1
Gonocarpus elatus	7	31.8	1	4	1	1				0.49	126	21	1
Rhagodia parabolica	7	31.8	1	4	1	1				0.49	205	36	1
Austrostipa nodosa	7	31.8	1	5	1					0.22	106	26	1
Convolvulus angustissimus ssp. *angustissimus*	7	31.8	2	5						0.07	19	7	12
Enchylaena tomentosa var. *tomentosa*	7	31.8	2	5						0.07	425	58	
Other Significant Perennial Taxa													
Eucalyptus socialis ssp.	4	18.2			1	2	1			2.00	114	25	1
Eucalyptus leucoxylon ssp.	4	18.2	1	1			2			1.53	95	12	1
Annual Taxa Occurring at >30% of Sites													
**Avena barbata*	20	90.9		3	6	8	3			1.57	661	71	
**Hypochaeris glabra*	17	77.3		9	8					0.52	349	54	
**Bromus rubens*	17	77.3		15	2					0.21	365	57	
Arthropodium strictum	16	72.7	1	12	3					0.26	254	36	
**Sonchus oleraceus*	16	72.7	4	12						0.08	588	77	
**Echium plantagineum*	15	68.2	1	12	1	1				0.28	352	48	
Oxalis perennans	15	68.2	2	11	2					0.21	393	53	
**Trifolium campestre*	14	63.6	1	6	6	1				0.62	227	41	
Maireana enchylaenoides	13	59.1	3	9	1					0.15	254	33	
**Silene nocturna*	11	50.0	1	10						0.09	159	41	
Daucus glochidiatus	10	45.5		7	3					0.37	328	56	
**Trifolium arvense* var. *arvense*	10	45.5		8	2					0.28	188	29	
**Trifolium angustifolium*	10	45.5		4	3	3				0.94	195	31	
**Vulpia myuros* f. *myuros*	9	40.9		1	6	2				1.12	292	60	
**Rostraria cristata*	9	40.9	1	6	2					0.29	229	49	
Wahlenbergia luteola	9	40.9	1	6	2					0.29	174	26	
**Bromus diandrus*	9	40.9		5	3	1				0.61	310	54	
Goodenia pinnatifida	8	36.4	2	6						0.08	163	29	
**Aira cupaniana*	7	31.8		4	3					0.49	135	30	
**Vulpia muralis*	7	31.8		4	3					0.49	62	28	
**Carthamus lanatus*	7	31.8	2	3	1	1				0.47	151	35	
**Medicago minima* var. *minima*	7	31.8	1	5	1					0.22	243	54	
Wahlenbergia stricta ssp. *stricta*	7	31.8		7						0.10	66	24	

Figure 82.
***Triodia bunicola* Hummock Grassland +/- an overstorey of *Allocasuarina verticillata* Low Woodland at site KOO01301 in hills north west of Yacka.**

Fauna at sites in Floristic Group 12

Trapping effort at 14 of 22 sites. Mammals recorded at 13 sites, birds at 14 and reptiles at 13.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Macropus sp.				7	8
Mus musculus	House Mouse			7	17
Macropus fuliginosus	Western Grey Kangaroo			5	14
Tachyglossus aculeatus	Short-beaked Echidna			5	8
Macropus robustus	Euro			4	5
Mormopterus sp.				3	3
Nyctophilus geoffroyi	Lesser Long-eared Bat			3	3
Tadarida australis	White-striped Freetail-bat			3	3
Vulpes vulpes	Fox			3	3
Chalinolobus gouldii	Gould's Wattled Bat			2	2
Oryctolagus cuniculus	Rabbit			2	2
Trichosurus vulpecula	Common Brushtail Possum			2	2
Capra hircus	Goat			1	2
Lepus capensis	Brown Hare			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Cacatua roseicapilla	Galah			13	85
Gymnorhina tibicen	Australian Magpie			12	29
Pardalotus striatus	Striated Pardalote			9	20
Smicrornis brevirostris	Weebill			9	35
Anthochaera carunculata	Red Wattlebird			8	23
Barnardius zonarius	Australian Ringneck, (Ring-necked Parrot)			8	37
Colluricincla harmonica	Grey Shrike-thrush			7	12

Bird species	Common name	SA	Aus	Site freq	Number obs
Corvus mellori	Little Raven			7	17
Lichenostomus virescens	Singing Honeyeater			7	23
Aquila audax	Wedge-tailed Eagle			6	10
Coracina novaehollandiae	Black-faced Cuckoo-shrike			6	14
Dicaeum hirundinaceum	Mistletoebird			5	7
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			4	10
Acanthiza uropygialis	Chestnut-rumped Thornbill			4	20
Rhipidura leucophrys	Willie Wagtail			4	9
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			3	21
Cracticus torquatus	Grey Butcherbird			3	4
Lichenostomus penicillatus	White-plumed Honeyeater			3	22
Ocyphaps lophotes	Crested Pigeon			3	9
Phaps chalcoptera	Common Bronzewing			3	9
Psephotus haematonotus	Red-rumped Parrot			3	22
Stagonopleura guttata	Diamond Firetail	V		3	7
Strepera versicolor	Grey Currawong			3	3
Sturnus vulgaris	Common Starling			3	35
Zosterops lateralis	Silvereye			3	6
Anthus novaeseelandiae	Richard's Pipit			2	5
Aphelocephala leucopsis	Southern Whiteface			2	8
Cheramoeca leucosternus	White-backed Swallow			2	7
Circus assimilis	Spotted Harrier			2	2
Corvus coronoides	Australian Raven			2	2
Daphoenositta chrysoptera	Varied Sittella			2	7
Falco berigora	Brown Falcon			2	2
Falco cenchroides	Nankeen Kestrel			2	3
Geopelia placida	Peaceful Dove			2	10
Hirundo neoxena	Welcome Swallow			2	3
Lichenostomus leucotis	White-eared Honeyeater			2	6
Malurus lamberti	Variegated Fairy-wren			2	4
Manorina flavigula	Yellow-throated Miner			2	10
Manorina melanocephala	Noisy Miner			2	12
Melanodryas cucullata	Hooded Robin			2	6
Microeca fascinans	Jacky Winter			2	4
Northiella haematogaster	Blue Bonnet			2	7
Passer domesticus	House Sparrow			2	10
Petroica goodenovii	Red-capped Robin			2	2
Phylidonyris albifrons	White-fronted Honeyeater			2	42
Struthidea cinerea	Apostlebird			2	21
Acanthiza nana	Yellow Thornbill			1	5
Aegotheles cristatus	Australian Owlet-nightjar			1	1
Artamus cinereus	Black-faced Woodswallow			1	2
Artamus cyanopterus	Dusky Woodswallow			1	8
Chrysococcyx osculans	Black-eared Cuckoo			1	1
Climacteris picumnus	Brown Treecreeper			1	3
Corcorax melanorhamphos	White-winged Chough			1	10
Epthianura albifrons	White-fronted Chat			1	2
Falco peregrinus	Peregrine Falcon	R		1	1
Melithreptus brevirostris	Brown-headed Honeyeater			1	1
Melopsittacus undulatus	Budgerigar			1	1
Merops ornatus	Rainbow Bee-eater			1	1
Neophema elegans	Elegant Parrot			1	7
Pachycephala rufiventris	Rufous Whistler			1	1
Petrochelidon nigricans	Tree Martin			1	2
Phaps elegans	Brush Bronzewing			1	1
Podargus strigoides	Tawny Frogmouth			1	2
Pomatostomus superciliosus	White-browed Babbler			1	5
Pyrrholaemus brunneus	Redthroat	R		1	2
Rhipidura albiscapa	Grey Fantail			1	1
Turnix velox	Little Button-quail			1	2

Reptile species	Common name	SA	Aus	Site freq	Number obs
Tiliqua rugosa	Sleepy Lizard			9	12
Ctenotus robustus	Eastern Striped Skink			4	8
Menetia greyii	Dwarf Skink			4	7
Morethia boulengeri	Common Snake-eye			4	9
Pseudonaja textilis	Eastern Brown Snake			4	6
Ctenophorus decresii	Tawny Dragon			3	6
Lerista bougainvillii	Bougainville's Skink			3	6
Morethia obscura	Mallee Snake-eye			3	10
Aprasia pseudopulchella	Flinders Worm Lizard	V	VU	2	4
Christinus marmoratus	Marbled Gecko			2	6
Cryptoblepharus carnabyi cac	Desert Wall skink			2	2
Diplodactylus vittatus	Eastern Stone Gecko			2	2
Gehyra 2n=44	Southern Rock Dtella			2	3
Hemiergis decresiensis	Three-toed Earless Skink			2	5
Hemiergis peronii	Four-toed Earless Skink			2	2
Heteronotia binoei	Bynoe's Gecko			2	3
Lialis burtonis	Burton's Legless Lizard			2	2
Cyclodomorphus venustus	Saltbush Slender Bluetongue			1	1
Delma molleri	Adelaide Snake-lizard			1	4
Eremiascincus richardsonii	Broad-banded Sandswimmer			1	1
Morethia adelaidensis	Adelaide Snake-eye			1	1
Pogona vitticeps	Central Bearded Dragon			1	1
Suta nigriceps	Mitchell's Short-tailed Snake			1	1
Suta spectabilis	Mallee Black-headed Snake			1	1
Tiliqua scincoides	Eastern Bluetongue			1	1

Floristic Group 13 *Allocasuarina verticillata* Low Woodland

This group is characterised by *Allocasuarina verticillata* in a Low Woodland formation. *Eucalyptus leucoxylon* and *E. odorata* are occasional co-dominants, while *Bursaria spinosa* ssp. *spinosa* is the main mid-storey shrub species. *Acacia pycnantha* and *Xanthorrhoea quadrangulata* may also be prominent in this stratum on occasions. Grasses and herbs dominate the understorey. *Gonocarpus elatus*, *Dianella revoluta* var. *revoluta*, *Austrodanthonia caespitosa*, *Austrostipa blackii*, *Lomandra multiflora* ssp. *dura* and *Lepidosperma viscidum* typify the perennial understorey in this group. The most commonly occurring annuals are the exotics *Avena barbata* and *Echium plantagineum*, and the natives *Arthropodium strictum* and *Oxalis perennans*. The group is associated with loam soils on hill slopes and crests across all ranges of the Mid North.

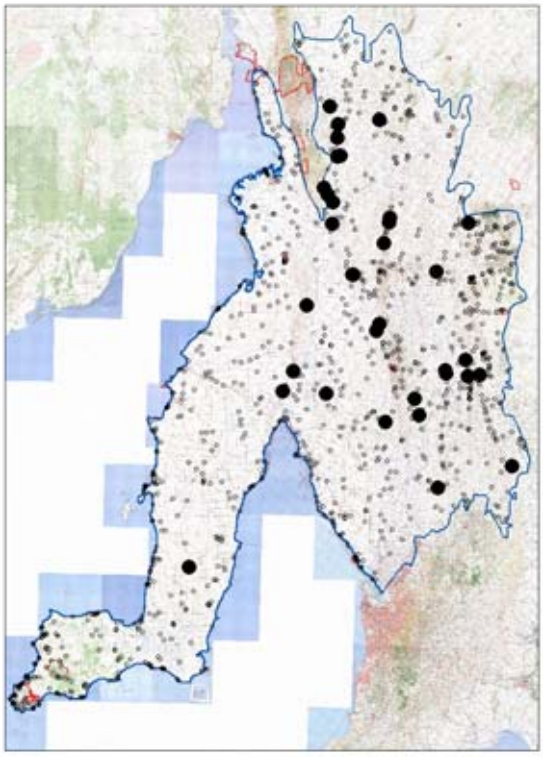
Sites within this group mainly occur in soil land units that are unaffected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Hill slope	26	74.3
Hill crest	5	14.3
Ridge	2	5.7
Hill footslope	1	2.9
Plain	1	2.9

LANDFORM PATTERN	Frequency	%
Low hills	12	34.3
Hills	5	14.3
Rises	2	5.7
Mountain	1	2.9
Plain	1	2.9
Not recorded	14	40.0

SALT	Frequency	%
Class A	34	97.1
Class B	1	2.9

SOIL	Frequency	%
Sand	1	2.9
Loam	32	91.4
Clay	1	2.9
Not recorded	1	2.9



Number of sites in group 35

PLANT TAXA SUMMARY

Number of taxa in group	328
Number of native taxa in group	238
Perennial	168
Annual	70
Number of introduced taxa in group	90
Perennial	7
Annual	83

Average Number of Taxa at a site:

Native perennial	20	Min:	6	Max:	38
Introduced perennial	0	Min:	0	Max:	3
Native annual	6	Min:	1	Max:	30
Introduced annual	10	Min:	1	Max:	21
All taxa	37	Min:	12	Max:	87

Number of Taxa of Conservation Significance:

Aust	1	SA	9			
Regions:		EP	n/a	FR	4	MU 5
		NL	34	SL	n/a	YP 5

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Allocasuarina verticillata	32	91.4			4	18	10			2.19	194	35	19
Bursaria spinosa ssp. *spinosa*	29	82.9	3	4	8	11	1	2		1.43	255	39	11
Gonocarpus elatus	23	65.7		6	10	6	1			1.11	126	21	14
Dianella revoluta var. *revoluta*	21	60.0	3	10	7	1				0.48	306	47	2
Austrodanthonia caespitosa	18	51.4	1	6	9	2				0.76	394	53	1
Austrostipa blackii	17	48.6	2	5	6	4				0.85	188	24	4
Lomandra multiflora ssp. *dura*	17	48.6	1	9	5	2				0.58	241	34	3
Austrostipa elegantissima	16	45.7	2	9	4	1				0.43	290	53	2
Lepidosperma viscidum	15	42.9		1	2	8	4			2.01	69	19	9
Acacia pycnantha	15	42.9	3	3	5	3	1			0.96	155	29	4
Cheilanthes austrotenuifolia	15	42.9	1	6	7	1				0.64	108	22	3
Stackhousia monogyna	14	40.0	1	9	3	1				0.42	159	31	2
Themeda triandra	13	37.1	2	6	4	1				0.51	88	22	1
Xanthorrhoea quadrangulata	12	34.3	2	3	4	1	1	1		1.11	50	12	3
Lomandra densiflora	12	34.3	2	6	2	1	1			0.64	89	19	4
Einadia nutans ssp.	11	31.4	1	8	2					0.26	215	44	2
Astroloma humifusum	11	31.4	3	6	2					0.24	58	15	4
Other Significant Perennial Taxa													
Eucalyptus odorata	8	22.9			5	2	1			1.50	131	24	1
Eucalyptus leucoxylon ssp.	7	20.0		3	1	1	2			1.33	95	12	2
Annual Taxa Occurring at >30% of Sites													
**Avena barbata*	30	85.7		3	15	9	2		1	1.48	661	71	
Arthropodium strictum	28	80.0	2	13	13					0.51	254	36	
**Echium plantagineum*	22	62.9	1	9	11	1				0.63	352	48	
Oxalis perennans	22	62.9		9	11	2				0.72	393	53	
**Anagallis arvensis*	18	51.4	2	10	6					0.39	341	49	
**Brachypodium distachyon*	16	45.7		3	8	3	1		1	1.39	156	36	
**Trifolium arvense* var. *arvense*	15	42.9		8	7					0.52	188	29	
**Hypochaeris glabra*	15	42.9		4	10	1				0.83	349	54	
**Sonchus oleraceus*	13	37.1	1	10	2					0.23	588	77	
**Trifolium angustifolium*	13	37.1		5	6	2				0.81	195	31	
**Arctotheca calendula*	12	34.3	2	5	5					0.46	208	45	
**Moraea setifolia*	11	31.4		5	6					0.59	335	60	
**Aira cupaniana*	11	31.4		4	5	1	1			0.95	135	30	
**Trifolium campestre*	11	31.4		4	7					0.67	227	41	
**Vulpia myuros* f. *myuros*	11	31.4		4	7					0.67	292	60	

Figure 83.
***Allocasuarina verticillata* Low Woodland at site KOO0301 in hills north west of Yacka.**

Fauna at sites in Floristic Group 13

Trapping effort at 3 of 35 sites. Mammals recorded at 3 sites, birds at 3, reptiles at 3 and frogs at 2.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Macropus fuliginosus	Western Grey Kangaroo			3	6
Macropus robustus	Euro			2	2
Mormopterus sp.				2	2
Mus musculus	House Mouse			2	29
Nyctophilus geoffroyi	Lesser Long-eared Bat			2	2
Oryctolagus cuniculus	Rabbit			2	3
Chalinolobus gouldii	Gould's Wattled Bat			1	1
Chalinolobus morio	Chocolate Wattled Bat			1	1
Macropus sp.				1	1
Tachyglossus aculeatus	Short-beaked Echidna			1	1
Trichosurus vulpecula	Common Brushtail Possum			1	1
Vulpes vulpes	Fox			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Corvus mellori	Little Raven			3	20
Dicaeum hirundinaceum	Mistletoebird			3	4
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			2	4
Cacatua roseicapilla	Galah			2	5
Colluricincla harmonica	Grey Shrike-thrush			2	4
Gymnorhina tibicen	Australian Magpie			2	11
Lichenostomus virescens	Singing Honeyeater			2	11
Psephotus haematonotus	Red-rumped Parrot			2	7
Rhipidura leucophrys	Willie Wagtail			2	3
Strepera versicolor	Grey Currawong			2	2
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			1	9
Acanthiza apicalis	Inland Thornbill			1	3
Acanthiza reguloides	Buff-rumped Thornbill			1	2
Aphelocephala leucopsis	Southern Whiteface			1	4
Artamus cyanopterus	Dusky Woodswallow			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Artamus superciliosus	White-browed Woodswallow			1	10
Climacteris picumnus	Brown Treecreeper			1	3
Coracina novaehollandiae	Black-faced Cuckoo-shrike			1	2
Corcorax melanorhamphos	White-winged Chough			1	2
Cracticus torquatus	Grey Butcherbird			1	2
Falco cenchroides	Nankeen Kestrel			1	1
Hirundo neoxena	Welcome Swallow			1	1
Manorina flavigula	Yellow-throated Miner			1	4
Melithreptus brevirostris	Brown-headed Honeyeater			1	1
Pachycephala rufiventris	Rufous Whistler			1	1
Pardalotus striatus	Striated Pardalote			1	1
Platycercus elegans	Crimson Rosella			1	3
Podargus strigoides	Tawny Frogmouth			1	2
Sturnus vulgaris	Common Starling			1	9
Turnix varia	Painted Button-quail	V		1	4

Reptile species	Common name	SA	Aus	Site freq	Number obs
Christinus marmoratus	Marbled Gecko			2	2
Hemiergis decresiensis	Three-toed Earless Skink			2	14
Lerista bougainvillii	Bougainville's Skink			2	4
Menetia greyii	Dwarf Skink			2	3
Aprasia pseudopulchella	Flinders Worm Lizard	V	VU	1	1
Ctenophorus decresii	Tawny Dragon			1	9
Delma molleri	Adelaide Snake-lizard			1	2
Gehyra 2n=44	Southern Rock Dtella			1	6
Heteronotia binoei	Bynoe's Gecko			1	1
Suta spectabilis	Mallee Black-headed Snake			1	3
Tiliqua rugosa	Sleepy Lizard			1	1

Frog species	Common name	Site freq	Number obs
Limnodynastes tasmaniensis	Spotted Grass Frog	1	1
Neobatrachus pictus	Painted Frog	1	2

Floristic Group 14 *Bursaria spinosa* ssp. *spinosa* +/- *Pomaderris paniculosa* ssp. *paniculosa* Shrubland +/- emergent *Eucalyptus odorata*

This Shrubland group is dominated by *Bursaria spinosa* ssp. *spinosa* either solely or in association with *Pomaderris paniculosa* ssp. *paniculosa*. On rare occasions *Eucalyptus odorata* and, to a lesser extent, *E. socialis* ssp. may each form a sparse overstorey, and *Senna artemisioides* ssp. *coriacea* may occur as a co-dominant. A number of species characterise the understorey, including *Eutaxia microphylla* var. *microphylla*, *Goodenia albiflora*, *Pimelea micrantha*, *Cryptandra* sp. Floriferous (W.R.Barker 4131), *Dianella revoluta* var. *revoluta* and *Chrysocephalum apiculatum*. The most frequently occurring annuals are the exotics *Avena barbata*, *Echium plantagineum* and *Hedypnois rhagadioloides*, and the natives *Arthropodium strictum*, *A. fimbriatum* and *Maireana enchylaenoides*. The group is associated with loam soils on hill slopes and plains from scattered locations across the Mid North.

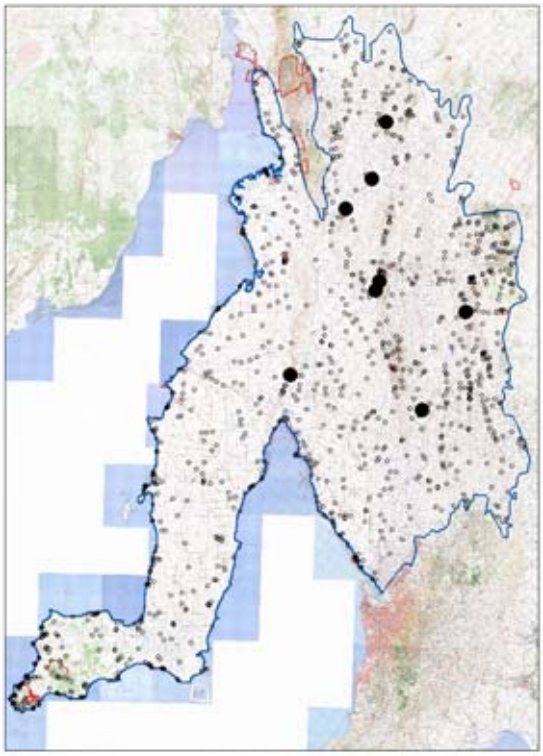
Sites within this group mostly occur in soil land units that are unaffected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Hill slope	5	62.5
Plain	3	37.5

LANDFORM PATTERN	Frequency	%
Low hills	2	25.0
Hills	1	12.5
Plain	1	12.5
Not recorded	4	50.0

SALT	Frequency	%
Class A	7	87.5
Class B	1	12.5

SOIL	Frequency	%
Loam	7	87.5
Not recorded	1	12.5



Number of sites in group 8

PLANT TAXA SUMMARY

Number of taxa in group	175
Number of native taxa in group	127
Perennial	92
Annual	35
Number of introduced taxa in group	48
Perennial	7
Annual	41

Average Number of Taxa at a site:

Native perennial	26	Min: 10	Max: 32
Introduced perennial	1	Min: 0	Max: 4
Native annual	8	Min: 3	Max: 14
Introduced annual	10	Min: 4	Max: 13
All taxa	45	Min: 26	Max: 53

Number of Taxa of Conservation Significance:

Aust	0	SA	3			
Regions:		EP	n/a	FR	3	MU	n/a
		NL	10	SL	n/a	YP	n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Austrodanthonia caespitosa	8	100.0		2	6					0.78	394	53	6
Dianella revoluta var. *revoluta*	8	100.0		2	6					0.78	306	47	11
Bursaria spinosa ssp. *spinosa*	7	87.5		1	4	2				1.16	255	39	10
Chrysocephalum apiculatum	6	75.0		1	4	1				1.02	156	33	17
Austrostipa eremophila	6	75.0		1	5					0.85	177	36	7
Eutaxia microphylla var. *microphylla*	6	75.0	1		5					0.84	111	30	24
Austrostipa elegantissima	6	75.0		4	2					0.40	290	53	6
Vittadinia cuneata var.	6	75.0	1	3	2					0.39	152	34	10
Lepidosperma viscidum	5	62.5			3	2				1.40	69	19	13
Acacia pycnantha	5	62.5	1		3	1				1.00	155	29	8
Pimelea micrantha	5	62.5		2	3					0.64	62	21	17
Lomandra multiflora ssp. *dura*	5	62.5		3	2					0.46	241	34	3
Enchylaena tomentosa var. *tomentosa*	5	62.5	1	4						0.08	425	58	
Pomaderris paniculosa ssp.	4	50.0			1	2	1			2.00	97	26	13
Goodenia albiflora	4	50.0		1	2	1				1.03	23	10	34
Austrostipa blackii	4	50.0		2	1	1				0.80	188	24	4
Stackhousia monogyna	4	50.0		2	2					0.55	159	31	4
Lomandra collina	4	50.0	1	2	1					0.30	73	25	7
Lomandra effusa	4	50.0	1	2	1					0.30	230	41	1
Linum marginale	4	50.0	2	2						0.06	38	17	3
Cryptandra sp. Floriferous (W.R.Barker 4131)	3	37.5			1	1	1			2.00	39	16	16
Chrysocephalum semipapposum	3	37.5			1	2				1.67	86	19	9
Eucalyptus odorata	3	37.5			3					1.00	131	24	2
Grevillea ilicifolia ssp. *ilicifolia*	3	37.5		2	1					0.40	26	11	13
Ptilotus spathulatus f. *spathulatus*	3	37.5		2	1					0.40	186	35	2
Austrostipa nodosa	3	37.5	1	1	1					0.37	106	26	1
**Lycium ferocissimum*	3	37.5	2	1						0.04	339	65	
Other Significant Perennial Taxa													
Senna artemisioides ssp. *coriacea*	2	25.0				2				2.00	94	26	3
Eucalyptus socialis ssp.	2	25.0			1	1				1.50	114	25	1
Triodia bunicola/scariosa	2	25.0		1		1				1.05	6	4	19
Wahlenbergia communis	2	25.0		1	1					0.55	18	10	17
Pimelea stricta	1	12.5			1					1.00	8	6	10
Annual Taxa Occurring at >30% of Sites													
**Avena barbata*	8	100.0		1	3	4				1.39	661	71	
Arthropodium strictum	7	87.5		4	3					0.49	254	36	
**Echium plantagineum*	6	75.0		5	1					0.25	352	48	
Maireana enchylaenoides	5	62.5		4	1					0.28	254	33	
**Hedypnois rhagadioloides*	5	62.5	1	1	3					0.62	104	36	
Oxalis perennans	5	62.5		1	4					0.82	393	53	
Arthropodium fimbriatum	4	50.0	1	2	1					0.30	89	29	
Goodenia willisiana	3	37.5			3					1.00	90	25	
Wahlenbergia luteola	3	37.5	1	1	1					0.37	174	26	
**Sonchus oleraceus*	3	37.5	2	1						0.04	588	77	
**Anagallis arvensis*	3	37.5		1	2					0.70	341	49	
**Pentaschistis airoides*	3	37.5		1	2					0.70	91	23	
**Vulpia myuros* f. *myuros*	3	37.5		1	2					0.70	292	60	
Goodenia pinnatifida	3	37.5	1		2					0.67	163	29	

Figure 84.
***Bursaria spinosa* ssp. *spinosa* +/- *Pomaderris paniculosa* ssp. *paniculosa* Shrubland +/- emergent *Eucalyptus odorata* at site SPA1101 in the Yackamoorundie Hills, south east of Yacka.**

Fauna at sites in Floristic Group 14 – no sites sampled for fauna

Floristic Group 15 *Allocasuarina verticillata*, *Xanthorrhoea quadrangulata* +/- *Eucalyptus odorata* Low Woodland

This Low Woodland group is dominated mainly by *Allocasuarina verticillata*. *Eucalyptus odorata* (and *E. goniocalyx* ssp. *goniocalyx* on rare occasions) may also occur as a co-dominant in the overstorey. It differs from Floristic Group 13 in that the understorey is often dense and is characterised by a number of shrub species, but particularly *Xanthorrhoea quadrangulata*. Prominent understorey species include *Gonocarpus elatus*, *Cheilanthes austrotenuifolia*, *Spyridium parvifolium*, *Hakea carinata*, *Bursaria spinosa* ssp. *spinosa*, *Acacia pycnantha* and *Dianella revoluta* var. *revoluta*. Also indicative of this group, though occurring less frequently, are *Pultenaea kraehenbuehlii* (in the Tothill Range), *Hybanthus floribundus* ssp. *floribundus*, *Cassinia complanata*, *Allocasuarina muelleriana* ssp. *muelleriana*, *Philotheca verrucosa* and *Prostanthera behriana*. Commonly occurring annual species include the exotics *Hypochaeris glabra* and *Aira cupaniana*, and the natives *Arthropodium strictum*, *Oxalis perennans* and *Daucus glochidiatus*.

The group is associated with loam soils on hill slopes and ridges and is particularly evident in the Tothill Range and Yackamoorundie and Bundaleer Hills.

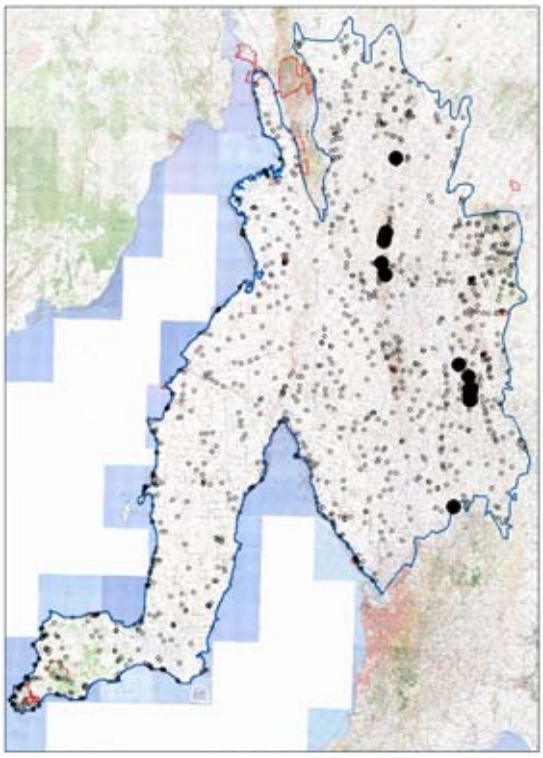
Sites within this group tend to occur in soil land units that are unaffected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Hill slope	13	68.4
Ridge	6	31.6

LANDFORM PATTERN	Frequency	%
Hills	6	31.6
Low hills	1	5.3
Not recorded	12	63.2

SALT	Frequency	%
Class A	19	100.0

SOIL	Frequency	%
Sand	1	5.3
Loam	18	94.7



Number of sites in group 19

PLANT TAXA SUMMARY

Number of taxa in group	249
Number of native taxa in group	184
Perennial	110
Annual	74
Number of introduced taxa in group	65
Perennial	7
Annual	58

Average Number of Taxa at a site:

Native perennial	22	Min:	5	Max:	34
Introduced perennial	0	Min:	0	Max:	3
Native annual	14	Min:	1	Max:	32
Introduced annual	12	Min:	3	Max:	29
All taxa	49	Min:	22	Max:	64

Number of Taxa of Conservation Significance:

Aust	0	SA	6				
Regions:		EP	n/a	FR	n/a	MU	n/a
		NL	41	SL	n/a	YP	n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Xanthorrhoea quadrangulata	19	100.0			1	8	8	2		2.58	50	12	63
Allocasuarina verticillata	17	89.5	1	10	1	5				0.71	194	35	6
Gonocarpus elatus	16	84.2		12	2	2				0.45	126	21	9
Cheilanthes austrotenuifolia	14	73.7		10	4					0.36	108	22	5
Dianella revoluta var. *revoluta*	14	73.7	7	5	1	1				0.26	306	47	2
Bursaria spinosa ssp. *spinosa*	13	68.4	5	2	3	3				0.71	255	39	4
Acacia pycnantha	13	68.4	2	9	1	1				0.30	155	29	3
Eucalyptus odorata	12	63.2	2	5		5				0.88	131	24	6
Spyridium parvifolium	11	57.9	1	6	1	3				0.69	14	3	57
Astroloma humifusum	10	52.6	1	8	1					0.18	58	15	8
Goodenia blackiana	8	42.1		7	1					0.21	59	11	8
Lomandra densiflora	8	42.1	1	7						0.09	89	19	1
Stackhousia monogyna	8	42.1	1	7						0.09	159	31	
Lomandra multiflora ssp. *dura*	8	42.1	2	6						0.08	241	34	
Poa crassicaudex	8	42.1	2	6						0.08	59	17	1
Austrostipa scabra ssp.	7	36.8	1	4	2					0.34	233	41	1
Pultenaea largiflorens	7	36.8	2	4	1					0.20	34	7	5
Hakea carinata	7	36.8	1	6						0.09	8	2	37
Hibbertia exutiacies	6	31.6	1	4		1				0.40	20	6	3
Exocarpos cupressiformis	6	31.6	1	5						0.09	21	10	10
Acrotriche affinis	6	31.6	2	4						0.07	28	10	1
Einadia nutans ssp.	6	31.6	2	4						0.07	215	44	1
Other Significant Perennial Taxa													
Allocasuarina muelleriana ssp. *muelleriana*	5	26.3		3		1	1			1.06	10	3	17
Cassinia complanata	5	26.3	1	2		2				0.84	11	6	22
Pultenaea kraehenbuehlii	5	26.3		4			1			0.68	5	1	26
Hybanthus floribundus ssp. *floribundus*	5	26.3	2	3						0.06	6	2	23
Prostanthera behriana	4	21.1		1	1	1	1			1.53	4	1	21
Eucalyptus goniocalyx ssp. *goniocalyx*	4	21.1		1	1	2				1.28	6	2	20
Philotheca verrucosa	4	21.1	2	1		1				0.53	4	1	21
Annual Taxa Occurring at >30% of Sites													
**Hypochaeris glabra*	14	73.7		11	2		1			0.44	349	54	
Arthropodium strictum	13	68.4		10	3					0.31	254	36	
**Aira cupaniana*	11	57.9		4	3	3	1			1.13	135	30	
Oxalis perennans	11	57.9		7	2	2				0.61	393	53	
Daucus glochidiatus	11	57.9	1	9	1					0.17	328	56	
**Briza maxima*	10	52.6	1	5	2	1	1			0.75	82	19	
**Pentaschistis airoides*	10	52.6		7	3					0.37	91	23	
**Echium plantagineum*	9	47.4		8		1				0.31	352	48	
Stuartina muelleri	9	47.4		8	1					0.20	26	7	
Hydrocotyle callicarpa	9	47.4		9						0.10	31	10	
**Avena barbata*	8	42.1		1	2	2	1	2		2.14	661	71	
**Trifolium campestre*	8	42.1		2	3	2	1			1.28	227	41	
Millotia tenuifolia var. *tenuifolia*	8	42.1		7		1				0.34	32	11	
**Anagallis arvensis*	8	42.1		6	2					0.33	341	49	
Crassula colligata ssp.	8	42.1		8						0.10	234	45	
Rhodanthe laevis	8	42.1		8						0.10	11	2	
Wahlenbergia gracilenta	8	42.1		8						0.10	68	23	
Wahlenbergia stricta ssp. *stricta*	8	42.1		8						0.10	66	24	
Thysanotus patersonii	8	42.1	1	7						0.09	118	29	
**Trifolium angustifolium*	7	36.8		3	3		1			0.90	195	31	
**Sonchus oleraceus*	7	36.8	2	4		1				0.35	588	77	
Calandrinia calyptrata	7	36.8		6	1					0.23	29	15	
**Trifolium arvense* var. *arvense*	6	31.6		2	3		1			1.03	188	29	
**Arctotheca calendula*	6	31.6		4	1	1				0.57	208	45	
**Vulpia bromoides/myuros*	6	31.6		5	1					0.25	33	12	
Blennospora drummondii	6	31.6		6						0.10	41	13	
Crassula decumbens var. *decumbens*	6	31.6		6						0.10	107	23	
Phyllangium divergens	6	31.6		6						0.10	27	10	
Plantago sp. B	6	31.6		6						0.10	23	13	
Drosera macrantha ssp. *planchonii*	6	31.6	1	5						0.09	73	20	

Figure 85.
***Allocasuarina verticillata*, *Xanthorrhoea quadrangulata* +/- *Eucalyptus odorata* Low Woodland at site BUN01201 overlooking the Never Never Creek in the Campbell Range, north of Spalding.**

Fauna at sites in Floristic Group 15

Trapping effort at 6 of 19 sites. Mammals recorded at 4 sites, birds at 6 and reptiles at 5.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Tachyglossus aculeatus	Short-beaked Echidna			4	5
Chalinolobus gouldii	Gould's Wattled Bat			1	1
Chalinolobus morio	Chocolate Wattled Bat			1	1
Macropus fuliginosus	Western Grey Kangaroo			1	3
Macropus robustus	Euro			1	3
Mormopterus sp.				1	1
Mus musculus	House Mouse			1	4
Nyctophilus geoffroyi	Lesser Long-eared Bat			1	1
Rattus rattus	Black Rat			1	1
Tadarida australis	White-striped Freetail-bat			1	1
Vespadelus regulus	Southern Forest Bat			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Gymnorhina tibicen	Australian Magpie			6	19
Corvus mellori	Little Raven			5	34
Pardalotus striatus	Striated Pardalote			5	10
Platycercus elegans	Crimson Rosella			5	19
Strepera versicolor	Grey Currawong			5	11
Acanthiza nana	Yellow Thornbill			4	15
Cacatua roseicapilla	Galah			4	16
Colluricincla harmonica	Grey Shrike-thrush			4	9
Pachycephala rufiventris	Rufous Whistler			4	8
Melithreptus brevirostris	Brown-headed Honeyeater			3	6

Bird species	Common name	SA	Aus	Site freq	Number obs
Smicrornis brevirostris	Weebill			3	5
Acanthiza apicalis	Inland Thornbill			2	10
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			2	9
Acanthiza reguloides	Buff-rumped Thornbill			2	4
Corcorax melanorhamphos	White-winged Chough			2	15
Zosterops lateralis	Silvereye			2	8
Aquila audax	Wedge-tailed Eagle			1	1
Dacelo novaeguineae	Laughing Kookaburra			1	1
Falco peregrinus	Peregrine Falcon	R		1	1
Petroica multicolor	Scarlet Robin			1	2
Phaps elegans	Brush Bronzewing			1	1
Phaps sp.				1	1
Phylidonyris albifrons	White-fronted Honeyeater			1	1

Reptile species	Common name	SA	Aus	Site freq	Number obs
Hemiergis decresiensis	Three-toed Earless Skink			5	11
Menetia greyii	Dwarf Skink			4	10
Ctenophorus decresii	Tawny Dragon			2	3
Morethia boulengeri	Common Snake-eye			2	2
Tiliqua rugosa	Sleepy Lizard			2	4
Lampropholis guichenoti	Garden Skink			1	2

Floristic Group 16 *Eucalyptus macrorhyncha* ssp. *macrorhyncha* Low Woodland

This Low Woodland group is dominated by *Eucalyptus macrorhyncha* ssp. *macrorhyncha*, a species that is common and widespread in the Great Dividing Range of Victoria and New South Wales, but has a very restricted distribution in South Australia in the hills west of Sevenhill (Nicolle 1997). The open understorey of low shrubs and herbs is characterised by *Hibbertia exutiacies*, *Gonocarpus tetragynus*, *G.* elatus, *Cheilanthes austrotenuifolia*, *Carex breviculmis*, *Acrotriche affinis*, *Lomandra densiflora* and the exotic *Lavandula stoechas*. The most commonly occurring annuals are the exotics *Briza maxima* and *Anagallis arvensis*, as well as the natives *Arthropodium strictum*, *Caesia calliantha*, *Drosera auriculata* and *Microseris lanceolata*. The group is associated with loam soils on hill slopes in the hills south of Clare, particularly in the vicinity of Spring Gully Conservation Park.

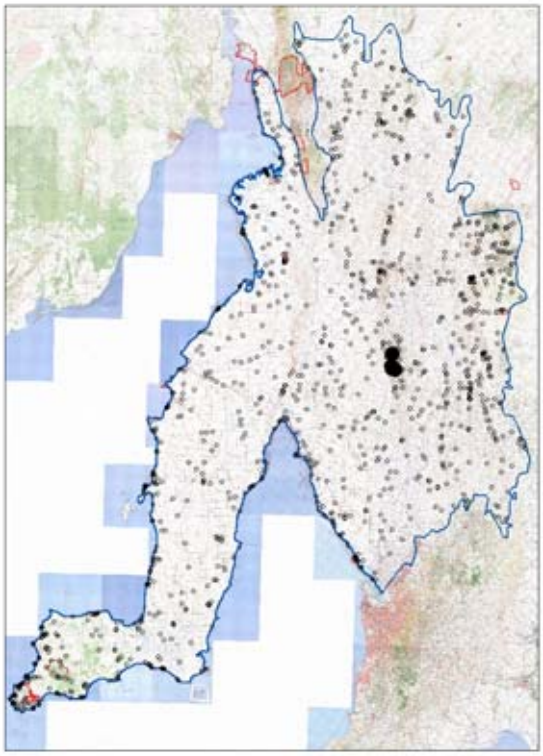
Sites within this group tend to occur in soil land units that are either unaffected or only slightly affected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Hill slope	4	66.7
Hill crest	1	16.7
Gully	1	16.7

LANDFORM PATTERN	Frequency	%
Hills	3	50.0
Not recorded	3	50.0

SALT	Frequency	%
Class A	5	83.3
Class B	1	16.7

SOIL	Frequency	%
Loam	6	100.0



Number of sites in group 6

PLANT TAXA SUMMARY

Number of taxa in group	106
Number of native taxa in group	85
Perennial	56
Annual	29
Number of introduced taxa in group	21
Perennial	7
Annual	14

Average Number of Taxa at a site:

Native perennial	20	Min: 13	Max: 34
Introduced perennial	2	Min: 0	Max: 5
Native annual	11	Min: 7	Max: 18
Introduced annual	5	Min: 1	Max: 8
All taxa	37	Min: 21	Max: 54

Number of Taxa of Conservation Significance:

Aust	1	SA	2			
Regions:		EP	n/a	FR	n/a	MU n/a
		NL	18	SL	n/a	YP n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Cheilanthes austrotenuifolia	6	100.0		1	1	4				1.52	108	22	43
Hibbertia exutiacies	6	100.0		3	1	2				0.88	20	6	67
Gonocarpus elatus	6	100.0		1	5					0.85	126	21	25
Dianella revoluta var. *revoluta*	6	100.0		4	2					0.40	306	47	6
Lomandra densiflora	5	83.3		2	3					0.64	89	19	24
Poa crassicaudex	5	83.3		4	1					0.28	59	17	21
Stackhousia monogyna	5	83.3		4	1					0.28	159	31	6
Eucalyptus macrorhyncha ssp. *macrorhyncha*	4	66.7				3	1			2.25	4	1	67
Gonocarpus tetragynus	4	66.7		2	2					0.55	10	3	57
Acrotriche affinis	3	50.0		1	1	1				1.03	28	10	30
Acaena echinata	3	50.0		3						0.10	94	21	1
Carex breviculmis	3	50.0		3						0.10	6	4	36
Goodenia blackiana	3	50.0		3						0.10	59	11	5
Acacia pycnantha	3	50.0	1	2						0.07	155	29	
Exocarpos cupressiformis	3	50.0	1	2						0.07	21	10	22
Allocasuarina verticillata	2	33.3				1	1			2.50	194	35	3
**Lavandula stoechas*	2	33.3		1		1				1.05	7	3	29
Pultenaea largiflorens	2	33.3		1		1				1.05	34	7	20
Xanthorrhoea quadrangulata	2	33.3		1		1				1.05	50	12	3
**Plantago lanceolata* var. *lanceolata*	2	33.3		2						0.10	20	10	3
Acacia paradoxa	2	33.3		2						0.10	32	10	1
Austrodanthonia setacea	2	33.3		2						0.10	163	38	
Austrostipa mollis	2	33.3		2						0.10	19	12	5
Dillwynia hispida	2	33.3		2						0.10	4	3	28
Lomandra nana	2	33.3		2						0.10	8	4	10
Neurachne alopecuroidea	2	33.3		2						0.10	39	14	1
Pimelea glauca	2	33.3		2						0.10	60	19	2
Eucalyptus goniocalyx ssp. *goniocalyx*	2	33.3	1	1						0.06	6	2	2
Other Significant Perennial Taxa													
Luzula meridionalis	1	16.7		1						0.10	5	4	11
Annual Taxa Occurring at >30% of Sites													
**Briza maxima*	6	100.0			5	1				1.17	82	19	
**Anagallis arvensis*	5	83.3		4	1					0.28	341	49	
Caesia calliantha	4	66.7		1	3					0.78	29	9	
Arthropodium strictum	4	66.7		2	2					0.55	254	36	
Microseris lanceolata	4	66.7		3	1					0.33	132	37	
Wahlenbergia stricta ssp. *stricta*	4	66.7		4						0.10	66	24	
Drosera auriculata	4	66.7	1	3						0.08	7	3	
**Avena barbata*	3	50.0		2			1			1.07	661	71	
**Moraea flaccida*	3	50.0			3					1.00	31	12	
Geranium retrorsum	3	50.0		1	2					0.70	100	28	
Oxalis perennans	3	50.0		1	2					0.70	393	53	
**Briza minor*	3	50.0		2	1					0.40	78	20	
**Aira cupaniana*	3	50.0		3						0.10	135	30	
Bulbine bulbosa	3	50.0		3						0.10	85	21	
Glossodia major	3	50.0		3						0.10	4	2	
Thelymitra rubra	3	50.0		3						0.10	5	2	
Thysanotus patersonii	3	50.0	1	2						0.07	118	29	
Wurmbea dioica ssp. *dioica*	3	50.0	1	2						0.07	126	38	
Pelargonium littorale	2	33.3		1	1					0.55	31	13	
Chamaescilla corymbosa var. *corymbosa*	2	33.3		2						0.10	15	7	
Craspedia variabilis	2	33.3		2						0.10	66	20	
Drosera whittakeri ssp. *whittakeri*	2	33.3		2						0.10	10	5	
Thelymitra nuda	2	33.3		2						0.10	39	15	

Figure 86.
***Eucalyptus macrorhyncha* ssp. *macrorhyncha* Low Woodland at site CLA02601 in Spring Gully Conservation Park.**

Fauna at sites in Floristic Group 16

Trapping effort at 2 of 6 sites. Mammals recorded at 2 sites, birds at 2, reptiles at 2 and a frog at 2.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Macropus fuliginosus	Western Grey Kangaroo			2	2
Macropus robustus	Euro			2	4
Tachyglossus aculeatus	Short-beaked Echidna			2	2
Mus musculus	House Mouse			1	1
Trichosurus vulpecula	Common Brushtail Possum			1	1
Vulpes vulpes	Fox			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Acanthiza reguloides	Buff-rumped Thornbill			2	21
Cacatua roseicapilla	Galah			2	23
Colluricincla harmonica	Grey Shrike-thrush			2	5
Corcorax melanorhamphos	White-winged Chough			2	29
Corvus mellori	Little Raven			2	5
Lichenostomus chrysops	Yellow-faced Honeyeater			2	6
Pardalotus striatus	Striated Pardalote			2	13
Phaps chalcoptera	Common Bronzewing			2	4
Platycercus elegans	Crimson Rosella			2	11
Coracina novaehollandiae	Black-faced Cuckoo-shrike			1	1
Dacelo novaeguineae	Laughing Kookaburra			1	2
Daphoenositta chrysoptera	Varied Sittella			1	5
Glossopsitta concinna	Musk Lorikeet			1	7
Melithreptus brevirostris	Brown-headed Honeyeater			1	4
Pachycephala rufiventris	Rufous Whistler			1	3
Pardalotus punctatus	Spotted Pardalote			1	1
Petrochelidon nigricans	Tree Martin			1	2
Petroica multicolor	Scarlet Robin			1	2
Psephotus haematonotus	Red-rumped Parrot			1	2
Strepera versicolor	Grey Currawong			1	3

Reptile species	Common name	SA	Aus	Site freq	Number obs
Lampropholis guichenoti	Garden Skink			2	30
Lerista bougainvillii	Bougainville's Skink			2	3
Lerista sp.				1	1
Morethia boulengeri	Common Snake-eye			1	5
Tiliqua rugosa	Sleepy Lizard			1	1

Frog species	Common name	Site freq	Number obs
Pseudophryne bibronii	Brown Toadlet	2	5

Floristic Group 17 *Eucalyptus odorata* Low Woodland over grasses

This Low Woodland group is dominated by *Eucalyptus odorata*. On rare occasions *Eucalyptus leucoxylon* ssp. may occur as an overstorey co-dominant. The understorey is dominated by the grasses *Austrodanthonia caespitosa*, *A. setacea*, *Austrostipa scabra* ssp., *A. blackii* and *A. elegantissima*, while *Bursaria spinosa* ssp. *spinosa* and *Acacia pycnantha* are prominent in the very sparse tall shrub layer. The most frequently occurring annuals are *Avena barbata* (common in all grasslands and grassy woodlands), *Oxalis perennans*, *Echium plantagineum* and *Arthropodium strictum*. The group is associated with loam soils on hill slopes and footslopes across all ranges of the Mid North.

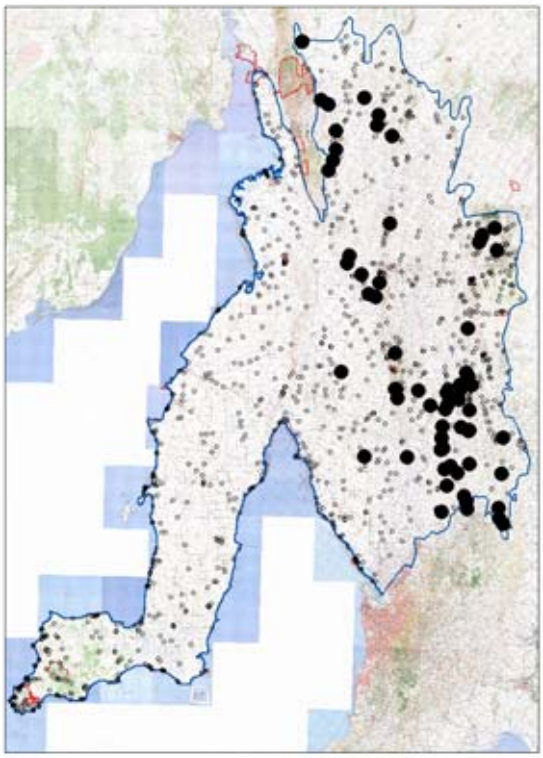
Sites within this group tend to occur in soil land units that are either unaffected or only slightly affected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Hill slope	44	63.8
Hill footslope	12	17.4
Plain	8	11.6
Ridge	3	4.3
Hill crest	1	1.4
Fan - alluvial	1	1.4

LANDFORM PATTERN	Frequency	%
Low hills	21	30.4
Hills	6	8.7
Plain	3	4.3
Rises	1	1.4
Not recorded	38	55.1

SALT	Frequency	%
Class A	58	84.1
Class B	11	15.9

SOIL	Frequency	%
Loam	61	88.4
Clay	6	8.7
Not recorded	2	2.9



Number of sites in group 69

PLANT TAXA SUMMARY

Number of taxa in group	426
Number of native taxa in group	297
Perennial	179
Annual	118
Number of introduced taxa in group	129
Perennial	14
Annual	115

Average Number of Taxa at a site:

Native perennial	17	Min:	1	Max:	45
Introduced perennial	1	Min:	0	Max:	3
Native annual	11	Min:	0	Max:	28
Introduced annual	14	Min:	2	Max:	29
All taxa	43	Min:	9	Max:	95

Number of Taxa of Conservation Significance:

Aust	2	SA	19			
Regions:		EP	n/a	FR	2	MU	9
		NL	51	SL	n/a	YP	n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Eucalyptus odorata	69	100.0			5	30	31	3		2.46	131	24	39
Austrodanthonia caespitosa	35	50.7	1	20	11	2		1		0.60	394	53	1
Austrostipa scabra ssp.	34	49.3	1	16	13	4				0.67	233	41	2
Bursaria spinosa ssp. *spinosa*	33	47.8	8	16	1	5	3			0.66	255	39	2
Austrostipa blackii	31	44.9	1	13	10	6	1			0.85	188	24	3
Austrostipa elegantissima	30	43.5	7	18	2	3				0.33	290	53	2
Einadia nutans ssp.	30	43.5	8	19	3					0.17	215	44	2
Cheilanthes austrotenuifolia	28	40.6	1	19	8					0.35	108	22	2
Austrodanthonia setacea	26	37.7	1	8	11	4	2			0.99	163	38	3
Acacia pycnantha	25	36.2	5	9	5	4	2			0.80	155	29	2
Lomandra multiflora ssp. *dura*	25	36.2	12	12	1					0.09	241	34	
Elymus scabrus var. *scabrus*	24	34.8	5	18	1					0.12	84	18	2
Eucalyptus leucoxylon ssp.	21	30.4	4	6	4	6	1			0.94	95	12	2
Austrostipa nitida	21	30.4	1	8	9	3				0.75	206	42	1
Dianella revoluta var. *revoluta*	21	30.4	5	15	1					0.12	306	47	
Annual Taxa Occurring at >30% of Sites													
**Avena barbata*	58	84.1	1	17	16	19	5			1.22	661	71	
Oxalis perennans	51	73.9		39	12					0.31	393	53	
**Echium plantagineum*	48	69.6	6	27	7	6		2		0.62	352	48	
Arthropodium strictum	43	62.3	6	27	6	4				0.39	254	36	
**Trifolium arvense* var. *arvense*	36	52.2		26	10					0.35	188	29	
**Hypochaeris glabra*	35	50.7	3	24	8					0.30	349	54	
**Arctotheca calendula*	33	47.8	1	25	4	2		1		0.44	208	45	
Crassula colligata ssp.	33	47.8		25	8					0.32	234	45	
**Bromus diandrus*	32	46.4	1	13	10	8				0.85	310	54	
**Trifolium angustifolium*	31	44.9		23	7	1				0.36	195	31	
Maireana enchylaenoides	31	44.9	3	21	6	1				0.33	254	33	
**Sonchus oleraceus*	31	44.9	6	22	2		1			0.23	588	77	
Daucus glochidiatus	29	42.0	1	24	3		1			0.29	328	56	
Lagenophora huegelii	29	42.0	3	21	5					0.25	81	26	
Wahlenbergia luteola	28	40.6	3	18	7					0.32	174	26	
**Trifolium campestre*	25	36.2		20	4		1			0.36	227	41	
Goodenia pinnatifida	25	36.2	3	18	4					0.23	163	29	
**Romulea minutiflora*	25	36.2		12	12	1				0.61	98	18	
**Moraea setifolia*	23	33.3	5	14	4					0.24	335	60	
**Bromus rubens*	23	33.3		11	9	2	1			0.74	365	57	
**Vulpia myuros* f. *myuros*	23	33.3		11	8	4				0.74	292	60	
**Brachypodium distachyon*	22	31.9		7	10	3	2			1.03	156	36	
**Trifolium glomeratum*	22	31.9	2	15	5					0.30	87	21	
**Lolium rigidum*	22	31.9	2	11	3	5	1			0.78	218	48	
**Briza maxima*	21	30.4		7	5	6	2	1		1.32	82	19	
**Galium murale*	21	30.4	1	11	8	1				0.53	268	49	
**Pentaschistis airoides*	21	30.4		17	4					0.27	91	23	

Fauna at sites in Floristic Group 17

Trapping effort at 9 of 69 sites. Mammals recorded at 9 sites, birds at 9, reptiles at 9 and a frog at 1.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Macropus robustus	Euro			5	12
Nyctophilus geoffroyi	Lesser Long-eared Bat			4	5
Macropus fuliginosus	Western Grey Kangaroo			3	12
Mormopterus sp.				3	3
Trichosurus vulpecula	Common Brushtail Possum			3	4
Chalinolobus gouldii	Gould's Wattled Bat			2	2
Chalinolobus morio	Chocolate Wattled Bat			2	3
Macropus sp.				2	2
Mus musculus	House Mouse			2	2
Oryctolagus cuniculus	Rabbit			2	4
Cervus dama	Fallow Deer			1	1
Macropus rufus	Red Kangaroo			1	11

Mammal species	Common name	SA	Aus	Site freq	Number obs
Rattus rattus	Black Rat			1	1
Sminthopsis murina	Common Dunnart			1	1
Tachyglossus aculeatus	Short-beaked Echidna			1	5
Tadarida australis	White-striped Freetail-bat			1	1
Vulpes vulpes	Fox			1	1

Figure 87.
***Eucalyptus odorata* Low Woodland over grasses at site RIV0802 in the Tothill Range at Tarnma.**

Bird species	Common name	SA	Aus	Site freq	Number obs
Gymnorhina tibicen	Australian Magpie			9	53
Cacatua roseicapilla	Galah			8	107
Colluricincla harmonica	Grey Shrike-thrush			7	18
Corvus mellori	Little Raven			7	27
Pardalotus striatus	Striated Pardalote			7	39
Anthochaera carunculata	Red Wattlebird			6	35
Coracina novaehollandiae	Black-faced Cuckoo-shrike			6	15
Dicaeum hirundinaceum	Mistletoebird			6	19
Platycercus elegans	Crimson Rosella			6	23
Psephotus haematonotus	Red-rumped Parrot			6	59
Smicrornis brevirostris	Weebill			6	32
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			4	10
Acanthiza nana	Yellow Thornbill			4	24
Climacteris picumnus	Brown Treecreeper			4	13
Corcorax melanorhamphos	White-winged Chough			4	37
Dacelo novaeguineae	Laughing Kookaburra			4	8
Lichenostomus penicillatus	White-plumed Honeyeater			4	39
Pachycephala rufiventris	Rufous Whistler			4	12
Strepera versicolor	Grey Currawong			4	8
Acanthiza sp.				3	12
Barnardius zonarius	Australian Ringneck, (Ring-necked Parrot)			3	35
Melithreptus brevirostris	Brown-headed Honeyeater			3	14
Aquila audax	Wedge-tailed Eagle			2	4
Cracticus torquatus	Grey Butcherbird			2	2
Geopelia placida	Peaceful Dove			2	6

Bird species	Common name	SA	Aus	Site freq	Number obs
Glossopsitta concinna	Musk Lorikeet			2	17
Malurus cyaneus	Superb Fairy-wren			2	4
Petroica goodenovii	Red-capped Robin			2	5
Phaps chalcoptera	Common Bronzewing			2	8
Platycercus eximius	Eastern Rosella			2	4
Podargus strigoides	Tawny Frogmouth			2	2
Turdus merula	Eurasian Blackbird			2	9
Acanthiza reguloides	Buff-rumped Thornbill			1	3
Aegotheles cristatus	Australian Owlet-nightjar			1	1
Anas superciliosa	Pacific Black Duck			1	1
Artamus personatus	Masked Woodswallow			1	20
Columba livia	Rock Dove			1	5
Corvus coronoides	Australian Raven			1	4
Falco berigora	Brown Falcon			1	1
Falco peregrinus	Peregrine Falcon	R		1	1
Glossopsitta porphyrocephala	Purple-crowned Lorikeet			1	4
Grallina cyanoleuca	Magpie-lark			1	2
Lalage tricolor	White-winged Triller			1	1
Lichenostomus chrysops	Yellow-faced Honeyeater			1	3
Malurus lamberti	Variegated Fairy-wren			1	3
Manorina flavigula	Yellow-throated Miner			1	4
Manorina melanocephala	Noisy Miner			1	1
Manorina sp.				1	2
Melopsittacus undulatus	Budgerigar			1	30
Merops ornatus	Rainbow Bee-eater			1	2
Microeca fascinans	Jacky Winter			1	3
Ocyphaps lophotes	Crested Pigeon			1	10
Petrochelidon nigricans	Tree Martin			1	8
Rhipidura albiscapa	Grey Fantail			1	3
Rhipidura leucophrys	Willie Wagtail			1	3
Struthidea cinerea	Apostlebird			1	1
Sturnus vulgaris	Common Starling			1	20
Todiramphus sanctus	Sacred Kingfisher			1	2
Zosterops lateralis	Silvereye			1	1

Reptile species	Common name	SA	Aus	Site freq	Number obs
Menetia greyii	Dwarf Skink			9	24
Hemiergis decresiensis	Three-toed Earless Skink			7	14
Tiliqua rugosa	Sleepy Lizard			4	9
Morethia boulengeri	Common Snake-eye			3	8
Cryptoblepharus carnabyi cac	Desert Wall skink			2	2
Ctenotus robustus	Eastern Striped Skink			2	5
Delma molleri	Adelaide Snake-lizard			2	2
Diplodactylus vittatus	Eastern Stone Gecko			2	3
Pogona vitticeps	Central Bearded Dragon			2	2
Ctenophorus decresii	Tawny Dragon			1	2
Gehyra 2n=44	Southern Rock Dtella			1	2
Heteronotia binoei	Bynoe's Gecko			1	2
Lampropholis guichenoti	Garden Skink			1	9
Lerista bougainvillii	Bougainville's Skink			1	3
Pogona sp.				1	1
Pseudonaja textilis	Eastern Brown Snake			1	1
Suta spectabilis	Mallee Black-headed Snake			1	2

Frog species	Common name	Site freq	Number obs
Pseudophryne bibronii	Brown Toadlet	1	1

Floristic Group 18 *Callitris glaucophylla* +/- *Eucalyptus odorata* Low Open Forest

This group is characterised by *Callitris glaucophylla* in a Low Open Forest formation. *Eucalyptus odorata* may occur as an overstorey co-dominant. The understorey tends to be sparse and features *Austrodanthonia caespitosa* and *Ptilotus spathulatus* f. *spathulatus* and the annuals, *Hypochaeris glabra*, *Oxalis perennans*, *Avena barbata* and *Trifolium arvense* var. *arvense*. Although *Acacia iteaphylla* and *Phyllanthus saxosus* occur infrequently, they are both recognised as indicators for the group. The group is associated with loam soils on plains and hill slopes and is confined to the far north of the region.

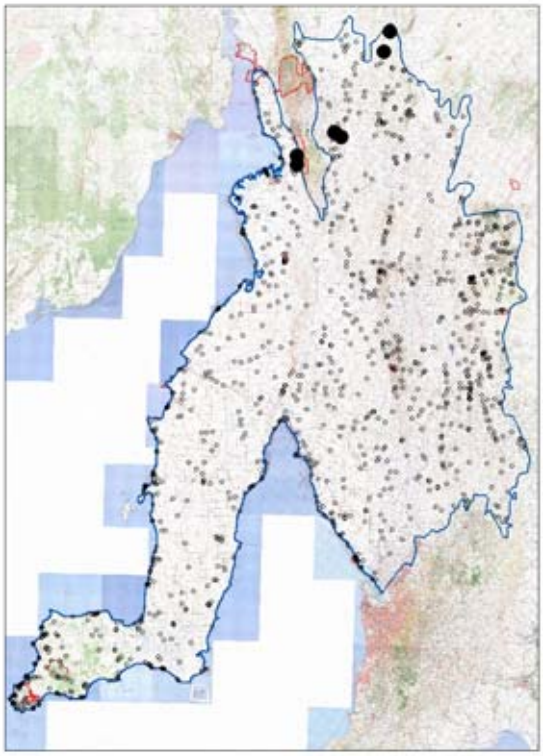
Sites within this group tend to occur in soil land units that are either unaffected or only slightly affected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Plain	3	42.9
Hill slope	3	42.9
Flat	1	14.3

LANDFORM PATTERN	Frequency	%
Low hills	1	14.3
Rises	1	14.3
Plain	1	14.3
Not recorded	4	57.1

SALT	Frequency	%
Class A	4	57.1
Class B	3	42.9

SOIL	Frequency	%
Loam	6	85.7
Not recorded	1	14.3



Number of sites in group 7

PLANT TAXA SUMMARY

Number of taxa in group	137
Number of native taxa in group	82
Perennial	51
Annual	31
Number of introduced taxa in group	55
Perennial	4
Annual	51

Average Number of Taxa at a site:

Native perennial	11	Min:	5	Max:	22
Introduced perennial	1	Min:	0	Max:	2
Native annual	8	Min:	3	Max:	13
Introduced annual	14	Min:	6	Max:	19
All taxa	34	Min:	16	Max:	45

Number of Taxa of Conservation Significance:

Aust	0	SA	3			
Regions:		EP	n/a	FR	2	MU	n/a
		NL	8	SL	n/a	YP	n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Callitris glaucophylla	7	100.0			2	3	2			2.00	24	12	84
Austrodanthonia caespitosa	6	85.7		5	1					0.25	394	53	1
Ptilotus spathulatus f. *spathulatus*	4	57.1	1	2		1				0.55	186	35	6
Eucalyptus odorata	3	42.9			1	2				1.67	131	24	5
Sida corrugata var.	3	42.9	1	1	1					0.37	117	23	4
Austrostipa nodosa	3	42.9		3						0.10	106	26	1
Other Significant Perennial Taxa													
Acacia iteaphylla	2	28.6		1	1					0.55	4	2	27
Phyllanthus saxosus	2	28.6		1	1					0.55	18	10	19
Cymbonotus preissianus	1	14.3			1					1.00	23	9	11
Annual Taxa Occurring at >30% of Sites													
**Hypochaeris glabra*	6	85.7		3	3					0.55	349	54	
Oxalis perennans	6	85.7		6						0.10	393	53	
**Avena barbata*	5	71.4		4		1				0.48	661	71	
**Trifolium arvense* var. *arvense*	5	71.4		3	2					0.46	188	29	
**Arctotheca calendula*	5	71.4	1	4						0.08	208	45	
**Bromus rubens*	4	57.1			3	1				1.25	365	57	
**Echium plantagineum*	4	57.1		3	1					0.33	352	48	
**Pentaschistis airoides*	4	57.1		4						0.10	91	23	
Wahlenbergia luteola	4	57.1	1	3						0.08	174	26	
Actinobole uliginosum	3	42.9		1	2					0.70	36	18	
Crassula colligata ssp.	3	42.9		1	2					0.70	234	45	
**Sonchus oleraceus*	3	42.9		2	1					0.40	588	77	
Rhodanthe pygmaea	3	42.9		2	1					0.40	68	28	
**Rostraria cristata*	3	42.9	1	1	1					0.37	229	49	
**Erodium cicutarium*	3	42.9		3						0.10	124	42	
**Sisymbrium erysimoides*	3	42.9		3						0.10	177	38	
Triptilodiscus pygmaeus	3	42.9		3						0.10	73	18	

Figure 88.
***Callitris glaucophylla* +/- *Eucalyptus odorata* Low Open Forest at site PIR1101 on Broad Creek, north of Nelshaby.**

Fauna at sites in Floristic Group 18 – no sites with fauna records

Floristic Group 19 *Acacia salicina* Low Open Forest

The single site that represents this Low Open Forest group dominated by *Acacia salicina* was on the narrow floodplain of Pisant Creek, north east of Gladstone. Associated tree and shrub species include the perennials *Callitris glaucophylla*, *Lycium ferocissimum* and *Myoporum montanum*, while the ground layer is dominated by introduced annuals, particularly *Avena barbata*, *Bromus rubens* and *Oxalis pes-caprae*.

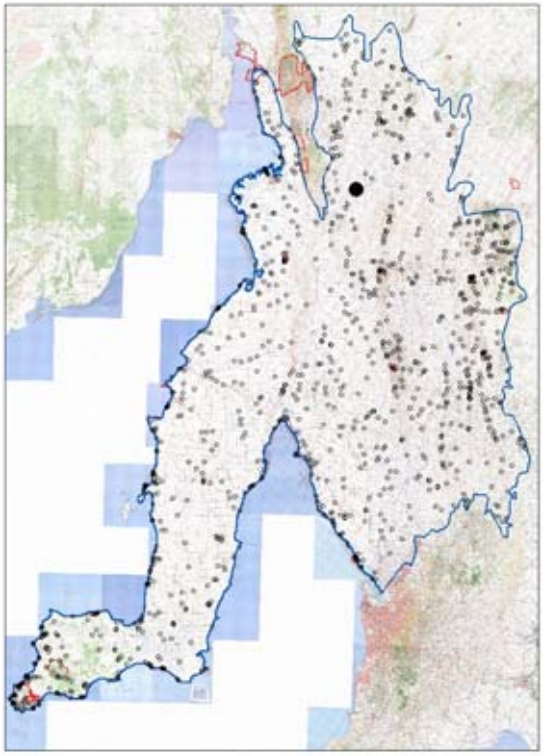
With only one site to represent this group there is insufficient data to determine with which soil land units it is most associated. As *Acacia salicina* is generally associated with creek banks and flood plains, and these are the landform elements where salinity is most evident in the Mid North, then it may be inferred that this group could be at risk to increased salinity.

LANDFORM ELEMENT	Frequency	%
Plain	1	100

LANDFORM PATTERN	Frequency	%
Not recorded	1	100

SALT	Frequency	%
Class B	1	100

SOIL	Frequency	%
Loam	1	100



Number of sites in group 1

PLANT TAXA SUMMARY

Number of taxa in group	19
Number of native taxa in group	7
Perennial	7
Annual	0
Number of introduced taxa in group	12
Perennial	2
Annual	10

Average Number of Taxa at a site:

Native perennial	7
Introduced perennial	2
Native annual	0
Introduced annual	10
All taxa	19

Number of Taxa of Conservation Significance:

Aust	0	SA	0				
Regions:		EP	n/a	FR	n/a	MU	n/a
		NL	0	SL	n/a	YP	n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa													
Acacia salicina	1	100					1			3.00	9	7	
**Lycium ferocissimum*	1	100				1				2.00	339	65	
Callitris glaucophylla	1	100			1					1.00	24	12	
**Marrubium vulgare*	1	100		1						0.10	98	34	
Exocarpos aphyllus	1	100		1						0.10	182	40	
Lycium australe	1	100		1						0.10	16	12	
Myoporum montanum	1	100		1						0.10	31	19	
Senna artemisioides ssp. *coriacea*	1	100		1						0.10	94	26	
Sida corrugata var.	1	100		1						0.10	117	23	
Annual Taxa													
**Avena barbata*	1	100					1			3.00	661	71	
**Bromus rubens*	1	100					1			3.00	365	57	
**Oxalis pes-caprae*	1	100				1				2.00	169	47	
**Echium plantagineum*	1	100			1					1.00	352	48	
**Silybum marianum*	1	100			1					1.00	8	5	
**Sisymbrium erysimoides*	1	100			1					1.00	177	38	
**Arctotheca calendula*	1	100		1						0.10	208	45	
**Fumaria capreolata*	1	100		1						0.10	8	6	
**Rapistrum rugosum* ssp. *rugosum*	1	100		1						0.10	68	26	
**Sonchus oleraceus*	1	100		1						0.10	588	77	

Figure 89.
***Acacia salicina* Low Open Forest at site LAU1101 on Pisant Creek north east of Gladstone.**

Fauna at sites in Floristic Group 19 – no sites with fauna records

Floristic Group 20 *Eucalyptus leucoxylon ssp.* Open Forest over grasses

This Open Forest group has an open grassy understorey and is dominated by *Eucalyptus leucoxylon* ssp. It is associated with loam soils on hill slopes, footslopes and crests of the North Mount Lofty Ranges from near Angaston in the south to Pekina in the north. *Allocasuarina verticillata*, *Acacia pycnantha* and *A. paradoxa* may be present in the mid-storey, while *Acaena echinata*, *Plantago gaudichaudii*, *Austrostipa scabra* ssp. and *Austrodanthonia caespitosa* dominate the perennial ground layer. The most frequently occurring annuals are the exotics *Avena barbata*, *Echium plantagineum* and *Trifolium angustifolium*, and the natives *Oxalis perennans* and *Arthropodium strictum*.

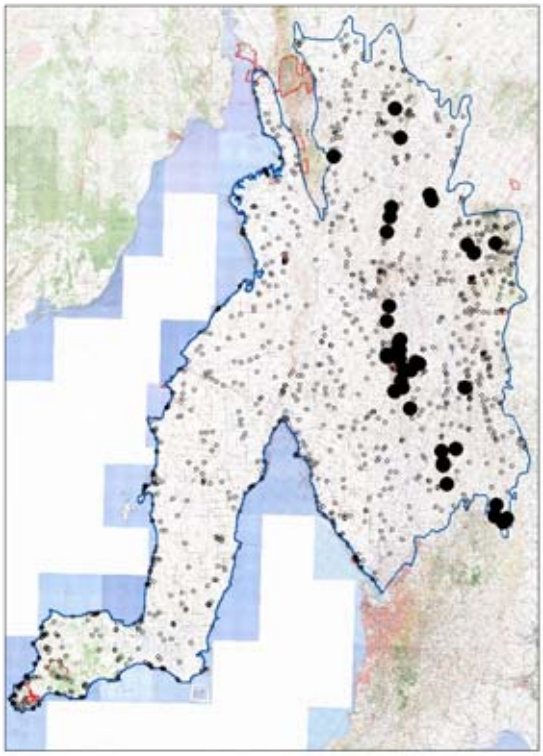
Sites within this group mainly occur in soil land units that are either unaffected or only slightly affected by saline seepage. However, one site occurs in a land unit with moderate soil salinity which suggests that, at least at the margin of its distribution (i.e. at low points in the landscape), this floristic group may be at risk to rising salinity levels.

LANDFORM ELEMENT	Frequency	%
Hill slope	26	65.0
Hill footslope	6	15.0
Hill crest	3	7.5
Plain	2	5.0
Stream channel	1	2.5
Not recorded	2	5.0

LANDFORM PATTERN	Frequency	%
Low hills	8	20.0
Hills	4	10.0
Rises	1	2.5
Not recorded	27	67.5

SALT	Frequency	%
Class A	32	80.0
Class B	7	17.5
Class C	1	2.5

SOIL	Frequency	%
Loam	39	97.5
Not recorded	1	2.5



Number of sites in group 40

PLANT TAXA SUMMARY

Number of taxa in group	333
Number of native taxa in group	201
Perennial	135
Annual	66
Number of introduced taxa in group	132
Perennial	26
Annual	106

Average Number of Taxa at a site:

Native perennial	14	Min:	1	Max:	34
Introduced perennial	2	Min:	0	Max:	10
Native annual	8	Min:	1	Max:	26
Introduced annual	15	Min:	4	Max:	36
All taxa	38	Min:	11	Max:	77

Number of Taxa of Conservation Significance:

Aust	1	SA	14			
Regions:		EP	n/a	FR	2	MU 8
		NL	36	SL	n/a	YP n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Eucalyptus leucoxylon ssp.	40	100.0	1		4	23	10	2		2.20	95	12	63
Acacia pycnantha	21	52.5	4	8	2	6		1		0.90	155	29	5
Austrostipa scabra ssp.	20	50.0		6	9	4	1			1.03	233	41	4
Amyema miquelii	20	50.0	2	9	4	5				0.75	86	21	17
Acaena echinata	20	50.0		15	5					0.33	94	21	5
Austrodanthonia caespitosa	16	40.0		9	3	4				0.74	394	53	1
Gonocarpus elatus	14	35.0		6	4	4				0.90	126	21	3
Allocasuarina verticillata	14	35.0	8	5	1					0.11	194	35	
Austrostipa blackii	13	32.5	2	6	2	3				0.66	188	24	1
Stackhousia monogyna	12	30.0		7	3	2				0.64	159	31	2
Bursaria spinosa ssp. *spinosa*	12	30.0	2	7	2		1			0.48	255	39	
Dianella revoluta var. *revoluta*	12	30.0	3	6	1	2				0.47	306	47	1
Other Significant Perennial Taxa													
Acacia paradoxa	9	22.5		2		3	1	2	1	2.47	32	10	6
Plantago gaudichaudii	9	22.5		6		3				0.73	18	5	13
Annual Taxa Occurring at >30% of Sites													
**Avena barbata*	35	87.5	1	7	11	9	4	2	1	1.56	661	71	
Oxalis perennans	32	80.0		21	4	5	1	1		0.72	393	53	
**Echium plantagineum*	26	65.0	2	16	1	6	1			0.68	352	48	
Arthropodium strictum	25	62.5		12	7	6				0.81	254	36	
**Trifolium angustifolium*	25	62.5	1	12	8	4				0.69	195	31	
**Lolium rigidum*	23	57.5		12	8	2		1		0.75	218	48	
**Arctotheca calendula*	21	52.5		13	5	2	1			0.63	208	45	
**Trifolium campestre*	20	50.0	1	10	4	4	1			0.80	227	41	
**Vulpia myuros* f. *myuros*	19	47.5		9	5	4	1			0.89	292	60	
**Sonchus oleraceus*	18	45.0	4	13	1					0.13	588	77	
**Aira cupaniana*	17	42.5		9	5	3				0.70	135	30	
Wahlenbergia luteola	17	42.5	2	10	4	1				0.41	174	26	
**Hypochaeris glabra*	17	42.5	3	12	1	1				0.25	349	54	
**Bromus diandrus*	16	40.0		9	3	3	1			0.81	310	54	
**Trifolium arvense* var. *arvense*	16	40.0	1	8	3	4				0.74	188	29	
**Romulea minutiflora*	16	40.0	1	9	2	4				0.68	98	18	
**Anagallis arvensis*	16	40.0		10	4	1	1			0.63	341	49	
Geranium retrorsum	16	40.0		12	2		2			0.58	100	28	
Bulbine bulbosa	14	35.0	3	6		5				0.76	85	21	
**Briza minor*	14	35.0		13	1					0.16	78	20	
Maireana enchylaenoides	14	35.0	3	10	1					0.15	254	33	
**Briza maxima*	13	32.5		4	5	3		1		1.18	82	19	
Goodenia pinnatifida	13	32.5	1	10	2					0.23	163	29	
**Moraea flaccida*	12	30.0		2	6	3	1			1.27	31	12	
**Trifolium glomeratum*	12	30.0	1	8	1	2				0.48	87	21	

Figure 90.
***Eucalyptus leucoxylon* ssp. Open Forest over grasses at site BUN01001 in Campbell Range south of Bundaleer Forest.**

Fauna at sites in Floristic Group 20

Trapping effort at 5 of 40 sites. Mammals recorded at 5 sites, birds at 5 and reptiles at 5.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Macropus fuliginosus	Western Grey Kangaroo			3	7
Macropus robustus	Euro			3	21
Nyctophilus geoffroyi	Lesser Long-eared Bat			3	3
Tachyglossus aculeatus	Short-beaked Echidna			3	4
Chalinolobus gouldii	Gould's Wattled Bat			2	6
Chalinolobus morio	Chocolate Wattled Bat			2	2
Oryctolagus cuniculus	Rabbit			2	7
Trichosurus vulpecula	Common Brushtail Possum			2	4
Vespadelus regulus	Southern Forest Bat			2	4
Lepus capensis	Brown Hare			1	5
Macropus rufus	Red Kangaroo			1	2
Mormopterus sp.				1	1
Mus musculus	House Mouse			1	3
Rattus rattus	Black Rat			1	1
Tadarida australis	White-striped Freetail-bat			1	1
Vulpes vulpes	Fox			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Anthochaera carunculata	Red Wattlebird			5	43
Cacatua roseicapilla	Galah			5	54
Climacteris picumnus	Brown Treecreeper			5	27
Colluricincla harmonica	Grey Shrike-thrush			5	24
Corvus mellori	Little Raven			5	10
Dicaeum hirundinaceum	Mistletoebird			5	18
Gymnorhina tibicen	Australian Magpie			5	46
Lichenostomus penicillatus	White-plumed Honeyeater			5	128
Artamus cyanopterus	Dusky Woodswallow			4	24
Glossopsitta concinna	Musk Lorikeet			4	40
Pardalotus striatus	Striated Pardalote			4	13

Bird species	Common name	SA	Aus	Site freq	Number obs
Platycercus elegans	Crimson Rosella			4	50
Psephotus haematonotus	Red-rumped Parrot			4	37
Coracina novaehollandiae	Black-faced Cuckoo-shrike			3	5
Dacelo novaeguineae	Laughing Kookaburra			3	6
Falco berigora	Brown Falcon			3	5
Geopelia placida	Peaceful Dove			3	5
Manorina melanocephala	Noisy Miner			3	8
Petrochelidon nigricans	Tree Martin			3	58
Phaps chalcoptera	Common Bronzewing			3	16
Rhipidura leucophrys	Willie Wagtail			3	7
Sturnus vulgaris	Common Starling			3	20
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			2	7
Aquila audax	Wedge-tailed Eagle			2	3
Cincloramphus mathewsi	Rufous Songlark			2	4
Corcorax melanorhamphos	White-winged Chough			2	35
Cracticus torquatus	Grey Butcherbird			2	3
Falco cenchroides	Nankeen Kestrel			2	3
Lichenostomus virescens	Singing Honeyeater			2	9
Melithreptus brevirostris	Brown-headed Honeyeater			2	19
Smicrornis brevirostris	Weebill			2	16
Turdus merula	Eurasian Blackbird			2	4
Turnix varia	Painted Button-quail	V		2	3
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			1	5
Acanthiza nana	Yellow Thornbill			1	7
Accipiter sp.				1	1
Aegotheles cristatus	Australian Owlet-nightjar			1	2
Aphelocephala leucopsis	Southern Whiteface			1	18
Barnardius zonarius	Australian Ringneck, (Ring-necked Parrot)			1	18
Chrysococcyx basalis	Horsfield's Bronze-cuckoo			1	1
Falcunculus frontatus	Crested Shrike-tit	V		1	1
Glossopsitta porphyrocephala	Purple-crowned Lorikeet			1	2
Grallina cyanoleuca	Magpie-lark			1	2
Hieraaetus morphnoides	Little Eagle			1	1
Malurus lamberti	Variegated Fairy-wren			1	3
Melopsittacus undulatus	Budgerigar			1	12
Microeca fascinans	Jacky Winter			1	1
Neophema elegans	Elegant Parrot			1	1
Neophema sp.				1	1
Nymphicus hollandicus	Cockatiel			1	5
Ocyphaps lophotes	Crested Pigeon			1	4
Pachycephala rufiventris	Rufous Whistler			1	2
Pachycephala sp.				1	1
Pardalotus punctatus	Spotted Pardalote			1	4
Passer domesticus	House Sparrow			1	6
Petroica goodenovii	Red-capped Robin			1	4
Phylidonyris albifrons	White-fronted Honeyeater			1	3
Podargus strigoides	Tawny Frogmouth			1	1
Pomatostomus superciliosus	White-browed Babbler			1	9
Todiramphus sanctus	Sacred Kingfisher			1	4
Zosterops lateralis	Silvereye			1	11

Reptile species	Common name	SA	Aus	Site freq	Number obs
Lerista bougainvillii	Bougainville's Skink			4	8
Tiliqua rugosa	Sleepy Lizard			4	9
Morethia boulengeri	Common Snake-eye			3	15
Cryptoblepharus carnabyi cac	Desert Wall skink			2	3
Lampropholis guichenoti	Garden Skink			2	8
Menetia greyii	Dwarf Skink			2	12
Pogona barbata	Eastern Bearded Dragon			2	2
Tiliqua scincoides	Eastern Bluetongue			2	2
Delma molleri	Adelaide Snake-lizard			1	1
Hemiergis decresiensis	Three-toed Earless Skink			1	2
Varanus gouldii	Sand Goanna			1	1

Floristic Group 21 *Eucalyptus leucoxylon* ssp. +/- *E. odorata* +/- *Allocasuarina verticillata* Woodland over *Acacia pycnantha*, *A. paradoxa*

This Woodland group is characterised by a sparse tree layer of *Eucalyptus leucoxylon* ssp. with or without *E. odorata* and *Allocasuarina verticillata*, a mid-dense layer of *Acacia pycnantha* and *A. paradoxa* and an open grassy understorey. The characteristic ground layer species are *Acaena echinata*, *Scaevola albida* and *Cheilanthes austrotenuifolia*. The most frequently occurring annuals are the exotic grasses *Avena barbata* and *Bromus diandrus*, and the native lilies *Arthropodium strictum* and *Bulbine bulbosa*. The group is associated with loam soils of hills and hill slopes and was identified from four sites, two in the Clare Hills and two at Salter Springs.

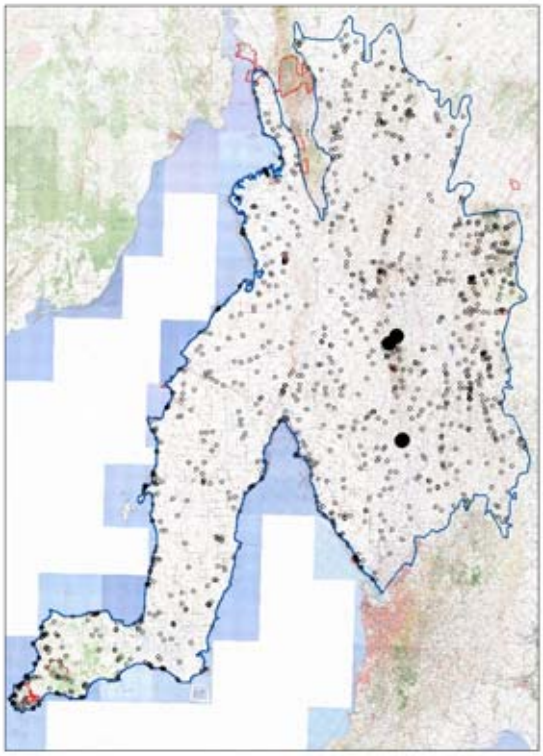
Sites within this group tend to occur in soil land units that are either unaffected or only slightly affected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Hill/mountain	2	50
Hill slope	2	50

LANDFORM PATTERN	Frequency	%
Not recorded	4	100

SALT	Frequency	%
Class A	3	75
Class B	1	25

SOIL	Frequency	%
Loam	4	100



Number of sites in group 4

PLANT TAXA SUMMARY

Number of taxa in group	56
Number of native taxa in group	33
Perennial	25
Annual	8
Number of introduced taxa in group	23
Perennial	4
Annual	19

Average Number of Taxa at a site:

Native perennial	11	Min:	9	Max:	14
Introduced perennial	1	Min:	0	Max:	2
Native annual	4	Min:	3	Max:	6
Introduced annual	9	Min:	7	Max:	11
All taxa	25	Min:	21	Max:	29

Number of Taxa of Conservation Significance:

Aust	0	SA	1			
Regions:		EP	n/a	FR	n/a	MU n/a
		NL	3	SL	n/a	YP n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Acacia pycnantha	4	100			3	1				1.25	155	29	26
Acaena echinata	4	100		1	3					0.78	94	21	44
Acacia paradoxa	3	75			1	2				1.67	32	10	47
Allocasuarina verticillata	3	75		2	1					0.40	194	35	2
Eucalyptus leucoxylon ssp.	3	75	1	1	1					0.37	95	12	6
Stackhousia monogyna	3	75		3						0.10	159	31	2
Cheilanthes austrotenuifolia	2	50		1			1			1.55	108	22	11
Eucalyptus odorata	2	50			2					1.00	131	24	4
Scaevola albida	2	50			2					1.00	41	14	23
Bursaria spinosa ssp. *spinosa*	2	50		2						0.10	255	39	
Gonocarpus elatus	2	50		2						0.10	126	21	1
Pultenaea largiflorens	2	50	2							0.01	34	7	
Other Significant Perennial Taxa													
**Scabiosa atropurpurea*	1	25			1					1.00	17	7	12
Hydrocotyle laxiflora	1	25			1					1.00	24	9	14
Annual Taxa Occurring at >30% of Sites													
**Avena barbata*	4	100		1	1	2				1.28	661	71	
**Bromus diandrus*	4	100		3	1					0.33	310	54	
Arthropodium strictum	4	100			3	1				1.25	254	36	
Bulbine bulbosa	4	100		2	2					0.55	85	21	
**Arctotheca calendula*	3	75	1	2						0.07	208	45	
**Aira cupaniana*	2	50			2					1.00	135	30	
**Anagallis arvensis*	2	50		1		1				1.05	341	49	
**Briza maxima*	2	50			1	1				1.50	82	19	
**Cerastium glomeratum*	2	50		1			1			1.55	38	18	
**Echium plantagineum*	2	50		2						0.10	352	48	
**Moraea flaccida*	2	50			2					1.00	31	12	
**Trifolium glomeratum*	2	50		2						0.10	87	21	
Calostemma purpureum	2	50		1		1				1.05	42	17	
Levenhookia dubia	2	50			2					1.00	37	9	
Oxalis perennans	2	50		1		1				1.05	393	53	

Figure 91.
***Eucalyptus leucoxylon* ssp. +/- *E. odorata* +/- *Allocasuarina verticillata* Woodland over *Acacia pycnantha*, *A. paradoxa* at site HAL1102 in hills south of Rhynie.**

Fauna at sites in Floristic Group 21 – no sites sampled for fauna

Floristic Group 22 *Callitris gracilis* Low Open Forest over grasses

This Low Open Forest group is characterised by *Callitris gracilis* over a sparse understorey containing many introduced species. Mid-storey shrubs are very scarce apart from occasional *Bursaria spinosa* ssp. *spinosa* and *Lycium ferocissimum*. The most frequently occurring ground layer species are the perennials *Enchylaena tomentosa* var. *tomentosa*, *Austrostipa elegantissima*, *A. scabra* ssp. and *Dianella revoluta* var. *revoluta*, and the exotic annuals *Avena barbata*, *Echium plantagineum*, *Bromus diandrus* and *B. rubens*. The group is associated with sandy loam soils on plains and hill slopes and, within the study area, occurs mainly on the Northern Adelaide Plains.

This group differs from Floristic Group 55 in that the overstorey here tends to be denser and lack the associated mallee co-dominants. The understorey is more open, has fewer shrubs and is dominated by grasses.

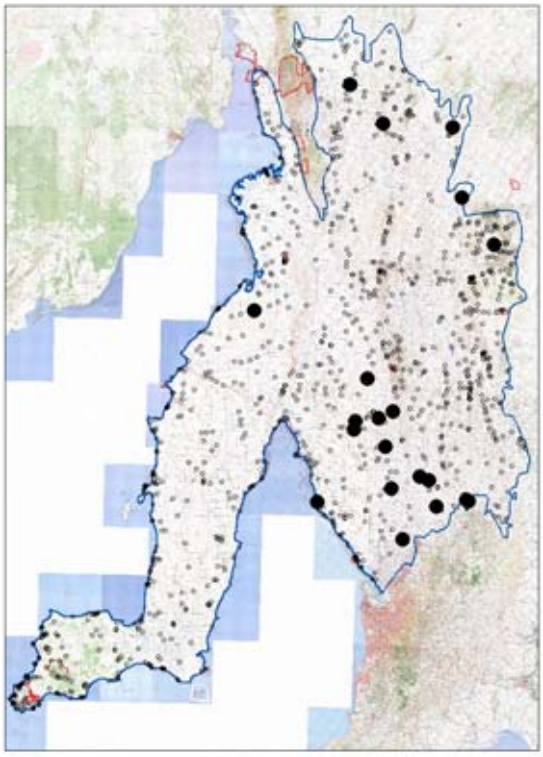
While most of the sites within this group occur in soil land units that unaffected affected by saline seepage, two occur in land units that are moderately affected. This may suggest that, at the margin of its distribution (i.e. at low points in the landscape), this floristic group is at risk to rising salinity levels.

LANDFORM ELEMENT	Frequency	%
Plain	9	45
Hill slope	7	35
Hill footslope	1	5
Hill crest	1	5
Dune slope	1	5
Beach ridge	1	5

LANDFORM PATTERN	Frequency	%
Plain	6	30
Low hills	4	20
Rises	3	15
Longitudinal dunefield	1	5
Beach ridge plain	1	5
Not recorded	5	25

SALT	Frequency	%
Class A	17	85
Class B	1	5
Class C	1	5
Class D	1	5

SOIL	Frequency	%
Sand	7	35
Loam	12	60
Not recorded	1	5



Number of sites in group 20

PLANT TAXA SUMMARY

Number of taxa in group	266
Number of native taxa in group	178
Perennial	122
Annual	56
Number of introduced taxa in group	88
Perennial	11
Annual	77

Average Number of Taxa at a site:

Native perennial	16	Min:	2	Max:	35
Introduced perennial	1	Min:	0	Max:	3
Native annual	6	Min:	1	Max:	16
Introduced annual	12	Min:	1	Max:	27
All taxa	35	Min:	15	Max:	68

Number of Taxa of Conservation Significance:

Aust	0	SA	2			
Regions:		EP	n/a	FR	5	MU 2
		NL	19	SL	11	YP 0

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Callitris gracilis	19	95			1	9	6	3		2.58	88	28	45
Enchylaena tomentosa var. *tomentosa*	13	65	2	8	2	1				0.37	425	58	1
Austrostipa elegantissima	12	60	2	6	4					0.39	290	53	4
Dianella revoluta var. *revoluta*	11	55	4	3	4					0.39	306	47	2
Austrostipa scabra ssp.	9	45	1	5	3					0.39	233	41	1
Bursaria spinosa ssp. *spinosa*	9	45	2	6		1				0.29	255	39	1
Ptilotus spathulatus f. *spathulatus*	8	40	2	4	2					0.30	186	35	2
Austrodanthonia caespitosa	8	40	2	5	1					0.19	394	53	
Stackhousia monogyna	7	35		6	1					0.23	159	31	1
Einadia nutans ssp.	7	35	1	5	1					0.22	215	44	2
Lomandra effusa	7	35	1	5	1					0.22	230	41	
Lomandra multiflora ssp. *dura*	7	35		7						0.10	241	34	
Chrysocephalum apiculatum	6	30		2	3	1				0.87	156	33	2
**Asparagus asparagoides*	6	30	1	1	3	1				0.85	113	31	3
Austrostipa nodosa	6	30		2	4					0.70	106	26	2
Austrodanthonia setacea	6	30		4	1	1				0.57	163	38	1
**Lycium ferocissimum*	6	30	3	3						0.06	339	65	
Annual Taxa Occurring at >30% of Sites													
**Avena barbata*	18	90		3	7	4	4			1.52	661	71	
**Echium plantagineum*	14	70	3	5	5	1				0.54	352	48	
**Bromus diandrus*	13	65		5	5	2	1			0.96	310	54	
**Bromus rubens*	11	55		8	1	2				0.53	365	57	
**Sonchus oleraceus*	11	55	3	6	2					0.24	588	77	
Arthropodium strictum	11	55	5	5	1					0.14	254	36	
Oxalis perennans	10	50	1	5	3	1				0.55	393	53	
Maireana enchylaenoides	10	50	2	8						0.08	254	33	
**Vulpia myuros* f. *myuros*	9	45		1	4	3	1			1.46	292	60	
**Arctotheca calendula*	8	40		4	3	1				0.68	208	45	
**Lolium rigidum*	7	35	1	3	3					0.47	218	48	
Crassula colorata var. *acuminata*	7	35		7						0.10	100	34	
**Moraea setifolia*	7	35	3	4						0.06	335	60	
**Trifolium angustifolium*	6	30		1	4	1				1.02	195	31	
**Pentaschistis airoides*	6	30		3	2	1				0.72	91	23	
**Brachypodium distachyon*	6	30		3	3					0.55	156	36	
Goodenia pinnatifida	6	30		3	3					0.55	163	29	

Figure 92.
***Callitris gracilis* Low Open Forest over grasses at site BAL01101 adjacent Balaklava Cemetery.**

Fauna at sites in Floristic Group 22

Trapping effort at 1 of 20 sites. Mammals recorded at 1 site, birds at 1 and reptiles at 1.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Macropus sp.				1	2
Mus musculus	House Mouse			1	4
Tachyglossus aculeatus	Short-beaked Echidna			1	1
Vulpes vulpes	Fox			1	2

Bird species	Common name	SA	Aus	Site freq	Number obs
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			1	1
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			1	4
Aegotheles cristatus	Australian Owlet-nightjar			1	1
Anthochaera carunculata	Red Wattlebird			1	2
Barnardius zonarius	Australian Ringneck, (Ring-necked Parrot)			1	1
Cacatua roseicapilla	Galah			1	4
Colluricincla harmonica	Grey Shrike-thrush			1	2
Coracina novaehollandiae	Black-faced Cuckoo-shrike			1	2
Corvus coronoides	Australian Raven			1	3
Corvus mellori	Little Raven			1	1
Cracticus torquatus	Grey Butcherbird			1	1
Gymnorhina tibicen	Australian Magpie			1	8
Hirundo neoxena	Welcome Swallow			1	1
Lichenostomus virescens	Singing Honeyeater			1	3
Ocyphaps lophotes	Crested Pigeon			1	1
Phaps chalcoptera	Common Bronzewing			1	1
Rhipidura leucophrys	Willie Wagtail			1	3

Reptile species	Common name	SA	Aus	Site freq	Number obs
Morethia obscura	Mallee Snake-eye			1	1
Tiliqua rugosa	Sleepy Lizard			1	1

Floristic Group 23 *Hymenanthera dentata* Low Open Shrubland

The single site representing the *Hymenanthera dentata* Low Open Shrubland group is located on the hill crest of Mount Bryan and has an understorey dominated by grass and herb species. The low shrub *Scleranthus pungens* is the only other abundant perennial present, while the exotic grasses *Avena barbata* and *Bromus diandrus* are the most abundant annuals.

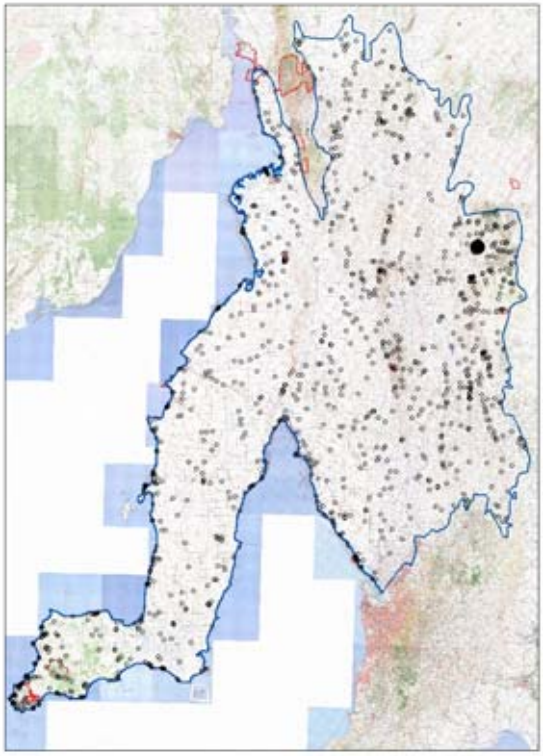
With only one site to represent this group there is insufficient data to determine with which soil land units it is most associated. However, as this floristic community is restricted to hill crest and slopes, and these landform elements appear to be the least affected by salinity in the Mid North, it would seem unlikely that this group is presently at risk to salinity in this region.

LANDFORM ELEMENT	Frequency	%
Hill crest	1	100

LANDFORM PATTERN	Frequency	%
Mountains	1	100

SALT	Frequency	%
Class A	1	100

SOIL	Frequency	%
Loam	1	100



Number of sites in group 1

PLANT TAXA SUMMARY

Number of taxa in group	59
Number of native taxa in group	36
Perennial	21
Annual	15
Number of introduced taxa in group	23
Perennial	1
Annual	22

Average Number of Taxa at a site:

Native perennial	21
Introduced perennial	1
Native annual	15
Introduced annual	22
All taxa	59

Number of Taxa of Conservation Significance:

Aust	0	SA	0				
Regions:		EP	n/a	FR	n/a	MU	n/a
		NL	6	SL	n/a	YP	n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa													
Hymenanthera dentata	1	100					1			3.00	4	3	
Scleranthus pungens	1	100					1			3.00	11	9	
**Poa bulbosa*	1	100		1						0.10	56	19	
Acaena echinata	1	100		1						0.10	94	21	
Asplenium flabellifolium	1	100		1						0.10	2	2	
Austrodanthonia auriculata	1	100		1						0.10	70	15	
Austrodanthonia caespitosa	1	100		1						0.10	394	53	
Austrostipa nitida	1	100		1						0.10	206	42	
Cheilanthes austrotenuifolia	1	100		1						0.10	108	22	
Convolvulus remotus	1	100		1						0.10	88	34	
Cymbonotus preissianus	1	100		1						0.10	23	9	
Dichelachne crinita	1	100		1						0.10	8	5	
Einadia nutans ssp.	1	100		1						0.10	215	44	
Glycine rubiginosa	1	100		1						0.10	82	29	
Lomandra densiflora	1	100		1						0.10	89	19	
Luzula meridionalis	1	100		1						0.10	5	4	
Plantago hispida	1	100		1						0.10	36	17	
Pleurosorus rutifolius	1	100		1						0.10	7	7	
Poa crassicaudex	1	100		1						0.10	59	17	
Ptilotus spathulatus f. *spathulatus*	1	100		1						0.10	186	35	
Rumex brownii	1	100		1						0.10	30	11	
Vittadinia gracilis	1	100		1						0.10	173	30	
Annual Taxa													
**Avena barbata*	1	100					1			3.00	661	71	
**Bromus diandrus*	1	100				1				2.00	310	54	
**Aira elegantissima*	1	100		1						0.10	36	13	
**Bromus hordeaceus* ssp. *hordeaceus*	1	100		1						0.10	89	25	
**Bromus rubens*	1	100		1						0.10	365	57	
**Carduus tenuiflorus*	1	100		1						0.10	62	24	
**Catapodium rigidum*	1	100		1						0.10	96	31	
**Erodium botrys*	1	100		1						0.10	127	27	
**Galium murale*	1	100		1						0.10	268	49	
**Hypochaeris glabra*	1	100		1						0.10	349	54	
**Hypochaeris radicata*	1	100		1						0.10	116	31	
**Moenchia erecta*	1	100		1						0.10	7	6	
**Petrorhagia velutina*	1	100		1						0.10	40	17	
**Rostraria cristata*	1	100		1						0.10	229	49	
**Silene nocturna*	1	100		1						0.10	159	41	
**Sonchus oleraceus*	1	100		1						0.10	588	77	
**Spergularia diandra*	1	100		1						0.10	63	25	
**Stellaria media*	1	100		1						0.10	115	30	
**Trifolium glomeratum*	1	100		1						0.10	87	21	
**Trifolium subterraneum*	1	100		1						0.10	25	12	
**Trifolium tomentosum*	1	100		1						0.10	40	17	
**Vulpia myuros* f.	1	100		1						0.10	24	12	
Asperula conferta	1	100		1						0.10	87	21	
Calandrinia volubilis	1	100		1						0.10	1	1	
Chamaesyce drummondii	1	100		1						0.10	120	26	
Craspedia variabilis	1	100		1						0.10	66	20	
Crassula colorata var. *acuminata*	1	100		1						0.10	100	34	
Galium gaudichaudii	1	100		1						0.10	21	11	
Galium migrans	1	100		1						0.10	56	27	
Geranium retrorsum	1	100		1						0.10	100	28	
Goodenia pinnatifida	1	100		1						0.10	163	29	
Isoetopsis graminifolia	1	100		1						0.10	29	19	
Maireana enchylaenoides	1	100		1						0.10	254	33	
Oxalis perennans	1	100		1						0.10	393	53	
Parietaria australis/debilis	1	100		1						0.10	66	30	
Wahlenbergia luteola	1	100		1						0.10	174	26	
Wahlenbergia stricta ssp. *stricta*	1	100		1						0.10	66	24	

Figure 93.
Hymenanthera dentata **Low Open Shrubland at site HAL0701 on the hill crest of Mount Bryan.**

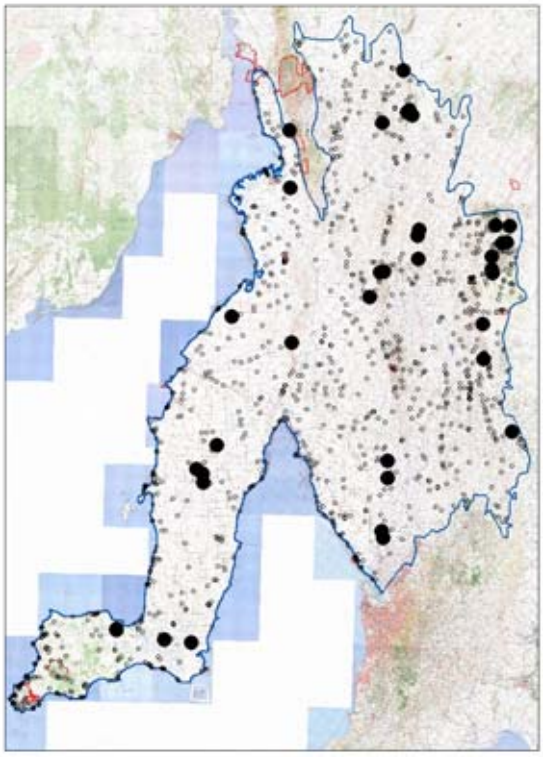
Fauna at sites in Floristic Group 23 – no sites sampled for fauna

Floristic Group 24 *Eucalyptus porosa* Open Mallee over grasses and sparse chenopods

This group is characterised by *Eucalyptus porosa* in an Open Mallee formation with an open understorey of grasses and sparse chenopods. *Melaleuca lanceolata* occurs infrequently as a sub-dominant tall shrub, while *Pittosporum angustifolium* may also be present, though sparse, in this layer. The most frequently occurring low shrubs are *Enchylaena tomentosa* var. *tomentosa*, *Rhagodia parabolica* and the exotic *Lycium ferocissimum*. Common ground layer species include the perennial native grasses *Austrodanthonia caespitosa* and *Austrostipa elegantissima*, the exotic annuals *Avena barbata*, *Sonchus oleraceus* and *Bromus rubens*, and the natives *Oxalis perennans* and *Maireana enchylaenoides*. The group is mainly associated with loam soils on hill slopes and plains and is widely distributed throughout the study area.

While most of the sites within this group occur in soil land units that unaffected affected by saline seepage, one occurs in a land unit that is moderately affected and two in those with high salinity (a swamp at Black Springs on southern Yorke Peninsula). This may suggest that, at the margin of its distribution (i.e. at low points in the landscape), this floristic group is at risk to rising salinity levels.

LANDFORM ELEMENT	Frequency	%
Hill slope	15	39.5
Plain	10	26.3
Hill footslope	2	5.3
Ridge	2	5.3
Hill crest	1	2.6
Gully	1	2.6
Gorge	1	2.6
Limestone plain	1	2.6
Dune slope	1	2.6
Stream channel	1	2.6
Drainage depression	1	2.6
Open depression	1	2.6
Swamp	1	2.6



LANDFORM PATTERN	Frequency	%
Plain	9	23.7
Hills	8	21.1
Low hills	6	15.8
Rises	1	2.6
Pediment	1	2.6
Alluvial fan	1	2.6
Longitudinal dune	1	2.6
Not recorded	11	28.9

SALT	Frequency	%
Class A	33	86.8
Class B	2	5.3
Class C	1	2.6
Class F	2	5.3

SOIL	Frequency	%
Sand	4	10.5
Loam	29	76.3
Clay	3	7.9
Not recorded	2	5.3

Number of sites in group 38

PLANT TAXA SUMMARY

Number of taxa in group	372
Number of native taxa in group	259
Perennial	182
Annual	77
Number of introduced taxa in group	113
Perennial	8
Annual	105

Average Number of Taxa at a site:

Native perennial	18	Min:	2	Max:	42
Introduced perennial	1	Min:	0	Max:	3
Native annual	7	Min:	0	Max:	13
Introduced annual	12	Min:	3	Max:	27
All taxa	38	Min:	12	Max:	63

Number of Taxa of Conservation Significance:

Aust	1	SA	13			
Regions:		EP	n/a	FR	15	MU 8
		NL	9	SL	10	YP 16

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Eucalyptus porosa	37	97.4		1	1	23	10	2		2.30	120	30	40
Enchylaena tomentosa var. *tomentosa*	23	60.5	1	11	9	2				0.61	425	58	2
Rhagodia parabolica	22	57.9	2	4	6	8	2			1.29	205	36	8
**Lycium ferocissimum*	21	55.3	3	14	4					0.26	339	65	1
Pittosporum angustifolium	19	50.0	7	10	1	1				0.21	213	46	3
Austrodanthonia caespitosa	18	47.4	1	6	9		1		1	0.98	394	53	2
Austrostipa elegantissima	18	47.4	2	13	3					0.24	290	53	1
Amyema miquelii	16	42.1	4	5	4	3				0.66	86	21	11
Einadia nutans ssp.	16	42.1		15	1					0.16	215	44	2
Ptilotus spathulatus f. *spathulatus*	13	34.2	2	11						0.09	186	35	
Austrostipa nitida	12	31.6		3	7	2				0.94	206	42	1
Maireana brevifolia	12	31.6		8	4					0.40	126	33	1
Dianella revoluta var. *revoluta*	12	31.6	2	8	2					0.24	306	47	
Other Significant Perennial Taxa													
Melaleuca lanceolata	10	26.3		5	1	2	1	1		1.25	232	41	1
Annual Taxa Occurring at >30% of Sites													
**Avena barbata*	27	71.1	1	10	9	5	1	1		1.00	661	71	
Oxalis perennans	24	63.2	3	18	3					0.20	393	53	
**Sonchus oleraceus*	22	57.9	2	15	3	2				0.39	588	77	
**Bromus rubens*	20	52.6	1	11	8					0.46	365	57	
Maireana enchylaenoides	19	50.0	1	16	2					0.19	254	33	
**Echium plantagineum*	18	47.4	5	8	5					0.33	352	48	
**Hypochaeris glabra*	16	42.1	1	11	3	1				0.38	349	54	
Arthropodium strictum	16	42.1	2	11	2	1				0.32	254	36	
**Bromus diandrus*	16	42.1		7	7	1	1			0.79	310	54	
**Moraea setifolia*	15	39.5		10	4		1			0.53	335	60	
**Vulpia myuros* f. *myuros*	15	39.5		6	5	3	1			0.97	292	60	
**Medicago minima* var. *minima*	14	36.8	1	5	4	2	2			1.04	243	54	
Wahlenbergia luteola	13	34.2	2	7	4					0.36	174	26	
**Hordeum glaucum*	13	34.2		8	3	1	1			0.68	180	51	
**Arctotheca calendula*	12	31.6		11	1					0.18	208	45	

Figure 94.
***Eucalyptus porosa* Open Mallee over grasses at site CAR0201 south east of Hallett.**

Fauna at sites in Floristic Group 24

Trapping effort at 7 of 38 sites. Mammals recorded at 7 sites, birds at 7 and reptiles at 7.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Tachyglossus aculeatus	Short-beaked Echidna			4	7
Capra hircus	Goat			3	6
Macropus fuliginosus	Western Grey Kangaroo			3	13
Vulpes vulpes	Fox			3	3
Chalinolobus gouldii	Gould's Wattled Bat			2	2
Macropus sp.				2	4
Mus musculus	House Mouse			2	10
Nyctophilus geoffroyi	Lesser Long-eared Bat			2	3
Vespadelus regulus	Southern Forest Bat			2	4
Cervus dama	Fallow Deer			1	1
Chalinolobus morio	Chocolate Wattled Bat			1	2
Lepus capensis	Brown Hare			1	1
Macropus robustus	Euro			1	1
Mormopterus sp.				1	1
Oryctolagus cuniculus	Rabbit			1	2
Sminthopsis murina	Common Dunnart			1	5
Vespadelus baverstocki	Inland Forest Bat			1	1
Vespadelus darlingtoni	Large Forest Bat			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Cracticus torquatus	Grey Butcherbird			7	16
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			6	31
Barnardius zonarius	Australian Ringneck, (Ring-necked Parrot)			6	21
Cacatua roseicapilla	Galah			6	84
Corvus mellori	Little Raven			6	50
Gymnorhina tibicen	Australian Magpie			6	32
Malurus lamberti	Variegated Fairy-wren			6	18
Smicrornis brevirostris	Weebill			6	31
Anthochaera carunculata	Red Wattlebird			5	28
Zosterops lateralis	Silvereye			5	42
Acanthiza uropygialis	Chestnut-rumped Thornbill			4	41
Aquila audax	Wedge-tailed Eagle			4	8
Coracina novaehollandiae	Black-faced Cuckoo-shrike			4	7
Lichenostomus virescens	Singing Honeyeater			4	9
Pomatostomus superciliosus	White-browed Babbler			4	24
Psephotus varius	Mulga Parrot			4	23
Colluricincla harmonica	Grey Shrike-thrush			3	11
Dicaeum hirundinaceum	Mistletoebird			3	4
Manorina flavigula	Yellow-throated Miner			3	11
Pardalotus striatus	Striated Pardalote			3	7
Strepera versicolor	Grey Currawong			3	16
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			2	8
Corvus coronoides	Australian Raven			2	5
Daphoenositta chrysoptera	Varied Sittella			2	6
Dromaius novaehollandiae	Emu			2	2
Lichenostomus leucotis	White-eared Honeyeater			2	3
Ocyphaps lophotes	Crested Pigeon			2	4
Phaps chalcoptera	Common Bronzewing			2	2
Pyrrholaemus brunneus	Redthroat	R		2	2
Rhipidura leucophrys	Willie Wagtail			2	2
Sturnus vulgaris	Common Starling			2	37
Tyto alba	Barn Owl			2	3
Acanthiza apicalis	Inland Thornbill			1	13
Acanthiza nana	Yellow Thornbill			1	9
Acanthiza reguloides	Buff-rumped Thornbill			1	1
Aegotheles cristatus	Australian Owlet-nightjar			1	1
Aphelocephala leucopsis	Southern Whiteface			1	8
Cacatua sanguinea	Little Corella			1	2
Chrysococcyx basalis	Horsfield's Bronze-cuckoo			1	2
Dacelo novaeguineae	Laughing Kookaburra			1	3

Bird species	Common name	SA	Aus	Site freq	Number obs
Egretta novaehollandiae	White-faced Heron			1	1
Falco berigora	Brown Falcon			1	3
Grallina cyanoleuca	Magpie-lark			1	1
Hirundo neoxena	Welcome Swallow			1	1
Lalage tricolor	White-winged Triller			1	1
Lichenostomus penicillatus	White-plumed Honeyeater			1	5
Melithreptus brevirostris	Brown-headed Honeyeater			1	2
Myiagra inquieta	Restless Flycatcher			1	4
Pachycephala inornata	Gilbert's Whistler			1	1
Phaps elegans	Brush Bronzewing			1	1
Phylidonyris albifrons	White-fronted Honeyeater			1	6
Platycercus elegans	Crimson Rosella			1	2
Podargus strigoides	Tawny Frogmouth			1	2
Psephotus haematonotus	Red-rumped Parrot			1	3
Sericornis frontalis	White-browed Scrubwren			1	12
Stagonopleura guttata	Diamond Firetail	V		1	3
Turdus merula	Eurasian Blackbird			1	1
Turnix velox	Little Button-quail			1	2

Reptile species	Common name	SA	Aus	Site freq	Number obs
Cryptoblepharus carnabyi cac	Desert Wall skink			5	12
Gehyra 2n=44	Southern Rock Dtella			4	10
Tiliqua rugosa	Sleepy Lizard			4	13
Menetia greyii	Dwarf Skink			3	3
Morethia boulengeri	Common Snake-eye			3	3
Ctenophorus decresii	Tawny Dragon			2	4
Heteronotia binoei	Bynoe's Gecko			2	2
Morethia adelaidensis	Adelaide Snake-eye			2	2
Christinus marmoratus	Marbled Gecko			1	1
Ctenotus orientalis	Eastern Spotted Ctenotus			1	7
Delma molleri	Adelaide Snake-lizard			1	1
Egernia striolata	Eastern Tree Skink			1	1
Hemiergis decresiensis	Three-toed Earless Skink			1	1
Hemiergis peronii	Four-toed Earless Skink			1	5
Lerista bougainvillii	Bougainville's Skink			1	1
Morethia obscura	Mallee Snake-eye			1	1
Nephrurus milii	Barking Gecko			1	1
Suta nigriceps	Mitchell's Short-tailed Snake			1	1

Floristic Group 25 *Senna artemisioides* ssp. *coriacea* +/- *Templetonia egena* Shrubland

This Shrubland group is dominated by *Senna artemisioides* ssp. *coriacea*. *Templetonia egena* is also present as a co-dominant at northern sites. Other distinctive shrub species include *Eremophila longifolia*, *Senna artemisioides* ssp. *filifolia* and *Hakea leucoptera* ssp. *leucoptera*. *Acacia hakeoides* is prominent at sites near Lochiel. The ground layer is dominated by the native perennials *Enchylaena tomentosa* var. *tomentosa*, *Rhagodia parabolica* and *Austrostipa elegantissima*, *A. nitida*, the exotic *Lycium ferocissimum*, and the exotic annuals *Carrichtera annua*, *Sisymbrium erysimoides*, *Avena barbata* and *Medicago minima* var. *minima*. The group is associated with a variety of soil types and locations across the Mid North. It occurs on sands and loams on plains between Melrose and Orroroo, sandy clay loams on hill slopes south of Lochiel, and clays and loams on hills along the eastern margin of the study area from Eudunda to Peterborough.

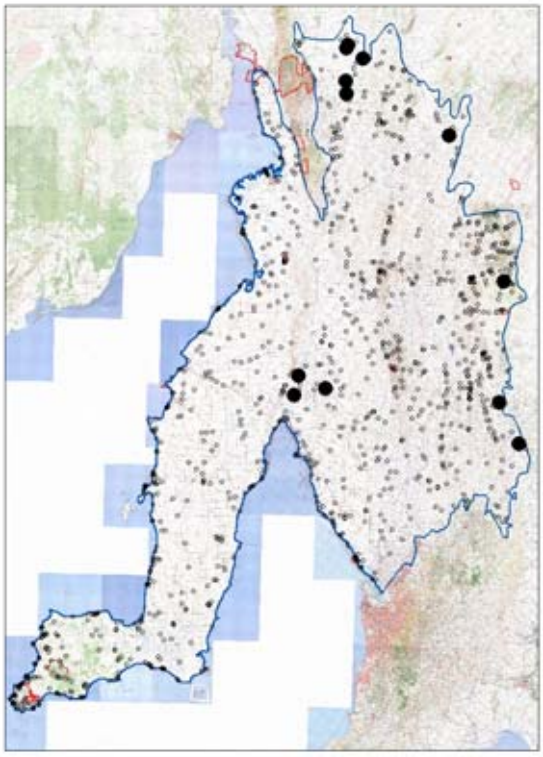
Most of the sites within this group occur in soil land units that are unaffected by saline seepage, though one site (south of Lochiel) is in a land unit with moderately high salinity. This may suggest that, at the margin of its distribution (i.e. at low points in the landscape), this floristic group is at risk to rising salinity levels.

LANDFORM ELEMENT	Frequency	%
Plain	6	50.0
Hill slope	5	41.7
Flat	1	8.3

LANDFORM PATTERN	Frequency	%
Plain	4	33.3
Low hills	3	25.0
Hills	1	8.3
Rises	1	8.3
Peneplain	1	8.3
Not recorded	2	16.7

SALT	Frequency	%
Class A	11	91.7
Class D	1	8.3

SOIL	Frequency	%
Sand	3	25.0
Loam	5	41.7
Clay	2	16.7
Not recorded	2	16.7



Number of sites in group 12

PLANT TAXA SUMMARY

Number of taxa in group	166
Number of native taxa in group	129
Perennial	102
Annual	27
Number of introduced taxa in group	37
Perennial	3
Annual	34

Average Number of Taxa at a site:

Native perennial	22	Min:	9	Max:	34
Introduced perennial	1	Min:	0	Max:	3
Native annual	3	Min:	1	Max:	8
Introduced annual	8	Min:	4	Max:	13
All taxa	34	Min:	15	Max:	43

Number of Taxa of Conservation Significance:

Aust	0	SA	1			
Regions:		EP	n/a	FR	3	MU 1
		NL	3	SL	n/a	YP n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Senna artemisioides ssp. *coriacea*	12	100.0			3	4	4	1		2.25	94	26	48
Enchylaena tomentosa var. tomentosa	12	100.0		3	8	1				0.86	425	58	8
Rhagodia parabolica	9	75.0		6	1	2				0.62	205	36	6
**Lycium ferocissimum*	8	66.7	2	6						0.08	339	65	1
Austrostipa elegantissima	7	58.3		6	1					0.23	290	53	2
Maireana brevifolia	7	58.3	3	4						0.06	126	33	1
Austrostipa nitida	6	50.0		3	3					0.55	206	42	2
Lomandra effusa	6	50.0	1	5						0.09	230	41	
Lysiana exocarpi ssp. *exocarpi*	6	50.0	3	3						0.06	53	22	8
Acacia hakeoides	5	41.7	1	1	1	2				1.02	55	20	8
Templetonia egena	5	41.7		1	3	1				1.02	10	5	37
Dianella revoluta var. *revoluta*	5	41.7		4		1				0.48	306	47	1
Sida corrugata var.	5	41.7	1	2	2					0.44	117	23	2
Alectryon oleifolius ssp. *canescens*	5	41.7	1	3	1					0.26	53	17	6
Pittosporum angustifolium	5	41.7		5						0.10	213	46	1
Vittadinia gracilis	5	41.7	1	4						0.08	173	30	1
Sclerolaena diacantha	5	41.7	2	3						0.06	108	22	1
Myoporum platycarpum ssp.	5	41.7	3	2						0.05	44	14	1
Eremophila longifolia	4	33.3	1		1	1	1			1.50	34	16	19
Dodonaea viscosa ssp. *angustissima*	4	33.3		3		1				0.58	37	17	3
Rhagodia spinescens	4	33.3	1	2		1				0.55	43	20	5
Austrodanthonia caespitosa	4	33.3		3	1					0.33	394	53	
Austrostipa scabra ssp.	4	33.3		3	1					0.33	233	41	1
Zygophyllum aurantiacum ssp.	4	33.3	2	1	1					0.28	49	17	4
Einadia nutans ssp.	4	33.3	3	1						0.03	215	44	
Other Significant Perennial Taxa													
Senna artemisioides ssp. *filifolia*	3	25.0		1	1	1				1.03	10	7	15
Hakea leucoptera ssp. *leucoptera*	2	16.7		1			1			1.55	8	6	14
Annual Taxa Occurring at >30% of Sites													
**Carrichtera annua*	9	75.0		2	3	3	1			1.36	204	40	
**Sisymbrium erysimoides*	9	75.0	1	6	1	1				0.40	177	38	
**Avena barbata*	6	50.0			3	1		2		2.17	661	71	
**Medicago minima* var. *minima*	6	50.0		1	4		1			1.18	243	54	
**Bromus diandrus*	5	41.7		1	3			1		1.42	310	54	
**Bromus rubens*	5	41.7		3	1		1			0.86	365	57	
**Hordeum glaucum*	4	33.3		3	1					0.33	180	51	
**Salvia verbenaca form*	4	33.3	1	3						0.08	101	23	
**Sonchus oleraceus*	4	33.3	2	2						0.06	588	77	
Salsola kali	4	33.3	3	1						0.03	92	31	

Figure 95.
***Senna artemisioides* ssp. *coriacea* +/- *Templetonia egena* Shrubland at site WIL01301 west of Orroroo.**

Fauna at sites in Floristic Group 25 – no sites sampled for fauna

Floristic Group 26 *Geijera linearifolia* Tall Shrubland with emergent mallee

This Tall Shrubland group is dominated by *Geijera linearifolia*. The mallee species *Eucalyptus dumosa*, *E. porosa* and *E. gracilis*, as well as *Myoporum platycarpum* and *Melaleuca lanceolata*, may each be present and form a very sparse to sparse overstorey. Distinctive understorey species include *Acacia nyssophylla*, *Tetragonia implexicoma*, *Lycium ferocissimum*, *Enchylaena tomentosa* var. *tomentosa*, *Acacia oswaldii*, *Pittosporum angustifolium*, *Rhagodia crassifolia*, *R. parabolica*, *Zygophyllum aurantiacum* ssp., *Austrostipa platychaeta* and *A. elegantissima*. The most frequently occurring annuals are the exotics *Moraea setifolia* and *Carrichtera annua*. The group is associated with loams and sands of sub-coastal plains of northern Yorke Peninsula.

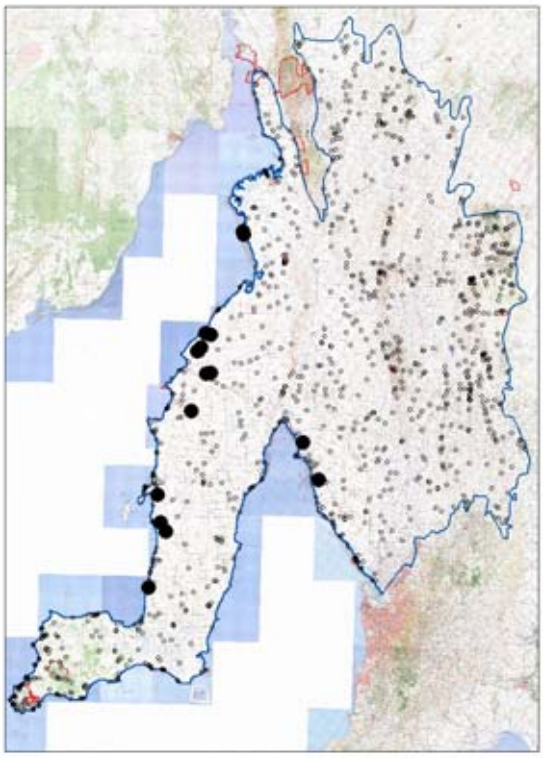
With one third of these sites occurring in land units where salinity is at least moderately high it would appear this group is potentially at risk to salinity.

LANDFORM ELEMENT	Frequency	%
Plain	11	73.3
Dune crest	2	13.3
Dune footslope	1	6.7
Limestone plain	1	6.7

SALT	Frequency	%
Class A	1	6.7
Class B	9	60.0
Class D	4	26.7
Class F	1	6.7

LANDFORM PATTERN	Frequency	%
Plain	12	80.0
Rises	1	6.7
Consolidated dunefield	1	6.7
Beach ridge plain	1	6.7

SOIL	Frequency	%
Sand	4	26.7
Loam	10	66.7
Clay	1	6.7



Number of sites in group 15

PLANT TAXA SUMMARY

Number of taxa in group	151
Number of native taxa in group	111
Perennial	86
Annual	25
Number of introduced taxa in group	40
Perennial	4
Annual	36

Average Number of Taxa at a site:

Native perennial	19	Min: 11	Max: 37
Introduced perennial	1	Min: 0	Max: 3
Native annual	3	Min: 0	Max: 8
Introduced annual	7	Min: 2	Max: 16
All taxa	30	Min: 18	Max: 50

Number of Taxa of Conservation Significance:

Aust	0	SA	2			
Regions:		EP	n/a	FR	n/a	MU	n/a
		NL	1	SL	n/a	YP	11

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Geijera linearifolia	14	93.3			2	10	2			2.00	86	19	45
Enchylaena tomentosa var. *tomentosa*	13	86.7		3	10					0.79	425	58	6
Tetragonia implexicoma	13	86.7	1	5	7					0.58	203	32	7
**Lycium ferocissimum*	12	80.0	2	8		2				0.40	339	65	5
Pittosporum angustifolium	10	66.7	1	5	3	1				0.55	213	46	13
Austrostipa elegantissima	9	60.0		7	2					0.30	290	53	3
Rhagodia parabolica	8	53.3			7	1				1.13	205	36	6
Zygophyllum aurantiacum ssp.	8	53.3		5	2	1				0.56	49	17	19
Melaleuca lanceolata	7	46.7	4			2	1			1.01	232	41	2
Austrostipa platychaeta	7	46.7	1	1	5					0.73	45	16	16
Acacia nyssophylla	7	46.7		3	4					0.61	22	9	40
Threlkeldia diffusa	7	46.7		4	3					0.49	193	34	2
Acacia oswaldii	6	40.0		3	1	2				0.88	41	17	21
Austrostipa scabra ssp.	6	40.0		2	3	1				0.87	233	41	2
Rhagodia crassifolia	6	40.0		4	2					0.40	20	7	17
Exocarpos aphyllus	6	40.0	1	4	1					0.24	182	40	1
Westringia rigida	5	33.3		2	1	2				1.04	54	15	9
Myoporum platycarpum ssp.	5	33.3		2	2	1				0.84	44	14	16
Scaevola spinescens	5	33.3		1	4					0.82	36	14	6
Senna artemisioides ssp. *coriacea*	5	33.3	1	1	2	1				0.82	94	26	2
Nitraria billardierei	5	33.3		3	1	1				0.66	63	22	1
Austrostipa nitida	5	33.3		2	3					0.64	206	42	1
Maireana erioclada	5	33.3		2	3					0.64	43	15	13
Acacia ligulata	5	33.3	2	2	1					0.24	107	23	
Pimelea serpyllifolia ssp. *serpyllifolia*	5	33.3		5						0.10	174	31	
Other Significant Perennial Taxa													
Eucalyptus dumosa	4	26.7		1	1	1	1			1.53	31	11	4
Maireana trichoptera	4	26.7			3	1				1.25	24	11	14
Eucalyptus porosa	3	20.0			1	1	1			2.00	120	30	1
Eucalyptus gracilis	3	20.0	2			1				0.67	120	23	
Annual Taxa Occurring at >30% of Sites													
**Moraea setifolia*	11	73.3		1	10					0.92	335	60	
**Carrichtera annua*	9	60.0	1	2	5	1				0.80	204	40	
**Bromus rubens*	7	46.7		2	5					0.74	365	57	
**Oxalis pes-caprae*	7	46.7		5	1		1			0.64	169	47	
**Avena barbata*	7	46.7		4	3					0.49	661	71	
**Bromus diandrus*	5	33.3		1	4					0.82	310	54	

Figure 96.
Geijera linearifolia **Tall Shrubland with emergent mallee at site MAI1501 south of Point Pearce Mission.**

Fauna at sites in Floristic Group 26 – no sites sampled for fauna

Floristic Group 27 *Maireana brevifolia* Low Shrubland

This Low Shrubland group is characterised by *Maireana brevifolia*. *Lycium ferocissimum* may occur as a sparse emergent, while the mallees *Eucalyptus oleosa* ssp. and *E. porosa* formed an open overstorey at one site north of Port Wakefield. Commonly occurring understorey shrubs include *Einadia nutans* ssp. and the exotic *Marrubium vulgare*. The annual species component is dominated by exotics, with *Carrichtera annua*, *Moraea setifolia* and *Mesembryanthemum crystallinum* occurring most often. The group is associated with loam soils on plains from scattered locations between Inkerman and Port Germein.

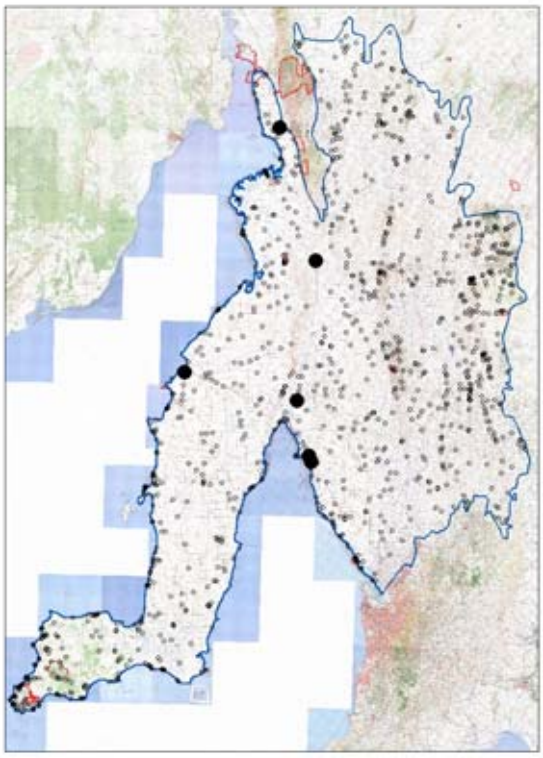
Five of the six sites within this group occur in soil land units that are either unaffected or only slightly to moderately affected by saline seepage. However, one site occurs in a land unit with very high to extreme salinity. As this floristic group is known to occur in areas that are naturally slightly saline (Jessop and Toelken 1986, Cunningham *et al.* 1992) it is considered to be of low risk to modification due to rising salinity levels.

LANDFORM ELEMENT	Frequency	%
Flat	3	50.0
Plain	2	33.3
Hill slope	1	16.7

LANDFORM PATTERN	Frequency	%
Plain	2	33.3
Alluvial plain	1	16.7
Low hills	1	16.7
Not recorded	2	33.3

SALT	Frequency	%
Class A	2	33.3
Class B	1	16.7
Class C	2	33.3
Class G	1	16.7

SOIL	Frequency	%
Loam	5	83.3
Not recorded	1	16.7



Number of sites in group 6

PLANT TAXA SUMMARY

Number of taxa in group	73
Number of native taxa in group	34
Perennial	27
Annual	7
Number of introduced taxa in group	39
Perennial	3
Annual	36

Average Number of Taxa at a site:

Native perennial	7	Min: 2	Max: 15
Introduced perennial	2	Min: 0	Max: 2
Native annual	1	Min: 0	Max: 4
Introduced annual	9	Min: 5	Max: 15
All taxa	19	Min: 12	Max: 35

Number of Taxa of Conservation Significance:

Aust	0	SA	1			
Regions:		EP	n/a	FR	0	MU n/a
		NL	1	SL	n/a	YP 0

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Maireana brevifolia	6	100.0			4	2				1.33	126	33	42
Enchylaena tomentosa var. *tomentosa*	5	83.3		3	1	1				0.66	425	58	4
**Marrubium vulgare*	4	66.7		3	1					0.33	98	34	9
**Lycium ferocissimum*	4	66.7	1	3						0.08	339	65	1
Einadia nutans ssp.	4	66.7	1	3						0.08	215	44	3
Sclerolaena obliquicuspis	2	33.3		1	1					0.55	28	14	6
Other Significant Perennial Taxa													
Eucalyptus oleosa ssp.	1	16.7			1					1.00	113	14	
Eucalyptus porosa	1	16.7			1					1.00	120	30	1
Annual Taxa Occurring at >30% of Sites													
**Carrichtera annua*	4	66.7		3			1			0.83	204	40	
**Moraea setifolia*	4	66.7		1	3					0.78	335	60	
**Mesembryanthemum crystallinum*	3	50.0			3					1.00	51	18	
**Oxalis pes-caprae*	3	50.0		2		1				0.73	169	47	
**Sisymbrium erysimoides*	3	50.0		1	2					0.70	177	38	
**Sonchus oleraceus*	3	50.0		1	2					0.70	588	77	
**Oncosiphon suffruticosum*	2	33.3				2				2.00	27	15	
**Avena barbata*	2	33.3		1			1			1.55	661	71	
**Hordeum glaucum*	2	33.3			1	1				1.50	180	51	
**Medicago minima* var. *minima*	2	33.3			2					1.00	243	54	
**Hordeum glaucum/leporinum*	2	33.3		1	1					0.55	68	24	
Salsola kali	2	33.3		1	1					0.55	92	31	
**Carthamus lanatus*	2	33.3	2							0.01	151	35	

Figure 97.
***Maireana brevifolia* Low Shrubland at site INK0401 on the coastal plain near Inkerman.**

Fauna at sites in Floristic Group 27 – no sites sampled for fauna

Floristic Group 28 *Casuarina pauper*, *Myoporum platycarpum* Low Open Woodland over *Maireana sedifolia*

This Low Open Woodland group is at the margin of its distribution within the study area and is far more extensively represented in semi-arid areas to the north and east. The single site representing the group is located on a plain near Willowie in the far north of the study area. It is characterised by a very sparse overstorey of *Casuarina pauper* and *Myoporum platycarpum* and a sparse understorey dominated by *Maireana sedifolia*. *Sclerolaena diacantha* is prominent in the ground layer, as are the exotic annuals *Hordeum glaucum* and *Carrichtera annua*.

This group differs from Floristic Group 36 (*Casuarina pauper* Low Woodland) in that here *Myoporum platycarpum* is co-dominant, the overstorey is sparser and the understorey is dominated by *Maireana sedifolia*.

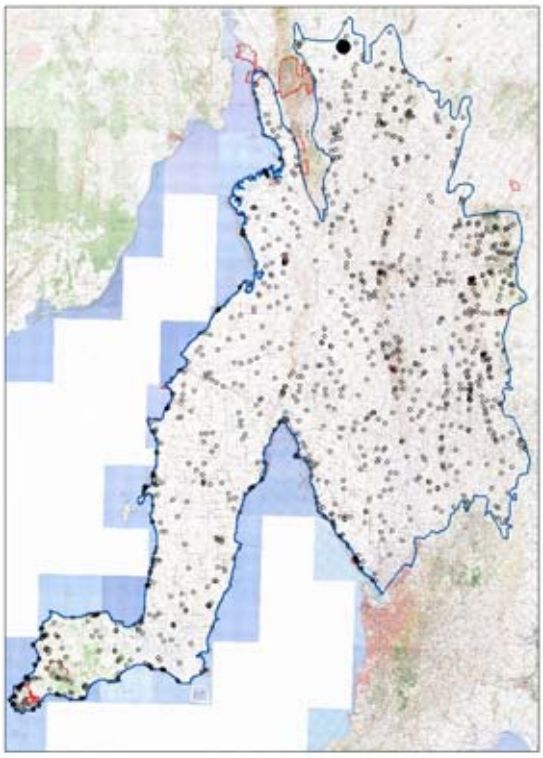
With only one site to represent this group there is insufficient data to determine with which soil land units it is most associated. However, as this floristic group is restricted to plains, and these landform elements appear to be associated with slight to moderate salinity in the Mid North (particularly if adjacent to low-lying wet areas), it may be inferred that it could be at risk to increased salinity in this region.

LANDFORM ELEMENT	Frequency	%
Flat	1	100

LANDFORM PATTERN	Frequency	%
Plain	1	100

SALT	Frequency	%
Class A	1	100

SOIL	Frequency	%
Not recorded	1	100



Number of sites in group 1

PLANT TAXA SUMMARY

Number of taxa in group	16
Number of native taxa in group	14
Perennial	13
Annual	1
Number of introduced taxa in group	2
Perennial	0
Annual	2

Average Number of Taxa at a site:

Native perennial	13
Introduced perennial	0
Native annual	1
Introduced annual	2
All taxa	16

Number of Taxa of Conservation Significance:

Aust	0	SA	0				
Regions:		EP	n/a	FR	0	MU	n/a
		NL	n/a	SL	n/a	YP	n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa													
Maireana sedifolia	1	100				1				2.00	25	10	
Sclerolaena diacantha	1	100			1					1.00	108	22	
Alectryon oleifolius ssp. *canescens*	1	100		1						0.10	53	17	
Casuarina pauper	1	100		1						0.10	9	5	
Chrysocephalum apiculatum	1	100		1						0.10	156	33	
Enchylaena tomentosa var. *tomentosa*	1	100		1						0.10	425	58	
Exocarpos aphyllus	1	100		1						0.10	182	40	
Maireana brevifolia	1	100		1						0.10	126	33	
Myoporum platycarpum ssp.	1	100		1						0.10	44	14	
Rhagodia spinescens	1	100		1						0.10	43	20	
Sclerolaena patenticuspis	1	100		1						0.10	8	8	
Maireana microcarpa	1	100	1							0.01	1	1	
Zygophyllum eremaeum	1	100	1							0.01	1	1	
Annual Taxa													
**Hordeum glaucum*	1	100					1			3.00	180	51	
**Carrichtera annua*	1	100				1				2.00	204	40	
Erodium crinitum	1	100			1					1.00	52	23	

Figure 98.
***Casuarina pauper*, *Myoporum platycarpum* Low Open Woodland over *Maireana sedifolia* at site WIL0180 north of Willowie.**

Fauna at sites in Floristic Group 28 – no sites sampled for fauna

Floristic Group 29 *Nitraria billardierei* Low Open Shrubland

This Low Open Shrubland is associated with loam soils of plains on the margins of seasonally inundated swamps. The group is characterised by an overstorey of *Nitraria billardierei* with *Enchylaena tomentosa* var. *tomentosa*, *Atriplex stipitata*, *Malva parviflora* and *Rhagodia spinescens* being distinctive in the associated shrub layer. The perennial grasses *Austrodanthonia caespitosa* and *Austrostipa nitida* and the exotic shrub *Lycium ferocissimum* are also prominent. The most frequently occurring annuals are the exotics *Avena barbata*, *Moraea setifolia*, *Sonchus oleraceus* and *Carrichtera annua*.

This group differs from Floristic Group 60 (*Nitraria billardierei* +/- *Olearia axillaris* +/- *Atriplex cinerea* Shrubland) in that it occurs in association with seasonally inundated swamps rather than coastal dunes. Associated co-dominants and species composition are also quite different.

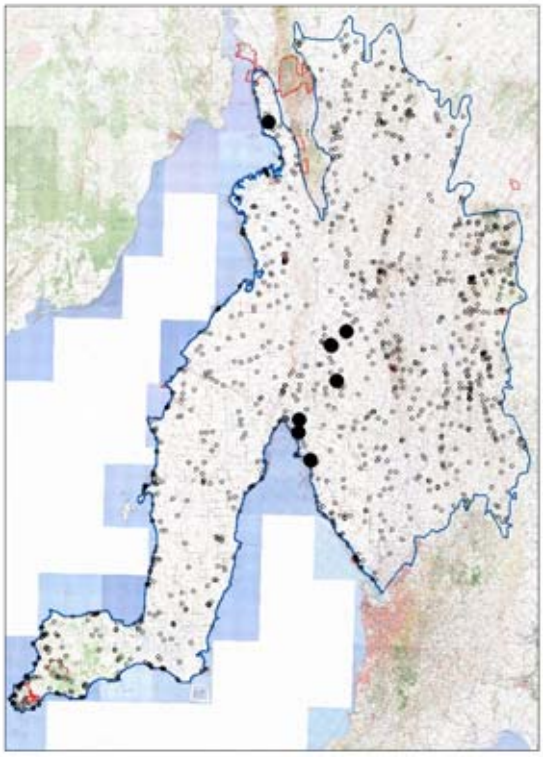
Sites within this group are split between soil land units that are unaffected by saline seepage (Class A) and those with moderately high to extreme salinity (Classes D, F and G). As this floristic group is known to occur in naturally saline areas it is not considered to be at risk to modification due to rising salinity. These conditions are more likely to favour the group and provide conditions suitable to its spread.

LANDFORM ELEMENT	Frequency	%
Plain	6	75.0
Flat	2	25.0

LANDFORM PATTERN	Frequency	%
Plain	7	87.5
Not recorded	1	12.5

SALT	Frequency	%
Class A	4	50.0
Class D	1	12.5
Class F	1	12.5
Class G	2	25.0

SOIL	Frequency	%
Sand	1	12.5
Loam	6	75.0
Clay	1	12.5



Number of sites in group 8

PLANT TAXA SUMMARY

Number of taxa in group	94
Number of native taxa in group	45
Perennial	35
Annual	10
Number of introduced taxa in group	49
Perennial	6
Annual	43

Average Number of Taxa at a site:

Native perennial	9	Min: 5	Max: 14
Introduced perennial	1	Min: 0	Max: 3
Native annual	2	Min: 0	Max: 4
Introduced annual	11	Min: 7	Max: 17
All taxa	23	Min: 15	Max: 31

Number of Taxa of Conservation Significance:

Aust	0	SA	0			
Regions:		EP	0	FR	n/a	MU n/a
		NL	4	SL	n/a	YP n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Enchylaena tomentosa var. *tomentosa*	8	100.0	1	2	3	1	1			1.03	425	58	10
Nitraria billardierei	7	87.5			2	4	1			1.86	63	22	26
Austrodanthonia caespitosa	5	62.5			4	1				1.20	394	53	3
Austrostipa nitida	5	62.5		3	2					0.46	206	42	2
Einadia nutans ssp.	5	62.5	1	4						0.08	215	44	2
Atriplex stipitata	4	50.0	1		2	1				1.00	48	17	16
**Lycium ferocissimum*	3	37.5	1			2				1.34	339	65	3
Rhagodia spinescens	3	37.5			2	1				1.33	43	20	14
Atriplex vesicaria ssp.	3	37.5	1	1		1				0.70	43	15	2
**Malva parviflora*	3	37.5	1	1	1					0.37	23	11	16
Annual Taxa Occurring at >30% of Sites													
**Avena barbata*	6	75.0		1	4	1				1.02	661	71	
**Moraea setifolia*	6	75.0		1	5					0.85	335	60	
**Sonchus oleraceus*	6	75.0	1	4	1					0.24	588	77	
**Carrichtera annua*	5	62.5		3	1		1			0.86	204	40	
**Hordeum glaucum*	4	50.0			1	2	1			2.00	180	51	
**Mesembryanthemum nodiflorum*	4	50.0		1	2			1		1.53	78	29	
**Medicago minima* var. *minima*	3	37.5			3					1.00	243	54	
**Lolium rigidum*	3	37.5		2	1					0.40	218	48	
**Sisymbrium erysimoides*	3	37.5		2	1					0.40	177	38	
Crassula colligata ssp.	3	37.5		3						0.10	234	45	
Crassula colorata var. *acuminata*	3	37.5	1	2						0.07	100	34	

Figure 99.
***Nitraria billardierei* Low Open Shrubland at site BLY00802 east of Snowtown.**

Fauna at sites in Floristic Group 29 – no sites sampled for fauna

Floristic Group 30 *Maireana pyramidata*, *Atriplex vesicaria* ssp. Low Open Shrubland

Maireana pyramidata and *Atriplex vesicaria* ssp dominate this Low Open Shrubland group. Several species may occur as emergents and/or as very sparse overstorey dominants, including *Myoporum platycarpum*, *Casuarina pauper*, *Alectryon oleifolius* ssp. *canescens*, *Eucalyptus oleosa* and *E. socialis*. Distinctive understorey shrubs include *Enchylaena tomentosa* var. *tomentosa*, *Dissocarpus paradoxus*, *Sclerolaena obliquicuspis* and *Chenopodium curvispicatum*. The most frequently occurring annuals are the exotics *Sonchus oleraceus*, *Carrichtera annua* and *Sisymbrium erysimoides*. This chenopod shrubland group is associated with loam soils on plains east of Burra and north of Port Pirie. It is at the margins of its distribution within this study area and is more common in the semi-arid areas of the State.

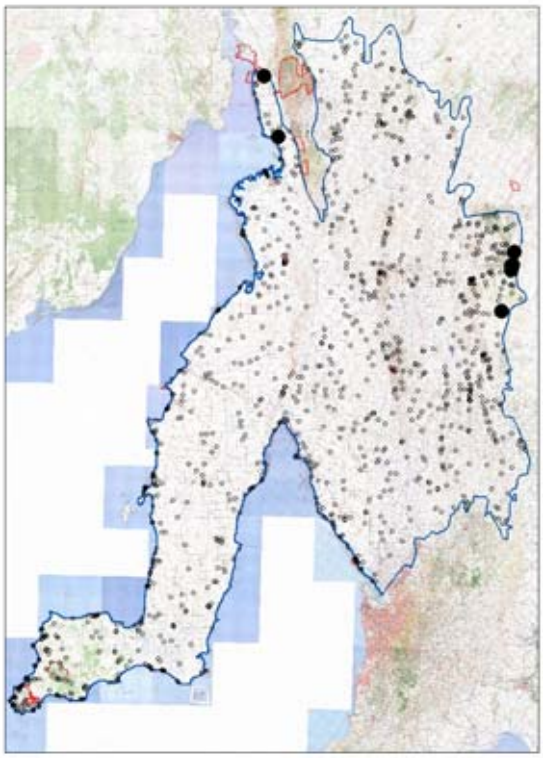
Sites within this group tend to occur in soil land units that are unaffected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Plain	5	71.4
Hill slope	1	14.3
Hill footslope	1	14.3

LANDFORM PATTERN	Frequency	%
Plain	3	42.8
Floodplain	1	14.3
Alluvial plain	1	14.3
Rises	1	14.3
Not recorded	1	14.3

SALT	Frequency	%
Class A	7	100

SOIL	Frequency	%
Loam	7	100



Number of sites in group 7

PLANT TAXA SUMMARY

Number of taxa in group	99
Number of native taxa in group	69
Perennial	34
Annual	35
Number of introduced taxa in group	30
Perennial	3
Annual	27

Average Number of Taxa at a site:

Native perennial	11	Min:	5	Max:	15
Introduced perennial	0	Min:	0	Max:	2
Native annual	7	Min:	2	Max:	19
Introduced annual	7	Min:	4	Max:	11
All taxa	26	Min:	12	Max:	41

Number of Taxa of Conservation Significance:

Aust	0	SA	1				
Regions:		EP	1	FR	n/a	MU	2
		NL	1	SL	n/a	YP	n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Maireana pyramidata	7	100.0				6	1			2.14	32	9	91
Atriplex vesicaria ssp.	6	85.7		1	2	3				1.35	43	15	23
Enchylaena tomentosa var. *tomentosa*	6	85.7		5	1					0.25	425	58	2
Myoporum platycarpum ssp.	4	57.1	2	1	1					0.28	44	14	15
Sclerolaena obliquicuspis	3	42.9		2		1				0.73	28	14	13
Dissocarpus paradoxus	3	42.9		2	1					0.40	7	5	34
Sclerolaena diacantha	3	42.9		2	1					0.40	108	22	4
Austrostipa elegantissima	3	42.9	1	2						0.07	290	53	
Chenopodium desertorum ssp.	3	42.9	1	2						0.07	118	26	1
Rhagodia spinescens	3	42.9	1	2						0.07	43	20	1
Maireana sedifolia	3	42.9	3							0.01	25	10	
Other Significant Perennial Taxa													
Chenopodium curvispicatum	2	28.6			2					1.00	5	4	27
Alectryon oleifolius ssp. *canescens*	2	28.6		1	1					0.55	53	17	6
Eucalyptus oleosa ssp.	2	28.6		1	1					0.55	113	14	1
Casuarina pauper	1	14.3				1				2.00	9	5	1
Eucalyptus socialis ssp.	1	14.3		1						0.10	114	25	
Annual Taxa Occurring at >30% of Sites													
**Sonchus oleraceus*	6	85.7		4	2					0.40	588	77	
**Carrichtera annua*	5	71.4		2	3					0.64	204	40	
**Sisymbrium erysimoides*	4	57.1		3	1					0.33	177	38	
**Hordeum glaucum*	3	42.9		1	1	1				1.03	180	51	
**Medicago minima* var. *minima*	3	42.9		1	1	1				1.03	243	54	
**Erodium cicutarium*	3	42.9		1	2					0.70	124	42	
Tetragonia eremaea	3	42.9		1	2					0.70	21	12	
**Medicago truncatula*	3	42.9		2	1					0.40	85	39	
Calotis hispidula	3	42.9		2	1					0.40	67	29	
Tetragonia eremaea/tetragonoides	3	42.9		2	1					0.40	7	5	
Chamaesyce drummondii	3	42.9	1	1	1					0.37	120	26	

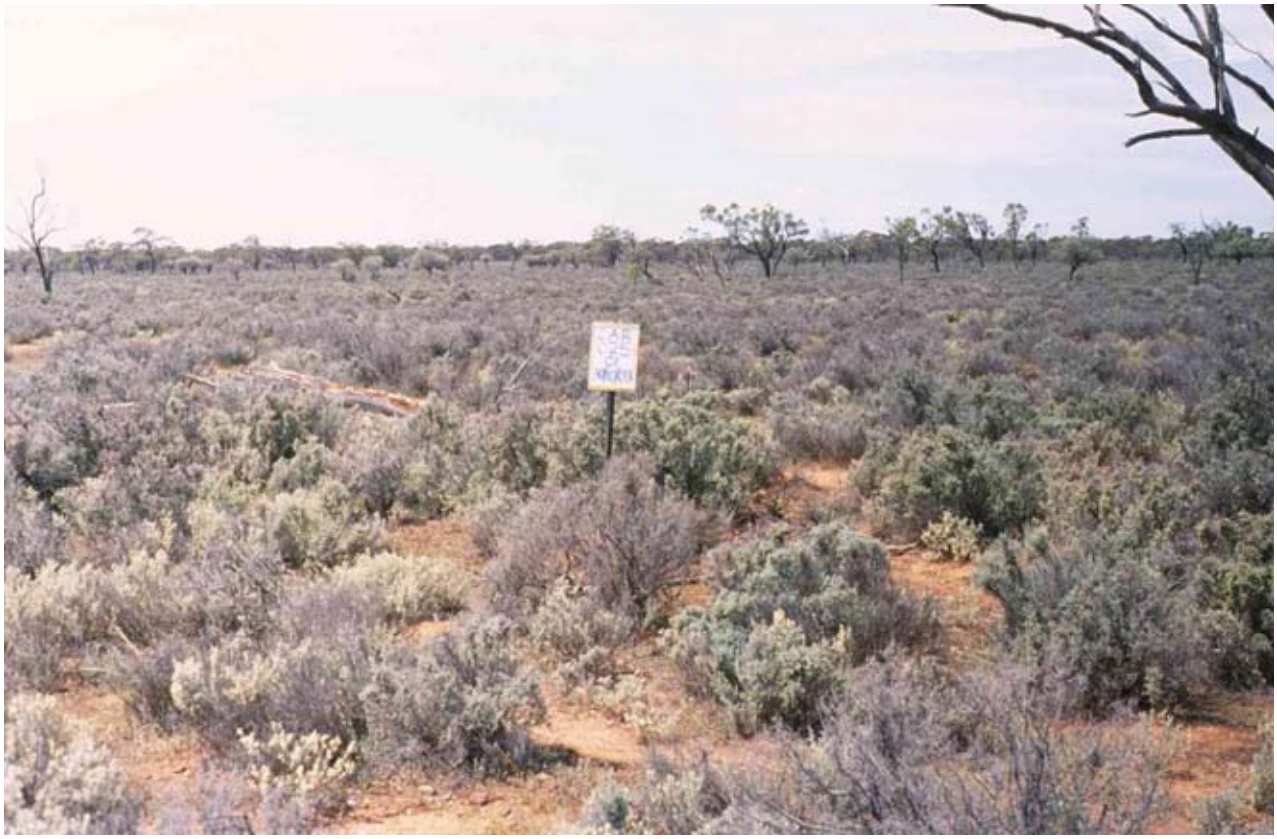


Figure 100.
***Maireana pyramidata*, *Atriplex vesicaria* ssp. Low Open Shrubland at site CAR02501 in Caroona Creek Conservation Park.**

Fauna at sites in Floristic Group 30

Trapping effort at 2 of 7 sites. Mammals recorded at 2 sites, birds at 2 and reptiles at 2.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Macropus fuliginosus	Western Grey Kangaroo			2	4
Macropus rufus	Red Kangaroo			2	5
Mus musculus	House Mouse			2	4
Chalinolobus gouldii	Gould's Wattled Bat			1	3
Macropus robustus	Euro			1	1
Mormopterus sp.				1	1
Nyctophilus geoffroyi	Lesser Long-eared Bat			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			2	2
Cacatua roseicapilla	Galah			2	13
Pyrrholaemus brunneus	Redthroat	R		2	31
Acanthiza uropygialis	Chestnut-rumped Thornbill			1	4
Accipiter cirrhocephalus	Collared Sparrowhawk			1	1
Accipiter fasciatus	Brown Goshawk			1	1
Anthus novaeseelandiae	Richard's Pipit			1	2
Aphelocephala leucopsis	Southern Whiteface			1	4
Artamus cinereus	Black-faced Woodswallow			1	2
Artamus personatus	Masked Woodswallow			1	7
Artamus superciliosus	White-browed Woodswallow			1	3
Barnardius zonarius	Australian Ringneck, (Ring-necked Parrot)			1	7
Cincloramphus mathewsi	Rufous Songlark			1	3
Climacteris picumnus	Brown Treecreeper			1	7
Colluricincla harmonica	Grey Shrike-thrush			1	1
Corvus mellori	Little Raven			1	6
Corvus sp.				1	1
Epthianura aurifrons	Orange Chat			1	2
Epthianura tricolor	Crimson Chat			1	20
Falco cenchroides	Nankeen Kestrel			1	1
Gymnorhina tibicen	Australian Magpie			1	1
Lalage tricolor	White-winged Triller			1	1
Lichenostomus ornatus	Yellow-plumed Honeyeater			1	3
Malurus lamberti	Variegated Fairy-wren			1	3
Malurus leucopterus	White-winged Fairy-wren			1	9
Melanodryas cucullata	Hooded Robin			1	2
Melopsittacus undulatus	Budgerigar			1	16
Microeca fascinans	Jacky Winter			1	1
Nymphicus hollandicus	Cockatiel			1	4
Pardalotus striatus	Striated Pardalote			1	3
Petrochelidon nigricans	Tree Martin			1	2
Phaps chalcoptera	Common Bronzewing			1	2
Phylidonyris albifrons	White-fronted Honeyeater			1	1
Pomatostomus superciliosus	White-browed Babbler			1	2
Smicrornis brevirostris	Weebill			1	3
Sturnus vulgaris	Common Starling			1	2

Reptile species	Common name	SA	Aus	Site freq	Number obs
Ctenotus orientalis	Eastern Spotted Ctenotus			2	5
Morethia adelaidensis	Adelaide Snake-eye			2	4
Tiliqua rugosa	Sleepy Lizard			2	4
Ctenophorus pictus	Painted Dragon			1	3
Ctenotus olympicus	Saltbush Ctenotus			1	1
Pogona vitticeps	Central Bearded Dragon			1	1
Tympanocryptis tetraporophora	Eyrean Earless Dragon			1	1

Floristic Group 31 *Atriplex vesicaria* ssp. Low Open Shrubland +/- an Open Mallee overstorey

This group is dominated by *Atriplex vesicaria* ssp. in a Low Open Shrubland formation. This may have a sparse to very sparse mallee overstorey of *Eucalyptus brachycalyx*, *E. oleosa* and/or *E. gracilis*. As with Floristic Group 30 *Maireana pyramidata* is also present, though much less abundant and not occurring as a co-dominant. Other associated shrubs include *Eremophila scoparia*, *Enchylaena tomentosa* var. *tomentosa*, *Maireana pyramidata* and *Dissocarpus biflorus* var. *biflorus*. Few annuals were recorded relative to other groups, with the exotic *Carrichtera annua* the most prominent. The group is associated with loam soils on plains and hill slopes east of Burra and north of Port Pirie. It is at the margins of its distribution within this study area and is more common in the semi-arid areas of the State.

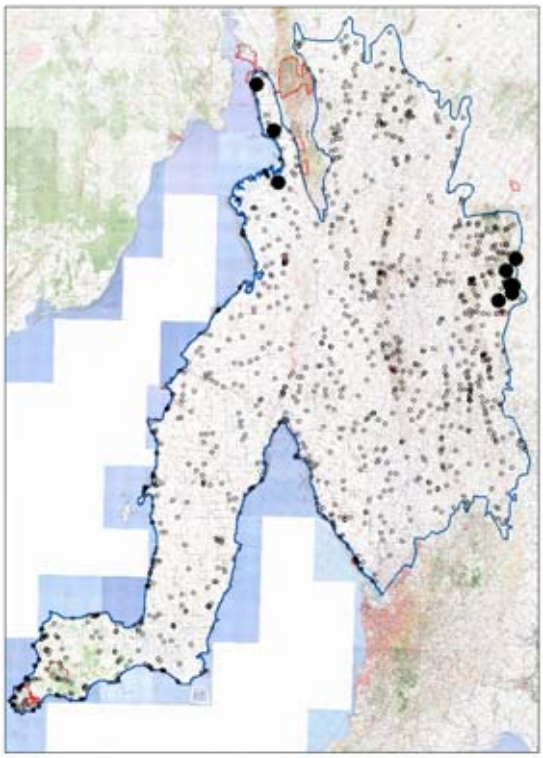
Sites within this group mostly occur in soil land units that are unaffected by saline seepage. However, one site occurs in a land unit with very high to extreme salinity.

LANDFORM ELEMENT	Frequency	%
Plain	5	50
Hill slope	5	50

LANDFORM PATTERN	Frequency	%
Rises	4	40
Plain	2	20
Low hills	2	20
Hills	1	10
Not recorded	1	10

SALT	Frequency	%
Class A	9	90
Class G	1	10

SOIL	Frequency	%
Loam	8	80
Clay	1	10
Not recorded	1	10



Number of sites in group 10

PLANT TAXA SUMMARY

Number of taxa in group	91
Number of native taxa in group	62
Perennial	54
Annual	8
Number of introduced taxa in group	29
Perennial	5
Annual	24

Average Number of Taxa at a site:

Native perennial	12	Min:	7	Max:	16
Introduced perennial	1	Min:	0	Max:	2
Native annual	1	Min:	0	Max:	3
Introduced annual	4	Min:	0	Max:	18
All taxa	18	Min:	18	Max:	32

Number of Taxa of Conservation Significance:

Aust	0	SA	0			
Regions:		EP	0	FR	2	MU 2
		NL	0	SL	n/a	YP n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Atriplex vesicaria ssp.	10	100			2	6	2			2.00	43	15	45
Enchylaena tomentosa var. *tomentosa*	9	90		6	3					0.40	425	58	3
Maireana pyramidata	7	70	4	3						0.05	32	9	1
Eucalyptus oleosa ssp.	6	60		2	4					0.70	113	14	5
Sclerolaena obliquicuspis	4	40		3	1					0.33	28	14	5
Eucalyptus brachycalyx	4	40			1	3				1.75	50	11	7
Maireana turbinata	3	30		2	1					0.40	23	14	6
Zygophyllum aurantiacum ssp.	3	30		2	1					0.40	49	17	4
Rhagodia ulicina	3	30	1	1	1					0.37	10	5	3
Eremophila scoparia	3	30	2		1					0.34	5	3	30
Austrodanthonia caespitosa	3	30		3						0.10	394	53	
Austrostipa elegantissima	3	30	1	2						0.07	290	53	
Austrostipa nitida	3	30	1	2						0.07	206	42	
Myoporum platycarpum ssp.	3	30	1	2						0.07	44	14	1
Maireana sedifolia	3	30	3							0.01	25	10	
Eucalyptus gracilis	3	30		1	2					0.70	120	23	1
Other Significant Perennial Taxa													
Dissocarpus biflorus var. *biflorus*	2	20	1		1					0.51	8	5	12
Annual Taxa Occurring at >30% of Sites													
**Carrichtera annua*	5	50		1	4					0.82	204	40	
**Schismus barbatus*	3	30		2	1					0.40	78	24	
**Sonchus oleraceus*	3	30		2	1					0.40	588	77	
**Medicago polymorpha* var. *polymorpha*	3	30	1	2						0.07	134	46	

Figure 101.
***Atriplex vesicaria* ssp. Low Open Shrubland +/- an Open Mallee overstorey at site CAR0401 on a plain near Caroona Creek.**

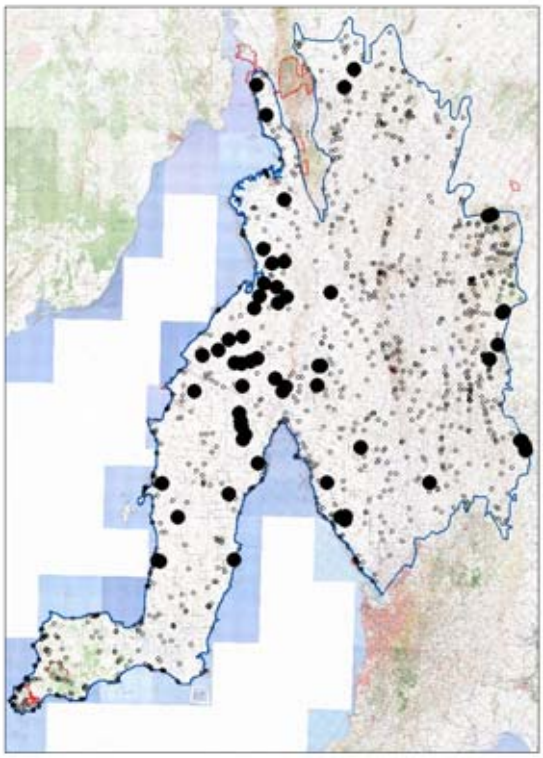
Fauna at sites in Floristic Group 31 – no sites sampled for fauna

Floristic Group 32 *Eucalyptus oleosa* ssp. +/- *E. gracilis* Open Mallee

This Open Mallee group is dominated by *Eucalyptus oleosa* ssp. with or without *Eucalyptus gracilis*. On rare occasions *E. phenax* ssp. and *E. brachycalyx* may also be co-dominants. The perennial shrub layer features *Enchylaena tomentosa* var. *tomentosa*, *Rhagodia parabolica* and *Sclerolaena diacantha*. On rare occasions *Melaleuca pauperiflora* ssp. *mutica* may form dense thickets in the understorey. The most frequently occurring annuals are the exotics *Sisymbrium erysimoides*, *Carrichtera annua*, *Sonchus oleraceus* and *Bromus rubens*. The group is mainly associated with loam soils on plains and hill slopes on northern Yorke Peninsula, but is also present on the northern Adelaide Plains, hills on the eastern margin of the study area and in the far north near Willowie and Port Germein.

Most of the sites within this group occur in soil land units that are either unaffected or only slightly affected by saline seepage. However, five occur in land units that are moderately affected, one in a land unit with moderately high to high salinity, and one in a land unit with high salinity. This may suggest that, at the margin of its distribution (i.e. at low points in the landscape), this floristic group is at risk to rising salinity levels.

LANDFORM ELEMENT	Frequency	%
Plain	35	58.3
Hill slope	10	16.7
Swale	5	8.3
Hill crest	3	5.0
Rocky outcrop - on hill	1	1.7
Clay plain	1	1.7
Dune/consolidated dune	1	1.7
Dune crest	1	1.7
Dune slope	1	1.7
Dune footslope	1	1.7
Interdune corridor	1	1.7



Number of Taxa of Conservation Significance:

Aust	1	SA	3			
Regions:		EP	1	FR	0	MU 2
		NL	16	SL	6	YP 24

LANDFORM PATTERN	Frequency	%
Plain	29	48.3
Low hills	5	8.3
Rises	4	6.7
Longitudinal dunefield	4	6.7
Hills	3	5.0
Consolidated dunefield	3	5.0
Alluvial plain	1	1.7
Not recorded	11	18.3

SALT	Frequency	%
Class A	42	70.0
Class B	11	18.3
Class C	5	8.3
Class E	1	1.7
Class F	1	1.7

SOIL	Frequency	%
Skeletal	1	1.7
Sand	6	10.0
Loam	47	78.3
Clay	5	8.3
Not recorded	1	1.7

Number of sites in group 60

PLANT TAXA SUMMARY

Number of taxa in group	291
Number of native taxa in group	217
Perennial	154
Annual	63
Number of introduced taxa in group	74
Perennial	7
Annual	67

Average Number of Taxa at a site:

Native perennial	14	Min:	2	Max:	29
Introduced perennial	1	Min:	0	Max:	2
Native annual	4	Min:	0	Max:	19
Introduced annual	6	Min:	0	Max:	19
All taxa	24	Min:	6	Max:	61

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Eucalyptus oleosa ssp.	57	95.0			1	37	16	3		2.37	113	14	38
Enchylaena tomentosa var. *tomentosa*	54	90.0	1	24	18	11				0.79	425	58	6
Rhagodia parabolica	31	51.7	6	6	14	5				0.80	205	36	4
Eucalyptus gracilis	28	46.7	1	5	2	16	2	2		1.73	120	23	7
Sclerolaena diacantha	26	43.3	1	14	9	2				0.55	108	22	5
**Lycium ferocissimum*	23	38.3	7	14	1	1				0.19	339	65	1
Austrostipa acrociliata	22	36.7	2	12	7	1				0.46	98	29	3
Chenopodium desertorum ssp.	22	36.7	4	12	6					0.33	118	26	4
Pittosporum angustifolium	20	33.3	5	10	4	1				0.35	213	46	2
Other Significant Perennial Taxa													
Eucalyptus phenax ssp.	9	15.0	1		2	6				1.56	45	14	1
Melaleuca pauperiflora ssp. *mutica*	6	10.0		1	1	2	1	1		2.02	8	2	8
Eucalyptus brachycalyx	6	10.0		3	1	2				0.88	50	11	
Annual Taxa Occurring at >30% of Sites													
**Sisymbrium erysimoides*	28	46.7	2	11	13	2				0.65	177	38	
**Carrichtera annua*	25	41.7		4	11	7	3			1.38	204	40	
**Sonchus oleraceus*	24	40.0	3	14	7					0.35	588	77	
**Bromus rubens*	23	38.3		17	5	1				0.38	365	57	
Senecio glossanthus	19	31.7	2	11	6					0.37	128	34	
**Hordeum glaucum*	18	30.0		13	4	1				0.41	180	51	

Figure 102.
***Eucalyptus oleosa* ssp. +/- *E. gracilis* Open Mallee at site ALF1201 north east of Kadina.**

Fauna at sites in Floristic Group 32

Trapping effort at 5 of 60 sites. Mammals recorded at 5 sites, birds at 5, reptiles at 5 and a frog at 2.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Tachyglossus aculeatus	Short-beaked Echidna			4	6
Vulpes vulpes	Fox			3	4
Chalinolobus morio	Chocolate Wattled Bat			2	2
Macropus fuliginosus	Western Grey Kangaroo			2	11

Mammal species	Common name	SA	Aus	Site freq	Number obs
Mus musculus	House Mouse			2	20
Nyctophilus geoffroyi	Lesser Long-eared Bat			2	2
Oryctolagus cuniculus	Rabbit			2	2
Cercartetus concinnus	Western Pygmy-possum			1	1
Chalinolobus gouldii	Gould's Wattled Bat			1	1
Macropus robustus	Euro			1	1
Macropus rufus	Red Kangaroo			1	1
Macropus sp.				1	1
Mormopterus sp.				1	1
Tadarida australis	White-striped Freetail-bat			1	1
Vespadelus regulus	Southern Forest Bat			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Cacatua roseicapilla	Galah			4	39
Corvus mellori	Little Raven			4	22
Cracticus torquatus	Grey Butcherbird			4	10
Gymnorhina tibicen	Australian Magpie			4	22
Smicrornis brevirostris	Weebill			4	33
Lichenostomus virescens	Singing Honeyeater			3	7
Manorina flavigula	Yellow-throated Miner			3	52
Pardalotus punctatus	Spotted Pardalote			3	9
Sturnus vulgaris	Common Starling			3	35
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			2	8
Acanthiza apicalis	Inland Thornbill			2	13
Anthochaera carunculata	Red Wattlebird			2	6
Barnardius zonarius	Australian Ringneck, (Ring-necked Parrot)			2	4
Colluricincla harmonica	Grey Shrike-thrush			2	5
Corcorax melanorhamphos	White-winged Chough			2	18
Melithreptus brevirostris	Brown-headed Honeyeater			2	11
Ocyphaps lophotes	Crested Pigeon			2	8
Pachycephala pectoralis	Golden Whistler			2	2
Pardalotus striatus	Striated Pardalote			2	18
Psephotus haematonotus	Red-rumped Parrot			2	8
Strepera versicolor	Grey Currawong			2	6
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			1	6
Accipiter fasciatus	Brown Goshawk			1	1
Alauda arvensis	Eurasian Skylark			1	8
Anthus novaeseelandiae	Richard's Pipit			1	7
Artamus personatus	Masked Woodswallow			1	17
Circus approximans	Swamp Harrier			1	1
Daphoenositta chrysoptera	Varied Sittella			1	5
Dicaeum hirundinaceum	Mistletoebird			1	1
Dromaius novaehollandiae	Emu			1	1
Epthianura albifrons	White-fronted Chat			1	1
Falco berigora	Brown Falcon			1	1
Hirundo neoxena	Welcome Swallow			1	1
Malurus lamberti	Variegated Fairy-wren			1	4
Malurus leucopterus	White-winged Fairy-wren			1	35
Melopsittacus undulatus	Budgerigar			1	4
Mirafra javanica	Horsfield's Bushlark			1	9
Neophema elegans	Elegant Parrot			1	1
Nymphicus hollandicus	Cockatiel			1	4
Pachycephala rufiventris	Rufous Whistler			1	1
Passer domesticus	House Sparrow			1	14
Rhipidura albiscapa	Grey Fantail			1	2
Rhipidura leucophrys	Willie Wagtail			1	1
Turnix varia	Painted Button-quail	V		1	2
Vanellus tricolor	Banded Lapwing			1	1
Zosterops lateralis	Silvereye			1	6

Reptile species	Common name	SA	Aus	Site freq	Number obs
Morethia boulengeri	Common Snake-eye			3	3
Tiliqua rugosa	Sleepy Lizard			3	5
Delma molleri	Adelaide Snake-lizard			2	3
Morethia adelaidensis	Adelaide Snake-eye			2	5
Ctenophorus decresii	Tawny Dragon			1	1
Diplodactylus vittatus	Eastern Stone Gecko			1	1
Gehyra 2n=44	Southern Rock Dtella			1	1
Hemiergis decresiensis	Three-toed Earless Skink			1	4
Lerista bougainvillii	Bougainville's Skink			1	2
Menetia greyii	Dwarf Skink			1	2
Morethia obscura	Mallee Snake-eye			1	2
Ramphotyphlops australis	Southern Blind Snake			1	1

Frog species	Common name	Site freq	Number obs
Neobatrachus pictus	Painted Frog	2	4

Floristic Group 33 *Eucalyptus gracilis* +/- *E. brachycalyx* Open Mallee

This Open Mallee group is dominated by *Eucalyptus gracilis*, often (though not always) in association with *E. brachycalyx*. In addition *E. oleosa* ssp., *E. socialis* ssp. and *E. porosa* may also occur as co-dominants on rare occasions. Commonly occurring perennial shrubs include *Enchylaena tomentosa* var. *tomentosa*, *Rhagodia parabolica*, *Geijera linearifolia* and *Sclerolaena diacantha*. The most frequently occurring annuals are the exotics *Avena barbata*, *Bromus rubens*, *Carrichtera annua*, *Sonchus oleraceus* and *Sisymbrium erysimoides*. The group is mainly associated with loam soils on plains and hill slopes of the Burra Hills, around Port Broughton, northern Yorke Peninsula and the northern Adelaide Plains.

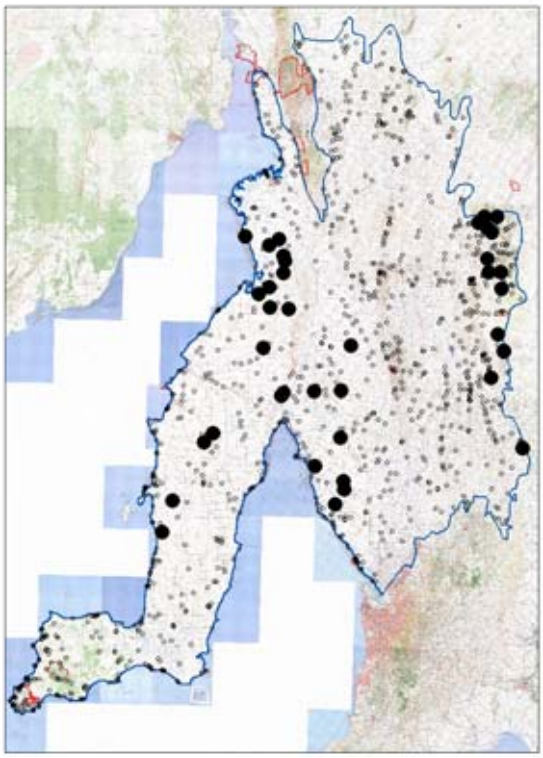
Sites within this group mainly occur in soil land units that are either unaffected or only slightly affected by saline seepage. However, three sites within the group occur in land units with moderate salinity and one in a land unit with moderately high salinity. This may suggest that, at the margin of its distribution (i.e. at low points in the landscape), this floristic group is at risk to rising salinity levels.

LANDFORM ELEMENT	Frequency	%
Plain	18	46.2
Hill slope	10	25.6
Swale	2	5.1
Hill/mountain	1	2.6
Hill crest	1	2.6
Hill footslope	1	2.6
Ridge	1	2.6
Limestone plain	1	2.6
Sandy plain	1	2.6
Flat	1	2.6
Dune crest	1	2.6
Open depression	1	2.6

LANDFORM PATTERN	Frequency	%
Plain	14	35.9
Low hills	7	17.9
Hills	4	10.3
Rises	2	5.1
Longitudinal dunefield	2	5.1
Pediplain	1	2.6
Sand plain	1	2.6
Not recorded	8	20.5

SALT	Frequency	%
Class A	27	69.2
Class B	8	20.5
Class C	3	7.7
Class D	1	2.6

SOIL	Frequency	%
Sand	5	12.8
Loam	33	84.6
Clay	1	2.6



Number of sites in group 39

PLANT TAXA SUMMARY

Number of taxa in group	279
Number of native taxa in group	209
Perennial	136
Annual	73
Number of introduced taxa in group	70
Perennial	5
Annual	65

Average Number of Taxa at a site:

Native perennial	15	Min:	6	Max:	36
Introduced perennial	1	Min:	0	Max:	3
Native annual	5	Min:	0	Max:	24
Introduced annual	8	Min:	0	Max:	20
All taxa	29	Min:	12	Max:	70

Number of Taxa of Conservation Significance:

Aust	1	SA	4				
Regions:		EP	n/a	FR	n/a	MU	5
		NL	15	SL	n/a	YP	16

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Eucalyptus gracilis	35	89.7		2	7	17	6	2	1	2.06	120	23	29
Enchylaena tomentosa var. *tomentosa*	32	82.1		17	10	5				0.68	425	58	4
Eucalyptus brachycalyx	24	61.5		2	3	10	6	3		2.22	50	11	21
Rhagodia parabolica	18	46.2	3	8	3	3		1		0.77	205	36	3
Geijera linearifolia	16	41.0	2	4	2	4	3	1		1.46	86	19	6
Sclerolaena diacantha	16	41.0		11	3	1	1			0.57	108	22	5
Austrostipa elegantissima	15	38.5	4	10	1					0.14	290	53	1
Austrodanthonia caespitosa	14	35.9	1	8	4	1				0.49	394	53	
Austrostipa eremophila	13	33.3	1	5	5	2				0.73	177	36	1
Zygophyllum apiculatum	13	33.3		6	7					0.58	50	12	10
Einadia nutans ssp.	13	33.3	3	9	1					0.15	215	44	1
Melaleuca lanceolata	12	30.8	1	6		5				0.88	232	41	1
Maireana brevifolia	12	30.8	4	5	2	1				0.38	126	33	1
**Lycium ferocissimum*	12	30.8	7	5						0.05	339	65	
Other Significant Perennial Taxa													
Eucalyptus oleosa ssp.	9	23.1		2	2	4	1			1.47	113	14	1
Eucalyptus socialis ssp.	9	23.1		4	4	1				0.71	114	25	
Eucalyptus porosa	7	17.9	2	1	1	3				1.02	120	30	1
Annual Taxa Occurring at >30% of Sites													
**Avena barbata*	23	59.0		13	9	1				0.53	661	71	
**Bromus rubens*	21	53.8	1	15	4	1				0.36	365	57	
**Carrichtera annua*	20	51.3		8	8	2	2			0.94	204	40	
**Sonchus oleraceus*	18	46.2	1	15	2					0.20	588	77	
**Sisymbrium erysimoides*	17	43.6		9	8					0.52	177	38	
**Medicago minima* var. *minima*	13	33.3		8	5					0.45	243	54	
**Rostraria cristata*	13	33.3		8	5					0.45	229	49	
Senecio glossanthus	12	30.8	1	9	2					0.24	128	34	
**Hordeum glaucum*	12	30.8	1	7	2	1		1		0.73	180	51	

Figure 103.
***Eucalyptus gracilis* +/- *E. brachycalyx* Open Mallee at site WAK01501 on the South Hummocks.**

Fauna at sites in Floristic Group 33

Trapping effort at 5 of 39 sites. Mammals recorded at 5 sites, birds at 5 and reptiles at 5.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Macropus sp.				3	4
Macropus robustus	Euro			2	8
Oryctolagus cuniculus	Rabbit			2	2
Tachyglossus aculeatus	Short-beaked Echidna			2	3
Chalinolobus gouldii	Gould's Wattled Bat			1	1
Chalinolobus morio	Chocolate Wattled Bat			1	1
Lasiorhinus latifrons	Southern Hairy-nosed Wombat			1	5
Macropus fuliginosus	Western Grey Kangaroo			1	2
Macropus rufus	Red Kangaroo			1	2
Mormopterus sp.				1	1
Mus musculus	House Mouse			1	10
Nyctophilus geoffroyi	Lesser Long-eared Bat			1	1
Sminthopsis murina	Common Dunnart			1	4
Tadarida australis	White-striped Freetail-bat			1	1
Trichosurus vulpecula	Common Brushtail Possum			1	1
Vespadelus darlingtoni	Large Forest Bat			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Cacatua roseicapilla	Galah			5	51
Colluricincla harmonica	Grey Shrike-thrush			5	18
Corvus mellori	Little Raven			5	39
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			4	26
Daphoenositta chrysoptera	Varied Sittella			4	23
Gymnorhina tibicen	Australian Magpie			4	25
Pardalotus striatus	Striated Pardalote			4	33
Pomatostomus superciliosus	White-browed Babbler			4	29
Smicrornis brevirostris	Weebill			4	34
Sturnus vulgaris	Common Starling			4	61
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			3	22
Cracticus torquatus	Grey Butcherbird			3	7
Lichenostomus virescens	Singing Honeyeater			3	15
Pachycephala rufiventris	Rufous Whistler			3	6
Rhipidura leucophrys	Willie Wagtail			3	6
Strepera versicolor	Grey Currawong			3	8
Barnardius zonarius	Australian Ringneck, (Ring-necked Parrot)			2	16
Coracina novaehollandiae	Black-faced Cuckoo-shrike			2	2
Melanodryas cucullata	Hooded Robin			2	5
Melithreptus brevirostris	Brown-headed Honeyeater			2	8
Microeca fascinans	Jacky Winter			2	6
Pardalotus punctatus	Spotted Pardalote			2	9
Rhipidura albiscapa	Grey Fantail			2	2
Acanthiza apicalis	Inland Thornbill			1	8
Acanthiza sp.				1	2
Aegotheles cristatus	Australian Owlet-nightjar			1	1
Anthochaera carunculata	Red Wattlebird			1	4
Aquila audax	Wedge-tailed Eagle			1	2
Artamus personatus	Masked Woodswallow			1	20
Chrysococcyx basalis	Horsfield's Bronze-cuckoo			1	2
Cincloramphus mathewsi	Rufous Songlark			1	4
Corcorax melanorhamphos	White-winged Chough			1	23
Cuculus pallidus	Pallid Cuckoo			1	1
Dicaeum hirundinaceum	Mistletoebird			1	1
Epthianura albifrons	White-fronted Chat			1	3
Falco cenchroides	Nankeen Kestrel			1	1
Hirundo neoxena	Welcome Swallow			1	1
Lalage tricolor	White-winged Triller			1	2
Lichenostomus ornatus	Yellow-plumed Honeyeater			1	2
Malurus lamberti	Variegated Fairy-wren			1	3
Manorina flavigula	Yellow-throated Miner			1	21
Melopsittacus undulatus	Budgerigar			1	11

Bird species	Common name	SA	Aus	Site freq	Number obs
Merops ornatus	Rainbow Bee-eater			1	5
Northiella haematogaster	Blue Bonnet			1	6
Nymphicus hollandicus	Cockatiel			1	3
Ocyphaps lophotes	Crested Pigeon			1	1
Pachycephala pectoralis	Golden Whistler			1	1
Passer domesticus	House Sparrow			1	3
Phaps chalcoptera	Common Bronzewing			1	4
Psephotus haematonotus	Red-rumped Parrot			1	16
Psephotus varius	Mulga Parrot			1	2
Todiramphus pyrrhopygia	Red-backed Kingfisher			1	1

Reptile species	Common name	SA	Aus	Site freq	Number obs
Tiliqua rugosa	Sleepy Lizard			4	10
Morethia obscura	Mallee Snake-eye			3	9
Cryptoblepharus carnabyi cac	Desert Wall skink			2	3
Hemiergis decresiensis	Three-toed Earless Skink			2	7
Heteronotia binoei	Bynoe's Gecko			2	6
Lerista dorsalis	Southern Four-toed Slider			2	4
Menetia greyii	Dwarf Skink			2	2
Christinus marmoratus	Marbled Gecko			1	1
Ctenotus orientalis	Eastern Spotted Ctenotus			1	2
Ctenotus robustus	Eastern Striped Skink			1	1
Delma molleri	Adelaide Snake-lizard			1	3
Diplodactylus vittatus	Eastern Stone Gecko			1	1
Eremiascincus richardsonii	Broad-banded Sandswimmer			1	1
Gehyra variegata complex				1	1
Lerista edwardsae	Myall Slider			1	3
Lerista sp.				1	1
Lerista terdigitata	Southern Three-toed Slider			1	1
Morethia boulengeri	Common Snake-eye			1	1
Suta nigriceps	Mitchell's Short-tailed Snake			1	1

Floristic Group 34 *Eucalyptus socialis* ssp. +/- *E. gracilis* Open Mallee

This Open Mallee group is dominated by *Eucalyptus socialis* ssp. either solely or, occasionally, in association with *E. gracilis*. On rare occasions *E. brachycalyx* and *E. oleosa* ssp. may also be co-dominants. The understorey is open with the shrubs *Rhagodia parabolica* and *Enchylaena tomentosa* var. *tomentosa* and the low tree *Pittosporum angustifolium* all being common. The ground layer is dominated by the perennial grasses *Austrodanthonia caespitosa*, *Austrostipa eremophila* and *A. nitida*. The most frequently occurring annuals are the exotics *Sonchus oleraceus*, *Sisymbrium erysimoides*, *Carrichtera annua*, *Bromus rubens* and *Avena barbata*. The group is mainly associated with loam soils on plains and hills slopes of the east side of the Burra Hills, Scrubby Range north of Robertstown, the northern Adelaide Plains up to Brinkworth, in Clements Gap Conservation Park and around Booleroo Centre in the north of the study area.

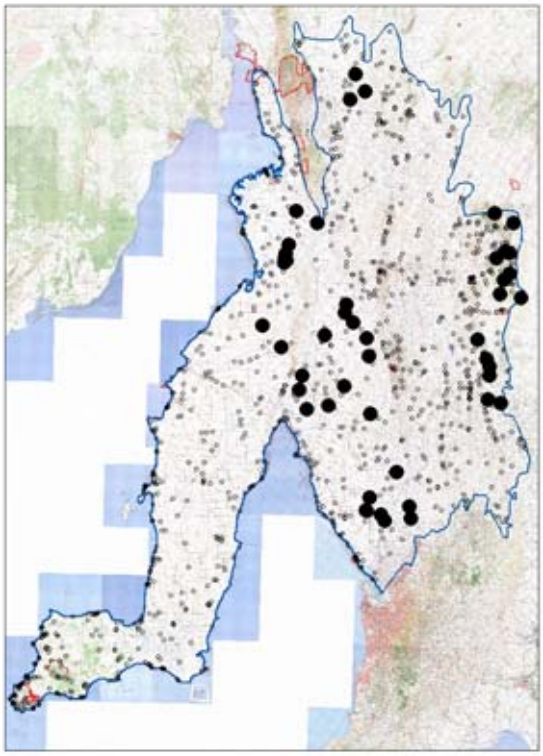
Sites within this group tend to occur in soil land units that are either unaffected or only slightly affected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Plain	26	51.0
Hill slope	9	17.6
Hill crest	4	7.8
Hill footslope	3	5.9
Dune crest	2	3.9
Dune slope	1	2.0
Interdune corridor	1	2.0
Ridge	1	2.0
Sandy plain	1	2.0
Stony plain	1	2.0
Swale	1	2.0
Fan - alluvial	1	2.0

LANDFORM PATTERN	Frequency	%
Plain	18	35.3
Hills	7	13.7
Rises	4	7.8
Dunefield	4	7.8
Low hills	2	3.9
Consolidated Dunefield	2	3.9
Peneplain	1	2.0
Not recorded	13	25.5

SALT	Frequency	%
Class A	46	90.2
Class B	5	9.8

SOIL	Frequency	%
Sand	8	15.7
Loam	40	78.4
Clay	3	5.9



Number of sites in group 51

PLANT TAXA SUMMARY

Number of taxa in group	289
Number of native taxa in group	205
Perennial	143
Annual	62
Number of introduced taxa in group	84
Perennial	6
Annual	78

Average Number of Taxa at a site:

Native perennial	15	Min: 4	Max: 35
Introduced perennial	1	Min: 0	Max: 4
Native annual	4	Min: 0	Max: 17
Introduced annual	9	Min: 0	Max: 30
All taxa	29	Min: 10	Max: 61

Number of Taxa of Conservation Significance:

Aust	0	SA	6			
Regions:		EP	n/a	FR	1	MU 8
		NL	18	SL	10	YP 2

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Eucalyptus socialis ssp.	51	100.0			3	31	14	3		2.33	114	25	26
Enchylaena tomentosa var. *tomentosa*	40	78.4	6	15	16	2	1			0.61	425	58	4
Austrodanthonia caespitosa	28	54.9	1	13	12	2				0.62	394	53	1
Rhagodia parabolica	27	52.9	5	14	6	2				0.42	205	36	2
Pittosporum angustifolium	26	51.0	13	9	4					0.19	213	46	3
Eucalyptus gracilis	21	41.2		4	2	13	2			1.64	120	23	5
Austrostipa eremophila	19	37.3	2	6	6	5				0.87	177	36	2
Austrostipa nitida	19	37.3		9	9	1				0.63	206	42	1
Sclerolaena diacantha	19	37.3	1	13	4	1				0.38	108	22	3
Chenopodium desertorum ssp.	17	33.3	2	11	4					0.30	118	26	3
Exocarpos aphyllus	17	33.3	8	7	2					0.16	182	40	1
**Lycium ferocissimum*	17	33.3	10	7						0.05	339	65	
Alectryon oleifolius ssp. *canescens*	16	31.4	5	4	6		1			0.59	53	17	8
Other Significant Perennial Taxa													
Eucalyptus brachycalyx	8	15.7		1	1	4	2			1.89	50	11	1
Eucalyptus oleosa ssp.	5	9.8		1		2	2			2.02	113	14	
Annual Taxa Occurring at >30% of Sites													
**Sonchus oleraceus*	32	62.7	3	23	6					0.26	588	77	
**Sisymbrium erysimoides*	29	56.9	1	17	9	2				0.51	177	38	
**Carrichtera annua*	26	51.0	1	8	8	9				1.03	204	40	
**Bromus rubens*	23	45.1		13	8	2				0.58	365	57	
**Avena barbata*	22	43.1	1	8	11	1	1			0.76	661	71	
Crassula colligata ssp.	20	39.2		11	9					0.51	234	45	
**Medicago minima* var. *minima*	16	31.4		9	7					0.49	243	54	
**Rostraria cristata*	16	31.4	1	8	7					0.49	229	49	

Figure 104.
***Eucalyptus socialis* ssp. +/- *E. gracilis* Open Mallee at site EUD0501 in hills south of Robertstown.**

Fauna at sites in Floristic Group 34

Trapping effort at 6 of 51 sites. Mammals recorded at 6 sites, birds at 6 and reptiles at 5.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Mus musculus	House Mouse			5	17
Tachyglossus aculeatus	Short-beaked Echidna			4	7
Macropus sp.				2	4
Sminthopsis murina	Common Dunnart			2	3
Chalinolobus gouldii	Gould's Wattled Bat			1	1
Macropus robustus	Euro			1	1
Mormopterus sp.				1	1
Oryctolagus cuniculus	Rabbit			1	1
Vulpes vulpes	Fox			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Cacatua roseicapilla	Galah			6	104
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			5	15
Colluricincla harmonica	Grey Shrike-thrush			5	8
Cracticus torquatus	Grey Butcherbird			5	11
Smicrornis brevirostris	Weebill			5	29
Pardalotus striatus	Striated Pardalote			4	11
Acanthiza apicalis	Inland Thornbill			3	23
Accipiter fasciatus	Brown Goshawk			3	3
Chrysococcyx basalis	Horsfield's Bronze-cuckoo			3	5
Coracina novaehollandiae	Black-faced Cuckoo-shrike			3	7
Corvus mellori	Little Raven			3	12
Gymnorhina tibicen	Australian Magpie			3	10
Malurus lamberti	Variegated Fairy-wren			3	42
Manorina flavigula	Yellow-throated Miner			3	22
Melithreptus brevirostris	Brown-headed Honeyeater			3	16
Pardalotus punctatus	Spotted Pardalote			3	16
Petroica goodenovii	Red-capped Robin			3	10
Phaps chalcoptera	Common Bronzewing			3	6
Pomatostomus superciliosus	White-browed Babbler			3	32
Acanthiza nana	Yellow Thornbill			2	5
Barnardius zonarius	Australian Ringneck, (Ring-necked Parrot)			2	7
Climacteris picumnus	Brown Treecreeper			2	9
Corcorax melanorhamphos	White-winged Chough			2	11
Corvus sp.				2	8
Lichenostomus virescens	Singing Honeyeater			2	2
Pachycephala rufiventris	Rufous Whistler			2	6
Rhipidura albiscapa	Grey Fantail			2	8
Artamus personatus	Masked Woodswallow			1	15
Artamus sp.				1	6
Artamus superciliosus	White-browed Woodswallow			1	4
Cacomantis flabelliformis	Fan-tailed Cuckoo			1	1
Dicaeum hirundinaceum	Mistletoebird			1	1
Dromaius novaehollandiae	Emu			1	1
Melopsittacus undulatus	Budgerigar			1	18
Merops ornatus	Rainbow Bee-eater			1	2
Microeca fascinans	Jacky Winter			1	3
Nymphicus hollandicus	Cockatiel			1	4
Petrochelidon nigricans	Tree Martin			1	7
Psephotus varius	Mulga Parrot			1	3
Strepera versicolor	Grey Currawong			1	3
Zosterops lateralis	Silvereye			1	10

Reptile species	Common name	SA	Aus	Site freq	Number obs
Morethia obscura	Mallee Snake-eye			3	9
Diplodactylus vittatus	Eastern Stone Gecko			2	4
Gehyra variegata	Tree Dtella			2	2
Lerista dorsalis	Southern Four-toed Slider			2	3
Menetia greyii	Dwarf Skink			2	9
Tiliqua rugosa	Sleepy Lizard			2	3

Reptile species	Common name	SA	Aus	Site freq	Number obs
Cryptoblepharus carnabyi cac	Desert Wall skink			1	1
Ctenophorus decresii	Tawny Dragon			1	1
Ctenophorus pictus	Painted Dragon			1	1
Ctenotus schomburgkii	Sandplain Ctenotus			1	3
Lerista terdigitata	Southern Three-toed Slider			1	1
Pseudonaja sp.				1	1

Floristic Group 35 *Eucalyptus dumosa* Open Mallee

This Open Mallee group is characterised by *Eucalyptus dumosa*. On rare occasions other mallee species occur as co-dominants, in particular *E. socialis* ssp., *E. phenax* ssp. and *E. leptophylla*. The understorey tends to have a denser shrub layer compared to the other Open Mallee groups (refer Floristic Groups 32, 33 & 34). *Melaleuca acuminata* ssp. *acuminata* and *M. lanceolata* are often prominent, while *Enchylaena tomentosa* var. *tomentosa* and *Pittosporum angustifolium* are usually sparsely present. Common species in the ground layer are *Helichrysum leucopsideum*, *Austrostipa elegantissima*, *Clematis microphylla* var. *microphylla* and *Comesperma volubile*. The most frequently occurring annuals are the exotics *Avena barbata*, *Bromus diandrus*, *Moraea setifolia*, *Sonchus oleraceus* and *Brassica tournefortii*, and the native *Goodenia willisiana*. The group is associated with sandy loam and clay loam soils on plains and hill slopes of northern Yorke Peninsula and between Yacka and Warnertown.

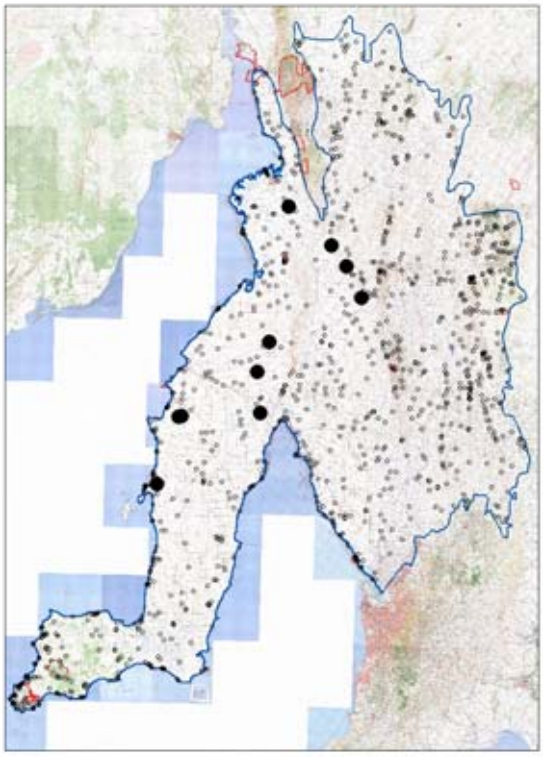
Most sites within this group occur in soil land units that are either unaffected or only slightly affected by saline seepage. However, one site occurs in a land unit with moderately high salinity. This may suggest that, at the margin of its distribution, this floristic group is at risk to rising salinity.

LANDFORM ELEMENT	Frequency	%
Plain	4	40
Hill slope	3	30
Hill crest	1	10
Ridge	1	10
Dune footslope	1	10

LANDFORM PATTERN	Frequency	%
Plain	4	40
Rises	1	10
Consolidated dunefield	1	10
Not recorded	4	40

SALT	Frequency	%
Class A	7	70
Class B	2	20
Class D	1	10

SOIL	Frequency	%
Sand	1	10
Loam	9	90



Number of sites in group 10

PLANT TAXA SUMMARY

Number of taxa in group	182
Number of native taxa in group	136
Perennial	78
Annual	58
Number of introduced taxa in group	46
Perennial	5
Annual	41

Average Number of Taxa at a site:

Native perennial	17	Min:	2	Max:	48
Introduced perennial	1	Min:	0	Max:	3
Native annual	8	Min:	0	Max:	35
Introduced annual	10	Min:	5	Max:	14
All taxa	36	Min:	16	Max:	80

Number of Taxa of Conservation Significance:

Aust	1	SA	3			
Regions:		EP	n/a	FR	n/a	MU n/a
		NL	0	SL	n/a	YP 17

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Eucalyptus dumosa	10	100			2	5	3			2.10	31	11	77
Eucalyptus socialis ssp.	6	60			4	1	1			1.50	114	25	6
Enchylaena tomentosa var. *tomentosa*	6	60		5		1				0.42	425	58	1
Melaleuca acuminata ssp. *acuminata*	5	50		1	2	2				1.22	60	18	10
Melaleuca lanceolata	5	50		1	2	2				1.22	232	41	2
Helichrysum leucopsideum	5	50		2	3					0.64	229	43	2
Clematis microphylla var. *microphylla*	5	50		4	1					0.28	250	46	2
Comesperma volubile	5	50		4	1					0.28	94	29	5
Austrostipa elegantissima	5	50	1	3	1					0.26	290	53	2
Pittosporum angustifolium	5	50	1	3	1					0.26	213	46	3
Dianella revoluta var. *revoluta*	4	40		1	2	1				1.03	306	47	2
Alyxia buxifolia	4	40		3		1				0.58	122	30	1
Gahnia lanigera	4	40		2	2					0.55	142	27	1
Eutaxia microphylla var. *microphylla*	4	40		4						0.10	111	30	1
Cryptandra sp. Floriferous (W.R.Barker 4131)	4	40	1	3						0.08	39	16	1
Austrodanthonia setacea	3	30			2	1				1.33	163	38	3
Lepidosperma congestum	3	30		1	1	1				1.03	114	18	1
Eucalyptus phenax ssp.	3	30	1		2					0.67	45	14	2
**Asparagus asparagoides*	3	30		2	1					0.40	113	31	1
Einadia nutans ssp.	3	30	1	2						0.07	215	44	
**Lycium ferocissimum*	3	30	2	1						0.04	339	65	
Other Significant Perennial Taxa													
Eucalyptus leptophylla	2	20			1	1				1.50	32	10	2
Annual Taxa Occurring at >30% of Sites													
**Avena barbata*	8	80	1	3	2		1		1	1.29	661	71	
**Bromus diandrus*	5	50		1	2	2				1.22	310	54	
**Moraea setifolia*	5	50		3	2					0.46	335	60	
**Sonchus oleraceus*	5	50		3	2					0.46	588	77	
Goodenia willisiana	5	50		3	2					0.46	90	25	
**Brassica tournefortii*	5	50	1	4						0.08	139	33	
**Medicago minima* var. *minima*	4	40		1	2	1				1.03	243	54	
**Bromus rubens*	4	40		3		1				0.58	365	57	
**Arctotheca calendula*	4	40		2	2					0.55	208	45	
**Erodium cicutarium*	4	40	1	3						0.08	124	42	
**Hypochaeris glabra*	3	30		1	2					0.70	349	54	
**Linum strictum* ssp. *strictum*	3	30		1	2					0.70	133	28	
**Rapistrum rugosum* ssp. *rugosum*	3	30		1	2					0.70	68	26	
**Oxalis pes-caprae*	3	30		2	1					0.40	169	47	
**Sisymbrium erysimoides*	3	30		2	1					0.40	177	38	
**Echium plantagineum*	3	30		3						0.10	352	48	
**Galium murale*	3	30		3						0.10	268	49	
**Silene nocturna*	3	30		3						0.10	159	41	
Blennospora drummondii	3	30		3						0.10	41	13	
Daucus glochidiatus	3	30		3						0.10	328	56	
Pterostylis mutica	3	30		3						0.10	26	9	
Senecio glossanthus	3	30		3						0.10	128	34	

Figure 105.
***Eucalyptus dumosa* Open Mallee at site MOO0701 on a calcareous plain south of Moonta.**

Fauna at sites in Floristic Group 35 – no sites sampled for fauna

Floristic Group 36 *Casuarina pauper* Low Woodland over sparse chenopods and grasses

This Low Woodland group is characterised by *Casuarina pauper*. The understorey is very sparse to sparse and is comprised mainly of grasses and chenopods. Commonly occurring perennial species include *Enchylaena tomentosa* var. *tomentosa*, *Alectryon oleifolius* ssp. *canescens*, *Rhagodia parabolica*, *R. spinescens*, *Maireana turbinata*, *Austrodanthonia caespitosa* and *Austrostipa nitida*. In addition, there are several species that are distinctive to this group despite only being recorded once. These are *Rhagodia ulicina*, *Sclerolaena patenticuspis* and *Zygophyllum confluens*. The most commonly occurring annuals are the exotics *Carrichtera annua*, *Sonchus oleraceus* and *Lamarckia aurea*, and the native *Crassula colligata* ssp. Sites within the group have been recorded on sand, loam and clay soils on plains or hill slopes from scattered sub-coastal locations north of Port Broughton and inland north of Peterborough.

This group differs to Floristic Group 28 (*Casuarina pauper*, *Myoporum platycarpum* Low Open Woodland) in that here *C. pauper* is the sole dominant, the overstorey is denser and the understorey is more open and not dominated by *Maireana sedifolia*.

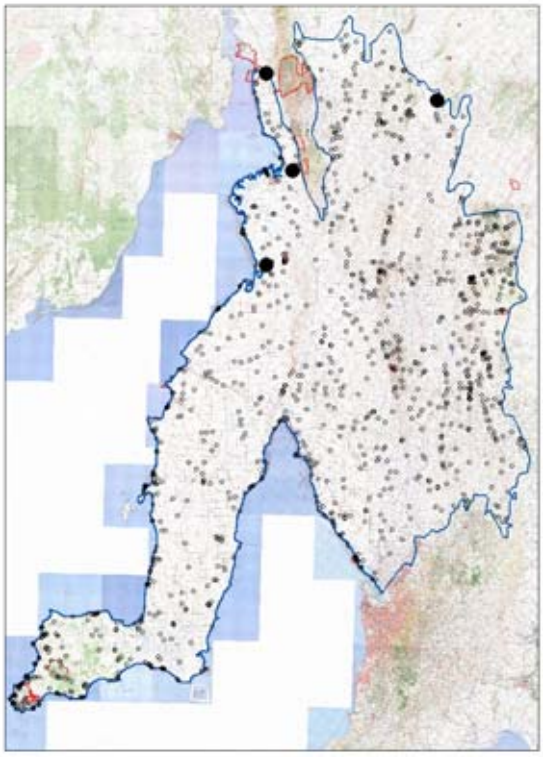
Three of the four sites within this group occur in soil land units that are unaffected by saline seepage. However, the fourth site occurs in a land unit with very high to extreme salinity. It is located on a low sand ridge amid samphire swamps just north of Port Broughton. This may suggest that, at the margin of its distribution (i.e. at low points in the landscape), this floristic group is at risk to rising salinity levels.

LANDFORM ELEMENT	Frequency	%
Plain	2	50
Hill slope	1	25
Hill crest	1	25

LANDFORM PATTERN	Frequency	%
Plain	1	25
Low hills	1	25
Beach ridge plain	1	25
Not recorded	1	25

SALT	Frequency	%
Class A	3	75
Class G	1	25

SOIL	Frequency	%
Sand	1	25
Loam	2	50
Clay	1	25



Number of sites in group 4

PLANT TAXA SUMMARY

Number of taxa in group	90
Number of native taxa in group	62
Perennial	43
Annual	19
Number of introduced taxa in group	28
Perennial	2
Annual	26

Average Number of Taxa at a site:

Native perennial	16	Min: 12	Max: 21
Introduced perennial	1	Min: 0	Max: 2
Native annual	6	Min: 3	Max: 9
Introduced annual	10	Min: 7	Max: 14
All taxa	33	Min: 26	Max: 37

Number of Taxa of Conservation Significance:

Aust	0	SA	2			
Regions:		EP	0	FR	3	MU n/a
		NL	0	SL	n/a	YP 1

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Casuarina pauper	4	100				1	3			2.75	9	5	90
Enchylaena tomentosa var. *tomentosa*	4	100		4						0.10	425	58	1
Austrodanthonia caespitosa	3	75		3						0.10	394	53	
Austrostipa nitida	3	75		3						0.10	206	42	1
Alectryon oleifolius ssp. *canescens*	3	75	2	1						0.04	53	17	3
Rhagodia parabolica	2	50		2						0.10	205	36	
Rhagodia spinescens	2	50		2						0.10	43	20	2
Sclerolaena diacantha	2	50		2						0.10	108	22	1
**Lycium ferocissimum*	2	50	1	1						0.06	339	65	
Austrostipa elegantissima	2	50	1	1						0.06	290	53	
Maireana turbinata	2	50	1	1						0.06	23	14	2
Pimelea microcephala ssp. *microcephala*	2	50	1	1						0.06	30	15	1
Acacia oswaldii	2	50	2							0.01	41	17	
Scaevola spinescens	2	50	2							0.01	36	14	
Other Significant Perennial Taxa													
Atriplex paludosa ssp. *cordata*	1	25					1			3.00	47	21	4
Rhagodia ulicina	1	25					1			3.00	10	5	19
Zygophyllum confluens	1	25					1			3.00	11	6	17
Senna cardiosperma ssp. *gawlerensis*	1	25				1				2.00	1	1	
Sclerolaena patenticuspis	1	25		1						0.10	8	8	12
Annual Taxa Occurring at >30% of Sites													
**Carrichtera annua*	4	100		1	3					0.78	204	40	
**Sonchus oleraceus*	3	75		3						0.10	588	77	
**Lamarckia aurea*	2	50			2					1.00	32	17	
Crassula colligata ssp.	2	50			2					1.00	234	45	
**Bromus rubens*	2	50		1	1					0.55	365	57	
**Hordeum glaucum*	2	50		1	1					0.55	180	51	
**Rostraria cristata*	2	50		1	1					0.55	229	49	
**Sisymbrium erysimoides*	2	50		1	1					0.55	177	38	
**Spergularia diandra*	2	50		1	1					0.55	63	25	
Calandrinia eremaea	2	50		1	1					0.55	54	24	
Crassula colorata var.	2	50		1	1					0.55	65	26	
**Avena barbata*	2	50		2						0.10	661	71	
**Mesembryanthemum nodiflorum*	2	50		2						0.10	78	29	
**Schismus barbatus*	2	50		2						0.10	78	24	
Tetragonia eremaea	2	50		2						0.10	21	12	
Lepidium papillosum	2	50	1	1						0.06	15	10	

Figure 106.
Casuarina pauper **Low Woodland over sparse chenopods and grasses at site BRO0201 on a coastal plain north of Port Broughton.**

Fauna at sites in Floristic Group 36 – no sites sampled for fauna

Floristic Group 37 *Dodonaea viscosa* ssp. *angustissima* Low Open Shrubland

This Low Open Shrubland group is characterised by *Dodonaea viscosa* ssp. *angustissima*. Both *Acacia calamifolia* and *Olearia decurrens* may occasionally occur as co-dominants. The latter is also strongly characteristic of the group. Other prominent shrubs include *Chrysocephalum semipapposum*, *Rhagodia parabolica*, *Eremophila alternifolia*, *E. serrulata*, *Dodonaea lobulata* and *Enchylaena tomentosa* var. *tomentosa*. The most frequently occurring annuals are the exotics *Hypochaeris glabra*, *Echium plantagineum*, *Avena barbata* and *Sonchus oleraceus*, and the natives *Oxalis perennans* and *Daucus glochidiatus*. The group is associated with loam soils on hill slopes, hill crests and ridges in the hills east of Hallett and in Hopkins Creek Conservation Park.

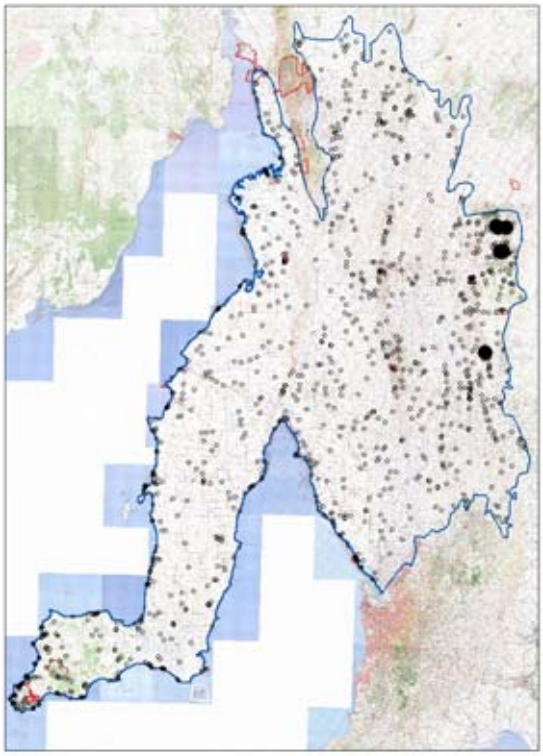
All sites within this group occur in soil land units that are unaffected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Hill slope	3	50.0
Hill crest	2	33.3
Ridge	1	16.7

LANDFORM PATTERN	Frequency	%
Hills	6	100.0

SALT	Frequency	%
Class A	6	100

SOIL	Frequency	%
Loam	6	100



Number of sites in group 6

PLANT TAXA SUMMARY

Number of taxa in group	102
Number of native taxa in group	77
Perennial	49
Annual	28
Number of introduced taxa in group	25
Perennial	0
Annual	25

Average Number of Taxa at a site:

Native perennial	15	Min:	6	Max:	28
Introduced perennial	0	Min:	0	Max:	0
Native annual	9	Min:	1	Max:	18
Introduced annual	8	Min:	4	Max:	18
All taxa	32	Min:	16	Max:	64

Number of Taxa of Conservation Significance:

Aust	0	SA	1				
Regions:		EP	n/a	FR	n/a	MU	7
		NL	n/a	SL	n/a	YP	n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Dodonaea viscosa ssp. *angustissima*	6	100.0			1	4	1			2.00	37	17	81
Acacia calamifolia	6	100.0		5	1					0.25	49	18	7
Chrysocephalum semipapposum	5	83.3		3	1		1			0.86	86	19	23
Rhagodia parabolica	5	83.3		3	1	1				0.66	205	36	8
Enchylaena tomentosa var. *tomentosa*	5	83.3		5						0.10	425	58	1
Olearia decurrens	4	66.7		1	2	1				1.03	20	11	44
Dodonaea lobulata	3	50.0		2		1				0.73	15	7	5
Glycine rubiginosa	3	50.0	1	2						0.07	82	29	2
Eremophila alternifolia	2	33.3		1	1					0.55	10	7	16
Alectryon oleifolius ssp. *canescens*	2	33.3		2						0.10	53	17	2
Austrostipa elegantissima	2	33.3		2						0.10	290	53	
Austrostipa nitida	2	33.3		2						0.10	206	42	
Convolvulus microsepalus/remotus	2	33.3		2						0.10	4	3	23
Cryptandra sp. Long hypanthium (C.R. Alcock 10626)	2	33.3		2						0.10	53	14	1
Einadia nutans ssp.	2	33.3		2						0.10	215	44	1
Eremophila serrulata	2	33.3		2						0.10	4	3	23
Goodenia fascicularis	2	33.3		2						0.10	10	6	12
Ptilotus spathulatus f. *spathulatus*	2	33.3		2						0.10	186	35	
Scleranthus pungens	2	33.3		2						0.10	11	9	13
Acacia pycnantha	2	33.3	1	1						0.06	155	29	
Convolvulus remotus	2	33.3	1	1						0.06	88	34	1
Myoporum montanum	2	33.3	2							0.01	31	19	
Annual Taxa Occurring at >30% of Sites													
**Hypochaeris glabra*	6	100.0		5	1					0.25	349	54	
Oxalis perennans	5	83.3		5						0.10	393	53	
**Echium plantagineum*	4	66.7		3	1					0.33	352	48	
Daucus glochidiatus	4	66.7		3	1					0.33	328	56	
**Avena barbata*	4	66.7	1	2	1					0.30	661	71	
**Sonchus oleraceus*	4	66.7	1	3						0.08	588	77	
**Silene nocturna*	3	50.0		1	2					0.70	159	41	
Triptilodiscus pygmaeus	3	50.0		2	1					0.40	73	18	
Lepidium papillosum	3	50.0		3						0.10	15	10	
Maireana enchylaenoides	3	50.0		3						0.10	254	33	
Wahlenbergia luteola	3	50.0		3						0.10	174	26	
**Sisymbrium erysimoides*	3	50.0	1	2						0.07	177	38	
Pterostylis biseta	3	50.0	1	2						0.07	17	9	
**Trifolium arvense* var. *arvense*	2	33.3		1	1					0.55	188	29	
Hyalosperma semisterile	2	33.3		1	1					0.55	37	15	
Wahlenbergia gracilenta	2	33.3		1	1					0.55	68	23	
**Erodium cicutarium*	2	33.3		2						0.10	124	42	
**Medicago minima* var. *minima*	2	33.3		2						0.10	243	54	
**Vulpia myuros* f. *myuros*	2	33.3		2						0.10	292	60	
Actinobole uliginosum	2	33.3		2						0.10	36	18	
Goodenia pinnatifida	2	33.3		2						0.10	163	29	
Lepidium oxytrichum/papillosum	2	33.3		2						0.10	5	4	
Rhodanthe pygmaea	2	33.3		2						0.10	68	28	
Senecio quadridentatus	2	33.3		2						0.10	63	24	
Arthropodium minus	2	33.3	1	1						0.06	21	14	
Calandrinia eremaea	2	33.3	1	1						0.06	54	24	

Figure 107.
***Dodonaea viscosa* ssp. *angustissima* Low Open Shrubland at site CAR1001 in hills north east of Hallett.**

Fauna at sites in Floristic Group 37

Trapping effort at 2 of 6 sites. Mammals recorded at 2 sites, birds at 2 and reptiles at 2.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Capra hircus	Goat			1	1
Chalinolobus gouldii	Gould's Wattled Bat			1	1
Macropus fuliginosus	Western Grey Kangaroo			1	3
Macropus robustus	Euro			1	1
Macropus sp.				1	1
Mormopterus sp.				1	1
Oryctolagus cuniculus	Rabbit			1	1
Tachyglossus aculeatus	Short-beaked Echidna			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Cacatua roseicapilla	Galah			2	7
Pomatostomus superciliosus	White-browed Babbler			2	13
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			1	2
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			1	3
Acanthiza nana	Yellow Thornbill			1	7
Acanthiza reguloides	Buff-rumped Thornbill			1	8
Aphelocephala leucopsis	Southern Whiteface			1	15
Chrysococcyx basalis	Horsfield's Bronze-cuckoo			1	1
Climacteris picumnus	Brown Treecreeper			1	1
Colluricincla harmonica	Grey Shrike-thrush			1	2
Dicaeum hirundinaceum	Mistletoebird			1	2
Gliciphila melanops	Tawny-crowned Honeyeater			1	1
Lichenostomus chrysops	Yellow-faced Honeyeater			1	2
Lichenostomus virescens	Singing Honeyeater			1	5
Malurus lamberti	Variegated Fairy-wren			1	15
Malurus leucopterus	White-winged Fairy-wren			1	5
Pachycephala rufiventris	Rufous Whistler			1	4
Petroica goodenovii	Red-capped Robin			1	3
Phylidonyris albifrons	White-fronted Honeyeater			1	3

Bird species	Common name	SA	Aus	Site freq	Number obs
Pomatostomus sp.				1	1
Psephotus varius	Mulga Parrot			1	2
Pyrrholaemus brunneus	Redthroat	R		1	4
Smicrornis brevirostris	Weebill			1	1
Strepera versicolor	Grey Currawong			1	1
Zosterops lateralis	Silvereye			1	5

Reptile species	Common name	SA	Aus	Site freq	Number obs
Ctenophorus decresii	Tawny Dragon			1	1
Ctenotus robustus	Eastern Striped Skink			1	1
Egernia sp.				1	1
Egernia striolata	Eastern Tree Skink			1	1
Gehyra 2n=44	Southern Rock Dtella			1	4
Heteronotia binoei	Bynoe's Gecko			1	1
Lerista bougainvillii	Bougainville's Skink			1	1
Menetia greyii	Dwarf Skink			1	1
Morethia adelaidensis	Adelaide Snake-eye			1	1
Morethia boulengeri	Common Snake-eye			1	5

Floristic Group 38 *Acacia calamifolia* Open Shrubland

This Open Shrubland group is characterised by *Acacia calamifolia*. On rare occasions *Acacia spilleriana* may occur as a co-dominant (at sites on Scrubby Range north of Robertstown). In these instances the shrub overstorey can be mid-dense to dense. Commonly occurring perennial species include *Bursaria spinosa* ssp. *spinosa*, *Dianella revoluta* var. *revoluta*, *Enchylaena tomentosa* var. *tomentosa*, *Beyeria lechenaultii* and *Austrodanthonia caespitosa*. The most frequently occurring annuals are the exotics *Medicago minima* var. *minima*, *Sonchus oleraceus*, *Avena barbata*, *Erodium cicutarium* and *Brachypodium distachyon*, and the native *Oxalis perennans*. The group is associated with loam soils on hill slopes on Scrubby Range, the hills east of Hallett, near Orroroo and on Gleeson Hill near Snowtown.

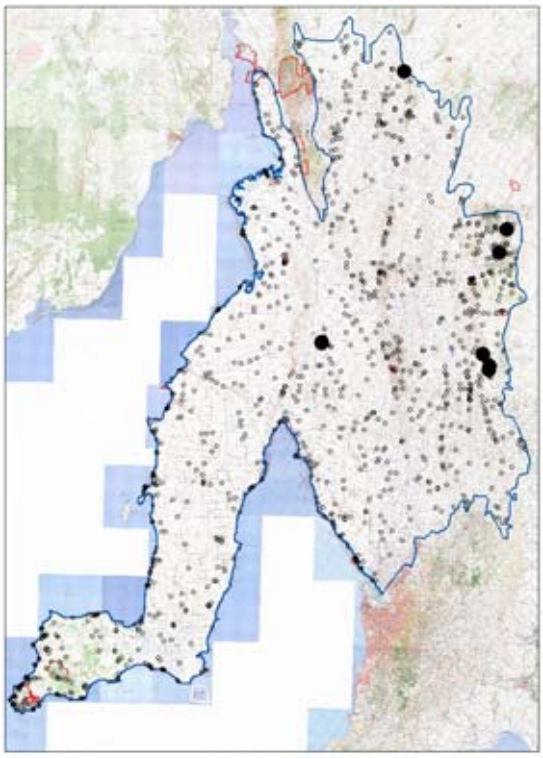
All sites within this group occur in soil land units that are unaffected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Hill slope	8	100.0

LANDFORM PATTERN	Frequency	%
Hills	7	87.5
Low hills	1	12.5

SALT	Frequency	%
Class A	8	100.0

SOIL	Frequency	%
Sand	1	12.5
Loam	6	75.0
Clay	1	12.5



Number of sites in group 8

PLANT TAXA SUMMARY

Number of taxa in group	150
Number of native taxa in group	107
Perennial	79
Annual	28
Number of introduced taxa in group	43
Perennial	2
Annual	41

Average Number of Taxa at a site:

Native perennial	17	Min: 13	Max: 26
Introduced perennial	0	Min: 0	Max: 2
Native annual	5	Min: 0	Max: 10
Introduced annual	12	Min: 1	Max: 25
All taxa	35	Min: 21	Max: 58

Number of Taxa of Conservation Significance:

Aust	0	SA	3			
Regions:		EP	n/a	FR	0	MU 10
		NL	0	SL	n/a	YP n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Acacia calamifolia	8	100.0				6	2			2.25	49	18	64
Enchylaena tomentosa var. *tomentosa*	5	62.5	3	2						0.05	425	58	
Bursaria spinosa ssp. *spinosa*	4	50.0		3	1					0.33	255	39	1
Dianella revoluta var. *revoluta*	4	50.0	2	1	1					0.28	306	47	1
Austrodanthonia caespitosa	4	50.0		4						0.10	394	53	
Beyeria lechenaultii	3	37.5		1	1	1				1.03	148	33	2
Helichrysum leucopsideum	3	37.5		1	2					0.70	229	43	1
Chrysocephalum semipapposum	3	37.5		2	1					0.40	86	19	2
Dodonaea viscosa ssp. *angustissima*	3	37.5		2	1					0.40	37	17	2
Melaleuca lanceolata	3	37.5	1	1	1					0.37	232	41	
Pomaderris paniculosa ssp.	3	37.5	2		1					0.34	97	26	1
Lomandra effusa	3	37.5		3						0.10	230	41	
Vittadinia gracilis	3	37.5		3						0.10	173	30	1
Other Significant Perennial Taxa													
Acacia spilleriana	2	25.0					2			3.00	6	5	23
Annual Taxa Occurring at >30% of Sites													
**Medicago minima* var. *minima*	7	87.5	1	5	1					0.22	243	54	
**Sonchus oleraceus*	7	87.5	1	6						0.09	588	77	
**Avena barbata*	5	62.5			2	1		1	1	2.60	661	71	
**Erodium cicutarium*	5	62.5		4	1					0.28	124	42	
Oxalis perennans	5	62.5		5						0.10	393	53	
**Brachypodium distachyon*	4	50.0		1	1				2	2.78	156	36	
**Hypochaeris glabra*	4	50.0		2	2					0.55	349	54	
**Echium plantagineum*	4	50.0		3	1					0.33	352	48	
Daucus glochidiatus	4	50.0		4						0.10	328	56	
**Bromus diandrus*	3	37.5		2	1					0.40	310	54	
**Bromus rubens*	3	37.5		2	1					0.40	365	57	
**Bupleurum semicompositum*	3	37.5		2	1					0.40	90	32	
**Galium murale*	3	37.5		2	1					0.40	268	49	
**Vulpia muralis*	3	37.5		2	1					0.40	62	28	
**Centaurea melitensis*	3	37.5		3						0.10	38	16	
**Carthamus lanatus*	3	37.5	1	2						0.07	151	35	
**Sisymbrium erysimoides*	3	37.5	1	2						0.07	177	38	

Fauna at sites in Floristic Group 38

Trapping effort at 3 of 8 sites. Mammals recorded at 3 sites, birds at 3 and reptiles at 3.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Macropus fuliginosus	Western Grey Kangaroo			2	3
Macropus sp.				1	1
Mus musculus	House Mouse			1	1
Oryctolagus cuniculus	Rabbit			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Cacatua roseicapilla	Galah			3	59
Zosterops lateralis	Silvereye			3	6
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			2	18
Acanthiza nana	Yellow Thornbill			2	5
Acanthiza reguloides	Buff-rumped Thornbill			2	3
Cracticus torquatus	Grey Butcherbird			2	4
Falco cenchroides	Nankeen Kestrel			2	3
Gymnorhina tibicen	Australian Magpie			2	4
Malurus lamberti	Variegated Fairy-wren			2	9
Pardalotus striatus	Striated Pardalote			2	3
Phylidonyris albifrons	White-fronted Honeyeater			2	5
Pomatostomus superciliosus	White-browed Babbler			2	6
Strepera versicolor	Grey Currawong			2	2
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			1	3
Anthus novaeseelandiae	Richard's Pipit			1	2
Aquila audax	Wedge-tailed Eagle			1	1
Barnardius zonarius	Australian Ringneck, (Ring-necked Parrot)			1	7

Bird species	Common name	SA	Aus	Site freq	Number obs
Colluricincla harmonica	Grey Shrike-thrush			1	9
Corvus mellori	Little Raven			1	7
Corvus sp.				1	2
Lichenostomus leucotis	White-eared Honeyeater			1	1
Lichenostomus virescens	Singing Honeyeater			1	1
Malurus cyaneus	Superb Fairy-wren			1	1
Melopsittacus undulatus	Budgerigar			1	2
Neophema elegans	Elegant Parrot			1	1
Pachycephala rufiventris	Rufous Whistler			1	2
Phaps elegans	Brush Bronzewing			1	1
Platycercus elegans	Crimson Rosella			1	2
Pyrrholaemus brunneus	Redthroat	R		1	6
Smicrornis brevirostris	Weebill			1	6
Sturnus vulgaris	Common Starling			1	1

Figure 108.
***Acacia calamifolia* Low Open Shrubland at site HC00801 in Hopkins Creek Conservation Park, Scrubby Range.**

Reptile species	Common name	SA	Aus	Site freq	Number obs
Tiliqua rugosa	Sleepy Lizard			3	3
Ctenotus orientalis	Spotted Ctenotus			2	3
Diplodactylus vittatus	Eastern Stone Gecko			2	4
Menetia greyii	Dwarf Skink			2	3
Ctenophorus decresii	Tawny Dragon			1	1
Ctenotus robustus	Eastern Striped Skink			1	1
Delma molleri	Adelaide Snake-lizard			1	2
Gehyra 2n=44	Southern Rock Dtella			1	2
Gehyra variegata	Tree Dtella			1	1
Gehyra variegata complex				1	1
Hemiergis decresiensis	Three-toed Earless Skink			1	2
Heteronotia binoei	Bynoe's Gecko			1	1
Lerista bougainvillii	Bougainville's Skink			1	2
Lerista muelleri	Dwarf Three-toed Slider			1	1
Suta nigriceps	Mitchell's Short-tailed Snake			1	1

Floristic Group 39 *Dodonaea lobulata* Shrubland

This group is characterised by *Dodonaea lobulata* in a Shrubland formation and is associated with loam soils on hill slopes. The two sites representing this group are located at the north and north east margins of the study area - near Willowie and on the Moorowie Plain north east of Hallett. *Pimelea microcephala* ssp. *microcephala* occurs as a co-dominant at the Willowie site. Other associated species include *Senna artemisioides* ssp. *artemisioides*, *Austrodanthonia caespitosa*, *Sida corrugata* ssp., *Enchylaena tomentosa* var. *tomentosa*, *Austrostipa nitida* and *Ptilotus spathulatus* f. *spathulatus*. The most prominent annuals are the exotics *Medicago minima* var. *minima*, *Avena barbata*, *Vulpia muralis*, *Bromus rubens* and *Hedypnois rhagadioloides*.

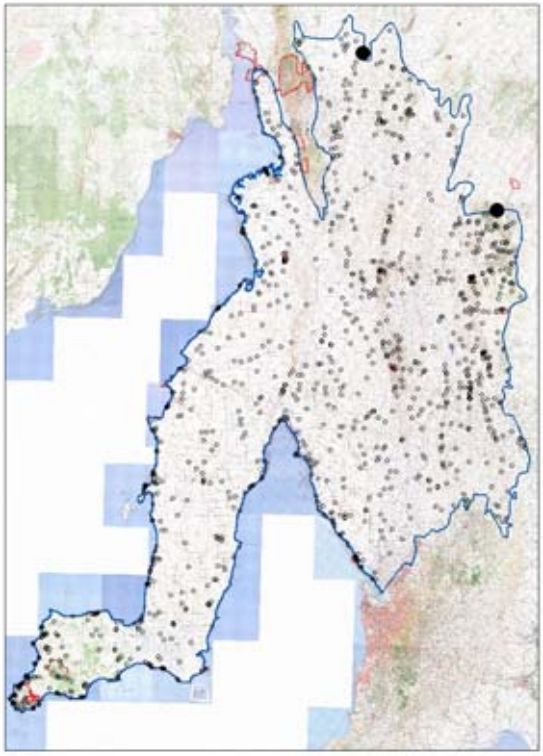
Sites within this group tend to occur in soil land units that are unaffected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Hill slope	2	100

LANDFORM PATTERN	Frequency	%
Low hills	2	100

SALT	Frequency	%
Class A	2	100

SOIL	Frequency	%
Loam	2	100



Number of sites in group 2

PLANT TAXA SUMMARY

Number of taxa in group	55
Number of native taxa in group	34
Perennial	22
Annual	12
Number of introduced taxa in group	21
Perennial	2
Annual	19

Average Number of Taxa at a site:

Native perennial	14	Min: 13	Max: 14
Introduced perennial	1	Min: 0	Max: 2
Native annual	8	Min: 4	Max: 11
Introduced annual	12	Min: 8	Max: 16
All taxa	34	Min: 25	Max: 43

Number of Taxa of Conservation Significance:

Aust	0	SA	0			
Regions:		EP	n/a	FR	1	MU 0
		NL	n/a	SL	n/a	YP n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa													
Dodonaea lobulata	2	100					2			3.00	15	7	82
Austrodanthonia caespitosa	2	100		2						0.10	394	53	1
Sida corrugata var.	2	100		2						0.10	117	23	6
Enchylaena tomentosa var. *tomentosa*	2	100	1	1						0.06	425	58	1
Ptilotus spathulatus f. *spathulatus*	2	100	1	1						0.06	186	35	2
Pimelea microcephala ssp. *microcephala*	1	50				1				2.00	30	15	39
Austrostipa nitida	1	50			1					1.00	206	42	3
Senna artemisioides ssp. *artemisioides*	1	50			1					1.00	5	5	49
Acacia calamifolia	1	50		1						0.10	49	18	1
Austrostipa acrociliata	1	50		1						0.10	98	29	1
Austrostipa elegantissima	1	50		1						0.10	290	53	1
Austrostipa eremophila	1	50		1						0.10	177	36	
Austrostipa nodosa	1	50		1						0.10	106	26	1
Boerhavia dominii	1	50		1						0.10	16	13	21
Convolvulus remotus	1	50		1						0.10	88	34	3
Glycine rubiginosa	1	50		1						0.10	82	29	2
Vittadinia blackii	1	50		1						0.10	62	19	2
**Lycium ferocissimum*	1	50	1							0.01	339	65	
**Marrubium vulgare*	1	50	1							0.01	98	34	
Acacia victoriae ssp. *victoriae*	1	50	1							0.01	31	16	
Eremophila alternifolia	1	50	1							0.01	10	7	1
Eremophila longifolia	1	50	1							0.01	34	16	
Lomandra multiflora ssp. *dura*	1	50	1							0.01	241	34	
Rhagodia parabolica	1	50	1							0.01	205	36	
Annual Taxa													
**Medicago minima* var. *minima*	2	100			1	1				1.50	243	54	
**Avena barbata*	2	100		1		1				1.05	661	71	
**Carrichtera annua*	2	100		2						0.10	204	40	
**Echium plantagineum*	2	100		2						0.10	352	48	
**Sonchus oleraceus*	2	100		2						0.10	588	77	
Chamaesyce drummondii	2	100		2						0.10	120	26	
Wahlenbergia luteola	2	100		2						0.10	174	26	
Goodenia pusilliflora	2	100	1	1						0.06	74	27	
**Vulpia muralis*	1	50					1			3.00	62	28	
**Bromus rubens*	1	50				1				2.00	365	57	
**Hedypnois rhagadioloides*	1	50				1				2.00	104	36	
**Carthamus lanatus*	1	50			1					1.00	151	35	
**Vulpia myuros* f. *myuros*	1	50			1					1.00	292	60	
Rhodanthe pygmaea	1	50			1					1.00	68	28	
**Alyssum linifolium*	1	50		1						0.10	10	8	
**Asphodelus fistulosus*	1	50		1						0.10	85	29	
**Erodium cicutarium*	1	50		1						0.10	124	42	
**Hordeum glaucum*	1	50		1						0.10	180	51	
**Medicago truncatula*	1	50		1						0.10	85	39	
**Rostraria cristata*	1	50		1						0.10	229	49	
**Silene nocturna*	1	50		1						0.10	159	41	
**Sisymbrium erysimoides*	1	50		1						0.10	177	38	
**Sisymbrium irio*	1	50		1						0.10	30	16	
Crassula colligata ssp.	1	50		1						0.10	234	45	
Elachanthus pusillus	1	50		1						0.10	9	8	
Heliotropium asperrimum	1	50		1						0.10	4	4	
Isoetopsis graminifolia	1	50		1						0.10	29	19	
Oxalis perennans	1	50		1						0.10	393	53	
Brachyscome lineariloba	1	50	1							0.01	95	41	
Rhodanthe corymbiflora	1	50	1							0.01	27	13	
Wurmbea dioica ssp. *dioica*	1	50	1							0.01	126	38	

Figure 109.
***Dodonaea lobulata* Shrubland at site CAR1901 north east of Hallett.**

Fauna at sites in Floristic Group 39 – no sites sampled for fauna

Floristic Group 40 *Acacia victoriae* ssp. *victoriae* Tall Open Shrubland

This group is dominated by *Acacia victoriae* ssp. *victoriae* and ranges from a Tall Very Open Shrubland to a Tall Shrubland. The open understorey is dominated by *Marrubium vulgare*. Other commonly associated perennial species include *Enchylaena tomentosa* var. *tomentosa*, *Atriplex stipitata*, *Rhagodia parabolica* and *Austrostipa nitida*. The most frequently occurring annuals are the exotics *Sonchus oleraceus*, *Avena barbata* and *Salvia verbenaca* form. The group is associated with loam soils on plains from scattered locations across the north of the study area - Mount Bryan, Orroroo and Wandearah.

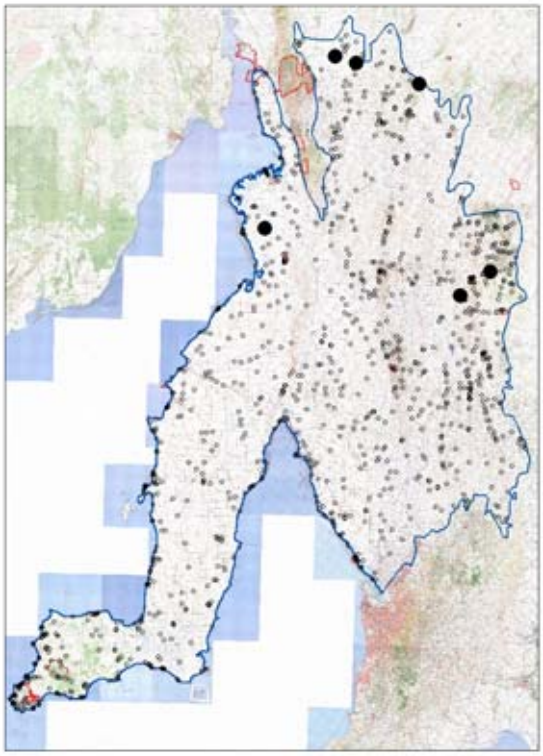
Sites within this group tend to mainly occur in soil land units that are unaffected by saline seepage. However, one site (at Wandearah) occurs in a land unit with moderate salinity. This may suggest that, at the margin of its distribution (i.e. at low points in the landscape), this floristic group is at risk to rising salinity levels.

LANDFORM ELEMENT	Frequency	%
Plain	4	66.7
Flat	1	16.7
Hill slope	1	16.7

LANDFORM PATTERN	Frequency	%
Plain	3	50.0
Hills	1	16.7
Not recorded	2	33.3

SALT	Frequency	%
Class A	5	83.3
Class C	1	16.7

SOIL	Frequency	%
Loam	4	66.7
Clay	1	16.7
Not recorded	1	16.7



Number of sites in group 6

PLANT TAXA SUMMARY

Number of taxa in group	83
Number of native taxa in group	47
Perennial	39
Annual	8
Number of introduced taxa in group	36
Perennial	5
Annual	31

Average Number of Taxa at a site:

Native perennial	9	Min:	2	Max:	15
Introduced perennial	2	Min:	1	Max:	3
Native annual	2	Min:	0	Max:	3
Introduced annual	9	Min:	4	Max:	14
All taxa	21	Min:	10	Max:	29

Number of Taxa of Conservation Significance:

Aust	0	SA	1			
Regions:		EP	n/a	FR	1	MU 1
		NL	0	SL	n/a	YP 1

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
**Marrubium vulgare*	6	100.0		3	3					0.55	98	34	35
Acacia victoriae ssp. *victoriae*	5	83.3		2	1	1		1		1.44	31	16	67
Enchylaena tomentosa var. *tomentosa*	3	50.0		2	1					0.40	425	58	1
Atriplex stipitata	3	50.0	1	1	1					0.37	48	17	6
Rhagodia parabolica	3	50.0		3						0.10	205	36	
Austrostipa nitida	3	50.0	1	2						0.07	206	42	
**Lycium ferocissimum*	2	33.3		2						0.10	339	65	
Vittadinia gracilis	2	33.3	1	1						0.06	173	30	
Other Significant Perennial Taxa													
Acacia rigens	1	16.7		1						0.10	4	4	10
Annual Taxa Occurring at >30% of Sites													
**Sonchus oleraceus*	4	66.7	1	3						0.08	588	77	
**Avena barbata*	3	50.0		1		1			1	2.37	661	71	
**Salvia verbenaca* form	3	50.0		3						0.10	101	23	
**Hordeum glaucum*	2	33.3				1		1		3.00	180	51	
**Bromus rubens*	2	33.3			1	1				1.50	365	57	
**Medicago minima* var. *minima*	2	33.3		1		1				1.05	243	54	
**Onopordum acaulon*	2	33.3		1		1				1.05	26	13	
**Echium plantagineum*	2	33.3	1			1				1.01	352	48	
**Moraea setifolia*	2	33.3			2					1.00	335	60	
**Erodium botrys*	2	33.3		1	1					0.55	127	27	
**Erodium cicutarium*	2	33.3		1	1					0.55	124	42	
**Medicago truncatula*	2	33.3		1	1					0.55	85	39	
**Carrichtera annua*	2	33.3		2						0.10	204	40	
**Hypochaeris glabra*	2	33.3		2						0.10	349	54	
**Asphodelus fistulosus*	2	33.3	1	1						0.06	85	29	
**Polygonum aviculare*	2	33.3	1	1						0.06	13	10	
Chamaesyce drummondii	2	33.3	1	1						0.06	120	26	

Figure 110.
***Acacia victoriae* ssp. *victoriae* Tall Open Shrubland at site WIL01401 beside Old Billy Creek, south east of Willowie.**

Fauna at sites in Floristic Group 40 – no sites sampled for fauna

Floristic Group 41 *Eucalyptus largiflorens* Very Low Open Forest

The single site representing this Very Low Open Forest group is dominated by *Eucalyptus largiflorens*. It is located on loam soil on the floodplain of the Gawler River at Angle Vale. The overstorey consisted of a dense stand of saplings with an open grassy understorey. The only shrub species recorded were *Acacia pycnantha* and *Olea europaea* ssp. *europaea*, while the perennial grasses were *Austrodanthonia caespitosa*, *A. fulva*, *Austrostipa scabra* ssp. and *Cynodon dactylon*, plus the sedge *Juncus subsecundus*. The most abundant annuals were the exotics *Avena barbata*, *Bromus rigidus* and *Lolium rigidum*.

This group is far more common in other areas of the State, particularly on the floodplain of the River Murray.

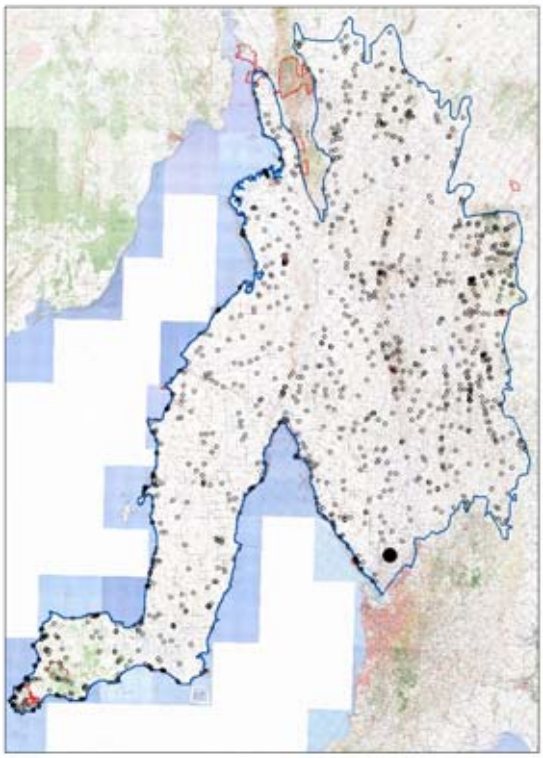
With only one site to represent this group there is insufficient data to determine with which soil land units it is most associated. However, as this floristic group is mainly restricted to floodplains, and these landform elements appear to be associated with salinity in the Mid North, it may be inferred that it could be at risk to increased salinity in this region.

LANDFORM ELEMENT	Frequency	%
Closed depression	1	100

LANDFORM PATTERN	Frequency	%
Floodplain	1	100

SALT	Frequency	%
Class A	1	100

SOIL	Frequency	%
Loam	1	100



Number of sites in group 1

PLANT TAXA SUMMARY

Number of taxa in group	15
Number of native taxa in group	6
Perennial	6
Annual	0
Number of introduced taxa in group	9
Perennial	2
Annual	7

Average Number of Taxa at a site:

Native perennial	6
Introduced perennial	2
Native annual	0
Introduced annual	7
All taxa	15

Number of Taxa of Conservation Significance:

Aust	0	SA	0				
Regions:		EP	n/a	FR	n/a	MU	n/a
		NL	n/a	SL	1	YP	n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa													
Eucalyptus largiflorens	1	100						1		4.00	3	3	
**Cynodon dactylon*	1	100		1						0.10	15	11	
Acacia pycnantha	1	100		1						0.10	155	29	
Austrodanthonia caespitosa	1	100		1						0.10	394	53	
Austrodanthonia fulva	1	100		1						0.10	4	4	
Austrostipa scabra ssp.	1	100		1						0.10	233	41	
Juncus subsecundus	1	100		1						0.10	15	9	
**Olea europaea* ssp. *europaea*	1	100	1							0.01	38	18	
Annual Taxa													
**Avena barbata*	1	100		1						0.10	661	71	
**Bromus rigidus*	1	100		1						0.10	32	20	
**Lolium rigidum*	1	100		1						0.10	218	48	
**Echium plantagineum*	1	100	1							0.01	352	48	
**Sonchus oleraceus*	1	100	1							0.01	588	77	
**Trifolium arvense* var. *arvense*	1	100	1							0.01	188	29	
**Vulpia myuros* f. *myuros*	1	100	1							0.01	292	60	

Figure 111.
***Eucalyptus largiflorens* Very Low Open Forest at site GAW01101 on the floodplain of the Gawler River, Angle Vale.**

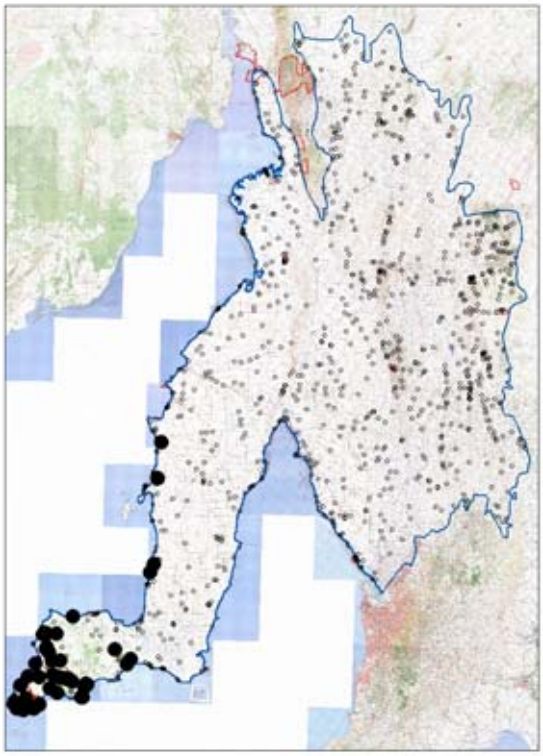
Fauna at sites in Floristic Group 41 – no sites sampled for fauna

Floristic Group 42 *Eucalyptus diversifolia* ssp. *diversifolia* Open Low Mallee

This Open Low Mallee group is associated with sand and sandy loam soils of limestone plains and coastal dunes of southern Yorke Peninsula. It is dominated mainly by *Eucalyptus diversifolia* ssp. *diversifolia*, though *E. oleosa* ssp., *E. phenax* ssp., *Callitris canescens*, *Melaleuca lanceolata*, *Lasiopetalum discolor* and *Calytrix tetragona* may all occur as co-dominants (the latter two particularly where the floristic group occurs as a low shrubland on coastal cliff tops). A number of the other shrubs distinctive to this group are *Beyeria lechenaultii*, *Acrotriche patula*, *A. cordata*, *Pultenaea tenuifolia*, *Acacia spinescens*, *Correa pulchella*, *Spyridium phylicoides*, *Dodonaea humilis*, *Melaleuca gibbosa*, *Veronica hillebrandii*, *Hibbertia riparia* and *Lasiopetalum schulzenii*. Commonly occurring perennial ground layer species include *Gahnia lanigera*, *Lepidosperma congestum*, *Lomandra effusa* and *Helichrysum leucopsideum*. The most frequently occurring annuals are the exotics *Anagallis arvensis*, *Galium murale* and *Linum strictum* ssp. *strictum*, and the natives *Daucus glochidiatus* and *Microseris lanceolata*.

Sites within this group occur in soil land units that range from negligible to extreme saline seepage. As many of the coastal dune systems of South Australia are derived from sandy sea beds exposed during the last ice age they tend to be saline to varying degrees (Specht 1972). Therefore, being associated with coastal dunes infers this group is able to tolerate a variety of salinity levels.

LANDFORM ELEMENT	Frequency	%
Plain	9	17.3
Limestone plain	9	17.3
Swale	9	17.3
Dune slope	6	11.5
Dune/consolidated dune	4	7.7
Hill slope	3	5.8
Sandy plain	3	5.8
Rocky outcrop - on plain	2	3.8
Ridge	2	3.8
Dune crest	1	1.9
Lunette	1	1.9
Hill footslope	1	1.9
Beach ridge	1	1.9
Flat	1	1.9



LANDFORM PATTERN	Frequency	%
Consolidated dunefield	19	36.5
Plain	11	21.2
Dunefield	10	19.2
Rises	6	11.5
Low hills	2	3.8
Sand plain	2	3.8
Beach ridge plain	2	3.8

SALT	Frequency	%
Class A	25	48.1
Class B	9	17.3
Class C	9	17.3
Class D	6	11.5
Class E	1	1.9
Class F	1	1.9
Class G	1	1.9

SOIL	Frequency	%
Sand	26	50.0
Loam	25	48.1
Clay	1	1.9

Number of sites in group 52

PLANT TAXA SUMMARY

Number of taxa in group	330
Number of native taxa in group	268
Perennial	166
Annual	102
Number of introduced taxa in group	62
Perennial	4
Annual	58

Average Number of Taxa at a site:

Native perennial	31	Min: 9	Max: 52
Introduced perennial	0	Min: 0	Max: 2
Native annual	10	Min: 0	Max: 34
Introduced annual	8	Min: 0	Max: 30
All taxa	49	Min: 21	Max: 88

Number of Taxa of Conservation Significance:

Aust	3	SA	11			
Regions:		EP	n/a	FR	n/a	MU n/a
		NL	n/a	SL	n/a	YP 32

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Acrotriche patula	50	96.2	2	18	15	13	2			0.98	202	32	12
Melaleuca lanceolata	46	88.5	1	12	8	22	3			1.35	232	41	8
Beyeria lechenaultii	40	76.9	2	6	7	17	8			1.64	148	33	15
Gahnia lanigera	40	76.9	2	4	14	20				1.36	142	27	5
Calytrix tetragona	37	71.2	3	16	8	8	2			0.85	83	23	14
Lepidosperma congestum	37	71.2	2	13	19	3				0.71	114	18	5
Acrotriche cordata	34	65.4		9	6	15	4			1.44	68	11	30
Lomandra effusa	34	65.4	2	16	10	6				0.69	230	41	4
Acacia spinescens	34	65.4	1	25	8					0.31	89	18	13
Eucalyptus diversifolia ssp. *diversifolia*	32	61.5	2	5		15	9	1		1.92	54	8	27
Pultenaea tenuifolia	29	55.8	6	10	3	10				0.83	57	13	22
Helichrysum leucopsideum	28	53.8	3	16	9					0.38	229	43	1
Correa pulchella	28	53.8	5	18	5					0.24	60	10	17
Spyridium phylicoides	27	51.9	5	13	6	3				0.49	52	12	17
Lasiopetalum discolor	25	48.1	4	4	4	10	3			1.34	70	13	7
Chrysocephalum apiculatum	25	48.1	2	18	5					0.27	156	33	2
Clematis microphylla var. *microphylla*	25	48.1	1	21	3					0.20	250	46	1
Pimelea serpyllifolia ssp. *serpyllifolia*	22	42.3	2	15	5					0.30	174	31	2
Templetonia retusa	21	40.4	4	7	2	7	1			0.94	61	10	5
Dodonaea humilis	21	40.4	1	11	3	5	1			0.81	40	7	30
Acacia nematophylla	21	40.4	2	12	4	2		1		0.63	71	12	2
Cassytha peninsularis var. *peninsularis*	21	40.4	3	13	4	1				0.35	64	17	3
Goodenia blackiana	19	36.5		14	5					0.34	59	11	9
Leucopogon parviflorus	19	36.5	7	11	1					0.11	91	15	
Exocarpos aphyllus	18	34.6	4	8	1	5				0.66	182	40	2
Melaleuca gibbosa	18	34.6	3	8	6	1				0.49	20	2	32
Veronica hillebrandii	18	34.6	1	13	3	1				0.35	23	3	26
Dianella brevicaulis	18	34.6	3	14	1					0.14	157	28	
Senecio pinnatifolius	17	32.7		9	8					0.52	171	27	1
Cassytha glabella f. *dispar*	17	32.7	2	8	7					0.46	42	10	6
Goodenia varia	17	32.7	5	7	4	1				0.40	56	13	2
Olearia ciliata var. *ciliata*	17	32.7	3	10	4					0.30	30	5	5
Eutaxia microphylla var. *microphylla*	17	32.7	7	7	3					0.22	111	30	1
Lomandra collina	17	32.7	1	14	2					0.20	73	25	2
Pimelea flava ssp. *dichotoma*	17	32.7	3	12	2					0.19	25	7	8
Opercularia turpis	16	30.8	4	9	3					0.25	51	16	3
Rhagodia candolleana ssp. *candolleana*	16	30.8	6	8	2					0.18	218	35	
Other Significant Perennial Taxa													
Eucalyptus oleosa ssp.	14	26.9	1	5	1	7				1.11	113	14	1
Callitris canescens	13	25.0	1	3		6	3			1.64	22	7	6
Melaleuca acuminata ssp. *acuminata*	11	21.2	2		1	7	1			1.64	60	18	2
Hibbertia riparia	11	21.2		3	6	2				0.94	15	4	18
Lasiopetalum schulzenii	9	17.3	2	6	1					0.18	11	2	13
Eucalyptus phenax ssp.	7	13.5		3		3	1			1.33	45	14	1
Allocasuarina verticillata	7	13.5	1	2		3	1			1.32	194	35	
Triodia irritans	5	9.6			1	2	1	1		2.40	12	4	1
Annual Taxa Occurring at >30% of Sites													
**Anagallis arvensis*	39	75.0		22	17					0.49	341	49	
Daucus glochidiatus	38	73.1		26	12					0.38	328	56	
**Galium murale*	34	65.4		18	16					0.52	268	49	
Microseris lanceolata	34	65.4	1	19	14					0.47	132	37	
**Linum strictum* ssp. *strictum*	29	55.8	1	14	14					0.53	133	28	
Craspedia variabilis	25	48.1	2	16	7					0.34	66	20	
Podotheca angustifolia	24	46.2		14	10					0.48	82	21	
Leptorhynchos squamatus ssp. *squamatus*	22	42.3	2	15	5					0.30	85	24	
**Rostraria cristata*	19	36.5		12	7					0.43	229	49	
**Catapodium rigidum*	17	32.7		15	2					0.21	96	31	
**Sonchus oleraceus*	17	32.7	2	15						0.09	588	77	
**Lagurus ovatus*	16	30.8		9	4	3				0.68	152	27	
**Minuartia mediterranea*	16	30.8		9	7					0.49	146	27	

Figure 112.
***Eucalyptus diversifolia* ssp. *diversifolia* Open Low Mallee at site HIL02401 near Foul Bay, southern Yorke Peninsula.**

Fauna at sites in Floristic Group 42

Trapping effort at 14 of 52 sites. Mammals recorded at 14 sites, birds at 14 and reptiles at 14.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Mus musculus	House Mouse			12	39
Cercartetus concinnus	Western Pygmy-possum			10	38
Macropus sp.				5	9
Macropus fuliginosus	Western Grey Kangaroo			2	12
Nyctophilus geoffroyi	Lesser Long-eared Bat			1	1
Vulpes vulpes	Fox			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Anthochaera carunculata	Red Wattlebird			13	82
Strepera versicolor	Grey Currawong			13	52
Lichenostomus cratitius	Purple-gaped Honeyeater			12	129
Sericornis frontalis	White-browed Scrubwren			12	133
Zosterops lateralis	Silvereye			12	140
Colluricincla harmonica	Grey Shrike-thrush			11	24
Malurus lamberti	Variegated Fairy-wren			10	84
Pachycephala pectoralis	Golden Whistler			10	28
Phaps elegans	Brush Bronzewing			10	36
Cracticus torquatus	Grey Butcherbird			8	11
Dromaius novaehollandiae	Emu			8	22
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			7	25
Cacatua roseicapilla	Galah			7	26
Corvus coronoides	Australian Raven			7	14
Cacomantis flabelliformis	Fan-tailed Cuckoo			5	6

Bird species	Common name	SA	Aus	Site freq	Number obs
Corvus mellori	Little Raven			5	28
Gymnorhina tibicen	Australian Magpie			5	13
Acanthiza apicalis	Inland Thornbill			4	23
Chrysococcyx basalis	Horsfield's Bronze-cuckoo			4	4
Drymodes brunneopygia	Southern Scrub-robin			4	6
Pardalotus punctatus	Spotted Pardalote			4	6
Phaps chalcoptera	Common Bronzewing			4	12
Psophodes nigrogularis leucogaster	Western Whipbird	V	VU	4	5
Rhipidura albiscapa	Grey Fantail			4	7
Sturnus vulgaris	Common Starling			4	15
Gliciphila melanops	Tawny-crowned Honeyeater			3	34
Oreoica gutturalis	Crested Bellbird			3	3
Phylidonyris novaehollandiae	New Holland Honeyeater			3	14
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			2	10
Accipiter cirrhocephalus	Collared Sparrowhawk			2	2
Alauda arvensis	Eurasian Skylark			2	6
Hirundo neoxena	Welcome Swallow			2	8
Larus novaehollandiae	Silver Gull			2	4
Melithreptus brevirostris	Brown-headed Honeyeater			2	7
Neophema petrophila	Rock Parrot	R		2	5
Pardalotus striatus	Striated Pardalote			2	3
Pomatostomus superciliosus	White-browed Babbler			2	9
Accipiter fasciatus	Brown Goshawk			1	1
Anthochaera chrysoptera	Little Wattlebird			1	1
Anthus novaeseelandiae	Richard's Pipit			1	2
Aquila audax	Wedge-tailed Eagle			1	1
Barnardius zonarius	Australian Ringneck, (Ring-necked Parrot)			1	1
Calamanthus campestris	Rufous Fieldwren			1	10
Coracina novaehollandiae	Black-faced Cuckoo-shrike			1	1
Corvus sp.				1	2
Cuculus pallidus	Pallid Cuckoo			1	1
Lichenostomus virescens	Singing Honeyeater			1	1
Petroica multicolor	Scarlet Robin			1	1
Psephotus varius	Mulga Parrot			1	1
Rhipidura leucophrys	Willie Wagtail			1	1
Smicrornis brevirostris	Weebill			1	1
Trichoglossus haematodus	Rainbow Lorikeet			1	20
Vanellus miles	Masked Lapwing			1	2

Reptile species	Common name	SA	Aus	Site freq	Number obs
Menetia greyii	Dwarf Skink			10	15
Lerista dorsalis	Southern Four-toed Slider			6	9
Pseudonaja inframacula	Peninsula Brown Snake			4	5
Tiliqua rugosa	Sleepy Lizard			4	7
Ctenotus robustus	Eastern Striped Skink			3	6
Hemiergis peronii	Four-toed Earless Skink			3	5
Morethia obscura	Mallee Snake-eye			3	6
Rankinia chapmani	Prickly Dragon			3	5
Aprasia striolata	Lined Worm-lizard			2	2
Diplodactylus vittatus	Eastern Stone Gecko			2	2
Pogona barbata	Eastern Bearded Dragon			2	2
Ctenophorus pictus	Painted Dragon			1	1
Ctenotus orientalis	Eastern Spotted Ctenotus			1	1
Delma australis	Barred Snake-lizard			1	1
Morethia adelaidensis	Adelaide Snake-eye			1	1
Pseudonaja sp.				1	1
Pygopus lepidopodus	Common Scaly-foot			1	1
Tiliqua occipitalis	Western Bluetongue			1	1

Floristic Group 43 *Melaleuca lanceolata*, *Eucalyptus socialis ssp.* Tall Open Shrubland

Melaleuca lanceolata and *Eucalyptus socialis* ssp. dominate this Tall Open Shrubland group. The understorey tends to be open, consisting mainly of grasses, herbs and low shrubs, and is dominated by *Gahnia lanigera*, *Acrotriche patula* and occasionally *Bursaria spinosa* ssp. *spinosa*. Commonly occurring annuals include the exotics *Avena barbata*, *Catapodium rigidum*, *Anagallis arvensis*, *Trifolium campestre* and *Hypochaeris glabra*. The group is associated with loam soils on hill slopes in the Mid North (Clare and Yackamoorundie Hills and Hopkins Creek Conservation Park), as well as one site in a swale on southern Yorke Peninsula site.

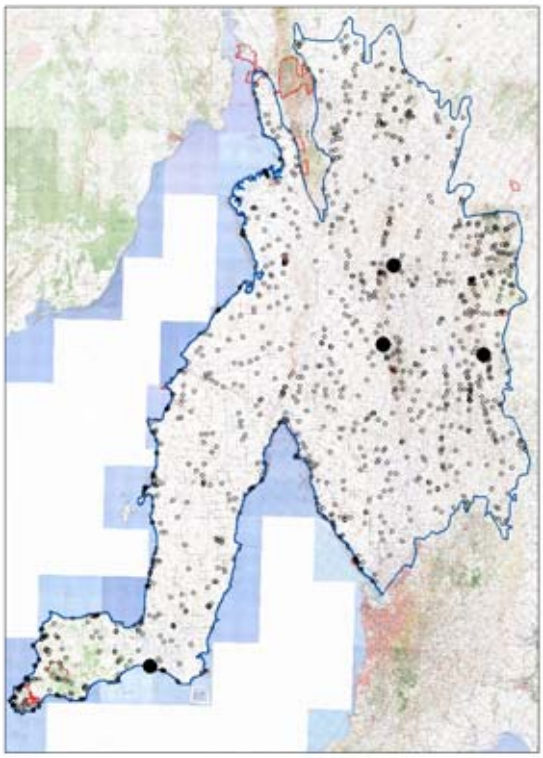
Sites within this group tend to occur in soil land units that are unaffected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Hill slope	4	80
Swale	1	20

LANDFORM PATTERN	Frequency	%
Hills	2	40
Low hills	1	20
Consolidated dunefield	1	20
Not recorded	1	20

SALT	Frequency	%
Class A	5	100

SOIL	Frequency	%
Loam	5	100



Number of sites in group 5

PLANT TAXA SUMMARY

Number of taxa in group	144
Number of native taxa in group	102
Perennial	68
Annual	34
Number of introduced taxa in group	42
Perennial	1
Annual	41

Average Number of Taxa at a site:

Native perennial	21	Min: 11	Max: 33
Introduced perennial	0	Min: 0	Max: 1
Native annual	9	Min: 3	Max: 18
Introduced annual	17	Min: 4	Max: 24
All taxa	48	Min: 23	Max: 69

Number of Taxa of Conservation Significance:

Aust	0	SA	2			
Regions:		EP	n/a	FR	n/a	MU	7
		NL	5	SL	n/a	YP	0

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Gahnia lanigera	5	100				3	2			2.40	142	27	15
Melaleuca lanceolata	5	100		1	1	2	1			1.62	232	41	12
Acrotriche patula	4	80			1	1	2			2.25	202	32	19
Eucalyptus socialis ssp.	4	80	1		1	1	1			1.50	114	25	11
Austrodanthonia caespitosa	4	80		4						0.10	394	53	
Bursaria spinosa ssp. *spinosa*	3	60			1	2				1.67	255	39	7
Eutaxia microphylla var. *microphylla*	3	60		2	1					0.40	111	30	7
Stackhousia monogyna	3	60	1	1	1					0.37	159	31	4
Austrostipa scabra ssp.	3	60		3						0.10	233	41	1
Dianella revoluta var. *revoluta*	3	60		3						0.10	306	47	1
Chrysocephalum apiculatum	2	40			2					1.00	156	33	5
Austrostipa nitida	2	40		1	1					0.55	206	42	1
Austrostipa nodosa	2	40		1	1					0.55	106	26	2
Comesperma volubile	2	40		1	1					0.55	94	29	7
Austrostipa eremophila	2	40		2						0.10	177	36	
Helichrysum leucopsideum	2	40		2						0.10	229	43	
Vittadinia blackii	2	40		2						0.10	62	19	1
Lomandra collina	2	40	1	1						0.06	73	25	1
Pimelea micrantha	2	40	1	1						0.06	62	21	1
Ptilotus spathulatus f. *spathulatus*	2	40	1	1						0.06	186	35	
Vittadinia megacephala	2	40	1	1						0.06	43	22	1
Annual Taxa Occurring at >30% of Sites													
**Avena barbata*	5	100		1	3	1				1.02	661	71	
**Catapodium rigidum*	5	100		5						0.10	96	31	
**Anagallis arvensis*	4	80		3	1					0.33	341	49	
**Trifolium campestre*	4	80		3	1					0.33	227	41	
**Hypochaeris glabra*	4	80	1	3						0.08	349	54	
**Medicago minima* var. *minima*	3	60		1	2					0.70	243	54	
**Brachypodium distachyon*	3	60		2	1					0.40	156	36	
**Bromus rubens*	3	60		2	1					0.40	365	57	
**Bupleurum semicompositum*	3	60		2	1					0.40	90	32	
**Hedypnois rhagadioloides*	3	60		2	1					0.40	104	36	
**Linum strictum* ssp. *strictum*	3	60		2	1					0.40	133	28	
**Silene nocturna*	3	60		2	1					0.40	159	41	
Daucus glochidiatus	3	60		2	1					0.40	328	56	
**Avellinia michelii*	3	60		3						0.10	80	33	
**Rostraria cristata*	3	60		3						0.10	229	49	
Wahlenbergia stricta ssp. *stricta*	3	60		3						0.10	66	24	
Prasophyllum odoratum	3	60	2	1						0.04	7	4	
**Trifolium angustifolium*	2	40		1	1					0.55	195	31	
**Vulpia myuros* f. *myuros*	2	40		1	1					0.55	292	60	
Brachyscome ciliaris var. *ciliaris*	2	40		1	1					0.55	46	19	
Oxalis perennans	2	40		1	1					0.55	393	53	
**Aira cupaniana*	2	40		2						0.10	135	30	
**Carthamus lanatus*	2	40		2						0.10	151	35	
**Centaurea melitensis*	2	40		2						0.10	38	16	
**Echium plantagineum*	2	40		2						0.10	352	48	
**Galium murale*	2	40		2						0.10	268	49	
**Moraea setifolia*	2	40		2						0.10	335	60	
**Sonchus oleraceus*	2	40		2						0.10	588	77	
Poranthera microphylla	2	40		2						0.10	17	7	
Sebaea ovata	2	40		2						0.10	17	8	
Thysanotus patersonii	2	40		2						0.10	118	29	
**Carrichtera annua*	2	40	1	1						0.06	204	40	
**Urospermum picroides*	2	40	1	1						0.06	41	20	

Figure 113.
***Melaleuca lanceolata*, *Eucalyptus socialis ssp.* Tall Open Shrubland at site SPA01201 in the Yackamoorundie Hills.**

Fauna at sites in Floristic Group 43

Trapping effort at 4 of 5 sites. Mammals recorded at 4 sites, birds at 4, reptiles at 4 and a frog at 1.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Tachyglossus aculeatus	Short-beaked Echidna			3	4
Macropus robustus	Euro			2	4
Macropus sp.				2	4
Felis catus	Cat			1	1
Mus musculus	House Mouse			1	1
Vulpes vulpes	Fox			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Cacatua roseicapilla	Galah			4	40
Corvus mellori	Little Raven			4	32
Colluricincla harmonica	Grey Shrike-thrush			3	10
Coracina novaehollandiae	Black-faced Cuckoo-shrike			3	4
Gymnorhina tibicen	Australian Magpie			3	28
Pardalotus striatus	Striated Pardalote			3	8
Rhipidura leucophrys	Willie Wagtail			3	5
Smicrornis brevirostris	Weebill			3	18
Sturnus vulgaris	Common Starling			3	46
Anthochaera carunculata	Red Wattlebird			2	6
Aquila audax	Wedge-tailed Eagle			2	3
Artamus cyanopterus	Dusky Woodswallow			2	5
Climacteris picumnus	Brown Treecreeper			2	2
Lichenostomus penicillatus	White-plumed Honeyeater			2	9
Lichenostomus virescens	Singing Honeyeater			2	9

Bird species	Common name	SA	Aus	Site freq	Number obs
Ocyphaps lophotes	Crested Pigeon			2	32
Pachycephala rufiventris	Rufous Whistler			2	11
Platycercus elegans	Crimson Rosella			2	9
Psephotus haematonotus	Red-rumped Parrot			2	13
Turdus merula	Eurasian Blackbird			2	4
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			1	11
Acanthiza apicalis	Inland Thornbill			1	12
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			1	5
Alauda arvensis	Eurasian Skylark			1	10
Cacomantis flabelliformis	Fan-tailed Cuckoo			1	1
Chrysococcyx basalis	Horsfield's Bronze-cuckoo			1	5
Columba livia	Rock Dove			1	8
Corcorax melanorhamphos	White-winged Chough			1	15
Cracticus torquatus	Grey Butcherbird			1	3
Dacelo novaeguineae	Laughing Kookaburra			1	1
Daphoenositta chrysoptera	Varied Sittella			1	4
Dicaeum hirundinaceum	Mistletoebird			1	9
Glossopsitta concinna	Musk Lorikeet			1	6
Hirundo neoxena	Welcome Swallow			1	8
Lalage tricolor	White-winged Triller			1	2
Lichenostomus leucotis	White-eared Honeyeater			1	3
Malurus lamberti	Variegated Fairy-wren			1	14
Manorina melanocephala	Noisy Miner			1	8
Melanodryas cucullata	Hooded Robin			1	3
Melithreptus brevirostris	Brown-headed Honeyeater			1	8
Ninox novaeseelandiae	Southern Boobook			1	2
Northiella haematogaster	Blue Bonnet			1	2
Passer domesticus	House Sparrow			1	20
Petrochelidon nigricans	Tree Martin			1	8
Petroica goodenovii	Red-capped Robin			1	1
Phaps chalcoptera	Common Bronzewing			1	3
Phaps elegans	Brush Bronzewing			1	5
Pomatostomus superciliosus	White-browed Babbler			1	7
Psephotus varius	Mulga Parrot			1	5
Rhipidura albiscapa	Grey Fantail			1	3
Sericornis frontalis	White-browed Scrubwren			1	10
Strepera versicolor	Grey Currawong			1	16
Zosterops lateralis	Silvereye			1	21

Reptile species	Common name	SA	Aus	Site freq	Number obs
Ctenotus robustus	Eastern Striped Skink			4	8
Menetia greyii	Dwarf Skink			4	7
Tiliqua rugosa	Sleepy Lizard			4	16
Heteronotia binoei	Bynoe's Gecko			2	2
Morethia obscura	Mallee Snake-eye			2	2
Diplodactylus vittatus	Eastern Stone Gecko			1	2
Gehyra 2n=44	Southern Rock Dtella			1	1
Hemiergis peronii	Four-toed Earless Skink			1	1
Morethia boulengeri	Common Snake-eye			1	10
Pogona sp.				1	1
Pseudonaja inframacula	Peninsula Brown Snake			1	1
Ramphotyphlops australis	Southern Blind Snake			1	1

Frog species	Common name	Site freq	Number obs
Neobatrachus pictus	Painted Frog	1	2

Floristic Group 44 *Gahnia lanigera* Sedgeland

This Sedgeland group is characterised by *Gahnia lanigera*. There may be a very sparse to sparse overstorey dominated by any one of *Acacia ligulata*, *Allocasuarina verticillata*, *Geijera linearifolia* or *Callitris canescens*. The main associated perennial species are *Dianella brevicaulis*, *Lomandra collina* and *Acrotriche patula*. The most commonly occurring annuals are the exotics *Avena barbata*, *Galium murale*, *Hypochaeris glabra* and *Anagallis arvensis*. The group is associated with sand and loam soils on dunes, plains and hill slopes from scattered locations on the west coast of Yorke Peninsula and the western slope of the Clare Hills.

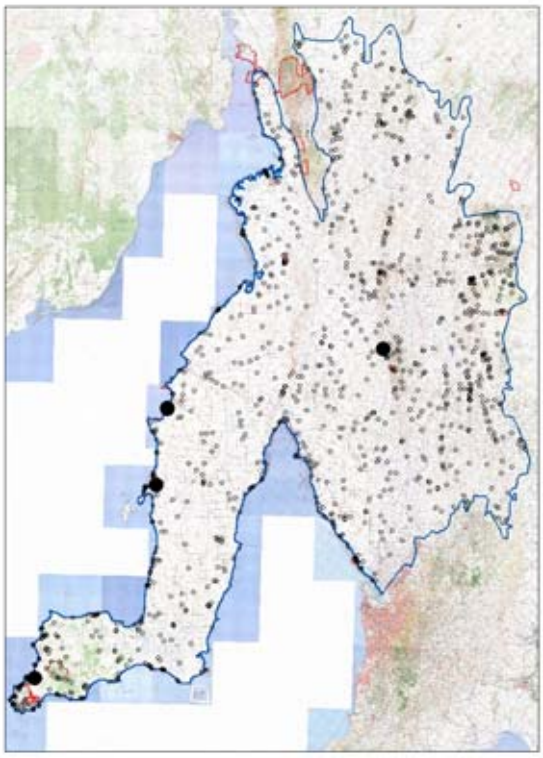
While three of the sites within this group occur in soil land units that are unaffected by saline seepage two are in land units with moderate salinity. This may suggest that, within at least part of its distribution, this floristic group is at risk to rising salinity levels.

LANDFORM ELEMENT	Frequency	%
Dune slope	2	40
Swale	1	20
Plain	1	20
Hill slope	1	20

LANDFORM PATTERN	Frequency	%
Longitudinal dunefield	2	40
Consolidated dunefield	1	20
Plain	1	20
Hills	1	20

SALT	Frequency	%
Class A	3	60
Class C	1	20
Class D	1	20

SOIL	Frequency	%
Sand	2	40
Loam	3	60



Number of sites in group 5

PLANT TAXA SUMMARY

Number of taxa in group	142
Number of native taxa in group	109
Perennial	65
Annual	44
Number of introduced taxa in group	332
Perennial	31
Annual	

Average Number of Taxa at a site:

Native perennial	23	Min: 12	Max: 30
Introduced perennial	1	Min: 0	Max: 2
Native annual	12	Min: 3	Max: 31
Introduced annual	12	Min: 3	Max: 17
All taxa	47	Min: 32	Max: 74

Number of Taxa of Conservation Significance:

Aust	1	SA	2			
Regions:		EP	n/a	FR	n/a	MU n/a
		NL	0	SL	n/a	YP 7

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Gahnia lanigera	5	100					3	2		3.40	142	27	22
Dianella brevicaulis	4	80		3	1					0.33	157	28	5
Lomandra collina	4	80	1	3						0.08	73	25	5
Acrotriche patula	4	80	2	2						0.06	202	32	
Acacia ligulata	3	60		1	1	1				1.03	107	23	7
Dianella revoluta var. *revoluta*	3	60	1	1		1				0.70	306	47	4
Austrostipa elegantissima	3	60		2	1					0.40	290	53	4
Tetragonia implexicoma	3	60		2	1					0.40	203	32	2
Clematis microphylla var. *microphylla*	3	60		3						0.10	250	46	1
Comesperma volubile	3	60		3						0.10	94	29	3
Helichrysum leucopsideum	3	60		3						0.10	229	43	
Lepidosperma congestum	3	60		3						0.10	114	18	
Lomandra effusa	3	60		3						0.10	230	41	
Enchylaena tomentosa var. *tomentosa*	3	60	1	2						0.07	425	58	
Pimelea serpyllifolia ssp. *serpyllifolia*	3	60	2	1						0.04	174	31	
Rhagodia candolleana ssp. *candolleana*	3	60	2	1						0.04	218	35	
Zygophyllum aurantiacum ssp.	3	60	2	1						0.04	49	17	2
Allocasuarina verticillata	2	40	1					1		2.01	194	35	3
Exocarpos aphyllus	2	40		1		1				1.05	182	40	5
Geijera linearifolia	2	40	1			1				1.01	86	19	4
**Euphorbia terracina*	2	40		1	1					0.55	54	16	5
Acacia spinescens	2	40		2						0.10	89	18	2
Austrostipa drummondii	2	40		2						0.10	92	32	1
Scaevola spinescens	2	40		2						0.10	36	14	1
Carpobrotus rossii	2	40	1	1						0.06	159	22	
Muehlenbeckia gunnii	2	40	1	1						0.06	71	19	1
Pittosporum angustifolium	2	40	1	1						0.06	213	46	
Pomaderris paniculosa ssp.	2	40	1	1						0.06	97	26	
**Lycium ferocissimum*	2	40	2							0.01	339	65	
Alyxia buxifolia	2	40	2							0.01	122	30	
Cryptandra sp. Floriferous (W.R.Barker 4131)	2	40	2							0.01	39	16	
Other Significant Perennial Taxa													
Callitris canescens	1	20				1				2.00	22	7	5
Scaevola humilis	1	20			1					1.00	21	10	10
Annual Taxa Occurring at >30% of Sites													
**Avena barbata*	4	80	1	1	2					0.53	661	71	
**Galium murale*	4	80		3	1					0.33	268	49	
**Hypochaeris glabra*	4	80		3	1					0.33	349	54	
**Anagallis arvensis*	4	80		4						0.10	341	49	
Goodenia willisiana	3	60		1	2					0.70	90	25	
Microseris lanceolata	3	60		1	2					0.70	132	37	
**Brassica tournefortii*	3	60		2	1					0.40	139	33	
**Linum strictum* ssp. *strictum*	3	60		2	1					0.40	133	28	
**Moraea setifolia*	3	60		2	1					0.40	335	60	
Plantago sp. B	3	60		3						0.10	23	13	
**Sonchus oleraceus*	3	60	1	2						0.07	588	77	
**Asphodelus fistulosus*	2	40		1	1					0.55	85	29	
**Oxalis pes-caprae*	2	40		1	1					0.55	169	47	
**Trifolium campestre*	2	40		1	1					0.55	227	41	
Hydrocotyle capillaris	2	40		1	1					0.55	43	16	
Oxalis perennans	2	40		1	1					0.55	393	53	
Podotheca angustifolia	2	40		1	1					0.55	82	21	
**Bromus rubens*	2	40		2						0.10	365	57	
**Minuartia mediterranea*	2	40		2						0.10	146	27	
**Rostraria cristata*	2	40		2						0.10	229	49	
**Silene nocturna*	2	40		2						0.10	159	41	
Crassula colligata ssp.	2	40		2						0.10	234	45	
Cyrtostylis robusta	2	40		2						0.10	50	15	
Rhodanthe pygmaea	2	40		2						0.10	68	28	
Senecio glossanthus	2	40		2						0.10	128	34	
Wurmbea dioica ssp. *dioica*	2	40	1	1						0.06	126	38	

Figure 114.
***Gahnia lanigera* Sedgeland at site CLA02201 near Brooks Lookout west of Clare.**

Fauna at sites in Floristic Group 44

Trapping effort at 1 of 5 sites. Mammals recorded at 1 site, birds at 1 and reptiles at 1.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Macropus robustus	Euro			1	1
Tachyglossus aculeatus	Short-beaked Echidna			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Alauda arvensis	Eurasian Skylark			1	1
Cacatua roseicapilla	Galah			1	20
Corvus mellori	Little Raven			1	4
Egretta novaehollandiae	White-faced Heron			1	1
Falco cenchroides	Nankeen Kestrel			1	1
Grallina cyanoleuca	Magpie-lark			1	1
Gymnorhina tibicen	Australian Magpie			1	3
Hirundo neoxena	Welcome Swallow			1	4
Lichenostomus virescens	Singing Honeyeater			1	1
Platycercus elegans	Crimson Rosella			1	3

Reptile species	Common name	SA	Aus	Site freq	Number obs
Menetia greyii	Dwarf Skink			1	1
Tiliqua adelaidensis	Pygmy Bluetongue	E	EN	1	1
Tiliqua rugosa	Sleepy Lizard			1	8

Floristic Group 45 *Triodia compacta* Hummock Grassland

This Hummock Grassland group is characterised by *Triodia compacta*. Many low shrub and sedge species grow in association with the *Triodia* hummocks. Those that are strongly distinctive of the group are *Olearia ciliata* var. *ciliata*, *Pultenaea tenuifolia*, *Gahnia lanigera*, *Lepidosperma congestum*, *Allocasuarina pusilla*, *Cassytha glabella* f. *dispar*, *Helichrysum leucopsideum*, *Pimelea glauca*, *Billardiera* sp. Yorke Peninsula (P.C.Heyligers 80164) and *Austrostipa echinata*. The most frequently occurring annuals are the exotics *Anagallis arvensis*, *Lagurus ovatus*, *Linum strictum* ssp. *strictum* and *Galium murale*, and the natives *Microseris lanceolata* and *Craspedia variabilis*. The group is associated with sand and loamy sand soils on dunes and plains of southern Yorke Peninsula coastal areas, particularly just south of Port Rickaby.

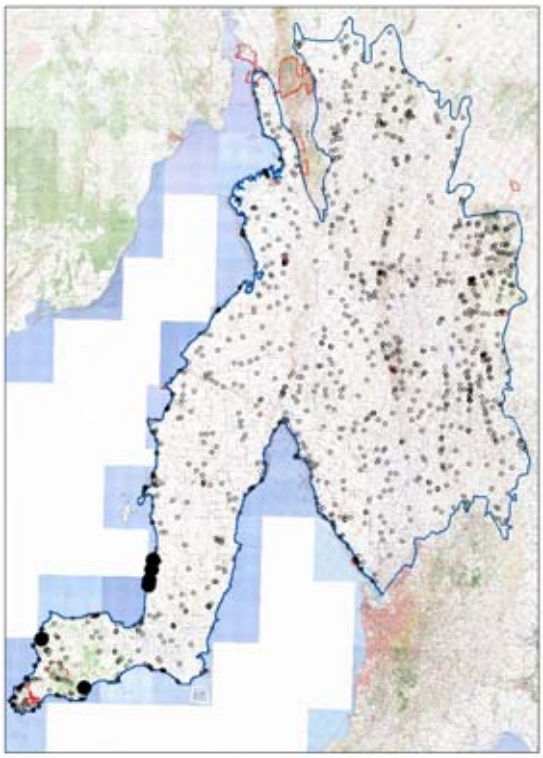
Sites within this group tend to occur in soil land units that are either unaffected or moderately affected by saline seepage. Being associated with coastal dunes derived from sandy sea beds exposed during the last ice age that are, as a result, saline to varying degrees (Specht 1972) infers this group is able to tolerate a variety of salinity levels.

LANDFORM ELEMENT	Frequency	%
Dune/consolidated dune	3	42.9
Open depression	2	28.6
Plain	1	14.3
Sandy plain	1	14.3

LANDFORM PATTERN	Frequency	%
Dunefield	3	42.9
Consolidated dunefield	1	14.3
Plain	1	14.3
Not recorded	2	28.6

SALT	Frequency	%
Class A	3	42.9
Class C	3	42.9
Class D	1	14.3

SOIL	Frequency	%
Sand	6	85.7
Loam	1	14.3



Number of sites in group 7

PLANT TAXA SUMMARY

Number of taxa in group	142
Number of native taxa in group	118
Perennial	87
Annual	31
Number of introduced taxa in group	24
Perennial	3
Annual	21

Average Number of Taxa at a site:

Native perennial	31	Min: 19	Max: 44
Introduced perennial	1	Min: 0	Max: 1
Native annual	7	Min: 1	Max: 16
Introduced annual	7	Min: 0	Max: 13
All taxa	45	Min: 25	Max: 68

Number of Taxa of Conservation Significance:

Aust	1	SA	2			
Regions:		EP	n/a	FR	n/a	MU n/a
		NL	n/a	SL	n/a	YP 6

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Triodia compacta	7	100.0				4		3		2.86	9	2	98
Gahnia lanigera	7	100.0			1	6				1.86	142	27	12
Lepidosperma congestum	7	100.0		1	4	2				1.16	114	18	15
Helichrysum leucopsideum	7	100.0		2	5					0.74	229	43	10
Olearia ciliata var. *ciliata*	7	100.0	2	2	3					0.46	30	5	77
Pultenaea tenuifolia	7	100.0	2	2	3					0.46	57	13	39
Clematis microphylla var. *microphylla*	6	85.7	1	3	2					0.39	250	46	9
Allocasuarina pusilla	5	71.4	1	1	1	2				1.02	8	2	66
Cassytha glabella f. *dispar*	5	71.4		2	3					0.64	42	10	38
Carpobrotus rossii	5	71.4	1	1	3					0.62	159	22	9
Lomandra effusa	5	71.4		3	2					0.46	230	41	3
Pimelea glauca	5	71.4	1	2	2					0.44	60	19	35
Lomandra collina	5	71.4		4	1					0.28	73	25	14
Acrotriche patula	5	71.4	1	3	1					0.26	202	32	2
Senecio pinnatifolius	4	57.1		2	2					0.55	171	27	3
Dianella brevicaulis	4	57.1		3	1					0.33	157	28	3
Acrotriche cordata	4	57.1	1	2	1					0.30	68	11	5
Billardiera sp. Yorke Peninsula (P.C.Heyligers 80164)	4	57.1	2	2						0.06	6	3	51
Olearia axillaris	3	42.9	1	1		1				0.70	168	19	2
Santalum acuminatum	3	42.9	1	1		1				0.70	76	32	4
Austrodanthonia caespitosa	3	42.9		1	2					0.70	394	53	1
Opercularia turpis	3	42.9		1	2					0.70	51	16	16
Tetragonia implexicoma	3	42.9		2	1					0.40	203	32	1
Acacia ligulata	3	42.9	1	1	1					0.37	107	23	1
Eutaxia microphylla var. *microphylla*	3	42.9		3						0.10	111	30	1
Spyridium phylicoides	3	42.9		3						0.10	52	12	2
Muehlenbeckia gunnii	3	42.9	1	2						0.07	71	19	1
Melaleuca lanceolata	3	42.9	2	1						0.04	232	41	
Other Significant Perennial Taxa													
Austrostipa echinata	2	28.6			2					1.00	4	2	28
Linum marginale	2	28.6			2					1.00	38	17	16
Schoenus nitens	2	28.6		1	1					0.55	3	2	17
Hibbertia virgata	2	28.6		2						0.10	14	4	12
Billardiera cymosa	2	28.6	1	1						0.06	14	5	18
**Reseda lutea*	1	14.3			1					1.00	10	7	11
Tricoryne tenella	1	14.3			1					1.00	11	4	12
Annual Taxa Occurring at >30% of Sites													
**Anagallis arvensis*	5	71.4	1	1	3					0.62	341	49	
**Lagurus ovatus*	5	71.4		3	2					0.46	152	27	
**Linum strictum* ssp. *strictum*	5	71.4		3	2					0.46	133	28	
Microseris lanceolata	5	71.4		3	2					0.46	132	37	
**Galium murale*	5	71.4		4	1					0.28	268	49	
Craspedia variabilis	5	71.4	2	3						0.06	66	20	
**Avellinia michelii*	4	57.1		1	3					0.78	80	33	
**Avena barbata*	4	57.1		2	2					0.55	661	71	
Goodenia willisiana	3	42.9		1	2					0.70	90	25	
Daucus glochidiatus	3	42.9		2	1					0.40	328	56	
Podotheca angustifolia	3	42.9		2	1					0.40	82	21	

Fauna at sites in Floristic Group 45

Trapping effort at 1 of 7 sites. Mammals recorded at 1 site, birds at 1 and reptiles at 1.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Lepus capensis	Brown Hare			1	1
Macropus fuliginosus	Western Grey Kangaroo			1	1
Macropus sp.				1	2
Nyctophilus geoffroyi	Lesser Long-eared Bat			1	1
Vulpes vulpes	Fox			1	1

Figure 115.
***Triodia compacta* Hummock Grassland at site TUR0101 near the coast west of Minlaton.**

Bird species	Common name	SA	Aus	Site freq	Number obs
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			1	22
Acanthiza apicalis	Inland Thornbill			1	2
Anthochaera carunculata	Red Wattlebird			1	1
Corvus mellori	Little Raven			1	5
Cracticus torquatus	Grey Butcherbird			1	4
Falco cenchroides	Nankeen Kestrel			1	1
Grallina cyanoleuca	Magpie-lark			1	1
Lichenostomus virescens	Singing Honeyeater			1	6
Malurus lamberti	Variegated Fairy-wren			1	20
Mirafra javanica	Horsfield's Bushlark			1	1
Pomatostomus superciliosus	White-browed Babbler			1	5
Rhipidura leucophrys	Willie Wagtail			1	1
Sericornis frontalis	White-browed Scrubwren			1	4
Smicrornis brevirostris	Weebill			1	5

Reptile species	Common name	SA	Aus	Site freq	Number obs
Aprasia inaurita	Red-tailed Worm-lizard			1	1
Aprasia striolata	Lined Worm-lizard			1	3
Demansia psammophis	Yellow-faced Whipsnake			1	1
Hemiergis peronii	Four-toed Earless Skink			1	7
Lerista dorsalis	Southern Four-toed Slider			1	1
Lerista terdigitata	Southern Three-toed Slider			1	6
Menetia greyii	Dwarf Skink			1	3
Morethia obscura	Mallee Snake-eye			1	4
Tiliqua rugosa	Sleepy Lizard			1	6

Floristic Group 46 *Lepidosperma congestum*, *Lomandra effusa*, *Gahnia lanigera* Sedgeland

Lepidosperma congestum, *Lomandra effusa* and *Gahnia lanigera* dominate this Sedgeland group. *Pomaderris paniculosa* ssp. and *Bursaria spinosa* ssp. *spinosa* may occur as emergents, while numerous low shrubs occur between the sedge tussocks. These include *Dianella brevicaulis*, *Helichrysum leucopsideum*, *Acrotriche patula*, *Clematis microphylla* var. *microphylla* and *Vittadinia australasica* var. The most frequently occurring annuals are the exotics *Linum strictum* ssp. *strictum* and *Lagurus ovatus*, and the natives *Craspedia variabilis*, *Microseris lanceolata* and *Oxalis perennans*. The group is associated with sand and loam soils on plains, closed depressions and swales of Yorke Peninsula, particularly on the "foot".

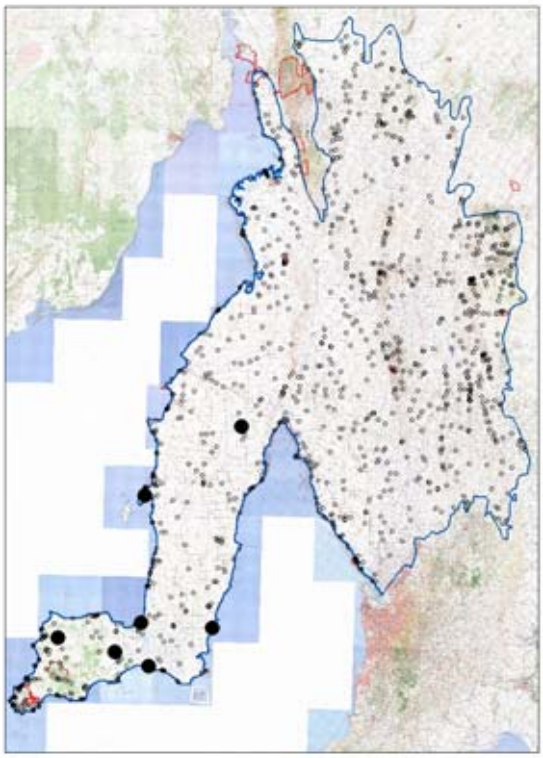
Sites within this group occur in soil land units that range from negligible to high salinity. Being associated with coastal sands derived from sandy sea beds exposed during the last ice age that are, as a result, saline to varying degrees (Specht 1972), infers this group is able to tolerate a variety of salinity levels.

LANDFORM ELEMENT	Frequency	%
Plain	5	62.5
Closed depression	2	25.0
Swale	1	12.5

LANDFORM PATTERN	Frequency	%
Plain	4	50.0
Consolidated dunefield	3	37.5
Rises	1	12.5

SALT	Frequency	%
Class A	3	37.5
Class B	1	12.5
Class C	2	25.0
Class F	2	25.0

SOIL	Frequency	%
Sand	3	37.5
Loam	5	62.5



Number of sites in group 8

PLANT TAXA SUMMARY

Number of taxa in group	123
Number of native taxa in group	90
Perennial	59
Annual	31
Number of introduced taxa in group	33
Perennial	3
Annual	30

Average Number of Taxa at a site:

Native perennial	15	Min: 12	Max: 24
Introduced perennial	1	Min: 0	Max: 2
Native annual	6	Min: 1	Max: 15
Introduced annual	8	Min: 3	Max: 17
All taxa	29	Min: 19	Max: 47

Number of Taxa of Conservation Significance:

Aust	0	SA	1				
Regions:		EP	n/a	FR	n/a	MU	n/a
		NL	n/a	SL	n/a	YP	3

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Lepidosperma congestum	8	100.0			2	5	1			1.88	114	18	24
Gahnia lanigera	7	87.5			4	2	1			1.57	142	27	8
Dianella brevicaulis	6	75.0	1	1	4					0.69	157	28	10
Helichrysum leucopsideum	6	75.0		4	2					0.40	229	43	3
Clematis microphylla var. *microphylla*	6	75.0	2	4						0.07	250	46	1
Lomandra effusa	5	62.5				3	1	1		2.60	230	41	12
Acrotriche patula	4	50.0	1	2	1					0.30	202	32	1
Pomaderris paniculosa ssp.	4	50.0	1	2	1					0.30	97	26	2
Bursaria spinosa ssp. *spinosa*	4	50.0	3	1						0.03	255	39	
Acaena echinata	3	37.5		1	1	1				1.03	94	21	8
Stackhousia monogyna	3	37.5		1	2					0.70	159	31	3
Chrysocephalum apiculatum	3	37.5	1	1	1					0.37	156	33	2
Vittadinia australasica var.	3	37.5	1	1	1					0.37	19	11	17
Annual Taxa Occurring at >30% of Sites													
**Linum strictum* ssp. *strictum*	7	87.5		3	4					0.61	133	28	
Craspedia variabilis	6	75.0		4	2					0.40	66	20	
Microseris lanceolata	5	62.5		4	1					0.28	132	37	
Oxalis perennans	5	62.5		4	1					0.28	393	53	
**Lagurus ovatus*	4	50.0			2	1	1			1.75	152	27	
**Hypochaeris glabra*	4	50.0		1	3					0.78	349	54	
Geranium potentilloides var. *potentilloides*	4	50.0		2	2					0.55	34	12	
**Anagallis arvensis*	4	50.0		3	1					0.33	341	49	
**Moraea setifolia*	4	50.0		3	1					0.33	335	60	
**Avena barbata*	3	37.5		1	1	1				1.03	661	71	
**Sonchus oleraceus*	3	37.5		3						0.10	588	77	

Figure 116.
***Lepidosperma congestum*, *Lomandra effusa*, *Gahnia lanigera* Sedgeland at site TUR01401 at Hardwicke Bay, Yorke Peninsula.**

Fauna at sites in Floristic Group 46

Trapping effort at 1 of 8 sites. Mammals recorded at 1 site, birds at 1, reptiles at 1 and a frog at 1.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Macropus fuliginosus	Western Grey Kangaroo			1	4
Macropus sp.				1	4
Vulpes vulpes	Fox			1	2

Bird species	Common name	SA	Aus	Site freq	Number obs
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			1	3
Acanthiza apicalis	Inland Thornbill			1	2
Cacatua roseicapilla	Galah			1	7
Corvus mellori	Little Raven			1	10
Hirundo neoxena	Welcome Swallow			1	3
Lichenostomus virescens	Singing Honeyeater			1	2
Rhipidura leucophrys	Willie Wagtail			1	2
Strepera versicolor	Grey Currawong			1	5

Reptile species	Common name	SA	Aus	Site freq	Number obs
Hemiergis peronii	Four-toed Earless Skink			1	2
Lerista dorsalis	Southern Four-toed Slider			1	1
Tiliqua rugosa	Sleepy Lizard			1	1

Frog species	Common name	Site freq	Number obs
Neobatrachus pictus	Painted Frog	1	2

Floristic Group 47 *Eucalyptus porosa* +/- *E. leptophylla* +/- *Allocasuarina verticillata* Open Mallee

This Open Mallee group is dominated by *Eucalyptus porosa*. Both *Eucalyptus leptophylla* and *Allocasuarina verticillata* may, on occasions, occur as co-dominants. The understorey is sparse to mid-dense and relatively diverse. Taller shrubs include *Bursaria spinosa* ssp. *spinosa*, *Melaleuca lanceolata*, *M. uncinata* and *M. acuminata* ssp. *acuminata*. The ground layer of low shrubs and sedges is, however, more dense. Prominent species here include *Gahnia lanigera*, *Acrotriche patula*, *Dampiera rosmarinifolia*, *Acacia spinescens*, *Dodonaea hexandra*, *Lepidosperma congestum*, *Helichrysum leucopsideum* and *Schoenus breviculmis*. The most frequently occurring annuals are the natives *Goodenia willisiana*, *Drosera macrantha* ssp. *planchonii*, *Thysanotus patersonii* and *Blennospora drummondii*, and the exotic *Hypochaeris glabra*. The group is associated with loam soils on plains and hill slopes of central Yorke Peninsula.

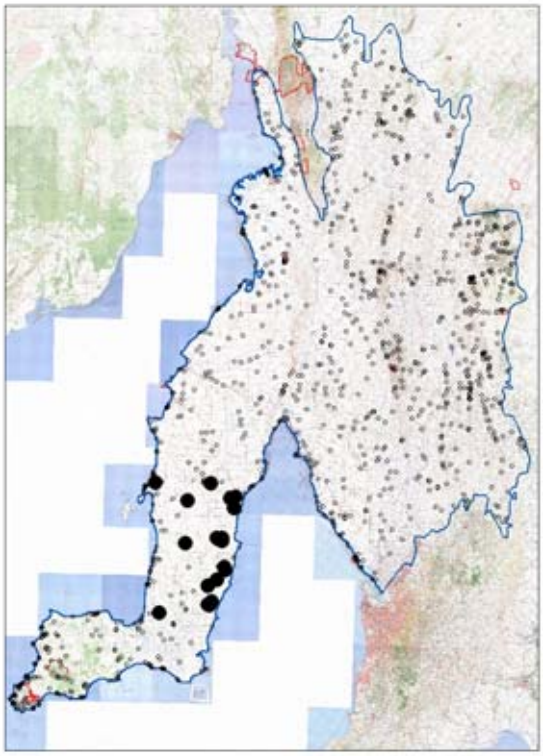
Most of the sites within this group tend to occur in soil land units that are either unaffected or only slightly affected by saline seepage. However, two sites occur in land units with moderate salinity suggesting that, within at least part of its distribution (i.e. at low points in the landscape), this floristic group is at risk to rising salinity levels.

LANDFORM ELEMENT	Frequency	%
Plain	9	45
Hill slope	6	30
Limestone plain	3	15
Rocky outcrop - on plain	1	5
Dune/consolidated dune	1	5

LANDFORM PATTERN	Frequency	%
Plain	13	65
Hills	3	15
Rises	2	10
Low hills	1	5
Consolidated dunefield	1	5

SALT	Frequency	%
Class A	14	70
Class B	4	20
Class C	1	5
Class D	1	5

SOIL	Frequency	%
Sand	2	10
Loam	15	75
Clay	3	15



Number of sites in group 20

PLANT TAXA SUMMARY

Number of taxa in group	266
Number of native taxa in group	215
Perennial	123
Annual	92
Number of introduced taxa in group	51
Perennial	4
Annual	47

Average Number of Taxa at a site:

Native perennial	34	Min: 20	Max: 51
Introduced perennial	1	Min: 0	Max: 3
Native annual	20	Min: 8	Max: 40
Introduced annual	9	Min: 1	Max: 20
All taxa	63	Min: 35	Max: 89

Number of Taxa of Conservation Significance:

Aust	4	SA	6			
Regions:		EP	n/a	FR	n/a	MU n/a
		NL	n/a	SL	n/a	YP 42

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Gahnia lanigera	20	100		1		14	5			2.16	142	27	14
Acrotriche patula	20	100		6	10	4				0.93	202	32	12
Helichrysum leucopsideum	19	95		9	9	1				0.63	229	43	7
Dampiera rosmarinifolia	19	95	1	10	8					0.47	40	11	39
Acacia spinescens	18	90	1	13	4					0.30	89	18	23
Lepidosperma congestum	17	85		2	6	8	1			1.48	114	18	14
Eucalyptus porosa	17	85	2	2	3	10				1.37	120	30	18
Dodonaea hexandra	15	75	1	3	6	5				1.09	27	10	32
Dianella revoluta var. *revoluta*	14	70	1	10	3					0.29	306	47	2
Pomaderris paniculosa ssp.	14	70	4	8	2					0.20	97	26	3
Schoenus breviculmis	13	65		7	5	1				0.59	24	6	22
Bursaria spinosa ssp. *spinosa*	13	65	2	9	2					0.22	255	39	1
Clematis microphylla var. *microphylla*	13	65	2	9	2					0.22	250	46	3
Neurachne alopecuroidea	12	60		8	4					0.40	39	14	13
Lasiopetalum baueri	12	60	1	9	2					0.24	29	10	13
Correa backhouseana var. *coriacea*	12	60		12						0.10	30	9	6
Melaleuca lanceolata	11	55	4	2	2	3				0.75	232	41	2
Lomandra collina	11	55	2	9						0.08	73	25	3
Lasiopetalum behrii	10	50	1	4	3	2				0.74	21	6	16
Austrostipa acrociliata	10	50	1	5	4					0.45	98	29	6
Gonocarpus mezianus	10	50	1	7	1	1				0.37	27	8	11
Stackhousia monogyna	10	50		9	1					0.19	159	31	1
Cryptandra sp. Floriferous (W.R.Barker 4131)	10	50	1	8	1					0.18	39	16	3
Chrysocephalum apiculatum	10	50		10						0.10	156	33	1
Melaleuca uncinata	9	45	1	2	1	3	2			1.47	24	5	7
Allocasuarina verticillata	9	45		1	4	4				1.34	194	35	3
**Lycium ferocissimum*	9	45	5	3	1					0.15	339	65	1
Calytrix tetragona	9	45	2	7						0.08	83	23	1
Comesperma volubile	9	45	2	7						0.08	94	29	1
Eucalyptus leptophylla	8	40	1		1	6				1.63	32	10	8
Austrodanthonia setacea	8	40		4	4					0.55	163	38	2
Pittosporum angustifolium	8	40		6	2					0.33	213	46	3
Melaleuca acuminata ssp. *acuminata*	8	40	1	5	2					0.31	60	18	2
**Asparagus asparagoides*	8	40	3	4		1				0.30	113	31	2
Rhagodia candolleana ssp. *candolleana*	8	40	1	6	1					0.20	218	35	1
Pimelea glauca	8	40	3	5						0.07	60	19	2
Enchylaena tomentosa var. *tomentosa*	8	40	4	4						0.06	425	58	
Gahnia deusta	7	35		5	2					0.36	25	7	4
Cassytha glabella f. *dispar*	7	35		6	1					0.23	42	10	3
Grevillea ilicifolia ssp. *ilicifolia*	7	35		6	1					0.23	26	11	7
Lepidosperma viscidum	6	30		2	3	1				0.87	69	19	2
Calytrix involucrata	6	30		4	2					0.40	11	2	4
Hibbertia platyphylla ssp.	6	30		4	2					0.40	28	8	11
Baeckea crassifolia	6	30	2	2	2					0.37	16	4	5
Chrysocephalum semipapposum	6	30	1	4	1					0.24	86	19	1
Vittadinia cuneata var.	6	30	1	5						0.09	152	34	
Astroloma humifusum	6	30	2	4						0.07	58	15	1
Austrostipa elegantissima	6	30	2	4						0.07	290	53	
Einadia nutans ssp.	6	30	2	4						0.07	215	44	
Olearia ramulosa	6	30	2	4						0.07	29	13	3
Eutaxia microphylla var. *microphylla*	6	30	4	2						0.04	111	30	
Annual Taxa Occurring at >30% of Sites													
Goodenia willisiana	19	95		11	8					0.48	90	25	
**Hypochaeris glabra*	18	90	1	12	5					0.35	349	54	
Drosera macrantha ssp. *planchonii*	18	90	2	11	5					0.34	73	20	
Thysanotus patersonii	16	80	2	12	2					0.20	118	29	
Blennospora drummondii	15	75		13	2					0.22	41	13	
**Linum strictum* ssp. *strictum*	14	70	1	10	3					0.29	133	28	
**Anagallis arvensis*	14	70		12	2					0.23	341	49	
Daucus glochidiatus	13	65	1	9	3					0.30	328	56	
Diuris palustris	13	65	4	9						0.07	23	8	
**Galium murale*	11	55		8	3					0.35	268	49	

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Thelymitra nuda	11	55	1	8	2					0.26	39	15	
**Sonchus oleraceus*	11	55	1	10						0.09	588	77	
Wurmbea dioica ssp. *dioica*	11	55	4	7						0.07	126	38	
**Avena barbata*	10	50		8	1	1				0.38	661	71	
Microseris lanceolata	10	50	1	7	2					0.27	132	37	
Hydrocotyle pilifera var. *glabrata*	9	45		6	3					0.40	17	8	
**Bromus rubens*	9	45	1	6	2					0.29	365	57	
Arthropodium fimbriatum	8	40		2	6					0.78	89	29	
**Moraea setifolia*	8	40		4	4					0.55	335	60	
Cyrtostylis robusta	8	40		5	3					0.44	50	15	
Acianthus pusillus	8	40		6	2					0.33	21	9	
Senecio glossanthus	8	40		6	2					0.33	128	34	
Craspedia variabilis	8	40		7	1					0.21	66	20	
Poranthera triandra	8	40	1	7						0.09	26	10	
Podolepis tepperi	7	35		4	3					0.49	25	12	
Hypoxis glabella var. *glabella*	7	35		6	1					0.23	85	29	
Caladenia latifolia	7	35	1	5	1					0.22	47	13	
Thelymitra antennifera	7	35	1	6						0.09	9	2	
Millotia tenuifolia var. *tenuifolia*	6	30		4	2					0.40	32	11	
Caladenia brumalis	6	30		5	1					0.25	12	7	
Hyalosperma demissum	6	30		5	1					0.25	28	9	
Lagenophora huegelii	6	30		5	1					0.25	81	26	
Oxalis perennans	6	30		5	1					0.25	393	53	
Millotia muelleri	6	30		6						0.10	33	15	
Siloxerus multiflorus	6	30		6						0.10	18	7	
**Silene nocturna*	6	30	1	5						0.09	159	41	

Figure 117.
***Eucalyptus porosa* +/- *E. leptophylla* +/- *Allocasuarina verticillata* Open Mallee at site POR01201 near Pine Point, Yorke Peninsula.**

Fauna at sites in Floristic Group 47

Trapping effort at 3 of 20 sites. Mammals recorded at 3 sites, birds at 3 and reptiles at 3.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Macropus fuliginosus	Western Grey Kangaroo			2	15
Macropus sp.				1	3
Mus musculus	House Mouse			1	3
Nyctophilus geoffroyi	Lesser Long-eared Bat			1	1
Oryctolagus cuniculus	Rabbit			1	2

Bird species	Common name	SA	Aus	Site freq	Number obs
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			3	41
Cracticus torquatus	Grey Butcherbird			3	7
Smicrornis brevirostris	Weebill			3	25
Acanthiza apicalis	Inland Thornbill			2	20
Colluricincla harmonica	Grey Shrike-thrush			2	8
Corvus mellori	Little Raven			2	13
Gymnorhina tibicen	Australian Magpie			2	13
Lichenostomus virescens	Singing Honeyeater			2	9
Ocyphaps lophotes	Crested Pigeon			2	3
Pachycephala rufiventris	Rufous Whistler			2	2
Pardalotus punctatus	Spotted Pardalote			2	6
Phaps chalcoptera	Common Bronzewing			2	4
Pomatostomus superciliosus	White-browed Babbler			2	26
Rhipidura leucophrys	Willie Wagtail			2	8
Strepera versicolor	Grey Currawong			2	8
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			1	5
Chrysococcyx basalis	Horsfield's Bronze-cuckoo			1	1
Coracina novaehollandiae	Black-faced Cuckoo-shrike			1	3
Daphoenositta chrysoptera	Varied Sittella			1	5
Falco berigora	Brown Falcon			1	1
Malurus lamberti	Variegated Fairy-wren			1	3
Manorina flavigula	Yellow-throated Miner			1	10
Oreoica gutturalis	Crested Bellbird			1	2
Pardalotus striatus	Striated Pardalote			1	1
Podargus strigoides	Tawny Frogmouth			1	1
Sturnus vulgaris	Common Starling			1	3

Reptile species	Common name	SA	Aus	Site freq	Number obs
Tiliqua rugosa	Sleepy Lizard			3	6
Lerista dorsalis	Southern Four-toed Slider			2	2
Menetia greyii	Dwarf Skink			2	7
Morethia obscura	Mallee Snake-eye			2	6
Ctenotus orientalis	Eastern Spotted Ctenotus			1	1
Ctenotus robustus	Eastern Striped Skink			1	1
Ctenotus schomburgkii	Sandplain Ctenotus			1	2
Demansia psammophis	Yellow-faced Whipsnake			1	1
Diplodactylus vittatus	Eastern Stone Gecko			1	1
Lerista terdigitata	Southern Three-toed Slider			1	2
Pseudonaja sp.				1	1

Floristic Group 48 *Allocasuarina verticillata*, *Melaleuca lanceolata* Very Low Woodland

This Very Low Woodland group is dominated by *Allocasuarina verticillata* and *Melaleuca lanceolata*. *Bursaria spinosa* ssp. *spinosa*, *Exocarpos aphyllus* and *Acacia rupicola* are prominent shrubs while the ground layer is dominated by *Lepidosperma congestum*, *Acrotriche patula*, *Helichrysum leucopsideum*, *Scaevola albida*, *Austrostipa acrociliata*, *Pimelea serpyllifolia* ssp. *serpyllifolia* and *Gonocarpus mezianus*. Commonly occurring annuals include the exotics *Linum strictum* ssp. *strictum*, *Anagallis arvensis* and *Hypochaeris glabra*, and the natives *Oxalis perennans* and *Drosera macrantha* ssp. *planchonii*. The group is associated with loam soils on plains and hill slopes of southern Yorke Peninsula, particularly in the Yorketown-Warooka area.

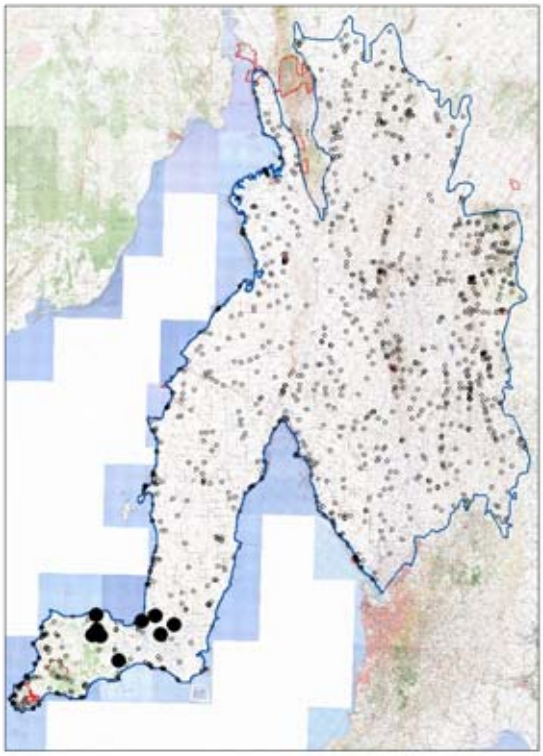
Sites within this group tend to occur in soil land units that are either slightly or moderately affected by saline seepage. However, most of the species comprising this group are not known to be particularly salt tolerant. This suggests that this floristic group is at risk to modification due to rising salinity levels.

LANDFORM ELEMENT	Frequency	%
Plain	7	70
Hill slope	2	20
Limestone plain	1	10

LANDFORM PATTERN	Frequency	%
Plain	9	90
Low hills	1	10

SALT	Frequency	%
Class A	1	10
Class B	3	30
Class C	6	60

SOIL	Frequency	%
Loam	10	100



Number of sites in group 10

PLANT TAXA SUMMARY

Number of taxa in group	194
Number of native taxa in group	148
Perennial	88
Annual	60
Number of introduced taxa in group	46
Perennial	6
Annual	40

Average Number of Taxa at a site:

Native perennial	23	Min: 11	Max: 42
Introduced perennial	1	Min: 0	Max: 3
Native annual	12	Min: 4	Max: 47
Introduced annual	9	Min: 6	Max: 17
All taxa	45	Min: 24	Max: 84

Number of Taxa of Conservation Significance:

Aust	1	SA	1				
Regions:		EP	n/a	FR	n/a	MU	n/a
		NL	n/a	SL	n/a	YP	15

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Lepidosperma congestum	10	100		1	1	7	1			1.81	114	18	23
Bursaria spinosa ssp. *spinosa*	10	100		2	4	4				1.22	255	39	14
Allocasuarina verticillata	9	90	1	2		6				1.36	194	35	12
Acrotriche patula	9	90		2	5	2				1.02	202	32	11
Melaleuca lanceolata	8	80	1			7				1.75	232	41	9
Exocarpos aphyllus	8	80		2	5	1				0.90	182	40	17
Helichrysum leucopsideum	7	70		2	5					0.74	229	43	5
Austrostipa acrociliata	6	60		4	2					0.40	98	29	7
Scaevola albida	6	60	2	2	2					0.37	41	14	12
Pimelea serpyllifolia ssp. *serpyllifolia*	6	60		5	1					0.25	174	31	3
Lomandra effusa	5	50		2	1	2				1.04	230	41	3
Dianella revoluta var. *revoluta*	5	50		4	1					0.28	306	47	1
Pomaderris paniculosa ssp.	5	50	2	2	1					0.24	97	26	2
**Lycium ferocissimum*	5	50	3	2						0.05	339	65	
Gahnia lanigera	4	40		2		2				1.05	142	27	1
Gonocarpus mezianus	4	40		2	2					0.55	27	8	11
Stackhousia monogyna	4	40		2	2					0.55	159	31	3
Acacia rupicola	4	40		3	1					0.33	26	5	16
Clematis microphylla var. *microphylla*	4	40	1	2	1					0.30	250	46	2
Lasiopetalum behrii	4	40	1	2	1					0.30	21	6	4
**Asparagus asparagoides*	4	40		4						0.10	113	31	1
Lomandra multiflora ssp. *dura*	4	40		4						0.10	241	34	
Acacia spinescens	4	40	1	3						0.08	89	18	1
Acaena echinata	4	40	1	3						0.08	94	21	1
Lysiana exocarpi ssp. *exocarpi*	4	40	1	3						0.08	53	22	7
Pimelea glauca	4	40	1	3						0.08	60	19	2
Amyema melaleucae	4	40	2	2						0.06	42	16	3
Neurachne alopecuroidea	3	30		1	2					0.70	39	14	6
Beyeria lechenaultii	3	30		2	1					0.40	148	33	1
Enchylaena tomentosa var. *tomentosa*	3	30		3						0.10	425	58	
Chrysocephalum apiculatum	3	30	1	2						0.07	156	33	
Pittosporum angustifolium	3	30	2	1						0.04	213	46	
Other Significant Perennial Taxa													
Amphipogon caricinus var. *caricinus*	2	20			2					1.00	13	7	12
Dianella brevicaulis/revoluta var. *revoluta*	2	20	1		1					0.51	16	8	10
Hakea rugosa	2	20	2							0.01	5	3	13
Annual Taxa Occurring at >30% of Sites													
**Linum strictum* ssp. *strictum*	9	90		3	6					0.70	133	28	
Oxalis perennans	8	80		3	5					0.66	393	53	
Drosera macrantha ssp. *planchonii*	8	80	1	3	4					0.54	73	20	
**Anagallis arvensis*	8	80	1	4	3					0.43	341	49	
**Hypochaeris glabra*	6	60		2	4					0.70	349	54	
Goodenia willisiana	5	50			5					1.00	90	25	
**Arctotheca calendula*	5	50		4	1					0.28	208	45	
**Bromus diandrus*	4	40			3	1				1.25	310	54	
Arthropodium fimbriatum	4	40		1	3					0.78	89	29	
**Trifolium campestre*	4	40		2	2					0.55	227	41	
Blennospora drummondii	4	40		2	2					0.55	41	13	
Caesia calliantha	4	40		2	2					0.55	29	9	
**Erodium botrys*	4	40		3	1					0.33	127	27	
**Lagurus ovatus*	4	40		3	1					0.33	152	27	
Podolepis tepperi	4	40		4						0.10	25	12	
**Sonchus oleraceus*	4	40	1	3						0.08	588	77	
Leptorhynchos squamatus ssp. *squamatus*	4	40	1	3						0.08	85	24	
Wurmbea dioica ssp. *dioica*	4	40	1	3						0.08	126	38	
**Sherardia arvensis*	3	30		2	1					0.40	35	12	
Craspedia variabilis	3	30		2	1					0.40	66	20	
Lagenophora huegelii	3	30		2	1					0.40	81	26	
Pelargonium littorale	3	30		2	1					0.40	31	13	
**Galium murale*	3	30		3						0.10	268	49	
Arthropodium strictum	3	30		3						0.10	254	36	

Figure 118.
***Allocasuarina verticillata*, *Melaleuca lanceolata* Very Low Woodland at site MIN1003 north of Yorketown.**

Fauna at sites in Floristic Group 48

Trapping effort at 1 of 10 sites. Mammals recorded at 1 site, birds at 1, reptiles at 1 and a frog at 1.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Chalinolobus gouldii	Gould's Wattled Bat			1	1
Macropus fuliginosus	Western Grey Kangaroo			1	1
Macropus sp.				1	1
Mormopterus sp.				1	1
Nyctophilus geoffroyi	Lesser Long-eared Bat			1	3
Oryctolagus cuniculus	Rabbit			1	1
Vespadelus darlingtoni	Large Forest Bat			1	1
Vespadelus regulus	Southern Forest Bat			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			1	16
Acanthiza apicalis	Inland Thornbill			1	1
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			1	2
Accipiter fasciatus	Brown Goshawk			1	1
Aquila audax	Wedge-tailed Eagle			1	1
Cacatua roseicapilla	Galah			1	3
Colluricincla harmonica	Grey Shrike-thrush			1	3
Coracina novaehollandiae	Black-faced Cuckoo-shrike			1	3
Corvus mellori	Little Raven			1	12
Cracticus torquatus	Grey Butcherbird			1	2
Falco berigora	Brown Falcon			1	1
Gymnorhina tibicen	Australian Magpie			1	11
Hirundo neoxena	Welcome Swallow			1	3
Lichenostomus virescens	Singing Honeyeater			1	1
Pachycephala rufiventris	Rufous Whistler			1	5
Petroica goodenovii	Red-capped Robin			1	1
Phaps chalcoptera	Common Bronzewing			1	2
Phaps elegans	Brush Bronzewing			1	2

Bird species	Common name	SA	Aus	Site freq	Number obs
Pomatostomus superciliosus	White-browed Babbler			1	2
Psephotus varius	Mulga Parrot			1	1
Rhipidura albiscapa	Grey Fantail			1	2
Rhipidura leucophrys	Willie Wagtail			1	2
Sericornis frontalis	White-browed Scrubwren			1	1
Smicrornis brevirostris	Weebill			1	1
Sturnus vulgaris	Common Starling			1	16
Turdus merula	Eurasian Blackbird			1	2
Zosterops lateralis	Silvereye			1	18

Reptile species	Common name	SA	Aus	Site freq	Number obs
Ctenotus robustus	Eastern Striped Skink			1	1
Lerista dorsalis	Southern Four-toed Slider			1	2
Menetia greyii	Dwarf Skink			1	4
Pogona barbata	Eastern Bearded Dragon			1	1
Ramphotyphlops bituberculatus	Rough-nosed Blind Snake			1	1
Tiliqua rugosa	Sleepy Lizard			1	3

Frog species	Common name	Site freq	Number obs
Neobatrachus pictus	Painted Frog	1	3

Floristic Group 49 *Eucalyptus rugosa*, *E. diversifolia* ssp. *diversifolia* Mallee

This Mallee group is characterised by *Eucalyptus rugosa* and, to a lesser degree, *E. diversifolia* ssp. *diversifolia*. On rare occasions either *E. gracilis* or *E. oleosa* ssp. may also occur as co-dominants. *Melaleuca lanceolata* occurs prominently as a tall shrub. Other species that commonly occur in the shrub layer include *Templetonia retusa*, *Acrotriche patula*, *Acacia triquetra*, *A. rupicola*, *Pomaderris obcordata*, *Olearia minor* and *Hardenbergia violacea*. The most frequently occurring annuals are the natives *Daucus glochidiatus* and *Caladenia filamentosa* var. *tentaculata*, and the exotics *Galium murale* and *Anagallis arvensis*. The group is associated with shallow sandy loam and loam soils on limestone plains and consolidated dunes at the southern tip of Yorke Peninsula.

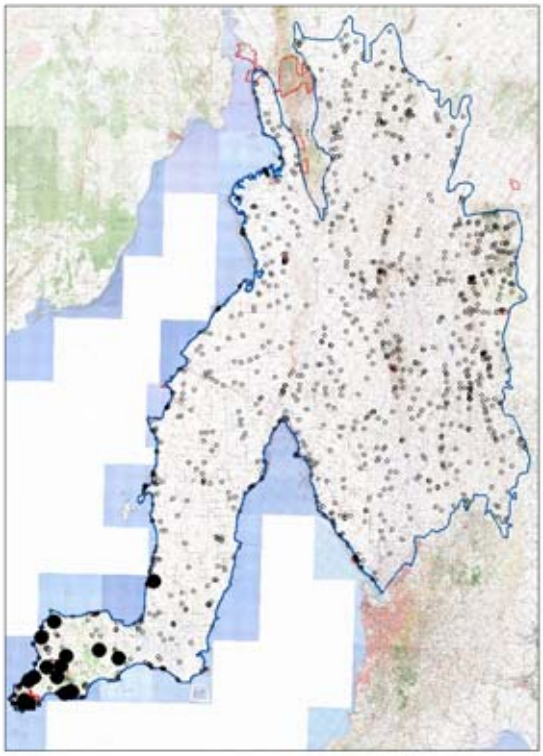
Sites within this group tend to occur in soil land units that are either unaffected or only slightly affected by saline seepage. However, one site occurs in a land unit with moderate salinity suggesting that, at the margin of its distribution, this group is at some risk to rising salinity.

LANDFORM ELEMENT	Frequency	%
Limestone plain	4	23.5
Dune slope	4	23.5
Plain	2	11.8
Ridge	2	11.8
Rocky outcrop - on plain	2	11.8
Hill slope	1	5.9
Flat	1	5.9
Dune/consolidated dune	1	5.9

LANDFORM PATTERN	Frequency	%
Plain	7	41.2
Consolidated dunefield	6	35.3
Rises	2	11.8
Low hills	1	5.9
Dunefield	1	5.9

SALT	Frequency	%
Class A	11	64.7
Class B	5	29.4
Class C	1	5.9

SOIL	Frequency	%
Sand	3	17.6
Loam	14	82.4



Number of sites in group 17

PLANT TAXA SUMMARY

Number of taxa in group	208
Number of native taxa in group	168
Perennial	96
Annual	72
Number of introduced taxa in group	40
Perennial	2
Annual	38

Average Number of Taxa at a site:

Native perennial	26	Min: 11	Max: 44
Introduced perennial	0	Min: 0	Max: 1
Native annual	13	Min: 5	Max: 30
Introduced annual	6	Min: 1	Max: 16
All taxa	45	Min: 18	Max: 66

Number of Taxa of Conservation Significance:

Aust	0	SA	2			
Regions:		EP	n/a	FR	n/a	MU n/a
		NL	n/a	SL	n/a	YP 11

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Eucalyptus rugosa	17	100.0				9	5	3		2.65	18	2	99
Melaleuca lanceolata	17	100.0	1	3	1	6	6			1.84	232	41	14
Templetonia retusa	15	88.2	1	9	1	4				0.66	61	10	17
Acrotriche patula	15	88.2		12	1	2				0.41	202	32	4
Eucalyptus diversifolia ssp. *diversifolia*	14	82.4		7	1	4	2			1.12	54	8	28
Clematis microphylla var. *microphylla*	13	76.5		12	1					0.17	250	46	3
Dodonaea humilis	13	76.5		13						0.10	40	7	13
Correa pulchella	13	76.5	2	11						0.09	60	10	12
Beyeria lechenaultii	12	70.6		8	2	2				0.57	148	33	4
Acacia triquetra	11	64.7		10		1				0.27	30	5	41
Acacia rupicola	11	64.7	2	8	1					0.17	26	5	22
Eucalyptus oleosa ssp.	10	58.8	1	5		4				0.85	113	14	5
Pomaderris obcordata	10	58.8	2	7			1			0.37	22	4	45
Pimelea serpyllifolia ssp. *serpyllifolia*	10	58.8		8	2					0.28	174	31	3
Lasiopetalum discolor	9	52.9		7		2				0.52	70	13	3
Exocarpos aphyllus	9	52.9	3	4	2					0.27	182	40	2
Helichrysum leucopsideum	9	52.9		8	1					0.20	229	43	1
Eucalyptus gracilis	8	47.1		2	1	4	1			1.53	120	23	6
Hardenbergia violacea	8	47.1	2	6						0.08	26	7	22
Acrotriche cordata	7	41.2		5		1		1		0.93	68	11	8
Olearia minor	7	41.2	1	3	1	2				0.76	20	8	27
Cassytha melantha	7	41.2		5	2					0.36	70	25	5
Acacia leiophylla	7	41.2	3	3		1				0.33	21	4	12
Acacia spinescens	7	41.2		6	1					0.23	89	18	4
Hibbertia platyphylla ssp.	7	41.2	2	5						0.07	28	8	4
Alyxia buxifolia	6	35.3	1	4		1				0.40	122	30	1
Rhagodia candolleana ssp. *candolleana*	6	35.3		5	1					0.25	218	35	1
Opercularia turpis	6	35.3	1	5						0.09	51	16	1
Comesperma volubile	6	35.3	2	4						0.07	94	29	1
Annual Taxa Occurring at >30% of Sites													
Daucus glochidiatus	13	76.5		10	3					0.31	328	56	
**Galium murale*	12	70.6		7	5					0.48	268	49	
**Anagallis arvensis*	11	64.7		8	3					0.35	341	49	
Caladenia filamentosa var. *tentaculata*	11	64.7		9	2					0.26	22	4	
**Melilotus indicus*	10	58.8		6	4					0.46	82	17	
**Linum strictum* ssp. *strictum*	10	58.8		10						0.10	133	28	
Pterostylis sp. Coastal (R.Bates 37621)	10	58.8		10						0.10	17	6	
Hydrocotyle capillaris	9	52.9		6	3					0.40	43	16	
Hypoxis glabella var. *glabella*	9	52.9		9						0.10	85	29	
Thysanotus patersonii	7	41.2		7						0.10	118	29	
Senecio glossanthus	6	35.3		5	1					0.25	128	34	
Drosera macrantha ssp. *planchonii*	6	35.3		6						0.10	73	20	
Pheladenia deformis	6	35.3		6						0.10	19	7	

Figure 119.
***Eucalyptus rugosa*, *E. diversifolia* ssp. *diversifolia* Mallee at site PON0401 near Gym Beach, Southern Yorke Peninsula.**

Fauna at sites in Floristic Group 49

Trapping effort at 1 of 17 sites. Mammals recorded at 1 site, birds at 1 and reptiles at 1.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Cercartetus concinnus	Western Pygmy-possum			1	5
Chalinolobus morio	Chocolate Wattled Bat			1	11
Macropus fuliginosus	Western Grey Kangaroo			1	2
Macropus sp.				1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Acanthiza apicalis	Inland Thornbill			1	4
Anthochaera carunculata	Red Wattlebird			1	22
Corvus coronoides	Australian Raven			1	4
Corvus mellori	Little Raven			1	15
Drymodes brunneopygia	Southern Scrub-robin			1	3
Lichenostomus cratitius	Purple-gaped Honeyeater			1	20
Lophoictinia isura	Square-tailed Kite	V		1	1
Malurus lamberti	Variegated Fairy-wren			1	2
Melithreptus brevirostris	Brown-headed Honeyeater			1	8
Pachycephala pectoralis	Golden Whistler			1	3
Pardalotus punctatus	Spotted Pardalote			1	2
Pardalotus striatus	Striated Pardalote			1	1
Phaps elegans	Brush Bronzewing			1	2
Sericornis frontalis	White-browed Scrubwren			1	6
Strepera versicolor	Grey Currawong			1	13
Zosterops lateralis	Silvereye			1	7

Reptile species	Common name	SA	Aus	Site freq	Number obs
Aprasia striolata	Lined Worm-lizard			1	1
Hemiergis peronii	Four-toed Earless Skink			1	2
Lerista dorsalis	Southern Four-toed Slider			1	1
Menetia greyii	Dwarf Skink			1	1
Pogona barbata	Eastern Bearded Dragon			1	3
Rankinia chapmani	Prickly Dragon			1	2

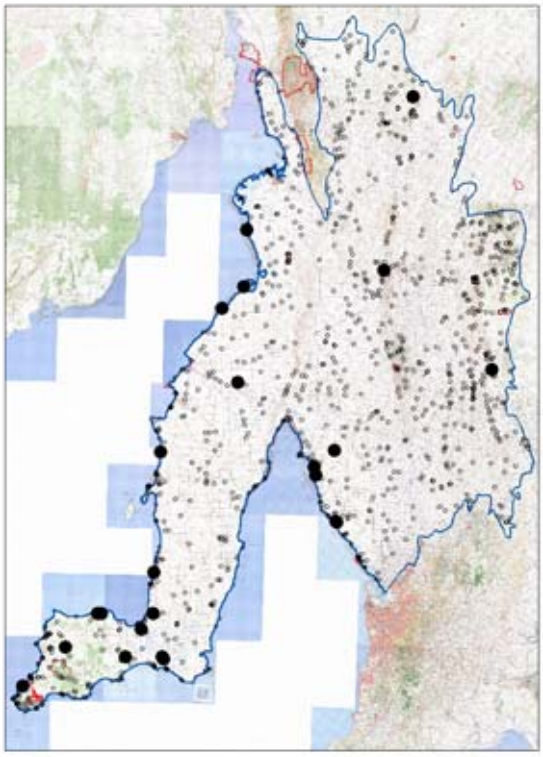
Floristic Group 50 *Melaleuca lanceolata* Tall Shrubland

Sites in this *Melaleuca lanceolata* Tall Shrubland group occur predominantly within coastal and sub-coastal areas, particularly southern Yorke Peninsula, Port Broughton and Dublin. They are associated with sand and sandy loam soils on beach ridges, dunes or sandy plains. Additionally, there are scattered occurrences on low hills across the Mid North. In these instances *Eucalyptus socialis* ssp. may occur as a co-dominant. Dominant understorey species vary but regularly include *Tetragonia implexicoma*, *Exocarpos aphyllus*, *Lycium ferocissimum*, *Amyema melaleucae*, *Rhagodia candolleana* ssp. *candolleana*, *Threlkeldia diffusa* and *Enchylaena tomentosa* var. *tomentosa*. The most frequently occurring annuals are the exotics *Sonchus oleraceus*, *Avena barbata*, *Moraea setifolia*, *Bromus rubens* and *Anagallis arvensis*.

The height and density of *Melaleuca lanceolata* is variable. While tall shrubland communities occur most commonly, low woodlands and tall closed shrublands are also present.

Sites within this group occur in soil land units with a range of salinity levels from negligible to high. Being associated with coastal dunes derived from sandy sea beds exposed during the last ice age that are, as a result, saline to varying degrees (Specht 1972) infers this group is able to tolerate a variety of salinity levels.

LANDFORM ELEMENT	Frequency	%
Plain	5	21.7
Beach ridge	4	17.4
Hill crest	4	17.4
Dune/consolidated dune	2	8.7
Dune crest	2	8.7
Hill slope	1	4.3
Interdune corridor	1	4.3
Flat	1	4.3
Limestone plain	1	4.3
Sandy plain	1	4.3
Swale	1	4.3



LANDFORM PATTERN	Frequency	%
Beach ridge plain	7	30.4
Plain	5	21.7
Low hills	3	13.0
Dunefield	3	13.0
Rises	2	8.7
Consolidated dunefield	2	8.7
Sand plain	1	4.3

SALT	Frequency	%
Class A	7	30.4
Class B	2	8.7
Class C	5	21.7
Class D	3	13.0
Class E	1	4.3
Class F	5	21.7

SOIL	Frequency	%
Sand	12	52.2
Loam	10	43.5
Clay	1	4.3

Number of sites in group 23

PLANT TAXA SUMMARY

Number of taxa in group	274
Number of native taxa in group	195
Perennial	123
Annual	72
Number of introduced taxa in group	79
Perennial	7
Annual	72

Average Number of Taxa at a site:

Native perennial	15	Min: 5	Max: 26
Introduced perennial	1	Min: 0	Max: 5
Native annual	6	Min: 2	Max: 14
Introduced annual	11	Min: 3	Max: 24
All taxa	33	Min: 15	Max: 50

Number of Taxa of Conservation Significance:

Aust	1	SA	3			
Regions:		EP	n/a	FR	1	MU 2
		NL	3	SL	6	YP 7

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Melaleuca lanceolata	23	100.0			1	10	9	2	1	2.65	232	41	20
Tetragonia implexicoma	13	56.5	1	4	8					0.65	203	32	3
**Lycium ferocissimum*	12	52.2	5	3	4					0.36	339	65	2
Exocarpos aphyllus	11	47.8	2	4	2	3				0.77	182	40	5
Rhagodia candolleana ssp. *candolleana*	10	43.5		4	1	5				1.14	218	35	4
Threlkeldia diffusa	10	43.5	1	3	3	3				0.93	193	34	4
Amyema melaleucae	10	43.5	3	5	2					0.25	42	16	15
Enchylaena tomentosa var. *tomentosa*	10	43.5	4	5	1					0.15	425	58	
Pittosporum angustifolium	8	34.8	6	2						0.03	213	46	
Carpobrotus rossii	7	30.4	2	2	3					0.46	159	22	1
Helichrysum leucopsideum	7	30.4		5	2					0.36	229	43	
Dianella brevicaulis	7	30.4	2	4	1					0.20	157	28	
Acrotriche patula	7	30.4		7						0.10	202	32	
Other Significant Perennial Taxa													
Eucalyptus socialis ssp.	3	13.0				1	2			2.67	114	25	1
Annual Taxa Occurring at >30% of Sites													
**Sonchus oleraceus*	17	73.9	1	12	4					0.31	588	77	
**Avena barbata*	12	52.2		4	8					0.70	661	71	
**Moraea setifolia*	11	47.8	1	4	5	1				0.67	335	60	
**Bromus rubens*	11	47.8		5	6					0.59	365	57	
**Anagallis arvensis*	11	47.8		9	2					0.26	341	49	
**Lagurus ovatus*	10	43.5		4	3	2		1		1.14	152	27	
**Minuartia mediterranea*	10	43.5		8	2					0.28	146	27	
Crassula colligata ssp.	10	43.5		9	1					0.19	234	45	
**Vulpia myuros* f. *myuros*	9	39.1		7	1	1				0.41	292	60	
**Galium murale*	9	39.1		7	2					0.30	268	49	
**Rostraria cristata*	9	39.1		7	2					0.30	229	49	
**Erodium cicutarium*	9	39.1	1	6	2					0.29	124	42	
**Stellaria media*	9	39.1		8	1					0.20	115	30	
**Hypochaeris glabra*	7	30.4		5	2					0.36	349	54	
**Silene nocturna*	7	30.4		5	2					0.36	159	41	
Podotheca angustifolia	7	30.4		5	2					0.36	82	21	

Figure 120.
***Melaleuca lanceolata* Tall Shrubland at site PON01501 near Shell Beach, Innes National Park.**

Fauna at sites in Floristic Group 50

Trapping effort at 4 of 23 sites. Mammals recorded at 4 sites, birds at 4, reptiles at 4 and a frog at 1.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Macropus sp.				2	3
Mus musculus	House Mouse			2	5
Cercartetus concinnus	Western Pygmy-possum			1	1
Macropus fuliginosus	Western Grey Kangaroo			1	1
Macropus robustus	Euro			1	3
Nyctophilus geoffroyi	Lesser Long-eared Bat			1	1
Oryctolagus cuniculus	Rabbit			1	1
Sminthopsis murina	Common Dunnart			1	1
Tachyglossus aculeatus	Short-beaked Echidna			1	2

Bird species	Common name	SA	Aus	Site freq	Number obs
Cacatua roseicapilla	Galah			4	43
Corvus mellori	Little Raven			4	9
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			3	10
Colluricincla harmonica	Grey Shrike-thrush			3	6
Gymnorhina tibicen	Australian Magpie			3	10
Hirundo neoxena	Welcome Swallow			3	12
Malurus lamberti	Variegated Fairy-wren			3	18
Acanthiza apicalis	Inland Thornbill			2	5
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			2	4
Dromaius novaehollandiae	Emu			2	3
Lichenostomus virescens	Singing Honeyeater			2	12
Melithreptus brevirostris	Brown-headed Honeyeater			2	2
Pardalotus striatus	Striated Pardalote			2	4

Bird species	Common name	SA	Aus	Site freq	Number obs
Phaps elegans	Brush Bronzewing			2	4
Rhipidura leucophrys	Willie Wagtail			2	4
Strepera versicolor	Grey Currawong			2	5
Acanthiza nana	Yellow Thornbill			1	2
Anthochaera carunculata	Red Wattlebird			1	15
Aphelocephala leucopsis	Southern Whiteface			1	8
Chrysococcyx basalis	Horsfield's Bronze-cuckoo			1	1
Circus assimilis	Spotted Harrier			1	2
Columba livia	Rock Dove			1	3
Corvus coronoides	Australian Raven			1	2
Cuculus pallidus	Pallid Cuckoo			1	1
Dicaeum hirundinaceum	Mistletoebird			1	2
Falco subniger	Black Falcon			1	2
Hieraaetus morphnoides	Little Eagle			1	1
Larus novaehollandiae	Silver Gull			1	1
Melanodryas cucullata	Hooded Robin			1	3
Neophema petrophila	Rock Parrot	R		1	2
Neophema sp.				1	4
Ocyphaps lophotes	Crested Pigeon			1	8
Pachycephala inornata	Gilbert's Whistler			1	1
Pachycephala rufiventris	Rufous Whistler			1	3
Pardalotus punctatus	Spotted Pardalote			1	2
Pomatostomus superciliosus	White-browed Babbler			1	4
Rhipidura albiscapa	Grey Fantail			1	2
Sericornis frontalis	White-browed Scrubwren			1	6
Smicrornis brevirostris	Weebill			1	3
Stagonopleura guttata	Diamond Firetail	V		1	2
Sturnus vulgaris	Common Starling			1	13
Turdus merula	Eurasian Blackbird			1	1
Zosterops lateralis	Silvereye			1	12

Reptile species	Common name	SA	Aus	Site freq	Number obs
Morethia obscura	Mallee Snake-eye			3	6
Menetia greyii	Dwarf Skink			2	5
Aprasia striolata	Lined Worm-lizard			1	1
Christinus marmoratus	Marbled Gecko			1	5
Ctenotus robustus	Eastern Striped Skink			1	2
Delma butleri	Spinifex Snake-lizard			1	1
Diplodactylus vittatus	Eastern Stone Gecko			1	2
Hemiergis decresiensis	Three-toed Earless Skink			1	2
Lerista bougainvillii	Bougainville's Skink			1	2
Lerista dorsalis	Southern Four-toed Slider			1	2
Nephrurus milii	Barking Gecko			1	1
Pseudonaja inframacula	Peninsula Brown Snake			1	1

Frog species	Common name	Site freq	Number obs
Neobatrachus pictus	Painted Frog	1	2

Floristic Group 51 *Eucalyptus incrassata*, *Melaleuca uncinata* +/- *E. socialis* Open Mallee

This Mallee group is dominated by *Eucalyptus incrassata* with a mid-dense layer of *Melaleuca uncinata*. On occasions *Eucalyptus socialis* ssp. may also be co-dominant. The other characteristic understorey species are *Correa backhouseana* var. *coriacea*, *Calytrix involucrata*, *Baeckea crassifolia*, *Leucopogon cordifolius*, *Schoenus breviculmis*, *S. deformis*, *Neurachne alopecuroidea* and *Hibbertia* sp. Glabriuscula (D.J.Whibley 9012). The most frequently occurring annuals are the natives *Thysanotus patersonii*, *Drosera macrantha* ssp. *planchonii*, *Millotia tenuifolia* var. *tenuifolia*, *Goodenia willisiana* and *Blennospora drummondii*, and the exotic *Hypochaeris glabra*. The group is associated with sands and sandy loams on dunes and plains of central Yorke Peninsula, particularly between Curramulka and Stansbury.

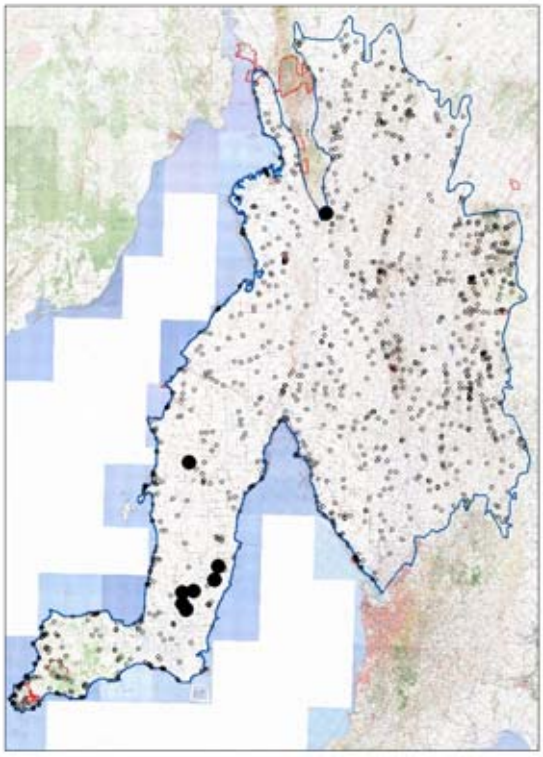
Sites within this group tend to occur in soil land units that are either unaffected or only slightly affected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Plain	2	22.2
Hill crest	2	22.2
Limestone plain	1	11.1
Flat	1	11.1
Dune/consolidated dune	1	11.1
Dune crest	1	11.1
Dune slope	1	11.1

LANDFORM PATTERN	Frequency	%
Consolidated dunefield	3	33.3
Plain	3	33.3
Low hills	1	11.1
Rises	1	11.1
Not recorded	1	11.1

SALT	Frequency	%
Class A	2	22.2
Class B	7	77.8

SOIL	Frequency	%
Sand	5	55.6
Loam	4	44.4



Number of sites in group 9

PLANT TAXA SUMMARY

Number of taxa in group	172
Number of native taxa in group	147
Perennial	100
Annual	47
Number of introduced taxa in group	25
Perennial	2
Annual	23

Average Number of Taxa at a site:

Native perennial	30	Min: 13	Max: 50
Introduced perennial	0	Min: 0	Max: 1
Native annual	11	Min: 3	Max: 19
Introduced annual	4	Min: 1	Max: 16
All taxa	46	Min: 23	Max: 67

Number of Taxa of Conservation Significance:

Aust	3	SA	5			
Regions:		EP	n/a	FR	n/a	MU n/a
		NL	0	SL	n/a	YP 32

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Melaleuca uncinata	9	100.0				2	5	2		3.00	24	5	68
Eucalyptus incrassata	8	88.9		2		6				1.53	17	6	31
Correa backhouseana var. *coriacea*	8	88.9		6	2					0.33	30	9	45
Eucalyptus socialis ssp.	7	77.8		3	3	1				0.76	114	25	5
Schoenus breviculmis	6	66.7		2	2	2				1.03	24	6	41
Neurachne alopecuroidea	6	66.7		3	2	1				0.72	39	14	28
Dampiera rosmarinifolia	6	66.7		3	3					0.55	40	11	22
Gahnia lanigera	6	66.7		3	3					0.55	142	27	2
Opercularia turpis	6	66.7	1	3	2					0.39	51	16	21
Calytrix involucrata	5	55.6			3	2				1.40	11	2	48
Baeckea crassifolia	5	55.6		1	3	1				1.02	16	4	45
Lepidosperma viscidum	5	55.6			5					1.00	69	19	7
Eucalyptus leptophylla	5	55.6	1	3		1				0.46	32	10	5
Austrodanthonia setacea	5	55.6		3	2					0.46	163	38	3
Helichrysum leucopsideum	5	55.6		4	1					0.28	229	43	1
Acacia spinescens	5	55.6		5						0.10	89	18	3
Astroloma humifusum	5	55.6		5						0.10	58	15	5
Grevillea ilicifolia ssp. *ilicifolia*	5	55.6		5						0.10	26	11	7
Lasiopetalum behrii	4	44.4			3	1				1.25	21	6	21
Hibbertia sp. Glabriuscula (D.J.Whibley 9012)	4	44.4			4					1.00	20	8	28
Gonocarpus mezianus	4	44.4		2	2					0.55	27	8	13
Allocasuarina muelleriana ssp. *muelleriana*	4	44.4		3	1					0.33	10	3	15
Cassytha peninsularis var. *peninsularis*	4	44.4		3	1					0.33	64	17	4
Acrotriche patula	4	44.4	1	3						0.08	202	32	
Clematis microphylla var. *microphylla*	4	44.4	1	3						0.08	250	46	
Leucopogon cordifolius	4	44.4	1	3						0.08	5	2	39
Acrotriche cordata	3	33.3			2	1				1.33	68	11	7
Dodonaea hexandra	3	33.3			2	1				1.33	27	10	8
Lepidosperma congestum	3	33.3		1	2					0.70	114	18	1
Austrostipa scabra ssp.	3	33.3		2	1					0.40	233	41	1
Lasiopetalum baueri	3	33.3		2	1					0.40	29	10	6
Schoenus deformis	3	33.3		2	1					0.40	4	2	30
Dianella revoluta var. *revoluta*	3	33.3		3						0.10	306	47	
Einadia nutans ssp.	3	33.3		3						0.10	215	44	1
Phyllanthus australis	3	33.3		3						0.10	6	2	25
Stenanthemum leucophractum	3	33.3		3						0.10	8	3	22
Calytrix tetragona	3	33.3	1	2						0.07	83	23	
Cheiranthera alternifolia	3	33.3	1	2						0.07	7	3	16
Eremophila behriana	3	33.3	1	2						0.07	4	2	23
Logania ovata	3	33.3	1	2						0.07	26	7	8
Melaleuca lanceolata	3	33.3	1	2						0.07	232	41	
Olearia ciliata var. *ciliata*	3	33.3	1	2						0.07	30	5	1
Ozothamnus retusus	3	33.3	1	2						0.07	14	6	6
Pultenaea acerosa	3	33.3	1	2						0.07	9	4	10
Other Significant Perennial Taxa													
Dodonaea bursariifolia	2	22.2		2						0.10	8	6	10
Daviesia benthamii ssp. *humilis*	2	22.2	1	1						0.06	4	3	19
Annual Taxa Occurring at >30% of Sites													
Thysanotus patersonii	7	77.8	2	4	1					0.20	118	29	
Drosera macrantha ssp. *planchonii*	6	66.7		5	1					0.25	73	20	
Millotia tenuifolia var. *tenuifolia*	6	66.7		5	1					0.25	32	11	
Goodenia willisiana	6	66.7		6						0.10	90	25	
**Hypochaeris glabra*	5	55.6		4	1					0.28	349	54	
Blennospora drummondii	5	55.6		4	1					0.28	41	13	
**Galium murale*	4	44.4		3	1					0.33	268	49	
**Sonchus oleraceus*	4	44.4		4						0.10	588	77	
Brachyscome perpusilla	4	44.4		4						0.10	20	9	
Thelymitra nuda	4	44.4		4						0.10	39	15	
**Moraea setifolia*	3	33.3		2	1					0.40	335	60	
Crassula colorata var.	3	33.3		2	1					0.40	65	26	
Eriochilus cucullatus	3	33.3		2	1					0.40	22	11	
Wahlenbergia gracilenta	3	33.3		2	1					0.40	68	23	

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Pheladenia deformis	3	33.3	1	1	1					0.37	19	7	
Rhodanthe laevis	3	33.3	1	1	1					0.37	11	2	
Daucus glochidiatus	3	33.3		3						0.10	328	56	

Figure 121.
***Eucalyptus incrassata*, *Melaleuca uncinata* +/- *E. socialis* Open Mallee at site MIN01101 in Porters Scrub, north of Yorketown.**

Fauna at sites in Floristic Group 51

Trapping effort at 1 of 9 sites. Mammals recorded at 1 site, birds at 1, reptiles at 1 and a frog at 1.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Chalinolobus gouldii	Gould's Wattled Bat			1	1
Lepus capensis	Brown Hare			1	1
Macropus sp.				1	2
Mus musculus	House Mouse			1	1
Nyctophilus geoffroyi	Lesser Long-eared Bat			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			1	8
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			1	3
Anthochaera carunculata	Red Wattlebird			1	2
Cacatua roseicapilla	Galah			1	22
Colluricincla harmonica	Grey Shrike-thrush			1	12
Corvus mellori	Little Raven			1	38
Drymodes brunneopygia	Southern Scrub-robin			1	3
Gymnorhina tibicen	Australian Magpie			1	6
Lichenostomus cratitius	Purple-gaped Honeyeater			1	25
Oreoica gutturalis	Crested Bellbird			1	1
Pachycephala pectoralis	Golden Whistler			1	2

Bird species	Common name	SA	Aus	Site freq	Number obs
Pardalotus punctatus	Spotted Pardalote			1	4
Phaps chalcoptera	Common Bronzewing			1	2
Phaps elegans	Brush Bronzewing			1	2
Phylidonyris albifrons	White-fronted Honeyeater			1	2
Pomatostomus superciliosus	White-browed Babbler			1	8
Psephotus varius	Mulga Parrot			1	5
Sericornis frontalis	White-browed Scrubwren			1	3
Smicrornis brevirostris	Weebill			1	1
Strepera versicolor	Grey Currawong			1	1

Reptile species	Common name	SA	Aus	Site freq	Number obs
Ctenotus schomburgkii	Sandplain Ctenotus			1	1
Hemiergis peronii	Four-toed Earless Skink			1	2
Menetia greyii	Dwarf Skink			1	1
Tiliqua rugosa	Sleepy Lizard			1	2
Varanus gouldii	Sand Goanna			1	1

Frog species	Common name	Site freq	Number obs
Neobatrachus pictus	Painted Frog	1	3

Floristic Group 52 *Eucalyptus incrassata* Mallee

This Mallee group is characterised by *Eucalyptus incrassata*. Compared to Floristic Group 51 the understorey is more open and *Melaleuca uncinata* is absent. The understorey is dominated by *Rhagodia parabolica*, *Enchylaena tomentosa* var. *tomentosa*, *Melaleuca acuminata* ssp. *acuminata* and the exotic *Asparagus asparagoides*. The most frequently occurring annual species are the exotics *Avena barbata*, *Bromus diandrus*, *Brassica tournefortii* and *Moraea setifolia*. The group is associated with sand and sandy loam soils on dunes and sand plains from scattered locations on the northern Adelaide Plains and northern Yorke Peninsula.

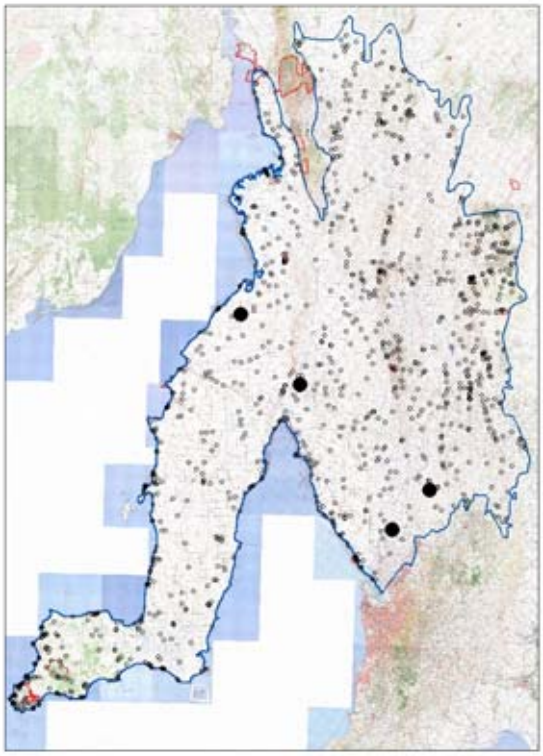
All sites within this group occur in soil land units that are unaffected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Dune crest	1	25
Dune slope	1	25
Sandy plain	1	25
Hill footslope	1	25

LANDFORM PATTERN	Frequency	%
Longitudinal dunefield	1	25
Consolidated dunefield	1	25
Plain	1	25
Sand plain	1	25

SALT	Frequency	%
Class A	4	100

SOIL	Frequency	%
Sand	3	75
Loam	1	25



Number of sites in group 4

PLANT TAXA SUMMARY

Number of taxa in group	110
Number of native taxa in group	67
Perennial	47
Annual	20
Number of introduced taxa in group	43
Perennial	3
Annual	40

Average Number of Taxa at a site:

Native perennial	16	Min:	4	Max:	34
Introduced perennial	2	Min:	1	Max:	2
Native annual	6	Min:	0	Max:	18
Introduced annual	14	Min:	7	Max:	26
All taxa	37	Min:	13	Max:	80

Number of Taxa of Conservation Significance:

Aust	0	SA	1				
Regions:		EP	n/a	FR	n/a	MU	n/a
		NL	15	SL	2	YP	0

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Eucalyptus incrassata	4	100				3	1			2.25	17	6	57
Enchylaena tomentosa var. *tomentosa*	3	75	1			2				1.34	425	58	7
Rhagodia parabolica	3	75	1		1		1			1.34	205	36	14
**Asparagus asparagoides*	3	75			3					1.00	113	31	20
Melaleuca acuminata ssp. *acuminata*	3	75	2		1					0.34	60	18	6
Lepidosperma viscidum	2	50	1			1				1.01	69	19	6
**Lycium ferocissimum*	2	50		1	1					0.55	339	65	2
Austrodanthonia caespitosa	2	50		2						0.10	394	53	
Dianella revoluta var. *revoluta*	2	50		2						0.10	306	47	
Melaleuca lanceolata	2	50	1	1						0.06	232	41	
Lasiopetalum baueri	2	50	2							0.01	29	10	
Pittosporum angustifolium	2	50	2							0.01	213	46	
Other Significant Perennial Taxa													
Panicum effusum var. *effusum*	1	25		1						0.10	4	4	12
Annual Taxa Occurring at >30% of Sites													
**Avena barbata*	3	75		1	1	1				1.03	661	71	
**Bromus diandrus*	3	75		1	1	1				1.03	310	54	
**Brassica tournefortii*	3	75		2	1					0.40	139	33	
**Moraea setifolia*	3	75		2	1					0.40	335	60	
**Ehrharta longiflora*	2	50		1	1					0.55	45	19	
**Hypochaeris glabra*	2	50		1	1					0.55	349	54	
**Oxalis pes-caprae*	2	50		1	1					0.55	169	47	
**Reichardia tingitana*	2	50		1	1					0.55	64	22	
Vittadinia cervicularis var. *cervicularis*	2	50		1	1					0.55	75	29	
**Arctotheca calendula*	2	50	1		1					0.51	208	45	
**Salvia verbenaca* var. *verbenaca*	2	50		2						0.10	95	32	
Goodenia willisiana	2	50		2						0.10	90	25	
**Echium plantagineum*	2	50	1	1						0.06	352	48	
**Pentaschistis airoides*	2	50	1	1						0.06	91	23	

Figure 122.
***Eucalyptus incrassata* Mallee at site LOC2F25 on a sand dune south of Lochiel.**

Fauna at sites in Floristic Group 52 – no sites sampled for fauna

Floristic Group 53 *Eucalyptus leptophylla*, *E. phenax* +/- *E. socialis* ssp. Mallee

Eucalyptus leptophylla and *E. phenax* ssp. dominate this Mallee group. On occasions *E. socialis* ssp. also occurs as co-dominant. Prominent mid-storey species include *Melaleuca acuminata* ssp. *acuminata* and *Acacia microcarpa*. The ground layer is dominated by *Helichrysum leucopsideum*, *Acrotriche patula*, *Gahnia deusta*, *Dianella revoluta* var. *revoluta* and *Enchylaena tomentosa* var. *tomentosa*. The most frequently occurring annuals are the natives *Goodenia willisiana* and *Thysanotus patersonii*, and the exotics *Bromus rubens* and *Moraea setifolia*. The group is associated with loam and clay soils on plains and hill slopes of northern Yorke Peninsula.

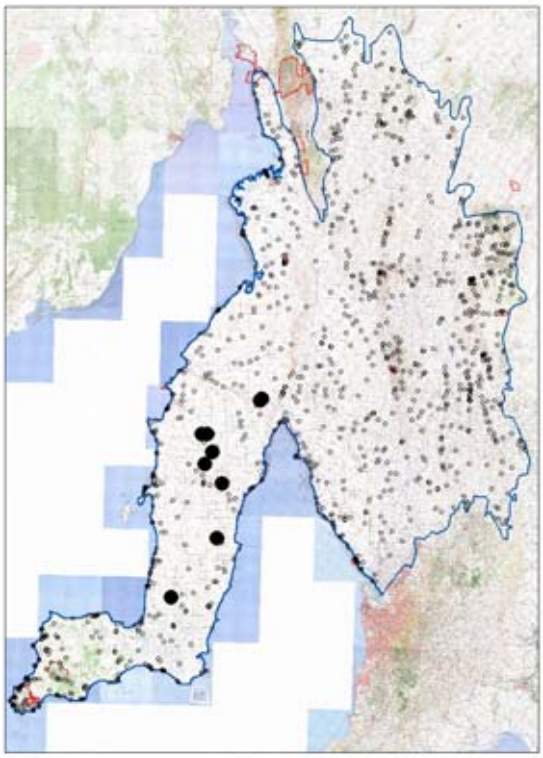
Sites within this group tend to occur in soil land units that are either unaffected or only slightly affected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Plain	6	66.7
Hill slope	3	33.3

LANDFORM PATTERN	Frequency	%
Plain	6	66.7
Low hills	2	22.2
Hills	1	11.1

SALT	Frequency	%
Class A	7	77.8
Class B	2	22.2

SOIL	Frequency	%
Sand	1	11.1
Loam	5	55.6
Clay	3	33.3



Number of sites in group 9

PLANT TAXA SUMMARY

Number of taxa in group	177
Number of native taxa in group	157
Perennial	114
Annual	43
Number of introduced taxa in group	20
Perennial	2
Annual	18

Average Number of Taxa at a site:

Native perennial	32	Min: 21	Max: 50
Introduced perennial	1	Min: 0	Max: 1
Native annual	10	Min: 2	Max: 23
Introduced annual	4	Min: 1	Max: 9
All taxa	46	Min: 28	Max: 59

Number of Taxa of Conservation Significance:

Aust	1	SA	4			
Regions:		EP	n/a	FR	n/a	MU	n/a
		NL	n/a	SL	n/a	YP	29

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Eucalyptus leptophylla	8	88.9				8				2.00	32	10	50
Eucalyptus phenax ssp.	7	77.8		2		4	1			1.60	45	14	30
Helichrysum leucopsideum	7	77.8		4	3					0.49	229	43	4
Acrotriche patula	7	77.8	1	3	3					0.47	202	32	4
Dianella revoluta var. *revoluta*	7	77.8		7						0.10	306	47	1
Enchylaena tomentosa var. *tomentosa*	7	77.8		7						0.10	425	58	1
Melaleuca acuminata ssp. *acuminata*	6	66.7		1	2	2	1			1.52	60	18	21
Comesperma volubile	6	66.7	1	3	2					0.39	94	29	13
Austrostipa acrociliata	6	66.7	1	4	1					0.24	98	29	5
Clematis microphylla var. *microphylla*	6	66.7		6						0.10	250	46	1
Eutaxia microphylla var. *microphylla*	6	66.7	2	4						0.07	111	30	2
Alyxia buxifolia	5	55.6	1	2		1	1			1.04	122	30	4
Gahnia lanigera	5	55.6		2	3					0.64	142	27	1
Acacia spinescens	5	55.6		4	1					0.28	89	18	8
Dampiera rosmarinifolia	5	55.6		4	1					0.28	40	11	8
Lasiopetalum baueri	5	55.6	1	3	1					0.26	29	10	12
**Asparagus asparagoides*	5	55.6		5						0.10	113	31	1
Austrostipa elegantissima	5	55.6		5						0.10	290	53	1
Bursaria spinosa ssp. *spinosa*	5	55.6	2	3						0.06	255	39	
Eucalyptus socialis ssp.	4	44.4				3	1			2.25	114	25	5
Gahnia deusta	4	44.4	1			2	1			1.75	25	7	32
Melaleuca uncinata	4	44.4		1	1	2				1.28	24	5	6
Cassytha peninsularis var. *peninsularis*	4	44.4		1	2	1				1.03	64	17	12
Pimelea serpyllifolia ssp. *serpyllifolia*	4	44.4		1	3					0.78	174	31	4
Halgania cyanea	4	44.4		2	2					0.55	19	10	15
Cassytha melantha	4	44.4		3	1					0.33	70	25	5
Correa backhouseana var. *coriacea*	4	44.4		3	1					0.33	30	9	11
Melaleuca lanceolata	4	44.4	1	2	1					0.30	232	41	
Pittosporum angustifolium	4	44.4	2	2						0.06	213	46	1
Acacia microcarpa	3	33.3		1		2				1.37	12	8	31
Acacia hakeoides	3	33.3		1	2					0.70	55	20	4
Austrostipa scabra ssp.	3	33.3		1	2					0.70	233	41	1
Lepidosperma viscidum	3	33.3		1	2					0.70	69	19	2
Chenopodium desertorum ssp.	3	33.3		3						0.10	118	26	1
Grevillea ilicifolia ssp. *ilicifolia*	3	33.3		3						0.10	26	11	3
Lepidosperma congestum	3	33.3		3						0.10	114	18	
Lomandra effusa	3	33.3		3						0.10	230	41	
Pimelea glauca	3	33.3		3						0.10	60	19	2
Teucrium sessiliflorum	3	33.3		3						0.10	69	22	1
Vittadinia megacephala	3	33.3		3						0.10	43	22	2
Baeckea crassifolia	3	33.3	2	1						0.04	16	4	1
Exocarpos aphyllus	3	33.3	3							0.01	182	40	
Other Significant Perennial Taxa													
Eucalyptus calycogona ssp. *trachybasis*	2	22.2			1	1				1.50	10	5	10
Olearia pannosa ssp. *pannosa*	2	22.2			2					1.00	17	10	13
Annual Taxa Occurring at >30% of Sites													
Goodenia willisiana	7	77.8		5	2					0.36	90	25	
**Bromus rubens*	6	66.7		6						0.10	365	57	
Thysanotus patersonii	6	66.7	1	5						0.09	118	29	
**Moraea setifolia*	5	55.6		4	1					0.28	335	60	
Podolepis jaceoides	5	55.6	1	4						0.08	14	7	
Pterostylis mutica	4	44.4	1	2	1					0.30	26	9	
Senecio glossanthus	4	44.4		4						0.10	128	34	
Thelymitra nuda	4	44.4		4						0.10	39	15	
Oxalis perennans	3	33.3		1	2					0.70	393	53	
Senecio dolichocephalus/phelleus	3	33.3		1	2					0.70	24	13	
**Linum strictum* ssp. *strictum*	3	33.3		2	1					0.40	133	28	
Pterostylis sp. Coastal (R.Bates 37621)	3	33.3		2	1					0.40	17	6	
**Galium murale*	3	33.3		3						0.10	268	49	
**Vicia monantha*	3	33.3		3						0.10	47	23	
Daucus glochidiatus	3	33.3		3						0.10	328	56	
Pterostylis pusilla	3	33.3		3						0.10	9	6	

Figure 123.
***Eucalyptus leptophylla*, *E. phenax* +/- *E. socialis* ssp. Mallee at site ARD0801 west of Ardrossan.**

Fauna at sites in Floristic Group 53 – no sites sampled for fauna

Floristic Group 54 *Alyxia buxifolia* +/- *Leucopogon parviflorus* Shrubland

This Shrubland group is characterised by *Alyxia buxifolia*. *Leucopogon parviflorus* occasionally occurs as a co-dominant, while *Olearia axillaris* rarely does. The mid-dense understorey is dominated by *Acacia* sp. Winged (C.R.Alcock 4936), *Helichrysum leucopsideum*, *Tetragonia implexicoma*, *Rhagodia candolleana* ssp. *candolleana*, *Myoporum insulare*, *Acrotriche patula*, *Carpobrotus rossii*, *Threlkeldia diffusa* and *Muehlenbeckia gunnii*. The most frequently occurring annuals are the exotics *Lagurus ovatus*, *Minuartia mediterranea*, *Anagallis arvensis*, *Melilotus indicus*, *Linum strictum* ssp. *strictum* and *Sonchus oleraceus*, and the native *Daucus glochidiatus*. The group is associated with coastal sand dunes of southern Yorke Peninsula, particularly Sturt Bay. Isolated occurrences were also recorded near Maitland and on the coast north of Adelaide near Dublin.

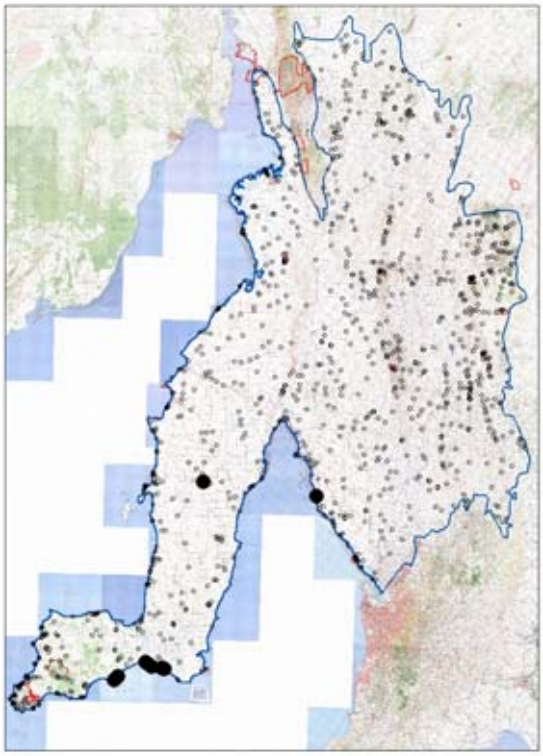
Most sites within this group occur in soil land units that are either unaffected or only slightly affected by saline seepage. However, one site occurs in a land unit with moderately high salinity and one in a land unit with very high to extreme salinity. As many of the coastal dune systems of South Australia are derived from sandy sea beds exposed during the last ice age they tend to be saline to varying degrees (Specht 1972). Therefore, being associated with coastal dunes infers this group is able to tolerate a variety of salinity levels.

LANDFORM ELEMENT	Frequency	%
Dune/consolidated dune	4	28.6
Dune slope	2	14.3
Swale	2	14.3
Interdune low	2	14.3
Dune crest	1	7.1
Interdune corridor	1	7.1
Beach ridge	1	7.1
Hill slope	1	7.1

LANDFORM PATTERN	Frequency	%
Consolidated dunefield	9	64.3
Dunefield	3	21.4
Beach ridge plain	1	7.1
Hills	1	7.1

SALT	Frequency	%
Class A	11	78.6
Class B	1	7.1
Class D	1	7.1
Class G	1	7.1

SOIL	Frequency	%
Sand	12	85.7
Loam	1	7.1
Clay	1	7.1



Number of sites in group 14

PLANT TAXA SUMMARY

Number of taxa in group	204
Number of native taxa in group	151
Perennial	101
Annual	50
Number of introduced taxa in group	53
Perennial	5
Annual	48

Average Number of Taxa at a site:

Native perennial	26	Min: 18	Max: 40
Introduced perennial	1	Min: 0	Max: 2
Native annual	8	Min: 2	Max: 26
Introduced annual	13	Min: 5	Max: 21
All taxa	47	Min: 32	Max: 76

Number of Taxa of Conservation Significance:

Aust	2	SA	3			
Regions:		EP	n/a	FR	n/a	MU n/a
		NL	2	SL	n/a	YP 8

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Alyxia buxifolia	14	100.0				4	9	1		2.79	122	30	33
Helichrysum leucopsideum	13	92.9		2	11					0.86	229	43	10
Tetragonia implexicoma	13	92.9		9	1	3				0.61	203	32	8
Acacia sp. Winged (C.R.Alcock 4936)	11	78.6	2	4		5				0.95	49	11	40
Rhagodia candolleana ssp. *candolleana*	11	78.6	1	7		3				0.61	218	35	7
Acrotriche patula	11	78.6	1	6	2	2				0.60	202	32	5
Carpobrotus rossii	11	78.6	2	5	2	2				0.59	159	22	11
Threlkeldia diffusa	11	78.6		8	3					0.35	193	34	5
Dianella brevicaulis	11	78.6	3	7	1					0.16	157	28	2
Pimelea serpyllifolia ssp. *serpyllifolia*	11	78.6	4	7						0.07	174	31	1
Olearia axillaris	10	71.4	1	5		3	1			0.95	168	19	6
Poa poiformis var. *poiformis*	10	71.4		8	2					0.28	67	15	6
Clematis microphylla var. *microphylla*	10	71.4	1	7	2					0.27	250	46	4
Myoporum insulare	10	71.4	5	4		1				0.25	56	15	14
Leucopogon parviflorus	9	64.3	1	2		4	2			1.58	91	15	12
Austrostipa flavescens	9	64.3		8	1					0.20	62	24	7
**Lycium ferocissimum*	8	57.1	3	3		2				0.54	339	65	3
Lepidosperma gladiatum	8	57.1	2	5	1					0.19	37	9	3
Lepidosperma congestum	7	50.0		3	3	1				0.76	114	18	2
Senecio pinnatifolius	7	50.0		2	5					0.74	171	27	3
Muehlenbeckia gunnii	7	50.0		6		1				0.37	71	19	10
Gahnia lanigera	6	42.9		3	2	1				0.72	142	27	1
Acacia nematophylla	6	42.9	2	2		2				0.70	71	12	3
Lomandra effusa	6	42.9		5	1					0.25	230	41	1
Beyeria lechenaultii	5	35.7	3			2				0.81	148	33	2
Kennedia prostrata	5	35.7	1	4						0.08	38	18	2
Annual Taxa Occurring at >30% of Sites													
**Lagurus ovatus*	13	92.9		1	4	4	2	2		2.01	152	27	
Daucus glochidiatus	13	92.9		5	8					0.65	328	56	
**Minuartia mediterranea*	11	78.6		2	9					0.84	146	27	
**Anagallis arvensis*	11	78.6		3	8					0.75	341	49	
**Melilotus indicus*	10	71.4		3	6	1				0.83	82	17	
**Linum strictum* ssp. *strictum*	10	71.4		2	8					0.82	133	28	
**Sonchus oleraceus*	10	71.4		7	3					0.37	588	77	
**Galium murale*	9	64.3		2	7					0.80	268	49	
**Brassica tournefortii*	9	64.3		5	4					0.50	139	33	
**Stellaria media*	9	64.3		7	2					0.30	115	30	
**Silene nocturna*	8	57.1		6	2					0.33	159	41	
Crassula decumbens var. *decumbens*	7	50.0			7					1.00	107	23	
**Rostraria cristata*	7	50.0		3	4					0.61	229	49	
Crassula colorata var. *colorata*	6	42.9			6					1.00	25	16	
**Vulpia myuros* f. *myuros*	6	42.9		1	5					0.85	292	60	
**Avena barbata*	6	42.9		4	2					0.40	661	71	
Geranium retrorsum	6	42.9		4	2					0.40	100	28	
Crassula colligata ssp.	5	35.7		1	4					0.82	234	45	
**Buglossoides arvensis*	5	35.7		4	1					0.28	50	24	
Microseris lanceolata	5	35.7		4	1					0.28	132	37	
Caladenia latifolia	5	35.7		5						0.10	47	13	
Cyrtostylis robusta	5	35.7		5						0.10	50	15	
Podotheca angustifolia	5	35.7		5						0.10	82	21	

Figure 124.
***Alyxia buxifolia +/- Leucopogon parviflorus* Shrubland at site COO01401 in Point Davenport Conservation Park.**

Fauna at sites in Floristic Group 54

Trapping effort at 2 of 14 sites. Mammals recorded at 2 sites, birds at 2 and reptiles at 2.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Mus musculus	House Mouse			2	6
Macropus fuliginosus	Western Grey Kangaroo			1	1
Macropus sp.				1	1
Rattus rattus	Black Rat			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			2	11
Chrysococcyx basalis	Horsfield's Bronze-cuckoo			2	2
Colluricincla harmonica	Grey Shrike-thrush			2	4
Gymnorhina tibicen	Australian Magpie			2	8
Malurus lamberti	Variegated Fairy-wren			2	19
Phaps elegans	Brush Bronzewing			2	5
Sericornis frontalis	White-browed Scrubwren			2	9
Strepera versicolor	Grey Currawong			2	3
Sturnus vulgaris	Common Starling			2	5
Zosterops lateralis	Silvereye			2	25
Alauda arvensis	Eurasian Skylark			1	1
Anthochaera carunculata	Red Wattlebird			1	1
Cacatua roseicapilla	Galah			1	4
Cacomantis flabelliformis	Fan-tailed Cuckoo			1	1
Corvus coronoides	Australian Raven			1	5
Corvus mellori	Little Raven			1	8
Cracticus torquatus	Grey Butcherbird			1	1
Cuculus pallidus	Pallid Cuckoo			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Egretta novaehollandiae	White-faced Heron			1	1
Falco berigora	Brown Falcon			1	1
Hirundo neoxena	Welcome Swallow			1	8
Larus novaehollandiae	Silver Gull			1	2
Lichenostomus virescens	Singing Honeyeater			1	14
Ocyphaps lophotes	Crested Pigeon			1	5
Phylidonyris novaehollandiae	New Holland Honeyeater			1	1
Pomatostomus superciliosus	White-browed Babbler			1	9
Rhipidura albiscapa	Grey Fantail			1	1

Reptile species	Common name	SA	Aus	Site freq	Number obs
Hemiergis peronii	Four-toed Earless Skink			2	6
Lerista dorsalis	Southern Four-toed Slider			2	5
Aprasia striolata	Lined Worm-lizard			1	6
Christinus marmoratus	Marbled Gecko			1	1
Cryptoblepharus virgatus	Striped Wall Skink			1	1
Menetia greyii	Dwarf Skink			1	3
Morethia obscura	Mallee Snake-eye			1	1
Pseudonaja inframacula	Peninsula Brown Snake			1	3
Pygopus lepidopodus	Common Scaly-foot			1	1
Ramphotyphlops bituberculatus	Rough-nosed Blind Snake			1	1
Tiliqua rugosa	Sleepy Lizard			1	1

Floristic Group 55 *Callitris gracilis* +/- *Eucalyptus brachycalyx* Low Woodland over *Alyxia buxifolia*

This is a loose group dominated by *Callitris gracilis* and, on *occasions Eucalyptus brachycalyx*, and characterised by mid-dense *Alyxia buxifolia* in the shrub layer. Both *Eucalyptus oleosa* ssp. and *E. socialis* ssp. may also, on rare occasions, be co-dominant. Other prominent medium to tall shrubs include *Acacia sclerophylla* var. *sclerophylla*, *A. hakeoides*, *A. notabilis* and *Senna artemisioides* ssp. *petiolaris*. The ground layer features *Rhagodia preissii* ssp. *preissii*, *Enchylaena tomentosa* var. *tomentosa*, *Asparagus asparagoides*, *Olearia muelleri*, *Austrodanthonia caespitosa* and *Dianella revoluta* var. *revoluta*. The most frequently occurring annuals are the exotics *Avena barbata* and *Carrichtera annua*. The group is associated with loam soils on the plains north of Adelaide, particularly near Halbury and Owen.

This group differs from Floristic Group 22 (*Callitris gracilis* Low Open Forest over grasses) in that the overstorey here tends to be more open and has several mallee species as occasional co-dominants, while in Group 22 the *Callitris gracilis* forms a denser overstorey without co-dominants. The understorey differs too, in that here it is more dense and dominated by shrubs, compared to open and grassy in Group 22.

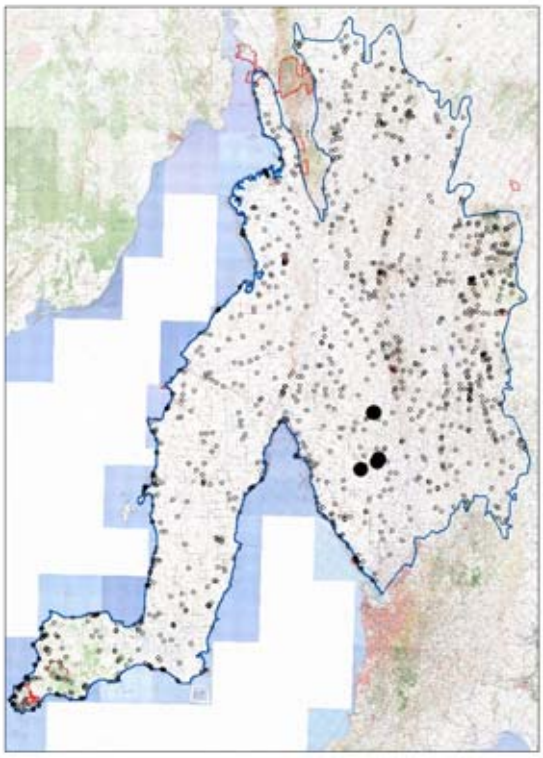
All sites within this group occur in soil land units that are unaffected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Plain	5	100

LANDFORM PATTERN	Frequency	%
Plain	4	80
Not recorded	1	20

SALT	Frequency	%
Class A	5	100

SOIL	Frequency	%
Loam	5	100



Number of sites in group 5

PLANT TAXA SUMMARY

Number of taxa in group	116
Number of native taxa in group	75
Perennial	57
Annual	18
Number of introduced taxa in group	41
Perennial	2
Annual	39

Average Number of Taxa at a site:

Native perennial	24	Min: 17	Max: 31
Introduced perennial	2	Min: 1	Max: 2
Native annual	6	Min: 2	Max: 13
Introduced annual	11	Min: 5	Max: 14
All taxa	44	Min: 34	Max: 51

Number of Taxa of Conservation Significance:

Aust	0	SA	0			
Regions:		EP	n/a	FR	n/a	MU	n/a
		NL	3	SL	n/a	YP	n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Alyxia buxifolia	5	100			1	2	1	1		2.40	122	30	28
Enchylaena tomentosa var. *tomentosa*	5	100	1		3	1				1.00	425	58	9
**Asparagus asparagoides*	5	100		2	3					0.64	113	31	23
Rhagodia preissii ssp. *preissii*	5	100	1	1	3					0.62	23	13	54
Austrodanthonia caespitosa	5	100		3	2					0.46	394	53	3
Dianella revoluta var. *revoluta*	5	100		3	2					0.46	306	47	6
Acacia sclerophylla var. *sclerophylla*	4	80	2			2				1.01	12	5	75
Teucrium sessiliflorum	4	80		4						0.10	69	22	5
**Lycium ferocissimum*	4	80	1	3						0.08	339	65	1
Beyeria lechenaultii	4	80	2	2						0.06	148	33	1
Callitris gracilis	3	60			2		1			1.67	88	28	12
Senna artemisioides ssp. *petiolaris*	3	60		1	1	1				1.03	49	18	20
Acacia hakeoides	3	60	1	1		1				0.70	55	20	11
Austrostipa scabra ssp.	3	60		1	2					0.70	233	41	4
Helichrysum leucopsideum	3	60	1		2					0.67	229	43	3
Acacia notabilis	3	60		2	1					0.40	50	20	13
Austrostipa eremophila	3	60		2	1					0.40	177	36	2
Pittosporum angustifolium	3	60	1	1	1					0.37	213	46	7
Austrostipa elegantissima	3	60		3						0.10	290	53	1
Eucalyptus odorata	3	60	1	2						0.07	131	24	
Pimelea serpyllifolia ssp. *serpyllifolia*	3	60	2	1						0.04	174	31	
Amyema preissii	3	60	3							0.01	21	11	2
Eucalyptus brachycalyx	2	40				2				2.00	50	11	8
Eucalyptus oleosa ssp.	2	40	1				1			1.51	113	14	4
Olearia muelleri	2	40		1		1				1.05	29	10	20
Austrostipa acrociliata	2	40			2					1.00	98	29	8
Austrostipa drummondii	2	40			2					1.00	92	32	7
Austrostipa nitida	2	40			2					1.00	206	42	2
Eucalyptus dumosa	2	40		2						0.10	31	11	1
Lomandra multiflora ssp. *dura*	2	40		2						0.10	241	34	
Ptilotus spathulatus f. *spathulatus*	2	40		2						0.10	186	35	1
Chenopodium desertorum ssp.	2	40	1	1						0.06	118	26	1
Dodonaea baueri	2	40	1	1						0.06	45	19	1
Einadia nutans ssp.	2	40	1	1						0.06	215	44	1
Other Significant Perennial Taxa													
Eucalyptus socialis ssp.	1	20				1				2.00	114	25	1
Acacia halliana	1	20			1					1.00	4	4	19
Annual Taxa Occurring at >30% of Sites													
**Avena barbata*	5	100		2	3					0.64	661	71	
**Carrichtera annua*	4	80		1	3					0.78	204	40	
Crassula colligata ssp.	3	60		2	1					0.40	234	45	
Vittadinia cervicularis var. *cervicularis*	3	60		2	1					0.40	75	29	
**Silene nocturna*	3	60	1	2						0.07	159	41	
Arthropodium strictum	3	60	1	2						0.07	254	36	
Maireana enchylaenoides	3	60	1	2						0.07	254	33	
**Bromus diandrus*	2	40		1		1				1.05	310	54	
**Bromus rubens*	2	40		1	1					0.55	365	57	
**Centaurea melitensis*	2	40		1	1					0.55	38	16	
**Rostraria cristata*	2	40		1	1					0.55	229	49	
Calandrinia eremaea	2	40		1	1					0.55	54	24	
**Bupleurum semicompositum*	2	40		2						0.10	90	32	
**Medicago minima* var. *minima*	2	40		2						0.10	243	54	
**Sonchus oleraceus*	2	40		2						0.10	588	77	
Crassula colorata var. *acuminata*	2	40		2						0.10	100	34	
Goodenia willisiana	2	40		2						0.10	90	25	
Lagenophora huegelii	2	40		2						0.10	81	26	
**Anagallis arvensis*	2	40	1	1						0.06	341	49	
Daucus glochidiatus	2	40	1	1						0.06	328	56	
Thysanotus baueri	2	40	1	1						0.06	50	21	

Figure 125.
***Callitris gracilis*, +/- *Eucalyptus brachycalyx* Low Woodland over *Alyxia buxifolia* at site DUB00401 at Pinery, south of Balaklava.**

Fauna at sites in Floristic Group 55 – no sites sampled for fauna

Floristic Group 56 *Acacia nematophylla* Shrubland +/- an overstorey of *Allocasuarina verticillata* Low Woodland

This group is characterised by *Acacia nematophylla* in a Shrubland formation although, on occasions, there may be an *Allocasuarina verticillata* Low Woodland overstorey. *Leucopogon parviflorus* and *Pomaderris paniculosa* ssp. may occur as co-dominants in the shrub layer. Prominent species in the understorey include *Lepidosperma gladiatum*, *Olearia axillaris*, *Myoporum insulare*, *Dianella brevicaulis*, *Clematis microphylla* var. *microphylla*, *Muehlenbeckia adpressa*, *Lepidosperma concavum* and the exotic *Lycium ferocissimum*. The most frequently occurring annuals are the exotics *Lagurus ovatus*, *Anagallis arvensis*, *Sonchus oleraceus* and *Minuartia mediterranea*, and the natives *Daucus glochidiatus* and *Geranium retrorsum*. The group is associated with coastal sand dunes of southern Yorke Peninsula.

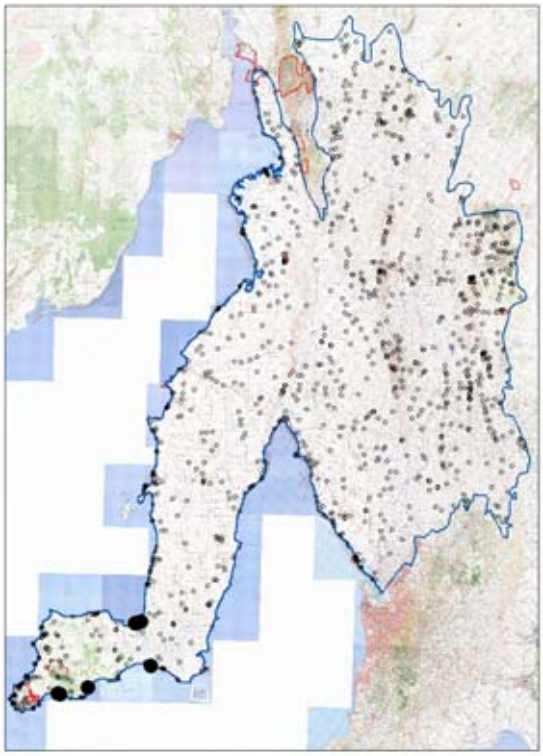
Sites within this group tend to occur in soil land units that are either unaffected or only slightly affected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Dune slope	4	44.4
Dune crest	2	22.2
Dune/consolidated dune	2	22.2
Dune footslope	1	11.1

LANDFORM PATTERN	Frequency	%
Dunefield	7	77.8
Consolidated dunefield	2	22.2

SALT	Frequency	%
Class A	6	66.7
Class B	3	33.3

SOIL	Frequency	%
Sand	8	88.9
Loam	1	11.1



Number of sites in group 9

PLANT TAXA SUMMARY

Number of taxa in group	118
Number of native taxa in group	84
Perennial	59
Annual	25
Number of introduced taxa in group	34
Perennial	2
Annual	32

Average Number of Taxa at a site:

Native perennial	18	Min: 10	Max: 28
Introduced perennial	1	Min: 0	Max: 2
Native annual	6	Min: 3	Max: 10
Introduced annual	9	Min: 3	Max: 18
All taxa	34	Min: 21	Max: 52

Number of Taxa of Conservation Significance:

Aust	0	SA	0			
Regions:		EP	n/a	FR	n/a	MU n/a
		NL	n/a	SL	n/a	YP 2

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Acacia nematophylla	9	100.0				7	1	1		2.33	71	12	55
Lepidosperma gladiatum	7	77.8		2	1	3	1			1.46	37	9	40
Olearia axillaris	7	77.8	1	4	1	1				0.49	168	19	4
Allocasuarina verticillata	6	66.7	1			4	1			1.84	194	35	9
Dianella brevicaulis	6	66.7		5	1					0.25	157	28	3
Clematis microphylla var. *microphylla*	6	66.7	1	4	1					0.24	250	46	3
Rhagodia candolleana ssp. *candolleana*	6	66.7	1	5						0.09	218	35	1
Muehlenbeckia gunnii	6	66.7	2	4						0.07	71	19	3
**Lycium ferocissimum*	5	55.6	1	1		3				1.22	339	65	7
Leucopogon parviflorus	5	55.6	1	2	1			1		1.04	91	15	6
Myoporum insulare	5	55.6	2	1	1	1				0.62	56	15	22
Tetragonia implexicoma	5	55.6	2	1	1	1				0.62	203	32	3
Bursaria spinosa ssp. *spinosa*	5	55.6		4		1				0.48	255	39	2
Helichrysum leucopsideum	5	55.6		4	1					0.28	229	43	1
Poa poiformis var. *poiformis*	4	44.4		2	2					0.55	67	15	4
Isolepis nodosa	4	44.4		3	1					0.33	68	10	4
Lomandra effusa	4	44.4	1	2	1					0.30	230	41	1
Acrotriche patula	4	44.4		4						0.10	202	32	
Pomaderris paniculosa ssp.	3	33.3		1		2				1.37	97	26	4
Muehlenbeckia adpressa	3	33.3		2	1					0.40	14	6	17
Pimelea serpyllifolia ssp. *serpyllifolia*	3	33.3	1	1	1					0.37	174	31	1
Threlkeldia diffusa	3	33.3		3						0.10	193	34	
Carpobrotus rossii	3	33.3	1	2						0.07	159	22	
Beyeria lechenaultii	3	33.3	2	1						0.04	148	33	
Adriana quadripartita	3	33.3	3							0.01	17	7	1
Other Significant Perennial Taxa													
Lepidosperma concavum	2	22.2			1	1				1.50	7	5	19
Annual Taxa Occurring at >30% of Sites													
**Lagurus ovatus*	9	100.0			4	1	1	2	1	2.44	152	27	
**Anagallis arvensis*	8	88.9		5	3					0.44	341	49	
Daucus glochidiatus	8	88.9		6	2					0.33	328	56	
**Sonchus oleraceus*	8	88.9	2	6						0.08	588	77	
**Minuartia mediterranea*	6	66.7		1	4	1				1.02	146	27	
Geranium retrorsum	5	55.6	1	3	1					0.26	100	28	
Crassula colligata ssp.	4	44.4		2	2					0.55	234	45	
**Buglossoides arvensis*	4	44.4		3	1					0.33	50	24	
Cyrtostylis robusta	4	44.4		3	1					0.33	50	15	
**Galium murale*	3	33.3		1	2					0.70	268	49	
**Brassica tournefortii*	3	33.3	1	1	1					0.37	139	33	
**Lolium rigidum*	3	33.3	2		1					0.34	218	48	
**Stellaria media*	3	33.3		3						0.10	115	30	
Geranium potentilloides var. *potentilloides*	3	33.3		3						0.10	34	12	
Microseris lanceolata	3	33.3		3						0.10	132	37	
Parietaria australis/debilis	3	33.3		3						0.10	66	30	

Fauna at sites in Floristic Group 56

Trapping effort at 1 of 9 sites. Mammals recorded at 1 site, birds at 1, reptiles at 1 and a frog at 1.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Macropus sp.				1	2
Mus musculus	House Mouse			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			1	16
Acanthiza apicalis	Inland Thornbill			1	13
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			1	6
Anthochaera carunculata	Red Wattlebird			1	2
Cacatua roseicapilla	Galah			1	7
Chrysococcyx basalis	Horsfield's Bronze-cuckoo			1	1
Colluricincla harmonica	Grey Shrike-thrush			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Corvus mellori	Little Raven			1	9
Coturnix sp.				1	2
Cracticus torquatus	Grey Butcherbird			1	3
Lichenostomus virescens	Singing Honeyeater			1	14
Malurus lamberti	Variegated Fairy-wren			1	12
Manorina flavigula	Yellow-throated Miner			1	2
Ocyphaps lophotes	Crested Pigeon			1	7
Petroica goodenovii	Red-capped Robin			1	1
Phaps elegans	Brush Bronzewing			1	1
Phylidonyris albifrons	White-fronted Honeyeater			1	1
Pomatostomus superciliosus	White-browed Babbler			1	22
Psephotus varius	Mulga Parrot			1	2
Rhipidura albiscapa	Grey Fantail			1	3
Rhipidura leucophrys	Willie Wagtail			1	2
Sericornis frontalis	White-browed Scrubwren			1	10
Strepera versicolor	Grey Currawong			1	10
Sturnus vulgaris	Common Starling			1	7
Zosterops lateralis	Silvereye			1	6

Reptile species	Common name	SA	Aus	Site freq	Number obs
Aprasia striolata	Lined Worm-lizard			1	1
Hemiergis peronii	Four-toed Earless Skink			1	1
Lerista dorsalis	Southern Four-toed Slider			1	1
Menetia greyii	Dwarf Skink			1	1
Tiliqua rugosa	Sleepy Lizard			1	2

Frog species	Common name	Site freq	Number obs
Neobatrachus pictus	Painted Frog	1	1

Figure 126.
***Acacia nematophylla* Shrubland +/- an overstorey of *Allocasuarina verticillata* Low Woodland at site TUR01501 in coastal dunes at Hardwicke Bay, Southern Yorke Peninsula.**

Floristic Group 57 *Acacia ligulata* Tall Open Shrubland

This Tall Open Shrubland group is characterised by *Acacia ligulata* and is associated with coastal sand dunes of the east coast of Spencer Gulf, north of Port Victoria. Prominent species in the understorey include *Tetragonia implexicoma*, *Olearia axillaris*, *Threlkeldia diffusa*, *Austrostipa elegantissima*, *Senecio pinnatifolius* and the exotic *Lycium ferocissimum*. The most frequently occurring annuals are the exotics *Sonchus oleraceus*, *Galium murale*, *Anagallis arvensis*, *Bromus rubens*, *Minuartia mediterranea* and *Avena barbata*.

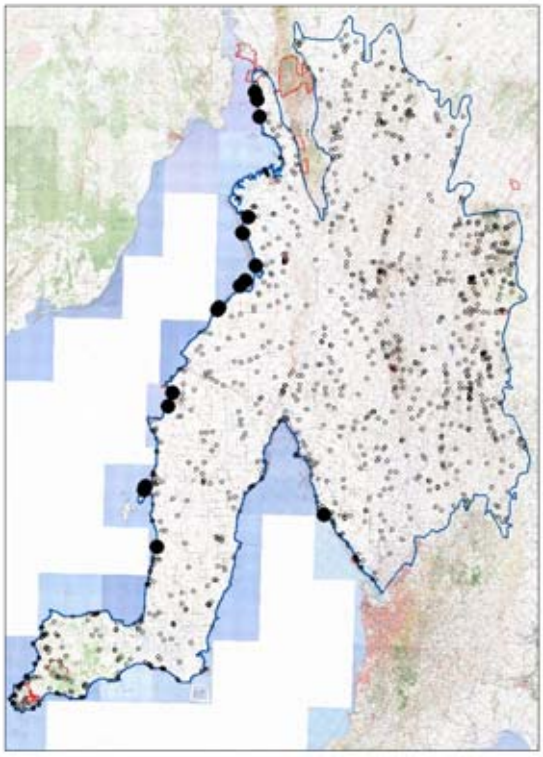
As many of the coastal dune systems of South Australia are derived from sandy sea beds exposed during the last ice age they tend to be saline to varying degrees (Specht 1972). Sites within this group occur in a range of soil land units (all coastal) that vary from unaffected to highly affected by saline seepage. The sites in the latter category tend to be on the coast near Port Broughton and Wandearah and are associated with low relief dunes adjacent to salt marsh communities. As these are naturally saline areas this group appears able to tolerate a variety of salinity levels.

LANDFORM ELEMENT	Frequency	%
Dune/consolidated dune	3	15
Dune slope	3	15
Beach ridge	3	15
Dune crest	2	10
Foredune	2	10
Dune footslope	1	5
Interdune corridor	1	5
Swale	1	5
Sandy plain	1	5
Plain	1	5
Closed depression	1	5
Flat	1	5

LANDFORM PATTERN	Frequency	%
Beach ridge plain	8	40
Dunefield	8	40
Parabolic dunefield	2	10
Longitudinal dunefield	1	5
Consolidated dunefield	1	5

SALT	Frequency	%
Class A	6	30
Class C	4	20
Class D	1	5
Class F	9	45

SOIL	Frequency	%
Sand	17	85
Loam	2	10
Not recorded	1	5



Number of sites in group 20

PLANT TAXA SUMMARY

Number of taxa in group	178
Number of native taxa in group	119
Perennial	84
Annual	35
Number of introduced taxa in group	59
Perennial	3
Annual	56

Average Number of Taxa at a site:

Native perennial	16	Min:	6	Max:	30
Introduced perennial	1	Min:	0	Max:	3
Native annual	4	Min:	1	Max:	10
Introduced annual	13	Min:	4	Max:	21
All taxa	35	Min:	21	Max:	57

Number of Taxa of Conservation Significance:

Aust	0	SA	2				
Regions:		EP	2	FR	n/a	MU	n/a
		NL	1	SL	n/a	YP	6

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Acacia ligulata	20	100	3		2	10	5			1.85	107	23	34
Tetragonia implexicoma	19	95	2	8	7	2				0.62	203	32	9
Olearia axillaris	15	75	8	3	2	2				0.43	168	19	2
Threlkeldia diffusa	15	75	4	10		1				0.20	193	34	3
Senecio pinnatifolius	13	65	3	9	1					0.15	171	27	1
**Lycium ferocissimum*	12	60	8	2		2				0.36	339	65	2
Austrostipa elegantissima	12	60	1	9	2					0.24	290	53	2
Dianella brevicaulis	11	55	3	5	3					0.32	157	28	2
Carpobrotus rossii	11	55	3	6	2					0.24	159	22	2
Rhagodia candolleana ssp. *candolleana*	11	55	6	4	1					0.13	218	35	1
Myoporum insulare	10	50	7	1	1	1				0.32	56	15	9
Clematis microphylla var. *microphylla*	10	50	3	6		1				0.26	250	46	2
**Euphorbia terracina*	9	45		2	7					0.80	54	16	9
Pittosporum angustifolium	8	40	5	2		1				0.28	213	46	2
Pomaderris paniculosa ssp.	7	35	3	2		2				0.60	97	26	2
Rhagodia parabolica	7	35	4	2		1				0.32	205	36	1
Scaevola spinescens	6	30		2		4				1.37	36	14	8
Pimelea serpyllifolia ssp. *serpyllifolia*	6	30		1	5					0.85	174	31	2
Austrodanthonia caespitosa	6	30		2	4					0.70	394	53	
Geijera linearifolia	6	30	2	3	1					0.22	86	19	1
Annual Taxa Occurring at >30% of Sites													
**Sonchus oleraceus*	17	85	1	9	7					0.47	588	77	
**Galium murale*	13	65		8	4	1				0.52	268	49	
**Anagallis arvensis*	13	65	2	7	4					0.36	341	49	
**Bromus rubens*	12	60	1	4	5	2				0.78	365	57	
**Minuartia mediterranea*	12	60		9	3					0.33	146	27	
**Avena barbata*	11	55	1	5	3	2				0.68	661	71	
**Brassica tournefortii*	11	55	1	5	5					0.50	139	33	
**Silene nocturna*	11	55	1	8	2					0.26	159	41	
**Carrichtera annua*	10	50		2	7	1				0.92	204	40	
**Rostraria cristata*	10	50		6	4					0.46	229	49	
**Erodium cicutarium*	10	50	1	8	1					0.18	124	42	
**Lagurus ovatus*	8	40		8						0.10	152	27	
**Moraea setifolia*	8	40	2	6						0.08	335	60	
Crassula colligata ssp.	7	35		4	3					0.49	234	45	
**Hordeum glaucum*	7	35		5	2					0.36	180	51	
**Bupleurum semicompositum*	7	35		6	1					0.23	90	32	
Angianthus tomentosus	6	30	1	2	2	1				0.70	21	11	
Podotheca angustifolia	6	30	1	2	3					0.54	82	21	
**Mesembryanthemum crystallinum*	6	30	1	4	1					0.24	51	18	
**Reichardia tingitana*	6	30	2	3	1					0.22	64	22	
**Avellinia michelii*	6	30	1	5						0.09	80	33	
Nicotiana maritima	6	30	3	3						0.06	11	6	

Figure 127.
***Acacia ligulata* Tall Open Shrubland at site WAR00501 in coastal dunes at Point Pearce.**

Fauna at sites in Floristic Group 57

Trapping effort at 4 of 20 sites. Mammals recorded at 4 sites, birds at 4 and reptiles at 4.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Mus musculus	House Mouse			4	6
Macropus sp.				3	4
Vulpes vulpes	Fox			3	3
Oryctolagus cuniculus	Rabbit			2	3
Felis catus	Cat			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			4	51
Lichenostomus virescens	Singing Honeyeater			4	43
Malurus lamberti	Variegated Fairy-wren			4	69
Corvus mellori	Little Raven			3	8
Pomatostomus superciliosus	White-browed Babbler			3	26
Sturnus vulgaris	Common Starling			3	10
Falco cenchroides	Nankeen Kestrel			2	5
Larus novaehollandiae	Silver Gull			2	7
Ocyphaps lophotes	Crested Pigeon			2	6
Oreoica gutturalis	Crested Bellbird			2	5
Phaps elegans	Brush Bronzewing			2	2
Rhipidura leucophrys	Willie Wagtail			2	9
Accipiter fasciatus	Brown Goshawk			1	1
Alauda arvensis	Eurasian Skylark			1	2
Anthus novaeseelandiae	Richard's Pipit			1	2
Chrysococcyx basalis	Horsfield's Bronze-cuckoo			1	1
Cincloramphus mathewsi	Rufous Songlark			1	6
Colluricincla harmonica	Grey Shrike-thrush			1	2

Bird species	Common name	SA	Aus	Site freq	Number obs
Coracina novaehollandiae	Black-faced Cuckoo-shrike			1	3
Coturnix pectoralis	Stubble Quail			1	1
Gallinula ventralis	Black-tailed Native-hen			1	3
Glossopsitta porphyrocephala	Purple-crowned Lorikeet			1	3
Gymnorhina tibicen	Australian Magpie			1	1
Melanodryas cucullata	Hooded Robin			1	2
Neophema chrysostoma	Blue-winged Parrot	V		1	20
Neophema sp.				1	1
Northiella haematogaster	Blue Bonnet			1	2
Pachycephala inornata	Gilbert's Whistler			1	2
Pelecanus conspicillatus	Australian Pelican			1	4
Phaps chalcoptera	Common Bronzewing			1	1
Sericornis frontalis	White-browed Scrubwren			1	3
Sterna caspia	Caspian Tern			1	1
Streptopelia chinensis	Spotted Turtle-dove			1	2
Turdus merula	Eurasian Blackbird			1	5
Zosterops lateralis	Silvereye			1	24

Reptile species	Common name	SA	Aus	Site freq	Number obs
Ctenophorus pictus	Painted Dragon			3	8
Hemiergis peronii	Four-toed Earless Skink			2	4
Menetia greyii	Dwarf Skink			2	3
Tiliqua rugosa	Sleepy Lizard			2	6
Demansia psammophis	Yellow-faced Whipsnake			1	1
Lerista dorsalis	Southern Four-toed Slider			1	1
Lerista terdigitata	Southern Three-toed Slider			1	2
Morethia obscura	Mallee Snake-eye			1	2
Nephrurus milii	Barking Gecko			1	1
Strophurus intermedius	Southern Spiny-tailed Gecko			1	1
Suta spectabilis	Mallee Black-headed Snake			1	1
Tympanocryptis lineata	Five-lined Earless Dragon			1	5

Floristic Group 58 *Olearia axillaris* +/- *Acacia ligulata* Tall Open Shrubland

This Tall Open Shrubland group is characterised by *Olearia axillaris*. *Acacia ligulata* is an occasional co-dominant, while *Allocasuarina verticillata* and *Acacia nematophylla* are only rarely so. The understorey features *Rhagodia candolleana* ssp. *candolleana*, *Dianella brevicaulis*, *Threlkeldia diffusa*, *Tetragonia implexicoma*, *Senecio pinnatifolius*, *Carpobrotus rossii*, *Muehlenbeckia gunnii* and *Acacia cyclops*, and the exotics *Lycium ferocissimum* and *Euphorbia terracina*. The most frequently occurring annuals are the exotics *Anagallis arvensis*, *Sonchus oleraceus*, *Lagurus ovatus*, *Galium murale* and *Brassica tournefortii*. The group is associated with coastal sand dunes of the west coast of central and northern Yorke Peninsula and both sides of upper Gulf St. Vincent.

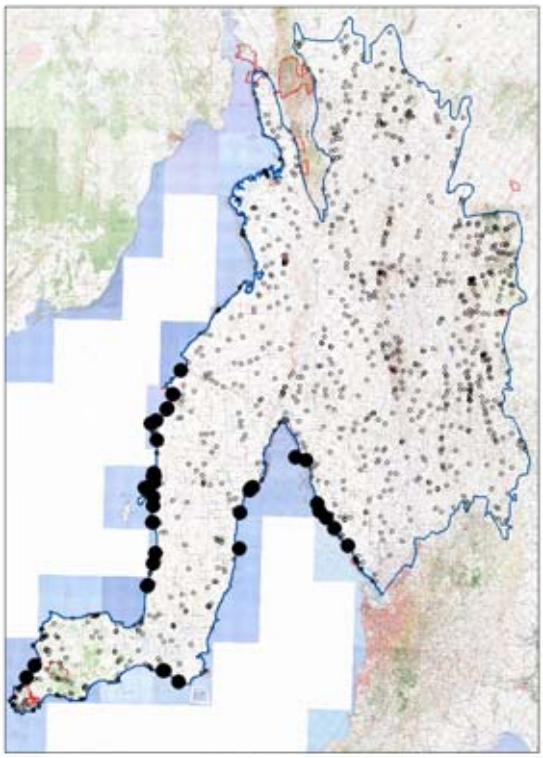
As many of the coastal dune systems of South Australia are derived from sandy sea beds exposed during the last ice age they tend to be saline to varying degrees (Specht 1972). Sites within this group occur in a range of soil land units (all coastal) that vary from unaffected to extremely affected by saline seepage. As these are naturally saline areas this group appears able to tolerate a variety of salinity levels.

LANDFORM ELEMENT	Frequency	%
Dune/consolidated dune	12	25.0
Dune slope	10	20.8
Swale	7	14.6
Foredune	5	10.4
Dune footslope	3	6.3
Beach ridge	3	6.3
Plain	2	4.2
Dune crest	1	2.1
Interdune corridor	1	2.1
Flat	1	2.1
Closed depression	1	2.1
Ridge	1	2.1
Other - chenier ridge	1	2.1

LANDFORM PATTERN	Frequency	%
Dunefield	27	56.3
Consolidated dunefield	7	14.6
Beach ridge plain	7	14.6
Parabolic dunefield	4	8.3
Plain	1	2.1
Chenier plain	1	2.1
Tidal flat	1	2.1

SALT	Frequency	%
Class A	26	54.2
Class B	3	6.3
Class C	9	18.8
Class D	5	10.4
Class F	2	4.2
Class G	3	6.3

SOIL	Frequency	%
Sand	45	93.8
Loam	2	4.2
Not recorded	1	2.1



Number of sites in group 48

PLANT TAXA SUMMARY

Number of taxa in group	197
Number of native taxa in group	127
Perennial	91
Annual	36
Number of introduced taxa in group	70
Perennial	8
Annual	62

Average Number of Taxa at a site:

Native perennial	15	Min:	6	Max:	25
Introduced perennial	2	Min:	0	Max:	5
Native annual	3	Min:	0	Max:	8
Introduced annual	10	Min:	1	Max:	17
All taxa	30	Min:	17	Max:	40

Number of Taxa of Conservation Significance:

Aust	1	SA	1			
Regions:		EP	n/a	FR	n/a	MU n/a
		NL	1	SL	6	YP 4

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Olearia axillaris	48	100.0		2	1	30	13	2		2.25	168	19	29
Rhagodia candolleana ssp. *candolleana*	45	93.8	2	23	8	12				0.76	218	35	12
Threlkeldia diffusa	44	91.7	1	30	9	4				0.45	193	34	9
Tetragonia implexicoma	42	87.5		28	11	2	1			0.50	203	32	6
Dianella brevicaulis	41	85.4	2	21	14	3	1			0.61	157	28	12
Senecio pinnatifolius	39	81.3		16	20	3				0.71	171	27	8
Carpobrotus rossii	36	75.0	2	25	7	2				0.38	159	22	6
**Lycium ferocissimum*	35	72.9	10	18	2	5				0.40	339	65	4
Acacia ligulata	31	64.6	5	6	4	11	4	1		1.38	107	23	10
**Euphorbia terracina*	28	58.3		13	9	2	3	1		0.98	54	16	18
Muehlenbeckia gunnii	28	58.3	6	13	9					0.37	71	19	13
Clematis microphylla var. *microphylla*	28	58.3	4	21	2	1				0.22	250	46	2
Isolepis nodosa	22	45.8	2	11	9					0.46	68	10	6
Pimelea serpyllifolia ssp. *serpyllifolia*	21	43.8	4	15	2					0.17	174	31	1
Exocarpos syrticola	17	35.4	3	12	2					0.19	62	13	3
Poa poiformis var. *poiformis*	16	33.3		8	3	3	2			0.99	67	15	4
Other Significant Perennial Taxa													
Allocasuarina verticillata	8	16.7	2	1	1	4				1.14	194	35	
Acacia cyclops	7	14.6	3	3		1				0.33	13	6	12
Acacia nematophylla	4	8.3				3		1		2.50	71	12	
Annual Taxa Occurring at >30% of Sites													
**Anagallis arvensis*	35	72.9	1	22	12					0.41	341	49	
**Sonchus oleraceus*	35	72.9		25	10					0.36	588	77	
**Lagurus ovatus*	29	60.4		7	10	7	4	1		1.40	152	27	
**Galium murale*	25	52.1		17	8					0.39	268	49	
**Brassica tournefortii*	24	50.0		14	10					0.48	139	33	
**Minuartia mediterranea*	23	47.9		16	7					0.37	146	27	
**Reichardia tingitana*	22	45.8	1	17	4					0.26	64	22	
**Asphodelus fistulosus*	21	43.8	1	10	7	3				0.67	85	29	
**Stellaria media*	18	37.5	1	11	6					0.40	115	30	
Crassula decumbens var. *decumbens*	17	35.4		10	7					0.47	107	23	
Crassula colligata ssp.	17	35.4	1	9	7					0.47	234	45	
**Avena barbata*	17	35.4	1	11	5					0.36	661	71	
**Rostraria cristata*	16	33.3		11	5					0.38	229	49	
**Bromus rubens*	15	31.3		6	8	1				0.71	365	57	
**Silene nocturna*	15	31.3		11	4					0.34	159	41	

Figure 128.
***Olearia axillaris* +/- *Acacia ligulata* Tall Open Shrubland at site WAR0103 in coastal dunes north of Port Victoria.**

Fauna at sites in Floristic Group 58 – no sites sampled for fauna

Floristic Group 59 *Leucopogon parviflorus*, *Olearia axillaris* Shrubland

Leucopogon parviflorus and *Olearia axillaris* dominate this Shrubland group. Several shrub species occur occasionally as sub-dominants in this layer, including *Beyeria lechenaultii*, *Acacia longifolia* var. *sophorae*, *A. cupularis* and *A*. sp. Winged (C.R.Alcock 4936). The understorey features *Rhagodia candolleana* ssp. *candolleana*, *Senecio pinnatifolius*, *Isolepis nodosa*, *Exocarpos syrticola*, *Carpobrotus rossii*, *Dianella brevicaulis*, *Pimelea serpyllifolia* ssp. *serpyllifolia* and *Clematis microphylla* var. *microphylla*. The most frequently occurring annuals are the exotics *Lagurus ovatus*, *Sonchus oleraceus* and *Anagallis arvensis*, and the native *Daucus glochidiatus*. The group is associated with coastal sand dunes of southern Yorke Peninsula.

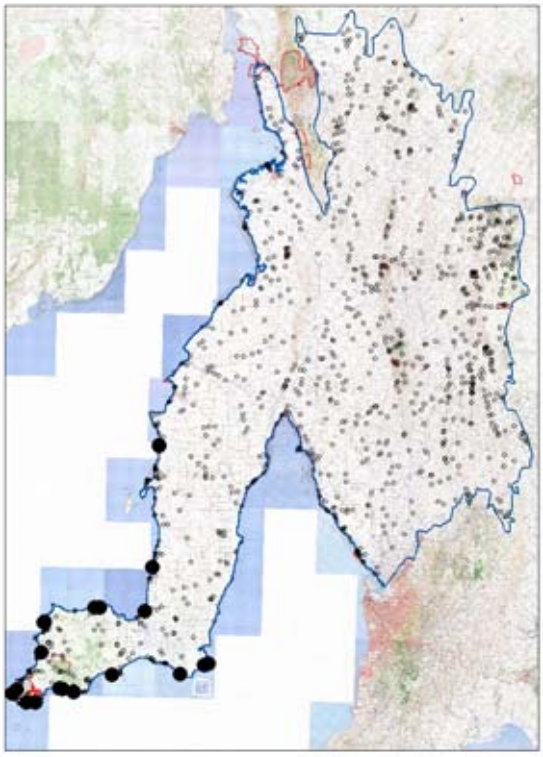
Most sites within this group occur in land units that are either unaffected or only slightly affected by saline seepage. However, one site occurs in a land unit with moderate salinity and two in land units with extreme salinity. As it is associated with coastal dunes derived from sandy sea beds exposed during the last ice age that are, as a result, saline to varying degrees (Specht 1972) this group appears able to tolerate a variety of soil salinity levels, including those that are naturally saline.

LANDFORM ELEMENT	Frequency	%
Dune slope	7	28
Dune crest	4	16
Foredune	4	16
Beach ridge	4	16
Swale	3	12
Dune footslope	1	4
Interdune corridor	1	4
Plain	1	4

LANDFORM PATTERN	Frequency	%
Dunefield	12	48
Beach ridge plain	7	28
Consolidated dunefield	4	16
Parabolic dunefield	2	8

SALT	Frequency	%
Class A	17	68
Class B	5	20
Class C	1	4
Class E	2	8

SOIL	Frequency	%
Sand	22	88
Loam	3	12



Number of sites in group 25

PLANT TAXA SUMMARY

Number of taxa in group	174
Number of native taxa in group	122
Perennial	90
Annual	32
Number of introduced taxa in group	52
Perennial	9
Annual	43

Average Number of Taxa at a site:

Native perennial	21	Min: 14	Max: 32
Introduced perennial	1	Min: 0	Max: 3
Native annual	5	Min: 0	Max: 12
Introduced annual	7	Min: 1	Max: 15
All taxa	35	Min: 24	Max: 47

Number of Taxa of Conservation Significance:

Aust	0	SA	2			
Regions:		EP	n/a	FR	n/a	MU n/a
		NL	n/a	SL	n/a	YP 8

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Olearia axillaris	24	96		5	4	15				1.44	168	19	17
Leucopogon parviflorus	23	92				10	10	2	1	2.74	91	15	43
Rhagodia candolleana ssp. *candolleana*	23	92		12	8	3				0.66	218	35	10
Senecio pinnatifolius	21	84	1	6	13	1				0.74	171	27	9
Isolepis nodosa	21	84		10	11					0.57	68	10	24
Carpobrotus rossii	21	84	2	10	9					0.48	159	22	10
Dianella brevicaulis	20	80		11	8	1				0.56	157	28	9
Pimelea serpyllifolia ssp. *serpyllifolia*	19	76	2	7	9	1				0.62	174	31	10
Clematis microphylla var. *microphylla*	19	76	3	8	6	2				0.57	250	46	10
Exocarpos syrticola	19	76	4	10	4	1				0.37	62	13	29
Threlkeldia diffusa	17	68	1	8	8					0.52	193	34	5
Tetragonia implexicoma	16	64		9	7					0.49	203	32	3
Acacia longifolia ssp. *sophorae*	15	60	7	4	1	2	1			0.56	23	6	57
Helichrysum leucopsideum	15	60	1	9	4	1				0.46	229	43	2
**Lycium ferocissimum*	15	60	4	9	1	1				0.26	339	65	2
Alyxia buxifolia	12	48	6	1	4	1				0.51	122	30	1
Poa poiformis var. *poiformis*	11	44		1	7	3				1.19	67	15	9
Leucophyta brownii	10	40	1	5	3	1				0.55	34	5	5
Lasiopetalum discolor	9	36		4	3		2			1.04	70	13	3
Goodenia varia	9	36		5	2	2				0.72	56	13	5
Acacia nematophylla	9	36	2	4		3				0.71	71	12	2
Acacia cupularis	9	36	2	5	1		1			0.50	26	12	11
Lepidosperma gladiatum	9	36	1	4	4					0.49	37	9	3
Acacia sp. Winged (C.R.Alcock 4936)	9	36	6	2			1			0.36	49	11	3
Beyeria lechenaultii	8	32	1	2	2	2	1			1.15	148	33	2
Cassytha peninsularis var. *peninsularis*	8	32		4	3	1				0.68	64	17	4
Acrotriche patula	8	32		3	5					0.66	202	32	1
Myoporum insulare	8	32	3	3	1	1				0.42	56	15	5
Spinifex hirsutus	8	32		7	1					0.21	26	6	1
Other Significant Perennial Taxa													
Kunzea pomifera	3	12			1	2				1.67	4	2	12
Annual Taxa Occurring at >30% of Sites													
**Lagurus ovatus*	21	84		5	9	4	2	1		1.31	152	27	
Daucus glochidiatus	20	80		13	7					0.42	328	56	
**Sonchus oleraceus*	18	72		15	3					0.25	588	77	
**Anagallis arvensis*	17	68		8	8	1				0.64	341	49	
**Galium murale*	14	56		9	4	1				0.49	268	49	
**Minuartia mediterranea*	14	56		10	3	1				0.43	146	27	
Crassula colligata ssp.	14	56		10	4					0.36	234	45	
Crassula decumbens var. *decumbens*	11	44		8	3					0.35	107	23	
**Melilotus indicus*	10	40		6	3	1				0.56	82	17	
**Stellaria media*	10	40		8	1	1				0.38	115	30	
Caladenia latifolia	9	36		8	1					0.20	47	13	

Figure 129.
***Leucopogon parviflorus*, *Olearia axillaris* Shrubland at site HIL1001 in coastal dunes at Marion Bay, Southern Yorke Peninsula.**

Fauna at sites in Floristic Group 59 – no sites sampled for fauna

Floristic Group 60 *Nitraria billardierei* +/- *Olearia axillaris* +/- *Atriplex cinerea* Shrubland

This Shrubland group is dominated by *Nitraria billardierei*. On occasions *Olearia axillaris* and *Atriplex cinerea* may also be co-dominant. The understorey is characterised by *Tetragonia implexicoma*, *Rhagodia candolleana* ssp. *candolleana*, *Threlkeldia diffusa* and *Senecio pinnatifolius*. The most commonly occurring annuals are the exotics *Cakile maritima* ssp. *maritima*, *Lagurus ovatus*, *Mesembryanthemum crystallinum*, *Sonchus oleraceus* and *Oxalis pes-caprae*. The group is associated with coastal sand dunes from scattered locations on the Yorke Peninsula coast and near Dublin.

This group differs from Floristic Group 29 (*Nitraria billardierei* Low Open Shrubland) in that it occurs in association with coastal dunes rather than seasonally inundated swamps. Associated co-dominants and species composition are also quite different.

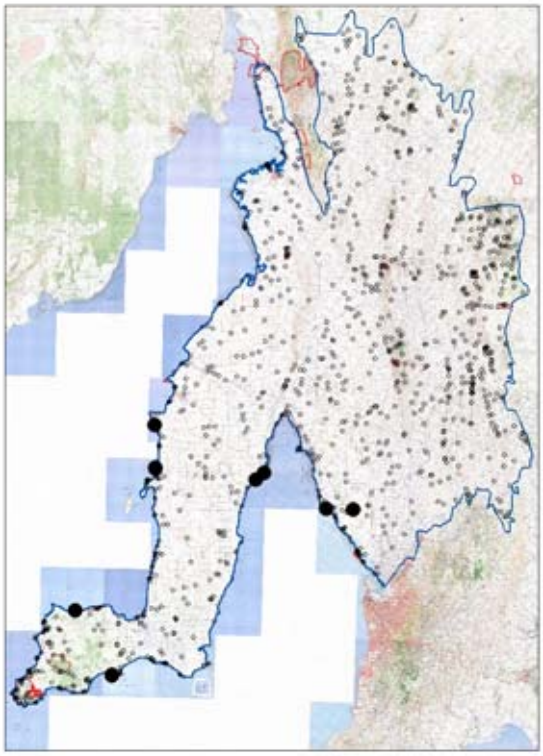
Most sites within this group occur in land units that are either unaffected or only slightly affected by saline seepage. However, two sites occur in land units with moderately high salinity. As it is associated with coastal dunes derived from sandy sea beds exposed during the last ice age that are, as a result, saline to varying degrees (Specht 1972), this group appears able to tolerate a variety of soil salinity levels, including those that are naturally saline.

LANDFORM ELEMENT	Frequency	%
Foredune	5	45.5
Beach ridge	4	36.4
Dune crest	1	9.1
Plain	1	9.1

LANDFORM PATTERN	Frequency	%
Dunefield	5	45.5
Beach ridge plain	5	45.5
Plain	1	9.1

SALT	Frequency	%
Class A	6	54.5
Class B	3	27.3
Class D	2	18.2

SOIL	Frequency	%
Sand	10	90.9
Loam	1	9.1



Number of sites in group 11

PLANT TAXA SUMMARY

Number of taxa in group	79
Number of native taxa in group	38
Perennial	24
Annual	14
Number of introduced taxa in group	41
Perennial	4
Annual	37

Average Number of Taxa at a site:

Native perennial	9	Min:	3	Max:	13
Introduced perennial	1	Min:	0	Max:	3
Native annual	2	Min:	0	Max:	8
Introduced annual	7	Min:	1	Max:	13
All taxa	20	Min:	5	Max:	31

Number of Taxa of Conservation Significance:

Aust	0	SA	1			
Regions:		EP	n/a	FR	n/a	MU n/a
		NL	0	SL	n/a	YP 1

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Tetragonia implexicoma	10	90.9		1	1	6	2			1.91	203	32	25
Rhagodia candolleana ssp. *candolleana*	10	90.9		3	2	5				1.23	218	35	18
Threlkeldia diffusa	10	90.9		4	3	2	1			1.04	193	34	19
Nitraria billardierei	9	81.8				3	2	3	1	3.22	63	22	40
Olearia axillaris	8	72.7	1	2		4	1			1.40	168	19	10
Senecio pinnatifolius	8	72.7		5	3					0.44	171	27	4
Atriplex cinerea	7	63.6		1	1	3	2			1.87	22	6	49
Carpobrotus rossii	6	54.5		4	2					0.40	159	22	4
**Lycium ferocissimum*	6	54.5	5	1						0.03	339	65	
Dianella brevicaulis	5	45.5	3	2						0.05	157	28	
Spinifex hirsutus	4	36.4		4						0.10	26	6	1
Exocarpos syrticola	4	36.4	1	3						0.08	62	13	1
Annual Taxa Occurring at >30% of Sites													
**Cakile maritima* ssp. *maritima*	8	72.7	1	1	5		1			1.01	36	9	
**Lagurus ovatus*	6	54.5		2	3		1			1.03	152	27	
**Mesembryanthemum crystallinum*	6	54.5		4	2					0.40	51	18	
**Sonchus oleraceus*	6	54.5		5	1					0.25	588	77	
**Oxalis pes-caprae*	6	54.5		6						0.10	169	47	
Salsola kali	5	45.5	2	3						0.06	92	31	
**Stellaria media*	4	36.4		2	2					0.55	115	30	
**Hornungia procumbens*	4	36.4	1	2	1					0.30	40	20	

Figure 130.
***Nitraria billardierei* +/- *Olearia axillaris* +/- *Atriplex cinerea* Shrubland at site COR00301 in coastal dunes near Corny Point, Southern Yorke Peninsula.**

Fauna at sites in Floristic Group 60 – no sites sampled for fauna

Floristic Group 61 *Acacia cyclops* Tall Closed Shrubland

Acacia cyclops dominates the single site representing this Tall Closed Shrubland group. It is located on consolidated coastal dunes at Cape Elizabeth. The dense overstorey consists of large old shrubs while the understorey features *Rhagodia candolleana* ssp. *candolleana* and *Tetragonia implexicoma*. There is a sparse cover of annuals with the exotic *Galium murale* being the most abundant.

However, it is doubtful whether this population of *Acacia cyclops* is a natural occurrence (Whibley and Symon 1992, Graham *et al*. 2001) as it often occurs in naturally and artificially disturbed habitats (Gill 1985).

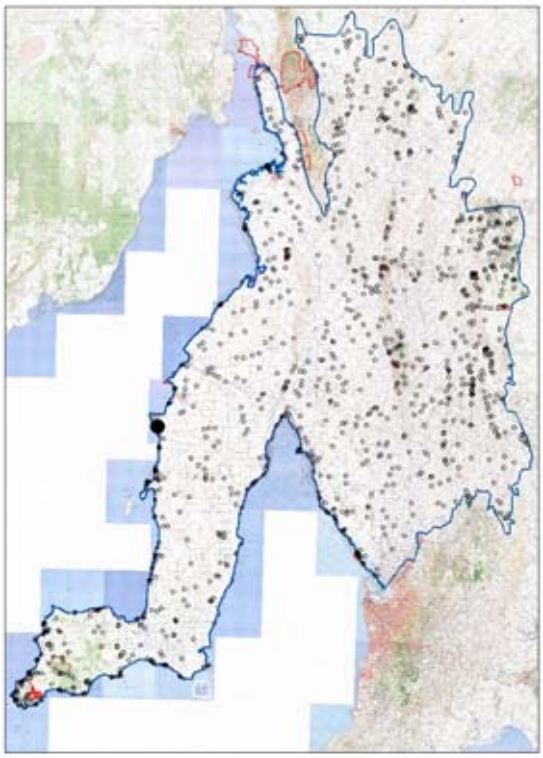
With only one site to represent this group there is insufficient data to determine with which soil land units it is most associated. However, this floristic group is essentially coastal (Whibley and Symon 1992), and the coastal dune systems of South Australia are mostly derived from sandy sea beds exposed during the last ice age and thus tend to be saline to varying degrees (Specht 1972). It is therefore probable that this group is able to tolerate a variety of salinity levels.

LANDFORM ELEMENT	Frequency	%
Dune/consolidated dune	1	100

LANDFORM PATTERN	Frequency	%
Consolidated dunefield	1	100

SALT	Frequency	%
Class A	1	100

SOIL	Frequency	%
Sand	1	100



Number of sites in group 1

PLANT TAXA SUMMARY

Number of taxa in group	16
Number of native taxa in group	10
Perennial	10
Annual	0
Number of introduced taxa in group	6
Perennial	0
Annual	6

Average Number of Taxa at a site:

Native perennial	10
Introduced perennial	0
Native annual	0
Introduced annual	6
All taxa	16

Number of Taxa of Conservation Significance:

Aust	0	SA	0				
Regions:		EP	n/a	FR	n/a	MU	n/a
		NL	n/a	SL	n/a	YP	0

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa													
Acacia cyclops	1	100							1	5.00	13	6	
Rhagodia candolleana ssp. *candolleana*	1	100					1			3.00	218	35	
Tetragonia implexicoma	1	100			1					1.00	203	32	
Acacia ligulata	1	100		1						0.10	107	23	
Clematis microphylla var. *microphylla*	1	100		1						0.10	250	46	
Comesperma volubile	1	100		1						0.10	94	29	
Dianella brevicaulis	1	100		1						0.10	157	28	
Isolepis nodosa	1	100		1						0.10	68	10	
Muehlenbeckia gunnii	1	100		1						0.10	71	19	
Annual Taxa													
**Galium murale*	1	100			1					1.00	268	49	
**Anagallis arvensis*	1	100		1						0.10	341	49	
**Asphodelus fistulosus*	1	100		1						0.10	85	29	
**Moraea setifolia*	1	100		1						0.10	335	60	
**Sonchus oleraceus*	1	100		1						0.10	588	77	
**Stellaria media*	1	100		1						0.10	115	30	
Threlkeldia diffusa	1	100	1							0.01	193	34	

Figure 131.
***Acacia cyclops* Tall Closed Shrubland at site TIP0403 at Cape Elizabeth, Northern Yorke Peninsula.**

Fauna at sites in Floristic Group 61 – no sites sampled for fauna

Floristic Group 62 *Templetonia retusa* +/- *Beyeria lechenaultii* Shrubland

This is a loose group dominated by *Templetonia retusa* and occasionally by *Beyeria lechenaultii*. There may, on rare occasions, be an overstorey of *Melaleuca lanceolata* and/or *Eucalyptus diversifolia* ssp. *diversifolia*. Prominent understorey species include *Olearia axillaris*, *Senecio pinnatifolius*, *Carpobrotus rossii*, *Rhagodia candolleana* ssp. *candolleana*, *Threlkeldia diffusa*, *Logania crassifolia*, *Lasiopetalum discolor* and *Zygophyllum billardierei*. The most frequently occurring annuals are the exotics *Anagallis arvensis*, *Minuartia mediterranea* and *Sonchus oleraceus*, and the natives *Daucus glochidiatus* and *Crassula colligata* ssp. The group is associated with sand and sandy loam soils on coastal dunes of southern Yorke Peninsula, particularly on the west coast between Cape Spencer and Daly Head.

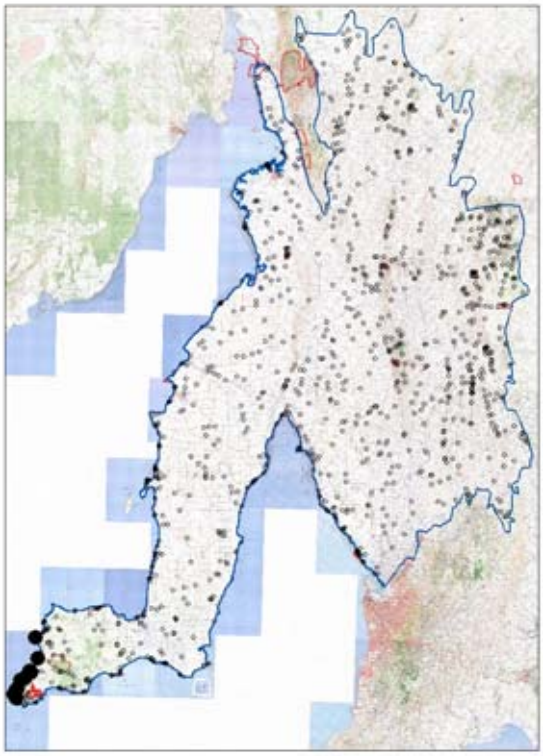
Sites within this group tend to occur in soil land units that are either unaffected or only slightly affected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Dune slope	11	61.1
Dune crest	2	11.1
Swale	2	11.1
Foredune	1	5.6
Limestone plain	1	5.6
Hill crest	1	5.6

LANDFORM PATTERN	Frequency	%
Dunefield	12	66.7
Consolidated dunefield	3	16.7
Parabolic dunefield	2	11.1
Escarpment	1	5.6

SALT	Frequency	%
Class A	15	83.3
Class B	3	16.7

SOIL	Frequency	%
Sand	7	38.9
Loam	11	61.1



Number of sites in group 18

PLANT TAXA SUMMARY

Number of taxa in group	127
Number of native taxa in group	95
Perennial	60
Annual	35
Number of introduced taxa in group	32
Perennial	2
Annual	30

Average Number of Taxa at a site:

Native perennial	19	Min: 11	Max: 24
Introduced perennial	0	Min: 0	Max: 1
Native annual	7	Min: 2	Max: 12
Introduced annual	7	Min: 4	Max: 10
All taxa	34	Min: 23	Max: 41

Number of Taxa of Conservation Significance:

Aust	0	SA	2			
Regions:		EP	n/a	FR	n/a	MU n/a
		NL	n/a	SL	n/a	YP 5

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Templetonia retusa	16	88.9		1		13	2			2.01	61	10	53
Senecio pinnatifolius	16	88.9		4	10	2				0.90	171	27	13
Carpobrotus rossii	16	88.9		9	7					0.49	159	22	12
Rhagodia candolleana ssp. *candolleana*	15	83.3		12	1	2				0.41	218	35	5
Olearia axillaris	14	77.8	1	9	1	3				0.57	168	19	4
Threlkeldia diffusa	14	77.8		7	7					0.55	193	34	7
Clematis microphylla var. *microphylla*	14	77.8		9	5					0.42	250	46	8
Pimelea serpyllifolia ssp. *serpyllifolia*	14	77.8	1	13						0.09	174	31	2
Beyeria lechenaultii	13	72.2	1	2	1	6	3			1.71	148	33	14
Tetragonia implexicoma	13	72.2		5	8					0.65	203	32	5
Zygophyllum billardierei	13	72.2		8	4	1				0.52	28	7	17
Lasiopetalum discolor	12	66.7	1	3	2	6				1.19	70	13	12
Logania crassifolia	12	66.7	1	8	1	2				0.48	42	10	23
Scaevola crassifolia	10	55.6		3		7				1.43	43	8	7
Leucopogon parviflorus	10	55.6	1	3		5	1			1.33	91	15	8
Melaleuca lanceolata	10	55.6	1	4		5				1.04	232	41	2
Acacia nematophylla	10	55.6		6		4				0.86	71	12	6
Acrotriche patula	10	55.6	1	9						0.09	202	32	
Goodenia varia	7	38.9		4	2	1				0.63	56	13	5
Ixodia achillaeoides ssp. *achillaeoides*	7	38.9		7						0.10	18	5	5
Austrostipa flavescens	6	33.3	1	1	4					0.69	62	24	6
Other Significant Perennial Taxa													
Correa pulchella	5	27.8		3	1	1				0.66	60	10	12
Eucalyptus diversifolia ssp. *diversifolia*	3	16.7					2	1		3.33	54	8	3
Annual Taxa Occurring at >30% of Sites													
**Anagallis arvensis*	17	94.4		2	14	1				0.95	341	49	
**Minuartia mediterranea*	17	94.4		2	15					0.89	146	27	
Daucus glochidiatus	12	66.7			12					1.00	328	56	
Crassula colligata ssp.	12	66.7		1	11					0.93	234	45	
**Sonchus oleraceus*	12	66.7		8	4					0.40	588	77	
**Melilotus indicus*	11	61.1		1	10					0.92	82	17	
**Galium murale*	10	55.6			10					1.00	268	49	
Pelargonium australe	8	44.4			8					1.00	28	6	
Podotheca angustifolia	8	44.4		3	5					0.66	82	21	
**Cerastium glomeratum*	7	38.9			7					1.00	38	18	
Crassula decumbens var. *decumbens*	7	38.9			7					1.00	107	23	
Isolepis marginata	7	38.9			7					1.00	44	23	
Microseris lanceolata	7	38.9		2	5					0.74	132	37	
**Hornungia procumbens*	6	33.3			6					1.00	40	20	
**Rostraria cristata*	6	33.3			6					1.00	229	49	
Gnaphalium indutum	6	33.3		1	5					0.85	45	23	

Figure 132.
***Templetonia retusa* +/- *Beyeria lechenaultii* Shrubland at site PON0301 in dunes near Browns Beach, Innes National Park.**

Fauna at sites in Floristic Group 62 – no sites sampled for fauna

Floristic Group 63 *Leucophyta brownii*, *Scaevola crassifolia* Low Shrubland

This Low Shrubland group is dominated by *Leucophyta brownii* and *Scaevola crassifolia* and is associated with sand and sandy loam soils on coastal clifftops and sand dunes on the west coast of southern Yorke Peninsula. Associated perennial species include *Goodenia varia*, *Senecio pinnatifolius*, *Samolus repens*, *Carpobrotus rossii*, *Olearia axillaris* and *Poa poiformis* var. *poiformis*. The most frequently occurring annuals are the exotics *Sonchus oleraceus*, *Sagina maritima* and *Melilotus indicus*, and the natives *Apium annuum*, *Microseris lanceolata* and *Crassula colligata* ssp.

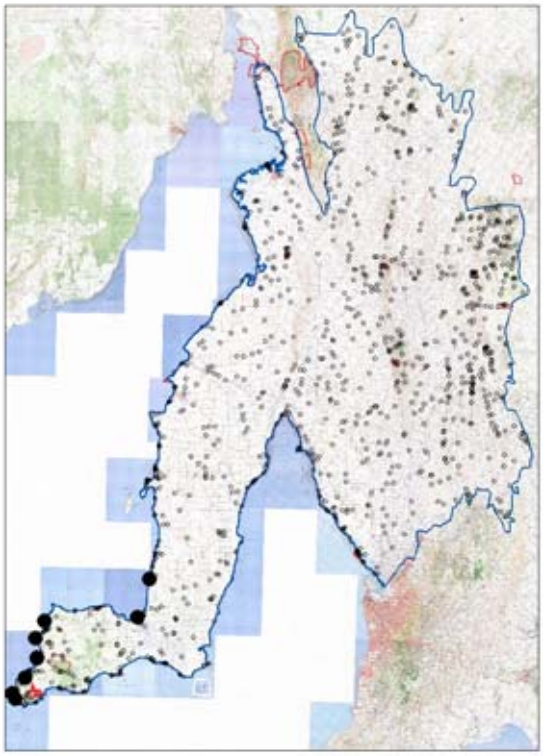
Sites within this group tend to occur in soil land units that are either unaffected or only slightly affected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Dune slope	4	40
Cliff	2	20
Foredune	1	10
Swale	1	10
Limestone plain	1	10
Hill slope	1	10

LANDFORM PATTERN	Frequency	%
Dunefield	5	50
Consolidated dunefield	3	30
Escarpment	2	20

SALT	Frequency	%
Class A	6	60
Class B	4	40

SOIL	Frequency	%
Sand	7	70
Loam	3	30



Number of sites in group 10

PLANT TAXA SUMMARY

Number of taxa in group	91
Number of native taxa in group	67
Perennial	49
Annual	18
Number of introduced taxa in group	24
Perennial	2
Annual	22

Average Number of Taxa at a site:

Native perennial	20	Min: 17	Max: 25
Introduced perennial	0	Min: 0	Max: 2
Native annual	4	Min: 1	Max: 11
Introduced annual	6	Min: 1	Max: 12
All taxa	30	Min: 22	Max: 41

Number of Taxa of Conservation Significance:

Aust	0	SA	0			
Regions:		EP	n/a	FR	n/a	MU n/a
		NL	n/a	SL	n/a	YP 1

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Scaevola crassifolia	10	100		3		5	2			1.63	43	8	26
Leucophyta brownii	10	100	1	3	1	4	1			1.23	34	5	66
Senecio pinnatifolius	10	100		4	6					0.64	171	27	12
Olearia axillaris	10	100	2	6	2					0.26	168	19	3
Carpobrotus rossii	9	90		6	3					0.40	159	22	10
Goodenia varia	8	80	1		2	5				1.50	56	13	49
Leucopogon parviflorus	8	80	2	6						0.08	91	15	1
Samolus repens	7	70		2	5					0.74	38	10	11
Threlkeldia diffusa	7	70		5	2					0.36	193	34	4
Frankenia pauciflora var.	7	70	1	4	2					0.34	70	19	7
Beyeria lechenaultii	6	60		4	1	1				0.57	148	33	3
Rhagodia candolleana ssp. *candolleana*	6	60		3	3					0.55	218	35	4
Disphyma crassifolium ssp. *clavellatum*	6	60		4	2					0.40	57	19	3
Logania crassifolia	6	60		6						0.10	42	10	4
Poa poiformis var. *poiformis*	5	50		1	2	2				1.22	67	15	12
Pimelea serpyllifolia ssp. *serpyllifolia*	5	50		3	1	1				0.66	174	31	5
Isolepis nodosa	5	50		4		1				0.48	68	10	7
Tetragonia implexicoma	5	50		3	2					0.46	203	32	2
Lawrencia squamata	4	40		2	2					0.55	27	11	2
Helichrysum leucopsideum	4	40		3	1					0.33	229	43	1
Atriplex paludosa ssp. *cordata*	4	40	1	2	1					0.30	47	21	1
Exocarpos syrticola	4	40	3	1						0.03	62	13	1
Eutaxia microphylla var. *microphylla*	3	30			2	1				1.33	111	30	6
Leiocarpa supina	3	30		1	2					0.70	5	3	5
Atriplex cinerea	3	30		2	1					0.40	22	6	2
Ixodia achillaeoides ssp. *achillaeoides*	3	30		2	1					0.40	18	5	12
Zygophyllum billardierei	3	30		2	1					0.40	28	7	2
Acacia sp. Winged (C.R.Alcock 4936)	3	30	1	1	1					0.37	49	11	2
Lasiopetalum discolor	3	30	1	1	1					0.37	70	13	1
Austrostipa flavescens	3	30		3						0.10	62	24	1
Acrotriche cordata	3	30	1	2						0.07	68	11	
Correa pulchella	3	30	1	2						0.07	60	10	1
Other Significant Perennial Taxa													
Sclerolaena uniflora	2	20		1	1					0.55	11	7	15
Annual Taxa Occurring at >30% of Sites													
**Sonchus oleraceus*	7	70		6	1					0.23	588	77	
**Sagina maritima*	6	60		3	3					0.55	20	10	
Apium annuum	6	60		3	3					0.55	28	12	
Microseris lanceolata	6	60		3	3					0.55	132	37	
Crassula colligata ssp.	6	60		4	2					0.40	234	45	
**Melilotus indicus*	6	60	1	4	1					0.24	82	17	
**Cakile maritima* ssp. *maritima*	4	40		2	2					0.55	36	9	
**Anagallis arvensis*	4	40		3	1					0.33	341	49	
**Lagurus ovatus*	4	40		3	1					0.33	152	27	
Gnaphalium indutum	4	40		3	1					0.33	45	23	
**Oxalis pes-caprae*	4	40		4						0.10	169	47	
**Parapholis incurva*	3	30		2	1					0.40	101	36	
Geranium retrorsum	3	30		2	1					0.40	100	28	

Figure 133.
***Leucophyta brownii*, *Scaevola crassifolia* Low Shrubland at site PON00801 on a rocky headland, Browns Beach, Innes National Park.**

Fauna at sites in Floristic Group 63 – no sites sampled for fauna

Floristic Group 64 *Scaevola crassifolia* Low Closed Shrubland

This Low Closed Shrubland group is dominated by *Scaevola crassifolia*. *Acacia ligulata*, *Santalum acuminatum* and *Pomaderris paniculosa* ssp. may occur as emergents, while associated ground layer perennials include *Dianella brevicaulis*, *Lasiopetalum discolor*, *Leiocarpa supina*, *Zygophyllum billardierei*, *Lepidosperma gladiatum*, *Helichrysum leucopsideum* and the exotic *Euphorbia terracina*. Commonly occurring annuals are the exotics *Lagurus ovatus*, *Sonchus oleraceus*, *Anagallis arvensis*, *Linum strictum* ssp. *strictum*, *Minuartia mediterranea* and *Galium murale*. The group is associated with sand on coastal dunes and clifftops of southern Yorke Peninsula.

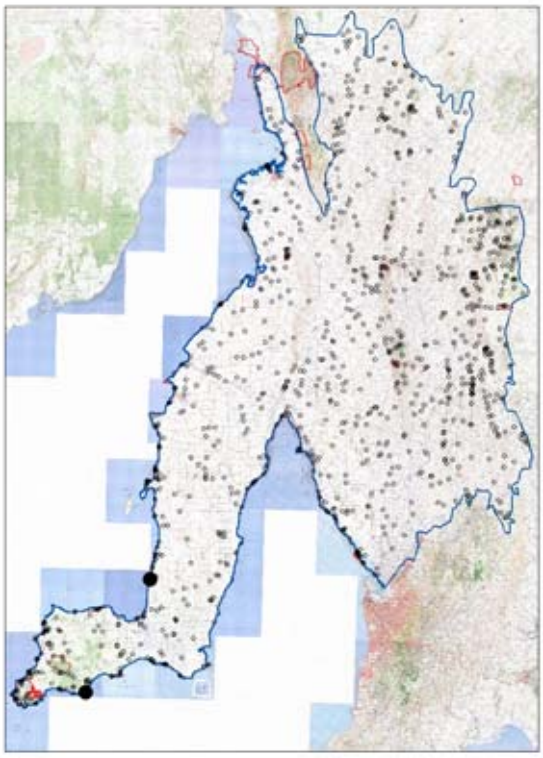
The two sites representing this group both occur in soil land units that are unaffected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Dune crest	1	50
Cliff footslope	1	50

LANDFORM PATTERN	Frequency	%
Dunefield	1	50
Escarpment	1	50

SALT	Frequency	%
Class A	2	100

SOIL	Frequency	%
Sand	2	100



Number of sites in group 2

PLANT TAXA SUMMARY

Number of taxa in group	60
Number of native taxa in group	47
Perennial	35
Annual	12
Number of introduced taxa in group	13
Perennial	2
Annual	11

Average Number of Taxa at a site:

Native perennial	21	Min:	18	Max:	24
Introduced perennial	1	Min:	1	Max:	1
Native annual	7	Min:	3	Max:	10
Introduced annual	9	Min:	7	Max:	10
All taxa	37	Min:	32	Max:	42

Number of Taxa of Conservation Significance:

Aust	0	SA	0				
Regions:		EP	n/a	FR	n/a	MU	n/a
		NL	n/a	SL	n/a	YP	0

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa													
Scaevola crassifolia	2	100					1	1		3.50	43	8	56
Dianella brevicaulis	2	100			2					1.00	157	28	26
Acrotriche patula	2	100		2						0.10	202	32	1
Carpobrotus rossii	2	100		2						0.10	159	22	3
Pimelea serpyllifolia ssp. *serpyllifolia*	2	100		2						0.10	174	31	3
Poa poiformis var. *poiformis*	2	100		2						0.10	67	15	4
Alyxia buxifolia	2	100	1	1						0.06	122	30	1
Lasiopetalum discolor	1	50					1			3.00	70	13	17
Acacia ligulata	1	50				1				2.00	107	23	9
Leiocarpa supina	1	50				1				2.00	5	3	41
Pomaderris paniculosa ssp.	1	50				1				2.00	97	26	13
Santalum acuminatum	1	50				1				2.00	76	32	15
Zygophyllum billardierei	1	50				1				2.00	28	7	32
**Euphorbia terracina*	1	50			1					1.00	54	16	13
Helichrysum leucopsideum	1	50			1					1.00	229	43	3
Lepidosperma gladiatum	1	50			1					1.00	37	9	11
Acacia sp. Winged (C.R.Alcock 4936)	1	50		1						0.10	49	11	2
Austrodanthonia setacea	1	50		1						0.10	163	38	1
Austrostipa flavescens	1	50		1						0.10	62	24	2
Clematis microphylla var. *microphylla*	1	50		1						0.10	250	46	1
Goodenia varia	1	50		1						0.10	56	13	1
Haloragis acutangula f.	1	50		1						0.10	37	12	6
Lomandra effusa	1	50		1						0.10	230	41	
Melaleuca lanceolata	1	50		1						0.10	232	41	
Nitraria billardierei	1	50		1						0.10	63	22	
Olearia axillaris	1	50		1						0.10	168	19	
Olearia ramulosa	1	50		1						0.10	29	13	10
Opercularia turpis	1	50		1						0.10	51	16	3
Puccinellia stricta var. *stricta*	1	50		1						0.10	7	6	4
Rhagodia candolleana ssp. *candolleana*	1	50		1						0.10	218	35	
Senecio pinnatifolius	1	50		1						0.10	171	27	
Templetonia retusa	1	50		1						0.10	61	10	1
Tetragonia implexicoma	1	50		1						0.10	203	32	
Threlkeldia diffusa	1	50		1						0.10	193	34	1
**Lycium ferocissimum*	1	50	1							0.01	339	65	
Allocasuarina verticillata	1	50	1							0.01	194	35	
Logania crassifolia	1	50	1							0.01	42	10	
Annual Taxa													
**Lagurus ovatus*	2	100			1	1				1.50	152	27	
**Sonchus oleraceus*	2	100			2					1.00	588	77	
**Anagallis arvensis*	2	100		1	1					0.55	341	49	
**Linum strictum* ssp. *strictum*	2	100		1	1					0.55	133	28	
**Minuartia mediterranea*	2	100		1	1					0.55	146	27	
**Galium murale*	2	100		2						0.10	268	49	
Hypoxis glabella var. *glabella*	2	100	1	1						0.06	85	29	
**Avena barbata*	1	50			1					1.00	661	71	
Brachyscome cuneifolia	1	50			1					1.00	15	6	
Bromus arenarius	1	50			1					1.00	8	8	
Craspedia variabilis	1	50			1					1.00	66	20	
Daucus glochidiatus	1	50			1					1.00	328	56	
Microseris lanceolata	1	50			1					1.00	132	37	
**Brassica tournefortii*	1	50		1						0.10	139	33	
**Hypochaeris radicata*	1	50		1						0.10	116	31	
**Oxalis pes-caprae*	1	50		1						0.10	169	47	
**Reichardia tingitana*	1	50		1						0.10	64	22	
Caladenia latifolia	1	50		1						0.10	47	13	
Crassula decumbens var. *decumbens*	1	50		1						0.10	107	23	
Hydrocotyle capillaris	1	50		1						0.10	43	16	
Isolepis marginata	1	50		1						0.10	44	23	
Podotheca angustifolia	1	50		1						0.10	82	21	
Triglochin centrocarpum	1	50		1						0.10	23	13	

Figure 134.
Scaevola crassifolia **Low Closed Shrubland at site TUR00103 in coastal dunes west of Minlaton.**

Fauna at sites in Floristic Group 64 – no sites sampled for fauna

Floristic Group 65 *Suaeda australis* Low Shrubland

This Low Shrubland group is characterised by *Suaeda australis* and is associated with sandy soils of beach ridges and tidal flats on the coast north of Adelaide in the vicinity of Port Gawler Conservation Park. Associated species include *Euphorbia paralias*, *Atriplex semibaccata*, *Sarcocornia quinqueflora*, *Senecio pinnatifolius* and the annual *Mesembryanthemum crystallinum*. No native annuals were recorded for this group.

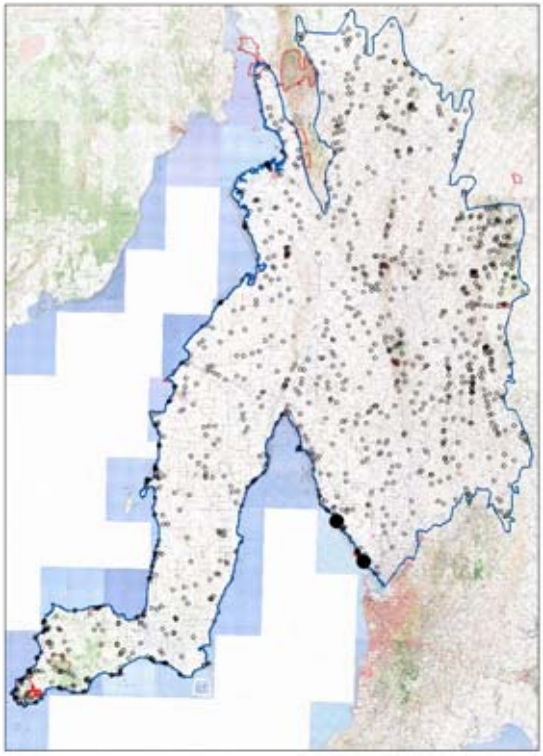
Sites within this group tend to occur in soil land units that are either highly or extremely affected by saline seepage. However, this group is known to occur in naturally saline areas, particularly salt marshes.

LANDFORM ELEMENT	Frequency	%
Beach ridge	1	50
Flat	1	50

SALT	Frequency	%
Class F	1	50
Class G	1	50

LANDFORM PATTERN	Frequency	%
Beach ridge plain	1	50
Tidal flat	1	50

SOIL	Frequency	%
Sand	1	50
Not recorded	1	50



Number of sites in group 2

PLANT TAXA SUMMARY

Number of taxa in group	27
Number of native taxa in group	12
Perennial	12
Annual	0
Number of introduced taxa in group	15
Perennial	3
Annual	12

Average Number of Taxa at a site:

Native perennial	7	Min:	3	Max:	10
Introduced perennial	2	Min:	0	Max:	3
Native annual	0	Min:	0	Max:	0
Introduced annual	6	Min:	0	Max:	12
All taxa	14	Min:	3	Max:	25

Number of Taxa of Conservation Significance:

Aust	0	SA	0				
Regions:		EP	n/a	FR	n/a	MU	n/a
		NL	n/a	SL	0	YP	n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa													
Suaeda australis	2	100				1			1	3.50	18	6	86
**Euphorbia paralias*	1	50			1					1.00	20	7	13
Atriplex semibaccata	1	50			1					1.00	57	20	16
Sarcocornia quinqueflora	1	50			1					1.00	45	10	5
Senecio pinnatifolius	1	50			1					1.00	171	27	5
Atriplex paludosa ssp. *cordata*	1	50		1						0.10	47	21	1
Disphyma crassifolium ssp. *clavellatum*	1	50		1						0.10	57	19	1
Frankenia pauciflora var.	1	50		1						0.10	70	19	1
Nitraria billardierei	1	50		1						0.10	63	22	
Rhagodia candolleana ssp. *candolleana*	1	50		1						0.10	218	35	
Threlkeldia diffusa	1	50		1						0.10	193	34	1
**Argyranthemum frutescens* ssp.	1	50	1							0.01	2	2	
**Lycium ferocissimum*	1	50	1							0.01	339	65	
Maireana oppositifolia	1	50	1							0.01	44	16	
Tetragonia implexicoma	1	50	1							0.01	203	32	
Annual Taxa													
**Mesembryanthemum crystallinum*	1	50			1					1.00	51	18	
**Anagallis arvensis*	1	50		1						0.10	341	49	
**Avena barbata*	1	50		1						0.10	661	71	
**Cakile maritima* ssp. *maritima*	1	50		1						0.10	36	9	
**Hordeum glaucum*	1	50		1						0.10	180	51	
**Hornungia procumbens*	1	50		1						0.10	40	20	
**Lagurus ovatus*	1	50		1						0.10	152	27	
**Limonium companyonis*	1	50		1						0.10	15	12	
**Lolium perenne* x *rigidum*	1	50		1						0.10	33	19	
**Lolium rigidum*	1	50		1						0.10	218	48	
**Sonchus oleraceus*	1	50		1						0.10	588	77	
**Spergularia media*	1	50	1							0.01	1	1	

Figure 135.
***Suaeda australis* Low Shrubland at site BIN00111 on the coast near Port Gawler.**

Fauna at sites in Floristic Group 65 – no sites sampled for fauna

Floristic Group 66 *Spinifex hirsutus* Open Tussock Grassland

This Open Tussock Grassland group is characterised by *Spinifex hirsutus* and is associated with coastal foredunes of southern and central Yorke Peninsula. The exotic *Euphorbia paralias* is a regular sub-dominant in the group while *Olearia axillaris* may occur as an emergent. Other associated perennials include *Isolepis nodosa*, *Atriplex cinerea*, *Carpobrotus rossii* and *Senecio pinnatifolius*. The most frequently occurring annuals are the exotic *Cakile maritima* ssp. *maritima* and the native *Daucus glochidiatus*. In general, species diversity is low compared to other coastal dune communities.

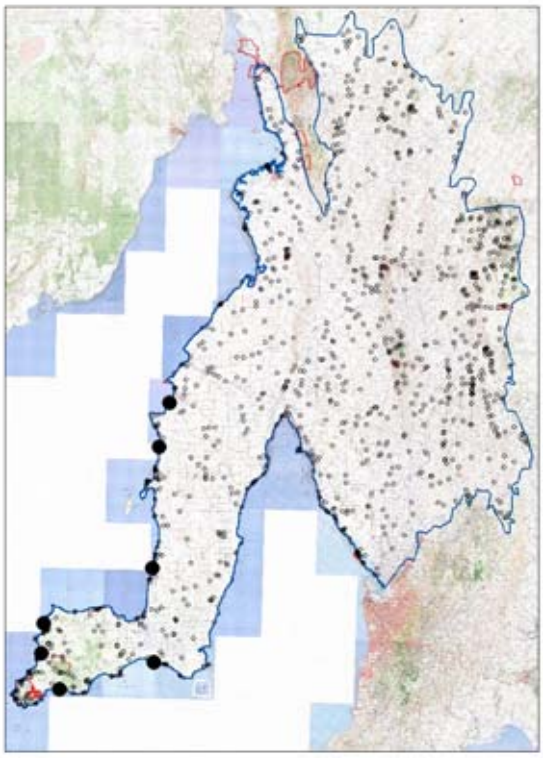
Sites within this group tend to occur in soil land units with either negligible or only slight soil salinity.

LANDFORM ELEMENT	Frequency	%
Foredune	6	75.0
Dune footslope	2	25.0

LANDFORM PATTERN	Frequency	%
Dunefield	7	87.5
Consolidated dunefield	1	12.5

SALT	Frequency	%
Class A	5	62.5
Class B	3	37.5

SOIL	Frequency	%
Sand	8	100.0



Number of sites in group 8

PLANT TAXA SUMMARY

Number of taxa in group	31
Number of native taxa in group	24
Perennial	21
Annual	3
Number of introduced taxa in group	7
Perennial	2
Annual	5

Average Number of Taxa at a site:

Native perennial	8	Min:	3	Max:	14
Introduced perennial	1	Min:	1	Max:	2
Native annual	1	Min:	0	Max:	2
Introduced annual	2	Min:	0	Max:	3
All taxa	11	Min:	5	Max:	19

Number of Taxa of Conservation Significance:

Aust	0	SA	0				
Regions:		EP	n/a	FR	n/a	MU	n/a
		NL	n/a	SL	n/a	YP	1

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Spinifex hirsutus	8	100.0		1	2	4	1			1.64	26	6	85
**Euphorbia paralias*	8	100.0			5	3				1.38	20	7	69
Olearia axillaris	7	87.5	3	1	1	2				0.73	168	19	7
Isolepis nodosa	7	87.5	1	3	3					0.47	68	10	22
Atriplex cinerea	7	87.5	2	4	1					0.20	22	6	10
Carpobrotus rossii	6	75.0		5	1					0.25	159	22	4
Senecio pinnatifolius	5	62.5	2	2	1					0.24	171	27	2
Leucophyta brownii	4	50.0	2	1	1					0.28	34	5	4
Exocarpos syrticola	3	37.5		2	1					0.40	62	13	8
Threlkeldia diffusa	3	37.5	2	1						0.04	193	34	
Annual Taxa Occurring at >30% of Sites													
**Cakile maritima* ssp. *maritima*	7	87.5			5	1	1			1.43	36	9	
Daucus glochidiatus	3	37.5	1	2						0.07	328	56	

Figure 136.
***Spinifex hirsutus* Open Tussock Grassland at site HIL00101 on the foredune at Marion Bay, Southern Yorke Peninsula.**

Fauna at sites in Floristic Group 66 – no sites sampled for fauna

Floristic Group 67 *Halosarcia pergranulata* ssp. Low Shrubland

This is one of five samphire groups and is characterised by *Halosarcia pergranulata* ssp. As is common for samphire communities, species diversity was low with few other perennial species occurring regularly. The most commonly associated species are *Disphyma crassifolium* ssp. *clavellatum*, *Frankenia pauciflora* var., the exotic *Lycium ferocissimum* and the exotic annuals *Parapholis incurva*, *Mesembryanthemum nodiflorum*, *Sonchus oleraceus* and *Sphenopus divaricatus*. The group is associated with clay and clay loam soils of low-lying seasonally inundated areas and tidal flats on the coast north of Adelaide and near Wallaroo, and in salt marshes at Thidna, Warooka and near Lochiel.

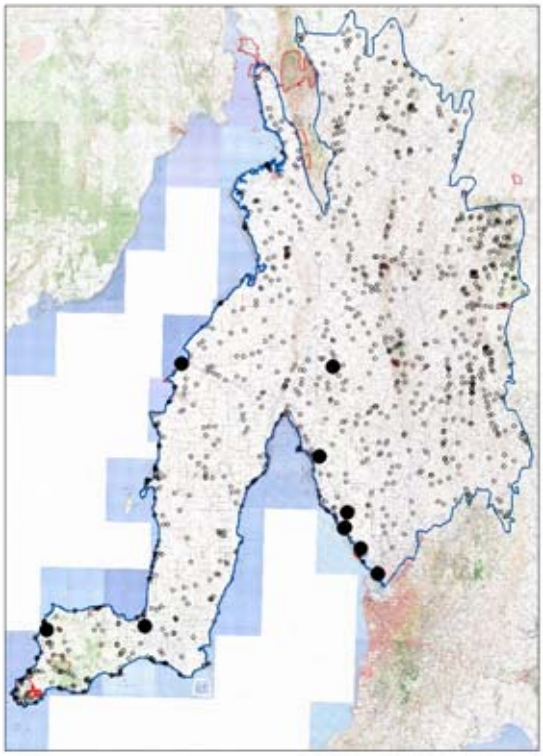
Sites within this group occur in a range of soil land units that vary from negligible to extreme soil salinity. However, this group is known to occur in naturally saline coastal and inland salt marshes.

LANDFORM ELEMENT	Frequency	%
Closed depression	2	20
Open depression	2	20
Flood out	2	20
Plain	2	20
Playa/pan	1	10
Swamp	1	10

LANDFORM PATTERN	Frequency	%
Plain	8	80
Tidal flat	2	20

SALT	Frequency	%
Class A	2	20
Class C	1	10
Class D	1	10
Class G	5	50
Class U (urban area - no value)	1	10

SOIL	Frequency	%
Sand	2	20
Loam	3	30
Clay	4	40
Not recorded	1	10



Number of sites in group 10

PLANT TAXA SUMMARY

Number of taxa in group	38
Number of native taxa in group	16
Perennial	11
Annual	5
Number of introduced taxa in group	22
Perennial	2
Annual	20

Average Number of Taxa at a site:

Native perennial	3	Min:	1	Max:	5
Introduced perennial	0	Min:	0	Max:	2
Native annual	1	Min:	0	Max:	3
Introduced annual	5	Min:	0	Max:	11
All taxa	9	Min:	2	Max:	16

Number of Taxa of Conservation Significance:

Aust	1	SA	2			
Regions:		EP	n/a	FR	n/a	MU	n/a
		NL	0	SL	2	YP	2

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Halosarcia pergranulata ssp.	10	100				4	2	3	1	3.10	29	10	70
Disphyma crassifolium ssp. *clavellatum*	3	30		3						0.10	57	19	
Frankenia pauciflora var.	3	30		3						0.10	70	19	
**Lycium ferocissimum*	3	30	2	1						0.04	339	65	
Other Significant Perennial Taxa													
Halosarcia indica ssp.	2	20				1	1			2.50	29	10	1
Annual Taxa Occurring at >30% of Sites													
**Parapholis incurva*	6	60		1	2	3				1.35	101	36	
**Mesembryanthemum nodiflorum*	6	60		2	3	1				0.87	78	29	
**Sonchus oleraceus*	5	50		3	2					0.46	588	77	
**Sphenopus divaricatus*	4	40		1	2	1				1.03	12	5	
Senecio glossanthus	3	30	1		2					0.67	128	34	
**Spergularia marina*	3	30	1	1	1					0.37	20	11	
**Lolium rigidum*	3	30	1	2						0.07	218	48	

Figure 137.
***Halosarcia pergranulata* ssp. Low Shrubland at site VIN01001 on the coastal plain near Port Gawler Conservation Park.**

Fauna at sites in Floristic Group 67

Trapping effort at 1 of 10 sites. Only birds and a reptile recorded at it.

Bird species	Common name	SA	Aus	Site freq	Number obs
Alauda arvensis	Eurasian Skylark			1	11
Anthus novaeseelandiae	Richard's Pipit			1	3
Cereopsis novaehollandiae	Cape Barren Goose	R		1	3
Epthianura albifrons	White-fronted Chat			1	3
Gymnorhina tibicen	Australian Magpie			1	10

Reptile species	Common name	SA	Aus	Site freq	Number obs
Tiliqua rugosa	Sleepy Lizard			1	5

Floristic Group 68 *Halosarcia indica* ssp. *leiostachya* Low Shrubland

This samphire Low Shrubland group is characterised by *Halosarcia indica* ssp. *leiostachya* and is associated with loam and clay soils of tidal flats and plains in salt marshes near Dublin, Port Wakefield, Lochiel and between Port Broughton and Port Pirie. The main shrubs occurring in association are *Disphyma crassifolium* ssp. *clavellatum* and *Maireana oppositifolia*. Commonly occurring annuals include the native *Senecio glossanthus* and the exotics *Hornungia procumbens*, *Moraea setifolia*, *Hordeum glaucum*, *Mesembryanthemum nodiflorum* and *Vulpia myuros* f. *myuros*. As with the other samphire communities, species diversity is low.

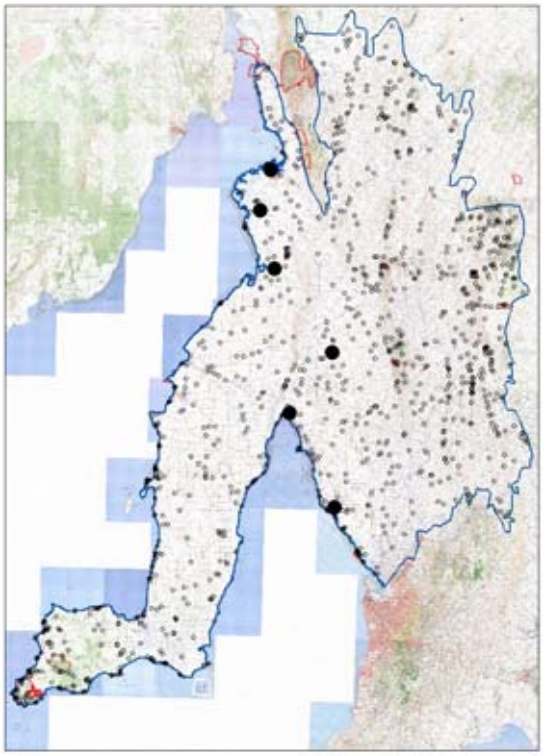
Sites within this group occur in a range of soil land units that vary from slight to extreme soil salinity. However, this group is known to occur in naturally saline coastal and inland salt marshes.

LANDFORM ELEMENT	Frequency	%
Flat	3	50.0
Swale	1	16.7
Open depression	1	16.7
Playa/pan	1	16.7

SALT	Frequency	%
Class B	1	16.7
Class G	4	66.7
Class U (urban area - no value)	1	16.7

LANDFORM PATTERN	Frequency	%
Tidal flat	3	50.0
Plain	2	33.3
Longitudinal dunefield	1	16.7

SOIL	Frequency	%
Loam	3	50.0
Clay	1	16.7
Not recorded	2	33.3



Number of sites in group 6

PLANT TAXA SUMMARY

Number of taxa in group	43
Number of native taxa in group	27
Perennial	18
Annual	9
Number of introduced taxa in group	16
Perennial	1
Annual	15

Average Number of Taxa at a site:

Native perennial	5	Min:	3	Max:	8
Introduced perennial	0	Min:	0	Max:	1
Native annual	3	Min:	0	Max:	7
Introduced annual	4	Min:	0	Max:	8
All taxa	12	Min:	5	Max:	19

Number of Taxa of Conservation Significance:

Aust	0	SA	1				
Regions:		EP	n/a	FR	n/a	MU	n/a
		NL	1	SL	n/a	YP	1

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Halosarcia indica ssp. *leiostachya*	6	100.0					4		2	3.67	29	10	54
Disphyma crassifolium ssp. *clavellatum*	5	83.3			2	2	1			1.80	57	19	26
Maireana oppositifolia	2	33.3				2				2.00	44	16	5
Sclerolaena diacantha	2	33.3		2						0.10	108	22	1
Atriplex paludosa ssp. *cordata*	2	33.3	1	1						0.06	47	21	
Other Significant Perennial Taxa													
Hemichroa diandra	1	16.7				1				2.00	5	4	10
Annual Taxa Occurring at >30% of Sites													
Senecio glossanthus	4	66.7		1	3					0.78	128	34	
**Hornungia procumbens*	3	50.0		1	2					0.70	40	20	
**Moraea setifolia*	3	50.0		1	2					0.70	335	60	
**Hordeum glaucum*	2	33.3			2					1.00	180	51	
**Mesembryanthemum nodiflorum*	2	33.3			2					1.00	78	29	
**Vulpia myuros* f. *myuros*	2	33.3			2					1.00	292	60	
**Avena barbata*	2	33.3		1	1					0.55	661	71	
Brachyscome lineariloba	2	33.3		1	1					0.55	95	41	
Daucus glochidiatus	2	33.3		1	1					0.55	328	56	
Hydrocotyle medicaginoides	2	33.3		1	1					0.55	21	10	
**Minuartia mediterranea*	2	33.3		2						0.10	146	27	
**Sonchus oleraceus*	2	33.3	2							0.01	588	77	

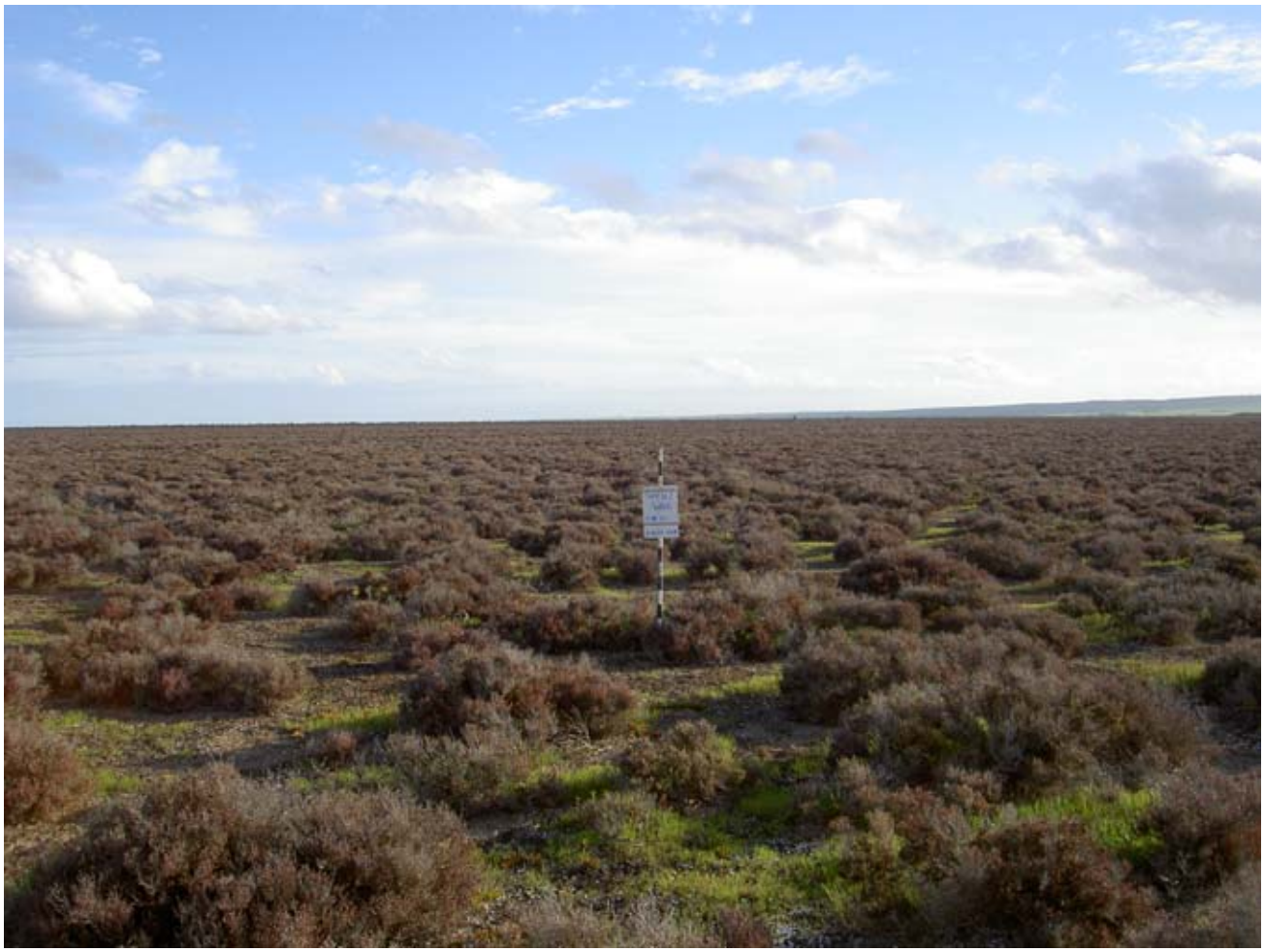


Figure 138.
***Halosarcia indica* ssp. *leiostachya* Low Shrubland at site WAK01801 in Clinton Conservation Park.**

Fauna at sites in Floristic Group 68

Trapping effort at 2 of 6 sites. Mammals recorded at 2 sites, birds at 2 and reptiles at 2.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Mus musculus	House Mouse			2	3
Oryctolagus cuniculus	Rabbit			2	2
Vulpes vulpes	Fox			2	5
Chalinolobus gouldii	Gould's Wattled Bat			1	1
Chalinolobus morio	Chocolate Wattled Bat			1	1
Felis catus	Cat			1	1
Macropus sp.				1	1
Nyctophilus geoffroyi	Lesser Long-eared Bat			1	1
Tadarida australis	White-striped Freetail-bat			1	1
Vespadelus regulus	Southern Forest Bat			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Alauda arvensis	Eurasian Skylark			2	21
Anthus novaeseelandiae	Richard's Pipit			2	3
Cincloramphus cruralis	Brown Songlark			2	4
Corvus mellori	Little Raven			2	5
Epthianura albifrons	White-fronted Chat			2	11
Falco cenchroides	Nankeen Kestrel			2	2
Gymnorhina tibicen	Australian Magpie			2	4
Malurus leucopterus	White-winged Fairy-wren			2	16
Aquila audax	Wedge-tailed Eagle			1	1
Cacatua roseicapilla	Galah			1	2
Coturnix pectoralis	Stubble Quail			1	1
Neophema chrysostoma	Blue-winged Parrot	V		1	2
Neophema sp.				1	5
Passer domesticus	House Sparrow			1	3
Sturnus vulgaris	Common Starling			1	3

Reptile species	Common name	SA	Aus	Site freq	Number obs
Strophurus intermedius	Southern Spiny-tailed Gecko			1	1
Tiliqua rugosa	Sleepy Lizard			1	3

Floristic Group 69 *Atriplex paludosa* ssp. *cordata* +/- *Halosarcia indica* ssp. Low Shrubland

This Low Shrubland group is characterised by *Atriplex paludosa* ssp. *cordata* and is associated with sand and loam soils of low-lying seasonally inundated areas along the coast north of Adelaide, east of Lochiel and at Point Pearce. *Halosarcia indica* ssp. may occur as a co-dominant. Other associated perennial species include *Disphyma crassifolium* ssp. *clavellatum*, *Frankenia pauciflora* var., *Lawrencia squamata* and *Maireana oppositifolia*. The most frequently occurring annuals are the exotics *Sonchus oleraceus*, *Parapholis incurva*, *Moraea setifolia*, *Avena barbata*, *Mesembryanthemum nodiflorum*, *Vulpia myuros* f. *myuros* and *Medicago polymorpha* var. *polymorpha*.

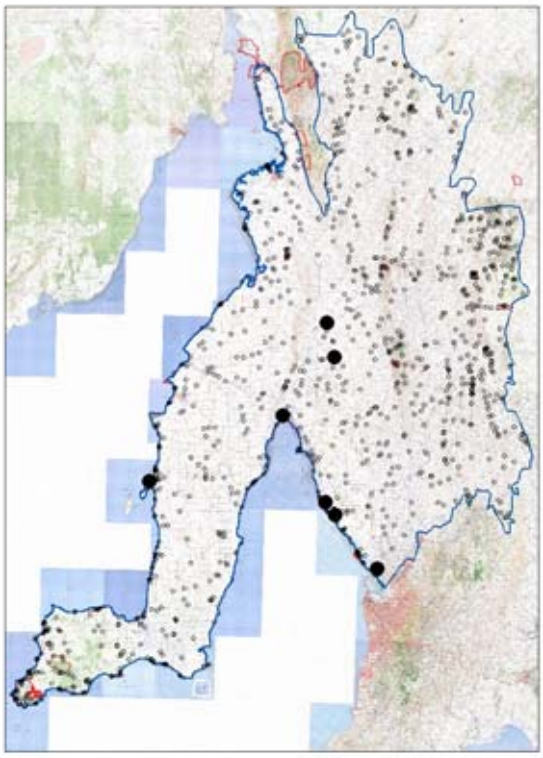
Sites within this group occur in a range of soil land units that vary from moderately high to extreme soil salinity. However, this group is known to occur in naturally saline coastal and inland salt marshes.

LANDFORM ELEMENT	Frequency	%
Plain	3	42.9
Swamp	2	28.6
Open depression	1	14.3
Fan - alluvial	1	14.3

LANDFORM PATTERN	Frequency	%
Plain	3	42.9
Beach ridge plain	1	14.3
Alluvial plain	1	14.3
Tidal flat	1	14.3
Not recorded	1	14.3

SALT	Frequency	%
Class D	3	42.9
Class F	2	28.6
Class G	2	28.6

SOIL	Frequency	%
Sand	2	28.6
Loam	4	57.1
Clay	1	14.3



Number of sites in group 7

PLANT TAXA SUMMARY

Number of taxa in group	84
Number of native taxa in group	45
Perennial	30
Annual	15
Number of introduced taxa in group	39
Perennial	1
Annual	38

Average Number of Taxa at a site:

Native perennial	10	Min:	5	Max:	15
Introduced perennial	0	Min:	0	Max:	1
Native annual	3	Min:	0	Max:	8
Introduced annual	12	Min:	7	Max:	20
All taxa	25	Min:	18	Max:	43

Number of Taxa of Conservation Significance:

Aust	0	SA	1				
Regions:		EP	n/a	FR	n/a	MU	n/a
		NL	2	SL	5	YP	2

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Atriplex paludosa ssp. *cordata*	7	100.0				6	1			2.14	47	21	51
Disphyma crassifolium ssp. *clavellatum*	7	100.0		1	5	1				1.01	57	19	21
Halosarcia indica ssp.	6	85.7	1		1	4				1.50	29	10	16
Frankenia pauciflora var.	4	57.1		1	2	1				1.03	70	19	13
Lawrencia squamata	4	57.1		1	2	1				1.03	27	11	8
Maireana oppositifolia	4	57.1	1		2	1				1.00	44	16	8
Sclerolaena diacantha	4	57.1	1	3						0.08	108	22	1
Nitraria billardierei	4	57.1	2	2						0.06	63	22	
Halosarcia pergranulata ssp.	3	42.9	1		1	1				1.00	29	10	4
Annual Taxa Occurring at >30% of Sites													
**Sonchus oleraceus*	7	100.0	1	4	2					0.34	588	77	
**Parapholis incurva*	6	85.7		2	2	1	1			1.20	101	36	
**Moraea setifolia*	5	71.4		1	2	1	1			1.42	335	60	
**Avena barbata*	5	71.4		2	1	2				1.04	661	71	
**Mesembryanthemum nodiflorum*	4	57.1			2	2				1.50	78	29	
**Vulpia myuros* f. *myuros*	4	57.1			2	2				1.50	292	60	
**Medicago polymorpha* var. *polymorpha*	4	57.1		2	1	1				0.80	134	46	
**Rostraria cristata*	4	57.1		2	2					0.55	229	49	
Pogonolepis muelleriana	4	57.1		3	1					0.33	53	23	
**Lolium rigidum*	3	42.9		1	1	1				1.03	218	48	
**Bromus rubens*	3	42.9		2	1					0.40	365	57	
Crassula colligata ssp.	3	42.9		2	1					0.40	234	45	
**Bromus diandrus*	3	42.9		3						0.10	310	54	

Figure 139.
***Atriplex paludosa* ssp. *cordata* +/- *Halosarcia indica* ssp. Low Shrubland at site DUB01501 on the coastal plain at Dublin.**

Fauna at sites in Floristic Group 69

Trapping effort at 3 of 7 sites. Mammals recorded at 3 sites, birds at 3 and reptiles at 2.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Mus musculus	House Mouse			3	18
Vulpes vulpes	Fox			3	5
Macropus sp.				1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Alauda arvensis	Eurasian Skylark			3	20
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			2	6
Cincloramphus cruralis	Brown Songlark			2	2
Corvus mellori	Little Raven			2	3
Lichenostomus virescens	Singing Honeyeater			2	13
Cacatua roseicapilla	Galah			1	10
Epthianura albifrons	White-fronted Chat			1	6
Falco cenchroides	Nankeen Kestrel			1	2
Falco subniger	Black Falcon			1	1
Gymnorhina tibicen	Australian Magpie			1	1
Hirundo neoxena	Welcome Swallow			1	2
Larus novaehollandiae	Silver Gull			1	13
Malurus leucopterus	White-winged Fairy-wren			1	3
Ocyphaps lophotes	Crested Pigeon			1	12
Oreoica gutturalis	Crested Bellbird			1	1
Petrochelidon ariel	Fairy Martin			1	2
Petrochelidon nigricans	Tree Martin			1	25
Rhipidura leucophrys	Willie Wagtail			1	1

Reptile species	Common name	SA	Aus	Site freq	Number obs
Tiliqua rugosa	Sleepy Lizard			2	5
Aprasia striolata	Lined Worm-lizard			1	2
Ctenophorus pictus	Painted Dragon			1	1

Floristic Group 70 *Halosarcia syncarpa* Low Shrubland

This samphire Low Shrubland group is dominated by *Halosarcia syncarpa* and is associated with light clay soils on tidal flats near Port Wakefield. The main associated perennials are *Disphyma crassifolium* ssp. *clavellatum*, *Frankenia pauciflora* var., *Maireana oppositifolia* and *Puccinellia stricta* var. *stricta*. Commonly occurring annuals include the exotics *Hornungia procumbens* and *Mesembryanthemum nodiflorum*, and the native *Apium annuum*. Species diversity was low for this group, as is characteristic of samphire communities, with only nine and 13 species respectively at the two sites.

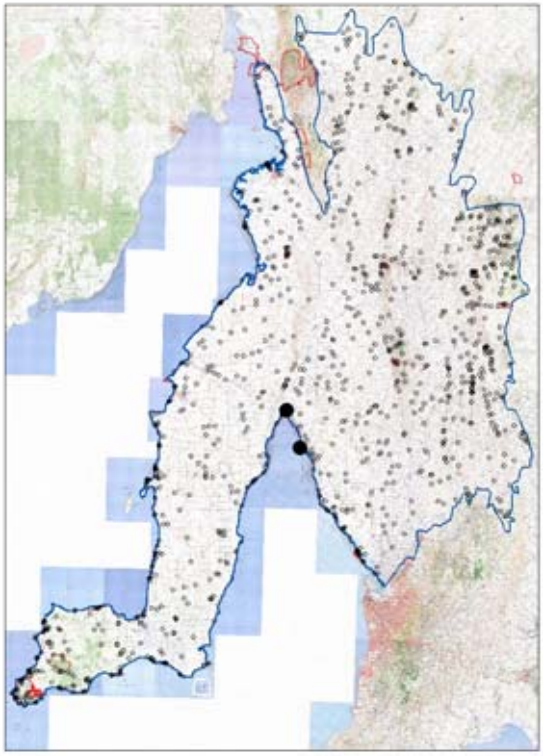
The two sites representing this group both occur in soil land units with extreme soil salinity. This is a result of both being located on naturally saline tidal flats, the usual habitat for this community.

LANDFORM ELEMENT	Frequency	%
Flat	2	100

LANDFORM PATTERN	Frequency	%
Tidal flat	2	100

SALT	Frequency	%
Class G	2	100

SOIL	Frequency	%
Clay	2	100



Number of sites in group 2

PLANT TAXA SUMMARY

Number of taxa in group	17
Number of native taxa in group	12
Perennial	6
Annual	6
Number of introduced taxa in group	5
Perennial	0
Annual	5

Average Number of Taxa at a site:

Native perennial	4	Min:	2	Max:	6
Introduced perennial	0	Min:	0	Max:	0
Native annual	4	Min:	3	Max:	4
Introduced annual	4	Min:	3	Max:	4
All taxa	11	Min:	9	Max:	13

Number of Taxa of Conservation Significance:

Aust	0	SA	0			
Regions:		EP	n/a	FR	n/a	MU n/a
		NL	0	SL	n/a	YP n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa													
Halosarcia syncarpa	2	100					2			3.00	4	3	86
Disphyma crassifolium ssp. *clavellatum*	2	100		1	1					0.55	57	19	12
Frankenia pauciflora var.	1	50			1					1.00	70	19	10
Maireana oppositifolia	1	50			1					1.00	44	16	6
Puccinellia stricta var. *stricta*	1	50			1					1.00	7	6	37
Halosarcia halocnemoides ssp.	1	50		1						0.10	44	9	1
Annual Taxa													
**Hornungia procumbens*	2	100			2					1.00	40	20	
Apium annuum	2	100			2					1.00	28	12	
**Mesembryanthemum nodiflorum*	2	100		1	1					0.55	78	29	
**Parapholis incurva*	1	50			1					1.00	101	36	
**Spergularia diandra*	1	50			1					1.00	63	25	
**Sphenopus divaricatus*	1	50			1					1.00	12	5	
Brachyscome lineariloba	1	50			1					1.00	95	41	
Juncus bufonius	1	50			1					1.00	9	5	
Senecio glossanthus	1	50			1					1.00	128	34	
Triglochin centrocarpum	1	50			1					1.00	23	13	
Triglochin mucronatum	1	50			1					1.00	6	4	

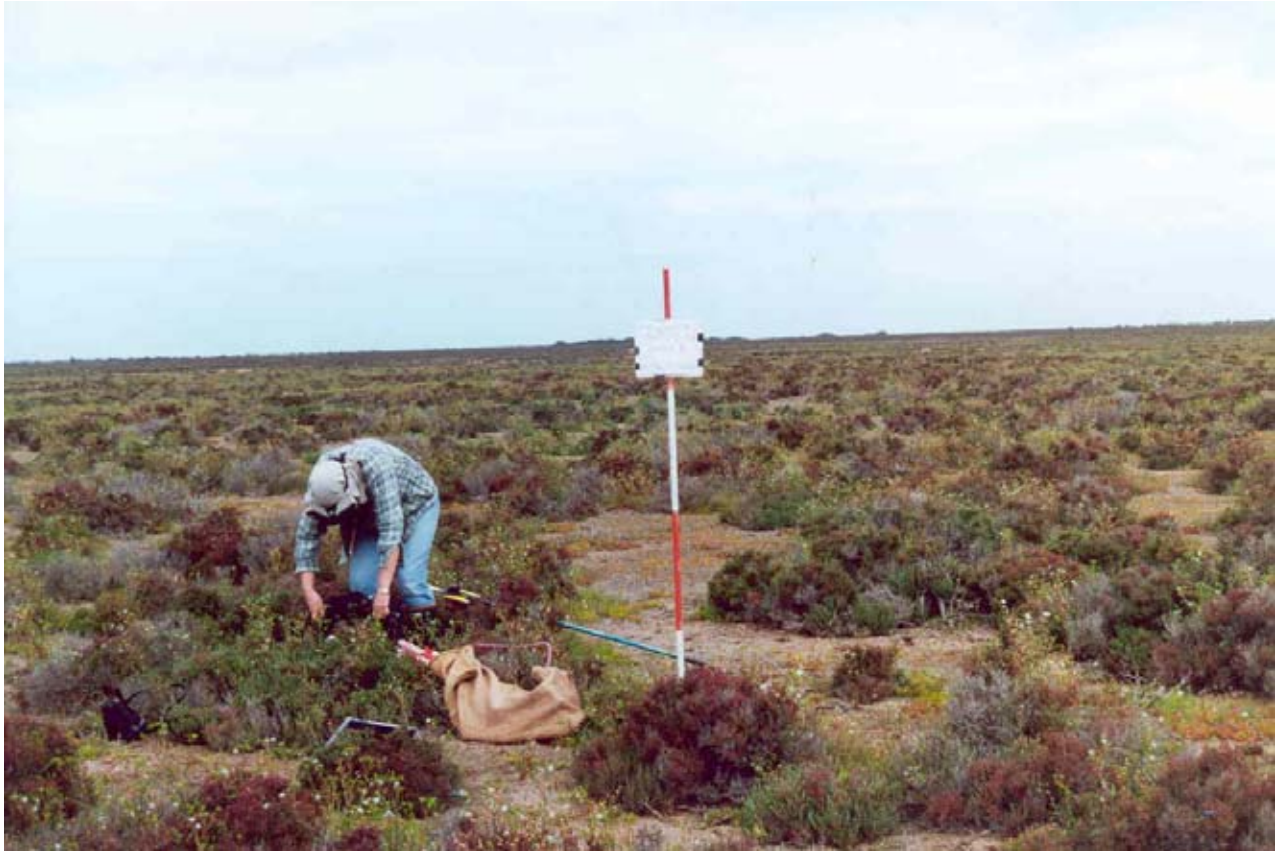


Figure 140.
***Halosarcia syncarpa* Low Shrubland at site WAK00101 in Clinton Conservation Park near Port Wakefield.**

Fauna at sites in Floristic Group 70 – no sites sampled for fauna

Floristic Group 71 *Halosarcia halocnemoides* ssp. +/- *H. indica* ssp. *leiostachya* Low Shrubland

This samphire Low Shrubland group is characterised by *Halosarcia halocnemoides* ssp. and is associated with clay loam and clay soils on tidal flats and low-lying seasonally inundated areas on plains. *Halosarcia indica* ssp. *leiostachya* may occur as a co-dominant, as may *Maireana oppositifolia*, though only rarely. The other main associated perennials are *Disphyma crassifolium* ssp. *clavellatum* and *Frankenia pauciflora* var. Although *Frankenia sessilis* and *Sarcocornia blackiana* were recorded infrequently they are nonetheless indicative of the group. The abundance of annuals was low, with only one species, *Senecio glossanthus*, being recorded in at least 30% of the sites.

Sites in the group are distributed along the coast north of Adelaide, at Price, Peesey Swamp and Wallaroo on Yorke Peninsula, and coastal areas near Port Broughton and Port Pirie.

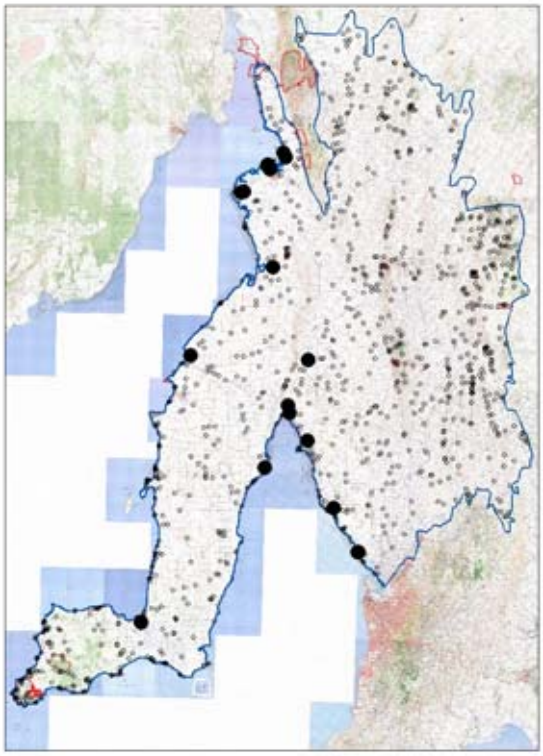
Most of the sites within this group tend to occur in soil land units with extreme soil salinity. This reflects their occurrence in naturally saline clay soils of coastal and inland salt marshes.

LANDFORM ELEMENT	Frequency	%
Flat	15	62.5
Plain	4	16.7
Tidal flat	2	8.3
Closed depression	1	4.2
Salt lake	1	4.2
Other - relic tidal flat	1	4.2

LANDFORM PATTERN	Frequency	%
Tidal flat	16	66.7
Plain	5	20.8
Alluvial plain	1	4.2
Not recorded	2	8.3

SALT	Frequency	%
Class A	1	4.2
Class D	1	4.2
Class G	22	91.7

SOIL	Frequency	%
Loam	6	25.0
Clay	8	33.3
Not recorded	10	41.7



Number of sites in group 24

PLANT TAXA SUMMARY

Number of taxa in group	58
Number of native taxa in group	38
Perennial	21
Annual	17
Number of introduced taxa in group	20
Perennial	0
Annual	20

Average Number of Taxa at a site:

Native perennial	4	Min:	1	Max:	10
Introduced perennial	0	Min:	0	Max:	0
Native annual	1	Min:	0	Max:	9
Introduced annual	2	Min:	0	Max:	6
All taxa	7	Min:	1	Max:	20

Number of Taxa of Conservation Significance:

Aust	0	SA	2				
Regions:		EP	n/a	FR	n/a	MU	n/a
		NL	2	SL	1	YP	5

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Halosarcia halocnemoides ssp.	24	100.0			3	14	5	2		2.25	44	9	71
Disphyma crassifolium ssp. *clavellatum*	9	37.5		3	4	1	1			1.03	57	19	3
Frankenia pauciflora var.	9	37.5	1	5	1	2				0.61	70	19	3
Halosarcia indica ssp. *leiostachya*	8	33.3		2		2	4			2.03	29	10	3
Maireana oppositifolia	8	33.3			2	5	1			1.88	44	16	5
Other Significant Perennial Taxa													
Wilsonia humilis var. *humilis*	7	29.2		1	1	4	1			1.73	23	5	9
Frankenia sessilis	7	29.2		1	2	3	1			1.59	11	4	26
Sarcocornia blackiana	7	29.2		4	2	1				0.63	12	4	12
Annual Taxa Occurring at >30% of Sites													
Senecio glossanthus	8	33.3		5	3					0.44	128	34	

Figure 141.
***Halosarcia halocnemoides* ssp. +/- *H. indica* ssp. *leiostachya* Low Shrubland at site WAL2F05 in low-lying area behind coastal dunes north of Wallaroo.**

Fauna at sites in Floristic Group 71 – no sites sampled for fauna

Floristic Group 72 *Lawrencia squamata* Low Shrubland

This Low Shrubland group is characterised by *Lawrencia squamata*. The main associated perennial species are *Senecio pinnatifolius*, *Disphyma crassifolium* ssp. *clavellatum*, *Frankenia pauciflora* var. and *Nitraria billardierei*. Although *Lycium australe* and *Zygophyllum angustifolium* were only recorded at one site each they are nonetheless indicative of the group. The most frequently occurring annuals are the natives *Hydrocotyle medicaginoides*, *Senecio glossanthus*, *Hypoxis glabella* var. *glabella*, *Pogonolepis muelleriana* and *Triglochin centrocarpum*, and the exotics *Minuartia mediterranea*, *Moraea setifolia*, *Sonchus oleraceus* and *Parapholis incurva*. The group is associated with sand, sandy clay loam and medium clay soils of salt marshes and low beach ridges.

Sites in this group are distributed along the west coast of Yorke Peninsula in Innes National Park, near Wallaroo and on the coast at Woods Point north of Port Broughton.

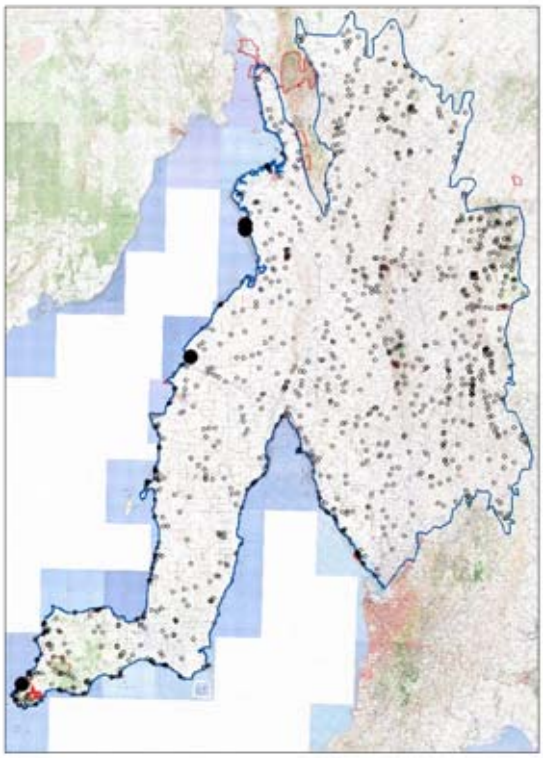
Sites within this group occur in a range of soil land units that vary from moderately high to extreme soil salinity. This reflects their occurrence in naturally saline soils of salt marshes and beach ridges.

LANDFORM ELEMENT	Frequency	%
Salt lake	1	25
Open depression	1	25
Dune/consolidated dune	1	25
Beach ridge	1	25

LANDFORM PATTERN	Frequency	%
Plain	2	50
Beach ridge plain	1	25
Dunefield	1	25

SALT	Frequency	%
Class D	1	25
Class F	2	50
Class G	1	25

SOIL	Frequency	%
Sand	2	50
Loam	1	25
Clay	1	25



Number of sites in group 4

PLANT TAXA SUMMARY

Number of taxa in group	81
Number of native taxa in group	51
Perennial	30
Annual	21
Number of introduced taxa in group	30
Perennial	1
Annual	29

Average Number of Taxa at a site:

Native perennial	12	Min:	2	Max:	17
Introduced perennial	1	Min:	0	Max:	1
Native annual	7	Min:	4	Max:	10
Introduced annual	9	Min:	2	Max:	15
All taxa	28	Min:	10	Max:	40

Number of Taxa of Conservation Significance:

Aust	0	SA	1				
Regions:		EP	n/a	FR	n/a	MU	n/a
		NL	n/a	SL	n/a	YP	7

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Lawrencia squamata	4	100			1	1	1	1		2.50	27	11	60
Senecio pinnatifolius	3	75		1	2					0.70	171	27	7
Disphyma crassifolium ssp. *clavellatum*	3	75	1	2						0.07	57	19	1
Frankenia pauciflora var.	2	50		1	1					0.55	70	19	5
Nitraria billardierei	2	50	1		1					0.51	63	22	2
Atriplex paludosa ssp. *cordata*	2	50		2						0.10	47	21	1
Halosarcia halocnemoides ssp.	2	50		2						0.10	44	9	1
Austrostipa elegantissima	2	50	1	1						0.06	290	53	
Pimelea serpyllifolia ssp. *serpyllifolia*	2	50	1	1						0.06	174	31	
Tetragonia implexicoma	2	50	1	1						0.06	203	32	
Threlkeldia diffusa	2	50	1	1						0.06	193	34	
**Lycium ferocissimum*	2	50	2							0.01	339	65	
Myoporum insulare	2	50	2							0.01	56	15	
Other Significant Perennial Taxa													
Lycium australe	1	25				1				2.00	16	12	15
Zygophyllum angustifolium	1	25			1					1.00	21	13	12
Annual Taxa Occurring at >30% of Sites													
Hydrocotyle medicaginoides	3	75		1	2					0.70	21	10	
Senecio glossanthus	3	75		3						0.10	128	34	
**Minuartia mediterranea*	2	50		1	1					0.55	146	27	
**Moraea setifolia*	2	50		1	1					0.55	335	60	
**Sonchus oleraceus*	2	50		1	1					0.55	588	77	
Hypoxis glabella var. *glabella*	2	50		1	1					0.55	85	29	
Pogonolepis muelleriana	2	50		1	1					0.55	53	23	
Triglochin centrocarpum	2	50		1	1					0.55	23	13	
**Parapholis incurva*	2	50	1		1					0.51	101	36	
**Anagallis arvensis*	2	50		2						0.10	341	49	
**Bupleurum semicompositum*	2	50		2						0.10	90	32	
**Hordeum glaucum*	2	50		2						0.10	180	51	

Figure 142.
***Lawrencia squamata* Low Shrubland at site WAN01701 on coastal plain at Woods Point, south of Port Pirie.**

Fauna at sites in Floristic Group 72

Trapping effort at 1 of 4 sites. Mammals recorded at 1 site, birds at 1 and reptiles at 1.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Macropus sp.				1	2
Mus musculus	House Mouse			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			1	3
Anthus novaeseelandiae	Richard's Pipit			1	2
Artamus cinereus	Black-faced Woodswallow			1	1
Cacatua roseicapilla	Galah			1	70
Calamanthus campestris	Rufous Fieldwren			1	2
Chrysococcyx basalis	Horsfield's Bronze-cuckoo			1	1
Corvus coronoides	Australian Raven			1	2
Corvus mellori	Little Raven			1	1
Cracticus torquatus	Grey Butcherbird			1	1
Epthianura albifrons	White-fronted Chat			1	2
Lichenostomus virescens	Singing Honeyeater			1	3
Melanodryas cucullata	Hooded Robin			1	2
Ocyphaps lophotes	Crested Pigeon			1	2
Rhipidura leucophrys	Willie Wagtail			1	1

Reptile species	Common name	SA	Aus	Site freq	Number obs
Ctenophorus pictus	Painted Dragon			1	1
Lerista dorsalis	Southern Four-toed Slider			1	1
Morethia adelaidensis	Adelaide Snake-eye			1	2
Suta spectabilis	Mallee Black-headed Snake			1	1

Floristic Group 73 *Melaleuca halmaturorum* Very Low Open Forest

This Very Low Open Forest group is characterised by *Melaleuca halmaturorum* and is associated with clay loam soils in swamps, salt lakes and low-lying seasonally inundated areas of southern Yorke Peninsula, particularly in the Yorketown-Warooka area, at Point Davenport, Innes National Park, Thidna and at Coutts Lagoon near Levens Beach. The understorey varies from very sparse to mid-dense and generally consists of a low shrub or sedge layer featuring *Sarcocornia quinqueflora*, *Rhagodia candolleana* ssp. *candolleana*, *Samolus repens*, *Gahnia filum*, *Lawrencia squamata* and *Exocarpos aphyllus*. The most frequently occurring annuals are the exotics *Parapholis incurva*, *Melilotus indicus* and *Sonchus oleraceus*, and the native *Senecio glossanthus*.

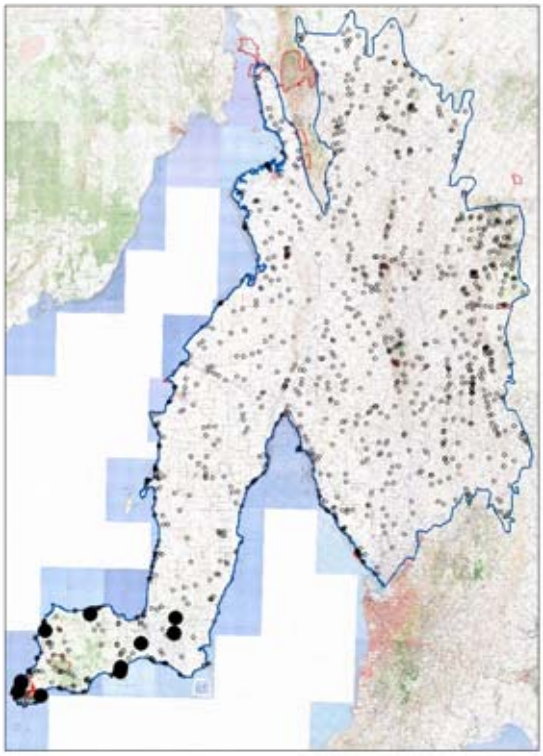
Sites within this group occur in a range of soil land units that vary from moderately high to extreme soil salinity. This reflects their occurrence in naturally saline soils at the margins of salt lakes and in seasonally inundated swamps.

LANDFORM ELEMENT	Frequency	%
Swamp	4	30.8
Salt lake	2	15.4
Playa/pan	1	7.7
Closed depression	1	7.7
Open depression	1	7.7
Plain	1	7.7
Sandy plain	1	7.7
Lunette	1	7.7
Other - sandy rise by lake	1	7.7

LANDFORM PATTERN	Frequency	%
Plain	10	76.9
Rises	2	15.4
Sand plain	1	7.7

SALT	Frequency	%
Class D	1	7.7
Class E	1	7.7
Class F	10	76.9
Class G	1	7.7

SOIL	Frequency	%
Sand	1	7.7
Loam	11	84.6
Clay	1	7.7



Number of sites in group 13

PLANT TAXA SUMMARY

Number of taxa in group	121
Number of native taxa in group	82
Perennial	46
Annual	36
Number of introduced taxa in group	39
Perennial	2
Annual	37

Average Number of Taxa at a site:

Native perennial	10	Min:	1	Max:	17
Introduced perennial	0	Min:	0	Max:	2
Native annual	5	Min:	0	Max:	12
Introduced annual	6	Min:	0	Max:	14
All taxa	21	Min:	1	Max:	39

Number of Taxa of Conservation Significance:

Aust	0	SA	4				
Regions:		EP	n/a	FR	n/a	MU	n/a
		NL	n/a	SL	n/a	YP	8

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Melaleuca halmaturorum	13	100.0					2	8	3	4.08	16	3	99
Rhagodia candolleana ssp. *candolleana*	8	61.5	2	2	3	1				0.65	218	35	4
Samolus repens	8	61.5		4	4					0.55	38	10	6
Exocarpos aphyllus	8	61.5	2	5		1				0.32	182	40	4
Sarcocornia quinqueflora	7	53.8	1		2	4				1.43	45	10	8
Gahnia filum	7	53.8	3	2		1	1			0.75	16	7	4
Lawrencia squamata	7	53.8	1	3	2	1				0.62	27	11	4
Threlkeldia diffusa	6	46.2	1	4	1					0.24	193	34	1
Wilsonia humilis var. *humilis*	5	38.5		3	2					0.46	23	5	4
Frankenia pauciflora var.	5	38.5	1	3	1					0.26	70	19	1
Pimelea serpyllifolia ssp. *serpyllifolia*	5	38.5	3	2						0.05	174	31	
Sclerostegia arbuscula	4	30.8				3		1		2.50	32	4	7
Halosarcia pergranulata ssp.	4	30.8		2		1	1			1.30	29	10	3
Annual Taxa Occurring at >30% of Sites													
**Parapholis incurva*	6	46.2		2	2	2				1.03	101	36	
**Melilotus indicus*	6	46.2		3	3					0.55	82	17	
Senecio glossanthus	6	46.2		3	3					0.55	128	34	
**Sonchus oleraceus*	6	46.2		6						0.10	588	77	
**Anagallis arvensis*	5	38.5		3	2					0.46	341	49	
Apium annuum	4	30.8	1	1	1	1				0.78	28	12	

Figure 143.
***Melaleuca halmaturorum* Very Low Open Forest at site PON01601 at Thidna Reserve, Gleeson's Landing, Southern Yorke Peninsula.**

Fauna at sites in Floristic Group 73

Trapping effort at 5 of 13 sites. Mammals recorded at 5 sites, birds at 5, reptiles at 5 and a frog at 1.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Mus musculus	House Mouse			5	20
Cercartetus concinnus	Western Pygmy-possum			2	3
Macropus sp.				2	4
Vulpes vulpes	Fox			2	3
Chalinolobus morio	Chocolate Wattled Bat			1	5
Felis catus	Cat			1	2
Macropus fuliginosus	Western Grey Kangaroo			1	4
Nyctophilus geoffroyi	Lesser Long-eared Bat			1	5
Oryctolagus cuniculus	Rabbit			1	1
Vespadelus regulus	Southern Forest Bat			1	1
Vespadelus sp.				1	2

Bird species	Common name	SA	Aus	Site freq	Number obs
Corvus mellori	Little Raven			5	39
Sericornis frontalis	White-browed Scrubwren			5	67
Strepera versicolor	Grey Currawong			5	52
Zosterops lateralis	Silvereye			5	132
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			4	24
Acanthiza apicalis	Inland Thornbill			4	33
Colluricincla harmonica	Grey Shrike-thrush			4	14
Gymnorhina tibicen	Australian Magpie			4	40
Pachycephala pectoralis	Golden Whistler			4	14
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			3	26
Anthochaera carunculata	Red Wattlebird			3	14
Cracticus torquatus	Grey Butcherbird			3	5
Hirundo neoxena	Welcome Swallow			3	9
Ocyphaps lophotes	Crested Pigeon			3	12
Phaps elegans	Brush Bronzewing			3	7
Rhipidura leucophrys	Willie Wagtail			3	6
Sturnus vulgaris	Common Starling			3	26
Anas superciliosa	Pacific Black Duck			2	7
Cacatua roseicapilla	Galah			2	7
Chrysococcyx basalis	Horsfield's Bronze-cuckoo			2	2
Corvus coronoides	Australian Raven			2	4
Egretta novaehollandiae	White-faced Heron			2	4
Grallina cyanoleuca	Magpie-lark			2	3
Larus novaehollandiae	Silver Gull			2	8
Lichenostomus virescens	Singing Honeyeater			2	3
Malurus lamberti	Variegated Fairy-wren			2	9
Petroica goodenovii	Red-capped Robin			2	6
Psephotus varius	Mulga Parrot			2	5
Trichoglossus haematodus	Rainbow Lorikeet			2	4
Vanellus miles	Masked Lapwing			2	4
Accipiter fasciatus	Brown Goshawk			1	1
Alauda arvensis	Eurasian Skylark			1	8
Anas castanea	Chestnut Teal			1	74
Anas gracilis	Grey Teal			1	6
Aquila audax	Wedge-tailed Eagle			1	2
Cacomantis flabelliformis	Fan-tailed Cuckoo			1	1
Chrysococcyx lucidus	Shining Bronze-Cuckoo	R		1	2
Circus approximans	Swamp Harrier			1	1
Circus assimilis	Spotted Harrier			1	1
Cuculus pallidus	Pallid Cuckoo			1	1
Dromaius novaehollandiae	Emu			1	8
Falco berigora	Brown Falcon			1	1
Lichenostomus cratitius	Purple-gaped Honeyeater			1	3
Neophema petrophila	Rock Parrot	R		1	1
Pachycephala rufiventris	Rufous Whistler			1	7
Passer domesticus	House Sparrow			1	4
Petroica multicolor	Scarlet Robin			1	2
Phaps chalcoptera	Common Bronzewing			1	14

Bird species	Common name	SA	Aus	Site freq	Number obs
Pomatostomus superciliosus	White-browed Babbler			1	5
Rhipidura albiscapa	Grey Fantail			1	2
Tadorna tadornoides	Australian Shelduck			1	1
Tringa nebularia	Common Greenshank			1	1
Turdus merula	Eurasian Blackbird			1	1

Reptile species	Common name	SA	Aus	Site freq	Number obs
Tiliqua rugosa	Sleepy Lizard			5	6
Hemiergis peronii	Four-toed Earless Skink			3	8
Christinus marmoratus	Marbled Gecko			1	1
Lerista dorsalis	Southern Four-toed Slider			1	1
Pogona barbata	Eastern Bearded Dragon			1	1
Pseudonaja inframacula	Peninsula Brown Snake			1	1

Frog species	Common name	Site freq	Number obs
Neobatrachus pictus	Painted Frog	1	2

Floristic Group 74 *Sclerostegia arbuscula*, *Sarcocornia quinqueflora* Low Shrubland

In this Low Shrubland group *Sclerostegia arbuscula* dominates the overstorey and *Sarcocornia quinqueflora* the understorey. On rare occasions *Avicennia marina* ssp. *marina* may form a sparse or mid-dense overstorey to 2m in height. The commonly associated perennial species are *Maireana oppositifolia*, *Suaeda australis*, *Halosarcia halocnemoides* ssp., *Frankenia pauciflora* var., and *Wilsonia humilis* var. *humilis*. Annual species occur only in low abundance and no single species occurred at more than 15% of sites. The group is associated with clay loam and clay soils on tidal flats and low-lying seasonally inundated areas.

Sites representing this group mainly occur along the coast of Gulf St. Vincent from Adelaide to Port Wakefield and on the west side south to Price. There are also scattered occurrences at Diamond Lake near Balaklava, Lake Fowler on southern Yorke Peninsula, near the coast at Cape Elizabeth, Moonta and Port Pirie, and at Porters Lagoon.

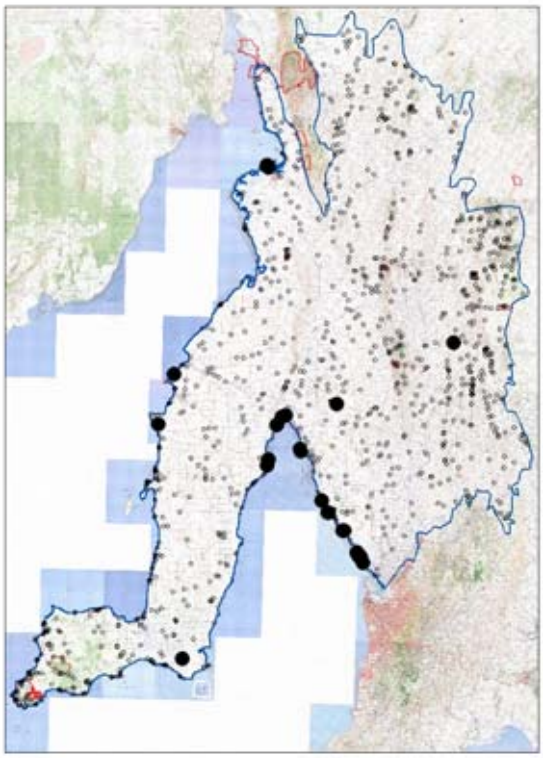
Most of the sites within this group tend to occur in soil land units with extreme soil salinity. This reflects their occurrence in naturally saline clay soils of coastal and inland salt marshes.

LANDFORM ELEMENT	Frequency	%
Flat	19	63.3
Plain	3	10.0
Playa/pan	2	6.7
Open depression	2	6.7
Floodout	2	6.7
Ridge	1	3.3
Dune crest	1	3.3

LANDFORM PATTERN	Frequency	%
Tidal flat	22	73.3
Plain	4	13.3
Beach ridge plain	1	3.3
Dunefield	1	3.3
Consolidated dunefield	1	3.3
Not recorded	1	3.3

SALT	Frequency	%
Class E	1	3.3
Class F	1	3.3
Class G	28	93.3

SOIL	Frequency	%
Sand	3	10.0
Loam	6	20.0
Clay	11	36.7
Not recorded	10	33.3



Number of sites in group 30

PLANT TAXA SUMMARY

Number of taxa in group	51
Number of native taxa in group	29
Perennial	26
Annual	3
Number of introduced taxa in group	22
Perennial	1
Annual	21

Average Number of Taxa at a site:

Native perennial	5	Min:	2	Max:	10
Introduced perennial	0	Min:	0	Max:	1
Native annual	0	Min:	0	Max:	2
Introduced annual	1	Min:	0	Max:	11
All taxa	6	Min:	2	Max:	21

Number of Taxa of Conservation Significance:

Aust	0	SA	1				
Regions:		EP	n/a	FR	n/a	MU	n/a
		NL	2	SL	2	YP	2

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Sclerostegia arbuscula	26	86.7		3		4	11	4	4	2.97	32	4	65
Sarcocornia quinqueflora	25	83.3		2	6	4	10	1	2	2.33	45	10	33
Maireana oppositifolia	14	46.7	1	2	3	3	3	1	1	1.94	44	16	10
Suaeda australis	12	40.0		4	5	2		1		1.12	18	6	4
Frankenia pauciflora var.	11	36.7		6	4	1				0.60	70	19	3
Halosarcia halocnemoides ssp.	10	33.3	1	1	4	1	2		1	1.71	44	9	5
Wilsonia humilis var. *humilis*	9	30.0			2	7				1.78	23	5	9
Other Significant Perennial Taxa													
Avicennia marina ssp. *marina*	4	13.3		1	1	1		1		1.78	7	2	1
Samolus repens	4	13.3			2	2				1.50	38	10	1
Halosarcia pergranulata ssp.	3	10.0		1			2			2.03	29	10	
Sarcocornia blackiana	3	10.0			1	2				1.67	12	4	4
Hemichroa pentandra	3	10.0			2	1				1.33	7	4	2
Annual Taxa Occurring at >30% of Sites													
None recorded at >15% of sites													

Figure 144.
***Sclerostegia arbuscula*, *Sarcocornia quinqueflora* Low Shrubland at site VIN01C01 on coastal plain at Port Prime, near Dublin.**

Fauna at sites in Floristic Group 74

Trapping effort at 2 of 30 sites. Mammals recorded at 2 sites, birds at 2 and reptiles at 2.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Lepus capensis	Brown Hare			1	1
Mus musculus	House Mouse			1	14
Vulpes vulpes	Fox			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Alauda arvensis	Eurasian Skylark			2	4
Epthianura albifrons	White-fronted Chat			2	4
Sturnus vulgaris	Common Starling			2	89
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			1	3

Bird species	Common name	SA	Aus	Site freq	Number obs
Acanthiza iredalei	Slender-billed Thornbill	V	VU	1	4
Anas gracilis	Grey Teal			1	2000
Aythya australis	Hardhead (White-eyed Duck)			1	2
Cacatua roseicapilla	Galah			1	4
Calidris acuminata	Sharp-tailed Sandpiper			1	60
Calidris ruficollis	Red-necked Stint			1	20
Charadrius ruficapillus	Red-capped Plover			1	3
Chrysococcyx basalis	Horsfield's Bronze-cuckoo			1	2
Cladorhynchus leucocephalus	Banded Stilt			1	200
Colluricincla harmonica	Grey Shrike-thrush			1	1
Corvus coronoides	Australian Raven			1	1
Cracticus torquatus	Grey Butcherbird			1	1
Falco berigora	Brown Falcon			1	1
Falco subniger	Black Falcon			1	1
Grallina cyanoleuca	Magpie-lark			1	2
Himantopus himantopus	Black-winged Stilt			1	40
Larus novaehollandiae	Silver Gull			1	32
Lichenostomus virescens	Singing Honeyeater			1	5
Ocyphaps lophotes	Crested Pigeon			1	6
Petrochelidon ariel	Fairy Martin			1	11
Recurvirostra novaehollandiae	Red-necked Avocet			1	400
Rhipidura leucophrys	Willie Wagtail			1	2
Sericornis frontalis	White-browed Scrubwren			1	7
Tadorna tadornoides	Australian Shelduck			1	200
Vanellus miles	Masked Lapwing			1	4
Vanellus tricolor	Banded Lapwing			1	2

Reptile species	Common name	SA	Aus	Site freq	Number obs
Hemiergis peronii	Four-toed Earless Skink			1	2
Lerista bougainvillii	Bougainville's Skink			1	1
Tiliqua scincoides	Eastern Bluetongue			1	1

Floristic Group 75 *Gahnia filum* Sedgeland

This Sedgeland group is characterised by *Gahnia filum* and is associated with clay loam and medium clay soils of swamps and low-lying seasonally inundated areas at scattered locations on southern Yorke Peninsula. No other perennial species was recorded at more than one of the three sites representing this group. However, *Hemichroa pentandra* and *Sporobolus virginicus* may still be regarded as indicative of the group. Commonly occurring annuals are the exotics *Trifolium scabrum*, *Dittrichia graveolens* and *Erodium cicutarium*, and the native *Hypoxis glabella* var. *glabella*.

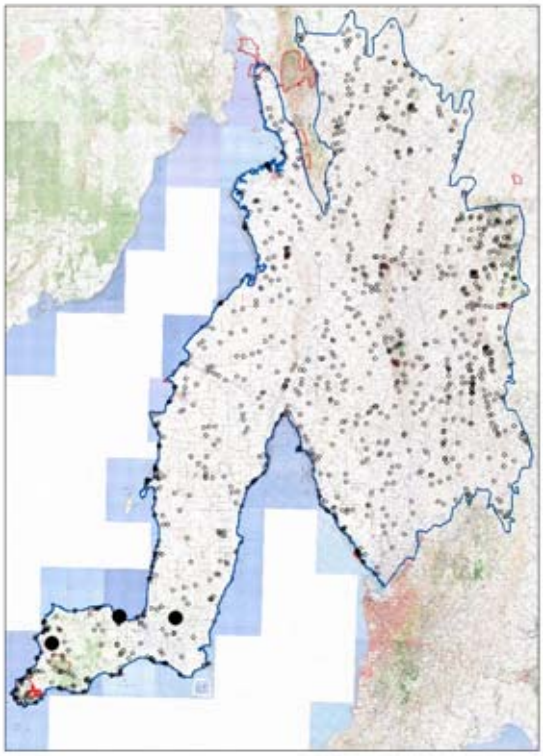
Sites within this group tend to occur in soil land units with moderately high to high soil salinity. This reflects their occurrence in naturally saline clay loam soils of seasonal swamps.

LANDFORM ELEMENT	Frequency	%
Swamp	1	33.3
Closed depression	1	33.3
Flat	1	33.3

LANDFORM PATTERN	Frequency	%
Plain	3	100.0

SALT	Frequency	%
Class D	1	33.3
Class F	2	66.7

SOIL	Frequency	%
Loam	2	66.7
Clay	1	33.3



Number of sites in group 3

PLANT TAXA SUMMARY

Number of taxa in group	55
Number of native taxa in group	40
Perennial	25
Annual	15
Number of introduced taxa in group	15
Perennial	2
Annual	13

Average Number of Taxa at a site:

Native perennial	9	Min:	5	Max:	16
Introduced perennial	1	Min:	0	Max:	1
Native annual	5	Min:	1	Max:	13
Introduced annual	5	Min:	3	Max:	7
All taxa	20	Min:	10	Max:	37

Number of Taxa of Conservation Significance:

Aust	1	SA	1				
Regions:		EP	n/a	FR	n/a	MU	n/a
		NL	n/a	SL	n/a	YP	5

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa													
Gahnia filum	3	100.0						2	1	4.33	16	7	82
Acacia farinosa	1	33.3			1					1.00	3	3	
Helichrysum leucopsideum	1	33.3			1					1.00	229	43	1
Hemichroa pentandra	1	33.3			1					1.00	7	4	16
Lawrencia spicata	1	33.3			1					1.00	1	1	
Sarcocornia quinqueflora	1	33.3			1					1.00	45	10	2
Sporobolus virginicus	1	33.3			1					1.00	5	4	20
**Lycium ferocissimum*	1	33.3		1						0.10	339	65	
**Reseda luteola*	1	33.3		1						0.10	4	4	3
Acaena echinata	1	33.3		1						0.10	94	21	1
Baumea juncea	1	33.3		1						0.10	9	7	2
Clematis microphylla var. *microphylla*	1	33.3		1						0.10	250	46	
Exocarpos aphyllus	1	33.3		1						0.10	182	40	
Lawrencia squamata	1	33.3		1						0.10	27	11	
Melaleuca lanceolata	1	33.3		1						0.10	232	41	
Olearia axillaris	1	33.3		1						0.10	168	19	
Pimelea serpyllifolia ssp. *serpyllifolia*	1	33.3		1						0.10	174	31	
Pittosporum angustifolium	1	33.3		1						0.10	213	46	1
Plantago hispida	1	33.3		1						0.10	36	17	1
Poa labillardieri var. *labillardieri*	1	33.3		1						0.10	11	10	1
Spyridium phylicoides	1	33.3		1						0.10	52	12	1
Threlkeldia diffusa	1	33.3		1						0.10	193	34	
Wilsonia rotundifolia	1	33.3		1						0.10	4	3	5
Acacia cupularis	1	33.3	1							0.01	26	12	
Cassytha glabella f. *dispar*	1	33.3	1							0.01	42	10	
Melaleuca halmaturorum	1	33.3	1							0.01	16	3	
Rhagodia candolleana ssp. *candolleana*	1	33.3	1							0.01	218	35	
Annual Taxa													
**Trifolium scabrum*	2	66.7			1		1			2.00	57	25	
**Dittrichia graveolens*	2	66.7			1	1				1.50	22	13	
**Erodium cicutarium*	2	66.7		2						0.10	124	42	
Hypoxis glabella var. *glabella*	2	66.7		2						0.10	85	29	
**Galium murale*	1	33.3				1				2.00	268	49	
**Crassula natans* var. *minus*	1	33.3			1					1.00	4	2	
**Sonchus oleraceus*	1	33.3			1					1.00	588	77	
**Trifolium campestre*	1	33.3			1					1.00	227	41	
**Vicia monantha*	1	33.3			1					1.00	47	23	
Lagenophora huegelii	1	33.3			1					1.00	81	26	
**Cerastium glomeratum*	1	33.3		1						0.10	38	18	
**Linum strictum* ssp. *strictum*	1	33.3		1						0.10	133	28	
**Melilotus indicus*	1	33.3		1						0.10	82	17	
**Parentucellia latifolia*	1	33.3		1						0.10	21	13	
**Stellaria media*	1	33.3		1						0.10	115	30	
Angianthus preissianus	1	33.3		1						0.10	8	7	
Apium prostratum var. *prostratum*	1	33.3		1						0.10	5	4	
Craspedia variabilis	1	33.3		1						0.10	66	20	
Daucus glochidiatus	1	33.3		1						0.10	328	56	
Geranium potentilloides var. *potentilloides*	1	33.3		1						0.10	34	12	
Gnaphalium indutum	1	33.3		1						0.10	45	23	
Goodenia pinnatifida	1	33.3		1						0.10	163	29	
Hydrocotyle capillaris	1	33.3		1						0.10	43	16	
Isoetopsis graminifolia	1	33.3		1						0.10	29	19	
Millotia muelleri	1	33.3		1						0.10	33	15	
Podolepis canescens	1	33.3		1						0.10	12	5	
Senecio macrocarpus	1	33.3		1						0.10	1	1	
Triglochin centrocarpum	1	33.3		1						0.10	23	13	

Figure 145.
Gahnia filum **Sedgeland at site TUR0801 in a swamp near Point Turton, Southern Yorke Peninsula.**

Fauna at sites in Floristic Group 75 – no sites sampled for fauna

Floristic Group 76 *Avicennia marina* ssp. *marina* Very Low Closed Forest

This Very Low Closed Forest group is characterised by *Avicennia marina* ssp. *marina* and is associated with clay and loam soils of tidal flats at scattered coastal locations north of Adelaide, at the head of Gulf St. Vincent[2] and in the vicinity of Port Pirie. Species diversity is extremely low with an average of only two species per site. The only other species recorded in association are *Sarcocornia quinqueflora*, *Suaeda australis*, and an unidentified species of *Halosarcia*.

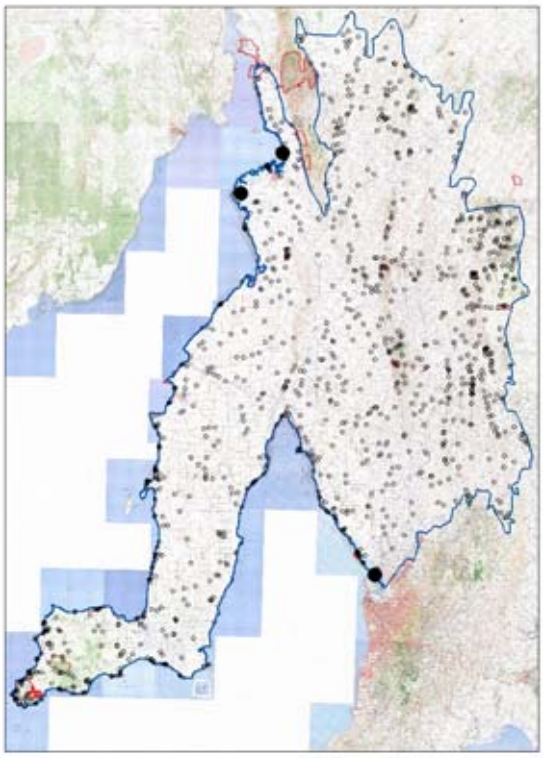
Sites within this group tend to occur in soil land units with extreme soil salinity. This reflects their occurrence in naturally saline soils of tidal flats.

LANDFORM ELEMENT	Frequency	%
Tidal flat	2	66.7
Flat	1	33.3

LANDFORM PATTERN	Frequency	%
Tidal flat	2	66.7
Not recorded	1	33.3

SALT	Frequency	%
Class G	2	66.7
Class U (Urban area - no value)	1	33.3

SOIL	Frequency	%
Loam	1	33.3
Clay	2	66.7



Number of sites in group 3

PLANT TAXA SUMMARY

Number of taxa in group	4
Number of native taxa in group	4
Perennial	4
Annual	0
Number of introduced taxa in group	0
Perennial	0
Annual	0

Average Number of Taxa at a site:

Native perennial	2	Min:	1	Max:	3
Introduced perennial	0	Min:	0	Max:	0
Native annual	0	Min:	0	Max:	0
Introduced annual	0	Min:	0	Max:	0
All taxa	2	Min:	1	Max:	3

Number of Taxa of Conservation Significance:

Aust	0	SA	0			
Regions:		EP	n/a	FR	n/a	MU n/a
		NL	0	SL	0	YP 0

[2] Information from personal observations as there are no survey sites in this plant community from this area.

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa													
Avicennia marina ssp. *marina*	3	100.0					1		2	4.33	7	2	95
Halosarcia sp.	1	33.3						1		4.00			
Sarcocornia quinqueflora	1	33.3		1						0.10	45	10	
Suaeda australis	1	33.3		1						0.10	18	6	
Annual Taxa													
None recorded													

Figure 146.
***Avicennia marina* ssp. *marina* Very Low Closed Forest at site PIR2F10 on the coast opposite Weeroona Island, north of Port Pirie.**

Fauna at sites in Floristic Group 76 – no sites sampled for fauna

Floristic Group 77 *Myoporum montanum* Tall Open Shrubland over *Typha domingensis*, *Cyperus gymnocaulos* +/- an overstorey of *Eucalyptus camaldulensis* var. *camaldulensis* Open Forest

This Tall Open Shrubland group is characterised by *Myoporum montanum* with an understorey dominated by *Typha domingensis* and *Cyperus gymnocaulos*. There may be, on occasions, an overstorey of *Eucalyptus camaldulensis* var. *camaldulensis* Open Forest or, rarely, of *Acacia salicina*. Other indicative perennial species are the exotic *Cynara cardunculus* and, less frequently, the natives *Schoenoplectus pungens* and *Triglochin striatum*, while *Enchylaena tomentosa* var. *tomentosa*, *Juncus kraussii* and *Samolus repens* are also often present in the understorey. The most commonly occurring annuals are the exotics *Avena barbata*, *Sonchus oleraceus*, *Lolium rigidum*, *Echium plantagineum* and *Hordeum glaucum*, and the native *Oxalis perennans*. The group is mainly associated with loam soils of stream channels of watercourses in the Mid North. The specific locations the group occurred at are Appila Creek, Freshwater Creek, the Broughton River in the Yackamoorundie Hills, and Hopkins Creek.

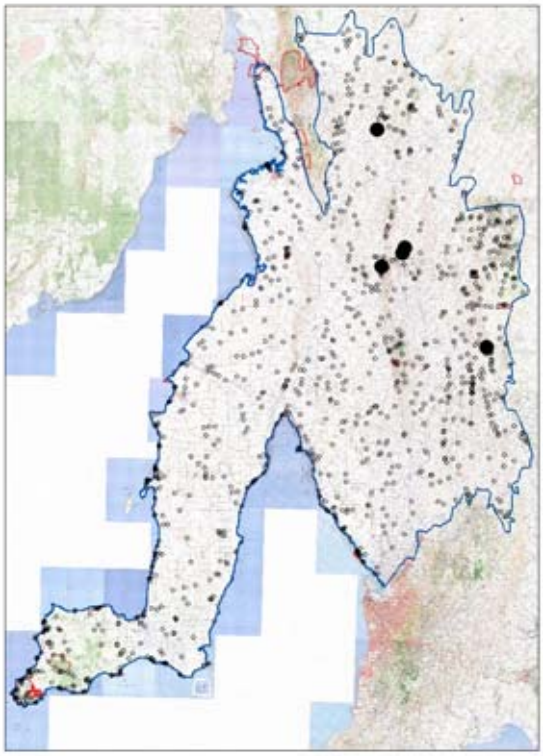
Sites within this group tend to occur in soil land units that are either unaffected or only slightly affected by saline seepage.

LANDFORM ELEMENT	Frequency	%
Stream channel	4	80
Channel bench	1	20

LANDFORM PATTERN	Frequency	%
Low hills	2	40
Hills	1	20
Floodplain	1	20
Not recorded	1	20

SALT	Frequency	%
Class A	2	40
Class B	3	60

SOIL	Frequency	%
Loam	4	80
Clay	1	20



Number of sites in group 5

PLANT TAXA SUMMARY

Number of taxa in group	122
Number of native taxa in group	60
Perennial	44
Annual	16
Number of introduced taxa in group	62
Perennial	15
Annual	47

Average Number of Taxa at a site:

Native perennial	14	Min:	4	Max:	23
Introduced perennial	5	Min:	2	Max:	7
Native annual	4	Min:	1	Max:	11
Introduced annual	16	Min:	7	Max:	26
All taxa	40	Min:	19	Max:	64

Number of Taxa of Conservation Significance:

Aust	0	SA	1				
Regions:		EP	n/a	FR	n/a	MU	6
		NL	8	SL	n/a	YP	n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Cyperus gymnocaulos	5	100			3	2				1.40	28	8	30
Myoporum montanum	4	80				3	1			2.25	31	19	71
Typha domingensis	4	80		1	1		2			1.78	9	4	46
**Cynara cardunculus*	4	80	3			1				0.51	40	13	15
Enchylaena tomentosa var. *tomentosa*	4	80	2	2						0.06	425	58	
Eucalyptus camaldulensis var. *camaldulensis*	3	60	1			1	1			1.67	28	9	8
Juncus kraussii	3	60	1	1	1					0.37	23	6	2
Samolus repens	3	60		3						0.10	38	10	1
**Lycium ferocissimum*	2	40		1		1				1.05	339	65	3
Schoenoplectus pungens	2	40		1		1				1.05	5	3	19
Epilobium billardierianum ssp. *billardierianum*	2	40		1	1					0.55	3	2	
**Atriplex prostrata*	2	40		2						0.10	10	5	4
**Cotula coronopifolia*	2	40		2						0.10	12	5	4
**Polypogon viridis*	2	40		2						0.10	5	4	9
**Rorippa nasturtium-aquaticum*	2	40		2						0.10	2	1	
**Rumex crispus*	2	40		2						0.10	21	12	9
Triglochin striatum	2	40		2						0.10	6	3	10
Austrostipa drummondii	2	40	1	1						0.06	92	32	
Einadia nutans ssp.	2	40	1	1						0.06	215	44	1
**Marrubium vulgare*	2	40	2							0.01	98	34	
Acacia calamifolia	2	40	2							0.01	49	18	
Maireana brevifolia	2	40	2							0.01	126	33	
Nitraria billardierei	2	40	2							0.01	63	22	
Other Significant Perennial Taxa													
Acacia salicina	1	20				1				2.00	9	7	10
Annual Taxa Occurring at >30% of Sites													
**Avena barbata*	5	100		3	1	1				0.66	661	71	
**Sonchus oleraceus*	5	100	1	4						0.08	588	77	
**Lolium rigidum*	4	80		1	2		1			1.28	218	48	
Oxalis perennans	4	80	2	1	1					0.28	393	53	
**Echium plantagineum*	3	60	1	1		1				0.70	352	48	
**Hordeum glaucum*	3	60		1	2					0.70	180	51	
**Arctotheca calendula*	3	60	1	1	1					0.37	208	45	
**Moraea setifolia*	3	60	1	1	1					0.37	335	60	
**Medicago minima* var. *minima*	3	60		3						0.10	243	54	
**Polypogon monspeliensis*	3	60		3						0.10	14	5	
**Bromus diandrus*	2	40		1		1				1.05	310	54	
**Oxalis pes-caprae*	2	40		1		1				1.05	169	47	
**Bromus rubens*	2	40		1	1					0.55	365	57	
**Hordeum marinum*	2	40		1	1					0.55	23	16	
**Trifolium campestre*	2	40		1	1					0.55	227	41	
Apium prostratum var. *prostratum*	2	40		1	1					0.55	5	4	
**Bromus hordeaceus* ssp. *hordeaceus*	2	40		2						0.10	89	25	
**Parapholis incurva*	2	40		2						0.10	101	36	
**Rostraria cristata*	2	40		2						0.10	229	49	
**Trifolium angustifolium*	2	40		2						0.10	195	31	
Lythrum hyssopifolia	2	40		2						0.10	12	8	
**Cirsium vulgare*	2	40	1	1						0.06	18	11	
**Vicia monantha*	2	40	1	1						0.06	47	23	

Figure 147.
***Myoporum montanum* Tall Open Shrubland over *Typha domingensis*, *Cyperus gymnocaulos* +/- an overstorey of *Eucalyptus camaldulensis* var. *camaldulensis* Open Forest at site BUN01401 at Freshwater Creek Weir, north of Spalding.**

Fauna at sites in Floristic Group 77

Trapping effort at 4 of 5 sites. Mammals recorded at 4 sites, birds at 4, reptiles at 3 and a frog at 2.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Mus musculus	House Mouse			3	26
Chalinolobus gouldii	Gould's Wattled Bat			2	2
Chalinolobus morio	Chocolate Wattled Bat			2	2
Mormopterus sp.				2	2
Tachyglossus aculeatus	Short-beaked Echidna			2	2
Macropus robustus	Euro			1	1
Macropus sp.				1	1
Nyctophilus geoffroyi	Lesser Long-eared Bat			1	3
Rattus rattus	Black Rat			1	2
Tadarida australis	White-striped Freetail-bat			1	2
Trichosurus vulpecula	Common Brushtail Possum			1	1
Vespadelus regulus	Southern Forest Bat			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Cacatua roseicapilla	Galah			3	64
Colluricincla harmonica	Grey Shrike-thrush			3	12
Egretta novaehollandiae	White-faced Heron			3	4
Gymnorhina tibicen	Australian Magpie			3	6
Lichenostomus penicillatus	White-plumed Honeyeater			3	9
Lichenostomus virescens	Singing Honeyeater			3	9
Passer domesticus	House Sparrow			3	40
Rhipidura leucophrys	Willie Wagtail			3	7
Turdus merula	Eurasian Blackbird			3	7
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			2	6

Bird species	Common name	SA	Aus	Site freq	Number obs
Acanthiza nana	Yellow Thornbill			2	7
Aquila audax	Wedge-tailed Eagle			2	5
Barnardius zonarius	Australian Ringneck, (Ring-necked Parrot)			2	8
Cracticus torquatus	Grey Butcherbird			2	3
Dicaeum hirundinaceum	Mistletoebird			2	4
Malurus lamberti	Variegated Fairy-wren			2	14
Melithreptus brevirostris	Brown-headed Honeyeater			2	7
Pachycephala rufiventris	Rufous Whistler			2	9
Pardalotus striatus	Striated Pardalote			2	7
Sturnus vulgaris	Common Starling			2	7
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			1	16
Acanthiza reguloides	Buff-rumped Thornbill			1	1
Accipiter fasciatus	Brown Goshawk			1	1
Acrocephalus australis	Australian Reed Warbler, (Clamorous Reed-Warbler)			1	1
Anthochaera carunculata	Red Wattlebird			1	1
Anthus novaeseelandiae	Richard's Pipit			1	1
Aphelocephala leucopsis	Southern Whiteface			1	5
Artamus cyanopterus	Dusky Woodswallow			1	1
Cheramoeca leucosternus	White-backed Swallow			1	4
Coracina novaehollandiae	Black-faced Cuckoo-shrike			1	1
Corcorax melanorhamphos	White-winged Chough			1	10
Corvus coronoides	Australian Raven			1	1
Corvus mellori	Little Raven			1	2
Dacelo novaeguineae	Laughing Kookaburra			1	3
Daphoenositta chrysoptera	Varied Sittella			1	4
Falco berigora	Brown Falcon			1	2
Falco cenchroides	Nankeen Kestrel			1	1
Fulica atra	Eurasian Coot			1	2
Grallina cyanoleuca	Magpie-lark			1	2
Hirundo neoxena	Welcome Swallow			1	14
Lichenostomus chrysops	Yellow-faced Honeyeater			1	7
Lichenostomus leucotis	White-eared Honeyeater			1	1
Manorina melanocephala	Noisy Miner			1	32
Melanodryas cucullata	Hooded Robin			1	3
Ocyphaps lophotes	Crested Pigeon			1	2
Petroica goodenovii	Red-capped Robin			1	1
Phalacrocorax melanoleucos	Little Pied Cormorant			1	2
Phylidonyris albifrons	White-fronted Honeyeater			1	1
Platycercus elegans	Crimson Rosella			1	10
Pomatostomus superciliosus	White-browed Babbler			1	6
Psephotus haematonotus	Red-rumped Parrot			1	6
Psephotus varius	Mulga Parrot			1	8
Rhipidura albiscapa	Grey Fantail			1	13
Smicrornis brevirostris	Weebill			1	8
Stagonopleura guttata	Diamond Firetail	V		1	3
Strepera versicolor	Grey Currawong			1	1
Struthidea cinerea	Apostlebird			1	7
Zosterops lateralis	Silvereye			1	6

Reptile species	Common name	SA	Aus	Site freq	Number obs
Morethia boulengeri	Common Snake-eye			2	2
Tiliqua rugosa	Sleepy Lizard			2	3
Cryptoblepharus sp.				1	1
Hemiergis peronii	Four-toed Earless Skink			1	3
Menetia greyii	Dwarf Skink			1	1
Morethia adelaidensis	Adelaide Snake-eye			1	1

Frog species	Common name	Site freq	Number obs
Crinia signifera	Common Froglet	2	4

Floristic Group 78 *Bolboschoenus caldwellii* Sedgeland

Bolboschoenus caldwellii dominates the single site representing this Sedgeland group. It is located on clay soil in a drainage depression at Stony Gap, south of Burra. The overstorey consists of a mid-dense sward of *B. caldwellii* interspersed with *Lepidium draba* and *Cyperus gymnocaulos* and the annual grasses *Lolium rigidum* and *Hordeum glaucum*.

This group is more common in other areas of the State, particularly on the floodplain of the River Murray.

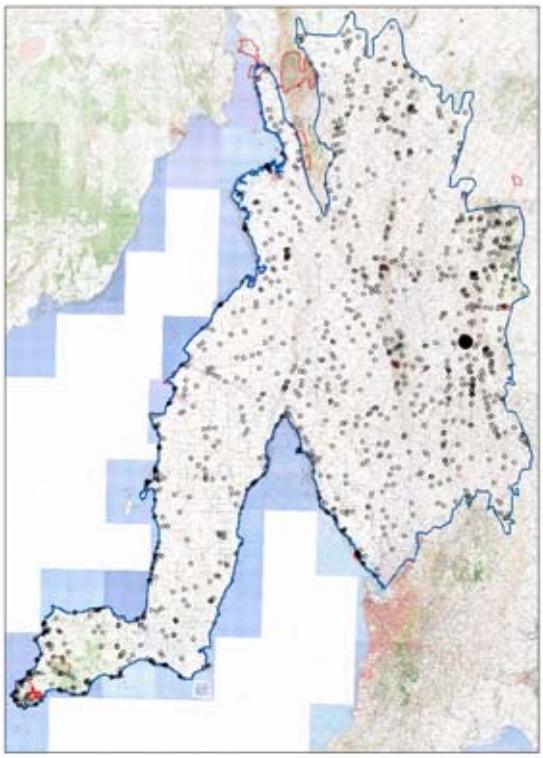
With only one site to represent this group there is insufficient data to determine with which soil land units it is most associated. The group is, however, restricted to floodplains and creeklines, and these landforms appear to be associated with salinity in the Mid North. *Bolboschoenus caldwellii* is known to occur in fresh and brackish water (Jessop and Toelken 1986) and thus will tolerate at least low salinity levels. Even so it may be at risk to increased salinity in this region.

LANDFORM ELEMENT	Frequency	%
Drainage depression	1	100

LANDFORM PATTERN	Frequency	%
Hills	1	100

SALT	Frequency	%
Class B	1	100

SOIL	Frequency	%
Clay	1	100



Number of sites in group 1

PLANT TAXA SUMMARY

Number of taxa in group	14
Number of native taxa in group	5
Perennial	3
Annual	2
Number of introduced taxa in group	9
Perennial	3
Annual	6

Average Number of Taxa at a site:

Native perennial	3
Introduced perennial	3
Native annual	2
Introduced annual	6
All taxa	14

Number of Taxa of Conservation Significance:

Aust	0	SA	0				
Regions:		EP	n/a	FR	n/a	MU	n/a
		NL	1	SL	n/a	YP	n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa													
Bolboschoenus caldwellii	1	100					1			3.00	10	6	
**Lepidium draba*	1	100				1				2.00	4	4	
Cyperus gymnocaulos	1	100			1					1.00	28	8	
**Cotula coronopifolia*	1	100		1						0.10	12	5	
**Rumex crispus*	1	100		1						0.10	21	12	
Juncus kraussii	1	100		1						0.10	23	6	
Annual Taxa													
**Lolium rigidum*	1	100				1				2.00	218	48	
**Hordeum marinum*	1	100			1					1.00	23	16	
**Bromus diandrus*	1	100		1						0.10	310	54	
**Helminthotheca echioides*	1	100		1						0.10	8	5	
**Parapholis incurva*	1	100		1						0.10	101	36	
**Tragopogon porrifolius*	1	100		1						0.10	5	3	
Agrostis billardieri var. *billardieri*	1	100		1						0.10	7	4	
Mimulus repens	1	100		1						0.10	7	4	

Figure 148.
***Bolboschoenus caldwellii* Sedgeland at site APO00502 in a creekline at Stony Gap, south of Burra.**

Fauna at sites in Floristic Group 78 – no sites sampled for fauna

Floristic Group 79 *Juncus kraussii* Sedgeland

This Sedgeland group is characterised by *Juncus kraussii*. The group commonly occurs in saline and brackish areas and is characterised by species adapted to these habitats, such as *Samolus repens*, *Triglochin striatum*, *Wilsonia rotundifolia* and the exotic *Cotula coronopifolia*. Other prominent perennial species include *Phragmites australis*, *Cyperus gymnocaulos* and *Distichlis distichophylla*. The most frequently occurring annuals are the exotics *Sonchus oleraceus*, *Bromus hordeaceus* ssp. *hordeaceus*, *Lolium rigidum*, *Avena barbata* and *Cirsium vulgare*.

The group is associated with loam and clay soils of swamps, floodouts and stream channels of watercourses mainly between Clare and Eudunda. Sites representing the group are located on the Gilbert, Light, Wakefield and Broughton Rivers, as well as Brady and Logan Creeks (the latter is a tributary of Burra Creek), plus a tributary of Farrell Creek and a swale at Cape Elizabeth.

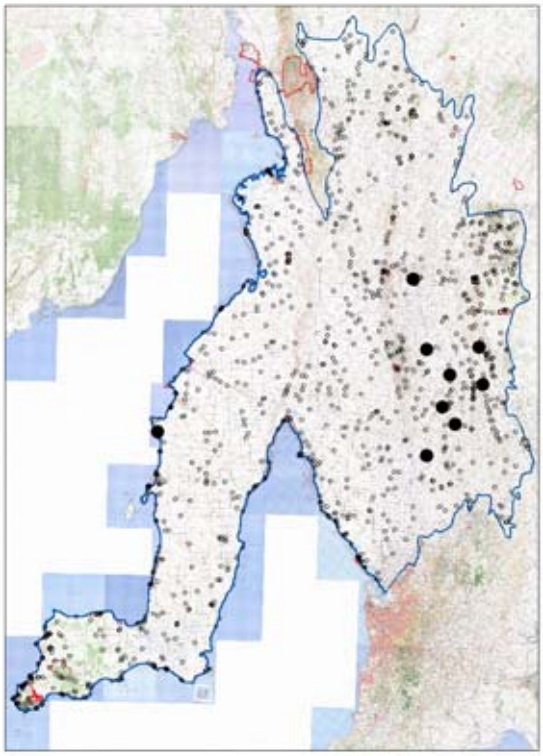
The majority of sites within this group occur in soil land units that are moderately affected by saline seepage. As these tend to be wet areas at topographically low points in the landscape where saline seepage is most likely to be in evidence, the composition of this group may be at risk to change with increased salinity.

LANDFORM ELEMENT	Frequency	%
Swamp	4	40
Flood out	3	30
Stream channel	2	20
Swale	1	10

LANDFORM PATTERN	Frequency	%
Floodplain	5	50
Low hills	1	10
Consolidated dunefield	1	10
Not recorded	3	30

SALT	Frequency	%
Class A	2	20
Class C	7	70
Class D	1	10

SOIL	Frequency	%
Sand	1	10
Loam	5	50
Clay	4	40



Number of sites in group 10

PLANT TAXA SUMMARY

Number of taxa in group	101
Number of native taxa in group	50
Perennial	31
Annual	19
Number of introduced taxa in group	51
Perennial	10
Annual	41

Average Number of Taxa at a site:

Native perennial	6	Min:	1	Max:	12
Introduced perennial	2	Min:	0	Max:	5
Native annual	3	Min:	1	Max:	9
Introduced annual	9	Min:	4	Max:	17
All taxa	20	Min:	8	Max:	35

Number of Taxa of Conservation Significance:

Aust	0	SA	2			
Regions:		EP	n/a	FR	n/a	MU 2
		NL	10	SL	n/a	YP 3

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Juncus kraussii	10	100				1	4	2	3	3.70	23	6	62
Samolus repens	6	60		2	2	1		1		1.37	38	10	14
Phragmites australis	5	50		2	1	1	1			1.24	20	6	4
Cyperus gymnocaulos	5	50		1	2	2				1.22	28	8	7
**Cotula coronopifolia*	5	50		2	3					0.64	12	5	37
Distichlis distichophylla	4	40		3		1				0.58	16	6	5
Triglochin striatum	3	30		2	1					0.40	6	3	22
Other Significant Perennial Taxa													
Wilsonia rotundifolia	2	20			2					1.00	4	3	17
Annual Taxa Occurring at >30% of Sites													
**Sonchus oleraceus*	8	80		7	1					0.21	588	77	
**Bromus hordeaceus* ssp. *hordeaceus*	7	70		2	2	2	1			1.31	89	25	
**Lolium rigidum*	6	60		4		2				0.73	218	48	
**Avena barbata*	5	50		3	1		1			0.86	661	71	
**Cirsium vulgare*	5	50	1	4						0.08	18	11	
**Hordeum glaucum*	4	40		1	3					0.78	180	51	
Mimulus repens	4	40		2	2					0.55	7	4	
**Helminthotheca echioides*	4	40	1	1	2					0.53	8	5	
Juncus bufonius	4	40		3	1					0.33	9	5	
**Medicago polymorpha* var. *polymorpha*	4	40	1	2	1					0.30	134	46	
**Polypogon monspeliensis*	4	40	1	3						0.08	14	5	
**Parapholis incurva*	3	30		2		1				0.73	101	36	
Agrostis billardieri var. *billardieri*	3	30		2		1				0.73	7	4	
**Hordeum glaucum/leporinum*	3	30		2	1					0.40	68	24	
**Tragopogon porrifolius*	3	30		2	1					0.40	5	3	
**Moraea setifolia*	3	30	1	1	1					0.37	335	60	
Apium prostratum var.	3	30		3						0.10	5	3	
Lythrum hyssopifolia	3	30		3						0.10	12	8	

Figure 149.
***Juncus kraussii* Sedgeland at site RIV01901 on the Gilbert River, north east of Saddleworth.**

Fauna at sites in Floristic Group 79

Trapping effort at 4 of 10 sites. Mammals recorded at 2 sites, birds at 4, reptiles at 4 and frogs at 3.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Lepus capensis	Brown Hare			1	1
Macropus fuliginosus	Western Grey Kangaroo			1	1
Mus musculus	House Mouse			1	4
Nyctophilus geoffroyi	Lesser Long-eared Bat			1	1
Vespadelus regulus	Southern Forest Bat			1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Gymnorhina tibicen	Australian Magpie			4	17
Acrocephalus australis	Australian Reed Warbler, (Clamorous Reed-Warbler)			3	5
Cacatua roseicapilla	Galah			3	24
Megalurus gramineus	Little Grassbird			3	7
Anas superciliosa	Pacific Black Duck			2	4
Cincloramphus cruralis	Brown Songlark			2	8
Cincloramphus mathewsi	Rufous Songlark			2	3
Corvus mellori	Little Raven			2	7
Egretta novaehollandiae	White-faced Heron			2	3
Grallina cyanoleuca	Magpie-lark			2	4
Passer domesticus	House Sparrow			2	8
Rhipidura leucophrys	Willie Wagtail			2	3
Alauda arvensis	Eurasian Skylark			1	4
Anthus novaeseelandiae	Richard's Pipit			1	1
Ardea pacifica	White-necked Heron			1	1
Carduelis carduelis	European Goldfinch			1	6
Coracina novaehollandiae	Black-faced Cuckoo-shrike			1	2
Coturnix pectoralis	Stubble Quail			1	1
Elseyornis melanops	Black-fronted Dotterel			1	1
Falco cenchroides	Nankeen Kestrel			1	3
Ocyphaps lophotes	Crested Pigeon			1	4
Phalacrocorax melanoleucos	Little Pied Cormorant			1	1
Platycercus elegans	Crimson Rosella			1	2
Porzana pusilla	Baillon's Crake	R		1	1
Sturnus vulgaris	Common Starling			1	10
Vanellus miles	Masked Lapwing			1	2

Reptile species	Common name	SA	Aus	Site freq	Number obs
Delma molleri	Adelaide Snake-lizard			2	3
Menetia greyii	Dwarf Skink			2	7
Pseudonaja textilis	Eastern Brown Snake			2	2
Chelodina longicollis	Common Long-necked Tortoise			1	1
Hemiergis decresiensis	Three-toed Earless Skink			1	1
Morethia adelaidensis	Adelaide Snake-eye			1	3
Tiliqua rugosa	Sleepy Lizard			1	2
Tiliqua scincoides	Eastern Bluetongue			1	1

Frog species	Common name	Site freq	Number obs
Crinia signifera	Common Froglet	3	36
Crinia sp.		1	100
Limnodynastes dumerilii	Bull Frog	1	1
Limnodynastes tasmaniensis	Spotted Grass Frog	1	4

Floristic Group 80 *Eucalyptus camaldulensis* var. *camaldulensis* Woodland over *Phragmites australis*

This Woodland group is characterised by a *Eucalyptus camaldulensis* var. *camaldulensis* overstorey over an understorey dominated by *Phragmites australis*. The sedges *Cyperus gymnocaulos* and *Juncus kraussii* are also typical understorey components, as are the exotics *Aster subulatus* and *Cynara cardunculus*. In addition there are a number of other perennial species that, while occurring less frequently, are still indicative of the understorey of the group. These include the natives *Carex bichenoviana*, *Distichlis distichophylla*, *Typha domingensis* and *Bolboschoenus caldwellii*, and the exotics *Rosa canina* and *Rumex conglomeratus*. The most frequently occurring annuals are the exotics *Bromus diandrus*, *Oxalis pes-caprae*, *Avena barbata* and *Sonchus oleraceus*.

The group is associated with clay soils of stream channels and floodouts of watercourses throughout the Mid North. Sites representing this group are located on the Light, Wakefield, Broughton and Rocky Rivers.

This group differs from Floristic Group 77 in that it has a more consistent overstorey of *Eucalyptus camaldulensis* var. *camaldulensis* and understorey of *Phragmites australis* and lacks the tall shrub layer of *Myoporum montanum*. It is also similar to Floristic Group 81, except that group lacks the *E. camaldulensis* var. *camaldulensis* overstorey.

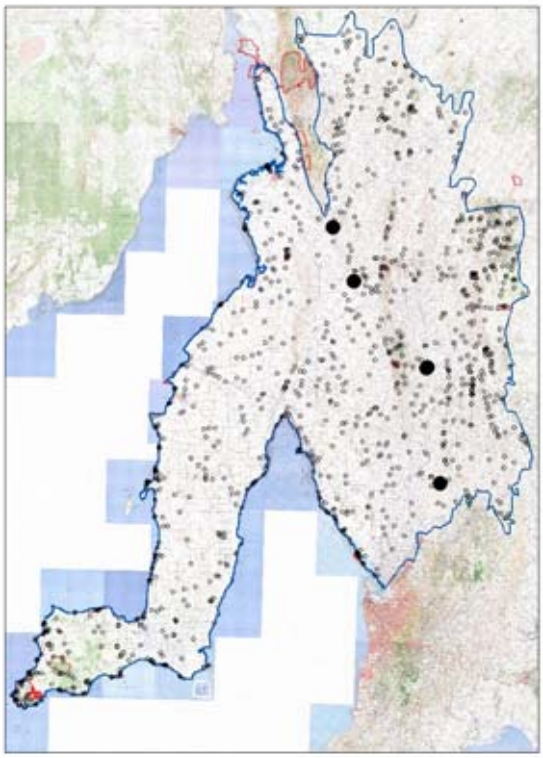
Sites within this group tend to occur in soil land units that are either unaffected or only slightly affected by saline seepage, but as with other watercourse groups its composition may be at risk to change with increased salinity.

LANDFORM ELEMENT	Frequency	%
Stream channel	2	40
Floodout	2	40
Plain	1	20

LANDFORM PATTERN	Frequency	%
Flood plain	3	60
Low hills	1	20
Not recorded	1	20

SALT	Frequency	%
Class A	3	60
Class B	2	40

SOIL	Frequency	%
Loam	1	20
Clay	4	80



Number of sites in group 5

PLANT TAXA SUMMARY

Number of taxa in group	84
Number of native taxa in group	30
Perennial	25
Annual	5
Number of introduced taxa in group	54
Perennial	12
Annual	42

Average Number of Taxa at a site:

Native perennial	10	Min:	6	Max:	15
Introduced perennial	5	Min:	2	Max:	7
Native annual	1	Min:	0	Max:	2
Introduced annual	16	Min:	5	Max:	22
All taxa	31	Min:	13	Max:	44

Number of Taxa of Conservation Significance:

Aust	0	SA	0			
Regions:		EP	n/a	FR	n/a	MU n/a
		NL	10	SL	n/a	YP n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Phragmites australis	5	100				2	1	1	1	3.20	20	6	37
Eucalyptus camaldulensis var. *camaldulensis*	5	100				1	3	1		3.00	28	9	38
Cyperus gymnocaulos	5	100		1	2		2			1.62	28	8	35
**Aster subulatus*	5	100		5						0.10	15	8	52
Juncus kraussii	4	80		1		3				1.53	23	6	16
**Cynara cardunculus*	4	80	1	2		1				0.55	40	13	16
Distichlis distichophylla	3	60		2			1			1.07	16	6	22
Samolus repens	3	60		1	2					0.70	38	10	7
Typha domingensis	2	40			1	1				1.50	9	4	10
**Rosa canina*	2	40		1		1				1.05	15	9	29
Bolboschoenus caldwellii	2	40		1	1					0.55	10	6	14
Carex bichenoviana	2	40		1	1					0.55	4	3	36
**Atriplex prostrata*	2	40		2						0.10	10	5	4
**Cotula coronopifolia*	2	40		2						0.10	12	5	4
**Rumex conglomeratus*	2	40		2						0.10	17	8	15
Sarcocornia quinqueflora	2	40		2						0.10	45	10	
Acacia salicina	2	40	1	1						0.06	9	7	1
Eragrostis australasica	2	40	1	1						0.06	3	2	
Other Significant Perennial Taxa													
**Lepidium draba*	1	20		1						0.10	4	4	12
Annual Taxa Occurring at >30% of Sites													
**Bromus diandrus*	5	100		2	3					0.64	310	54	
**Oxalis pes-caprae*	5	100		4	1					0.28	169	47	
**Avena barbata*	4	80		1	2		1			1.28	661	71	
**Sonchus oleraceus*	4	80	1	2	1					0.30	588	77	
**Lolium rigidum*	3	60		2	1					0.40	218	48	
**Parapholis incurva*	3	60		2	1					0.40	101	36	
**Medicago polymorpha* var. *polymorpha*	3	60		3						0.10	134	46	
**Polypogon monspeliensis*	3	60		3						0.10	14	5	
**Echium plantagineum*	3	60	1	2						0.07	352	48	
**Brachypodium distachyon*	2	40		1			1			1.55	156	36	
**Hordeum glaucum*	2	40			2					1.00	180	51	
**Hordeum marinum*	2	40		1	1					0.55	23	16	
**Moraea setifolia*	2	40		1	1					0.55	335	60	
**Trifolium campestre*	2	40		1	1					0.55	227	41	
**Bromus hordeaceus* ssp. *hordeaceus*	2	40		2						0.10	89	25	
**Lactuca serriola*	2	40		2						0.10	33	15	
**Medicago truncatula*	2	40		2						0.10	85	39	
**Trifolium angustifolium*	2	40		2						0.10	195	31	
**Trifolium arvense* var. *arvense*	2	40		2						0.10	188	29	
**Vicia sativa* ssp. *nigra*	2	40		2						0.10	2	1	
**Rapistrum rugosum* ssp. *rugosum*	2	40	1	1						0.06	68	26	

Fauna at sites in Floristic Group 80

Trapping effort at 3 of 5 sites. Mammals recorded at 3 sites, birds at 3, reptiles at 3 and frogs at 3.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Mus musculus	House Mouse			3	33
Chalinolobus gouldii	Gould's Wattled Bat			2	10
Chalinolobus morio	Chocolate Wattled Bat			2	12
Macropus fuliginosus	Western Grey Kangaroo			2	11
Rattus rattus	Black Rat			2	8
Felis catus	Cat			1	1
Mormopterus sp.				1	2
Nyctophilus geoffroyi	Lesser Long-eared Bat			1	3
Scotorepens balstoni	Inland Broad-nosed Bat			1	1
Tachyglossus aculeatus	Short-beaked Echidna			1	1
Tadarida australis	White-striped Freetail-bat			1	3
Trichosurus vulpecula	Common Brushtail Possum			1	1
Vespadelus darlingtoni	Large Forest Bat			1	1
Vespadelus regulus	Southern Forest Bat			1	2

Figure 150.
***Eucalyptus camaldulensis* var. *camaldulensis* Woodland over *Phragmites australis* at site GLA01701 on Rocky River, south east of Crystal Brook.**

Bird species	Common name	SA	Aus	Site freq	Number obs
Acrocephalus australis	Australian Reed Warbler, (Clamorous Reed-Warbler)			3	16
Anas superciliosa	Pacific Black Duck			3	53
Cacatua roseicapilla	Galah			3	37
Chenonetta jubata	Australian Wood Duck, (Maned Duck)			3	149
Colluricincla harmonica	Grey Shrike-thrush			3	6
Corvus mellori	Little Raven			3	16
Fulica atra	Eurasian Coot			3	6
Grallina cyanoleuca	Magpie-lark			3	15
Gymnorhina tibicen	Australian Magpie			3	19
Hirundo neoxena	Welcome Swallow			3	31
Lichenostomus penicillatus	White-plumed Honeyeater			3	57
Megalurus gramineus	Little Grassbird			3	6
Phalacrocorax melanoleucos	Little Pied Cormorant			3	16
Rhipidura leucophrys	Willie Wagtail			3	12
Dacelo novaeguineae	Laughing Kookaburra			2	6
Egretta novaehollandiae	White-faced Heron			2	3
Gallinula tenebrosa	Dusky Moorhen			2	4
Geopelia placida	Peaceful Dove			2	5
Haliastur sphenurus	Whistling Kite			2	4
Malurus lamberti	Variegated Fairy-wren			2	22
Ocyphaps lophotes	Crested Pigeon			2	8
Pardalotus striatus	Striated Pardalote			2	4
Passer domesticus	House Sparrow			2	202
Phylidonyris novaehollandiae	New Holland Honeyeater			2	7
Porphyrio porphyrio	Purple Swamphen			2	3
Tachybaptus novaehollandiae	Australasian Grebe, (Little Grebe)			2	4

Bird species	Common name	SA	Aus	Site freq	Number obs
Turdus merula	Eurasian Blackbird			2	14
Accipiter cirrhocephalus	Collared Sparrowhawk			1	1
Accipiter fasciatus	Brown Goshawk			1	1
Alauda arvensis	Eurasian Skylark			1	1
Anas gracilis	Grey Teal			1	21
Anthochaera carunculata	Red Wattlebird			1	3
Artamus cyanopterus	Dusky Woodswallow			1	4
Aythya australis	Hardhead (White-eyed Duck)			1	1
Barnardius zonarius	Australian Ringneck, (Ring-necked Parrot)			1	15
Carduelis carduelis	European Goldfinch			1	2
Cincloramphus mathewsi	Rufous Songlark			1	10
Climacteris picumnus	Brown Treecreeper			1	1
Columba livia	Rock Dove			1	46
Coracina novaehollandiae	Black-faced Cuckoo-shrike			1	1
Corcorax melanorhamphos	White-winged Chough			1	4
Dicaeum hirundinaceum	Mistletoebird			1	1
Falco berigora	Brown Falcon			1	1
Falco cenchroides	Nankeen Kestrel			1	1
Falco subniger	Black Falcon			1	2
Gallinula ventralis	Black-tailed Native-hen			1	19
Glossopsitta concinna	Musk Lorikeet			1	14
Lichenostomus virescens	Singing Honeyeater			1	4
Manorina flavigula	Yellow-throated Miner			1	4
Mirafra javanica	Horsfield's Bushlark			1	1
Ninox novaeseelandiae	Southern Boobook			1	1
Nymphicus hollandicus	Cockatiel			1	4
Pachycephala rufiventris	Rufous Whistler			1	2
Petrochelidon ariel	Fairy Martin			1	2
Platalea flavipes	Yellow-billed Spoonbill			1	1
Platycercus elegans	Crimson Rosella			1	16
Podargus strigoides	Tawny Frogmouth			1	1
Poliocephalus poliocephalus	Hoary-headed Grebe			1	2
Porzana sp.				1	1
Porzana tabuensis	Spotless Crake			1	1
Psephotus haematonotus	Red-rumped Parrot			1	21
Streptopelia chinensis	Spotted Turtle-dove			1	6
Sturnus vulgaris	Common Starling			1	20
Tyto alba	Barn Owl			1	1

Reptile species	Common name	SA	Aus	Site freq	Number obs
Ctenotus robustus	Eastern Striped Skink			2	3
Delma molleri	Adelaide Snake-lizard			2	2
Morethia boulengeri	Common Snake-eye			2	5
Tiliqua rugosa	Sleepy Lizard			2	2
Demansia psammophis	Yellow-faced Whipsnake			1	1
Emydura macquarii	Macquarie Tortoise			1	1
Heteronotia binoei	Bynoe's Gecko			1	1
Lampropholis guichenoti	Garden Skink			1	24

Frog species	Common name	Site freq	Number obs
Limnodynastes dumerilii	Bull Frog	3	8
Crinia riparia	Streambank Froglet	1	1
Crinia signifera	Common Froglet	1	11
Limnodynastes tasmaniensis	Spotted Grass Frog	1	6
Litoria ewingii	Brown Tree Frog	1	1
Pseudophryne bibronii	Brown Toadlet	1	1

Floristic Group 81 *Phragmites australis* Tussock Grassland

This Tussock Grassland group is dominated by *Phragmites australis*. On rare occasions *Melaleuca brevifolia* may form a Tall Shrubland overstorey. The main associated perennial species are the exotics *Phalaris aquatica* and *Cynara cardunculus*, and the natives *Distichlis distichophylla*, *Samolus repens*, *Juncus kraussii*, *Cyperus gymnocaulos* and *Bolboschoenus caldwellii*. Several other species are also indicative of the group, though occur less frequently. These include the exotics *Atriplex prostrata* and *Cynodon dactylon*, and the natives *Sarcocornia quinqueflora* and *Baumea juncea*. The most frequently occurring annuals are the exotics *Avena barbata*, *Lolium rigidum*, *Bromus diandrus*, *Parapholis incurva* and *Sonchus oleraceus*.

The group is associated with clay loam and heavy clay soils of stream channels and floodouts of watercourses across the Mid North. Sites representing this group are located on the Gilbert, Broughton and Rocky Rivers, and Baldina Creek in Red Banks Conservation Park.

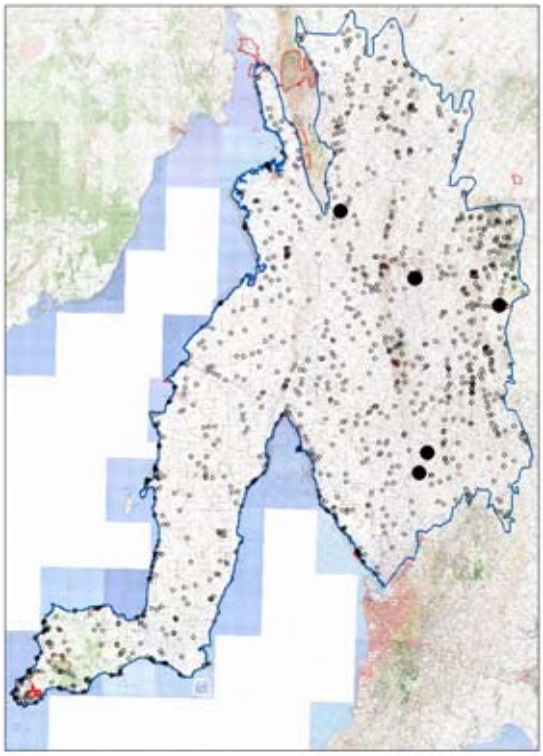
Sites within this group mainly occur in soil land units that are either unaffected or only slightly affected by saline seepage. However, one site (on the Gilbert River at Tarlee) is in a land unit with moderately high soil salinity. As this group tends to occur in wet areas at topographically low points in the landscape where saline seepage is most likely to be in evidence, the composition of this group may be at risk to change with increased salinity.

LANDFORM ELEMENT	Frequency	%
Stream channel	4	66.7
Flood out	2	33.3

LANDFORM PATTERN	Frequency	%
Floodplain	3	50.0
Low hills	1	16.7
Rises	1	16.7
Not recorded	1	16.7

SALT	Frequency	%
Class A	2	33.3
Class B	3	50.0
Class D	1	16.7

SOIL	Frequency	%
Sand	1	16.7
Loam	1	16.7
Clay	4	66.7



Number of sites in group 6

PLANT TAXA SUMMARY

Number of taxa in group	72
Number of native taxa in group	28
Perennial	22
Annual	6
Number of introduced taxa in group	44
Perennial	15
Annual	29

Average Number of Taxa at a site:

Native perennial	8	Min: 6	Max: 10
Introduced perennial	6	Min: 5	Max: 8
Native annual	2	Min: 0	Max: 3
Introduced annual	11	Min: 7	Max: 14
All taxa	26	Min: 21	Max: 31

Number of Taxa of Conservation Significance:

Aust	0	SA	0			
Regions:		EP	n/a	FR	n/a	MU 0
		NL	9	SL	n/a	YP n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Phragmites australis	6	100.0						5	1	4.17	20	6	48
**Cynara cardunculus*	6	100.0	2	3	1					0.22	40	13	10
**Phalaris aquatica*	5	83.3		3		2				0.86	10	5	42
Distichlis distichophylla	5	83.3		3	1		1			0.86	16	6	34
Samolus repens	4	66.7		1		3				1.53	38	10	20
Juncus kraussii	4	66.7		1	1	2				1.28	23	6	9
Cyperus gymnocaulos	4	66.7		3		1				0.58	28	8	6
Bolboschoenus caldwellii	4	66.7		4						0.10	10	6	7
Sarcocornia quinqueflora	3	50.0			1	1		1		2.33	45	10	12
**Atriplex prostrata*	3	50.0	1	1	1					0.37	10	5	25
**Aster subulatus*	3	50.0	1	2						0.07	15	8	9
**Rumex conglomeratus*	3	50.0	2	1						0.04	17	8	10
**Lycium ferocissimum*	3	50.0	3							0.01	339	65	
Melaleuca brevifolia	2	33.3					2			3.00	3	2	
**Cynodon dactylon*	2	33.3		1			1			1.55	15	11	17
Baumea juncea	2	33.3		1		1				1.05	9	7	16
Typha domingensis	2	33.3		1		1				1.05	9	4	5
**Agrostis gigantea*	2	33.3		1	1					0.55	3	2	
**Cotula coronopifolia*	2	33.3		2						0.10	12	5	3
**Rumex crispus*	2	33.3		2						0.10	21	12	6
Annual Taxa Occurring at >30% of Sites													
**Avena barbata*	5	83.3		2	2	1				0.84	661	71	
**Lolium rigidum*	5	83.3		4	1					0.28	218	48	
**Bromus diandrus*	4	66.7		2	1	1				0.80	310	54	
**Parapholis incurva*	4	66.7		3		1				0.58	101	36	
**Sonchus oleraceus*	4	66.7		3	1					0.33	588	77	
**Medicago polymorpha* var. *polymorpha*	4	66.7		4						0.10	134	46	
**Oxalis pes-caprae*	4	66.7		4						0.10	169	47	
**Hordeum glaucum*	3	50.0		1	1	1				1.03	180	51	
**Hordeum marinum*	3	50.0		2	1					0.40	23	16	
Isolepis cernua	3	50.0		2	1					0.40	7	4	
**Polypogon monspeliensis*	3	50.0		3						0.10	14	5	
**Moraea setifolia*	2	33.3			2					1.00	335	60	
**Asphodelus fistulosus*	2	33.3		1	1					0.55	85	29	
**Polygonum aviculare*	2	33.3		2						0.10	13	10	
**Salvia verbenaca* var. *verbenaca*	2	33.3		2						0.10	95	32	
**Spergularia marina*	2	33.3		2						0.10	20	11	
Actites megalocarpa	2	33.3		2						0.10	5	4	

Figure 151.
***Phragmites australis* Tussock Grassland at site GLA01401 at Willow Pond on Rocky River, east of Crystal Brook.**

Fauna at sites in Floristic Group 81

Trapping effort at 2 of 6 sites. Mammals recorded at 2 sites, birds at 2, a reptile at 1 and frogs at 1.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Macropus fuliginosus	Western Grey Kangaroo			2	2
Mus musculus	House Mouse			2	25
Chalinolobus gouldii	Gould's Wattled Bat			1	1
Chalinolobus morio	Chocolate Wattled Bat			1	1
Felis catus	Cat			1	1
Mormopterus sp.				1	1
Nyctophilus geoffroyi	Lesser Long-eared Bat			1	1
Rattus rattus	Black Rat			1	3
Vulpes vulpes	Fox			1	2

Bird species	Common name	SA	Aus	Site freq	Number obs
Cacatua roseicapilla	Galah			2	8
Falco cenchroides	Nankeen Kestrel			2	2
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			1	5
Acanthiza nana	Yellow Thornbill			1	6
Acrocephalus australis	Australian Reed Warbler, (Clamorous Reed-Warbler)			1	3
Anas castanea	Chestnut Teal			1	1
Anas gracilis	Grey Teal			1	400
Anas superciliosa	Pacific Black Duck			1	50
Anthochaera carunculata	Red Wattlebird			1	1
Chenonetta jubata	Australian Wood Duck, (Maned Duck)			1	10
Columba livia	Rock Dove			1	45
Corvus mellori	Little Raven			1	4

Bird species	Common name	SA	Aus	Site freq	Number obs
Cygnus atratus	Black Swan			1	1
Egretta novaehollandiae	White-faced Heron			1	4
Elanus axillaris	Black-shouldered Kite			1	1
Erythrogonys cinctus	Red-kneed Dotterel			1	6
Fulica atra	Eurasian Coot			1	8
Gallinula tenebrosa	Dusky Moorhen			1	3
Gallinula ventralis	Black-tailed Native-hen			1	4
Gymnorhina tibicen	Australian Magpie			1	3
Haliastur sphenurus	Whistling Kite			1	1
Himantopus himantopus	Black-winged Stilt			1	2
Hirundo neoxena	Welcome Swallow			1	4
Lichenostomus penicillatus	White-plumed Honeyeater			1	2
Lichenostomus virescens	Singing Honeyeater			1	5
Malurus lamberti	Variegated Fairy-wren			1	8
Manorina flavigula	Yellow-throated Miner			1	1
Megalurus gramineus	Little Grassbird			1	4
Ocyphaps lophotes	Crested Pigeon			1	6
Passer domesticus	House Sparrow			1	10
Pelecanus conspicillatus	Australian Pelican			1	1
Petrochelidon ariel	Fairy Martin			1	2
Phalacrocorax melanoleucos	Little Pied Cormorant			1	1
Poliocephalus poliocephalus	Hoary-headed Grebe			1	2
Porphyrio porphyrio	Purple Swamphen			1	2
Porzana fluminea	Australian Spotted Crake			1	1
Porzana tabuensis	Spotless Crake			1	4
Psephotus haematonotus	Red-rumped Parrot			1	2
Rhipidura leucophrys	Willie Wagtail			1	2
Sturnus vulgaris	Common Starling			1	12
Turdus merula	Eurasian Blackbird			1	3
Vanellus miles	Masked Lapwing			1	35

Reptile species	Common name	SA	Aus	Site freq	Number obs
Morethia boulengeri	Common Snake-eye			1	1

Frog species	Common name	Site freq	Number obs
Crinia signifera	Common Froglet	1	1
Limnodynastes tasmaniensis	Spotted Grass Frog	1	6

Floristic Group 82 *Muehlenbeckia florulenta* Shrubland

This Shrubland group is characterised by *Muehlenbeckia florulenta*. On rare occasions *Eucalyptus camaldulensis* var. *camaldulensis* may form an Open Forest overstorey. The understorey features *Cyperus gymnocaulos* and *Chenopodium nitrariaceum* and the exotic *Cynara cardunculus*. Although *Acacia salicina* and the exotic *Reseda luteola* occur less frequently they are still indicative of the group. The most frequently occurring annuals are the exotics *Lolium rigidum*, *Hordeum glaucum*, *Medicago polymorpha* var. *polymorpha*, *Sonchus oleraceus*, *Rapistrum rugosum* ssp. *rugosum* and *Galium spurium* ssp. *ibicinum*. The group is associated with clay loam and medium to heavy clay soils on floodplains and alluvial plains, particularly on the Broughton River floodplain at Wandearah.

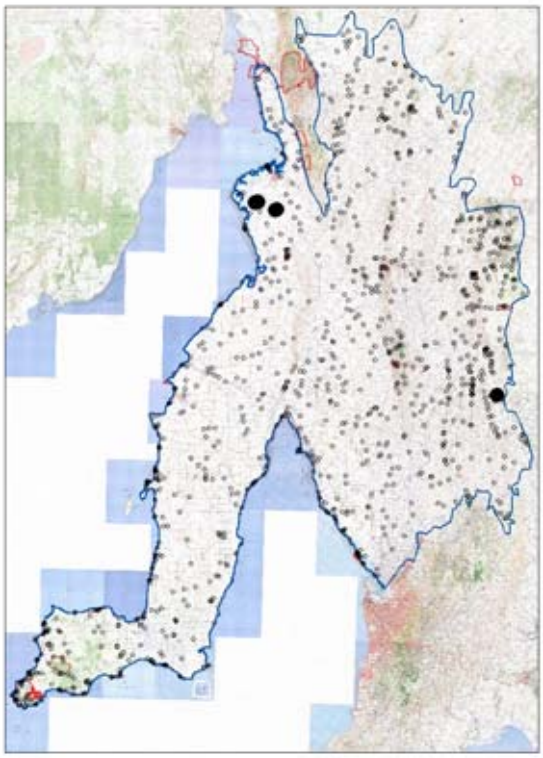
Sites within this group occur in a range of soil land units that vary from negligible to moderately high soil salinity. However, as this group tends to occur in wet areas at topographically low points in the landscape where saline seepage is most likely to be in evidence, the composition of this group may be at risk to change with increased salinity.

LANDFORM ELEMENT	Frequency	%
Flood out	3	50.0
Plain	2	33.3
Stream channel	1	16.7

LANDFORM PATTERN	Frequency	%
Floodplain	3	50.0
Alluvial plain	2	33.3
Not recorded	1	16.7

SALT	Frequency	%
Class A	1	16.7
Class B	1	16.7
Class D	2	33.3
Class E	2	33.3

SOIL	Frequency	%
Loam	1	16.7
Clay	5	83.3



Number of sites in group 6

PLANT TAXA SUMMARY

Number of taxa in group	72
Number of native taxa in group	26
Perennial	23
Annual	3
Number of introduced taxa in group	46
Perennial	10
Annual	36

Average Number of Taxa at a site:

Native perennial	7	Min:	3	Max:	9
Introduced perennial	2	Min:	1	Max:	3
Native annual	1	Min:	0	Max:	2
Introduced annual	11	Min:	6	Max:	20
All taxa	21	Min:	15	Max:	34

Number of Taxa of Conservation Significance:

Aust	0	SA	0			
Regions:		EP	n/a	FR	n/a	MU 0
		NL	3	SL	n/a	YP 6

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Muehlenbeckia florulenta	6	100.0					3	3		3.50	12	6	97
Cyperus gymnocaulos	4	66.7		1	3					0.78	28	8	7
**Cynara cardunculus*	3	50.0		1		1	1			1.70	40	13	20
Chenopodium nitrariaceum	3	50.0		2		1				0.73	3	1	
Eucalyptus camaldulensis var. *camaldulensis*	2	33.3	1					1		2.01	28	9	3
**Lycium ferocissimum*	2	33.3		1		1				1.05	339	65	2
Acacia salicina	2	33.3		1		1				1.05	9	7	14
Enchylaena tomentosa var. *tomentosa*	2	33.3		2						0.10	425	58	
Whalleya proluta	2	33.3		2						0.10	18	9	2
**Galenia pubescens* var. *pubescens*	2	33.3	1	1						0.06	7	6	4
Atriplex semibaccata	2	33.3	1	1						0.06	57	20	
Maireana brevifolia	2	33.3	1	1						0.06	126	33	
Ranunculus pachycarpus	2	33.3	1	1						0.06	3	2	
Other Significant Perennial Taxa													
**Reseda luteola*	1	16.7				1				2.00	4	4	15
Annual Taxa Occurring at >30% of Sites													
**Lolium rigidum*	5	83.3			4	1				1.20	218	48	
**Hordeum glaucum*	5	83.3		2	2	1				0.84	180	51	
**Medicago polymorpha* var. *polymorpha*	5	83.3		3	1	1				0.66	134	46	
**Sonchus oleraceus*	5	83.3		4	1					0.28	588	77	
**Rapistrum rugosum* ssp. *rugosum*	4	66.7		2		1	1			1.30	68	26	
**Galium spurium* ssp. *ibicinum*	4	66.7		4						0.10	8	3	
**Ehrharta longiflora*	3	50.0			2	1				1.33	45	19	
**Avena barbata*	3	50.0		1	1	1				1.03	661	71	
**Cirsium vulgare*	3	50.0	1	1	1					0.37	18	11	
**Medicago minima* var. *minima*	2	33.3		1	1					0.55	243	54	
**Dittrichia graveolens*	2	33.3		2						0.10	22	13	
Oxalis perennans	2	33.3		2						0.10	393	53	

Figure 152.
***Muehlenbeckia florulenta* Shrubland at site CRY01301 on the Broughton River at Wandearah.**

Fauna at sites in Floristic Group 82

Trapping effort at 3 of 6 sites. Mammals recorded at 3 sites, birds at 3 and reptiles at 3.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Mus musculus	House Mouse			3	9
Macropus robustus	Euro			2	3
Macropus fuliginosus	Western Grey Kangaroo			1	4
Macropus sp.				1	1

Bird species	Common name	SA	Aus	Site freq	Number obs
Cacatua roseicapilla	Galah			3	17
Cincloramphus mathewsi	Rufous Songlark			3	10
Malurus lamberti	Variegated Fairy-wren			3	23
Malurus leucopterus	White-winged Fairy-wren			3	65
Rhipidura leucophrys	Willie Wagtail			3	9
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			2	7
Artamus cyanopterus	Dusky Woodswallow			2	7
Chrysococcyx basalis	Horsfield's Bronze-cuckoo			2	6
Coracina novaehollandiae	Black-faced Cuckoo-shrike			2	4
Corvus mellori	Little Raven			2	8
Lichenostomus virescens	Singing Honeyeater			2	3
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			1	5
Anas superciliosa	Pacific Black Duck			1	3
Artamus superciliosus	White-browed Woodswallow			1	10
Egretta novaehollandiae	White-faced Heron			1	1
Epthianura albifrons	White-fronted Chat			1	4
Falco cenchroides	Nankeen Kestrel			1	1
Hirundo neoxena	Welcome Swallow			1	2
Lalage tricolor	White-winged Triller			1	1
Milvus migrans	Black Kite			1	1
Zosterops lateralis	Silvereye			1	2

Reptile species	Common name	SA	Aus	Site freq	Number obs
Hemiergis decresiensis	Three-toed Earless Skink			2	2
Tiliqua rugosa	Sleepy Lizard			2	2
Menetia greyii	Dwarf Skink			1	1
Suta spectabilis	Mallee Black-headed Snake			1	1

Floristic Group 83 *Eucalyptus camaldulensis* var. *camaldulensis* Open Forest over grasses and herbs

This Open Forest group is dominated by *Eucalyptus camaldulensis* var. *camaldulensis*. The understorey consists of very sparse mid-storey shrubs over grasses and herbs, with many of the ground layer species being exotic. On rare occasions *Callitris gracilis* or *C. glaucophylla* may occur as sub-dominant trees. The commonly occurring tall shrubs are the exotics *Lycium ferocissimum* and, less frequently, *Nicotiana glauca* and the natives *Dodonaea viscosa* ssp. *spatulata* and *Myoporum montanum*. The understorey features a variety of perennial species, though none occur at more than 40% of sites. The most frequently occurring are the exotics *Piptatherum miliaceum* and *Cynara cardunculus*, and the natives *Themeda triandra*, *Cymbopogon ambiguus* and *Carex appressa*. The commonly occurring annuals are all exotic and include *Bromus diandrus*, *Oxalis pes-caprae*, *Ehrharta longiflora*, *Avena barbata* and *Sonchus oleraceus*. The group is associated with sandy loam and clay loam soils on plains and creeklines from scattered locations across the Mid North.

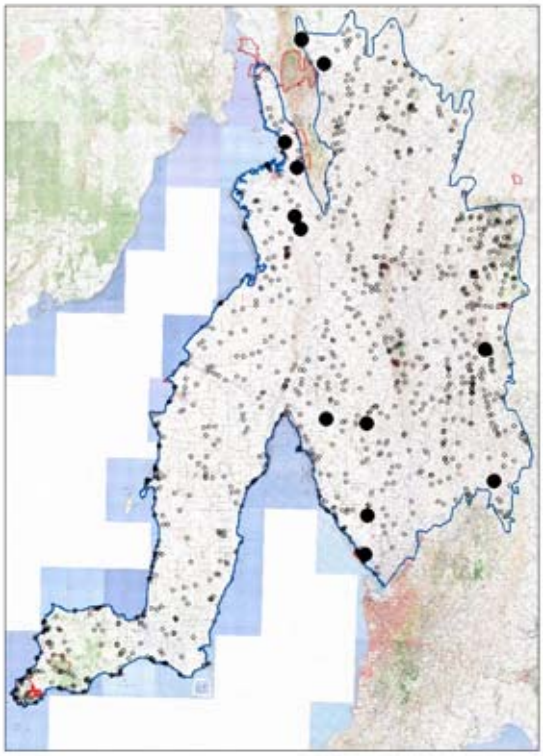
Sites within this group tend to occur in soil land units that are either unaffected or only slightly affected by saline seepage. However, one site occurs in a land unit with moderate soil salinity. As this group tends to occur in wet areas at topographically low points in the landscape where saline seepage is most likely to be in evidence, the composition of this group may be at risk to change with increased salinity.

LANDFORM ELEMENT	Frequency	%
Plain	5	38.5
Stream channel	3	23.1
Other - river bank	2	15.4
Stream bed	1	7.7
Channel bench	1	7.7
Flat	1	7.7

LANDFORM PATTERN	Frequency	%
Plain	2	15.4
Floodplain	1	7.7
Alluvial plain	1	7.7
Drainage line	1	7.7
Hills	1	7.7
Not recorded	7	53.8

SALT	Frequency	%
Class A	9	69.2
Class B	3	23.1
Class C	1	7.7

SOIL	Frequency	%
Sand	2	15.4
Loam	8	61.5
Clay	1	7.7
Not recorded	2	15.4



Number of sites in group 13

PLANT TAXA SUMMARY

Number of taxa in group	193
Number of native taxa in group	104
Perennial	74
Annual	30
Number of introduced taxa in group	89
Perennial	18
Annual	71

Average Number of Taxa at a site:

Native perennial	10	Min:	2	Max:	32
Introduced perennial	3	Min:	0	Max:	9
Native annual	3	Min:	0	Max:	18
Introduced annual	12	Min:	3	Max:	23
All taxa	28	Min:	13	Max:	69

Number of Taxa of Conservation Significance:

Aust	0	SA	6				
Regions:		EP	n/a	FR	7	MU	6
		NL	2	SL	1	YP	n/a

Group Taxa List

Species Name	Freq	%Freq	N	T	1	2	3	4	5	C/A Ave	Tot Recs	Tot Grps	Ind Value
Perennial Taxa Occurring at >30% of Sites													
Eucalyptus camaldulensis var. *camaldulensis*	13	100.0				4	6	3		2.92	28	9	37
**Lycium ferocissimum*	8	61.5	2	2	4					0.53	339	65	4
**Piptatherum miliaceum*	5	38.5		2	1	1	1			1.24	19	8	34
**Cynara cardunculus*	4	30.8	3			1				0.51	40	13	2
Dodonaea viscosa ssp. *spatulata*	4	30.8	2	1	1					0.28	38	20	4
Myoporum montanum	4	30.8	1	3						0.08	31	19	
Other Significant Perennial Taxa													
Themeda triandra	3	23.1				2	1			2.33	88	22	2
Callitris gracilis	3	23.1			2	1				1.33	88	28	1
Cymbopogon ambiguus	3	23.1		2		1				0.73	14	7	12
**Nicotiana glauca*	3	23.1	3							0.01	4	2	21
Carex appressa	2	15.4		1	1					0.55	4	3	12
Callitris glaucophylla	1	7.7					1			3.00	24	12	1
Acacia oswaldii	1	7.7				1				2.00	41	17	2
Annual Taxa Occurring at >30% of Sites													
**Bromus diandrus*	9	69.2	1	4	3		1			0.71	310	54	
**Oxalis pes-caprae*	8	61.5		5	2				1	0.94	169	47	
**Ehrharta longiflora*	8	61.5		5	2	1				0.56	45	19	
**Avena barbata*	7	53.8		2	3	1		1		1.31	661	71	
**Sonchus oleraceus*	7	53.8	2	4	1					0.20	588	77	
**Rapistrum rugosum* ssp. *rugosum*	6	46.2		3	1	2				0.88	68	26	
**Echium plantagineum*	6	46.2		4	2					0.40	352	48	
**Hordeum leporinum*	4	30.8		1			2	1		2.53	38	18	
**Carduus tenuiflorus*	4	30.8		2		2				1.05	62	24	
**Brachypodium distachyon*	4	30.8		2	1	1				0.80	156	36	
**Foeniculum vulgare*	4	30.8	1	1	1	1				0.78	5	2	
**Lolium rigidum*	4	30.8		2	2					0.55	218	48	
**Hypochaeris glabra*	4	30.8		3	1					0.33	349	54	
**Trifolium angustifolium*	4	30.8		3	1					0.33	195	31	
Oxalis perennans	4	30.8		4						0.10	393	53	
Vittadinia cervicularis var. *cervicularis*	4	30.8	1	3						0.08	75	29	

Figure 153.
***Eucalyptus camaldulensis* var. *camaldulensis* Open Forest over grasses and herbs at site PIR0301 on Telowie Creek, north of Port Pirie.**

Fauna at sites in Floristic Group 83

Trapping effort at 1 site. Mammals recorded at 1 site1, birds at 1, reptiles at 1 and frogs at 1.

Mammal species	Common name	SA	Aus	Site freq	Number obs
Capra hircus	Goat			1	1
Macropus fuliginosus	Western Grey Kangaroo			1	2

Bird species	Common name	SA	Aus	Site freq	Number obs
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			1	4
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			1	6
Acanthiza nana	Yellow Thornbill			1	4
Anthochaera carunculata	Red Wattlebird			1	1
Aquila audax	Wedge-tailed Eagle			1	3
Cacatua roseicapilla	Galah			1	25
Colluricincla harmonica	Grey Shrike-thrush			1	8
Coracina novaehollandiae	Black-faced Cuckoo-shrike			1	2
Cracticus torquatus	Grey Butcherbird			1	1
Dacelo novaeguineae	Laughing Kookaburra			1	1
Dicaeum hirundinaceum	Mistletoebird			1	4
Falco cenchroides	Nankeen Kestrel			1	1
Gymnorhina tibicen	Australian Magpie			1	3
Lichenostomus leucotis	White-eared Honeyeater			1	2
Melithreptus brevirostris	Brown-headed Honeyeater			1	1
Pachycephala rufiventris	Rufous Whistler			1	6
Pardalotus striatus	Striated Pardalote			1	3
Petroica goodenovii	Red-capped Robin			1	7
Phylidonyris albifrons	White-fronted Honeyeater			1	3
Platycercus elegans	Crimson Rosella			1	7
Psephotus varius	Mulga Parrot			1	2
Rhipidura albiscapa	Grey Fantail			1	3
Smicrornis brevirostris	Weebill			1	19
Turdus merula	Eurasian Blackbird			1	1
Zosterops lateralis	Silvereye			1	2

Reptile species	Common name	SA	Aus	Site freq	Number obs
Christinus marmoratus	Marbled Gecko			1	1
Cryptoblepharus carnabyi cac	Desert Wall skink			1	1
Gehyra 2n=44	Southern Rock Dtella			1	3
Hemiergis decresiensis	Three-toed Earless Skink			1	4
Hemiergis peronii	Four-toed Earless Skink			1	3
Lerista bougainvillii	Bougainville's Skink			1	1
Lialis burtonis	Burton's Legless Lizard			1	2
Menetia greyii	Dwarf Skink			1	7
Morethia boulengeri	Common Snake-eye			1	3
Tiliqua rugosa	Sleepy Lizard			1	3

Frog species	Common name	Site freq	Number obs
Crinia signifera	Common Froglet	1	5
Limnodynastes tasmaniensis	Spotted Grass Frog	1	1

VEGETATION MAPPING

L.A. Malcolm[1], F.M. Smith[1] and L.C. Jones[1]

Native Vegetation Cover Mapping

As a basis for floristic vegetation mapping for the Mid North and Yorke Peninsula region, native vegetation cover was mapped largely from 1:40,000 aerial photography (for areas within the agricultural region) (refer to Table 8 in Vegetation Mapping Methods chapter). This mapping contributed to area statistics for native vegetation cover relative to other land cover types, including their percentage representation throughout the MNYPBS study area (refer Table 18). Native vegetation covers approximately 355,430ha, making up 13% of the region's land cover. These statistics reflect the extent of native vegetation clearance in this part of South Australia. As indicated by Prescott and Nicholls (1998), estimates of land in the Mid North with a native grass base are conservative and it is these grassy communities which are under-represented in the mapping and probably occur within the 'Cleared' land cover type category.

Fragmentation of native vegetation across the region is presented in block size categories in Table 19. The majority (80%) of the blocks are <10ha in size but account for only 7% of the total area of native vegetation. Since large areas of native vegetation have been cleared for agriculture the remaining native vegetation is highly fragmented (refer Figure 33 in Vegetation Mapping Methods chapter). This is highlighted by the average block size of remnant native vegetation being only 35ha. Native vegetation occurring in blocks >10,000ha in size make up the largest area (166,734ha) of vegetation (47%). These four blocks occur in coastal regions, southern Yorke Peninsula and in the drier eastern region of the study area.

Table 18.
Summary statistics of land cover types in the MNYPBS study area based on native vegetation cover mapping.

Land Cover Type	Area (ha)	% of Total Region
Urban	6,419	<1
Reservoir	62	<1
Dam	2,243	<1
Lake - Perennial	522	<1
Lake - Intermittent	9,483	<1
Lake - Mainly Dry	39	<1
Land Subject to Inundation (STI)	15,036	<1
Land Subject to Flooding (STF)	1,417	<1
Native Vegetation	355,430	13
Planted Vegetation - Softwood	1,665	<1
Planted Vegetation - Hardwood	585	<1
Cleared	2,322,608	86

Note: Cleared land cover represents some areas used for purposes other than those listed above (e.g. vineyards, olive plantations, irrigated crops, quarries etc)

Source: Waterbodies and Urban areas from Topographic mapping; Plantations largely from Forestry SA; and Native Vegetation from SA Vegetation, June 2006.

Table 19.
Size distribution of native vegetation blocks within the MNYPBS study area.

Block Size Range (ha)	Number of Blocks	% of Total Blocks	Estimated Area (ha)	% of Total Native Vegetation Area
1-10	8,153	80	26,457	7
10-100	1,809	18	47,355	13
100-500	161	2	31,460	9
500-1000	19	<1	13,371	4
1000-5000	17	<1	42,604	12
5000-10000	4	<1	27,449	8
>10000	4	<1	166,734	47
Total	10,167		355,430	

Source: SA Vegetation mapping, June 2006

[1] Environmental Information and Analysis Branch, Environmental Information, Department for Environment and Heritage, GPO Box 1047, Adelaide SA 5001.

Vegetation Group Mapping

The vegetation mapping groups for this region were derived from a number of projects over several years prior to the floristic analysis presented in the Vegetation chapter of this report. These groups were combined and attributed in 2004 to form part of the National Vegetation Inventory System (NVIS) mapping structure. NVIS mapping is presented in this report.

The vegetation mapping is not complete for the entire region. The area of native vegetation cover that is not floristically mapped is 78,454ha. To complete the vegetation description of this region undertaking further floristic mapping is a priority.

Within the study area 259 vegetation groups have been identified and mapped. Each mapped group has a unique alpha-numeric code, known as an SAVEGID, which provides a reference to the project that described the group. The floristic description of each group is presented in Table 21, along with the NVIS environmental description, broad vegetation mapping group, mapped distribution details and, for the 45 broad mapping groups, a comparison with the 83 floristic vegetation groups derived in the Vegetation Chapter. The NVIS environmental description is derived from available biological site data and summarises the variation in surface soil types, landform, landform elements and any geological or landscape features where applicable.

The vegetation maps accompanying this report collate detailed floristic descriptions from the 259 groups into 45 broad floristic mapping communities based on the dominant overstorey, structure and in some cases understorey similarity or environmental similarity. The significantly large size of the study area meant that detailed vegetation descriptions could not be mapped at the desired scale and two separate maps for the Mid North and Yorke Peninsula are provided on the CD supplied with this report.

The Vegetation Mapping Methods chapter provides additional details on mapping technique and limitations. Although extensive sampling and mapping has been done, there are a number of community types that are not represented or are under-represented in the mapping. These include rare communities, native grasslands, sedgelands/reedbeds and samphire/chenopod shrublands. Narrow strips of roadside vegetation or watercourse vegetation, small vegetated areas (<1ha) and scattered trees generally have not been mapped. Since the time of mapping (and date of aerial photography used) land cover changes and vegetation growth may have occurred.

As the mapping technique is very subjective and based on extrapolation of data from known locations, mapped areas may be found to be dominated by differing communities or species when inspected in the field. The subjective nature of aerial photo interpretation and subsequent naming of vegetation groups can be reflected in communities described by their tallest dominant layer rather than the dominant layer based on biomass. An example of differences in the way communities are named is where an area of scattered trees dot a grassland landscape. This may be described as an open woodland with a grassy understorey or as a grassland with emergent trees.

Sources of error can occur in the extrapolation process and in the interpretation of aerial photography. Interpretation of vegetation predominantly based on the visible overstorey layer from aerial photography and subsequent extrapolation of vegetation community group type does not reflect the condition or variation in species composition in the understorey. It may range from relatively intact to significantly degraded and replaced with introduced plant species. While some field checking has been completed, it is not feasible to check all mapped areas. This highlights the need for additional field checking and mapping updates.

Delineating differing vegetation types in what in reality is a gradual change can be difficult. Boundary lines between two vegetation types should not be interpreted as definitive but instead used as an indication of local change.

The 259 mapped vegetation communities within the study area are listed in Appendix 12 and include the number of patches and protected area statistics for each. The protected area figures include land formally protected under the *National Parks and Wildlife Act 1972* (NPWSA reserves e.g. Conservation Parks and National Parks), the *Native Vegetation Act 1991* (Heritage Agreements) and Forest Reserves (Forestry SA).

The number of surveyed quadrats has increased significantly within this region since earlier regional vegetation analysis and mapping projects were completed. These additional surveyed sites have provided significantly more data for the floristic analysis presented in the Vegetation chapter. This has resulted in variations in the vegetation groups described. A comparison of the 259 NVIS mapping groups with the floristic groups derived from the more recent analysis is provided in Appendix 12.

Structural Vegetation Groups

The mapped structural vegetation groups are presented in Table 20. The structural formation classes described in the 45 mapped groups are according to NVIS, and are predominantly based on field data of overstorey height and percent foliage cover. These will differ from those indicated in the floristic analysis described in the Vegetation chapter where structural classification was derived from the SA Structural Formation Table (Appendix 2).

The NVIS structural classification was translated from those classifications used at the time of various regional vegetation surveys. The method for determining the original structural classifications varied with each regional mapping project and available information, and

included using various versions of classification tables. In some cases mapping group structure was derived by 'averaging' structures determined in the field for all surveyed sites within a mapping group, and translating this to the SA Structural Formation Table for final mapping descriptions. Appendix 3 presents the NVIS structural formation nomenclature.

Structural group statistics presented include number of patches, total area and total area that is formerly protected within the reserves system. The native vegetation structural types that have the greatest number of patches are woodlands (5,474) and mallee woodlands (3,666), although it is the mallee woodlands and shrublands <1m that make up the largest area of all the structural groups. Only 5% of these shrublands <1m are formerly protected while 25% of the mallee woodlands are protected. The most protected structural group is the mallee shrublands (55%), although these make up <1% of the total vegetation.

Table 20.
Area estimates for NVIS structural vegetation groups in the MNYPBS study area.

Structural Group	Number of Patches	Area (ha)	% of Vegetation	Area Protected (ha)	% of Structural Group Protected
Forest	380	4,927	1.4	881	17.9
Mallee Forest	962	17,480	4.9	4,860	27.8
Woodland	5,474	47,273	13.3	2,075	4.4
Mallee Woodland	3,666	77,532	21.8	19,421	25.0
Mallee Shrubland	38	1,891	0.5	1,048	55.4
Shrubland >1m	873	21,880	6.2	1,956	8.9
Shrubland <1m	982	79,624	22.4	3,988	5.0
Grassland	489	22,258	6.3	882	4.0
Sedgeland	414	4,105	1.2	33	0.8
Forbland	2	6	0.002	<1	<1
Total	13,280	276,976	77.9	35,144	12.7
Unclassified Native Vegetation	883	78,454	22.1	1,128	1.4
Total Vegetation (including unclassified)	**14,163**	**355,430**	**100.0**	**36,272**	**10.2**

Note: Protected areas include NPWSA reserves e.g. Conservation Parks and National Parks (*National Parks and Wildlife Act 1972*) and Heritage Agreements (*Native Vegetation Act 1991*) and Forest Reserves (Forestry SA) as at June 2006.
Source: SA Vegetation mapping, June 2006

Table 21.
Floristic, environmental and distribution details for the mapped vegetation communities plus the corresponding Floristic Vegetation Group from the PC-ORD analysis.

SAVEG ID	Floristic Description	NVIS Environmental Description	45 Map Groups	Mapped Distribution	Flor Veg Grp
MM2901	Melaleuca halmaturorum low open forest over Sarcocornia quinqueflora, Frankenia pauciflora var., Halosarcia pergranulata ssp., Tetragonia implexicoma, Hemichroa pentandra shrubs	Swamp; Clay to Clay loam; Swamp areas	Melaleuca halmaturorum Low Open Forest	Lower Yorke Peninsula	73
MN2102	Eucalyptus camaldulensis var., +/-Eucalyptus leucoxylon ssp. mid open forest over Lycium ferocissimum, Muehlenbeckia florulenta shrubs over Foeniculum vulgare, Piptatherum miliaceum, Cyperus gymnocaulos forbs	Stream channel ;Clayey sand; Watercourse	Eucalyptus camaldulensis var. camaldulensis Mid Woodland	Predominantly along watercourses throughout the Mid North	19, 77, 80, 83
SP0014	Eucalyptus camaldulensis var., +/-Eucalyptus largiflorens low woodland over Acacia victoriae ssp. mid sparse shrubland over Maireana pyramidata, Rhagodia spinescens, Enchylaena tomentosa var. low sparse shrubland over Brassica tournefortii, Sisymbrium erysimoides	Stream channels; Along major watercourses			
MN2101	Eucalyptus camaldulensis var., +/-Callitris glaucophylla mid woodland over Lycium ferocissimum, Bursaria spinosa ssp. spinosa shrubs over Cyperus vaginatus, Marrubium vulgare, Lomandra multiflora ssp. dura forbs	Plains, Flats, Depressions, Gully and Hill slopes; Sand to Clay loam; Loamy; Drainage depressions			
SM1104	Eucalyptus camaldulensis var. camaldulensis, Eucalyptus leucoxylon ssp. mid woodland over Medicago sp., Bromus rubens, Avena barbata, Lolium sp. low tussock grasses	Flat; soils clayey sand			
WM1601	Eucalyptus camaldulensis var. camaldulensis, +/-Eucalyptus leucoxylon ssp. low open woodland over Linum trigynum, Briza maxima, Anagallis arvensis, Avena barbata forbs	Erosional plains and Limestone plains; Sand to Loam			
MN2704	Callitris gracilis, Eucalyptus camaldulensis var. low open forest over Avena barbata, Astroloma conostephioides, Rhagodia parabolica, Austrostipa sp., Bromus diandrus tussock grasses	Unknown			
MN2201	Acacia salicina, +/-Eucalyptus camaldulensis var. low woodland over Muehlenbeckia florulenta shrubs	Plain and Stream channel; Clay loam to Clay; Watercourse			
SM2902	Eucalyptus largiflorens, +/-Eucalyptus odorata, +/-Eucalyptus porosa low open forest over Muehlenbeckia florulenta, Rhagodia parabolica mid shrubs over Austrostipa sp., Maireana sp. low tussock grasses	Data from 1 site only: closed depression; loam soil	Eucalyptus largiflorens Mid Woodland	Small distribution west and north of Gawler	41
MN0902	Eucalyptus leucoxylon ssp., Allocasuarina verticillata mid open forest over Bursaria spinosa ssp. spinosa shrubs over Triodia scariosa ssp. (NC), Lomandra multiflora ssp. dura hummock grasses	Hill slope; Loam	Eucalyptus leucoxylon ssp. Mid Woodland	Widespread from Sth Mt. Lofty Ranges north to Booleroo Centre in Sth Flinders Ranges. Significant population throughout the Clare Valley.	20, 21
MN0903	Eucalyptus leucoxylon ssp., Allocasuarina verticillata low woodland over Xanthorrhoea quadrangulata, Bursaria spinosa ssp. spinosa, Cassinia laevis shrubs over Triodia scariosa ssp. (NC), Lomandra multiflora ssp. hummock grasses	Hill slope/crest; Sandy loam			
MN0901	Eucalyptus leucoxylon ssp., +/-Eucalyptus odorata, +/-Amyema miquelii mid woodland over Acacia pycnantha, Acacia paradoxa shrubs over Acaena echinata forbs	Hill slope/footslope/crest and Plain; Sandy loam to Clay loam; Loamy			
MN0905	Eucalyptus leucoxylon ssp., +/-Eucalyptus odorata low woodland over Acacia pycnantha shrubs over Xanthorrhoea semiplana ssp. semiplana, Austrostipa elegantissima, Astroloma conostephioides shrubs	Unknown			
MN0906	Eucalyptus leucoxylon ssp., +/-Eucalyptus cladocalyx, +/-Allocasuarina verticillata low woodland over Bursaria spinosa ssp. spinosa, +/-Acacia wattsiana, +/-Acacia pycnantha shrubs over Astroloma humifusum, Hibbertia exutiacies, Dianella revoluta var., Lomandra multiflora ssp. dura shrubs	Hill slope/footslope/crest; Sandy loam to Clay loam; Loamy			
WM7801	Eucalyptus leucoxylon ssp. mid open woodland over +/-Lomandra effusa sedges	Plains; Sandy clay loam			

SAVEG ID	Floristic Description	NVIS Environmental Description	45 Map Groups	Mapped Distribution	Flor Veg Grp
MN4101	emergent Eucalyptus leucoxylon ssp., Eucalyptus odorata trees over Acacia paradoxa, +/-Acacia pycnantha mid shrubland	Hill crest; Clay loam			
MN1508	Allocasuarina verticillata, +/-Melaleuca lanceolata low woodland over Acacia ligulata shrubs over Pimelea serpyllifolia ssp. serpyllifolia, Tetragonia implexicoma shrubs	Unknown	Allocasuarina verticillata Low Woodland on coastal plains and dunes	Coastal and dune locations on York Peninsula	48
YP0701	Allocasuarina verticillata low woodland over Olearia axillaris, +/-Acacia nematophylla, +/-Acacia ligulata, +/-Alyxia buxifolia, +/-Leucopogon parviflorus, +/-Acacia cupularis mid shrubs over Rhagodia candolleana ssp. candolleana low shrubs over Lagurus ovatus, Anagallis arvensis, +/-Adriana quadripartita, +/-Lepidosperma gladiatum	Occurs on dune slopes, dunes, swales and dune crests. Soils: sand.			
YP0803	Allocasuarina verticillata low woodland over +/-Melaleuca lanceolata tall shrubs over +/-Lasiopetalum discolor, +/-Exocarpos aphyllus, +/-Beyeria lechenaultii, +/-Templetonia retusa mid shrubs over Rhagodia candolleana ssp. candolleana, +/-Threlkeldia diffusa	Found on beach ridges and swales. Soils: sand.			
YP0703	Allocasuarina verticillata low woodland over +/-Exocarpos aphyllus, +/-Bursaria spinosa ssp., +/-Melaleuca lanceolata tall shrubs over +/-Beyeria lechenaultii, +/-Acrotriche patula low shrubs over +/-Lepidosperma congestum, +/-Lagurus ovatus	Found on beach ridges and plains. Less frequent on ridges and limestone plains. Sand, sandy loam or loam soils.			
MN1505	emergent Eucalyptus leucoxylon ssp. over Allocasuarina verticillata, Bursaria spinosa ssp. spinosa, +/-Acacia wattsiana, +/-Acacia pycnantha low open woodland over Dianella revoluta var., Lomandra multiflora ssp., Astroloma humifusum, +/-Hibbertia exutiacies shrubs	Hill slope; Sandy loam to Clay loam; Loamy	Allocasuarina verticillata Low Woodland on hills	Throughout the region. Widely distributed on ranges such as Barunga, Pekina, Tothill and Bluff Ranges	13, 15
YP0704	Allocasuarina verticillata, +/-Melaleuca lanceolata, +/-Eucalyptus porosa, +/-Santalum acuminatum low woodland over +/-Bursaria spinosa ssp., +/-Melaleuca acuminata ssp. acuminata tall shrubs over Lepidosperma congestum, Gahnia lanigera, Lomandra effusa, Acrotriche patula low sedges	Found on plains, occasionally on rock outcrops (on plains) or in closed depressions. Soils most frequently sandy clay loams or sandy loams; less frequently loams, clay loams or sand.			
YP0705	Allocasuarina verticillata, +/-Eucalyptus porosa low open woodland over Acacia paradoxa, +/-Melaleuca lanceolata tall shrubs	Unknown			
MN1507	Allocasuarina verticillata, +/-Eucalyptus odorata, +/-Eucalyptus gracilis, +/-Acacia pycnantha low woodland over Xanthorrhoea quadrangulata, Bursaria spinosa ssp. spinosa, Beyeria lechenaultii shrubs over Lepidosperma viscidum sedges	Hill slope; Loam to Sandy clay loam			
MN1506	Allocasuarina verticillata, +/-Eremophila longifolia, +/-Acacia pycnantha low open woodland over Themeda triandra, Austrostipa sp., Lomandra multiflora ssp., Dichanthium sericeum ssp. sericeum tussock grasses	Unknown			
WM6801	Allocasuarina verticillata, +/-Callitris gracilis low woodland over +/-Lomandra effusa, Austrostipa sp., Danthonia sp. tussock grasses	Hill slope; Sandy loam			
MN1503	Allocasuarina verticillata low woodland over Xanthorrhoea quadrangulata, +/-Cassinia laevis, +/-Bursaria spinosa ssp. spinosa shrubs over Triodia scariosa ssp. (NC), Lomandra multiflora ssp., Lomandra densiflora, Lepidosperma viscidum hummock grasses	Hill slope and Ridge; Sandy loam to Clay loam; Loamy			
MN1501	Allocasuarina verticillata low woodland over +/-Bursaria spinosa ssp. spinosa, +/-Cassinia laevis, +/-Acacia pycnantha, +/-Xanthorrhoea quadrangulata shrubs over Lomandra densiflora, Cheilanthes austrotenuifolia, Danthonia sp., Avena barbata tussock grass	Hill slope/crest, Ridge and Cliff; Sandy loam to Loam; Loamy			
WM6601	Allocasuarina verticillata low woodland over +/-Bursaria spinosa ssp. spinosa shrubs over Lomandra effusa, Austrodanthonia caespitosa, Austrostipa blackii, Lomandra multiflora ssp. dura, +/-Themeda triandra tussock grasses	Hill slope and Ridges; Sandy loam to Sandy clay loam; Loamy			

SAVEG ID	Floristic Description	NVIS Environmental Description	45 Map Groups	Mapped Distribution	Flor Veg Grp
MN1504	Allocasuarina verticillata low open woodland over Bursaria spinosa ssp. spinosa shrubs over Themeda triandra, Lepidosperma viscidum, Triodia scariosa ssp. (NC) tussock grasses	Hill slope; Heavy clay			
MN1502	Allocasuarina verticillata low open woodland over +/-Xanthorrhoea quadrangulata, +/-Bursaria spinosa ssp. spinosa, +/-Acacia pycnantha shrubs over Lomandra densiflora, Astroloma humifusum, Dianella revoluta var., Pultenaea largiflorens, Hibbertia exutiacies shrubs	Ridge and Hill slope; Sandy loam to Sandy clay loam; Loamy			
OS0005	Avicennia marina ssp. marina low woodland	Tidal flats and Tidal channels; Mud flats with strong tidal flow; Saline and regularly flooded; Coastal	Avicennia marina ssp. marina Low Woodland	Coastal areas north of St. Kilda, upper St. Vincent Gulf and throughout Spencer Gulf	76
CT0056	Avicennia marina ssp. marina low open woodland over +/-Sarcocornia quinqueflora, +/-Cotula sp., +/-Triglochin sp. low shrubs	Estuarine and supratidal zones			
MN4001	Avicennia marina ssp. marina low open forest over +/-Halosarcia sp., +/-Sarcocornia quinqueflora shrubs	Flats and Plains; Loam to Clay loam			
MN1901	emergent Callitris glaucophylla trees over Cassinia laevis, Olearia decurrens, Acacia ligulata, Acacia calamifolia (NC) mid shrubland over Lomandra multiflora ssp. dura, Triodia scariosa ssp. (NC), Acacia continua shrubs	Hill slope/footslope; Clay loam to Sandy loam	Callitris glaucophylla Low Woodland	Associated with drainage lines in South Flinders Ranges	18
MN1801	Callitris glaucophylla low woodland over Cassinia laevis, Acacia continua, +/-Olearia decurrens shrubs over Lomandra multiflora ssp. dura, Triodia scariosa, Rhagodia parabolica sedges	Hill footslope/slope and Gully; Sandy loam			
MN2702	Callitris gracilis, Eucalyptus odorata, +/-Eucalyptus porosa low woodland over Avena barbata, Austrostipa elegantissima, Bromus diandrus, Astroloma conostephioides, Rhagodia parabolica tussock grasses	Plains and Hill footslopes/slopes; Loamy sand to Clayey Sand; Sandy and Loamy	Callitris gracilis Low Woodland	Mostly scattered throughout North Mt. Lofty Ranges with few occurrences in the South Flinders Ranges	22, 55
MN2705	Callitris gracilis, Eucalyptus leucoxylon ssp. low open forest over Avena barbata, Astroloma conostephioides, Rhagodia parabolica, Austrostipa sp., Bromus diandrus tussock grasses	Unknown			
SM0704	Callitris gracilis, +/-Eucalyptus socialis (NC) low open forest over Rhagodia parabolica mid shrubs over Avena barbata, Astroloma conostephioides, Austrostipa sp., Bromus diandrus mid tussock grasses	Unknown			
SM0703	Callitris gracilis, +/-Eucalyptus porosa low open woodland over Avena barbata, Astroloma conostephioides, Rhagodia parabolica, Austrostipa sp., Bromus diandrus tall tussock grasses	Data from 1 site only: plain; loam soil			
MN2703	Callitris gracilis, +/-Eucalyptus dumosa, +/-Eucalyptus brachycalyx low open forest over Avena barbata, Rhagodia preissii ssp. preissii, Austrostipa sp., Astroloma conostephioides, Bromus diandrus tussock grasses	Plain; Silty clay loam			
YP0201	Callitris gracilis mid woodland over Pimelea serpyllifolia ssp. serpyllifolia, Scaevola spinescens, Rhagodia parabolica low shrubs over Westringia rigida, Acrotriche patula, Lepidosperma congestum, Lomandra collina, Austrodanthonia setacea, Austrostipa sp.	Occurs on plains. Sandy clay loam soils			
MN2706	Callitris gracilis low woodland over Avena barbata, Austrostipa elegantissima, Astroloma conostephioides, Bromus diandrus tussock grasses	Plain and Hill slope; Sand to Clayey sand; Sandy			
MM0801	Callitris gracilis low open woodland over Austrostipa sp., Enchylaena tomentosa var. tomentosa, Senecio pinnatifolius, Einadia nutans ssp., +/-Danthonia sp. tussock grasses	Plains and Hill slope; Sand to Clay loam; Sandy and Loamy soils			
MN5401	Alyxia buxifolia, +/-Callitris gracilis tall open shrubland over Senna artemisioides ssp. shrubs	Plain; Sandy loam			
MN1601	Eucalyptus goniocalyx ssp. goniocalyx, +/-Eucalyptus cladocalyx low woodland over Xanthorrhoea quadrangulata, Bursaria spinosa ssp. spinosa, Allocasuarina verticillata, Acacia pycnantha shrubs over Hibbertia exutiacies, Pultenaea largiflorens, Dianella revoluta var., Lomandra densiflora shrubs	Hill slope/crest and Ridge; Sandy loam to Clay loam; Loamy	Eucalyptus goniocalyx ssp. goniocalyx Low Woodland	North of Spring Gully CP near Sevenhill and in the Tothill Range	Within 15

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MN3901	Eucalyptus macrorhyncha ssp. macrorhyncha low woodland over Xanthorrhoea quadrangulata shrubs over Poa crassicaudex, Danthonia sp., Pultenaea largiflorens, Cheilanthes austrotenuifolia, Hibbertia exutiacies, Acrotriche affinis, Dianella revoluta var. tussock grasses	Hill slope/crest and Ridge; Sandy loam	Eucalyptus macrorhyncha ssp. macrorhyncha Low Woodland	Endemic to Spring Gully Conservation Park and surrounds	16
MN0402	Eucalyptus microcarpa, +/-Eucalyptus viridis ssp. viridis mid woodland over Acacia pycnantha, Cassinia laevis shrubs over Lomandra multiflora ssp. dura, Maireana enchylaenoides, Lomandra densiflora, Rhagodia parabolica forbs	Hill footslope/crest/slope and Ridge; Sandy loam to Clay loam; Loamy	Eucalyptus microcarpa Low Woodland	Several stands from Wirrabara to Murraytown and further east near Mannanarie	Within 1
MN0401	Eucalyptus microcarpa, +/-Allocasuarina verticillata low woodland over Xanthorrhoea quadrangulata, Cassinia laevis, +/-Bursaria spinosa ssp. spinosa shrubs over Triodia scariosa ssp. (NC), Lomandra multiflora ssp. dura, Lepidosperma viscidum hummock grass	Hill slope/crest and Ridge; Sandy loam to Clay loam; Loamy			
WM1501	Eucalyptus odorata, +/-Eucalyptus porosa low woodland over Eremophila longifolia, Senna artemisioides ssp. filifolia, Acacia argyrophylla shrubs over Avena barbata, Glycine rubiginosa, Austrostipa acrociliata group, Maireana rohrlachii tussock grasses	Ridges and Hill slopes; Sandy loam to Clay; Loamy	Eucalyptus odorata Grassy Low Woodland	Significant occurrence throughout the Mt. Lofty Ranges and scattered north and north east of Wirrabara	17
MN0604	Eucalyptus odorata, +/-Eucalyptus leucoxylon ssp., Amyema miquelii low woodland over Acacia pycnantha, Acacia paradoxa shrubs over Acaena echinata forbs	Plain; Sandy loam to Loam			
MN0603	Eucalyptus odorata, +/-Eucalyptus leucoxylon ssp., +/-Callitris glaucophylla low woodland over Austrodanthonia caespitosa, Austrostipa scabra ssp., Austrostipa nitida, Elymus scaber var. scaber, +/-Austrostipa eremophila tussock grasses	Hill footslope/slope and Plain; Sand to Clay; Loamy			
MN0610	Eucalyptus odorata, +/-Eucalyptus leucoxylon ssp. mid mallee woodland over Acacia pycnantha, Acacia acinacea shrubs over Avena barbata, Austrodanthonia setacea, Austrostipa scabra ssp. falcata, Austrostipa elegantissima tussock grasses	Plain; Clay			
SM1802	Eucalyptus odorata, +/-Eucalyptus leucoxylon ssp. low woodland over Acacia pycnantha over Acacia paradoxa, Acacia acinacea mid shrubs over Austrodanthonia setacea, Austrostipa scabra ssp. falcata, Avena barbata, Austrostipa elegantissima low tussock grass	Hill slopes; mostly sandy clay loam, but also clay loam & light clay			
MN0609	Eucalyptus odorata, +/-Callitris gracilis mid woodland over Acacia pycnantha, Acacia acinacea shrubs over Avena barbata, Austrostipa elegantissima, Austrodanthonia setacea, Austrostipa scabra ssp. falcata tussock grasses	Unknown			
MN0602	Eucalyptus odorata mid woodland over Austrostipa nodosa, Austrodanthonia caespitosa tussock grasses	Hill footslope; Loam			
WM1401	Eucalyptus odorata low woodland over Acacia acinacea, Chenopodium desertorum ssp. desertorum shrubs over Dianella revoluta var. revoluta, Lomandra densiflora, Eutaxia microphylla var. microphylla sedges	Erosional plains; Sandy loam to Clay; Loamy			
MN0601	Eucalyptus odorata low open woodland over Austrostipa flavescens, Austrostipa nitida, Austrostipa elegantissima tussock grasses	Hill footslope; Clay loam			
MN5501	Eucalyptus behriana, +/-Eucalyptus odorata low open woodland over Gramineae sp. tussock grasses	Unknown			
MN0606	Eucalyptus odorata, Allocasuarina verticillata, +/-Eucalyptus leucoxylon ssp., +/-Eucalyptus camaldulensis var. low woodland over Bursaria spinosa ssp. spinosa, +/-Acacia wattsiana shrubs	Hill footslope/crest/slope and Plain; Sandy loam to Clay loam; Loamy	Eucalyptus odorata Low Woodland over shrubs	Wide distribution from roadside remnants near Moonta to the Tothill Range and around Yacka to the South Flinders Ranges	Within 15
MN0605	Eucalyptus odorata, +/-Allocasuarina verticillata low woodland over Bursaria spinosa ssp. spinosa, Acacia pycnantha shrubs over Dianella revoluta var., Lepidosperma viscidum, Maireana enchylaenoides, Lomandra multiflora ssp. dura, Austrostipa elegantissima, Triodia scariosa ssp. (NC), Austrodanthonia caespitosa tussock grasses	Hill footslope/crest/slope, Ridge and Plain; Sandy loam to Clay loam; Loamy			
YP0501	Eucalyptus odorata mid open mallee woodland over Senna artemisioides ssp. petiolaris (NC), Acacia ligulata mid shrubs over Alyxia buxifolia low shrubs over Austrodanthonia setacea, Avena barbata, Carrichtera annua, Westringia rigida	Occurs on plains. Sandy loam soils			

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MN0607	Eucalyptus odorata low woodland over Allocasuarina verticillata, Acacia pycnantha over Xanthorrhoea quadrangulata shrubs over Dianella revoluta var., Pultenaea largiflorens, Lomandra densiflora, Hibbertia exutiacies shrubs	Hill slope; Sandy loam			
CT0046	Eucalyptus odorata low woodland over +/-Melaleuca lanceolata over +/-Lycium ferocissimum mid shrubs over +/-Atriplex vesicaria ssp., +/-Enchylaena tomentosa var. tomentosa, +/-Maireana pyramidata low shrubs over Carrichtera annua, +/-Maireana sedifolia	Plains; loam soils			
YP0808	Melaleuca lanceolata, Eucalyptus porosa, +/-Callitris gracilis, +/-Eucalyptus gracilis mid mallee woodland over Exocarpos aphyllus mid shrubs over Acrotriche patula, +/-Austrodanthonia caespitosa low shrubs	Occurs on plains. Soils: sandy loam or medium clay	Melaleuca lanceolata Low Woodland on hill slopes and plains	Predominantly throughout Yorke Peninsula including several roadside reserves	43
YP0807	Melaleuca lanceolata, Eucalyptus porosa mid open woodland over Acacia ligulata, Acacia hakeoides tall shrubs over Austrodanthonia caespitosa, Austrostipa drummondii, Austrostipa eremophila, Austrostipa nitida, Austrostipa nodosa low tussock grasses	Occurs on plains. Soils: clay loam			
MN4401	emergent +/-Eucalyptus socialis ssp., +/-Casuarina pauper mallee trees over Melaleuca lanceolata tall sparse shrubland over Acacia ligulata over Acrotriche patula, Gahnia lanigera, Scaevola spinescens shrubs	Hill slopes and Dune slopes/crests; Sand to Clay loam			
CT0027	Melaleuca lanceolata, Geijera linearifolia, +/-Pittosporum angustifolium, +/-Exocarpos aphyllus mid open shrubland over +/-Atriplex paludosa ssp. cordata, +/-Rhagodia crassifolia, +/-Atriplex vesicaria ssp. low shrubs over +/-Carpobrotus rossii, +/-Threlkeldia diffusa, +/-Frankenia sessilis	Plains, dunes, dune and foot slopes and foredune areas; soils range from sand to sandy loam	Melaleuca lanceolata Low Woodland/Tall shrubland on coastal plains and dunes	Largely throughout lower Yorke Peninsula. Some coastal and plain communities around Gulf St. Vincent and north of Port Germein	48, 50
EP3401	Melaleuca lanceolata, +/-Olearia axillaris, +/-Leucopogon parviflorus tall open shrubland over +/-Rhagodia candolleana ssp. candolleana, +/-Threlkeldia diffusa low shrubs	Various coastal and inland land forms; soils usually sandy with calcareous material present			
MN4402	Melaleuca lanceolata, +/-Callitris gracilis, +/-Eucalyptus gracilis tall open shrubland over Exocarpos aphyllus over Maireana oppositifolia, Threlkeldia diffusa, Atriplex paludosa ssp. cordata, Rhagodia candolleana ssp. candolleana, Bromus rubens shrubs	Beach ridges; Sand to Loamy sand; Coastal			
SM3602	Melaleuca lanceolata, +/-Callitris gracilis, +/-Eucalyptus gracilis low open forest over Exocarpos aphyllus, Rhagodia candolleana ssp. candolleana tall shrubs over Atriplex paludosa ssp. cordata, Maireana oppositifolia low shrubs over Threlkeldia diffusa, +/-Bromus rubens	Data from 2 sites only: plains; sand soils			
YP0805	Melaleuca lanceolata, +/-Allocasuarina verticillata low woodland over Lycium ferocissimum, +/-Bursaria spinosa ssp., +/-Acacia nematophylla tall shrubs over Austrostipa sp., Moraea setifolia, +/-Lagurus ovatus, +/-Vulpia myuros forma myuros low forbs	Found on hill crests and plains. Soils: sandy loam or light medium clay			
YP0802	Melaleuca lanceolata, +/-Allocasuarina verticillata low woodland over +/-Exocarpos aphyllus, +/-Bursaria spinosa ssp., +/-Rhagodia candolleana ssp. candolleana mid shrubs over Acrotriche patula, +/-Pimelea serpyllifolia ssp. serpyllifolia, +/-Lagurus ovatus, +/-Lepidosperma congestum, +/-Threlkeldia diffusa low shrubs	Most commonly found on plains and hill slopes. Less common on swales, hill crests limestone plains and dunes. Soils: sand, loam and clay loam. Less common on sandy loam soils.			
YP3604	Melaleuca lanceolata tall open shrubland over Olearia axillaris, +/-Acacia ligulata, +/-Leucopogon parviflorus over Adriana quadripartita, Lepidosperma gladiatum low shrubs	Unknown			
YP0801	Melaleuca lanceolata low woodland	Unknown			
YP3001	Lasiopetalum discolor, Melaleuca lanceolata ssp. lanceolata (NC), +/-Calytrix tetragona, +/-Gahnia lanigera, +/-Pomaderris paniculosa ssp. paniculosa, +/-Templetonia retusa low shrubland over Pultenaea tenuifolia, Logania crassifolia, Beyeria lechenaultii, Acrotriche cordata, +/-Lepidosperma congestum, +/-Prostanthera serpyllifolia ssp. serpyllifolia (purplish-green flowers)	Found on limestone plains & plains; soils are sandy loams			

SAVEG ID	Floristic Description	NVIS Environmental Description	45 Map Groups	Mapped Distribution	Flor Veg Grp
YP0804	emergent +/-Eucalyptus socialis ssp. mid mallee trees over Melaleuca lanceolata, +/-Callitris canescens tall shrubland over Rhagodia candolleana ssp. candolleana, Exocarpos aphyllus low shrubs over Threlkeldia diffusa, Lepidosperma congestum, Acrotriche patula, Maireana oppositifolia	Unknown			
MN5301	Myoporum platycarpum ssp., Eucalyptus gracilis, +/-Exocarpos aphyllus, +/-Alectryon oleifolius ssp. canescens low open woodland	Unknown	Semi-arid Low Woodland (Casuarina pauper or Myoporum platycarpum or Acacia papyrocarpa or Alectryon oleifolius ssp. canescens)	Predominantly near Pt. Broughton and scattered patches to north of Mambray Creek	28, 36
MN3303	Casuarina pauper, Myoporum platycarpum ssp. low woodland over Alectryon oleifolius ssp. canescens over Senna artemisioides ssp. coriacea shrubs over Enchylaena tomentosa var. tomentosa shrubs	Unknown			
MN3302	Casuarina pauper, Eucalyptus brachycalyx low woodland over Alectryon oleifolius ssp. canescens over Enchylaena tomentosa var. tomentosa shrubs	Unknown			
EP0501	Casuarina pauper low woodland over Geijera linearifolia, Scaevola spinescens tall shrubs over Enchylaena tomentosa var. tomentosa, Austrostipa nitida, +/-Ptilotus obovatus var. obovatus, +/-Maireana sedifolia, +/-Atriplex stipitata low shrubs over Carrichtera annua	Range of soil types, often red/orange in colour; semi-arid regions			
MM0201	Casuarina pauper low woodland over Alectryon oleifolius ssp. canescens, Senna artemisioides ssp. shrubs over Enchylaena tomentosa var. tomentosa, Sclerolaena diacantha/uniflora, Austrostipa sp., Einadia nutans ssp., Austrostipa elegantissima shrubs	Plains and Hill slope/crest ;Sand to Clay loam ;Sandy loams soils			
EP0801	Alectryon oleifolius ssp. canescens low woodland over Geijera linearifolia mid shrubs over Enchylaena tomentosa var. tomentosa, Maireana pyramidata low shrubs over Carrichtera annua	Unknown			
EP0502	Acacia papyrocarpa, Casuarina pauper low woodland over Enchylaena tomentosa var. tomentosa, Maireana sedifolia, Rhagodia ulicina, +/-Atriplex stipitata low shrubs	Plains; soils ranging from loamy sand to medium clay; semi-arid regions			
EP0701	Acacia papyrocarpa low woodland over Atriplex vesicaria ssp., Maireana sedifolia, Enchylaena tomentosa var. tomentosa, Rhagodia ulicina low shrubs	Plains			
YP0901	Eucalyptus brachycalyx, Eucalyptus calycogona ssp. calycogona, Eucalyptus phenax ssp., Eucalyptus gracilis, Eucalyptus oleosa ssp. mid open mallee forest over Melaleuca lanceolata tall shrubs over Austrostipa scabra ssp., Enchylaena tomentosa var. tomentosa low tussock grasses	Occurs on hill slopes. Soils: sandy clay loam.	Eucalyptus brachycalyx Mid Mallee Woodland	Scattered patches within the central MN&YP region and significant areas south east of Burra to north east of Hallett	33
MN3801	Eucalyptus brachycalyx, +/-Eucalyptus oleosa ssp. ampliata, +/-Eucalyptus gracilis mid mallee woodland over Enchylaena tomentosa var. tomentosa, Atriplex vesicaria ssp., Sclerolaena diacantha, Maireana pyramidata shrubs	Plains, Hills, Dunes and Swales; Sand to Clay loam; Loamy			
MN3802	Eucalyptus brachycalyx, +/-Eucalyptus gracilis, +/-Eucalyptus phenax ssp. phenax mid open mallee forest over Geijera linearifolia, Melaleuca lanceolata shrubs over Carrichtera annua, Austrostipa eremophila, Rhagodia parabolica, Enchylaena tomentosa var., Sclerolaena diacantha shrubs	Unknown			
YP1001	Eucalyptus diversifolia ssp. diversifolia, mid open mallee forest over +/-Templetonia retusa, +/-Melaleuca lanceolata, +/-Beyeria lechenaultii mid shrubs over Acrotriche patula, Correa pulchella, +/-Lasiopetalum discolor low shrubs	Occurs on dune crests and slopes, swales, flats rock outcrops (on plains) and plains. Most frequently occurs on sand, loam or sandy loam soils. Less frequent on clay loams or loamy sands.	Eucalyptus diversifolia ssp. diversifolia Mid Mallee Woodland	Widespread throughout south west Yorke Peninsula	42
YP1003	Eucalyptus diversifolia ssp. diversifolia, Melaleuca lanceolata, +/-Callitris canescens, +/-Templetonia retusa, +/-Acacia nematophylla low open mallee shrubland over Gahnia lanigera, Acrotriche patula, +/-Acrotriche cordata, +/-Lasiopetalum discolor, +/-Beyeria lechenaultii low shrubs	Occurs on dunes including dune slopes. Soils: sandy loam.			

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YP1002	Eucalyptus diversifolia ssp. diversifolia, +/-Allocasuarina verticillata low open mallee forest over Melaleuca lanceolata, +/-Templetonia retusa mid shrubs over Acrotriche cordata, Lasiopetalum discolor, +/-Allocasuarina pusilla, +/-Beyeria lechenaultii, +/-Acrotriche patula, +/-Acacia nematophylla low shrubs	Occurs on plains and dune slopes. Soils: sand or sandy loam.			
YP1701	Eucalyptus diversifolia ssp. diversifolia, Eucalyptus rugosa, +/-Eucalyptus oleosa ssp., +/-Eucalyptus gracilis mid mallee woodland over +/-Melaleuca lanceolata over Templetonia retusa, +/-Acacia rupicola low shrubs over Acrotriche patula, Beyeria lechenaultii low shrubs over +/-Pimelea serpyllifolia ssp. serpyllifolia	Occurs on limestone plains, dune slopes, ridges, plains and rock outcrops on plains. Most common soils: loam or sandy loam. Less common soils: loamy sand, clay loam or sand.	Eucalyptus diversifolia ssp. diversifolia, Eucalyptus rugosa Mid Mallee Woodland	Lower Yorke Peninsula	49
YP1004	Eucalyptus diversifolia ssp. diversifolia, +/-Eucalyptus rugosa, +/-Eucalyptus leptophylla, +/-Eucalyptus oleosa ssp., +/-Eucalyptus phenax ssp., +/-Eucalyptus gracilis, +/-Eucalyptus brachycalyx, +/-Eucalyptus porosa mid mallee woodland over Melaleuca lanceolata tall shrubs over Templetonia retusa, +/-Acacia anceps, +/-Acacia nematophylla, +/-Olearia axillaris over +/-Beyeria lechenaultii, +/-Lasiopetalum discolor low shrubs over +/-Acrotriche patula, +/-Acrotriche cordata, +/-Alyxia buxifolia	Occurs on plains including limestone plains and dunes. Less common on ridges, dune slopes and rock outcrops (on plains). Soils frequently sand, sandy loam or clay loam; less frequently loamy sand.			
MN2601	Eucalyptus dumosa, +/-Eucalyptus socialis ssp., +/-Eucalyptus gracilis mid mallee woodland over Enchylaena tomentosa var. tomentosa, Maireana enchylaenoides shrubs	Hill slope/crest and Ridge; Sandy loam to Clay loam	Eucalyptus dumosa Mid Mallee Woodland	Remnants scattered throughout Mid North and northern Yorke Peninsula	35
MN2602	Eucalyptus dumosa, +/-Eucalyptus phenax ssp. phenax mid open mallee forest over Enchylaena tomentosa var. tomentosa, Austrodanthonia caespitosa, Hordeum leporinum, Vulpia myuros forma myuros, Austrostipa exilis, Rhagodia parabolica tussock grasses	Unknown			
YP1102	Eucalyptus dumosa, +/-Eucalyptus leptophylla, +/-Eucalyptus socialis ssp. mid mallee woodland over +/-Melaleuca acuminata ssp. acuminata, +/-Melaleuca lanceolata, +/-Melaleuca uncinata tall shrubs over Gahnia lanigera, +/-Lepidosperma congestum, +/-Dianella revoluta var. revoluta, +/-Acrotriche patula low shrubs	Occurs on plains. Soils: sandy loam or sandy clay loam.			
WM0301	Eucalyptus dumosa, +/-Eucalyptus gracilis mid mallee woodland over Melaleuca acuminata ssp. acuminata shrubs over Atriplex stipitata, Zygophyllum apiculatum, Senecio pinnatifolius, Austrostipa mollis group shrubs	Limestone plains; Sand to Loam			
YP1101	Eucalyptus dumosa mid open mallee woodland over Geijera linearifolia, Rhagodia parabolica, Nitraria billardierei mid shrubs over +/-Austrostipa elegantissima, +/-Austrostipa platychaeta mid tussock grasses over Maireana trichoptera, Carrichtera annua, Moraea setifolia, Austrodanthonia caespitosa, Enchylaena tomentosa var. tomentosa, +/-Austrostipa scabra ssp.	Occurs on plains. Soils: sandy clay loam or clay loam.			
MN2502	Eucalyptus gracilis, Eucalyptus phenax ssp. phenax, +/-Eucalyptus socialis ssp. mid mallee woodland over Geijera linearifolia, Melaleuca lanceolata shrubs over Austrostipa eremophila, Carrichtera annua, Rhagodia parabolica, Enchylaena tomentosa var. tomentosa var. tomentosa, Sclerolaena diacantha tussock grasses	Hill crest; Clayey sand	Eucalyptus gracilis Mid Mallee Woodland	Widespread throughout region	33
SP0001	Eucalyptus gracilis, Eucalyptus oleosa ssp. oleosa, Eucalyptus socialis ssp., +/-Eucalyptus dumosa mid mallee woodland over Enchylaena tomentosa var., Senna artemisioides ssp., Senna artemisioides ssp. petiolaris (NC), Grevillea huegelii, Olearia muelleri mid open shrubland over Zygophyllum aurantiacum ssp., +/-Maireana pentatropis low sparse shrubland	Swales and Sand plain; Loam			
MM1801	Eucalyptus gracilis, Eucalyptus oleosa ssp. oleosa mid open mallee woodland over +/-Melaleuca lanceolata shrubs over Sclerolaena diacantha/uniflora, Austrostipa sp., Zygophyllum apiculatum, Maireana pentatropis shrubs	Plains, Hills and Dunes; Sand to Clay loam; Sandy loams and Loamy soils			

SAVEG ID	Floristic Description	NVIS Environmental Description	45 Map Groups	Mapped Distribution	Flor Veg Grp
MN2504	Eucalyptus gracilis, Eucalyptus odorata mid open mallee forest over Geijera linearifolia, Melaleuca lanceolata shrubs over Carrichtera annua, Austrostipa eremophila, Rhagodia parabolica, Enchylaena tomentosa var., Sclerolaena diacantha shrubs	Unknown			
MN2501	Eucalyptus gracilis, +/-Eucalyptus socialis ssp., +/-Melaleuca lanceolata mid mallee woodland over Enchylaena tomentosa var. tomentosa, Rhagodia parabolica, Maireana brevifolia shrubs	Hill slope/footslope/crest , Plains and Swales; Sandy loam to Silty loam; Loamy and Clayey			
YP1201	Eucalyptus gracilis, +/-Eucalyptus leptophylla, +/-Eucalyptus phenax ssp., +/-Eucalyptus oleosa ssp., +/-Eucalyptus brachycalyx, +/-Eucalyptus porosa, +/-Eucalyptus dumosa, +/-Eucalyptus socialis ssp. mid mallee woodland over Melaleuca lanceolata tall shrubs over +/-Acacia notabilis, +/-Geijera linearifolia over +/-Rhagodia parabolica low shrubs over Enchylaena tomentosa var. tomentosa, +/-Avena barbata	Occurs on plains. Most common on sandy loam soils; less common on loam soils.			
MN2505	Eucalyptus gracilis, +/-Eucalyptus dumosa, +/-Eucalyptus brachycalyx, +/-Eucalyptus oleosa ssp. ampliata mid open mallee forest over Geijera linearifolia, Melaleuca lanceolata shrubs over Carrichtera annua, Austrostipa eremophila, Rhagodia parabolica, Enchylaena tomentosa var., Sclerolaena diacantha shrubs	Unknown			
MN2503	Eucalyptus gracilis, +/-Eucalyptus brachycalyx, +/-Eucalyptus porosa, +/-Eucalyptus socialis ssp. mid mallee woodland over Geijera linearifolia, Melaleuca lanceolata shrubs over Enchylaena tomentosa var. tomentosa, Carrichtera annua, Austrostipa eremophila, Rhagodia parabolica, Sclerolaena diacantha shrubs	Plains and Hill slopes; Sand to Clay loam; Sandy			
SM3002	Eucalyptus incrassata, +/-Eucalyptus socialis ssp., +/-Eucalyptus odorata, +/-Callitris gracilis mid mallee woodland over Melaleuca acuminata ssp. acuminata, Melaleuca lanceolata, Santalum acuminatum tall shrubs over Lepidosperma viscidum, Triodia scariosa, Helichrysum leucopsideum low sedges	Data from 1 site only: sandy plain; sand soil	Eucalyptus incrassata Mid Mallee Woodland	Scattered patches north of Yorketown to west of Roseworthy	51, 52
MN5101	Eucalyptus incrassata, +/-Eucalyptus socialis ssp., +/-Eucalyptus brachycalyx, +/-Eucalyptus phenax ssp. phenax mid mallee woodland over Melaleuca acuminata ssp. acuminata, Santalum acuminatum, Melaleuca lanceolata shrubs over Lepidosperma viscidum, Triodia scariosa, Helichrysum leucopsideum forbs	Hill footslope/slopes and Dune/consolidated dune; Sand to Sandy loam			
YP1301	Eucalyptus incrassata, +/-Eucalyptus leptophylla, +/-Eucalyptus socialis ssp., +/-Eucalyptus brachycalyx mid open mallee woodland over +/-Melaleuca uncinata, +/-Melaleuca lanceolata, +/-Melaleuca acuminata ssp. acuminata tall shrubs over Baeckea crassifolia, Calytrix tetragona, Schoenus breviculmis, Gahnia lanigera, +/-Lepidosperma congestum, +/-Acrotriche patula low shrubs	Occurs on plains and dunes including dune slopes and crests. Most common on sandy loam or sand soils; less common on clay soils.			
YP1603	Eucalyptus phenax ssp., +/-Eucalyptus leptophylla, +/-Eucalyptus oleosa ssp. mid open mallee woodland over Melaleuca acuminata ssp. acuminata, +/-Melaleuca lanceolata, +/-Melaleuca uncinata tall shrubs over +/-Alyxia buxifolia, +/-Acacia microcarpa over Acrotriche patula, +/-Gahnia deusta, +/-Olearia pannosa ssp. pannosa low shrubs over +/-Gahnia lanigera, +/-Lepidosperma congestum	Occurs on plains and occasionally on hill slopes. Soils: medium clay or clay loam (sandy).	Eucalyptus leptophylla, Eucalyptus phenax ssp. Mid Mallee Woodland	Scattered populations on Yorke Peninsula from Minlaton region to north east of Paskeville	53
YP1401	Eucalyptus leptophylla, Eucalyptus phenax ssp., +/-Eucalyptus socialis ssp., +/-Eucalyptus oleosa ssp. mid mallee woodland over Melaleuca uncinata tall shrubs over Melaleuca acuminata ssp. acuminata, +/-Melaleuca lanceolata over Acrotriche patula, +/-Lasiopetalum discolor low shrubs over Austrodanthonia setacea, +/-Gahnia lanigera, +/-Austrostipa scabra ssp. falcata, +/-Schoenus breviculmis, +/-Lepidosperma congestum	Occurs on hill slopes, less common on flats and hill crests. Soils: medium clay, sandy clay loam, loam or clayey sand.			
YP1801	Eucalyptus leptophylla, Eucalyptus leptophylla, Eucalyptus phenax ssp., +/-Eucalyptus incrassata, +/-Eucalyptus gracilis mid open mallee forest over Melaleuca acuminata ssp. acuminata, Melaleuca uncinata tall shrubs over +/-Melaleuca lanceolata over Gahnia deusta, Acrotriche patula mid sedges over Correa backhouseana var. coriacea, Gahnia lanigera, +/-Cassytha peninsularis var. peninsularis, +/-Lepidosperma congestum	Occurs on hill slopes and plains. Soils: sandy clay loam or loam.			

SAVEG ID	Floristic Description	NVIS Environmental Description	45 Map Groups	Mapped Distribution	Flor Veg Grp
YP1103	Eucalyptus oleosa ssp., +/-Eucalyptus dumosa, +/-Eucalyptus phenax ssp. mid mallee woodland over +/-Melaleuca acuminata ssp. acuminata, +/-Melaleuca lanceolata tall shrubs over Rhagodia parabolica low shrubs over Enchylaena tomentosa var. tomentosa, +/-Austrostipa scabra ssp., +/-Sclerolaena diacantha, +/-Bromus rubens	Occurs on plains and occasionally on hill slopes. Soils most frequently sandy loam or clay loam; less frequently sandy clay loam or loam.	Eucalyptus oleosa ssp., +/-Eucalyptus gracilis, +/-Eucalyptus phenax ssp. Mid Mallee Woodland	Widespread from Minlaton on Yorke Peninsula to north of Booleroo Centre in the South Flinders Ranges	32
CT0045	Eucalyptus oleosa ssp. mid mallee woodland over Lycium ferocissimum, +/-Zygophyllum apiculatum, +/-Maireana pyramidata low shrubs over Sisymbrium erysimoides, Carrichtera annua, Enchylaena tomentosa var. tomentosa, Atriplex vesicaria ssp.	Hillslopes, dunes and plains; various soils including sand and sandy loam to clay loam			
MN3705	Eucalyptus oleosa ssp. ampliata, Eucalyptus porosa mid open mallee forest over Sclerolaena diacantha, Enchylaena tomentosa var. tomentosa, Maireana brevifolia shrubs	Hill slope; Clay loam, sandy			
MN3704	Eucalyptus oleosa ssp. ampliata, +/-Eucalyptus phenax ssp. phenax mid mallee woodland over Sclerolaena diacantha, Enchylaena tomentosa var. tomentosa, Rhagodia parabolica shrubs	Plain; Loam			
MN3702	Eucalyptus oleosa ssp. ampliata, +/-Eucalyptus gracilis, +/-Eucalyptus socialis ssp. mid open mallee forest over Sclerolaena diacantha, Enchylaena tomentosa var. tomentosa, Rhagodia parabolica, Atriplex stipitata shrubs	Unknown			
SM3003	Eucalyptus oleosa ssp. ampliata, +/-Eucalyptus gracilis, +/-Eucalyptus phenax ssp., +/-Eucalyptus socialis ssp. mid open mallee woodland over Rhagodia parabolica mid shrubs over Sclerolaena diacantha, Enchylaena tomentosa var. tomentosa, Atriplex stipitata low shrubs	Data from 1 site only: plain; sandy loam soil			
MN3703	Eucalyptus oleosa ssp. ampliata, +/-Eucalyptus gracilis, +/-Eucalyptus brachycalyx, +/-Eucalyptus dumosa, +/-Eucalyptus phenax ssp. phenax mid open mallee forest over Sclerolaena diacantha, Enchylaena tomentosa var. tomentosa, Rhagodia parabolica, Atriplex stipitata shrubs	Hill slope; Sandy clay loam			
MN3701	Eucalyptus oleosa ssp. ampliata, +/-Eucalyptus gracilis mid mallee woodland over Enchylaena tomentosa var., Sclerolaena diacantha, Rhagodia parabolica, Austrostipa acrociliata, Einadia nutans ssp. shrubs	Plains, Hills, Dunes and Swales; Sandy loam to Clay; Loamy and Clayey			
MN3706	Eucalyptus oleosa ssp. ampliata, +/-Callitris gracilis mid mallee woodland over Sclerolaena diacantha, Enchylaena tomentosa var. tomentosa, Rhagodia parabolica, Atriplex stipitata, Austrostipa sp. shrubs	Unknown			
SM2804	Eucalyptus porosa, Eucalyptus odorata low woodland over Avena barbata, Austrostipa sp. mid tussock grasses over Lomandra multiflora ssp. dura, Hordeum glaucum	Data from 1 site only: hill slope; soils sandy clay loam	Eucalyptus porosa Mid Mallee Woodland	Widespread throughout region	24, 47
EP2606	Eucalyptus porosa, Eucalyptus diversifolia ssp. diversifolia mid mallee woodland over Melaleuca lanceolata tall shrubs over Acrotriche patula, Avena barbata, +/-Beyeria lechenaultii low shrubs over +/-Gahnia lanigera	Plains; soils ranging from clayey sand to light clay, surface stone and outcropping calcareous material commonly present			
YP0603	Eucalyptus porosa, Allocasuarina verticillata, +/-Eucalyptus leptophylla low open woodland over Gahnia lanigera, Lepidosperma congestum, Acrotriche patula low sedges	Occurs on hill slopes. Clay loam soils			
SM2805	Eucalyptus porosa, +/-Eucalyptus phenax ssp., +/-Eucalyptus oleosa ssp. ampliata low open woodland over Rhagodia parabolica, Senna artemisioides ssp. coriacea, +/-Senna artemisioides ssp. petiolaris (NC), Acacia hakeoides tall shrubs over Enchylaena tomentosa var. tomentosa, Triodia sp. low shrubs	Data from 2 sites only: plain and open depression; soils sandy loam and clayey sand			
MN0307	Eucalyptus porosa, +/-Eucalyptus phenax ssp. phenax, +/-Eucalyptus oleosa ssp. ampliata mid mallee woodland over Acacia sp., Senna artemisioides ssp. shrubs over Rhagodia parabolica, Austrostipa sp., Avena barbata shrubs	Plain; Sandy clay loam			

SAVEG ID	Floristic Description	NVIS Environmental Description	45 Map Groups	Mapped Distribution	Flor Veg Grp
YP0605	Eucalyptus porosa, +/-Eucalyptus oleosa ssp., +/-Eucalyptus incrassata, +/-Eucalyptus dumosa mid open mallee woodland over +/-Melaleuca lanceolata mid shrubs over Acrotriche patula, +/-Bursaria spinosa ssp. low shrubs over Gahnia lanigera, Lepidosperma congestum	Occurs on hill slopes and plains. Clay loam or medium-heavy clay soils.			
MN0306	Eucalyptus porosa, +/-Eucalyptus odorata low woodland over Acacia sp., Senna artemisioides ssp. shrubs over Rhagodia parabolica, Austrostipa sp., Avena barbata shrubs	Unknown			
MN0302	Eucalyptus porosa, +/-Eucalyptus leucoxylon ssp., +/-Eucalyptus socialis ssp. mid mallee woodland over Gahnia lanigera, Acrotriche patula sedges	Hill slope; Sandy loam			
YP0608	Eucalyptus porosa, +/-Eucalyptus leptophylla, +/-Eucalyptus socialis ssp., +/-Eucalyptus phenax ssp. mid open mallee woodland over +/-Melaleuca lanceolata tall shrubs over Bursaria spinosa ssp. low shrubs over Helichrysum leucopsideum, Gahnia lanigera, Lepidosperma congestum, Acrotriche patula, Bromus rubens	Occurs on hill slopes, plains and dunes. Most frequently occurs on sandy loam soils. Less frequent on clayey sand and clay loam.			
YP0606	Eucalyptus porosa, +/-Eucalyptus leptophylla, +/-Eucalyptus incrassata, +/-Eucalyptus phenax ssp. mid mallee woodland over Melaleuca uncinata tall shrubs over Gahnia lanigera low sedges	Unknown			
MN0301	Eucalyptus porosa, +/-Callitris gracilis mid mallee woodland over Pittosporum angustifolium, Melaleuca lanceolata shrubs	Hill slope/crest, Ridge and Plain; Sandy loam to Clay; Loamy			
YP0604	Eucalyptus porosa, +/-Callitris gracilis low open woodland over Senna artemisioides ssp. petiolaris, Rhagodia parabolica, Geijera linearifolia, Acacia nyssophylla, +/-Acacia ligulata, +/-Acacia hakeoides tall shrubs over Enchylaena tomentosa var. tomentosa, +/-Brachypodium distachyon low shrubs	Occurs on plains including limestone plains. Soils are clay loam and clay loam (sandy)			
MN0305	Eucalyptus porosa, +/-Callitris glaucophylla mid mallee woodland over Cassinia laevis, Olearia decurrens shrubs over Triodia scariosa ssp. (NC), Lomandra multiflora ssp. dura hummock grasses	Hill slope/crest; Loam			
MN0304	Eucalyptus porosa, +/-Allocasuarina verticillata, +/-Acacia pycnantha mid mallee woodland over Bursaria spinosa ssp. spinosa shrubs over Dianella revoluta var., Triodia scariosa ssp. (NC), Austrodanthonia caespitosa, Austrostipa nitida, Lomandra multiflora ssp. dura, Lepidosperma viscidum, Maireana enchylaenoides tussock grasses	Ridge, Hill slope/crest and Plain; Sandy loam to Silty clay loam			
YP0601	Eucalyptus porosa mid open mallee woodland over Melaleuca lanceolata, +/-Melaleuca uncinata tall shrubs over Bursaria spinosa ssp. over Gahnia lanigera, Lepidosperma congestum, Acrotriche patula, Helichrysum leucopsideum, +/-Austrostipa sp. low sedges	Found on plains and hillslopes. Occurs on sandy loam and sandy clay loam soils.			
MM0901	Eucalyptus porosa mid open mallee woodland over Austrostipa sp., Lomandra effusa, Helichrysum leucopsideum, Senecio pinnatifolius tussock grasses	Plains and Hill footslope/slope/crest; Sand to Clay loam; Sandy Loam soils			
SP0015	Eucalyptus porosa mid mallee woodland over Cassinia laevis, Rhagodia parabolica, Olearia decurrens, Enchylaena tomentosa var. low open shrubland over Chrysocephalum semipapposum, Solanum petrophilum, Atriplex stipitata	Ridges and Hill slopes			
SP0004	Eucalyptus socialis ssp., Eucalyptus gracilis, +/-Myoporum platycarpum ssp., +/-Callitris glaucophylla mid mallee woodland over Rhagodia spinescens, Sida petrophila, Dodonaea viscosa ssp. angustissima, Ptilotus obovatus var. mid sparse shrubland over Triodia irritans, Sclerolaena obliquicuspis, Sclerolaena diacantha, Austrostipa sp. low sparse hummock grassland	Hill slopes; Ranges; Loam to Skeletal; Various loams	Eucalyptus socialis ssp., +/-Eucalyptus gracilis Mid Mallee Woodland	Widespread throughout region excluding lower Yorke Peninsula	34
MN2401	Eucalyptus socialis ssp., Callitris gracilis, +/-Eucalyptus gracilis mid mallee woodland over Vulpia myuros forma myuros, Rostraria cristata, Austrostipa drummondii tussock grasses	Plains ;Sandy loam to Clayey sand			
YP1805	Eucalyptus socialis ssp., +/-Eucalyptus porosa, +/-Eucalyptus phenax ssp. mid mallee woodland over Melaleuca uncinata tall shrubs over Gahnia lanigera low sedges	Unknown			

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MN2408	Eucalyptus socialis ssp., +/-Eucalyptus porosa mid mallee woodland over Enchylaena tomentosa var. tomentosa, Austrodanthonia caespitosa, Hordeum leporinum, Vulpia myuros forma myuros, Austrostipa exilis, Rhagodia parabolica tussock grasses	Dune footslope; Sand			
MN2405	Eucalyptus socialis ssp., +/-Eucalyptus phenax ssp. phenax mid open mallee forest over Enchylaena tomentosa var. tomentosa, Austrodanthonia caespitosa, Hordeum leporinum, Vulpia myuros forma myuros, Austrostipa exilis, Rhagodia parabolica tussock grasses	Unknown			
MN2407	Eucalyptus socialis ssp., +/-Eucalyptus odorata mid open mallee forest over Enchylaena tomentosa var. tomentosa, Austrodanthonia caespitosa, Hordeum leporinum, Vulpia myuros forma myuros, Austrostipa exilis, Rhagodia parabolica tussock grasses	Unknown			
YP1804	Eucalyptus socialis ssp., +/-Eucalyptus leptophylla, +/-Eucalyptus phenax ssp., +/-Eucalyptus calycogona ssp. calycogona mid mallee woodland over Melaleuca lanceolata, Alyxia buxifolia, +/-Melaleuca uncinata tall shrubs over +/-Gahnia deusta over Acrotriche patula, +/-Gahnia lanigera low shrubs	Occurs on plains. Soils: light medium clay or clayey sand.			
MN2404	Eucalyptus socialis ssp., +/-Eucalyptus gracilis, +/-Eucalyptus dumosa, +/-Eucalyptus brachycalyx mid mallee woodland over Enchylaena tomentosa var. tomentosa, Austrodanthonia caespitosa, Hordeum leporinum, Vulpia myuros forma myuros, Austrostipa exilis, Rhagodia parabolica shrubs	Dune footslope and Plain; Silty loam to Loamy sand			
YP1803	Eucalyptus socialis ssp., +/-Eucalyptus gracilis, +/-Eucalyptus brachycalyx, +/-Callitris gracilis mid mallee woodland over Rhagodia parabolica, Senna artemisioides ssp. mid shrubs over Enchylaena tomentosa var. tomentosa	Unknown			
MN2403	Eucalyptus socialis ssp., +/-Eucalyptus gracilis mid mallee woodland over Melaleuca lanceolata, Pittosporum angustifolium shrubs	Unknown			
SM3004	Eucalyptus socialis ssp., +/-Eucalyptus dumosa, +/-Eucalyptus odorata, +/-Eucalyptus oleosa ssp. ampliata mid mallee woodland over Rhagodia parabolica mid shrubs over Enchylaena tomentosa var. tomentosa, Hordeum leporinum mid tussock grasses over Austrodanthonia caespitosa, Vulpia myuros forma myuros, Austrostipa exilis	Data from 1 site only: plain; clay loam soil			
MN2406	Eucalyptus socialis ssp., +/-Eucalyptus calycogona ssp., +/-Eucalyptus odorata, +/-Eucalyptus oleosa ssp. ampliata mid mallee woodland over Enchylaena tomentosa var. tomentosa, Austrodanthonia caespitosa, Hordeum leporinum, Vulpia myuros forma myuros, Rhagodia parabolica, Austrostipa exilis tussock grasses	Plain; Sandy loam to Clay loam			
CT0050	Eucalyptus socialis (NC) mid mallee woodland over Beyeria lechenaultii low shrubs over Olearia muelleri, Lepidium leptopetalum	Hillcrest; soil sandy loam			
MN5001	Callitris verrucosa, +/-Eucalyptus socialis ssp. low open forest over Pittosporum angustifolium shrubs	Unknown			
MN2402	+/-Eucalyptus gracilis, Eucalyptus socialis ssp. mid mallee woodland over Pittosporum angustifolium shrubs over Enchylaena tomentosa var. tomentosa, Rhagodia parabolica, Austrostipa nitida, +/-Austrostipa eremophila shrubs	Plains, Hills and Dunes; Sand to Clay; Loamy			
WM7901	Senna artemisioides ssp., +/-Acacia calamifolia (NC), +/-Eremophila longifolia mid shrubland	Hill slope and Hill crests; Sandy loam	Geijera linearifolia, Senna artemisioides ssp. Tall Shrubland	Few scattered occurrences including near Pt. Victoria, roadsides around Moonta and Kadina on Yorke Peninsula, east of Eudunda and in Clements Gap CP.	25, 26
MN2801	Senna artemisioides ssp. coriacea, +/-Acacia oswaldii, +/-Alectryon oleifolius ssp. canescens, +/-Eremophila glabra ssp. glabra, +/-Myoporum platycarpum ssp., +/-Senna artemisioides ssp. filifolia mid open shrubland over Sclerolaena diacantha, Zygophyllum aurantiacum ssp. shrubs	Plains, Flats and Hill slope; Sand to Clay			
MN5801	Hakea leucoptera ssp. leucoptera tall shrubland over Rhagodia parabolica shrubs	Hill slope; Clay loam , sandy			

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YP2901	Geijera linearifolia, Acacia oswaldii, +/-Melaleuca lanceolata, +/-Beyeria lechenaultii, +/-Santalum acuminatum tall open shrubland over Austrostipa platychaeta, +/-Senna artemisioides ssp. coriacea low shrubs over Enchylaena tomentosa var. tomentosa, Gahnia lanigera, Stackhousia monogyna, +/-Westringia rigida	Occurs on plains; soils are clay loam, clay loam (sandy) or medium clay			
MN6201	Geijera linearifolia, +/-Acacia sp., +/-Senna artemisioides ssp. mid open shrubland over Nitraria billardierei over Maireana sp., Austrostipa sp. shrubs	Unknown			
YP3802	emergent +/-Exocarpos aphyllus, +/-Pittosporum angustifolium, +/-Santalum acuminatum, +/-Melaleuca lanceolata ssp. lanceolata (NC) over Senna artemisioides ssp. petiolaris, Acacia nyssophylla, Acacia hakeoides, Acacia ligulata, Geijera linearifolia mid open shrubland	Unknown			
YP3801	emergent +/-Callitris gracilis mid trees over Senna artemisioides ssp. petiolaris, Geijera linearifolia, +/-Eremophila longifolia, +/-Melaleuca lanceolata ssp. lanceolata (NC), +/-Alyxia buxifolia mid open shrubland	Unknown			
YP1502	Melaleuca pauperiflora ssp. mutica, Eucalyptus oleosa ssp., Eucalyptus leptophylla, +/-Eucalyptus socialis ssp. low woodland over +/-Melaleuca lanceolata tall shrubs over Rhagodia candolleana ssp. candolleana low shrubs over Threlkeldia diffusa	Occurs on hill slopes. Soils: loamy sand.	Melaleuca pauperiflora ssp. mutica Tall Shrubland	Few occurrences around the northern end of Gulf St. Vincent	Within 32
MN6001	Melaleuca pauperiflora ssp. mutica, +/-Eucalyptus gracilis tall shrubland over Enchylaena tomentosa var. tomentosa shrubs	Plain; Clay			
MN1101	emergent Callitris glaucophylla trees over Acacia calamifolia (NC), +/-Acacia ligulata tall open shrubland over Rhagodia parabolica shrubs	Hill slope; Sandy loam to Clay; Loamy and Clayey	Acacia sp. Mid Open Shrubland	Scattered populations from SE of Snowtown to Mambray Creek	38, 40
MN3201	Acacia victoriae ssp., +/-Lycium ferocissimum tall shrubland over Avena sp., Enchylaena tomentosa var. tomentosa, Critesion murinum ssp. (NC), Echium plantagineum tussock grasses	Plains, Flats and Hill footslopes; Clay loam to Loam			
GL0001	Acacia sp. low open shrubland	Unknown			
MN1104	Acacia calamifolia (NC), +/-Beyeria lechenaultii, +/-Bursaria spinosa ssp. spinosa, Pomaderris paniculosa ssp. paniculosa mid open shrubland over Dodonaea baueri	Hill slope; Sandy clay loam			
MN1103	Acacia calamifolia (NC) mid open shrubland over Triodia scariosa ssp. (NC), Acacia continua, Themeda triandra, Lomandra multiflora ssp. dura, Senecio quadridentatus hummock grasses	Hill crest; Clay loam			
MN6301	Xanthorrhoea quadrangulata mid open shrubland	Unknown	Bursaria spinosa ssp. spinosa, +/-Acacia pycnantha, +/-Xanthorrhoea quadrangulata Mid Open Shrubland	Few occurrences on lower Yorke Peninsula. Also from NW of Rhynie to scattered throughout the South Flinders Ranges	14
MN4801	emergent Bursaria spinosa ssp. spinosa shrubs over Chrysocephalum apiculatum low forbland	Unknown			
GL0004	emergent +/-Bursaria spinosa ssp. mid sparse shrubland over Cryptandra amara var. low shrubland	Unknown			
MN1201	Bursaria spinosa ssp. spinosa, +/-Acacia pycnantha, +/-Xanthorrhoea quadrangulata mid open shrubland over Triodia scariosa ssp. (NC), Dianella revoluta var., Austrodanthonia setacea, Lomandra multiflora ssp. dura, Austrostipa elegantissima, Lepidosperma viscidum, Maireana enchylaenoides hummock grasses	Hill slope/crest; Sandy loam to Sandy clay loam; Loamy			
YP2601	Bursaria spinosa ssp. mid sparse shrubland over Acrotriche patula low shrubs over Bromus diandrus, Lepidosperma congestum	Occurs on plains, soils are sandy loam			
MN4201	Acrotriche patula low open shrubland	Unknown			
MN4301	Acacia pycnantha, Bursaria spinosa ssp. spinosa mid open shrubland	Unknown			
YP2701	Callitris canescens mid sparse shrubland over Gahnia lanigera, Calytrix tetragona, Lepidosperma congestum, +/-Dianella brevicaulis low sedges	Found on swales & plains; soils are loam or clay loam	Callitris canescens Mid Sparse Shrubland	Few locations on western end of lower Yorke Peninsula including Carribie C.P. and Innes N.P.	Within 42

SAVEG ID	Floristic Description	NVIS Environmental Description	45 Map Groups	Mapped Distribution	Flor Veg Grp
SE0095	Melaleuca uncinata (NC) mid shrubland	Unknown	Melaleuca uncinata Mid Shrubland	Few locations near Minlaton	51
YP3501	Nitraria billardierei, Rhagodia candolleana ssp. candolleana low shrubland over Mesembryanthemum crystallinum, Enchylaena tomentosa var. tomentosa, +/-Threlkeldia diffusa, +/-Zygophyllum billardierei, +/-Senecio pinnatifolius	Found on hillslopes, in closed depressions & on foredunes; soils are loamy sands, sandy loams & sands.	Nitraria billardierei Mid Open Shrubland	Scattered from upper Yorke Peninsula to coastal communities along Gulf St. Vincent as well as inland communities from Balaklava to Koolunga. Occurs near Collinsville in the far east.	29, 60
MN3102	Nitraria billardierei, Maireana brevifolia, +/-Atriplex paludosa ssp. cordata, +/-Maireana aphylla low sparse shrubland over Enchylaena tomentosa var. tomentosa, Halosarcia sp.	Plains, Flats and Open depression; Sandy loam to Clay; Loamy and Clayey			
MN3101	Nitraria billardierei, Lycium ferocissimum mid open shrubland over Austrostipa elegantissima, Rhagodia parabolica, Einadia nutans ssp. tussock grasses	Plain; Sandy loam to Clay loam			
SP0012	Lycium australe, Nitraria billardierei mid open shrubland over Sclerostegia tenuis, Maireana pyramidata, Atriplex vesicaria ssp., Maireana aphylla, +/-Eragrostis australasica low open shrubland over Disphyma crassifolium ssp. clavellatum, Sclerolaena brachyptera, Minuria cunninghamii, Malacocera tricornis	Pans and Drainage depressions; Claypans, scalds and depressions areas; Clay; Some saline			
YP3901	Sida petrophila, Scaevola spinescens low open shrubland over Austrostipa eremophila, Ptilotus obovatus var. obovatus, Setaria constricta	Unknown	Coastal Mid Open Shrubland	Throughout coastal communities	54, 56-66
YP3201	Olearia axillaris, Leucopogon parviflorus, +/-Acacia nematophylla, +/-Myoporum insulare mid open shrubland over +/-Isolepis nodosa, +/-Scaevola crassifolia, +/-Templetonia retusa, +/-Alyxia buxifolia, +/-Acacia cupularis low shrubs over +/-Senecio pinnatifolius, +/-Rhagodia candolleana ssp. candolleana, +/-Beyeria lechenaultii, +/-Lasiopetalum discolor, +/-Calytrix tetragona	Found on dunes including dune slopes & crests, interdune & foredune areas. Also occurs on swales, beach ridges, cliffs & plains including limestone plains. Most common soils: sand. Also occurs on loamy sand, sand loam & skeletal soils.			
YP2302	Olearia axillaris, +/-Acacia nematophylla, +/-Leucopogon parviflorus, +/-Acacia longifolia ssp. sophorae mid open shrubland over Poa poiformis var. poiformis, Lagurus ovatus, Rhagodia candolleana ssp. candolleana, +/-Tetragonia implexicoma, +/-Lepidosperma gladiatum low shrubs	Occurs on swales and dune slopes on sand soils.			
YP2201	Olearia axillaris, +/-Acacia ligulata, +/-Acacia cyclops mid sparse shrubland over Rhagodia candolleana ssp. candolleana, +/-Isolepis nodosa low shrubs over Carpobrotus rossii, Threlkeldia diffusa, +/-Euphorbia terracina, +/-Asphodelus fistulosus	Occus on dunes including dune crests, slopes and footslopes. Also occurs on foredunes, swales, plains and in closed depressions and inter-dune areas. Soils: sand.			
SM4303	Nitraria billardierei, +/-Olearia ramulosa, +/-Atriplex cinerea, +/-Maireana aphylla mid open shrubland over Rhagodia candolleana ssp. candolleana low shrubs over Threlkeldia diffusa, Tetragonia implexicoma, Senecio pinnatifolius	Data from 2 sites only: beach ridges; sand soils			
MN3103	Nitraria billardierei, +/-Olearia axillaris mid open shrubland over Threlkeldia diffusa, Tetragonia implexicoma, Rhagodia candolleana ssp. candolleana, Atriplex vesicaria ssp. shrubs	Unknown			
YP3402	Myoporum insulare, Atriplex paludosa ssp. cordata, Muehlenbeckia gunnii low open shrubland over Leiocarpa supina, Disphyma crassifolium ssp. clavellatum, Carpobrotus rossii	Found on beaches on sand soils.			
YP0809	emergent +/-Melaleuca lanceolata low trees over Templetonia retusa, Acacia nematophylla, Olearia axillaris, +/-Alyxia buxifolia mid open shrubland over Carpobrotus rossii, +/-Beyeria lechenaultii, +/-Tetragonia implexicoma, +/-Gahnia lanigera low shrubs	Found on dune slopes. Less common on swales and dune crests. Soils: sandy loam or sand			

SAVEG ID	Floristic Description	NVIS Environmental Description	45 Map Groups	Mapped Distribution	Flor Veg Grp
YP1806	emergent +/-Eucalyptus socialis ssp. mid mallee trees over Acacia ligulata, Pittosporum angustifolium, +/-Acacia notabilis tall open shrubland over Acacia oswaldii, Acacia nyssophylla over Austrostipa drummondii tussock grasses over Austrostipa eremophila, Austrodanthonia caespitosa, +/-Austrostipa platychaeta	Occurs on plains. Soils: sandy loam or clay loam.			
YP2402	emergent +/-Eucalyptus porosa mid trees over Alyxia buxifolia, +/-Leucopogon parviflorus, +/-Beyeria lechenaultii mid open shrubland over +/-Rhagodia candolleana ssp. candolleana, +/-Acacia anceps, +/-Pomaderris paniculosa ssp. paniculosa over Helichrysum leucopsideum, +/-Lagurus ovatus, +/-Crassula colorata var., +/-Threlkeldia diffusa, +/-Tetragonia implexicoma, +/-Acrotriche patula low tussock grasses	Occurs on dunes including dune slopes and low interdune areas. Soils are sand and occasionally medium clay.			
YP3602	emergent +/-Allocasuarina verticillata mid trees over +/-Dodonaea viscosa ssp. spatulata tall shrubland over +/-Alyxia buxifolia, +/-Acacia nematophylla, +/-Bursaria spinosa ssp., +/-Exocarpos syrticola over Tetragonia implexicoma, Dianella brevicaulis, Clematis microphylla var. microphylla, Rhagodia candolleana ssp. candolleana, +/-Isolepis nodosa low shrubs	Occurs on foredunes & dune footslopes in sand			
YP3701	Beyeria lechenaultii, +/-Scaevola crassifolia, +/-Goodenia varia, +/-Leucophyta brownii, +/-Olearia axillaris, +/-Lasiopetalum discolor low shrubland over +/-Senecio pinnatifolius, +/-Carpobrotus rossii, +/-Logania crassifolia, +/-Lepidosperma congestum	Occurs on dunes slopes and crests; less common on swales, cliffs, cliff footslopes, hill slopes, hill crests and plains. Soils most commonly sand or sandy loam; less commonly loamy sand.			
EP3906	Alyxia buxifolia, Beyeria lechenaultii, Lasiopetalum discolor, Geijera linearifolia low shrubland over Acrotriche patula, Carpobrotus rossii	Sand dunes			
CT0028	Acacia ligulata, Olearia axillaris, +/-Rhagodia parabolica, +/-Lycium ferocissimum, +/-Geijera linearifolia tall open shrubland over Brassica tournefortii, +/-Crassula sieberiana complex, +/-Sonchus oleraceus, +/-Tetragonia implexicoma, +/-Carrichtera annua, +/-Threlkeldia diffusa low forbs	Dunes, dune footslopes and hillslopes, beach ridges and plains; sand soils			
YP3401	Acacia ligulata, Melaleuca lanceolata ssp. lanceolata (NC), Myoporum insulare tall sparse shrubland over Acacia nyssophylla, Acacia oswaldii over Zygophyllum aurantiacum ssp., Scaevola spinescens, Pimelea serpyllifolia ssp. serpyllifolia low shrubs	Found on plains; soils: clay loam			
MN3401	Acacia ligulata, +/-Pittosporum angustifolium, +/-Allocasuarina verticillata tall open shrubland	Foredune, Dune crest, Hill footslope/slope; Sand to Clay loam; Sandy and Loamy			
MN3402	Acacia cupularis, +/-Dodonaea viscosa ssp. spatulata, Beyeria lechenaultii, Olearia axillaris tall sparse shrubland over Rhagodia parabolica, Dianella revoluta var. revoluta shrubs	Beach ridge and Flat; Sand; Coastal			
YP3601	+/-Olearia axillaris, +/-Exocarpos syrticola, +/-Beyeria lechenaultii, +/-Atriplex cinerea, +/-Santalum acuminatum mid open shrubland over +/-Senecio pinnatifolius, +/-Rhagodia candolleana ssp. candolleana, +/-Threlkeldia diffusa	Found on dunes including dune slopes, crests, foredunes & interdune corridors. Also occurs on beach ridges & swales; soils are sand.			
MN6101	+/-Olearia axillaris, +/-Acacia ligulata, +/-Exocarpos aphyllus, +/-Myoporum insulare, +/-Alyxia buxifolia, +/-Dodonaea viscosa ssp. spatulata mid open shrubland over Vulpia myuros forma, Threlkeldia diffusa, Senecio pinnatifolius, Bromus sp., Tetragonia implexicoma, Atriplex paludosa ssp. cordata tussock grasses	Beach ridge, Dune slope and Plain; Sand; Coastal			
YP2303	+/-Acacia nematophylla mid sparse shrubland over +/-Melaleuca gibbosa low shrubs over +/-Calytrix tetragona, +/-Beyeria lechenaultii, +/-Acrotriche patula	Occurs on salt lakes and lunette areas. Soils: loamy sand.			

SAVEG ID	Floristic Description	NVIS Environmental Description	45 Map Groups	Mapped Distribution	Flor Veg Grp
NP0019	Dodonaea viscosa ssp. angustissima, +/-Eremophila sturtii, +/-Senna artemisioides ssp., +/-Acacia sp. tall open shrubland over Maireana pyramidata, Rhagodia spinescens low sparse shrubland over Atriplex limbata, Sclerolaena diacantha, Enneapogon avenaceus, Tetragonia eremaea	Unknown	Dodonaea sp. Mid Open Shrubland	Occurs west of Mt. Remarkable N.P. and east of Hallett	23, 37, 39
EP3902	Dodonaea lobulata, Beyeria lechenaultii, Eremophila alternifolia, Dodonaea viscosa ssp. angustissima mid open shrubland over Carrichtera annua, +/-Ptilotus obovatus var. obovatus low forbs	Hill slopes; soils range from sandy loam to clay loam, rock outcrops and surface stone mainly granite; semi-arid regions			
MN3001	Sclerolaena obliquicuspis, Maireana tomentosa ssp. urceolata, Marrubium vulgare, +/-Acacia victoriae ssp. victoriae, +/-Maireana brevifolia low sparse shrubland	Hill slope and Plains / Flats; Sandy loam to Sandy clay loam;	Chenopod Low Shrubland (Atriplex vesicaria or Maireana pyramidata or M. aphylla or M. sedifolia or M. brevifolia)	Predominantly in the east including Red Banks C.P. to Hallett and in the north from Wandearah West to Winninowie C.P.	11, 27, 30, 31
NP0004	Maireana sedifolia, Maireana pyramidata low open shrubland over Sclerolaena obliquicuspis, Eriochiton sclerolaenoides, Carrichtera annua, Austrostipa scabra ssp., Rhodanthe pygmaea	Hill footslopes; Stony rises with shales and ironstone			
MM2802	Maireana sedifolia mid sparse shrubland over Enchylaena tomentosa var. tomentosa, Rhagodia spinescens, Austrostipa sp. shrubs	Plain; Sandy loam to Clay loam; Loamy soils			
MM2801	Maireana pyramidata mid sparse shrubland over Austrostipa sp., Rhagodia spinescens, Enchylaena tomentosa var. tomentosa tussock grasses	Plain; Clay loam			
MN4701	Maireana brevifolia, Atriplex stipitata, Rhagodia spinescens low open shrubland	Unknown			
SM3401	Maireana aphylla mid shrubland over Austrostipa nitida low tussock grasses	Unknown			
MN0801	Maireana aphylla low open shrubland over Vittadinia sp., Austrodanthonia caespitosa, Lomandra multiflora ssp. dura, Lomandra effusa	Plain, Gully and Hill footslope; Sandy loam to Clay loam; Loamy and Clayey			
OS0015	emergent Nitraria billardierei over Maireana oppositifolia, Atriplex paludosa ssp. cordata, Lycium australe mid open shrubland over Frankenia pauciflora var., Frankenia sessilis, Halosarcia halocnemoides ssp., Lawrencia squamata low shrubs over Samolus repens, Sclerolaena uniflora, Disphyma crassifolium ssp. clavellatum, Senecio pinnatifolius, Zygophyllum billardierei	Limestone plain; Exposed calcrete clifftops; Saline, soil in calcrete cracks; Coastal (cliff tops)			
NP0028	emergent Acacia victoriae ssp. mid sparse shrubland over Maireana pyramidata, Rhagodia spinescens, Atriplex vesicaria ssp., Maireana astrotricha low open shrubland over Tetragonia eremaea/tetragonoides, Enneapogon avenaceus, Calotis hispidula, Sclerolaena obliquicuspis, Schismus barbatus, Maireana georgei	Stream channels and Valleys; Alluvial flood plains; Along water courses			
NP0032	Atriplex vesicaria ssp., Maireana astrotricha, +/-Maireana pyramidata, +/-Rhagodia spinescens low open shrubland over Enneapogon avenaceus, Sclerolaena ventricosa, Sclerolaena brachyptera, Sclerolaena obliquicuspis, Dissocarpus paradoxus	Plains and Rises (low);Pattern of bare scalds with a sparse cover of quartz pebbles			
YE0003	Atriplex vesicaria ssp., +/-Maireana sedifolia, +/-Maireana pentatropis low shrubland over Sclerolaena diacantha, Austrostipa nitida, Sclerolaena obliquicuspis, Tetragonia eremaea, Brassica tournefortii, Stenopetalum lineare, Senecio pinnatifolius	Pan; Saline soils; Sandy loam - Loamy clay; Over moist compacted clay; Salt lake margin			
MN5602	Atriplex nummularia ssp. nummularia, +/-Maireana aphylla mid shrubland over +/-Atriplex stipitata, +/-Atriplex paludosa ssp. cordata shrubs	Unknown			
MN5601	+/-Maireana brevifolia, +/-Atriplex stipitata, +/-Atriplex paludosa ssp. cordata low sparse shrubland over Enchylaena tomentosa var. tomentosa	Flats; Sandy loam			
MN4502	Muehlenbeckia florulenta low shrubland over Halosarcia sp.	Unknown	Muehlenbeckia florulenta Low Shrubland	South of Pt. Pirie along the Broughton River and a small community west of Hanson in the east.	82
MN4501	emergent +/-Acacia salicina, +/-Eucalyptus camaldulensis var. trees over Muehlenbeckia florulenta low shrubland	Unknown			

SAVEG ID	Floristic Description	NVIS Environmental Description	45 Map Groups	Mapped Distribution	Flor Veg Grp
CT0005	Sclerostegia arbuscula, +/-Sarcocornia quinqueflora, +/-Lycium australe low shrubland over +/-Suaeda australis	Flats and plains; soils sand, sandy loam or silty loam; inter-tidal zone	Samphire Low Shrubland	Widespread throughout the western region, significant coastal and inland communities	67-72, 74
KI1801	Sclerostegia arbuscula low shrubland over +/-Suaeda australis, +/-Sarcocornia quinqueflora, +/-Sarcocornia blackiana, +/-Maireana oppositifolia	Estuary and Claypans; Coastal river outfall; Sand and Clay; Coastal			
SM4001	Sarcocornia quinqueflora, Sclerostegia arbuscula, +/-Suaeda australis, +/-Sarcocornia blackiana low shrubland over Atriplex paludosa ssp., Lawrencia squamata, Distichlis distichophylla, +/-Maireana oppositifolia, +/-Samolus repens	Flats; varied soils ranging from heavy clay to loamy sand			
CT0004	Maireana oppositifolia, +/-Halosarcia indica ssp. low open shrubland over +/-Disphyma crassifolium ssp. clavellatum, +/-Frankenia sessilis	Flat to playa-pan; soils ranging from sand to sandy clay loam; supra-tidal			
WM8401	Halosarcia sp., Sclerostegia sp. low open shrubland	Lakes; Salt lakes and fresh/salt lakes; Clay to Loam; Surrounding lakes			
SM4005	Halosarcia sp., Sarcocornia quinqueflora low open shrubland over Parapholis incurva, Disphyma crassifolium ssp. clavellatum, +/-Wilsonia humilis var. humilis	Plains and closed depressions; soils sandy loam, loamy sand and clayey sand			
MN3501	Halosarcia sp., Sarcocornia blackiana low open shrubland over Disphyma crassifolium ssp. clavellatum, Wilsonia humilis var. humilis	Flats, Plains, Swamp, Depressions, Swale, Salt lake; Sand to Clay; Clayey; Swamps, depressions and salt lakes			
CT0057	Halosarcia indica ssp., +/-Maireana oppositifolia, +/-Halosarcia pergranulata ssp., +/-Atriplex paludosa ssp. low shrubland over +/-Distichlis distichophylla, +/-Cotula sp., +/-Triglochin sp.	Estuarine and supratidal zones			
CT0055	Halosarcia indica ssp., +/-Maireana oppositifolia, +/-Atriplex paludosa ssp., +/-Atriplex vesicaria ssp. low open shrubland over +/-Carpobrotus rossii	Stranded tidal zone			
CT0054	Halosarcia halocnemoides ssp., +/-Sclerostegia arbuscula, +/-Maireana oppositifolia, +/-Frankenia pauciflora var., +/-Wilsonia humilis var. humilis low shrubland	Inter-tidal zone			
YP4501	Lepidosperma congestum, Dianella brevicaulis low sedgeland over Medicago minima var. minima, Bromus diandrus, Acaena echinata, Danthonia sp.	Occurs on plains on loam soils.	Gahnia lanigera, Lepidosperma congestum Sedgeland	Occurs predominantly on lower Yorke Peninsula	44, 46
YP4401	Gahnia lanigera, Lepidosperma congestum, Lomandra effusa, Austrostipa sp. low sedgeland over Linum strictum ssp. strictum, +/-Helichrysum leucopsideum, +/-Craspedia glauca (NC), +/-Lagurus ovatus	Occurs in closed depressions & on plains in sand, sandy loam or loams.			
MN4601	Gahnia lanigera, +/-Dodonaea baueri low open sedgeland	Unknown			
EP4901	Gahnia filum tall sedgeland over +/-Juncus kraussii	Swamps; soils medium clays or clay loams	Gahnia filum Sedgeland	Lower Yorke Peninsula	75
GL0005	Lomandra sp. low sedgeland	Unknown	Lomandra sp. Grassy Sedgeland	Throughout middle to eastern parts of the region from Truro to Pekina	3, 6, 7
GL0007	Lomandra multiflora ssp. dura, Themeda triandra low sedgeland	Unknown			
GL0006	Lomandra multiflora ssp. dura, Lomandra effusa low sedgeland	Unknown			
MN0201	Lomandra multiflora ssp. dura, Austrostipa blackii, Aristida behriana, Austrodanthonia caespitosa, Austrostipa nitida low open tussock grassland over Vittadinia gracilis, Vittadinia cuneata var. cuneata forma cuneata, Maireana enchylaenoides	Hill footslope/crest/slope and Ridge; Sandy loam to Clay; Clayey			
MN0101	Lomandra effusa, Austrostipa nitida, Austrodanthonia caespitosa, Enneapogon nigricans, Austrostipa eremophila low open tussock grassland	Hill footslope/crest/slope and Ridge; Sandy loam to Clay; Loamy			
MN1401	emergent Bursaria spinosa ssp. spinosa, Allocasuarina verticillata shrubs over Lepidosperma viscidum, Austrostipa blackii, Cryptandra sp. Long hypanthium (C.R. Alcock 10626), Lomandra multiflora ssp. low tussock grassland	Hill crest/slope; Sandy loam to Clay loam; Loamy			
GL0012	Themeda triandra, +/-Lomandra effusa, +/-Lomandra multiflora ssp., +/-Austrostipa blackii low tussock grassland	Unknown	Austrostipa spp., Austrodanthonia spp. +/- Themeda triandra Tussock Grassland	Scattered communities throughout region	1, 2, 4, 5, 8, 9

SAVEG ID	Floristic Description	NVIS Environmental Description	45 Map Groups	Mapped Distribution	Flor Veg Grp
MN4901	Gramineae sp., Lomandra sp., Lepidosperma viscidum, Gahnia lanigera mid tussock grassland	Hill slope; Sandy loam to Clay loam; Loamy			
MN2301	emergent Acacia pycnantha shrubs over Austrostipa eremophila, Austrodanthonia caespitosa, +/-Maireana brevifolia mid tussock grassland	Ridge, Hill crest and Plains; Clay loam			
GL0009	emergent +/-Cryptandra amara var. over Austrostipa eremophila, +/-Austrostipa blackii, +/-Lepidosperma viscidum low tussock grassland	Unknown			
SP0013	emergent +/-Alectryon oleifolius ssp. canescens, +/-Myoporum platycarpum ssp. low open woodland over emergent +/-Maireana pyramidata over Enneapogon avenaceus, Carrichtera annua, Sclerolaena obliquicuspis, Sclerolaena diacantha, Enneapogon intermedius low open tussock grassland	Varied			
GL0003	Calocephalus citreus mid forbland	Unknown			
GL0002	Bothriochloa macra low tussock grassland	Unknown			
MM3502	Austrostipa sp., Hyalosperma semisterile, Sclerolaena diacantha/uniflora, Danthonia sp. low open tussock grassland	Plain; Sandy loam			
EP4801	Austrostipa sp. mid open tussock grassland over Avena barbata, Austrodanthonia caespitosa, +/-Trichanthodium skirrophorum	Variety of land forms; soils loamy or clayey sands, calcareous material often present on the surface			
GL0011	Austrostipa sp. low tussock grassland	Unknown			
GL0010	Austrostipa nitida low tussock grassland	Unknown			
YP4101	Austrodanthonia caespitosa, Austrostipa scabra ssp., Chrysocephalum apiculatum, Acacia hakeoides low open tussock grassland over Gahnia deusta, Goodenia pinnatifida, Goodenia willisiana	Occurs on cliffs in medium clays			
SM4602	+/-Themeda triandra, +/-Danthonia sp., +/-Lomandra sp., +/-Poa sp., +/-Austrostipa sp. mid closed tussock grassland	Unknown			
GL0013	Triodia sp. low hummock grassland	Unknown	Triodia sp. Hummock Grassland	Few occurrences on Yorke Peninsula. Mostly in the central north of the region including a population near Spalding.	10, 12, 45
EP4703	Triodia scariosa, Avena barbata, Austrodanthonia caespitosa, +/-Austrostipa nitida low hummock grassland	Hill slopes; soils sandy loams, surface strew present as granite, quartzite, shale and schist			
WM8801	Triodia irritans low hummock grassland	Dunes; Sand			
EP4701	Triodia compacta, Frankenia pauciflora var. fruticulosa, +/-Gahnia lanigera low open shrubland	Dunes; Sand			
MN1001	emergent Allocasuarina verticillata trees over Triodia scariosa ssp. (NC), Themeda triandra, Acacia continua, Lomandra multiflora ssp. dura, Senecio quadridentatus mid hummock grassland	Hill slope and Ridge; Sandy loam to Clay loam; Loamy			
SM4901	Typha domingensis, Phragmites australis, +/-Aster subulatus, +/-Muehlenbeckia florulenta, +/-Suaeda australis tall sedgeland over Paspalum distichum, Persicaria lapathifolia	Swamp; soils mostly heavy clay but also silty clay loam and loam	Watercourse Tussock Grassland or Sedgeland	Throughout the region	78, 79, 81
SE0098	Phragmites australis, Typha domingensis tall grassland	Unknown			
MN5701	Melaleuca brevifolia tall shrubland over Phragmites australis, Juncus kraussii, Baumea juncea grasses	Stream channel; Clay to Clay loam			
MN2001	emergent Eucalyptus camaldulensis var. trees over Juncus kraussii, Cyperus gymnocaulos, Phragmites australis, Typha domingensis tall sedgeland over Samolus repens	Stream channel and Swamp; Loamy sand to Clay; Loamy and Clayey; Watercourse and swamps			

Flor Veg Grp: Corresponding Floristic Vegetation Group from PC-ORD analysis outlined in Vegetation Chapter.
Source: SA Vegetation mapping, DEH, June 2006

MAMMALS

R. Brandle[1]

Total Species

"Few regions of South Australia have such a depleted fauna of native mammals as Yorke Peninsula" (Aitken 1973). This was the opening line in the mammal chapter of the 'Natural History of Yorke Peninsula' (Corbett 1973), and probably reflects the views of the general and scientific communities when extended into the Mid North of South Australia. Aitken's comments were related to the relative lack of vegetative and climatic diversity in the Yorke Peninsula region, combined with the fragmented nature of the remnant natural vegetation. Whilst the Mid North has a higher diversity of vegetation types and climate, it also shares the history of the Yorke Peninsula in being some of the most arable and climatically reliable country in South Australia to support agriculture, and has therefore also been highly modified.

Prior to the surveys contributing to this study the records of the South Australian Museum indicated that 31 terrestrial mammal species had been collected from the study region, of which 24 were native species (Appendix 13). Of these, two species are extinct in South Australia (Eastern Quoll and Burrowing Bettong) and two, the Brush-tailed Bettong and Tammar Wallaby, were extinct but have been reintroduced as managed populations. The Tammar Wallaby has recently been re-introduced to the south western tip of Yorke Peninsula. Aitken (1973) also reported that the Greater Bilby was known to aboriginal people on Yorke Peninsula through knowledge about the fauna that was passed on to Norman Tindale in 1935. Other species that are represented for the region in the SA Museum collection, such as the Dingo, Large Bentwing-bat and Yellow-bellied Sheathtail Bat, haven't been recorded in the region for over 50 years. The Mammal Club of the South Australian Field Naturalists' Society recorded the Little Forest Bat in the Clare region (September 1984). However, this was not confirmed with a specimen and represents a north-western isolate from its known range in South Australia (Churchill 1998, Robinson *et al.* 2000).

Seventeen native mammal species were recorded at survey sites, one monotreme (Short-beaked Echidna), one wombat (Southern Hairy-nosed Wombat), one carnivorous marsupial (Common Dunnart), two possums (Western Pygmy-possum and Brushtail Possum), three Kangaroos (Western Grey, Red and Euro), and nine species of bat (two free-tail and seven evening bats, see Appendix 14 for details). No native rodents are known to inhabit the study area.

Figure 154.
The seldom seen Echidna (*Tachyglossus aculeatus*) was recorded mostly from scats and scratchings at 37 sites across the Mid North. (Photo: A. Robinson).

Of the 12 introduced species that have been recorded from the region, ten were recorded at sites. These were the two rodents - House Mouse and Black Rat – plus the Rabbit, Brown Hare, Cat, Fox, Goat, Fallow Deer, Sheep and Cattle (Appendices 13 and 14).

One bat species, the Large Forest Bat (*Vespadelus darlingtoni*), was recorded at four sites in the Clare - Burra Hills region using 'Anabat' recording equipment, and is not represented by a specimen within the study area. It is also notable that no Little Forest Bats were recorded during the survey, indicating that the single record in 1984 may have been a vagrant. Yellow-bellied Sheathtail Bats have only been recorded in southern Australia between January and June (Churchill 1998) and may be more frequent visitors to the study region than the survey results imply.

In addition to the 140 sites sampled in this survey, data from a further 28 sites located in the study area (refer Figure 155) have been drawn on in this chapter.

[1] Biological Survey and Monitoring Section, Science and Conservation Directorate, Department for Environment and Heritage, GPO Box 1047, Adelaide SA 5001.

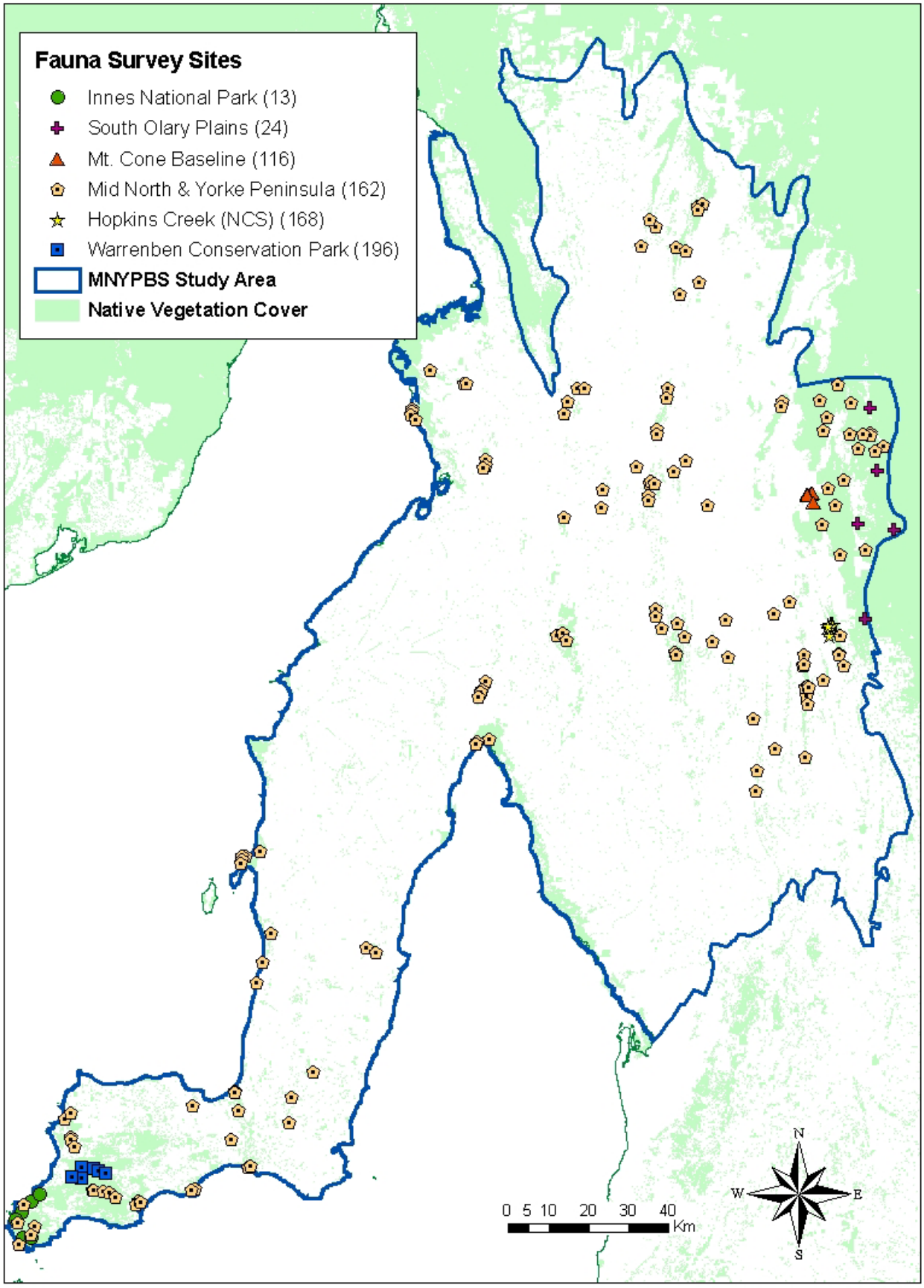

Figure 155.
Locations of survey sites from the various survey efforts within the MNYPBS study area.

Common Species

Eleven mammal species were present at more than 10% of the 168 sites sampled for mammals (refer Table 22). The House Mouse was the most common (53% of sites) and abundant with 406 captures from 89 sites. Western Grey Kangaroos were the next most abundant species, recorded at 36% of sites, followed by Echidnas at 24% of sites. In comparison with adjacent regions that have been surveyed, House Mice were less frequently encountered (45% of sites in the Southern Mt Lofty Ranges [Armstrong 2003] and 35% in Flinders Ranges [Brandle 2001b]), while Echidnas were present at 50% of sites in the Southern Mt Lofty Survey and 23% of Flinders Ranges survey sites. Bats feature at more sites in the current survey because of the systematic way in which they were recorded using electronic bat detection equipment.

Table 22.
Mammal species with highest site frequencies at survey sites for each survey with sites within the study region (the full list is presented in Appendix 14).

		No. of Survey Sites in MNYPBS Study Area →	6	5	4	140	7	6	168		
		Survey Number →	**13**	**24**	**116**	**162**	**168**	**196**	**No. of Sites**	**% of all 168 sites**	**No. of Records**
Family Name	**Scientific Name**	**Common Name**									
MURIDAE	*Mus musculus*	House Mouse	4	3		78		4	89	53	406
MACROPODIDAE	*Macropus fuliginosus*	Western Grey Kangaroo	1	3	2	46	2	6	60	36	174
TACHYGLOSSIDAE	*Tachyglossus aculeatus*	Short-beaked Echidna				37	4		41	24	61
CANIDAE	*Vulpes vulpes*	Fox				35		1	36	21	47
MACROPODIDAE	*Macropus robustus*	Euro				34			34	20	79
VESPERTILIONIDAE Nyctophilinae	*Nyctophilus geoffroyi*	Lesser Long-eared Bat		1		30			31	18	43
LEPORIDAE	*Oryctolagus cuniculus*	Rabbit		1		25	2	1	29	17	41
VESPERTILIONIDAE Vespertilioninae	*Chalinolobus gouldii*	Gould's Wattled Bat		1		23			24	14	38
MOLOSSIDAE	*Mormopterus* spp. (3 spp. complex)	Southern Freetail-bats		1		21			22	13	23
BURRAMYIDAE	*Cercartetus concinnus*	Western Pygmy-possum	2			15		3	20	12	60
VESPERTILIONIDAE Vespertilioninae	*Chalinolobus morio*	Chocolate Wattled Bat				20			20	12	46

Survey Numbers:- 13 = Innes National Park (1976-77), 24 = South Olary Plains (1991), 116 = Mt. Cone Baseline Survey (1999), 162 = Mid North and Yorke Peninsula (2003-04), 168 = Hopkins Creek (Nature Conservation Society 2003), 196 = Warrenben CP Flora and Fauna Survey (2004).

Species Richness

An average of 3.4 species (2.2 of which were native) per site were detected at the 161 sites where at least one mammal was recorded. This is lower than was recorded in surrounding survey areas - 4.3 species per site in the Flinders Ranges including 2.5 natives (Brandle 2001b). Maximum richness of native species at a site was eight, which was recorded at three sites. Two of these sites were in the Clare Hills and one on Scrubby Range, north of Robertstown.

Table 23 compares native species richness at sites against a variety of habitat variables. The results indicate that sandy habitats generally had lower native mammal species richness than sites with other surface soil categories. Watercourses and hills were the most species rich landform types, particularly where the vegetation structure was woodland or mallee. The nil salinity category had a higher average number of native species compared with the low and moderate categories. The high average for the high salinity category is not representative, as there were only two high salinity sites sampled where any mammals were recorded.

Native mammal diversity in the Mid North and Yorke Peninsula region appears to be driven by vegetation structural complexity that relates back to landform type, soils and salinity. The more structurally complex the habitat, the higher the native species diversity, particularly when bats make up a significant proportion of the fauna.

Species Habitat Affinities

The previous section compared species richness at sites to habitat variables. The relationship of individual mammal species for these various habitat variables will be discussed in this section using the categories presented in Table 23. No attempts have been made to test for significance of species trends, as for the majority of species the site frequencies and capture rates were too low to have statistical validity.

To indicate apparent habitat preferences the relative abundance of species was compared with a hypothetical calculated expect value, derived from the proportion of sites sampled in each habitat variable if species were distributed randomly. This was calculated by subtracting the expected value from the observed value and divided by the expected value:

(**O**bserved – **E**xpected) / **E**xpected

where Expected = (number sites in habitat/total number of sites) X total number of observations for that species.

This transforms negative values of the equation to a negative fraction and observed values of 0 become –1. For full details for each species' relative abundance at sites with the various habitat parameters, refer to Appendices 15-18. Caution should be used when interpreting the apparent trends in habitat preferences, particularly where relative abundances are low. This is because of the high variability in trapping rates relating to seasonal and climatic conditions during the survey

Table 23.
Native mammal species richness at sites within the range of physical and biological habitat variables sampled.

Salinity Category	Ave spp/site	Stdev spp/site	Max spp/site	No. of Species	No. of Sites
Nil	2.71	1.90	9	18	115
Low	1.69	1.65	7	11	13
Moderate	1.58	0.79	3	6	12
High	3.00	2.83	5	6	2
Vegetation Cluster	**Ave spp/site**	**Stdev spp/site**	**Max spp/site**	**No. of Species**	**No. of Sites**
no group	1.33	0.50	2	2	9
Grasslands	1.73	0.90	4	9	11
Sheoak Low Woodlands of MN	2.91	2.00	7	11	23
Grassy Woodlands & Forests of MN	3.53	2.29	8	13	15
Open Shrublands & Mallees of Drier Areas	3.00	1.73	6	12	7
Chenopod Shrublands	4.00	1.41	5	6	2
Open Mallee	3.13	2.33	9	16	15
Semi-arid Shrublands	3.00	2.65	6	6	3
YP Mallees & Sedgelands	2.07	1.27	7	12	28
Coastal Shrublands	1.20	0.45	2	2	5
Saline Shrublands	1.89	1.36	5	9	9
Watercourse Communities	2.80	2.24	8	13	15
Landform Type	**Ave spp/site**	**Stdev spp/site**	**Max spp/site**	**No. of Species**	**No. of Sites**
not recorded	1.33	0.50	2	2	9
Dune	1.71	1.05	4	9	17
Hill	2.97	2.04	9	16	67
Lake	2.29	1.38	5	9	7
Plain	2.00	1.38	7	12	21
Watercourse	2.90	2.12	8	15	21
Broad Surface Soil Category	**Ave spp/site**	**Stdev spp/site**	**Max spp/site**	**No. of Species**	**No. of Sites**
not recorded	1.29	0.49	2	2	7
Clay	2.79	1.98	8	18	48
Loam	2.94	2.09	9	17	53
Sand	1.76	0.89	4	12	34

period, and varying degrees of habitat degradation at sites within vegetation alliances.

Small Native Mammals

Only two small native mammal species were recorded during the survey. The Common Dunnart *Sminthopsis murina* was trapped at six sites and appeared to be associated with open shrublands and mallee in drier areas on clay, loam or sandy soils in hills with no salinity. This species appears to be restricted to the ranges along the eastern edge of the study area. The Western Pygmy-possum *Cercartetus concinnus* was recorded at 20 sites in mallee and tall shrubland communities predominantly on sand dunes and plains with sandy soils. It was found at sites in all salinity classes except for highly saline sites. The majority of records are from the south western end of Yorke Peninsula, except for one from a site in the ranges east of Hallett.

Figure 156.
The Common Dunnart (*Sminthopsis murina*) was recorded at six sites in the Burra and Hallelujah Hills. (Photo: A. Robinson).

Figure 157.
The Western Pygmy-possum (*Cercartetus concinnus*) was recorded on southern Yorke Peninsula and at one site in the Mid North east of Hallett. (Photo: A. Robinson).

Medium Sized Native Mammals

Medium sized mammals are those in the 100g to 5kg range, and comprise the bulk of Australia's threatened and recently extinct mammals. Only two species were

recorded during the study, the Echidna *Tachyglossus aculeatus* at 41 sites (mostly from diggings and scats, though three were observed) and the Common Brushtail Possum *Trichosurus vulpecula* at 12 sites (six from scats and six were observed). Echidnas were most strongly associated with the open shrublands and mallee in drier areas vegetation alliance, mostly in hilly areas and along watercourses with non-saline loamy soils. They were distributed across the Mid North.

Common Brushtail Possums were most prevalent in the grassy woodlands and open forests of the Mid North vegetation alliance, but were also positively associated with sheoak low woodlands, in hills and watercourses with non-saline loamy and clay soils along the ranges of the central Mid North. There was also some evidence (dung) of the existence of both these species at sites near Pine Point on Yorke Peninsula, though this could not be confirmed. However, in late 2006 a dead Echidna was collected on the road south of Ardrossan and lodged with the SA Museum. This represents the first confirmed specimen from Yorke Peninsula.

Figure 158.
Common Brushtail Possum (*Trichosurus vulpecula*) distribution on Yorke peninsula appears to be limited to the townships of Minlaton and Yorketown. (Photo: DEH).

Large Native Mammals

Three species of Kangaroo and the Southern Hairy Nosed Wombat *Lasiorhinus latifrons* comprise the large native mammal fauna within the study area. The Western Grey Kangaroo *Macropus fuliginosus* was recorded at sites in all vegetation alliances, landforms and soils. However, they showed their most positive associations with chenopod shrublands and open shrublands and mallee in drier areas on plains with clay soils. Only sites within the highest salinity class had no records of this species that was widely distributed across the study area. The Euro *Macropus robustus* was most strongly associated with grassy woodlands and open forests of the Mid North in hills with non-saline clay soils across the Mid North. The infrequently encountered Red Kangaroo *Macropus rufus* was associated with chenopod shrublands and grassy woodlands and open forests of the Mid North in the hills on non-saline clay to loamy soils along the eastern margin of the study area.

The Southern Hairy-nosed Wombat was recorded at only one site - on the west coast of Yorke Peninsula near Port Victoria. This site was dominated by open mallee on an undulating limestone plain with slightly saline clay soils.

Bats

Of the nine species of bats recorded at sites all showed distinct positive association to woodland vegetation alliances. All species recorded at more than two sites were also found in mallee sites, however this was at levels lower than or similar to what would be expected if they occurred randomly through the sites sampled. There was also an apparent preference for watercourse communities by all species with the exception of the rarely encountered Inland Forest Bat *Vespadelus baverstocki*, which was associated with mallee. All species were most strongly associated with watercourses. The two species that had a positive association with plains were the Lesser Long-eared Bat *Nyctophilus geoffroyi* and the Large Forest Bat *Vespadelus darlingtoni*.

Figure 159.
Lesser Long-eared Bat (*Nyctophilus geoffroyi*) was recorded at more sites than any other bat species during the survey. (Photo: P. Canty).

No species favoured sand dunes and this is reflected in the soil data from sites ranging from clays to loams. The salinity data for sites supporting bats reflects the vegetation data, in that bats appeared to prefer low salinities which are also the sites more likely to support

woodlands. The exceptions were the Southern Forest Bat *Vespadelus regulus* and White-striped Freetail-bat *Tadarida australis*, which were both recorded once over saline lakes.

Introduced Species

Only the habitat affinities of introduced mammals that are not currently farmed in the area will be discussed in this section as cattle, sheep, goats and deer are more influenced by local management than apparent habitat preferences.

Foxes *Vulpes vulpes* were recorded at 36 sites across all physical habitat types except chenopod shrublands and semi-arid shrublands. They showed strongest affinities to saline shrublands around lakes, watercourses and plains with a slight tendency toward sandy and clay soils and more saline sites. The few Cat *Felis catus* records were associated with saline shrublands and watercourse communities on plains and watercourses with clay soils and sites in sand dunes. Sites with cats were also distributed across the salinity classes.

Rabbits *Oryctolagus cuniculus* were widespread through most habitat types except chenopod shrublands and watercourse communities and had the strongest affinities for grassy woodlands and open forests of the Mid North. The strongest affinities for rabbits were on hills and around lakes in clay soils across the salinity gradient. The Brown Hare *Lepus capensis* was most strongly associated with grassy woodlands and open forests of the Mid North around lakes and on hills with loam soils and across all salinity classes.

House Mice *Mus musculus* were recorded in every habitat type sampled with positive affinities for open mallee, saline shrublands, watercourse communities, watercourses and clay and loam soils. There was also a strong affinity for slight to extreme salinity sites. Black Rats *Rattus rattus* were more restricted, with a strong affinity for watercourse communities. Watercourses appeared to be the favoured landform along with clay soils. The Black Rat appeared to be most strongly associated with non-saline sites though it was recorded at one site in the high salinity category (for which it had a positive association).

Biogeography

The study region is positioned at the edges of a number of bioclimatic zones (Nix 1982). In the south-east of the study area lies the Bassian Region which is characterised by higher annual average winter dominated rainfall (>500mm) that supports sclerophyll woodlands and forests. It is expressed in the study region in the Mount Lofty Ranges as an archipelago of higher altitude islands that form a broken chain north to the southern Flinders Ranges. The only Bassian mammal species recorded at sites was the Large Forest Bat *Vespadelus darlingtoni*. The four sites at which this species was recorded using bat calls (three in the ranges north of Burra and around Clare, and one on southern Yorke Peninsula) represent the north-western extent of its known distribution.

The bulk of the study area lies in a transition zone to the arid Eyrean Region that is characterised by mallee, mallee/heath and grassy woodland communities. This has been termed the Eyrean/Bassian Region (Blakers *et al.* 1984) Native mammals recorded that are associated with this zone were Southern Forest Bat *Vespadelus regulus*, Southern Hairy-nosed Wombat *Lasiorhinus latifrons*, Common Dunnart *Sminthopsis murina* and Western Pygmy-possum *Cercartetus concinnus*. The Common Dunnart is at the western edge of its distribution on the eastern margins of the study area. Both the Southern Hairy-nosed Wombat and the Western Pygmy-possum are only present on Yorke Peninsula as population isolates.

Figure 160.
As with most bat species the Southern Forest Bat (*Vespadelus regulus*) was most strongly associated with watercourse habitats. (Photo: P. Canty).

The Eyrean region influences the northern and western low-lying plains that are dominated by chenopod shrublands. The only true Eyrean mammal recorded within the study area was the Inland Forest Bat *Vespadelus baverstocki*. A number of others that are mostly associated with this region but are more widely ranging include the Red Kangaroo *Macropus rufus*, Euro *M. robustus* and Inland Broad-nosed Bat *Scotorepens balstoni*.

The remaining species, such as the Echidna *Tachyglossus aculeatus*, are widespread across all of Australia's climatic zones.

Declining Species

The paucity of native mammal species highlights the highly altered and fragmented nature of the habitats remaining in the study region. The records of the South Australian Museum show that many species that are now restricted in distribution were once more widespread. In particular the Southern Hairy-nosed Wombat and Common Brushtail Possum were both widespread across Yorke Peninsula but are now restricted to a few small remnants.

Wombats were recorded at one site in remnant vegetation but were also observed burrowing in adjacent cleared areas and are reported to have other populations near Wallaroo, Port Victoria, Black Point, Wool Bay, Port Clinton and Kulpara. Some of these have been reported to be increasing over the last five years. The continued survival of these populations will be dependent on the tolerance of landholders to their presence.

Figure 161.
The Southern Hairy-nosed Wombat (*Lasiorhinus latifrons*) occurs in a number of isolated populations on Yorke Peninsula. (Photo: A. Robinson).

In the case of Common Brushtail Possums, towns and their surrounding parks represent viable areas of habitat, with reported locations at Minlaton and Yorketown. They are now much more likely to be found in association with these than in native vegetation remnants (though there was unconfirmed evidence of possums at one site near Pine Point). Populations in the central ranges of the Mid North are probably less isolated and better connected. However, given the decline of this species across its former range periodic surveys of known localities are warranted to detect any further loss of populations.

The mobility of bats and kangaroos has enabled them to maintain a presence throughout the region. The bats should remain so providing that mature trees with sufficient hollows remain and the structure of remnant vegetation does not decline. The Western Pygmy-possum has its stronghold on the southern tip of Yorke Peninsula and is effectively isolated from other populations. However, given the area of occupancy within Innes National Park and Warrenben Conservation Park, its future is likely to be secure.

Discussion

Increasing salinity appeared to depress native mammal species richness (Table 23) and many species were negatively associated and absent from these areas. In contrast, feral species such as foxes, cats, rabbits and mice were positively associated with more saline areas (Appendix 15).

Of note was the paucity of small native ground dwelling mammals in the study area. All records of the two species recorded came from the only two regions that support larger areas of native vegetation (the south west tip of Yorke Peninsula and the eastern ranges of the Mid North (Figure 155). Larger mammals whose survival in the region will be dependent on sympathetic management of private lands are the Common Brushtail Possum and Southern Hairy-nosed Wombat.

Most of the bat species occurring in the region are reliant on tree hollows for roosting and breeding. The maintenance of mature and dead trees in the landscape is required for their conservation. The results indicate that woodlands associated with watercourses were important to these species, the majority of which occur on privately owned land. These areas are also important for Common Brushtail Possums.

Figure 162.
The Red Kangaroo (*Macropus rufus*) is restricted to the eastern ranges of the Mid North. (Photo: D. Armstrong).

Seventeen of the native species (or 65%) that had been previously collected for the SA Museum from the study area were recorded at survey sites. As four species were already known to be extinct in the area the survey's success rate for encountering species could be considered at 77%. The Fat-tailed Dunnart *Sminthopsis crassicaudata*, a species that is normally easy to detect using standard survey techniques, appears to have declined in the Upper Mid North. Twelve of the SA Museum's 17 records of this species come from this area prior to 1937. This species is normally abundant in open country dominated by grassland or degraded open shrublands and its apparent decline in this region warrants further research.

BIRDS

N. Neagle[1]

Survey Coverage

A total of 170 survey sites (where the standard Biological Survey method has been employed) have been sampled in the Mid North and Yorke Peninsula Biological Survey (MNYPBS) study area. Of these, 140 were sampled during the current survey, while the remainder are either drawn from four localised surveys in the region or the South Olary Plains Biological Survey (Forward and Robinson 1996) where it overlaps with the MNYPBS in the Burra Hills (refer Table 24).

Table 24.
The number of bird survey sites sampled within the study area.

Survey No.	Survey Name	Dates	No. of Bird Sites
13	Innes National Park	1976-77 & 1999	6
24	South Olary Plains	1992	5
116	Mt Cone Baseline Survey	1997	6
162	Mid North & Yorke Peninsula	2003 – 04	140
168	Hopkins Creek (NCS)	2003	7
196	Warrenben CP Flora & Fauna Survey	2004	6
	Total Sites (6 Surveys)		**170**

The distribution of these sites is displayed in Figure 163. The MNYPBS sites were selected to represent the range of habitats that exist across the study area and were generally located in the larger, more intact remnants of native vegetation (refer Methods chapter for a more detailed description of site selection). As a result there were no sites sampled on northern Yorke Peninsula or the northern Adelaide Plains. These areas were extensively cleared in the late 19th Century (Copley *et al*. 1984) and now contain only very small and highly fragmented remnants of native vegetation. However, Birds Australia and the South Australian Ornithological Association (SAOA), in particular, have recorded numerous bird observations for these and other "gaps" in the survey dataset.

Of more significance is the under representation of systematic surveys of native grassland habitats in the study area, particularly in the north east of the Mid North. This is probably a flow on effect of the difficulties in recognition and hence mapping of this vegetation community. While native grasslands are low in bird species diversity (an average of five species per site in the study area – refer Bird Group 7 later in this chapter) the habitat type requires further investigation to confirm the range of species that utilise it, and whether this is year round, seasonal (e.g. when grasses produce seed) or infrequently.

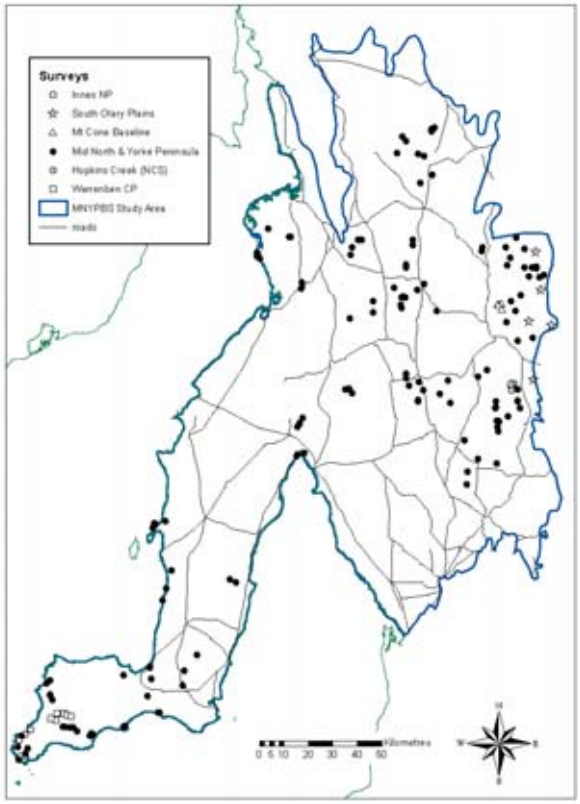

Figure 163.
Location of all bird survey sites from surveys conducted in the MNYPBS study area.

Total Bird Species

A total of 170 bird species were recorded from the 140 sites sampled in the MNYPBS, with an additional 37 species recorded from opportunistic sightings during field survey trips. An additional 101 species are known for the study area from records provided by the South Australian Museum (Figure 164), Birds Australia, the SAOA and the Australasian Waders Study Group. This gives a total of 308 bird species recorded in the study area. (Appendix 19 provides a listing of the number of records of each bird species from each of these sources). Of this total of 308 only nine are introduced to Australia (refer Table 25). The Common Starling, Eurasian Skylark, House Sparrow and Eurasian Blackbird are all widespread and common in the region. The Eurasian Skylark is most evident in grasslands and was found to

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be an indicator species for native grasslands (refer Bird Group 7 later in this chapter).

Table 25.
Introduced bird species recorded during biological surveys in the study area.

Scientific Name	Common Name
**Alauda arvensis*	Eurasian Skylark
**Anas platyrhynchos*	Mallard
**Carduelis carduelis*	European Goldfinch
**Carduelis chloris*	European Greenfinch
**Columba livia*	Rock Dove
**Passer domesticus*	House Sparrow
**Streptopelia chinensis*	Spotted Turtle-dove
**Sturnus vulgaris*	Common Starling
**Turdus merula*	Eurasian Blackbird

Bird Families

Bird species from 57 Families are represented in MNYPBS survey and opportunistic sightings records. Species from an additional 12 Families are known from all records sourced for the study area (refer Appendix 19). The Family with the greatest number of species recorded for the MNYPBS was Meliphagidae (Honeyeaters and Australian Chats) with 18 species (refer Table 26). By contrast data from all sources show both Meliphagidae and Scolopacidae (Sandpipers and allies), with 26 species each, to be the most species rich Families in the region. The main difference in the two tallies (MNYPBS v all sources) is the greater number of sea birds, waders and water birds from sources other than the MNYPBS. This is not surprising given that the current survey had few sites on beaches, tidal flats or in wetlands.

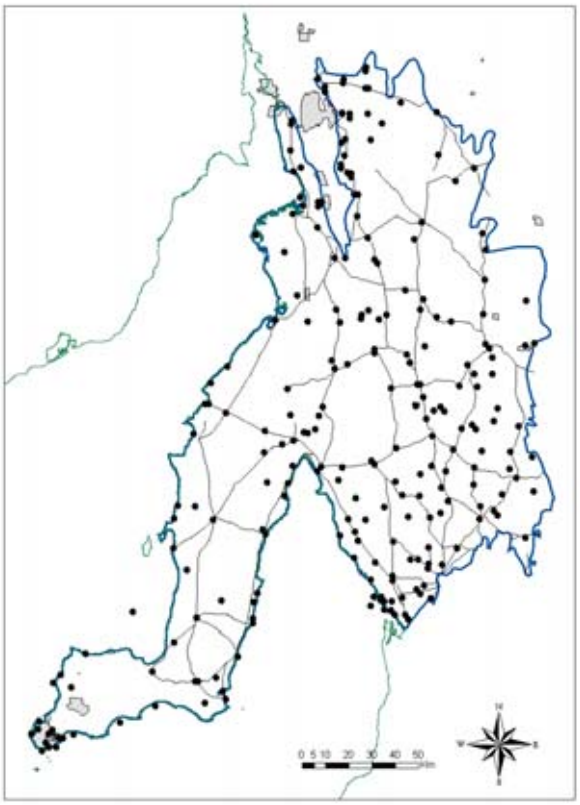


Figure 164.
Distribution of SA Museum bird records from the MNYPBS study area prior to the survey.

Table 26.
Bird families with the most number of species recorded in the study area.

Family Name	Family Common Name	MNYPBS	All Sources
Meliphagidae	Honeyeaters and Australian Chats	18	26
Scolopacidae	Sandpipers and allies	9	26
Acanthizidae	Bristlebirds, Thornbills, Scrubwrens and allies	12	16
Anatidae	Geese, Swans and Ducks	10	15
Psittacidae	Parrots and allies	13	14
Charadriidae	Plovers and Dotterels	7	13
Laridae	Gulls, Skuas and allies	6	13
Accipitridae	Osprey, Hawks, Eagles and allies	12	12
Ardeidae	Herons and Bitterns	4	10
Procellariidae	Shearwater, Petrels and Diving-petrels	0	10
Artamidae	Woodswallows, Butcherbirds and allies	7	8
Rallidae	Rails, Crakes and allies	7	8
Falconidae	Falcons	5	6
Pachycephalidae	Whistlers, Shrike-tits and allies	6	6
Petroicidae	Australopapuan Robins and allies	5	6

Common Species

The most commonly recorded bird species at survey sites in the study area are presented in Table 27. The Galah was recorded at most sites (123 or 72.4%) and accounted for 7.8% of all birds observed. Three other species occurred at more than half of all sites – Little Raven (110, 64.7%), Australian Magpie (109, 64.1%) and Grey Shrike-thrush (95, 55.9%). All four species are habitat generalists in the region and very common in the agricultural areas of south eastern Australia.

Although opportunistic records were not collected in a systematic fashion an attempt was made to visit habitats not covered by survey sites. Hence, some

Table 27.
Bird species recorded in at least 20% of all sites in the Mid North and Yorke Peninsula Biological Survey study area.

Family	Scientific Name	Common Name	No. of Sites	% of All 170 Sites	Number Observed	% of Total Number Observed
CACATUIDAE	*Cacatua roseicapilla*	Galah	123	72.4	1399	7.8
CORVIDAE	*Corvus mellori*	Little Raven	110	64.7	571	3.2
ARTAMIDAE	*Gymnorhina tibicen*	Australian Magpie	109	64.1	509	2.8
PACHYCEPHALIDAE	*Colluricincla harmonica*	Grey Shrike-thrush	95	55.9	262	1.5
MELIPHAGIDAE	*Acanthagenys rufogularis*	Spiny-cheeked Honeyeater	75	44.1	426	2.4
MELIPHAGIDAE	*Anthochaera carunculata*	Red Wattlebird	68	40.0	534	3.0
ARTAMIDAE	*Strepera versicolor*	Grey Currawong	66	38.8	263	1.5
MALURIDAE	*Malurus lamberti*	Variegated Fairy-wren	65	38.2	516	2.9
MELIPHAGIDAE	*Lichenostomus virescens*	Singing Honeyeater	62	36.5	263	1.5
ARTAMIDAE	*Cracticus torquatus*	Grey Butcherbird	60	35.3	110	0.6
PARDALOTIDAE	*Pardalotus striatus*	Striated Pardalote	60	35.3	205	1.1
ZOSTEROPIDAE	*Zosterops lateralis*	Silvereye	58	34.1	681	3.8
ACANTHIZIDAE	*Smicrornis brevirostris*	Weebill	56	32.9	312	1.7
DICRURIDAE	*Rhipidura leucophrys*	Willie Wagtail	54	31.8	120	0.7
STURNIDAE	**Sturnus vulgaris*	Common Starling	50	29.4	525	2.9
ACANTHIZIDAE	*Acanthiza chrysorrhoa*	Yellow-rumped Thornbill	44	25.9	220	1.2
CAMPEPHAGIDAE	*Coracina novaehollandiae*	Black-faced Cuckoo-shrike	43	25.3	83	0.5
POMATOSTOMIDAE	*Pomatostomus superciliosus*	White-browed Babbler	42	24.7	322	1.8
ACANTHIZIDAE	*Sericornis frontalis*	White-browed Scrubwren	41	24.1	392	2.2
COLUMBIDAE	*Phaps elegans*	Brush Bronzewing	39	22.9	109	0.6
COLUMBIDAE	*Ocyphaps lophotes*	Crested Pigeon	37	21.8	169	0.9
MELIPHAGIDAE	*Melithreptus brevirostris*	Brown-headed Honeyeater	36	21.2	154	0.9
COLUMBIDAE	*Phaps chalcoptera*	Common Bronzewing	35	20.6	105	0.6
HIRUNDINIDAE	*Hirundo neoxena*	Welcome Swallow	35	20.6	152	0.8

Figure 165.
The Little Raven (*Corvus mellori*) was one of the most commonly recorded bird species during the survey. It was observed throughout the study area in all vegetation communities. (Photo: SAOA).

species are more likely to be recorded in this manner, possibly due to habitat preferences or behaviour. Bird species recorded most often opportunistically are listed in Table 28. Again the Australian Magpie and Galah were the most common, though Willie Wagtail, Common Starling, White-winged Chough and Singing Honeyeater were also recorded often.

The Common Starling was by far the most common introduced bird recorded at both sites (50 or 29.4%) and opportunistically (37 records).

Species Richness

Species richness at the 170 survey sites in the study area varied from two (in an open native grassland on a hill slope in Mokota Conservation Park) to 43 (in a River Red Gum Low Open Forest on a floodout area of the Broughton River at Koolunga) (refer Figure 166). The mean number of birds per site was 16.4 and the median 16.

The three most species rich sites, and the only ones where more than 35 species were recorded, are all located on major watercourses with a River Red Gum overstorey and/or permanent water present – Wakefield River at Mintaro, Rocky River near Huddleston and the Broughton River at Koolunga. The species poor sites (where fewer than five species were recorded), on the other hand, were all in grasslands and sedgelands.

Species richness tends to increase with increase in height and complexity of structural vegetation formation (refer Figure 167) with the most diverse sites being in tall shrubland, mallee, low woodland/low open forest and woodland/open forest formations. These formations offer a greater complexity of habitat niches for which bird species may take advantage. Bird species site frequency per structural vegetation formation category is provided in Appendix 20.

Little variation in species richness is apparent between landform pattern categories (Figure 168) and it is difficult to draw any conclusions from the soil salinity class data (Figure 169) due to the paucity of sites in all but the nil salt (A) category. Bird species site frequency per landform pattern category is provided in Appendix 21.

The most bird species rich of the floristic vegetation clusters (Figure 170) are the Mid North Grassy Woodlands, Dry Open Shrublands and Mallees, and the Watercourse Communities. Again these tend to be the more structurally complex groups. Bird species site frequency per floristic vegetation cluster is provided in Appendix 22.

Table 28.
Bird species recorded opportunistically on at least 20 occasions in the Mid North and Yorke Peninsula Biological Survey study area.

Family	Scientific Name	Common Name	No. of OP Records
ARTAMIDAE	*Gymnorhina tibicen*	Australian Magpie	39
CACATUIDAE	*Cacatua roseicapilla*	Galah	39
DICRURIDAE	*Rhipidura leucophrys*	Willie Wagtail	37
STURNIDAE	**Sturnus vulgaris*	Common Starling	37
CORCORACIDAE	*Corcorax melanorhamphos*	White-winged Chough	36
MELIPHAGIDAE	*Lichenostomus virescens*	Singing Honeyeater	36
ARDEIDAE	*Egretta novaehollandiae*	White-faced Heron	33
CORVIDAE	*Corvus mellori*	Little Raven	30
FALCONIDAE	*Falco cenchroides*	Nankeen Kestrel	30
ACANTHIZIDAE	*Aphelocephala leucopsis*	Southern Whiteface	29
FALCONIDAE	*Falco berigora*	Brown Falcon	29
MELIPHAGIDAE	*Anthochaera carunculata*	Red Wattlebird	29
PSITTACIDAE	*Psephotus haematonotus*	Red-rumped Parrot	29
CASUARIIDAE	*Dromaius novaehollandiae*	Emu	28
PSITTACIDAE	*Barnardius zonarius*	Australian Ringneck, (Ring-necked Parrot)	28
ACANTHIZIDAE	*Smicrornis brevirostris*	Weebill	27
ACCIPITRIDAE	*Aquila audax*	Wedge-tailed Eagle	27
MELIPHAGIDAE	*Acanthagenys rufogularis*	Spiny-cheeked Honeyeater	27
PACHYCEPHALIDAE	*Colluricincla harmonica*	Grey Shrike-thrush	26
MOTACILLIDAE	*Anthus novaeseelandiae*	Richard's Pipit	25
POMATOSTOMIDAE	*Pomatostomus superciliosus*	White-browed Babbler	23
CHARADRIIDAE	*Vanellus miles*	Masked Lapwing	22
COLUMBIDAE	*Ocyphaps lophotes*	Crested Pigeon	22
PARDALOTIDAE	*Pardalotus striatus*	Striated Pardalote	22
MALURIDAE	*Malurus lamberti*	Variegated Fairy-wren	21
MELIPHAGIDAE	*Manorina flavigula*	Yellow-throated Miner	21

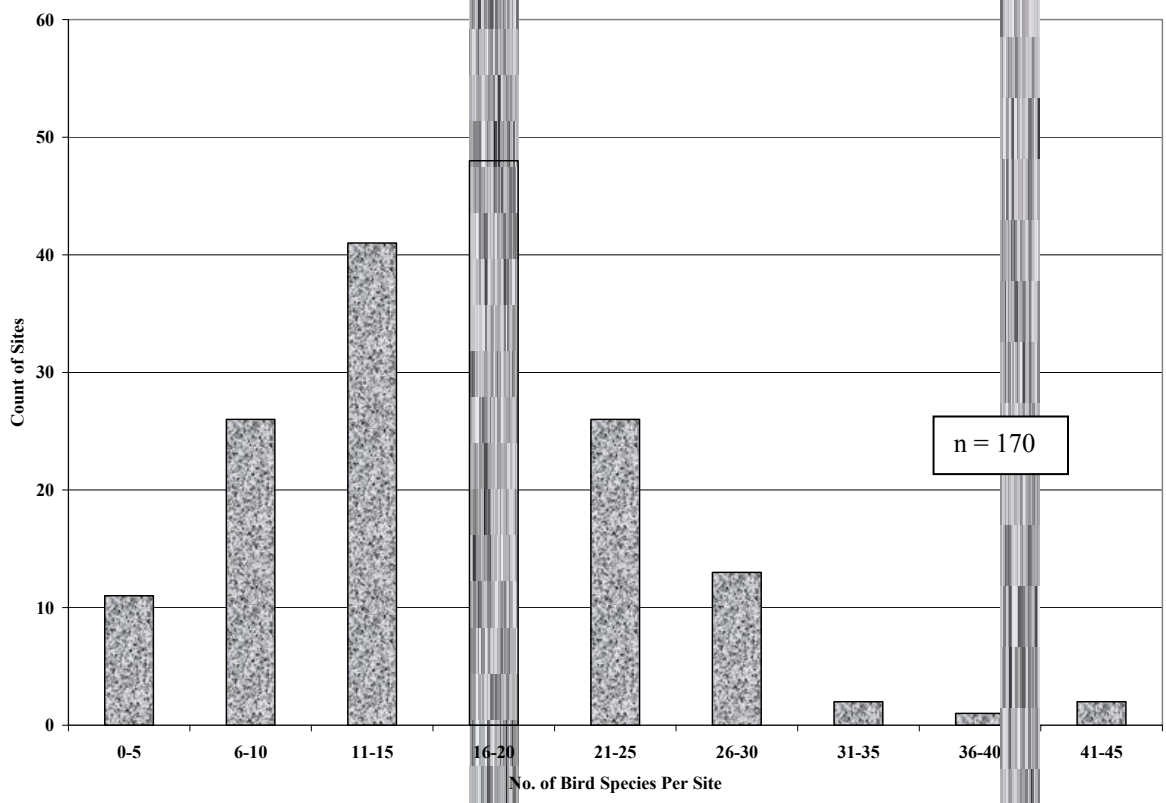


Figure 166.
Frequency histogram of bird species richness (categories of bird species are grouped in multiples of five) for all 170 sites sampled in study area.

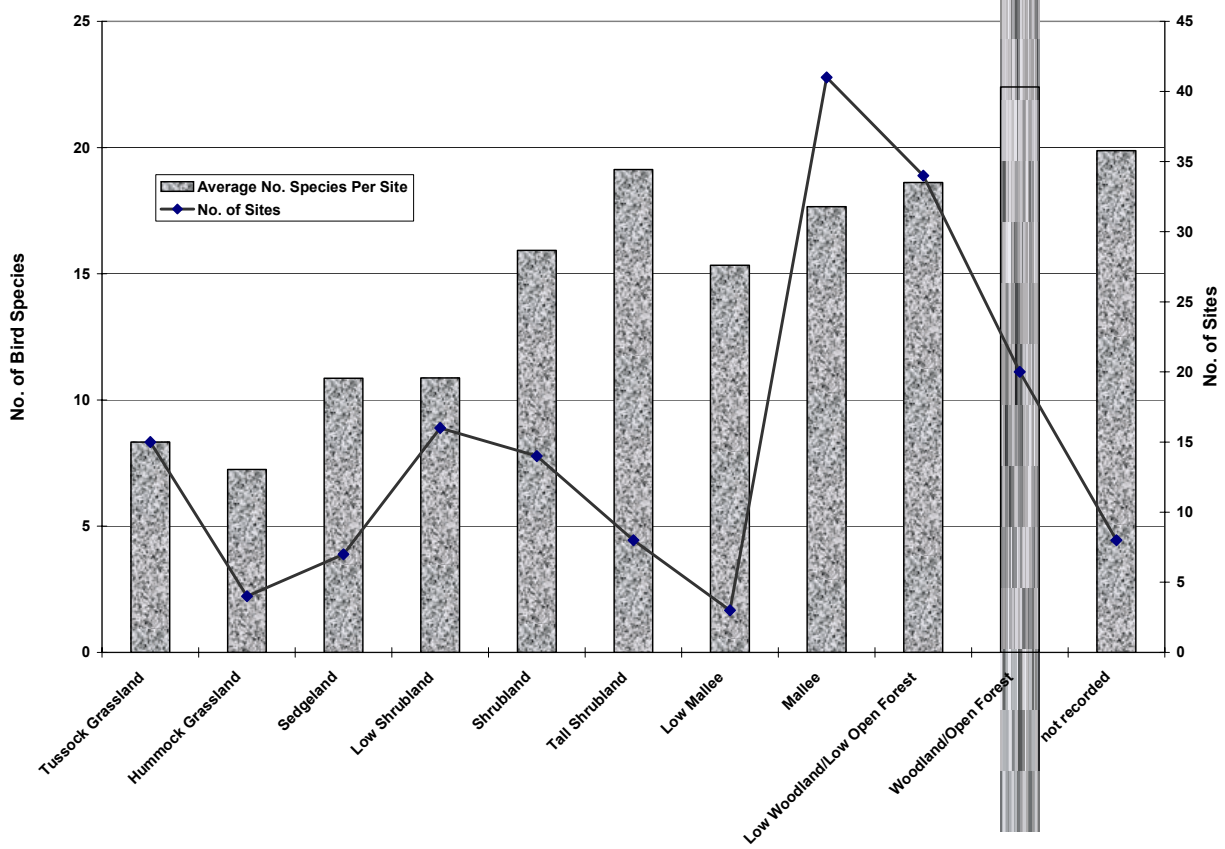


Figure 167.
Average bird species richness of sites in each generalised structural vegetation formation category.

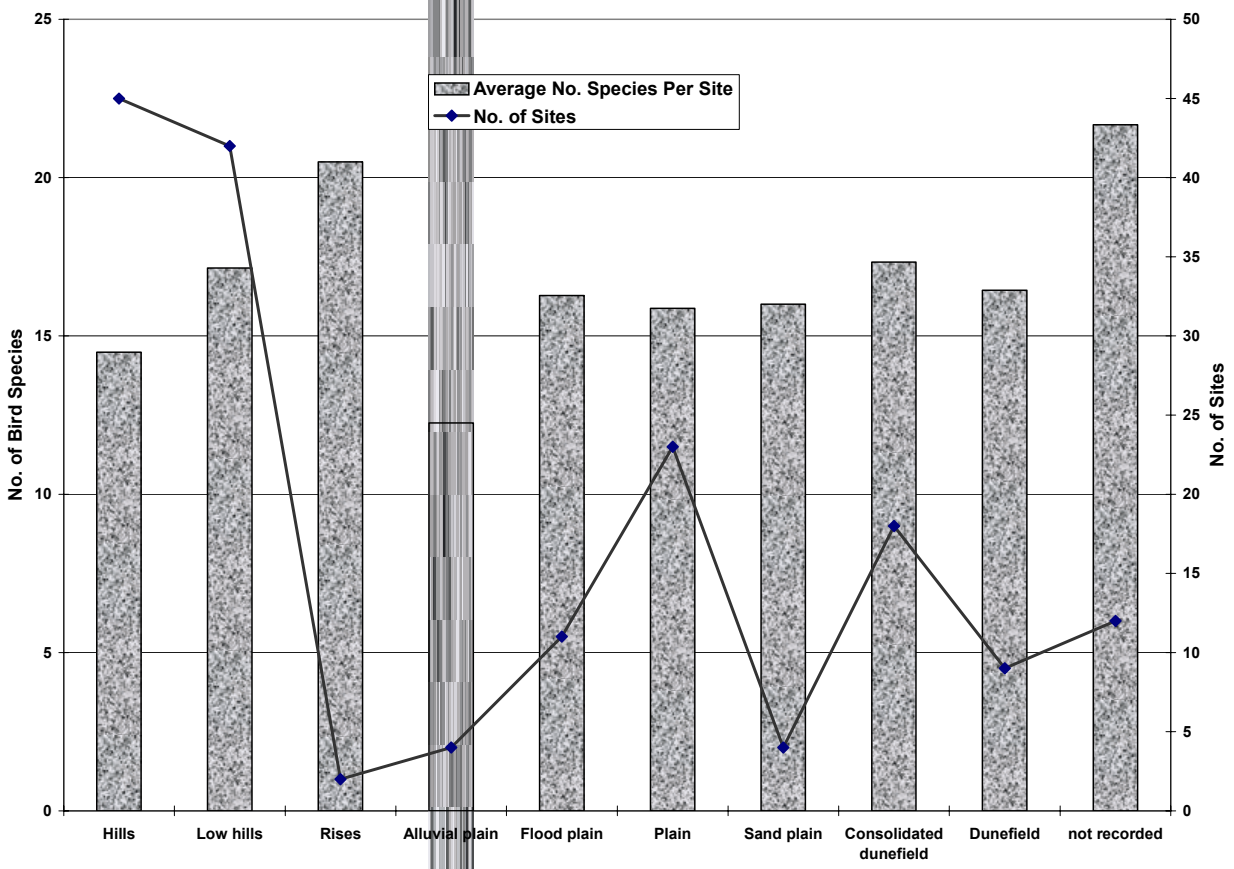


Figure 168.
Average bird species richness of sites in each landform pattern category.

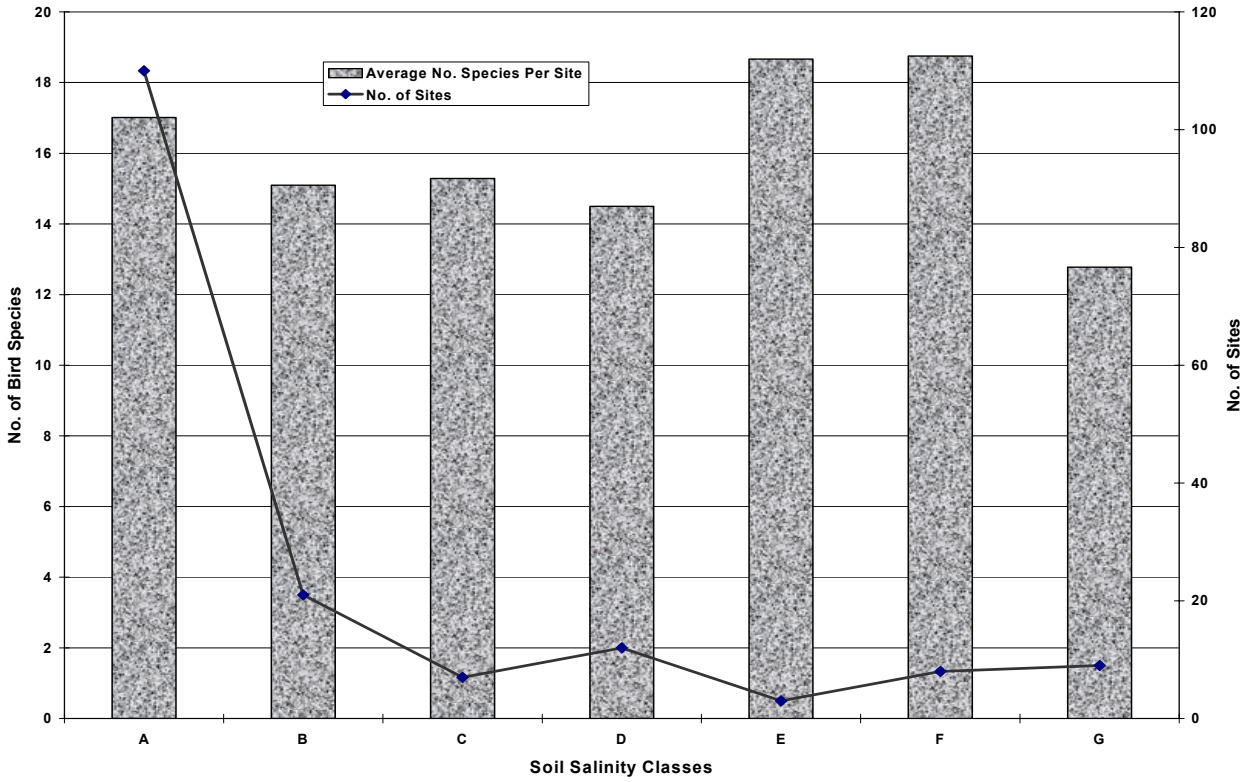


Figure 169.
Average bird species richness of sites in each soil salinity class.

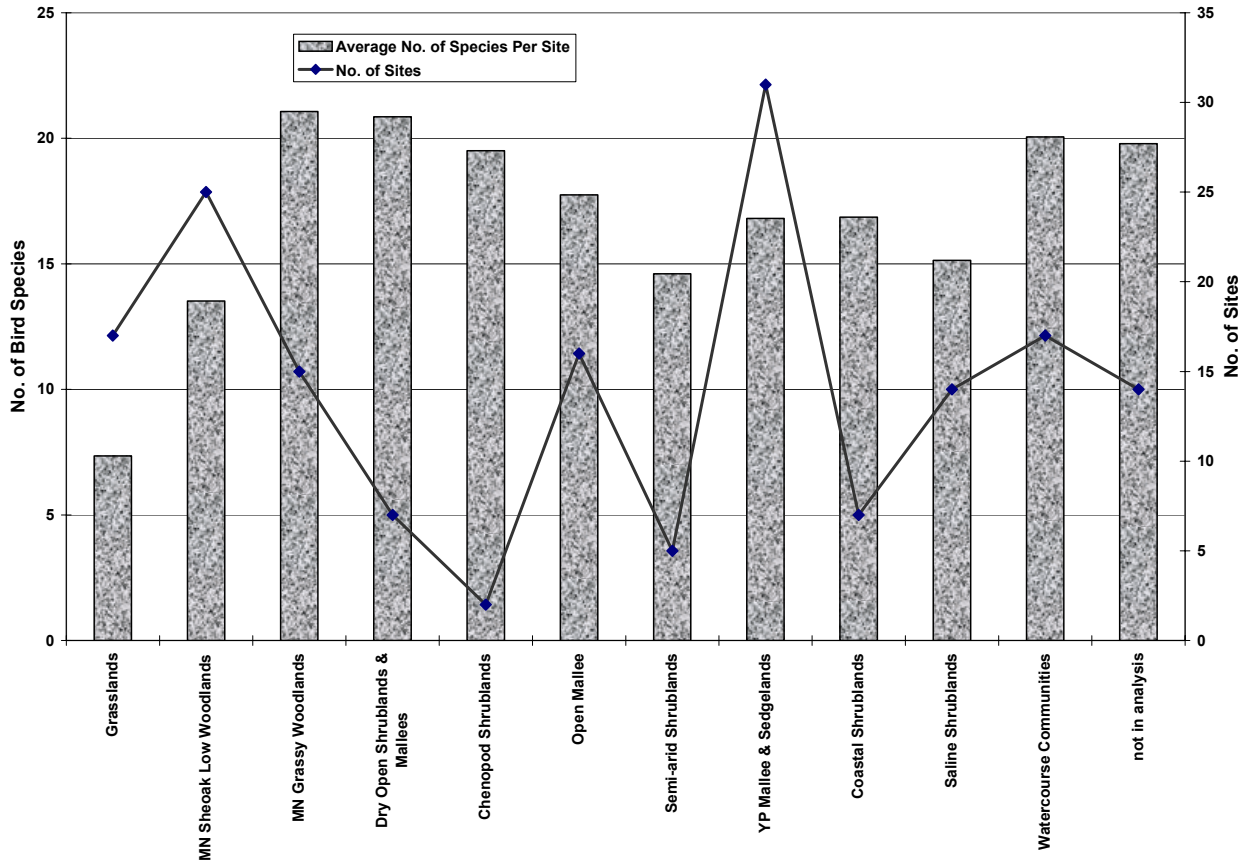


Figure 170.
Average bird species richness of sites in each cluster of floristic vegetation groups.

Significant Species

Of the 308 bird species known to occur in the study area from all sources, 115 (37.3%) have a conservation rating in either the Mid North or Yorke Peninsula regions (Carpenter and Reid 2000). Appendix 23 lists all bird species known in the study area that have a rating, and the source of the records for each. By comparison, a total of 80 (38.6%) of the 207 species recorded at survey sites or opportunistically during the MNYPBS are rated in at least one of the two regions. Of these, 61 were recorded in the Mid North and 38 on Yorke Peninsula. Appendix 24 (Mid North) and Appendix 25 (Yorke Peninsula) list all rated species (with a count of sites and opportunistic sightings) recorded on the MNYPBS. The principle reasons for the high percentage of rated species are the loss of habitat through (historic) extensive clearance of native vegetation in the study area, and the subsequent small size and isolation of the fragmented remnants.

Bird species with State and national ratings recorded during the MNYPBS are listed in Table 29. Three nationally rated and 21 State rated species were recorded. This table also highlights the importance of collecting opportunistic sighting records as an adjunct to systematic site sampling, as eight of these rated species were only recorded opportunistically. A further two nationally rated (total = 5) and 21 State rated (total = 42) species are known to occur in the study area (refer Appendix 23). For detailed descriptions of the threatened bird species in the region see Graham *et al.* (2001).

Bird Group 1 (see analysis later in this chapter) had the most nationally rated bird species (with two - Western Whipbird and Malleefowl) and State rated, with four.

Figure 171.
The nationally vulnerable Malleefowl (*Leipoa ocellata*) was recorded at one site in Warrenben Conservation Park and from six opportunistic sightings in southern Yorke Peninsula. (Photo: L. Pedler).

Table 29.
Bird species of conservation significance in South Australia recorded during the MNYPBS.

Scientific Name	Common Name	Conservation Rating				Count of survey (SU) sites and opportunistic (OP) sightings				
						Yorke Peninsula		Mid North		Total
		Aus	SA	YP	MN	SU	OP	SU	OP	
Acanthiza iredalei	Slender-billed Thornbill	V	V	V	V			1	3	4
Leipoa ocellata	Malleefowl	V	V	E	X		6			6
Psophodes nigrogularis leucogaster	Western Whipbird	V	V	V		4				4
Falcunculus frontatus	Crested Shrike-tit		V	E	V			1		1
Haliaeetus leucogaster	White-bellied Sea-Eagle		V	V			1			1
Lophoictinia isura	Square-tailed Kite		V			1				1
Neophema chrysostoma	Blue-winged Parrot		V		V			2	1	3
Numenius madagascariensis	Eastern Curlew		V		V				2	2
Stagonopleura guttata	Diamond Firetail		V	E	V			5	3	8
Sterna nereis	Fairy Tern		V	V	V				1	1
Thinornis rubricollis	Hooded Plover		V	V			4			4
Turnix varia	Painted Button-quail		V	V	V		1	4	1	6
Cereopsis novaehollandiae	Cape Barren Goose		R	R		1	1			2
Chrysococcyx lucidus	Shining Bronze-Cuckoo		R	R	R	1				1
Falco peregrinus	Peregrine Falcon		R	R	R			3	4	7
Neophema petrophila	Rock Parrot		R	R	R	4	1		1	6
Oxyura australis	Blue-billed Duck		R	U	U				1	1
Pandion haliaetus	Osprey		R	R			1			1
Plegadis falcinellus	Glossy Ibis		R	R			1			1
Porzana pusilla	Baillon's Crake		R		R			1		1
Pyrrholaemus brunneus	Redthroat		R		R			5	5	10
Species Count	**21**	**3**	**21**			**5**	**8**	**8**	**10**	**21**
Site and/or OP Sightings Count						**11**	**16**	**22**	**22**	**71**

Conservation Ratings: E = endangered; V = vulnerable; R = rare; U = uncommon.
Source: Aus - *Environment Protection and Biodiversity Conservation Act 1999* as at June 2006.
SA - *National Parks and Wildlife Act 1972* (2000 update of schedules 7, 8 and 9).
YP and MN - Carpenter and Reid (2000).

Figure 172.
The Western Whipbird (*Psophodes nigrogularis leucogaster*) is a shy, rarely seen species that inhabits dense heath and mallee. It was recorded at four sites during the survey. (Photo: SAOA).

Significant Species and Salinity

The soil salinity classes at sites where State and nationally rated bird species were recorded are provided in Table 30. The 14 rated species can be separated into 4 salt risk categories based on the range of these classes they were recorded in. As most are represented by only a very small number of records caution is required when analysing their salinity risk in this manner.

Category 1 contains those species that were only recorded at sites in the high salinity class. Although each of these three species were only recorded once or twice, their presence in highly saline areas is consistent with known habitat preferences (Marchant and Higgins 1990, Higgins 1999, Higgins and Peter 2002).

Between 20% and 50% of the sites where bird species in category 2 were recorded are in the moderate or high salt classes. Sites representing this category are all located on southern Yorke Peninsula in coastal or sub-coastal mallee heath or in Swamp Paper-bark (*Melaleuca halmaturorum*) Low Open Forest fringing salt lakes. The presence of these species at the more saline sites is again within their known habitat (Higgins 1999, Higgins and Peter 2002). These are also areas where the potential for increased salinity is likely to be low.

Category 3 contains two species with a single site in the slight salt class. As with species in categories 1 and 2 the slightly saline conditions at these sites are well within these two species' respective habitat ranges (Marchant and Higgins 1993).

Category 4 species are those that were only recorded in sites in the nil salt class. Of these six species two, Peregrine Falcon and Square-tailed Kite, are highly

mobile and not specific to a particular habitat. The Malleefowl (southern Yorke Peninsula mallee) and Redthroat (*Acacia* and chenopod shrublands in the vicinity of Caroona Creek Conservation Park) occur in habitats where the potential for increased salinity is likely to be low.

It is the Diamond Firetail and Crested Shrike-tit that are most likely to be affected by increased salinity in the study area, as both inhabit eucalypt woodlands (Higgins and Peter 2002, Higgins *et al.* 2006). Salinity is most likely to be evident at low points in the landscape where saline groundwater can reach the surface, particularly along watercourses in valleys. If these woodlands were to be degraded by salinity in such situations their potential as habitat for the Diamond Firetail and Crested Shrike-tit would be reduced.

Table 30.
Bird species with State conservation ratings and the soil salinity classes at the sites they were recorded at in the MNYPBS study area.

Cat	Species Name	Common Name	Rating		Tot Recs	Salt Classes							% of Sites Per Salt Class			
			Aus	SA		A	B	C	D	E	F	G	Nil (A)	Slight (BC)	Mod (DE)	High (FG)
1	*Acanthiza iredalei*	Slender-billed Thornbill	V	V	1							1				**100**
	Cereopsis novaehollandiae	Cape Barren Goose		R	1							1				**100**
	Neophema chrysostoma	Blue-winged Parrot		V	2						1	1				**100**
2	*Chrysococcyx lucidus*	Shining Bronze-Cuckoo		R	3	2					1		**67**			**33**
	Neophema petrophila	Rock Parrot		R	7	4			1	2			**57**		**43**	
	Psophodes nigrogularis leucogaster	Western Whipbird	V	V	13	7	3		2	1			**54**	**23**	**23**	
3	*Porzana pusilla*	Baillon's Crake		R	1			1						**100**		
	Turnix varia	Painted Button-quail		V	6	5	1						**83**	**17**		
4	*Falco peregrinus*	Peregrine Falcon		R	4	4							**100**			
	Falcunculus frontatus	Crested Shrike-tit		V	1	1							**100**			
	Leipoa ocellata	Malleefowl	V	V	1	1							**100**			
	Lophoictinia isura	Square-tailed Kite		V	1	1							**100**			
	Pyrrholaemus brunneus	Redthroat		R	7	7							**100**			
	Stagonopleura guttata	Diamond Firetail		V	6	6							**100**			

Cat. = Salt Risk Category
Ratings: V = vulnerable; R = rare.
Source: Aus - *Environment Protection and Biodiversity Conservation Act 1999* as at June 2006.
SA - *National Parks and Wildlife Act 1972* (2000 update of schedules 7, 8 and 9).
Tot Recs = Number of sites species recorded at in MNYPBS.
Salt Classes: Source: Northern Agricultural Districts, Land Resource Information (DWLBC Soil and Land Information 2002)
A = nil; B = slight salinity; C = moderate salinity; D = moderately high salinity; E = moderately high to high salinity; F = high salinity; and G = very high to extreme salinity.

Bird Groups and Salinity

The seven bird groups defined in the PC-ORD analysis (refer Table 32) have been divided into three salt risk categories based on the range of soil salinity classes at sites where each group have been recorded (Table 31). A consideration of the vegetation communities described at these sites and their degree of tolerance to the salinity level in which they occur can provide an indication as to whether this presents a threat to the associated bird species.

The first category represents those bird groups with at least 50% of their sites occurring in the moderate and high salinity classes (DE and FG). Only bird group 6 fits this description. This group includes sites from coastal dunes, chenopod shrublands (both coastal and inland) and Lignum (*Muehlenbeckia florulenta*) Shrublands on the floodplain of the lower Broughton River. Although all these communities are able to tolerate slightly saline conditions (refer Table 16 in the Vegetation chapter), those potentially most at risk are the Lignum Shrubland sites on the lower Broughton River. The salinity levels suggested for these sites may mean this community, and by implication its associated avifauna, is at risk of degradation.

The bird groups in category 2 have between 20% and 30% of their sites in moderate and high salinity classes. These are bird groups 7, 3 and 1. Each one covers a mix of several vegetation communities. The sites for each that are in the most saline of the salt classes are in either Swamp Paper-bark (*Melaleuca halmaturorum*) Very Low Open Forest (floristic vegetation group 73) or various samphire shrublands (floristic vegetation groups 67, 68, 69 and 74), communities tolerant of saline conditions.

It is at the next level where the potential for degradation due to salinity lies – at those sites in the slight to moderate salinity classes (BC to DE) where the vegetation communities present are not as salt tolerant. This is particularly the case for sites in bird group 7 in salt classes B and C. These are either grasslands on hill slopes (floristic group 1 - *Austrostipa blackii*, *Aristida behriana*, *Lomandra multiflora* ssp. *dura*, *Austrostipa scabra* ssp. Tussock Grassland and floristic group 2 - *Themeda triandra* Tussock Grassland) or sedgelands/

grasslands in watercourses (floristic group 79 - *Juncus kraussii* Sedgeland and floristic group 81 - *Phragmites australis* Tussock Grassland). The latter are potentially most threatened by salinity as they occur in topographically low points in the landscape where saline seepage is most likely to be evident.

Category 3 bird groups either have all sites in the nil salt class or less than 10% of sites in the slight class (BC). Sites for these groups tend to be associated most with hills in the Mid North, and as such face little threat from salinity. The exception here is bird group 4. Six of this group's sites are located on watercourses, mostly in River Red Gum (*Eucalyptus camaldulensis* var. *camaldulensis*) Woodlands. While only two of these are in land units with salt class B at present, they could also be at risk in future if salinity levels rise, as they are also found at low points in the landscape.

Table 31.
Bird groups and the soil salinity classes at the sites they represent.

Cat.	Grp No.	Bird Group Name	No. of Sites	Salt Classes							% of Sites per Salt Grp			
				A	B	C	D	E	F	G	Nil (A)	Slight (BC)	Mod (DE)	High (FG)
1	6	Birds of Shrublands	19	4	3	2	3	1	4	2	**21**	**26**	**21**	**32**
2	7	Birds of Grasslands, Sedgelands and Samphire Shrublands	32	16	6	3	1		1	5	**50**	**28**	**3**	**19**
	3	Birds of Mallee areas on Yorke Peninsula and Eastern Mid North	25	17	2	1	2		3		**68**	**12**	**8**	**12**
	1	Birds of Southern Yorke Peninsula Mallee and Shrublands	38	19	7	1	6	2	2	1	**50**	**21**	**21**	**8**
3	4	Birds of Smooth-barked Woodlands	23	21	2						**91**	**9**		
	2	Birds of drier Mallee areas of the Mid North	16	16							**100**			
	5	Birds of Rough-barked Woodlands	17	17							**100**			

Cat. = Salt Risk Category
Grp No. = Bird Group Number
Salt Classes: Source: Northern Agricultural Districts, Land Resource Information (DWLBC Soil and Land Information 2002)
A = nil; B = slight salinity; C = moderate salinity; D = moderately high salinity; E = moderately high to high salinity; F = high salinity; and G = very high to extreme salinity.

Species Patterns

An analysis has been made of bird species presence/absence data at survey sites across the study area using PC-ORD, a multivariate analysis program (McCune and Mefford 1999). The analysis grouped sites based on the similarity of species present, and the groups were then related to habitat for description.

Prior to running the analysis it was first necessary to exclude some site data. Waterbirds (including sea birds) were masked out, as they have no direct relationship with native vegetation. Only those species seen or heard at a site were included, with the exception of Emus, where a recording of dung was regarded as an unequivocal sign of their presence. Species recorded as flying overhead (i.e. well above the overstorey canopy layer) were also excluded as these species were regarded as highly mobile and not specific to the site where observed or to a particular habitat. This effectively removed most, though not all, records of raptors. Finally, birds identified to genus only were also removed.

The final data set used in the PC-ORD analysis comprised 2171 bird species records and included 118 bird species and 170 survey sites. Seven distinctive bird groups were identified from the analysis (Table 32). Appendix 26 provides a list of all bird species used in the analysis and their site frequency within each group.

When interpreting the analysis the reader needs to be aware that site sampling occurred throughout the year, though the majority of the MNYPBS sites (100 of 140, or 71.4%) were visited in spring, with the remainder in autumn. Some sites included from earlier surveys were sampled in summer. It is therefore likely that the grouping of sites in the analysis is representative only of the seasons when the site observations were made.

The grouping of sites may also be affected by the weather conditions on the day(s) of sampling, the time of day sampling occurred and, as always, the skill and experience of the observer.

Table 32.
Bird assemblage groups determined from the PCORD analysis.

Group No.	No. of Sites	Group Name
1	38	Birds of Southern Yorke Peninsula Mallee and Shrublands
2	16	Birds of drier Mallee areas of the Mid North
3	25	Birds of Mallee areas on Yorke Peninsula and Eastern Mid North
4	23	Birds of Smooth-barked Woodlands
5	17	Birds of Rough-barked Woodlands
6	19	Birds of Shrublands
7	32	Birds of Grasslands, Sedgelands and Samphire Shrublands

Bird Species Group Descriptions

Detailed descriptions of the seven Bird Groups defined in the analysis are provided in the following format.

Bird group number is in the order they appeared on the dendrogram.

Bird group name is the descriptive title of the general habitat that defines the sites that comprise the group.

Description of group: a general description of the vegetation type with which the bird assemblage is associated; the landforms and locations within the study area where the group typically occurs; the bird species that characterise the group; and specific mention of the nationally threatened bird species within the group and where, and in what habitat, they were recorded.

Number of sites in group is determined from the PC-ORD analysis.

Number of species in group: the number of bird species recorded at sites defining the group. (This contains only those species used in the analysis.)

Average number of species per site: is provided to the nearest whole number, as well as the range of species' numbers recorded for sites in the group.

Species of conservation significance: species recorded at sites representing the group that are rated at least rare at Australian or South Australian levels. The Australian ratings are based on the *Environment Protection and Biodiversity Conservation Act 1999* and the South Australian on the *National Parks and Wildlife Act 1972* (2000 update of Schedules 7, 8 and 9).

Broad vegetation structural description at sites: a list of the four generalised formations that occur in the study area, the frequency of each and percentage of all sites that comprise the group.

Distribution map: displays the location of all sites used in the analysis (small open circles) and the sites that represent the bird group (larger black dots).

Group species list: provides a list with statistics of all bird species that were recorded at 25% or more of sites representing the group in decreasing order of abundance. Also listed are any other significant species (i.e. with a high indicator value but recorded at less than 25% of sites).

The statistics provided for each species are:-

- Australian and South Australian conservation rating,
- frequency of occurrence at sites in the group,
- percentage of all sites in the group at which they occurred,
- total number of sites in the analysis at which they were recorded,
- total number of bird groups in which they were recorded,
- an indicator value (derived in PC-ORD). This combines information on the concentration of species abundance in a particular group and the faithfulness of occurrence in that group. Values range from 0 (no indication) to 100 (perfect indication, i.e. that presence of a species points to this particular group without error, at least with the data provided) (McCune and Mefford 1999), and
- a p* value representing the proportion of randomised trials with an indicator value equal to or exceeding the observed indicator value.

Floristic vegetation groups: a table listing the floristic vegetation groups represented by the sites in each bird group, their frequency of occurrence and percentage of all sites in the group.

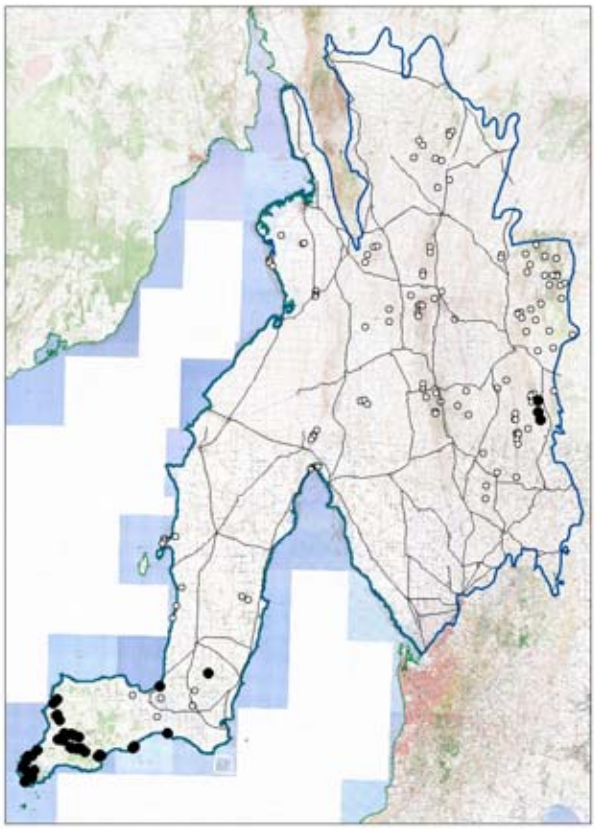
Figure 173.
On this survey the Buff-rumped Thornbill (*Acanthiza reguloides*) was only recorded at tall shrubland and woodland sites in Spring Gully Conservation Park, Tothill Range and Scrubby Range. (Photo: D. Hopton).

Figure 174.
The Grey Shrike-thrush (*Colluricincla harmonica*) was recorded in all bird assemblage groups except Group 7, Birds of Grasslands, Sedgelands and Samphire Shrublands. (Photo: DEH).

Group 1 Birds of Southern Yorke Peninsula Mallee and Shrublands

This bird assemblage is predominantly associated with Coastal White Mallee (*Eucalyptus diversifolia* ssp. *diversifolia*) Mallee and Low Mallee communities on dunes and limestone plains on the southern tip of Yorke Peninsula. It may also occasionally be linked to dense shrublands of Swamp Paper-bark (*Melaleuca halmaturorum*) in swamps in the same area. Three sites peripheral to this group are located in open mallee on the Scrubby Range north of Robertstown. The bird species that characterise the group are generally those that prefer dense shrublands and include the White-browed Scrubwren, Purple-gaped Honeyeater, Brush Bronzewing, Golden Whistler, Grey Currawong, Silvereye, Red Wattlebird, Variegated Fairy-wren, Western Whipbird and Southern Scrub-robin.

Two nationally vulnerable species were recorded at sites in this group. The Western Whipbird was recorded at 13 mallee sites, all located in either Innes National Park or nearby Heritage Agreements, while the Malleefowl was recorded at one mallee site in Warrenben CP.



Number of sites in group:	38
Number of species in group:	59
Average number of species per site:	14
Range:	6 - 28

Species of conservation significance:		**Aus**	**SA**
Leipoa ocellata	Malleefowl	V	V
Psophodes nigrogularis leucogaster	Western Whipbird	V	V
Neophema petrophila	Rock Parrot		R
Turnix varia	Painted Button-quail		V

Broad vegetation structural description at sites:

Grassland/Sedgeland	0	0.0%
Shrubland	9	23.7%
Mallee	26	68.4%
Woodland/Forest	3	7.9%

Group Species List

Scientific Name	Common Name	Aust	SA	Freq	% Freq	Total Sites	Total Groups	Ind Value	p*
Species Occurring at >25% of sites									
Sericornis frontalis	White-browed Scrubwren			33	86.8	41	3	62	0.001
Strepera versicolor	Grey Currawong			31	81.6	58	6	31	0.001
Zosterops lateralis	Silvereye			31	81.6	56	6	33	0.001
Colluricincla harmonica	Grey Shrike-thrush			30	78.9	95	6	16	
Anthochaera carunculata	Red Wattlebird			29	76.3	59	5	25	0.001
Malurus lamberti	Variegated Fairy-wren			28	73.7	63	6	23	0.001
Phaps elegans	Brush Bronzewing			26	68.4	33	3	47	0.001
Lichenostomus cratitius	Purple-gaped Honeyeater			25	65.8	25	1	66	0.001
Pachycephala pectoralis	Golden Whistler			23	60.5	27	2	48	0.001
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			19	50.0	72	6	8	
Cracticus torquatus	Grey Butcherbird			17	44.7	59	6	8	
Pardalotus punctatus	Spotted Pardalote			16	42.1	28	4	19	0.002
Dromaius novaehollandiae	Emu			14	36.8	22	5	19	0.001
Psophodes nigrogularis leucogaster	Western Whipbird	V	V	13	34.2	13	1	34	0.001
Acanthiza apicalis	Inland Thornbill			12	31.6	31	5	9	
Pomatostomus superciliosus	White-browed Babbler			12	31.6	41	6	6	
Rhipidura albiscapa	Grey Fantail			12	31.6	24	5	11	0.060
Drymodes brunneopygia	Southern Scrub-robin			11	28.9	11	1	29	0.001
Gymnorhina tibicen	Australian Magpie			11	28.9	97	7	2	
Melithreptus brevirostris	Brown-headed Honeyeater			11	28.9	35	5	6	
Phaps chalcoptera	Common Bronzewing			11	28.9	32	5	6	
Phylidonyris novaehollandiae	New Holland Honeyeater			11	28.9	13	2	22	0.002
Corvus mellori	Little Raven			10	26.3	68	7	2	

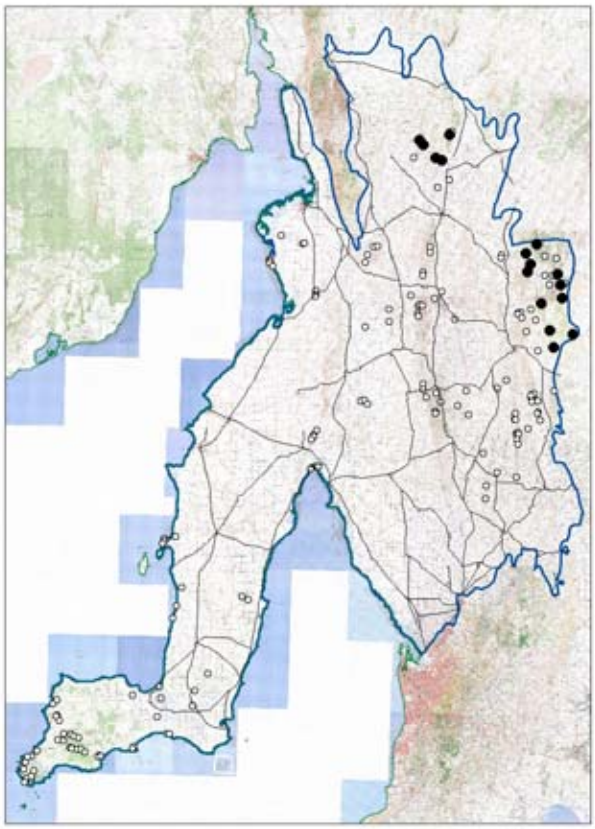
Floristic Vegetation Groups

Veg Grp No.	Floristic Vegetation Group Description	Frequency	% Frequency	Total Bird Grps
42	*Eucalyptus diversifolia* ssp. *diversifolia* Open Low Mallee	14	36.8	1
0	not in floristic vegetation analysis	12	31.6	2
73	*Melaleuca halmaturorum* Very Low Open Forest	3	7.9	2
54	*Alyxia buxifolia* +/- *Leucopogon parviflorus* Shrubland	2	5.3	1
12	*Triodia bunicola* Hummock Grassland +/- an overstorey of *Allocasuarina verticillata* Low Woodland	1	2.6	5
33	*Eucalyptus gracilis* +/- *E. brachycalyx* Open Mallee	1	2.6	3
38	*Acacia calamifolia* Open Shrubland	1	2.6	3
49	*Eucalyptus rugosa*, *E. diversifolia* ssp. *diversifolia* Mallee	1	2.6	1
50	*Melaleuca lanceolata* Tall Shrubland	1	2.6	4
51	*Eucalyptus incrassata*, *Melaleuca uncinata* +/- *E. socialis* Open Mallee	1	2.6	1
56	*Acacia nematophylla* Shrubland +/- an overstorey of *Allocasuarina verticillata* Low Woodland	1	2.6	1

Figure 175.
The Purple-gaped Honeyeater (*Lichenostomus cratitius*) was recorded exclusively at Group 1 sites in mallee communities on southern Yorke Peninsula. (Photo: SAOA).

Group 2 Birds of drier Mallee areas of the Mid North

The sites comprising this assemblage are located in the mallee and low woodland communities variously dominated by Peppermint Box (*Eucalyptus odorata*), Inland South Australian Blue Gum (*E. leucoxylon* ssp. *pruinosa*), Beaked Red Mallee (*E. socialis*) and Mallee Box (*E. porosa*) in the drier ranges of the region. This is the Pekina and Narien Ranges north of Jamestown, and the Burra Hills east of Hallett. Characteristic indicator species for this group are the Australian Ringneck, Australian Magpie, Yellow-throated Miner, Common Bronzewing and Chestnut-rumped Thornbill.



Number of sites in group:	16
Number of species in group:	49
Average number of species per site:	13
Range:	6 - 20

Species of conservation significance:		**Aus**	**SA**
Falco peregrinus	Peregrine Falcon		R
Pyrrholaemus brunneus	Redthroat		R

Broad vegetation structural description at sites:

Grassland/Sedgeland	1	6.3%
Shrubland	1	6.3%
Mallee	8	50.0%
Woodland/Forest	6	37.5%

Group Species List

Scientific Name	Common Name	Aust	SA	Freq	% Freq	Total Sites	Total Groups	Ind Value	p*
Species Occurring at >25% of sites									
Gymnorhina tibicen	Australian Magpie			15	93.8	97	7	21	0.003
Barnardius zonarius	Australian Ringneck, (Ring-necked Parrot)			14	87.5	32	6	47	0.001
Cacatua roseicapilla	Galah			13	81.3	77	7	19	
Cracticus torquatus	Grey Butcherbird			13	81.3	59	6	26	
Anthochaera carunculata	Red Wattlebird			11	68.8	59	5	20	
Smicrornis brevirostris	Weebill			11	68.8	56	5	18	
Pardalotus striatus	Striated Pardalote			9	56.3	60	5	11	
Colluricincla harmonica	Grey Shrike-thrush			7	43.8	95	6	5	
Corvus mellori	Little Raven			7	43.8	68	7	6	
Manorina flavigula	Yellow-throated Miner			7	43.8	19	4	21	0.002
Phaps chalcoptera	Common Bronzewing			7	43.8	32	5	14	0.012
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			6	37.5	72	6	5	
Acanthiza uropygialis	Chestnut-rumped Thornbill			5	31.3	9	2	21	0.001
Coracina novaehollandiae	Black-faced Cuckoo-shrike			5	31.3	37	7	6	
Dicaeum hirundinaceum	Mistletoebird			5	31.3	27	5	7	
Corcorax melanorhamphos	White-winged Chough			4	25.0	19	4	6	
Lichenostomus virescens	Singing Honeyeater			4	25.0	62	6	2	
Malurus lamberti	Variegated Fairy-wren			4	25.0	63	6	3	
Ocyphaps lophotes	Crested Pigeon			4	25.0	33	6	4	
Other Significant Species									
Aegotheles cristatus	Australian Owlet-nightjar			3	18.8	7	4	10	0.015
Struthidea cinerea	Apostlebird			3	18.8	4	2	14	0.005

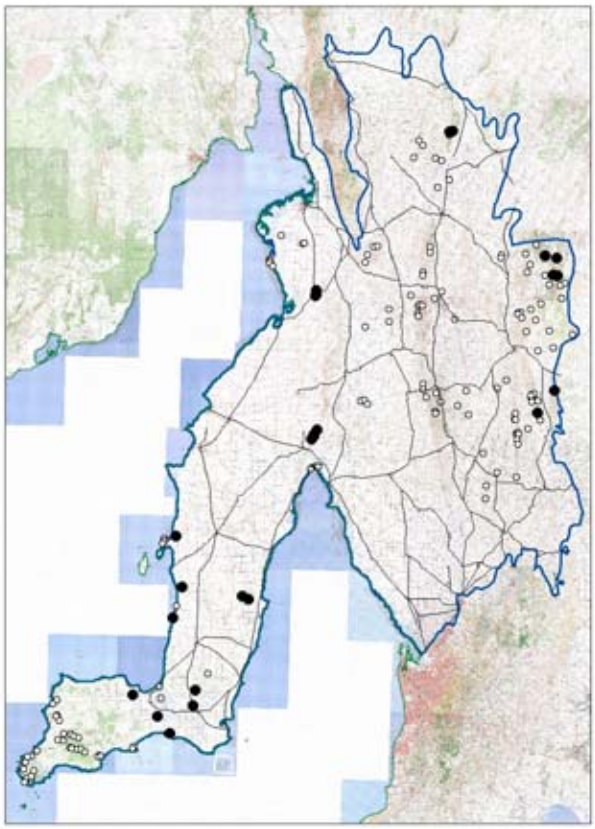
Floristic Vegetation Groups

Veg Grp No.	Floristic Vegetation Group Description	Frequency	% Frequency	Total Bird Grps
12	*Triodia bunicola* Hummock Grassland +/- an overstorey of *Allocasuarina verticillata* Low Woodland	4	25.00	5
34	*Eucalyptus socialis* ssp. +/- *E. gracilis* Open Mallee	3	18.75	2
17	*Eucalyptus odorata* Low Woodland over grasses	2	12.50	3
24	*Eucalyptus porosa* Open Mallee over grasses and sparse chenopods	2	12.50	3
32	*Eucalyptus oleosa* ssp. +/- *E. gracilis* Open Mallee	2	12.50	3
22	*Callitris gracilis* Low Open Forest over grasses	1	6.25	1
30	*Maireana pyramidata*, *Atriplex vesicaria* ssp. Low Open Shrubland	1	6.25	2
7	*Lomandra effusa* Open Tussock Grassland	1	6.25	2

Figure 176.
The Australian Ringneck (*Barnardius zonarius*) was strongly associated with the drier Mallee areas of the Mid North that characterise Group 2. (Photo: SAOA).

Group 3 Birds of Mallee areas on Yorke Peninsula and Eastern Mid North

This bird assemblage comprises three sub-groups of sites that, while having similar bird composition, may be split on geographic location and vegetation formation. The first is mallee sites on Yorke Peninsula, the Hummocks and Clements Gap Conservation Park. The second is made up of low open forests of either Drooping Sheoak (*Allocasuarina verticillata*) or Swamp Paper-bark (*Melaleuca halmaturorum*) on Yorke Peninsula, while the third comprises Mallee Box (*Eucalyptus porosa*) communities on hills north of Jamestown and east of Hallett. Characteristic indicator species for the group are the Spiny-cheeked Honeyeater, Grey Butcherbird, Weebill, White-browed Babbler and Inland Thornbill.



Number of sites in group:	25
Number of species in group:	65
Average number of species per site:	16
Range:	7 - 25

Species of conservation significance:		**Aus**	**SA**
Pyrrholaemus brunneus	Redthroat		R
Turnix varia	Painted Button-quail		V

Broad vegetation structural description at sites:

Grassland/Sedgeland	1	4.0%
Shrubland	3	12.0%
Mallee	14	56.0%
Woodland/Forest	7	28.0%

Group Species List

Scientific Name	Common Name	Aust	SA	Freq	% Freq	Total Sites	Total Groups	Ind Value	p*
Species Occurring at >25% of sites									
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			25	100	72	6	33	0.001
Cracticus torquatus	Grey Butcherbird			21	84	59	6	28	0.001
Lichenostomus virescens	Singing Honeyeater			19	76	62	6	21	
Smicrornis brevirostris	Weebill			19	76	56	5	22	0.002
Colluricincla harmonica	Grey Shrike-thrush			18	72	95	6	13	
Pomatostomus superciliosus	White-browed Babbler			17	68	41	6	28	0.001
Corvus mellori	Little Raven			16	64	68	7	14	0.107
Gymnorhina tibicen	Australian Magpie			16	64	97	7	10	
Acanthiza apicalis	Inland Thornbill			15	60	31	5	32	0.001
Malurus lamberti	Variegated Fairy-wren			13	52	63	6	11	
Zosterops lateralis	Silvereye			13	52	56	6	13	
Strepera versicolor	Grey Currawong			12	48	58	6	11	
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			10	40	43	7	9	
Cacatua roseicapilla	Galah			10	40	77	7	5	
Coracina novaehollandiae	Black-faced Cuckoo-shrike			10	40	37	7	9	
Pardalotus punctatus	Spotted Pardalote			10	40	28	4	17	
Pardalotus striatus	Striated Pardalote			10	40	60	5	6	
Rhipidura leucophrys	Willie Wagtail			10	40	52	6	7	
**Sturnus vulgaris*	Common Starling			10	40	34	6	11	
Melithreptus brevirostris	Brown-headed Honeyeater			9	36	35	5	9	
Pachycephala rufiventris	Rufous Whistler			9	36	31	4	8	
Barnardius zonarius	Australian Ringneck, (Ring-necked Parrot)			7	28	32	6	5	
Daphoenositta chrysoptera	Varied Sittella			7	28	15	4	13	0.016

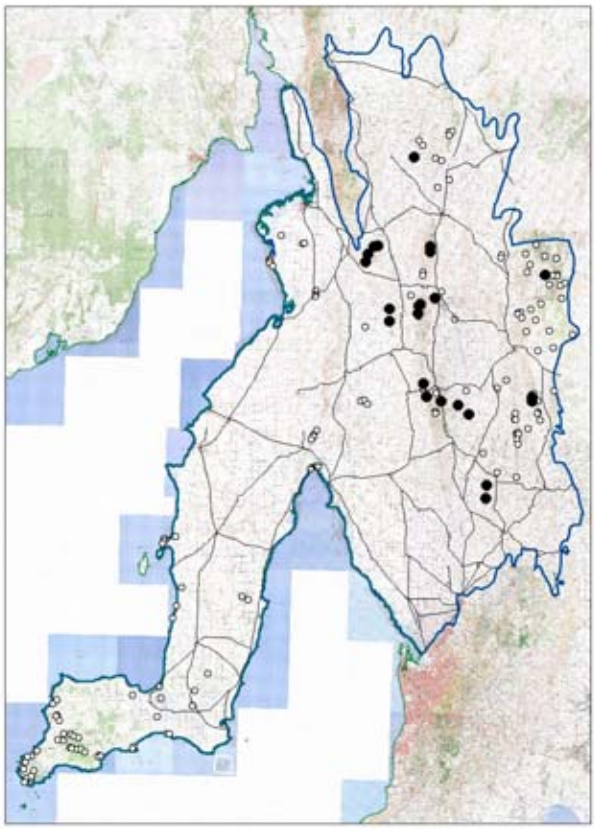
Floristic Vegetation Groups

Veg Grp No.	Floristic Vegetation Group Description	Frequency	% Frequency	Total Bird Grps
24	*Eucalyptus porosa* Open Mallee over grasses and sparse chenopods	4	16.0	3
33	*Eucalyptus gracilis* +/- *E. brachycalyx* Open Mallee	3	12.0	3
34	*Eucalyptus socialis* ssp. +/- *E. gracilis* Open Mallee	3	12.0	2
47	*Eucalyptus porosa* +/- *E. leptophylla* +/- *Allocasuarina verticillata* Open Mallee	3	12.0	1
12	*Triodia bunicola* Hummock Grassland +/- an overstorey of *Allocasuarina verticillata* Low Woodland	2	8.0	5
32	*Eucalyptus oleosa* ssp. +/- *E. gracilis* Open Mallee	2	8.0	3
73	*Melaleuca halmaturorum* Very Low Open Forest	2	8.0	2
13	*Allocasuarina verticillata* Low Woodland	1	4.0	3
38	*Acacia calamifolia* Open Shrubland	1	4.0	3
43	*Melaleuca lanceolata*, *Eucalyptus socialis* ssp. Tall Open Shrubland	1	4.0	3
45	*Triodia compacta* Hummock Grassland	1	4.0	1
48	*Allocasuarina verticillata*, *Melaleuca lanceolata* Very Low Woodland	1	4.0	1
50	*Melaleuca lanceolata* Tall Shrubland	1	4.0	4

Figure 177.
The Grey Butcherbird (*Cracticus torquatus*) was a characteristic indicator species for Group 3, birds of Mallee areas of Yorke Peninsula and Eastern Mid North. (Photo: DEH).

Group 4 Birds of Smooth-barked Woodlands

The sites that represent this bird assemblage are mainly smooth-barked eucalypt woodlands dominated by River Red Gum (*Eucalyptus camaldulensis*), South Australian Blue Gum (*E. leucoxylon*) and occasionally Beaked Red Mallee (*E. socialis*). They occur on hills and watercourses in the central Mid North between Crystal Brook and Riverton. The bird species that characterise the group are the White-plumed Honeyeater, Galah, Willie Wagtail, Red-rumped Parrot, Mistletoebird, Brown Treecreeper, Black-faced Cuckoo-shrike and the introduced Common Starling and House Sparrow. Although recorded at fewer sites, the Peaceful Dove, Dusky Woodswallow, Brown Falcon, Diamond Firetail (rated Vulnerable in South Australia) and Musk Lorikeet are also indicative of the assemblage.



Number of sites in group:	23
Number of species in group:	79
Average number of species per site:	20
Range:	12 - 30

Species of conservation significance:		**Aus**	**SA**
Falcunculus frontatus	Crested Shrike-tit		V
Stagonopleura guttata	Diamond Firetail		V
Turnix varia	Painted Button-quail		V

Broad vegetation structural description at sites:

Grassland/Sedgeland	1	4.3%
Shrubland	3	13.0%
Mallee	3	13.0%
Woodland/Forest	16	69.6%

Group Species List

Scientific Name	Common Name	Aust	SA	Freq	% Freq	Total Sites	Total Groups	Ind Value	p*
Species Occurring at >25% of sites									
Gymnorhina tibicen	Australian Magpie			21	91.3	97	7	20	
Cacatua roseicapilla	Galah			20	87.0	77	7	22	0.003
Colluricincla harmonica	Grey Shrike-thrush			20	87.0	95	6	19	
Lichenostomus penicillatus	White-plumed Honeyeater			20	87.0	23	3	74	0.001
Pardalotus striatus	Striated Pardalote			19	82.6	60	5	24	
Rhipidura leucophrys	Willie Wagtail			18	78.3	52	6	27	0.001
Psephotus haematonotus	Red-rumped Parrot			15	65.2	23	4	40	0.001
Dicaeum hirundinaceum	Mistletoebird			14	60.9	27	5	28	0.001
Anthochaera carunculata	Red Wattlebird			13	56.5	59	5	14	
Lichenostomus virescens	Singing Honeyeater			12	52.2	62	6	10	
Climacteris picumnus	Brown Treecreeper			11	47.8	18	3	25	0.001
Coracina novaehollandiae	Black-faced Cuckoo-shrike			11	47.8	37	7	13	0.044
Corvus mellori	Little Raven			11	47.8	68	7	8	
Smicrornis brevirostris	Weebill			10	43.5	56	5	7	
**Sturnus vulgaris*	Common Starling			10	43.5	34	6	13	0.024
Ocyphaps lophotes	Crested Pigeon			9	39.1	33	6	11	
**Passer domesticus*	House Sparrow			9	39.1	20	4	20	0.001
Platycercus elegans	Crimson Rosella			9	39.1	25	3	12	
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			8	34.8	43	7	6	
Barnardius zonarius	Australian Ringneck, (Ring-necked Parrot)			8	34.8	32	6	7	
Dacelo novaeguineae	Laughing Kookaburra			8	34.8	15	3	16	
Geopelia placida	Peaceful Dove			8	34.8	9	2	30	0.001
Malurus lamberti	Variegated Fairy-wren			8	34.8	63	6	5	
Pachycephala rufiventris	Rufous Whistler			7	30.4	31	4	6	
**Turdus merula*	Eurasian Blackbird			7	30.4	17	4	11	0.034
Acanthiza nana	Yellow Thornbill			6	26.1	21	5	6	

Scientific Name	Common Name	Aust	SA	Freq	% Freq	Total Sites	Total Groups	Ind Value	p*
Artamus cyanopterus	Dusky Woodswallow			6	26.1	7	2	24	0.001
Falco berigora	Brown Falcon			6	26.1	8	3	20	0.001
Phaps chalcoptera	Common Bronzewing			6	26.1	32	5	5	
Stagonopleura guttata	Diamond Firetail		V	6	26.1	6	1	26	0.001
Other Significant Species									
Glossopsitta concinna	Musk Lorikeet			5	21.7	5	1	22	0.001
Grallina cyanoleuca	Magpie-lark			5	21.7	10	3	12	0.015
Manorina melanocephala	Noisy Miner			5	21.7	7	2	14	0.007
Melanodryas cucullata	Hooded Robin			5	21.7	10	5	10	0.023
Megalurus gramineus	Little Grassbird			4	17.4	7	2	11	0.009
Petrochelidon nigricans	Tree Martin			4	17.4	6	3	10	0.036

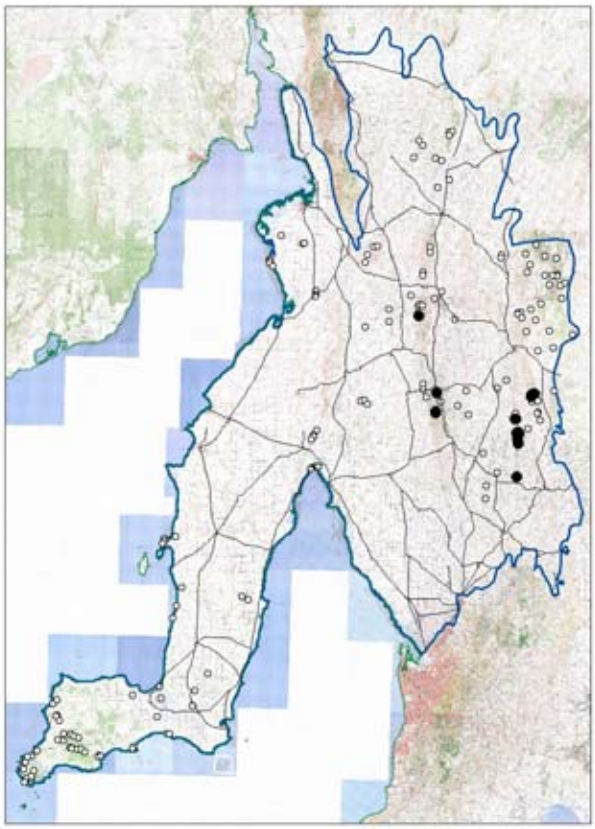
Floristic Vegetation Groups

Veg Grp No.	Floristic Vegetation Group Description	Frequency	% Frequency	Total Bird Grps
20	*Eucalyptus leucoxylon* ssp. Open Forest over grasses	5	21.7	1
12	*Triodia bunicola* Hummock Grassland +/- an overstorey of *Allocasuarina verticillata* Low Woodland	4	17.4	5
17	*Eucalyptus odorata* Low Woodland over grasses	3	13.0	3
80	*Eucalyptus camaldulensis* var. *camaldulensis* Woodland over *Phragmites australis*	3	13.0	1
43	*Melaleuca lanceolata*, *Eucalyptus socialis* ssp. Tall Open Shrubland	2	8.7	3
77	*Myoporum montanum* Tall Open Shrubland over *Typha domingensis*, *Cyperus gymnocaulos* +/- an overstorey of *Eucalyptus camaldulensis* var. *camaldulensis* Open Forest	2	8.7	3
1	*Austrostipa blackii*, *Aristida behriana*, *Lomandra multiflora* ssp. *dura*, *Austrostipa scabra* ssp. Tussock Grassland	1	4.3	2
24	*Eucalyptus porosa* Open Mallee over grasses and sparse chenopods	1	4.3	3
50	*Melaleuca lanceolata* Tall Shrubland	1	4.3	4
81	*Phragmites australis* Tussock Grassland	1	4.3	2

Figure 178.
The Red-rumped Parrot (*Psephotus haematonotus*) was strongly associated with smooth-barked woodlands of the Mid North. (Photo: SAOA).

Group 5 Birds of Rough-barked Woodlands

This group is made up of sites from rough-barked woodlands in the Clare Hills, Tothill Range and Scrubby Range. The sites are all in hills and dominated mainly by Peppermint Box (*Eucalyptus odorata*) and to a lesser degree by Red Stringybark (*E. macrorhyncha* ssp. *macrorhyncha*), Long-leaf Box (*E. goniocalyx*) or Drooping Sheoak (*Allocasuarina verticillata*). Species indicative of this group are the Grey Shrike-thrush, Striated Pardalote, Crimson Rosella, Rufous Whistler, Yellow Thornbill, Yellow-rumped Thornbill, Buff-rumped Thornbill, Brown-headed Honeyeater and White-winged Chough.



Number of sites in group:	17
Number of species in group:	45
Average number of species per site:	15
Range:	8 - 26

Species of conservation significance: **Aus** **SA**
none

Broad vegetation structural description at sites:

Grassland/Sedgeland	0	0.0%
Shrubland	2	11.8%
Mallee	2	11.8%
Woodland/Forest	13	76.5%

Group Species List

Scientific Name	Common Name	Aust	SA	Freq	% Freq	Total Sites	Total Groups	Ind Value	p*
Species Occurring at >25% of sites									
Colluricincla harmonica	Grey Shrike-thrush			16	94.1	95	6	22	0.001
Pardalotus striatus	Striated Pardalote			15	88.2	60	5	27	0.001
Platycercus elegans	Crimson Rosella			15	88.2	25	3	60	0.001
Pachycephala rufiventris	Rufous Whistler			14	82.4	31	4	44	0.001
Gymnorhina tibicen	Australian Magpie			12	70.6	97	7	12	
Acanthiza nana	Yellow Thornbill			11	64.7	21	5	39	0.001
Cacatua roseicapilla	Galah			11	64.7	77	7	12	
Smicrornis brevirostris	Weebill			11	64.7	56	5	16	
Strepera versicolor	Grey Currawong			10	58.8	58	6	16	
Acanthiza chrysorrhoa	Yellow-rumped Thornbill			9	52.9	43	7	15	0.032
Acanthiza reguloides	Buff-rumped Thornbill			9	52.9	11	3	47	0.001
Corvus mellori	Little Raven			9	52.9	68	7	9	
Melithreptus brevirostris	Brown-headed Honeyeater			9	52.9	35	5	19	0.003
Corcorax melanorhamphos	White-winged Chough			8	47.1	19	4	22	0.001
Dacelo novaeguineae	Laughing Kookaburra			6	35.3	15	3	16	0.004
Dicaeum hirundinaceum	Mistletoebird			6	35.3	27	5	9	
Zosterops lateralis	Silvereye			6	35.3	56	6	6	
Coracina novaehollandiae	Black-faced Cuckoo-shrike			5	29.4	37	7	5	
Lichenostomus chrysops	Yellow-faced Honeyeater			5	29.4	5	1	29	0.001
Lichenostomus leucotis	White-eared Honeyeater			5	29.4	9	4	14	0.007
Petroica goodenovii	Red-capped Robin			5	29.4	16	4	12	0.026
Phylidonyris albifrons	White-fronted Honeyeater			5	29.4	13	5	14	0.012
**Turdus merula*	Eurasian Blackbird			5	29.4	17	4	11	

Floristic Vegetation Groups

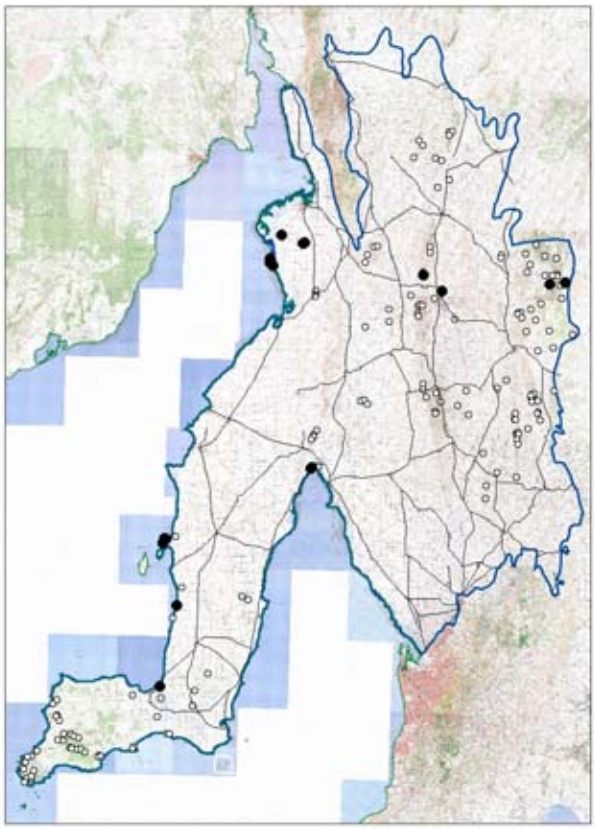
Veg Grp No.	Floristic Vegetation Group Description	Frequency	% Frequency	Total Bird Grps
15	*Allocasuarina verticillata*, *Xanthorrhoea quadrangulata* +/- *Eucalyptus odorata* Low Woodland	5	29.4	2
17	*Eucalyptus odorata* Low Woodland over grasses	4	23.5	3
16	*Eucalyptus macrorhyncha* ssp. *macrorhyncha* Low Woodland	2	11.8	1
13	*Allocasuarina verticillata* Low Woodland	1	5.9	3
37	*Dodonaea viscosa* ssp. *angustissima* Low Open Shrubland	1	5.9	2
38	*Acacia calamifolia* Open Shrubland	1	5.9	3
43	*Melaleuca lanceolata*, *Eucalyptus socialis* ssp. Tall Open Shrubland	1	5.9	3
77	*Myoporum montanum* Tall Open Shrubland over *Typha domingensis*, *Cyperus gymnocaulos* +/- an overstorey of *Eucalyptus camaldulensis* var. *camaldulensis* Open Forest	1	5.9	3
83	*Eucalyptus camaldulensis* var. *camaldulensis* Open Forest over grasses and herbs	1	5.9	1

Figure 179.
The Rufous Whistler (*Pachycephala rufiventris*) was recorded throughout the southern half of the Mid North and central Yorke Peninsula and was strongly associated with rough-barked woodlands. (Photo: SAOA).

Group 6 Birds of Shrublands

This bird assemblage is based on sites in a variety of shrublands including Umbrella Bush (*Acacia ligulata*) Open Shrubland on coastal dunes, chenopod shrublands (on both coastal and inland plains) and a sub-group of Lignum (*Muehlenbeckia florulenta*) Shrubland on the floodplain of the lower Broughton River. Species diversity is low and the main indicator species is the Singing Honeyeater. The White-fronted Chat, White-winged Fairy-wren and Rufous Songlark are also indicative, though were only recorded infrequently.

The nationally Vulnerable Slender-billed Thornbill was recorded at one site within this group, in Nitre-bush (*Nitraria billardierei*) Shrubland in Clinton Conservation Park.



Number of sites in group:	19
Number of species in group:	50
Average number of species per site:	9
Range:	4 - 18

Species of conservation significance:		**Aus**	**SA**
Pyrrholaemus brunneus	Redthroat		R
Acanthiza iredalei	Slender-billed Thornbill	V	V
Neophema chrysostoma	Blue-winged Parrot		V

Broad vegetation structural description at sites:

Grassland/Sedgeland	3	15.8%
Shrubland	13	68.4%
Mallee	1	5.3%
Woodland/Forest	2	10.5%

Group Species List

Scientific Name	Common Name	Aust	SA	Freq	% Freq	Total Sites	Total Groups	Ind Value	p*
Species Occurring at >25% of sites									
Lichenostomus virescens	Singing Honeyeater			17	89.5	62	6	30	0.001
Acanthagenys rufogularis	Spiny-cheeked Honeyeater			15	78.9	72	6	21	
Rhipidura leucophrys	Willie Wagtail			14	73.7	52	6	24	
Corvus mellori	Little Raven			9	47.4	68	7	7	
Malurus lamberti	Variegated Fairy-wren			9	47.4	63	6	9	
Ocyphaps lophotes	Crested Pigeon			8	42.1	33	6	12	0.052
Pomatostomus superciliosus	White-browed Babbler			6	31.6	41	6	6	
**Alauda arvensis*	Eurasian Skylark			5	26.3	27	5	7	
Cacatua roseicapilla	Galah			5	26.3	77	7	2	
Epthianura albifrons	White-fronted Chat			5	26.3	9	2	18	0.003
Malurus leucopterus	White-winged Fairy-wren			5	26.3	12	2	14	0.010
Other Significant Species									
Cincloramphus mathewsi	Rufous Songlark			4	21.1	9	4	10	0.027

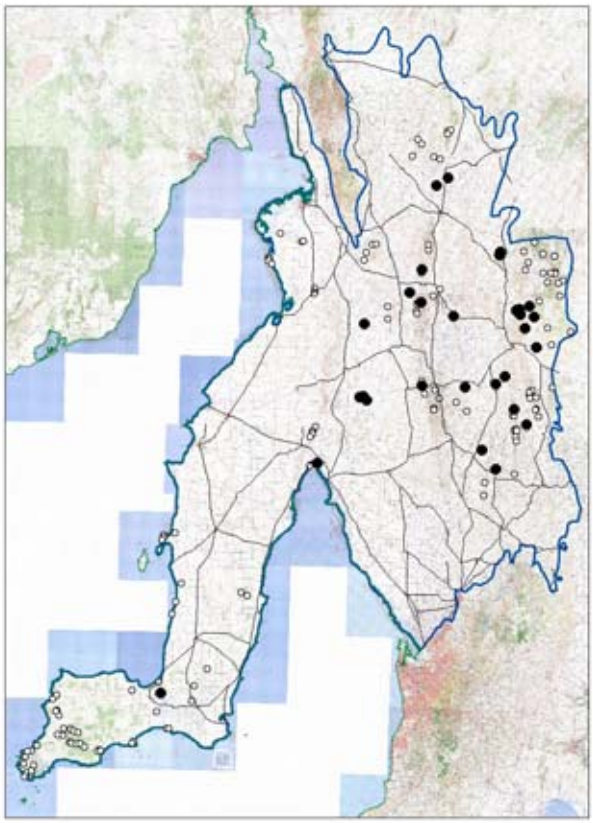
Floristic Vegetation Groups

Veg Grp No.	Floristic Vegetation Group Description	Frequency	% Frequency	Total Bird Grps
57	*Acacia ligulata* Tall Open Shrubland	4	21.1	1
82	*Muehlenbeckia florulenta* Shrubland	3	15.8	1
69	*Atriplex paludosa* ssp. *cordata* +/- *Halosarcia indica* ssp. Low Shrubland	2	10.5	2
13	*Allocasuarina verticillata* Low Woodland	1	5.3	3
30	*Maireana pyramidata*, *Atriplex vesicaria* ssp. Low Open Shrubland	1	5.3	2
33	*Eucalyptus gracilis* +/- *E. brachycalyx* Open Mallee	1	5.3	3
37	*Dodonaea viscosa* ssp. *angustissima* Low Open Shrubland	1	5.3	2
46	*Lepidosperma congestum*, *Lomandra effusa*, *Gahnia lanigera* Sedgeland	1	5.3	1
50	*Melaleuca lanceolata* Tall Shrubland	1	5.3	4
72	*Lawrencia squamata* Low Shrubland	1	5.3	1
74	*Sclerostegia arbuscula*, *Sarcocornia quinqueflora* Low Shrubland	1	5.3	2
77	*Myoporum montanum* Tall Open Shrubland over *Typha domingensis*, *Cyperus gymnocaulos* +/- an overstorey of *Eucalyptus camaldulensis* var. *camaldulensis* Open Forest	1	5.3	3
9	*Austrostipa eremophila*, *Austrodanthonia caespitosa* +/- *Austrostipa nitida* +/- *Lomandra effusa* Open Tussock Grassland	1	5.3	1

Figure 180.
The Singing Honeyeater (*Lichenostomus virescens*) was recorded throughout much of the study area but was most characteristic of shrubland communities. (Photo: DEH).

Group 7 Birds of Grasslands, Sedgelands and Samphire Shrublands

This bird assemblage is based on a loose group of sites with low cover, in particular Mat-rush (*Lomandra* spp.) and Spinifex (*Triodia* spp.) Grasslands on hills, Samphire (*Halosarcia* spp.) Low Shrublands on the margins of salt lakes and Sea Rush (*Juncus kraussii*) Sedgelands in watercourses. The three woodland sites in this group all have an open overstorey and an understorey dominated by either Flinders Ranges Spinifex (*Triodia bunicola*) or Hard Mat-rush (*Lomandra multiflora* ssp. *dura*). Species diversity is very low with only 37 species recorded from the 32 sites, and an average of only 5 species per site. Characteristic indicator species for the assemblage are Richard's Pipit, the introduced Eurasian Skylark and, though recorded less frequently, Nankeen Kestrel.



Number of sites in group:	32
Number of species in group:	37
Average number of species per site:	5
Range:	1 - 13

Species of conservation significance:		**Aus**	**SA**
Neophema chrysostoma	Blue-winged Parrot		V

Broad vegetation structural description at sites:

Grassland/Sedgeland	20	62.5%
Shrubland	9	28.1%
Mallee	0	0.0%
Woodland/Forest	3	9.4%

Group Species List

Scientific Name	Common Name	Aust	SA	Freq	% Freq	Total Sites	Total Groups	Ind Value	p*
Species Occurring at >25% of sites									
Gymnorhina tibicen	Australian Magpie			19	59.4	97	7	8	
Anthus novaeseelandiae	Richard's Pipit			18	56.3	26	5	34	0.001
**Alauda arvensis*	Eurasian Skylark			16	50.0	27	5	26	0.001
Cacatua roseicapilla	Galah			10	31.3	77	7	3	
**Passer domesticus*	House Sparrow			8	25.0	20	4	8	
Other Significant Species									
Falco cenchroides	Nankeen Kestrel			7	21.9	11	3	12	0.009

Floristic Vegetation Groups

Veg Grp No.	Floristic Vegetation Group Description	Frequency	% Frequency	Total Bird Grps
1	*Austrostipa blackii*, *Aristida behriana*, *Lomandra multiflora* ssp. *dura*, *Austrostipa scabra* ssp. Tussock Grassland	7	21.9	2
79	*Juncus kraussii* Sedgeland	4	12.5	1
12	*Triodia bunicola* Hummock Grassland +/- an overstorey of *Allocasuarina verticillata* Low Woodland	3	9.4	5
3	*Lomandra multiflora* ssp. *dura* Open Tussock Grassland	3	9.4	1
68	*Halosarcia indica* ssp. *leiostachya* Low Shrubland	2	6.3	1
0	not in floristic vegetation analysis	2	6.3	2
11	*Maireana aphylla* Low Open Shrubland	1	3.1	1
15	*Allocasuarina verticillata*, *Xanthorrhoea quadrangulata* +/- *Eucalyptus odorata* Low Woodland	1	3.1	2
2	*Themeda triandra* Tussock Grassland	1	3.1	1
32	*Eucalyptus oleosa* ssp. +/- *E. gracilis* Open Mallee	1	3.1	3
44	*Gahnia lanigera* Sedgeland	1	3.1	1
67	*Halosarcia pergranulata* ssp. Low Shrubland	1	3.1	1
69	*Atriplex paludosa* ssp. *cordata* +/- *Halosarcia indica* ssp. Low Shrubland	1	3.1	2
7	*Lomandra effusa* Open Tussock Grassland	1	3.1	2
74	*Sclerostegia arbuscula*, *Sarcocornia quinqueflora* Low Shrubland	1	3.1	2
8	*Austrodanthonia caespitosa* Open Tussock Grassland	1	3.1	1
81	*Phragmites australis* Tussock Grassland	1	3.1	2

Figure 181.
Richard's Pipit (*Anthus novaeseelandiae*) is a characteristic species of grasslands. (Photo: L. Pedler).

REPTILES

R. Brandle[1]

Total Species

The current survey represents the first systematic survey of reptiles across the Mid North and Yorke Peninsula and includes several smaller targeted surveys within the study area. The combined surveys recorded 59 species from seven reptile families. These included two tortoises (Chelidae), seven dragons (Agamidae), seven geckos and eight legless lizards (Gekkonidae), 26 skinks (Scincidae), one goanna (Varanidae), five front-fanged snakes (Elapidae) and two blind snakes (Typhlopidae) (refer Appendix 28 for details). Eight species were recorded from the Innes National Park survey (1976-77), 15 from the South Olary Plains (1991), six from the Mt. Cone Baseline Survey (1999), 57 from the Mid North and Yorke Peninsula (2003-04), 20 from Hopkins Creek (Nature Conservation Society 2003) and 18 from Warrenben CP Flora and Fauna Survey (2004). Figure 183 displays the locations of survey sites from the various survey efforts within the study region.

Figure 182.
The Sandplain Ctenotus (*Ctenotus schomburgkii*) had not previously been recorded on Yorke Peninsula prior to the survey. (Photo: A. Robinson).

Since Ehmann's (1973) list of 35 reptile species for Yorke Peninsula, the number of reptiles known to occur in the study region has increased as a result of area and species specific research projects and members of the public bringing reptile finds into the South Australian Museum. Prior to this survey, 80 species of reptile were recognised as occurring within the study region boundary. This survey has contributed three previously undetected species: Saltbush Ctenotus *Ctenotus olympicus*, the Sandplain Ctenotus *Ctenotus schomburgkii* and the Murray River Tortoise *Emydura maquarii* (Appendix 27). Of these the single record of a Murray River Tortoise is likely to be an accidental or deliberate introduction. One Saltbush Ctenotus was found in the eastern and more arid part of the study area and is part of a population of this arid adapted species that inhabits the drier saltbush areas of the Olary Plains to the north-east. This species was only recently separated from the Spotted Ctenotus *Ctenotus uber* complex (Hutchinson and Donnellan 1999) of which the Eastern Spotted Ctenotus *C. orientalis* was more widespread in the mesic habitats of the study area. The Sandplain Ctenotus was found at three disparate sites across Yorke Peninsula and may have evaded earlier detection because of it small size and speedy behaviour.

Whilst the list of reptiles recorded within the study area as defined for this survey is now at 83 species, fourteen of these are peripheral to the habitats that comprise the Yorke Peninsula and Mid North. These are:

- Nobbi Dragon *Amphibolurus nobbi* - inhabits mallee lands to the east,
- Eastern Three-lined Skink *Bassiana duperreyi* - inhabits moist woodlands in the ranges to the south,
- Green Turtle *Chelonia mydas* and Leathery Turtle *Dermochelys coriacea* - vagrant marine species,
- Crested Dragon *Ctenophorus cristatus* and Desert Whip-snake *Demansia reticulata* probable introductions/escapees or data errors (nearest populations are on Eyre Peninsula),
- Masked Rock Skink *Egernia margaretae* and Gidgee Skink *Egernia stokesii* are restricted to the Flinders Ranges and arid rocky areas which abut the northern parts of study area,
- Rusty Earless Skink *Hemiergis millewae*, Dwarf Three-toed Slider *Lerista muelleri*, Four-pored Earless Dragon *Tympanocryptis tetraporophora* and Mulga Snake *Pseudechis australis* are similarly at the edge of their more arid distributions in the north and west of the study area,
- Coral Snake *Simoselaps australis* and Common Bandy-Bandy *Vermicella annulata* both occur in the southern half of the Flinders Ranges and to the east of the study area.

This takes the naturally occurring species that are dependent on habitats represented in the study region back to 69, of which the biological survey efforts recorded 85%. The analyses of the data collected for this survey will assist in determining the species that are dependent on the conservation of remnant habitats within the region.

[1] Biological Survey and Monitoring Section, Science and Conservation Directorate, Department for Environment and Heritage, GPO Box 1047, Adelaide SA 5001.

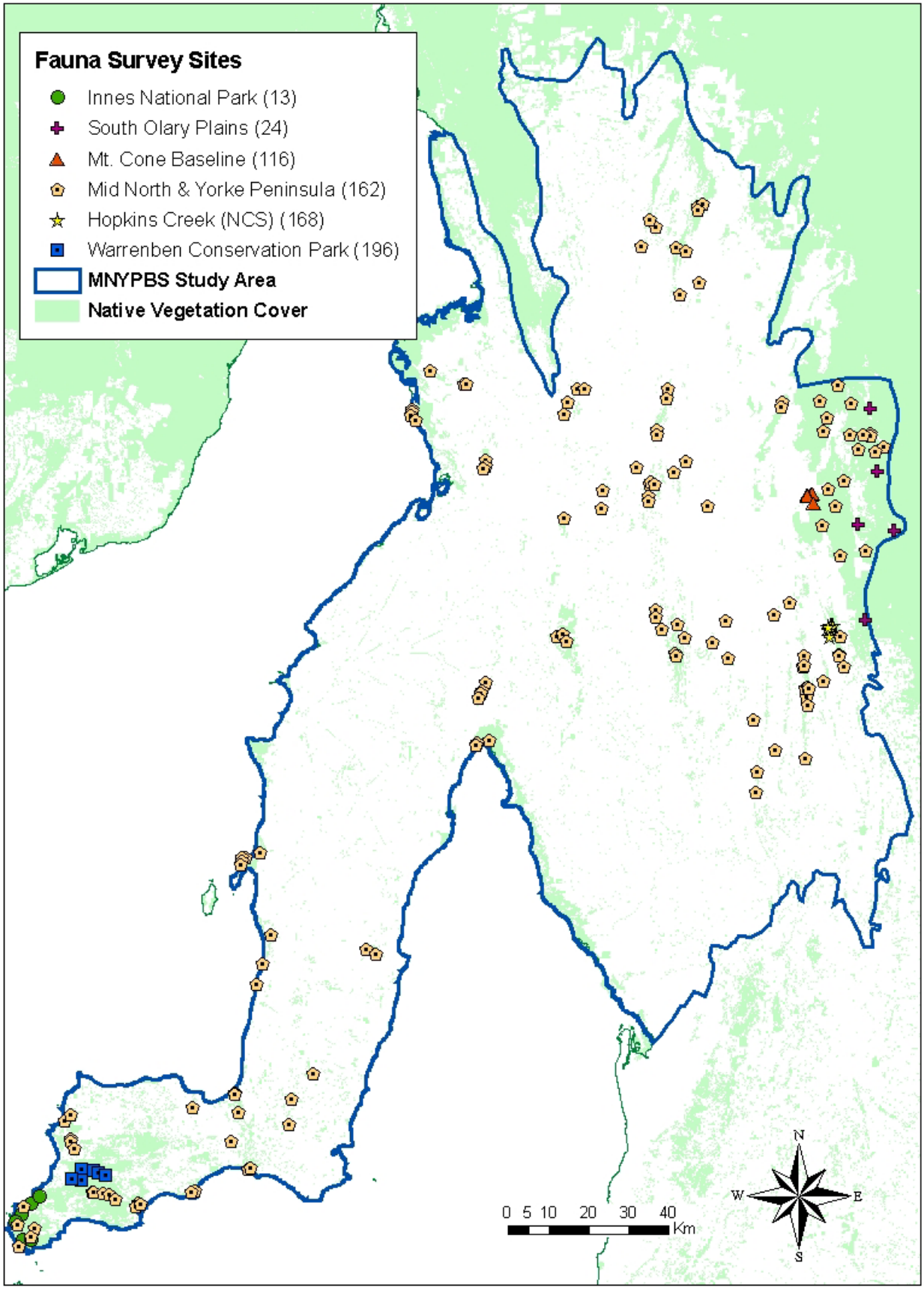


Figure 183.
Locations of survey sites from the various survey efforts conducted within the MNYPBS study area.

Common Species

Only the Sleepy Lizard *Tiliqua rugosa* and Dwarf Skink *Menetia greyii* were recorded at approximately half of the survey sites (55% and 47% respectively, refer Table 33). Another eight species (seven skinks and one gecko) were found at between 10-20% of sites. These results reflect the diversity of habitats across a survey area that includes relatively moist coastal areas in the south, mallee and shrub communities, native grasslands, well vegetated moist hills and some drier hills and saltbush plains to the west and north.

Table 33.
Reptile species with highest site frequencies for survey sites within the MNYPBS study area (the full list is presented in Appendix 28).

	No. of Survey Sites in MNYPBS Study Area →	6	5	4	140	7	6	168	
	Survey Number →	**13**	**24**	**116**	**162**	**168**	**196**	**No. of sites**	**% of sites**
Scientific Name	**Common Name**								
Tiliqua rugosa	Sleepy Lizard	3	5	2	74	4	1	89	53
Menetia greyii	Dwarf Skink	1	3	1	62	5	3	75	45
Morethia boulengeri	Common Snake-eye		1		26	4		31	18
Morethia obscura	Mallee Snake-eye	2	2		21	2	2	29	17
Hemiergis decresiensis	Three-toed Earless Skink				27	1		28	17
Lerista dorsalis	Southern Four-toed Slider	3	2		21			26	15
Hemiergis peronii	Four-toed Earless Skink	1			20	3	1	25	15
Lerista bougainvillii	Bougainville's Skink			2	18	4		24	14
Ctenotus robustus	Eastern Striped Skink		1		18	2	1	22	13
Diplodactylus vittatus	Eastern Stone Gecko	1			13	3	1	18	11

Survey Numbers:- 13 = Innes National Park (1976-77), 24 = South Olary Plains (1991), 116 = Mt. Cone Baseline Survey (1999), 162 = Mid-North and Yorke Peninsula (2003), 168 = Hopkins Creek (Nature Conservation Society 2004), 196 = Warrenben CP Flora and Fauna Survey (2004).

Species Richness

On average less than four species (3.89 per site) were detected at the 161 sites where at least one reptile was recorded. This is lower than was recorded in surrounding survey areas - six in the Flinders Ranges and five from sites surrounding the Flinders Ranges (Brandle 1998). The maximum number of species recorded at a site was 11 followed by another site with 10 species and several with 9 species. Table 34 compares species richness at sites against a variety of habitat variables and indicates that highly saline sites and sites in grasslands, saline shrublands and near lakes supported fewer species of reptiles than most other habitat types. The most species rich habitats were non-saline, semi-arid shrublands, dunes and sandy areas.

Table 34.
Reptile species richness at sites within the range of physical and biological habitat variables sampled.

Salinity Category	**Ave spp/site**	**Stdev spp/site**	**Max spp/site**	**No. of Species**	**No. of Sites**
Nil	4.24	2.40	11	54	120
Low	3.24	2.07	8	28	21
Moderate	3.00	1.71	7	17	12
High	1.63	0.92	3	9	8
Vegetation Alliance	**Ave spp/site**	**Stdev spp/site**	**Max spp/site**	**No. of Species**	**No. of Sites**
no group	3.15	2.19	7	20	13
Grasslands	2.33	1.18	5	13	15
Sheoak Low Woodlands of MN	4.26	2.18	8	26	23
Grassy Woodlands & Forests of MN	4.47	2.80	9	20	15
Open Shrublands & Mallees of Drier Areas	5.00	3.27	11	18	7
Chenopod Shrublands	5.00	1.41	6	7	2
Open Mallee	4.40	2.06	8	26	15
Semi-arid Shrublands	6.00	3.16	9	18	5
YP Mallees & Sedgelands	4.35	1.96	9	33	31
Coastal Shrublands	5.00	2.71	10	18	7
Saline Shrublands	2.00	1.29	5	13	13
Watercourse Communities	3.20	2.54	10	21	15
Landform Type	**Ave spp/site**	**Stdev spp/site**	**Max spp/site**	**No. of Species**	**No. of Sites**
not recorded	3.60	2.27	7	19	10
Dune	4.55	2.09	10	25	20
Plain	4.22	2.19	9	32	23
Hill	4.03	2.33	9	40	76
Watercourse	3.79	2.95	11	26	19
Lake	1.85	1.14	5	10	13
Broad Surface Soil Category	**Ave spp/site**	**Stdev spp/site**	**Max spp/site**	**No. of Species**	**No. of Sites**
not recorded	3.25	2.43	7	16	8
Clay	3.24	2.06	8	38	51
Loam	4.19	2.51	11	47	64
Sand	4.39	2.28	10	40	38

Species Habitat Affinities

In the previous section the species richness at sites was related to habitat variables. The relationship of individual reptile species with these habitat variables will be discussed in this section under the subheadings used in Table 34. No attempts have been made to test for significance of species trends, as for the majority of species the site frequencies and capture rates were too low to have statistical validity.

To indicate apparent habitat preferences the relative abundance of species was compared with a hypothetical calculated expected value derived from the proportion of sites sampled in each habitat variable if species were distributed randomly. This was calculated by subtracting the expected value from the observed value and divided by the expected value:

(**O**bserved – **E**xpected)/**E**xpected

where Expected = (number sites in habitat/total number of sites) X total number of observations for that species.

This transforms negative values of the equation to a negative fraction and observed values of 0 become –1. For full details for each species' relative abundance at sites with the various habitat parameters refer to Appendices 29-32. Caution should be used when interpreting the apparent trends in habitat preferences, particularly where relative abundances are low. This is because of the high variability in trapping rates relating to seasonal and climatic conditions across the survey, and varying degrees of habitat degradation at sites within vegetation alliances.

1. Salinity Risk Classes

The following analyses need to be viewed in the context of the sites being heavily skewed toward the nil salinity class (nil = 122 sites, low salinity = 17 sites, moderate salinity = 12 sites, extreme salinity = 8 sites). Species prominent in a salinity class are highlighted in bold in Appendix 29.

Figure 184.
Only recorded at sites in the nil salinity class, the Common Snake-eye (*Morethia boulengeri*) was most positively associated with Grassy Woodlands and Forests of the Mid North on hills. (Photo: A. Robinson).

Nil: Forty-five reptile species recorded at sites were positively associated with the nil salinity class. For 33 of these species (with relative abundance values greater than 1) this class appeared to be the most favoured. The most commonly recorded of these included Dwarf Skink, Common Snake-eye, Mallee Snake-eye, Three-toed Earless Skink, Garden Skink, Bougainville's Skink, Southern Rock Dtella and Tawny Dragon.

Low: Sixteen species were positively associated with low salinity sites, and for seven this class appeared to be the most favoured. The most commonly recorded of these included Five-lined Earless Dragon, Southern Three-toed Slider and Eastern Striped Skink.

Moderate: Eight species were positively associated with the 12 moderately saline sites, and for four this class appeared to be the most favoured. These were Painted Dragon, Four-toed Earless Skink, Southern Four-toed Slider and Adelaide Snake-eye.

Figure 185.
Most Four-toed Earless Skink (*Hemiergis peronii*) observations on the survey were from coastal sites on Yorke Peninsula. Here they were positively associated with coastal shrublands and sites in the moderate salinity class. (Photo: A. Robinson).

High: Seven species were positively associated with the eight extremely saline sites, and for two this class appeared to be the most favoured. These were Sleepy Lizard and Lined Worm-lizard.

2. Vegetation Alliances

Grasslands: Eight species had higher than expected relative abundances at sites in grasslands. For two of these species (with abundance values greater than 1) grasslands appear to be the most favoured vegetation alliance (these are highlighted with bold numbers in Appendix 30). These were Spinifex Snake-lizard and the nationally vulnerable Flinders Worm Lizard.

Sheoak Low Woodlands of the Mid North: Twenty species had higher than expected relative abundances at sites in Sheoak low woodlands. For five of these species this alliance appeared to be the most favoured. These were Tawny Dragon, Eastern Brown Snake, Marbled Gecko, Mallee Black-headed Snake and Three-toed Earless Dragon.

Grassy Woodlands and Open Forests of the Mid North: Sixteen species had higher than expected relative abundances at sites in grassy woodlands and open forests of the Mid North. For five of these species this alliance appeared to be the most favoured. These were Central Bearded Dragon, Common Snake-eye, Eastern Bluetongue, Bougainville's Skink and Dwarf Skink.

Open Shrublands and Mallees of Drier Areas: Twelve species had higher than expected relative abundances at sites in this vegetation alliance. For two of these species this alliance appeared to be the most favoured. These were Desert Wall Skink and Southern Rock Dtella.

Chenopod Shrublands: The low number of chenopod shrubland habitats sampled (2) makes the reliability of these findings uncertain. However, seven species had higher than random relative abundances in chenopod shrublands. For four of these species this vegetation alliance appeared to be the most favoured. These were Adelaide Snake-eye, Painted Dragon, Eastern Spotted Ctenotus and Sleepy Lizard.

Open Mallee: Eighteen species had higher than expected relative abundances in open mallee communities. For six of these species this alliance appeared to be the most favoured. These were Myall Slider (which was only found at sites in this alliance), Sandplain Ctenotus, Tree Dtella, Mallee Snake-eye, Bynoe's Gecko and Adelaide Snake-lizard (the last two species also appeared to equally favour semi-arid shrublands).

Semi-arid Shrublands: Fifteen species had higher than expected relative abundances at sites in semi-arid shrublands. For three of these species this alliance appeared to be the most favoured. These were Eastern Stone Gecko, Bynoe's Gecko and Adelaide Snake-lizard (the last two species also appeared to equally favour open mallee).

Figure 186.
The Eastern Stone Gecko (*Diplodactylus vittatus*) appeared to most favour semi-arid shrublands on plains. (Photo: A. Robinson).

Mallee and Sedgelands on Yorke Peninsula: Twenty-three species had higher than expected relative abundances at sites in mallee and sedgelands on Yorke Peninsula. For four of these species this alliance appeared to be the most favoured. These were Eastern Bearded Dragon, Eastern Striped Skink, Prickly Dragon and Yellow-faced Whipsnake. Of these, the Prickly Dragon was only recorded in this vegetation alliance.

Coastal Shrublands: Seventeen species had higher than expected relative abundances at sites in coastal shrublands. For six species coastal shrublands appeared to be the most favoured vegetation alliance. These were Five-lined Earless Dragon, Lined Worm-lizard, Peninsula Brown Snake, Southern Four-toed Slider, Four-toed Earless Skink and Southern Three-toed Slider. The Five-lined Earless Dragon was only recorded in this vegetation alliance (five records from one site).

Saline Shrublands: Ten species had higher than expected relative abundances at sites in saline shrublands. For species present at more than one of these 12 sites, none appeared to favour the alliance more than one of the others. Species most commonly found in this depauperate alliance were the Four-toed Earless Skink and the Sleepy Lizard.

Watercourse Communities: Fourteen species had higher than expected relative abundances at sites in watercourse communities. For species present at more than one of the 14 sites, only two appeared to favour this mixture of communities over others, possibly reflecting the ecotonal nature of this group. These were Garden Skink and Burton's Legless Lizard.

Figure 187.
Burton's Legless Lizard (*Lialis burtonis*) was one of only two reptile species that were positively associated with watercourse communities. (Photo: P. Canty).

3. Landform Types

Dunes: Twenty species had greater than expected relative abundance at sand dune sites. However, nine of these were recorded on two or less occasions, which probably does not accurately reflect a habitat preference for this landform type.

For nine of the 20 species (with abundance values greater than 1) sand dune habitats appeared to be

favoured over others (these are highlighted with bold numbers in Appendix 31). The most commonly recorded of these were Southern Four-toed Slider, Lined Worm-lizard, Peninsula Brown Snake, Painted Dragon and Prickly Dragon. Most of these species were also recorded at higher than expected levels in other landform types, most commonly on plains. This is a likely reflection of the number of plains sites that also had sandy soils, particularly on Yorke Peninsula. The Five-lined Earless Dragon was found in no other habitat type, however all five records were from the one site.

Figure 188.
The Common Scaly-foot (*Pygopus lepidopodus*) was recorded at five sites on southern Yorke Peninsula, within mallee and coastal shrubland communities. (Photo: H. Stewart).

Plains: Twenty-four species had greater than expected relative abundance at sites on plains. For nine of these plains appeared to be the most favoured landform type. The most commonly recorded of these were Dwarf Skink, Mallee Snake-eye, Southern Three-toed Slider and Adelaide Snake-eye. The Sandplain Ctenotus and Myall Slider were only found at sites on plains. Fourteen of the 29 species also showed higher than random relative abundance for dunes, which is probably a result of a preference for sandy soils.

Hills: Thirty species had greater than expected relative abundance at sites on hills. For 15 of these, hills appeared to be the most favoured landform type. The most commonly recorded of these were Common Snake-eye, Three-toed Earless Skink, Eastern Striped Skink, Bougainville's Skink, Tawny Dragon and Adelaide Snake-lizard. Spinifex Snake-lizard, Eastern Tree Skink and Southern Blind Snake were only found at sites on hills.

Seven of the 30 species also had higher than expected abundances for watercourse landform types. For a number of these species it reflects their preferences for exposed rocky areas (e.g. Southern Rock Dtella) or woodland habitats (e.g. Common Snake-eye and Desert Wall Skink), both of which are represented in drainage lines, particularly where they are surrounded by hills.

Watercourses: Thirteen species had greater than expected relative abundance at sites in watercourses. For six of these, watercourses appeared to be the most favoured landform type. These were Southern Rock Dtella, Desert Wall Skink, Burton's Legless Lizard, Eastern Brown Snake, Garden Skink and Eastern Spotted Ctenotus. All but the last two of these also had higher than expected abundances for hills. Only the two tortoise species, Common Long-necked Tortoise and Macquarie Tortoise, occurred exclusively in watercourses, reflecting their aquatic habits. The lack of terrestrial species being restricted to this landform type reflects the ecotonal nature of watercourses that relates to the linear nature of their distribution and high levels of regular disturbance from stream flow.

Lakes: Seven species had greater than expected relative abundance at sites in lakes. For three of these, lakes appeared to be the most favoured landform type. This habitat appears to be favoured by the two largest skink species occurring in the study area (Eastern Bluetongue and Sleepy Lizard) and the ubiquitous Four-toed Earless Skink that occurs where-ever there is dense cover or litter. These species are opportunists that are found in all of the major landform types.

4. Broad Soil Types

Clay: Nineteen reptile species had higher than expected relative abundance at the 50 sites dominated by clay soils. For 11 of these species (with abundance values greater than 1) clay soil habitats appeared to be favoured over others (these are highlighted with bold numbers in Appendix 32). The Spinifex Snake-lizard and Myall Slider were only found at sites with clay soils. The other species had variable occurrence at sites on loamy soils and only the widespread and abundant Sleepy Lizard and Dwarf Skink had more than 10% of their records on sandy soil sites.

Loam: Thirty reptile species had higher than expected relative abundance at the 63 sites dominated by loamy soils. For 15 of these species loam soil habitats appeared to be favoured over others. No species that was recorded at multiple sites was restricted to loamy soil sites. Of those species that appeared to favour loam soils a number of the skinks were also common at clay soil sites (Three-toed Earless Skink, Eastern Striped Skink and Adelaide Snake-eye), whilst only the Eastern Stone Gecko and Southern Rock Dtella had a higher than expected occurrence at sandy soil sites.

Sand: Twenty-five reptile species had higher than expected relative abundance at the 46 sites dominated by sandy soils. For 14 of these species sand soil habitats appeared to be favoured over others. Prickly Dragon and Barred Snake-lizard were only found at sites dominated by sandy soils, though soil information was not recorded at all sites (refer Appendix 32).

Biogeography

The Yorke Peninsula and Mid North regions together do not support a distinctive reptile fauna. This is because of its position at the edges of a number of bioclimatic zones (Nix 1982).

In the south-east of the study area lies the Bassian Region that is characterised by higher annual average winter dominated rainfall (>500mm) that supports sclerophyll woodlands and forests. It is expressed in the study region in the Mount Lofty Ranges as an archipelago of higher altitude islands that form a broken chain north to the southern Flinders Ranges. Typical Bassian species include the Three-toed Earless Skink and Garden Skink.

Figure 189.
The Southern Three-toed Slider (*Lerista terdigitata*) was recorded at five sites on Yorke Peninsula. (Photo: A. Robinson).

The bulk of the study area lies in a transition zone to the arid Eyrean Region that is characterised by mallee, mallee/heath and grassy woodland communities. This has been termed the Eyrean/Bassian Region (Blakers *et al.* 1984) and the bulk of the reptile fauna in the study area are typical in this zone. An added complication is introduced by the affinities that the southern Yorke Peninsula has with Eyre Peninsula. Species typical of this include the Black Tiger Snake (also Kangaroo Island), Peninsula Brown Snake, Common Death Adder, Myall Slider, Southern Three-toed Slider and Striped Wall Skink. Also a number of species reach their western distributional limits in the region, eg. Eastern Brown Snake and Yellow-faced Whipsnake. There are also three South Australian endemic species that have their distributions centred in the study area. The nationally endangered Pygmy Bluetongue is confined to remnant native grasslands in the low hills of the Mid North, while the Flinders Worm Lizard and Adelaide Snake-lizard both have the bulk of their distribution within the study area and the adjacent southern Flinders Ranges.

The Eyrean region influences the northern and western low-lying plains that are dominated by chenopod shrublands. Reptile species include Saltbush Ctenotus, Desert Wall Skink, Dwarf Three-toed Slider and Eyrean Earless Dragon.

Discussion

The distribution of species within the region is largely determined by their habitat preferences, the available areas of those habitats and their degree of alteration. Some species have adapted well to the modified nature of the region and are common and widespread. For example the Sleepy Lizard was recorded at more sites than any other reptile species. Others that prefer specific habitats that have been undesirable for agriculture, such as rocky outcrops, still have healthy populations in these areas, eg. the Tawny Dragon. Many of the other species, whilst still present in habitat remnants, are likely to have suffered big declines in their overall range and abundance. The long term survival of many of these species in small and isolated habitat fragments is not assured.

The above analyses imply that grasslands and saline shrublands had the lowest species richness at sites - on average half the number at sites in other vegetation alliances (Table 34 and Appendix 30). The salinity analyses indicate a similar trend of decreased species richness over areas affected by surface soil salinity. Increases in areas affected by moderate to high salinity that currently support remnant native vegetation will have a detrimental impact on reptile species richness and diversity (Table 34 and Appendix 29).

Figure 190.
The first record for the region of the Eyrean species, the Saltbush Ctenotus (*Ctenotus olympicus*), was recorded during the survey in Caroona Creek Conservation Park. (Photo: A. Robinson).

FROGS

N. Neagle[1]

Total Species

A total of 30 site records (from 22 individual sites) were made for frogs on this survey. All seven of the frog species known to occur in the study area (refer Appendix 33) were recorded during the survey (Appendix 34). Only two of these have been recorded on Yorke Peninsula – the Painted Frog *Neobatrachus pictus* and Spotted Grass Frog *Limnodynastes tasmaniensis* (Tyler 1973[2]) – of which only the former was recorded on this survey. It is also notable that only two specimens of the Spotted Grass Frog from Yorke Peninsula have been lodged with the South Australian Museum in the last 30 years.

The paucity of frog fauna on Yorke Peninsula can be explained by the region's relatively dry nature, particularly the lack of permanent surface fresh water. The two species recorded for the region both have a wide distribution and are extremely climatically tolerant.

By contrast, all seven species were recorded in the Mid North portion of the study area during the survey, though the Streambank Froglet *Crinia riparia* and Brown Tree Frog *Litoria ewingii* were each recorded only once.

Species Richness

An average of 1.4 species per site was recorded at the 26 sites (from all surveys in the region) where at least one frog was recorded. These 26 sites, however, represent only 15.5% of the 168 sites where fauna trapping occurred. Maximum richness at a site was five species, at a site on the Wakefield River near Mintaro. Two species were recorded at six sites and only one at the remaining 19 sites. Insufficient data prohibits any meaningful discussion of frog species richness in relation to habitat variables.

Species Habitat Affinities

The relationship of individual frog species with these various habitat variables will be discussed in this section. No attempts have been made to test for significance of species trends, as the site frequencies and capture rates for all species were too low to have statistical validity.

To indicate apparent habitat preferences the relative abundance of species was compared with a hypothetical calculated expected value derived from the proportion of sites sampled in each habitat variable if species were distributed randomly. This was calculated by subtracting the expected value from the observed value and divided by the expected value:

(**O**bserved – **E**xpected)/**E**xpected

where Expected = (number sites in habitat/total number of sites) X total number of observations for that species.

This transforms negative values of the equation to a negative fraction and observed values of 0 become –1. For full details for each species' relative abundance at sites with the various habitat parameters refer to Appendices 35-38. Caution should be used when interpreting the apparent trends in habitat preferences, particularly as relative abundances are low. This is because of the high variability in trapping rates relating to seasonal and climatic conditions across the survey, and varying degrees of habitat degradation at sites within vegetation alliances.

Figure 191.
The Common Froglet (*Crinia signifera*) was recorded at nine sites associated with watercourses and swamps in the Mid North. (Photo: A. Robinson).

[1] Biological Survey and Monitoring Section, Science and Conservation Directorate, Department for Environment and Heritage, GPO Box 1047, Adelaide SA 5001.

[2] Tyler (1973) lists *Neobatrachus centralis* for Yorke Peninsula, though this predates a revision of the genus. All *Neobatrachus* from YP are now considered to be *N. pictus*.

Brown Tree Frog *Litoria ewingii*: This species was recorded at only one site – on the Wakefield River near Mintaro – on a watercourse with clay soil and in the nil salinity category.

Streambank Froglet *Crinia riparia*: Also recorded at only one site – on the Rocky River south east of Crystal Brook – on a watercourse with clay soil and in the nil salinity category.

Common Froglet *Crinia signifera*: A total of 58 records were made of this species from nine sites. It appears to be restricted to watercourse and swamp communities on clay soils. It was found at sites in the nil and low salinity classes.

Spotted Grass Frog *Limnodynastes tasmaniensis*: The Spotted Grass Frog was recorded 18 times at five sites. It appears to be associated with watercourse communities and lakes with clay soils. It was found at sites in the nil and low salinity classes.

Figure 192.
Spotted Grass Frog (*Limnodynastes tasmaniensis*) was recorded at five sites on watercourses in the Mid North. (Photo: A. Robinson).

Bull Frog *Limnodynastes dumerilii*: There were nine records of the Bull Frog from four sites. These were all in watercourse communities with clay soil and predominantly in the nil salinity class.

Painted Frog *Neobatrachus pictus*: A total of 22 records were made of the Painted Frog from 11 sites. It was recorded from (and had a positive association with) a range of vegetation communities and landform types but was most closely associated with Yorke Peninsula Mallee and Sedgelands on sand near lakes. It was found at sites in all salinity classes except for highly saline sites.

Figure 193.
Painted Frog (*Neobatrachus pictus*) is a burrowing species that was recorded at 11 sites from a wide range of habitats. (Photo: A. Robinson).

Brown Toadlet *Pseudophryne bibronii*: There were seven records of the Brown Toadlet from four sites. This species appears to be associated with Sheoak Low Woodlands of the Mid North on hills and watercourses with clay soils. All records were from sites in the nil salinity class.

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A BIOLOGICAL SURVEY
OF
THE MID NORTH AND YORKE PENINSULA SOUTH AUSTRALIA 2003 – 2004:

VOLUME 2: APPENDICES

N. Neagle

Biological Survey and Monitoring Section
Science and Conservation Directorate
Department for Environment and Heritage, South Australia

2008

Mid North and Yorke Peninsula Biological Survey

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View north along the Tothill Range.

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APPENDIX 1. LIST OF SURVEY SITES WITHIN THE MID NORTH AND YORKE PENINSULA BIOLOGICAL SURVEY STUDY AREA.

SU Survey Number (refer Table 9 in Vegetation Chapter for Survey names).
SiteID Site identification code.
Veg Grp Floristic Group Number from PC-ORD Analysis (refer Vegetation Chapter). A blank in this column indicates site not used in floristic analysis.
Salt Class From DWLBC Soil and Land Information (2002) mapping.
Overstorey Dominant vegetation species in the overstorey layer (numbers and letters in brackets following each species relate to the cover/abundance estimates – N = not many, 1-10 plants, cover <5%; T = sparsely present, cover small, <5%; 1 = plentiful, but of small cover, <5%; 2 = cover 5-25%; 3 = cover 25-50%; 4 = cover 50-75%; 5 = cover >75% - except NC = not current taxonomy (refer Appendix 4 for indication of current taxonomy).
N.B. A blank for any of the physical parameters indicates it was not recorded at the time of the survey.

SU	SiteID	Date	Zone	Easting	Northing	Veg Grp	Location	Landform	Landform Element	Surface Soil	Salt Class	Vegetation Overstorey	Vegetation Structure
5	ML374	21/05/1986	54	289272	6179698		3.0 km NNE of Roseworthy College				A		
5	ML375	21/05/1986	54	286712	6176668		1.4 km WSW of Roseworthy College				A		
5	ML376	21/05/1986	54	282912	6172738		4.4 km WNW of Ward Belt				A		
5	ML377	21/05/1986	54	282582	6169748		4.4 km WSW of Ward Belt				B		
5	ML378	21/05/1986	54	277972	6170478		6.1 km ENE of Two Wells				A		
5	ML379	21/05/1986	54	279712	6174318		8.0 km WNW of Ward Belt				A		
6	BOO0137	14/07/1986	54	256922	6354779	4	4.3 km SSW of White Cliff (Arwakurra)	Low hills	hill slope		A	Eucalyptus odorata (T), Eremophila longifolia (T), Allocasuarina verticillata (T)	
6	BOO0139	15/07/1986	54	247422	6347079	17	4.1 km WSW of Yandiah	Low hills	hill slope		B	Eucalyptus odorata (2), Callitris glaucophylla (T)	
6	BOO0142	16/07/1986	54	250922	6362879	25	4.3 km NNW of Booleroo Centre	Low hills	hill slope		A	Senna artemisioides ssp. X coriacea (2), Eucalyptus odorata (T)	
6	BOO0143	16/07/1986	54	250322	6368479	25	1.2 km SSE of Booleroo Whim	Peneplain	flat		A	Senna artemisioides ssp. X coriacea (1), Templetonia egena (1), Callitris glaucophylla (1)	
6	LAU0197	7/08/1986	54	247422	6345479	18	4.5 km NNE of Wirrabara	Low hills	flat		B	Eucalyptus odorata (2), Eucalyptus microcarpa (1), Callitris glaucophylla (1)	
6	LAU0198	7/08/1986	54	248222	6343379	13	3.7 km ENE of Wirrabara	Low hills	hill slope		A	Eucalyptus odorata (1), Allocasuarina verticillata (1), Eucalyptus leucoxylon ssp. (T)	
6	MAM0390	12/09/1986	53	773529	6365772	31	5.6 km WNW of Mambray Creek	Low hills	hill slope		A	Eucalyptus oleosa (NC) (1)	
6	MEL0190	22/07/1986	54	239522	6372779	83	8.7 km SE of Terka	Drainage line	flat		B	Eucalyptus camaldulensis var. (3)	
6	MEL0301	8/08/1986	54	222922	6346879	27	5.6 km NNE of Port Germein	Alluvial plain	flat		A	Maireana sedifolia (1), Maireana pyramidata (T), Acacia victoriae ssp. victoriae (T)	
6	MEL0389	10/09/1986	54	227122	6345579	24	6.7 km NNE of Telowie	Pediment	hill slope		A	Eucalyptus porosa (2)	
6	PIR0199	7/08/1986	54	238622	6344179		6.8 km WNW of Wirrabara	Low hills	hill crest		A	*Triticum aestivum (3), *Echium plantagineum (1), *Trifolium arvense var. arvense (1)	
6	WIL0145	16/07/1986	54	249322	6381379	6	1.2 km NNW of Willowie	Alluvial plain	flat		A	Maireana tomentosa ssp. urceolata (1)	
6	WIL0146	16/07/1986	54	245122	6378979	40	4.5 km WSW of Willowie	Plain	flat		A	Acacia victoriae ssp. victoriae (1)	
6	WIL0149	17/07/1986	54	253822	6385579	4	6.0 km ESE of Amyton	Low hills	hill slope		A	Sclerolaena obliquicuspis (T), Maireana tomentosa ssp. urceolata (T)	
6	WIL0180	18/07/1986	54	248622	6383579	28	3.5 km NNW of Willowie	Plain	flat		A	Casuarina pauper (T), Myoporum platycarpum (NC) (T)	
13	IN00101	20/10/1976	53	672129	6093171		1.9 km SSW of Inneston				A		
13	IN00201	8/07/1977	53	672223	6094171		0.9 km SSE of Inneston				A		
13	IN00301	21/10/1976	53	670129	6095171		2.0 km WNW of Inneston				A		
13	IN00401	8/07/1977	53	670629	6095171		1.5 km WNW of Inneston				A		
13	IN00501	20/10/1976	53	671129	6095171		1.0 km WNW of Inneston				A		
13	IN00601	20/10/1976	53	672129	6095171		0.1 km NNW of Inneston				A		
13	IN00701	21/10/1976	53	672129	6095171		0.1 km NNW of Inneston				A		

SU	SiteID	Date	Zone	Easting	Northing	Veg Grp	Location	Landform	Landform Element	Surface Soil	Salt Class	Vegetation Overstorey	Vegetation Structure
13	IN00801	20/10/1976	53	673129	6095171		1.0 km ENE of Inneston				A		
13	IN00901	6/07/1977	53	669229	6096171		3.1 km WNW of Inneston		saltlake		C		
13	IN00902	6/07/1977	53	669329	6096171		3.0 km WNW of Inneston				A		
13	IN00903	6/07/1977	53	669429	6096171		3.0 km WNW of Inneston		plain (incl undulating plain)		A		
13	IN01001	21/10/1977	53	671129	6096171		1.5 km NNW of Inneston				C		
13	IN01101	20/10/1976	53	674129	6096171		2.3 km ENE of Inneston				A		
13	IN01201	7/07/1977	53	671929	6097171		2.1 km NNW of Inneston				A		
13	IN01301	7/07/1977	53	672029	6097171		2.1 km NNW of Inneston				A		
13	IN01401	20/10/1976	53	672129	6097171		2.1 km NNW of Inneston				A		
13	IN01501	7/07/1977	53	672129	6097171		2.1 km NNW of Inneston				A		
13	IN01601	7/07/1977	53	672229	6097171		2.1 km NNE of Inneston				A		
13	IN01701	7/07/1977	53	672329	6097171		2.1 km NNE of Inneston				A		
13	IN01801	7/07/1977	53	672029	6097271		2.2 km NNW of Inneston				A		
13	IN01901	7/07/1977	53	672129	6097271		2.2 km NNW of Inneston				A		
13	IN02001	7/07/1977	53	672229	6097271		2.2 km NNE of Inneston				A		
13	IN02101	7/07/1977	53	672329	6097271		2.2 km NNE of Inneston				A		
13	IN02201	7/07/1977	53	671929	6097371		2.3 km NNW of Inneston				A		
13	IN02301	7/07/1977	53	672029	6097371		2.3 km NNW of Inneston				A		
13	IN02401	7/07/1977	53	672129	6097371		2.3 km NNW of Inneston				A		
13	IN02501	7/07/1977	53	672229	6097371		2.3 km NNE of Inneston				A		
13	IN02601	7/07/1977	53	672329	6097371		2.3 km NNE of Inneston				A		
13	IN02701	7/07/1977	53	671929	6097471		2.4 km NNW of Inneston				A		
13	IN02801	8/07/1977	53	672029	6097471		2.4 km NNW of Inneston				A		
13	IN02901	8/07/1977	53	672129	6097471		2.4 km NNW of Inneston				A		
13	IN03001	8/07/1977	53	672229	6097471		2.4 km NNE of Inneston				C		
13	IN03101	25/04/1977	53	667129	6098171		1.0 km SSW of Pondalowie Bay		plain (incl undulating plain)	sand	A		
13	IN03201	20/10/1976	53	672129	6098171		3.1 km NNW of Inneston				A		
13	IN03301	20/10/1976	53	673129	6098171		3.3 km NNE of Inneston				C		
13	IN03401	20/10/1976	53	674129	6098171		3.7 km NNE of Inneston				A		
13	IN03501	6/07/1977	53	666029	6098171		1.6 km WSW of Pondalowie Bay		plain (incl undulating plain)		A		
13	IN03502	6/07/1977	53	666029	6098371		1.5 km WSW of Pondalowie Bay				A		
13	IN03601	5/07/1977	53	666129	6098171		1.5 km WSW of Pondalowie Bay			sand	A		
13	IN03701	6/07/1977	53	666129	6098271		1.4 km WSW of Pondalowie Bay		cliff		A		
13	IN03801	5/07/1977	53	669129	6102171		3.5 km NNE of Pondalowie Bay			skeletal	A		
13	IN03901	21/10/1976	53	669629	6101671		3.4 km NNE of Pondalowie Bay				D		
13	IN04001	21/10/1976	53	668229	6099671		1.1 km ENE of Pondalowie Bay		dune/consolidated dune	sand	A		
13	IN04101	26/04/1977	53	669129	6103171		4.4 km NNE of Pondalowie Bay			sand	B		
13	IN04201	26/04/1977	53	670129	6103171		4.9 km NNE of Pondalowie Bay				G		
13	IN04301	8/07/1977	53	672129	6093171		1.9 km SSW of Inneston			sand	A		
13	IN04401	21/10/1976	53	672129	6104171		7.0 km NE of Pondalowie Bay				E		
13	IN04501	26/04/1977	53	671129	6104171		6.3 km NNE of Pondalowie Bay				A		
13	IN04601	8/07/1977	53	672429	6105171		7.9 km NNE of Pondalowie Bay		beach		A		
13	IN04602	8/07/1977	53	672529	6105171		8.0 km NNE of Pondalowie Bay		dune/consolidated dune		A		
13	IN04603	8/07/1977	53	672729	6105171		8.1 km NNE of Pondalowie Bay				A		

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13	IN04701	25/04/1977	53	673129	6105171		8.4 km NE of Pondalowie Bay		dune/consolidated dune	sand	B		
13	IN04801	25/04/1977	53	674129	6105171		8.6 km NW of Marion Bay		plain (incl undulating plain)	sand	C		
13	IN04901	21/10/1976	53	674129	6106171		9.3 km NNW of Marion Bay				B		
13	IN05001	25/04/1977	53	673129	6107171		9.9 km NNE of Pondalowie Bay				A		
13	IN05101	25/04/1977	53	674129	6107171		10.1 km NNW of Marion Bay		dune/consolidated dune	sand	A		
24	AR00101	29/07/1991	54	319622	6251878	32	3.4 km SSW of Worlds End	Hills	hill slope	skeletal	A	Eucalyptus oleosa (NC) (3)	Mallee
24	BF00101	1/08/1991	54	315822	6243978	13	0.1 km SSW of The Bluff	Hills	ridge	clay loam	A	Allocasuarina verticillata (2)	
24	BU00101	1/08/1991	54	317722	6289228	40	7.4 km WNW of Tracy	Hills	hill slope	clay loam	A	Eucalyptus socialis (NC) (T), Eucalyptus gracilis (T)	Very Open Mallee
24	BU00201	1/08/1991	54	318722	6288328	24	6.1 km WNW of Tracy	Hills	hill slope	silty loam	A	Eucalyptus porosa (2)	Woodland
24	CA00201	29/07/1991	54	326522	6292778	30	2.9 km SSW of Caroona	Rises	hill slope	sandy clay loam	A	Eucalyptus socialis (NC) (T)	Very Open Mallee
24	CA00202	29/07/1991	54	327152	6293228	30	2.1 km SSW of Caroona	Plain	hill footslope	sandy clay loam	A	Maireana pyramidata (2)	Open Shrubland
24	CL00101	25/07/1991	54	323422	6308528	37	9.7 km ENE of Mount Bryan East	Hills	hill slope	silty loam	A	Rhagodia parabolica (2), Dodonaea viscosa ssp. angustissima (2), Dodonaea lobulata (2)	Low Open Shrubland
24	CL00102	25/07/1991	54	323622	6308378	38	9.7 km ENE of Mount Bryan East	Hills	hill slope	silty loam	A	Acacia calamifolia (NC) (2), Dodonaea lobulata (2), Dodonaea viscosa ssp. angustissima (T)	Very Open Shrubland
24	HB00301	26/07/1991	54	324922	6297678		4.3 km WNW of Caroona	Low hills	hill slope	sandy clay loam	A	Geijera linearifolia (T), Alectryon oleifolius ssp. canescens (T), Eremophila oppositifolia ssp. oppositifolia (T)	Very Open Shrubland
24	HB00303	26/07/1991	54	325522	6297678	34	3.8 km NNW of Caroona	Peneplain	fan - alluvial	sandy loam	A	Eucalyptus socialis (NC) (2)	Open Mallee
24	LG00101	31/07/1991	54	327622	6280678	31	5.7 km SSE of Tracy	Hills	hill slope	loam	A	Eucalyptus brachycalyx (2)	Open Mallee
24	LM00101	1/08/1991	54	326572	6290878	30	4.5 km SSW of Caroona	Flood plain	plain (incl undulating plain)	clay loam	A	Maireana pyramidata (2)	Low Open Shrubland
24	MI00101	26/07/1991	54	321222	6298078	38	6.1 km ESE of Mount Bryan East	Hills	hill slope	silty loam	A	Acacia calamifolia (NC) (2)	Open Shrubland
24	MW00101	26/07/1991	54	319272	6313679	33	10.8 km NNE of Peppermint Gully	Pediplain	plain (incl undulating plain)	silty loam	A	Eucalyptus gracilis (4)	Mallee
24	MW00102	26/07/1991	54	318122	6314579	34	11.0 km NNE of Peppermint Gully	Plain	plain (incl undulating plain)	silty loam	A	Eucalyptus oleosa (NC) (3), *Carrichtera annua (T)	Mallee
24	OT00101	1/08/1991	54	326122	6288628	34	2.7 km NNE of Shamrock	Rises	hill slope	sandy clay loam	A	Eucalyptus socialis (NC) (2)	Open Mallee
24	OT00201	1/08/1991	54	323622	6285828	34	1.1 km NNW of Tracy	Rises	hill slope	sandy loam	A	Eucalyptus socialis (NC) (1)	Very Open Mallee
24	PH00101	31/07/1991	54	331522	6278378	34	9.5 km ENE of Red Banks	Plain	plain (incl undulating plain)	clay loam	A	Eucalyptus socialis (NC) (2)	Open Mallee
24	PO00101	26/07/1991	54	319972	6299078	17	4.5 km ESE of Mount Bryan East	Hills	fan - alluvial	silty clay loam	A	Eucalyptus odorata (2)	Open Mallee
24	RB00101	29/07/1991	54	325422	6255678	33	4.9 km ENE of Worlds End	Low hills	ridge	clay loam	A	Eucalyptus brachycalyx (2)	Open Mallee
24	SR00101	31/07/1991	54	319622	6248478	38	6.0 km ENE of Emu Downs	Hills	hill slope	medium clay	A	Eucalyptus socialis (NC) (2)	Open Mallee
24	SR00201	1/08/1991	54	319922	6244078	34	5.5 km ESE of Emu Downs	Hills	hill slope	clay loam	A	Eucalyptus socialis (NC) (2), Eucalyptus gracilis (2)	Open Mallee
24	TR00101	26/07/1991	54	322622	6298228	37	7.2 km ESE of Mount Bryan East	Hills	ridge	silty loam	A	Rhagodia parabolica (1), Olearia decurrens (1), Dodonaea viscosa ssp. angustissima (1)	Low Open Shrubland
24	TR00102	26/07/1991	54	323622	6298178	34	8.1 km ESE of Mount Bryan East	Hills	ridge	sandy loam	A	Eucalyptus socialis (NC) (2)	Open Low Mallee
24	TS00101	1/08/1991	54	322322	6279428	34	3.3 km SSE of Mongalata	Plain	hill slope	loam	A	Eucalyptus oleosa (NC) (2), Eucalyptus socialis (NC) (2)	Open Mallee
31	DEPMW01	11/02/1980	54	284422	6213478		3.5 km ESE of Salter Springs				A	Eucalyptus leucoxylon (NC), Eucalyptus odorata	
31	DEPMW02	11/02/1980	54	286022	6207578		0.2 km SSE of Kelly Hill				A	Eucalyptus leucoxylon (NC), Eucalyptus odorata	
31	DEPMW03	11/02/1980	54	286822	6202878		5.7 km ESE of Alma				A	Eucalyptus leucoxylon (NC), Eucalyptus odorata	
31	DEPMW04	11/02/1980	54	279422	6199478		2.7 km NNE of Barabba				A	Eucalyptus calycogona (NC), Eucalyptus odorata	Tall Very Open Shrubland
31	DEPMW05	11/02/1980	54	279222	6199178		2.3 km NNE of Barabba				A	Eucalyptus odorata, Eucalyptus socialis (NC)	Tall Very Open Shrubland
31	DEPMW07	12/02/1980	54	307522	6186378		2.4 km WNW of Greenock				A	Eucalyptus leucoxylon (NC), Eucalyptus odorata	Woodland
31	DEPMW08	12/02/1980	54	307422	6186278		2.4 km WNW of Greenock				A	Eucalyptus leucoxylon (NC), Eucalyptus odorata	
31	DEPMW09	12/02/1980	54	324522	6187078		3.5 km ESE of Stockwell				A	Eucalyptus odorata	Woodland
31	DEPMW11	13/02/1980	54	306722	6211678		2.3 km ENE of Hamilton				A	Eucalyptus leucoxylon (NC), Eucalyptus odorata	Woodland
31	DEPMW12	13/02/1980	54	301422	6211978		3.2 km WNW of Hamilton				B	Eucalyptus odorata	Woodland
31	DEPMW13	13/02/1980	54	300722	6221378		2.5 km WSW of Springfield				A	Eucalyptus leucoxylon (NC)	Woodland

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31	DEPMW14	14/02/1980	54	289822	6224978		5.6 km WSW of Saddleworth				A	Eucalyptus odorata	Woodland
31	DEPMW15	14/02/1980	54	291622	6227478		3.7 km WNW of Saddleworth				A	Acacia pycnantha	Woodland
31	DEPMW16	14/02/1980	54	295322	6233778		3.5 km WSW of Manoora				A	Eucalyptus leucoxylon (NC), Eucalyptus odorata	Low Open Woodland
31	DEPMW17	14/02/1980	54	306622	6230778		4.7 km SSW of Tothill Belt				B	Eucalyptus leucoxylon (NC), Eucalyptus odorata	
31	DEPMW18	14/02/1980	54	306922	6228378		2.4 km NNW of Tothill Creek				A	Eucalyptus odorata	
31	DEPMW19	14/02/1980	54	311022	6227378		3.5 km ENE of Tothill Creek				A	Eucalyptus odorata	
31	DEPMW20	14/02/1980	54	312122	6223278		3.6 km NNE of Tarnma				A	Eucalyptus odorata	
31	DEPMW21	14/02/1980	54	312322	6220278		1.1 km ENE of Tarnma				A	Eucalyptus odorata	
31	DEPMW39	3/03/1980	54	334422	6216978		3.0 km SSW of Sutherlands				A	Eucalyptus brachycalyx, Eucalyptus gracilis	Tall Very Open Shrubland
31	DEPMW40	10/03/1980	54	247022	6245479		8.4 km NNW of Everard Central				A	Eucalyptus oleosa (NC)	Tall Very Open Shrubland
31	DEPMW41	10/03/1980	54	253322	6238379		2.0 km ENE of Everard Central				A	Eucalyptus rugosa, Eucalyptus gracilis, Eucalyptus socialis (NC)	Tall Very Open Shrubland
31	DEPMW42	10/03/1980	54	273822	6266579		2.5 km NNE of Mount Tinline				B	Eucalyptus leucoxylon (NC)	
31	DEPMW43	11/03/1980	54	310722	6243378		0.8 km ENE of Apoinga				A	Callitris gracilis, Allocasuarina verticillata, Exocarpos cupressiformis	Very Low Woodland
31	DEPMW44	11/03/1980	54	319322	6247878		5.4 km ENE of Emu Downs				A	Eucalyptus socialis (NC)	Tall Very Open Shrubland
31	DEPMW48	12/03/1980	54	308522	6262378		8.6 km ESE of Hanson				A	Eucalyptus leucoxylon (NC)	Open Woodland
31	DEPMW49	12/03/1980	54	311922	6294379		5.4 km S of Mount Bryan				A	Eucalyptus leucoxylon (NC)	Open Woodland
31	DEPMW50	12/03/1980	54	312622	6304479		0.5 km SSW of Peppermint Gully				A	Eucalyptus odorata	Low Open Woodland
31	DEPMW51	12/03/1980	54	287522	6321979		5.7 km WSW of Canowie Belt				A	Eucalyptus leucoxylon (NC)	Low Open Woodland
31	DEPMW61	1/04/1980	54	234522	6372279		5.7 km SSE of Terka				A	Eucalyptus camaldulensis var., Eucalyptus cladocalyx, Eucalyptus odorata	
31	DEPMW62	1/04/1980	54	245822	6343379		1.9 km NNE of Wirrabara				A	Eucalyptus odorata	
31	DEPMW63	1/04/1980	54	279322	6361479		4.7 km WNW of White Rock				A	Eucalyptus odorata	
31	DEPMW65	1/04/1980	54	270922	6390779		4.3 km NNE of Smedley Town				A	Callitris glaucophylla	Woodland
31	DEPMW67	2/04/1980	54	287522	6350579		6.5 km SE of Yatina				A	Callitris glaucophylla	
31	DEPMW71	2/04/1980	54	293622	6341779		4.0 km ESE of Yongala				A	Eucalyptus odorata	
45	ANG1001	28/04/1992	54	329503	6180755	17	4.0 km SSE of Moculta		hill slope	clay loam	B	Eucalyptus odorata (2), Eucalyptus leucoxylon ssp. (1), Allocasuarina verticillata (T)	Woodland
45	EUD0501	29/04/1992	54	325531	6232174	34	3.6 km SSW of Coronation Hill		hill slope	medium clay	A	Eucalyptus gracilis (3), Eucalyptus socialis (NC) (3)	Mallee
45	EUD0601	1/05/1992	54	319273	6229027	7	1.7 km NNW of Point Pass		gully	medium clay	A	Eucalyptus porosa (T)	Low Woodland
45	EUD0801	1/05/1992	54	327372	6217834	17	2.1 km WNW of Deep Creek		hill slope	medium clay	A	Eucalyptus odorata (3)	Very Low Woodland
45	EUD0901	30/04/1992	54	335390	6217181	32	2.3 km SSW of Sutherlands		hill slope	clay loam	A	Eucalyptus gracilis (4), Eucalyptus oleosa (NC) (3)	Closed Mallee
45	EUD0902	30/04/1992	54	334876	6217129	32	2.6 km SSW of Sutherlands		hill slope	clay loam	A	Eucalyptus gracilis (3), Eucalyptus oleosa (NC) (3)	Mallee
45	EUD1101	30/04/1992	54	336807	6214766	32	4.6 km SSE of Sutherlands		plain (incl undulating plain)	clay loam	A	Eucalyptus oleosa (NC) (4)	Closed Mallee
45	EUD1102	30/04/1992	54	335977	6214025	33	5.3 km SSW of Sutherlands		hill/mountain	clay loam	A	Eucalyptus oleosa (NC) (3), Eucalyptus brachycalyx (3)	Mallee
45	EUD1103	30/04/1992	54	337148	6213072	32	5.8 km WNW of Brownlow		hill slope	Not collected	A	Eucalyptus gracilis (4)	Mallee
45	EUD1B18	30/04/1992	54	334243	6215218	25	4.6 km SSW of Sutherlands		plain (incl undulating plain)	medium clay	A	Eremophila longifolia (3)	Tall Very Open Shrubland
45	EUD1B22	1/05/1992	54	324641	6232477	25	5.1 km SSE of Robertstown		hill slope	medium clay	A	Santalum acuminatum (3)	Open Shrubland
45	EUD1B23	1/05/1992	54	330784	6222440		2.7 km NNE of Peep Hill		hill slope	medium clay	A	Eucalyptus porosa (T)	Very Low Open Woodland
45	TRU0101	29/04/1992	54	327422	6202383	17	1.1 km NNW of Mount Rufus		hill slope	clay loam	A	Eucalyptus odorata (3)	Low Open Forest
45	TRU0401	27/04/1992	54	323628	6195638	83	1.1 km SSE of St Kitts		plain (incl undulating plain)	sandy loam	B	Eucalyptus camaldulensis var. (3)	Open Forest
45	TRU0801	27/04/1992	54	327189	6187323	17	3.3 km NNE of Moculta		hill slope	clay loam	A	Eucalyptus odorata (3)	Low Woodland

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46	TEL1	19/03/1995	54	300622	6234128	2	2.7 km SE of Manoora		hill footslope	clay loam	A	Themeda triandra (3)	(Tussock) Grassland
46	TG011	23/09/1991	54	327572	6246428	7	10.1 km NNE of Robertstown		hill slope	skeletal	A	Lomandra effusa (2)	Open Sedgeland
46	TG012	23/09/1991	54	295832	6284954	7	4.2 km ENE of Booborowie		hill footslope	clay loam	B	Bursaria spinosa ssp. spinosa (1)	Very Open Shrubland
46	TG013	23/09/1991	54	311047	6305104	1	1.8 km WNW of Peppermint Gully		hill footslope	medium clay	A	*Avena barbata (2)	Closed Herbland
46	TG014	24/09/1991	54	316422	6242528	1	1.6 km SSE of The Bluff		ridge		A	Lomandra multiflora ssp. dura (1), Lomandra micrantha ssp. micrantha (1)	Open Hummock Grassland
46	TG015	24/09/1991	54	312372	6248928	1	4.2 km NNW of Emu Downs		plain (incl undulating plain)	medium clay	A	Austrostipa blackii (1)	Open (Tussock) Grassland
46	TG016	24/09/1991	54	298072	6267979	5	5.3 km NNW of Hanson		ridge	clay loam	A	Themeda triandra (3)	(Tussock) Grassland
46	TG032	16/10/1991	54	286122	6284279	1	5.6 km WNW of Booborowie		hill footslope	skeletal	A	Bursaria spinosa ssp. spinosa (1)	Low Open Shrubland
46	TG033	16/10/1991	54	286122	6285179	1	5.8 km WNW of Booborowie		hill footslope	skeletal	A	Bursaria spinosa ssp. spinosa (T)	Low Very Open Shrubland
46	TG034	16/10/1991	54	272822	6310179	8	1.1 km ENE of Bundaleer Gardens		hill footslope	clay loam	A	Austrostipa nitida (2), Austrostipa setacea (1), Austrostipa scabra ssp. (1)	Open (Tussock) Grassland
46	TG036	1/11/1991	54	273922	6289029	10	4.3 km WSW of Spalding		ridge	skeletal	A	Triodia scariosa (3)	Open Hummock Grassland
46	TG037	2/11/1993	53	726429	6148171	45	3.7 km SSW of Cheraweth		open depression	sand	C	Triodia compacta (2)	Open Hummock Grassland
46	TG038	2/11/1991	53	728429	6158671	45	1.6 km SSW of Port Rickaby		open depression	sand	A	Triodia compacta (2), Austrostipa echinata (1), Poa poiformis var. poiformis (1)	Open Hummock Grassland
46	TG039	24/09/1991	54	297872	6268029	1	5.5 km NNW of Hanson		ridge	skeletal	A	Acacia glandulicarpa (T)	Open Shrubland
46	TG040	29/10/1992	54	284322	6281979	81	4.6 km ENE of Andrews		stream channel	heavy clay	B	Phragmites australis (4), Typha domingensis (2)	Sedgeland
46	TG042	10/11/1993	54	307922	6270878	14	1.4 km SSW of Burra		hill slope		A	Pomaderris paniculosa ssp. paniculosa (2), Acrotriche patula (2)	Low Shrubland
46	TG043	10/11/1993	54	301547	6243253	1	5.4 km SSW of Black Springs		ridge	clayey sand	A	Themeda triandra (2), Lepidosperma viscidum (2), Acacia acinacea (1)	(Tussock) Grassland
46	TG044	17/11/1993	54	307047	6276253	1	4.0 km NNW of Burra		hill slope	sandy clay	B	*Avena barbata (2)	Herbland
46	TG046	25/11/1993	54	298022	6258828		4.5 km NNE of Farrell Flat		plain (incl undulating plain)	heavy clay	C	*Phalaris paradoxa (2), Whalleya proluta (2), Austrodanthonia duttoniana (2)	(Tussock) Grassland
46	TG047	29/11/1993	54	269797	6286829	10	8.2 km ENE of Yacka	Drainage line	hill slope	clayey sand	A	Acacia calamifolia (NC) (1), Myoporum montanum (T), Melaleuca lanceolata ssp. lanceolata (NC) (T)	Tall Open Shrubland
46	TG048	30/11/1993	54	275697	6276529	1	5.6 km WSW of Andrews		hill slope	clayey sand	B	Astroloma humifusum (3), Xanthorrhoea quadrangulata (2), Acacia pycnantha (1)	Low Shrubland
46	TG051	10/02/1994	54	277372	6192028	9	5.1 km SSW of Barabba		plain (incl undulating plain)	clayey sand	A	Bursaria spinosa ssp. spinosa (1)	Very Open Shrubland
49	APO0201	23/10/1992	54	313239	6255905	79	3.7 km WSW of Burra Hill		swamp	medium clay	C	Juncus kraussii (3)	Sedgeland
49	APO0401	23/10/1992	54	310707	6243242	15	0.8 km ESE of Apoinga		ridge	sandy loam	A	Allocasuarina verticillata (T), Exocarpos cupressiformis (T)	Very Low Open Woodland
49	APO0501	21/10/1992	54	312376	6239991	17	2.1 km SSE of Lagoon Hill		hill footslope	sandy loam	B	Eucalyptus odorata (2)	Low Woodland
49	APO0502	21/10/1992	54	311824	6240076	17	1.7 km SSE of Lagoon Hill		ridge	sandy loam	A	Eucalyptus odorata (3)	Low Woodland
49	APO0601	22/10/1992	54	312022	6237415	15	3.9 km ENE of Tothill Belt		hill slope	sandy loam	A	Eucalyptus odorata (2)	Low Woodland
49	APO0602	22/10/1992	54	312116	6237289	15	3.9 km ENE of Tothill Belt		hill slope	sandy loam	A	Allocasuarina muelleriana ssp. (3), Xanthorrhoea quadrangulata (3)	Shrubland
49	APO0701	22/10/1992	54	307571	6240053	17	3.9 km SSW of Apoinga		hill slope	loam	A	Eucalyptus odorata (3)	Low Woodland
49	APO0801	23/10/1992	54	302503	6237253	17	1.8 km WNW of Waterloo		hill footslope	sandy loam	A	Eucalyptus leucoxylon (NC) (2), Eucalyptus odorata (2)	Woodland
49	APO0802	23/10/1992	54	301865	6236169	17	2.3 km WSW of Waterloo		hill footslope	sandy loam	B	Eucalyptus odorata (3)	Woodland
49	APO0901	21/10/1992	54	306271	6248423	15	0.7 km NNW of Emuville		ridge	loam	A	Allocasuarina verticillata (T)	Very Low Woodland
49	APO1A23	23/10/1992	54	313970	6259146	34	2.7 km WNW of Burra Hill		hill slope	sandy loam	A	Eucalyptus socialis (NC) (2)	Open Mallee
49	BOO0101	28/10/1992	54	249926	6365922	32	3.8 km SSW of Booleroo Whim		plain (incl undulating plain)	clay loam	A	Eucalyptus oleosa (NC) (3)	Mallee
49	BOO0201	26/10/1992	54	252407	6366833	22	3.6 km SSE of Booleroo Whim		plain (incl undulating plain)	clay loam	C	Callitris gracilis (2)	Low Woodland
49	BOO0301	26/10/1992	54	254466	6371456	34	4.6 km ENE of Booleroo Whim		plain (incl undulating plain)	clay loam	A	Eucalyptus socialis (NC) (3), Eucalyptus oleosa (NC) (3), Eucalyptus gracilis (1)	Mallee

SU	SiteID	Date	Zone	Easting	Northing	Veg Grp	Location	Landform	Landform Element	Surface Soil	Salt Class	Vegetation Overstorey	Vegetation Structure
49	BOO0401	26/10/1992	54	252887	6360465	34	1.9 km NNE of Booleroo Centre		plain (incl undulating plain)	clay loam	A	Eucalyptus socialis (NC) (3), Eucalyptus porosa (T)	Mallee
49	BOO0501	26/10/1992	54	259023	6364426	34	2.4 km ESE of Booleroo (Mount View)		plain (incl undulating plain)	sandy loam	A	Eucalyptus socialis (NC) (2)	Mallee
49	BOO0601	27/10/1992	54	258723	6362060	17	3.2 km NNE of White Cliff (Arwakurra)		plain (incl undulating plain)	clay loam	B	Eucalyptus odorata (2)	Low Woodland
49	BOO0701	29/10/1992	54	243398	6358286	17	4.1 km WNW of Fullerville		hill slope	medium clay	A	Eucalyptus odorata (1)	Open Mallee
49	BOO0801	28/10/1992	54	244109	6356994	13	3.4 km WSW of Fullerville		hill crest	loam	A	Allocasuarina verticillata (2), Eucalyptus odorata (1)	Very Low Woodland
49	BOO0901	26/10/1992	54	265357	6354901	17	2.9 km NNE of Slippery Corner		hill slope	sandy loam	A	Eucalyptus odorata (2), Eucalyptus leucoxylon (NC) (1)	Low Open Forest
49	BOO1001	27/10/1992	54	248079	6349382	13	3.0 km WNW of Yandiah		hill slope	loam	A	Allocasuarina verticillata (2), Eucalyptus odorata (1)	Woodland
49	BOO1101	27/10/1992	54	265978	6352310	13	0.4 km ESE of Mount Swan		hill slope	clay loam	A	Allocasuarina verticillata (2)	Low Woodland
49	BOO1201	27/10/1992	54	264883	6350369	17	2.5 km SSE of Slippery Corner		hill footslope	clay loam	A	Eucalyptus odorata (2)	Low Open Forest
49	BUN0101	19/10/1992	54	273175	6314525	20	3.3 km ENE of New Campbell Hill		hill slope	sandy loam	A	Eucalyptus leucoxylon (NC) (4)	Open Forest
49	BUN0201	19/10/1992	54	290499	6318371	20	5.9 km N of Old Canowie		hill footslope	clay loam	A	Eucalyptus leucoxylon (NC) (3)	Woodland
49	BUN0301	19/10/1992	54	272979	6310144	13	1.3 km ENE of Bundaleer Gardens		hill slope	sandy loam	A	Eucalyptus leucoxylon (NC) (3)	Open Forest
49	BUN0401	19/10/1992	54	272686	6307995	13	1.7 km SSE of Bundaleer Gardens		hill slope	sandy loam	A	Eucalyptus leucoxylon (NC) (3), Allocasuarina verticillata (3)	Open Forest
49	BUN0501	21/10/1992	54	271675	6303921	15	3.6 km WNW of Washpool		hill slope	clay loam	A	Xanthorrhoea quadrangulata (4)	Closed Hummock Grassland
49	BUN0502	21/10/1992	54	271829	6303750	20	3.5 km WNW of Washpool		hill slope	sandy loam	A	Eucalyptus leucoxylon (NC) (2)	Woodland
49	BUN0601	22/10/1992	54	285953	6305690	24	6.3 km WNW of Canowie		hill slope	loam	A	Eucalyptus porosa (3)	Mallee
49	BUN0701	21/10/1992	54	270886	6302103	15	4.8 km WSW of Washpool		hill slope	loam	A	Eucalyptus socialis (NC) (2)	Very Open Mallee
49	BUN0801	22/10/1992	54	285461	6302792	24	5.9 km WNW of Canowie		hill slope	loam	A	Eucalyptus porosa (4)	Mallee
49	BUN0901	22/10/1992	54	286138	6292932	24	3.8 km ESE of Hacklins Corner		hill slope	loam	A	Eucalyptus porosa (2)	Open Mallee
49	BUN1F18	22/10/1992	54	279245	6294767	77	3.4 km WNW of Hacklins Corner		stream channel	loam	B	Typha domingensis (3)	Sedgeland
49	BUR0101	23/10/1992	54	295496	6282521	1	3.9 km ESE of Booborowie		hill slope	loam	B	Austrostipa blackii (2), Lomandra multiflora ssp. dura (T)	Open Sedgeland
49	BUR0201	22/10/1992	54	296729	6266036	9	4.3 km ENE of Swampy Flat		hill crest	clay loam	A	Acacia pycnantha (2)	Open Shrubland
49	BUR0301	23/10/1992	54	309279	6264616	17	4.2 km WSW of Stein Hill		hill slope	loam	A	Eucalyptus odorata (3), Eucalyptus leucoxylon ssp. pruinosa (3)	Woodland
49	CLA0101	20/10/1992	54	269742	6260761	13	2.4 km WNW of Bungaree Hill		hill slope	clay loam	A	Bursaria spinosa ssp. spinosa (T)	Very Open Shrubland
49	CLA0201	20/10/1992	54	278792	6259001	21	1.7 km E of Stanley Flat		hill slope	clay loam	B	Eucalyptus leucoxylon (NC) (N)	Open Woodland
49	CLA0401	19/10/1992	54	273013	6255610	43	2.5 km SE of Benbourni		hill slope	clay loam	A	Melaleuca lanceolata ssp. lanceolata (NC) (2)	Tall Open Shrubland
49	CLA0501	22/10/1992	54	275557	6255388	21	1.5 km WNW of Atherley		hill slope	clay loam	A	Eucalyptus leucoxylon (NC) (1)	Low Woodland
49	CLA0601	19/10/1992	54	278414	6252076	17	1.8 km SSW of Clare		hill slope	clay loam	A	Eucalyptus odorata (1)	Very Open Mallee
49	CLA0701	23/10/1992	54	280187	6252848	20	1.6 km ESE of Clare		hill slope	sandy loam	A	Eucalyptus leucoxylon (NC) (3)	Low Woodland
49	CLA0801	22/10/1992	54	290535	6253518	79	5.6 km WSW of Farrell Flat		swamp	medium clay	C	Juncus kraussii (5)	Closed Sedgeland
49	CLA0901	19/10/1992	54	275127	6249641	20	4.3 km WNW of Gillentown		hill slope	clay loam	A	Eucalyptus leucoxylon (NC) (2)	Low Woodland
49	CLA0902	19/10/1992	54	275313	6249451	20	4.1 km WNW of Gillentown		hill slope	clay loam	A	Eucalyptus leucoxylon (NC) (1)	Woodland
49	CLA1002	21/10/1992	54	277242	6245747	16	3.1 km WSW of Sevenhill		hill crest	sandy loam	B	Eucalyptus macrorhyncha ssp. macrorhyncha (2)	Open Mallee
49	CLA1003	21/10/1992	54	277703	6244442	16	3.5 km SW of Sevenhill		hill slope	sandy loam	A	Eucalyptus macrorhyncha ssp. macrorhyncha (2)	Woodland
49	CLA1101	22/10/1992	54	282504	6244468	20	0.9 km ENE of Penworthham		hill slope	sandy loam	A	Eucalyptus leucoxylon (NC) (3)	Open Forest
49	CLA1201	23/10/1992	54	285547	6244229	20	1.4 km NNE of Mount Horrocks		hill slope	sandy loam	A	Eucalyptus leucoxylon (NC) (2)	Open Mallee
49	CLA1301	22/10/1992	54	287584	6247941	20	3.8 km NNW of Mintaro		hill crest	clay loam	A	Acacia paradoxa (5)	Shrubland
49	CLA1401	21/10/1992	54	289013	6247296	20	2.6 km NNW of Mintaro		plain (incl undulating plain)	clay loam	B	Eucalyptus leucoxylon ssp. pruinosa (2)	Woodland
49	CLA1501	23/10/1992	54	291559	6243821	80	2.2 km ESE of Mintaro		plain (incl undulating plain)	medium clay	B	Eucalyptus camaldulensis var. (4)	Open Forest
49	CLA1701	20/10/1992	54	279413	6236543	17	4.2 km WSW of Watervale		hill slope	loam	A	Eucalyptus odorata (4)	Woodland
49	CLA1702	20/10/1992	54	279558	6236550	17	4.1 km WSW of Watervale		hill slope	loam	A	Eucalyptus odorata (2)	Low Woodland
49	CLA1801	21/10/1992	54	282538	6236483	20	3.0 km SSW of Watervale		hill slope	loam	A	Eucalyptus leucoxylon (NC) (2)	Low Woodland

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49	CLA1901	23/10/1992	54	289270	6236298	17	4.9 km NNE of Auburn		hill slope	sandy loam	A	Eucalyptus odorata (1), Eucalyptus leucoxylon (NC) (T)	Low Woodland
49	CLA1C15	22/10/1992	54	277110	6251104	16	2.7 km SSE of Armagh		hill slope	sandy loam	A	Allocasuarina verticillata (3)	Low Open Forest
49	CRY0101	19/10/1992	54	228856	6312510	35	5.5 km NNE of Cockeys Crossing		ridge	sandy loam	A	Eucalyptus dumosa (2), Eucalyptus gracilis (2)	Open Mallee
49	CRY0201	20/10/1992	54	232165	6310551	34	6.5 km ENE of Cockeys Crossing		plain (incl undulating plain)	sandy loam	A	Eucalyptus socialis (NC) (3), Alectryon oleifolius ssp. canescens (1)	Mallee
49	CRY0601	20/10/1992	54	230659	6305685	83	3.7 km NNW of Wandearah		plain (incl undulating plain)	clay loam	C	Acacia oswaldii (2), Eucalyptus camaldulensis var. (2)	Low Woodland
49	CRY0801	19/10/1992	54	225249	6298440	33	4.1 km SSW of Wandearah East		plain (incl undulating plain)	sandy loam	B	Eucalyptus gracilis (1), Eucalyptus brachycalyx (T), Eucalyptus oleosa (NC) (T)	Open Mallee
49	CRY0901	21/10/1992	54	229635	6295938	34	6.9 km SSE of Wandearah East		hill footslope	sandy loam	A	Eucalyptus socialis (NC) (3)	Low Woodland
49	CRY1001	21/10/1992	54	233642	6300369	83	2.8 km SSE of Wandearah		other	loam	A	Eucalyptus camaldulensis var. (3), Eremophila longifolia (1)	Open Forest
49	CRY1101	19/10/1992	54	227722	6291540	33	10.7 km SSE of Wandearah East		plain (incl undulating plain)	clay loam	B	Eucalyptus gracilis (2), Eucalyptus phenax (NC) (2)	Mallee
49	CRY1102	19/10/1992	54	228423	6291819	34	10.5 km SSE of Wandearah East		plain (incl undulating plain)	sandy loam	B	Eucalyptus socialis (NC) (3)	Open Mallee
49	CRY1103	19/10/1992	54	228619	6291953	34	10.4 km SSE of Wandearah East		plain (incl undulating plain)	sandy loam	B	Eucalyptus socialis (NC) (2)	Very Open Mallee
49	CRY1D12	21/10/1992	54	241814	6290154	27	4.6 km NNW of Redhill		plain (incl undulating plain)	clay loam	G	Halosarcia sp. (3)	Low Shrubland
49	GLA0601	23/10/1992	54	248111	6305875	13	2.9 km SSE of Huddleston		hill crest	sandy loam	A	Acacia calamifolia (NC) (1), Eucalyptus porosa (1), Eucalyptus odorata (1)	Tall Open Shrubland
49	GLA0801	21/10/1992	54	248204	6296450	35	2.3 km SSW of Narridy		hill slope	sandy loam	A	Eucalyptus dumosa (2)	Open Mallee
49	GLA0901	21/10/1992	54	256108	6293083	17	6.1 km WSW of Gulnare		hill slope	sandy loam	A	Eucalyptus odorata (2)	Low Woodland
49	GLA1101	23/10/1992	54	245205	6310437	51	2.7 km WNW of Huddleston		hill crest	sandy loam	A	Melaleuca uncinata (NC) (4), Eucalyptus odorata (2)	Very Open Mallee
49	GLA1201	22/10/1992	54	247934	6315441	13	5.9 km WSW of Gladstone		hill crest	sandy loam	A	Lepidosperma viscidum (3)	Sedgeland
49	GLA1301	23/10/1992	54	256823	6307768	9	2.0 km NNW of Georgetown		ridge	clay loam	B	Acacia pycnantha (3)	Tall Open Shrubland
49	HAL0101	23/10/1992	54	272949	6222599	22	3.7 km SSE of Halbury		plain (incl undulating plain)	sandy loam	A	Callitris gracilis (2)	Low Open Forest
49	HAL0201	20/10/1992	54	279129	6234688	20	4.7 km ENE of Hoyleton		hill crest	loam	A	Eucalyptus leucoxylon (NC) (1), Eucalyptus leucoxylon ssp. pruinosa (1)	Woodland
49	HAL0301	19/10/1992	54	280388	6232575	17	5.4 km ESE of Hoyleton		hill slope	loam	A	Eucalyptus odorata (1)	Low Woodland
49	HAL0401	19/10/1992	54	270359	6225449	55	0.5 km WSW of Halbury		plain (incl undulating plain)	sandy loam	A	Callitris gracilis (1)	Low Woodland
49	HAL0501	20/10/1992	54	279031	6225866	22	0.8 km SSE of Sheoak Hill		hill slope	sandy loam	A	Callitris gracilis (2)	Open Forest
49	HAL0601	23/10/1992	54	286332	6227844	20	4.6 km SSW of Auburn		hill slope	sandy loam	A	Eucalyptus leucoxylon (NC) (2), Eucalyptus odorata (1)	Open Forest
49	HAL0702	20/10/1992	54	291641	6227366	14	3.7 km WNW of Saddleworth		plain (incl undulating plain)	loam	A	Eucalyptus odorata (1)	Low Woodland
49	HAL0801	19/10/1992	54	272881	6209972	9	5.1 km NNW of Owen		hill slope	loam	A	Eucalyptus odorata (1)	Low Woodland
49	HAL0901	23/10/1992	54	276436	6210563	22	6.1 km NNE of Owen		hill crest	loam	A	Callitris gracilis (3)	Low Open Forest
49	HAL1001	19/10/1992	54	276072	6209372	8	4.9 km NNE of Owen		plain (incl undulating plain)	sandy loam	A	Eucalyptus porosa (1)	Low Woodland
49	HAL1101	20/10/1992	54	283506	6213470	21	2.7 km SE of Salter Springs		hill/mountain	loam	A	Eucalyptus odorata (1), Allocasuarina verticillata (T)	Woodland
49	HAL1102	20/10/1992	54	283983	6213936	21	3.0 km ESE of Salter Springs		hill/mountain	sandy loam	A	Eucalyptus odorata (1)	Woodland
49	HAL1201	23/10/1992	54	275907	6221089	13	6.8 km SSE of Halbury		hill slope	sandy loam	A	Callitris gracilis (1)	Open Forest
49	JAM0101	20/10/1992	54	271826	6346118	17	6.5 km SSE of Tarcowie		hill footslope	loam	A	Eucalyptus odorata (3)	Mallee
49	JAM0201	20/10/1992	54	274789	6345267		9.0 km SSE of Tarcowie		hill slope	loam	A	Triodia sp. (NC) (5)	Closed Hummock Grassland
49	JAM0203	20/10/1992	54	275594	6345136	20	9.7 km SSE of Tarcowie		hill slope	loam	A	Eucalyptus leucoxylon (NC) (2)	Woodland
49	JAM0401	21/10/1992	54	273411	6336189	4	0.4 km WNW of Mount Lock		hill slope	loam	A	Triodia sp. (NC) (4)	Hummock Grassland
49	JAM0402	21/10/1992	54	274022	6336323	15	0.4 km NNE of Mount Lock		hill slope	loam	A	Xanthorrhoea quadrangulata (3)	Shrubland
49	JAM0601	20/10/1992	54	287646	6338011	8	4.5 km ESE of Mannanarie Siding		hill footslope	loam	A	Acacia victoriae ssp. victoriae (T)	Tall Very Open Shrubland
49	JAM0801	23/10/1992	54	271876	6323268		4.9 km WNW of Jamestown		hill footslope	loam	D	Acacia ligulata (NC) (3), Allocasuarina verticillata (1)	Very Low Open Woodland
49	JAM1001	20/10/1992	54	289502	6320920	20	5.6 km SSW of Canowie Belt		hill footslope	loam	A	Eucalyptus leucoxylon (NC) (3)	Open Forest
49	KOO0201	19/10/1992	54	255310	6287959	35	7.9 km NNE of Koolunga		hill slope	clay loam	A	Eucalyptus dumosa (2)	Open Mallee

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49	KOO0301	21/10/1992	54	258340	6284351	13	4.9 km WNW of Yacka		hill slope	clay loam	A	Allocasuarina verticillata (2)	Very Low Woodland
49	KOO0401	20/10/1992	54	261703	6285387	17	3.2 km NNW of Yacka		hill slope	loam	A	Eucalyptus odorata (2)	Very Open Mallee
49	KOO0501	19/10/1992	54	263117	6277931	9	4.4 km S of Yacka		hill slope	loam	A	Callitris gracilis (2)	Low Woodland
49	KOO0601	19/10/1992	54	254449	6273688	9	6.1 km WNW of Boucaut		plain (incl undulating plain)	clay loam	A	Eucalyptus socialis (NC) (2)	Low Woodland
49	KOO0701	19/10/1992	54	256126	6271395	34	4.0 km WNW of Brinkworth		plain (incl undulating plain)	clay loam	A	Eucalyptus socialis (NC) (2), Eucalyptus dumosa (1)	Open Mallee
49	KOO0801	21/10/1992	54	262501	6274485	35	2.2 km ENE of Boucaut		hill crest	clay loam	A	Eucalyptus socialis (NC) (2), Eucalyptus dumosa (2)	Open Mallee
49	KOO0901	21/10/1992	54	266075	6275227	24	5.8 km ENE of Boucaut		hill crest	loam	A	Eucalyptus porosa (2)	Open Mallee
49	KOO1001	21/10/1992	54	255645	6267602	34	3.9 km WSW of Brinkworth		plain (incl undulating plain)	clay loam	A	Eucalyptus gracilis (2), Eucalyptus socialis (NC) (2)	Open Mallee
49	KOO1101	21/10/1992	54	259458	6263660	34	5.3 km SSW of Brinkworth		plain (incl undulating plain)	sandy loam	A	Eucalyptus gracilis (2), Eucalyptus socialis (NC) (2)	Open Mallee
49	LAU0101	28/10/1992	54	246620	6345526	18	4.2 km NNE of Wirrabara		plain (incl undulating plain)	clay loam	B	Callitris glaucophylla (2), Eucalyptus odorata (1)	Low Open Forest
49	LAU0201	28/10/1992	54	246187	6342701	8	1.6 km ENE of Wirrabara		ridge	sandy loam	A	Eucalyptus microcarpa (2)	Low Woodland
49	LAU0301	28/10/1992	54	249844	6344001	18	5.2 km SSW of Yandiah		plain (incl undulating plain)	loam	B	Eucalyptus odorata (2), Callitris glaucophylla (2)	Low Open Forest
49	LAU0401	29/10/1992	54	247870	6338897	17	2.6 km NNE of Tandowie		plain (incl undulating plain)	loam	B	Eucalyptus odorata (2)	Woodland
49	LAU0901	30/10/1992	54	245136	6329717	17	5.8 km NNW of Laura		plain (incl undulating plain)	loam	A	Eucalyptus odorata (3), Eucalyptus camaldulensis var. (2), Eucalyptus leucoxylon (NC) (1)	Low Open Forest
49	LAU1001	30/10/1992	54	245430	6318526	13	7.1 km SSW of Laura		hill slope	sandy loam	A	Eucalyptus leucoxylon (NC) (2), Eucalyptus socialis (NC) (1), Eucalyptus leptophylla (1)	Low Open Woodland
49	LAU1101	29/10/1992	54	257473	6321227	19	6.4 km NNE of Gladstone		plain (incl undulating plain)	clay loam	B	Acacia salicina (3)	Low Open Forest
49	MEL2101	26/10/1992	54	240208	6359844	17	5.7 km SSE of Melrose		plain (incl undulating plain)	clay loam	B	Eucalyptus odorata (2)	Open Mallee
49	MEL2501	29/10/1992	54	220190	6345478	31	3.0 km NNE of Port Germein		plain (incl undulating plain)	loam	A	Eucalyptus odorata (2)	Open Mallee
49	MUN0101	23/10/1992	54	222963	6287921	32	8.8 km ENE of Fisherman Bay		plain (incl undulating plain)	clay loam	B	Eucalyptus oleosa (NC) (1)	Very Open Mallee
49	MUN0201	20/10/1992	54	228122	6288905	32	9.9 km NNW of Mundoora		swale	clay loam	A	Eucalyptus oleosa (NC) (2)	Mallee
49	MUN0202	20/10/1992	54	228497	6289283	33	10.3 km NNW of Mundoora		dune crest	sandy loam	A	Eucalyptus gracilis (2), Eucalyptus socialis (NC) (1), Eucalyptus brachycalyx (T)	Open Mallee
49	MUN0203	20/10/1992	54	229051	6289086	34	10.0 km NNE of Mundoora		plain (incl undulating plain)	sandy loam	B	Eucalyptus socialis (NC) (1)	Very Open Mallee
49	MUN0301	22/10/1992	54	228050	6283918	33	5.1 km NNW of Mundoora		plain (incl undulating plain)	clay loam	B	Eucalyptus brachycalyx (2), Eucalyptus gracilis (1)	Mallee
49	MUN0401	22/10/1992	54	222346	6277454	33	6.7 km ESE of Port Broughton		plain (incl undulating plain)	clay loam	A	Eucalyptus gracilis (2)	Open Mallee
49	MUN0501	22/10/1992	54	225456	6277745	32	4.2 km WSW of Mundoora		plain (incl undulating plain)	clay loam	B	Eucalyptus oleosa (NC) (2)	Open Mallee
49	MUN0601	22/10/1992	54	223187	6268643	33	3.7 km WNW of Wokurna		plain (incl undulating plain)	sandy loam	A	Eucalyptus oleosa (NC) (2), Eucalyptus socialis (NC) (1), Eucalyptus brachycalyx (1)	Open Mallee
49	MUN0701	22/10/1992	54	229808	6273713	32	5.3 km SSE of Mundoora		plain (incl undulating plain)	clay loam	B	Eucalyptus oleosa (NC) (2)	Open Mallee
49	MUN0801	23/10/1992	54	238837	6269866	13	3.3 km WNW of Burnsfield		hill slope	loam	A	Allocasuarina verticillata (2)	Low Woodland
49	MUN0901	23/10/1992	54	226547	6271002	32	4.7 km NNE of Wokurna		swale	sandy loam	A	Eucalyptus oleosa (NC) (2), Eucalyptus phenax (NC) (2)	Open Mallee
49	MUN1101	23/10/1992	54	231152	6268399	33	5.5 km ENE of Wokurna		open depression	sandy loam	B	Eucalyptus brachycalyx (2)	Open Mallee
49	PIR0101	27/10/1992	54	222474	6343055	30	3.1 km ENE of Port Germein		plain (incl undulating plain)	clay loam	A	Eucalyptus oleosa (NC) (1)	Very Open Mallee
49	PIR0201	27/10/1992	54	222903	6338586		3.3 km WSW of Telowie		other	sand	A	Acacia ligulata (NC) (2), Pimelea microcephala ssp. microcephala (1)	Tall Open Shrubland
49	PIR0301	27/10/1992	54	224775	6337886	83	1.7 km WSW of Telowie		plain (incl undulating plain)	sandy loam	A	Eucalyptus camaldulensis var. (2)	Woodland
49	PIR1101	28/10/1992	54	230979	6334632	18	4.0 km NNE of Nelshaby		hill footslope	sandy loam	A	Callitris glaucophylla (2)	Low Woodland
49	PIR1501	28/10/1992	54	225380	6331244	71	3.4 km ESE of Weeroona Island		tidal flat	medium clay	G	Wilsonia humilis var. humilis (2)	Low Closed Shrubland
49	PIR1601	29/10/1992	54	229374	6328191	36	1.8 km WNW of Napperby		plain (incl undulating plain)	medium clay	A	Casuarina pauper (3)	Low Woodland
49	PIR1701	27/10/1992	54	231269	6330936	18	1.3 km ENE of Nelshaby		hill footslope	sandy loam	A	Callitris glaucophylla (1)	Low Open Woodland
49	PIR2001	29/10/1992	54	230411	6326918	83	0.9 km WSW of Napperby		other	clay loam	A	Eucalyptus camaldulensis var. (2)	Low Woodland
49	PIR2401	28/10/1992	54	228865	6320591	24	3.1 km WNW of Warnertown		plain (incl undulating plain)	sandy loam	A	Eucalyptus porosa (2)	Open Mallee
49	PIR2F10	28/10/1992	54	224041	6333429	76	1.4 km ENE of Weeroona Island		tidal flat	medium clay	G	Avicennia marina ssp. marina (3)	Shrubland
49	PIR2F11	28/10/1992	54	224420	6333355	71	1.8 km E of Weeroona Island		tidal flat	medium clay	G	Wilsonia humilis var. humilis (2)	Low Closed Shrubland
49	RIV0101	19/10/1992	54	294839	6230032	17	3.6 km NNW of Saddleworth		hill slope	sandy loam	A	Eucalyptus odorata (2)	Low Woodland

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49	RIV0201	19/10/1992	54	301870	6231287	8	5.5 km SSE of Manoora		ridge	loam	A	Allocasuarina verticillata (T)	Low Open Woodland
49	RIV0301	19/10/1992	54	302429	6231004	17	5.7 km SSW of Waterloo		hill slope	clay loam	A	Eucalyptus odorata (3)	Woodland
49	RIV0401	19/10/1992	54	307161	6233359	17	2.5 km WSW of Tothill Belt		hill slope	sandy loam	A	Eucalyptus odorata (3)	Low Woodland
49	RIV0501	22/10/1992	54	311670	6235443	15	2.6 km ENE of Tothill Belt		hill slope	sandy loam	A	Allocasuarina verticillata (2), Eucalyptus goniocalyx (NC) (T)	Very Low Woodland
49	RIV0502	22/10/1992	54	311644	6233399	15	2.8 km ESE of Tothill Belt		ridge	sandy loam	A	Allocasuarina verticillata (2)	Very Low Woodland
49	RIV0503	21/10/1992	54	312100	6233613	15	3.1 km ESE of Tothill Belt		ridge	sandy loam	A	Eucalyptus goniocalyx (NC) (2)	Very Low Woodland
49	RIV0601	21/10/1992	54	311903	6229237	17	5.1 km ENE of Tothill Creek		hill slope	loam	A	Eucalyptus odorata (3)	Very Low Open Forest
49	RIV0701	20/10/1992	54	300612	6216111	17	0.4 km ENE of Peters Hill		hill footslope	sandy clay loam	A	Eucalyptus odorata (3)	Low Open Forest
49	RIV0801	20/10/1992	54	312137	6220157	17	0.8 km ENE of Tarnma		hill slope	sandy clay loam	A	Eucalyptus odorata (3)	Low Open Forest
49	RIV0802	20/10/1992	54	312313	6220263	1	1.0 km ENE of Tarnma		hill slope	loam	A	Eucalyptus microcarpa (2)	Low Woodland
49	RIV1001	20/10/1992	54	301439	6211954	17	3.1 km WNW of Hamilton		hill footslope	loam	B	Eucalyptus odorata (3)	Woodland
49	RIV1101	20/10/1992	54	307009	6211370	20	2.5 km ENE of Hamilton		hill slope	sandy loam	A	Eucalyptus leucoxylon (NC) (2)	Low Woodland
49	SPA0101	21/10/1992	54	270221	6290570	15	7.5 km W of Spalding		hill slope	sandy loam	A	Eucalyptus porosa (1)	Low Woodland
49	SPA0201	21/10/1992	54	269821	6285935	24	7.8 km ENE of Yacka		ridge	sandy loam	A	Eucalyptus porosa (2)	Low Woodland
49	SPA0301	21/10/1992	54	272151	6285642	15	7.7 km WSW of Spalding		ridge	sandy loam	A	Bursaria spinosa ssp. spinosa (2), Eucalyptus porosa (1), Eucalyptus odorata (T)	Tall Open Shrubland
49	SPA0401	21/10/1992	54	275685	6288994		2.8 km WSW of Spalding		ridge	sandy loam	A	Triodia sp. (NC) (2), Gahnia lanigera (2)	Very Open Hummock Grassland
49	SPA0502	22/10/1992	54	282937	6283919	79	4.9 km NNE of Andrews		swamp	loam	C	Juncus kraussii (3)	Sedgeland
49	SPA0601	22/10/1992	54	269717	6282234	14	4.3 km WNW of Mount Gregory		hill slope	sandy loam	A	Eucalyptus socialis (NC) (1), Eucalyptus odorata (1)	Low Woodland
49	SPA0701	22/10/1992	54	268667	6275868	17	7.8 km NNE of Rochester		hill slope	sandy loam	A	Eucalyptus odorata (2)	Mallee
49	SPA0801	21/10/1992	54	274575	6271749	20	6.8 km WNW of Hilltown		hill slope	sandy loam	A	Eucalyptus leucoxylon (NC) (2)	Woodland
49	SPA0901	22/10/1992	54	270921	6263711	13	2.0 km WSW of Mount Tinline		hill slope	sandy loam	A	Allocasuarina verticillata (2)	Very Low Open Forest
49	SPA1001	22/10/1992	54	274111	6264956	20	1.5 km ENE of Mount Tinline		hill slope	sandy loam	B	Eucalyptus leucoxylon (NC) (3)	Woodland
49	SPA1101	22/10/1992	54	268519	6278236	14	7.0 km ESE of Yacka		hill slope	sandy loam	A	Eucalyptus odorata (1)	Very Low Woodland
49	WIL1501	27/10/1992	54	230470	6384938	17	2.9 km ENE of Wilmington		plain (incl undulating plain)	sandy loam	A	Eucalyptus odorata (2)	Low Woodland
49	WIL2501	29/10/1992	54	229368	6382828	83	1.6 km ESE of Wilmington		plain (incl undulating plain)	clay loam	A	Callitris glaucophylla (3)	Woodland
51	NCS001	2/09/1992	53	739961	6227037		1.6 km ESE of Moonta		plain (incl undulating plain)	sandy loam	C	Eucalyptus cladocalyx (T)	Open Shrubland
51	NCS002	2/09/1992	53	740761	6227202		1.9 km WSW of North Yelta		plain (incl undulating plain)	clay loam	C	Myoporum insulare (T)	Tall Open Shrubland
51	NCS003	3/09/1992	53	741093	6228149	9	1.1 km WSW of North Yelta		plain (incl undulating plain)	medium clay	B	*Olea europaea ssp. (T)	Tall Very Open Shrubland
51	NCS004	3/09/1992	53	741365	6230763	1	2.5 km NNW of North Yelta		plain (incl undulating plain)	sandy loam	B	Eucalyptus odorata (1)	Open Mallee
51	NCS005	3/09/1992	53	741673	6234794	6	6.4 km NNW of North Yelta		plain (incl undulating plain)	sandy loam	B	Acacia hakeoides (2)	Tall Shrubland
51	NCS006	3/09/1992	53	742152	6240486	27	2.0 km SSW of Wallaroo		plain (incl undulating plain)	loam	B	*Avena barbata (3)	Closed Herbland
51	NCS007	3/09/1992	53	751777	6238108	9	0.9 km ESE of Kadina		plain (incl undulating plain)	medium clay	B	Senna artemisioides ssp. X coriacea (1)	Tall Shrubland
51	NCS008	3/09/1992	53	754239	6237024	9	3.6 km ESE of Kadina		plain (incl undulating plain)	clay loam	B	Acacia ligulata (NC) (1)	Tall Open Shrubland
51	NCS009	8/09/1992	54	233093	6303408	11	0.4 km WNW of Wandearah		plain (incl undulating plain)	clay loam	A	Acacia victoriae ssp. (N)	Low Open Shrubland
51	NCS010	8/09/1992	54	226588	6315715	32	5.9 km WSW of Warnertown		plain (incl undulating plain)	medium clay	E	Atriplex stipitata (3)	Low Shrubland
51	NCS011	8/09/1992	54	223652	6323341	31	1.7 km ESE of Port Pirie		plain (incl undulating plain)	medium clay	G	Atriplex lindleyi ssp. lindleyi (2)	Low Shrubland
51	NCS021	11/09/1992	54	282231	6368745	40	3.6 km NNW of Black Rock		plain (incl undulating plain)	medium clay	A	Acacia victoriae ssp. (T)	Tall Very Open Shrubland
51	NCS022	11/09/1992	54	290616	6356322	9	7.9 km ESE of White Rock		hill footslope	sandy loam	A	Callitris gracilis (T), Eucalyptus porosa (T)	Open Shrubland
51	NCS023	11/09/1992	54	291743	6353388	6	7.4 km WNW of Peterborough		plain (incl undulating plain)	medium clay	A	Eucalyptus porosa (1)	Open Low Mallee
51	NCS024	15/09/1992	54	252722	6355329	9	3.4 km SSE of Booleroo Centre		plain (incl undulating plain)	medium clay	B	Acacia pycnantha (1)	Open Shrubland
51	NCS025	15/09/1992	54	251033	6351609	9	2.5 km NNE of Yandiah		plain (incl undulating plain)	clay loam	B	Acacia pycnantha (2)	Very Low Woodland
51	NCS026	16/09/1992	54	250972	6360209	9	1.9 km NNW of Booleroo Centre		stream channel	medium clay	B	Callitris glaucophylla (1), Eucalyptus porosa (1)	Low Woodland

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51	NCS027	16/09/1992	54	237055	6367956	3	3.6 km NNE of Melrose		hill footslope	medium clay	B	Eucalyptus camaldulensis var. (2)	Open Forest
51	NCS028	16/09/1992	54	234147	6373459	9	4.4 km SSE of Terka		plain (incl undulating plain)	clay loam	A	Acacia victoriae ssp. (3)	Tall Shrubland
51	NCS029	16/09/1992	54	229457	6383013	83	1.6 km ESE of Wilmington		stream bed		A	Eucalyptus camaldulensis var. (3)	Open Forest
51	NCS030	16/09/1992	54	229430	6383043	5	1.6 km ESE of Wilmington		plain (incl undulating plain)	medium clay	A	Eucalyptus odorata (2)	Open Forest
51	NCS031	17/09/1992	54	247954	6327854	8	3.0 km NNW of Laura		plain (incl undulating plain)	medium clay	A	Eucalyptus camaldulensis var. (T)	Open (Tussock) Grassland
51	NCS032	17/09/1992	54	246001	6338162	9	1.3 km NNW of Tandowie		plain (incl undulating plain)	clay loam	B	Acacia brachybotrya (2)	Low Shrubland
51	NCS033	17/09/1992	54	248847	6347079	9	3.0 km WSW of Yandiah		ridge	clay loam	A	Acacia pycnantha (1)	Very Low Woodland
51	NCS034	17/09/1992	54	247142	6335201	20	1.9 km SSE of Tandowie				A	Eucalyptus leucoxylon (NC) (2)	
51	NCS035	18/09/1992	54	249387	6320554	9	4.5 km SSE of Laura		plain (incl undulating plain)	clay loam	A	Acacia ligulata (2)	Tall Shrubland
51	NCS036	22/09/1992	54	300297	6341960	9	5.7 km NNE of Sunnybrae		hill footslope	clay loam	A	Austrostipa nitida (2), Dianella revoluta (NC) (1), Senna artemisioides ssp. petiolaris (NC) (T)	(Tussock) Grassland
51	NCS039	22/09/1992	54	303394	6309159	1	0.3 km SSW of Ulooloo		hill footslope	clay loam	A	Eucalyptus cladocalyx (T)	Open Woodland
51	NCS040	23/09/1992	54	303415	6295384	1	5.6 km SSW of Hallett		plain (incl undulating plain)	loam	A	Eucalyptus cladocalyx (T)	(Tussock) Grassland
51	NCS041	23/09/1992	54	305268	6277917	40	6.2 km NNW of Burra		plain (incl undulating plain)	loam	A	Acacia victoriae ssp. (T)	Closed Herbland
51	NCS042	23/09/1992	54	279179	6287709	9	3.5 km SSE of Spalding		hill footslope	clay loam	A	Maireana brevifolia (T)	(Tussock) Grassland
51	NCS043	23/09/1992	54	280143	6277189	5	2.5 km SSW of Andrews		hill footslope	medium clay	C	Juncus flavidus (1)	Open Sedgeland
51	NCS044	23/09/1992	54	280143	6260390		2.0 km NNW of White Hut		hill footslope	medium clay	A	*Pinus halepensis (3)	Low Woodland
51	NCS045	29/09/1992	54	322667	6233879	82	3.5 km SSW of Robertstown		plain (incl undulating plain)	medium clay	A	Muehlenbeckia florulenta (3)	Shrubland
51	NCS046	29/09/1992	54	321951	6231030	6	3.9 km NNE of Point Pass		plain (incl undulating plain)	clay loam	A	Eucalyptus leptophylla (T), Eucalyptus porosa (T), Eucalyptus percostata (T)	Open Mallee
51	NCS047	29/09/1992	54	321304	6224546	4	3.3 km SSE of Point Pass		plain (incl undulating plain)	loam	A	Eremophila longifolia (1)	Tall Open Shrubland
51	NCS048	1/10/1992	54	279875	6256407	20	2.5 km SSW of White Hut		hill footslope	loam	A	Eucalyptus leucoxylon (NC) (2)	Very Low Open Forest
51	NCS049	1/10/1992	54	280240	6257309	20	1.5 km SSW of White Hut		hill slope	loam	A	Eucalyptus leucoxylon ssp. pruinosa (NC) (3)	Open Forest
51	NCS050	1/10/1992	54	279500	6253686	20	0.6 km ESE of Clare		hill slope	loam	A	Eucalyptus leucoxylon ssp. pruinosa (NC) (3)	Low Woodland
51	NCS051	2/10/1992	54	323193	6219559	4	2.6 km ESE of Hampden		hill footslope	medium clay	A	Bursaria spinosa ssp. spinosa (N), Eucalyptus porosa (N)	Very Open Mallee
51	NCS052	2/10/1992	54	324399	6216715	9	1.0 km ENE of Eudunda		hill footslope	medium clay	A	Eucalyptus leucoxylon ssp. pruinosa (NC) (T)	Low Open Woodland
51	NCS053	5/10/1992	53	756186	6235862	9	5.8 km ESE of Kadina		plain (incl undulating plain)	sandy loam	A	Eucalyptus socialis (NC) (1)	
51	NCS054	5/10/1992	53	759068	6234180	9	9.2 km ESE of Kadina		plain (incl undulating plain)	clay loam	A	Eucalyptus porosa (1), Melaleuca lanceolata ssp. lanceolata (NC) (1)	Open Shrubland
51	NCS055	5/10/1992	53	773476	6226156	9	2.6 km WNW of Melton		plain (incl undulating plain)	clay loam	A	Eucalyptus porosa (1)	Low Woodland
51	NCS056	7/10/1992	54	292146	6219077	9	0.8 km NNW of Riverton		plain (incl undulating plain)	loam	A	Eucalyptus leucoxylon (NC) (2)	Low Open Woodland
51	NCS057	7/10/1992	54	287612	6223538	9	4.5 km NNE of Rhynie		hill footslope	loam	A	Eucalyptus odorata (3)	Low Open Forest
51	NCS058	7/10/1992	54	281856	6239622	20	0.6 km WNW of Watervale		hill slope	clay loam	A	Eucalyptus leucoxylon (NC) (4)	Open Forest
51	NCS059	12/10/1992	54	258352	6303887	1	2.2 km SSE of Georgetown		plain (incl undulating plain)	medium clay	B	*Avena barbata (T)	Closed Herbland
51	NCS060	12/10/1992	54	262672	6282229	9	0.2 km WSW of Yacka		ridge	loam	A	Acacia victoriae ssp. (3), Acacia salicina (3)	Tall Shrubland
51	NCS061	13/10/1992	54	254202	6314572	9	1.5 km SSE of Gladstone		hill footslope	clay loam	A	*Pinus halepensis (2)	Low Open Forest
51	NCS062	13/10/1992	54	257710	6266844	9	2.7 km SSW of Brinkworth		plain (incl undulating plain)	medium clay	A	Eremophila longifolia (1), Bursaria spinosa ssp. spinosa (T)	(Tussock) Grassland
51	NCS063	13/10/1992	54	247372	6260729	69	5.4 km ENE of Snowtown		plain (incl undulating plain)	medium clay	G	Atriplex paludosa ssp. cordata (2)	Low Shrubland
51	NCS064	14/10/1992	54	257803	6217979	9	3.6 km WSW of Balaklava		plain (incl undulating plain)	medium clay	A	*Avena barbata (2)	Open (Tussock) Grassland
51	NCS065	14/10/1992	54	256475	6217790	9	4.9 km WSW of Balaklava		plain (incl undulating plain)	loam	A	Acacia ligulata (2), Eucalyptus gracilis (T)	Tall Open Shrubland
51	NCS066	14/10/1992	54	238491	6214562	29	1.1 km ENE of Wakefield		plain (incl undulating plain)	medium clay	D	Atriplex semibaccata (2), *Schinus molle (1)	Low Shrubland
51	NCS067	16/10/1992	54	267864	6222611	9	4.2 km WSW of Halbury		plain (incl undulating plain)	clay loam	A	Eucalyptus largiflorens (2), Eucalyptus socialis (NC) (2)	Low Woodland
51	NCS068	20/10/1992	54	269008	6246130	9	2.3 km NNW of Kybunga		plain (incl undulating plain)	loam	A	Senna artemisioides ssp. X coriacea (T)	Open (Tussock) Grassland
51	NCS069	20/10/1992	54	260949	6265076	9	4.3 km SSE of Brinkworth		plain (incl undulating plain)	clay loam	A	Eucalyptus gracilis (T)	Open Shrubland

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54	GWL001	11/11/1993	54	318622	6308679	17	6.9 km ENE of Peppermint Gully		hill slope	clay loam	A	Eucalyptus odorata (3)	Very Low Open Forest
54	GWL002	11/11/1993	54	257972	6284354	13	5.3 km WNW of Yacka		hill slope	clay loam	A	Allocasuarina verticillata (2), Eucalyptus odorata (2)	Very Low Open Forest
54	GWL003	12/11/1993	54	247822	6338779	17	2.4 km NNE of Tandowie		hill footslope	clay loam	B	Eucalyptus odorata (2)	Open Forest
54	GWL006	25/11/1993	54	267172	6351179	24	1.2 km WSW of Tarcowie		hill slope	clayey sand	B	Eucalyptus porosa (3)	Very Low Open Forest
54	GWL008	29/11/1993	54	271672	6286479	24	7.5 km WSW of Spalding		ridge		A	Eucalyptus porosa (2), Eucalyptus odorata (N)	Very Low Woodland
54	GWL009	4/12/1993	54	313922	6188878	22	5.0 km NNW of Nuriootpa		hill footslope		A	Eucalyptus odorata (2), Callitris gracilis (2)	
54	GWL010	4/12/1993	54	302772	6202753	17	7.1 km WNW of Kapunda		ridge		A	Eucalyptus odorata (3)	Very Low Woodland
54	GWL016	10/02/1994	54	277972	6170703	24	6.2 km ENE of Two Wells		plain (incl undulating plain)	sandy loam	A	Eucalyptus porosa (3)	Very Low Woodland
54	GWL017	10/02/1994	54	277172	6173728	24	6.8 km ENE of Two Wells		open depression	clayey sand	A	Eucalyptus porosa (3)	Low Woodland
54	GWL018	10/02/1994	54	278172	6196878	24	0.2 km WSW of Barabba		plain (incl undulating plain)	clay loam	A	Eucalyptus porosa (2)	Low Woodland
55	ADC0101	20/10/1993	54	327522	6182678	17	1.4 km SSE of Moculta		hill footslope	clay loam	A	Eucalyptus odorata (2), Eucalyptus leucoxylon ssp. pruinosa (1)	Low Woodland
55	ADC0201	21/10/1993	54	329372	6180578	20	4.1 km SSE of Moculta		hill slope	clay loam	B	Eucalyptus leucoxylon ssp. pruinosa (2)	Low Woodland
55	ADC0401	26/10/1993	54	325572	6183028	20	1.9 km WSW of Moculta		plain (incl undulating plain)	clay loam	B	Eucalyptus leucoxylon ssp. pruinosa (2), Eucalyptus odorata (T)	Low Woodland
55	ADC0701	5/11/1993	54	330872	6182378	20	1.5 km WSW of Mount Karinya		hill slope	clay loam	A	Eucalyptus odorata (T)	Open Mallee
55	ADC0901	11/11/1993	54	326122	6187978	20	3.4 km SSW of Truro		hill slope	sandy loam	A	Eucalyptus leucoxylon ssp. pruinosa (1)	Low Woodland
58	058BUR01	3/12/1992	54	311022	6271478	6	3.2 km ESE of Burra	Hills	hill footslope	clay loam	A	Lomandra effusa (1), Lomandra multiflora ssp. dura (T)	Open Sedgeland
58	058BUR02	15/11/1996	54	313122	6271878	4	5.2 km ESE of Burra	Hills	hill slope	clay loam	A	Austrodanthonia eriantha (2), *Salvia verbenaca (2), Austrostipa eremophila (2)	(Tussock) Grassland
58	058BUR11	27/10/1995	54	313122	6278878	9	4.2 km ESE of Mount Cone	Hills	hill slope	clay loam	A	Austrostipa nitida (2), Austrostipa eremophila (2), *Echium plantagineum (2)	(Tussock) Grassland
58	058BUR21	26/10/1995	54	309822	6272528	9	1.9 km ENE of Burra	Hills	hill footslope	clay loam	A	*Salvia verbenaca (3), Austrostipa scabra ssp. falcata (2)	(Tussock) Grassland
58	058BUR31	26/10/1995	54	307772	6276178	1	3.9 km NNE of Burra	Hills	hill slope	clay loam	A	Austrostipa setacea (2), Austrostipa scabra ssp. falcata (2), Danthonia carphoides var. carphoides (NC) (2)	(Tussock) Grassland
58	058BUR41	13/11/1996	54	310622	6263878	4	3.7 km SSW of Stein Hill	Hills	hill footslope	clay loam	A	Aristida behriana (2), *Avena barbata (2), Austrodanthonia caespitosa (2)	(Tussock) Grassland
58	058BUR51	8/12/1994	54	308822	6270078		2.4 km SSE of Burra	Hills	hill slope	sandy loam	A	Austrodanthonia tenuior (3), *Avena barbata (2), *Salvia verbenaca (2)	(Tussock) Grassland
58	058BUR61	26/10/1995	54	296722	6284379	4	5.0 km ENE of Booborowie	Hills	hill slope		A	*Echium plantagineum (2), *Salvia verbenaca (2), Austrostipa scabra ssp. falcata (2)	(Tussock) Grassland
58	058HAL01	15/11/1996	54	315122	6306829	4	3.0 km ENE of Peppermint Gully	Hills	hill footslope	clay loam	A	Danthonia carphoides var. carphoides (NC) (2), Austrodanthonia caespitosa (2), Austrodanthonia eriantha (2)	(Tussock) Grassland
58	058HAL11	9/12/1994	54	302922	6308679	1	1.0 km SSW of Ulooloo	Hills	dune footslope	clay loam	A	Austrostipa scabra ssp. (3), Austrostipa blackii (2), Austrostipa puberula (2)	(Tussock) Grassland
58	1C0101	3/12/1992	54	315622	6271478	9	3.8 km WSW of Douglas				A	Lomandra multiflora ssp. dura (T)	Open Sedgeland
58	2B0101	4/12/1992	54	311922	6271978	4	4.0 km ESE of Burra				A	Lomandra multiflora ssp. dura (2), Lomandra effusa (T)	Open Sedgeland
58	3A0101	3/12/1992	54	311922	6279378	5	3.0 km ESE of Mount Cone				A	*Avena barbata (4)	(Tussock) Grassland
58	4A0101	1/03/1993	54	315922	6285178	1	6.1 km WNW of Mongalata				A	Lomandra multiflora ssp. dura (2)	Open Sedgeland
62	APO1101	27/10/1994	54	307435	6237615	17	3.4 km NNW of Tothill Belt	Hills	hill slope	sandy clay loam	A	Eucalyptus odorata (3), Allocasuarina verticillata (1)	Low Woodland
62	APO1401	27/10/1994	54	303253	6261132	3	3.8 km ESE of Hanson	Hills	hill slope	clay loam, sandy	A	Cryptandra amara var. amara (NC) (1), Lomandra multiflora ssp. dura (1)	Open Sedgeland
62	APO1701	27/10/1994	54	312213	6254269	6	5.4 km WSW of Burra Hill	Hills	hill slope	medium clay	A	Austrostipa setacea (1)	Open (Tussock) Grassland
62	APO1801	28/10/1994	54	300678	6245250	13	4.8 km WSW of Black Springs	Low hills	hill slope	sandy loam	A	Allocasuarina verticillata (1)	Very Low Open Woodland
62	APO1802	28/10/1994	54	300886	6243717	13	5.5 km WSW of Black Springs	Low hills	hill crest	sandy loam	A	Lepidosperma viscidum (3)	Sedgeland
62	APO1803	28/10/1994	54	301375	6243130	79	5.6 km SSW of Black Springs	Flood plain	stream channel	sandy clay loam	C	Juncus kraussii (3)	Sedgeland
62	APO1901	27/10/1994	54	300658	6247479	1	4.4 km WNW of Black Springs	Rises	hill slope	loam	A	Allocasuarina verticillata (3)	Low Woodland
62	APO2101	28/10/1994	54	301657	6240355	1	4.6 km NNW of Waterloo	Rises	hill slope	sandy loam	A	Eucalyptus porosa (2)	Woodland

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62	APO2201	28/10/1994	54	309277	6250317	13	3.8 km ENE of Emuville	Mountains	hill slope	sandy loam	A	Allocasuarina verticillata (1)	Very Low Woodland
62	BUR0401	25/10/1994	54	310396	6270025	6	3.4 km SSE of Burra	Low hills	hill slope	clay loam	A	Lomandra multiflora ssp. dura (1)	Open Sedgeland
62	BUR0601	26/10/1994	54	310897	6265557	6	2.4 km WSW of Stein Hill	Rises	hill footslope	medium clay	A	Lomandra effusa (T)	Very Open Sedgeland
62	BUR0701	24/10/1994	54	304570	6268351	3	5.2 km SSW of Burra	Plain	plain (incl undulating plain)	light clay	B	Dianella brevicaulis/revoluta var. (2)	Open Sedgeland
62	BUR0801	25/10/1994	54	313156	6274481	6	5.6 km ENE of Burra	Low hills	hill crest	clay loam	A	Lomandra multiflora ssp. dura (1), Lomandra effusa (1)	Open Sedgeland
62	BUR0902	25/10/1994	54	306252	6278227	7	6.1 km NNW of Burra	Low hills	hill crest	clay loam	A	Lomandra effusa (1)	Very Open Sedgeland
62	BUR1001	26/10/1994	54	310891	6281160	6	1.2 km ESE of Mount Cone	Low hills	hill crest	clay loam, sandy	A	Austrostipa blackii (1), Austrostipa nitida (1)	Open (Tussock) Grassland
62	BUR1201	25/10/1994	54	305882	6278832	1	6.7 km SSE of Mount Bryan	Low hills	hill footslope	clay loam	A	Austrostipa blackii (1)	(Tussock) Grassland
62	BUR1301	24/10/1994	54	301353	6284263	8	3.3 km WSW of Mount Bryan	Low hills	gully	silty clay loam	A	Juncus subsecundus (1)	Open Sedgeland
62	BUR1401	24/10/1994	54	298762	6284411	6	5.8 km WSW of Mount Bryan	Low hills	hill slope	light clay	A	Lomandra multiflora ssp. dura (1)	Very Open Sedgeland
62	BUR1501	24/10/1994	54	294317	6287735	13	4.7 km NNE of Booborowie	Hills	hill slope	clay loam	A	Allocasuarina verticillata (2)	Low Open Woodland
62	BUR1701	26/10/1994	54	309171	6286111	3	4.8 km ENE of Mount Bryan	Rises	hill footslope	medium clay	B	Lomandra multiflora ssp. dura (1), Cryptandra sp. Long hypanthium (C.R. Alcock 10626) (T)	Very Open Sedgeland
62	BUR1D04	24/10/1994	54	299647	6287618	3	2.5 km WSW of Hallett Hill	Low hills	hill footslope	medium heavy clay	B	Lomandra multiflora ssp. dura (1)	Open Sedgeland
62	CAR0101	24/10/1994	54	316133	6295143	33	6.7 km SSW of Mount Bryan East	Low hills	hill slope	silty loam	A	Eucalyptus gracilis (1), Eucalyptus socialis (NC) (T)	Open Mallee
62	CAR0201	24/10/1994	54	318020	6295703	24	6.3 km SSE of Mount Bryan East	Low hills	plain (incl undulating plain)	loam	A	Eucalyptus porosa (2)	Open Mallee
62	CAR0301	24/10/1994	54	320028	6294953	34	7.8 km SSE of Mount Bryan East	Hills	hill footslope	sandy loam	A	Eucalyptus socialis (NC) (2), Eucalyptus brachycalyx (2), Eucalyptus gracilis (2)	Open Mallee
62	CAR0401	25/10/1994	54	328274	6295928	31	0.9 km NNE of Caroona	Plain	plain (incl undulating plain)	sandy clay loam	A	Eucalyptus gracilis (T), Eucalyptus oleosa (NC) (T)	Very Open Mallee
62	CAR0501	24/10/1994	54	318168	6299903	4	2.6 km SSE of Mount Bryan East	Low hills	hill slope	loam	A	Eucalyptus gracilis (2)	Open Mallee
62	CAR0601	28/10/1994	54	317478	6306672	33	4.9 km NNE of Mount Bryan East	Low hills	hill slope	loam	A	Eucalyptus brachycalyx (4)	Mallee
62	CAR0701	24/10/1994	54	318656	6300838	22	2.5 km ESE of Mount Bryan East	Low hills	hill slope	sandy loam	A	Callitris gracilis (2)	Very Low Open Woodland
62	CAR0801	28/10/1994	54	315255	6308626	33	4.4 km NNE of Peppermint Gully	Plain	plain (incl undulating plain)	clay loam	A	Eucalyptus gracilis (3), Eucalyptus brachycalyx (3)	Mallee
62	CAR0901	25/10/1994	54	319240	6308978	37	7.5 km ENE of Peppermint Gully	Hills	hill crest	sandy clay loam	A	Dodonaea viscosa ssp. angustissima (3), Acacia calamifolia (NC) (1)	Tall Open Shrubland
62	CAR1001	25/10/1994	54	319722	6308317	37	7.2 km NNE of Mount Bryan East	Hills	hill slope	sandy clay loam	A	Dodonaea viscosa ssp. angustissima (2)	Low Open Shrubland
62	CAR1101	24/10/1994	54	324986	6309318	24	11.3 km ENE of Mount Bryan East	Alluvial fan	stream channel	clayey sand	A	Eucalyptus porosa (3)	Mallee
62	CAR1201	24/10/1994	54	326542	6310836	34	8.7 km WSW of Ketchowla	Low hills	hill slope	sandy loam	A	Eucalyptus socialis (NC) (3), Eucalyptus gracilis (1)	Mallee
62	CAR1301	25/10/1994	54	327337	6309502		8.9 km WSW of Ketchowla	Plain	plain (incl undulating plain)	loam	A	*Asphodelus fistulosus (3), *Hordeum glaucum (2)	(Tussock) Grassland
62	CAR1901	25/10/1994	54	319310	6315400	39	12.3 km NNE of Peppermint Gully	Low hills	hill slope	sandy loam	A	Dodonaea lobulata (3)	Shrubland
62	CAR2001	28/10/1994	54	316902	6314385	32	10.2 km NNE of Peppermint Gully	Plain	plain (incl undulating plain)	clay loam	A	Eucalyptus oleosa (NC) (3), Eucalyptus gracilis (2)	Mallee
62	EUD0301	24/10/1994	54	331091	6220232	24	1.6 km ENE of Peep Hill	Low hills	hill slope	sandy loam	A	Eucalyptus porosa (1)	Open Mallee
62	EUD1201	25/10/1994	54	319370	6227470	9	0.7 km WSW of Point Pass	Low hills	hill slope	loam	A	Lomandra effusa (2)	Open Sedgeland
62	EUD1601	28/10/1994	54	319932	6233431	34	5.0 km SSW of Robertstown	Plain	stony plain	sandy loam	A	Eucalyptus socialis (NC) (3)	Low Woodland
62	EUD1901	25/10/1994	54	320054	6224312	7	2.5 km ENE of Julia	Hills	hill slope	loamy sand	A	Lomandra effusa (2)	Open Sedgeland
62	EUD1B33	28/10/1994	54	324478	6215701	9	1.4 km ESE of Eudunda	Hills	hill slope	sandy light clay	A	Lomandra effusa (2)	Open Sedgeland
62	EUD2001	24/10/1994	54	321302	6221123	6	1.5 km NNE of Hampden	Low hills	ridge	loam	A	Lomandra effusa (1)	Open Sedgeland
62	EUD2101	24/10/1994	54	322866	6217777	7	1.3 km NNW of Eudunda	Low hills	ridge	sandy loam	A	Lomandra effusa (1)	Very Open Sedgeland
62	EUD2301	26/10/1994	54	317781	6232657	9	5.6 km NNW of Point Pass	Hills	hill slope	medium clay	A	Lomandra effusa (2)	Open Sedgeland
62	EUD2401	26/10/1994	54	317309	6235283	9	6.1 km WSW of Robertstown	Low hills	hill slope	light clay	A	Lomandra effusa (2)	Sedgeland
62	EUD2501	26/10/1994	54	318354	6230432	9	3.3 km NNW of Point Pass	Hills	ridge	loam	A	Acacia pycnantha (1), Allocasuarina verticillata (N)	Very Low Open Woodland
62	HAL0101	25/10/1994	54	312324	6297856	9	2.0 km SSE of Mount Bryan	Low hills	hill slope	clay loam	A	*Avena barbata (4), *Bromus rubens (2)	Closed (Tussock) Grassland

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62	HAL0201	25/10/1994	54	311444	6296750	1	3.0 km SSW of Mount Bryan	Low hills	hill slope	clay loam	A	*Avena barbata (4), Enneapogon nigricans (3)	Closed (Tussock) Grassland
62	HAL0301	25/10/1994	54	310096	6296790	20	3.3 km SSW of Mount Bryan	Low hills	hill slope	clay loam	A	Eucalyptus leucoxylon ssp. pruinosa (2)	Low Woodland
62	HAL0501	25/10/1994	54	297655	6293884	9	8.0 km ESE of North Booborowie	Low hills	hill crest	clay loam	A	*Avena barbata (3)	(Tussock) Grassland
62	HAL0601	25/10/1994	54	297664	6296311	1	8.0 km WSW of Hallett	Low hills	hill slope	clay loam	A	*Avena barbata (4), Lomandra multiflora ssp. dura (3)	Sedgeland
62	HAL0701	26/10/1994	54	311637	6299279	23	0.5 km SSW of Mount Bryan	Mountains	hill crest	loam	A	Hymenanthera dentata (3)	Low Open Shrubland
62	HAL0801	26/10/1994	54	313255	6304786	17	0.5 km ESE of Peppermint Gully	Low hills	hill slope	loam	A	Eucalyptus odorata (3)	Low Woodland
62	HAL0901	26/10/1994	54	307090	6300138	20	3.0 km ESE of Hallett	Low hills	hill footslope	clay loam	B	Eucalyptus leucoxylon ssp. pruinosa (2)	Woodland
62	HAL1001	26/10/1994	54	307788	6304231	1	4.9 km ENE of Hallett	Plain	plain (incl undulating plain)	clay loam	B	Lomandra multiflora ssp. dura (3), Austrostipa blackii (3)	Open Sedgeland
62	HAL1101	27/10/1994	54	300239	6304015	1	4.9 km WNW of Hallett	Low hills	hill slope	clay loam	A	Austrostipa blackii (3)	(Tussock) Grassland
62	HAL1301	27/10/1994	54	313685	6313324	33	4.9 km ESE of Mount Scrub	Low hills	hill slope	sandy loam	A	Eucalyptus brachycalyx (4)	Mallee
62	HAL1401	27/10/1994	54	311209	6310388	33	5.7 km NNW of Peppermint Gully	Low hills	hill slope	clay loam	A	Eucalyptus gracilis (2), Eucalyptus porosa (T)	Mallee
62	HAL1601	28/10/1994	54	307519	6310197	9	4.1 km ENE of Ulooloo	Low hills	hill crest	clay loam	A	Eucalyptus leucoxylon ssp. pruinosa (T)	Low Open Woodland
62	HAL1701	28/10/1994	54	307066	6309664	13	3.6 km E of Ulooloo	Low hills	ridge	loam	A	Allocasuarina verticillata (2)	Low Open Woodland
62	HAL1801	27/10/1994	54	303232	6310922	7	1.5 km NNW of Ulooloo	Low hills	hill slope	clay loam	A	Maireana rohrlachii (3)	Low Shrubland
62	MON0101	27/10/1994	54	315832	6266112	24	3.0 km ESE of Stein Hill	Plain	plain (incl undulating plain)	loam	A	Eucalyptus porosa (2)	Open Mallee
62	MON0501	26/10/1994	54	322055	6277179	31	3.9 km NNW of Red Banks	Plain	plain (incl undulating plain)	sandy loam	A	Eucalyptus brachycalyx (2), Eucalyptus oleosa (NC) (1)	Open Mallee
62	MON0601	26/10/1994	54	323741	6272061	32	1.4 km SSE of Red Banks	Rises	hill crest	sandy loam	A	Eucalyptus oleosa (NC) (2)	Mallee
62	MON0801	28/10/1994	54	323111	6282582	33	1.6 km ESE of Mongalata	Plain	plain (incl undulating plain)	sandy loam	A	Eucalyptus gracilis (1), Eucalyptus oleosa (NC) (1), Eucalyptus brachycalyx (1)	Open Mallee
62	MON0901	28/10/1994	54	323626	6285209	25	0.4 km NNW of Tracy	Plain	plain (incl undulating plain)	sandy loam	A	Senna artemisioides ssp. X coriacea (2)	Open Shrubland
62	MON1001	28/10/1994	54	326823	6284298	31	3.2 km ESE of Tracy	Rises	hill slope	sandy loam	A	Eucalyptus gracilis (1), Eucalyptus oleosa (NC) (1), Eucalyptus brachycalyx (1)	Open Mallee
62	MON1002	28/10/1994	54	327481	6284290	31	3.8 km ESE of Tracy	Rises	hill slope	sandy loam	A	Eremophila alternifolia (1), Atriplex vesicaria ssp. variabilis (1), Rhagodia ulicina (1)	Low Very Open Shrubland
62	MON1003	28/10/1994	54	328170	6284276	31	4.5 km ESE of Tracy	Rises	plain (incl undulating plain)	sandy loam	A	Eucalyptus gracilis (1), Eucalyptus oleosa (NC) (1)	Open Mallee
62	MON1201	28/10/1994	54	324565	6290302	31	5.6 km NNE of Tracy	Rises	hill slope	sandy loam	A	Eucalyptus brachycalyx (2)	Open Mallee
62	MON1301	28/10/1994	54	322192	6289672	33	5.1 km NNW of Tracy	Rises	hill crest	loamy sand	A	Eucalyptus brachycalyx (2)	Open Mallee
62	MON1401	29/10/1994	54	316918	6289517	33	8.3 km NNW of Mongalata	Hills	hill slope	silty loam	A	Eucalyptus gracilis (2)	Open Mallee
62	MON1501	29/10/1994	54	314628	6288083	7	8.7 km WNW of Mongalata	Hills	hill crest	sandy loam	A	Lomandra effusa (2)	Open Sedgeland
62	MON1601	26/10/1994	54	321601	6272084	81	2.2 km WSW of Red Banks	Rises	stream channel	loamy sand	A	Phragmites australis (4)	(Tussock) Grassland
62	MON1603	26/10/1994	54	323370	6272726	30	0.7 km SSE of Red Banks	Plain	plain (incl undulating plain)	sandy loam	A	Maireana pyramidata (2), Nitraria billardierei (T)	Low Open Shrubland
62	PET0101	25/10/1994	54	297833	6350905	22	1.2 km NNW of Peterborough	Rises	hill slope	clayey sand	A	Callitris gracilis (3)	Very Low Open Forest
62	PET0201	25/10/1994	54	296528	6347119	25	3.1 km SSW of Peterborough	Rises	hill slope	clayey sand	A	Senna artemisioides ssp. X coriacea (3), Dodonaea viscosa ssp. angustissima (2)	Shrubland
62	PET0202	25/10/1994	54	296839	6347080	7	3.0 km SSW of Peterborough	Rises	hill slope	clayey sand	A	Callitris gracilis (2)	Very Low Woodland
62	RIV1301	28/10/1994	54	308841	6221355	17	3.0 km WNW of Tarnma	Hills	hill slope	clay loam	A	Eucalyptus leucoxylon ssp. (2), Eucalyptus odorata (1), Allocasuarina verticillata (1)	Low Woodland
62	RIV1401	28/10/1994	54	300562	6221303	17	2.7 km WSW of Springfield	Low hills	hill slope	sandy loam	A	Eucalyptus odorata (3)	Low Open Forest
62	RIV1701	29/10/1994	54	301608	6228848	17	6.7 km WNW of Tothill Creek	Low hills	hill slope	sandy clay loam	A	Eucalyptus odorata (2)	Low Woodland
62	RIV1B36	28/10/1994	54	300978	6210066	20	3.6 km WSW of Hamilton	Rises	hill slope	sandy loam	B	Eucalyptus leucoxylon ssp. (3)	Open Forest
62	TER0101	24/10/1994	54	303757	6320304	1	1.3 km SSE of Whyte-yarcowie	Plain	plain (incl undulating plain)	sandy loam	A	Austrostipa blackii (2), Atriplex vesicaria ssp. (1)	Low Open Shrubland
62	TER0201	24/10/1994	54	303200	6318632	11	2.8 km SSW of Whyte-yarcowie	Plain	plain (incl undulating plain)	clayey sand	A	Maireana aphylla (2)	Low Open Shrubland
62	TER1301	26/10/1994	54	300582	6339193	1	3.6 km ENE of Sunnybrae	Hills	hill crest	sandy loam	A	Lomandra multiflora ssp. dura (2)	Very Open Sedgeland
62	TER1401	25/10/1994	54	298808	6334138	9	2.8 km SSE of Sunnybrae	Low hills	hill slope	clayey sand	A	Lomandra multiflora ssp. dura (2), Cryptandra amara var. amara (NC) (2), Lomandra effusa (2)	Sedgeland
62	TER1C12	25/10/1994	54	298830	6336197	1	1.1 km ESE of Sunnybrae	Rises	hill slope	clayey sand	A	Acacia pycnantha (3)	Very Low Open Forest

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62	WOR0101	24/10/1994	54	322425	6262534	33	7.6 km NNE of Worlds End	Plain	plain (incl undulating plain)	sandy clay loam	A	Eucalyptus gracilis (3)	Mallee
62	WOR0201	24/10/1994	54	322666	6258017	32	3.6 km NNE of Worlds End	Plain	plain (incl undulating plain)	clay loam	A	Eucalyptus oleosa (NC) (3)	Mallee
62	WOR0601	24/10/1994	54	318075	6250925	34	4.9 km SSW of Worlds End	Hills	hill crest	sandy loam	A	Eucalyptus brachycalyx (3), Eucalyptus socialis (NC) (2)	Mallee
62	WOR1501	27/10/1994	54	325591	6255417	33	5.1 km E of Worlds End	Rises	hill footslope	sandy clay loam	A	Eucalyptus brachycalyx (2)	Mallee
62	WOR1601	24/10/1994	54	319565	6247865	34	5.6 km ENE of Emu Downs	Hills	hill crest	sandy loam	A	Eucalyptus gracilis (3), Eucalyptus brachycalyx (3)	Open Mallee
63	ALF0101	22/09/1994	53	776046	6260107	34	1.3 km NNE of Lincolnfields	Plain	plain (incl undulating plain)	loam	A	Eucalyptus gracilis (2), Eucalyptus socialis (NC) (2)	Open Mallee
63	ALF0201	23/09/1994	53	767553	6255918	32	6.7 km ENE of Alford	Plain	plain (incl undulating plain)	medium clay	A	Eucalyptus oleosa (NC) (2), Melaleuca lanceolata ssp. lanceolata (NC) (2)	Tall Open Shrubland
63	ALF0301	23/09/1994	53	761478	6254705	32	0.5 km ENE of Alford	Plain	plain (incl undulating plain)	sandy loam	B	Eucalyptus oleosa (NC) (3)	Open Mallee
63	ALF0801	23/09/1994	53	756845	6250168	32	5.7 km SSW of Brucefield Corner	Plain	plain (incl undulating plain)	loam	B	Eucalyptus oleosa (NC) (2), Eucalyptus gracilis (2)	Open Mallee
63	ALF1001	22/09/1994	53	773683	6246424	32	1.4 km WNW of Mona	Plain	plain (incl undulating plain)	clay loam	A	Eucalyptus oleosa (NC) (2), Eucalyptus dumosa (2)	Open Mallee
63	ALF1002	22/09/1994	53	770920	6245328	32	4.3 km WSW of Mona	Plain	plain (incl undulating plain)	sandy loam	A	Eucalyptus oleosa (NC) (3), Eucalyptus phenax (NC) (1)	Mallee
63	ALF1101	22/09/1994	53	766786	6244410	32	2.5 km NNE of Willamulka	Rises	hill crest	loam	A	Eucalyptus oleosa (NC) (3)	Open Mallee
63	ALF1201	22/09/1994	53	763946	6244602	32	2.8 km NNW of Willamulka	Rises	dune footslope	sandy loam	A	Eucalyptus oleosa (NC) (3)	Open Mallee
63	ALF1401	21/09/1994	53	767237	6234390	32	4.6 km NNW of Paskeville	Plain	plain (incl undulating plain)	sandy loam	A	Eucalyptus oleosa (NC) (2), Eucalyptus gracilis (2), Eucalyptus phenax (NC) (2)	Mallee
63	ALF2E15	21/09/1994	53	763913	6235607	50	6.8 km SSW of Willamulka	Plain	plain (incl undulating plain)	sandy loam	A	Melaleuca lanceolata ssp. lanceolata (NC) (2)	Tall Open Shrubland
63	ALF2E17	22/09/1994	53	776429	6250982	33	2.9 km NNW of Bute	Plain	plain (incl undulating plain)	loam	A	Eucalyptus gracilis (1), Eucalyptus phenax (NC) (1)	Open Mallee
63	ALF2E22	23/09/1994	53	773858	6239996	35	2.3 km NNE of Ninnes Plains	Rises	hill slope	loam	A	Eucalyptus dumosa (2)	Open Mallee
63	ALT0101	12/09/1994	53	678625	6097122	73	2.4 km SSW of Marion Bay	Plain	saltlake	sandy loam	F	Melaleuca halmaturorum (5)	Very Low Closed Forest
63	ALT0201	12/09/1994	53	676220	6094215	59	0.5 km SSW of Stenhouse Bay	Consolidated dunefield	dune slope	sandy loam	A	Leucopogon parviflorus (3)	Shrubland
63	ALT0301	13/09/1994	53	674188	6096156	49	2.3 km ENE of Inneston	Consolidated dunefield	dune slope	sandy loam	A	Eucalyptus rugosa (3)	Mallee
63	ALT0401	12/09/1994	53	672284	6094080	59	1.0 km SSE of Inneston	Consolidated dunefield	dune footslope	sandy loam	A	Acacia anceps (NC) (3)	Shrubland
63	ALT0501	12/09/1994	53	672141	6093246	42	1.8 km SSW of Inneston	Consolidated dunefield	dune crest	loamy sand	A	Eucalyptus diversifolia (NC) (3)	Low Mallee
63	ALT0601	13/09/1994	53	672408	6097390	49	2.3 km NNE of Inneston	Consolidated dunefield	ridge	sandy loam	A	Eucalyptus rugosa (4), Eucalyptus gracilis (2)	Mallee
63	ALT0701	13/09/1994	53	670788	6095182	42	1.4 km WNW of Inneston	Consolidated dunefield	dune/consolidated dune	loamy sand	A	Eucalyptus phenax (NC) (3), Eucalyptus diversifolia (NC) (2)	Mallee
63	ALT0801	13/09/1994	53	669413	6093838	42	3.0 km WSW of Inneston	Dunefield	swale	loamy sand	A	Eucalyptus diversifolia (NC) (T)	Very Open Low Mallee
63	ALT0901	14/09/1994	53	669217	6096202	42	3.2 km WNW of Inneston	Beach ridge plain	lunette	loamy sand	C	Acacia nematophylla (T)	Low Shrubland
63	ALT1001	14/09/1994	53	666862	6097620	62	1.6 km SSW of Pondalowie Bay	Dunefield	swale	sand	A	Templetonia retusa (3)	Shrubland
63	ARD0102	23/09/1994	53	763457	6180779	47	7.9 km SSW of Ardrossan	Hills	hill slope	clay loam	A	Allocasuarina verticillata (2), Eucalyptus porosa (2)	Low Woodland
63	ARD0201	19/09/1994	53	775850	6195808	71	6.2 km SSE of Price	Alluvial plain	plain (incl undulating plain)	light clay	G	Halosarcia halocnemoides ssp. halocnemoides (2), Halosarcia pergranulata ssp. pergranulata (T)	Low Open Shrubland
63	ARD0501	20/09/1994	53	754120	6206046	53	0.7 km NNE of Arthurton	Plain	plain (incl undulating plain)	light medium clay	A	Eucalyptus socialis (NC) (2)	Open Mallee
63	ARD0601	21/09/1994	53	774118	6200964	32	1.8 km WSW of Price	Plain	plain (incl undulating plain)	sandy clay loam	C	Eucalyptus oleosa (NC) (2), Eucalyptus gracilis (2)	Open Mallee
63	ARD0801	22/09/1994	53	758240	6192164	53	2.8 km WSW of Petersville	Hills	hill slope	medium clay	B	Eucalyptus phenax (NC) (3), Eucalyptus leptophylla (2), Eucalyptus calycogona var. calycogona (NC) (1)	Mallee
63	ARD1101	23/09/1994	53	764113	6185603	47	4.4 km WSW of Ardrossan	Hills	hill slope	clayey sand	A	Eucalyptus porosa (2), Eucalyptus leptophylla (2)	Open Mallee
63	ARD1201	22/09/1994	53	762051	6185107	47	5.7 km ESE of Cunningham	Plain	hill slope	sandy clay loam	A	Eucalyptus phenax (NC) (2), Eucalyptus leptophylla (2)	Open Mallee
63	ARD1301	23/09/1994	53	766050	6179404	58	8.0 km SSW of Ardrossan	Beach ridge plain	fore dune	sand	D	Olearia axillaris (3)	Tall Shrubland
63	ARD1401	21/09/1994	53	770395	6189277	58	3.0 km NE of Ardrossan	Beach ridge plain	fore dune	sand	D	Olearia axillaris (2), Acacia ligulata (2), Geijera linearifolia (2)	Open Shrubland
63	ARD2B13	21/09/1994	53	768528	6187223	9	0.3 km ENE of Ardrossan	Hills	cliff	medium clay	A	Austrodanthonia caespitosa (2), Austrostipa sp. (2), Chrysocephalum apiculatum (2)	Open (Tussock) Grassland

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63	ARD2B16	22/09/1994	53	761287	6187757	32	4.1 km ESE of Cunningham	Plain	plain (incl undulating plain)	sandy loam	B	Eucalyptus phenax (NC) (2), Eucalyptus gracilis (2), Eucalyptus oleosa (NC) (2)	Mallee
63	ARD2B20	23/09/1994	53	753587	6191719	47	5.0 km WNW of Cunningham	Hills	hill slope	medium clay	A	Eucalyptus leptophylla (2), Eucalyptus phenax (NC) (2), Eucalyptus socialis (NC) (2)	Open Mallee
63	BRO0102	23/09/1994	53	773175	6286292	57	3.1 km NNE of Fisherman Bay	Beach ridge plain	fore dune	sand	F	Allocasuarina verticillata (2)	Low Woodland
63	BRO0201	23/09/1994	53	777697	6286696	36	6.1 km ENE of Fisherman Bay	Beach ridge plain	hill crest	sand	G	Casuarina pauper (2)	Low Woodland
63	BRO0301	19/09/1994	53	776697	6278916	32	4.3 km ENE of Port Broughton	Longitudinal dunefield	dune crest	loamy sand	B	Eucalyptus oleosa (NC) (3), Casuarina pauper (1)	Mallee
63	BRO0501	20/09/1994	53	774870	6273690	32	5.1 km SSE of Port Broughton	Longitudinal dunefield	swale	sandy loam	A	Eucalyptus oleosa (NC) (2), Eucalyptus gracilis (2)	Mallee
63	BRO0601	20/09/1994	53	774448	6274389	33	4.3 km SSE of Port Broughton	Longitudinal dunefield	swale	sandy loam	A	Eucalyptus brachycalyx (4), Eucalyptus gracilis (2)	Closed Mallee
63	BRO1101	19/09/1994	53	762585	6264043	24	3.5 km WSW of Bews	Longitudinal dunefield	dune slope	sandy loam	B	Eucalyptus peninsularis X Eucalyptus socialis ssp. (2), Eucalyptus porosa (2), Eucalyptus gracilis (T)	Open Mallee
63	BRO1201	19/09/1994	53	766464	6265063	52	0.7 km NNE of Bews	Longitudinal dunefield	dune crest	sandy loam	A	Eucalyptus incrassata (2), Eucalyptus brachycalyx (2)	Mallee
63	BRO1401	19/09/1994	53	772312	6268410	32	7.4 km ENE of Bews	Longitudinal dunefield	swale	sandy loam	A	Eucalyptus oleosa (NC) (4), Eucalyptus gracilis (2)	Closed Mallee
63	BRO1402	19/09/1994	53	772304	6266599	22	6.6 km ENE of Bews	Longitudinal dunefield	dune slope	loamy sand	A	Callitris gracilis (4)	Low Open Forest
63	COO0101	14/09/1994	53	727026	6122196		8.5 km ESE of Warooka	Consolidated dunefield	dune/consolidated dune	sand	F	Halosarcia sp. (3), Frankenia sessilis (T), Frankenia pauciflora var. fruticulosa (T)	Low Shrubland
63	COO0301	12/09/1994	53	711745	6119446	42	9.4 km WSW of Warooka	Plain	plain (incl undulating plain)	sandy loam	B	Eucalyptus diversifolia (NC) (2), Melaleuca lanceolata ssp. lanceolata (NC) (2)	Very Open Mallee
63	COO0302	12/09/1994	53	711712	6119072	46	9.7 km WSW of Warooka	Plain	plain (incl undulating plain)	loam	C	Lepidosperma congestum (NC) (3), Dianella brevicaulis (1)	Sedgeland
63	COO0401	13/09/1994	53	713240	6115503	49	11.4 km SSW of Warooka	Low hills	hill slope	loam	A	Eucalyptus rugosa (2)	Open Mallee
63	COO0402	13/09/1994	53	713230	6114726	48	12.1 km SSW of Warooka	Low hills	hill slope	loam	A	Melaleuca lanceolata ssp. lanceolata (NC) (2), Allocasuarina verticillata (T)	Very Low Open Woodland
63	COO0404	12/09/1994	53	714792	6116287	50	10.0 km SSW of Warooka	Plain	plain (incl undulating plain)	clay loam	E	Melaleuca lanceolata ssp. lanceolata (NC) (2), Allocasuarina verticillata (N), Eucalyptus diversifolia (NC) (N)	Very Low Open Woodland
63	COO0501	14/09/1994	53	716953	6113097	42	12.4 km SSW of Warooka	Plain	plain (incl undulating plain)	sandy loam	C	Melaleuca acuminata ssp. acuminata (2), Melaleuca lanceolata ssp. lanceolata (NC) (2), Eucalyptus leptophylla (T)	Open Shrubland
63	COO0601	14/09/1994	53	718601	6115305	42	10.0 km SSW of Warooka	Plain	plain (incl undulating plain)	sandy loam	B	Eucalyptus gracilis (1), Eucalyptus oleosa (NC) (1)	Very Open Mallee
63	COO0701	13/09/1994	53	725007	6113795	54	5.3 km WNW of Port Moorowie	Consolidated dunefield	dune/consolidated dune	sand	A	Alyxia buxifolia (3), Acacia anceps (NC) (2)	Low Shrubland
63	COO0702	14/09/1994	53	726271	6113116	46	3.8 km WNW of Port Moorowie	Consolidated dunefield	closed depression	sand	A	Gahnia lanigera (3), Lomandra effusa (2), Lepidosperma congestum (NC) (2)	Sedgeland
63	COO0901	13/09/1994	53	713251	6109391	73	16.7 km WSW of Port Moorowie	Plain	plain (incl undulating plain)	clay loam	F	Melaleuca halmaturorum (5)	Tall Closed Shrubland
63	COO1001	14/09/1994	53	711406	6106146	54	19.2 km WSW of Port Moorowie	Consolidated dunefield	dune/consolidated dune	medium clay	B	Leucopogon parviflorus (3)	Open Shrubland
63	COR0101	15/09/1994	53	703734	6134492	48	13.4 km ENE of Corny Point	Plain	plain (incl undulating plain)	sandy loam	C	Melaleuca lanceolata ssp. lanceolata (NC) (2), Acacia brachybotrya (2), Exocarpos aphyllus (1)	Tall Open Shrubland
63	COR0201	15/09/1994	53	702816	6135032	50	12.6 km ENE of Corny Point	Beach ridge plain	beach ridge	sand	C	Melaleuca lanceolata ssp. lanceolata (NC) (3), Allocasuarina verticillata (2)	Mallee
63	COR0202	15/09/1994	53	702078	6135250	59	11.9 km ENE of Corny Point	Beach ridge plain	beach ridge	sand	B	Leucopogon parviflorus (2), Acacia nematophylla (2), Olearia axillaris (2)	Tall Shrubland
63	COR0301	15/09/1994	53	699959	6132354	73	9.7 km ESE of Corny Point	Plain	saltlake	medium clay	G	Melaleuca halmaturorum (5)	Very Low Closed Forest
63	COR0401	16/09/1994	53	685374	6131437	49	5.3 km WSW of Corny Point	Plain	plain (incl undulating plain)	sandy loam	B	Eucalyptus rugosa (2), Eucalyptus gracilis (2), Eucalyptus oleosa (NC) (T)	Mallee
63	COR0701	16/09/1994	53	687750	6130193		4.1 km SSW of Corny Point	Plain	plain (incl undulating plain)	sandy loam	F	Eucalyptus diversifolia (NC) (2), Eucalyptus porosa (2)	Open Mallee
63	COR0902	16/09/1994	53	687077	6125474	46	8.5 km SSW of Corny Point	Plain	plain (incl undulating plain)	loam	C	Callitris canescens (2)	Open Shrubland
63	COR1101	14/09/1994	53	702087	6125667	48	8.9 km ENE of Mount Pleasant	Plain	plain (incl undulating plain)	loam	B	Allocasuarina verticillata (2)	Very Low Woodland
63	COR1201	15/09/1994	53	703996	6127856	48	14.7 km ESE of Corny Point	Plain	plain (incl undulating plain)	sandy loam	B	Bursaria spinosa ssp. spinosa (2)	Open Shrubland

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63	COR1F25	16/09/1994	53	686318	6126240	42	8.2 km SSW of Corny Point	Low hills	dune/consolidated dune	sandy loam	A	Eucalyptus diversifolia (NC) (3), Eucalyptus oleosa (NC) (2), Callitris canescens (2)	Low Mallee
63	CUR0401	16/09/1994	53	742468	6165448	47	2.4 km NNE of Koolywurtie	Consolidated dunefield	dune/consolidated dune	sandy loam	A	Eucalyptus porosa (2)	Low Woodland
63	CUR0501	15/09/1994	53	728361	6157465	58	2.8 km SSW of Port Rickaby	Dunefield	dune slope	sand	A	Allocasuarina verticillata (2)	Very Low Woodland
63	CUR0601	15/09/1994	53	728596	6156543	42	3.7 km SSW of Port Rickaby	Plain	plain (incl undulating plain)	clay loam, sandy	C	Eucalyptus phenax (NC) (2)	Open Low Mallee
63	CUR0701	15/09/1994	53	727819	6155006	45	3.3 km NNE of Cheraweth	Dunefield	dune/consolidated dune	sand	C	Triodia compacta (4)	Hummock Grassland
63	CUR0801	15/09/1994	53	731262	6158463	32	3.2 km SE of Port Rickaby	Plain	plain (incl undulating plain)	sandy clay loam	C	Eucalyptus oleosa (NC) (2), Eucalyptus phenax (NC) (2), Eucalyptus gracilis (1)	Open Mallee
63	CUR1301	16/09/1994	53	733756	6171278	26	8.7 km SSW of Urania	Plain	plain (incl undulating plain)	clay loam, sandy	D	Geijera linearifolia (2), Acacia oswaldii (2)	Tall Open Shrubland
63	CUR1B12	14/09/1994	53	743964	6155070	13	4.8 km WSW of Curramulka	Plain	plain (incl undulating plain)	clay loam, sandy	B	Allocasuarina verticillata (3)	Very Low Open Woodland
63	CUR1B15	15/09/1994	53	730465	6158929	32	2.2 km ESE of Port Rickaby	Plain	plain (incl undulating plain)	clayey sand	C	Eucalyptus gracilis (2), Eucalyptus oleosa (NC) (2)	Open Mallee
63	CUR1B19	16/09/1994	53	738995	6177519	32	0.6 km SSW of Urania	Consolidated dunefield	dune slope	sandy loam	C	Eucalyptus gracilis (2), Eucalyptus oleosa (NC) (2)	Low Woodland
63	CUR1B21	16/09/1994	53	731793	6175205	26	5.9 km SSE of Port Victoria	Plain	plain (incl undulating plain)	loamy sand	F	Melaleuca lanceolata ssp. lanceolata (NC) (2), Acacia oswaldii (2), Myoporum platycarpum ssp. platycarpum (2)	Very Low Woodland
63	EDI0101	13/09/1994	53	744994	6122252	24	5.4 km WNW of Coobowie	Plain	plain (incl undulating plain)	medium clay	A	Eucalyptus porosa (4)	Low Open Forest
63	EDI0201	13/09/1994	53	736558	6124086	73	2.7 km NNW of Yorketown	Plain	open depression	clay loam	F	Melaleuca halmaturorum (3)	Very Low Open Forest
63	EDI0301	14/09/1994	53	733310	6123686	24	4.9 km WNW of Yorketown	Plain	limestone plain	sandy clay loam	C	Eucalyptus porosa (3)	Low Woodland
63	EDI0401	14/09/1994	53	730613	6116340	50	4.8 km NNE of Port Moorowie	Rises	hill crest	light medium clay	C	Melaleuca lanceolata ssp. lanceolata (NC) (2)	Low Woodland
63	EDI0701	14/09/1994	53	731468	6115218	50	3.9 km NNE of Port Moorowie	Rises	hill crest	clay loam	C	Melaleuca lanceolata ssp. lanceolata (NC) (2)	Low Woodland
63	EDI0801	13/09/1994	53	739892	6113868	74	8.1 km SSE of Yorketown	Dunefield	dune crest	sandy clay loam	G	Sclerostegia arbuscula (2), Halosarcia pterygosperma ssp. pterygosperma (2), Lawrencia squamata (T)	Low Shrubland
63	EDI0901	12/09/1994	53	751207	6110914	59	3.2 km SSE of Edithburgh	Beach ridge plain	plain (incl undulating plain)	sand	C	Acacia longifolia ssp. sophorae (3), Leucopogon parviflorus (2)	Tall Shrubland
63	EDI1001	12/09/1994	53	749763	6110296	59	3.8 km SSW of Edithburgh	Beach ridge plain	swale	sand	E	Acacia leiophylla (2), Leucopogon parviflorus (2)	Shrubland
63	EDI1002	12/09/1994	53	749543	6110038	59	4.1 km SSW of Edithburgh	Beach ridge plain	beach ridge	sand	E	Acacia leiophylla (3), Leucopogon parviflorus (3)	Very Low Open Forest
63	EDI1101	12/09/1994	53	739477	6106111	58	1.2 km WNW of Troubridge Hill	Dunefield	plain (incl undulating plain)	sandy loam	A	Olearia axillaris (2)	Low Open Shrubland
63	EDI1201	13/09/1994	53	739094	6106433	59	1.7 km WNW of Troubridge Hill	Dunefield	dune crest	sand	A	Leucopogon parviflorus (3), Acacia longifolia ssp. sophorae (2)	Shrubland
63	EDI1D07	13/09/1994	53	736671	6123795		2.4 km NNW of Yorketown	Plain	swamp	medium heavy clay	G	Halosarcia halocnemoides ssp. (5)	Low Closed Shrubland
63	HIL0201	16/09/1994	53	688979	6120452	50	5.3 km WSW of Mount Pleasant	Plain	limestone plain	loam	B	Melaleuca lanceolata ssp. lanceolata (NC) (2)	Very Low Woodland
63	HIL0301	16/09/1994	53	683344	6119761	75	15.3 km SSW of Corny Point	Plain	flat	clay loam	D	Gahnia filum (4)	Sedgeland
63	HIL0401	12/09/1994	53	684460	6114754	42	16.3 km NNE of Marion Bay	Plain	limestone plain	loam	B	Allocasuarina verticillata (2)	Low Open Woodland
63	HIL0501	15/09/1994	53	688134	6114648	42	9.4 km WNW of Coonarie Hill	Plain	limestone plain	loam	A	Eucalyptus diversifolia (NC) (4)	Mallee
63	HIL0601	12/09/1994	53	688010	6112615		9.3 km WNW of Coonarie Hill	Plain	limestone plain	clay loam	C	Podolepis canescens (1), *Erodium cicutarium (1), Plantago sp. B (R.Bates 44765) (1)	Closed Herbland
63	HIL0602	12/09/1994	53	688311	6112443	49	9.0 km WNW of Coonarie Hill	Consolidated dunefield	dune slope	sandy loam	A	Eucalyptus rugosa (2)	Open Mallee
63	HIL0701	16/09/1994	53	690638	6116745	49	7.1 km SSW of Mount Pleasant	Rises	rock outcrop - on plain	loam	A	Eucalyptus rugosa (3)	Mallee
63	HIL0801	13/09/1994	53	684757	6108570	42	10.6 km NNE of Marion Bay	Consolidated dunefield	swale	sandy loam	A	Eucalyptus diversifolia (NC) (T)	Very Open Low Mallee
63	HIL0802	13/09/1994	53	686664	6107458	49	10.6 km NNE of Marion Bay	Plain	limestone plain	clay loam	B	Eucalyptus diversifolia (NC) (3), Eucalyptus rugosa (2)	Mallee
63	HIL0901	13/09/1994	53	683445	6102809	42	5.0 km NNE of Marion Bay	Plain	rock outcrop - on plain	clay loam	C	Eucalyptus diversifolia (NC) (2)	Very Open Mallee
63	HIL1001	13/09/1994	53	687972	6099893	59	7.9 km ENE of Marion Bay	Dunefield	fore dune	sand	A	Leucopogon parviflorus (3), Olearia axillaris (2)	Shrubland
63	HIL1002	13/09/1994	53	688018	6099992	56	7.9 km ENE of Marion Bay	Dunefield	dune slope	sand	A	Acacia nematophylla (2), Leucopogon parviflorus (T), Olearia axillaris (T)	Open Shrubland
63	HIL1101	15/09/1994	53	690066	6100422	49	6.0 km WNW of Phillips Hill	Plain	limestone plain	loam	A	Eucalyptus rugosa (3), Eucalyptus diversifolia (NC) (2)	Mallee

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63	HIL1201	15/09/1994	53	692573	6101198	49	3.9 km WNW of Phillips Hill	Plain	flat	sand	A	Eucalyptus rugosa (3), Eucalyptus oleosa (NC) (T)	Open Mallee
63	HIL1202	15/09/1994	53	693293	6101135	49	3.3 km WNW of Phillips Hill	Plain	limestone plain	loam	A	Eucalyptus rugosa (4)	Mallee
63	HIL1301	15/09/1994	53	692996	6098572	59	3.1 km WSW of Phillips Hill	Consolidated dunefield	fore dune	sand	A	Leucopogon parviflorus (3), Olearia axillaris (2)	Shrubland
63	HIL1401	14/09/1994	53	696966	6098623	42	1.2 km ESE of Phillips Hill	Rises	hill slope	sandy loam	A	Lasiopetalum discolor (3), Acrotriche cordata (2)	Low Closed Shrubland
63	HIL1501	14/09/1994	53	696888	6104557		5.3 km NNE of Phillips Hill	Rises	plain (incl undulating plain)	sand	A	Eucalyptus diversifolia (NC) (T)	Very Open Low Mallee
63	HIL1601	14/09/1994	53	698440	6103536	45	4.9 km NNE of Phillips Hill	Plain	plain (incl undulating plain)	sandy loam	D	Eucalyptus diversifolia (NC) (T)	Very Open Low Mallee
63	HIL1602	14/09/1994	53	698696	6103339	42	4.8 km NNE of Phillips Hill	Rises	plain (incl undulating plain)	loam	B	Eucalyptus diversifolia (NC) (3)	Mallee
63	HIL1701	14/09/1994	53	700145	6102903	56	5.5 km ENE of Phillips Hill	Consolidated dunefield	dune/consolidated dune	sandy loam	B	Leucopogon parviflorus (4)	Tall Closed Shrubland
63	HIL1A23	16/09/1994	53	705005	6119109	49	10.3 km ENE of Coonarie Hill	Rises	rock outcrop - on plain	sandy loam	A	Eucalyptus rugosa (3), Eucalyptus diversifolia (NC) (3)	Low Mallee
63	INK0101	21/09/1994	54	244726	6202416	27	1.6 km SSW of Inkerman	Plain	flat	sandy loam	C	Maireana brevifolia (2)	Low Open Shrubland
63	INK0201	22/09/1994	54	246358	6200902	33	2.8 km SSE of Inkerman	Plain	flat	sandy loam	C	Eucalyptus gracilis (3)	Low Open Forest
63	INK0301	21/09/1994	54	244396	6202878	29	1.5 km WSW of Inkerman	Plain	flat	sandy loam	G	*Lycium ferocissimum (2)	Very Open Shrubland
63	INK0401	21/09/1994	54	243743	6204994	27	2.4 km WNW of Inkerman	Plain	flat	sandy loam	C	Maireana brevifolia (2)	Low Shrubland
63	INK0501	21/09/1994	54	242334	6203240	58	3.4 km WSW of Inkerman	Beach ridge plain	dune slope	sand	F	Olearia axillaris (3)	Shrubland
63	INK0601	22/09/1994	54	239118	6204538	74	6.6 km WNW of Inkerman	Plain	flat	clay loam	G	Sclerostegia arbuscula (5)	Closed Shrubland
63	INK0701	22/09/1994	54	237858	6204367	58	7.9 km WNW of Inkerman	Plain	ridge	sand	G	Olearia axillaris (3)	Tall Shrubland
63	INK0901	21/09/1994	54	245446	6196305	50	5.8 km WNW of Wild Horse Plains	Beach ridge plain	beach ridge	sand	F	Melaleuca lanceolata ssp. lanceolata (NC) (4)	Tall Shrubland
63	INK1001	21/09/1994	54	244808	6199929	50	3.8 km SSW of Inkerman	Beach ridge plain	beach ridge	sand	D	Melaleuca lanceolata ssp. lanceolata (NC) (4)	Very Low Open Forest
63	INK1101	19/09/1994	54	225201	6200409	74	2.5 km ESE of Price	Tidal flat	plain (incl undulating plain)	clay loam	G	Sclerostegia arbuscula (5)	Low Closed Shrubland
63	INK1102	19/09/1994	54	224912	6197701	74	4.6 km SSE of Price	Tidal flat	plain (incl undulating plain)	light clay	G	Sclerostegia arbuscula (5)	Closed Shrubland
63	INK1301	19/09/1994	53	775499	6193746	60	7.9 km ESE of Dowlingville	Beach ridge plain	beach ridge	sand	A	Nitraria billardierei (4)	Shrubland
63	KAI0101	21/09/1994	53	775580	6228823	53	4.4 km NNE of Melton	Plain	plain (incl undulating plain)	sandy loam	A	Eucalyptus leptophylla (2), Eucalyptus dumosa (T)	Open Mallee
63	KAI0201	21/09/1994	53	774828	6228391	53	4.0 km NNW of Melton	Plain	plain (incl undulating plain)	sandy loam	A	Eucalyptus gracilis (2), Eucalyptus leptophylla (2)	Open Mallee
63	KAI0401	19/09/1994	53	765773	6222829	32	7.2 km SSW of Paskeville	Plain	plain (incl undulating plain)	sandy loam	A	Eucalyptus oleosa (NC) (2), Eucalyptus dumosa (T)	Open Mallee
63	KAI0701	21/09/1994	53	774817	6222270	35	2.2 km SSW of Melton	Plain	plain (incl undulating plain)	sandy loam	A	Eucalyptus leptophylla (1), Eucalyptus dumosa (1), Eucalyptus phenax (NC) (1)	Open Mallee
63	KAI0801	20/09/1994	53	766377	6219110	32	5.4 km WNW of Kainton	Plain	plain (incl undulating plain)	sandy loam	A	Eucalyptus oleosa (NC) (2), Eucalyptus gracilis (2)	Open Mallee
63	KAI0901	20/09/1994	53	766992	6216829	32	4.5 km WSW of Kainton	Plain	plain (incl undulating plain)	sandy loam	A	Eucalyptus oleosa (NC) (2), Eucalyptus gracilis (T)	Open Mallee
63	KAI0902	20/09/1994	53	766882	6216824	46	4.7 km WSW of Kainton	Plain	plain (incl undulating plain)	clay loam	A	Lepidosperma viscidum (2), Gahnia lanigera (1)	Open Sedgeland
63	KAI1101	19/09/1994	53	754446	6213923	33	3.5 km SSE of Agery	Plain	plain (incl undulating plain)	sandy loam	B	Eucalyptus gracilis (2)	Open Mallee
63	KAI1201	19/09/1994	53	756133	6208165	24	3.6 km NNE of Arthurton	Rises	hill slope	sandy loam	A	Eucalyptus porosa (2)	Open Mallee
63	KAI1301	20/09/1994	53	768365	6213245	32	5.2 km NNW of Clinton Centre	Rises	hill crest	sandy loam	A	Eucalyptus oleosa (NC) (2), Eucalyptus gracilis (T)	Open Mallee
63	KAI1401	19/09/1994	53	767363	6211359	32	3.5 km NNW of Clinton Centre	Low hills	hill slope	loam	A	Eucalyptus oleosa (NC) (2)	Open Mallee
63	LOC0201	21/09/1994	54	233480	6253396	24	5.9 km NNW of Maro Creek	Low hills	hill slope	sandy clay loam	A	Eucalyptus porosa (2)	Low Woodland
63	LOC0301	21/09/1994	54	228974	6251015	34	6.3 km ENE of Bute	Consolidated dunefield	interdune corridor	clay loam, sandy	A	Eucalyptus gracilis (2), Eucalyptus socialis (NC) (2)	Low Open Forest
63	LOC0501	22/09/1994	54	245765	6244650	32	8.5 km NNW of Everard Central	Plain	plain (incl undulating plain)	loamy sand	A	Eucalyptus oleosa (NC) (2)	Low Woodland
63	LOC0601	22/09/1994	54	240120	6243719	71	3.3 km ENE of Lochiel	Plain	saltlake	light clay	A	Halosarcia halocnemoides ssp. (4)	Low Shrubland
63	LOC1001	22/09/1994	54	227079	6237960	32	7.9 km E of Ninnes Plains	Plain	plain (incl undulating plain)	sandy clay loam	B	Eucalyptus oleosa (NC) (2)	Mallee
63	LOC1301	23/09/1994	54	231661	6234592	32	8.9 km NNE of Kulpara	Hills	hill slope	sandy clay loam	A	Eucalyptus oleosa (NC) (2)	Mallee
63	LOC1401	23/09/1994	54	233482	6239277	14	4.6 km WSW of Lochiel	Hills	hill slope	sandy loam	A	Eucalyptus socialis (NC) (2)	Open Mallee
63	LOC1601	22/09/1994	54	238776	6239163	34	2.9 km SSE of Lochiel	Consolidated dunefield	dune slope	sand	A	Eucalyptus incrassata (2)	Open Mallee
63	LOC1701	22/09/1994	54	245326	6236140	32	3.2 km NNE of Nantawarra	Consolidated dunefield	dune/consolidated dune	sand	A	Eucalyptus oleosa (NC) (2)	Low Woodland

SU	SiteID	Date	Zone	Easting	Northing	Veg Grp	Location	Landform	Landform Element	Surface Soil	Salt Class	Vegetation Overstorey	Vegetation Structure
63	LOC1801	21/09/1994	54	223569	6253095	35	4.4 km NNE of Bute	Consolidated dunefield	dune footslope	loamy sand	A	Eucalyptus socialis (NC) (1), Eucalyptus dumosa (1)	Low Woodland
63	LOC1802	21/09/1994	54	223665	6253127	7	4.4 km NNE of Bute	Consolidated dunefield	interdune corridor	clay loam, sandy	A	Lomandra effusa (1)	Open Sedgeland
63	LOC2F21	22/09/1994	54	234619	6241118	13	2.9 km WSW of Lochiel	Low hills	hill slope	loam	A	Allocasuarina verticillata (3)	Very Low Open Forest
63	LOC2F25	23/09/1994	54	238032	6235217	52	6.3 km WNW of Nantawarra	Consolidated dunefield	dune slope	clayey sand	A	Eucalyptus incrassata (2)	Mallee
63	MAI0101	20/09/1994	53	750899	6200743	53	5.5 km SSW of Arthurton	Plain	plain (incl undulating plain)	loam	A	Eucalyptus socialis (NC) (3), Eucalyptus leptophylla (2), Eucalyptus calycogona var. calycogona (NC) (2)	Mallee
63	MAI0201	19/09/1994	53	744025	6200785	51	4.0 km NNE of Bagnall Hill	Rises	flat	loam	B	Eucalyptus socialis (NC) (2), Eucalyptus phenax (NC) (T)	Mallee
63	MAI0301	23/09/1994	53	750006	6195951	24	5.1 km ENE of Maitland	Plain	plain (incl undulating plain)	loam	A	Cassinia arcuata (4)	Tall Shrubland
63	MAI0401	20/09/1994	53	747275	6197648	24	4.7 km NNE of Maitland	Plain	plain (incl undulating plain)	loam	A	Eucalyptus porosa (2)	Mallee
63	MAI0501	23/09/1994	53	728648	6196977	58	2.1 km SSW of Balgowan	Dunefield	dune/consolidated dune	sand	A	Olearia axillaris (4)	Shrubland
63	MAI0601	22/09/1994	53	729016	6195497	58	2.6 km NNE of Chinaman Wells	Consolidated dunefield	dune/consolidated dune	sand	A	Acacia ligulata (3), Olearia axillaris (3)	Shrubland
63	MAI0701	22/09/1994	53	730222	6193795	42	2.1 km ENE of Chinaman Wells	Rises	plain (incl undulating plain)	sandy loam	G	Allocasuarina verticillata (3)	Very Low Woodland
63	MAI0801	23/09/1994	53	728677	6192769	58	0.5 km ESE of Chinaman Wells	Consolidated dunefield	dune/consolidated dune	sand	A	Acacia ligulata (4)	Closed Shrubland
63	MAI0901	22/09/1994	53	732268	6192203	32	4.0 km NNE of Point Pearce Mission	Plain	plain (incl undulating plain)	loam	C	Eucalyptus oleosa (NC) (4)	Mallee
63	MAI1001	22/09/1994	53	729636	6191442	44	2.1 km SSE of Chinaman Wells	Plain	plain (incl undulating plain)	loam	D	Allocasuarina verticillata (4)	Very Low Open Forest
63	MAI1101	22/09/1994	53	730068	6191317	35	2.3 km NNE of Point Pearce Mission	Plain	plain (incl undulating plain)	sandy loam	D	Eucalyptus socialis (NC) (3), Eucalyptus dumosa (3)	Mallee
63	MAI1201	20/09/1994	53	750120	6192255	54	4.5 km ESE of Maitland	Hills	hill slope	loam	A	Eucalyptus porosa (T)	Low Open Woodland
63	MAI1202	20/09/1994	53	750065	6191772	24	4.6 km ESE of Maitland	Hills	hill footslope	loam	A	Eucalyptus porosa (2)	Low Woodland
63	MAI1301	20/09/1994	53	750469	6193294	4	4.7 km ENE of Maitland	Plain	hill footslope	loam	A	Eucalyptus porosa (2)	Low Woodland
63	MAI1401	19/09/1994	53	743233	6184039	47	5.6 km ESE of South Kilkerran	Low hills	hill slope	clay loam	A	Eucalyptus porosa (2)	Open Mallee
63	MAI1501	19/09/1994	53	730275	6187103	26	1.9 km SSE of Point Pearce Mission	Plain	plain (incl undulating plain)	clay loam	D	Geijera linearifolia (2)	Open Shrubland
63	MAI1601	19/09/1994	53	728520	6186457	58	2.9 km SSW of Point Pearce Mission	Dunefield	dune/consolidated dune	sand	C	Olearia axillaris (2)	Open Shrubland
63	MAI1701	19/09/1994	53	736740	6184930	33	1.6 km WSW of South Kilkerran	Plain	plain (incl undulating plain)	sandy loam	C	Eucalyptus gracilis (2), Eucalyptus socialis (NC) (T)	Open Mallee
63	MIN0201	13/09/1994	53	740946	6144033	51	6.1 km SSE of Minlaton	Consolidated dunefield	dune/consolidated dune	sand	B	Eucalyptus incrassata (2)	Open Mallee
63	MIN0401	13/09/1994	53	741061	6139227	51	8.8 km ENE of Roger Corner	Consolidated dunefield	dune slope	sandy loam	B	Eucalyptus incrassata (2)	Open Mallee
63	MIN0501	12/09/1994	53	742503	6136976	51	9.0 km ENE of Roger Corner	Plain	plain (incl undulating plain)	sand	B	Eucalyptus incrassata (2), Eucalyptus leptophylla (2)	Open Mallee
63	MIN0601	12/09/1994	53	735986	6142844	53	6.5 km SSW of Minlaton	Plain	plain (incl undulating plain)	clay loam, sandy	A	Eucalyptus phenax (NC) (2), Eucalyptus leptophylla (2)	Open Mallee
63	MIN0801	13/09/1994	53	729207	6134120	48	4.7 km W of Roger Corner	Plain	plain (incl undulating plain)	sandy loam	C	Allocasuarina verticillata (2), Melaleuca lanceolata ssp. lanceolata (NC) (2)	Very Low Woodland
63	MIN0901	14/09/1994	53	731709	6125901	48	7.4 km WNW of Yorketown	Plain	plain (incl undulating plain)	sandy clay loam	C	Allocasuarina verticillata (2), Melaleuca lanceolata ssp. lanceolata (NC) (2)	Very Low Woodland
63	MIN1001	14/09/1994	53	737183	6130661	73	4.7 km SSE of Roger Corner	Plain	closed depression	clay loam	F	Melaleuca halmaturorum (4)	Very Low Open Forest
63	MIN1002	14/09/1994	53	737147	6130709	75	4.7 km SSE of Roger Corner	Plain	closed depression	clay loam	F	Gahnia filum (4)	Sedgeland
63	MIN1003	13/09/1994	53	737343	6130102	48	5.2 km SSE of Roger Corner	Plain	plain (incl undulating plain)	sandy clay loam	C	Melaleuca lanceolata ssp. lanceolata (NC) (2), Allocasuarina verticillata (2)	Low Woodland
63	MIN1B03	12/09/1994	53	731054	6135534	47	3.2 km WNW of Roger Corner	Plain	plain (incl undulating plain)	sand	C	Eucalyptus porosa (2), Allocasuarina verticillata (2)	Woodland
63	MIN1B11	14/09/1994	53	746006	6144865	51	9.4 km ESE of Minlaton	Consolidated dunefield	dune crest	clayey sand	B	Eucalyptus incrassata (2), Eucalyptus socialis (NC) (1)	Open Mallee
63	MOO0101	19/09/1994	53	746445	6232255	32	5.7 km ENE of North Yelta	Plain	plain (incl undulating plain)	sandy loam	A	Eucalyptus oleosa (NC) (2), Eucalyptus gracilis (2), Eucalyptus brachycalyx (2)	Mallee
63	MOO0301	19/09/1994	53	744990	6223482	26	3.7 km ESE of Yelta	Plain	plain (incl undulating plain)	medium clay	B	Geijera linearifolia (3), Melaleuca lanceolata ssp. lanceolata (NC) (2)	Tall Open Shrubland
63	MOO0601	19/09/1994	53	740674	6220970	35	4.7 km SSW of Yelta	Plain	plain (incl undulating plain)	sandy loam	B	Eucalyptus dumosa (3), Eucalyptus leptophylla (2)	Open Mallee
63	MOO0701	19/09/1994	53	739634	6220471	35	5.5 km SSW of Yelta	Plain	plain (incl undulating plain)	sandy clay loam	B	Eucalyptus dumosa (3)	Open Mallee

SU	SiteID	Date	Zone	Easting	Northing	Veg Grp	Location	Landform	Landform Element	Surface Soil	Salt Class	Vegetation Overstorey	Vegetation Structure
63	MOO0901	21/09/1994	53	731929	6209465	42	10.9 km NNE of Balgowan	Plain	plain (incl undulating plain)	light medium clay	C	Melaleuca acuminata ssp. acuminata (2), Melaleuca lanceolata ssp. lanceolata (NC) (2)	Open Shrubland
63	MOO1101	20/09/1994	53	750554	6210094	33	5.7 km NNW of Arthurton	Hills	hill slope	sandy clay loam	B	Eucalyptus brachycalyx (2), Eucalyptus calycogona var. calycogona (NC) (2), Eucalyptus phenax (NC) (2)	Mallee
63	MOO1201	21/09/1994	53	751854	6213818	53	3.4 km SSW of Agery	Low hills	hill slope	medium clay	B	Eucalyptus phenax (NC) (2), Eucalyptus leptophylla (2), Eucalyptus oleosa (NC) (2)	Mallee
63	MOO2B05	20/09/1994	53	738768	6226595		1.1 km SSE of Moonta	Plain	plain (incl undulating plain)	sandy clay loam	B	Callitris gracilis (3)	Low Woodland
63	MOO2B06	20/09/1994	53	749699	6213576	53	4.8 km SSW of Agery	Low hills	hill slope	sandy clay loam	A	Eucalyptus socialis (NC) (2), Eucalyptus incrassata (2), Eucalyptus phenax (NC) (2)	Mallee
63	PON0101	16/09/1994	53	682275	6120074	42	15.5 km SSW of Corny Point	Consolidated dunefield	flat	loam	A	Eucalyptus diversifolia (NC) (3), Melaleuca lanceolata ssp. lanceolata (NC) (2), Acacia leiophylla (T)	Mallee
63	PON0102	16/09/1994	53	681974	6119987	42	15.7 km SSW of Corny Point	Rises	ridge	sandy loam	A	Allocasuarina verticillata (2), Melaleuca lanceolata ssp. lanceolata (NC) (T)	Very Low Open Woodland
63	PON0201	12/09/1994	53	681989	6111781	49	12.9 km NNE of Marion Bay	Plain	limestone plain	loam	B	Eucalyptus rugosa (4), Eucalyptus diversifolia (NC) (T)	Mallee
63	PON0301	15/09/1994	53	674208	6107197	62	10.1 km NNW of Marion Bay	Consolidated dunefield	swale	sand	A	Templetonia retusa (2), Melaleuca lanceolata ssp. lanceolata (NC) (2)	Open Shrubland
63	PON0302	15/09/1994	53	674129	6107056	62	10.0 km NNW of Marion Bay	Consolidated dunefield	dune crest	sand	A	Eucalyptus diversifolia (NC) (3)	Mallee
63	PON0303	15/09/1994	53	674339	6105755	49	8.9 km NNW of Marion Bay	Consolidated dunefield	dune slope	loam	B	Eucalyptus gracilis (3), Eucalyptus diversifolia (NC) (2)	Low Open Forest
63	PON0401	16/09/1994	53	676676	6107676	49	9.3 km NNW of Marion Bay	Consolidated dunefield	ridge	clay loam	B	Eucalyptus rugosa (2), Eucalyptus diversifolia (NC) (T), Eucalyptus oleosa (NC) (T)	Mallee
63	PON0402	16/09/1994	53	677017	6107604	44	9.1 km NNW of Marion Bay	Consolidated dunefield	swale	clay loam	C	Callitris canescens (2)	Tall Open Shrubland
63	PON0403	15/09/1994	53	677522	6107405		8.8 km NNW of Marion Bay	Plain	flat	sandy loam	C	*Sherardia arvensis (3), *Melilotus indicus (3), Gramineae sp. (2)	Herbland
63	PON0501	16/09/1994	53	678921	6107632	42	8.7 km NNW of Marion Bay	Consolidated dunefield	ridge	clay loam	C	Eucalyptus diversifolia (NC) (2), Eucalyptus oleosa (NC) (T)	Open Low Mallee
63	PON0601	15/09/1994	53	670062	6103066	73	4.8 km NNE of Pondalowie Bay	Rises	other	clay loam	E	Melaleuca halmaturorum (4)	Very Low Open Forest
63	PON0602	15/09/1994	53	670580	6102989	72	5.1 km NNE of Pondalowie Bay	Plain	saltlake	medium clay	G	Halosarcia sp. (2)	Low Open Shrubland
63	PON0701	14/09/1994	53	670249	6102249	73	4.3 km NE of Pondalowie Bay	Rises	lunette	sandy loam	F	Melaleuca halmaturorum (3)	Very Low Open Forest
63	PON0801	14/09/1994	53	668172	6099628	59	1.0 km ENE of Pondalowie Bay	Dunefield	interdune corridor	sand	A	Leucopogon parviflorus (5)	Tall Closed Shrubland
63	PON0901	14/09/1994	53	666137	6098118	63	1.5 km SW of Pondalowie Bay	Dunefield	cliff	loamy sand	A	Olearia axillaris (1)	Low Open Shrubland
63	POR0201	16/09/1994	53	756993	6167196	47	8.2 km WSW of Pine Point	Plain	plain (incl undulating plain)	medium heavy clay	A	Eucalyptus porosa (2)	Open Mallee
63	POR0203	16/09/1994	53	756106	6168352	53	8.6 km WSW of Pine Point	Plain	plain (incl undulating plain)	clayey sand	A	Eucalyptus socialis (NC) (2), Eucalyptus leptophylla (2)	Mallee
63	POR0301	16/09/1994	53	758356	6168006	47	6.7 km WSW of Pine Point	Plain	plain (incl undulating plain)	medium clay	A	Eucalyptus leptophylla (2), Eucalyptus phenax (NC) (2)	Open Mallee
63	POR0501	15/09/1994	53	756510	6155481	51	8.4 km ESE of Curramulka	Low hills	hill crest	clayey sand	A	Eucalyptus incrassata (2), Eucalyptus socialis (NC) (T), Eucalyptus leptophylla (T)	Open Mallee
63	POR0601	15/09/1994	53	759347	6155052	47	6.9 km SSW of Port Julia	Rises	hill slope	sandy clay loam	B	Eucalyptus porosa (2)	Very Open Mallee
63	POR0701	15/09/1994	53	759565	6154010	47	6.7 km NNW of Port Vincent	Rises	rock outcrop - on plain	sandy clay loam	B	Allocasuarina verticillata (2)	Very Low Woodland
63	POR0901	16/09/1994	53	763452	6159121	32	1.5 km SSE of Port Julia	Hills	hill slope	loamy sand	B	Eucalyptus leptophylla (2), Eucalyptus oleosa (NC) (2)	Mallee
63	POR1001	14/09/1994	53	765871	6163860	58	4.1 km NNE of Port Julia	Beach ridge plain	fore dune	sand	A	Dodonaea viscosa ssp. spatulata (3), Olearia axillaris (2)	Tall Shrubland
63	STA0101	16/09/1994	53	755167	6149787	51	6.8 km WNW of Port Vincent	Plain	plain (incl undulating plain)	sandy loam	B	Eucalyptus incrassata (T), Eucalyptus socialis (NC) (T), Eucalyptus phenax (NC) (T)	Open Mallee
63	STA0102	16/09/1994	53	756088	6149656	47	5.8 km WNW of Port Vincent	Plain	plain (incl undulating plain)	sandy loam	B	Allocasuarina verticillata (1), Eucalyptus porosa (T)	Very Low Open Woodland
63	STA0201	16/09/1994	53	752129	6147084	47	9.4 km WSW of Port Vincent	Plain	plain (incl undulating plain)	sandy loam	B	Eucalyptus porosa (1), Eucalyptus leptophylla (N)	Very Open Mallee
63	STA0401	15/09/1994	53	752068	6138928	47	7.1 km NNW of Stansbury	Plain	plain (incl undulating plain)	sandy loam	A	Eucalyptus leptophylla (1), Eucalyptus incrassata (T), Eucalyptus porosa (N)	Open Mallee
63	STA0403	15/09/1994	53	752577	6139032	47	6.9 km NNW of Stansbury	Plain	plain (incl undulating plain)	loam	A	Santalum acuminatum (1), Allocasuarina verticillata (1), Bursaria spinosa ssp. spinosa (T)	Very Low Open Woodland
63	STA0404	15/09/1994	53	752782	6138617	47	6.4 km NNW of Stansbury	Plain	plain (incl undulating plain)	sandy loam	A	Eucalyptus porosa (2)	Open Mallee

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63	STA0501	16/09/1994	53	753593	6140097	47	7.5 km NNW of Stansbury	Plain	plain (incl undulating plain)	sandy loam	A	Eucalyptus porosa (1)	Low Open Woodland
63	STA0701	15/09/1994	53	754141	6129373	46	3.9 km SSW of Stansbury	Plain	plain (incl undulating plain)	loam	A	Lepidosperma congestum (NC) (2), Lomandra effusa (2), Austrostipa sp. (1)	Sedgeland
63	TIP0101	21/09/1994	53	729753	6219478	58	8.8 km SSW of Port Hughes	Dunefield	dune/consolidated dune	sand	B	Acacia ligulata (3), Olearia axillaris (2)	Shrubland
63	TIP0201	21/09/1994	53	727419	6218451	58	11.1 km SSW of Port Hughes	Consolidated dunefield	dune/consolidated dune	sand	A	Acacia ligulata (2), Olearia axillaris (2), *Lycium ferocissimum (2)	Open Shrubland
63	TIP0301	21/09/1994	53	729725	6215423	74	12.3 km SSW of Port Hughes	Plain	flat	medium clay	G	Sclerostegia arbuscula (3), Halosarcia halocnemoides ssp. halocnemoides (3)	Low Closed Shrubland
63	TIP0401	20/09/1994	53	728262	6214661	60	13.6 km SSW of Port Hughes	Dunefield	fore dune	sand	A	Olearia axillaris (3), Atriplex cinerea (3)	Shrubland
63	TIP0402	21/09/1994	53	728920	6213948	79	13.9 km SSW of Port Hughes	Consolidated dunefield	swale	sand	A	Maireana oppositifolia (3), Myoporum insulare (T)	Low Open Shrubland
63	TIP0403	21/09/1994	53	729451	6214601	61	13.1 km SSW of Port Hughes	Consolidated dunefield	dune/consolidated dune	sand	A	Acacia cyclops (5)	Tall Closed Shrubland
63	TIP0501	21/09/1994	53	730059	6211031	58	12.2 km NNE of Balgowan	Dunefield	dune/consolidated dune	sand	A	Allocasuarina verticillata (2)	Very Low Open Woodland
63	TUR0101	12/09/1994	53	726885	6150422	45	1.4 km SSW of Cheraweth	Consolidated dunefield	dune/consolidated dune	sand	C	Triodia compacta (4)	Hummock Grassland
63	TUR0201	12/09/1994	53	728798	6149118	49	3.2 km SSE of Cheraweth	Plain	plain (incl undulating plain)	loam	C	Eucalyptus gracilis (2), Eucalyptus oleosa (NC) (2), Eucalyptus rugosa (2)	Open Mallee
63	TUR0301	12/09/1994	53	726431	6146634	26	5.2 km SSW of Cheraweth	Plain	plain (incl undulating plain)	sandy loam	D	Allocasuarina verticillata (T)	Very Low Open Woodland
63	TUR0501	13/09/1994	53	726782	6135050	50	2.4 km ESE of Hardwicke Bay	Plain	plain (incl undulating plain)	loam	D	Melaleuca lanceolata ssp. lanceolata (NC) (3)	Low Woodland
63	TUR0601	13/09/1994	53	723198	6131959	46	4.0 km SSW of Hardwicke Bay	Consolidated dunefield	closed depression	sand	F	Lomandra effusa (2), Lepidosperma congestum (NC) (2), Gahnia lanigera (2)	Sedgeland
63	TUR0603	13/09/1994	53	723429	6131773	48	4.1 km SSW of Hardwicke Bay	Plain	plain (incl undulating plain)	sandy loam	C	Allocasuarina verticillata (2)	Very Low Open Woodland
63	TUR0701	13/09/1994	53	721790	6128369	50	4.1 km NNE of Warooka	Plain	plain (incl undulating plain)	sandy loam	D	Melaleuca lanceolata ssp. lanceolata (NC) (2)	Very Low Woodland
63	TUR0801	14/09/1994	53	712571	6131230	75	8.8 km WNW of Warooka	Plain	swamp	medium clay	F	Gahnia filum (5)	Closed Sedgeland
63	TUR0901	14/09/1994	53	712326	6128052	24	7.3 km WNW of Warooka	Plain	plain (incl undulating plain)	medium clay	F	Melaleuca lanceolata ssp. lanceolata (NC) (3), Eucalyptus porosa (2), Acacia pycnantha (2)	Mallee
63	TUR1101	14/09/1994	53	705468	6125219	48	13.6 km W of Warooka	Plain	hill slope	clay loam	B	Melaleuca lanceolata ssp. lanceolata (NC) (2)	Very Low Woodland
63	TUR1201	13/09/1994	53	722121	6128817	71	4.6 km NNE of Warooka	Plain	plain (incl undulating plain)	clay loam	G	Halosarcia halocnemoides ssp. (2), Maireana oppositifolia (2), Chenopodiaceae sp. (2)	Low Shrubland
63	WAK0101	23/09/1994	54	244344	6233452	33	0.4 km ENE of Nantawarra	Hills	hill slope	clayey sand	A	Eucalyptus gracilis (3), Eucalyptus brachycalyx (2), Eucalyptus porosa (1)	Mallee
63	WAK0201	23/09/1994	54	237722	6233088	34	6.3 km WNW of Nantawarra	Low hills	hill slope	sand	A	Eucalyptus socialis (NC) (3), Eucalyptus incrassata (3), Eucalyptus phenax (NC) (1)	Mallee
63	WAK0301	20/09/1994	54	236932	6228832	27	6.0 km WNW of Beaufort	Low hills	hill slope	clay loam, sandy	A	Eucalyptus oleosa (NC) (1), Eucalyptus porosa (1)	Mallee
63	WAK0401	22/09/1994	54	230804	6231949	13	6.4 km ENE of Kulpara	Hills	hill slope	clay loam, sandy	A	Allocasuarina verticillata (3)	Low Open Forest
63	WAK0402	22/09/1994	54	230927	6232003	33	6.5 km ENE of Kulpara	Hills	hill slope	sand	A	Eucalyptus gracilis (3), Eucalyptus brachycalyx (3)	Mallee
63	WAK0501	20/09/1994	54	233291	6220217	71	3.2 km SSE of South Hummocks	Plain	plain (incl undulating plain)	light clay	G	Halosarcia halocnemoides ssp. halocnemoides (3)	Low Shrubland
63	WAK0601	20/09/1994	54	232342	6223630	71	0.7 km NNE of South Hummocks	Plain	plain (incl undulating plain)	clay loam	G	Halosarcia halocnemoides ssp. halocnemoides (4)	Low Closed Shrubland
63	WAK0801	19/09/1994	54	228137	6215558	74	6.8 km NNE of Clinton	Tidal flat	plain (incl undulating plain)	light clay	G	Sclerostegia arbuscula (5)	Low Closed Shrubland
63	WAK0901	23/09/1994	54	238375	6220050	29	6.2 km SSW of Beaufort	Plain	flat	clayey sand	A	Nitraria billardierei (3), Maireana aphylla (3)	Low Shrubland
63	WAK1101	20/09/1994	54	240606	6210743	26	4.2 km SSE of Wakefield	Rises	dune footslope	sand	A	Eucalyptus porosa (3)	Low Open Forest
63	WAK1201	20/09/1994	54	241939	6208847	71	6.4 km NNW of Inkerman	Tidal flat	other	light clay	G	Halosarcia halocnemoides ssp. halocnemoides (3)	Low Shrubland
63	WAL0101	20/09/1994	53	748992	6257173	6	2.4 km WSW of Tickera	Low hills	cliff	clay loam	B	Sida petrophila (1), Scaevola spinescens (1)	Low Very Open Shrubland
63	WAL0201	20/09/1994	53	751182	6257450	26	0.7 km SSW of Tickera	Plain	plain (incl undulating plain)	sandy clay loam	B	Eucalyptus oleosa (NC) (2)	Open Mallee
63	WAL0301	20/09/1994	53	753578	6256591	26	2.8 km ESE of Tickera	Plain	plain (incl undulating plain)	sandy clay loam	B	Eucalyptus dumosa (1)	Very Open Mallee
63	WAL0401	20/09/1994	53	747825	6249651	26	5.1 km SSE of Black Rock	Plain	plain (incl undulating plain)	clay loam	B	Eucalyptus dumosa (3)	Open Mallee
63	WAL0801	20/09/1994	53	750079	6247965	32	7.4 km ENE of North Beach	Plain	plain (incl undulating plain)	clay loam	B	Eucalyptus oleosa (NC) (2)	Low Woodland

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63	WAL0901	21/09/1994	53	751430	6239767	26	1.2 km NNE of Kadina	Plain	limestone plain	sandy loam	B	Eucalyptus porosa (1)	Low Open Woodland
63	WAL1001	19/09/1994	53	740465	6241489	58	2.7 km WSW of Wallaroo	Dunefield	dune/consolidated dune	sand	A	Olearia axillaris (2)	Tall Open Shrubland
63	WAL1101	19/09/1994	53	739726	6241081	67	3.5 km WSW of Wallaroo	Plain	plain (incl undulating plain)		D	Halosarcia pergranulata ssp. pergranulata (2)	Low Open Shrubland
63	WAL1201	19/09/1994	53	736536	6237370	74	8.1 km WSW of Wallaroo	Tidal flat	flat	sand	F	Maireana oppositifolia (4)	Low Closed Shrubland
63	WAL1301	22/09/1994	53	753428	6239973	26	2.7 km ENE of Kadina	Plain	plain (incl undulating plain)	clay loam, sandy	B	Eucalyptus porosa (2), Callitris gracilis (1)	Low Open Forest
63	WAL2F04	19/09/1994	53	743850	6244917	72	0.6 km ESE of North Beach	Plain	open depression	sandy clay loam	D	Lycium australe (2)	Low Shrubland
63	WAL2F05	19/09/1994	53	743746	6244859	71	0.6 km ESE of North Beach	Plain	closed depression	clay loam, sandy	D	Halosarcia halocnemoides ssp. halocnemoides (3)	Low Shrubland
63	WAL2F09	20/09/1994	53	749259	6251141	26	4.3 km SSE of Black Rock	Plain	plain (incl undulating plain)	clay loam	B	Eucalyptus dumosa (T)	Open Mallee
63	WAN0201	21/09/1994	53	773002	6312047	82	6.0 km WNW of Lower Broughton	Alluvial plain	stream channel	clay loam	B	Eucalyptus camaldulensis var. camaldulensis (4)	Open Forest
63	WAN0301	21/09/1994	53	772357	6311992	82	6.5 km WNW of Lower Broughton	Alluvial plain	plain (incl undulating plain)	medium clay	E	Muehlenbeckia florulenta (4), Panicum effusum var. effusum (T)	Shrubland
63	WAN0401	22/09/1994	53	765629	6315812	71	0.4 km WNW of Port Davis	Tidal flat	flat	medium clay	G	Halosarcia sp. (3), Maireana oppositifolia (3), Halosarcia halocnemoides ssp. halocnemoides (2)	Low Closed Shrubland
63	WAN0501	21/09/1994	53	774124	6307817	68	3.8 km WSW of Lower Broughton	Longitudinal dunefield	swale	medium clay	B	Eucalyptus gracilis (2)	Open Mallee
63	WAN0601	21/09/1994	53	769768	6307407	57	8.1 km WSW of Lower Broughton	Longitudinal dunefield	dune crest	sand	F	Dodonaea viscosa ssp. spatulata (2), Acacia ligulata (2), *Lycium ferocissimum (2)	Tall Shrubland
63	WAN0701	20/09/1994	53	777083	6302595	40	4.1 km NNE of Wandearah West	Plain	plain (incl undulating plain)	loam	C	Scaevola spinescens (3), Acacia victoriae ssp. victoriae (2)	Open Shrubland
63	WAN1001	22/09/1994	53	767485	6301613	26	9.9 km WNW of Wandearah West	Beach ridge plain	dune crest	sand	B	Melaleuca lanceolata ssp. lanceolata (NC) (3), Geijera linearifolia (3)	Tall Shrubland
63	WAN1301	20/09/1994	53	776465	6293887	32	4.6 km SSW of Wandearah West	Longitudinal dunefield	swale	loam	B	Eucalyptus oleosa (NC) (3), Myoporum platycarpum ssp. platycarpum (2)	Mallee
63	WAN1501	23/09/1994	53	778873	6295707	33	3.4 km SSE of Wandearah West	Longitudinal dunefield	swale	loamy sand	B	Eucalyptus gracilis (2), Eucalyptus brachycalyx (2), Eucalyptus oleosa (NC) (T)	Mallee
63	WAN2D15	22/09/1994	53	765603	6315661	76	0.4 km WSW of Port Davis	Tidal flat	flat	medium clay	G	Avicennia marina ssp. marina (5)	Very Low Closed Forest
63	WAN2D16	22/09/1994	53	766895	6315882	71	0.9 km ENE of Port Davis	Tidal flat	flat	medium clay	G	Atriplex vesicaria ssp. macrocystidia (2), Halosarcia halocnemoides ssp. halocnemoides (2)	Low Shrubland
63	WAR0101	20/09/1994	53	725076	6190305	58	4.2 km WSW of Chinaman Wells	Dunefield	interdune corridor	sand	C	Acacia ligulata (2), Olearia axillaris (2)	Tall Shrubland
63	WAR0103	20/09/1994	53	728337	6182612	58	2.7 km NNE of Port Victoria	Dunefield	dune/consolidated dune	sand	B	Olearia axillaris (2)	Tall Open Shrubland
63	WAR2G04	20/09/1994	53	724828	6187170	46	5.4 km WSW of Point Pearce Mission	Rises	plain (incl undulating plain)	sandy loam	B	Lomandra effusa (4), Gahnia lanigera (1), Lepidosperma congestum (NC) (1)	Closed Sedgeland
78	BIN00101	19/01/1993	54	266087	6162128	74	2.3 km WNW of Milner	Tidal flat	flat		G		Low Closed Shrubland
78	BIN00102	19/01/1993	54	265917	6161963	74	2.4 km WNW of Milner	Tidal flat	flat	medium clay	G		Low Open Shrubland
78	BIN00103	19/01/1993	54	266187	6161978	74	2.2 km WNW of Milner	Tidal flat	flat	medium clay	G		Low Shrubland
78	BIN00104	19/01/1993	54	266408	6161593	71	1.9 km WSW of Milner	Tidal flat	flat	silty loam	G		Low Shrubland
78	BIN00105	20/01/1993	54	266478	6161588	74	1.9 km WSW of Milner	Tidal flat	flat	medium clay	G		Low Closed Shrubland
78	BIN00106	20/01/1993	54	266572	6161468	71	1.8 km WSW of Milner	Tidal flat	flat	silty clay loam	G		Low Shrubland
78	BIN00107	20/01/1993	54	266776	6160855	74	1.8 km WSW of Milner	Tidal flat	flat	silty clay loam	G		Low Closed Shrubland
78	BIN00108	20/01/1993	54	266967	6160313	74	2.0 km WSW of Milner	Tidal flat	flat	medium clay	G		Low Shrubland
78	BIN00109	28/01/1993	54	267702	6160308	74	1.6 km SSW of Milner	Tidal flat	flat		G		Low Shrubland
78	BIN00110	28/01/1993	54	268832	6157713	74	4.1 km SSE of Milner		flat		G		Low Closed Shrubland
78	BIN00111	28/01/1993	54	269242	6157643	65	4.3 km SSE of Milner	Tidal flat	flat		G		Low Closed Shrubland
78	DUB00101	9/08/1995	54	255146	6180501	68	4.5 km SSW of Dublin	Tidal flat	flat		G	Halosarcia indica ssp. (3)	Low Shrubland
78	DUB00102	9/08/1995	54	254810	6180282		4.8 km SSW of Dublin	Tidal flat	flat		G	Halosarcia flabelliformis (2)	Low Open Shrubland
78	DUB00103	9/08/1995	54	254715	6180221	71	4.9 km SSW of Dublin	Tidal flat	flat		G	Halosarcia halocnemoides ssp. halocnemoides (3)	Low Shrubland
78	FIS00101	11/10/1999	54	223133	6282563	68	7.2 km WNW of Mundoora	Tidal flat	flat	silty loam	G	Halosarcia indica ssp. leiostachya (5)	Low Closed Shrubland
78	FIS00102	12/10/1999	54	222417	6283079	71	6.7 km ESE of Fisherman Bay	Tidal flat	flat	silty loam	G	Halosarcia indica ssp. leiostachya (2)	Low Open Shrubland

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78	FIS00103	13/10/1999	53	777545	6284589		5.0 km ENE of Fisherman Bay	Tidal flat	flat	light clay	G	Halosarcia halocnemoides ssp. halocnemoides (T)	Low Very Open Shrubland
78	INK00101	14/09/2000	54	238844	6205350	70	7.0 km WNW of Inkerman	Tidal flat	flat	light clay	G	Halosarcia syncarpa (3), Maireana oppositifolia (1)	Low Shrubland
78	INK00102	14/09/2000	54	238654	6205488	74	7.3 km WNW of Inkerman	Tidal flat	flat	light clay	G	Sclerostegia arbuscula (3)	Low Shrubland
78	LIG00201	14/11/2000	54	260284	6171865	67	12.0 km WNW of Two Wells	Tidal flat	flood out	heavy clay	G	Halosarcia pergranulata ssp. (4)	Low Shrubland
78	LIG00202	14/11/2000	54	259979	6171621	67	12.2 km WNW of Two Wells	Tidal flat	flood out	heavy clay	G	Halosarcia pergranulata ssp. (5)	Low Closed Shrubland
78	LIG00203	14/11/2000	54	259783	6171464	74	12.4 km WNW of Two Wells	Tidal flat	flood out	heavy clay	G	Sclerostegia arbuscula (3), Halosarcia pergranulata ssp. (3)	Low Closed Shrubland
78	LIG00204	14/11/2000	54	259384	6171143	74	12.7 km WNW of Two Wells	Tidal flat	flood out		G	Sarcocornia quinqueflora (3), Samolus repens (2), Hemichroa diandra (2)	Low Closed Shrubland
78	PIR00101	14/11/1994	53	778713	6325527	68	3.5 km WNW of Port Pirie	Tidal flat	flat		U		Low Closed Shrubland
78	PIR00102	14/11/1994	53	778467	6325896	71	3.9 km WNW of Port Pirie	Tidal flat	flat		G		Low Shrubland
78	PIR00103	14/11/1994	53	778218	6326269	71	4.3 km NW of Port Pirie	Tidal flat	flat		G		Low Shrubland
78	PIR00104	14/11/1994	53	777960	6326655	71	4.8 km NNW of Port Pirie	Tidal flat	flat		G		Low Closed Shrubland
78	PIR00105	14/11/1994	53	777815	6326873	71	5.0 km NNW of Port Pirie	Tidal flat	flat		G		Low Open Shrubland
78	PIR00106	14/11/1994	53	777674	6327085	71	5.3 km NNW of Port Pirie	Tidal flat	flat		G		Low Shrubland
78	PIR00107	14/11/1994	53	777586	6327216	71	5.4 km NNW of Port Pirie	Tidal flat	flat		G		Low Closed Shrubland
78	PIR00108	14/11/1994	53	777565	6327249	74	5.5 km NNW of Port Pirie	Tidal flat	flat		G		Low Closed Shrubland
78	PIR00109	14/11/1994	53	777562	6327252	74	5.5 km NNW of Port Pirie	Tidal flat	flat		G		Open Shrubland
78	PIR00110	14/11/1994	53	777418	6327467	71	5.7 km NNW of Port Pirie	Tidal flat	flat		G		Low Open Shrubland
78	PIR00111	14/11/1994	53	777375	6327533	71	5.8 km NNW of Port Pirie	Tidal flat	flat		G		Low Shrubland
78	PIR00112	14/11/1994	53	777249	6327721	71	6.0 km NNW of Port Pirie	Tidal flat	flat		G		Low Shrubland
78	PIR00113	14/11/1994	53	777154	6327864	74	6.2 km NNW of Port Pirie	Tidal flat	flat		G		Low Closed Shrubland
78	PIR00114	14/11/1994	53	777073	6327985	74	6.4 km NNW of Port Pirie	Tidal flat	flat		G		Low Shrubland
78	PIR00115	14/11/1994	53	777015	6328072	74	6.5 km NNW of Port Pirie	Tidal flat	flat		G		Shrubland
78	VIN00104	9/08/1995	54	252554	6178812	58	7.2 km SSW of Dublin	Tidal flat	other		G	Olearia axillaris (4)	Shrubland
78	VIN00105	9/08/1995	54	252497	6178774	74	7.3 km SSW of Dublin	Tidal flat	flat		G		Low Shrubland
78	WAK00101	12/09/2000	54	231889	6221135	70	1.9 km SSW of South Hummocks	Tidal flat	flat	light clay	G	Halosarcia syncarpa (3), Senecio glossanthus (NC) (1)	Low Shrubland
78	WAK00102	13/09/2000	54	231849	6219816	74	3.3 km SSW of South Hummocks	Tidal flat	flat	light clay	G	Sclerostegia arbuscula (4)	Low Shrubland
82	ALT00101	16/09/1997	53	667639	6095843	63	3.4 km SSE of Pondalowie Bay	Consolidated dunefield	limestone plain	sandy loam	A	Leucopogon parviflorus (T)	Low Very Open Shrubland
82	ALT00102	16/09/1997	53	667793	6095927	62	3.3 km SSE of Pondalowie Bay	Consolidated dunefield	limestone plain	sandy loam	A	Leucopogon parviflorus (2), Olearia axillaris (T)	Low Shrubland
82	ALT00103	16/09/1997	53	667862	6095845	42	3.4 km SSE of Pondalowie Bay	Dunefield	swale	sandy loam	A	Acrotriche cordata (2), Lasiopetalum discolor (2), Beyeria lechenaultii (2)	Low Shrubland
82	ALT00104	16/09/1997	53	667936	6096157	62	3.1 km SSE of Pondalowie Bay	Parabolic dunefield	dune slope	sandy loam	A	Melaleuca lanceolata ssp. lanceolata (NC) (2), Olearia axillaris (T)	Open Shrubland
82	ALT00105	16/09/1997	53	667966	6096379	62	2.9 km SSE of Pondalowie Bay	Parabolic dunefield	dune slope	sandy loam	B	Leucopogon parviflorus (2), Calytrix tetragona (2)	Shrubland
82	ALT00106	16/09/1997	53	668222	6096149	42	3.2 km SSE of Pondalowie Bay	Consolidated dunefield	limestone plain	sandy loam	B	Eucalyptus oleosa (NC) (2), Eucalyptus diversifolia (NC) (2), Eucalyptus phenax (NC) (T)	Low Mallee
82	ALT00201	15/09/1997	53	676629	6093958	42	0.8 km SSE of Stenhouse Bay	Consolidated dunefield	limestone plain	sandy loam	A	Melaleuca lanceolata ssp. lanceolata (NC) (2), Lasiopetalum discolor (2), Pomaderris paniculosa ssp. paniculosa (2)	Low Shrubland
82	ALT00202	15/09/1997	53	676146	6093986	42	0.7 km SSW of Stenhouse Bay	Consolidated dunefield	limestone plain	sandy loam	A	Calytrix tetragona (2), Templetonia retusa (2), Lasiopetalum discolor (2)	Low Closed Shrubland
82	ALT00301	15/09/1997	53	678777	6095603	42	2.6 km ENE of Stenhouse Bay	Consolidated dunefield	limestone plain	sandy loam	A	Calytrix tetragona (3), Lasiopetalum discolor (3), Beyeria lechenaultii (2)	Low Closed Shrubland
82	ALT00302	15/09/1997	53	678784	6095712	42	2.7 km ENE of Stenhouse Bay	Consolidated dunefield	plain (incl undulating plain)	sandy loam	A	Calytrix tetragona (2), Lasiopetalum discolor (2), Gahnia lanigera (2)	Low Closed Shrubland
82	ARD00101	16/09/1997	53	771970	6190718	60	5.2 km ENE of Ardrossan	Dunefield	fore dune	sand	A	Nitraria billardierei (3)	Shrubland
82	ARD00102	16/09/1997	53	771649	6190514	58	4.8 km NE of Ardrossan	Dunefield	swale	sand	A	Olearia axillaris (3)	Tall Open Shrubland

SU	SiteID	Date	Zone	Easting	Northing	Veg Grp	Location	Landform	Landform Element	Surface Soil	Salt Class	Vegetation Overstorey	Vegetation Structure
82	ARD00103	16/09/1997	53	771136	6190163	58	4.2 km NNE of Ardrossan	Consolidated dunefield	dune/consolidated dune	sand	A	Acacia ligulata (2)	Tall Open Shrubland
82	ARD00201	16/09/1997	53	775441	6193645	60	7.9 km ESE of Dowlingville	Beach ridge plain	fore dune	sand	A	Nitraria billardierei (4)	Shrubland
82	BRO00101	17/09/1997	53	768414	6279646	57	4.3 km WNW of Port Broughton	Beach ridge plain	flat	sand	F	Acacia ligulata (3)	Tall Shrubland
82	BRO00201	15/09/1997	53	766411	6277388	57	6.1 km WSW of Port Broughton	Beach ridge plain	dune footslope	sand	F	Acacia ligulata (3)	Tall Open Shrubland
82	BRO00202	15/09/1997	53	766376	6277248	50	6.1 km WSW of Port Broughton	Beach ridge plain	interdune corridor	sand	F	Melaleuca lanceolata ssp. lanceolata (NC) (5)	Tall Closed Shrubland
82	BRO00301	16/09/1997	53	757100	6267908	57	9.5 km WNW of Bews	Beach ridge plain	interdune corridor	sand	F	Pittosporum angustifolium (N), Exocarpos aphyllus (N)	Low Open Woodland
82	BRO00302	16/09/1997	53	757106	6267662	50	9.4 km WNW of Bews	Beach ridge plain	flat	sand	F	Melaleuca lanceolata ssp. lanceolata (NC) (3)	Tall Shrubland
82	BRO00304	16/09/1997	53	756744	6267289	57	9.7 km WNW of Bews	Beach ridge plain	beach ridge	sand	F	Acacia ligulata (2), Rhagodia parabolica (2)	Tall Open Shrubland
82	BRO00305	16/09/1997	53	756483	6267174	57	9.9 km WNW of Bews	Beach ridge plain	beach ridge	sand	F	Acacia ligulata (N)	Tall Open Shrubland
82	CON00101	18/09/1997	53	709423	6105871	60	13.7 km ESE of Coonarie Hill	Dunefield	dune crest	sand	B	Nitraria billardierei (3)	Low Shrubland
82	CON00102	18/09/1997	53	709392	6105929	60	13.7 km ESE of Coonarie Hill	Beach ridge plain	beach ridge	sand	B	Olearia axillaris (2)	Tall Open Shrubland
82	CON00103	18/09/1997	53	709328	6106001	59	13.6 km ESE of Coonarie Hill	Beach ridge plain	beach ridge	sand	B	Leucopogon parviflorus (4)	Tall Shrubland
82	CON00201	17/09/1997	53	727567	6111891	54	2.3 km WNW of Port Moorowie	Dunefield	dune crest	sand	A	Alyxia buxifolia (3), Olearia axillaris (2)	Shrubland
82	CON00202	17/09/1997	53	727586	6111846	54	2.2 km WNW of Port Moorowie	Dunefield	swale	sand	A	Acacia nematophylla (2), *Lycium ferocissimum (2)	Open Shrubland
82	CON00203	17/09/1997	53	727506	6112046	54	2.4 km WNW of Port Moorowie	Dunefield	swale	sand	A	Melaleuca lanceolata ssp. lanceolata (NC) (3)	Low Woodland
82	CON00204	17/09/1997	53	727399	6112265	56	2.5 km WNW of Port Moorowie	Dunefield	dune footslope	sand	A	Acacia nematophylla (2)	Woodland
82	CON00205	17/09/1997	53	727565	6111809	66	2.3 km WNW of Port Moorowie	Dunefield	dune footslope	sand	A	Olearia axillaris (2)	Low Open Shrubland
82	COR00101	17/09/1997	53	704115	6135400	59	13.9 km ENE of Corny Point	Beach ridge plain	beach ridge	sand	B	Leucopogon parviflorus (3), Olearia axillaris (2), Nitraria billardierei (1)	Shrubland
82	COR00102	17/09/1997	53	704193	6135321	59	14.0 km ENE of Corny Point	Beach ridge plain	swale	sand	B	Allocasuarina verticillata (2)	Low Woodland
82	COR00103	17/09/1997	53	704410	6135258	50	14.2 km ENE of Corny Point	Beach ridge plain	beach ridge	sand	C	Melaleuca lanceolata ssp. lanceolata (NC) (3)	Tall Shrubland
82	COR00202	17/09/1997	53	693672	6133800	42	3.4 km ENE of Corny Point	Beach ridge plain	beach ridge	sand	C	Allocasuarina verticillata (2), Bursaria spinosa ssp. spinosa (1)	Low Woodland
82	COR00301	17/09/1997	53	693633	6133905	60	3.3 km ENE of Corny Point	Beach ridge plain	beach ridge	sand	B	Nitraria billardierei (5)	Closed Shrubland
82	COR00401	18/09/1997	53	679945	6128881	66	11.3 km WSW of Corny Point	Dunefield	fore dune	sand	A	*Ammophila arenaria (2)	Open (Tussock) Grassland
82	COR00402	18/09/1997	53	680087	6128872	59	11.2 km WSW of Corny Point	Dunefield	dune slope	sand	A	Leucopogon parviflorus (4), Olearia axillaris (2)	Closed Shrubland
82	COR00403	18/09/1997	53	680030	6128897	59	11.2 km WSW of Corny Point	Dunefield	swale	sand	A	Leucopogon parviflorus (2)	Shrubland
82	COR00404	18/09/1997	53	680140	6129415	63	10.9 km WSW of Corny Point	Dunefield	dune slope	sand	A	Leucophyta brownii (3)	Low Open Shrubland
82	COR00405	18/09/1997	53	680169	6129084	59	11.0 km WSW of Corny Point	Parabolic dunefield	dune crest	sand	A	Leucopogon parviflorus (2), Olearia axillaris (1)	Shrubland
82	CUR00101	18/09/1997	53	728137	6175365	58	4.5 km SSW of Port Victoria	Dunefield	swale	sand	C	Olearia axillaris (2), *Lycium ferocissimum (T)	Very Open Shrubland
82	CUR00102	18/09/1997	53	728274	6175456	58	4.4 km SSE of Port Victoria	Dunefield	swale	sand	C	Acacia nematophylla (4)	Shrubland
82	CUR00103	18/09/1997	53	728402	6175404	58	4.5 km SSE of Port Victoria	Dunefield	dune slope	sand	C	Olearia axillaris (2), Acacia nematophylla (2)	Open Shrubland
82	CUR00104	18/09/1997	53	728474	6175447	58	4.4 km SSE of Port Victoria	Dunefield	dune slope	sand	C	Olearia axillaris (2), Acacia nematophylla (2)	Open Shrubland
82	CUR00301	16/09/1997	53	729481	6161894	58	1.8 km NNE of Port Rickaby	Dunefield	swale	sand	A	Allocasuarina verticillata (2)	Low Woodland
82	CUR00401	16/09/1997	53	726939	6152850	66	1.1 km NNW of Cheraweth	Dunefield	fore dune	sand	A	*Cakile maritima ssp. maritima (3), *Euphorbia paralias (2)	Low Open Shrubland
82	CUR00402	16/09/1997	53	726965	6152886	59	1.1 km NNW of Cheraweth	Dunefield	fore dune	sand	A	Olearia axillaris (2), Exocarpos syrticola (1), Santalum acuminatum (1)	Shrubland
82	CUR00403	16/09/1997	53	727008	6152847	42	1.0 km NNW of Cheraweth	Dunefield	dune slope	sand	A	Callitris canescens (2), Melaleuca lanceolata ssp. lanceolata (NC) (2)	Closed Shrubland
82	CUR00404	16/09/1997	53	727098	6152944	42	1.1 km NNW of Cheraweth	Dunefield	swale	sand	A	Triodia irritans (4)	Hummock Grassland
82	CUR00405	16/09/1997	53	727163	6153120	50	1.3 km NNE of Cheraweth	Dunefield	dune crest	sand	C	Eucalyptus phenax ssp. (3), Melaleuca lanceolata ssp. lanceolata (NC) (2)	Low Mallee
82	DUB00101	23/10/1997	54	248338	6184761	58	0.5 km SSW of Webb Beach	Beach ridge plain	beach ridge	sand	D	Olearia ramulosa (3)	Tall Open Shrubland
82	DUB00102	23/10/1997	54	248390	6184780	58	0.5 km SSW of Webb Beach	Beach ridge plain	plain (incl undulating plain)	sand	D	Olearia axillaris (2), Beyeria lechenaultii (2), Acacia ligulata (2)	Tall Open Shrubland

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82	DUB00103	23/10/1997	54	248428	6184923	22	0.3 km SSW of Webb Beach	Beach ridge plain	beach ridge	sand	D	Callitris gracilis (2), Acacia ligulata (T), Myoporum insulare (T)	Very Low Open Forest
82	DUB00201	24/10/1997	54	251734	6179483	60	6.5 km SSE of Webb Beach	Beach ridge plain	beach ridge	sand	D	Nitraria billardierei (2), Atriplex cinerea (2), Olearia ramulosa (2)	Open Shrubland
82	DUB00203	24/10/1997	54	251759	6179590	57	6.4 km SSE of Webb Beach	Beach ridge plain	beach ridge	sand	D	Dodonaea viscosa ssp. spatulata (3), Acacia ligulata (2)	Tall Shrubland
82	EDI00101	19/09/1997	53	732461	6111094	58	2.7 km ESE of Port Moorowie	Dunefield	dune crest	sand	A	Olearia axillaris (3)	Open Shrubland
82	EDI00102	19/09/1997	53	732269	6111254	54	2.5 km ESE of Port Moorowie	Consolidated dunefield	dune slope	sand	A	Alyxia buxifolia (3), Leucopogon parviflorus (2)	Shrubland
82	EDI00103	19/09/1997	53	732938	6111004	54	3.2 km ESE of Port Moorowie	Consolidated dunefield	dune slope	sand	A	Leucopogon parviflorus (3)	Tall Shrubland
82	EDI00104	19/09/1997	53	732569	6111180	54	2.8 km ESE of Port Moorowie	Consolidated dunefield	interdune low	sand	A	Leucopogon parviflorus (2)	Tall Open Shrubland
82	EDI00105	19/09/1997	53	732718	6110999	54	3.0 km ESE of Port Moorowie	Consolidated dunefield	interdune low	sand	A	Leucopogon parviflorus (2), Olearia axillaris (2)	Shrubland
82	EDI00106	19/09/1997	53	733072	6110913	54	3.3 km ESE of Port Moorowie	Consolidated dunefield	interdune corridor	sand	A	Alyxia buxifolia (3)	Shrubland
82	EDI00107	19/09/1997	53	733012	6110858	58	3.3 km ESE of Port Moorowie	Consolidated dunefield	flat	sand	A	Olearia axillaris (3)	Open Shrubland
82	HIL00101	17/09/1997	53	686817	6100237	66	6.8 km ENE of Marion Bay	Dunefield	fore dune	sand	B	Spinifex sericeus (NC) (2)	Open (Tussock) Grassland
82	HIL00102	15/09/1997	53	686718	6100328	59	6.7 km ENE of Marion Bay	Dunefield	dune slope	sand	B	Leucopogon parviflorus (3)	Shrubland
82	HIL00103	17/09/1997	53	686891	6100386	56	6.9 km ENE of Marion Bay	Dunefield	dune slope	sand	A	Acacia nematophylla (4), Pomaderris paniculosa ssp. paniculosa (2)	Closed Shrubland
82	HIL00104	15/09/1997	53	687043	6100473	56	7.0 km ENE of Marion Bay	Dunefield	dune slope	sand	A	Acacia nematophylla (3), Pomaderris paniculosa ssp. paniculosa (2)	Shrubland
82	HIL00105	17/09/1997	53	686771	6100539	42	6.8 km ENE of Marion Bay	Dunefield	swale	sand	A	Eucalyptus diversifolia (NC) (3), Acacia leiophylla (2)	Low Mallee
82	HIL00107	17/09/1997	53	686819	6100268	66	6.8 km ENE of Marion Bay	Dunefield	fore dune	sand	B	Olearia axillaris (1), Leucophyta brownii (1)	Low Open Shrubland
82	HIL00301	18/09/1997	53	698028	6098866	64	2.1 km ESE of Phillips Hill	Escarpment	cliff footslope	sand	A	Scaevola crassifolia (4), Lasiopetalum discolor (3)	Low Closed Shrubland
82	HIL00302	18/09/1997	53	697762	6098806	42	1.8 km ESE of Phillips Hill	Dunefield	dune/consolidated dune	sand	A	Lasiopetalum discolor (2), Melaleuca lanceolata ssp. lanceolata (NC) (2)	Low Closed Shrubland
82	MAI00101	15/09/1997	53	730002	6205735	59	6.9 km NNE of Balgowan	Dunefield	fore dune	sand	A	Leucopogon parviflorus (2), Olearia axillaris (2), *Lycium ferocissimum (T)	Shrubland
82	MAI00102	15/09/1997	53	730001	6205674	59	6.8 km NNE of Balgowan	Dunefield	dune slope	sand	A	Acacia cupularis (3), Leucopogon parviflorus (2), Olearia axillaris (2)	Closed Shrubland
82	MAI00103	15/09/1997	53	730005	6205484	66	6.6 km NNE of Balgowan	Dunefield	fore dune	sand	A	Spinifex sericeus (NC) (3)	Open (Tussock) Grassland
82	MAI00104	15/09/1997	53	730145	6205480	59	6.6 km NNE of Balgowan	Dunefield	dune slope	sand	A	Olearia axillaris (2), Beyeria lechenaultii (2), *Lycium ferocissimum (1)	Shrubland
82	MAI00105	15/09/1997	53	730334	6205259	50	6.4 km NNE of Balgowan	Dunefield	dune crest	sand	A	Melaleuca lanceolata ssp. lanceolata (NC) (3), *Lycium ferocissimum (1), Pittosporum angustifolium (N)	Tall Shrubland
82	MOO00101	18/09/1997	53	736919	6231058	57	2.4 km NNE of Port Moonta	Parabolic dunefield	fore dune	sand	A	Olearia axillaris (N)	Very Open Shrubland
82	MOO00102	18/09/1997	53	736953	6231075	58	2.4 km NNE of Port Moonta	Parabolic dunefield	dune footslope	sand	A	Acacia cyclops (N)	Low Woodland
82	MOO00103	18/09/1997	53	736978	6231120	58	2.4 km NNE of Port Moonta	Parabolic dunefield	dune footslope	sand	A	Acacia ligulata (2), Olearia axillaris (2)	Tall Open Shrubland
82	MOO00104	18/09/1997	53	737061	6230825	58	2.2 km NNE of Port Moonta	Parabolic dunefield	dune footslope	sand	A	Acacia cyclops (T)	Low Open Woodland
82	MOO00105	18/09/1997	53	737103	6231032	58	2.4 km NNE of Port Moonta	Parabolic dunefield	closed depression	sand	A	Acacia cyclops (N)	Tall Very Open Shrubland
82	MOO00201	19/09/1997	53	734549	6224788	66	1.8 km SSW of Port Hughes	Consolidated dunefield	dune footslope	sand	A	Olearia axillaris (N), Atriplex cinerea (N)	Very Open Herbland
82	MOO00202	19/09/1997	53	734584	6224796	58	1.8 km SSW of Port Hughes	Consolidated dunefield	dune slope	sand	A	Olearia axillaris (1)	Very Open Shrubland
82	MOO00203	17/09/1997	53	734749	6224705	44	1.8 km SSW of Port Hughes	Longitudinal dunefield	dune slope	sand	A	Geijera linearifolia (2)	Tall Very Open Shrubland

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82	MOO00204	19/09/1997	53	734706	6224622	44	1.9 km SSW of Port Hughes	Longitudinal dunefield	dune slope	sand	A	Acacia ligulata (1), Santalum acuminatum (1), Geijera linearifolia (N)	Tall Open Shrubland
82	MOO00205	17/09/1997	53	734824	6225047	57	1.5 km SSW of Port Hughes	Parabolic dunefield	closed depression	sand	A	Olearia axillaris (N), Acacia ligulata (N), Melaleuca lanceolata ssp. lanceolata (NC) (N)	Tall Very Open Shrubland
82	MOO00206	19/09/1997	53	734435	6224510	58	2.1 km SSW of Port Hughes	Dunefield	fore dune	sand	A	Olearia axillaris (2)	Low Open Shrubland
82	PON00103	19/09/1997	53	679827	6124774	45	13.5 km WSW of Corny Point	Dunefield	dune/consolidated dune	loamy sand	A	Triodia compacta (2)	Open Hummock Grassland
82	PON00104	19/09/1997	53	679925	6124726	49	13.5 km WSW of Corny Point	Dunefield	dune/consolidated dune	loamy sand	A	Eucalyptus diversifolia (NC) (2), Eucalyptus brachycalyx (2), Eucalyptus rugosa (2)	Mallee
82	PON00202	18/09/1997	53	676258	6121890	63	18.1 km WSW of Corny Point	Escarpment	hill slope	sand	A	Scaevola crassifolia (3), Beyeria lechenaultii (2)	Low Closed Shrubland
82	PON00301	18/09/1997	53	676379	6122319	62	17.8 km WSW of Corny Point	Escarpment	hill crest	sand	A	Beyeria lechenaultii (3), Scaevola crassifolia (2)	Low Closed Shrubland
82	PON00401	20/09/1997	53	678851	6115829	66	16.8 km NNW of Marion Bay	Dunefield	fore dune	sand	B	Olearia axillaris (2)	Low Open Shrubland
82	PON00402	20/09/1997	53	678933	6115840	59	16.8 km NNW of Marion Bay	Dunefield	dune slope	sand	A	Olearia axillaris (2), Leucopogon parviflorus (2), Acacia longifolia ssp. sophorae (2)	Low Open Shrubland
82	PON00403	20/09/1997	53	679039	6115716	59	16.7 km NNW of Marion Bay	Parabolic dunefield	dune crest	sand	A	Leucopogon parviflorus (3), Olearia axillaris (T)	Shrubland
82	PON00501	19/09/1997	53	677024	6113472	63	14.8 km NNW of Marion Bay	Escarpment	cliff	sand	B	Scaevola crassifolia (2), Leucophyta brownii (2)	Low Shrubland
82	PON00502	19/09/1997	53	677045	6113433	58	14.7 km NNW of Marion Bay	Dunefield	dune/consolidated dune	sand	B	Olearia axillaris (3)	Shrubland
82	PON00503	19/09/1997	53	677104	6113286	63	14.6 km NNW of Marion Bay	Dunefield	swale	loamy sand	B	Poa poiformis var. poiformis (2)	Open Hummock Grassland
82	PON00504	19/09/1997	53	677212	6113234	42	14.5 km NNW of Marion Bay	Dunefield	swale	loamy sand	A	Beyeria lechenaultii (3)	Low Shrubland
82	PON00505	19/09/1997	53	677203	6113182	62	14.4 km NNW of Marion Bay	Dunefield	dune crest	sand	A	Beyeria lechenaultii (3), Goodenia varia (1)	Low Shrubland
82	PON00701	19/09/1997	53	673442	6108173	58	10.9 km NNE of Pondalowie Bay	Consolidated dunefield	dune slope	sandy loam	A	Olearia axillaris (3), Leucopogon parviflorus (N)	Shrubland
82	PON00702	19/09/1997	53	673908	6107933	42	10.9 km NNW of Marion Bay	Dunefield	swale	sandy loam	C	Eucalyptus diversifolia (NC) (3)	Low Mallee
82	PON00703	19/09/1997	53	673931	6107799	62	10.7 km NNW of Marion Bay	Dunefield	dune slope	sandy loam	A	Templetonia retusa (2)	Shrubland
82	PON00704	19/09/1997	53	673804	6107744	62	10.8 km NNW of Marion Bay	Dunefield	dune slope	sandy loam	A	Templetonia retusa (3), Acacia nematophylla (2), Leucopogon parviflorus (T)	Tall Shrubland
82	PON00705	19/09/1997	53	673686	6107732	62	10.7 km NNE of Pondalowie Bay	Dunefield	dune slope	sandy loam	A	Melaleuca lanceolata ssp. lanceolata (NC) (2)	Very Low Open Forest
82	PON00706	19/09/1997	53	673862	6107633	62	10.6 km NNW of Marion Bay	Dunefield	dune slope	sandy loam	A	Eucalyptus diversifolia (NC) (3)	Mallee
82	PON00801	18/09/1997	53	671623	6104851	63	7.1 km NNE of Pondalowie Bay	Consolidated dunefield	dune slope	sandy loam	B	Leucophyta brownii (2)	Low Shrubland
82	PON00802	18/09/1997	53	671721	6104780	62	7.2 km NNE of Pondalowie Bay	Dunefield	dune slope	sandy loam	A	Beyeria lechenaultii (2), Templetonia retusa (2)	Low Shrubland
82	PON00901	18/09/1997	53	670800	6104204	62	6.1 km NNE of Pondalowie Bay	Dunefield	dune slope	sandy loam	A	Olearia axillaris (2), Leucopogon parviflorus (T), Melaleuca lanceolata ssp. lanceolata (NC) (T)	Shrubland
82	PON00902	18/09/1997	53	670867	6104025	42	6.0 km NNE of Pondalowie Bay	Dunefield	dune slope	sandy loam	A	Eucalyptus diversifolia (NC) (2), Callitris canescens (2)	Low Mallee
82	PON01001	18/09/1997	53	669787	6103796	62	5.2 km NNE of Pondalowie Bay	Dunefield	fore dune	sandy loam	B	Olearia axillaris (2)	Shrubland
82	PON01101	17/09/1997	53	667963	6099609	62	0.8 km ENE of Pondalowie Bay	Dunefield	dune slope	sand	A	Olearia axillaris (2)	Shrubland
82	PON01102	17/09/1997	53	668020	6099585	62	0.9 km ENE of Pondalowie Bay	Dunefield	dune slope	sand	B	Leucopogon parviflorus (3)	Tall Shrubland
82	PON01103	17/09/1997	53	668508	6100214	62	1.6 km ENE of Pondalowie Bay	Dunefield	dune slope	sandy loam	A	Eucalyptus diversifolia (NC) (4), Melaleuca lanceolata ssp. lanceolata (NC) (T)	Mallee
82	PON01201	17/09/1997	53	666131	6098043	63	1.6 km SSW of Pondalowie Bay	Consolidated dunefield	dune slope	sandy loam	A	Leucophyta brownii (2)	Low Shrubland
82	PON01202	17/09/1997	53	666242	6098029	59	1.5 km SSW of Pondalowie Bay	Consolidated dunefield	dune slope	sandy loam	A	Olearia axillaris (2), Leucopogon parviflorus (2)	Low Shrubland
82	TUR00101	17/09/1997	53	725708	6147626	63	4.4 km SSW of Cheraweth	Dunefield	dune slope	sand	A	Goodenia varia (2), Leucophyta brownii (2)	Low Shrubland
82	TUR00102	17/09/1997	53	725698	6147690	58	4.3 km SSW of Cheraweth	Dunefield	dune slope	sand	A	Olearia axillaris (2), Exocarpos syrticola (1)	Open Shrubland
82	TUR00103	17/09/1997	53	725999	6147793	64	4.2 km SSW of Cheraweth	Dunefield	dune crest	sand	A	Scaevola crassifolia (3), Acacia ligulata (2), Santalum acuminatum (2)	Shrubland
82	TUR00104	17/09/1997	53	726060	6148020	58	3.9 km SSW of Cheraweth	Dunefield	dune slope	sand	A	Allocasuarina verticillata (T)	Very Low Open Woodland
82	TUR00203	17/09/1997	53	723741	6133667	59	2.2 km SSW of Hardwicke Bay	Dunefield	dune crest	sand	A	Leucopogon parviflorus (3), Myoporum insulare (2)	Shrubland

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82	TUR00301	15/09/1997	53	720404	6130947	63	5.8 km NNE of Warooka	Dunefield	fore dune	sand	B	Scaevola crassifolia (3)	Low Shrubland
82	TUR00302	15/09/1997	53	720447	6130935	56	5.8 km NNE of Warooka	Dunefield	dune crest	sand	B	Allocasuarina verticillata (2)	Low Open Woodland
82	TUR00303	15/09/1997	53	720582	6130981	56	5.8 km NNE of Warooka	Dunefield	dune slope	sand	B	Allocasuarina verticillata (3)	Low Open Forest
82	TUR00304	15/09/1997	53	720637	6130865	56	5.7 km NNE of Warooka	Dunefield	dune/consolidated dune	sand	A	Allocasuarina verticillata (2)	Low Open Woodland
82	VIN00101	23/10/1997	54	255850	6176347	50	8.5 km SSW of Dublin	Beach ridge plain	plain (incl undulating plain)	sand	F	Melaleuca lanceolata ssp. lanceolata (NC) (3)	Tall Shrubland
82	VIN00102	23/10/1997	54	255721	6177676	69	7.1 km SSW of Dublin	Beach ridge plain	plain (incl undulating plain)	sand	F	Eucalyptus gracilis (1), Melaleuca lanceolata ssp. lanceolata (NC) (1)	Mallee
82	VIN00201	24/10/1997	54	256487	6174442	65	10.3 km SSW of Dublin	Beach ridge plain	beach ridge	sand	F	Nitraria billardierei (T), *Cakile maritima ssp. maritima (T)	Low Open Shrubland
82	VIN00202	24/10/1997	54	256549	6174479	58	10.3 km SSW of Dublin	Beach ridge plain	beach ridge	sand	F	Olearia ramulosa (3)	Tall Open Shrubland
82	WAD00301	15/09/1997	53	767477	6300202	72	9.6 km WNW of Wandearah West	Beach ridge plain	beach ridge	sand	F	Lawrencia squamata (2), Nitraria billardierei (N)	Low Open Shrubland
82	WAD00302	15/09/1997	53	767559	6300271	57	9.5 km WNW of Wandearah West	Beach ridge plain	plain (incl undulating plain)	sand	F	Acacia ligulata (1), Geijera linearifolia (N)	Open Shrubland
82	WAD00303	15/09/1997	53	768043	6300278	26	9.1 km WNW of Wandearah West	Consolidated dunefield	dune crest	sand	B	Eucalyptus gracilis (N)	Open Mallee
82	WAR00101	16/09/1997	53	728403	6196014	60	3.0 km NNE of Chinaman Wells	Dunefield	fore dune	sand	A	Atriplex cinerea (3)	Shrubland
82	WAR00102	16/09/1997	53	728388	6195873	60	2.8 km NNE of Chinaman Wells	Dunefield	fore dune	sand	A	Olearia axillaris (2)	Open Shrubland
82	WAR00103	16/09/1997	53	728387	6195571	58	2.5 km NNE of Chinaman Wells	Dunefield	dune slope	sand	A	Olearia axillaris (2)	Very Open Shrubland
82	WAR00104	16/09/1997	53	728483	6195529	58	2.5 km NNE of Chinaman Wells	Dunefield	swale	sand	A	Acacia ligulata (2), Olearia axillaris (2)	Open Shrubland
82	WAR00105	16/09/1997	53	728515	6195081	58	2.1 km NNE of Chinaman Wells	Dunefield	swale	sand	A	Acacia ligulata (3), Olearia axillaris (2)	Shrubland
82	WAR00201	19/09/1997	53	724839	6190282	58	4.4 km WSW of Chinaman Wells	Dunefield	fore dune	sand	C	Olearia axillaris (2), Atriplex cinerea (2)	Very Open Shrubland
82	WAR00202	19/09/1997	53	725072	6190455	57	4.1 km WSW of Chinaman Wells	Dunefield	dune slope	sand	C	Acacia ligulata (2)	Low Open Shrubland
82	WAR00203	19/09/1997	53	724941	6189934	57	4.6 km WSW of Chinaman Wells	Dunefield	dune crest		C	Acacia ligulata (2)	Open Shrubland
82	WAR00204	19/09/1997	53	725177	6189955	58	4.4 km SW of Chinaman Wells	Dunefield	dune slope	sand	C	Olearia axillaris (2)	Very Open Shrubland
82	WAR00205	19/09/1997	53	725241	6190037	58	4.3 km SW of Chinaman Wells	Dunefield	swale	sand	C	Olearia axillaris (2), Acacia ligulata (2)	Very Open Shrubland
83	LBGBOO01	27/11/1996	54	251470	6352258	9	3.2 km NNE of Yandiah	Rises	plain (incl undulating plain)	clayey sand	B	Acacia pycnantha (2)	Low Open Woodland
83	LBGBOO02	27/11/1996	54	245517	6348250	1	5.3 km SSE of Murray Town	Rises	hill slope	loam	A	Eucalyptus microcarpa (2)	Open Woodland
83	LBGBUN01	22/02/1996	54	277495	6316474	5	4.0 km WNW of Belalie East	Low hills	hill slope	sandy loam	A		Open (Tussock) Grassland
83	LBGBUR01	23/10/1995	54	309022	6286129	1	4.6 km ENE of Mount Bryan	Low hills	hill slope	medium clay	B	Austrostipa setacea (2), Austrostipa scabra ssp. falcata (2), Austrodanthonia auriculata (2)	(Tussock) Grassland
83	LBGGLA01	23/02/1996	54	255137	6295265	9	6.8 km ESE of Narridy	Low hills	hill slope	sandy clay loam	A	Lepidosperma viscidum (3), Austrostipa blackii (2), Austrostipa eremophila (2)	Low Open Shrubland
83	LBGJAM01	21/02/1996	54	276075	6344198	1	9.4 km WNW of Mannanarie Siding	Hills	hill slope	sandy clay loam	A	Eucalyptus microcarpa (2), Eucalyptus leucoxylon ssp. pruinosa (1)	Woodland
83	LBGJAM02	22/02/1996	54	278956	6335874	1	4.7 km WSW of Mannanarie Siding	Rises	hill slope	sandy loam	A	Austrostipa nitida (3)	Open (Tussock) Grassland
83	LBGJAM03	22/02/1996	54	274543	6334093	1	2.0 km SSE of Mount Lock	Low hills	hill slope	sandy clay loam	A	Allocasuarina verticillata (1)	(Tussock) Grassland
83	LBGJAM05	22/02/1996	54	279397	6337147	1	3.9 km WSW of Mannanarie Siding	Low hills	hill slope	sandy clay loam	A	Themeda triandra (3), Austrostipa blackii (2)	(Tussock) Grassland
83	LBGJAM06	22/02/1996	54	279181	6337541	1	4.0 km WSW of Mannanarie Siding	Low hills	hill slope	sandy loam	A	Bursaria spinosa ssp. spinosa (2)	(Tussock) Grassland
83	LBGKOO01	23/02/1996	54	262131	6282892	2	0.9 km WNW of Yacka	Low hills	hill slope	sandy loam	A	Triodia irritans (4), Themeda triandra (3), *Avena barbata (2)	Hummock Grassland
83	LBGKOO02	4/03/1996	54	267348	6290396	1	6.4 km ESE of Gulnare	Hills	hill slope	clay loam	A	Bursaria spinosa ssp. spinosa (2), Triodia scariosa ssp. (NC) (2), Cryptandra sp. Long hypanthium (C.R. Alcock 10626) (2)	(Tussock) Grassland
83	LBGKOO03	5/03/1996	54	267715	6276566	1	7.5 km SSE of Yacka	Low hills	hill slope	sandy clay loam	A	Allocasuarina verticillata (2)	Low Woodland
83	LBGKOO04	5/03/1996	54	255473	6289845	17	8.0 km WSW of Gulnare	Low hills	hill slope	sandy clay loam	A	Eucalyptus odorata (2), Eucalyptus porosa (2)	Low Woodland
83	LBGKOO05	5/03/1996	54	265587	6277110	17	5.9 km SSE of Yacka	Hills	hill slope	sandy clay loam	A	Eucalyptus odorata (2)	Low Woodland
83	LBGLAU02	20/02/1996	54	248552	6335509	13	2.6 km ESE of Tandowie	Low hills	hill slope	loam	A	Allocasuarina verticillata (2)	Low Woodland
83	LBGLAU03	20/02/1996	54	249856	6335794	13	3.7 km ESE of Tandowie	Low hills	hill slope	loam	A	Allocasuarina verticillata (2)	Very Low Woodland
83	LBGLAU04	20/02/1996	54	246883	6333947	17	3.0 km SSE of Tandowie	Rises	hill crest	sandy loam	A	Eucalyptus odorata (4)	Open Forest
83	LBGPEK01	30/12/1995	54	267622	6350679	1	1.1 km SSW of Tarcowie	Rises	hill slope	loam	A	Eucalyptus odorata (2), Callitris gracilis (T)	Low Woodland

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83	LBGPEK02	31/12/1995	54	268022	6350879	1	0.8 km SSW of Tarcowie	Rises	hill slope	sandy loam	A	Eucalyptus leucoxylon ssp. pruinosa (T)	(Tussock) Grassland
83	LBGPEK03	18/01/1996	54	267192	6363719	4	1.5 km NNE of Maurice Hill	Hills	hill slope	loam	A	Austrostipa blackii (2), Austrostipa nodosa (2)	Open (Tussock) Grassland
83	LBGPEK04	19/01/1996	54	267992	6361219	1	1.4 km SSE of Maurice Hill	Low hills	hill footslope	loam	B	Eucalyptus leucoxylon ssp. pruinosa (3)	Woodland
83	LBGPEK05	19/01/1996	54	267322	6361429	1	0.8 km SSE of Maurice Hill	Low hills	hill footslope	sandy loam	B	Allocasuarina verticillata (2)	Very Low Open Woodland
83	LBGPEK06	25/01/1996	54	269362	6347109	1	4.6 km SSE of Tarcowie	Low hills	hill slope	sandy loam	A	Eucalyptus leucoxylon ssp. pruinosa (2)	Woodland
83	LBGPET03	15/12/1995	54	290832	6354879	9	8.6 km ESE of White Rock	Hills	hill slope	clayey sand	A	Callitris gracilis (2)	Low Woodland
83	LBGPIR04	21/02/1996	54	243657	6321317	13	6.0 km WSW of Laura	Low hills	hill slope	sandy loam	A	Allocasuarina verticillata (3)	Low Open Forest
83	LBGTRU01	4/12/1996	54	330643	6194182	1	2.8 km SSE of Dutton	Plain	plain (incl undulating plain)	clay loam, sandy	A	Eucalyptus leucoxylon ssp. pruinosa (2)	Open Woodland
83	LBGTRU02	4/12/1996	54	331934	6205136	13	3.8 km WNW of Frankton	Low hills	hill slope	sandy clay loam	A	Allocasuarina verticillata (2)	Very Low Woodland
83	LBGTRU03	4/12/1996	54	327596	6207432	9	4.8 km WSW of Neales Flat	Hills	hill slope	clay loam, sandy	A	Acacia retinodes var. retinodes (3)	Tall Shrubland
83	LBGTRU04	5/12/1996	54	321114	6205828	9	3.8 km ESE of Hansborough	Low hills	hill slope	clay loam, sandy	A	Lomandra effusa (3), *Avena barbata (2)	(Tussock) Grassland
83	LBGWIL01	12/12/1995	54	248602	6394149	8	4.5 km SSE of Hammond	Plain	plain (incl undulating plain)	light clay	A	Austrostipa eremophila (2), Austrodanthonia caespitosa (2)	(Tussock) Grassland
83	LBGWLM03	26/11/1996	54	228407	6384447	1	1.0 km NNE of Wilmington	Plain	plain (incl undulating plain)	sandy loam	A	Eucalyptus microcarpa (3)	Woodland
86	ORR00401	23/10/1996	54	268196	6390813	18	3.9 km NNW of Smedley Town	Plain	plain (incl undulating plain)	loam	A	Callitris glaucophylla (3)	Low Open Forest
86	ORR00801	21/10/1996	54	266207	6381826	18	5.0 km NNE of Morchard	Rises	hill footslope	sandy clay loam	A	Callitris glaucophylla (3)	Low Woodland
86	ORR01601	21/10/1996	54	275203	6374387	24	1.7 km WSW of Orroroo	Low hills	hill slope	sandy loam	A	Eucalyptus porosa (3)	Mallee
86	ORR01602	21/10/1996	54	275346	6374336	38	1.7 km SSW of Orroroo	Hills	hill slope	clayey sand	A	Acacia calamifolia (NC) (3)	Tall Shrubland
86	ORR01701	24/10/1996	54	270556	6374943	9	1.9 km NNE of Pekina Hill	Hills	hill slope	sandy clay loam	A	Acacia calamifolia (NC) (2)	Open Shrubland
86	ORR01702	24/10/1996	54	270027	6375208	1	1.8 km NNE of Pekina Hill	Hills	hill slope	sandy clay loam	A	Xanthorrhoea quadrangulata (2)	Open Shrubland
86	PEK00101	23/10/1996	54	268567	6366809	12	4.0 km NNW of Pekina	Low hills	hill slope	loam	A	Allocasuarina verticillata (2)	Low Woodland
86	PEK00201	22/10/1996	54	278492	6370394	12	5.6 km SSE of Orroroo	Hills	gully	sandy clay loam	A	Eucalyptus socialis (NC) (3), Eucalyptus gracilis (3)	Mallee
86	PEK00202	22/10/1996	54	278515	6370211	12	5.8 km SSE of Orroroo	Hills	hill slope	clayey sand	A	Triodia bunicola (4)	Hummock Grassland
86	PEK00502	25/10/1996	54	278651	6363221	50	5.4 km WSW of Black Rock	Low hills	hill slope	sandy loam	A	Eucalyptus socialis (NC) (3), Melaleuca lanceolata ssp. lanceolata (NC) (3)	Mallee
86	PEK00601	23/10/1996	54	277322	6361402	12	6.4 km WNW of White Rock	Low hills	hill slope	sandy loam	A	Bursaria spinosa ssp. spinosa (2)	Open Shrubland
86	PEK00701	22/10/1996	54	273122	6367570	9	4.6 km NNE of Pekina	Low hills	hill footslope	loamy sand	A	Lomandra effusa (2), Lomandra multiflora ssp. dura (2), Austrostipa eremophila (2)	(Tussock) Grassland
86	PEK00801	25/10/1996	54	270940	6364528	3	1.0 km NNE of Pekina	Plain	plain (incl undulating plain)	clay loam	B	Lomandra multiflora ssp. dura (2)	(Tussock) Grassland
86	PEK00901	22/10/1996	54	269278	6363501	1	1.6 km WNW of Pekina	Rises	hill footslope	clay loam	A	Austrostipa scabra ssp. falcata (2), Austrostipa blackii (2), Triodia bunicola (1)	(Tussock) Grassland
86	PEK01101	25/10/1996	54	272424	6357721	20	6.0 km SSE of Pekina	Low hills	stream channel	sandy loam	B	Eucalyptus leucoxylon ssp. pruinosa (2)	Woodland
86	PEK01201	24/10/1996	54	278631	6356880	24	4.4 km WNW of Yatina	Hills	hill slope	sandy loam	A	Eucalyptus porosa (3)	Woodland
86	PEK01202	24/10/1996	54	278837	6357142	24	4.5 km NNW of Yatina	Hills	hill slope	loam	A	Acacia wattsiana (3), Bursaria spinosa ssp. spinosa (3)	Tall Shrubland
86	PEK01301	25/10/1996	54	278814	6354699	12	3.3 km WNW of Yatina	Low hills	hill slope	loam	A	Acacia pycnantha (3)	Very Low Woodland
86	PEK01401	24/10/1996	54	280334	6354943	12	1.9 km WNW of Yatina	Plain	hill footslope	silty loam	A	Rhagodia parabolica (2), Grevillea ilicifolia var. ilicifolia (NC) (2)	Open Shrubland
86	PEK01601	25/10/1996	54	275459	6352988	12	6.6 km WSW of Yatina	Hills	hill slope	loam	A	Allocasuarina verticillata (2)	Low Woodland
86	PEK02B12	24/10/1996	54	280235	6354908	24	2.0 km WNW of Yatina	Plain	hill footslope	silty loam	A	Eucalyptus porosa (2)	Low Woodland
86	PEK02B17	25/10/1996	54	272432	6357799	12	5.9 km SSE of Pekina	Low hills	hill slope	sandy loam	B	Bursaria spinosa ssp. spinosa (2)	Open Shrubland
86	PET00701	24/10/1996	54	290293	6362275	36	5.8 km WSW of Urrala Estate	Plain	plain (incl undulating plain)	clay loam	A	Casuarina pauper (3)	Low Woodland
86	PET01501	25/10/1996	54	302368	6355655	9	7.2 km NNE of Peterborough	Plain	plain (incl undulating plain)	clay loam	A	Austrostipa eremophila (2), Austrostipa scabra ssp. (1)	(Tussock) Grassland
86	WIL00601	24/10/1996	54	249595	6388089	9	1.5 km SSE of Amyton	Plain	plain (incl undulating plain)	loam	A	Maireana sedifolia (2)	Low Open Shrubland
86	WIL00701	24/10/1996	54	247482	6386268	9	3.7 km SSW of Amyton	Plain	plain (incl undulating plain)	sandy loam	A	Templetonia egena (2)	Very Open Shrubland
86	WIL00801	25/10/1996	54	250560	6384060	25	4.0 km NNE of Willowie	Plain	plain (incl undulating plain)	clayey sand	A	Senna artemisioides ssp. X coriacea (2), Templetonia egena (2)	Shrubland

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86	WIL00802	21/10/1996	54	249708	6382744	25	2.5 km NNE of Willowie	Plain	plain (incl undulating plain)	loamy sand	A	Senna artemisioides ssp. X coriacea (3), Templetonia egena (T)	Tall Shrubland
86	WIL00902	25/10/1996	54	257266	6380593	39	2.2 km WSW of Coomooroo Hill	Low hills	hill slope	clay loam	A	Dodonaea lobulata (3), Pimelea microcephala ssp. microcephala (2)	Shrubland
86	WIL01001	24/10/1996	54	265366	6376917	4	0.4 km ESE of Morchard	Plain	plain (incl undulating plain)	clay loam	A	*Avena barbata (3)	(Tussock) Grassland
86	WIL01101	22/10/1996	54	263653	6376111	6	1.5 km WSW of Morchard	Low hills	hill footslope	loam	A	*Avena barbata (2), Maireana trichoptera (1)	(Tussock) Grassland
86	WIL01301	21/10/1996	54	257123	6378554	25	3.9 km SSW of Coomooroo Hill	Plain	plain (incl undulating plain)	silty loam	A	Senna artemisioides ssp. X coriacea (3), Templetonia egena (1), Acacia hakeoides (N)	Shrubland
86	WIL01401	21/10/1996	54	254506	6376326	40	6.3 km ESE of Willowie	Plain	plain (incl undulating plain)	sandy loam	A	Acacia victoriae ssp. victoriae (4)	Tall Shrubland
86	WIL01601	21/10/1996	54	253703	6373994	32	5.5 km NNE of Booleroo Whim	Plain	plain (incl undulating plain)	loamy sand	A	Eucalyptus oleosa (NC) (3)	Mallee
87	MAM00301	15/10/1996	53	777790	6369720	36	6.1 km NNW of Mambray Creek	Low hills	hill slope	loam	A	Casuarina pauper (3)	Low Open Forest
87	MAM00401	16/10/1996	53	776921	6369234	30	5.8 km NNW of Mambray Creek	Plain	plain (incl undulating plain)	loam	A	Casuarina pauper (2)	Low Woodland
87	MAM00501	15/10/1996	53	773398	6365388	32	5.6 km WNW of Mambray Creek	Low hills	hill slope	sandy loam	A	Eucalyptus oleosa (NC) (2)	Open Mallee
87	MAM00601	14/10/1996	53	772851	6361656	57	6.2 km WSW of Mambray Creek	Dunefield	dune/consolidated dune	sand	A	Acacia ligulata (3)	Tall Shrubland
87	MAM00701	14/10/1996	53	773741	6358590	57	7.1 km SSW of Mambray Creek	Dunefield	dune/consolidated dune	sand	A	*Lycium ferocissimum (2), Acacia ligulata (2), Myoporum insulare (2)	Tall Shrubland
87	MAM00801	14/10/1996	53	777624	6352313	32	10.0 km NNW of Port Germein	Consolidated dunefield	interdune corridor	loam	A	Eucalyptus oleosa (NC) (2)	Mallee
87	MAM00901	14/10/1996	53	778667	6348731	29	6.3 km NNW of Port Germein	Plain	plain (incl undulating plain)	sandy loam	A	Nitraria billardierei (2), Atriplex stipitata (2)	Open Shrubland
87	MAM01001	14/10/1996	53	774913	6350879	57	9.7 km NNW of Port Germein	Dunefield	dune/consolidated dune	sand	A	Acacia ligulata (2), Pittosporum angustifolium (2)	Tall Open Shrubland
88	BAL00101	15/11/1996	54	263554	6232694	4	1.4 km WSW of Wainappe	Plain	plain (incl undulating plain)	clay loam, sandy	A	Eucalyptus gracilis (1), Eucalyptus socialis (NC) (T)	Very Open Mallee
88	BAL00201	14/11/1996	54	256020	6234578	33	2.4 km ENE of Mount Templeton	Plain	plain (incl undulating plain)	sandy clay loam	A	Eucalyptus gracilis (4)	Closed Mallee
88	BAL00301	15/11/1996	54	256190	6231709	4	2.7 km ESE of Mount Templeton	Plain	plain (incl undulating plain)	clay loam	A	Eucalyptus porosa (1), Eucalyptus gracilis (1)	Very Open Mallee
88	BAL00401	14/11/1996	54	249655	6232106	13	0.6 km NNW of Mount Templeton	Low hills	hill slope	heavy clay	A	Allocasuarina verticillata (2)	Low Open Woodland
88	BAL00501	14/11/1996	54	249143	6234306	25	2.8 km NNW of Mount Templeton	Low hills	hill slope	clay loam, sandy	A	Hakea leucoptera ssp. leucoptera (3)	Tall Shrubland
88	BAL00601	12/11/1996	54	250946	6226984	34	5.2 km NNW of Whitwarta	Hills	hill crest	clayey sand	A	Eucalyptus gracilis (2), Eucalyptus socialis (NC) (2)	Open Mallee
88	BAL00701	11/11/1996	54	269179	6224495	34	2.0 km WSW of Halbury	Plain	plain (incl undulating plain)	clayey sand	A	Eucalyptus socialis (NC) (3), Eucalyptus gracilis (2)	Mallee
88	BAL00801	11/11/1996	54	262964	6220911	22	2.7 km NNE of Balaklava	Plain	plain (incl undulating plain)	loamy sand	A	Callitris gracilis (3), Eucalyptus odorata (1)	Low Open Forest
88	BAL00901	12/11/1996	54	253605	6226155	74	3.1 km NNW of Whitwarta	Plain	playa/pan	sandy clay loam	E	Sclerostegia arbuscula (3)	Low Shrubland
88	BAL01101	11/11/1996	54	262413	6217220	22	1.8 km SSE of Balaklava	Plain	plain (incl undulating plain)	sandy loam	A	Callitris gracilis (3)	Low Open Forest
88	BAL01201	15/11/1996	54	256856	6213950	33	4.9 km WNW of Erith	Plain	plain (incl undulating plain)	clay loam	A	Eucalyptus porosa (2), Eucalyptus gracilis (2)	Mallee
88	BAL01301	12/11/1996	54	249351	6218511	83	2.4 km ENE of Bowmans	Plain	channel bench	sandy loam	A	Eucalyptus camaldulensis var. camaldulensis (3)	Open Forest
88	BAL01401	11/11/1996	54	265654	6210367	32	5.0 km ESE of Erith	Plain	plain (incl undulating plain)	light clay	A	Eucalyptus oleosa (NC) (2), Eucalyptus gracilis (2)	Mallee
88	BAL01D18	15/11/1996	54	253056	6207698	50	2.5 km ESE of Kallora	Consolidated dunefield	dune/consolidated dune	sandy loam	A	Eucalyptus socialis (NC) (2), Eucalyptus incrassata (N)	Mallee
88	BAL01E05	12/11/1996	54	250994	6227050	34	5.2 km NNW of Whitwarta	Hills	hill crest	clayey sand	A	Eucalyptus socialis (NC) (2), Eucalyptus phenax (NC) (2), Eucalyptus gracilis (2)	Open Mallee
88	BAL01F20	15/11/1996	54	266986	6217778	83	4.2 km WNW of The Rocks	Flood plain	stream channel	clayey sand	A	Eucalyptus camaldulensis var. camaldulensis (4)	Closed Forest
88	BLY00101	12/11/1996	54	265742	6257001	34	5.2 km WNW of Benbourni	Plain	plain (incl undulating plain)	light clay	A	Eucalyptus socialis (NC) (3)	Open Mallee
88	BLY00201	11/11/1996	54	263283	6261012	1	8.1 km SSW of Rochester	Plain	plain (incl undulating plain)	light clay	A	Eremophila longifolia (2)	Tall Shrubland
88	BLY00301	11/11/1996	54	256821	6259443	29	6.3 km SSE of Condowie	Plain	plain (incl undulating plain)	clay loam	A	Eucalyptus socialis (NC) (2)	Open Mallee
88	BLY00401	11/11/1996	54	247400	6257367	34	5.2 km ESE of Snowtown	Plain	plain (incl undulating plain)	clay loam, sandy	A	Eucalyptus socialis (NC) (4)	Mallee
88	BLY00501	11/11/1996	54	246438	6254532	38	5.8 km SSE of Snowtown	Hills	hill slope	clay loam, sandy	A	Senna artemisioides ssp. X coriacea (5), Acacia calamifolia (NC) (2)	Shrubland
88	BLY00601	12/11/1996	54	267126	6249326	34	2.6 km SSW of Blyth	Plain	plain (incl undulating plain)	silty clay loam	A	Eucalyptus socialis (NC) (4)	Mallee
88	BLY00801	12/11/1996	54	250468	6253225	29	9.8 km ESE of Snowtown	Plain	plain (incl undulating plain)	sandy clay loam	G	Halosarcia indica ssp. bidens (2)	Low Open Shrubland
88	BLY00802	12/11/1996	54	250677	6253042	29	10.0 km ESE of Snowtown	Plain	plain (incl undulating plain)	sandy clay loam	F	Nitraria billardierei (2)	Low Very Open Shrubland

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88	BLY00901	13/11/1996	54	255644	6242507	17	6.0 km ENE of Everard Central	Plain	plain (incl undulating plain)	medium clay	A	Eucalyptus odorata (3)	Mallee
88	BLY01101	13/11/1996	54	267182	6239503	22	5.0 km SSW of Kybunga	Plain	plain (incl undulating plain)	clayey sand	A	Callitris gracilis (2)	Low Woodland
88	BLY01201	13/11/1996	54	257071	6235715	34	3.9 km ENE of Mount Templeton	Dunefield	dune crest	clayey sand	A	Eucalyptus socialis (NC) (3)	Mallee
88	BLY01301	13/11/1996	54	251085	6241409	67	3.2 km NNW of Everard Central	Plain	open depression	medium clay	A	Halosarcia pergranulata ssp. (3)	Low Open Shrubland
88	BLY01401	13/11/1996	54	253937	6237810	29	2.6 km ESE of Everard Central	Plain	plain (incl undulating plain)	sandy clay loam	A	Eucalyptus phenax (NC) (4), Eucalyptus porosa (2)	Open Mallee
88	BLY01F05	11/11/1996	54	246436	6254707	38	5.7 km SSE of Snowtown	Hills	hill slope	clay loam, sandy	A	Beyeria lechenaultii (2), Acacia calamifolia (NC) (2), Bursaria spinosa ssp. spinosa (1)	Open Shrubland
88	BLY01F07	12/11/1996	54	259000	6254162	33	9.1 km WNW of Blyth	Plain	plain (incl undulating plain)	sandy loam	A	Eucalyptus gracilis (5)	Closed Mallee
88	BLY01F11	13/11/1996	54	246458	6244772	32	8.1 km NNW of Everard Central	Plain	plain (incl undulating plain)	sandy clay loam	A	Eucalyptus oleosa (NC) (3), Eucalyptus gracilis (2), Eucalyptus brachycalyx (2)	Open Mallee
88	DUB00101	11/11/1996	54	267527	6206500	17	5.8 km NNE of Pinery	Plain	plain (incl undulating plain)	silty clay loam	A	Eucalyptus odorata (3), Eucalyptus porosa (2)	Mallee
88	DUB00201	15/11/1996	54	247310	6202067	67	2.3 km SSE of Inkerman	Plain	open depression	clay loam	C	Halosarcia pergranulata ssp. pergranulata (4)	Low Closed Shrubland
88	DUB00401	11/11/1996	54	266232	6200639	55	0.2 km WSW of Pinery	Plain	plain (incl undulating plain)	silty clay loam	A	Callitris gracilis (3), Eucalyptus brachycalyx (2)	Low Open Forest
88	DUB00501	14/11/1996	54	259264	6195132	33	0.4 km ENE of Long Plains	Plain	plain (incl undulating plain)	sandy clay loam	A	Eucalyptus brachycalyx (3), Eucalyptus porosa (2), Eucalyptus gracilis (2)	Open Mallee
88	DUB00601	14/11/1996	54	252094	6194229	32	1.2 km ESE of Wild Horse Plains	Plain	plain (incl undulating plain)	light clay	A	Melaleuca pauperiflora ssp. mutica (4)	Tall Closed Shrubland
88	DUB00701	14/11/1996	54	248483	6194804	26	2.5 km WNW of Wild Horse Plains	Plain	plain (incl undulating plain)	loam	D	Eucalyptus gracilis (2), Myoporum platycarpum ssp. platycarpum (1)	Very Open Mallee
88	DUB00801	14/11/1996	54	259667	6191767	33	2.9 km WNW of Calomba	Plain	plain (incl undulating plain)	clay loam	A	Eucalyptus brachycalyx (3), Eucalyptus gracilis (3)	Open Mallee
88	DUB00901	15/11/1996	54	247981	6187264	54	0.5 km NNW of Parham	Beach ridge plain	beach ridge	loamy sand	D	Alyxia buxifolia (3), Beyeria lechenaultii (2), Pomaderris paniculosa ssp. paniculosa (2)	Shrubland
88	DUB01001	14/11/1996	54	269690	6182394	34	4.4 km SSW of Mallala	Plain	plain (incl undulating plain)	clay loam	A	Eucalyptus socialis (NC) (4)	Mallee
88	DUB01002	13/11/1996	54	270033	6182122	34	4.6 km SSW of Mallala	Plain	plain (incl undulating plain)	light clay	A	Eucalyptus socialis (NC) (2)	Mallee
88	DUB01101	13/11/1996	54	263450	6179928	60	8.4 km ESE of Dublin	Plain	plain (incl undulating plain)	sandy clay loam	D	Nitraria billardierei (4), Enchylaena tomentosa var. tomentosa (N)	Low Shrubland
88	DUB01201	13/11/1996	54	261179	6179946	32	6.6 km SSE of Dublin	Plain	plain (incl undulating plain)	sandy loam	A	Eucalyptus gracilis (2), Eucalyptus oleosa (NC) (2)	Very Open Mallee
88	DUB01301	13/11/1996	54	258670	6179437	32	5.7 km SSE of Dublin	Plain	plain (incl undulating plain)	sandy loam	A	Eucalyptus oleosa (NC) (3), Eucalyptus gracilis (2)	Low Mallee
88	DUB01401	12/11/1996	54	256153	6184979	33	0.5 km WNW of Dublin	Plain	plain (incl undulating plain)	clay loam, sandy	C	Eucalyptus gracilis (2), Eucalyptus socialis (NC) (1)	Open Mallee
88	DUB01501	12/11/1996	54	251125	6182979	69	3.4 km SSE of Webb Beach	Tidal flat	swamp	sandy loam	D	Atriplex paludosa ssp. cordata (2), Maireana oppositifolia (1)	Low Shrubland
88	DUB01601	12/11/1996	54	249415	6181568	58	3.7 km SSE of Webb Beach	Chenier plain	beach ridge	sand	G	Olearia axillaris (3), Olearia muelleri (2), Exocarpos aphyllus (2)	Low Open Shrubland
88	DUB01701	12/11/1996	54	249288	6183846	74	1.5 km SSE of Webb Beach	Tidal flat	open depression	clay loam	G	Sarcocornia quinqueflora (3), Halosarcia indica ssp. leiostachya (1)	Low Shrubland
88	GAW00101	12/11/1996	54	281516	6174596	52	6.6 km WNW of Ward Belt	Sand plain	sandy plain	sand	A	Eucalyptus incrassata (2)	Open Low Mallee
88	GAW00201	12/11/1996	54	278152	6178326	34	4.7 km SSE of Red Banks	Plain	plain (incl undulating plain)	loam	A	Eucalyptus socialis (NC) (1)	Very Open Mallee
88	GAW01101	14/11/1996	54	281110	6164261	41	5.5 km ENE of Virginia	Flood plain	closed depression	loam	A	Eucalyptus largiflorens (4)	Very Low Open Forest
88	GAW01401	14/11/1996	54	275116	6155367	69	2.8 km NNE of St Kilda	Plain	plain (incl undulating plain)	sandy loam	D	Halosarcia syncarpa (3), Atriplex paludosa ssp. cordata (2), Halosarcia indica ssp. bidens (2)	Low Shrubland
88	GAW01501	14/11/1996	54	275768	6152642	67	1.5 km ESE of St Kilda	Plain	closed depression	clayey sand	U	Halosarcia pergranulata ssp. pergranulata (4)	Low Closed Shrubland
88	GAW01601	14/11/1996	54	274466	6152615	76	0.2 km SE of St Kilda	Tidal flat	other	loam	U	Avicennia marina ssp. marina (5)	Low Closed Forest
88	GAW01701	15/11/1996	54	289322	6179856	34	3.1 km NNE of Roseworthy College	Plain	plain (incl undulating plain)	clay loam	A	Eucalyptus socialis (NC) (2), Eucalyptus dumosa (T)	Open Mallee
88	GAW01801	12/11/1996	54	286387	6170598	22	0.5 km WSW of Ward Belt	Plain	plain (incl undulating plain)	sandy clay loam	A	Eucalyptus dumosa (2), Callitris gracilis (2)	Open Low Mallee
88	HAM00201	15/11/1996	54	286174	6207045	17	0.7 km SSE of Kelly Hill	Low hills	hill slope	sandy loam	A	Eucalyptus odorata (3)	Low Woodland
88	HAM00301	15/11/1996	54	277830	6204521	24	2.4 km NNE of Stockyard Creek	Plain	plain (incl undulating plain)	sandy loam	A	Eucalyptus porosa (2)	Open Mallee
88	HAM00401	15/11/1996	54	274020	6205497	55	0.6 km NNE of Owen	Plain	plain (incl undulating plain)	sandy loam	A	Eucalyptus oleosa (NC) (3), Eucalyptus brachycalyx (2)	Mallee
88	HAM00501	15/11/1996	54	273382	6204284	55	0.9 km SSW of Owen	Plain	plain (incl undulating plain)	sandy loam	A	Alyxia buxifolia (4)	Shrubland
88	HAM00601	14/11/1996	54	291038	6197377	81	1.3 km SSW of Stockport	Low hills	stream channel	medium heavy clay	B	Melaleuca brevifolia (3)	Tall Shrubland
88	HAM00801	14/11/1996	54	281926	6199829	34	4.6 km ENE of Barabba	Plain	plain (incl undulating plain)	clay loam	A	Eucalyptus socialis (NC) (3)	Mallee

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88	HAM00901	14/11/1996	54	279463	6199561	4	2.8 km NNE of Barabba	Plain	plain (incl undulating plain)	sandy loam	A	Eucalyptus calycogona ssp. (3)	Mallee
88	HAM01001	14/11/1996	54	280280	6192504	22	4.9 km SSE of Barabba	Plain	plain (incl undulating plain)	clayey sand	A	Callitris gracilis (3), Eucalyptus socialis (NC) (2)	Low Open Forest
88	HAM01101	13/11/1996	54	275629	6189168	11	5.1 km ENE of Mallala	Rises	gully	clay loam	A	Maireana aphylla (3)	Low Shrubland
88	HAM01201	13/11/1996	54	271122	6188059	34	1.5 km N of Mallala	Plain	plain (incl undulating plain)	sandy loam	A	Eucalyptus socialis (NC) (2), Eucalyptus gracilis (2)	Mallee
88	HAM01301	13/11/1996	54	288525	6185135	34	2.1 km NNE of Wasleys	Plain	plain (incl undulating plain)	sandy loam	A	Callitris gracilis (2), Eucalyptus socialis (NC) (2)	Open Mallee
88	HAM01401	13/11/1996	54	276221	6180962	34	1.6 km S of Red Banks	Plain	plain (incl undulating plain)	silty loam	A	Eucalyptus socialis (NC) (2), Eucalyptus dumosa (T)	Mallee
88	KAP00101	12/11/1996	54	313388	6205888	17	5.3 km WSW of Hansborough	Low hills	hill slope	loam	A	Eucalyptus odorata (2)	Open Mallee
88	KAP00201	12/11/1996	54	305073	6204409	17	6.8 km SSE of Hamilton	Low hills	hill slope	loam	A	Eucalyptus odorata (2)	Open Mallee
88	KAP00301	11/11/1996	54	302035	6204740	20	6.8 km SSW of Hamilton	Low hills	hill slope	loam	A	Eucalyptus odorata (3), Eucalyptus leucoxylon ssp. pruinosa (2)	Open Forest
88	KAP00501	11/11/1996	54	294050	6206461	81	1.2 km NNW of Tarlee	Flood plain	stream channel	clay loam	D	Melaleuca brevifolia (3)	Very Low Woodland
88	KAP00601	11/11/1996	54	293094	6207469	79	2.6 km NNW of Tarlee	Flood plain	stream channel	clay loam	D	Juncus kraussii (5), Phragmites australis (2)	Closed Sedgeland
88	KAP00701	12/11/1996	54	308157	6201549	17	3.2 km SSW of Kapunda	Low hills	hill slope	loam	A	Eucalyptus odorata (3)	Open Mallee
88	KAP00801	12/11/1996	54	304064	6195900	17	4.9 km WSW of Kapunda	Low hills	hill slope	loam	A	Eucalyptus odorata (3), Eucalyptus leucoxylon ssp. pruinosa (2)	Low Open Forest
88	KAP00802	12/11/1996	54	304241	6195853	20	4.8 km WSW of Kapunda	Low hills	hill crest	loam	A	Eucalyptus leucoxylon ssp. pruinosa (2), Eucalyptus odorata (2)	Low Woodland
88	KAP00901	13/11/1996	54	296316	6196993	22	2.2 km ENE of Linwood	Plain	plain (incl undulating plain)	loam	A	Callitris gracilis (4)	Low Open Forest
88	KAP00902	13/11/1996	54	296574	6196694	32	2.3 km ENE of Linwood	Plain	plain (incl undulating plain)	loam	A	Eucalyptus oleosa (NC) (2), Eucalyptus phenax (NC) (2)	Mallee
88	KAP01001	14/11/1996	54	312768	6189559	17	5.4 km NNE of Greenock	Low hills	hill slope	clay loam	A	Eucalyptus odorata (4)	Woodland
88	KAP01002	14/11/1996	54	312824	6189362	22	5.2 km NNE of Greenock	Low hills	hill slope	sand	A	Callitris gracilis (4)	Low Open Forest
88	KAP01101	15/11/1996	54	311654	6191742	17	6.8 km NNE of Greenock	Low hills	hill slope	loam	A	Eucalyptus odorata (3)	Mallee
88	KAP01201	13/11/1996	54	300397	6194017	13	6.1 km ESE of Linwood	Low hills	hill slope	loam	A	Allocasuarina verticillata (2)	Low Woodland
88	KAP01202	13/11/1996	54	300420	6194213	80	6.0 km ESE of Linwood	Flood plain	stream channel	silty loam	A	Eucalyptus camaldulensis var. camaldulensis (3)	Woodland
88	KAP01301	13/11/1996	54	296607	6192917	52	3.4 km SSE of Linwood	Plain	hill footslope	sand	A	Eucalyptus incrassata (3)	Mallee
88	KAP01501	14/11/1996	54	313536	6186154	17	2.6 km NNW of Nuriootpa	Low hills	hill slope	sandy loam	A	Callitris gracilis (3)	Low Open Forest
88	KAP01701	15/11/1996	54	307448	6186649	15	2.6 km WNW of Greenock	Low hills	hill slope	loam	A	Allocasuarina verticillata (2), *Olea europaea ssp. europaea (2), Eucalyptus odorata (2)	Very Low Woodland
88	KAP01801	15/11/1996	54	302548	6184354	17	4.0 km ESE of Freeling	Plain	plain (incl undulating plain)	clay loam	B	Eucalyptus odorata (3)	Open Mallee
88	KAP01A04	11/11/1996	54	302112	6203898	20	7.5 km ESE of Tarlee	Low hills	hill footslope	loam	A	Eucalyptus leucoxylon ssp. pruinosa (3)	Woodland
88	VIN00101	12/11/1996	54	269551	6177676	83	8.2 km WSW of Red Banks	Plain	stream channel	clay loam	A	Eucalyptus camaldulensis var. camaldulensis (3)	Low Woodland
88	VIN00201	13/11/1996	54	260670	6178498	32	7.5 km SSE of Dublin	Plain	plain (incl undulating plain)	sandy loam	A	Eucalyptus phenax (NC) (2), Eucalyptus oleosa (NC) (2)	Open Mallee
88	VIN00202	13/11/1996	54	260767	6178586	67	7.4 km SSE of Dublin	Plain	closed depression	loam	A	Halosarcia pergranulata ssp. (2), Halosarcia indica ssp. leiostachya (2)	Low Open Shrubland
88	VIN00301	11/11/1996	54	255684	6176708	50	8.1 km SSW of Dublin	Sand plain	sandy plain	sand	F	Melaleuca lanceolata ssp. lanceolata (NC) (1), Exocarpos aphyllus (T)	Very Low Open Woodland
88	VIN00601	13/11/1996	54	262800	6167487	58	7.9 km NNW of Milner	Dunefield	dune/consolidated dune	sand	D	Olearia axillaris (2), Myoporum insulare (T), Alyxia buxifolia (T)	Tall Open Shrubland
88	VIN00801	14/11/1996	54	269645	6160693	83	1.7 km ESE of Milner	Alluvial plain	plain (incl undulating plain)	light medium clay	B	Eucalyptus camaldulensis var. camaldulensis (4)	Open Forest
88	VIN01001	11/11/1996	54	267552	6163198	67	1.6 km NNW of Milner	Plain	plain (incl undulating plain)	loamy sand	G	Halosarcia pergranulata ssp. (2)	Low Open Shrubland
88	VIN01C01	11/11/1996	54	252468	6178697	74	7.4 km SSW of Dublin	Beach ridge plain	open depression	loamy sand	G	Sclerostegia arbuscula (3)	Low Shrubland
96	APO00101	8/11/1997	54	309372	6238078	20	3.3 km NNE of Tothill Belt	Hills		sandy clay loam	C	Eucalyptus leucoxylon ssp. pruinosa (2)	Woodland
96	APO00201	8/11/1997	54	314922	6241428	1	3.9 km SSE of Emu Downs	Low hills	hill slope	clay loam, sandy	A	*Avena barbata (2), Lomandra multiflora ssp. dura (1), Austrostipa blackii (1)	(Tussock) Grassland
96	APO00301	8/11/1997	54	309722	6245178	17	1.4 km NNE of Parr Well	Low hills	hill slope	clay loam	B		Low Woodland
96	APO00401	9/11/1997	54	294872	6254928	1	1.1 km WNW of Farrell Flat	Plain	plain (incl undulating plain)	light clay	C	Austrodanthonia setacea (3), *Avena barbata (2), Calocephalus citreus (2)	(Tussock) Grassland

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96	APO00402	9/11/1997	54	294872	6254928	5	1.1 km WNW of Farrell Flat	Plain	plain (incl undulating plain)	light clay	C		Very Open (Tussock) Grassland
96	APO00501	9/11/1997	54	307822	6255978	1	8.3 km NNE of Emuville	Hills	hill slope	clay loam, sandy	B	*Avena barbata (2), *Echium plantagineum (2), Austrostipa blackii (2)	Open (Tussock) Grassland
96	APO00502	9/11/1997	54	307822	6255978	78	8.3 km NNE of Emuville	Hills	drainage depression	medium clay	B	Bolboschoenus caldwellii (3)	Closed Sedgeland
96	BAL00101	23/11/1997	54	267922	6222679	8	4.1 km WSW of Halbury	Low hills	plain (incl undulating plain)	sandy clay loam	A	Eucalyptus largiflorens (3)	Low Woodland
96	BLY00101	12/11/1997	54	268722	6251929	4	0.9 km ENE of Blyth	Low hills	hill slope	clay loam	A	Lomandra effusa (3), *Avena barbata (2), *Asphodelus fistulosus (2)	(Tussock) Grassland
96	CLA00101	15/11/1997	54	277022	6251079	16	2.8 km SSE of Armagh	Hills	hill slope	sandy loam	A	Callitris gracilis (2), Allocasuarina verticillata (2)	Low Open Forest
96	CRY00201	29/11/1997	54	241522	6305929	34	1.2 km ESE of Crystal Brook	Rises	hill slope	sandy clay loam	A	Eucalyptus socialis (NC) (2)	Open Mallee
96	DUB00101	11/11/1997	54	268322	6202228	4	2.4 km ENE of Pinery	Plain	plain (incl undulating plain)	loamy sand	A	Eucalyptus phenax (NC) (2)	Open Mallee
96	GLA00101	29/11/1997	54	253592	6312729	14	3.3 km SSW of Gladstone	Low hills	hill slope	clay loam	A	Pomaderris paniculosa ssp. paniculosa (2), Senna artemisioides ssp. X coriacea (2)	Open Shrubland
96	HAM00101	2/11/1997	54	292122	6198278	22	0.9 km ESE of Stockport	Rises	hill slope	clay loam, sandy	A	*Avena barbata (2), Dianella revoluta var. revoluta (1), Austrostipa blackii (1)	Closed (Tussock) Grassland
96	HLB00101	2/11/1997	54	288022	6231928	13	1.8 km ESE of Auburn	Rises	hill slope	loam	A	Allocasuarina verticillata (3), Eucalyptus odorata (2)	Low Open Forest
96	HLB00201	2/11/1997	54	290422	6224878	13	5.0 km WSW of Saddleworth	Rises	hill footslope	clayey sand	A	Eucalyptus odorata (3), Allocasuarina verticillata (2)	Low Open Forest
96	HLB00301	23/11/1997	54	270922	6225479	55	0.2 km SSE of Halbury	Plain	plain (incl undulating plain)	sandy loam	A	Eucalyptus socialis (NC) (2), Callitris gracilis (1)	Open Mallee
96	JAM00101	30/11/1997	54	279522	6337129	1	3.8 km WSW of Mannanarie Siding	Low hills	hill slope	sandy clay loam	A	Themeda triandra (2)	(Tussock) Grassland
96	KAP00101	2/11/1997	54	300122	6185678	22	1.5 km ENE of Freeling	Rises	hill slope	clay loam	B	Callitris gracilis (2)	Very Low Woodland
96	KOO00101	16/11/1997	54	263472	6281379	9	1.1 km SSE of Yacka	Plain	plain (incl undulating plain)	light medium clay	A	Eucalyptus cladocalyx (2)	Open Woodland
96	LAU00101	29/11/1997	54	261422	6328379	9	4.7 km WNW of Caltowie	Low hills	hill slope	clay loam	A	Austrostipa eremophila (2), *Avena barbata (2)	(Tussock) Grassland
96	LAU00201	29/11/1997	54	264122	6326579	14	1.4 km WNW of Caltowie	Low hills	plain (incl undulating plain)	clay loam	A	Pomaderris paniculosa ssp. paniculosa (3)	Shrubland
96	LOC00101	22/11/1997	54	237272	6239249	25	2.5 km SSW of Lochiel	Low hills	plain (incl undulating plain)	sandy clay loam	D	Acacia hakeoides (2), Senna artemisioides ssp. X coriacea (1), Senna artemisioides ssp. filifolia (1)	Tall Open Shrubland
96	PEK00101	30/11/1997	54	269042	6351419	14	0.7 km ESE of Tarcowie	Plain	plain (incl undulating plain)	clay loam	B	Senna artemisioides ssp. X coriacea (2), Bursaria spinosa ssp. spinosa (1), Grevillea ilicifolia var. ilicifolia (NC) (T)	Open Shrubland
96	TER00101	30/11/1997	54	303622	6320379	22	1.2 km SSE of Whyte-yarcowie	Low hills	plain (incl undulating plain)	sandy clay loam	A	Atriplex stipitata (2)	Low Open Shrubland
96	WAK00101	22/11/1997	54	241422	6224829	34	0.5 km SW of Beaufort	Plain	plain (incl undulating plain)	clay loam	A	Rhagodia parabolica (2), Enchylaena tomentosa var. tomentosa (1)	Low Open Shrubland
96	WAK00201	22/11/1997	54	235522	6230629	25	8.2 km WNW of Beaufort	Hills	hill slope	sandy clay loam	A		Open Shrubland
116	BUR00101	14/11/1999	54	310172	6285919	1	5.7 km ENE of Mount Bryan	Hills	hill footslope	clay loam	B	*Avena barbata (4), Lomandra multiflora ssp. dura (1)	Open (Tussock) Grassland
116	BUR00102	14/11/1999	54	310152	6285799	1	5.7 km ENE of Mount Bryan	Hills	hill footslope	sandy clay loam	B	Lomandra multiflora ssp. dura (2), *Avena barbata (1)	Open (Tussock) Grassland
116	BUR00201	14/11/1999	54	310322	6285899	1	5.9 km ENE of Mount Bryan	Hills	stream channel	sandy clay loam	B	Austrodanthonia caespitosa (2), Austrodanthonia auriculata (2)	(Tussock) Grassland
116	BUR00301	14/11/1999	54	310562	6286319	1	6.2 km ENE of Mount Bryan	Hills	hill slope	sandy clay loam	B	Lomandra multiflora ssp. dura (2), Austrostipa blackii (1), Austrostipa setacea (1)	Open (Tussock) Grassland
116	BUR00401	14/11/1999	54	309292	6285949	1	4.9 km ENE of Mount Bryan	Hills	plain (incl undulating plain)	clay loam	B	Aristida behriana (2), Lomandra multiflora ssp. dura (1)	Open (Tussock) Grassland
116	BUR00501	15/11/1999	54	309262	6285559	2	4.8 km ESE of Mount Bryan	Hills	hill footslope	clay loam	B	Themeda triandra (4), Lomandra effusa (1), Austrostipa blackii (1)	Closed (Tussock) Grassland
116	BUR00601	15/11/1999	54	309732	6285599	6	5.3 km ESE of Mount Bryan	Hills	ridge	sandy clay loam	A	Lomandra multiflora ssp. dura (1), Austrostipa eremophila (1)	Open (Tussock) Grassland
116	BUR00701	15/11/1999	54	311012	6283948	8	2.9 km NNE of Mount Cone	Hills	stream channel	clay loam	A	Juncus subsecundus (3), *Echium plantagineum (2), *Lolium rigidum (2)	Open (Tussock) Grassland
116	BUR00801	15/11/1999	54	310892	6284098	1	3.0 km NNE of Mount Cone	Hills	ridge	sandy clay loam	A	Danthonia carphoides var. (NC) (3), Eryngium rostratum (2), Dodonaea procumbens (1)	(Tussock) Grassland
116	BUR00901	16/11/1999	54	309452	6284319	1	3.0 km NNW of Mount Cone	Hills	hill footslope	clay loam	A	Lomandra multiflora ssp. dura (1), Cryptandra sp. Long hypanthium (C.R. Alcock 10626) (1), Austrostipa setacea (1)	Open (Tussock) Grassland
116	BUR01001	15/11/1999	54	309652	6284108	6	2.8 km NNE of Mount Cone	Hills	hill slope	clay loam	A	*Avena barbata (4), Lomandra multiflora ssp. dura (1), Austrostipa blackii (T)	Closed (Tussock) Grassland

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116	BUR01101	16/11/1999	54	309302	6284109	1	2.8 km NNW of Mount Cone	Hills	hill footslope	sandy clay loam	A	Lomandra multiflora ssp. dura (1), Austrostipa blackii (1), Austrostipa setacea (1)	Open (Tussock) Grassland
148	COR00101	22/05/2002	53	681084	6125671	67	12.0 km WSW of Corny Point	Plain	playa/pan	heavy clay	G	Halosarcia pergranulata ssp. (3)	Low Shrubland
148	COR00102	22/05/2002	53	680631	6125171	73	12.7 km WSW of Corny Point	Plain	playa/pan	clay loam, sandy	F	Melaleuca halmaturorum (4), Exocarpos aphyllus (2)	Tall Closed Shrubland
148	COR00103	22/05/2002	53	680607	6125999	42	12.2 km WSW of Corny Point	Dunefield	dune slope	sand	A	Acacia sp. Winged (C.R.Alcock 4936) (2), Eucalyptus diversifolia (NC) (2), Callitris canescens (2)	Open Mallee
148	COR00104	23/05/2002	53	681616	6126860	42	10.9 km WSW of Corny Point	Rises	hill slope	clayey sand	D	Callitris canescens (2), Melaleuca acuminata ssp. acuminata (2), Eucalyptus oleosa (NC) (T)	Shrubland
148	COR00105	24/05/2002	53	681508	6125687	42	11.7 km WSW of Corny Point	Plain	plain (incl undulating plain)	loamy sand	F	Melaleuca halmaturorum (1)	Tall Very Open Shrubland
148	COR00106	24/05/2002	53	682075	6126450	42	10.8 km WSW of Corny Point	Rises	hill footslope	sand	D	Eucalyptus conglobata x phenax (NC) (2), Eucalyptus oleosa (NC) (2)	Open Low Mallee
162	058BUR11	29/10/2003	54	313223	6278592		4.5 km ESE of Mount Cone	Hills	hill slope	loam	A	Austrostipa pilata (1), Austrostipa eremophila (T)	Very Open (Tussock) Grassland
162	ALT01101	19/10/2004	53	669127	6093828	42	3.3 km WSW of Inneston	Consolidated dunefield	dune slope	loamy sand	A	Lasiopetalum discolor (3), Calytrix tetragona (2), Acrotriche cordata (2)	Low Shrubland
162	ALT01201	19/10/2004	53	671990	6096209	49	1.2 km NNW of Inneston	Consolidated dunefield	dune slope	loamy sand	A	Eucalyptus oleosa ssp. (2), Eucalyptus rugosa (2), Eucalyptus gracilis (2)	Mallee
162	APO02301	30/10/2003	54	302644	6255629	74	6.7 km ENE of Farrell Flat	Plain	playa/pan	medium heavy clay	G	Halosarcia pergranulata ssp. pergranulata (3)	Low Shrubland
162	APO02401	30/10/2003	54	306386	6258727	3	7.7 km ESE of Hanson	Low hills	hill slope	light medium clay	A	Lomandra multiflora ssp. dura (2), Lomandra effusa (2)	(Tussock) Grassland
162	APO02501	30/10/2003	54	310625	6245964	12	2.4 km NNE of Parr Well	Hills	hill slope	clay loam	A	Triodia bunicola (3), Cryptandra sp. Long hypanthium (C.R. Alcock 10626) (2), Lomandra multiflora ssp. dura (2)	Hummock Grassland
162	APO02601	31/10/2003	54	310639	6243226	13	0.7 km ESE of Apoinga	Hills	hill slope	sandy loam	A	Allocasuarina verticillata (3)	Low Woodland
162	APO02701	31/10/2003	54	310882	6243406	17	1.0 km ENE of Apoinga	Hills	hill slope	light medium clay	A	Eucalyptus odorata (3)	Mallee
162	APO02801	24/10/2003	54	311548	6237809	15	3.9 km NNE of Tothill Belt	Hills	ridge	sandy loam	A	Allocasuarina verticillata (2)	Low Woodland
162	APO02901	24/10/2003	54	312048	6238133	15	4.4 km NNE of Tothill Belt	Hills	hill slope	sandy clay loam	A	Eucalyptus odorata (2)	Low Woodland
162	APO03001	24/10/2003	54	312280	6237640	15	4.2 km ENE of Tothill Belt	Hills	hill slope	loam	A	Eucalyptus odorata (2)	Woodland
162	BLY01501	8/09/2004	54	248644	6247181		9.3 km NNW of Everard Central	Plain	closed depression	silty loam	G	Halosarcia sp. (3)	Low Shrubland
162	BLY01601	9/09/2004	54	250253	6247751	68	9.6 km NNW of Everard Central	Plain	open depression	silty clay loam	G	Halosarcia indica ssp. leiostachya (3), Lawrencia squamata (2), Maireana oppositifolia (2)	Low Shrubland
162	BLY01701	9/09/2004	54	251363	6246045	69	7.8 km NNE of Everard Central	Plain	open depression	sandy clay loam	D	Halosarcia indica ssp. leiostachya (2), Halosarcia sp. (2), Atriplex paludosa ssp. cordata (2)	Low Shrubland
162	BOO01301	3/11/2004	54	266080	6352361	12	0.5 km ESE of Mount Swan	Low hills	ridge	sandy loam	A	Allocasuarina verticillata (3)	Low Woodland
162	BUN01001	6/11/2004	54	272979	6310250	20	1.3 km ENE of Bundaleer Gardens	Low hills	hill slope	sandy loam	A	Eucalyptus leucoxylon ssp. pruinosa (3)	Open Forest
162	BUN01101	5/11/2004	54	272826	6308104	17	1.7 km SSE of Bundaleer Gardens	Low hills	hill slope	sandy loam	A	Eucalyptus odorata (3), Eucalyptus leucoxylon ssp. pruinosa (2)	Low Open Forest
162	BUN01201	5/11/2004	54	270713	6300105	15	5.9 km WSW of Washpool	Hills	hill slope	clay loam, sandy	A	Allocasuarina verticillata (2)	Very Low Woodland
162	BUN01301	5/11/2004	54	270784	6298866	13	6.8 km SW of Washpool	Hills	hill crest	sandy clay loam	A	Allocasuarina verticillata (3)	Very Low Woodland
162	BUN01401	5/11/2004	54	278395	6292604	77	1.8 km NNE of Spalding	Flood plain	stream channel	heavy clay	B	Phragmites australis (3), Typha domingensis (3)	Closed Sedgeland
162	CAR02301	30/10/2003	54	324087	6302163	24	7.7 km ESE of Mount Bryan East	Hills	gully	sandy clay loam	A	Eucalyptus porosa (2)	Open Mallee
162	CAR02401	30/10/2003	54	324252	6301489	12	7.8 km ESE of Mount Bryan East	Hills	hill slope	sandy loam	A	Eucalyptus socialis (NC) (1)	Very Open Mallee
162	CAR02501	30/10/2003	54	327525	6298885	30	3.9 km NNW of Caroona	Alluvial plain	plain (incl undulating plain)	loam	A	Myoporum platycarpum ssp. platycarpum (1), Alectryon oleifolius ssp. canescens (1)	Low Open Woodland
162	CAR02601	2/11/2004	54	315269	6313617	32	9.0 km NNE of Peppermint Gully	Low hills	hill slope	loam	A	Eucalyptus oleosa (NC) (3), Eucalyptus gracilis (3)	Mallee
162	CAR02701	2/11/2004	54	318771	6309282	24	7.3 km ENE of Peppermint Gully	Low hills	drainage depression	sandy clay loam	A	Eucalyptus porosa (3)	Open Mallee
162	CAR02801	3/11/2004	54	322339	6301771	24	5.9 km ESE of Mount Bryan East	Hills	gorge	silty loam	A	Eucalyptus porosa (2), Eucalyptus leucoxylon ssp. pruinosa (T)	Low Open Woodland
162	CAR02901	3/11/2004	54	319117	6301577	20	2.7 km ESE of Mount Bryan East	Low hills	hill footslope	loam	A	Eucalyptus leucoxylon ssp. pruinosa (2), Eucalyptus porosa (2), Callitris glaucophylla (T)	Low Woodland

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162	CAR03001	3/11/2004	54	321401	6297974	37	6.3 km ESE of Mount Bryan East	Hills	hill crest	loam	A	Dodonaea viscosa ssp. angustissima (2), Rhagodia spinescens (2), Olearia decurrens (2)	Low Shrubland
162	CLA02101	25/10/2003	54	273106	6255299	43	2.7 km ESE of Benbourni	Hills	hill slope	clay loam	A	Melaleuca lanceolata (3), Eucalyptus socialis (NC) (2)	Tall Open Shrubland
162	CLA02201	25/10/2003	54	273256	6253382	44	3.5 km WSW of Armagh	Hills	hill slope	clay loam	A	Gahnia lanigera (4)	Sedgeland
162	CLA02301	25/10/2003	54	274824	6250389	20	3.9 km SSW of Armagh	Hills	hill slope	sandy clay loam	A	Eucalyptus leucoxylon ssp. pruinosa (2)	Open Woodland
162	CLA02401	26/10/2003	54	278579	6252011	17	1.8 km SSW of Clare	Hills	hill slope	sandy clay loam	A	Eucalyptus odorata (2)	Open Mallee
162	CLA02501	24/10/2003	54	278600	6244614	16	2.8 km SSW of Sevenhill	Hills	hill slope	clay loam, sandy	A	Eucalyptus macrorhyncha ssp. macrorhyncha (2)	Low Woodland
162	CLA02601	24/10/2003	54	278802	6244163	16	1.7 km NNW of Mount Oakden	Hills	gully	clay loam	A	Eucalyptus macrorhyncha ssp. macrorhyncha (3)	Open Forest
162	CLA02701	26/10/2003	54	280712	6248784	20	1.4 km ESE of Gillentown	Hills	hill slope	silty clay loam	A	Eucalyptus leucoxylon ssp. pruinosa (2)	Woodland
162	CLA02801	26/10/2003	54	287529	6247704	20	3.6 km NNW of Mintaro	Hills	hill slope	clay loam	A	Eucalyptus leucoxylon ssp. pruinosa (2)	Low Woodland
162	CLA02901	23/10/2003	54	291891	6244273	80	2.4 km ESE of Mintaro	Low hills	stream channel	medium heavy clay	A	Eucalyptus camaldulensis var. camaldulensis (3)	Woodland
162	CLA0801	24/10/2003	54	290659	6253554	79	5.4 km WSW of Farrell Flat	Low hills	swamp	heavy clay	C	Juncus kraussii (4), Poa crassicaudex (3), *Phalaris aquatica (2)	Closed Sedgeland
162	COO01101	15/10/2004	53	722160	6119727	73	6.4 km SSE of Warooka	Plain	swamp	silty clay loam	F	Melaleuca halmaturorum (4)	Low Open Forest
162	COO01201	15/10/2004	53	726306	6112974	54	3.8 km WNW of Port Moorowie	Consolidated dunefield	dune/consolidated dune	sand	A	Olearia axillaris (3), Acacia sp. Winged (C.R.Alcock 4936) (2), Acacia nematophylla (2)	Tall Open Shrubland
162	COO01301	15/10/2004	53	727006	6113093	43	3.2 km WNW of Port Moorowie	Consolidated dunefield	swale	sandy loam	A	Acacia nematophylla (2), Alyxia buxifolia (2), Leucopogon parviflorus (2)	Open Shrubland
162	COO01401	17/10/2004	53	713036	6107643	54	17.2 km WSW of Port Moorowie	Consolidated dunefield	dune/consolidated dune	sand	G	Alyxia buxifolia (3)	Low Shrubland
162	COO01501	18/10/2004	53	712948	6107170	73	17.4 km WSW of Port Moorowie	Sand plain	sandy plain	sand	G	Melaleuca halmaturorum (4)	Tall Closed Shrubland
162	COR01301	20/10/2004	53	680558	6125172	73	12.7 km WSW of Corny Point	Plain	swamp	silty clay loam	F	Melaleuca halmaturorum (4)	Tall Shrubland
162	COR01401	20/10/2004	53	682174	6126458	42	10.7 km WSW of Corny Point	Consolidated dunefield	swale	loamy sand	B	Eucalyptus diversifolia ssp. diversifolia (T), Eucalyptus phenax ssp. phenax (T), Eucalyptus oleosa ssp. (T)	Very Open Mallee
162	CRY01201	9/09/2004	54	222106	6308625	82	2.8 km ENE of Lower Broughton	Flood plain	flood out	medium clay	D	Muehlenbeckia florulenta (3), *Lycium ferocissimum (2), Chenopodium nitrariaceum (2)	Shrubland
162	CRY01301	9/09/2004	54	222593	6308847	82	3.3 km ENE of Lower Broughton	Flood plain	flood out	heavy clay	D	Muehlenbeckia florulenta (3)	Open Shrubland
162	CRY01401	10/09/2004	54	228416	6290200	34	11.2 km NNW of Mundoora	Dunefield	sandy plain	clayey sand	B	Eucalyptus socialis (NC) (2), Eucalyptus brachycalyx (2), Eucalyptus gracilis (T)	Open Mallee
162	CUR01401	15/10/2004	53	732128	6171304	33	9.4 km SSE of Port Victoria	Plain	limestone plain	light clay	D	Eucalyptus gracilis (2), Eucalyptus porosa (2)	Open Mallee
162	CUR01501	15/10/2004	53	729921	6164066	57	4.0 km NNE of Port Rickaby	Dunefield	swale	sandy clay loam	A	Acacia ligulata (2)	Low Open Shrubland
162	CUR01601	15/10/2004	53	728471	6159046	45	1.3 km SSW of Port Rickaby	Dunefield	sandy plain	loamy sand	A	Triodia compacta (2), Lepidosperma congestum (NC) (2), Gahnia lanigera (2)	Sedgeland
162	GLA01401	1/11/2004	54	250397	6309089	81	3.1 km ENE of Huddleston	Flood plain	flood out	medium heavy clay	A	Phragmites australis (4)	(Tussock) Grassland
162	GLA01501	1/11/2004	54	252074	6309285	1	4.8 km ENE of Huddleston	Hills	ridge	clay loam, sandy	A	Xanthorrhoea quadrangulata (3)	Low Open Shrubland
162	GLA01601	2/11/2004	54	248126	6305769	12	3.0 km SSE of Huddleston	Hills	hill slope	sandy clay loam	A	Allocasuarina verticillata (N), Eucalyptus odorata (N)	Low Open Woodland
162	GLA01701	2/11/2004	54	247529	6302695	80	4.4 km NNW of Narridy	Flood plain	flood out	medium clay	A	Eucalyptus camaldulensis var. camaldulensis (2)	Woodland
162	HAL02301	1/11/2004	54	301680	6308745	1	1.9 km WSW of Ulooloo	Low hills	hill slope	silty clay loam	A	Cryptandra sp. Long hypanthium (C.R. Alcock 10626) (3)	Low Shrubland
162	HAL02401	1/11/2004	54	301325	6307451	11	2.9 km WSW of Ulooloo	Low hills	hill slope	clay loam	A	Maireana aphylla (3)	Low Open Shrubland
162	HAL02501	2/11/2004	54	310951	6309498	7	4.9 km NNW of Peppermint Gully	Low hills	hill slope	sandy clay loam	A	Senna artemisioides ssp. X coriacea (3)	Shrubland
162	HAL02601	4/11/2004	54	312200	6302160	17	2.9 km SSW of Peppermint Gully	Low hills	hill footslope	medium heavy clay	A	Eucalyptus odorata (2), Eucalyptus leucoxylon ssp. pruinosa (2)	Low Woodland
162	HAL02701	4/11/2004	54	313138	6305370	17	0.5 km NNE of Peppermint Gully	Low hills	hill footslope	light medium clay	A	Eucalyptus odorata (3), Eucalyptus leucoxylon ssp. pruinosa (T)	Woodland
162	HB00303	30/10/2003	54	325506	6297779	34	3.9 km NNW of Caroona	Rises	hill footslope	loam	A	Eucalyptus socialis (NC) (2)	Open Mallee
162	HIL01801	20/10/2004	53	683100	6118250	42	16.7 km SSW of Corny Point	Consolidated dunefield	dune slope	loamy sand	D	Eucalyptus diversifolia ssp. diversifolia (2), Eucalyptus oleosa ssp. (2), Eucalyptus porosa (2)	Open Mallee
162	HIL02001	18/10/2004	53	687434	6107389	42	11.1 km NNE of Marion Bay	Plain	limestone plain	loamy sand	B	Eucalyptus diversifolia ssp. diversifolia (2)	Very Open Mallee
162	HIL02101	18/10/2004	53	687888	6107323	42	11.3 km NNE of Marion Bay	Sand plain	limestone plain	sand	B	Eucalyptus diversifolia ssp. diversifolia (2)	Open Mallee

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162	HIL02201	19/10/2004	53	690141	6106970	42	12.7 km ENE of Marion Bay	Sand plain	sandy plain	sand	A	Eucalyptus diversifolia ssp. diversifolia (3), Eucalyptus oleosa (NC) (2)	Mallee
162	HIL02301	19/10/2004	53	691608	6106815	42	7.9 km WSW of Coonarie Hill	Plain	limestone plain	loamy sand	A	Eucalyptus diversifolia ssp. diversifolia (2), Eucalyptus rugosa (2)	Open Mallee
162	HIL02401	19/10/2004	53	693213	6105537	42	6.8 km NNW of Phillips Hill	Consolidated dunefield	sandy plain	sand	A	Eucalyptus diversifolia ssp. diversifolia (3), Eucalyptus oleosa (NC) (T)	Low Mallee
162	HIL02501	19/10/2004	53	698961	6104571	42	6.0 km NNE of Phillips Hill	Consolidated dunefield	dune/consolidated dune	sand	B	Eucalyptus diversifolia ssp. diversifolia (3)	Low Mallee
162	HIL02601	20/10/2004	53	698471	6103675	42	5.0 km NNE of Phillips Hill	Consolidated dunefield	sandy plain	loamy sand	D	Eucalyptus porosa (1)	Very Open Low Mallee
162	HIL02701	20/10/2004	53	699669	6104217	42	6.1 km NNE of Phillips Hill	Consolidated dunefield	rock outcrop - on plain	sandy loam	D	Eucalyptus diversifolia ssp. diversifolia (2)	Very Open Mallee
162	JAM01101	2/11/2004	54	273129	6345712	12	7.6 km SSE of Tarcowie	Low hills	hill slope	light clay	A	Triodia bunicola (3), *Avena barbata (3), Lomandra multiflora ssp. dura (2)	Hummock Grassland
162	JAM01201	2/11/2004	54	275523	6345049	12	9.7 km SSE of Tarcowie	Low hills	hill slope	sandy clay loam	A	Eucalyptus leucoxylon ssp. pruinosa (3)	Low Woodland
162	JAM01301	3/11/2004	54	274528	6333999	12	2.1 km SSE of Mount Lock	Low hills	hill slope	medium heavy clay	A	Allocasuarina verticillata (2)	Low Woodland
162	JAM01401	4/11/2004	54	279170	6337420	1	4.0 km WSW of Mannanarie Siding	Low hills	hill slope	medium clay	A	Allocasuarina verticillata (2)	Low Woodland
162	KOO01201	3/11/2004	54	266328	6290376	1	5.7 km SSE of Gulnare	Hills	hill slope	medium heavy clay	A	Triodia bunicola (3)	Hummock Grassland
162	KOO01301	3/11/2004	54	258030	6284320	12	5.2 km WNW of Yacka	Low hills	hill slope	sandy clay loam	A	Allocasuarina verticillata (2)	Very Low Open Woodland
162	KOO01401	3/11/2004	54	258100	6279600	80	5.5 km WSW of Yacka	Flood plain	flood out	medium clay	B	Eucalyptus camaldulensis var. camaldulensis (3)	Low Open Forest
162	KOO01501	2/11/2004	54	248927	6276745	32	5.2 km WSW of Koolunga	Plain	clay plain	light clay	F	Atriplex stipitata (3), Nitraria billardierei (T)	Very Open Shrubland
162	LAU01201	3/11/2004	54	264440	6345521	77	4.2 km ESE of Waite Estate	Low hills	stream channel	clay loam, sandy	B	Eucalyptus camaldulensis var. camaldulensis (3)	Open Forest
162	LOC01901	9/09/2004	54	231724	6234602	32	9.0 km NNE of Kulpara	Low hills	rock outcrop - on hill	sandy clay loam	A	Eucalyptus oleosa (NC) (2), Eucalyptus calycogona var. calycogona (NC) (2), Eucalyptus gracilis (T)	Mallee
162	MAI01801	14/10/2004	53	729536	6191799	47	1.8 km SSE of Chinaman Wells	Plain	limestone plain	sandy clay loam	D	Allocasuarina verticillata (2), Eucalyptus porosa (2)	Low Woodland
162	MIN01101	13/10/2004	53	742595	6136812	51	9.1 km ENE of Roger Corner	Plain	limestone plain	clayey sand	B	Eucalyptus incrassata (2)	Open Mallee
162	MIN01201	13/10/2004	53	737317	6130287	48	5.1 km SSE of Roger Corner	Plain	limestone plain	sandy loam	C	Allocasuarina verticillata (2), Melaleuca lanceolata (2)	Low Open Forest
162	MIN01301	16/10/2004	53	736458	6123969	73	2.6 km NNW of Yorketown	Plain	swamp	clay loam	F	Melaleuca halmaturorum (4)	Very Low Open Forest
162	MON01701	31/10/2003	54	318210	6290016	24	7.6 km NNW of Tracy	Hills	hill slope	loamy sand	A	Eucalyptus porosa (2)	Open Mallee
162	MON01801	31/10/2003	54	314486	6287547	3	8.5 km WNW of Mongalata	Low hills	hill slope	loam	A	Lomandra multiflora ssp. dura (2)	Very Open (Tussock) Grassland
162	MON01901	31/10/2003	54	316518	6283550	3	5.0 km WNW of Mongalata	Hills	hill slope	loam	A	Lomandra multiflora ssp. dura (1)	Open (Tussock) Grassland
162	MON02001	29/10/2003	54	324387	6272797	32	1.2 km SE of Red Banks	Alluvial plain	plain (incl undulating plain)	loam	A	Eucalyptus oleosa (NC) (2)	Open Mallee
162	MON02101	29/10/2003	54	318198	6271311	7	1.9 km SSW of Douglas	Alluvial plain	plain (incl undulating plain)	sandy clay loam	A	Lomandra effusa (2), Maireana turbinata (1)	Open (Tussock) Grassland
162	MUN01201	10/09/2004	54	228476	6288491	34	9.5 km NNW of Mundoora	Dunefield	dune crest	loamy sand	A	Eucalyptus socialis (NC) (2), Eucalyptus brachycalyx (2)	Open Mallee
162	MUN01301	10/09/2004	54	228144	6287872	34	8.9 km NNW of Mundoora	Dunefield	swale	sandy loam	B	Eucalyptus socialis (NC) (3), Eucalyptus gracilis (2)	Mallee
162	PEK01701	2/11/2004	54	267709	6350666	22	1.1 km SSW of Tarcowie	Low hills	hill slope	clay loam, sandy	A	Callitris gracilis (3)	Low Woodland
162	PEK01801	1/11/2004	54	277902	6356344	24	4.7 km WNW of Yatina	Low hills	hill slope	sandy clay loam	A	Eucalyptus porosa (3)	Mallee
162	PEK01901	1/11/2004	54	279070	6356882	12	4.1 km NNW of Yatina	Low hills	hill slope	clay loam, sandy	A	Acacia wattsiana (2)	Open Shrubland
162	PEK02001	1/11/2004	54	277959	6355268	12	4.2 km WNW of Yatina	Hills	hill footslope	sandy clay loam	A	Eucalyptus leucoxylon ssp. pruinosa (3)	Woodland
162	PON01301	18/10/2004	53	682171	6120417	42	15.3 km SSW of Corny Point	Consolidated dunefield	dune slope	loamy sand	D	Eucalyptus diversifolia ssp. diversifolia (2), Eucalyptus socialis (NC) (2)	Open Mallee
162	PON01401	18/10/2004	53	682055	6120066	42	15.6 km SSW of Corny Point	Low hills	hill slope	sandy loam	C	Melaleuca lanceolata (2)	Low Woodland
162	PON01501	21/10/2004	53	670409	6103724	50	5.5 km NNE of Pondalowie Bay	Consolidated dunefield	swale	sand	A	Melaleuca lanceolata (3), Exocarpos aphyllus (2)	Tall Shrubland
162	PON01601	21/10/2004	53	668876	6099059	73	1.7 km ESE of Pondalowie Bay	Plain	swamp	silty clay loam	D	Melaleuca halmaturorum (4)	Very Low Open Forest

SU	SiteID	Date	Zone	Easting	Northing	Veg Grp	Location	Landform	Landform Element	Surface Soil	Salt Class	Vegetation Overstorey	Vegetation Structure
162	PON01701	19/10/2004	53	673005	6098415	42	3.5 km NNE of Inneston	Consolidated dunefield	swale	loamy sand	E	Eucalyptus diversifolia ssp. diversifolia (2), Eucalyptus oleosa ssp. (2), Eucalyptus phenax ssp. phenax (2)	Open Mallee
162	POR01101	14/10/2004	53	755984	6167753	47	8.9 km WSW of Pine Point	Plain	limestone plain	sandy clay loam	A	Eucalyptus leptophylla (2), Eucalyptus socialis (NC) (1)	Open Mallee
162	POR01201	14/10/2004	53	758414	6166420	47	7.5 km WSW of Pine Point	Plain	limestone plain	sandy clay loam	A	Eucalyptus porosa (2), Eucalyptus leptophylla (2)	Open Mallee
162	RIV01901	25/10/2003	54	298801	6229146	79	4.5 km ENE of Saddleworth	Flood plain	flood out	clay loam	C	Juncus kraussii (3)	Sedgeland
162	RIV02001	25/10/2003	54	304665	6221871	79	1.5 km ESE of Springfield	Flood plain	flood out	silty clay loam	C	Juncus kraussii (4)	Sedgeland
162	RIV02101	26/10/2003	54	300662	6211162	17	3.8 km WNW of Hamilton	Low hills	hill slope	sandy loam	A	Eucalyptus leucoxylon ssp. pruinosa (2), Eucalyptus odorata (2)	Woodland
162	RIV02201	25/10/2003	54	311852	6235560	15	2.8 km ENE of Tothill Belt	Hills	hill slope	clay loam	A	Eucalyptus odorata (2)	Woodland
162	RIV0503	25/10/2003	54	312234	6233536	15	3.3 km ESE of Tothill Belt	Hills	hill slope	loamy sand	A	Eucalyptus goniocalyx (NC) (2), Allocasuarina verticillata (1)	Woodland
162	RIV0701	26/10/2003	54	300529	6216291	17	0.5 km NNE of Peters Hill	Low hills	hill footslope	sandy clay loam	A	Eucalyptus odorata (2)	Open Mallee
162	RIV0802	26/10/2003	54	312321	6220299	17	1.1 km ENE of Tarnma	Low hills	ridge	sandy clay loam	A	Eucalyptus odorata (2)	Low Woodland
162	SPA01201	5/11/2004	54	275733	6289869	43	2.3 km WSW of Spalding	Low hills	hill slope	sandy clay loam	A	Eucalyptus socialis (NC) (3)	Open Mallee
162	SPA01301	5/11/2004	54	269671	6286348	77	7.9 km ENE of Yacka	Hills	channel bench	clay loam	A	Acacia salicina (2)	Low Woodland
162	SPA01401	4/11/2004	54	270030	6286900	50	8.5 km ENE of Yacka	Low hills	hill crest	clay loam	A	Melaleuca lanceolata (3)	Tall Shrubland
162	SPA01501	4/11/2004	54	271053	6286576	12	8.0 km WSW of Spalding	Hills	hill crest	clay loam	A	Triodia bunicola (3), *Avena barbata (2)	Hummock Grassland
162	SPA01601	4/11/2004	54	269540	6283320	12	6.7 km ENE of Yacka	Low hills	hill slope	sandy loam	A	Allocasuarina verticillata (4)	Low Woodland
162	SPA01701	4/11/2004	54	269791	6282203	17	4.2 km WNW of Mount Gregory	Low hills	hill slope	sandy loam	A	Eucalyptus odorata (3)	Low Woodland
162	SPA01801	4/11/2004	54	284399	6281865	81	4.6 km ENE of Andrews	Flood plain	flood out	heavy clay	B	Phragmites australis (4)	Closed (Tussock) Grassland
162	TUR01301	14/10/2004	53	712399	6128331	24	7.4 km WNW of Warooka	Plain	swamp	light medium clay	F	Melaleuca lanceolata (4), Eucalyptus porosa (2)	Low Closed Forest
162	TUR01401	14/10/2004	53	722975	6131864	46	4.2 km SSW of Hardwicke Bay	Consolidated dunefield	swale	loamy sand	F	Lomandra effusa (3), Gahnia lanigera (2), Lepidosperma congestum (NC) (2)	(Tussock) Grassland
162	TUR01501	14/10/2004	53	723091	6131592	56	4.4 km SSW of Hardwicke Bay	Consolidated dunefield	dune crest	loamy sand	A	Allocasuarina verticillata (2)	Low Woodland
162	TUR01601	14/10/2004	53	723813	6126976	67	5.0 km ENE of Warooka	Plain	swamp	silty clay loam	G	Halosarcia indica ssp. leiostachya (3)	Low Shrubland
162	WAK01301	8/09/2004	54	230810	6232558	32	6.8 km NNE of Kulpara	Low hills	hill slope	clay loam	A	Eucalyptus calycogona var. calycogona (NC) (2), Eucalyptus oleosa (NC) (2)	Mallee
162	WAK01401	8/09/2004	54	230697	6232018	13	6.3 km NE of Kulpara	Low hills	hill slope	clay loam	A	Allocasuarina verticillata (3)	Low Open Forest
162	WAK01501	10/09/2004	54	230002	6230825	33	5.0 km ENE of Kulpara	Low hills	hill slope	sandy loam	A	Eucalyptus oleosa (NC) (2), Eucalyptus gracilis (2), Eucalyptus brachycalyx (2)	Mallee
162	WAK01601	9/09/2004	54	230419	6219408	69	3.9 km SSW of South Hummocks	Alluvial plain	fan - alluvial	loamy sand	F	Atriplex paludosa ssp. cordata (2), Maireana oppositifolia (2)	Low Shrubland
162	WAK01701	9/09/2004	54	230222	6218986	74	4.4 km SSW of South Hummocks	Consolidated dunefield	ridge	loamy sand	G	Nitraria billardierei (3), Halosarcia sp. (2)	Shrubland
162	WAK01801	9/09/2004	54	233313	6220311	68	3.1 km SSE of South Hummocks	Plain	playa/pan	loam	G	Halosarcia indica ssp. leiostachya (3)	Low Shrubland
162	WAN01601	9/09/2004	53	771996	6311901	82	6.8 km WNW of Lower Broughton	Flood plain	flood out	medium heavy clay	E	Muehlenbeckia florulenta (4)	Shrubland
162	WAN01701	7/09/2004	53	767487	6302265	72	10.2 km WNW of Wandearah West	Dunefield	dune/consolidated dune	sand	B	Lawrencia squamata (3)	Low Shrubland
162	WAN01801	7/09/2004	53	767623	6301858	50	9.9 km WNW of Wandearah West	Dunefield	dune/consolidated dune	sand	B	Melaleuca lanceolata (2)	Tall Open Shrubland
162	WAN01901	8/09/2004	53	767340	6300715	57	9.8 km WNW of Wandearah West	Dunefield	sandy plain	sand	F	Acacia ligulata (2), Geijera linearifolia (1)	Open Shrubland
162	WAN02001	8/09/2004	53	768623	6299710	33	8.4 km WNW of Wandearah West	Sand plain	sandy plain	loamy sand	B	Eucalyptus gracilis (2)	Open Mallee
162	WAR00301	13/10/2004	53	725740	6190503	69	3.6 km SW of Chinaman Wells	Plain	swamp	sandy clay loam	G	Atriplex paludosa ssp. cordata (3)	Low Open Shrubland
162	WAR00401	13/10/2004	53	724975	6190762	9	4.0 km WSW of Chinaman Wells	Low hills	hill slope	loamy sand	D	Lomandra effusa (2), Dianella brevicaulis (1)	Open Sedgeland
162	WAR00501	13/10/2004	53	724917	6189798	57	4.7 km WSW of Chinaman Wells	Dunefield	dune slope	loamy sand	C	Acacia ligulata (3)	Open Shrubland
162	WAR00601	12/10/2004	53	724556	6188850	57	5.4 km WSW of Point Pearce Mission	Consolidated dunefield	dune slope	sandy loam	C	Acacia ligulata (2)	Open Shrubland
162	WOR01901	29/10/2003	54	319303	6251269	12	4.1 km SSW of Worlds End	Hills	hill slope	loamy sand	A	Eucalyptus brachycalyx (2), Eucalyptus socialis (NC) (2), Eucalyptus gracilis (2)	Mallee

SU	SiteID	Date	Zone	Easting	Northing	Veg Grp	Location	Landform	Landform Element	Surface Soil	Salt Class	Vegetation Overstorey	Vegetation Structure
162	WOR02001	29/10/2003	54	319435	6246763	38	5.1 km ENE of Emu Downs	Low hills	hill slope	sandy clay loam	A	Acacia spilleriana (3), Acacia calamifolia (NC) (3)	Tall Shrubland
162	WOR02101	29/10/2003	54	319434	6246459	50	5.0 km ENE of Emu Downs	Low hills	hill crest	sandy loam	A	Eucalyptus socialis (NC) (3)	Mallee
162	WOR02201	28/10/2003	54	320641	6243598	33	6.3 km ESE of Emu Downs	Low hills	hill slope	sandy loam	A	Eucalyptus brachycalyx (3), Eucalyptus oleosa (NC) (2), Eucalyptus socialis (NC) (2)	Mallee
162	WOR02301	1/11/2003	54	315811	6239910	79	5.5 km SSE of Emu Downs	Flood plain	flood out	medium heavy clay	A	Phragmites australis (3), Juncus kraussii (2)	(Tussock) Grassland
168	HC00101	9/11/2003	54	316526	6252773	83	4.6 km WSW of Worlds End	Hills	stream channel	sand	A	Eucalyptus camaldulensis var. camaldulensis (4)	Open Forest
168	HC00201	8/11/2003	54	317069	6253705	77	3.7 km WSW of Worlds End	Low hills	stream channel	sandy loam	A	Eucalyptus camaldulensis var. camaldulensis (2)	Open Forest
168	HC00301	10/11/2003	54	316783	6253672	43	4.0 km WSW of Worlds End	Hills	hill slope	silty loam	A	Callitris gracilis (2), Eucalyptus socialis (NC) (1)	Low Woodland
168	HC00501	8/11/2003	54	317543	6253843	37	3.3 km WSW of Worlds End	Hills	hill slope	sandy loam	A	Dodonaea viscosa ssp. angustissima (2), Beyeria lechenaultii (2)	Open Shrubland
168	HC00601	9/11/2003	54	316735	6252394	12	4.7 km WSW of Worlds End	Hills	hill slope	loamy sand	A	Eucalyptus socialis (NC) (2)	Open Mallee
168	HC00701	11/11/2003	54	316842	6250880	24	5.6 km SSW of Worlds End	Hills	hill slope	sandy clay loam	A	Eucalyptus porosa (2)	Open Woodland
168	HC00801	9/11/2003	54	316357	6253334	38	4.5 km WSW of Worlds End	Hills	hill slope	sandy loam	A	Acacia calamifolia (NC) (2)	Open Shrubland
196	WRB00101	1/10/2004	53	684917	6112920		14.7 km NNE of Marion Bay				A		Woodland
196	WRB00201	1/10/2004	53	684707	6110162		12.0 km NNE of Marion Bay			sand	A		Open Woodland
196	WRB00301	1/10/2004	53	682460	6110745		11.9 km NNE of Marion Bay				B		
196	WRB00401	1/10/2004	53	687725	6112804		9.6 km WNW of Coonarie Hill				A		Woodland
196	WRB00501	1/10/2004	53	688864	6112171		8.4 km WSW of Coonarie Hill				A		Woodland
196	WRB00601	1/10/2004	53	690733	6111522		6.6 km WSW of Coonarie Hill			sand	A		

APPENDIX 2. SOUTH AUSTRALIAN VEGETATION STRUCTURAL FORMATIONS.

Trees Woody; perennial; erect; canopy raised well above the ground. Depth of canopy is usually less than or equal to two thirds of the total tree height. Single stemmed, or if multistemmed, fewer than five individual trunks resulting from branching of a single short trunk, that is not a mallee-like lignotuber. Height usually >2m.

Mallees Genus *Eucalyptus*; multi-stemmed, trunks arising from lignotuber. Low mallee <3m. Mallee >3m.

Shrubs Woody; perennial; erect, procumbent or weeping; foliage occupies all or part of total plant height; multiple stems and branches arising from a rootstock or very short common trunk; generally <5m tall.

Mat Plants Herbaceous or woody plants of prostrate habit, with major stems growing along the ground. Rarely exceeds 10cm in height. Examples of mat plants are *Kunzea pomifera*, *Myoporum parvifolium*, *Carpobrotus rossii* and *Mimulus repens*.

Hummock Grass Genera *Triodia* or *Plectrachne* only.

Grasses (Tussock) Family Poaceae (Gramineae); leaf sheath always split. Includes all non-hummock grasslands. The brackets surrounding Tussock indicate it is an optional word in the description, depending on the species present.

Sedges Herbaceous, usually perennial, erect, generally tufted; arise from stolons, tubers, bulbs, rhizomes or seeds. Leaf sheath never split. Includes Cyperaceae, Juncaceae, Restionaceae, Typhaceae and Xyridaceae and other sedge-like forms.

Herbs Herbaceous or slightly woody; annual or sometimes perennial; erect or creepers; rarely exceeds 0.5m height**.**

Ferns Ferns and fern allies, i.e. non-vascular cryptogams of classes Filicopsida and Lycopsida. This category includes *Ophioglossum* spp., *Lycopodium* spp., *Selaginella* spp. and *Isoetes* spp.

Source Table originally derived from Specht (1972) and Muir (1977).
Adapted from Forward L.R. and Robinson A.C. (1996) *A Biological Survey of the South Olary Plains, South Australia*, Department of Environment and Natural Resources, and updated from Heard L. and Channon B. (1997) *Guide to a Native Vegetation Survey (Agricultural Region) Using the Biological Survey of South Australia Methodology*. Information and Data Analysis Branch, Department of Housing and Urban Development.

Life Form/ Height Class	Percentage Foliage Cover of Tallest Stratum			
	Dense (70-100%)	**Mid-dense (30-70%)**	**Sparse (10-30%)**	**Very sparse (<10%)**
Trees >30m	Tall Closed Forest	Tall Open Forest	Tall Woodland	Tall Open Woodland
Trees 10-30m	Closed Forest	Open Forest	Woodland	Open Woodland
Trees 5-10m	Low Closed Forest	Low Open Forest	Low Woodland	Low Open Woodland
Trees <5m	Very Low Closed Forest	Very Low Open Forest	Very Low Woodland	Very Low Open Woodland
Mallee (>3m)	Closed Mallee	Mallee	Open Mallee	Very Open Mallee
Low Mallee (<3m)	Closed Low Mallee	Low Mallee	Open Low Mallee	Very Open Low Mallee
Shrubs >2m	Tall Closed Shrubland	Tall Shrubland	Tall Open Shrubland	Tall Very Open Shrubland
Shrubs 1-2m	Closed Shrubland	Shrubland	Open Shrubland	Very Open Shrubland
Shrubs <1m	Low Closed Shrubland	Low Shrubland	Low Open Shrubland	Low Very Open Shrubland
Mat plants	Closed Mat Plants	Mat Plants	Open Mat Plants	Very Open Mat Plants
Hummock Grasses	Closed Hummock Grassland	Hummock Grassland	Open Hummock Grassland	Very Open Hummock Grassland
Grasses (Tussock)	Closed (Tussock) Grassland	(Tussock) Grassland	Open (Tussock) Grassland	Very Open (Tussock) Grassland
Sedges	Closed Sedgeland	Sedgeland	Open Sedgeland	Very Open Sedgeland
Herbs	Closed Herbland	Herbland	Open Herbland	Very Open Herbland
Ferns	Closed Fernland	Fernland	Open Fernland	Very Open Fernland

APPENDIX 3. NVIS STRUCTURAL FORMATION NOMENCLATURE (ESCAVI 2003).

Tree Woody plants, more than 2m tall with a single stem or branches well above the base.

Tree mallee Woody perennial plant usually of the genus *Eucalyptus*. Multi-stemmed with fewer than 5 trunks of which at least 3 exceed 100mm at breast height (1.3m). Usually 8m or more.

Mallee shrub Commonly less than 8m tall, usually with 5 or more trunks, of which at least three of the largest do not exceed 100mm at breast height (1.3m).

Palm Palms and other arborescent monocotyledons. Members of the Arecaceae or the genus *Pandanus*. (*Pandanus* is often multi-stemmed).

Shrub Woody plants multi-stemmed at the base (or within 200mm from ground level) or if single stemmed, less than 2m.

Tree-fern Characterised by large and usually branched leaves (fronds), arborescent and terrestrial, spores in sporangia on the leaves.

Grass-tree Australian grass trees. Members of the *Xanthorroeaceae*.

Cycad Members of the families Cycadaceae and Zamiaceae

Heath shrub Shrub usually less than 2m, with sclerophyllous leaves having high fibre-protein ratios and with an area of nanophyll or smaller (less than 225 sq. m.). Often a member of one the following families: Epacridaceae, Myrtaceae, Fabaceae and Proteaceae. Commonly occur on nutrient-poor substrates.

Chenopod shrub Single or multi-stemmed, semi-succulent shrub of the family Chenopodiaceae exhibiting drought and salt tolerance.

Samphire shrub Genera (of Tribe Salicornioideae, viz: *Halosarcia*, *Pachycornia*, *Sarcocornia*, *Sclerostegia*, *Tecticornia* and *Tegicornia*) with articulate branches, fleshy stems and reduced flowers within the Chenopodiaceae family, succulent chenopods (Wilson 1980). Also the genus *Suaeda*.

Hummock grass Coarse xeromorphic grass with a mound-like form often dead in the middle; genera are *Triodia* and *Plectrachne*.

Tussock grass Forms discrete but open tussocks usually with distinct individual shoots, or if not, then forming a hummock. These are the common agricultural grasses.

Other grass Member of the family Poaceae, but having neither a distinctive tussock nor hummock appearance.

Sedge Herbaceous, usually perennial erect plant generally with a tufted habit and of the families Cyperaceae (true sedges) or Restionaceae (node sedges).

Rush Herbaceous, usually perennial erect monocot that is neither a grass nor a sedge. For the purposes of **NVIS**, rushes include the monocotyledon families Juncaceae, Typhaceae, Liliaceae, Iridaceae, Xyridaceae and the genus *Lomandra*, i.e. "graminoid" or grass-like genera.

Forb Herbaceous or slightly woody, annual or sometimes perennial plant. (Usually a dicotyledon.).

Fern Ferns and fern allies. Characterised by large and usually branched leaves (fronds), herbaceous and terrestrial to aquatic; spores in sporangia on the leaves.

Vine Climbing, twining, winding or sprawling plants usually with a woody stem.

Seagrass Flowering angiosperms forming sparse to dense mats of material at the subtidal and down to 30m below MSL. Occasionally exposed.

Aquatic Plant growing in an inland waterway or wetland with the majority of its biomass under water for most of the year. Fresh, saline or brackish water.

Bryophyte Mosses and Liverworts. Mosses are small plants usually with a slender leaf-bearing stem with no true vascular tissue. Liverworts are often moss-like in appearance or consisting of a flat, ribbon-like green thallus.

Lichen Composite plant consisting of a fungus living symbiotically with algae, without true roots, stems or leaves.

Life Form/ Height Class	Foliage Cover of Tallest Stratum						
	Dense (70-100%)	Mid-dense (30-70%)	Sparse (10-30%)	Very sparse (<10%)	Clumped ~0%	Scattered ~0%	No data
Tree >30m	Tall closed forest	Tall open forest	Tall woodland	Tall open woodland	Tall isolated clumps of trees	Tall isolated trees	Tall trees
Tree 10-30m	Mid closed forest	Mid open forest	Mid Woodland	Mid open woodland	Mid isolated clumps of trees	Mid isolated Trees	Mid trees
Tree <10m	Low closed forest	Low open forest	Low woodland	Low open woodland	Low isolated clumps of trees	Low isolated trees	Low trees
Tree mallee >10m	Tall closed mallee forest	Tall open mallee forest	Tall mallee woodland	Tall open mallee woodland			
Tree mallee 3-10m	Mid closed mallee forest	Mid open mallee forest	Mid mallee woodland	Mid open mallee woodland	Mid isolated clumps of mallee trees	Mid isolated mallee trees	Mid mallee trees
Mallee shrub 3-10m	Mid closed mallee shrubland	Mid mallee shrubland	Mid open mallee shrubland	Mid sparse mallee shrubland	Mid isolated clumps of mallee shrubs	Mid isolated mallee shrubs	Mid mallee shrubs
Tree mallee <3m	Low closed mallee forest	Low open mallee forest	Low mallee woodland	Low open mallee woodland	Low isolated clumps of mallee trees	Low isolated mallee trees	Low mallee trees
Mallee shrub < 3m	Low closed mallee shrubland	Low mallee shrubland	Low open mallee shrubland	Low sparse mallee shrubland	Low isolated clumps of mallee shrubs	Low isolated mallee shrubs	Low mallee shrubs

Life Form/ Height Class	Foliage Cover of Tallest Stratum						
	Dense (70-100%)	Mid-dense (30-70%)	Sparse (10-30%)	Very sparse (<10%)	Clumped ~0%	Scattered ~0%	No data
Palm >30m	Tall closed palmland	Tall palmland	Tall open palmland	Tall sparse palmland	Tall isolated clumps of palms	Tall isolated palms	Tall palms
Palm 10-30m	Mid closed palmland	Mid palmland	Mid open palmland	Mid sparse palmland	Mid isolated clumps of palms	Mid isolated palms	Mid palms
Palm <10m	Low closed palmland	Low palmland	Low open palmland	Low sparse palmland	Low isolated clumps of palms	Low isolated palms	Low palms
Shrub > 2m	Tall closed shrubland	Tall shrubland	Tall open shrubland	Tall sparse shrubland	Tall isolated clumps of shrubs	Tall isolated shrubs	Tall shrubs
Tree-Ferns >2m	Tall closed shrubland	Tall shrubland	Tall open shrubland	Tall sparse shrubland	Tall isolated clumps of shrubs	Tall isolated shrubs	Tall shrubs
Grass-tree >2m	Tall closed shrubland	Tall shrubland	Tall open shrubland	Tall sparse shrubland	Tall isolated clumps of shrubs	Tall isolated shrubs	Tall shrubs
Cycad >2m	Tall closed shrubland	Tall shrubland	Tall open shrubland	Tall sparse shrubland	Tall isolated clumps of shrubs	Tall isolated shrubs	Tall shrubs
Heath shrub > 2m	Tall closed heath shrubland	Tall heathland	Tall open heathland	Tall sparse heathland	Tall isolated clumps of heath shrubs	Tall isolated heath shrubs	Tall heath shrubs
Chenopod shrub > 2m	Tall closed chenopod shrubland	Tall chenopod shrubland	Tall open chenopod shrubland	Tall sparse chenopod shrubland	Tall isolated clumps of chenopod shrubs	Tall isolated chenopod shrubs	Tall chenopod shrubs
Samphire shrub > 2m	Tall closed samphire shrubland	Tall samphire shrubland	Tall open samphire shrubland	Tall sparse samphire shrubland	Tall isolated clumps of samphire shrubs	Tall isolated samphire shrubs	Tall samphire shrubs
Shrub 1-2m	Mid closed shrubland	Mid shrubland	Mid open shrubland	Mid sparse shrubland	Mid isolated clumps of shrubs	Mid isolated shrubs	Mid shrubs
Tree-Ferns 1-2m	Mid closed shrubland	Mid shrubland	Mid open shrubland	Mid sparse shrubland	Mid isolated clumps of shrubs	Mid isolated shrubs	Mid shrubs
Grass-tree 1-2m	Mid closed shrubland	Mid shrubland	Mid open shrubland	Mid sparse shrubland	Mid isolated clumps of shrubs	Mid isolated shrubs	Mid shrubs
Cycad 1-2m	Mid closed shrubland	Mid shrubland	Mid open shrubland	Mid sparse shrubland	Mid isolated clumps of shrubs	Mid isolated shrubs	Mid shrubs
Heath shrub 1-2m	Mid closed heath shrubland	Mid Heathland	Mid open heathland	Mid sparse heathland	Mid isolated clumps of heath shrubs	Mid isolated heath shrubs	Mid heath shrubs
Chenopod shrub 1-2m	Mid closed chenopod shrubland	Mid chenopod shrubland	Mid open chenopod shrubland	Mid sparse chenopod shrubland	Mid isolated clumps of chenopod shrubs	Mid isolated chenopod shrubs	Mid chenopod shrubs
Samphire shrub 1-2m	Mid closed samphire shrubland	Mid samphire shrubland	Mid open samphire shrubland	Mid sparse samphire shrubland	Mid isolated clumps of samphire shrubs	Mid isolated samphire shrubs	Mid samphire shrubs
Shrub <1m	Low closed shrubland	Low shrubland	Low open shrubland	Low sparse shrubland	Low isolated clumps of shrubs	Low isolated shrubs	Low shrubs
Tree-Ferns <1m	Low closed shrubland	Low shrubland	Low open shrubland	Low sparse shrubland	Low isolated clumps of shrubs	Low isolated shrubs	Low shrubs
Grass-tree <1m	Low closed shrubland	Low shrubland	Low open shrubland	Low sparse shrubland	Low isolated clumps of shrubs	Low isolated shrubs	Low shrubs
Cycad <1m	Low closed shrubland	Low shrubland	Low open shrubland	Low sparse shrubland	Low isolated clumps of shrubs	Low isolated shrubs	Low shrubs
Heath shrub <1m	Low closed heath shrubland	Low heathland	Low open heathland	Low open heathland	Low isolated clumps of heath shrubs	Low isolated heath shrubs	Low heath shrubs
Chenopod shrub <1m	Low closed chenopod shrubland	Low chenopod shrubland	Low open chenopod shrubland	Low sparse chenopod shrubland	Low isolated clumps of chenopod shrubs	Low isolated chenopod shrubs	Low chenopod shrubs
Samphire shrub <1m	Low closed samphire shrubland	Low samphire shrubland	Low open samphire shrubland	Low sparse samphire shrubland	Low isolated clumps of samphire shrubs	Low isolated samphire shrubs	Low samphire shrubs
Hummock grass >2m	Tall closed hummock grassland	Tall hummock grassland	Tall open hummock grassland	Tall sparse hummock grassland	Tall isolated clumps of hummock grasses	Tall isolated hummock grasses	Tall hummock grasses
Hummock grass 1-2m	Tall closed hummock grassland	Tall hummock grassland	Tall open hummock grassland	Tall sparse hummock grassland	Tall isolated clumps of hummock grasses	Tall isolated hummock grasses	Tall hummock grasses
Hummock grass 0.5-1m	Mid closed hummock grassland	Mid hummock grassland	Mid open hummock grassland	Mid sparse hummock grassland	Mid isolated clumps of hummock grasses	Mid isolated hummock grasses	Mid hummock grasses
Hummock grass <0.5m	Low closed hummock grassland	Low hummock grassland	Low open hummock grassland	Low sparse hummock grassland	Low isolated clumps of hummock grasses	Low isolated hummock grasses	Low hummock grasses
Tussock grass >2m	Tall closed tussock grassland	Tall tussock grassland	Tall open tussock grassland	Tall sparse tussock grassland	Tall isolated clumps of tussock grasses	Tall isolated tussock grasses	Tall tussock grasses

Life Form/ Height Class	Foliage Cover of Tallest Stratum						
	Dense (70-100%)	Mid-dense (30-70%)	Sparse (10-30%)	Very sparse (<10%)	Clumped ~0%	Scattered ~0%	No data
Tussock grass 1-2m	Tall closed tussock grassland	Tall tussock grassland	Tall open tussock grassland	Tall sparse tussock grassland	Tall isolated clumps of tussock grasses	Tall isolated tussock grasses	Tall tussock grasses
Tussock grass 0.5-1m	Mid closed tussock grassland	Mid tussock grassland	Mid open tussock grassland	Mid sparse tussock grassland	Mid isolated clumps of tussock grasses	Mid isolated tussock grasses	Mid tussock grasses
Tussock grass <0.5m	Low closed tussock grassland	Low tussock grassland	Low open tussock grassland	Low sparse tussock grassland	Low isolated clumps of tussock grasses	Low isolated tussock grasses	Low tussock grasses
Other grass >2m	Tall closed grassland	Tall grassland	Tall open grassland	Tall sparse grassland	Tall isolated clumps of grasses	Tall isolated grasses	Tall grasses
Other grass 1-2m	Tall closed grassland	Tall grassland	Tall open grassland	Tall sparse grassland	Tall isolated clumps of grasses	Tall isolated grasses	Tall grasses
Other grass 0.5-1m	Mid closed grassland	Mid grassland	Mid open grassland	Mid sparse grassland	Mid isolated clumps of grasses	Mid isolated grasses	Mid grasses
Grass <0.5m	Low closed grassland	Low grassland	Low open grassland	Low sparse grassland	Low isolated clumps of grasses	Low isolated grasses	Low grasses
Sedge >2m	Tall closed sedgeland	Tall Sedgeland	Tall open sedgeland	Tall sparse sedgeland	Tall isolated clumps of sedges	Tall isolated sedges	Tall sedges
Sedge 1-2m	Tall closed sedgeland	Tall Sedgeland	Tall open sedgeland	Tall sparse sedgeland	Tall isolated clumps of sedges	Tall isolated sedges	Tall sedges
Sedge 0.5-1m	Mid closed sedgeland	Mid Sedgeland	Mid open sedgeland	Mid sparse sedgeland	Mid isolated clumps of sedges	Mid isolated sedges	Mid sedges
Sedge <0.5m	Low closed sedgeland	Low Sedgeland	Low open sedgeland	Low sparse sedgeland	Low isolated clumps of sedges	Low isolated sedges	Low sedges
Rush >2m	Tall closed rushland	Tall rushland	Tall open rushland	Tall sparse rushland	Tall Isolated clumps of rushes	Tall Isolated rushes	Tall rushes
Rush 1-2m	Tall closed rushland	Tall rushland	Tall open rushland	Tall sparse rushland	Tall Isolated clumps of rushes	Tall Isolated rushes	Tall rushes
Rush 0.5-1m	Mid closed rushland	Mid rushland	Mid open rushland	Mid sparse rushland	Mid Isolated clumps of rushes	Mid Isolated rushes	Mid rushes
Rush <0.5m	Low closed rushland	Low rushland	Low open rushland	Low sparse rushland	Low isolated clumps of rushes	Low isolated rushes	Low rushes
Forb >2m	Tall closed forbland	Tall forbland	Tall open forbland	Tall sparse forbland	Tall Isolated clumps of forbs	Tall Isolated forbs	Tall forbs
Forb 1-2m	Tall closed forbland	Tall forbland	Tall open forbland	Tall sparse forbland	Tall Isolated clumps of forbs	Tall Isolated forbs	Tall forbs
Forb 0.5-1m	Mid closed forbland	Mid forbland	Mid open forbland	Mid sparse forbland	Mid Isolated clumps of forbs	Mid Isolated forbs	Mid forbs
Forb <0.5m	Low closed forbland	Low forbland	Low open forbland	Low sparse forbland	Low isolated clumps of forbs	Low isolated forbs	Low forbs
Fern >2m	Tall closed fernland	Tall fernland	Tall open fernland	Tall sparse fernland	Tall Isolated clumps of ferns	Tall Isolated ferns	Tall ferns
Fern 1-2m	Mid closed fernland	Mid fernland	Mid open fernland	Mid sparse fernland	Mid Isolated clumps of ferns	Mid Isolated ferns	Mid ferns
Fern <1m	Low closed fernland	Low fernland	Low open fernland	Low sparse fernland	Low isolated clumps of ferns	Low isolated ferns	Low ferns
Vine >30m	Tall closed vineland	Tall vineland	Tall open vineland	Tall sparse vineland	Tall isolated clumps of vines	Tall isolated vines	Tall vines
Vine 10-30m	Mid closed vineland	Mid vineland	Mid open vineland	Mid sparse vineland	Mid isolated clumps of vines	Mid isolated vines	Mid vines
Vine <10m	Low closed vineland	Low vineland	Low open vineland	Low sparse vineland	Low isolated clumps of vines	Low isolated vines	Low vines
Vine >2m	Tall closed vineland	Tall vineland	Tall open vineland	Tall sparse vineland	Tall isolated clumps of vines	Tall isolated vines	Tall vines
Vine 1-2m	Tall closed vineland	Tall vineland	Tall open vineland	Tall sparse vineland	Tall isolated clumps of vines	Tall isolated vines	Tall vines
Vine 0.5-1m	Mid closed vineland	Mid vineland	Mid open vineland	Mid sparse vineland	Mid isolated clumps of vines	Mid isolated vines	Mid vines
Vine <0.5m	Low closed vineland	Low vineland	Low open vineland	Low sparse vineland	Low isolated clumps of vines	Low isolated vines	Low vines
Seagrass 0.5-1m	Tall closed seagrass bed	Tall seagrass bed	Tall open seagrass bed	Tall sparse seagrass bed	Tall isolated clumps of seagrass	Tall isolated seagrass	Tall seagrass
Seagrass <0.5m	Low closed seagrass bed	Low seagrass bed	Low open seagrass bed	Low sparse seagrass bed	Low isolated clumps of seagrass	Low isolated seagrass	Low seagrass
Aquatics 0.5-1m	Tall closed aquatic bed	Tall aquatic bed	Tall open aquatic bed	Tall sparse aquatic bed	Tall isolated clumps of aquatics	Tall isolated aquatics	Tall aquatics

Life Form/ Height Class	Foliage Cover of Tallest Stratum						
	Dense (70-100%)	**Mid-dense (30-70%)**	**Sparse (10-30%)**	**Very sparse (<10%)**	**Clumped ~0%**	**Scattered ~0%**	**No data**
Aquatics <0.5m	Low closed aquatic bed	Low aquatic bed	Low open aquatic bed	Low sparse aquatic bed	Low isolated clumps of aquatics	Low isolated aquatics	Low aquatics
Bryophytes 0.5-1m	Tall closed byrophyteland	Tall byrophyteland	Tall open byrophyteland	Tall sparse byrophyteland	Tall Isolated clumps of byrophytes	Tall Isolated byrophytes	Tall byrophytes
Bryophytes <0.5m	Low closed byrophyteland	Low byrophyteland	Low open byrophyteland	Low sparse byrophyteland	Low Isolated clumps of byrophytes	Low Isolated byrophytes	Low byrophytes
Lichens 0.5-1m	Tall closed lichenland	Tall lichenland	Tall open lichenland	Tall sparse lichenland	Tall Isolated clumps of lichens	Tall Isolated lichens	Tall lichens
Lichens <0.5m	Low closed lichenland	Low lichenland	Low open lichenland	Low sparse lichenland	Low Isolated clumps of lichens	Low Isolated lichens	Low lichens

APPENDIX 4. PLANT TAXA RECORDED IN THE MID NORTH AND YORKE PENINSULA BIOLOGICAL SURVEY STUDY AREA.

List of vascular plant taxonomic categories recorded on biological surveys within the Mid North and Yorke Peninsula Biological Survey study area showing conservation status and sampling frequency.

I Indigenous/alien designation. Naturalised alien taxa are designated by an asterisk (*).

(NC) Appearing after a scientific name designates it as a non-current name in the SA FLORA Database 2005. A non-current name represents a previous taxonomic circumscription corresponding to one or more currently recognised taxa. An indication of the most appropriate current name is provided in the **Comment** column.

Conservation Status

Aus Australian status under the *Environment Protection and Biodiversity Conservation Act 1999* as at March 2005.

SA South Australian status under the *National Parks and Wildlife Act 1972* (2000 update of schedules 7, 8 and 9).

NL Regional status for the Northern Lofty Herbarium Region as per the SA FLORA database (March 2005), which provides an update to the original assessments of Lang and Kraehenbuehl (1987).

YP Regional status for the Yorke Peninsula Herbarium Region as per the SA FLORA database (March 2005), which provides an update to the original assessments of Lang and Kraehenbuehl (1987).

(NB These are the two main Herbarium Regions in the study area. For a full listing of all conservation ratings for all Herbarium Regions present in the study area refer to **Appendix 7**.)

Status Codes: **X** = extinct; **E** = endangered; **V** = vulnerable; **T** = threatened (either endangered or vulnerable but insufficient data to enable accurate assessment); **R** = rare; **K** = uncertain (either rare or threatened but insufficient data to enable accurate assessment); **U** = uncommon; **Q** = not yet assessed but considered to be of possible significance.

[#] = Provisional rating only.

SU 162 Total number of survey site records for each taxa from the Mid North and Yorke Biological Survey (SU162).

All SU Total number of survey site records for each taxa from all Biological Surveys conducted in the Mid North and Yorke Peninsula Biological Survey study area.

OP Total number of opportunistic records for each taxa from all Biological Surveys conducted in the Mid North and Yorke Peninsula Biological Survey study area.

Total Total number of all records for each taxa from all Biological Surveys conducted in the Mid North and Yorke Peninsula Biological Survey study area.

I	Scientific Name	Common Name	Aus	SA	NL	YP	SU 162	All SU	OP	Total	Comment
	Abutilon fraseri (NC)	Dwarf Lantern-bush						1		1	= *Abutilon fraseri* ssp. *diplotrichum*
	Abutilon fraseri ssp. *fraseri*	Dwarf Lantern-bush					1	1		1	
	Abutilon sp.	Lantern-bush						1		1	
	Acacia acinacea	Wreath Wattle			U		1	27		27	
	Acacia anceps (NC)	Angled Wattle						21		21	= *Acacia* sp. Winged (C.R.Alcock 4936)
	Acacia anceps x *nematophylla*	Hybrid Wattle					1	8		8	Hybrid
	Acacia ancistrophylla var. *lissophylla*	Hook-leaf Wattle				K		3		3	
	Acacia argyrophylla	Silver Mulga-bush			R	R		3		3	
	Acacia brachybotrya	Grey Mulga-bush				U	4	19	1	20	
	Acacia calamifolia	Wallowa					3	3		3	
	Acacia calamifolia (NC)	Wallowa					8	68		68	= *Acacia calamifolia*
	Acacia continua	Thorn Wattle					3	23	1	24	
	Acacia cupularis	Cup Wattle					2	27		27	
	Acacia cupularis/*ligulata*							4		4	Broader taxonomic entity used, when specimens not collected, due to difficulties recognised in identification in the field.
	Acacia cyclops	Western Coastal Wattle			R		1	15		15	
	Acacia enterocarpa	Jumping-jack Wattle	E	E		E		1		1	
	Acacia farinosa	Mealy Wattle				U		3		3	
	Acacia glandulicarpa	Hairy-pod Wattle	V	E	E			2		2	
	Acacia gracilifolia	Graceful Wattle		R	R			2		2	
	Acacia hakeoides	Hakea Wattle					6	55	2	57	
	Acacia halliana	Hall's Wattle				K		4		4	
	Acacia iteaphylla	Flinders Ranges Wattle		R	R			4		4	
	Acacia leiophylla	Coast Golden Wattle					7	24		24	
	Acacia ligulata	Umbrella Bush					17	108	1	109	
	Acacia ligulata (NC)	Umbrella Bush						21		21	May refer to either *Acacia cupularis* or *A. ligulata*.

I	Scientific Name	Common Name	Aus	SA	NL	YP	SU 162	All SU	OP	Total	Comment
	Acacia longifolia ssp. *sophorae*	Coastal Wattle					2	25	1	26	
	Acacia melanoxylon	Blackwood			K			0	1	1	
	Acacia microcarpa	Manna Wattle						12	1	13	
	Acacia myrtifolia var.	Myrtle Wattle						1		1	= *Acacia myrtifolia* var. *myrtifolia*
	Acacia nematophylla	Coast Wallowa					14	71	1	72	
	Acacia notabilis	Notable Wattle				V	4	52	2	54	
	Acacia nyssophylla	Spine Bush					2	26		26	
	Acacia oswaldii	Umbrella Wattle					1	45	3	48	
	Acacia papyrocarpa	Western Myall						1		1	
	Acacia paradoxa	Kangaroo Thorn					5	40	1	41	
	Acacia paradoxa hybrid	Kangaroo Thorn Hybrid						1		1	Hybrid
	Acacia pycnantha	Golden Wattle					27	169	4	173	
	Acacia retinodes var. (NC)	Silver Wattle						0	1	1	= *Acacia retinodes* var. *retinodes*
	Acacia retinodes var. *retinodes*	Wirilda			Q		1	3		3	
	Acacia retinodes var. *retinodes* (NC)	Wirilda						1		1	= *Acacia retinodes* var. *retinodes*
	Acacia rigens	Nealie			U	V		4		4	
	Acacia rupicola	Rock Wattle			R		4	43		43	
	Acacia salicina	Willow Wattle					4	9	1	10	
	Acacia sclerophylla var. *sclerophylla*	Hard-leaf Wattle				K	1	12	4	16	
	Acacia sp.	Wattle					2	2		2	
	Acacia sp. Winged (C.R.Alcock 4936)	Angled Wattle					6	40		40	
	Acacia spilleriana	Spiller's Wattle		V	K		1	6		6	
	Acacia spinescens	Spiny Wattle			V		14	105	1	106	
	Acacia triquetra	Mallee Wreath Wattle					5	32		32	
	Acacia victoriae ssp.	Elegant Wattle						16	1	17	= *Acacia victoriae* ssp. *victoriae*
	Acacia victoriae ssp. *victoriae*	Elegant Wattle						18	1	19	
	Acacia wattsiana	Dog Wattle					6	18	5	23	
	Acacia wilhelmiana	Dwarf Nealie						4		4	
	Acaena echinata	Sheep's Burr					7	7		7	
	Acaena echinata var. (NC)	Sheep's Burr					11	60		60	= *Acaena echinata*
	Acaena echinata var. *echinata* (NC)	Sheep's Burr						10		10	= *Acaena echinata*
	Acaena echinata var. *retrorsumpilosa* (NC)	Sheep's Burr						19		19	= *Acaena echinata*
	Acaena novae-zelandiae	Biddy-biddy				K		1		1	
	Acaena sp.	Sheep's Burr						3		3	
	Acanthocladium dockeri	Spiny Everlasting	X	E	E			0	3	3	
*	*Acetosa vesicaria*	Rosy Dock						1		1	
*	*Acetosella vulgaris*	Sorrel						1		1	
	Acianthus pusillus	Mosquito Orchid					2	21		21	
	Acianthus sp.	Mosquito Orchid					1	2		2	
	Acrotriche affinis	Ridged Ground-berry			K	U	12	29	2	31	
	Acrotriche cordata	Blunt-leaf Ground-berry					15	69	1	70	
	Acrotriche cordata x *patula*	Hybrid Ground-berry						1		1	Hybrid
	Acrotriche patula	Prickly Ground-berry			R		36	244		244	
	Acrotriche serrulata	Cushion Ground-berry					2	2		2	
	Actinobole uliginosum	Flannel Cudweed				R	4	36	1	37	
	Actites megalocarpa	Coast Sow-thistle					4	6		6	
*	*Adonis microcarpa*	Pheasant's Eye					1	3		3	
	Adriana klotzschii (NC)	Coast Bitter-bush			K			17	1	18	= *Adriana quadripartita*
	Adriana quadripartita (NC)	Rare Bitter-bush						1		1	= *Adriana quadripartita*
*	*Agave* sp.							1		1	= **Agave americana*
	Agrostis aemula	Blown-grass						0	1	1	
	Agrostis avenacea var. *avenacea*	Common Blown-grass					2	3		3	
	Agrostis billardieri var. *billardieri*	Coast Blown-grass					3	7		7	
*	*Agrostis capillaris* var. *capillaris*	Brown-top Bent						1		1	
*	*Agrostis gigantea*	Red-top Bent						3		3	
*	*Aira caryophyllea*	Silvery Hair-grass						6		6	
*	*Aira cupaniana*	Small Hair-grass					49	137		137	
*	*Aira elegantissima*	Delicate Hair-grass						36		36	
*	*Aira* sp.	Hair-grass						7		7	
	Aizoaceae sp.	Pigface Family						1		1	

I	Scientific Name	Common Name	Aus	SA	NL	YP	SU 162	All SU	OP	Total	Comment
	Ajuga australis f. A (A.G.Spooner 9058)	Australian Bugle				X	2	7		7	
	Ajuga australis form	Australian Bugle						0	1	1	Most likely is *Ajuga australis* f. A (A.G.Spooner 9058) as record is from MU region.
*	*Ajuga iva*	Bugle						4		4	
	Alectryon oleifolius ssp. *canescens*	Bullock Bush			U	T	5	58	2	60	
*	*Allium triquetrum*	Three-cornered Garlic						1		1	
	Allocasuarina muelleriana ssp.	Common Oak-bush						4		4	= *Allocasuarina muelleriana* ssp. *muelleriana*
	Allocasuarina muelleriana ssp. *muelleriana*	Common Oak-bush				K	2	6	2	8	
	Allocasuarina pusilla	Dwarf Oak-bush			Q	R	3	9		9	
	Allocasuarina verticillata	Drooping Sheoak					30	213	4	217	
*	*Aloe saponaria*	Broad-leaf Aloe						0	1	1	
	Alternanthera denticulata	Lesser Joyweed			K			1		1	
	Alyogyne huegelii	Native Hibiscus				X		0	3	3	
*	*Alyssum linifolium*	Flax-leaf Alyssum						10		10	
	Alyxia buxifolia	Sea Box					17	131		131	
*	*Amaranthus albus*	Stiff Tumbleweed						2		2	
*	*Ammi majus*	False Bishop's Weed					1	1		1	
*	*Ammophila arenaria*	Marram Grass						2		2	
	Amphibromus nervosus	Veined Swamp Wallaby-grass						0	1	1	
	Amphipogon caricinus var. *caricinus*	Long Grey-beard Grass			R	U		13		13	
	Amphipogon strictus var. *setifer*	Spreading Grey-beard Grass			R			2		2	
*	*Amsinckia calycina*	Hairy Fiddle-neck					4	4		4	
*	*Amsinckia lycopsoides*	Bugloss Fiddle-neck						12		12	
	Amyema melaleucae	Tea-tree Mistletoe			R		7	43		43	
	Amyema miquelii	Box Mistletoe					17	88	2	90	
	Amyema miraculosa ssp. *boormanii*	Fleshy Mistletoe			R	K		4		4	
	Amyema preissii	Wire-leaf Mistletoe					2	21	1	22	
	Amyema sp.	Mistletoe						4		4	
*	*Anagallis arvensis*	Pimpernel					54	352		352	
*	*Anagallis minima*	Chaffweed						1		1	
	Angianthus preissianus	Salt Angianthus					2	9		9	
	Angianthus tomentosus	Hairy Angianthus				R	6	22		22	
	Aotus subspinescens	Mallee Aotus				R		1		1	
	Aphanes australiana	Australian Piert			R	U		18		18	
	Apium annuum	Annual Celery					7	29		29	
*	*Apium graveolens*	Celery					1	1		1	
	Apium prostratum var.	Native Celery			K		3	5		5	
	Apium prostratum var. *prostratum*	Native Celery					1	5		5	
*	*Arctotheca calendula*	Cape Weed					16	213	1	214	
*	*Arctotheca populifolia*	Beach Daisy						1		1	
*	*Arenaria leptoclados*	Lesser Thyme-leaved Sandwort						8		8	
	Argentipallium obtusifolium	Blunt Everlasting				R	1	2		2	
*	*Argyranthemum frutescens* ssp.	Marguerite Daisy						1		1	
*	*Argyranthemum frutescens* ssp. *frutescens*	Marguerite Daisy						1		1	
	Aristida anthoxanthoides	Yellow Three-awn						1		1	
	Aristida australis			R	K			1		1	
	Aristida behriana	Brush Wire-grass				R	14	131	3	134	
	Aristida contorta	Curly Wire-grass			R			0	2	2	
	Aristida nitidula	Brush Three-awn			K			1		1	
*	*Artemisia arborescens*	Silver Wormwood						1		1	
	Arthropodium fimbriatum	Nodding Vanilla-lily					10	92	1	93	
	Arthropodium minus	Small Vanilla-lily			V	R	5	22		22	
	Arthropodium sp.	Vanilla-lily					4	24		24	
	Arthropodium strictum	Common Vanilla-lily				R	37	261	1	262	
*	*Asparagus asparagoides*	Bridal Creeper					8	119	2	121	
*	*Asparagus declinatus*							1		1	
*	*Asparagus officinalis*	Asparagus					1	1		1	
	Asperula conferta	Common Woodruff					7	88	1	89	
*	*Asphodelus fistulosus*	Onion Weed					1	91		91	

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	Asplenium flabellifolium	Necklace Fern			R			2		2	
*	*Aster subulatus*	Aster-weed					7	15		15	
	Asteridea athrixioides (NC)							1		1	= *Asteridea athrixioides* f. *athrixioides*
	Asteridea athrixioides f.	Wirewort					1	1		1	= *Asteridea athrixioides* f. *athrixioides*
	Asteridea athrixioides f. *athrixioides*	Wirewort				Q	1	8		8	
*	*Asteriscus spinosus*	Golden Pallensis						13		13	
*	*Asterolinon linum-stellatum*	Asterolinon					1	1		1	
	Astroloma conostephioides	Flame Heath			R	T		6	1	7	
	Astroloma humifusum	Cranberry Heath				U	13	61	1	62	
	Atriplex acutibractea ssp.	Pointed Saltbush					2	7	1	8	
	Atriplex acutibractea ssp. *acutibractea*	Pointed Saltbush				K		2		2	
	Atriplex acutibractea ssp. *karoniensis*	Pointed Saltbush				K	1	5		5	
	Atriplex angulata	Fan Saltbush						1		1	
	Atriplex cinerea	Coast Saltbush						22		22	
	Atriplex eardleyae	Eardley's Saltbush				K	1	3	1	4	
	Atriplex holocarpa	Pop Saltbush						3		3	
	Atriplex lindleyi ssp. *inflata*	Corky Saltbush			K	K	3	7	1	8	
	Atriplex lindleyi ssp. *lindleyi*	Baldoo						1		1	
	Atriplex muelleri	Mueller's Saltbush						2		2	
	Atriplex nummularia ssp. *nummularia*	Old-man Saltbush						0	1	1	
	Atriplex paludosa ssp. *cordata*	Marsh Saltbush					7	50		50	
	Atriplex paludosa ssp. *paludosa*	Marsh Saltbush						4		4	
*	*Atriplex prostrata*	Creeping Saltbush					6	10		10	
	Atriplex pumilio	Mat Saltbush			V	Q		2		2	
	Atriplex semibaccata	Berry Saltbush				Q	1	61	4	65	
	Atriplex sp.	Saltbush					2	16	1	17	
	Atriplex spongiosa	Pop Saltbush						1		1	
	Atriplex stipitata	Bitter Saltbush					5	50	1	51	
	Atriplex suberecta	Lagoon Saltbush					3	5	1	6	
	Atriplex velutinella	Sandhill Saltbush						1		1	
	Atriplex vesicaria (NC)							6		6	= *Atriplex vesicaria* ssp.
	Atriplex vesicaria ssp.	Bladder Saltbush					3	27	2	29	
	Atriplex vesicaria ssp. *calcicola*	Bladder Saltbush						1		1	
	Atriplex vesicaria ssp. *macrocystidia*	Bladder Saltbush						5		5	
	Atriplex vesicaria ssp. *sphaerocarpa*	Bladder Saltbush						1		1	
	Atriplex vesicaria ssp. *variabilis*	Bladder Saltbush						3		3	
	Austrodanthonia auriculata	Lobed Wallaby-grass					12	70		70	
	Austrodanthonia caespitosa	Common Wallaby-grass					54	395	13	408	
	Austrodanthonia duttoniana	Brown-back Wallaby-grass		R	K			3		3	
	Austrodanthonia eriantha	Hill Wallaby-grass					12	45		45	
	Austrodanthonia fulva	Leafy Wallaby-grass			K		1	5		5	
	Austrodanthonia laevis	Smooth Wallaby-grass		R			1	5		5	
	Austrodanthonia pilosa	Velvet Wallaby-grass					2	2		2	
	Austrodanthonia racemosa var. *racemosa*	Slender Wallaby-grass			U		1	15		15	
	Austrodanthonia setacea	Small-flower Wallaby-grass					25	163	3	166	
	Austrodanthonia tenuior	Short-awn Wallaby-grass		R	K		2	14		14	
	Austrofestuca littoralis	Coast Fescue				K		1		1	
	Austrostipa acrociliata	Graceful Spear-grass			K		13	100	3	103	
	Austrostipa blackii	Crested Spear-grass					24	188	5	193	
	Austrostipa breviglumis	Cane Spear-grass		R	R		1	8		8	
	Austrostipa curticoma	Short-crest Spear-grass			Q		1	15		15	
	Austrostipa densiflora	Fox-tail Spear-grass		R				1		1	
	Austrostipa drummondii	Cottony Spear-grass					19	93	4	97	
	Austrostipa echinata	Spiny Spear-grass		R		R	2	4		4	
	Austrostipa elegantissima	Feather Spear-grass					43	292		292	
	Austrostipa eremophila	Rusty Spear-grass					23	181	3	184	
	Austrostipa exilis	Heath Spear-grass			T		12	33		33	
	Austrostipa flavescens	Coast Spear-grass			R		11	62		62	

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	Austrostipa gibbosa	Swollen Spear-grass		R	T			17	1	18	
	Austrostipa hemipogon	Half-beard Spear-grass				T	1	3		3	
	Austrostipa mollis	Soft Spear-grass			R	T	4	19	1	20	
	Austrostipa mollis group	Soft Spear-grass						1		1	
	Austrostipa multispiculis			R	T	K		2		2	
	Austrostipa mundula	Neat Spear-grass				R	8	8		8	
	Austrostipa nitida	Balcarra Spear-grass					8	207	1	208	
	Austrostipa nodosa	Tall Spear-grass				Q	7	107	5	112	
	Austrostipa petraea	Flinders Range Spear-grass		R				2		2	
	Austrostipa pilata	Prickly Spear-grass		V	T		8	13	2	15	
	Austrostipa platychaeta	Flat-awn Spear-grass			R	U	1	45	2	47	
	Austrostipa puberula	Fine-hairy Spear-grass		R	T	T	8	15		15	
	Austrostipa scabra group	Falcate-awn Spear-grass						20		20	
	Austrostipa scabra ssp.	Rough Spear-grass				K		56	1	57	
	Austrostipa scabra ssp. *falcata*	Slender Spear-grass					29	107	2	109	
	Austrostipa scabra ssp. *scabra*	Rough Spear-grass					1	51		51	
	Austrostipa semibarbata	Fibrous Spear-grass			K	T		13		13	
	Austrostipa setacea	Corkscrew Spear-grass			R		10	38		38	
	Austrostipa sp.	Spear-grass					14	134	1	135	
	Austrostipa stipoides	Coast Spear-grass				U	3	7		7	
	Austrostipa tenuifolia			R	E			2		2	
	Austrostipa trichophylla				T		1	5	2	7	
*	*Avellinia michelii*	Avellinia					40	80		80	
*	*Avena barbata*	Bearded Oat					96	672		672	
*	*Avena fatua*	Wild Oat						40		40	
*	*Avena sativa*	Cultivated Oat						6		6	
*	*Avena* sp.	Oat						5		5	
	Avicennia marina ssp. *marina*	Grey Mangrove						7		7	
	Baeckea crassifolia	Desert Baeckea					3	16		16	
	Banksia marginata	Silver Banksia			R		1	3		3	
*	*Bartsia trixago*	Bellardia						2		2	
	Baumea arthrophylla	Swamp Twig-rush			R		1	2		2	
	Baumea juncea	Bare Twig-rush			R	V	2	9		9	
*	*Berula erecta*	Water Parsnip					1	1		1	
	Beyeria lechenaultii	Pale Turpentine Bush					19	187	2	189	
	Billardiera cymosa	Sweet Apple-berry					8	15	1	16	
	Billardiera sericophora	Silky Apple-berry				U	2	8		8	
	Billardiera sp.	Apple-berry						1		1	
	Billardiera sp. Yorke Peninsula (P.C.Heyligers 80164)	Lehmann's Apple-berry	E	E		E	1	6		6	
	Billardiera versicolor	Yellow-flower Apple-berry			R	T	1	3		3	
	Blennospora drummondii	Dwarf Button-flower					8	41	1	42	
	Boerhavia dominii	Tar-vine					2	16	2	18	
	Boerhavia sp.	Tar-vine						1	1	2	
	Bolboschoenus caldwellii	Salt Club-rush			U		5	10		10	
	Boronia coerulescens ssp. *coerulescens*	Blue Boronia			X	V		1		1	
	Boronia inornata ssp. *leptophylla*	Dryland Boronia			E	R		4		4	
	Bossiaea prostrata	Creeping Bossiaea			R			1		1	
*	*Brachypodium distachyon*	False Brome					21	7	1	158	
	Brachyscome ciliaris var.	Variable Daisy						1		7	
	Brachyscome ciliaris var. *brachyglossa*	Rayless Variable-daisy						157		3	
	Brachyscome ciliaris var. *ciliaris*	Variable Daisy					10	3	2	48	
	Brachyscome ciliaris var. *lanuginosa*	Woolly Variable Daisy			K	K		46	1	8	
	Brachyscome ciliaris var. *subintegrifolia*			R	R			7		10	
	Brachyscome cuneifolia	Wedge-leaf Daisy				U	4	10		15	
	Brachyscome exilis	Slender Daisy				U	6	15	1	22	
	Brachyscome goniocarpa	Dwarf Daisy			E	U		21		6	
	Brachyscome lineariloba	Hard-head Daisy					22	6		97	
	Brachyscome lineariloba/perpusilla							97		1	Broader taxonomic entity used, when specimens not collected, due to difficulties recognised in identification in the field.

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	Brachyscome perpusilla	Tiny Daisy					7	20		20	
	Brachyscome trachycarpa	Smooth Daisy			K			1		1	
*	*Brassica juncea*	Indian Mustard						1		1	
*	*Brassica* sp.							2		2	
*	*Brassica tournefortii*	Wild Turnip					12	141	1	142	
*	*Briza maxima*	Large Quaking-grass					17	82		82	
*	*Briza minor*	Lesser Quaking-grass					29	78		78	
*	*Bromus alopecuros*	Mediterranean Brome						5		5	
	Bromus arenarius	Sand Brome			X	U	1	8		8	
*	*Bromus catharticus*	Prairie Grass					1	1		1	
*	*Bromus diandrus*	Great Brome					40	313		313	
*	*Bromus hordeaceus* ssp. *hordeaceus*	Soft Brome					21	91	1	92	
*	*Bromus madritensis*	Compact Brome					13	65		65	
*	*Bromus rigidus*	Rigid Brome					3	32	1	33	
*	*Bromus rubens*	Red Brome					51	368	2	370	
	Bromus sp.	Brome					1	15		15	
*	*Bromus sterilis* (NC)							5		5	This species does not occur in SA. Treat as **Bromus* sp.
	Brunonia australis	Blue Pincushion			K			1		1	
*	*Buglossoides arvensis*	Sheepweed						50		50	
	Bulbine bulbosa	Bulbine-lily				K	11	86	2	88	
	Bulbine semibarbata	Small Leek-lily					5	19		19	
*	*Bupleurum semicompositum*	Hare's Ear					19	91		91	
	Burchardia umbellata	Milkmaids			K	X		1	1	2	
	Bursaria spinosa ssp. *spinosa*	Sweet Bursaria					42	271		271	
	Bursaria spinosa var. (NC)							1		1	= *Bursaria spinosa* ssp. *spinosa*
	Caesia calliantha	Blue Grass-lily				R	8	30		30	
*	*Cakile maritima* ssp. *maritima*	Two-horned Sea Rocket						37		37	
	Caladenia argocalla	White Beauty Spider-orchid	E	E	E		1	1		1	
	Caladenia bicalliata ssp. *bicalliata*	Western Daddy-long-legs		R		R	1	2		2	
	Caladenia brumalis	Winter Spider-orchid	V	V		V	1	11		11	
	Caladenia brumalis x *latifolia*	Hybrid Spider-orchid						1		1	Hybrid
	Caladenia cardiochila	Heart-lip Spider-orchid			E	R	2	3		3	
	Caladenia carnea complex	Pink Fingers Caladenia						1		1	
	Caladenia carnea var. *carnea*	Pink Fingers						7		7	
	Caladenia clavula (NC)							1		1	Used in the broad sense according to Jessop (1993). Now may be either *Caladenia clavula* or *C. tensa*, and can be treated as *C. dilatata* complex.
	Caladenia conferta	Coast Spider-orchid		E		E		1		1	
	Caladenia dilatata (NC)	Green-comb Spider-orchid						1		1	Used in the broad sense according to Jessop & Toelken (1986). Now may be any one of 4 species of the genus *Caladenia*, and can be treated as *C. dilatata* complex.
	Caladenia dilatata complex	Green-comb Spider-orchid						1		1	
	Caladenia filamentosa complex	Daddy-long-legs Spider-orchid					1	1		1	
	Caladenia filamentosa var. *tentaculata*	Wispy Spider-orchid			K		4	22		22	
	Caladenia latifolia	Pink Caladenia			E			48		48	
	Caladenia leptochila	Narrow-lip Spider-orchid			V		1	3	1	4	
	Caladenia patersonii complex	White Spider-orchid						1		1	
	Caladenia sp.	Spider-orchid					1	2		2	
	Caladenia sp. Brentwood (R.J. Bates 53510)	Ghost Spider-orchid	E#	E#		E#		1		1	Ratings are provisional.
	Caladenia stricta	Upright Caladenia				R	3	9		9	
	Caladenia tensa	Inland Green-comb Spider-orchid					1	2		2	
	Caladenia tentaculata	King Spider-orchid			R			0	1	1	
	Calandrinia brevipedata	Short-stalked Purslane				K		10		10	
	Calandrinia calyptrata	Pink Purslane			U	K	7	29	1	30	
	Calandrinia calyptrata/eremaea	Purslane						4		4	Broader taxonomic entity used, when specimens not collected, due to difficulties recognised in identification in the field.
	Calandrinia eremaea	Dryland Purslane					11	54	2	56	

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	Calandrinia granulifera	Pigmy Purslane				Q	1	3	1	4	
	Calandrinia polyandra var. *polyandra*	Parakeelya						1		1	
	Calandrinia sp.	Purslane/Parakeelya						5		5	
	Calandrinia volubilis	Twining Purslane			T			1		1	
*	*Calendula arvensis*	Field Marigold						3		3	
	Callistemon rugulosus var. *rugulosus* (NC)	Scarlet Bottlebrush			R	R		1		1	= *Callistemon rugulosus*
	Callistemon teretifolius	Needle Bottlebrush			U			2		2	
	Callitris canescens	Scrubby Cypress Pine					6	32		32	
	Callitris glaucophylla	White Cypress-pine					2	29		29	
	Callitris gracilis	Southern Cypress Pine					6	100	6	106	
	Calocephalus citreus	Lemon Beauty-heads			U	K	7	49	1	50	
	Calostemma purpureum	Pink Garland-lily				R	3	43		43	
	Calotis hispidula	Hairy Burr-daisy					11	67		67	
	Calytrix involucrata	Cup Fringe-myrtle			E	R	1	11	1	12	
	Calytrix tetragona	Common Fringe-myrtle					21	103	4	107	
*	*Capsella bursapastoris*	Shepherd's Purse						3		3	
*	*Carduus tenuiflorus*	Slender Thistle					5	63		63	
	Carex appressa	Tall Sedge						4		4	
	Carex bichenoviana	Notched Sedge			K		1	4	1	5	
	Carex breviculmis	Short-stem Sedge			R		2	6		6	
*	*Carex divisa*	Divided Sedge						2		2	
	Carex gaudichaudiana	Fen Sedge						1		1	
	Carex inversa var. *major*	Knob Sedge		R	R			2		2	
	Carex sp.	Sedge						1		1	
*	*Carpobrotus aequilaterus*	Angled Pigface						1		1	
	Carpobrotus modestus	Inland Pigface						3		3	
	Carpobrotus rossii	Native Pigface					12	177		177	
	Carpobrotus sp.	Pigface					2	6		6	
*	*Carrichtera annua*	Ward's Weed					18	204	1	205	
*	*Carthamus lanatus*	Saffron Thistle					23	159		159	
*	*Carthamus* sp.							1		1	
	Caryophyllaceae sp.	Pink Family						2		2	
	Cassinia arcuata	Drooping Cassinia			U	U		19	1	20	
	Cassinia laevis	Curry Bush					6	15		15	
	Cassinia sp.	Cassinia					1	1		1	
	Cassinia uncata (NC)	Sticky Cassinia				U	2	11		11	= *Cassinia complanata*
	Cassytha glabella f. *dispar*	Slender Dodder-laurel			R		6	45		45	
	Cassytha melantha	Coarse Dodder-laurel					12	73	4	77	
	Cassytha peninsularis var. *peninsularis*	Peninsula Dodder-laurel					16	65		65	
	Cassytha pubescens	Downy Dodder-laurel			R			3		3	
	Cassytha sp.	Dodder-laurel						21		21	
	Casuarina pauper	Black Oak						10	1	11	
*	*Catapodium rigidum*	Rigid Fescue					37	98		98	
*	*Centaurea calcitrapa*	Star Thistle					1	2		2	
*	*Centaurea melitensis*	Malta Thistle					8	39	1	40	
*	*Centaurea solstitialis*	St Barnaby's Thistle						1		1	
*	*Centaurea* sp.	Centaury						2		2	
*	*Centaurium erythraea*	Common Centaury					1	10		10	
*	*Centaurium maritimum*	Sea Centaury					3	3		3	
*	*Centaurium* sp.	Centaury						2		2	
	Centaurium spicatum	Spike Centaury						2		2	
*	*Centaurium tenuiflorum*	Branched Centaury					1	1		1	
*	*Centaurium tenuiflorum* (NC)	Branched Centaury					15	18		18	Used in the broad sense according to Jessop (1993). Now may be either **Centaurium pulchellum* or **C. tenuiflorum*.
	Centrolepis aristata	Pointed Centrolepis				K	1	4		4	
	Centrolepis cephaloformis ssp.	Cushion Centrolepis						1		1	= *Centrolepis cephaloformis* ssp. *cephaloformis*
	Centrolepis cephaloformis ssp. *cephaloformis*	Cushion Centrolepis		R	R	E		5		5	
	Centrolepis polygyna	Wiry Centrolepis			R	Q	1	12		12	
	Centrolepis strigosa ssp. *strigosa*	Hairy Centrolepis					1	7		7	
*	*Cerastium balearicum*	Chickweed					7	30		30	

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*	*Cerastium balearicum/pumilum*							1		1	Broader taxonomic entity used, when specimens not collected, due to difficulties recognised in identification in the field.
*	*Cerastium diffusum*	Mouse-ear Chickweed						3		3	
*	*Cerastium glomeratum*	Common Mouse-ear Chickweed					5	39		39	
*	*Cerastium pumilum*	Chickweed					1	7		7	
*	*Cerastium semidecandrum* (NC)	Small Mouse-ear Chickweed						2		2	= **Cerastium balearicum*
*	*Cerastium* sp.	Chickweed						2		2	
	Chamaescilla corymbosa var. *corymbosa*	Blue Squill			R	R	3	15		15	
	Chamaesyce drummondii	Caustic Weed					15	120	4	124	
*	*Chasmanthe floribunda* var. *floribunda*	African Corn-flag						1		1	
	Cheilanthes austrotenuifolia	Annual Rock-fern				Q	24	109	3	112	
	Cheilanthes distans	Bristly Cloak-fern			R		1	2		2	
	Cheilanthes lasiophylla	Woolly Cloak-fern					3	16		16	
	Cheilanthes sieberi ssp.	Narrow Rock-fern						4		4	= *Cheilanthes sieberi* ssp. *sieberi*
	Cheilanthes sieberi ssp. *sieberi*	Narrow Rock-fern				K	2	9	1	10	
	Cheiranthera alternifolia	Hand-flower			T	K	3	7		7	
	Chenopodiaceae sp.	Goosefoot Family					1	5		5	
	Chenopodium cristatum	Crested Goosefoot						3		3	
	Chenopodium curvispicatum	Cottony Goosefoot			E		1	5		5	
	Chenopodium desertorum ssp.	Desert Goosefoot						12		12	
	Chenopodium desertorum ssp. *anidiophyllum*	Mallee Goosefoot						2		2	
	Chenopodium desertorum ssp. *desertorum*	Frosted Goosefoot					2	18		18	
	Chenopodium desertorum ssp. *microphyllum*	Small-leaf Goosefoot					13	87	3	90	
	Chenopodium gaudichaudianum	Scrambling Goosefoot						1		1	
*	*Chenopodium glaucum*	Glaucous Goosefoot					1	1		1	
	Chenopodium nitrariaceum	Nitre Goosefoot			X		2	3		3	
	Chenopodium pumilio	Clammy Goosefoot						1		1	
	Chenopodium sp.	Goosefoot						3		3	
	Chloris pectinata	Comb Windmill Grass						1		1	
	Chloris truncata	Windmill Grass						1	2	3	
*	*Chondrilla juncea*	Skeleton Weed						1		1	
	Choretrum glomeratum var.	Sour-bush						1		1	
	Choretrum glomeratum var. *chrysanthum*	Yellow-flower Sour-bush		R	T	E		1		1	
	Choretrum glomeratum var. *glomeratum*	White Sour-bush					4	14		14	
*	*Chrysanthemoides monilifera*	Boneseed						1		1	
	Chrysocephalum apiculatum	Common Everlasting					31	158	3	161	
	Chrysocephalum baxteri	White Everlasting			R	K		1	1	2	
	Chrysocephalum semipapposum	Clustered Everlasting			Q	R	16	87	3	90	
*	*Cirsium vulgare*	Spear Thistle					9	18		18	
*	*Citrullus lanatus*	Bitter Melon						2		2	
	Clematis microphylla var. *microphylla*	Old Man's Beard					30	265	1	266	
	Codonocarpus pyramidalis	Slender Bell-fruit	V	E	E			0	1	1	
	Comesperma scoparium	Broom Milkwort				T		1		1	
	Comesperma volubile	Love Creeper					26	96	1	97	
	Compositae sp.	Daisy Family					1	14		14	
	Convolvulus angustissimus ssp. *angustissimus*	Australian Bindweed					20	20		20	
	Convolvulus angustissimus ssp. *peninsularum*	Grassland Bindweed			U		5	8	1	9	
	Convolvulus erubescens (NC)	Australian Bindweed						139	1	140	Used in the broad sense according to Jessop (1993). Now may refer to any one of 5 taxa of the genus *Convolvulus*.
	Convolvulus erubescens/remotus	Native Bindweed						7		7	Broader taxonomic entity used, when specimens not collected, due to difficulties recognised in identification in the field.
	Convolvulus eyreanus (NC)	Silver Bindweed				K		1		1	Used in the broad sense according to Jessop (1993). Now may refer to either *Convolvulus crispifolius* or *C. eyreanus*.

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	Convolvulus microsepalus/remotus							4		4	Broader taxonomic entity used, when specimens not collected, due to difficulties recognised in identification in the field.
	Convolvulus remotus	Grassy Bindweed				Q	16	88		88	
	Convolvulus sp.	Bindweed					1	6		6	
	Correa backhouseana var. *coriacea*	Thick-leaf Correa					3	29		29	
	Correa glabra (NC)	Rock Correa			R			3	2	5	= *Correa glabra* var. *turnbullii*
	Correa pulchella	Salmon Correa					8	87		87	
	Correa reflexa (NC)	Common Correa						1		1	Presumed to be *Correa backhouseana* var. *coriacea* on the basis of habitat (record from hills NW of Clare)
	Correa sp.	Correa						3		3	
	Corybas despectans	Coast Helmet-orchid			E		2	11		11	
	Corybas sp.	Helmet-orchid						24		24	
*	*Cotoneaster pannosus*	Cotoneaster						1		1	
	Cotula australis	Common Cotula						7		7	
*	*Cotula coronopifolia*	Water Buttons					5	12		12	
	Cotula vulgaris var. *australasica*	Slender Cotula					1	7		7	
	Craspedia glauca (NC)	Billy-buttons			R			60		60	Used in the broad sense according to Jessop (1993). Most likely *Craspedia variabilis* given the apparent rarity of *C. haplorrhiza* (pers comm Dr P Lang, DEH).
	Craspedia variabilis	Billy-buttons			R		11	11		11	
	Crassula closiana	Stalked Crassula			R		8	27	1	28	
	Crassula colligata ssp. *colligata*						3	3		3	
	Crassula colligata ssp. *lamprosperma*	Australian Stonecrop					34	34		34	
	Crassula colorata var.	Dense Crassula					2	67		67	
	Crassula colorata var. *acuminata*	Dense Crassula					24	100		100	
	Crassula colorata var. *colorata*	Dense Crassula					3	28		28	
	Crassula colorata/sieberiana complex	Crassula						4		4	Broader taxonomic entity used, when specimens not collected, due to difficulties recognised in identification in the field.
	Crassula decumbens var. *decumbens*	Spreading Crassula						107		107	
*	*Crassula natans* var. *minus*	Water Crassula					2	4		4	
	Crassula sieberiana complex	Australian Stonecrop						3		3	
	Crassula sieberiana ssp. *tetramera* (NC)	Australian Stonecrop					18	233	1	234	Used in the broad sense according to Jessop (1993). Now may refer to either *Crassula colligata* ssp. *colligata* or *C. colligata* ssp. *lamprosperma*.
	Crassula sp.	Crassula/Stonecrop						7		7	
	Cratystylis conocephala	Bluebush Daisy			E	E	1	1		1	
*	*Crepis foetida* ssp. *foetida*	Stinking Hawksbeard						4		4	
	Cressa cretica	Rosinweed			V	E		1		1	
*	*Critesion murinum* ssp. (NC)	Barley-grass						69		69	Used in the broad sense according to Jessop (1993). Now may be either **Hordeum glaucum* or **H. leporinum*.
*	*Critesion* sp. (NC)	Barley-grass						14		14	Used in the broad sense according to Jessop (1993). Now may refer to any one of 4 species of the genus **Hordeum*.
	Cruciferae sp.	Cress Family						1		1	
	Cryptandra amara var.	Cryptandra						10	1	11	Treat as *Cryptandra* sp. Floriferous (W.R.Barker 4131) as any *Cryptandra* sp. Long hypanthium (C.R. Alcock 10626) would have been readily recognised as "*Cryptandra amara* var. *longiflora*" at the time (pers comm Dr P. Lang, DEH).
	Cryptandra amara var. *amara* (NC)	Spiny Cryptandra						25		25	= *Cryptandra* sp. Floriferous (W.R.Barker 4131)
	Cryptandra sp.	Cryptandra						2		2	
	Cryptandra sp. Floriferous (W.R.Barker 4131)	Pretty Cryptandra					5	5		5	
	Cryptandra sp. Long hypanthium (C.R. Alcock 10626)	Long-flower Cryptandra		R	R		11	53		53	
	Cryptandra tomentosa (NC)	Heath Cryptandra				R	1	2	2	4	Used in the broad sense according to Jessop (1993). Now may be either *Cryptandra* sp. Simple-haired calyx (D.E. Symon 8875) or *C. tomentosa*.
*	*Cucumis myriocarpus*	Paddy Melon						2		2	
	Cullen australasicum	Tall Scurf-pea						1		1	
	Cullen parvum	Small Scurf-pea	E	V	E			2		2	

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	Cymbonotus preissianus	Austral Bear's-ear			R	K	2	23	1	24	
	Cymbopogon ambiguus	Lemon-grass					1	14	1	15	
*	*Cynara cardunculus*	Artichoke Thistle					10	41		41	
*	*Cynodon dactylon*	Couch					2	15	1	16	
	Cynoglossum suaveolens	Sweet Hound's-tongue			R	K	4	13	1	14	
*	*Cynosurus echinatus*	Rough Dog's-tail Grass						7		7	
	Cyperus alterniflorus (NC)	Umbrella Flat-sedge						3		3	= *Cyperus alterniflorus*
	Cyperus exaltatus	Splendid Flat-sedge						1		1	
	Cyperus gunnii ssp. *gunnii*	Flecked Flat-sedge			R			2		2	
	Cyperus gymnocaulos	Spiny Flat-sedge				R	12	29		29	
	Cyperus laevigatus	Bore-drain Sedge			K		1	1		1	
	Cyperus tenellus	Tiny Flat-sedge			R			1		1	
	Cyperus vaginatus	Stiff Flat-sedge						2		2	
	Cyrtostylis reniformis	Small Gnat-orchid						1		1	
	Cyrtostylis robusta	Robust Gnat-orchid			E			52		52	
	Cytisus proliferus (NC)							1		1	= **Chamaecytisus palmensis*
*	*Dactylis glomerata*	Cocksfoot						1		1	
	Dampiera dysantha	Shrubby Dampiera						1		1	
	Dampiera lanceolata var. *lanceolata*	Grooved Dampiera			E		2	2		2	
	Dampiera rosmarinifolia	Rosemary Dampiera					4	40	1	41	
	Danthonia carphoides var. (NC)	Short Wallaby-grass						18		18	= *Austrodanthonia carphoides*
	Danthonia carphoides var. *carphoides* (NC)	Short Wallaby-grass		R	R			7		7	= *Austrodanthonia carphoides*
	Danthonia pilosa var. (NC)	Velvet Wallaby-grass						22		22	= *Austrodanthonia pilosa*
	Danthonia pilosa var. *paleacea* (NC)	Velvet Wallaby-grass			K			7		7	= *Austrodanthonia pilosa*
	Danthonia pilosa var. *pilosa* (NC)	Velvet Wallaby-grass						5	1	6	= *Austrodanthonia pilosa*
	Danthonia setacea (NC)							2		2	= *Austrodanthonia setacea*
	Danthonia sp.	Wallaby-grass					5	91	1	92	= *Austrodanthonia* sp.
	Daucus glochidiatus	Native Carrot					65	331	1	332	
	Daviesia benthamii ssp. *humilis*	Mallee Bitter-pea		R	E	K	1	4	1	5	
	Daviesia genistifolia	Broom Bitter-pea			U			4		4	
	Daviesia leptophylla	Narrow-leaf Bitter-pea			R			0	2	2	
	Derwentia decorosa	Showy Speedwell		R	K			0	1	1	
	Dianella brevicaulis	Short-stem Flax-lily					19	126		126	
	Dianella brevicaulis/revoluta var.	Black-anther Flax-lily						72		72	Broader taxonomic entity used, when specimens not collected, due to difficulties recognised in identification in the field.
	Dianella longifolia var.	Pale Flax-lily						2		2	= *Dianella longifolia* var. *grandis*
	Dianella longifolia var. *grandis*	Pale Flax-lily		R	T			1		1	
	Dianella revoluta (NC)							55		55	= *Dianella brevicaulis/revoluta* var.
	Dianella revoluta var.							24		24	
	Dianella revoluta var. *divaricata*	Broad-leaf Flax-lily						6		6	
	Dianella revoluta var. *revoluta*	Black-anther Flax-lily					54	235	3	238	
	Dianella sp.	Flax-lily						6		6	
	Dichanthium sericeum ssp.	Silky Blue-grass						0	2	2	
	Dichelachne crinita	Long-hair Plume-grass			R	E	5	8	1	9	
	Dichondra repens	Kidney Weed						2		2	
	Digitaria sp.	Summer-grass						1		1	
	Dillwynia hispida	Red Parrot-pea				K		5		5	
*	*Diplotaxis muralis* var. *muralis*	Wall Rocket					1	1		1	
*	*Diplotaxis* sp.	Rocket					1	1		1	
*	*Diplotaxis tenuifolia*	Lincoln Weed						2	1	3	
*	*Dischisma arenarium*	Sand Dichisma						12		12	
	Disphyma crassifolium ssp. (NC)							1		1	= *Disphyma crassifolium* ssp. *clavellatum*
	Disphyma crassifolium ssp. *clavellatum*	Round-leaf Pigface					6	56		56	
	Disphyma crassifolium ssp. *crassifolium* (NC)							1		1	= *Disphyma crassifolium* ssp. *clavellatum*
	Dissocarpus biflorus var.	Two-horn Saltbush						2		2	= *Dissocarpus biflorus* var. *biflorus*
	Dissocarpus biflorus var. *biflorus*	Two-horn Saltbush			K	K	1	6		6	
	Dissocarpus paradoxus	Ball Bindyi					1	7	1	8	
	Distichlis distichophylla	Emu-grass			K	R	6	16		16	
*	*Dittrichia graveolens*	Stinkweed					2	25		25	
	Diuris behrii	Behr's Cowslip Orchid		R	V			1		1	

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	Diuris orientis	Wallflower Donkey-orchid				R	1	7		7	
	Diuris palustris	Little Donkey-orchid			R	U	3	23		23	
	Diuris pardina	Spotted Donkey-orchid			R	T		4		4	
	Dodonaea baueri	Crinkled Hop-bush					12	48	3	51	
	Dodonaea bursariifolia	Small Hop-bush				K		8		8	
	Dodonaea hexandra	Horned Hop-bush			K		3	27		27	
	Dodonaea humilis	Dwarf Hop-bush					10	66		66	
	Dodonaea lobulata	Lobed-leaf Hop-bush			R		4	15		15	
	Dodonaea procumbens	Trailing Hop-bush	V	V	V			3	2	5	
	Dodonaea stenozyga	Desert Hop-bush			K	K		3		3	
	Dodonaea subglandulifera		E	E		E		1		1	
	Dodonaea tepperi	Streaked Hop-bush						1		1	
	Dodonaea viscosa ssp.	Sticky Hop-bush						6		6	
	Dodonaea viscosa ssp. *angustissima*	Narrow-leaf Hop-bush					6	38		38	
	Dodonaea viscosa ssp. *cuneata*	Wedge-leaf Hop-bush			K			1		1	
	Dodonaea viscosa ssp. *spatulata*	Sticky Hop-bush					4	40		40	
	Drosera auriculata	Tall Sundew			U		3	7		7	
	Drosera glanduligera	Scarlet Sundew			R	R	1	12		12	
	Drosera macrantha ssp. *planchonii*	Climbing Sundew					7	75	1	76	
	Drosera peltata	Pale Sundew			U	R	1	8		8	
	Drosera whittakeri (NC)	Scented Sundew						8		8	Used in the broad sense according to Jessop (1993). Now may refer to *Drosera whittakeri* ssp. *whittakeri* for these records from NL & MU.
	Drosera whittakeri ssp. *whittakeri*						1	2	1	3	
	Echinopogon ovatus	Rough-beard Grass		R	R			1		1	
*	*Echium plantagineum*	Salvation Jane					42	362	3	365	
*	*Echium* sp.	Bugloss						1		1	
*	*Ehrharta calycina*	Perennial Veldt Grass						5		5	
*	*Ehrharta longiflora*	Annual Veldt Grass					5	48		48	
	Einadia nutans ssp.	Climbing Saltbush						100	3	103	
	Einadia nutans ssp. *nutans*	Climbing Saltbush					31	117	2	119	
	Elachanthus pusillus	Elachanth			R	K	3	10		10	
	Eleocharis acuta	Common Spike-rush			R	K		3		3	
	Eleocharis pusilla	Small Spike-rush						1		1	
	Elymus scabrus var. *scabrus*	Native Wheat-grass				E	8	84		84	
*	*Emex australis*	Three-corner Jack						7		7	
	Enchylaena tomentosa var.	Ruby Saltbush						91	2	93	= *Enchylaena tomentosa* var. *tomentosa*
	Enchylaena tomentosa var. *tomentosa*	Ruby Saltbush					42	354	2	356	
	Enneapogon nigricans	Black-head Grass				R	4	58	5	63	
	Enneapogon sp.	Bottle-washers/Nineawn						2		2	
	Enteropogon acicularis	Umbrella Grass			Q	Q		9	2	11	
	Enteropogon acicularis (NC)	Umbrella Grass						13		13	Used in the broad sense according to Jessop & Toelken (1986). Now may be either *Enteropogon acicularis* or *E. ramosus*.
	Enteropogon ramosus	Umbrella Grass						2		2	
	Epacridaceae sp.	Heath Family						1		1	
	Epilobium billardierianum ssp. *billardierianum*	Robust Willow-herb			R		2	3		3	
	Epilobium sp.	Willow-herb						1		1	
	Eragrostis australasica	Cane-grass			K		3	3		3	
	Eragrostis falcata	Sickle Love-grass						1		1	
	Eragrostis setifolia	Bristly Love-grass						1		1	
	Eremophila alternifolia	Narrow-leaf Emubush					2	11		11	
	Eremophila behriana	Rough Emubush			E	E	1	4		4	
	Eremophila deserti	Turkey-bush				Q	1	12		12	
	Eremophila glabra (NC)	Tar Bush						11		11	Used in the broad sense according to Jessop (1993). Now may be either *Eremophila glabra* ssp. *glabra* or *E. glabra* ssp. Murray (A.G.Spooner 14470)
	Eremophila glabra ssp.	Tar Bush						0	1	1	
	Eremophila glabra ssp. *glabra*	Tar Bush				K	1	13	1	14	
	Eremophila longifolia	Weeping Emubush				K	4	35	3	38	
	Eremophila oppositifolia ssp.	Opposite-leaved Emubush						0	1	1	= *Eremophila oppositifolia* ssp. *oppositifolia*

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	Eremophila oppositifolia ssp. *oppositifolia*	Opposite-leaved Emubush			K			2		2	
	Eremophila scoparia	Broom Emubush					1	5		5	
	Eremophila serrulata	Green Emubush						4		4	
	Eremophila subfloccosa ssp. Glandulosa (R.Bates 32961)	Green-flower Emubush		R	R	V		1		1	
	Eriochilus cucullatus	Parson's Bands			R			22		22	
	Eriochiton sclerolaenoides	Woolly-fruit Bluebush				K	2	15		15	
	Eriochlamys behrii	Woolly Mantle			X			2		2	
*	*Erodium aureum*							1		1	
*	*Erodium botrys*	Long Heron's-bill					17	133	1	134	
*	*Erodium brachycarpum*	Short-fruit Heron's-bill					1	8		8	
*	*Erodium cicutarium*	Cut-leaf Heron's-bill					10	133		133	
	Erodium crinitum	Blue Heron's-bill					1	53	2	54	
	Erodium crinitum/cygnorum/ carolinianum/jannzii	Blue Heron's-bill						1		1	Broader taxonomic entity used, when specimens not collected, due to difficulties recognised in identification in the field.
	Erodium cygnorum ssp. (NC)	Blue Heron's-bill						1		1	Used in the broad sense according to Jessop (1993). Now may be either *Erodium carolinianum* or *E. janszii*.
	Erodium cygnorum ssp. *glandulosum* (NC)	Clammy Heron's-bill						11		11	Used in the broad sense according to Jessop (1993). Now may be either *Erodium carolinianum* or *E. janszii*.
*	*Erodium moschatum*	Musky Herons-bill						9		9	
	Erodium sp.	Heron's-bill/Crowfoot						22		22	
	Eryngium rostratum	Blue Devil		V	V		1	16	2	18	
	Eucalyptus albens	White Box		R	T			1		1	
	Eucalyptus brachycalyx	Gilja					5	51	1	52	
	Eucalyptus calycogona (NC)	Square-fruit Mallee						1		1	Used in the broad sense according to Jessop & Toelken (1986). Most likely *Eucalyptus calycogona* ssp. *trachybasis*.
	Eucalyptus calycogona ssp.	Square-fruit Mallee						2		2	= *Eucalyptus calycogona* ssp. *trachybasis*
	Eucalyptus calycogona var. *calycogona* (NC)	Square-fruit Mallee			R	V	3	8	1	9	Used in the broad sense according to Jessop (1993). Most likely *Eucalyptus calycogona* ssp. *trachybasis*.
	Eucalyptus camaldulensis var.	River Red Gum						15	2	17	= *Eucalyptus camaldulensis* var. *camaldulensis*
	Eucalyptus camaldulensis var. *camaldulensis*	River Red Gum				V	7	15	4	19	
	Eucalyptus cladocalyx	Sugar Gum						9	1	10	
	Eucalyptus conglobata ssp. *conglobata*	Port Lincoln Mallee		R				3		3	
	Eucalyptus conglobata x *phenax* (NC)							2		2	Most likely *Eucalyptus phenax* ssp. *phenax* (pers comm Dr P. Lang, DEH).
	Eucalyptus diversifolia (NC)	Coastal White Mallee						74	1	75	= *Eucalyptus diversifolia* ssp. *diversifolia*
	Eucalyptus diversifolia ssp. *diversifolia*	Coastal White Mallee					14	14		14	
	Eucalyptus dumosa	White Mallee				V		34		34	
	Eucalyptus dumosa complex x *phenax*	White Mallee						1		1	Hybrid
	Eucalyptus dumosa x *odorata*	Hybrid Mallee						1		1	Hybrid
	Eucalyptus flocktoniae x *socialis*	Merrit Intergrade						2		2	Hybrid
	Eucalyptus goniocalyx (NC)	Long-leaf Box			U		1	6	2	8	= *Eucalyptus goniocalyx* ssp. *goniocalyx*
	Eucalyptus gracilis	Yorrell					10	135	3	138	
	Eucalyptus incrassata	Ridge-fruited Mallee			R		1	28	1	29	
	Eucalyptus largiflorens	River Box			V			4		4	
	Eucalyptus leptophylla	Narrow-leaf Red Mallee					2	33		33	
	Eucalyptus leucoxylon (NC)	South Australian Blue Gum						52		52	= *Eucalyptus leucoxylon* ssp.
	Eucalyptus leucoxylon ssp.	South Australian Blue Gum						8	1	9	
	Eucalyptus leucoxylon ssp. *pruinosa*	Inland South Australian Blue Gum					16	47	4	52	
	Eucalyptus leucoxylon ssp. *pruinosa* (NC)							4		4	Used in the broad sense according to Jessop (1993). Most likely *Eucalyptus leucoxylon* ssp. *pruinosa*.
	Eucalyptus macrorhyncha ssp. *macrorhyncha*	Red Stringybark		R	R		2	4		4	
	Eucalyptus microcarpa	Grey Box			R		1	9		9	
	Eucalyptus microcarpa x *odorata*	Grey Box Intergrade						0	1	1	Hybrid
	Eucalyptus odorata	Peppermint Box				E	16	159	6	165	

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	Eucalyptus oleosa (NC)	Red Mallee					9	122	4	126	Used in the broad sense according to Jessop (1993). Now may be either *Eucalyptus oleosa* ssp. *ampliata* or *E. oleosa* ssp. *oleosa*.
	Eucalyptus oleosa ssp.						4	4		4	
	Eucalyptus phenax (NC)	Sessile-fruit White Mallee						38		38	Used in the broad sense. Now may be either *Eucalyptus phenax* ssp. *compressa* or *E. phenax* ssp. *phenax*.
	Eucalyptus phenax ssp.							1		1	As this refers to a YP record it is most likely *Eucalyptus phenax* ssp. *phenax*.
	Eucalyptus phenax ssp. *phenax*	White Mallee					3	4		4	
	Eucalyptus porosa	Mallee Box					19	123	2	125	
	Eucalyptus rugosa	Kingscote Mallee					2	31	1	32	
	Eucalyptus socialis (NC)	Beaked Red Mallee					13	125	3	128	Used in the broad sense according to Jessop (1993). Now may be either *Eucalyptus socialis* ssp. Glossy green (P.J.Lang 804) or *E. socialis* ssp. *socialis*).
	Eucalyptus sp.							0	1	1	
	Euchiton collinus	Creeping Cudweed						1		1	
	Euchiton gymnocephalus (NC)	Creeping Cudweed						2		2	Used in the broad sense according to Jessop (1993). Now is *Euchiton collinus*.
	Euchiton sphaericus	Annual Cudweed					5	14	1	15	
*	*Euphorbia helioscopia*	Sun Spurge						5		5	
*	*Euphorbia paralias*	Sea Spurge						21	1	22	
*	*Euphorbia peplus*	Petty Spurge					1	4		4	
	Euphorbia sp.	Spurge						1		1	
	Euphorbia tannensis ssp. (NC)	Desert Spurge						1		1	= *Euphorbia tannensis* ssp. *eremophila*
	Euphorbia tannensis ssp. *eremophila*	Desert Spurge			K	K	1	1		1	
*	*Euphorbia terracina*	False Caper					2	56		56	
	Euphrasia collina ssp.	Eyebright						1		1	Most likely *Euphrasia collina* ssp. *osbornii* as record is from coast of southern YP.
	Euphrasia collina ssp. *osbornii*	Osborn's Eyebright	E	E	E	E	1	6	2	8	
	Euphrasia collina ssp. *tetragona*	Coast Eyebright				U	2	6		6	
	Eutaxia diffusa	Large-leaf Eutaxia			E	R	3	10		10	
	Eutaxia microphylla var. *microphylla*	Common Eutaxia					26	117	3	120	
	Eutaxia microphylla var. *microphylla* (erect)	Common Eutaxia						2		2	
	Eutaxia microphylla var. *microphylla* (prostrate)	Common Eutaxia			K			3		3	
	Eutaxia sp.	Eutaxia						21		21	
	Exocarpos aphyllus	Leafless Cherry					30	206	1	207	
	Exocarpos cupressiformis	Native Cherry			U	U	4	26	1	27	
	Exocarpos sp.	Native Cherry/Ballart						1		1	
	Exocarpos sparteus	Slender Cherry					2	18		18	
	Exocarpos syrticola	Coast Cherry					4	62	1	63	
	Festuca sp.	Fescue						1		1	
*	*Filago pyramidata*	Filago						1		1	
*	*Foeniculum vulgare*	Fennel						6		6	
	Frankenia pauciflora var.	Southern Sea-heath					1	14		14	
	Frankenia pauciflora var. *fruticulosa*	Southern Sea-heath					7	40		40	
	Frankenia pauciflora var. *gunnii*	Southern Sea-heath					3	17	1	18	
*	*Frankenia pulverulenta*	Mediterranean Sea-heath					2	3		3	
	Frankenia sessilis	Small-leaf Sea-heath			K			12		12	
	Frankenia sp.	Sea-heath					2	4		4	
*	*Freesia* cultivar	Freesia						9		9	
*	*Fumaria bastardii*	Bastard Fumitory					1	7		7	
*	*Fumaria capreolata*	White-flower Fumitory					1	9	1	10	
*	*Fumaria densiflora*	Dense Fumitory						4		4	
*	*Fumaria indica*	Indian Fumitory						1		1	
*	*Fumaria officinalis* ssp. *officinalis*	Common Fumitory						1		1	
*	*Fumaria parviflora* var. *parviflora*	Small-flower Fumitory						1		1	
	Gahnia deusta	Limestone Saw-sedge					5	40		40	
	Gahnia filum	Thatching Grass				U	6	17		17	
	Gahnia lanigera	Black Grass Saw-sedge			Q		29	162	1	163	
	Gahnia sp.	Saw-sedge						1		1	
	Gahnia trifida	Cutting Grass			K			2		2	

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*	*Galenia pubescens* var. *pubescens*	Coastal Galenia					2	7		7	
*	*Galenia secunda*	Galenia						2		2	
*	*Galenia* sp.	Galenia						0	1	1	
	Galium compactum	Compact Bedstraw					1	3		3	
*	*Galium divaricatum*	Slender Bedstraw						12		12	
	Galium gaudichaudii	Rough Bedstraw				Q	7	21	1	22	
	Galium migrans	Loose Bedstraw					11	57	1	58	
*	*Galium murale*	Small Bedstraw					49	271		271	
	Galium sp.	Bedstraw						3		3	
*	*Galium spurium* ssp. *ibicinum*	Bedstraw					3	8		8	
*	*Galium tricornutum*	Three-horned Bedstraw						1		1	
*	*Gazania linearis*	Gazania						1		1	
	Geijera linearifolia	Sheep Bush					10	90	1	91	
*	*Genista monspessulana*	Montpellier Broom						2	1	3	
	Genoplesium nigricans	Black Midge-orchid						6		6	
	Genoplesium nigricans/rufum	Midge-orchid						2		2	Broader taxonomic entity used, when specimens not collected, due to difficulties recognised in identification in the field.
	Genoplesium rufum	Red Midge-orchid			R	R	1	3		3	
	Genoplesium sp.	Midge Orchid					2	3		3	
	Geococcus pusillus	Earth Cress						2		2	
*	*Geranium dissectum*	Cut-leaf Geranium						3		3	
*	*Geranium molle* var. *molle*	Soft Geranium						15		15	
	Geranium potentilloides var. *potentilloides*	Downy Geranium					8	35		35	
	Geranium retrorsum	Grassland Geranium					11	101		101	
	Geranium solanderi var. *solanderi*	Austral Geranium						7		7	
	Geranium sp.	Geranium					1	15		15	
*	*Gladiolus tristis*	Evening-flower Gladiolus					2	2		2	
*	*Glaucium corniculatum* var. *corniculatum*	Bristly Horned-poppy					3	4		4	
	Glischrocaryon behrii	Golden Pennants			K	Q		3	1	4	
	Glischrocaryon flavescens	Yellow Pennants			R			1	1	2	
	Glossodia major	Purple Cockatoo					2	4		4	
	Glycine clandestina var. (NC)	Twining Glycine						13		13	Used in the broad sense according to Jessop (1993). Now most likely *Glycine rubiginosa*.
	Glycine clandestina var. *clandestina* (NC)	Twining Glycine						4		4	This species is not known from this region. Most likely *Glycine rubiginosa*.
	Glycine rubiginosa	Twining Glycine				Q	18	69	1	70	
	Gnaphalium indutum	Tiny Cudweed					13	48		48	
	Gnaphalium sp.	Cudweed						1		1	Used in the broad sense according to Jessop & Toelken (1986). Now may include several genera e.g. *Euchiton* sp. & *Gamochaeta* sp.
*	*Gomphocarpus cancellatus*	Broad-leaf Cotton-bush						1		1	
	Gonocarpus elatus	Hill Raspwort					27	129	3	132	
	Gonocarpus elatus x *mezianus*	Hybrid Raspwort						3		3	Hybrid
	Gonocarpus mezianus	Broad-leaf Raspwort					7	28	2	30	
	Gonocarpus sp.	Raspwort						2		2	
	Gonocarpus tetragynus	Small-leaf Raspwort					4	10		10	
	Goodenia albiflora	White Goodenia			U	E	5	25	2	27	
	Goodenia amplexans	Clasping Goodenia						3		3	
	Goodenia blackiana	Native Primrose			R	U	21	60	2	62	
	Goodenia fascicularis	Silky Goodenia					1	10		10	
	Goodenia geniculata	Bent Goodenia			R			1		1	
	Goodenia glauca	Pale Goodenia						1		1	
	Goodenia lunata	Stiff Goodenia						1		1	
	Goodenia ovata	Hop Goodenia						1		1	
	Goodenia pinnatifida	Cut-leaf Goodenia			U		24	168	1	169	
	Goodenia pusilliflora	Small-flower Goodenia				U	6	76	1	77	
	Goodenia robusta	Woolly Goodenia						2		2	
	Goodenia sp.	Goodenia						2		2	
	Goodenia varia	Sticky Goodenia					8	64		64	
	Goodenia willisiana	Silver Goodenia					12	92	2	94	
	Goodia lotifolia var. *lotifolia* (NC)	Golden-tip				R		2		2	= *Goodia medicaginea*
	Gramineae sp.	Grass Family					1	88		88	

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	Grammosolen dixonii				R	R		0	2	2	
	Grevillea huegelii	Comb Grevillea				K		15	2	17	
	Grevillea ilicifolia complex	Holly-leaf Grevillea						2		2	= *Grevillea ilicifolia* ssp. *ilicifolia* (as these are NL records).
	Grevillea ilicifolia ssp. *ilicifolia*	Holly-leaf Grevillea			V	U	1	1		1	
	Grevillea ilicifolia var. *ilicifolia* (NC)	Holly-leaf Grevillea			V	U	1	24	1	25	Used in the broad sense according to Jessop (1993). Now may be either *Grevillea dilatata* or *G. ilicifolia* ssp. *ilicifolia*. Most likely the latter, as *G. dilatata*, where it occurs in this area (YP), mostly represents integrades with *G. ilicifolia* (pers comm Dr P. Lang, DEH).
	Grevillea lavandulacea var.	Spider-flower						1		1	= *Grevillea lavandulacea* var. *lavandulacea*
	Grevillea lavandulacea var. *sericea* (NC)	Spider-flower			R			0	1	1	= *Grevillea lavandulacea* var. *lavandulacea*
*	*Gypsophila tubulosa*	Annual Chalkwort					2	5		5	
	Gyrostemon thesioides	Broom Wheel-fruit				R		1		1	
	Haeckeria punctulata	Sticky Haeckeria		R	R		1	4		4	
	Haegiela tatei	Small Nut-heads		R	K	R	1	4		4	
*	*Hainardia cylindrica*	Common Barb-grass						2		2	
	Hakea carinata	Erect Hakea			U		2	8	1	9	
	Hakea leucoptera ssp. *leucoptera*	Silver Needlewood					2	8		8	
	Hakea mitchellii	Heath Needlebush				V		2	1	3	
	Hakea rostrata	Beaked Hakea						1		1	
	Hakea rugosa	Dwarf Hakea			V	R		5	2	7	
	Halgania andromedifolia	Scented Blue-flower			V	E		2		2	
	Halgania cyanea	Rough Blue-flower					1	19	2	21	
	Haloragis acutangula f.	Smooth Raspwort					6	38		38	
	Haloragis acutangula f. *acutangula*	Smooth Raspwort						1		1	
	Haloragis acutangula f. *tetraptera*	Smooth Raspwort						1		1	
	Haloragis aspera	Rough Raspwort			U	K	1	14	3	17	
	Haloragis sp.	Raspwort						1		1	
	Halosarcia flabelliformis	Bead Samphire	V	V	T	T		2	1	3	
	Halosarcia halocnemoides ssp.	Grey Samphire						14	1	15	
	Halosarcia halocnemoides ssp. *halocnemoides*	Grey Samphire			K		2	32		32	
	Halosarcia indica ssp.	Brown-head Samphire						2		2	
	Halosarcia indica ssp. *bidens*	Brown-head Samphire			K	R		2		2	
	Halosarcia indica ssp. *leiostachya*	Brown-head Samphire				Q	6	25	1	26	
	Halosarcia pergranulata ssp.	Black-seed Samphire						10		10	
	Halosarcia pergranulata ssp. *pergranulata*	Black-seed Samphire				Q	7	21		21	
	Halosarcia pruinosa	Bluish Samphire			K			1		1	
	Halosarcia pterygosperma ssp. *pterygosperma*	Winged-seed Samphire				K		2		2	
	Halosarcia sp.	Samphire					6	20	1	21	
	Halosarcia syncarpa	Fused Samphire				Q		4		4	
	Hardenbergia violacea	Native Lilac			U		2	28		28	
	Harmsiodoxa brevipes var. *brevipes*	Short Cress				E		1		1	
*	*Hedypnois rhagadioloides*	Cretan Weed					23	105		105	
	Helichrysum bilobum ssp. (NC)							2		2	= *Ozothamnus retusus*
	Helichrysum leucopsideum	Satin Everlasting					28	234	2	236	
	Helichrysum sp.	Everlasting						0	1	1	
	Helichrysum sp. (NC)							3		3	Used in the broad sense according to Jessop & Toelken (1986). Now may include several genera e.g. *Chrysocephalum* sp. & *Ozothamnus* sp.
	Heliotropium asperrimum	Rough Heliotrope						4		4	
*	*Heliotropium europaeum*	Common Heliotrope						4		4	
*	*Helminthotheca echioides*	Ox-tongue					4	9		9	
	Hemichroa diandra	Mallee Hemichroa				R	1	5		5	
	Hemichroa pentandra	Trailing Hemichroa				R		7		7	
*	*Herniaria cinerea*	Rupturewort					3	11		11	
	Hibbertia crinita						3	3		3	
	Hibbertia exutiacies	Prickly Guinea-flower					7	21		21	
	Hibbertia glaberrima	Central Australian Guinea-flower		R				0	1	1	

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	Hibbertia pallidiflora	Round-leaf Guinea-flower				U	2	5		5	
	Hibbertia platyphylla ssp. *major*	Large Guinea-flower				K	1	1		1	
	Hibbertia riparia	Bristly Guinea-flower					15	15		15	
	Hibbertia riparia (canescens) (NC)	Grey Guinea-flower						4		4	= *Hibbertia* sp. Glabriuscula (D.J.Whibley 9012)
	Hibbertia riparia (NC)	Guinea-flower						2		2	Used in the broad sense according to Jessop (1993). Now may be either *Hibbertia riparia* or *H.* sp. Glabriuscula (D.J.Whibley 9012). Most likely the latter as these are YP records.
	Hibbertia sericea	Silky Guinea-flower						2		2	= *Hibbertia platyphylla* ssp.
	Hibbertia sericea var. (NC)	Silky Guinea-flower						23		23	= *Hibbertia platyphylla* ssp.
	Hibbertia sericea var. *major* (NC)	Large Guinea-flower						2		2	= *Hibbertia platyphylla* ssp.
	Hibbertia sericea var. *sericea* (NC)	Silky Guinea-flower						4		4	= *Hibbertia platyphylla* ssp.
	Hibbertia sp.	Guinea-flower						10	1	11	
	Hibbertia sp. Glabriuscula (D.J.Whibley 9012)	Smooth Guinea-flower						15		15	
	Hibbertia virgata	Twiggy Guinea-flower					5	23	1	24	
*	*Holcus lanatus*	Yorkshire Fog						1		1	
	Homoranthus wilhelmii	Wilhelm's Homoranthus				R		2		2	
*	*Hordeum glaucum*	Blue Barley-grass					31	183	2	185	
*	*Hordeum hystrix*	Mediterranean Barley-grass						1		1	
*	*Hordeum leporinum*	Wall Barley-grass						41		41	
*	*Hordeum marinum*	Sea Barley-grass					6	23		23	
*	*Hordeum* sp.							4		4	
*	*Hornungia procumbens*	Oval Purse					7	41		41	
	Hyalosperma demissum	Dwarf Sunray					6	28	1	29	
	Hyalosperma glutinosum ssp. *glutinosum*	Golden Sunray						14		14	
	Hyalosperma semisterile	Orange Sunray				K	6	38	1	39	
	Hybanthus floribundus ssp. *floribundus*	Shrub Violet					2	7		7	
	Hydrocotyle callicarpa	Tiny Pennywort				Q	15	31		31	
	Hydrocotyle capillaris	Thread Pennywort						44		44	
	Hydrocotyle foveolata	Yellow Pennywort				Q		5		5	
	Hydrocotyle hirta	Hairy Pennywort						0	1	1	
	Hydrocotyle laxiflora	Stinking Pennywort					6	25		25	
	Hydrocotyle medicaginoides	Medic Pennywort				R	15	23		23	
	Hydrocotyle pilifera var. *glabrata*	Buttercup Pennywort				U	1	17		17	
	Hymenanthera dentata	Tree Violet			R			4		4	
*	*Hypericum perforatum*	St John's Wort					1	9		9	
*	*Hypochaeris glabra*	Smooth Cat's Ear					58	356		356	
*	*Hypochaeris radicata*	Rough Cat's Ear					3	117	1	118	
*	*Hypochaeris* sp.	Cat's Ear						4		4	
	Hypoxis glabella var. *glabella*	Tiny Star					1	89		89	
*	*Iris germanica* (NC)	Flag Iris						5	3	8	Used in the broad sense according to Jessop (1993). Now may be either **Iris albicans* or **I. germanica*.
	Isoetopsis graminifolia	Grass Cushion					3	29		29	
	Isolepis cernua	Nodding Club-rush			R	K	3	7		7	
	Isolepis marginata	Little Club-rush			K		6	44		44	
	Isolepis nodosa	Knobby Club-rush					3	73		73	
	Isolepis platycarpa	Flat-fruit Club-rush			R	R	1	1		1	
	Isotoma scapigera	Salt Isotome		R		R	2	2		2	
	Ixodia achillaeoides ssp. *achillaeoides*	Coast Ixodia				U	1	22		22	
	Joycea clelandii	Cleland's Wallaby-grass						1		1	
*	*Juncus acutus*	Sharp Rush						1		1	
	Juncus aridicola	Inland Rush						1	1	2	
	Juncus bufonius	Toad Rush					2	10		10	
*	*Juncus capitatus*	Dwarf Rush					1	6		6	
*	*Juncus effusus*	Soft Rush						1		1	
	Juncus flavidus	Yellow Rush			V	X		8		8	
	Juncus kraussii	Sea Rush				Q	10	23		23	
	Juncus radula	Hoary Rush		V	V	T		1		1	
	Juncus subsecundus	Finger Rush					1	15		15	

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	Kennedia prostrata	Scarlet Runner					6	39		39	
*	*Kickxia elatine* ssp. *crinita*	Twining Toadflax						1		1	
*	*Kickxia elatine* ssp. *elatine*	Woolly Toadflax						1		1	
	Kunzea pomifera	Muntries			T			4	1	5	
*	*Lactuca serriola*	Prickly Lettuce					8	33	1	34	
	Lagenophora huegelii	Coarse Bottle-daisy				U	19	81	1	82	
*	*Lagurus ovatus*	Hare's Tail Grass					23	153		153	
*	*Lamarckia aurea*	Toothbrush Grass					5	33		33	
*	*Lamium amplexicaule* var. *amplexicaule*	Deadnettle						9		9	
	Lasiopetalum baueri	Slender Velvet-bush			K		4	29	1	30	
	Lasiopetalum behrii	Pink Velvet-bush			U		5	21	1	22	
	Lasiopetalum discolor	Coast Velvet-bush					6	111		111	
	Lasiopetalum schulzenii	Drooping Velvet-bush					6	14		14	
*	*Lavandula stoechas*	Topped Lavender					2	7		7	
	Lawrencia spicata	Salt Lawrencia				R		1		1	
	Lawrencia squamata	Thorny Lawrencia					9	30	1	31	
	Leguminosae sp.							1		1	
	Leiocarpa semicalva ssp.	Hill Button-bush					1	2		2	= *Leiocarpa semicalva* ssp. *semicalva*
	Leiocarpa supina	Coast Plover-daisy						5		5	
	Leiocarpa websteri	Narrow Plover-daisy						7		7	
	Leiocarpa websteri/tomentosa	Plover-daisy						1		1	Broader taxonomic entity used, when specimens not collected, due to difficulties recognised in identification in the field.
*	*Leontodon taraxacoides* ssp. *taraxacoides*	Lesser Hawkbit						1		1	
*	*Lepidium africanum*	Common Peppercress					4	67	2	69	
*	*Lepidium draba*	Hoary Cress					1	4	2	6	
	Lepidium oxytrichum	Green Peppercress						1		1	
	Lepidium oxytrichum/ papillosum							5		5	Broader taxonomic entity used, when specimens not collected, due to difficulties recognised in identification in the field.
	Lepidium papillosum	Warty Peppercress					7	15		15	
	Lepidium sp.	Peppercress					1	4		4	
	Lepidosperma aff. *congestum*						1	1		1	
	Lepidosperma carphoides	Black Rapier-sedge			Q			0	1	1	
	Lepidosperma concavum	Spreading Sword-sedge					6	7		7	
	Lepidosperma congestum	Clustered Sword-sedge					12	115		115	
	Lepidosperma curtisiae	Little Sword-sedge			R			2		2	
	Lepidosperma gladiatum	Coast Sword-sedge					3	38		38	
	Lepidosperma laterale (NC)	Sharp Sword-sedge						4		4	May be either *Lepidosperma concavum* or *L. congestum* but more likely the latter (pers comm Dr P. Lang, DEH).
	Lepidosperma sp.	Sword-sedge/Rapier-sedge					4	9		9	
	Lepidosperma viscidum	Sticky Sword-sedge					13	88	1	89	
	Lepilaena preissii	Slender Water-mat						0	1	1	
	Leptinella reptans	Creeping Cotula		R				1		1	
	Leptomeria aphylla	Leafless Currant-bush			E			1		1	
	Leptorhynchos elongatus	Lanky Buttons		R	E	E		2		2	
	Leptorhynchos squamatus ssp. *squamatus*	Scaly Buttons					18	85	2	87	
	Leptorhynchos tetrachaetus	Little Buttons			U	T	4	37		37	
	Leptorhynchos waitzia	Button Immortelle			E		4	11	1	12	
	Leptospermum coriaceum	Dune Tea-tree				K		2		2	
	Leucophyta brownii	Coast Cushion Bush						38	1	39	
	Leucopogon clelandii	Cleland's Beard-heath		R		T		1		1	
	Leucopogon concurvus	Scrambling Beard-heath					1	1		1	
	Leucopogon cordifolius	Heart-leaf Beard-heath			E	R	1	15		15	
	Leucopogon parviflorus	Coast Beard-heath					13	103	1	104	
	Levenhookia dubia	Hairy Stylewort			R	R	8	37		37	
	Levenhookia stipitata			R			1	1		1	
*	*Limonium companyonis*	Sea-lavender					3	16		16	
*	*Limonium lobatum*	Winged Sea-lavender					5	17	1	18	
*	*Limonium* sp.	Sea-lavender						2	2	4	
	Linum marginale	Native Flax			U		11	38	1	39	
	Linum sp.	Flax						6		6	

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*	*Linum strictum* ssp. *strictum*	Upright Yellow Flax					30	137		137	
*	*Linum trigynum*	French Flax					2	7		7	
	Lobelia alata	Angled Lobelia			R			1		1	
	Lobelia gibbosa	Tall Lobelia					5	9		9	
	Logania crassifolia	Coast Logania					3	57		57	
	Logania linifolia	Flax-leaf Logania				K		1		1	
	Logania minor	Spoon-leaf Logania				U	3	8		8	
	Logania ovata	Oval-leaf Logania					11	30		30	
	Logania saxatilis	Rock Logania		R	R			1		1	
	Logania sp.	Logania						7		7	
*	*Logfia gallica*	Narrow Cudweed					3	8		8	
*	*Lolium loliaceum*	Stiff Ryegrass						7		7	
*	*Lolium multiflorum*	Italian Ryegrass						2		2	
*	*Lolium perenne*	Perennial Ryegrass						33		33	
*	*Lolium perenne* x *rigidum*	Hybrid Ryegrass					1	33		33	Hybrid
*	*Lolium rigidum*	Wimmera Ryegrass					53	218	1	219	
*	*Lolium* sp.	Ryegrass					4	29		29	
*	*Lolium* x *hybridum*	Hybrid Ryegrass						2		2	Hybrid
	Lomandra collina	Sand Mat-rush					24	74	1	75	
	Lomandra densiflora	Soft Tussock Mat-rush				T	20	91	3	94	
	Lomandra effusa	Scented Mat-rush					34	248	3	251	
	Lomandra leucocephala ssp. *robusta*	Woolly Mat-rush			T	T		1	1	2	
	Lomandra micrantha ssp.	Small-flower Mat-rush						9		9	= *Lomandra micrantha* ssp. *micrantha*
	Lomandra micrantha ssp. *micrantha*	Small-flower Mat-rush			K		9	29	1	30	
	Lomandra multiflora ssp.	Many-flower Mat-rush						3		3	= *Lomandra multiflora* ssp. *dura*
	Lomandra multiflora ssp. *dura*	Hard Mat-rush					32	244	5	249	
	Lomandra nana	Small Mat-rush			K		2	8		8	
	Lomandra sororia	Sword Mat-rush			V		1	10		10	
	Lomandra sp.	Mat-rush						6		6	
	Lotus australis	Austral Trefoil					1	19		19	
	Lotus cruentus	Red-flower Lotus						2		2	
	Luzula meridionalis	Common Wood-rush					1	5		5	
	Lycium australe	Australian Boxthorn				K	1	18		18	
*	*Lycium ferocissimum*	African Boxthorn					28	352	2	354	
	Lycium sp.	Boxthorn						1		1	
	Lysiana exocarpi ssp. *exocarpi*	Harlequin Mistletoe					8	55	2	57	
	Lythrum hyssopifolia	Lesser Loosestrife					2	14		14	
	Lythrum paradoxum							1		1	
	Maireana aphylla	Cotton-bush			V	K	3	25	2	27	
	Maireana appressa	Pale-fruit Bluebush			V		3	5		5	
	Maireana brevifolia	Short-leaf Bluebush					12	130	2	132	
	Maireana enchylaenoides	Wingless Fissure-plant					27	257	1	258	
	Maireana erioclada	Rosy Bluebush					6	43	1	44	
	Maireana excavata	Bottle Fissure-plant		V	E		2	31	2	33	
	Maireana georgei	Satiny Bluebush						4		4	
	Maireana georgei/turbinata	Satiny Bluebush						2		2	Broader taxonomic entity used, when specimens not collected, due to difficulties recognised in identification in the field.
	Maireana lobiflora	Lobed Bluebush					1	5		5	
	Maireana microcarpa	Swamp Bluebush						1		1	
	Maireana oppositifolia	Salt Bluebush					7	46		46	
	Maireana pentatropis	Erect Mallee Bluebush						7		7	
	Maireana pyramidata	Black Bluebush					5	33		33	
	Maireana radiata	Radiate Bluebush						4		4	
	Maireana rohrlachii	Rohrlach's Bluebush		R	V	K		9		9	
	Maireana sedifolia	Bluebush					3	26	1	27	
	Maireana sp.	Bluebush/Fissure-plant					2	15	1	16	
	Maireana tomentosa ssp. *urceolata*							4		4	
	Maireana trichoptera	Hairy-fruit Bluebush					2	24	1	25	
	Maireana turbinata	Top-fruit Bluebush					4	23		23	
*	*Malus sylvestris*	Apple						0	1	1	
	Malva behriana	Australian Hollyhock				K		3		3	

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*	*Malva parviflora*	Small-flower Marshmallow					1	23	2	25	
*	*Marrubium vulgare*	Horehound					5	101	3	104	
	Marsdenia australis	Native Pear						1		1	
	Marsilea costulifera	Narrow-leaf Nardoo						1		1	
	Marsilea drummondii	Common Nardoo			K	E		1		1	
*	*Medicago arabica*	Spotted Medic						1		1	
*	*Medicago littoralis*	Strand Medic						5		5	
*	*Medicago minima* var. *minima*	Little Medic					32	246	1	247	
*	*Medicago polymorpha* var. *polymorpha*	Burr-medic					24	140		140	
*	*Medicago sativa* ssp.	Lucerne						7		7	= **Medicago sativa*
*	*Medicago sativa* ssp. *sativa*	Lucerne						1		1	= **Medicago sativa*
*	*Medicago* sp.	Medic					1	27		27	
*	*Medicago truncatula*	Barrel Medic					13	87		87	
	Melaleuca acuminata ssp. *acuminata*	Mallee Honey-myrtle					6	64	2	66	
	Melaleuca brevifolia	Short-leaf Honey-myrtle			K			4		4	
	Melaleuca decussata	Totem-poles					3	13		13	
	Melaleuca gibbosa	Slender Honey-myrtle				U	9	22	1	23	
	Melaleuca halmaturorum	Swamp Paper-bark					6	19		19	
	Melaleuca lanceolata	Dryland Tea-tree					39	39	1	40	
	Melaleuca lanceolata ssp. *lanceolata* (NC)	Dryland Tea-tree						235		235	= *Melaleuca lanceolata*
	Melaleuca pauperiflora (NC)	Boree			V	V		6		6	= *Melaleuca pauperiflora* ssp. *mutica*
	Melaleuca pauperiflora ssp. *mutica*	Boree			V	V		2		2	
	Melaleuca uncinata (NC)	Broombush					3	24		24	= *Melaleuca uncinata*
*	*Melilotus indicus*	King Island Melilot					15	90		90	
	Menkea australis	Fairy Spectacles					2	3		3	
	Mentha satureioides	Native Pennyroyal		R	V	E		1		1	
*	*Mesembryanthemum aitonis*	Angled Iceplant						1		1	
*	*Mesembryanthemum crystallinum*	Common Iceplant					1	51		51	
*	*Mesembryanthemum nodiflorum*	Slender Iceplant					12	79		79	
*	*Mesembryanthemum* sp.	Iceplant						2		2	
	Microcybe multiflora ssp. *multiflora*	Small-leaf Microcybe						1		1	
	Microcybe pauciflora ssp. *pauciflora*	Yellow Microcybe			K	U	2	5		5	
	Microlaena stipoides var. *stipoides*	Weeping Rice-grass			R		1	1		1	
	Microlepidium pilosulum	Hairy Shepherd's-purse		R		K		2		2	
*	*Micropterum papulosum*							3		3	
	Microseris lanceolata	Yam Daisy					30	135	1	136	
	Microtis arenaria	Notched Onion-orchid					5	9		9	
	Microtis frutetorum						3	5		5	
	Microtis sp.	Onion-orchid					9	70		70	
	Microtis unifolia	Common Onion-orchid						1		1	May refer to either *Microtia arenaria* or *M. frutetorum*.
	Microtis unifolia (NC)	Common Onion-orchid						2		2	Used in the broad sense according to Jessop & Toelken (1986). Now may be either *Microtia arenaria* or *M. frutetorum*.
	Microtis unifolia complex	Onion-orchid					5	9		9	May refer to either *Microtia arenaria* or *M. frutetorum*.
	Millotia major							2		2	
	Millotia muelleri	Common Bow-flower			K		4	34		34	
	Millotia myosotidifolia	Broad-leaf Millotia					3	33	1	34	
	Millotia perpusilla	Tiny Bow-flower			R			1		1	
	Millotia tenuifolia var.	Soft Millotia					4	5		5	= *Millotia tenuifolia* var. *tenuifolia*
	Millotia tenuifolia var. *tenuifolia*	Soft Millotia			R		8	27	2	29	
	Mimulus repens	Creeping Monkey-flower			T		4	7		7	
*	*Minuartia mediterranea*	Slender Sandwort					28	148		148	
	Minuria cunninghamii	Bush Minuria						2		2	
	Minuria leptophylla	Minnie Daisy					12	80	3	83	
*	*Misopates orontium*	Lesser Snapdragon						3		3	
	Mitrasacme paradoxa (NC)	Wiry Mitrewort						15		15	= *Phyllangium divergens*
*	*Moenchia erecta*	Erect Chickweed					1	7		7	
*	*Molineriella minuta*	Small Hair-grass						4		4	

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*	*Moraea flaccida*	One-leaf Cape Tulip					10	33		33	
*	*Moraea miniata*	Two-leaf Cape Tulip						2		2	
*	*Moraea setifolia*	Thread Iris					53	343	1	344	
	Muehlenbeckia adpressa	Climbing Lignum						15		15	
	Muehlenbeckia florulenta	Lignum			K	K	4	13	1	14	
	Muehlenbeckia gunnii	Coastal Climbing Lignum					6	71		71	
*	*Muscari armeniacum*	Grape Hyacinth						1		1	
	Myoporum insulare	Common Boobialla			R		6	57	1	58	
	Myoporum montanum	Native Myrtle					11	33	2	35	
	Myoporum parvifolium	Creeping Boobialla		R	K	R	1	4		4	
	Myoporum platycarpum (NC)	False Sandalwood						8		8	Used in the broad sense according to Jessop & Toelken (1986). Now may be either *Myoporum platycarpum* ssp. *perbellum* or *M. platycarpum* ssp. *platycarpum*.
	Myoporum platycarpum ssp.	False Sandalwood						23	1	24	
	Myoporum platycarpum ssp. *platycarpum*	False Sandalwood			Q	Q	2	16		16	
	Myoporum viscosum (NC)	Sticky Boobialla			Q	R		5	1	6	Used in the broad sense according to Jessop (1993). Now may be either *Myoprum viscosum* or *M.* sp. Petiolatum (R.Taylor 484).
	Myosotis australis	Austral Forget-me-not			K	Q		6		6	
*	*Neatostema apulum*	Hairy Sheepweed					14	45		45	
	Neurachne alopecuroidea	Fox-tail Mulga-grass					6	39	1	40	
*	*Nicotiana glauca*	Tree Tobacco						4		4	
	Nicotiana goodspeedii	Small-flower Tobacco					1	4	1	5	
	Nicotiana maritima	Coast Tobacco				Q		11		11	
	Nicotiana sp.	Tobacco						3		3	
	Nicotiana velutina	Velvet Tobacco						1		1	
	Nitraria billardierei	Nitre-bush					7	64	1	65	
*	*Nothoscordum gracile*							1		1	
*	*Oenothera stricta* ssp. *stricta*	Common Evening Primrose						2		2	
*	*Olea europaea* ssp.	Olive						18	1	19	= **Olea europaea* ssp. *europaea* (only subspecies found in study area).
*	*Olea europaea* ssp. *europaea*	Olive					6	26		26	
	Olearia axillaris	Coast Daisy-bush					10	177	1	178	
	Olearia brachyphylla	Short-leaf Daisy-bush						1	1	2	
	Olearia brachyphylla (NC)	Short-leaf Daisy-bush						10		10	Used in the broad sense according to Jessop & Toelken (1986). Now may be *either Olearia brachyphylla* or *O. minor*.
	Olearia calcarea	Crinkle-leaf Daisy-bush					1	2	1	3	
	Olearia ciliata var. *ciliata*	Fringed Daisy-bush					10	33	1	34	
	Olearia decurrens	Winged Daisy-bush					6	21	1	22	
	Olearia floribunda var. *floribunda*	Heath Daisy-bush				K		4		4	
	Olearia lepidophylla	Clubmoss Daisy-bush				K		1		1	
	Olearia minor	Heath Daisy-bush					6	20		20	
	Olearia muelleri	Mueller's Daisy-bush				K	7	29		29	
	Olearia pannosa ssp. *pannosa*	Silver Daisy-bush	V	V	V	V	3	17		17	
	Olearia picridifolia	Rasp Daisy-bush		R	V	V		1		1	
	Olearia pimeleoides ssp.	Pimelea Daisy-bush					1	7		7	= *Olearia pimeleoides* ssp. *pimeleoides*
	Olearia pimeleoides ssp. *pimeleoides*	Pimelea Daisy-bush					6	18		18	
	Olearia ramulosa	Twiggy Daisy-bush					6	34		34	
	Olearia sp.	Daisy-bush						1		1	
	Olearia teretifolia	Cypress Daisy-bush			R		1	3	1	4	
	Olearia tubuliflora	Rayless Daisy-bush			R		1	2		2	
	Omphalolappula concava	Burr Stickseed				K	1	5		5	
*	*Oncosiphon suffruticosum*	Calomba Daisy						27	1	28	
*	*Onopordum acanthium* ssp. *acanthium*	Scotch Thistle						2		2	
*	*Onopordum acaulon*	Horse Thistle					1	27		27	
	Opercularia turpis	Twiggy Stinkweed					13	54	1	55	
	Opercularia varia	Variable Stinkweed						5		5	
	Ophioglossum lusitanicum	Austral Adder's-tongue			U	R		11		11	
*	*Opuntia robusta*	Wheel Pear						1		1	
*	*Opuntia* sp.	Prickly Pear						1		1	

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	Orchidaceae sp.	Orchid Family						2		2	
*	*Ornithogalum thyrsoides*	Chincherinchee						1	1	2	
	Osteocarpum sp.	Bonefruit						2		2	
*	*Osteospermum clandestinum*	Tripteris						5		5	
*	*Oxalis corniculata* ssp. *corniculata*	Creeping Wood-sorrel						1		1	
	Oxalis perennans	Native Sorrel					60	399	2	401	
*	*Oxalis pes-caprae*	Soursob					10	178	2	180	
*	*Oxalis purpurea*	One-o'clock						2		2	
	Oxalis sp.	Sorrel						1		1	
	Ozothamnus retusus	Notched Bush-everlasting			U	K		14	1	15	
	Ozothamnus scaber	Rough Bush-everlasting		V				1		1	
*	*Panicum capillare* var. *brevifolium*	Witch-grass						0	1	1	
	Panicum decompositum var. *decompositum*	Native Millet						1		1	
	Panicum effusum var. *effusum*	Hairy Panic				K		4		4	
*	*Papaver aculeatum*	Bristle Poppy					1	1		1	
*	*Papaver hybridum*	Rough Poppy					1	10	1	11	
*	*Papaver somniferum* ssp. *setigerum*	Small-flower Opium Poppy						2		2	
*	*Parapholis incurva*	Curly Ryegrass					19	103		103	
*	*Parentucellia latifolia*	Red Bartsia					4	24	1	25	
	Parietaria cardiostegia	Mallee Smooth-nettle				Q	4	13		13	
	Parietaria cardiostegia/debilis	Smooth-nettle						3		3	Broader taxonomic entity used, when specimens not collected, due to difficulties recognised in identification in the field.
	Parietaria debilis	Smooth-nettle					2	2		2	
	Parietaria debilis (NC)	Smooth-nettle					15	68		68	Used in the broad sense according to Jessop (1993). Now may be either *Parietaria australis* or *P. debilis*.
	Parietaria sp.	Pellitory/Smooth-nettle						8		8	
	Paspalidium gracile	Slender Panic						1		1	
	Pelargonium australe	Australian Pelargonium						28		28	
	Pelargonium littorale	Native Pelargonium					10	31		31	
*	*Pennisetum setaceum*	Fountain Grass						2	1	3	
*	*Pentaschistis airoides*	False Hair-grass					21	91		91	
*	*Pentaschistis pallida*	Pussy Tail						3		3	
	Persicaria decipiens	Slender Knotweed			T			1		1	
	Persicaria sp.	Knotweed					1	1		1	
*	*Petrorhagia nanteuilii*							3		3	
*	*Petrorhagia* sp.	Pink						1		1	
*	*Petrorhagia velutina*	Velvet Pink					13	41		41	
*	*Phalaris aquatica*	Phalaris					6	10		10	
*	*Phalaris minor*	Lesser Canary-grass						6		6	
*	*Phalaris paradoxa*	Paradox Canary-grass						1		1	
	Phebalium glandulosum ssp. *glandulosum*	Glandular Phebalium		E	E	E		1		1	
	Pheladenia deformis	Bluebeard Orchid					1	20	1	21	
	Philotheca angustifolia ssp. *angustifolia*	Narrow-leaf Wax-flower		R	R	K		2		2	
	Philotheca linearis	Narrow-leaf Wax-flower						1		1	
	Philotheca pungens	Prickly Wax-flower				U	3	7		7	
	Philotheca verrucosa	Bendigo Wax-flower		V	V		1	4	1	5	
	Phlegmatospermum eremaeum	Spreading Cress		R	V	X	1	1		1	
	Phragmites australis	Common Reed					9	20		20	
*	*Phyla canescens*	Lippia					1	2		2	
	Phyllangium divergens	Wiry Mitrewort					12	12		12	
	Phyllanthus australis	Southern Spurge				R	1	6		6	
	Phyllanthus saxosus	Rock Spurge			R		4	19		19	
*	*Picnomon acarna*	Soldier Thistle						6		6	
	Picris angustifolia ssp. *angustifolia*	Coast Picris				Q	2	11		11	
	Picris sp.	Picris						10		10	
	Pimelea curviflora var.	Curved Riceflower		R	K	K		5		5	
	Pimelea curviflora var. *gracilis*	Curved Riceflower						10		10	
	Pimelea curviflora var. *sericea*	Curved Riceflower						3		3	

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	Pimelea flava ssp. *dichotoma*	Diosma Riceflower					9	29		29	
	Pimelea glauca	Smooth Riceflower					17	65	1	66	
	Pimelea humilis	Low Riceflower				K	3	8	1	9	
	Pimelea imbricata var. *petraea*	Rock Woolly Riceflower				K		1		1	
	Pimelea micrantha	Silky Riceflower					6	63	1	64	
	Pimelea microcephala ssp.	Shrubby Riceflower						2	1	3	= *Pimelea microcephala* ssp. *microcephala*
	Pimelea microcephala ssp. *microcephala*	Shrubby Riceflower				Q	1	29	1	30	
	Pimelea serpyllifolia ssp. *serpyllifolia*	Thyme Riceflower					20	204	1	205	
	Pimelea stricta	Erect Riceflower						10		10	
*	*Pinus halepensis*	Aleppo Pine						15		15	
*	*Pinus ponderosa*	Ponderosa Pine						1		1	
*	*Pinus radiata*	Radiata Pine						1		1	
*	*Pinus* sp.	Pine						2	1	3	
*	*Piptatherum miliaceum*	Rice Millet						19	1	20	
	Pittosporum angustifolium	Native Apricot					17	217	5	222	
	Plagiobothrys plurisepaleus	White Rochelia						1		1	
	Plantago aff. *debilis*	Shade Plantain						1		1	
*	*Plantago bellardii*	Hairy Plantain						2		2	
*	*Plantago coronopus* ssp.	Bucks-horn Plantain						1		1	
*	*Plantago coronopus* ssp. *commutata*	Bucks-horn Plantain						1		1	
*	*Plantago coronopus* ssp. *coronopus*	Bucks-horn Plantain						1		1	
	Plantago drummondii	Dark Plantain					2	7		7	
	Plantago gaudichaudii	Narrow-leaf Plantain			U	K		18		18	
	Plantago hispida	Hairy Plantain				Q	12	36		36	
*	*Plantago lanceolata* var. *lanceolata*	Ribwort					4	21		21	
	Plantago sp.	Plantain					1	6	1	7	
	Plantago sp. B	Little Plantain					4	25	1	26	
	Plantago varia	Variable Plantain					1	16	1	17	
	Plantago varia complex	Native Plantain						11		11	
	Platysace heterophylla var. *heterophylla*	Slender Platysace						1		1	
	Pleuropappus phyllocalymmeus	Silver Candles	V	V		V	1	1		1	
	Pleurosorus rutifolius	Blanket Fern			U			7	1	8	
*	*Poa annua* (NC)	Winter Grass					1	2		2	Used in the broad sense according to Jessop (1993). Here refers to **Poa annua* as **P. infirma* restricted to EP & SE.
*	*Poa bulbosa*	Bulbous Meadow-grass					3	57		57	
	Poa clelandii	Matted Tussock-grass					1	1		1	
	Poa crassicaudex	Thick-stem Tussock-grass				T	13	59		59	
	Poa drummondiana	Knotted Poa		R	X	K	7	10		10	
	Poa fax	Scaly Poa		R	K	R		5		5	
	Poa labillardieri var. *labillardieri*	Common Tussock-grass					2	11		11	
	Poa poiformis var. *poiformis*	Coast Tussock-grass					8	67	1	68	
	Poa sp.	Meadow-grass/Tussock-grass					1	7		7	
	Podolepis canescens	Grey Copper-wire Daisy			T	U	4	14	1	15	
	Podolepis capillaris	Wiry Podolepis					3	7		7	
	Podolepis davisiana	Button Podolepis						1		1	
	Podolepis jaceoides	Showy Copper-wire Daisy		R	E	V		14		14	
	Podolepis muelleri	Button Podolepis		V	K			1		1	
	Podolepis rugata var.	Pleated Copper-wire Daisy						9		9	
	Podolepis rugata var. *littoralis*	Coast Copper-wire Daisy				R	2	5		5	
	Podolepis rugata var. *rugata*	Pleated Copper-wire Daisy					1	4		4	
	Podolepis sp.	Copper-wire Daisy						2		2	
	Podolepis tepperi	Delicate Copper-wire Daisy			R		5	26		26	
	Podotheca angustifolia	Sticky Long-heads					20	83	2	85	
	Pogonolepis muelleriana	Stiff Cup-flower				U	12	53	1	54	
*	*Polycarena heterophylla*							1	1	2	
*	*Polycarpon tetraphyllum*	Four-leaf Allseed					1	3		3	

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*	*Polygala myrtifolia*	Myrtle-leaf Milkwort						3		3	
*	*Polygonum aviculare*	Wireweed					2	14		14	
*	*Polypogon maritimus*	Coast Beard-grass						1		1	
*	*Polypogon monspeliensis*	Annual Beard-grass					9	14		14	
	Polypogon tenellus			V			1	1		1	
*	*Polypogon viridis*	Water Bent					1	5		5	
	Pomaderris obcordata	Wedge-leaf Pomaderris					5	41		41	
	Pomaderris paniculosa ssp.						3	12	1	13	
	Pomaderris paniculosa ssp. *paniculosa*	Mallee Pomaderris			Q		11	84	4	88	
	Pomaderris paniculosa ssp. *paralia*	Coast Pomaderris					1	1		1	
	Pomaderris sp.	Pomaderris						1		1	
	Pomax umbellata	Pomax						1		1	
	Poranthera microphylla	Small Poranthera				Q	11	17		17	
	Poranthera sp.	Poranthera						6		6	
	Poranthera triandra	Three-petal Poranthera				U	10	27		27	
	Prasophyllum calcicola	Limestone Leek-orchid		V		V		1		1	
	Prasophyllum elatum	Tall Leek-orchid			U	R		1	1	2	
	Prasophyllum fitzgeraldii	Fitzgerald's Leek-orchid			R	V		3		3	
	Prasophyllum goldsackii	Goldsack's Leek-orchid		R		R		2		2	
	Prasophyllum occidentale	Plains Leek-orchid				K		1		1	
	Prasophyllum occultans	Hidden Leek-orchid		R		R	1	1		1	
	Prasophyllum odoratum	Scented Leek-orchid			R		3	7	1	8	
	Prasophyllum odoratum complex	Leek-orchid						4		4	
	Prasophyllum sp.	Leek-orchid					1	5		5	
	Pratia concolor	Poison Pratia						1		1	
	Prostanthera behriana	Downy Mintbush			R		1	4	1	5	
	Prostanthera serpyllifolia ssp. *microphylla*	Small-leaf Mintbush				V	1	2		2	
	Prostanthera serpyllifolia ssp. *serpyllifolia*	Thyme Mintbush				R		2		2	
	Prostanthera serpyllifolia ssp. *serpyllifolia* (purplish-green flowers)	Thyme Mintbush				R		1		1	
	Prostanthera striatiflora	Striated Mintbush			X		1	1		1	
*	*Prunus armeniaca*	Apricot						0	1	1	
*	*Prunus domestica* ssp.	Plum					1	1		1	
*	*Prunus dulcis*	Almond						1	2	3	
*	*Prunus* sp.	Plum					1	1		1	
	Pseudognaphalium luteoalbum	Jersey Cudweed						2		2	
*	*Psilurus incurvus*	Bristle-tail Grass						3		3	
	Pterostylis aff. *excelsa*	Dryland Greenhood						1		1	
	Pterostylis biseta	Two-bristle Greenhood					1	17		17	
	Pterostylis boormanii	Boorman's Greenhood			E	E	1	3		3	
	Pterostylis cycnocephala	Swan-head Greenhood				E		1		1	
	Pterostylis dolichochila	Mallee Shell-orchid				R		1		1	
	Pterostylis erythroconcha	Red Shell-orchid				U		6		6	
	Pterostylis excelsa	Dryland Greenhood						2		2	
	Pterostylis longifolia (NC)	Tall Greenhood						17		17	= *Pterostylis* sp. Coastal (R.Bates 37621) as all records are from YP.
	Pterostylis mutica	Midget Greenhood					3	26		26	
	Pterostylis nana	Dwarf Greenhood				Q		5		5	
	Pterostylis pedunculata	Maroon-hood			T	U		4		4	
	Pterostylis plumosa	Bearded Greenhood			U	Q		3		3	
	Pterostylis pusilla	Small Rusty-hood				Q		9		9	
	Pterostylis robusta	Large Shell-orchid					2	12		12	
	Pterostylis rufa group	Rusty-hood						1		1	
	Pterostylis sanguinea	Blood Greenhood					2	13		13	
	Pterostylis sp.	Greenhood					4	14		14	
	Ptilotus erubescens	Hairy-tails		R	T		4	23		23	
	Ptilotus nobilis var.	Yellow-tails						0	1	1	
	Ptilotus nobilis var. *angustifolius*	Yellow-tails						5		5	
	Ptilotus obovatus var.	Silver Mulla Mulla					2	3		3	= *Ptilotus obovatus* var. *obovatus*
	Ptilotus obovatus var. *obovatus*	Silver Mulla Mulla				Q		3		3	
	Ptilotus seminudus	Rabbit-tails					4	32		32	
	Ptilotus sp.	Mulla Mulla						2		2	

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	Ptilotus spathulatus f.	Pussy-tails					5	71		71	= *Ptilotus spathulatus* f. *spathulatus*
	Ptilotus spathulatus f. *spathulatus*	Pussy-tails					21	121		121	
*	*Puccinellia distans*	Reflexed Poa					1	2		2	
	Puccinellia sp.	Saltmarsh-grass						2		2	
	Puccinellia stricta var. *stricta*	Australian Saltmarsh-grass					2	7		7	
	Pultenaea acerosa	Bristly Bush-pea				U	3	9		9	
	Pultenaea kraehenbuehlii	Tothill Bush-pea		R	R		1	5	28	33	
	Pultenaea largiflorens	Twiggy Bush-pea			U		8	38	3	41	
	Pultenaea laxiflora	Loose-flower Bush-pea						1		1	
	Pultenaea rigida var. *rigida*	Rigid Bush-pea				U		18		18	
	Pultenaea tenuifolia	Narrow-leaf Bush-pea					15	68		68	
	Pultenaea vestita	Feather Bush-pea				R		1		1	
	Pycnosorus globosus	Drumsticks		V	E		1	5	1	6	
	Pycnosorus pleiocephalus	Soft Billy-buttons						5		5	
	Pyrorchis nigricans	Black Fire-orchid			E	K		1	1	2	
	Ranunculus hamatosetosus	Hill Buttercup					2	5		5	
	Ranunculus lappaceus	Native Buttercup			K			1		1	
*	*Ranunculus muricatus*	Pricklefruit Buttercup						1	1	2	
	Ranunculus pachycarpus	Thick-fruit Buttercup			R		2	3	2	5	
	Ranunculus sessiliflorus var.	Annual Buttercup						5		5	
	Ranunculus sessiliflorus var. *sessiliflorus*	Annual Buttercup			U	U		14		14	
*	*Rapistrum rugosum* ssp. *rugosum*	Turnip Weed					9	70	1	71	
*	*Reichardia tingitana*	False Sowthistle					2	64	1	65	
*	*Reseda lutea*	Cut-leaf Mignonette						11	1	12	
*	*Reseda luteola*	Wild Mignonette						4		4	
*	*Reseda* sp.	Mignonette					2	2		2	
*	*Retama raetam*	White Weeping Broom						1		1	
	Rhagodia candolleana ssp.	Sea-berry Saltbush						1		1	= *Rhagodia candolleana* ssp. *candolleana*
	Rhagodia candolleana ssp. *candolleana*	Sea-berry Saltbush					27	229		229	
	Rhagodia crassifolia	Fleshy Saltbush						25		25	
	Rhagodia parabolica	Mealy Saltbush					23	218	5	223	
	Rhagodia preissii ssp. *preissii*	Mallee Saltbush						23	3	26	
	Rhagodia sp.	Saltbush						3		3	
	Rhagodia spinescens	Spiny Saltbush			K		6	44	2	46	
	Rhagodia ulicina	Intricate Saltbush					2	10		10	
	Rhamnaceae sp.							3		3	
*	*Rhamnus alaternus*	Blowfly Bush						1		1	
	Rhodanthe corymbiflora	Paper Everlasting				K	1	27		27	
	Rhodanthe floribunda	White Everlasting						1		1	
	Rhodanthe laevis	Smooth Daisy				Q	4	11		11	
	Rhodanthe polygalifolia	Milkwort Everlasting						2		2	
	Rhodanthe pygmaea	Pigmy Daisy					17	70		70	
	Rhodanthe stuartiana	Clay Everlasting				K		9	1	10	
	Rhodanthe troedelii	Small Paper-everlasting						2		2	
	Rhyncharrhena linearis	Bush Bean						1		1	
*	*Ricinus communis*	Castor Oil Plant						1		1	
*	*Romulea minutiflora*	Small-flower Onion-grass					5	99		99	
	Romulea rosea (NC)							2		2	= **Romulea rosea* var. *australis*
*	*Romulea rosea* var. *australis*	Common Onion-grass					6	28		28	
*	*Romulea* sp.	Onion-grass						10		10	
*	*Rorippa nasturtium-aquaticum*	Watercress					1	2		2	
*	*Rosa canina*	Dog Rose					3	16	2	18	
*	*Rosa rubiginosa*	Sweet Briar					1	2	1	3	
*	*Rosa* sp.	Wild Rose/Briar					1	4		4	
*	*Rostraria cristata*	Annual Cat's-tail					50	234		234	
*	*Rostraria pumila*	Tiny Bristle-grass					3	11		11	
*	*Rubus ulmifolius* var. *ulmifolius*	Blackberry						1		1	
	Rumex brownii	Slender Dock				R	7	10		10	
	Rumex brownii (NC)	Slender Dock				R		20		20	= *Rumex brownii*
*	*Rumex conglomeratus*	Clustered Dock					2	18		18	
*	*Rumex crispus*	Curled Dock					3	22		22	
	Rumex dumosus var. (NC)	Wiry Dock		R				10		10	= *Rumex dumosus*

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	Rumex dumosus var. *dumosiformis* (NC)	Wiry Dock						2		2	= *Rumex dumosus*
	Rumex dumosus var. *dumosus* (NC)	Wiry Dock					2	13		13	= *Rumex dumosus*
*	*Rumex obtusifolius*	Broad-leaf Dock						1		1	
	Rumex sp.	Dock					9	13		13	
*	*Sagina apetala*	Annual Pearlwort					5	11		11	
*	*Sagina maritima*	Sea Pearlwort						20		20	
	Salsola kali	Buckbush					2	99	3	102	
*	*Salvia verbenaca form*	Wild Sage						104		104	= **Salvia verbenaca* var.
*	*Salvia verbenaca* var. *verbenaca*	Wild Sage					16	97	1	98	
	Samolus repens	Creeping Brookweed					12	40	1	41	
*	*Sanguisorba minor* ssp. *muricata*	Sheep's Burnet						3		3	
	Santalum acuminatum	Quandong			U		10	80	3	83	
	Santalum murrayanum	Bitter Quandong				R		2		2	
	Santalum sp.							1		1	
	Santalum spicatum	Sandalwood		V				1		1	
	Sarcocornia blackiana	Thick-head Samphire					1	13		13	
	Sarcocornia quinqueflora	Beaded Samphire					10	46		46	
	Sarcocornia sp.	Samphire					1	1		1	
	Sarcozona praecox	Sarcozona						2		2	
	Sauropus rigens	Stiff Spurge						1		1	
*	*Scabiosa atropurpurea*	Pincushion						19	1	20	
	Scaevola aemula	Fairy Fanflower						2		2	
	Scaevola albida	Pale Fanflower					2	34	1	35	
	Scaevola albida var. (NC)							8		8	= *Scaevola albida*
	Scaevola angustata	Coast Fanflower				U		2		2	
	Scaevola crassifolia	Cushion Fanflower						47	1	48	
	Scaevola humilis	Inland Fanflower				Q	12	21	1	22	
	Scaevola linearis ssp. *confertifolia*	Bundled Fanflower				E		2		2	
	Scaevola sp.	Fanflower					1	1		1	
	Scaevola spinescens	Spiny Fanflower					5	40		40	
*	*Schinus molle*	Pepper-tree					1	13		13	
*	*Schismus barbatus*	Arabian Grass					6	80		80	
	Schoenoplectus litoralis	Shore Club-rush			R			1		1	
	Schoenoplectus pungens	Spiky Club-rush			R		2	5		5	
	Schoenus apogon	Common Bog-rush				T	6	26		26	
	Schoenus breviculmis	Matted Bog-rush			R		4	24		24	
	Schoenus deformis	Small Bog-rush				U		5		5	
	Schoenus nanus	Little Bog-rush			K	K		8		8	
	Schoenus nitens	Shiny Bog-rush			K	R		4		4	
	Schoenus sp.	Bog-rush						1		1	
*	*Scilla* sp.							1		1	
	Scleranthus pungens	Prickly Knawel					3	11		11	
	Sclerolaena brachyptera	Short-wing Bindyi						10		10	
	Sclerolaena brevifolia	Small-leaf Bindyi						1		1	
	Sclerolaena diacantha	Grey Bindyi					15	109	1	110	
	Sclerolaena diacantha/uniflora	Grey Bindyi						1		1	Broader taxonomic entity used, when specimens not collected, due to difficulties recognised in identification in the field.
	Sclerolaena divaricata	Tangled Bindyi			V			1		1	
	Sclerolaena obliquicuspis	Oblique-spined Bindyi					3	29		29	
	Sclerolaena parallelicuspis	Western Bindyi						1		1	
	Sclerolaena patenticuspis	Spear-fruit Bindyi					1	9		9	
	Sclerolaena sp.	Bindyi						9		9	
	Sclerolaena uniflora	Small-spine Bindyi						12		12	
	Sclerolaena uniflora hybrid							1		1	Hybrid
	Sclerostegia arbuscula	Shrubby Samphire			Q		2	32		32	
	Sclerostegia disarticulata							1		1	
	Sclerostegia tenuis	Slender Samphire			Q			1		1	
*	*Scorzonera laciniata*	Scorzonera						6		6	
	Scrophulariaceae sp.							1		1	
	Sebaea ovata	Yellow Sebaea			Q		11	17		17	

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	Senecio anethifolius (NC)	Feathery Groundsel			T			1	1	2	Used in the broad sense according to Jessop (1993). Here may be either *Senecio anethifolius* ssp. *anethifolius* or *S. anethifolius* ssp. *brevibracteolatus*.
	Senecio glossanthus	Annual Groundsel					21	131	1	132	
	Senecio macrocarpus	Large-fruit Groundsel	V	V	E	E		1		1	
	Senecio odoratus var. *odoratus* (NC)	Scented Groundsel			U			1		1	= *Senecio odoratus*
	Senecio picridioides	Purple-leaf Groundsel			K	U	1	4		4	
	Senecio pinnatifolius	Variable Groundsel					17	177		177	
*	*Senecio pterophorus*	African Daisy						2		2	
	Senecio quadridentatus	Cotton Groundsel				R	13	64	1	65	
	Senecio sp.	Groundsel						2		2	
	Senecio tenuiflorus (NC)	Woodland Groundsel			Q	R	4	24	1	25	Used in the broad sense according to Jessop (1993). Here may be either *Senecio dolichocephalus* or *S. phelleus*.
	Senna artemisioides ssp.	Desert Senna						1		1	
	Senna artemisioides ssp. *artemisioides*	Silver Senna					1	5		5	
	Senna artemisioides ssp. *coriacea*	Broad-leaf Desert Senna					6	95	5	100	
	Senna artemisioides ssp. *filifolia*	Fine-leaf Desert Senna					1	12	3	15	
	Senna artemisioides ssp. *petiolaris*	Flat-stalk Senna					6	50	2	52	
	Senna artemisioides ssp. *quadrifolia*	Four-leaf Desert Senna						1		1	
	Senna artemisioides ssp. *zygophylla*	Twin-leaf Desert Senna						1		1	
	Senna cardiosperma ssp. *gawlerensis*	Gawler Ranges Senna						1		1	
	Setaria constricta	Knotty-butt Paspalidium				Q		8	1	9	
*	*Sherardia arvensis*	Field Madder					9	37		37	
	Sida corrugata var.	Corrugated Sida					1	60	4	64	
	Sida corrugata var. *angustifolia*	Grassland Sida					3	24	1	25	
	Sida corrugata var. *corrugata*	Corrugated Sida					7	34		34	
	Sida fibulifera	Pin Sida						1		1	
	Sida intricata	Twiggy Sida			R	K		6		6	
	Sida petrophila	Rock Sida				T	1	8		8	
	Sida sp.	Sida						3		3	
	Sigesbeckia orientalis ssp. *orientalis*	Oriental Sigesbeckia					1	1		1	
*	*Silene apetala*	Sand Catchfly					1	4		4	
*	*Silene gallica* var.	French Catchfly						9		9	= **Silene gallica* var. *gallica*
*	*Silene gallica* var. *gallica*	French Catchfly					2	5		5	
*	*Silene nocturna*	Mediterranean Catchfly					35	161		161	
*	*Silene* sp.	Catchfly					1	10		10	
*	*Silene tridentata*							5		5	
	Siloxerus multiflorus	Small Wrinklewort					3	18		18	
*	*Silybum marianum*	Variegated Thistle					1	8		8	
*	*Sisymbrium erysimoides*	Smooth Mustard					18	178		178	
*	*Sisymbrium irio*	London Mustard					7	30		30	
*	*Sisymbrium officinale*	Hedge Mustard					1	5		5	
*	*Sisymbrium orientale*	Indian Hedge Mustard					1	18		18	
*	*Sisymbrium* sp.	Wild Mustard						8		8	
	Solanum coactiliferum	Tomato-bush						1		1	
*	*Solanum elaeagnifolium*	Silver-leaf Nightshade						1		1	
	Solanum ellipticum	Velvet Potato-bush						1		1	
	Solanum esuriale	Quena					1	3	2	5	
*	*Solanum nigrum*	Black Nightshade						21		21	
	Solanum petrophilum	Rock Nightshade						3		3	
	Solenogyne dominii	Smooth Solenogyne			R		1	6	1	7	
*	*Sonchus asper* ssp.	Rough Sow-thistle						15		15	= **Sonchus asper* ssp. *asper*
*	*Sonchus asper* ssp. *glaucescens*	Rough Sow-thistle					1	8		8	This subspecies is no longer considered to occur in SA (Barker et al 2005). Most likely **Sonchus asper* spp. *asper*.
	Sonchus hydrophilus	Native Sow-thistle			Q			2		2	
*	*Sonchus oleraceus*	Common Sow-thistle					93	599	2	601	
	Sonchus sp.	Sow-thistle					1	9		9	
*	*Sonchus tenerrimus*	Clammy Sow-thistle						7		7	

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*	*Sparaxis bulbifera*	Sparaxis						2		2	
*	*Sparaxis* sp.	Sparaxis						2		2	
*	*Sparaxis tricolor*	Tricolor Harlequin Flower						6		6	
*	*Spergularia diandra*	Lesser Sand-spurrey					6	63		63	
*	*Spergularia marina*	Salt Sand-spurrey					11	20		20	
*	*Spergularia media*	Coast Sand-spurrey						1		1	
*	*Spergularia rubra*	Red Sand-spurrey					5	20		20	
*	*Sphenopus divaricatus*	Wedge-foot Grass					2	12		12	
	Spinifex sericeus (NC)	Rolling Spinifex						28		28	= *Spinifex hirsutus*
	Sporobolus sp.							1		1	
	Sporobolus virginicus	Salt Couch						5		5	
	Spyridium eriocephalum var. *eriocephalum*	Heath Spyridium			K			2		2	
	Spyridium parvifolium	Dusty Miller					6	15	2	17	
	Spyridium phylicoides	Narrow-leaf Spyridium					13	62		62	
	Spyridium subochreatum var. *subochreatum*	Velvet Spyridium					5	5	1	6	
*	*Stachys arvensis*	Stagger Weed						2		2	
	Stackhousia annua	Annual Candles	V	V		V		2		2	
	Stackhousia aspericocca (NC)							1		1	Used in the broad sense according to Jessop & Toelken (1986). Here may be either *Stackhousia aspericocca* ssp. Cylindrical inflorescence (W.R.Barker 1418) or *S. aspericocca* ssp. One-sided inflorescence (W.R.Barker 697).
	Stackhousia aspericocca ssp.	Bushy Candles						3		3	
	Stackhousia aspericocca ssp. Cylindrical inflorescence (W.R.Barker 1418)	Bushy Candles					3	9		9	
	Stackhousia aspericocca ssp. One-sided inflorescence (W.R.Barker 697)	One-sided Candles						1		1	
	Stackhousia monogyna	Creamy Candles					34	161	5	166	
	Stackhousia sp.	Candles					2	7		7	
	Stackhousia spathulata	Coast Candles				K		2		2	
	Stackhousiaceae sp.							1		1	
*	*Stellaria media*	Chickweed					11	116		116	
	Stenanthemum leucophractum	White Cryptandra				R	3	8		8	
	Stenopetalum lineare	Narrow Thread-petal			R		13	24		24	
	Stenopetalum sphaerocarpum	Round-fruit Thread-petal						1		1	
	Stuartina muelleri	Spoon Cudweed					11	26		26	
	Suaeda australis	Austral Seablite					1	18		18	
	Swainsona behriana	Behr's Swainson-pea		V	T		1	3		3	
	Swainsona oroboides	Variable Swainson-pea						1		1	
	Swainsona oroboides complex	Variable Swainson-pea						2		2	
	Swainsona sp.	Swainson-pea						2		2	
	Swainsona stipularis	Orange Swainson-pea			K	E		2		2	
	Swainsona tephrotricha	Ashy-haired Swainson-pea		R	T			1		1	
	Templetonia aculeata	Spiny Mallee-pea			R		1	8	1	9	
	Templetonia egena	Broombush Templetonia				T	1	10	1	11	
	Templetonia retusa	Cockies Tongue					10	100		100	
	Templetonia sulcata	Flat Mallee-pea			V	V		1		1	
	Tetragonia eremaea	Desert Spinach					4	22		22	
	Tetragonia eremaea/ tetragonoides	Native Spinach						7		7	Broader taxonomic entity used, when specimens not collected, due to difficulties recognised in identification in the field.
	Tetragonia implexicoma	Bower Spinach					19	205		205	
	Tetragonia sp.	False Spinach					1	5		5	
	Tetragonia tetragonioides	New Zealand Spinach						4		4	
	Tetraria capillaris	Hair Sedge				K	1	1		1	
	Teucrium racemosum	Grey Germander						17	4	21	
	Teucrium sessiliflorum	Mallee Germander					5	70	3	73	
	Thelymitra antennifera	Lemon Sun-orchid						9		9	
	Thelymitra aristata	Great Sun-orchid					1	4		4	
	Thelymitra grandiflora	Great Sun-orchid			R		1	1		1	
	Thelymitra luteocilium	Yellow-tuft Sun Orchid				Q	1	6	1	7	

I	Scientific Name	Common Name	Aus	SA	NL	YP	SU 162	All SU	OP	Total	Comment
	Thelymitra nuda (NC)	Scented Sun-orchid					6	40		40	Used in the broad sense according to Jessop (1993). Here may be either *Thelymitra megcalyptra* or *T. nuda*.
	Thelymitra pauciflora (NC)	Slender Sun-orchid					1	4		4	Used in the broad sense according to Jessop (1993). The meaning is ambiguous now as this species has been split into a number of *Thelymitra* species.
	Thelymitra rubra	Salmon Sun-orchid			R		3	5		5	
	Thelymitra sp.	Sun-orchid					7	17		17	
	Themeda triandra	Kangaroo Grass				K	10	89	2	91	
*	*Thinopyrum elongatum*	Tall Wheat-grass					1	2		2	
	Thomasia petalocalyx	Paper-flower			T	K		1		1	
	Threlkeldia diffusa	Coast Bonefruit					16	200		200	
	Thryptomene micrantha	Ribbed Thryptomene				V		3		3	
	Thysanotus baueri	Mallee Fringe-lily			R	K	7	51	1	52	
	Thysanotus patersonii	Twining Fringe-lily					30	119	1	120	
	Thysanotus sp.	Fringe-lily					2	4		4	
	Thysanotus tenellus	Grassy Fringe-lily			R		1	5	1	6	
	Trachymene cyanopetala	Purple Trachymene			R	T		2	1	3	
	Trachymene pilosa	Dwarf Trachymene			R		4	11		11	
*	*Tragopogon porrifolius*	Salsify					4	5	1	6	
*	*Tribolium acutiflorum*						1	1		1	
	Tricoryne elatior	Yellow Rush-lily			R		6	17		17	
	Tricoryne tenella	Tufted Yellow Rush-lily					6	12		12	
*	*Trifolium angustifolium*	Narrow-leaf Clover					35	198	1	199	
*	*Trifolium arvense* var. *arvense*	Hare's-foot Clover					25	193		193	
*	*Trifolium campestre*	Hop Clover					57	231	2	233	
*	*Trifolium dubium*	Suckling Clover						5		5	
*	*Trifolium fragiferum* var.	Strawberry Clover						1		1	= **Trifolium fragiferum* var. *fragiferum*
*	*Trifolium glomeratum*	Cluster Clover					10	88		88	
*	*Trifolium hirtum*	Rose Clover					1	7		7	
*	*Trifolium michelianum* 'var. *balansae*'	Annual White Clover						1		1	
*	*Trifolium scabrum*	Rough Clover					5	59		59	
*	*Trifolium* sp.	Clover					1	12		12	
*	*Trifolium striatum*	Knotted Clover						0	1	1	
*	*Trifolium subterraneum*	Subterranean Clover					1	25		25	
*	*Trifolium tomentosum*	Woolly Clover					4	41		41	
	Triglochin calcitrapum	Spurred Arrowgrass				Q		2	1	3	
	Triglochin centrocarpum	Dwarf Arrowgrass					1	24	1	25	
	Triglochin minutissumum	Tiny Arrowgrass		R		R	1	3		3	
	Triglochin mucronatum	Prickly Arrowgrass				Q	3	7		7	
	Triglochin sp.	Arrowgrass/Water-ribbons					1	1		1	
	Triglochin striatum	Streaked Arrowgrass			V	T	2	6		6	
	Triglochin trichophorum					Q		2		2	
	Triodia bunicola	Flinders Ranges Spinifex					19	35		35	
	Triodia compacta	Spinifex				U	1	11		11	
	Triodia irritans	Spinifex					2	14		14	
	Triodia irritans complex	Spinifex					2	5		5	
	Triodia irritans var. (NC)							4		4	Used in the broad sense according to Jessop & Toelken (1986). Now may be *Triodia bunicola*, *T. irritans* or *T. scariosa*.
	Triodia scariosa	Spinifex						6	1	7	
	Triodia scariosa ssp. (NC)	Spinifex						8		8	Used in the broad sense according to Jessop (1993). Now may be either *Triodia bunicola* or *T. scariosa*.
	Triodia sp. (NC)	Spinifex						26	1	27	= *Triodia* sp.
	Triptilodiscus pygmaeus	Small Yellow-heads					10	73	1	74	
*	*Triticum aestivum*	Wheat						9		9	
	Trymalium wayae	Grey Trymalium			U		5	9		9	
	Typha domingensis	Narrow-leaf Bulrush			Q		4	9	1	10	
*	*Ulex europaeus*	Gorse						1		1	
*	*Urospermum picroides*	False Hawkbit					10	41		41	
*	*Urtica urens*	Small Nettle						11		11	
*	*Valerianella discoidea*	Lesser Corn-salad					5	12		12	
	Velleia arguta	Toothed Velleia					3	29	2	31	

I	Scientific Name	Common Name	Aus	SA	NL	YP	SU 162	All SU	OP	Total	Comment
	Velleia paradoxa	Spur Velleia			Q		3	31		31	
*	*Verbascum virgatum*	Twiggy Mullein						1		1	
*	*Verbena supina* (NC)	Trailing Verbena						1		1	Used in the broad sense according to Jessop (1993). Now may include either **Verbena supina* var. *erecta* or **V. supina* var. *supina*.
*	*Veronica hederifolia*	Ivy-leaf Speedwell					1	3		3	
	Veronica hillebrandii	Rigid Speedwell					8	23		23	
	Veronica plebeia	Trailing Speedwell			U	K	1	3	2	5	
*	*Vicia cracca*	Tufted Vetch						1		1	
*	*Vicia hirsuta*	Hairy Vetch						2		2	
*	*Vicia monantha*	Spurred Vetch					2	47		47	
*	*Vicia sativa* ssp.	Common Vetch						5		5	
*	*Vicia sativa* ssp. *nigra*	Narrow-leaf Vetch					2	2		2	
*	*Vicia sativa* ssp. *sativa*	Common Vetch						1		1	
*	*Vicia* sp.	Vetch						1		1	
*	*Vinca major*	Blue Periwinkle						0	1	1	
	Vittadinia australasica var.	Sticky New Holland Daisy					3	11		11	
	Vittadinia australasica var. *australasica*	Sticky New Holland Daisy					4	9		9	
	Vittadinia blackii	Narrow-leaf New Holland Daisy				K	7	64	4	68	
	Vittadinia cervicularis var. *cervicularis*	Waisted New Holland Daisy					7	76	3	79	
	Vittadinia condyloides	Club-hair New Holland Daisy						4		4	
	Vittadinia cuneata var.	Fuzzy New Holland Daisy						74	1	75	
	Vittadinia cuneata var. *cuneata* f. *cuneata*	Fuzzy New Holland Daisy					16	76	1	77	
	Vittadinia cuneata var. *morrisii*	New Holland Daisy						3		3	
	Vittadinia gracilis	Woolly New Holland Daisy					11	174	8	182	
	Vittadinia megacephala	Giant New Holland Daisy					5	45	3	48	
	Vittadinia pterochaeta	Rough New Holland Daisy						2		2	
	Vittadinia sp.	New Holland Daisy					2	24	1	25	
	Vittadinia sulcata	Furrowed New Holland Daisy						1		1	
*	*Vulpia bromoides*	Squirrel-tail Fescue					7	38		38	
	Vulpia bromoides/myuros							33		33	Broader taxonomic entity used, when specimens not collected, due to difficulties recognised in identification in the field.
*	*Vulpia fasciculata*	Sand Fescue					11	11		11	
*	*Vulpia muralis*	Wall Fescue					16	63		63	
*	*Vulpia myuros* f.	Fescue						24		24	
*	*Vulpia myuros* f. *megalura*	Fox-tail Fescue						12		12	
*	*Vulpia myuros* f. *myuros*	Rat's-tail Fescue					65	292	1	293	
*	*Vulpia* sp.	Fescue					2	40		40	
	Wahlenbergia communis	Tufted Bluebell				Q	7	18		18	
	Wahlenbergia gracilenta	Annual Bluebell					31	68	1	69	
	Wahlenbergia litticola	Coast Bluebell						4		4	
	Wahlenbergia luteola	Yellow-wash Bluebell					27	174	3	177	
	Wahlenbergia multicaulis	Tadgell's Bluebell			E			1		1	
	Wahlenbergia preissii						1	1		1	
	Wahlenbergia sp.	Native Bluebell					5	16		16	
	Wahlenbergia stricta ssp. *stricta*	Tall Bluebell					18	67		67	
*	*Watsonia meriana* cv. Bulbillifera (NC)	Bulbil Watsonia						1		1	= **Watsonia meriana* var. *bulbillifera*
	Westringia dampieri	Shore Westringia						3		3	
	Westringia eremicola	Slender Westringia				R		1		1	
	Westringia rigida	Stiff Westringia					9	58		58	
	Whalleya proluta	Rigid Panic				K	1	19	4	23	
	Wilsonia humilis var. *humilis*	Silky Wilsonia				U	2	27		27	
	Wilsonia rotundifolia	Round-leaf Wilsonia			E	E	2	4	1	5	
	Wurmbea centralis (NC)	Inland Nancy						1		1	Used in the broad sense according to Jessop (1993). As this refers to a FR record it may now be either *Wurmbea biglandulosa* ssp. *flindersica* or *W. centralis* ssp. *australis*.

I	Scientific Name	Common Name	Aus	SA	NL	YP	SU 162	All SU	OP	Total	Comment
	Wurmbea dioica ssp. *dioica* (NC)	Early Nancy					26	128	2	130	Used in the broad sense according to Jessop (1993). Now may be *Wurmbea dioica* ssp. *citrina*, *W. dioica* ssp. *dioica* or *W. dioica* ssp. Short upper leaf (S.Williams CBP23).
	Wurmbea sp.	Nancy						6		6	
*	*Xanthium spinosum*	Bathurst Burr						1		1	
	Xanthorrhoea quadrangulata	Rock Grass-tree					15	52	2	54	
	Xerochrysum bracteatum	Golden Everlasting			K	R	1	2	1	3	
*	*Zaluzianskya divaricata*	Spreading Night-phlox					4	23	1	24	
	Zygophyllum ammophilum	Sand Twinleaf					2	24	1	25	
	Zygophyllum ammophilum (NC)	Sand Twinleaf						3		3	Used in the broad sense according to Jessop (1993). Now may be *Zygophyllum ammophilum*, *Z. angustifolium* or *Z. simile*.
	Zygophyllum angustifolium	Scrambling Twinleaf					6	21		21	
	Zygophyllum apiculatum	Pointed Twinleaf				Q	8	50	1	51	
	Zygophyllum aurantiacum (NC)	Shrubby Twinleaf						31		31	Used in the broad sense according to Jessop (1993). Now may be *Zygophyllum aurantiacum* ssp. *aurantiacum*, *Z. aurantiacum* ssp. *cuneatum* or *Z. aurantiacum* ssp. *verticillatum*, though the former is the most widespread in this area.
	Zygophyllum aurantiacum ssp.						10	15	1	16	
	Zygophyllum aurantiacum ssp. "*simplicifolium*"							4		4	
	Zygophyllum aurantiacum ssp. *aurantiacum*	Shrubby Twinleaf						1		1	
	Zygophyllum billardierei	Coast Twinleaf					1	28		28	
	Zygophyllum billardierei (NC)	Coast Twinleaf						14		14	Used in the broad sense according to Jessop (1993). Now may be *Zygophyllum angustifolium*, *Z. billardierei* or *Z. confluens*.
	Zygophyllum confluens	Forked Twinleaf						11	2	13	
	Zygophyllum crenatum	Notched Twinleaf				K	3	12		12	
	Zygophyllum eremaeum	Pale-flower Twinleaf						1		1	
	Zygophyllum glaucum	Pale Twinleaf				K		18	1	19	
	Zygophyllum ovatum	Dwarf Twinleaf					1	21		21	
	Zygophyllum simile	White Twinleaf						5		5	
	Zygophyllum sp.	Twinleaf						7		7	

APPENDIX 5. PLANT TAXA FREQUENCY BY ALL SURVEYS CONDUCTED WITHIN THE MID NORTH AND YORKE PENINSULA BIOLOGICAL SURVEY STUDY AREA.

I Indigenous/alien designation. Naturalised alien taxa are designated with an asterisk (*).
Survey Number Number of sites in each survey where each taxon was recorded. Refer to Table 9 in Vegetation Chapter for Survey Names.
All SU sites Total number of site records for each taxon from all surveys in the study area.
All OP Total number of opportunistic records for each taxon from all surveys in the study area.
Total Total number of all site and opportunistic records for each taxon from all surveys in the study area.
Total SUs Total number of surveys in which each taxon was recorded in the study area.

		No. of Sites in the Mid North & Yorke Peninsula Study Area →	6	15	56	25	35	15	22	163	58	10	5	14	92	270	42	139	32	34	8	97	27	12	6	140	7	1330			25
		Survey Number →	**5**	**6**	**13**	**24**	**31**	**45**	**46**	**49**	**51**	**54**	**55**	**58**	**62**	**63**	**78**	**82**	**83**	**86**	**87**	**88**	**96**	**116**	**148**	**162**	**168**	**All SU sites**	**All OP**	**Total**	**Total SUs**
I	**Scientific Name**	**Common Name**																													
	Abutilon fraseri (NC)	Dwarf Lantern-bush													1													1		1	1
	Abutilon fraseri ssp. *fraseri*	Dwarf Lantern-bush																								1		1		1	1
	Abutilon sp.	Lantern-bush					1																					1		1	1
	Acacia acinacea	Wreath Wattle	1		4		2	1	1	4	2	2										6	3			1		27		27	11
	Acacia anceps																									1		1		1	1
	Acacia anceps (NC)	Angled Wattle			12											9												21		21	2
	Acacia anceps x *nematophylla*	Hybrid Wattle														5		2								1		8		8	3
	Acacia ancistrophylla var. *lissophylla*	Hook-leaf Wattle														3												3		3	1
	Acacia argyrophylla	Silver Mulga-bush						2							1													3		3	2
	Acacia brachybotrya	Grey Mulga-bush				2	1	1	1	1	1				1	5						1	1			4		19	1	20	11
	Acacia calamifolia	Wallowa																								3		3		3	1
	Acacia calamifolia (NC)	Wallowa			19	9	2	2	2	2	1	3			7				1	3		2	1			8	6	68		68	15
	Acacia continua	Thorn Wattle		1			1		1	9	2					1			5							3		23	1	24	8
	Acacia cupularis	Cup Wattle														16		8							1	2		27		27	4
	Acacia cupularis/*ligulata*															1		3										4		4	2
	Acacia cyclops	Western Coastal Wattle									2					3		9								1		15		15	4
	Acacia enterocarpa	Jumping-jack Wattle														1												1		1	1
	Acacia farinosa	Mealy Wattle														2		1										3		3	2
	Acacia glandulicarpa	Hairy-pod Wattle							1	1																		2		2	2
	Acacia gracilifolia	Graceful Wattle								1	1																	2		2	2
	Acacia hakeoides	Hakea Wattle				2		1			10	1			4	12			2	3		8	5			6	1	55	2	57	12
	Acacia halliana	Hall's Wattle														2						1	1					4		4	3
	Acacia iteaphylla	Flinders Ranges Wattle								4																		4		4	1
	Acacia leiophylla	Coast Golden Wattle			2											12		3								7		24		24	4
	Acacia ligulata	Umbrella Bush									6	1				31		43			4	4	2			17		108	1	109	8
	Acacia ligulata (NC)	Umbrella Bush			3		1			12	5																	21		21	4
	Acacia longifolia ssp. *sophorae*	Coastal Wattle			2											10		10				1				2		25	1	26	5
	Acacia melanoxylon	Blackwood																										0	1	1	0
	Acacia microcarpa	Manna Wattle									1					10						1						12	1	13	3
	Acacia myrtifolia var.	Myrtle Wattle														1												1		1	1
	Acacia nematophylla	Coast Wallowa														24		32							1	14		71	1	72	4
	Acacia notabilis	Notable Wattle	1	1		2			1	6	5	4				15						8	5			4		52	2	54	11

	No. of Sites in the Mid North & Yorke Peninsula Study Area →		6	15	56	25	35	15	22	163	58	10	5	14	92	270	42	139	32	34	8	97	27	12	6	140	7	1330			25
		Survey Number →	**5**	**6**	**13**	**24**	**31**	**45**	**46**	**49**	**51**	**54**	**55**	**58**	**62**	**63**	**78**	**82**	**83**	**86**	**87**	**88**	**96**	**116**	**148**	**162**	**168**	**All SU sites**	**All OP**	**Total**	**Total SUs**
I	**Scientific Name**	**Common Name**																														
	Acacia nyssophylla	Spine Bush				2		1			5				2	12		1				1				2		26		26	8
	Acacia oswaldii	Umbrella Wattle		4		3	1			4	5	1			2	14		2		1	1	4	2			1		45	3	48	14
	Acacia papyrocarpa	Western Myall																			1							1		1	1
	Acacia paradoxa	Kangaroo Thorn					8			15	2				1	1			1			5	2			5		40	1	41	9
	Acacia paradoxa hybrid	Kangaroo Thorn Hybrid											1															1		1	1
	Acacia pycnantha	Golden Wattle		2		4	12	1	4	38	13	6	3		14	8			9	4		10	10			27	4	169	4	173	17
	Acacia retinodes var. (NC)	Silver Wattle																										0	1	1	0
	Acacia retinodes var. *retinodes*	Wirilda																	1			1				1		3		3	3
	Acacia retinodes var. *retinodes* (NC)	Wirilda								1																		1		1	1
	Acacia rigens	Nealie				1										3												4		4	2
	Acacia rivalis	Silver Wattle																										0	1	1	0
	Acacia rupicola	Rock Wattle			15					1						23										4		43		43	4
	Acacia salicina	Willow Wattle								1	1					2							1			4		9	1	10	5
	Acacia sclerophylla var. *sclerophylla*	Hard-leaf Wattle								1						3						6	1			1		12	4	16	5
	Acacia sp.	Wattle																								2		2		2	1
	Acacia sp. Winged (C.R.Alcock 4936)	Angled Wattle																33							1	5		39		39	3
	Acacia spilleriana	Spiller's Wattle				1																				1	4	6		6	3
	Acacia spinescens	Spiny Wattle			15							1				59		14				1			1	14		105	1	106	7
	Acacia trineura	Three-nerve Wattle																1										1		1	1
	Acacia triquetra	Mallee Wreath Wattle														21		3							2	5		31		31	4
	Acacia victoriae ssp.	Elegant Wattle					3				13																	16	1	17	2
	Acacia victoriae ssp. *victoriae*	Elegant Wattle		5						4		1				1			2	5								18	1	19	6
	Acacia wattsiana	Dog Wattle								4									3	3			2			6		18	5	23	5
	Acacia wilhelmiana	Dwarf Nealie				3		1																				4		4	2
	Acaena echinata	Sheep's Burr																								7		7		7	1
	Acaena echinata var. (NC)	Sheep's Burr							3	16	6	1	1		3	13				2		2	1	1		11		60		60	12
	Acaena echinata var. *echinata* (NC)	Sheep's Burr													5							3		2				10		10	3
	Acaena echinata var. *retrorsumpilosa* (NC)	Sheep's Burr								5			1		6	7												19		19	4
	Acaena novae-zelandiae	Biddy-biddy														1												1		1	1
	Acaena sp.	Sheep's Burr					1		1									1										3		3	3
	Acanthocladium dockeri	Spiny Everlasting																										0	3	3	0
*	*Acetosa vesicaria*	Rosy Dock		1																								1		1	1
*	*Acetosella vulgaris*	Sorrel																				1						1		1	1
	Acianthus pusillus	Mosquito Orchid														18		1								2		21		21	3
	Acianthus sp.	Mosquito Orchid			1																					1		2		2	2
	Acrotriche affinis	Ridged Ground-berry							1	6						9		1								12		29	2	31	5
	Acrotriche cordata	Blunt-leaf Ground-berry														28		24							2	15		69	1	70	4
	Acrotriche cordata x *patula*	Hybrid Ground-berry														1												1		1	1
	Acrotriche patula	Prickly Ground-berry			37	1	1		1	1	2					108		47				2			4	36	4	244		244	12
	Acrotriche serrulata	Cushion Ground-berry																								2		2		2	1
	Actinobole uliginosum	Flannel Cudweed				3			1	13		1		1	1	4			4	1		2				4	1	36	1	37	12
	Actites megalocarpa	Coast Sow-thistle			1				1																	4		6		6	3

		No. of Sites in the Mid North & Yorke Peninsula Study Area →	6	15	56	25	35	15	22	163	58	10	5	14	92	270	42	139	32	34	8	97	27	12	6	140	7	1330			25
		Survey Number →	**5**	**6**	**13**	**24**	**31**	**45**	**46**	**49**	**51**	**54**	**55**	**58**	**62**	**63**	**78**	**82**	**83**	**86**	**87**	**88**	**96**	**116**	**148**	**162**	**168**	**All SU sites**	**All OP**	**Total**	**Total SUs**
I	**Scientific Name**	**Common Name**																													
*	*Adonis microcarpa*	Pheasant's Eye									1					1										1		3		3	3
	Adriana klotzschii (NC)	Coast Bitter-bush			1											8		8										17	1	18	3
	Adriana quadripartita (NC)	Rare Bitter-bush																									1	1		1	1
*	*Agave* sp.																						1					1		1	1
	Agrostis aemula	Blown-grass																										0	1	1	0
	Agrostis avenacea var. *avenacea*	Common Blown-grass																				1				2		3		3	2
	Agrostis billardieri var. *billardieri*	Coast Blown-grass								1						1						1	1			3		7		7	5
*	*Agrostis capillaris* var. *capillaris*	Brown-top Bent										1																1		1	1
*	*Agrostis gigantea*	Red-top Bent							1													2						3		3	2
*	*Aira caryophyllea*	Silvery Hair-grass							5							1												6		6	2
*	*Aira cupaniana*	Small Hair-grass						2	1	43			1		5				15	6	1	11	1		2	49		137		137	12
*	*Aira elegantissima*	Delicate Hair-grass							5		3	4			10			3	1					10				36		36	7
*	*Aira* sp.	Hair-grass	2											5														7		7	2
	Aizoaceae sp.	Pigface Family																				1						1		1	1
	Ajuga australis f. A (A.G.Spooner 9058)	Australian Bugle								4										1						2		7		7	3
	Ajuga australis form	Australian Bugle																										0	1	1	0
*	*Ajuga iva*	Bugle									3					1												4		4	2
	Alectryon oleifolius ssp. *canescens*	Bullock Bush		5		6	4	2		15					5	1				2	2	7	3			5	1	58	2	60	13
*	*Allium triquetrum*	Three-cornered Garlic						1																				1		1	1
	Allocasuarina muelleriana ssp.	Common Oak-bush								4																		4		4	1
	Allocasuarina muelleriana ssp. *muelleriana*	Common Oak-bush														4										2		6	2	8	2
	Allocasuarina pusilla	Dwarf Oak-bush							1							5										3		9		9	3
	Allocasuarina verticillata	Drooping Sheoak		2	5	1	11	3	2	45	3	1	1		15	39		17	13	7		10	7		1	30		213	4	217	19
*	*Aloe saponaria*	Broad-leaf Aloe																										0	1	1	0
	Alternanthera denticulata	Lesser Joyweed																					1					1		1	1
	Alyogyne huegelii	Native Hibiscus																										0	3	3	0
*	*Alyssum linifolium*	Flax-leaf Alyssum				2									1	1						6						10		10	4
	Alyxia buxifolia	Sea Box	1		7					1	2					59	1	32				9	1		1	17		131		131	11
*	*Amaranthus albus*	Stiff Tumbleweed									2																	2		2	1
*	*Ammi majus*	False Bishop's Weed																								1		1		1	1
*	*Ammophila arenaria*	Marram Grass														1		1										2		2	2
	Amphibromus nervosus	Veined Swamp Wallaby-grass																										0	1	1	0
	Amphipogon caricinus var. *caricinus*	Long Grey-beard Grass							1	2						6			3			1						13		13	5
	Amphipogon strictus var. *setifer*	Spreading Grey-beard Grass								1													1					2		2	2
*	*Amsinckia calycina*	Hairy Fiddle-neck																								4		4		4	1
*	*Amsinckia lycopsoides*	Bugloss Fiddle-neck							2															10				12		12	2
	Amyema melaleucae	Tea-tree Mistletoe			1					1	1					25		6				1			1	7		43		43	8
	Amyema miquelii	Box Mistletoe		2		4	1	4		27	6	5			5	5			5	2		3				17	2	88	2	90	14
	Amyema miraculosa ssp. *boormanii*	Fleshy Mistletoe								2						1				1								4		4	3
	Amyema preissii	Wire-leaf Mistletoe		1		1				2	2	1				3				3		4	2			2		21	1	22	10
	Amyema sp.	Mistletoe								2						1				1								4		4	3

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		Survey Number →	**5**	**6**	**13**	**24**	**31**	**45**	**46**	**49**	**51**	**54**	**55**	**58**	**62**	**63**	**78**	**82**	**83**	**86**	**87**	**88**	**96**	**116**	**148**	**162**	**168**	**All SU sites**	**All OP**	**Total**	**Total SUs**
I	**Scientific Name**	**Common Name**																													
*	*Anagallis arvensis*	Pimpernel	1		6	1			2	57	7		1		1	100		97	4	1		12	2		3	54	3	352		352	17
*	*Anagallis minima*	Chaffweed																				1						1		1	1
	Angianthus preissianus	Salt Angianthus														6		1								2		9		9	3
	Angianthus tomentosus	Hairy Angianthus								2						4		3			3	4				6		22		22	6
	Aotus subspinescens	Mallee Aotus														1												1		1	1
	Aphanes australiana	Australian Piert														13		5										18		18	2
	Apium annuum	Annual Celery														8	2	12								7		29		29	4
*	*Apium graveolens*	Celery																								1		1		1	1
	Apium prostratum var.	Native Celery								2																3		5		5	2
	Apium prostratum var. *prostratum*	Native Celery													1	1						1				1	1	5		5	5
*	*Arctotheca calendula*	Cape Weed	2	2				2	5	80	30			3	5	35		3	1	6		20	2			16	1	213	1	214	16
*	*Arctotheca populifolia*	Beach Daisy																1										1		1	1
*	*Arenaria leptoclados*	Lesser Thyme-leaved Sandwort							1							2		5										8		8	3
	Argentipallium obtusifolium	Blunt Everlasting														1										1		2		2	2
*	*Argyranthemum frutescens* ssp.	Marguerite Daisy																1										1		1	1
*	*Argyranthemum frutescens* ssp. *frutescens*	Marguerite Daisy														1												1		1	1
	Aristida anthoxanthoides	Yellow Three-awn																	1									1		1	1
	Aristida australis																						1					1		1	1
	Aristida behriana	Brush Wire-grass							9		12	3		10	30	1			21	5		5	12	9		14		131	3	134	12
	Aristida contorta	Curly Wire-grass																										0	2	2	0
	Aristida nitidula	Brush Three-awn		1																								1		1	1
*	*Artemisia arborescens*	Silver Wormwood										1																1		1	1
	Arthropodium fimbriatum	Nodding Vanilla-lily	1					1			8			2	2	25			12			15	8	5		10	3	92	1	93	12
	Arthropodium minus	Small Vanilla-lily								2	1				2	4				1		4				5	3	22		22	8
	Arthropodium sp.	Vanilla-lily								10	2				2	4		2								4		24		24	6
	Arthropodium strictum	Common Vanilla-lily	2	1			1	5	7	72	21	4	2	3	21	15			14	18		23	13			37	2	261	1	262	18
*	*Asparagus asparagoides*	Bridal Creeper	4	1						4	5	3				52		11		2		24	5			8		119	2	121	11
*	*Asparagus declinatus*																	1										1		1	1
*	*Asparagus officinalis*	Asparagus																								1		1		1	1
	Asperula conferta	Common Woodruff						1	2	21	13	2	1	4	11	7			5	1		3	5	3		7	2	88	1	89	16
*	*Asphodelus fistulosus*	Onion Weed		3		2			1	4	19	2		1	7	20		13	1	6		6	5			1		91		91	15
	Asplenium flabellifolium	Necklace Fern													2													2		2	1
*	*Aster subulatus*	Aster-weed								1					1	1				1		4				7		15		15	6
	Asteridea athrixioides (NC)										1																	1		1	1
	Asteridea athrixioides f.	Wirewort																								1		1		1	1
	Asteridea athrixioides f. *athrixioides*	Wirewort				1										5				1						1		8		8	4
*	*Asteriscus spinosus*	Golden Pallensis									7					4						1	1					13		13	4
*	*Asterolinon linum-stellatum*	Asterolinon																								1		1		1	1
	Astroloma conostephioides	Flame Heath										1				1						4						6	1	7	3
	Astroloma humifusum	Cranberry Heath					3		3	15	1	2			3	12			4			3	2			13		61	1	62	11
	Atriplex acutibractea ssp.	Pointed Saltbush								3	1					1										2		7	1	8	4
	Atriplex acutibractea ssp. *acutibractea*	Pointed Saltbush							1							1												2		2	2

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I	**Scientific Name**	**Common Name**																													
	Atriplex acutibractea ssp. *karoniensis*	Pointed Saltbush														2						2				1		5		5	3
	Atriplex angulata	Fan Saltbush				1																						1		1	1
	Atriplex cinerea	Coast Saltbush														1		21										22		22	2
	Atriplex eardleyae	Eardley's Saltbush																		2						1		3	1	4	2
	Atriplex holocarpa	Pop Saltbush																		2		1						3		3	2
	Atriplex lindleyi ssp. *inflata*	Corky Saltbush				1									1						2					3		7	1	8	4
	Atriplex lindleyi ssp. *lindleyi*	Baldoo									1																	1		1	1
	Atriplex muelleri	Mueller's Saltbush					2																					2		2	1
	Atriplex nummularia ssp. *nummularia*	Old-man Saltbush																										0	1	1	0
	Atriplex paludosa ssp. *cordata*	Marsh Saltbush			3						1					18	3	11				7				7		50		50	7
	Atriplex paludosa ssp. *paludosa*	Marsh Saltbush															1	1			2							4		4	3
*	*Atriplex prostrata*	Creeping Saltbush																1				3				6		10		10	3
	Atriplex pumilio	Mat Saltbush													1	1												2		2	2
	Atriplex semibaccata	Berry Saltbush		1			4	3		5	17	3		3	4	4	2		6	4		3	1			1		61	4	65	15
	Atriplex sp.	Saltbush				1	1		1		4	1			5								1			2		16	1	17	8
	Atriplex spongiosa	Pop Saltbush																			1							1		1	1
	Atriplex stipitata	Bitter Saltbush		3		3	2	3		3	4	1			6	6			1	3	1	7	2			5		50	1	51	15
	Atriplex suberecta	Lagoon Saltbush																		2						3		5	1	6	2
	Atriplex velutinella	Sandhill Saltbush													1													1		1	1
	Atriplex vesicaria (NC)							1		3	2																	6		6	3
	Atriplex vesicaria ssp.	Bladder Saltbush		1		8									4			3			5	2	1			3		27	2	29	8
	Atriplex vesicaria ssp. *calcicola*	Bladder Saltbush														1												1		1	1
	Atriplex vesicaria ssp. *macrocystidia*	Bladder Saltbush				1									3	1												5		5	3
	Atriplex vesicaria ssp. *sphaerocarpa*	Bladder Saltbush															1											1		1	1
	Atriplex vesicaria ssp. *variabilis*	Bladder Saltbush													3													3		3	1
	Austrodanthonia auriculata	Lobed Wallaby-grass							3	11				1	8				14	3		9	3	6		12		70		70	10
	Austrodanthonia caespitosa	Common Wallaby-grass				1		1	13	59	42	10	1	6	47	28		2	14	20	4	62	15	9	2	54	5	395	13	408	20
	Austrodanthonia duttoniana	Brown-back Wallaby-grass							1											1		1						3		3	3
	Austrodanthonia eriantha	Hill Wallaby-grass										1		6	8				10	5			2	1		12		45		45	8
	Austrodanthonia fulva	Leafy Wallaby-grass							1		2											1				1		5		5	4
	Austrodanthonia laevis	Smooth Wallaby-grass									4															1		5		5	2
	Austrodanthonia pilosa	Velvet Wallaby-grass																								2		2		2	1
	Austrodanthonia racemosa var. *racemosa*	Slender Wallaby-grass							2	6	1			2	1									2		1		15		15	7
	Austrodanthonia setacea	Small-flower Wallaby-grass							4	9	4	4	1	1	18	36		6	15	1	1	20	13	5		25		163	3	166	16
	Austrodanthonia tenuior	Short-awn Wallaby-grass							3		2		1	4										2		2		14		14	6
	Austrofestuca littoralis	Coast Fescue																1										1		1	1
	Austrostipa acrociliata	Graceful Spear-grass						4	1	4	4				3	52		2				16	1			13		100	3	103	10
	Austrostipa blackii	Crested Spear-grass							9	24	8	3		5	33	2			25	14		12	20	9		24		188	5	193	13
	Austrostipa breviglumis	Cane Spear-grass								3		1			1						2					1		8		8	5
	Austrostipa curticoma	Short-crest Spear-grass								1				1						3		9				1		15		15	5
	Austrostipa densiflora	Fox-tail Spear-grass											1															1		1	1
	Austrostipa drummondii	Cottony Spear-grass							1	4	19	1			5	5		6		5	1	23	4			19		93	4	97	12
	Austrostipa echinata	Spiny Spear-grass							2																	2		4		4	2

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	Austrostipa elegantissima	Feather Spear-grass		1		5		4	6	20	9	6	3	1	20	64		18	14	14	3	42	15	1	2	43	1	292		292	21
	Austrostipa eremophila	Rusty Spear-grass							3	21	31	5		6	21	8			10	11		26	11	1		23	4	181	3	184	14
	Austrostipa exilis	Heath Spear-grass														1		1		1		18				12		33		33	5
	Austrostipa flavescens	Coast Spear-grass							1	8		2	1			4		31	2				1	1		11		62		62	10
	Austrostipa gibbosa	Swollen Spear-grass							2	6				1	4							3	1					17	1	18	6
	Austrostipa hemipogon	Half-beard Spear-grass							2																	1		3		3	2
	Austrostipa mollis	Soft Spear-grass								1					4	4						5	1			4		19	1	20	6
	Austrostipa mollis group	Soft Spear-grass														1												1		1	1
	Austrostipa multispiculis															2												2		2	1
	Austrostipa mundula	Neat Spear-grass																								8		8		8	1
	Austrostipa nitida	Balcarra Spear-grass							11	48	28	7		2	40	18		1	5	11	2	22	4			8		207	1	208	14
	Austrostipa nodosa	Tall Spear-grass		1					6	13	11	2		5	8	1			9	12		12	8	9		7	3	107	5	112	15
	Austrostipa petraea	Flinders Range Spear-grass																		2								2		2	1
	Austrostipa pilata	Prickly Spear-grass																		3			2			8		13	2	15	3
	Austrostipa platychaeta	Flat-awn Spear-grass				1				2	3	4			3	15			2	2	1	7	3			1	1	45	2	47	13
	Austrostipa puberula	Fine-hairy Spear-grass																		1		4	1	1		8		15		15	5
	Austrostipa scabra group	Falcate-awn Spear-grass								1						19												20		20	2
	Austrostipa scabra ssp.	Rough Spear-grass		8					4	5	1	2		4	14	5			1				4	8				56	1	57	11
	Austrostipa scabra ssp. *falcata*	Slender Spear-grass								6	2		1	5	3	10		3	19	7		15	5			29	2	107	2	109	13
	Austrostipa scabra ssp. *scabra*	Rough Spear-grass								23	9				6							7	5			1		51		51	6
	Austrostipa semibarbata	Fibrous Spear-grass								9	2	1						1										13		13	4
	Austrostipa setacea	Corkscrew Spear-grass							4		1	2		1	4				4	2		1	3	6		10		38		38	11
	Austrostipa sp.	Spear-grass			2	12		12		5	2			1		64		12	4	2	1		1		2	14		134	1	135	14
	Austrostipa stipoides	Coast Spear-grass														1		3								3		7		7	3
	Austrostipa tenuifolia																					2						2		2	1
	Austrostipa trichophylla																					1	3			1		5	2	7	3
*	*Avellinia michelii*	Avellinia							4	4	3				5	6		11		2		4				40	1	80		80	10
*	*Avena barbata*	Bearded Oat	3					7	19	128	53	9	1	14	69	73	1	36	28	27		63	26	11	1	96	7	672		672	20
*	*Avena fatua*	Wild Oat		10					1	1	18					4				2		4						40		40	7
*	*Avena sativa*	Cultivated Oat							1		1				1							3						6		6	4
*	*Avena* sp.	Oat								1						2				2								5		5	3
	Avicennia marina ssp. *marina*	Grey Mangrove								1						1	4					1						7		7	4
	Baeckea crassifolia	Desert Baeckea														13										3		16		16	2
	Banksia marginata	Silver Banksia								1					1											1		3		3	3
*	*Bartsia trixago*	Bellardia														1											1	2		2	2
	Baumea arthrophylla	Swamp Twig-rush								1																1		2		2	2
	Baumea juncea	Bare Twig-rush														2						4				2	1	9		9	4
*	*Berula erecta*	Water Parsnip																								1		1		1	1
	Beyeria lechenaultii	Pale Turpentine Bush	1		34	2		2		3	3				2	61		44				8	4		3	19	1	187	2	189	14
	Billardiera cymosa	Sweet Apple-berry														6		1								8		15	1	16	3
	Billardiera sericophora	Silky Apple-berry					1									5										2		8		8	3
	Billardiera sp.	Apple-berry														1												1		1	1

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	Billardiera sp. Yorke Peninsula (P.C.Heyligers 80164)	Lehmann's Apple-berry							2							2		1								1		6		6	4
	Billardiera versicolor	Yellow-flower Apple-berry														2										1		3		3	2
	Blennospora drummondii	Dwarf Button-flower								4						28						1				8		41	1	42	4
	Boerhavia dominii	Tar-vine								1				1	1				1	7		1	1			2	1	16	2	18	9
	Boerhavia sp.	Tar-vine												1														1	1	2	1
	Bolboschoenus caldwellii	Salt Club-rush							1						1					1		1	1			5		10		10	6
	Boronia coerulescens ssp. *coerulescens*	Blue Boronia														1												1		1	1
	Boronia inornata ssp. *leptophylla*	Dryland Boronia														4												4		4	1
	Bossiaea prostrata	Creeping Bossiaea								1																		1		1	1
	Brachyachne ciliaris	Hairy Native Couch																1										1		1	1
	Brachycome ciliaris var.	Variable Daisy				1		1	1	2									1									6		6	5
	Brachycome lineariloba/perpusilla									1																		1		1	1
*	*Brachypodium distachyon*	False Brome	1						6	21	17	6		1	9	6			14			36	9	6		21	4	157	1	158	14
	Brachyscome ciliaris var. *brachyglossa*	Rayless Variable-daisy																		3								3		3	1
	Brachyscome ciliaris var. *ciliaris*	Variable Daisy				1				2	3			1	5	6		2	1	1	2	10				10	2	46	2	48	13
	Brachyscome ciliaris var. *lanuginosa*	Woolly Variable Daisy								1	1					3						1	1					7	1	8	5
	Brachyscome ciliaris var. *subintegrifolia*									1					2				3	3		1						10		10	5
	Brachyscome cuneifolia	Wedge-leaf Daisy														9		2								4		15		15	3
	Brachyscome exilis	Slender Daisy														5		8			1				1	6		21	1	22	5
	Brachyscome goniocarpa	Dwarf Daisy														6												6		6	1
	Brachyscome lineariloba	Hard-head Daisy				5		2	1	6	1	2			6	21	2	6	3	5	1	12				22	2	97		97	16
	Brachyscome perpusilla	Tiny Daisy								4						9										7		20		20	3
	Brachyscome trachycarpa	Smooth Daisy								1																		1		1	1
*	*Brassica juncea*	Indian Mustard										1																1		1	1
*	*Brassica* sp.								1		1																	2		2	2
*	*Brassica tournefortii*	Wild Turnip		2					1	13	3					55		43			2	9			1	12		141	1	142	10
*	*Briza maxima*	Large Quaking-grass						1	3	31	3	2	3		5	3			3			8	2			17	1	82		82	13
*	*Briza minor*	Lesser Quaking-grass						1	1	20	2	1	1			6		4	2			8	1	2		29		78		78	13
*	*Bromus alopecuros*	Mediterranean Brome							1		1											3						5		5	3
	Bromus arenarius	Sand Brome									2					1		4								1		8		8	4
*	*Bromus catharticus*	Prairie Grass																								1		1		1	1
*	*Bromus diandrus*	Great Brome							4	68	28	5		3	29	27		10	11	14		59	9	3		40	3	313		313	15
*	*Bromus hordeaceus* ssp. *hordeaceus*	Soft Brome							5	10				6	26				6	2		9		4		21	2	91	1	92	10
*	*Bromus madritensis*	Compact Brome							1	15	2	1	1	1	4	3		12	3			9				13		65		65	12
*	*Bromus rigidus*	Rigid Brome							3		10	2		1	3	1						4	5			3		32	1	33	9
*	*Bromus rubens*	Red Brome		1				9	5	40	24	2	2	9	46	71		20	10	28	4	35	5	2		51	4	368	2	370	19
	Bromus sp.	Brome						2	2							7		2	1							1		15		15	6
	Bromus sterilis (NC)		5																									5		5	1
	Brunonia australis	Blue Pincushion								1																		1		1	1
*	*Buglossoides arvensis*	Sheepweed							1	3	4				5	21		12		1		3						50		50	8
	Bulbine bulbosa	Bulbine-lily					1		5	24	13		2	1	4	5			6	5		4	5			11		86	2	88	13
	Bulbine semibarbata	Small Leek-lily								2						10			1		1					5		19		19	5

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		Survey Number →	**5**	**6**	**13**	**24**	**31**	**45**	**46**	**49**	**51**	**54**	**55**	**58**	**62**	**63**	**78**	**82**	**83**	**86**	**87**	**88**	**96**	**116**	**148**	**162**	**168**	**All SU sites**	**All OP**	**Total**	**Total SUs**
I	**Scientific Name**	**Common Name**																														
*	*Bupleurum semicompositum*	Hare's Ear						2	2	8	5			3	5	3		12	3	1	2	21	1			19	4	91		91	15
	Burchardia umbellata	Milkmaids										1																1	1	2	1
	Bursaria spinosa ssp. *spinosa*	Sweet Bursaria	1	2		4	12	2	8	52	15	6	1	1	12	44		9	19	12		17	10	1		42	1	271		271	21
	Bursaria spinosa var. (NC)							1																				1		1	1
	Caesia calliantha	Blue Grass-lily					1		1	6	1					10						2	1			8		30		30	8
*	*Cakile maritima* ssp. *maritima*	Two-horned Sea Rocket			1											2		33			1							37		37	4
	Caladenia argocalla	White Beauty Spider-orchid																								1		1		1	1
	Caladenia bicalliata ssp. *bicalliata*	Western Daddy-long-legs														1										1		2		2	2
	Caladenia brumalis	Winter Spider-orchid														10										1		11		11	2
	Caladenia brumalis x *latifolia*	Hybrid Spider-orchid														1												1		1	1
	Caladenia cardiochila	Heart-lip Spider-orchid														1										2		3		3	2
	Caladenia carnea complex	Pink Fingers Caladenia					1																					1		1	1
	Caladenia carnea var. *carnea*	Pink Fingers														7												7		7	1
	Caladenia clavula (NC)									1																		1		1	1
	Caladenia conferta	Coast Spider-orchid														1												1		1	1
	Caladenia dilatata (NC)	Green-comb Spider-orchid					1																					1		1	1
	Caladenia dilatata complex	Green-comb Spider-orchid			1																							1		1	1
	Caladenia filamentosa complex	Daddy-long-legs Spider-orchid																								1		1		1	1
	Caladenia filamentosa var. *tentaculata*	Wispy Spider-orchid														16		2								4		22		22	3
	Caladenia latifolia	Pink Caladenia														31		17										48		48	2
	Caladenia leptochila	Narrow-lip Spider-orchid					1			1																1		3	1	4	3
	Caladenia patersonii complex	White Spider-orchid					1																					1		1	1
	Caladenia sp.	Spider-orchid																1								1		2		2	2
	Caladenia sp. Brentwood (R.J. Bates 53510)	Ghost Spider-orchid														1												1		1	1
	Caladenia stricta	Upright Caladenia														5		1								3		9		9	3
	Caladenia tensa	Inland Green-comb Spider-orchid																		1						1		2		2	2
	Caladenia tentaculata	King Spider-orchid																										0	1	1	0
	Calandrinia brevipedata	Short-stalked Purslane														3		7										10		10	2
	Calandrinia calyptrata	Pink Purslane								12	1					4						5				7		29	1	30	5
	Calandrinia calyptrata/eremaea	Purslane								4																		4		4	1
	Calandrinia eremaea	Dryland Purslane		1						5					1	9		13		1	3	9				11	1	54	2	56	10
	Calandrinia granulifera	Pigmy Purslane								1						1										1		3	1	4	3
	Calandrinia polyandra var. *polyandra*	Parakeelya										1																1		1	1
	Calandrinia sp.	Purslane/Parakeelya														1		4										5		5	2
	Calandrinia volubilis	Twining Purslane													1													1		1	1
*	*Calendula arvensis*	Field Marigold									2									1								3		3	2
	Callistemon rugulosus var. *rugulosus* (NC)	Scarlet Bottlebrush														1												1		1	1
	Callistemon teretifolius	Needle Bottlebrush								2																		2		2	1
	Callitris canescens	Scrubby Cypress Pine			10											8		5							3	6		32		32	5
	Callitris glaucophylla	White Cypress-pine		3		3	4			11	3									3						2		29		29	7
	Callitris gracilis	Southern Cypress Pine	3				8	3		17	8	3			4	14		3	5			15	6			6	5	100	6	106	14

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		Survey Number →	**5**	**6**	**13**	**24**	**31**	**45**	**46**	**49**	**51**	**54**	**55**	**58**	**62**	**63**	**78**	**82**	**83**	**86**	**87**	**88**	**96**	**116**	**148**	**162**	**168**	**All SU sites**	**All OP**	**Total**	**Total SUs**
I	**Scientific Name**	**Common Name**																													
	Calocephalus citreus	Lemon Beauty-heads							2	2	2	1	1	2	10	1			8	4		4	3	2		7		49	1	50	14
	Calostemma purpureum	Pink Garland-lily					1		1	15	10			1		7				1		1	1			3	2	43		43	11
	Calotis hispidula	Hairy Burr-daisy							1	4	1	1			5	18		2	2	3	2	16				11	1	67		67	13
	Calytrix involucrata	Cup Fringe-myrtle														10										1		11	1	12	2
	Calytrix tetragona	Common Fringe-myrtle			19		1		1	6						33		17							2	21	3	103	4	107	9
*	*Capsella bursapastoris*	Shepherd's Purse								2													1					3		3	2
*	*Carduus tenuiflorus*	Slender Thistle							1	26	1		1		5	5		1	1	2		10				5	5	63		63	12
	Carex appressa	Tall Sedge								2	2																	4		4	2
	Carex bichenoviana	Notched Sedge								1												2				1		4	1	5	3
	Carex breviculmis	Short-stem Sedge								2	1												1			2		6		6	4
*	*Carex divisa*	Divided Sedge																									2	2		2	1
	Carex gaudichaudiana	Fen Sedge								1																		1		1	1
	Carex inversa var. *major*	Knob Sedge									1												1					2		2	2
	Carex sp.	Sedge					1																					1		1	1
*	*Carpobrotus aequilaterus*	Angled Pigface									1																	1		1	1
	Carpobrotus modestus	Inland Pigface						1								2												3		3	2
	Carpobrotus rossii	Native Pigface			18				2							34		108			1	1			1	12		177		177	8
	Carpobrotus sp.	Pigface										1							2				1			2		6		6	4
*	*Carrichtera annua*	Ward's Weed		10		8		1	1	27	19				8	43		12	2	15	8	23	5			18	4	204	1	205	16
*	*Carthamus lanatus*	Saffron Thistle		9				2	4	16	6	2		10	26	6			24	11		1	5	10		23	4	159		159	16
*	*Carthamus* sp.										1																	1		1	1
	Caryophyllaceae sp.	Pink Family							1									1										2		2	2
	Cassinia arcuata	Drooping Cassinia				2	2	1		4	1	2				7												19	1	20	7
	Cassinia laevis	Curry Bush		1		1	1			4									1							6	1	15		15	7
	Cassinia sp.	Cassinia																								1		1		1	1
	Cassinia uncata (NC)	Sticky Cassinia								3		1				3			2							2		11		11	5
	Cassytha glabella f. *dispar*	Slender Dodder-laurel			2				1			1				17		17							1	6		45		45	7
	Cassytha melantha	Coarse Dodder-laurel	2			1	1			10					3	35		1				6	2			12		73	4	77	10
	Cassytha peninsularis var. *peninsularis*	Peninsula Dodder-laurel														29		18							2	16		65		65	4
	Cassytha pubescens	Downy Dodder-laurel														2		1										3		3	2
	Cassytha sp.	Dodder-laurel			20		1																					21		21	2
	Casuarina pauper	Black Oak		1			1			1						4				1	2							10	1	11	6
*	*Catapodium rigidum*	Rigid Fescue	2							7	3	1			3	11		16	1			13			2	37	2	98		98	12
*	*Centaurea calcitrapa*	Star Thistle							1																	1		2		2	2
*	*Centaurea melitensis*	Malta Thistle								3	5	1			1			4	3	5	2	3				8	4	39	1	40	11
*	*Centaurea solstitialis*	St Barnaby's Thistle									1																	1		1	1
*	*Centaurea* sp.	Centaury														2												2		2	1
*	*Centaurium erythraea*	Common Centaury							3	1		2							1			2				1		10		10	6
*	*Centaurium maritimum*	Sea Centaury																								3		3		3	1
*	*Centaurium* sp.	Centaury																				1			1			2		2	2
	Centaurium spicatum	Spike Centaury							1										1									2		2	2
*	*Centaurium tenuiflorum*	Branched Centaury																								1		1		1	1
*	*Centaurium tenuiflorum* (NC)	Branched Centaury														1		2								15		18		18	3

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		Survey Number →	**5**	**6**	**13**	**24**	**31**	**45**	**46**	**49**	**51**	**54**	**55**	**58**	**62**	**63**	**78**	**82**	**83**	**86**	**87**	**88**	**96**	**116**	**148**	**162**	**168**	**All SU sites**	**All OP**	**Total**	**Total SUs**
I	**Scientific Name**	**Common Name**																													
	Centrolepis aristata	Pointed Centrolepis								2													1			1		4		4	3
	Centrolepis cephaloformis ssp.	Cushion Centrolepis																1										1		1	1
	Centrolepis cephaloformis ssp. *cephaloformis*	Cushion Centrolepis								1						3						1						5		5	3
	Centrolepis polygyna	Wiry Centrolepis								5						4						2				1		12		12	4
	Centrolepis strigosa ssp. *strigosa*	Hairy Centrolepis								3												2	1			1		7		7	4
*	*Cerastium balearicum*	Chickweed														10		13								7		30		30	3
*	*Cerastium balearicum/pumilum*																					1						1		1	1
*	*Cerastium diffusum*	Mouse-ear Chickweed																3										3		3	1
*	*Cerastium glomeratum*	Common Mouse-ear Chickweed								14					1	9		8				2				5		39		39	6
*	*Cerastium pumilum*	Chickweed																6								1		7		7	2
*	*Cerastium semidecandrum* (NC)	Small Mouse-ear Chickweed								1	1																	2		2	2
*	*Cerastium* sp.	Chickweed																2										2		2	1
	Chamaescilla corymbosa var. *corymbosa*	Blue Squill				4				2						5							1			3		15		15	5
	Chamaesyce drummondii	Caustic Weed				2		2	3	1	14	2		12	26				15	10			9	8		15	1	120	4	124	14
*	*Chasmanthe floribunda* var. *floribunda*	African Corn-flag								1																		1		1	1
	Cheilanthes austrotenuifolia	Annual Rock-fern				2	1	1	2	41	1	3	1		8	5			3	5		6	2	4		24		109	3	112	16
	Cheilanthes distans	Bristly Cloak-fern													1											1		2		2	2
	Cheilanthes lasiophylla	Woolly Cloak-fern				2		1	1	5					1					2						3	1	16		16	8
	Cheilanthes sieberi ssp.	Narrow Rock-fern																	4									4		4	1
	Cheilanthes sieberi ssp. *sieberi*	Narrow Rock-fern		1		1									1					2			2			2		9	1	10	6
	Cheiranthera alternifolia	Hand-flower								1						3										3		7		7	3
	Chenopodiaceae sp.	Goosefoot Family									1					2							1			1		5		5	4
	Chenopodium cristatum	Crested Goosefoot								1									1		1							3		3	3
	Chenopodium curvispicatum	Cottony Goosefoot				2				1						1										1		5		5	4
	Chenopodium desertorum ssp.	Desert Goosefoot						5		4	1					2												12		12	4
	Chenopodium desertorum ssp. *anidiophyllum*	Mallee Goosefoot																			2							2		2	1
	Chenopodium desertorum ssp. *desertorum*	Frosted Goosefoot				2				2	1	2		1	3	1					1			3		2		18		18	10
	Chenopodium desertorum ssp. *microphyllum*	Small-leaf Goosefoot				1	1			7				1	11	23			1			22	4	1		13	2	87	3	90	12
	Chenopodium gaudichaudianum	Scrambling Goosefoot					1																					1		1	1
*	*Chenopodium glaucum*	Glaucous Goosefoot																								1		1		1	1
	Chenopodium nitrariaceum	Nitre Goosefoot														1										2		3		3	2
	Chenopodium pumilio	Clammy Goosefoot												1														1		1	1
	Chenopodium sp.	Goosefoot	1	1				1																				3		3	3
	Chloris pectinata	Comb Windmill Grass		1																								1		1	1
	Chloris truncata	Windmill Grass										1																1	2	3	1
*	*Chondrilla juncea*	Skeleton Weed																				1						1		1	1
	Choretrum glomeratum var.	Sour-bush										1																1		1	1
	Choretrum glomeratum var. *chrysanthum*	Yellow-flower Sour-bush								1																		1		1	1
	Choretrum glomeratum var. *glomeratum*	White Sour-bush					1									9										4		14		14	3
*	*Chrysanthemoides monilifera*	Boneseed																	1									1		1	1

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		Survey Number →	**5**	**6**	**13**	**24**	**31**	**45**	**46**	**49**	**51**	**54**	**55**	**58**	**62**	**63**	**78**	**82**	**83**	**86**	**87**	**88**	**96**	**116**	**148**	**162**	**168**	**All SU sites**	**All OP**	**Total**	**Total SUs**
I	**Scientific Name**	**Common Name**																													
	Chrysocephalum apiculatum	Common Everlasting		1		1	1		7	16	11	2		2	12	32		6	8	5		6	11	2	2	31	2	158	3	161	19
	Chrysocephalum baxteri	White Everlasting								1																		1	1	2	1
	Chrysocephalum semipapposum	Clustered Everlasting				6		2	4	6	6	5	1		14	7			6	2		6	6			16		87	3	90	14
*	*Cirsium vulgare*	Spear Thistle								2			1		1	2						1				9	2	18		18	7
*	*Citrullus lanatus*	Bitter Melon		1																		1						2		2	2
	Clematis microphylla var. *microphylla*	Old Man's Beard	2		11	2	1	4	1	6	2	2			4	105		71	3	5	1	9	2		1	30	3	265	1	266	20
	Codonocarpus pyramidalis	Slender Bell-fruit																										0	1	1	0
	Comesperma scoparium	Broom Milkwort														1												1		1	1
	Comesperma volubile	Love Creeper								1	1					55		10				2				26	1	96	1	97	7
	Compositae sp.	Daisy Family				1			1	2					1	4		4								1		14		14	7
	Convolvulus angustissimus ssp. *angustissimus*	Australian Bindweed																								20		20		20	1
	Convolvulus angustissimus ssp. *peninsularum*	Grassland Bindweed																		2				1		5		8	1	9	3
	Convolvulus erubescens (NC)	Australian Bindweed		3				1	6	7	17	1	1	11	35	14			7	14		5	10	5			2	139	1	140	16
	Convolvulus erubescens/remotus	Native Bindweed								7																		7		7	1
	Convolvulus eyreanus (NC)	Silver Bindweed										1																1		1	1
	Convolvulus microsepalus/remotus					4																						4		4	1
	Convolvulus remotus	Grassy Bindweed							5	6	10	2			12	6			11	3	1	7	3	4		16	2	88		88	14
	Convolvulus sp.	Bindweed				1	1				1								1							1	1	6		6	6
	Correa backhouseana var. *coriacea*	Thick-leaf Correa														26										3		29		29	2
	Correa glabra (NC)	Rock Correa								2					1													3	2	5	2
	Correa pulchella	Salmon Correa			26											29		24								8		87		87	4
	Correa reflexa (NC)	Common Correa								1																		1		1	1
	Correa sp.	Correa			2		1																					3		3	2
	Corybas despectans	Coast Helmet-orchid														2		7								2		11		11	3
	Corybas sp.	Helmet-orchid			3											15		6										24		24	3
*	*Cotoneaster pannosus*	Cotoneaster																					1					1		1	1
	Cotula australis	Common Cotula								5					1							1						7		7	3
*	*Cotula coronopifolia*	Water Buttons							1	2					1							1	1			5	1	12		12	7
	Cotula vulgaris var. *australasica*	Slender Cotula			3													2								1	1	7		7	4
	Craspedia glauca (NC)	Billy-buttons		1	2		1			2					2	38		13									1	60		60	8
	Craspedia variabilis	Billy-buttons																								11		11		11	1
	Crassula closiana	Stalked Crassula								1						18										8		27	1	28	3
	Crassula colligata ssp. *colligata*																									3		3		3	1
	Crassula colligata ssp. *lamprosperma*	Australian Stonecrop																								34		34		34	1
	Crassula colorata var.	Dense Crassula						7	1	37	1					10			1	5	2	1				2		67		67	10
	Crassula colorata var. *acuminata*	Dense Crassula				1			1		5				5	9		2	13	6		32	2			24		100		100	11
	Crassula colorata var. *colorata*	Dense Crassula	2													7		8		1	2	4		1		3		28		28	8
	Crassula colorata/sieberiana complex	Crassula				4																						4		4	1
	Crassula decumbens var. *decumbens*	Spreading Crassula							1	24	6					7		54				15						107		107	6
*	*Crassula natans* var. *minus*	Water Crassula														2										2		4		4	2
	Crassula sieberiana	Sieber's Crassula									1																	1		1	1

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		Survey Number →	**5**	**6**	**13**	**24**	**31**	**45**	**46**	**49**	**51**	**54**	**55**	**58**	**62**	**63**	**78**	**82**	**83**	**86**	**87**	**88**	**96**	**116**	**148**	**162**	**168**	**All SU sites**	**All OP**	**Total**	**Total SUs**
I	**Scientific Name**	**Common Name**																													
	Crassula sieberiana complex	Australian Stonecrop									1									2								3		3	2
	Crassula sieberiana ssp. *tetramera* (NC)	Australian Stonecrop				1			2	49	7	2			1	30		66		5	5	43	1			18	2	232	1	233	14
	Crassula sp.	Crassula/Stonecrop				2				4	1																	7		7	3
	Cratystylis conocephala	Bluebush Daisy																								1		1		1	1
*	*Crepis foetida* ssp. *foetida*	Stinking Hawksbeard							1			2															1	4		4	3
	Cressa cretica	Rosinweed																					1					1		1	1
*	*Critesion murinum* ssp. (NC)	Barley-grass								49					2	8				1		9						69		69	5
*	*Critesion* sp. (NC)	Barley-grass				10								1		2		1										14		14	4
	Cruciferae sp.	Cress Family																1										1		1	1
	Cryptandra amara var.	Cryptandra								2	1								4	1			2					10	1	11	5
	Cryptandra amara var. *amara* (NC)	Spiny Cryptandra													5	17		2					1					25		25	4
	Cryptandra sp.	Cryptandra																				1	1					2		2	2
	Cryptandra sp. Floriferous (W.R.Barker 4131)	Pretty Cryptandra																								5		5		5	1
	Cryptandra sp. Long hypanthium (C.R. Alcock 10626)	Long-flower Cryptandra				3			8	2		2		3	7				7	2			4	4		11		53		53	11
	Cryptandra tomentosa (NC)	Heath Cryptandra														1										1		2	2	4	2
*	*Cucumis myriocarpus*	Paddy Melon					1							1														2		2	2
	Cullen australasicum	Tall Scurf-pea													1													1		1	1
	Cullen parvum	Small Scurf-pea																						2				2		2	1
	Cymbonotus preissianus	Austral Bear's-ear						1		12			1	1	3	2						1				2		23	1	24	8
	Cymbopogon ambiguus	Lemon-grass		1					1	1	6								2					1		1	1	14	1	15	8
*	*Cynara cardunculus*	Artichoke Thistle							2	5	8			1	5	1						9				10		41		41	8
*	*Cynodon dactylon*	Couch							2		8				1							2				2		15	1	16	5
	Cynoglossum suaveolens	Sweet Hound's-tongue								4					1	1						3				4		13	1	14	5
*	*Cynosurus echinatus*	Rough Dog's-tail Grass								1			2									4						7		7	3
	Cyperus alterniflorus (NC)	Umbrella Flat-sedge								3																		3		3	1
	Cyperus exaltatus	Splendid Flat-sedge								1																		1		1	1
	Cyperus gunnii ssp. *gunnii*	Flecked Flat-sedge									2																	2		2	1
	Cyperus gymnocaulos	Spiny Flat-sedge					1			4					2	1						6	1			12	2	29		29	8
	Cyperus laevigatus	Bore-drain Sedge																								1		1		1	1
	Cyperus tenellus	Tiny Flat-sedge																				1						1		1	1
	Cyperus vaginatus	Stiff Flat-sedge								1	1																	2		2	2
	Cyrtostylis reniformis	Small Gnat-orchid								1																		1		1	1
	Cyrtostylis robusta	Robust Gnat-orchid			1											36		15										52		52	3
	Cytisus proliferus (NC)										1																	1		1	1
*	*Dactylis glomerata*	Cocksfoot						1																				1		1	1
	Dampiera dysantha	Shrubby Dampiera								1																		1		1	1
	Dampiera lanceolata var. *lanceolata*	Grooved Dampiera																								2		2		2	1
	Dampiera rosmarinifolia	Rosemary Dampiera									1					33		1				1				4		40	1	41	5
	Danthonia carphoides var. (NC)	Short Wallaby-grass								2					11				1					4				18		18	4
	Danthonia carphoides var. *carphoides* (NC)	Short Wallaby-grass							2					2					2				1					7		7	4
	Danthonia pilosa var. (NC)	Velvet Wallaby-grass								10		1	1		4									6				22		22	5

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	Danthonia pilosa var. *paleacea* (NC)	Velvet Wallaby-grass							3													1	1	2				7		7	4
	Danthonia pilosa var. *pilosa* (NC)	Velvet Wallaby-grass								1		1		1					1					1				5	1	6	5
	Danthonia setacea (NC)										2																	2		2	1
	Danthonia sp.	Wallaby-grass	5			8		9		6	4		1		1	34		9	7	1					1	5		91	1	92	13
	Daucus glochidiatus	Native Carrot				7			3	40	3	1			12	85	1	70	10	10	1	17	1	1	1	65	3	331	1	332	18
	Daviesia benthamii ssp. *humilis*	Mallee Bitter-pea														2										1	1	4	1	5	3
	Daviesia genistifolia	Broom Bitter-pea					1			1	1	1																4		4	4
	Daviesia leptophylla	Narrow-leaf Bitter-pea																										0	2	2	0
	Derwentia decorosa	Showy Speedwell																										0	1	1	0
	Dianella brevicaulis	Short-stem Flax-lily														50		55				1			1	19		126		126	5
	Dianella brevicaulis/*revoluta* var.	Black-anther Flax-lily				1			8	11		5			7	25			14	1								72		72	8
	Dianella longifolia var.	Pale Flax-lily					1	1																				2		2	2
	Dianella longifolia var. *grandis*	Pale Flax-lily									1																	1		1	1
	Dianella revoluta (NC)		2	1	16		9				27																	55		55	5
	Dianella revoluta var.																1	19					4					24		24	3
	Dianella revoluta var. *divaricata*	Broad-leaf Flax-lily								6																		6		6	1
	Dianella revoluta var. *revoluta*	Black-anther Flax-lily						3	2	19	1	3			10	73		6	1	8		32	17			54	6	235	3	238	14
	Dianella sp.	Flax-lily				1												5										6		6	2
	Dichanthium sericeum ssp.	Silky Blue-grass																										0	2	2	0
	Dichelachne crinita	Long-hair Plume-grass								2					1											5		8	1	9	3
	Dichondra repens	Kidney Weed												1					1									2		2	2
	Digitaria sp.	Summer-grass				1																						1		1	1
	Dillwynia hispida	Red Parrot-pea					1			2						1							1					5		5	4
*	*Diplotaxis muralis* var. *muralis*	Wall Rocket																								1		1		1	1
*	*Diplotaxis* sp.	Rocket																								1		1		1	1
*	*Diplotaxis tenuifolia*	Lincoln Weed									1					1												2	1	3	2
*	*Dischisma arenarium*	Sand Dichisma														1		11										12		12	2
	Disphyma crassifolium ssp. (NC)										1																	1		1	1
	Disphyma crassifolium ssp. *clavellatum*	Round-leaf Pigface								2	2					14	10	10			1	11				6		56		56	8
	Disphyma crassifolium ssp. *crassifolium* (NC)				1																							1		1	1
	Dissocarpus biflorus var.	Two-horn Saltbush													1						1							2		2	2
	Dissocarpus biflorus var. *biflorus*	Two-horn Saltbush		2												2	1									1		6		6	4
	Dissocarpus paradoxus	Ball Bindyi				2				1					1						2					1		7	1	8	5
	Distichlis distichophylla	Emu-grass							1	1					1	2		1				4				6		16		16	7
*	*Dittrichia graveolens*	Stinkweed			1				1		16					5										2		25		25	5
	Diuris behrii	Behr's Cowslip Orchid								1																		1		1	1
	Diuris orientis	Wallflower Donkey-orchid														6										1		7		7	2
	Diuris palustris	Little Donkey-orchid														20										3		23		23	2
	Diuris pardina	Spotted Donkey-orchid					1									3												4		4	2
	Dodonaea baueri	Crinkled Hop-bush		1		3	3		1	4	2	2			3	7			1	2		4	2			12	1	48	3	51	15
	Dodonaea bursariifolia	Small Hop-bush				1										6						1						8		8	3
	Dodonaea hexandra	Horned Hop-bush														22										3	2	27		27	3

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	Dodonaea humilis	Dwarf Hop-bush			25											26		4							1	10		66		66	5
	Dodonaea lobulata	Lobed-leaf Hop-bush				6									3					1	1					4		15		15	5
	Dodonaea procumbens	Trailing Hop-bush							1															2				3	2	5	2
	Dodonaea stenozyga	Desert Hop-bush				1										2												3		3	2
	Dodonaea subglandulifera							1																				1		1	1
	Dodonaea tepperi	Streaked Hop-bush														1												1		1	1
	Dodonaea viscosa ssp.	Sticky Hop-bush			1		4		1																			6		6	3
	Dodonaea viscosa ssp. *angustissima*	Narrow-leaf Hop-bush		1		5	1	1		1	3	1			5	1		1	1	5		3	1			6	2	38		38	16
	Dodonaea viscosa ssp. *cuneata*	Wedge-leaf Hop-bush								1																		1		1	1
	Dodonaea viscosa ssp. *spatulata*	Sticky Hop-bush						1		6	2				1	17		1				3	2			4	3	40		40	10
	Drosera auriculata	Tall Sundew								2	1												1			3		7		7	4
	Drosera glanduligera	Scarlet Sundew							1	1						6		1				2				1		12		12	6
	Drosera macrantha ssp. *planchonii*	Climbing Sundew					1		1	6						56		1	1				1		1	7		75	1	76	9
	Drosera peltata	Pale Sundew								2						2			1			2				1		8		8	5
	Drosera whittakeri (NC)	Scented Sundew							1	6	1																	8		8	3
	Drosera whittakeri ssp. *whittakeri*																						1			1		2	1	3	2
	Echinopogon ovatus	Rough-beard Grass													1													1		1	1
*	*Echium plantagineum*	Salvation Jane	1	5		9	2	2	14	95	36	4	3	13	36				19	17		30	18	10		42	6	362	3	365	19
*	*Echium* sp.	Bugloss						1																				1		1	1
*	*Ehrharta calycina*	Perennial Veldt Grass									2	1										2						5		5	3
*	*Ehrharta longiflora*	Annual Veldt Grass	3					1		9	6	4				2			2			13	3			5		48		48	10
	Einadia nutans ssp.	Climbing Saltbush				7		7	2	39	3	4			23				8	2		1	2	1			1	100	3	103	13
	Einadia nutans ssp. *nutans*	Climbing Saltbush		1			1				4				2	36			2	7		24	7			31	2	117	2	119	11
	Elachanthus pusillus	Elachanth												1	1	2			1	2						3		10		10	6
	Eleocharis acuta	Common Spike-rush								1						1							1					3		3	3
	Eleocharis pusilla	Small Spike-rush									1																	1		1	1
*	*Elymus elongatus*	Tall Wheat-grass																				1				1		2		2	2
	Elymus scabrus var. *scabrus*	Native Wheat-grass		1				2	4	10	8	3		3	11	1			14			7	7	5		8		84		84	14
*	*Emex australis*	Three-corner Jack								2						2						3						7		7	3
	Enchylaena tomentosa var.	Ruby Saltbush					10	8	1		29				35				8									91	2	93	6
	Enchylaena tomentosa var. *tomentosa*	Ruby Saltbush	4	10	3	20			2	36		7		1		110		19	1	20	5	56	13			42	5	354	2	356	17
	Enneapogon nigricans	Black-head Grass						1		3	12			3	13	3			5	4		2	5	3		4		58	5	63	12
	Enneapogon sp.	Bottle-washers/Nineawn									2																	2		2	1
	Enteropogon acicularis	Umbrella Grass														2			1	2		1	3					9	2	11	5
	Enteropogon acicularis (NC)	Umbrella Grass								2	11																	13		13	2
	Enteropogon ramosus	Umbrella Grass																	2									2		2	1
	Epacridaceae sp.	Heath Family					1																					1		1	1
	Epilobium billardierianum ssp. *billardierianum*	Robust Willow-herb																								2	1	3		3	2
	Epilobium sp.	Willow-herb									1																	1		1	1
	Eragrostis australasica	Cane-grass																								3		3		3	1
	Eragrostis falcata	Sickle Love-grass									1																	1		1	1
	Eragrostis setifolia	Bristly Love-grass		1																								1		1	1

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	Eremophila alternifolia	Narrow-leaf Emubush				3		1							2					2						2	1	11		11	6
	Eremophila behriana	Rough Emubush														3										1		4		4	2
	Eremophila deserti	Turkey-bush		1											1	5		2			1	1				1		12		12	7
	Eremophila glabra (NC)	Tar Bush		3				2		4	2																	11		11	4
	Eremophila glabra ssp.	Tar Bush																										0	1	1	0
	Eremophila glabra ssp. *glabra*	Tar Bush														6					2	4				1		13	1	14	4
	Eremophila longifolia	Weeping Emubush		1			1	2	1	2	5	4			2				2	5		3	3			4		35	3	38	13
	Eremophila oppositifolia ssp.	Opposite-leaved Emubush																										0	1	1	0
	Eremophila oppositifolia ssp. *oppositifolia*	Opposite-leaved Emubush				2																						2		2	1
	Eremophila scoparia	Broom Emubush				1				1					2											1		5		5	4
	Eremophila serrulata	Green Emubush				4																						4		4	1
	Eremophila subfloccosa ssp. Glandulosa (R.Bates 32961)	Green-flower Emubush																				1						1		1	1
	Eriochilus cucullatus	Parson's Bands							1							21												22		22	2
	Eriochiton sclerolaenoides	Woolly-fruit Bluebush				1		1	2						1	1				5		2				2		15		15	8
	Eriochlamys behrii	Woolly Mantle																	1	1								2		2	2
*	*Erodium aureum*										1																	1		1	1
*	*Erodium botrys*	Long Heron's-bill	2	1		2		2	5	22	19		1	5	40	5			3	3		4	1	1		17		133	1	134	17
*	*Erodium brachycarpum*	Short-fruit Heron's-bill									7															1		8		8	2
*	*Erodium cicutarium*	Cut-leaf Heron's-bill		1		12		2	1	15	13				3	44		17		13	1				1	10		133		133	13
	Erodium crinitum	Blue Heron's-bill		7				1	1	2	18			2		9		1	4	4			1			1	1	52	2	54	13
	Erodium crinitum/cygnorum/ carolinianum/jannzii	Blue Heron's-bill				1																						1		1	1
	Erodium cygnorum ssp. (NC)	Blue Heron's-bill																		1								1		1	1
	Erodium cygnorum ssp. *glandulosum* (NC)	Clammy Heron's-bill												1						8		2						11		11	3
*	*Erodium moschatum*	Musky Herons-bill								9																		9		9	1
	Erodium sp.	Heron's-bill/Crowfoot				3			1		6								3	2				7				22		22	6
	Eryngium rostratum	Blue Devil							2	1	1			1					1				2	7		1		16	2	18	8
	Eucalyptus albens	White Box									1																	1		1	1
	Eucalyptus brachycalyx	Gilja				4	1	3		6					13	13		1				5				5		51	1	52	9
	Eucalyptus calycogona (NC)	Square-fruit Mallee					1																					1		1	1
	Eucalyptus calycogona ssp.	Square-fruit Mallee																				2						2		2	1
	Eucalyptus calycogona var. *calycogona* (NC)	Square-fruit Mallee														4							1			3		8	1	9	3
	Eucalyptus camaldulensis var.	River Red Gum		1			2	1		8	3																	15	2	17	5
	Eucalyptus camaldulensis var. *camaldulensis*	River Red Gum														1						5				7	2	15	4	19	4
	Eucalyptus cladocalyx	Sugar Gum					1				3												5					9	1	10	3
	Eucalyptus conglobata ssp. *conglobata*	Port Lincoln Mallee			3																							3		3	1
	Eucalyptus conglobata x *phenax* (NC)																								2			2		2	1
	Eucalyptus diversifolia (NC)	Coastal White Mallee			32											31		10							1			74	1	75	4
	Eucalyptus diversifolia ssp. *diversifolia*	Coastal White Mallee																								14		14		14	1
	Eucalyptus dumosa	White Mallee	3							8	1					17						4	1					34		34	6
	Eucalyptus dumosa complex x *phenax*	White Mallee																					1					1		1	1

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I	**Scientific Name**	**Common Name**																													
	Eucalyptus dumosa x *odorata*	Hybrid Mallee								1																		1		1	1
	Eucalyptus flocktoniae x *socialis*	Merrit Intergrade														2												2		2	1
	Eucalyptus goniocalyx (NC)	Long-leaf Box								4													1			1		6	2	8	3
	Eucalyptus gracilis	Yorrell			10	7	4	6		13	2				20	39		3			1	20				10		135	3	138	12
	Eucalyptus incrassata	Ridge-fruited Mallee	2		9											13						3				1		28	1	29	5
	Eucalyptus largiflorens	River Box	1								1											1	1					4		4	4
	Eucalyptus leptophylla	Narrow-leaf Red Mallee				1	1			1	2				2	24										2		33		33	7
	Eucalyptus leucoxylon (NC)	South Australian Blue Gum					16	1		31	4																	52		52	4
	Eucalyptus leucoxylon ssp.	South Australian Blue Gum		1				1				2			2					1			1					8	1	9	6
	Eucalyptus leucoxylon ssp. *pruinosa*	Inland South Australian Blue Gum								5			5		4				8	3		5	2			16		48	4	52	8
	Eucalyptus leucoxylon ssp. *pruinosa* (NC)										4																	4		4	1
	Eucalyptus macrorhyncha ssp. *macrorhyncha*	Red Stringybark								2																2		4		4	2
	Eucalyptus microcarpa	Grey Box		1						3									4							1		9		9	4
	Eucalyptus microcarpa x *odorata*	Grey Box Intergrade																										0	1	1	0
	Eucalyptus odorata	Peppermint Box	2	5		1	26	5		57	4	6	4		5				6			18	4			16		159	6	165	14
	Eucalyptus oleosa (NC)	Red Mallee		1	12	6	1	5		11	1				8	53		1		1	2	9			2	9		122	4	126	15
	Eucalyptus oleosa ssp.																									4		4		4	1
	Eucalyptus percostata	Ribbed White Mallee									1																	1		1	1
	Eucalyptus phenax (NC)	Sessile-fruit White Mallee								2						29		1				5	1					38		38	5
	Eucalyptus phenax ssp.																	1										1		1	1
	Eucalyptus phenax ssp. *phenax*	White Mallee														1										3		4		4	2
	Eucalyptus porosa	Mallee Box		1		3		4		18	7	6			7	44			1	3		7	2			19	1	123	2	125	14
	Eucalyptus rugosa	Coastal White Mallee			12		1									15		1								2		31	1	32	5
	Eucalyptus socialis (NC)	Beaked Red Mallee	3		3	12	4	2		27	2				8	22				3		21	3			13	2	125	3	128	14
	Eucalyptus sp.																											0	1	1	0
	Euchiton collinus	Creeping Cudweed																	1									1		1	1
	Euchiton gymnocephalus (NC)	Creeping Cudweed								2																		2		2	1
	Euchiton sphaericus	Annual Cudweed								3						1						5				5		14	1	15	4
*	*Euphorbia helioscopia*	Sun Spurge														5												5		5	1
*	*Euphorbia paralias*	Sea Spurge			1											2		18										21	1	22	3
*	*Euphorbia peplus*	Petty Spurge														2		1								1		4		4	3
	Euphorbia sp.	Spurge									1																	1		1	1
	Euphorbia tannensis ssp. (NC)	Desert Spurge													1													1		1	1
	Euphorbia tannensis ssp. *eremophila*	Desert Spurge																								1		1		1	1
*	*Euphorbia terracina*	False Caper								1	6					18		28				1				2		56		56	6
	Euphrasia collina ssp.	Eyebright																1										1		1	1
	Euphrasia collina ssp. *osbornii*	Osborn's Eyebright			2											2							1			1		6	2	8	4
	Euphrasia collina ssp. *tetragona*	Coast Eyebright														1		3								2		6		6	3
	Eutaxia diffusa	Large-leaf Eutaxia					1				1	2				2			1							3		10		10	6
	Eutaxia microphylla var. *microphylla*	Common Eutaxia			10				5	12	2				4	32		11	4	3			6		2	26		117	3	120	12
	Eutaxia microphylla var. *microphylla* (erect)	Common Eutaxia																				2						2		2	1

I	Scientific Name	Common Name	5	6	13	24	31	45	46	49	51	54	55	58	62	63	78	82	83	86	87	88	96	116	148	162	168	All SU sites	All OP	Total	Total SUs
	No. of Sites in the Mid North & Yorke Peninsula Study Area →		6	15	56	25	35	15	22	163	58	10	5	14	92	270	42	139	32	34	8	97	27	12	6	140	7	1330			25
		Survey Number →																													
	Eutaxia microphylla var. *microphylla* (prostrate)	Common Eutaxia																				3						3		3	1
	Eutaxia sp.	Eutaxia					3	2		1	1					10			4									21		21	6
	Exocarpos aphyllus	Leafless Cherry	1	4	20	7	2	2		12	5	1			6	74	1	22	2	4		10	1		2	30		206	1	207	19
	Exocarpos cupressiformis	Native Cherry					4			11	1				1	4							1			4		26	1	27	7
	Exocarpos sp.	Native Cherry/Ballart																							1			1		1	1
	Exocarpos sparteus	Slender Cherry			3							1				12										2		18		18	4
	Exocarpos syrticola	Coast Cherry														18		39			1					4		62	1	63	4
	Festuca sp.	Fescue							1																			1		1	1
*	*Filago pyramidata*	Filago																									1	1		1	1
*	*Foeniculum vulgare*	Fennel									1											5						6		6	2
	Frankenia pauciflora var.	Southern Sea-heath								2						3	7									1		13		13	4
	Frankenia pauciflora var. *fruticulosa*	Southern Sea-heath														10	2	21								7		40		40	4
	Frankenia pauciflora var. *gunnii*	Southern Sea-heath														3	3	2			1	5				3		17	1	18	6
*	*Frankenia pulverulenta*	Mediterranean Sea-heath																				1				2		3		3	2
	Frankenia sessilis	Small-leaf Sea-heath														4	5	2				1						12		12	4
	Frankenia sp.	Sea-heath															1					1				2		4		4	3
*	*Freesia cultivar*	Freesia									1					2						2	4					9		9	4
*	*Fumaria bastardii*	Bastard Fumitory														3		2								1	1	7		7	4
*	*Fumaria capreolata*	White-flower Fumitory								2	2											3	1			1		9	1	10	5
*	*Fumaria densiflora*	Dense Fumitory									2				2													4		4	2
*	*Fumaria indica*	Indian Fumitory									1																	1		1	1
*	*Fumaria officinalis* ssp. *officinalis*	Common Fumitory										1																1		1	1
*	*Fumaria parviflora* var. *parviflora*	Small-flower Fumitory									1																	1		1	1
	Gahnia deusta	Limestone Saw-sedge			15											18		2								5		40		40	4
	Gahnia filum	Thatching Grass			1				2							5						1			2	6		17		17	6
	Gahnia lanigera	Black Grass Saw-sedge			15	2	1		2	2	1					80		22				3			3	29	2	162	1	163	12
	Gahnia sp.	Saw-sedge			1																							1		1	1
	Gahnia trifida	Cutting Grass			1																						1	2		2	2
*	*Galenia pubescens* var. *pubescens*	Coastal Galenia								1	1					1					1		1			2		7		7	6
*	*Galenia secunda*	Galenia								2																		2		2	1
*	*Galenia* sp.	Galenia																										0	1	1	0
	Galium compactum	Compact Bedstraw														1		1								1		3		3	3
*	*Galium divaricatum*	Slender Bedstraw													4				4			4						12		12	3
	Galium gaudichaudii	Rough Bedstraw								6		1			2	3						2				7		21	1	22	6
	Galium migrans	Loose Bedstraw				2		1	1	4	1	2			1	23		4	1			2			1	11	3	57	1	58	14
*	*Galium murale*	Small Bedstraw							4	26	3				8	90		67	1	9	1	10	1			49	2	271		271	13
	Galium sp.	Bedstraw								1			1			1												3		3	3
*	*Galium spurium* ssp. *ibicinum*	Bedstraw								1	1				1					2						3		8		8	5
*	*Galium tricornutum*	Three-horned Bedstraw														1												1		1	1
*	*Gazania linearis*	Gazania									1																	1		1	1
	Geijera linearifolia	Sheep Bush				2	1	2		10	4				2	33	1	9			3	12	1			10		90	1	91	13
*	*Genista monspessulana*	Montpellier Broom						1			1																	2	1	3	2

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		Survey Number →	**5**	**6**	**13**	**24**	**31**	**45**	**46**	**49**	**51**	**54**	**55**	**58**	**62**	**63**	**78**	**82**	**83**	**86**	**87**	**88**	**96**	**116**	**148**	**162**	**168**	**All SU sites**	**All OP**	**Total**	**Total SUs**
I	**Scientific Name**	**Common Name**																													
	Genoplesium nigricans	Black Midge-orchid														6												6		6	1
	Genoplesium nigricans/rufum	Midge-orchid														2												2		2	1
	Genoplesium rufum	Red Midge-orchid														2										1		3		3	2
	Genoplesium sp.	Midge Orchid														1										2		3		3	2
	Geococcus pusillus	Earth Cress				2																						2		2	1
*	*Geranium dissectum*	Cut-leaf Geranium		1					1			1																3		3	3
*	*Geranium molle* var. *molle*	Soft Geranium											1			14												15		15	2
	Geranium potentilloides var. *potentilloides*	Downy Geranium														26									1	8		35		35	3
	Geranium retrorsum	Grassland Geranium				1		1		21	10	1			5	12		29		3		1	2	2		11	2	101		101	14
	Geranium solanderi var. *solanderi*	Austral Geranium		3											2					2								7		7	3
	Geranium sp.	Geranium				1										1		11				1				1		15		15	5
*	*Gladiolus tristis*	Evening-flower Gladiolus																								2		2		2	1
*	*Glaucium corniculatum* var. *corniculatum*	Bristly Horned-poppy									1															3		4		4	2
	Glischrocaryon behrii	Golden Pennants														2						1						3	1	4	2
	Glischrocaryon flavescens	Yellow Pennants																									1	1	1	2	1
	Glossodia major	Purple Cockatoo								2																2		4		4	2
	Glycine clandestina var. (NC)	Twining Glycine					1	1	2		1				4									2			2	13		13	7
	Glycine clandestina var. *clandestina* (NC)	Twining Glycine							1			1												2				4		4	3
	Glycine rubiginosa	Twining Glycine		1		5		2	1	14					8	4			7	6		2	1			18		69	1	70	12
	Gnaphalium indutum	Tiny Cudweed														11		23				1				13		48		48	4
	Gnaphalium sp.	Cudweed												1														1		1	1
*	*Gomphocarpus cancellatus*	Broad-leaf Cotton-bush																	1									1		1	1
	Gonocarpus elatus	Hill Raspwort				1	2	1	5	45	4	4	2		12				11	2		7	5			27	1	129	3	132	15
	Gonocarpus elatus x *mezianus*	Hybrid Raspwort								3																		3		3	1
	Gonocarpus mezianus	Broad-leaf Raspwort					1								1	18						1				7		28	2	30	5
	Gonocarpus sp.	Raspwort					2																					2		2	1
	Gonocarpus tetragynus	Small-leaf Raspwort								3	2												1			4		10		10	4
	Goodenia albiflora	White Goodenia				1	1		1	4	1	1							1	3		2	4			5	1	25	2	27	12
	Goodenia amplexans	Clasping Goodenia					1			1	1																	3		3	3
	Goodenia blackiana	Native Primrose					1			15	2				2	11		4				3	1			21		60	2	62	9
	Goodenia fascicularis	Silky Goodenia				4									1					4						1		10		10	4
	Goodenia geniculata	Bent Goodenia																		1								1		1	1
	Goodenia glauca	Pale Goodenia							1																			1		1	1
	Goodenia lunata	Stiff Goodenia							1																			1		1	1
	Goodenia ovata	Hop Goodenia			1																							1		1	1
	Goodenia pinnatifida	Cut-leaf Goodenia						1	5	19	22	4	2	5	26	14			10	11		10	8	4		24	3	168	1	169	16
	Goodenia pusilliflora	Small-flower Goodenia				1			4	6	5	1			7	25			8	10		1	1	1		6		76	1	77	13
	Goodenia robusta	Woolly Goodenia								1													1					2		2	2
	Goodenia sp.	Goodenia													1				1									2		2	2
	Goodenia varia	Sticky Goodenia			7											15		33							1	8		64		64	5
	Goodenia willisiana	Silver Goodenia				3			2	3	2					64		2				3	1			12		92	2	94	9
	Goodia lotifolia var. *lotifolia* (NC)	Golden-tip														2												2		2	1
	Gramineae sp.	Grass Family			1	9	11	1		5	3				1	30	2	22	2							1		88		88	12

	No. of Sites in the Mid North & Yorke Peninsula Study Area →		6	15	56	25	35	15	22	163	58	10	5	14	92	270	42	139	32	34	8	97	27	12	6	140	7	1330			25
		Survey Number →	**5**	**6**	**13**	**24**	**31**	**45**	**46**	**49**	**51**	**54**	**55**	**58**	**62**	**63**	**78**	**82**	**83**	**86**	**87**	**88**	**96**	**116**	**148**	**162**	**168**	**All SU sites**	**All OP**	**Total**	**Total SUs**
I	**Scientific Name**	**Common Name**																													
	Grammosolen dixonii																											0	2	2	0
	Grevillea huegelii	Comb Grevillea								7	1					3						3	1					15	2	17	5
	Grevillea ilicifolia complex	Holly-leaf Grevillea					1												1									2		2	2
	Grevillea ilicifolia ssp. *ilicifolia*	Holly-leaf Grevillea																								1		1		1	1
	Grevillea ilicifolia var. *ilicifolia* (NC)	Holly-leaf Grevillea														16				1		2	4			1		24	1	25	5
	Grevillea lavandulacea var.	Spider-flower																					1					1		1	1
	Grevillea lavandulacea var. *sericea* (NC)	Spider-flower																										0	1	1	0
*	*Gypsophila tubulosa*	Annual Chalkwort										3														2		5		5	2
	Gyrostemon thesioides	Broom Wheel-fruit														1												1		1	1
	Haeckeria punctulata	Sticky Haeckeria				2	1																			1		4		4	3
	Haegiela tatei	Small Nut-heads														2						1				1		4		4	3
*	*Hainardia cylindrica*	Common Barb-grass														1								1				2		2	2
	Hakea carinata	Erect Hakea								6																2		8	1	9	2
	Hakea leucoptera ssp. *leucoptera*	Silver Needlewood		1		2					1								1			1				2		8		8	6
	Hakea mitchellii	Heath Needlebush														2												2	1	3	1
	Hakea rostrata	Beaked Hakea													1													1		1	1
	Hakea rugosa	Dwarf Hakea							1							4												5	3	8	2
	Halgania andromedifolia	Scented Blue-flower										1										1						2		2	2
	Halgania cyanea	Rough Blue-flower									2					10			3				3			1		19	2	21	5
	Haloragis acutangula f.	Smooth Raspwort							1							16		15								6		38		38	4
	Haloragis acutangula f. *acutangula*	Smooth Raspwort			1																							1		1	1
	Haloragis acutangula f. *tetraptera*	Smooth Raspwort														1												1		1	1
	Haloragis aspera	Rough Raspwort									5			1		1				1		1	4			1		14	3	17	7
	Haloragis sp.	Raspwort							1																			1		1	1
	Halosarcia flabelliformis	Bead Samphire															2											2	1	3	1
	Halosarcia halocnemoides ssp.	Grey Samphire								2						4	5					3						14	1	15	4
	Halosarcia halocnemoides ssp. *halocnemoides*	Grey Samphire			1											11	16					2				2		32		32	5
	Halosarcia indica ssp.	Brown-head Samphire															1	1										2		2	2
	Halosarcia indica ssp. *bidens*	Brown-head Samphire																				2						2		2	1
	Halosarcia indica ssp. *leiostachya*	Brown-head Samphire									2	1				1	10	1				4				6		25	1	26	7
	Halosarcia pergranulata ssp.	Black-seed Samphire																				6			1			7		7	2
	Halosarcia pergranulata ssp. *pergranulata*	Black-seed Samphire			2						1					4	2					5				7		21		21	6
	Halosarcia pruinosa	Bluish Samphire																				1						1		1	1
	Halosarcia pterygosperma ssp. *pterygosperma*	Winged-seed Samphire														2												2		2	1
	Halosarcia sp.	Samphire					1			4	2					6							1			6		20	1	21	6
	Halosarcia syncarpa	Fused Samphire															2	1				1						4		4	3
	Hardenbergia violacea	Native Lilac			1		1	1				2				17		1				2	1			2		28		28	9
	Harmsiodoxa brevipes var. *brevipes*	Short Cress																	1									1		1	1
*	*Hedypnois rhagadioloides*	Cretan Weed							3	18	5			1	10	6			15	10	1	6	3			23	4	105		105	13
	Helichrysum bilobum ssp. (NC)						2																					2		2	1
	Helichrysum leucopsideum	Satin Everlasting			3	2		4	2	3	3				6	114		44		1		17	1		2	28	4	234	2	236	15

	No. of Sites in the Mid North & Yorke Peninsula Study Area →		6	15	56	25	35	15	22	163	58	10	5	14	92	270	42	139	32	34	8	97	27	12	6	140	7	1330			25
		Survey Number →	**5**	**6**	**13**	**24**	**31**	**45**	**46**	**49**	**51**	**54**	**55**	**58**	**62**	**63**	**78**	**82**	**83**	**86**	**87**	**88**	**96**	**116**	**148**	**162**	**168**	**All SU sites**	**All OP**	**Total**	**Total SUs**
I	**Scientific Name**	**Common Name**																													
	Helichrysum sp.	Everlasting																										0	1	1	0
	Helichrysum sp. (NC)						1				2																	3		3	2
	Heliotropium asperrimum	Rough Heliotrope							1		1				1								1					4		4	4
*	*Heliotropium europaeum*	Common Heliotrope					1		1					1									1					4		4	4
*	*Helminthotheca echioides*	Ox-tongue							1	1					1							1	1			4		9		9	6
	Hemichroa diandra	Mallee Hemichroa															2									1		3		3	2
	Hemichroa pentandra	Trailing Hemichroa														1	5								1			7		7	3
*	*Herniaria cinerea*	Rupturewort								3						1			1	1	1	1				3		11		11	7
	Hibbertia crinita																									3		3		3	1
	Hibbertia exutiacies	Prickly Guinea-flower					1			9	1								1			1	1			7		21		21	7
	Hibbertia glaberrima	Central Australian Guinea-flower																										0	1	1	0
	Hibbertia pallidiflora	Round-leaf Guinea-flower														3										2		5		5	2
	Hibbertia platyphylla ssp. *major*	Large Guinea-flower																								1		1		1	1
	Hibbertia riparia	Bristly Guinea-flower																								15		15		15	1
	Hibbertia riparia (canescens) (NC)	Grey Guinea-flower								4																		4		4	1
	Hibbertia riparia (NC)	Guinea-flower																2										2		2	1
	Hibbertia sericea	Silky Guinea-flower														2												2		2	1
	Hibbertia sericea var. (NC)	Silky Guinea-flower														23												23		23	1
	Hibbertia sericea var. *major* (NC)	Large Guinea-flower														2												2		2	1
	Hibbertia sericea var. *sericea* (NC)	Silky Guinea-flower			4																							4		4	1
	Hibbertia sp.	Guinea-flower																8							2			10	1	11	2
	Hibbertia sp. Glabriuscula (D.J.Whibley 9012)	Smooth Guinea-flower														15												15		15	1
	Hibbertia virgata	Twiggy Guinea-flower	1		7											9		1								5		23	1	24	5
*	*Holcus lanatus*	Yorkshire Fog																	1									1		1	1
	Homoranthus wilhelmii	Wilhelm's Homoranthus														2												2		2	1
*	*Hordeum glaucum*	Blue Barley-grass		1		1			4	4	30	1		2	24	33		11		15	7	17	2			31		183	2	185	15
*	*Hordeum hystrix*	Mediterranean Barley-grass		1																								1		1	1
*	*Hordeum leporinum*	Wall Barley-grass	2	3					1	10						1						24						41		41	6
*	*Hordeum marinum*	Sea Barley-grass								3						1						8	2	1		6	2	23		23	7
*	*Hordeum* sp.									4																		4		4	1
*	*Hornungia procumbens*	Oval Purse														9	7	17				1				7		41		41	5
	Hyalosperma demissum	Dwarf Sunray							1	12						7			1	1						6		28	1	29	6
	Hyalosperma glutinosum ssp. *glutinosum*	Golden Sunray						1	1	3				1	1	2			3			1	1					14		14	9
	Hyalosperma semisterile	Orange Sunray							1	9	3	2			5	3			6	2						6	1	38	1	39	10
	Hybanthus floribundus ssp. *floribundus*	Shrub Violet					1			3										1						2		7		7	4
	Hybanthus monopetalus	Slender Violet																										0	1	1	0
	Hydrocotyle callicarpa	Tiny Pennywort								9						5						2				15		31		31	4
	Hydrocotyle capillaris	Thread Pennywort														31		13										44		44	2
	Hydrocotyle foveolata	Yellow Pennywort								3						1						1						5		5	3
	Hydrocotyle hirta	Hairy Pennywort																										0	1	1	0
	Hydrocotyle laxiflora	Stinking Pennywort					1			10	1	1	1		3					1		1				6		25		25	9

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		Survey Number →	**5**	**6**	**13**	**24**	**31**	**45**	**46**	**49**	**51**	**54**	**55**	**58**	**62**	**63**	**78**	**82**	**83**	**86**	**87**	**88**	**96**	**116**	**148**	**162**	**168**	**All SU sites**	**All OP**	**Total**	**Total SUs**
I	**Scientific Name**	**Common Name**																													
	Hydrocotyle medicaginoides	Medic Pennywort														7		1								15		23		23	3
	Hydrocotyle pilifera var. *glabrata*	Buttercup Pennywort														15						1				1		17		17	3
	Hymenanthera dentata	Tree Violet													4													4		4	1
*	*Hypericum perforatum*	St John's Wort								2	5												1			1		9		9	4
*	*Hypochaeris glabra*	Smooth Cat's Ear				11		1	9	70	15	1		10	36	72		6	14	22	2	14	4	6		58	5	356		356	18
*	*Hypochaeris radicata*	Rough Cat's Ear						5	5	16	3	1	2	3	25	2		21	16	3		1	4	7		3		117	1	118	16
*	*Hypochaeris* sp.	Cat's Ear																2	1				1					4		4	3
	Hypoxis glabella var. *glabella*	Tiny Star	1	1		5			2	1	11					50		17								1		89		89	9
*	*Iris germanica* (NC)	Flag Iris						1								1							3					5	3	8	3
	Isoetopsis graminifolia	Grass Cushion				2			3	4	1				5	7			2	2						3		29		29	9
	Isolepis cernua	Nodding Club-rush							1						1							1				3	1	7		7	5
	Isolepis marginata	Little Club-rush							1	4	2					4		23				4				6		44		44	7
	Isolepis nodosa	Knobby Club-rush			5											21		44								3		73		73	4
	Isolepis platycarpa	Flat-fruit Club-rush																								1		1		1	1
	Isotoma scapigera	Salt Isotome																								2		2		2	1
	Ixodia achillaeoides ssp. *achillaeoides*	Coast Ixodia			4											4		13								1		22		22	4
	Joycea clelandii	Cleland's Wallaby-grass									1																	1		1	1
*	*Juncus acutus*	Sharp Rush																				1						1		1	1
	Juncus aridicola	Inland Rush								1																		1	1	2	1
	Juncus bufonius	Toad Rush								1				2		1	1					2				2	1	10		10	7
*	*Juncus capitatus*	Dwarf Rush								2												3				1		6		6	3
*	*Juncus effusus*	Soft Rush							1																			1		1	1
	Juncus flavidus	Yellow Rush							1		4			1						1				1				8		8	5
	Juncus kraussii	Sea Rush							1	3				1	2	1						3	1			10	1	23		23	9
	Juncus radula	Hoary Rush																					1					1		1	1
	Juncus subsecundus	Finger Rush		1						2	3				4							1	1	2		1		15		15	8
	Kennedia prostrata	Scarlet Runner					1		1		2	1			2	13		11	1			1				6		39		39	10
*	*Kickxia elatine* ssp. *crinita*	Twining Toadflax														1												1		1	1
*	*Kickxia elatine* ssp. *elatine*	Woolly Toadflax							1																			1		1	1
	Kunzea pomifera	Muntries																4										4	1	5	1
*	*Lactuca serriola*	Prickly Lettuce							1	2	4		1		1	1			3			12				8		33	1	34	9
	Lagenophora huegelii	Coarse Bottle-daisy						2		24	1	1			4	19			1			9	1			19		81	1	82	10
*	*Lagurus ovatus*	Hare's Tail Grass							2		1					45		76				4			2	23		153		153	7
*	*Lamarckia aurea*	Toothbrush Grass		2						12		3				1			1		4	4				5	1	33		33	9
*	*Lamium amplexicaule* var. *amplexicaule*	Deadnettle								3						3						2					1	9		9	4
	Lasiopetalum baueri	Slender Velvet-bush									1					23						1				4		29	1	30	4
	Lasiopetalum behrii	Pink Velvet-bush														15						1				5		21	1	22	3
	Lasiopetalum discolor	Coast Velvet-bush			41											24		38							2	6		111		111	5
	Lasiopetalum schulzenii	Drooping Velvet-bush			2											6										6		14		14	3
*	*Lavandula stoechas*	Topped Lavender								3	1												1			2		7		7	4
	Lawrencia spicata	Salt Lawrencia														1												1		1	1
	Lawrencia squamata	Thorny Lawrencia			2		1				1					11	1	4							1	9		30	1	31	8
	Leguminosae sp.			1																								1		1	1

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I	**Scientific Name**	**Common Name**																													
	Leiocarpa semicalva ssp.	Hill Button-bush													1											1		2		2	2
	Leiocarpa supina	Coast Plover-daisy														1		4										5		5	2
	Leiocarpa websteri	Narrow Plover-daisy									7																	7		7	1
	Leiocarpa websteri/tomentosa	Plover-daisy				1																						1		1	1
*	*Leontodon taraxacoides* ssp. *taraxacoides*	Lesser Hawkbit										1																1		1	1
*	*Lepidium africanum*	Common Peppercress							1	7	11	3	1	1	10	6			7	3		7	6			4		67	2	69	13
*	*Lepidium draba*	Hoary Cress								1						1							1			1		4	2	6	4
	Lepidium oxytrichum	Green Peppercress										1																1		1	1
	Lepidium oxytrichum/papillosum					5																						5		5	1
	Lepidium papillosum	Warty Peppercress								1					2					1	2					7	2	15		15	6
	Lepidium sp.	Peppercress													1				2							1		4		4	3
	Lepidosperma aff. *congestum*																									1		1		1	1
	Lepidosperma carphoides	Black Rapier-sedge																										0	1	1	0
	Lepidosperma concavum	Spreading Sword-sedge																1								6		7		7	2
	Lepidosperma congestum	Clustered Sword-sedge					1				1					76		21				1			3	12		115		115	7
	Lepidosperma curtisiae	Little Sword-sedge																				1	1					2		2	2
	Lepidosperma gladiatum	Coast Sword-sedge			1											8		26								3		38		38	4
	Lepidosperma laterale (NC)	Sharp Sword-sedge					1		3																			4		4	2
	Lepidosperma sp.	Sword-sedge/Rapier-sedge				1										2		2								4		9		9	4
	Lepidosperma viscidum	Sticky Sword-sedge			17		2		5	15		2			2	18			3			4	6			13	1	88	1	89	12
	Lepilaena preissii	Slender Water-mat																										0	1	1	0
	Leptinella reptans	Creeping Cotula								1																		1		1	1
	Leptomeria aphylla	Leafless Currant-bush																				1						1		1	1
	Leptorhynchos elongatus	Lanky Buttons														2												2		2	1
	Leptorhynchos squamatus ssp. *squamatus*	Scaly Buttons							5	7				2	13	18		10		2		5	2	3		18		85	2	87	11
	Leptorhynchos tetrachaetus	Little Buttons							3	8		1		3	3	2			4	2		1		5		4	1	37		37	12
	Leptorhynchos waitzia	Button Immortelle			2										1	4										4		11	1	12	4
	Leptospermum coriaceum	Dune Tea-tree														2												2		2	1
	Leucophyta brownii	Coast Cushion Bush			4											6		28										38	1	39	3
	Leucopogon clelandii	Cleland's Beard-heath														1												1		1	1
	Leucopogon concurvus	Scrambling Beard-heath																								1		1		1	1
	Leucopogon cordifolius	Heart-leaf Beard-heath			10											4										1		15		15	3
	Leucopogon parviflorus	Coast Beard-heath			10											34		46								13		103	1	104	4
	Levenhookia dubia	Hairy Stylewort							1	19						6			1			2				8		37		37	6
	Levenhookia stipitata																									1		1		1	1
*	*Limonium companyonis*	Sea-lavender									1				1	4		5				2				3		16		16	6
*	*Limonium lobatum*	Winged Sea-lavender							1	3	5								1	1		1				5		17	1	18	7
*	*Limonium* sp.	Sea-lavender															2											2	2	4	1
	Linum marginale	Native Flax							3	4					1	5		2	5	2		3	2			11		38	1	39	10
	Linum sp.	Flax									4							2										6		6	2
*	*Linum strictum* ssp. *strictum*	Upright Yellow Flax						1	1							80		22							3	30		137		137	6
*	*Linum trigynum*	French Flax										1							2	1					1	2		7		7	5
	Lobelia alata	Angled Lobelia																									1	1		1	1

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I	**Scientific Name**	**Common Name**																													
	Lobelia gibbosa	Tall Lobelia					1			1						1			1							5		9		9	5
	Logania crassifolia	Coast Logania			15											8		31								3		57		57	4
	Logania linifolia	Flax-leaf Logania														1												1		1	1
	Logania minor	Spoon-leaf Logania														3		1							1	3		8		8	4
	Logania ovata	Oval-leaf Logania			3											15		1								11		30		30	4
	Logania saxatilis	Rock Logania								1																		1		1	1
	Logania sp.	Logania			6											1												7		7	2
*	*Logfia gallica*	Narrow Cudweed												1					4							3		8		8	3
*	*Lolium loliaceum*	Stiff Ryegrass								1										1		1	2	2				7		7	5
*	*Lolium multiflorum*	Italian Ryegrass																2										2		2	1
*	*Lolium perenne*	Perennial Ryegrass							3	6	15			4	3							1	1					33		33	7
*	*Lolium perenne* x *rigidum*	Hybrid Ryegrass							3	10	3	3	1					12								1		33		33	7
*	*Lolium rigidum*	Wimmera Ryegrass							1	27	14	2	2		15	20		2	5	5	1	58	8	2		53	3	218	1	219	16
*	*Lolium* sp.	Ryegrass								4	3			1		7		7	3							4		29		29	7
*	*Lolium* x *hybridum*	Hybrid Ryegrass							1									1										2		2	2
	Lomandra collina	Sand Mat-rush							3	2	1	2			2	26		10	1			1	2			24		74	1	75	11
	Lomandra densiflora	Soft Tussock Mat-rush					2	1	2	18	3	3			14	6			6	4		8	4			20		91	3	94	13
	Lomandra effusa	Scented Mat-rush		1	11		2	4	9	6	12	3		10	25	53		23	17	12		9	12	3	2	34		248	3	251	19
	Lomandra leucocephala ssp. *robusta*	Woolly Mat-rush														1												1	1	2	1
	Lomandra micrantha ssp.	Small-flower Mat-rush					2		1	1		1		1					1				2					9		9	7
	Lomandra micrantha ssp. *micrantha*	Small-flower Mat-rush							2						2	6						6	4			9		29	1	30	6
	Lomandra multiflora ssp.	Many-flower Mat-rush						3																				3		3	1
	Lomandra multiflora ssp. *dura*	Hard Mat-rush		2			6	1	14	29	14	6	1	9	32	19			20	14		13	20	10		32	1	243	5	248	18
	Lomandra multiflora ssp. *multiflora*	Many-flower Mat-rush									1																	1		1	1
	Lomandra nana	Small Mat-rush								2	1				1							1	1			2		8		8	6
	Lomandra sororia	Sword Mat-rush								4	2		2									1				1		10		10	5
	Lomandra sp.	Mat-rush					2			1					1				2									6		6	4
	Lotus australis	Austral Trefoil									1					7		9				1				1		19		19	5
	Lotus cruentus	Red-flower Lotus				1									1													2		2	2
	Luzula meridionalis	Common Wood-rush								3					1											1		5		5	3
	Lycium australe	Australian Boxthorn		1		2	2			1	1				1	2		3			3		1			1		18		18	11
*	*Lycium ferocissimum*	African Boxthorn	4	7	1	5	4	4		31	16	2			20	108	1	61	6	7	5	32	9		1	28		352	2	354	20
	Lycium sp.	Boxthorn									1																	1		1	1
	Lysiana exocarpi ssp. *exocarpi*	Harlequin Mistletoe		4		1	1	1		4	1				3	17		3	2	8		2				8		55	2	57	13
	Lythrum hyssopifolia	Lesser Loosestrife							2	2	4				1							1		1		2	1	14		14	8
	Lythrum paradoxum									1																		1		1	1
	Maireana aphylla	Cotton-bush		1		1	1		1	1	3	1		2	6	1			2	1		1				3		25	2	27	14
	Maireana appressa	Pale-fruit Bluebush				1										1										3		5		5	3
	Maireana brevifolia	Short-leaf Bluebush		5		6	3	8		5	18	5			22	18			2	9		10	6	1		12		130	2	132	15
	Maireana enchylaenoides	Wingless Fissure-plant						5	4	32	24	4		10	40	17			21	12	1	34	17	7		27	2	257	1	258	16
	Maireana erioclada	Rosy Bluebush				5		2		2					2	13		4			1	8				6		43	1	44	9
	Maireana excavata	Bottle Fissure-plant							2	1	3			5	6					3		3	3	3		2		31	2	33	10
	Maireana georgei	Satiny Bluebush					3								1													4		4	2

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I	**Scientific Name**	**Common Name**																													
	Maireana georgei/turbinata	Satiny Bluebush				2																						2		2	1
	Maireana lobiflora	Lobed Bluebush							1											3						1		5		5	3
	Maireana microcarpa	Swamp Bluebush		1																								1		1	1
	Maireana oppositifolia	Salt Bluebush			2					1						7	13	8			1	6				7		45		45	8
	Maireana pentatropis	Erect Mallee Bluebush		1		2									3							1						7		7	4
	Maireana pyramidata	Black Bluebush		2		13				1					11						1					5		33		33	6
	Maireana radiata	Radiate Bluebush				1				2					1													4		4	3
	Maireana rohrlachii	Rohrlach's Bluebush						2						2	2	1			2									9		9	5
	Maireana sedifolia	Bluebush		2		5	1	1		1					6					5	2					3		26	1	27	9
	Maireana sp.	Bluebush/Fissure-plant				1			1		1				1				2	4		1	2			2		15	1	16	9
	Maireana tomentosa ssp. *urceolata*			4																								4		4	1
	Maireana trichoptera	Hairy-fruit Bluebush				2		1		1	3			1		8			1	3			2			2		24	1	25	10
	Maireana turbinata	Top-fruit Bluebush										1			13					2	3					4		23		23	5
*	*Malus sylvestris*	Apple																										0	1	1	0
	Malva behriana	Australian Hollyhock									2				1													3		3	2
*	*Malva parviflora*	Small-flower Marshmallow								6	5					2					1	8				1		23	2	25	6
*	*Marrubium vulgare*	Horehound		7		2	3	1	2	10	20	3		5	11	9			4	11		7	1			5		101	3	104	16
	Marsdenia australis	Native Pear													1													1		1	1
	Marsilea costulifera	Narrow-leaf Nardoo																					1					1		1	1
	Marsilea drummondii	Common Nardoo							1																			1		1	1
*	*Medicago arabica*	Spotted Medic														1												1		1	1
*	*Medicago littoralis*	Strand Medic												4		1												5		5	2
*	*Medicago minima* var. *minima*	Little Medic				6		4	4	42	23	1		8	34	23		5	5	19	6	27	2			32	5	246	1	247	17
*	*Medicago polymorpha* var. *polymorpha*	Burr-medic		5	1	3			1	18	33	1		1	12	20		6	1	2	2	9		1		24		140		140	17
*	*Medicago sativa* ssp.	Lucerne								1	6																	7		7	2
*	*Medicago sativa* ssp. *sativa*	Lucerne		1																								1		1	1
*	*Medicago* sp.	Medic				4					2					6	1	7	1	5						1		27		27	8
*	*Medicago truncatula*	Barrel Medic				2			3	7	1	1		4	9	16			1	9		18	2			13	1	87		87	14
	Melaleuca acuminata ssp. *acuminata*	Mallee Honey-myrtle	1		2				1							42		4				5	1		2	6		64	2	66	9
	Melaleuca brevifolia	Short-leaf Honey-myrtle			1																	3						4		4	2
	Melaleuca decussata	Totem-poles			1											8		1								3		13		13	4
	Melaleuca gibbosa	Slender Honey-myrtle			2											4		5							2	9		22	1	23	5
	Melaleuca halmaturorum	Swamp Paper-bark			2											9									2	6		19		19	4
	Melaleuca lanceolata	Dryland Tea-tree																								39		39	1	40	1
	Melaleuca lanceolata ssp. *lanceolata* (NC)	Dryland Tea-tree	4		27	6	6	3	2	11	5	2			5	110		34		4		9	1		3		3	235		235	17
	Melaleuca pauperiflora (NC)	Boree								1						4						1						6		6	3
	Melaleuca pauperiflora ssp. *mutica*	Boree														1						1						2		2	2
	Melaleuca uncinata (NC)	Broombush								1						20										3		24		24	3
*	*Melilotus indicus*	King Island Melilot			6						2					30		35				1				15	1	90		90	7
	Menkea australis	Fairy Spectacles													1											2		3		3	2
	Mentha satureioides	Native Pennyroyal																					1					1		1	1
*	*Mesembryanthemum aitonis*	Angled Iceplant														1												1		1	1
*	*Mesembryanthemum crystallinum*	Common Iceplant		1						2	3				1	9		16			4	12	2			1		51		51	10

	No. of Sites in the Mid North & Yorke Peninsula Study Area →		6	15	56	25	35	15	22	163	58	10	5	14	92	270	42	139	32	34	8	97	27	12	6	140	7	1330			25
		Survey Number →	**5**	**6**	**13**	**24**	**31**	**45**	**46**	**49**	**51**	**54**	**55**	**58**	**62**	**63**	**78**	**82**	**83**	**86**	**87**	**88**	**96**	**116**	**148**	**162**	**168**	**All SU sites**	**All OP**	**Total**	**Total SUs**
I	**Scientific Name**	**Common Name**																														
*	*Mesembryanthemum nodiflorum*	Slender Iceplant								8	6	1				5	3	2	1	4	6	29	2			12		79		79	12
*	*Mesembryanthemum* sp.	Iceplant														2												2		2	1
	Microcybe multiflora ssp. *multiflora*	Small-leaf Microcybe																							1			1		1	1
	Microcybe pauciflora ssp. *pauciflora*	Yellow Microcybe			2																	1				2		5		5	3
	Microlaena stipoides var. *stipoides*	Weeping Rice-grass																								1		1		1	1
	Microlepidium pilosulum	Hairy Shepherd's-purse																2										2		2	1
*	*Micropterum papulosum*																	3										3		3	1
	Microseris lanceolata	Yam Daisy		4			1		1	9						49		36		2		1				30	2	135	1	136	10
	Microtis arenaria	Notched Onion-orchid																				2	1		1	5		9		9	4
	Microtis frutetorum																					2				3		5		5	2
	Microtis sp.	Onion-orchid														51		10								9		70		70	3
	Microtis unifolia	Common Onion-orchid									1																	1		1	1
	Microtis unifolia (NC)	Common Onion-orchid			1		1																					2		2	2
	Microtis unifolia complex	Onion-orchid								4																5		9		9	2
	Millotia major																	2										2		2	1
	Millotia muelleri	Common Bow-flower						1			1					26		1				1				4		34		34	6
	Millotia myosotidifolia	Broad-leaf Millotia								6					4	17						3				3		33	1	34	5
	Millotia perpusilla	Tiny Bow-flower				1																						1		1	1
	Millotia tenuifolia var.	Soft Millotia																1								4		5		5	2
	Millotia tenuifolia var. *tenuifolia*	Soft Millotia								7						11										8	1	27	2	29	4
	Mimulus repens	Creeping Monkey-flower								1					1								1			4		7		7	4
*	*Minuartia mediterranea*	Slender Sandwort	1								1					44		69	1		1					28	3	148		148	8
	Minuria cunninghamii	Bush Minuria		2																								2		2	1
	Minuria leptophylla	Minnie Daisy							3	1	11			3	14	17			4	7		2	3	3		12		80	3	83	12
*	*Misopates orontium*	Lesser Snapdragon								3																		3	1	4	1
	Mitrasacme paradoxa (NC)	Wiry Mitrewort								7						6		2										15		15	3
*	*Moenchia erecta*	Erect Chickweed								4					1							1				1		7		7	4
*	*Molineriella minuta*	Small Hair-grass														4												4		4	1
*	*Moraea flaccida*	One-leaf Cape Tulip							1	13	6					1			1				1			10		33		33	7
*	*Moraea miniata*	Two-leaf Cape Tulip								1	1																	2		2	2
*	*Moraea setifolia*	Thread Iris		1		1			7	20	47	3	1	7	19	101	1	11	10	10		44	4			53	3	343	1	344	18
	Muehlenbeckia adpressa	Climbing Lignum			1											5		9										15		15	3
	Muehlenbeckia coccoloboides										1																	1		1	1
	Muehlenbeckia florulenta	Lignum							1							3						4				4		12	1	13	4
	Muehlenbeckia gunnii	Coastal Climbing Lignum														21		43				1				6		71		71	4
*	*Muscari armeniacum*	Grape Hyacinth																					1					1		1	1
	Myoporum insulare	Common Boobialla									1					11	1	32			2	3			1	6		57	1	58	8
	Myoporum montanum	Native Myrtle				2	2		1	5	2	1			1				1	3		2				11	2	33	2	35	12
	Myoporum parvifolium	Creeping Boobialla														1		2								1		4		4	3
	Myoporum platycarpum (NC)	False Sandalwood		3			2	2			1																	8		8	4
	Myoporum platycarpum ssp.	False Sandalwood				4				8		3			1	4			1		2							23	1	24	7
	Myoporum platycarpum ssp. *platycarpum*	False Sandalwood				1									6	2				3		2				2		16		16	6
	Myoporum viscosum (NC)	Sticky Boobialla			3											1						1						5	1	6	3

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		Survey Number →	**5**	**6**	**13**	**24**	**31**	**45**	**46**	**49**	**51**	**54**	**55**	**58**	**62**	**63**	**78**	**82**	**83**	**86**	**87**	**88**	**96**	**116**	**148**	**162**	**168**	**All SU sites**	**All OP**	**Total**	**Total SUs**
I	**Scientific Name**	**Common Name**																													
	Myosotis australis	Austral Forget-me-not														4		2										6		6	2
*	*Neatostema apulum*	Hairy Sheepweed							2	1				11	12				2							14	3	45		45	7
	Neurachne alopecuroidea	Fox-tail Mulga-grass							2	4		1			3	19						3	1			6		39	1	40	8
*	*Nicotiana glauca*	Tree Tobacco																1				3						4		4	2
	Nicotiana goodspeedii	Small-flower Tobacco				2										1										1		4	1	5	3
	Nicotiana maritima	Coast Tobacco								1						2		4			2						2	11		11	5
	Nicotiana sp.	Tobacco								2						1												3		3	2
	Nicotiana velutina	Velvet Tobacco							1																			1		1	1
	Nitraria billardierei	Nitre-bush									5	2			1	18		15			3	13				7		64	1	65	8
*	*Nothoscordum gracile*																					1						1		1	1
*	*Oenothera stricta* ssp. *stricta*	Common Evening Primrose														1		1										2		2	2
*	*Olea europaea* ssp.	Olive					4	1			10												3					18	1	19	4
*	*Olea europaea* ssp. *europaea*	Olive	1						1	8			1			4			1			4				6		26		26	8
	Olearia axillaris	Coast Daisy-bush			13											47	1	101			2	2			1	10		177	1	178	8
	Olearia brachyphylla	Short-leaf Daisy-bush														1												1	1	2	1
	Olearia brachyphylla (NC)	Short-leaf Daisy-bush			7	2		1																				10		10	3
	Olearia calcarea	Crinkle-leaf Daisy-bush													1											1		2	1	3	2
	Olearia ciliata var. *ciliata*	Fringed Daisy-bush			2				2							11		8								10		33	1	34	5
	Olearia decurrens	Winged Daisy-bush		2		5	1			1						1			1			1	2			6	1	21	1	22	10
	Olearia floribunda var. *floribunda*	Heath Daisy-bush					1									3												4		4	2
	Olearia lepidophylla	Clubmoss Daisy-bush														1												1		1	1
	Olearia minor	Heath Daisy-bush													1	9		1		2		1				6		20		20	6
	Olearia muelleri	Mueller's Daisy-bush				1				4	1				5	5						5	1			7		29		29	8
	Olearia pannosa ssp.	Silver Daisy-bush								1																		1		1	1
	Olearia pannosa ssp. *pannosa*	Silver Daisy-bush										1				8				4						3		16		16	4
	Olearia picridifolia	Rasp Daisy-bush																									1	1		1	1
	Olearia pimeleoides ssp.	Pimelea Daisy-bush						1							4				1							1		7		7	4
	Olearia pimeleoides ssp. *pimeleoides*	Pimelea Daisy-bush		1		3			1	2	2	1			1					1						6		18		18	9
	Olearia ramulosa	Twiggy Daisy-bush														13		12							1	6	2	34		34	5
	Olearia sp.	Daisy-bush					1																					1		1	1
	Olearia teretifolia	Cypress Daisy-bush								2																1		3	1	4	2
	Olearia tubuliflora	Rayless Daisy-bush								1																1		2		2	2
	Omphalolappula concava	Burr Stickseed				1			1		1					1										1		5		5	5
*	*Oncosiphon suffruticosum*	Calomba Daisy									1					4		2				20						27	1	28	4
*	*Onopordum acanthium* ssp. *acanthium*	Scotch Thistle												2														2		2	1
*	*Onopordum acaulon*	Horse Thistle				1	1		1	6	10				4					1			1	1		1		27		27	10
	Opercularia turpis	Twiggy Stinkweed			2					4	1					27		7								13		54	1	55	6
	Opercularia varia	Variable Stinkweed																4					1					5		5	2
	Ophioglossum lusitanicum	Austral Adder's-tongue							1	4						6												11		11	3
*	*Opuntia robusta*	Wheel Pear													1													1		1	1
*	*Opuntia* sp.	Prickly Pear									1																	1		1	1
	Orchidaceae sp.	Orchid Family			1														1									2		2	2
*	*Ornithogalum thyrsoides*	Chincherinchee																					1					1	1	2	1

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I	**Scientific Name**	**Common Name**																													
	Osteocarpum sp.	Bonefruit				1					1																	2		2	2
*	*Osteospermum clandestinum*	Tripteris		1							2				1								1					5		5	4
*	*Oxalis corniculata* ssp. *corniculata*	Creeping Wood-sorrel					1																					1		1	1
	Oxalis perennans	Native Sorrel		2		11		7	8	76	24	5	4	11	40	65		10	5	23		26	12	6		60	4	399	2	401	19
*	*Oxalis pes-caprae*	Soursob	5	3				5	1	15	40		1		1	51		27				18	1			10		178	2	180	13
*	*Oxalis purpurea*	One-o'clock									1					1												2		2	2
	Oxalis sp.	Sorrel							1																			1		1	1
	Ozothamnus retusus	Notched Bush-everlasting								3						6						3	2					14	1	15	4
	Ozothamnus scaber	Rough Bush-everlasting																	1									1		1	1
*	*Panicum capillare* var. *brevifolium*	Witch-grass																										0	1	1	0
	Panicum decompositum var. *decompositum*	Native Millet																	1									1		1	1
	Panicum effusum var. *effusum*	Hairy Panic							1		1					1						1						4		4	4
*	*Papaver aculeatum*	Bristle Poppy																								1		1		1	1
*	*Papaver hybridum*	Rough Poppy								3	1				1	1			1	2						1		10	1	11	7
*	*Papaver somniferum* ssp. *setigerum*	Small-flower Opium Poppy																2										2		2	1
*	*Parapholis incurva*	Curly Ryegrass							3	4	8	2		1	3	15	4	21				19	1			19	3	103		103	13
*	*Parentucellia latifolia*	Red Bartsia								9						10			1							4		24	1	25	4
	Parietaria cardiostegia	Mallee Smooth-nettle								1						1		6			1					4		13		13	5
	Parietaria cardiostegia/debilis	Smooth-nettle		1		2																						3		3	2
	Parietaria debilis	Smooth-nettle																								2		2		2	1
	Parietaria debilis (NC)	Smooth-nettle				2				11	2				3	15		15				4				15	1	68		68	9
	Parietaria sp.	Pellitory/Smooth-nettle																8										8		8	1
	Paspalidium gracile	Slender Panic								1																		1		1	1
	Pelargonium australe	Australian Pelargonium														4		23				1						28		28	3
	Pelargonium littorale	Native Pelargonium														20									1	10		31		31	3
*	*Pennisetum setaceum*	Fountain Grass																				1	1					2	1	3	2
*	*Pentaschistis airoides*	False Hair-grass								34		2			1				12	3		15	2			21	1	91		91	9
*	*Pentaschistis pallida*	Pussy Tail								3																		3		3	1
	Persicaria decipiens	Slender Knotweed										1																1		1	1
	Persicaria sp.	Knotweed																								1		1		1	1
*	*Petrorhagia nanteuilii*																		3									3		3	1
*	*Petrorhagia* sp.	Pink												1														1		1	1
*	*Petrorhagia velutina*	Velvet Pink							1	13				2	3				2	1				5		13	1	41		41	9
*	*Phalaris aquatica*	Phalaris							1													2	1			6		10		10	4
*	*Phalaris minor*	Lesser Canary-grass									3	1			1							1						6		6	4
*	*Phalaris paradoxa*	Paradox Canary-grass							1																			1		1	1
	Phebalium glandulosum ssp. *glandulosum*	Glandular Phebalium														1												1		1	1
	Pheladenia deformis	Bluebeard Orchid					1									18										1		20	1	21	3
	Philotheca angustifolia ssp. *angustifolia*	Narrow-leaf Wax-flower				1									1													2		2	2
	Philotheca linearis	Narrow-leaf Wax-flower					1																					1		1	1
	Philotheca pungens	Prickly Wax-flower														4										3		7		7	2
	Philotheca verrucosa	Bendigo Wax-flower								3																1		4	1	5	2

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		Survey Number →	**5**	**6**	**13**	**24**	**31**	**45**	**46**	**49**	**51**	**54**	**55**	**58**	**62**	**63**	**78**	**82**	**83**	**86**	**87**	**88**	**96**	**116**	**148**	**162**	**168**	**All SU sites**	**All OP**	**Total**	**Total SUs**
	Phlegmatospermum eremaeum	Spreading Cress																								1		1		1	1
	Phragmites australis	Common Reed							1	3					1							6				9		20		20	5
*	*Phyla canescens*	Lippia																				1				1		2		2	2
	Phyllangium divergens	Wiry Mitrewort																								12		12		12	1
	Phyllanthus australis	Southern Spurge														5										1		6		6	2
	Phyllanthus saxosus	Rock Spurge					1		1	4		1				1				3						4	4	19		19	8
*	*Picnomon acarna*	Soldier Thistle							1		1												2				2	6		6	4
	Picris angustifolia ssp. *angustifolia*	Coast Picris														7		2								2		11		11	3
	Picris sp.	Picris														3		7										10		10	2
	Pimelea curviflora var.	Curved Riceflower								3		1		1														5		5	3
	Pimelea curviflora var. *gracilis*	Curved Riceflower								1					1	1			2	3				2				10		10	6
	Pimelea curviflora var. *sericea*	Curved Riceflower							1							1								1				3		3	3
	Pimelea flava ssp. *dichotoma*	Diosma Riceflower			2											15		1							2	9		29		29	5
	Pimelea glauca	Smooth Riceflower			3				1	4	1				5	33		1								17		65	1	66	8
	Pimelea humilis	Low Riceflower								2	1											1	1			3		8	1	9	5
	Pimelea imbricata var. *petraea*	Rock Woolly Riceflower														1												1		1	1
	Pimelea micrantha	Silky Riceflower							4	9	16	1		2	5	7			3	2		3	4	1		6		63	1	64	13
	Pimelea microcephala ssp.	Shrubby Riceflower													2													2	1	3	1
	Pimelea microcephala ssp. *microcephala*	Shrubby Riceflower		1		1				12	4					1				3	5		1			1		29	1	30	9
	Pimelea serpyllifolia ssp. *serpyllifolia*	Thyme Riceflower			26						2					82	1	66				4	1		2	20		204	1	205	9
	Pimelea stricta	Erect Riceflower					2			5												2					1	10		10	4
*	*Pinus halepensis*	Aleppo Pine									9					1						1	4					15		15	4
*	*Pinus ponderosa*	Ponderosa Pine									1																	1		1	1
*	*Pinus radiata*	Radiata Pine								1																		1		1	1
*	*Pinus* sp.	Pine																					2					2	1	3	1
*	*Piptatherum miliaceum*	Rice Millet						1			11					1						5	1					19	1	20	5
	Pittosporum angustifolium	Native Apricot	3	2		4		3		18	11	3			2	82	1	16	2	6	3	34	5			17	5	217	5	222	18
	Plagiobothrys plurisepaleus	White Rochelia				1																						1		1	1
	Plantago aff. *debilis*	Shade Plantain								1																		1		1	1
*	*Plantago bellardii*	Hairy Plantain							1			1																2		2	2
*	*Plantago coronopus* ssp.	Bucks-horn Plantain								1																		1		1	1
*	*Plantago coronopus* ssp. *commutata*	Bucks-horn Plantain																1										1		1	1
*	*Plantago coronopus* ssp. *coronopus*	Bucks-horn Plantain																1										1		1	1
	Plantago drummondii	Dark Plantain				1				1												3				2		7		7	4
	Plantago gaudichaudii	Narrow-leaf Plantain							1	5	4			1						2		5						18		18	6
	Plantago hispida	Hairy Plantain													5	2		2	7	1		1	3			12	3	36		36	9
*	*Plantago lanceolata* var. *lanceolata*	Ribwort								2	12	1				1							1			4		21		21	6
	Plantago sp.	Plantain			1					1			1			2										1		6	1	7	5
	Plantago sp. B	Little Plantain								6						13		2								4		25	1	26	4
	Plantago varia	Variable Plantain						1	5						4	2								3		1		16	1	17	6
	Plantago varia complex	Native Plantain								11																		11		11	1
	Platysace heterophylla var. *heterophylla*	Slender Platysace								1																		1		1	1
	Pleuropappus phyllocalymmeus	Silver Candles																								1		1		1	1

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I	**Scientific Name**	**Common Name**																													
	Pleurosorus rutifolius	Blanket Fern								3					3												1	7	1	8	3
*	*Poa annua* (NC)	Winter Grass																1								1		2		2	2
*	*Poa bulbosa*	Bulbous Meadow-grass						1	5	5	8	1		4	6				1	2		15		6		3		57		57	12
	Poa clelandii	Matted Tussock-grass																								1		1		1	1
	Poa crassicaudex	Thick-stem Tussock-grass							2	22	2				7				2	4		4	2			13	1	59		59	10
	Poa drummondiana	Knotted Poa									2									1						7		10		10	3
	Poa fax	Scaly Poa														3		2										5		5	2
	Poa labillardieri var. *labillardieri*	Common Tussock-grass						1					1		2	4				1						2		11		11	6
	Poa poiformis var. *poiformis*	Coast Tussock-grass							2							8		46					2		1	8		67	1	68	6
	Poa sp.	Meadow-grass/Tussock-grass														3		2			1					1		7		7	4
	Podolepis canescens	Grey Copper-wire Daisy														8									2	4		14	1	15	3
	Podolepis capillaris	Wiry Podolepis														1		3								3		7		7	3
	Podolepis davisiana	Button Podolepis																				1						1		1	1
	Podolepis jaceoides	Showy Copper-wire Daisy									1					12							1					14		14	3
	Podolepis muelleri	Button Podolepis								1																		1		1	1
	Podolepis rugata var.	Pleated Copper-wire Daisy							1							1		7										9		9	3
	Podolepis rugata var. *littoralis*	Coast Copper-wire Daisy																3								2		5		5	2
	Podolepis rugata var. *rugata*	Pleated Copper-wire Daisy										1						2								1		4		4	3
	Podolepis sp.	Copper-wire Daisy							1							1												2		2	2
	Podolepis tepperi	Delicate Copper-wire Daisy													2	14			2			2				5	1	26		26	6
	Podotheca angustifolia	Sticky Long-heads								2						26		31			1	1			2	20		83	2	85	7
	Pogonolepis muelleriana	Stiff Cup-flower							1	8	1	1		1	5	5	1	3	6	2		6				12	1	53	1	54	14
*	*Polycarena heterophylla*																					1						1	1	2	1
*	*Polycarpon tetraphyllum*	Four-leaf Allseed								2																1		3		3	2
*	*Polygala myrtifolia*	Myrtle-leaf Milkwort														3												3		3	1
*	*Polygonum aviculare*	Wireweed							2		5									1		4				2		14		14	5
*	*Polypogon maritimus*	Coast Beard-grass														1												1		1	1
*	*Polypogon monspeliensis*	Annual Beard-grass													2							2				9	1	14		14	4
	Polypogon tenellus																									1		1		1	1
*	*Polypogon viridis*	Water Bent								2					1											1	1	5		5	4
	Pomaderris obcordata	Wedge-leaf Pomaderris			17											19										5		41		41	3
	Pomaderris paniculosa ssp.										1					6			2							3		12	1	13	4
	Pomaderris paniculosa ssp. *paniculosa*	Mallee Pomaderris							2	1	2	1			3	33		21	1			4	3		1	11	1	84	4	88	13
	Pomaderris paniculosa ssp. *paralia*	Coast Pomaderris																								1		1		1	1
	Pomaderris sp.	Pomaderris																1										1		1	1
	Pomax umbellata	Pomax					1																					1		1	1
	Poranthera microphylla	Small Poranthera								4						1										11	1	17	1	18	4
	Poranthera sp.	Poranthera																6										6		6	1
	Poranthera triandra	Three-petal Poranthera														15		2								10		27		27	3
	Prasophyllum calcicola	Limestone Leek-orchid														1												1		1	1
	Prasophyllum elatum	Tall Leek-orchid														1												1	1	2	1
	Prasophyllum fitzgeraldii	Fitzgerald's Leek-orchid								1						2												3		3	2
	Prasophyllum goldsackii	Goldsack's Leek-orchid														2												2		2	1

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		Survey Number →	**5**	**6**	**13**	**24**	**31**	**45**	**46**	**49**	**51**	**54**	**55**	**58**	**62**	**63**	**78**	**82**	**83**	**86**	**87**	**88**	**96**	**116**	**148**	**162**	**168**	**All SU sites**	**All OP**	**Total**	**Total SUs**
I	**Scientific Name**	**Common Name**																													
	Prasophyllum occidentale	Plains Leek-orchid														1												1		1	1
	Prasophyllum occultans	Hidden Leek-orchid																								1		1		1	1
	Prasophyllum odoratum	Scented Leek-orchid								1										2						3	1	7	1	8	4
	Prasophyllum odoratum complex	Leek-orchid														2		2										4		4	2
	Prasophyllum sp.	Leek-orchid								1						2		1								1		5		5	4
	Pratia concolor	Poison Pratia							1																			1		1	1
	Prostanthera behriana	Downy Mintbush								3																1		4	1	5	2
	Prostanthera serpyllifolia ssp. *microphylla*	Small-leaf Mintbush														1										1		2		2	2
	Prostanthera serpyllifolia ssp. *serpyllifolia*	Thyme Mintbush																2										2		2	1
	Prostanthera serpyllifolia ssp. *serpyllifolia* (purplish-green flowers)	Thyme Mintbush														1												1		1	1
	Prostanthera striatiflora	Striated Mintbush																								1		1		1	1
*	*Prunus armeniaca*	Apricot																										0	1	1	0
*	*Prunus domestica* ssp.	Plum																								1		1		1	1
*	*Prunus dulcis*	Almond									1																	1	2	3	1
*	*Prunus* sp.	Plum																								1		1		1	1
	Pseudognaphalium luteoalbum	Jersey Cudweed									1							1										2		2	2
*	*Psilurus incurvus*	Bristle-tail Grass								2					1													3		3	2
	Pterostylis aff. *excelsa*	Dryland Greenhood														1												1		1	1
	Pterostylis biseta	Two-bristle Greenhood				2		1		7		1			2					1		1				1	1	17		17	9
	Pterostylis boormanii	Boorman's Greenhood														2										1		3		3	2
	Pterostylis cycnocephala	Swan-head Greenhood								1																		1		1	1
	Pterostylis dolichochila	Mallee Shell-orchid														1												1		1	1
	Pterostylis erythroconcha	Red Shell-orchid														6												6		6	1
	Pterostylis excelsa	Dryland Greenhood								1												1						2		2	2
	Pterostylis longifolia (NC)	Tall Greenhood														16		1										17		17	2
	Pterostylis mutica	Midget Greenhood														23										3		26		26	2
	Pterostylis nana	Dwarf Greenhood														5												5		5	1
	Pterostylis pedunculata	Maroon-hood														4												4		4	1
	Pterostylis plumosa	Bearded Greenhood								1						2												3		3	2
	Pterostylis pusilla	Small Rusty-hood								2					1	6												9		9	3
	Pterostylis robusta	Large Shell-orchid					1			7						2										2		12		12	4
	Pterostylis rufa group	Rusty-hood														1												1		1	1
	Pterostylis sanguinea	Blood Greenhood								1						10										2		13		13	3
	Pterostylis sp.	Greenhood				3			2	1						3		1								4		14		14	6
	Ptilotus erubescens	Hairy-tails							4			1		1	2				3			1	2	5		4		23		23	9
	Ptilotus nobilis var.	Yellow-tails																										0	1	1	0
	Ptilotus nobilis var. *angustifolius*	Yellow-tails									1				4													5		5	2
	Ptilotus obovatus var.	Silver Mulla Mulla													1											2		3		3	2
	Ptilotus obovatus var. *obovatus*	Silver Mulla Mulla				1										1											1	3		3	3
	Ptilotus seminudus	Rabbit-tails								9						10		1				8				4		32		32	5
	Ptilotus sp.	Mulla Mulla									1			1														2		2	2
	Ptilotus spathulatus f.	Pussy-tails						3	7		3	2		4	41				3				3			5		71		71	9

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I	**Scientific Name**	**Common Name**																													
	Ptilotus spathulatus f. *spathulatus*	Pussy-tails							1	21				8	1	19			5	14		12	4	10		21	5	121		121	12
*	*Puccinellia distans*	Reflexed Poa																				1				1		2		2	2
	Puccinellia sp.	Saltmarsh-grass															2											2		2	1
	Puccinellia stricta var. *stricta*	Australian Saltmarsh-grass								1							2	2								2		7		7	4
	Pultenaea acerosa	Bristly Bush-pea														6										3		9		9	2
	Pultenaea kraehenbuehlii	Tothill Bush-pea								4																1		5	28	33	2
	Pultenaea largiflorens	Twiggy Bush-pea					4			18	2				1				1			3	1			8		38	3	41	8
	Pultenaea laxiflora	Loose-flower Bush-pea								1																		1		1	1
	Pultenaea rigida var. *rigida*	Rigid Bush-pea			18																							18		18	1
	Pultenaea tenuifolia	Narrow-leaf Bush-pea			9				2							25		15							2	15		68		68	6
	Pultenaea vestita	Feather Bush-pea														1												1		1	1
	Pycnosorus globosus	Drumsticks								1		1			2											1		5	1	6	4
	Pycnosorus pleiocephalus	Soft Billy-buttons								1									1	3								5		5	3
	Pyrorchis nigricans	Black Fire-orchid														1												1	1	2	1
	Ranunculus hamatosetosus	Hill Buttercup								2										1						2		5		5	3
	Ranunculus lappaceus	Native Buttercup					1																					1		1	1
*	*Ranunculus muricatus*	Pricklefruit Buttercup																					1					1	1	2	1
	Ranunculus pachycarpus	Thick-fruit Buttercup								1																2		3	2	5	2
	Ranunculus sessiliflorus var.	Annual Buttercup								3						2												5		5	2
	Ranunculus sessiliflorus var. *sessiliflorus*	Annual Buttercup														13		1										14		14	2
*	*Rapistrum rugosum* ssp. *rugosum*	Turnip Weed							1	16	24					6		1	1			8	4			9		70	1	71	9
*	*Reichardia tingitana*	False Sowthistle								2	7		1		6	18		24				2	1			2	1	64	1	65	10
*	*Reseda lutea*	Cut-leaf Mignonette							2					1		7						1						11	1	12	4
*	*Reseda luteola*	Wild Mignonette									1					2				1								4		4	3
*	*Reseda* sp.	Mignonette																								2		2		2	1
*	*Retama raetam*	White Weeping Broom								1																		1		1	1
	Rhagodia candolleana ssp.	Sea-berry Saltbush						1																				1		1	1
	Rhagodia candolleana ssp. *candolleana*	Sea-berry Saltbush			11											78		103				6			4	27		229		229	6
	Rhagodia crassifolia	Fleshy Saltbush			4		1	2								11		2				4			1			25		25	7
	Rhagodia parabolica	Mealy Saltbush	5	3		13	3	4	1	21	12	5			22	51		10	3	10	4	21	6			23	1	218	5	223	19
	Rhagodia preissii ssp. *preissii*	Mallee Saltbush								1	1					10		1				7	3					23	3	26	6
	Rhagodia sp.	Saltbush									1					1		1										3		3	3
	Rhagodia spinescens	Spiny Saltbush		3		6	1	3		2	1				6	3				5	4	2	2			6		44	2	46	13
	Rhagodia ulicina	Intricate Saltbush				4									2					1	1					2		10		10	5
	Rhamnaceae sp.				3																							3		3	1
*	*Rhamnus alaternus*	Blowfly Bush									1																	1		1	1
	Rhodanthe corymbiflora	Paper Everlasting		1						7	2	1								1		13	1			1		27		27	8
	Rhodanthe floribunda	White Everlasting																		1								1		1	1
	Rhodanthe laevis	Smooth Daisy								5						2										4		11		11	3
	Rhodanthe polygalifolia	Milkwort Everlasting								1												1						2		2	2
	Rhodanthe pygmaea	Pigmy Daisy		1		3			2	5	2				7	8		2	3	15		1	1	1		17	2	70		70	15
	Rhodanthe stuartiana	Clay Everlasting								1	1					4						3						9	1	10	4
	Rhodanthe troedelii	Small Paper-everlasting																	2									2		2	1

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I	**Scientific Name**	**Common Name**																													
	Rhyncharrhena linearis	Bush Bean				1																						1		1	1
*	*Ricinus communis*	Castor Oil Plant																				1						1		1	1
*	*Romulea minutiflora*	Small-flower Onion-grass							7	20	13		1		20	3			7			16	1	6		5		99		99	11
	Romulea rosea (NC)										2																	2		2	1
*	*Romulea rosea* var. *australis*	Common Onion-grass	1					8	3	1												1	3	5		6		28		28	8
*	*Romulea* sp.	Onion-grass										1		2				2	3				2					10		10	5
*	*Rorippa nasturtium-aquaticum*	Watercress																								1	1	2		2	2
*	*Rosa canina*	Dog Rose						1		4	3				2				1			1	1			3		16	2	18	8
*	*Rosa rubiginosa*	Sweet Briar								1																1		2	1	3	2
*	*Rosa* sp.	Wild Rose/Briar							1		1												1			1		4		4	4
*	*Rostraria cristata*	Annual Cat's-tail							2	30	16	2		2	17	18		42	3	15	4	32			1	50		234		234	14
*	*Rostraria pumila*	Tiny Bristle-grass														2			6							3		11		11	3
*	*Rubus ulmifolius* var. *ulmifolius*	Blackberry									1																	1		1	1
	Rumex brownii	Slender Dock																								7	3	10		10	2
	Rumex brownii (NC)	Slender Dock								4		2	1		8				2	1		2						20		20	7
*	*Rumex conglomeratus*	Clustered Dock							2	9												5				2		18		18	4
*	*Rumex crispus*	Curled Dock							1	4	12												2			3		22		22	5
	Rumex dumosus var. (NC)	Wiry Dock		1											6				1	2								10		10	4
	Rumex dumosus var. *dumosiformis* (NC)	Wiry Dock							1															1				2		2	2
	Rumex dumosus var. *dumosus* (NC)	Wiry Dock							1					4	1								1	4		2		13		13	6
*	*Rumex obtusifolius*	Broad-leaf Dock						1																				1		1	1
	Rumex sp.	Dock								1					2					1						9		13		13	4
*	*Sagina apetala*	Annual Pearlwort								1						1				2		1				5	1	11		11	6
*	*Sagina maritima*	Sea Pearlwort								1						4		15										20		20	3
	Salsola kali	Buckbush	2	6		1	5	2	1	6	18	6		1	4	10		11	6	2		11	5			2		99	3	102	18
*	*Salvia verbenaca form*	Wild Sage		7		1		2		14	43		2	9					1	3			13	7			2	104		104	12
*	*Salvia verbenaca* var. *verbenaca*	Wild Sage							10	2	3	3		1	26	11			10	7		8				16		97	1	98	11
	Samolus repens	Creeping Brookweed			2				1	2					1	5	5	7				3			1	12	1	40	1	41	11
*	*Sanguisorba minor* ssp. *muricata*	Sheep's Burnet									2								1									3		3	2
	Santalum acuminatum	Quandong		1		1	3	1		7	4	1				32		10	1	1	1	5	2			10		80	3	83	15
	Santalum murrayanum	Bitter Quandong														2												2		2	1
	Santalum sp.																						1					1		1	1
	Santalum spicatum	Sandalwood								1																		1		1	1
	Sarcocornia blackiana	Thick-head Samphire			1					2						3	6									1		13		13	5
	Sarcocornia quinqueflora	Beaded Samphire							1	2						11	16					2			2	10		44		44	7
	Sarcocornia sp.	Samphire																								1		1		1	1
	Sarcozona praecox	Sarcozona		1											1													2		2	2
	Sauropus rigens	Stiff Spurge									1																	1		1	1
*	*Scabiosa atropurpurea*	Pincushion							2	2	13											2						19	1	20	4
	Scaevola aemula	Fairy Fanflower																					2					2		2	1
	Scaevola albida	Pale Fanflower							1	6		3	3			7			3	1		5	3			2		34	1	35	10
	Scaevola albida var. (NC)						1				7																	8		8	2
	Scaevola angustata	Coast Fanflower														2												2		2	1

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I	**Scientific Name**	**Common Name**																													
	Scaevola crassifolia	Cushion Fanflower			4											4		39										47	1	48	3
	Scaevola humilis	Inland Fanflower								3						1				3		1				12	1	21	1	22	6
	Scaevola linearis ssp. *confertifolia*	Bundled Fanflower														2												2		2	1
	Scaevola sp.	Fanflower																								1		1		1	1
	Scaevola spinescens	Spiny Fanflower					1	1		3	7				1	12		4			4		2			5		40	1	41	10
*	*Schinus molle*	Pepper-tree								2	7				1							1	1			1		13		13	6
*	*Schismus barbatus*	Arabian Grass		1				2	1	18	5	1			5	4		12		4	4	17				6		80		80	13
	Schoenoplectus litoralis	Shore Club-rush																				1						1		1	1
	Schoenoplectus pungens	Spiky Club-rush							1	1					1											2		5		5	4
	Schoenus apogon	Common Bog-rush							2	8	2					1			1			3	1	2		6		26		26	9
	Schoenus breviculmis	Matted Bog-rush								1						18						1				4		24		24	4
	Schoenus deformis	Small Bog-rush														5												5		5	1
	Schoenus nanus	Little Bog-rush								3						5												8		8	2
	Schoenus nitens	Shiny Bog-rush								1						2		1										4		4	3
	Schoenus sp.	Bog-rush				1																						1		1	1
*	*Scilla* sp.										1																	1		1	1
	Scleranthus pungens	Prickly Knawel				4									4											3		11		11	3
	Sclerolaena brachyptera	Short-wing Bindyi		2						1	3								4									10		10	4
	Sclerolaena brevifolia	Small-leaf Bindyi								1																		1		1	1
	Sclerolaena diacantha	Grey Bindyi		3		4		7		17	5	2			9	20		1	3	4	2	14	3			15		109	1	110	15
	Sclerolaena diacantha/*uniflora*	Grey Bindyi													1													1		1	1
	Sclerolaena divaricata	Tangled Bindyi		1																								1		1	1
	Sclerolaena obliquicuspis	Oblique-spined Bindyi		3		6		1				1			8	2				1	3	1				3		29		29	10
	Sclerolaena parallelicuspis	Western Bindyi										1																1		1	1
	Sclerolaena patenticuspis	Spear-fruit Bindyi		1		3	1			1						1				1						1		9		9	7
	Sclerolaena sp.	Bindyi				1					2							5	1									9		9	4
	Sclerolaena uniflora	Small-spine Bindyi					1				3	2				1		5										12		12	5
	Sclerolaena uniflora hybrid															1												1		1	1
	Sclerostegia arbuscula	Shrubby Samphire														7	18				1	3			1	2		32		32	6
	Sclerostegia disarticulata									1																		1		1	1
	Sclerostegia tenuis	Slender Samphire																				1						1		1	1
*	*Scorzonera laciniata*	Scorzonera								1	1	1			2								1					6		6	5
	Scrophulariaceae sp.										1																	1		1	1
	Sebaea ovata	Yellow Sebaea								2	1					2										11	1	17		17	5
	Senecio anethifolius (NC)	Feathery Groundsel																									1	1	1	2	1
	Senecio glossanthus	Annual Groundsel				7				2	2				4	65	4	7	2	3		12				21	2	131	1	132	12
	Senecio macrocarpus	Large-fruit Groundsel														1												1		1	1
	Senecio odoratus var. *odoratus* (NC)	Scented Groundsel													1													1		1	1
	Senecio picridioides	Purple-leaf Groundsel										1				2										1		4		4	3
	Senecio pinnatifolius	Variable Groundsel			5	1			2	2						35	1	108			2	3			1	17		177		177	11
*	*Senecio pterophorus*	African Daisy														1						1						2		2	2
	Senecio quadridentatus	Cotton Groundsel		1		5		1		12	1	3			9	4			4	9		1		1		13		64	1	65	13
	Senecio sp.	Groundsel					1			1																		2		2	2

		No. of Sites in the Mid North & Yorke Peninsula Study Area →	6	15	56	25	35	15	22	163	58	10	5	14	92	270	42	139	32	34	8	97	27	12	6	140	7	1330			25
		Survey Number →	**5**	**6**	**13**	**24**	**31**	**45**	**46**	**49**	**51**	**54**	**55**	**58**	**62**	**63**	**78**	**82**	**83**	**86**	**87**	**88**	**96**	**116**	**148**	**162**	**168**	**All SU sites**	**All OP**	**Total**	**Total SUs**
I	**Scientific Name**	**Common Name**																													
	Senecio tenuiflorus (NC)	Woodland Groundsel								5		1				9				3		2				4		24	1	25	6
	Senna artemisioides ssp.	Desert Senna																		1								1		1	1
	Senna artemisioides ssp. *artemisioides*	Silver Senna										1			1								1			1	1	5		5	5
	Senna artemisioides ssp. *coriacea*	Broad-leaf Desert Senna		4		2		2		10	19	6			5	11			6	7	1	9	7			6		95	5	100	14
	Senna artemisioides ssp. *filifolia*	Fine-leaf Desert Senna	1					3			2				1	1						1	2			1		12	3	15	8
	Senna artemisioides ssp. *petiolaris*	Flat-stalk Senna				2	1			6	3	4			5	8			1	1		9	4			6		50	2	52	12
	Senna artemisioides ssp. *quadrifolia*	Four-leaf Desert Senna									1																	1		1	1
	Senna artemisioides ssp. *zygophylla*	Twin-leaf Desert Senna					1																					1		1	1
	Senna cardiosperma ssp. *gawlerensis*	Gawler Ranges Senna																			1							1		1	1
	Setaria constricta	Knotty-butt Paspalidium							1						3	1			2			1						8	1	9	5
*	*Sherardia arvensis*	Field Madder								6			1			21										9		37		37	4
	Sida corrugata var.	Corrugated Sida		2		1		2	2	6	15			2					16	1			12			1		60	4	64	11
	Sida corrugata var. *angustifolia*	Grassland Sida												3	7					1		6		4		3		24	1	25	6
	Sida corrugata var. *corrugata*	Corrugated Sida							1			3		2	11				1	8		1				7		34		34	8
	Sida fibulifera	Pin Sida																	1									1		1	1
	Sida intricata	Twiggy Sida		2							1				1	1			1									6		6	5
	Sida petrophila	Rock Sida		2					1							1		1					1			1	1	8		8	7
	Sida sp.	Sida																	1	1			1					3		3	3
	Sigesbeckia orientalis ssp. *orientalis*	Oriental Sigesbeckia																								1		1		1	1
*	*Silene apetala*	Sand Catchfly														2						1				1		4		4	3
*	*Silene gallica* var.	French Catchfly						2		4	2								1									9		9	4
*	*Silene gallica* var. *gallica*	French Catchfly								3																2		5		5	2
*	*Silene nocturna*	Mediterranean Catchfly								11	3	2			8	22		37	6	10	3	17	1		1	35	5	161		161	14
*	*Silene* sp.	Catchfly				1					1					5								2		1		10		10	5
*	*Silene tridentata*															3		2										5		5	2
	Siloxerus multiflorus	Small Wrinklewort								6						8			1							3		18		18	4
*	*Silybum marianum*	Variegated Thistle								5												2				1		8		8	3
*	*Sisymbrium erysimoides*	Smooth Mustard		3		11		8		36	9				12	21		5	1	11	8	27	5			18	3	178		178	15
*	*Sisymbrium irio*	London Mustard							1	3	1				2	1						15				7		30		30	7
*	*Sisymbrium officinale*	Hedge Mustard													2	2										1		5		5	3
*	*Sisymbrium orientale*	Indian Hedge Mustard		2						1	4				1			1	1	2		3				1	2	18		18	10
*	*Sisymbrium* sp.	Wild Mustard				5						1			1				1									8		8	4
	Solanum coactiliferum	Tomato-bush									1																	1		1	1
*	*Solanum elaeagnifolium*	Silver-leaf Nightshade																					1					1		1	1
	Solanum ellipticum	Velvet Potato-bush																		1								1		1	1
	Solanum esuriale	Quena									1											1				1		3	2	5	3
*	*Solanum nigrum*	Black Nightshade							1	6	2	3	1	1	1	3				1		1					1	21		21	11
	Solanum petrophilum	Rock Nightshade				3																						3		3	1
	Solenogyne dominii	Smooth Solenogyne							1													1	1	2		1		6	1	7	5
*	*Sonchus asper* ssp.	Rough Sow-thistle								14								1										15		15	2
*	*Sonchus asper* ssp. *glaucescens*	Rough Sow-thistle							1						2			1				3				1		8		8	5
	Sonchus hydrophilus	Native Sow-thistle																				1					1	2		2	2
*	*Sonchus oleraceus*	Common Sow-thistle	1	3		11		2	7	66	40	4	3	9	24	116		93	12	15	6	77	9	1		93	7	599	2	601	21

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		Survey Number →	**5**	**6**	**13**	**24**	**31**	**45**	**46**	**49**	**51**	**54**	**55**	**58**	**62**	**63**	**78**	**82**	**83**	**86**	**87**	**88**	**96**	**116**	**148**	**162**	**168**	**All SU sites**	**All OP**	**Total**	**Total SUs**
I	**Scientific Name**	**Common Name**																													
	Sonchus sp.	Sow-thistle								1	5					1		1								1		9		9	5
*	*Sonchus tenerrimus*	Clammy Sow-thistle								1	2				1	3												7		7	4
*	*Sparaxis bulbifera*	Sparaxis									2																	2		2	1
*	*Sparaxis* sp.	Sparaxis																					2					2		2	1
*	*Sparaxis tricolor*	Tricolor Harlequin Flower									5											1						6		6	2
*	*Spergularia diandra*	Lesser Sand-spurrey							1	5	2				16	6	2	2		6		17				6		63		63	10
*	*Spergularia marina*	Salt Sand-spurrey							1	1						1						6				11		20		20	5
*	*Spergularia media*	Coast Sand-spurrey																1										1		1	1
*	*Spergularia rubra*	Red Sand-spurrey						1		8									5	1						5		20		20	5
*	*Sphenopus divaricatus*	Wedge-foot Grass									1						3					6				2		12		12	4
	Spinifex sericeus (NC)	Rolling Spinifex			2											3		23										28		28	3
	Sporobolus sp.																1											1		1	1
	Sporobolus virginicus	Salt Couch														2		2			1							5		5	3
	Spyridium eriocephalum var. *eriocephalum*	Heath Spyridium																							2			2		2	1
	Spyridium parvifolium	Dusty Miller					1			7					1											6		15	2	17	4
	Spyridium phylicoides	Narrow-leaf Spyridium			9											30		10								13		62		62	4
	Spyridium subochreatum var. *subochreatum*	Velvet Spyridium																								5		5	1	6	1
*	*Stachys arvensis*	Stagger Weed																					2					2		2	1
	Stackhousia annua	Annual Candles														2												2		2	1
	Stackhousia aspericocca (NC)				1																							1		1	1
	Stackhousia aspericocca ssp.	Bushy Candles								1						1		1										3		3	3
	Stackhousia aspericocca ssp. Cylindrical inflorescence (W.R.Barker 1418)	Bushy Candles														4		2								3		9		9	3
	Stackhousia aspericocca ssp. One-sided inflorescence (W.R.Barker 697)	One-sided Candles														1												1		1	1
	Stackhousia monogyna	Creamy Candles					1		5	29	10	2		1	15	32			3	7		8	6	5		34	3	161	5	166	15
	Stackhousia sp.	Candles								3									2							2		7		7	3
	Stackhousia spathulata	Coast Candles														2												2		2	1
	Stackhousiaceae sp.																	1										1		1	1
*	*Stellaria media*	Chickweed								9	1				2	42		42		5		4				11		116		116	8
	Stenanthemum leucophractum	White Cryptandra														5										3		8		8	2
	Stenopetalum lineare	Narrow Thread-petal				1									3				1	1	2	1				13	2	24		24	8
	Stenopetalum sphaerocarpum	Round-fruit Thread-petal								1																		1		1	1
	Stuartina muelleri	Spoon Cudweed								11									1			3				11		26		26	4
	Suaeda australis	Austral Seablite								1	1					3	8	2				1				1		17		17	7
	Swainsona behriana	Behr's Swainson-pea												1								1				1		3		3	3
	Swainsona oroboides	Variable Swainson-pea																	1									1		1	1
	Swainsona oroboides complex	Variable Swainson-pea							1	1																		2		2	2
	Swainsona sp.	Swainson-pea		1																				1				2		2	2
	Swainsona stipularis	Orange Swainson-pea														1				1								2		2	2
	Swainsona tephrotricha	Ashy-haired Swainson-pea													1													1		1	1
	Templetonia aculeata	Spiny Mallee-pea								1	3								2				1			1		8	1	9	5

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	Templetonia egena	Broombush Templetonia		2						1	1									5						1		10	1	11	5
	Templetonia retusa	Cockies Tongue			38											27		25								10		100		100	4
	Templetonia sulcata	Flat Mallee-pea														1												1		1	1
	Tetragonia eremaea	Desert Spinach								6					4					2	4	1				4	1	22		22	7
	Tetragonia eremaea/tetragonoides	Native Spinach				7																						7		7	1
	Tetragonia implexicoma	Bower Spinach			2					1	2					65	1	101			4	9			1	19		205		205	10
	Tetragonia sp.	False Spinach				4																				1		5		5	2
	Tetragonia tetragonioides	New Zealand Spinach		2												2												4		4	2
	Tetraria capillaris	Hair Sedge																								1		1		1	1
	Teucrium racemosum	Grey Germander							1	4	9				1								2					17	4	21	5
	Teucrium sessiliflorum	Mallee Germander						1		9	8	2			2	20			1	1		17	4			5		70	3	73	11
	Thelymitra antennifera	Lemon Sun-orchid														9												9		9	1
	Thelymitra aristata	Great Sun-orchid					1			2																1		4		4	3
	Thelymitra grandiflora	Great Sun-orchid																								1		1		1	1
	Thelymitra luteocilium	Yellow-tuft Sun Orchid								4						1										1		6	1	7	3
	Thelymitra nuda	Scented Sun-orchid					1			4						27						1	1			6		40		40	6
	Thelymitra pauciflora	Slender Sun-orchid								3																1		4		4	2
	Thelymitra rubra	Salmon Sun-orchid								2																3		5		5	2
	Thelymitra sp.	Sun-orchid			5											4							1			7		17		17	4
	Themeda triandra	Kangaroo Grass					1	1	8	8	9	3	1	2	6	3			17	4		4	9	3		10		89	2	91	16
	Thomasia petalocalyx	Paper-flower														1												1		1	1
	Threlkeldia diffusa	Coast Bonefruit			7					1		1				62	1	98			3	8			3	16		200		200	10
	Thryptomene micrantha	Ribbed Thryptomene														3												3		3	1
	Thysanotus baueri	Mallee Fringe-lily				3				2					2	4			8	3		15	4			7	3	51	1	52	10
	Thysanotus patersonii	Twining Fringe-lily				1		1		16	3				4	48			4	3		4	2	1	1	30	1	119	1	120	14
	Thysanotus sp.	Fringe-lily							1		1															2		4		4	3
	Thysanotus tenellus	Grassy Fringe-lily							2						1							1				1		5	1	6	4
	Trachymene cyanopetala	Purple Trachymene														1						1						2	1	3	2
	Trachymene pilosa	Dwarf Trachymene														6						1				4		11		11	3
*	*Tragopogon porrifolius*	Salsify																					1			4		5	1	6	2
*	*Tribolium acutiflorum*																									1		1		1	1
	Tricoryne elatior	Yellow Rush-lily							4			1				1						2	1			6	2	17		17	7
	Tricoryne tenella	Tufted Yellow Rush-lily														6										6		12		12	2
*	*Trifolium angustifolium*	Narrow-leaf Clover						4	10	43	9	2	3	8	21	2			23	3		16	4	12		35	3	198	1	199	16
*	*Trifolium arvense* var. *arvense*	Hare's-foot Clover	2	2					4	54	9	3	1	8	15				24	11		21	2	11		25	1	193		193	16
*	*Trifolium campestre*	Hop Clover	1	1					6	39	3	5	4	9	24	18		3	20	9		13	2	11		57	6	231	2	233	18
*	*Trifolium dubium*	Suckling Clover							3						2													5		5	2
*	*Trifolium fragiferum* var.	Strawberry Clover								1																		1		1	1
*	*Trifolium glomeratum*	Cluster Clover						1	1	25		2	2	3	4				17	3		17	1	2		10		88		88	13
*	*Trifolium hirtum*	Rose Clover								5										1						1		7		7	3
*	*Trifolium michelianum* 'var. balansae'	Annual White Clover								1																		1		1	1
*	*Trifolium scabrum*	Rough Clover							2	10					6	20		2	2			11				5	1	59		59	9
*	*Trifolium* sp.	Clover						1	3	1	4			1		1										1		12		12	7

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I	**Scientific Name**	**Common Name**																													
*	*Trifolium striatum*	Knotted Clover																										0	1	1	0
*	*Trifolium subterraneum*	Subterranean Clover							2	11	6		2		2	1										1		25		25	7
*	*Trifolium tomentosum*	Woolly Clover							1	22					3	1			2	1		7				4		41		41	8
	Triglochin calcitrapum	Spurred Arrowgrass														2												2	1	3	1
	Triglochin centrocarpum	Dwarf Arrowgrass								1						6	1	14				1				1		24	1	25	6
	Triglochin minutissumum	Tiny Arrowgrass														2										1		3		3	2
	Triglochin mucronatum	Prickly Arrowgrass														1	1	1				1				3		7		7	5
	Triglochin sp.	Arrowgrass/Water-ribbons																								1		1		1	1
	Triglochin striatum	Streaked Arrowgrass								1												2				2	1	6		6	4
	Triglochin trichophorum															2												2		2	1
	Triodia bunicola	Flinders Ranges Spinifex										1							2	12						19	1	35		35	5
	Triodia compacta	Spinifex			2				2							5		1								1		11		11	5
	Triodia irritans	Spinifex	2	1														1	6						2	2		14		14	6
	Triodia irritans complex	Spinifex				1													2							2		5		5	3
	Triodia irritans var. (NC)			2			1				1																	4		4	3
	Triodia scariosa	Spinifex							3			2											1					6	1	7	3
	Triodia scariosa ssp. (NC)	Spinifex																	5	1			2					8		8	3
	Triodia sp. (NC)	Spinifex								21						1		3					1					26	1	27	4
	Triptilodiscus pygmaeus	Small Yellow-heads				1			4	10		2		2	19				12	7		1	1	3		10	1	73	1	74	13
*	*Triticum aestivum*	Wheat							1		5											2						8		8	3
	Trymalium wayae	Grey Trymalium							2	1									1							5		9		9	4
	Typha domingensis	Narrow-leaf Bulrush							1	2					1											4	1	9	1	10	5
*	*Ulex europaeus*	Gorse									1																	1		1	1
*	*Urospermum picroides*	False Hawkbit								3					1	18		4		1		1				10	3	41		41	8
*	*Urtica urens*	Small Nettle		2						5						1		1				2						11		11	5
*	*Valerianella discoidea*	Lesser Corn-salad									1			1	1											5	4	12		12	5
	Velleia arguta	Toothed Velleia						2		1	8				3	7			1	2		1	1			3		29	2	31	10
	Velleia paradoxa	Spur Velleia					1	1	5	2		1	1		8				1			4	3	1		3		31		31	12
*	*Verbascum virgatum*	Twiggy Mullein									1																	1		1	1
*	*Verbena supina* (NC)	Trailing Verbena							1																			1		1	1
*	*Veronica hederifolia*	Ivy-leaf Speedwell								1	1															1		3		3	3
	Veronica hillebrandii	Rigid Speedwell														11		4								8		23		23	3
	Veronica plebeia	Trailing Speedwell								2																1		3	2	5	2
*	*Vicia cracca*	Tufted Vetch							1																			1		1	1
*	*Vicia hirsuta*	Hairy Vetch								1	1																	2		2	2
*	*Vicia monantha*	Spurred Vetch								5	21	1				15							1			2	2	47		47	7
*	*Vicia sativa* ssp.	Common Vetch									5																	5		5	1
*	*Vicia sativa* ssp. *nigra*	Narrow-leaf Vetch																								2		2		2	1
*	*Vicia sativa* ssp. *sativa*	Common Vetch																				1						1		1	1
*	*Vicia* sp.	Vetch									1																	1		1	1
*	*Vinca major*	Blue Periwinkle																										0	1	1	0
	Vittadinia australasica var.	Sticky New Holland Daisy										1			2	2			1				1	1		3		11		11	7
	Vittadinia australasica var. *australasica*	Sticky New Holland Daisy									1	1			1	2										4		9		9	5

	No. of Sites in the Mid North & Yorke Peninsula Study Area →		6	15	56	25	35	15	22	163	58	10	5	14	92	270	42	139	32	34	8	97	27	12	6	140	7	1330			25
		Survey Number →	**5**	**6**	**13**	**24**	**31**	**45**	**46**	**49**	**51**	**54**	**55**	**58**	**62**	**63**	**78**	**82**	**83**	**86**	**87**	**88**	**96**	**116**	**148**	**162**	**168**	**All SU sites**	**All OP**	**Total**	**Total SUs**
I	**Scientific Name**	**Common Name**																													
	Vittadinia blackii	Narrow-leaf New Holland Daisy							4	3	14	3		4	7	4			4				3	8		7	3	64	4	68	12
	Vittadinia cervicularis var. *cervicularis*	Waisted New Holland Daisy							1	6	9	2			5	22			5			15	3			7	1	76	3	79	11
	Vittadinia condyloides	Club-hair New Holland Daisy												4														4		4	1
	Vittadinia cuneata var.	Fuzzy New Holland Daisy						1	4	17				3	21				10	1			8	8	1			74	1	75	10
	Vittadinia cuneata var. *cuneata* f. *cuneata*	Fuzzy New Holland Daisy		1					4		10				4	17			3	9		6	6			16		76	1	77	10
	Vittadinia cuneata var. *morrisii*	New Holland Daisy										1								2								3		3	2
	Vittadinia gracilis	Woolly New Holland Daisy		4				1	3	15	25	3	1	11	37	10			12	19		6	10	6		11		174	8	182	16
	Vittadinia megacephala	Giant New Holland Daisy							1	2	2	1		2	8	15			1			3		1		5	4	45	3	48	12
	Vittadinia pterochaeta	Rough New Holland Daisy									2																	2		2	1
	Vittadinia sp.	New Holland Daisy				5		1	2		3					7			2				1		1	2		24	1	25	9
	Vittadinia sulcata	Furrowed New Holland Daisy										1																1		1	1
*	*Vulpia bromoides*	Squirrel-tail Fescue						3		18		1			3	1		2				2		1		7		38		38	9
	Vulpia bromoides/myuros									33																		33		33	1
*	*Vulpia fasciculata*	Sand Fescue																								11		11		11	1
*	*Vulpia muralis*	Wall Fescue							7		2			2				5	5	16	2	7				16	1	63		63	10
*	*Vulpia myuros* f.	Fescue										1	1	4	5				1	11				1				24		24	7
*	*Vulpia myuros* f. *megalura*	Fox-tail Fescue							1		3			1				6		1								12		12	5
*	*Vulpia myuros* f. *myuros*	Rat's-tail Fescue							13	17	25	7		3	16	28		17	12	10	2	57	7	11		65	2	292	1	293	16
*	*Vulpia* sp.	Fescue	1											2				14	13	5			3			2		40		40	7
	Wahlenbergia communis	Tufted Bluebell		1				2	1						2	2				2			1			7		18		18	8
	Wahlenbergia gracilenta	Annual Bluebell							2	16						10				5		3				31	1	68	1	69	7
	Wahlenbergia litticola	Coast Bluebell						2							2													4		4	2
	Wahlenbergia luteola	Yellow-wash Bluebell		1					5	31	6	4	2	5	36				16	19		7	6	7		27	2	174	3	177	15
	Wahlenbergia multicaulis	Tadgell's Bluebell							1																			1		1	1
	Wahlenbergia preissii																									1		1		1	1
	Wahlenbergia sp.	Native Bluebell				5									1	5										5		16		16	4
	Wahlenbergia stricta ssp. *stricta*	Tall Bluebell					1			23		1			3	4		1	3	3		3		2		18	5	67		67	12
*	*Watsonia meriana* cv. Bulbillifera (NC)	Bulbil Watsonia																					1					1		1	1
	Westringia dampieri	Shore Westringia			3																							3		3	1
	Westringia eremicola	Slender Westringia														1												1		1	1
	Westringia rigida	Stiff Westringia	1	1		3	2			1	3				3	22		2		2	1	7	1			9		58		58	14
	Whalleya proluta	Rigid Panic							3		10				2	1			1			1				1		19	4	23	7
	Wilsonia humilis var. *humilis*	Silky Wilsonia			3					2						6	10					1			1	2		25		25	7
	Wilsonia rotundifolia	Round-leaf Wilsonia													1	1										2		4	1	5	3
	Wurmbea centralis (NC)	Inland Nancy								1																		1		1	1
	Wurmbea dioica ssp. *dioica* (NC)	Early Star-lily		2		3	1		3	14	3				10	39		10	3	7		4		1		26	2	128	2	130	15
	Wurmbea sp.	Nancy									1	1							3					1				6		6	4
*	*Xanthium spinosum*	Bathurst Burr		1																								1		1	1
	Xanthorrhoea quadrangulata	Rock Grass-tree		1			2		2	20	1	1			4				2	2		1	1			15		52	2	54	12
	Xerochrysum bracteatum	Golden Everlasting					1																			1		2	1	3	2
*	*Zaluzianskya divaricata*	Spreading Night-phlox							1	2									1			15				4		23	1	24	5

	No. of Sites in the Mid North & Yorke Peninsula Study Area →		6	15	56	25	35	15	22	163	58	10	5	14	92	270	42	139	32	34	8	97	27	12	6	140	7	1330			25
		Survey Number →	**5**	**6**	**13**	**24**	**31**	**45**	**46**	**49**	**51**	**54**	**55**	**58**	**62**	**63**	**78**	**82**	**83**	**86**	**87**	**88**	**96**	**116**	**148**	**162**	**168**	**All SU sites**	**All OP**	**Total**	**Total SUs**
I	**Scientific Name**	**Common Name**																													
	Zygophyllum ammophilum	Sand Twinleaf													2	13		2			1	4				2		24	1	25	6
	Zygophyllum ammophilum (NC)	Sand Twinleaf		1		1					1																	3		3	3
	Zygophyllum angustifolium	Scrambling Twinleaf				1										9		4				1				6		21		21	5
	Zygophyllum apiculatum	Pointed Twinleaf		3		10				12					8	3			1	2	2	1				8		50	1	51	10
	Zygophyllum aurantiacum (NC)	Shrubby Twinleaf		2				3		1	7				4	10				2	1	1						31		31	9
	Zygophyllum aurantiacum ssp.					1												4								10		15	1	16	3
	Zygophyllum aurantiacum ssp. *"simplicifolium"*														2	2												4		4	2
	Zygophyllum aurantiacum ssp. *aurantiacum*	Shrubby Twinleaf																									1	1		1	1
	Zygophyllum billardierei	Coast Twinleaf														1		24							2	1		28		28	4
	Zygophyllum billardierei (NC)	Coast Twinleaf			7	1				3		1				2												14		14	5
	Zygophyllum confluens	Forked Twinleaf														3				2	1	2	3					11	2	13	5
	Zygophyllum crenatum	Notched Twinleaf						1		1	1					1			1	2	1	1				3		12		12	9
	Zygophyllum eremaeum	Pale-flower Twinleaf		1																								1		1	1
	Zygophyllum glaucum	Pale Twinleaf		1				1	2		6	1				3				1		1	2					18	1	19	9
	Zygophyllum ovatum	Dwarf Twinleaf				4		1		2					1	7						5				1		21		21	7
	Zygophyllum simile	White Twinleaf																5										5		5	1
	Zygophyllum sp.	Twinleaf				1				1					1	1		1				2						7		7	6

APPENDIX 6. PLANT FAMILIES IN DECREASING ORDER OF NUMBER OF TAXA.

Family Nr The family number sequence devised by John Jessop for organising the Adelaide Herbarium collection following the Englerian system of classification.

Native Taxa Number of native taxa per family from all survey and opportunistic records from biological surveys conducted in the Mid North and Yorke Peninsula Biological Survey (MNYPBS) Study Area.

Exotic Taxa Number of exotic taxa per family from all survey and opportunistic records from biological surveys conducted in the MNYPBS Study Area.

Total Taxa Total number of both native and exotic taxa recorded per family.

Taxa % Total number of both native and exotic taxa recorded per family as a percentage of all taxa recorded in the MNYPBS study area.

Record Count Number of plant taxa records per family from all survey and opportunistic records from biological surveys conducted in the MNYPBS Study Area.

Record % Total number of both native and exotic taxa records per family as a percentage of all taxa records for the MNYPBS study area.

Family Nr	Family Name	Native Taxa	Exotic Taxa	Total Taxa	Taxa %	Record Count	Record %
91.435	COMPOSITAE	126	43	169	13.2	5974	13.369
91.495	GRAMINEAE	93	67	160	12.5	8195	18.339
91.182	LEGUMINOSAE	79	27	106	8.3	3603	8.063
91.047	CHENOPODIACEAE	83	2	85	6.6	3162	7.076
91.514	ORCHIDACEAE	61		61	4.8	677	1.515
91.504	CYPERACEAE	40	1	41	3.2	774	1.732
91.451	LILIACEAE	28	10	38	3.0	2445	5.471
91.306	MYRTACEAE	38		38	3.0	1791	4.008
91.139	CRUCIFERAE	9	17	26	2.0	893	1.998
91.430	GOODENIACEAE	26		26	2.0	781	1.748
91.044	CARYOPHYLLACEAE	1	23	24	1.9	769	1.721
91.339	UMBELLIFERAE	14	5	19	1.5	650	1.455
91.392	LABIATAE	11	6	17	1.3	504	1.128
91.400	SCROPHULARIACEAE	6	10	16	1.2	126	0.282
91.040	AIZOACEAE	7	7	14	1.1	637	1.425
91.204	EUPHORBIACEAE	9	5	14	1.1	499	1.117
91.415	MYOPORACEAE	14		14	1.1	255	0.571
91.381	BORAGINACEAE	7	6	13	1.0	534	1.195
91.191	GERANIACEAE	6	7	13	1.0	610	1.365
91.032	POLYGONACEAE	6	7	13	1.0	234	0.524
91.263	RHAMNACEAE	12	1	13	1.0	352	0.788
91.212	RUTACEAE	13		13	1.0	243	0.544
91.236	SAPINDACEAE	13		13	1.0	322	0.721
91.395	SOLANACEAE	9	4	13	1.0	431	0.964
91.197	ZYGOPHYLLACEAE	13		13	1.0	337	0.754
91.473	IRIDACEAE		12	12	0.9	549	1.229
91.269	MALVACEAE	11	1	12	0.9	207	0.463
91.177	ROSACEAE	3	9	12	0.9	155	0.347
91.373	RUBIACEAE	7	5	12	0.9	565	1.264
91.427	CAMPANULACEAE	11		11	0.9	366	0.819
91.346	EPACRIDACEAE	10		10	0.8	539	1.206
91.478	JUNCACEAE	7	3	10	0.8	72	0.161
91.417	PLANTAGINACEAE	6	4	10	0.8	149	0.333
91.026	SANTALACEAE	10		10	0.8	420	0.940
91.276	THYMELAEACEAE	10		10	0.8	435	0.973
91.049	AMARANTHACEAE	8	1	9	0.7	276	0.618
91.105	DILLENIACEAE	9		9	0.7	133	0.298
91.019	PROTEACEAE	9		9	0.7	78	0.175
91.149	CRASSULACEAE	7	1	8	0.6	619	1.385
91.322	HALORAGACEAE	8		8	0.6	241	0.539
91.377	CONVOLVULACEAE	7		7	0.5	310	0.694
91.173	PITTOSPORACEAE	7		7	0.5	535	1.197
91.080	RANUNCULACEAE	5	2	7	0.5	301	0.674
91.131	FUMARIACEAE		6	6	0.5	24	0.054
91.442	JUNCAGINACEAE	6		6	0.5	47	0.105
91.362	LOGANIACEAE	6		6	0.5	131	0.293
91.042	PORTULACACEAE	6		6	0.5	111	0.248
91.129	DROSERACEAE	5		5	0.4	114	0.255
91.367	GENTIANACEAE	2	3	5	0.4	53	0.119
91.028	LORANTHACEAE	5		5	0.4	220	0.492
91.256	STACKHOUSIACEAE	5		5	0.4	192	0.430

Family Nr	Family Name	Native Taxa	Exotic Taxa	Total Taxa	Taxa %	Record Count	Record %
91.271	STERCULIACEAE	5		5	0.4	178	0.398
74.018	ADIANTACEAE	4		4	0.3	144	0.322
91.001	CASUARINACEAE	4		4	0.3	249	0.557
91.491	CENTROLEPIDACEAE	4		4	0.3	29	0.065
91.295	FRANKENIACEAE	3	1	4	0.3	91	0.204
91.072	LAURACEAE	4		4	0.3	211	0.472
91.188	OXALIDACEAE	1	3	4	0.3	585	1.309
91.130	PAPAVERACEAE		4	4	0.3	18	0.040
91.349	PRIMULACEAE	1	3	4	0.3	395	0.884
91.371	ASCLEPIADACEAE	2	1	3	0.2	3	0.007
84.004	CUPRESSACEAE	3		3	0.2	167	0.374
91.199	LINACEAE	1	2	3	0.2	189	0.423
84.002	PINACEAE		3	3	0.2	20	0.045
91.227	POLYGALACEAE	2	1	3	0.2	101	0.226
91.018	URTICACEAE	2	1	3	0.2	105	0.235
91.369	APOCYNACEAE	1	1	2	0.2	132	0.295
74.029	ASPLENIACEAE	2		2	0.2	10	0.022
91.302	CUCURBITACEAE		2	2	0.2	4	0.009
91.037	GYROSTEMONACEAE	2		2	0.2	2	0.004
91.352	LIMONIACEAE		2	2	0.2	38	0.085
91.303	LYTHRACEAE	2		2	0.2	15	0.034
74.040	MARSILEACEAE	2		2	0.2	2	0.004
91.320	ONAGRACEAE	1	1	2	0.2	6	0.013
91.141	RESEDACEAE		2	2	0.2	18	0.040
91.432	STYLIDIACEAE	2		2	0.2	38	0.085
91.385	VERBENACEAE		2	2	0.2	3	0.007
91.282	VIOLACEAE	2		2	0.2	11	0.025
91.463	AGAVACEAE		1	1	0.1	1	0.002
91.466	AMARYLLIDACEAE	1		1	0.1	43	0.096
91.230	ANACARDIACEAE		1	1	0.1	13	0.029
91.386	AVICENNIACEAE	1		1	0.1	7	0.016
91.051	CACTACEAE		1	1	0.1	2	0.004
91.425	DIPSACACEAE		1	1	0.1	20	0.045
91.125	GUTTIFERAE		1	1	0.1	9	0.020
91.467	HYPOXIDACEAE	1		1	0.1	89	0.199
91.039	NYCTAGINACEAE	1		1	0.1	20	0.045
91.361	OLEACEAE		1	1	0.1	45	0.101
74.005	OPHIOGLOSSACEAE	1		1	0.1	11	0.025
91.503	TYPHACEAE	1		1	0.1	10	0.022
91.423	VALERIANACEAE		1	1	0.1	12	0.027
91.448	ZANNICHELLIACEAE	1		1	0.1	1	0.002
TOTAL	**92**	**951**	**331**	**1282**	**100.0**	**44687**	**100.000**

APPENDIX 7. PLANT TAXA WITH AUSTRALIAN, SOUTH AUSTRALIAN OR REGIONAL CONSERVATION RATINGS RECORDED ON ALL BIOLOGICAL SURVEYS WITHIN THE MID NORTH AND YORKE PENINSULA BIOLOGICAL SURVEY STUDY AREA AND THEIR FREQUENCIES WITHIN EACH HERBARIUM REGION WHERE THEY ARE RATED.

Aus Australian status under the *Environment Protection and Biodiversity Conservation Act 1999* as at March 2005.
SA South Australian status under the *National Parks and Wildlife Act 1972* (2000 update of schedules 7, 8 and 9).
Tot Regs Number of Herbarium Regions each taxon recorded in within study area where they have a conservation rating.
Tot Recs Number of records recorded for each taxon (where rated) across whole study area.
EP, FR, MU, NL, SL & YP Regional status for the Eyre Peninsula, Flinders Ranges, Murray, Northern Lofty, Southern Lofty and Yorke Peninsula Herbarium Regions as per the SA FLORA database (March 2005), which provides an update to the original assessments of Lang and Kraehenbuehl (1987).
EP Tot, FR Tot, etc Number of records for each taxa in each Herbarium Region where they are rated.
Status Codes: **X** = extinct; **E** = endangered; **V** = vulnerable; **T** = threatened (either endangered or vulnerable but insufficient data to enable accurate assessment); **R** = rare; **K** = uncertain (either rare or threatened but insufficient data to enable accurate assessment); **U** = uncommon; **Q** = not yet assessed but considered to be of possible significance. # = Provisional rating only.
Totals (at bottom of Table) Those in **bold** refer to the number of taxa, while those in plain text refer to the number of records.

Scientific Name	Common Name	Aus	SA	Tot Regs	Tot Recs	EP	EP Tot	FR	FR Tot	MU	MU Tot	NL	NL Tot	SL	SL Tot	YP	YP Tot
Acacia acinacea	Wreath Wattle			2	20					U	3	U	17				
Acacia ancistrophylla var. *lissophylla*	Hook-leaf Wattle			1	3											K	3
Acacia argyrophylla	Silver Mulga-bush			2	3			K	1	U	2						
Acacia brachybotrya	Grey Mulga-bush			2	8			K	1							U	7
Acacia enterocarpa	Jumping-jack Wattle	E	E	1	1											E	1
Acacia farinosa	Mealy Wattle			1	3											U	3
Acacia glandulicarpa	Hairy-pod Wattle	V	E	1	2							E	2				
Acacia gracilifolia	Graceful Wattle		R	1	2			R	2								
Acacia halliana	Hall's Wattle			1	2											K	2
Acacia iteaphylla	Flinders Ranges Wattle		R	1	4							R	4				
Acacia notabilis	Notable Wattle			3	18					U	3			K	3	V	12
Acacia oswaldii	Umbrella Wattle			1	2									E	2		
Acacia retinodes var. *retinodes*	Wirilda			2	3					Q	1	Q	2				
Acacia rigens	Nealie			2	3							U	1			V	2
Acacia rupicola	Rock Wattle			1	1							R	1				
Acacia sclerophylla var. *sclerophylla*	Hard-leaf Wattle			2	4									V	1	K	3
Acacia spilleriana	Spiller's Wattle		V	1	6					K	6						
Acacia spinescens	Spiny Wattle			1	2							V	2				
Acacia wattsiana	Dog Wattle			2	7			K	6	E	1						
Acaena novae-zelandiae	Biddy-biddy			1	1											K	1
Acanthocladium dockeri	Spiny Everlasting	X	E	1	3							E	3				
Acrotriche affinis	Ridged Ground-berry			2	31							K	13			U	18
Acrotriche patula	Prickly Ground-berry			2	19					R	10	R	9				
Actinobole uliginosum	Flannel Cudweed			2	4									U	1	R	3
Adriana quadripartita	Coast Bitter-bush			1	1							K	1				
Alectryon oleifolius ssp. *canescens*	Bullock Bush			2	29							U	28			T	1
Allocasuarina muelleriana ssp. *muelleriana*	Common Oak-bush			1	5											K	5
Allocasuarina pusilla	Dwarf Oak-bush			1	9											R	9
Alternanthera denticulata	Lesser Joyweed			1	1							K	1				
Alyxia buxifolia	Sea Box			1	4									R	4		
Amphipogon caricinus var. *caricinus*	Long Grey-beard Grass			3	12			R	1			R	5			U	6
Amphipogon strictus var. *setifer*	Spreading Grey-beard Grass			1	2							R	2				
Amyema melaleucae	Tea-tree Mistletoe			2	4							R	3	K	1		
Amyema miraculosa ssp. *boormanii*	Fleshy Mistletoe			2	3							R	2			K	1
Angianthus tomentosus	Hairy Angianthus			2	11									K	1	R	10
Aotus subspinescens	Mallee Aotus			1	1											R	1
Aphanes australiana	Australian Piert			1	18											U	18
Apium prostratum var.	Native Celery			2	5					K	1	K	4				
Argentipallium obtusifolium	Blunt Everlasting			1	2											R	2
Aristida australis			R	1	1							K	1				
Aristida behriana	Brush Wire-grass			1	14					R	14						
Aristida contorta	Curly Wire-grass			1	2							R	2				
Arthropodium fimbriatum	Nodding Vanilla-lily			1	5			U	5								
Arthropodium minus	Small Vanilla-lily			3	19					R	6	V	9			R	4

Scientific Name	Common Name	Aus	SA	Tot Regs	Tot Recs	EP	EP Tot	FR	FR Tot	MU	MU Tot	NL	NL Tot	SL	SL Tot	YP	YP Tot
Arthropodium strictum	Common Vanilla-lily			1	14											R	14
Asplenium flabellifolium	Necklace Fern			1	2							R	2				
Asteridea athrixioides f. *athrixioides*	Wirewort			1	4											Q	4
Astroloma conostephioides	Flame Heath			2	6							R	5			T	1
Astroloma humifusum	Cranberry Heath			1	15											U	15
Atriplex acutibractea ssp. *acutibractea*	Pointed Saltbush			1	1											K	1
Atriplex acutibractea ssp. *karoniensis*	Pointed Saltbush			1	2											K	2
Atriplex paludosa ssp. *paludosa*	Marsh Saltbush			1	2	K	2										
Atriplex pumilio	Mat Saltbush			2	2							V	1			Q	1
Atriplex semibaccata	Berry Saltbush			1	5											Q	5
Austrodanthonia auriculata	Lobed Wallaby-grass			2	17			K	11	U	6						
Austrodanthonia carphoides	Short Wallaby-grass		R	1	5							R	5				
Austrodanthonia duttoniana	Brown-back Wallaby-grass		R	2	3			K	1			K	2				
Austrodanthonia eriantha	Hill Wallaby-grass			1	8					K	8						
Austrodanthonia fulva	Leafy Wallaby-grass			2	4							K	3	U	1		
Austrodanthonia racemosa var. *racemosa*	Slender Wallaby-grass			3	15			U	1	K	2	U	12				
Austrodanthonia tenuior	Short-awn Wallaby-grass		R	1	11							K	11				
Austrofestuca littoralis	Coast Fescue			1	1											K	1
Austrostipa acrociliata	Graceful Spear-grass			2	35			R	2			K	33				
Austrostipa blackii	Crested Spear-grass			1	6					T	6						
Austrostipa breviglumis	Cane Spear-grass		R	2	8	R	2					R	6				
Austrostipa curticoma	Short-crest Spear-grass			1	11							Q	11				
Austrostipa densiflora	Fox-tail Spear-grass		R	1	1					K	1						
Austrostipa echinata	Spiny Spear-grass		R	1	4											R	4
Austrostipa elegantissima	Feather Spear-grass			1	6									U	6		
Austrostipa eremophila	Rusty Spear-grass			1	1									U	1		
Austrostipa exilis	Heath Spear-grass			2	19							T	16	T	3		
Austrostipa flavescens	Coast Spear-grass			2	14					U	2	R	12				
Austrostipa gibbosa	Swollen Spear-grass		R	1	15							T	15				
Austrostipa hemipogon	Half-beard Spear-grass			2	2					R	1					T	1
Austrostipa mollis	Soft Spear-grass			2	20							R	18			T	2
Austrostipa multispiculis			R	1	2											K	2
Austrostipa mundula	Neat Spear-grass			1	8											R	8
Austrostipa nodosa	Tall Spear-grass			1	4											Q	4
Austrostipa petraea	Flinders Range Spear-grass		R	1	2			R	2								
Austrostipa pilata	Prickly Spear-grass		V	3	14			K	3	T	1	T	10				
Austrostipa platychaeta	Flat-awn Spear-grass			4	40			R	5			R	20	T	2	U	13
Austrostipa puberula	Fine-hairy Spear-grass		R	4	13					K	3	T	8	R	1	T	1
Austrostipa scabra ssp.	Rough Spear-grass			1	4											K	4
Austrostipa semibarbata	Fibrous Spear-grass			2	13							K	12			T	1
Austrostipa setacea	Corkscrew Spear-grass			3	38			R	4	R	3	R	31				
Austrostipa stipoides	Coast Spear-grass			1	7											U	7
Austrostipa tenuifolia			R	1	2							E	2				
Austrostipa trichophylla				2	7					K	1	T	6				
Banksia marginata	Silver Banksia			1	3							R	3				
Baumea arthrophylla	Swamp Twig-rush			1	2							R	2				
Baumea juncea	Bare Twig-rush			3	9					R	1	R	5			V	3
Billardiera sericophora	Silky Apple-berry			1	7											U	7
Billardiera sp. Yorke Peninsula (P.C.Heyligers 80164)	Lehmann's Apple-berry	E	E	1	6											E	6
Billardiera versicolor	Yellow-flower Apple-berry			2	3							R	1			T	2
Bolboschoenus caldwellii	Salt Club-rush			2	10			U	1			U	9				
Boronia coerulescens ssp. *coerulescens*	Blue Boronia			1	1											V	1
Boronia inornata ssp. *leptophylla*	Dryland Boronia			1	4											R	4
Bossiaea prostrata	Creeping Bossiaea			1	1							R	1				
Brachyscome ciliaris var. *lanuginosa*	Woolly Variable Daisy			2	7							K	4			K	3
Brachyscome ciliaris var. *subintegrifolia*			R	3	10			R	5	K	1	R	4				
Brachyscome cuneifolia	Wedge-leaf Daisy			1	15											U	15
Brachyscome exilis	Slender Daisy			1	21											U	21
Brachyscome goniocarpa	Dwarf Daisy			1	6											U	6
Brachyscome lineariloba	Hard-head Daisy			1	3									V	3		
Bromus arenarius	Sand Brome			2	8							X	1			U	7
Brunonia australis	Blue Pincushion			1	1							K	1				

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Bulbine bulbosa	Bulbine-lily			2	11					R	6					K	5
Burchardia umbellata	Milkmaids			1	2							K	2				
Caesia calliantha	Blue Grass-lily			1	11											R	11
Caladenia argocalla	White Beauty Spider-orchid	E	E	1	1							E	1				
Caladenia bicalliata ssp. *bicalliata*	Western Daddy-long-legs		R	1	2											R	2
Caladenia brumalis	Winter Spider-orchid	V	V	1	11											V	11
Caladenia cardiochila	Heart-lip Spider-orchid			1	3											R	3
Caladenia conferta	Coast Spider-orchid		E	1	1											E	1
Caladenia leptochila	Narrow-lip Spider-orchid			1	4							V	4				
Caladenia sp. Brentwood (R.J.Bates 53510)	Ghost Spider-orchid	E[1]	E[1]	1	1											E	1
Caladenia stricta	Upright Caladenia			1	9											R	9
Caladenia tentaculata	King Spider-orchid			1	1							R	1				
Calandrinia brevipedata	Short-stalked Purslane			1	10											K	10
Calandrinia calyptrata	Pink Purslane			2	29							U	25			K	4
Calandrinia eremaea	Dryland Purslane			1	1									U	1		
Calandrinia granulifera	Pigmy Purslane			2	3									U	1	Q	2
Calandrinia volubilis	Twining Purslane			1	1							T	1				
Callistemon teretifolius	Needle Bottlebrush			1	2							U	2				
Callitris gracilis	Southern Cypress Pine			1	4									U	4		
Calocephalus citreus	Lemon Beauty-heads			4	50			U	8	V	2	U	39			K	1
Calostemma purpureum	Pink Garland-lily			1	5											R	5
Calytrix involucrata	Cup Fringe-myrtle			2	12									E	1	R	11
Carex bichenoviana	Notched Sedge			2	5							K	4	U	1		
Carex breviculmis	Short-stem Sedge			2	6			R	1			R	5				
Carex inversa var. *major*	Knob Sedge		R	2	2			R	1			R	1				
Cassinia arcuata	Drooping Cassinia			3	19					R	3	U	10			U	6
Cassinia complanata	Sticky Cassinia			1	3											U	3
Cassytha glabella f. *dispar*	Slender Dodder-laurel			1	1							R	1				
Centrolepis cephaloformis ssp. *cephaloformis*	Cushion Centrolepis		R	2	5							R	2			E	3
Centrolepis polygyna	Wiry Centrolepis			2	12							R	8			Q	4
Chamaescilla corymbosa var. *corymbosa*	Blue Squill			3	15					R	4	R	6			R	5
Cheilanthes austrotenuifolia	Annual Rock-fern			1	4											Q	4
Cheilanthes distans	Bristly Cloak-fern			1	2							R	2				
Cheilanthes lasiophylla	Woolly Cloak-fern			1	5					U	5						
Cheilanthes sieberi ssp. *sieberi*	Narrow Rock-fern			1	1					K	1						
Cheiranthera alternifolia	Hand-flower			2	7							T	1			K	6
Chenopodium curvispicatum	Cottony Goosefoot			1	1							E	1				
Chenopodium nitrariaceum	Nitre Goosefoot			1	2							X	2				
Choretrum glomeratum var. *chrysanthum*	Yellow-flower Sour-bush		R	1	1							T	1				
Chrysocephalum baxteri	White Everlasting			1	2							R	2				
Chrysocephalum semipapposum	Clustered Everlasting			3	79					U	21	Q	49			R	9
Codonocarpus pyramidalis	Slender Bell-fruit	V	E	1	1					E	1						
Comesperma scoparium	Broom Milkwort			1	1											T	1
Convolvulus angustissimus ssp. *peninsularum*	Grassland Bindweed			1	2							U	2				
Convolvulus remotus	Grassy Bindweed			1	9											Q	9
Correa glabra var. *turnbullii*	Rock Correa			1	5							R	5				
Craspedia variabilis	Billy-buttons			2	9					R	2	R	7				
Crassula closiana	Stalked Crassula			2	9					R	1	R	8				
Cressa cretica	Rosinweed			1	1							V	1				
Cryptandra sp. Long hypanthium (C.R. Alcock 10626)	Long-flower Cryptandra		R	3	53			R	5	K	8	R	40				
Cryptandra tomentosa (NC) [2]	Heath Cryptandra			1	2											R	2
Cullen parvum	Small Scurf-pea	E	V	1	2							E	2				
Cymbonotus preissianus	Austral Bear's-ear			4	24			V	1	K	3	R	18			K	2
Cymbopogon ambiguus	Lemon-grass			1	3					R	3						
Cynoglossum suaveolens	Sweet Hound's-tongue			2	14							R	12			K	2
Cyperus gymnocaulos	Spiny Flat-sedge			1	2											R	2
Cyperus laevigatus	Bore-drain Sedge			1	1							K	1				
Cyperus tenellus	Tiny Flat-sedge			1	1							R	1				
Dampiera lanceolata var. *lanceolata*	Grooved Dampiera			1	2							E	2				
Dampiera rosmarinifolia	Rosemary Dampiera			1	2									R	2		
Daviesia benthamii ssp. *humilis*	Mallee Bitter-pea		R	3	5					R	1	E	1			K	3

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Daviesia genistifolia	Broom Bitter-pea			2	4			U	2			U	2				
Daviesia leptophylla	Narrow-leaf Bitter-pea			1	2							R	2				
Derwentia decorosa	Showy Speedwell		R	1	1			R	1								
Dianella longifolia var. *grandis*	Pale Flax-lily		R	1	1							T	1				
Dichelachne crinita	Long-hair Plume-grass			2	9							R	5			E	4
Dillwynia hispida	Red Parrot-pea			1	1											K	1
Disphyma crassifolium ssp. *clavellatum*	Round-leaf Pigface			1	1			R	1								
Dissocarpus biflorus var. *biflorus*	Two-horn Saltbush			3	4					K	1	K	1			K	2
Distichlis distichophylla	Emu-grass			2	16							K	13			R	3
Diuris behrii	Behr's Cowslip Orchid		R	1	1			R	1								
Diuris orientis	Wallflower Donkey-orchid			1	7											R	7
Diuris palustris	Little Donkey-orchid			1	23											U	23
Diuris pardina	Spotted Donkey-orchid			2	4							R	1			T	3
Dodonaea bursariifolia	Small Hop-bush			2	7									V	1	K	6
Dodonaea hexandra	Horned Hop-bush			1	2							K	2				
Dodonaea lobulata	Lobed-leaf Hop-bush			1	13					U	13						
Dodonaea procumbens	Trailing Hop-bush	V	V	2	5					V	1	V	4				
Dodonaea stenozyga	Desert Hop-bush			1	2											K	2
Dodonaea subglandulifera		E	E	1	1					E	1						
Dodonaea viscosa ssp. *cuneata*	Wedge-leaf Hop-bush			1	1							K	1				
Drosera auriculata	Tall Sundew			1	6							U	6				
Drosera glanduligera	Scarlet Sundew			2	12							R	4			R	8
Drosera peltata	Pale Sundew			2	8							U	6			R	2
Echinopogon ovatus	Rough-beard Grass		R	1	1							R	1				
Elachanthus pusillus	Elachanth			4	10			R	3	U	2	R	3			K	2
Eleocharis acuta	Common Spike-rush			3	3			V	1			R	1			K	1
Elymus scabrus var. *scabrus*	Native Wheat-grass			2	9					R	8					E	1
Enneapogon nigricans	Black-head Grass			1	1											R	1
Enteropogon acicularis	Umbrella Grass			2	8							Q	7			Q	1
Epilobium billardierianum ssp. *billardierianum*	Robust Willow-herb			2	3					K	1	R	2				
Eragrostis australasica	Cane-grass			1	3							K	3				
Eremophila behriana	Rough Emubush			1	4											E	4
Eremophila deserti	Turkey-bush			1	6											Q	6
Eremophila glabra ssp. *glabra*	Tar Bush			1	5											K	5
Eremophila longifolia	Weeping Emubush			1	1									V	1		
Eremophila serrulata	Green Emubush			1	4					R	4						
Eremophila subfloccosa ssp. Glandulosa (R.Bates 32961)	Green-flower Emubush		R	1	1							R	1				
Eriochilus cucullatus	Parson's Bands			1	1					R	1						
Eriochiton sclerolaenoides	Woolly-fruit Bluebush			1	1											K	1
Eriochlamys behrii	Woolly Mantle			1	2			T	2								
Eryngium rostratum	Blue Devil		V	1	18							V	18				
Eucalyptus albens	White Box		R	1	1			R	1								
Eucalyptus calycogona ssp. *trachybasis*	Square-fruit Mallee			2	9							R	5			V	4
Eucalyptus camaldulensis var. *camaldulensis*	River Red Gum			1	1											V	1
Eucalyptus dumosa	White Mallee			2	21									V	5	V	16
Eucalyptus goniocalyx ssp. *goniocalyx*	Long-leaf Box			1	8							U	8				
Eucalyptus gracilis	Yorrell			1	2									V	2		
Eucalyptus incrassata	Ridge-fruited Mallee			2	9							R	5	U	4		
Eucalyptus largiflorens	River Box			2	4							V	2	V	2		
Eucalyptus leucoxylon ssp. *pruinosa*	Inland South Australian Blue Gum			1	8					U	8						
Eucalyptus macrorhyncha ssp. *macrorhyncha*	Red Stringybark		R	1	4							R	4				
Eucalyptus microcarpa	Grey Box			1	7							R	7				
Eucalyptus odorata	Peppermint Box			1	1											E	1
Eucalyptus oleosa (NC) [3]	Red Mallee			2	4			R	3					R	1		
Eucalyptus phenax (NC) [4]	Sessile-fruit White Mallee			1	1									R	1		
Eucalyptus porosa	Mallee Box			1	2									U	2		
Eucalyptus socialis (NC) [5]	Beaked Red Mallee			1	6									U	6		
Euphrasia collina ssp. *osbornii*	Osborn's Eyebright	E	E	2	8							E	4			E	4
Euphrasia collina ssp. *tetragona*	Coast Eyebright			1	6											U	6
Eutaxia diffusa	Large-leaf Eutaxia			4	10			R	3	U	2	E	3			R	2
Eutaxia microphylla var. *microphylla* (prostrate)	Common Eutaxia			1	3							K	3				
Exocarpos aphyllus	Leafless Cherry			1	4									V	4		

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Exocarpos cupressiformis	Native Cherry			2	26							U	22			U	4
Frankenia sessilis	Small-leaf Sea-heath			1	1							K	1				
Gahnia filum	Thatching Grass			2	17									R	1	U	16
Gahnia lanigera	Black Grass Saw-sedge			2	11							Q	10	R	1		
Gahnia trifida	Cutting Grass			1	1					V	1						
Galium gaudichaudii	Rough Bedstraw			1	5											Q	5
Geijera linearifolia	Sheep Bush			1	2									R	2		
Genoplesium rufum	Red Midge-orchid			1	3											R	3
Glischrocaryon behrii	Golden Pennants			2	3							K	1			Q	2
Glischrocaryon flavescens	Yellow Pennants			1	2					R	2						
Glycine rubiginosa	Twining Glycine			1	4											Q	4
Gonocarpus mezianus	Broad-leaf Raspwort			1	1					R	1						
Goodenia albiflora	White Goodenia			3	27			U	6	V	2	U	19				
Goodenia amplexans	Clasping Goodenia			1	3			R	3								
Goodenia blackiana	Native Primrose			2	62							R	37			U	25
Goodenia pinnatifida	Cut-leaf Goodenia			2	118					U	24	U	94				
Goodenia pusilliflora	Small-flower Goodenia			1	26											U	26
Goodia medicaginea	Golden-tip			1	2											R	2
Grammosolen dixonii				1	2							R	2				
Grevillea huegelii	Comb Grevillea			1	3											K	3
Grevillea ilicifolia ssp. *ilicifolia*	Holly-leaf Grevillea			4	25			T	3			V	4	K	1	U	17
Gyrostemon thesioides	Broom Wheel-fruit			1	1											R	1
Haeckeria punctulata	Sticky Haeckeria		R	2	4			R	1	K	3						
Haegiela tatei	Small Nut-heads		R	2	4							K	2			R	2
Hakea carinata	Erect Hakea			1	9							U	9				
Hakea mitchellii	Heath Needlebush			2	3									R	1	V	2
Hakea rugosa	Dwarf Hakea			3	7					V	1	V	2			R	4
Halgania andromedifolia	Scented Blue-flower			1	1							V	1				
Halosarcia flabelliformis	Bead Samphire	V	V	2	3							T	1			T	2
Halosarcia halocnemoides ssp. *halocnemoides*	Grey Samphire			1	10							K	10				
Halosarcia indica ssp. *leiostachya*	Brown-head Samphire			1	13											Q	13
Halosarcia pergranulata ssp. *pergranulata*	Black-seed Samphire			1	12											Q	12
Halosarcia pruinosa	Bluish Samphire			1	1									K	1		
Halosarcia pterygosperma ssp. *pterygosperma*	Winged-seed Samphire			1	2											K	2
Hardenbergia violacea	Native Lilac			1	6							U	6				
Helichrysum leucopsideum	Satin Everlasting			2	8			R	5					U	3		
Hemichroa diandra	Mallee Hemichroa			2	4									V	3	R	1
Hemichroa pentandra	Trailing Hemichroa			2	7									R	3	R	4
Hibbertia exutiacies	Prickly Guinea-flower			1	2			U	2								
Hibbertia pallidiflora	Round-leaf Guinea-flower			1	5											U	5
Homoranthus wilhelmii	Wilhelm's Homoranthus			1	2											R	2
Hyalosperma semisterile	Orange Sunray			1	5											K	5
Hydrocotyle callicarpa	Tiny Pennywort			1	9											Q	9
Hydrocotyle foveolata	Yellow Pennywort			1	1											Q	1
Hydrocotyle laxiflora	Stinking Pennywort			1	1					K	1						
Hydrocotyle medicaginoides	Medic Pennywort			1	16											R	16
Hydrocotyle pilifera var. *glabrata*	Buttercup Pennywort			1	16											U	16
Hymenanthera dentata	Tree Violet			1	4							R	4				
Isolepis cernua	Nodding Club-rush			2	4							R	3			K	1
Isolepis marginata	Little Club-rush			1	12							K	12				
Isolepis platycarpa	Flat-fruit Club-rush			1	1											R	1
Isotoma scapigera	Salt Isotome		R	1	2											R	2
Ixodia achillaeoides ssp. *achillaeoides*	Coast Ixodia			1	22											U	22
Juncus flavidus	Yellow Rush			2	8			R	3			V	5				
Juncus kraussii	Sea Rush			1	1											Q	1
Juncus radula	Hoary Rush		V	1	1							V	1				
Kennedia prostrata	Scarlet Runner			1	1					U	1						
Kunzea pomifera	Muntries			1	1									U	1		
Lagenophora huegelii	Coarse Bottle-daisy			3	22			R	1	R	2					U	19
Lasiopetalum baueri	Slender Velvet-bush			1	3							K	3				
Lasiopetalum behrii	Pink Velvet-bush			1	2							U	2				
Lawrencia spicata	Salt Lawrencia			1	1											R	1
Lawrencia squamata	Thorny Lawrencia			1	1									K	1		
Lepidosperma curtisiae	Little Sword-sedge			1	2							R	2				

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Leptomeria aphylla	Leafless Currant-bush			1	1							E	1				
Leptorhynchos elongatus	Lanky Buttons		R	1	2											E	2
Leptorhynchos squamatus ssp. *squamatus*	Scaly Buttons			1	3					R	3						
Leptorhynchos tetrachaetus	Little Buttons			4	37			U	8	K	3	U	24			T	2
Leptorhynchos waitzia	Button Immortelle			1	1					K	1						
Leptospermum coriaceum	Dune Tea-tree			1	2											K	2
Leucopogon clelandii	Cleland's Beard-heath		R	1	1											T	1
Leucopogon cordifolius	Heart-leaf Beard-heath			1	15											R	15
Levenhookia dubia	Hairy Stylewort			3	37					R	2	R	28			R	7
Linum marginale	Native Flax			3	22			U	8	U	2	U	12				
Lobelia alata	Angled Lobelia			1	1					R	1						
Logania linifolia	Flax-leaf Logania			1	1											K	1
Logania minor	Spoon-leaf Logania			1	8											U	8
Logania saxatilis	Rock Logania		R	1	1							R	1				
Lomandra collina	Sand Mat-rush			1	1			R	1								
Lomandra densiflora	Soft Tussock Mat-rush			2	11					U	5					T	6
Lomandra effusa	Scented Mat-rush			2	32			R	29					R	3		
Lomandra leucocephala ssp. *robusta*	Woolly Mat-rush			2	2							T	1	R	1		
Lomandra micrantha ssp. *micrantha*	Small-flower Mat-rush			1	16							K	16				
Lomandra nana	Small Mat-rush			1	8							K	8				
Lomandra sororia	Sword Mat-rush			2	10					K	2	V	8				
Lotus australis	Austral Trefoil			1	1									U	1		
Lycium australe	Australian Boxthorn			1	5											K	5
Maireana aphylla	Cotton-bush			4	23					R	5	V	16	V	1	K	1
Maireana appressa	Pale-fruit Bluebush			2	4					U	1	V	3				
Maireana enchylaenoides	Wingless Fissure-plant			1	1									U	1		
Maireana erioclada	Rosy Bluebush			1	2									R	2		
Maireana excavata	Bottle Fissure-plant		V	2	29			K	6			E	23				
Maireana rohrlachii	Rohrlach's Bluebush		R	3	9					R	2	V	6			K	1
Marsilea drummondii	Common Nardoo			1	1							K	1				
Melaleuca acuminata ssp. *acuminata*	Mallee Honey-myrtle			1	2									K	2		
Melaleuca brevifolia	Short-leaf Honey-myrtle			1	3							K	3				
Melaleuca gibbosa	Slender Honey-myrtle			1	23											U	23
Melaleuca lanceolata	Dryland Tea-tree			1	8									U	8		
Melaleuca pauperiflora ssp. *mutica*	Boree			2	8							V	3			V	5
Mentha satureioides	Native Pennyroyal		R	1	1							V	1				
Microcybe pauciflora ssp. *pauciflora*	Yellow Microcybe			2	5							K	1			U	4
Microlaena stipoides var. *stipoides*	Weeping Rice-grass			1	1							R	1				
Microlepidium pilosulum	Hairy Shepherd's-purse		R	1	2											K	2
Millotia muelleri	Common Bow-flower			1	3							K	3				
Millotia perpusilla	Tiny Bow-flower			1	1					R	1						
Millotia tenuifolia var. *tenuifolia*	Soft Millotia			1	9							R	9				
Mimulus repens	Creeping Monkey-flower			1	6							T	6				
Muehlenbeckia florulenta	Lignum			3	13							K	8	R	1	K	4
Myoporum insulare	Common Boobialla			1	6							R	6				
Myoporum parvifolium	Creeping Boobialla		R	1	4											R	4
Myoporum platycarpum ssp. *platycarpum*	False Sandalwood			2	5							Q	3			Q	2
Myoporum viscosum (NC) [6]	Sticky Boobialla			2	6							Q	2			R	4
Myosotis australis	Austral Forget-me-not			1	6											Q	6
Nicotiana maritima	Coast Tobacco			1	6											Q	6
Olearia calcarea	Crinkle-leaf Daisy-bush			1	2					R	2						
Olearia floribunda var. *floribunda*	Heath Daisy-bush			1	3											K	3
Olearia lepidophylla	Clubmoss Daisy-bush			1	1											K	1
Olearia muelleri	Mueller's Daisy-bush			1	6											K	6
Olearia pannosa ssp. *pannosa*	Silver Daisy-bush	V	V	4	17			V	5	V	1	V	4			V	7
Olearia picridifolia	Rasp Daisy-bush		R	1	1					R	1						
Olearia ramulosa	Twiggy Daisy-bush			1	2					R	2						
Olearia teretifolia	Cypress Daisy-bush			1	4							R	4				
Olearia tubuliflora	Rayless Daisy-bush			1	2							R	2				
Omphalolappula concava	Burr Stickseed			1	1											K	1
Ophioglossum lusitanicum	Austral Adder's-tongue			3	10					U	1	U	3			R	6
Ozothamnus retusus	Notched Bush-everlasting			2	13							U	7			K	6
Panicum effusum var. *effusum*	Hairy Panic			1	1											K	1
Parietaria cardiostegia	Mallee Smooth-nettle			1	9											Q	9
Pelargonium australe	Australian Pelargonium			1	1									U	1		

Scientific Name	Common Name	Aus	SA	Tot Regs	Tot Recs	EP	EP Tot	FR	FR Tot	MU	MU Tot	NL	NL Tot	SL	SL Tot	YP	YP Tot
Persicaria decipiens	Slender Knotweed			1	1							T	1				
Phebalium glandulosum ssp. *glandulosum*	Glandular Phebalium		E	1	1											E	1
Philotheca angustifolia ssp. *angustifolia*	Narrow-leaf Wax-flower		R	1	2					R	2						
Philotheca pungens	Prickly Wax-flower			1	7											U	7
Philotheca verrucosa	Bendigo Wax-flower		V	1	5							V	5				
Phlegmatospermum eremaeum	Spreading Cress		R	1	1							V	1				
Phyllanthus australis	Southern Spurge			1	6											R	6
Phyllanthus saxosus	Rock Spurge			3	19			U	3	V	7	R	9				
Picris angustifolia ssp. *angustifolia*	Coast Picris			1	11											Q	11
Pimelea curviflora var.	Curved Riceflower		R	2	5			K	1			K	4				
Pimelea humilis	Low Riceflower			1	1											K	1
Pittosporum angustifolium	Native Apricot			1	12									R	12		
Plantago aff. *debilis*	Shade Plantain			1	1			R	1								
Plantago gaudichaudii	Narrow-leaf Plantain			3	18			R	2	T	1	U	15				
Plantago hispida	Hairy Plantain			1	5											Q	5
Pleuropappus phyllocalymmeus	Silver Candles	V	V	1	1											V	1
Pleurosorus rutifolius	Blanket Fern			2	8					R	2	U	6				
Poa crassicaudex	Thick-stem Tussock-grass			1	3					U	3						
Poa drummondiana	Knotted Poa		R	2	9							X	4			K	5
Poa fax	Scaly Poa		R	2	5							K	1			R	4
Podolepis canescens	Grey Copper-wire Daisy			1	15											U	15
Podolepis jaceoides	Showy Copper-wire Daisy		R	2	14			R	1							V	13
Podolepis muelleri	Button Podolepis		V	1	1							K	1				
Podolepis rugata var. *littoralis*	Coast Copper-wire Daisy			1	5											R	5
Podolepis rugata var. *rugata*	Pleated Copper-wire Daisy			1	1			K	1								
Podolepis tepperi	Delicate Copper-wire Daisy			1	6							R	6				
Pogonolepis muelleriana	Stiff Cup-flower			2	15									U	3	U	12
Pomaderris paniculosa ssp. *paniculosa*	Mallee Pomaderris			1	27							Q	27				
Poranthera microphylla	Small Poranthera			1	10											Q	10
Prasophyllum calcicola	Limestone Leek-orchid		V	1	1											V	1
Prasophyllum elatum	Tall Leek-orchid			1	1											R	1
Prasophyllum fitzgeraldii	Fitzgerald's Leek-orchid			2	3							R	1			V	2
Prasophyllum goldsackii	Goldsack's Leek-orchid		R	1	2											R	2
Prasophyllum occidentale	Plains Leek-orchid			1	1											K	1
Prasophyllum occultans	Hidden Leek-orchid		R	1	1											R	1
Prasophyllum odoratum	Scented Leek-orchid			1	2							R	2				
Prostanthera behriana	Downy Mintbush			1	5							R	5				
Prostanthera serpyllifolia ssp. *microphylla*	Small-leaf Mintbush			1	2											V	2
Prostanthera serpyllifolia ssp. *serpyllifolia*	Thyme Mintbush			1	2											R	2
Prostanthera serpyllifolia ssp. *serpyllifolia* (purplish-green flowers)	Thyme Mintbush			1	1											R	1
Prostanthera striatiflora	Striated Mintbush			1	1					R	1						
Pterostylis boormanii	Boorman's Greenhood			1	3											E	3
Pterostylis dolichochila	Mallee Shell-orchid			1	1											R	1
Pterostylis erythroconcha	Red Shell-orchid			1	6											U	6
Pterostylis pedunculata	Maroon-hood			1	4											U	4
Pterostylis plumosa	Bearded Greenhood			2	3							U	1			Q	2
Pterostylis pusilla	Small Rusty-hood			1	5											Q	5
Ptilotus erubescens	Hairy-tails		R	2	22					R	3	T	19				
Ptilotus obovatus var. *obovatus*	Silver Mulla Mulla			1	1											Q	1
Pultenaea acerosa	Bristly Bush-pea			1	9											U	9
Pultenaea kraehenbuehlii	Tothill Bush-pea		R	1	33							R	33				
Pultenaea largiflorens	Twiggy Bush-pea			1	41							U	41				
Pultenaea rigida var. *rigida*	Rigid Bush-pea			1	18											U	18
Pultenaea vestita	Feather Bush-pea			1	1											R	1
Pycnosorus globosus	Drumsticks		V	3	6			T	2	E	3	E	1				
Pyrorchis nigricans	Black Fire-orchid			1	1											K	1
Ranunculus lappaceus	Native Buttercup			1	1							K	1				
Ranunculus pachycarpus	Thick-fruit Buttercup			1	4							R	4				
Ranunculus sessiliflorus var. *sessiliflorus*	Annual Buttercup			1	14											U	14
Rhagodia parabolica	Mealy Saltbush			1	11									V	11		
Rhagodia spinescens	Spiny Saltbush			1	8							K	8				

Scientific Name	Common Name	Aus	SA	Tot Regs	Tot Recs	EP	EP Tot	FR	FR Tot	MU	MU Tot	NL	NL Tot	SL	SL Tot	YP	YP Tot
Rhodanthe laevis	Smooth Daisy			1	3											Q	3
Rhodanthe stuartiana	Clay Everlasting			1	2											K	2
Rumex dumosus	Wiry Dock		R	1	3			T	3								
Samolus repens	Creeping Brookweed			2	7					R	2			U	5		
Santalum acuminatum	Quandong			1	23							U	23				
Santalum murrayanum	Bitter Quandong			1	2											R	2
Scaevola angustata	Coast Fanflower			1	2											U	2
Scaevola linearis ssp. *confertifolia*	Bundled Fanflower			1	2											E	2
Schoenoplectus litoralis	Shore Club-rush			1	1							R	1				
Schoenoplectus pungens	Spiky Club-rush			2	5					U	1	R	4				
Schoenus apogon	Common Bog-rush			1	2											T	2
Schoenus breviculmis	Matted Bog-rush			1	2							R	2				
Schoenus deformis	Small Bog-rush			1	5											U	5
Schoenus nanus	Little Bog-rush			2	8							K	3			K	5
Schoenus nitens	Shiny Bog-rush			2	4							K	1			R	3
Sclerolaena diacantha	Grey Bindyi			1	1									R	1		
Sclerolaena uniflora	Small-spine Bindyi			1	1									K	1		
Sclerostegia tenuis	Slender Samphire			1	1							Q	1				
Sebaea ovata	Yellow Sebaea			2	3					Q	1	Q	2				
Senecio anethifolius (NC) [7]	Feathery Groundsel			1	2					R	2						
Senecio macrocarpus	Large-fruit Groundsel	V	V	1	1											E	1
Senecio odoratus	Scented Groundsel			1	1							U	1				
Senecio picridioides	Purple-leaf Groundsel			2	4							K	1			U	3
Senecio quadridentatus	Cotton Groundsel			1	4											R	4
Senecio tenuiflorus (NC) [8]	Woodland Groundsel			4	23			R	3	R	1	Q	11			R	8
Setaria constricta	Knotty-butt Paspalidium			1	1											Q	1
Sida intricata	Twiggy Sida			2	2							R	1			K	1
Sida petrophila	Rock Sida			1	2											T	2
Solenogyne dominii	Smooth Solenogyne			1	7							R	7				
Sonchus hydrophilus	Native Sow-thistle			1	1							Q	1				
Spyridium subochreatum var. *subochreatum*	Velvet Spyridium			1	1									V	1		
Stackhousia annua	Annual Candles	V	V	1	2											V	2
Stackhousia spathulata	Coast Candles			1	2											K	2
Stenanthemum leucophractum	White Cryptandra			1	8											R	8
Stenopetalum lineare	Narrow Thread-petal			1	5							R	5				
Swainsona behriana	Behr's Swainson-pea		V	2	3					T	1	T	2				
Swainsona stipularis	Orange Swainson-pea			1	1											E	1
Swainsona tephrotricha	Ashy-haired Swainson-pea		R	1	1					E	1						
Templetonia aculeata	Spiny Mallee-pea			2	8			U	4			R	4				
Templetonia sulcata	Flat Mallee-pea			1	1											V	1
Tetraria capillaris	Hair Sedge			1	1											K	1
Teucrium racemosum	Grey Germander			1	2					U	2						
Teucrium sessiliflorum	Mallee Germander			2	5					R	4			V	1		
Thelymitra grandiflora	Great Sun-orchid			1	1							R	1				
Thelymitra luteocilium	Yellow-tuft Sun Orchid			1	1											Q	1
Thelymitra rubra	Salmon Sun-orchid			1	5							R	5				
Themeda triandra	Kangaroo Grass			1	3											K	3
Thomasia petalocalyx	Paper-flower			1	1											K	1
Thryptomene micrantha	Ribbed Thryptomene			1	3											V	3
Thysanotus baueri	Mallee Fringe-lily			3	29							R	20	E	1	K	8
Thysanotus tenellus	Grassy Fringe-lily			1	5							R	5				
Trachymene cyanopetala	Purple Trachymene			3	3							R	1	R	1	T	1
Trachymene pilosa	Dwarf Trachymene			1	1							R	1				
Tricoryne elatior	Yellow Rush-lily			2	10					Q	3	R	7				
Triglochin calcitrapum	Spurred Arrowgrass			2	3									R	1	Q	2
Triglochin minutissumum	Tiny Arrowgrass		R	1	3											R	3
Triglochin mucronatum	Prickly Arrowgrass			2	6									K	1	Q	5
Triglochin striatum	Streaked Arrowgrass			1	4							V	4				
Triglochin trichophorum				1	2											Q	2
Triodia compacta	Spinifex			1	11											U	11
Trymalium wayae	Grey Trymalium			1	9							U	9				
Typha domingensis	Narrow-leaf Bulrush			1	7							Q	7				
Velleia paradoxa	Spur Velleia			2	31					Q	4	Q	27				
Veronica plebeia	Trailing Speedwell			1	5							U	5				
Vittadinia blackii	Narrow-leaf New Holland Daisy			2	17					U	13					K	4

Scientific Name	Common Name	Aus	SA	Tot Regs	Tot Recs	EP	EP Tot	FR	FR Tot	MU	MU Tot	NL	NL Tot	SL	SL Tot	YP	YP Tot
Wahlenbergia communis	Tufted Bluebell			1	8											Q	8
Wahlenbergia multicaulis	Tadgell's Bluebell			1	1							E	1				
Westringia eremicola	Slender Westringia			1	1											R	1
Westringia rigida	Stiff Westringia			1	4									R	4		
Whalleya proluta	Rigid Panic			1	2											K	2
Wilsonia humilis var. *humilis*	Silky Wilsonia			2	25									U	10	U	15
Wilsonia rotundifolia	Round-leaf Wilsonia			2	5							E	3			E	2
Xerochrysum bracteatum	Golden Everlasting			1	3							K	3				
Zygophyllum apiculatum	Pointed Twinleaf			1	3											Q	3
Zygophyllum glaucum	Pale Twinleaf			2	5									T	1	K	4
Total Taxa/Records	**494**	**17**	**81**		3527	**2**	4	**55**	187	**94**	315	**229**	1611	**67**	162	**250**	1248

Notes
1 = Unofficial rating only for *Caladenia* sp. Brentwood (R.J.Bates 53510), as it is yet to be formally listed.
2 = Either *Cryptandra* sp. Simple-haired calyx (D.E. Symon 8875) or *C. tomentosa*, both R in YP.
3 = *Eucalyptus oleosa* ssp. *ampliata* in FR (rated R) and *E. oleosa* ssp. *oleosa* in SL (rated R).
4 = *Eucalyptus phenax* ssp. *compressa* V in SL and *E. phenax* ssp. *phenax* R in SL.
5 = Either *Eucalyptus socialis* ssp. Glossy green (P.J.Lang 804) or *E. socialis* ssp. *socialis*, both U in SL.
6 = *Myoporum viscosum* in YP (rated R) and *M.* sp. Petiolatum (R.Taylor 484) in NL (rated Q).
7 = Either *Senecio anethifolius* ssp. *anethifolius* (rated K in MU) or *S. anethifolius* ssp. *brevibracteolatus* is (rated R in MU).
8 = Either *Senecio dolichocephalus* and *S. phelleus*, which have the same regional ratings, except the latter is not in YP.

APPENDIX 8. NATIVE PLANT SPECIES RECORDED IN AT LEAST 10% OF ALL SITES IN THE MID NORTH AND YORKE PENINSULA BIOLOGICAL SURVEY STUDY AREA.

I Indigenous/alien designation. Naturalised alien taxa are designated with an asterisk (*).
Frequency Number of sites where each species was recorded.
% of Sites Number of sites where each species was recorded as a percentage of the total 1330 sites in the Mid North and Yorke Peninsula Biological Survey Study Area.
Comments For instances where several taxonomic entities have been combined (due to difficulties in their field identification), details are provided here of the taxa names as they appear in the DEH SURVEY Database and their individual frequencies.

I	Scientific Name	Common Name	Frequency	% of Sites	Comments
*	*Avena barbata*	Bearded Oat	672	50.5	
*	*Sonchus oleraceus*	Common Sow-thistle	599	45.0	
	Dianella brevicaulis/revoluta var.	Black-anther Flax-lily	512	38.5	*Dianella brevicaulis/revoluta* var. – 72; *D. brevicaulis* – 126; *D. revoluta* (NC) – 55; *D. revoluta* var. – 24; *D. revoluta* var. *revoluta* - 235
	Enchylaena tomentosa var. *tomentosa*	Ruby Saltbush	445	33.5	*Enchylaena tomentosa* var. – 91; *E. tomentosa* var. *tomentosa* - 354
	Oxalis perennans	Native Sorrel	399	30.0	
	Austrodanthonia caespitosa	Common Wallaby-grass	395	29.7	
*	*Bromus rubens*	Red Brome	368	27.7	
*	*Echium plantagineum*	Salvation Jane	362	27.2	
*	*Hypochaeris glabra*	Smooth Cat's Ear	356	26.8	
*	*Anagallis arvensis*	Pimpernel	352	26.5	
*	*Lycium ferocissimum*	African Boxthorn	352	26.5	
*	*Moraea setifolia*	Thread Iris	343	25.8	
	Daucus glochidiatus	Native Carrot	331	24.9	
*	*Bromus diandrus*	Great Brome	313	23.5	
	Austrostipa elegantissima	Feather Spear-grass	292	22.0	
*	*Vulpia myuros* f. *myuros*	Rat's-tail Fescue	292	22.0	
	Melaleuca lanceolata	Dryland Tea-tree	274	20.6	*Melaleuca lanceolata* – 39; *M. lanceolata* ssp. *lanceolata* (NC) - 235
	Bursaria spinosa ssp. *spinosa*	Sweet Bursaria	271	20.4	
*	*Galium murale*	Small Bedstraw	271	20.4	
	Crassula colligata ssp.		269	20.2	*Crassula colligata* ssp. *colligata* – 3; *C. colligata* ssp. *lamprosperma* – 34; *C. sieberiana* ssp. *tetramera* (NC) - 232
	Clematis microphylla var. *microphylla*	Old Man's Beard	265	19.9	
	Arthropodium strictum	Common Vanilla-lily	261	19.6	
	Maireana enchylaenoides	Wingless Fissure-plant	257	19.3	
	Lomandra effusa	Scented Mat-rush	248	18.6	
*	*Medicago minima* var. *minima*	Little Medic	246	18.5	
	Acrotriche patula	Prickly Ground-berry	244	18.3	
	Lomandra multiflora ssp. *dura*	Hard Mat-rush	243	18.3	
	Helichrysum leucopsideum	Satin Everlasting	234	17.6	
*	*Rostraria cristata*	Annual Cat's-tail	234	17.6	
*	*Trifolium campestre*	Hop Clover	231	17.4	
	Rhagodia candolleana ssp. *candolleana*	Sea-berry Saltbush	230	17.3	*Rhagodia candolleana* ssp. – 1; *R. candolleana* ssp. *candolleana* - 229
*	*Lolium rigidum*	Wimmera Ryegrass	218	16.4	
	Rhagodia parabolica	Mealy Saltbush	218	16.4	
	Einadia nutans ssp.	Climbing Saltbush	217	16.3	*Einadia nutans* ssp. – 100; *Einadia nutans* ssp. *nutans* - 117
	Pittosporum angustifolium	Native Apricot	217	16.3	
	Austrostipa scabra ssp.	Rough Spear-grass	214	16.1	*Austrostipa scabra* ssp. – 56; *A. scabra* ssp. *falcata* – 107; *A. scabra* ssp. *scabra* - 51
	Allocasuarina verticillata	Drooping Sheoak	213	16.0	
*	*Arctotheca calendula*	Cape Weed	213	16.0	
	Austrostipa nitida	Balcarra Spear-grass	207	15.6	
	Exocarpos aphyllus	Leafless Cherry	206	15.5	
	Tetragonia implexicoma	Bower Spinach	205	15.4	
*	*Carrichtera annua*	Ward's Weed	204	15.3	
	Pimelea serpyllifolia ssp. *serpyllifolia*	Thyme Riceflower	204	15.3	
*	*Salvia verbenaca* form	Wild Sage	201	15.1	*Salvia verbenaca* form – 104; *S. verbenaca* var. *verbenaca* - 97
	Threlkeldia diffusa	Coast Bonefruit	200	15.0	
*	*Trifolium angustifolium*	Narrow-leaf Clover	198	14.9	
*	*Trifolium arvense* var. *arvense*	Hare's-foot Clover	193	14.5	

I	Scientific Name	Common Name	Frequency	% of Sites	Comments
	Ptilotus spathulatus f. *spathulatus*	Pussy-tails	192	14.4	*Ptilotus spathulatus* f. – 71; *P. spathulatus* f. *spathulatus* - 121
	Austrostipa blackii	Crested Spear-grass	188	14.1	
	Beyeria lechenaultii	Pale Turpentine Bush	187	14.1	
*	*Hordeum glaucum*	Blue Barley-grass	183	13.8	
	Austrostipa eremophila	Rusty Spear-grass	181	13.6	
*	*Oxalis pes-caprae*	Soursob	178	13.4	
*	*Sisymbrium erysimoides*	Smooth Mustard	178	13.4	
	Carpobrotus rossii	Native Pigface	177	13.3	
	Olearia axillaris	Coast Daisy-bush	177	13.3	
	Senecio pinnatifolius	Variable Groundsel	177	13.3	
	Vittadinia gracilis	Woolly New Holland Daisy	174	13.1	
	Wahlenbergia luteola	Yellow-wash Bluebell	174	13.1	
	Acacia pycnantha	Golden Wattle	169	12.7	
	Goodenia pinnatifida	Cut-leaf Goodenia	168	12.6	
	Austrodanthonia setacea	Small-flower Wallaby-grass	163	12.3	
	Gahnia lanigera	Black Grass Saw-sedge	162	12.2	
*	*Silene nocturna*	Mediterranean Catchfly	161	12.1	
	Stackhousia monogyna	Creamy Candles	161	12.1	
	Acacia cupularis/ligulata		160	12.0	*Acacia cupularis* – 27; A. *cupularis/ligulata* – 4; *A. ligulata* – 108; *A. ligulata* (NC) - 21
*	*Carthamus lanatus*	Saffron Thistle	159	12.0	
	Eucalyptus odorata	Peppermint Box	159	11.9	
	Chrysocephalum apiculatum	Common Everlasting	158	12.0	
*	*Brachypodium distachyon*	False Brome	157	11.8	
*	*Lagurus ovatus*	Hare's Tail Grass	153	11.5	
*	*Minuartia mediterranea*	Slender Sandwort	148	11.1	
*	*Brassica tournefortii*	Wild Turnip	141	10.6	
*	*Medicago polymorpha* var. *polymorpha*	Burr-medic	140	10.5	
*	*Aira cupaniana*	Small Hair-grass	137	10.3	
*	*Linum strictum* ssp. *strictum*	Upright Yellow Flax	137	10.3	
	Eucalyptus gracilis	Yorrell	135	10.2	
	Microseris lanceolata	Yam Daisy	135	10.1	
	Austrostipa sp.	Spear-grass	134	10.2	
*	*Erodium botrys*	Long Heron's-bill	133	10.0	
*	*Erodium cicutarium*	Cut-leaf Heron's-bill	133	10.0	

APPENDIX 9. PROCLAIMED PLANTS* RECORDED AT SITES FROM ALL SURVEYS IN THE MID NORTH AND YORKE PENINSULA BIOLOGICAL SURVEY STUDY AREA IN DECREASING FREQUENCY OF OCCURRENCE.

***** Proclaimed plants refers to plants that require control for the protection of agriculture, the environment and public safety under the *Animal and Plant Control Act 1986*. This list is taken from the Department of Water, Land and Biodiversity Conservation website (http://www.dwlbc.sa.gov.au/biodiversity/pests/weeds/plants_list.html) and dated January 2004.

Freq Number of sites from all surveys in the Mid North and Yorke Peninsula Biological Survey Study Area where each taxon recorded.

Percent Percentage of all survey sites in the Mid North and Yorke Peninsula Biological Survey Study Area (total is 1330) where each taxon was recorded.

Action Required Action required for management of each proclaimed species under the *Animal and Plant Control Act 1986*.

Family	Scientific Name	Common Name	Freq	Percent	Action Required
BORAGINACEAE	*Echium plantagineum*	Salvation Jane	362	27.2	Notifiable in part of the State; Control required in part of the State only
SOLANACEAE	*Lycium ferocissimum*	African Boxthorn	352	26.5	
OXALIDACEAE	*Oxalis pes-caprae*	Soursob	178	13.4	Control required in part of the State only
LILIACEAE	*Asparagus asparagoides*	Bridal Creeper	119	8.9	
LABIATAE	*Marrubium vulgare*	Horehound	101	7.6	Control required in part of the State only
LILIACEAE	*Asphodelus fistulosus*	Onion Weed	91	6.8	Control required in part of the State only
COMPOSITAE	*Carduus tenuiflorus*	Slender Thistle	63	4.7	Control required in part of the State only
EUPHORBIACEAE	*Euphorbia terracina*	False Caper	56	4.2	
IRIDACEAE	*Moraea flaccida*	One-leaf Cape Tulip	33	2.5	Notifiable in part of the State
COMPOSITAE	*Oncosiphon suffruticosum*	Calomba Daisy	27	2.0	Notifiable in part of the State
OLEACEAE	*Olea europaea* ssp. *europaea*	Olive	26	2.0	
COMPOSITAE	*Cirsium vulgare*	Spear Thistle	18	1.4	Control required in part of the State only
ROSACEAE	*Rosa canina*	Dog Rose	16	1.2	Notifiable in part of the State
PINACEAE	*Pinus halepensis*	Aleppo Pine	15	1.1	Control required in part of the State only
BORAGINACEAE	*Amsinckia lycopsoides*	Bugloss Fiddle-neck	12	0.9	Notifiable in part of the State; Control required in part of the State only
RESEDACEAE	*Reseda lutea*	Cut-leaf Mignonette	11	0.8	Notifiable in part of the State
COMPOSITAE	*Silybum marianum*	Variegated Thistle	8	0.6	Control required in part of the State only
POLYGONACEAE	*Emex australis*	Three-corner Jack	7	0.5	
CRUCIFERAE	*Lepidium draba*	Hoary Cress	4	0.3	Notifiable throughout the State
COMPOSITAE	*Picnomon acarna*	Soldier Thistle	6	0.5	Control required in part of the State only
BORAGINACEAE	*Amsinckia calycina*	Hairy Fiddle-neck	4	0.3	Notifiable in part of the State; Control required in part of the State only
RANUNCULACEAE	*Adonis microcarpa*	Pheasant's Eye	3	0.2	Notifiable in part of the State; Control required in part of the State only
CRUCIFERAE	*Diplotaxis tenuifolia*	Lincoln Weed	2	0.2	Control required in part of the State only
LEGUMINOSAE	*Genista monspessulana*	Montpellier Broom	2	0.2	Control required in part of the State only
ROSACEAE	*Rosa rubiginosa*	Sweet Briar	2	0.2	Control required in part of the State only
IRIDACEAE	*Moraea miniata*	Two-leaf Cape Tulip	2	0.2	Notifiable in part of the State
LILIACEAE	*Allium triquetrum*	Three-cornered Garlic	1	0.1	Control required in part of the State only
LILIACEAE	*Asparagus declinatus*		1	0.1	
COMPOSITAE	*Chondrilla juncea*	Skeleton Weed	1	0.1	Notifiable in part of the State
RUBIACEAE	*Galium tricornutum*	Three-horned Bedstraw	1	0.1	Control required in part of the State only
CACTACEAE	*Opuntia robusta*	Wheel Pear	1	0.1	
ROSACEAE	*Rubus ulmifolius* ssp. *ulmifolius*	Blackberry	1	0.1	Control required in part of the State only
SOLANACEAE	*Solanum elaeagnifolium*	Silver-leaf Nightshade	1	0.1	Notifiable throughout the State
LEGUMINOSAE	*Ulex europaeus*	Gorse	1	0.1	
IRIDACEAE	*Watsonia meriana* var. *bulbillifera*	Bulbil Watsonia	1	0.1	Control required in part of the State only
COMPOSITAE	*Xanthium spinosum*	Bathurst Burr	1	0.1	

APPENDIX 10(a). PLANT TAXA RECORDED AT SITES USED IN THE FLORISTIC ANALYSIS AND THEIR SITE FREQUENCY WITHIN EACH FLORISTIC GROUP (Floristic Groups 1 - 44).

P Perennial taxa used in the floristic analysis (i.e. recorded at more than 3 sites) are designated with the letter P.
I Indigenous/alien designation. Naturalised alien taxa are designated with an asterisk (*).
Total Recs Total number of records of each taxa from all 1209 sites used in the floristic analysis.
Total Grps Total number of floristic groups in which each taxa occurs.
1 - 83 Floristic Group numbers (refer to Vegetation Chapter for descriptions of each group).

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
		Abutilon fraseri ssp. *diplotrichum*	Dwarf Lantern-bush	1	1																																	1											
		Abutilon fraseri ssp. *fraseri*	Dwarf Lantern-bush	1	1																								1																				
P		*Acacia acinacea*	Wreath Wattle	20	10	2					1			1				2	1			7			1		2		2										1											
		Acacia ancistrophylla var. *lissophylla*	Hook-leaf Wattle	3	2																																2	1											
		Acacia argyrophylla	Silver Mulga-bush	3	2							1																		2																				
P		*Acacia brachybotrya*	Grey Mulga-bush	17	13							1		1	1			2	1										1									1	2						1		3		
P		*Acacia calamifolia*	Wallowa	49	18		1					2		3	1		2	1				3			1		1		9	2									3			6	8	1				1	
P		*Acacia continua*	Thorn Wattle	22	12	1		1						1	1		1	8	2	2			1						1								1													
P		*Acacia cupularis*	Cup Wattle	26	12																																										4	1	
P		*Acacia cupularis/ligulata*		17	10	1								3						1			1															1	5										
P		*Acacia cyclops*	Western Coastal Wattle	13	6																										1																		
		Acacia enterocarpa	Jumping-jack Wattle	1	1																																												
		Acacia farinosa	Mealy Wattle	3	3																																												
		Acacia glandulicarpa	Hairy-pod Wattle	2	2	1								1																																			
		Acacia gracilifolia	Graceful Wattle	2	1																																												
P		*Acacia hakeoides*	Hakea Wattle	55	20	3			2		3	1		8			2	1				2					3		3	5	3						2	3	5				1					1	
P		*Acacia halliana*	Hall's Wattle	4	4				1																												1	1											
P		*Acacia iteaphylla*	Flinders Ranges Wattle	4	2																		2																											
P		*Acacia leiophylla*	Coast Golden Wattle	21	4																																									11		
P		*Acacia ligulata*	Umbrella Bush	107	23									7													3		1		5						3		3				1				9		3
P		*Acacia longifolia* ssp. *sophorae*	Coastal Wattle	23	6																																										1		
P		*Acacia microcarpa*	Manna Wattle	12	8									1																								1	1	2							1		
P		*Acacia nematophylla*	Coast Wallowa	71	12																																									21	1	1
P		*Acacia notabilis*	Notable Wattle	50	20	1			1		1		1	5	1			1	1			3							4	2							7	3	9	1			1						
P		*Acacia nyssophylla*	Spine Bush	22	9							2		3															1		7						2	2	3										
P		*Acacia oswaldii*	Umbrella Wattle	41	17								1	5								2					2		1	3	6	1				2	5	2	4		2								
		Acacia papyrocarpa	Western Myall	1	1																																1												
P		*Acacia paradoxa*	Kangaroo Thorn	32	10									1			1	3		4	2	7			9	3	1		1																				
P		*Acacia pycnantha*	Golden Wattle	155	29	14	2	1	1	1		2		16			5	15	5	13	3	25			21	4	4		8	1							1					2	1			1		1	
P		*Acacia retinodes* var. *retinodes*	Wirilda	4	4									1					1		1						1																							
P		*Acacia rigens*	Nealie	4	4																																		1	1					1					
P		*Acacia rupicola*	Rock Wattle	26	5																		1																								9		
P		*Acacia salicina*	Willow Wattle	9	7									1			1							1															1											
P		*Acacia sclerophylla* var. *sclerophylla*	Hard-leaf Wattle	12	5																						1										3	1	3											
P		*Acacia* sp. Winged (C.R.Alcock 4936)	Angled Wattle	49	11																																									13	1	
P		*Acacia spilleriana*	Spiller's Wattle	6	5																								1														2					1	

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
P		*Acacia spinescens*	Spiny Wattle	89	18																						1				1						1			2								34		2
P		*Acacia triquetra*	Mallee Wreath Wattle	31	5																																											16		
P		*Acacia victoriae* ssp. *victoriae*	Elegant Wattle	31	16	1		1	2	1	3		2	6		1						2	1		1					1		1												1	5				
P		*Acacia wattsiana*	Dog Wattle	18	9	1	1										3	2		2		5			1		1		2																				
		Acacia wilhelmiana	Dwarf Nealie	3	3																																		1			1	1						
P		*Acaena echinata*	Sheep's Burr	94	21	7		1					2	4			2	8		2	3	17			20	4	1	1	3																		5	1	
	*	*Acetosa vesicaria*	Rosy Dock	1	1																		1																										
	*	*Acetosella vulgaris*	Sorrel	1	1	1																																											
		Acianthus pusillus	Mosquito Orchid	21	9													1				1																		1							2		
P		*Acrotriche affinis*	Ridged Ground-berry	28	10															6	3	1			1																						10		1
P		*Acrotriche cordata*	Blunt-leaf Ground-berry	68	11																																										34		1
P		*Acrotriche patula*	Prickly Ground-berry	202	32	1					1			1			2	4	2										3		2						3	2		2			2				50	4	4
		Acrotriche serrulata	Cushion Ground-berry	2	2																	1																											
		Actinobole uliginosum	Flannel Cudweed	36	18	2			1	1			2	1				2				8	3		3				2										3	1		2	1						
		Actites megalocarpa	Coast Sow-thistle	5	4									1																																			
	*	*Adonis microcarpa*	Pheasant's Eye	3	3						1																		1																				
P		*Adriana quadripartita*	Coast Bitter-bush	17	7																																												
		Agrostis avenacea var. *avenacea*	Common Blown-grass	3	3																																												
		Agrostis billardieri var. *billardieri*	Coast Blown-grass	7	4																																												
	*	*Agrostis capillaris* var. *capillaris*	Brown-top Bent	1	1																	1																											
	*	*Agrostis gigantea*	Red-top Bent	3	2																																												
	*	*Aira caryophyllea*	Silvery Hair-grass	6	4	3				1			1																																		1		
	*	*Aira cupaniana*	Small Hair-grass	135	30	15	1	5	1				3	2		1	7	11		11	3	20			17	2	2		4			1			1							1				15	2	
	*	*Aira elegantissima*	Delicate Hair-grass	36	13	17	1				1			3				2				2			4		1	1	1																		1		
		Ajuga australis f. A (A.G.Spooner 9058)	Australian Bugle	7	5	1											1			1		2							2																				
	*	*Ajuga iva*	Bugle	2	2						1																													1									
P		*Alectryon oleifolius* ssp. *canescens*	Bullock Bush	53	17	1							1	2								2					1		7	5			1		2	2	2	4	16	1	3	2							
	*	*Allium triquetrum*	Three-cornered Garlic	1	1																																												
P		*Allocasuarina muelleriana* ssp. *muelleriana*	Common Oak-bush	10	3															5																														
P		*Allocasuarina pusilla*	Dwarf Oak-bush	8	2																																										3		
P		*Allocasuarina verticillata*	Drooping Sheoak	194	35	17			2	1		2	1	3			11	32	1	17	2	18	1		14	3	5		3	1	1												1				7	1	2
		Alternanthera denticulata	Lesser Joyweed	1	1																				1																								
	*	*Alyssum linifolium*	Flax-leaf Alyssum	10	8				1													1													1		1	1	3					1				
P		*Alyxia buxifolia*	Sea Box	122	30	1												3									1		3	1	2						7	3	4	4							12	1	2
	*	*Amaranthus albus*	Stiff Tumbleweed	2	1									2																																			
	*	*Ammi majus*	False Bishop's Weed	1	1																																												
	*	*Ammophila arenaria*	Marram Grass	2	2																																												
P		*Amphipogon caricinus* var. *caricinus*	Long Grey-beard Grass	13	7	2				1								3							1																								
		Amphipogon strictus var. *setifer*	Spreading Grey-beard Grass	2	2															1	1																												
	*	*Amsinckia calycina*	Hairy Fiddle-neck	4	3															2																		1											
	*	*Amsinckia lycopsoides*	Bugloss Fiddle-neck	12	4	8	1				2								1																														
P		*Amyema melaleucae*	Tea-tree Mistletoe	42	16									1																	1					1	5	2		2							6	1	
P		*Amyema miquelii*	Box Mistletoe	86	21	2		1				1		1			5	5	1	2		18			20	1			16	1					1		1	2	4										
P		*Amyema miraculosa* ssp. *boormanii*	Fleshy Mistletoe	4	3				1																												1		2										

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
P		*Amyema preissii*	Wire-leaf Mistletoe	21	11								1	2			1					1							3	1	3								3				2		1				
	*	*Anagallis arvensis*	Pimpernel	341	49	4	1						3	4			4	18	3	8	5	20	2		16	2			10		2	1					5	2	3				1				39	4	4
	*	*Anagallis minima*	Chaffweed	1	1																						1																					
		Angianthus preissianus	Salt Angianthus	8	7																																												
		Angianthus tomentosus	Hairy Angianthus	21	11									1													1										2	2			1								
		Aotus subspinescens	Mallee Aotus	1	1																																												
		Aphanes australiana	Australian Piert	17	9																																										3		
		Apium annuum	Annual Celery	28	12																																										4		
	*	*Apium graveolens*	Celery	1	1																																												
		Apium prostratum var.	Native Celery	5	3																																												
		Apium prostratum var. *prostratum*	Native Celery	5	4																																												
	*	*Arctotheca calendula*	Cape Weed	208	45	7	1	2	5	1	1	2	4	21		2	4	12	1	6		33	5	1	21	3	8		12			1		2			3	3	4	4	1				1		3		
	*	*Arctotheca populifolia*	Beach Daisy	1	1																																												
	*	*Arenaria leptoclados*	Lesser Thyme-leaved Sandwort	8	6										1																																1		
		Argentipallium obtusifolium	Blunt Everlasting	1	1																																										1		
	*	*Argyranthemum frutescens* ssp.	Marguerite Daisy	2	2																																												
		Aristida anthoxanthoides	Yellow Three-awn	1	1					1																																							
		Aristida australis		1	1	1																																											
P		*Aristida behriana*	Brush Wire-grass	130	20	47	1	8	5	6	8	2	1	21		1	2	6	2			6			7		2		2	1									1										1
		Aristida nitidula	Brush Three-awn	1	1																									1																			
	*	*Artemisia arborescens*	Silver Wormwood	1	1																								1																				
		Arthropodium fimbriatum	Nodding Vanilla-lily	89	29	11	1		4			3	1	11			3	4	4			7			3		3		4	2							1	1	3	1		1	1				1	1	1
		Arthropodium minus	Small Vanilla-lily	21	14				1			1		1			1	2				2	1						2										4			2	1				1	1	
		Arthropodium strictum	Common Vanilla-lily	254	36	18	1	3	4	3	5	2	3	20	1		16	28	7	13	4	43	1		25	4	11		16	1	1						3		2	1			2		1			1	
P	*	*Asparagus asparagoides*	Bridal Creeper	113	31								1	2			1	2				2			1		6		10	1	2			1			10	11	8	3							2		
	*	*Asparagus declinatus*		1	1																																												
	*	*Asparagus officinalis*	Asparagus	1	1																																												
		Asperula conferta	Common Woodruff	87	21	13	1		2		3		2	11			2	3	1	2		19	1		11	1		1	6									2									2	1	
	*	*Asphodelus fistulosus*	Onion Weed	85	29	3			2		4		2	15		1		2	1										6	2	1	1		1	1			1	2	1			2	1	2				2
		Asplenium flabellifolium	Necklace Fern	2	2													1										1																					
P	*	*Aster subulatus*	Aster-weed	15	8	1																																											
		Asteridea athrixioides f. *athrixioides*	Wirewort	9	8				1			1		1																	1							1					2						
	*	*Asteriscus spinosus*	Golden Pallensis	13	8	1					1		1	6				1													1																			
	*	*Asterolinon linum-stellatum*	Asterolinon	1	1																																										1		
P		*Astroloma conostephioides*	Flame Heath	6	4																	2					2																							
P		*Astroloma humifusum*	Cranberry Heath	58	15	6							1					11	2	10	1	7			2	1	2																							
P		*Atriplex acutibractea* ssp.	Pointed Saltbush	14	8	1								1								2			1						3						2	2	2											
		Atriplex angulata	Fan Saltbush	1	1																														1															
P		*Atriplex cinerea*	Coast Saltbush	22	6																																												
		Atriplex eardleyae	Eardley's Saltbush	3	3							1																									1				1									
		Atriplex holocarpa	Pop Saltbush	3	2																									1							2													
		Atriplex lindleyi ssp. *inflata*	Corky Saltbush	7	5																														2		1	2			1								
		Atriplex lindleyi ssp. *lindleyi*	Baldoo	1	1																															1													
P		*Atriplex paludosa* ssp. *cordata*	Marsh Saltbush	47	21																										3	1		1				2			1				1				
P		*Atriplex paludosa* ssp. *paludosa*	Marsh Saltbush	4	3																																												

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
P	*	*Atriplex prostrata*	Creeping Saltbush	10	5																																												
		Atriplex pumilio	Mat Saltbush	2	2																																1	1											
P		*Atriplex semibaccata*	Berry Saltbush	57	20	7			3		5	1		11								8	1		1				4	1				2			2	3	1	1					1					
		Atriplex spongiosa	Pop Saltbush	1	1																														1														
P		*Atriplex stipitata*	Bitter Saltbush	48	17	2					2			4					1			1			1		1		7	1		1		4		1	10	5	3						3					
P		*Atriplex suberecta*	Lagoon Saltbush	5	4												2																						1											
		Atriplex velutinella	Sandhill Saltbush	1	1																																	1											
P		*Atriplex vesicaria* ssp.	Bladder Saltbush	43	15	1					1																			1	1			3	6	12	4	2	5		1									
P		*Austrodanthonia auriculata*	Lobed Wallaby-grass	70	15	26		4		1	1	1	2	2			2	4		3		12	1		8			1	2																					
P		*Austrodanthonia caespitosa*	Common Wallaby-grass	394	53	27	3	5	12	1	10	4	10	52	1	3	15	18	8	4	1	35	6		16		8	1	18	4	4			5		3	12	14	28		3	1	4	2		1	11	4	1
P		*Austrodanthonia carphoides*	Short Wallaby-grass	25	9	11		2	1		4		1	2				1				2			1																								
		Austrodanthonia duttoniana	Brown-back Wallaby-grass	2	2												1										1																						
P		*Austrodanthonia eriantha*	Hill Wallaby-grass	45	12	13			5			1		9		1	3	2		1		4			3				2													1							
P		*Austrodanthonia fulva*	Leafy Wallaby-grass	4	4									1				1																												1			
P		*Austrodanthonia laevis*	Smooth Wallaby-grass	5	4						1			1											2												1												
P		*Austrodanthonia pilosa*	Velvet Wallaby-grass	36	11	13	1				2	1		2				2		2		8			3	1			1																				
P		*Austrodanthonia racemosa* var. *racemosa*	Slender Wallaby-grass	15	9	3			1			1	1							2	1	2			3																								
P		*Austrodanthonia setacea*	Small-flower Wallaby-grass	163	38	29	2	3			2	1		4		1	3	6	2	5	2	26			10		6		6	1	4				1		1	7	3	3							3	1	1
P		*Austrodanthonia tenuior*	Short-awn Wallaby-grass	12	4	7			1					3											1																								
		Austrofestuca littoralis	Coast Fescue	1	1																																												
P		*Austrostipa acrociliata*	Graceful Spear-grass	98	29	1			1		1	1		4			1	1				2							2	3	3			1			22	6	11					1			1	1	
P		*Austrostipa blackii*	Crested Spear-grass	188	24	53	2	4	6	1	7		1	15		3	10	17	4	3		31	1		13	1	5		5	2									1	1			1							
P		*Austrostipa breviglumis*	Cane Spear-grass	8	5													1		3		2														1													
P		*Austrostipa curticoma*	Short-crest Spear-grass	15	8				1								1	2				5			3				1																		1		
		Austrostipa densiflora	Fox-tail Spear-grass	1	1																	1																											
P		*Austrostipa drummondii*	Cottony Spear-grass	92	32	1					1	1		18	1		3	2	1			3			2		5		7	1	1			1			4	6	9			1	1					1	2
P		*Austrostipa echinata*	Spiny Spear-grass	4	2																																										2		
P		*Austrostipa elegantissima*	Feather Spear-grass	290	53	17	1	1	4		2	3	1	8		1	9	16	6	5		30	1		6		12		18	7	9			1	3	3	17	15	12	5	2	2	2	1	1		5	1	3
P		*Austrostipa eremophila*	Rusty Spear-grass	177	36	8			6		5	4	3	50		1	4	4	6			6	1		1		2		8	2		1		2		2	8	13	19	1			2	1			3	2	1
P		*Austrostipa exilis*	Heath Spear-grass	33	12				1													2							2								4	5	6								7		
P		*Austrostipa flavescens*	Coast Spear-grass	62	24	2								3					1		1	2	1		1	1	1		2					1			1	1	1								9		
P		*Austrostipa gibbosa*	Swollen Spear-grass	16	7	1	1		1					3								8			1	1																							
		Austrostipa hemipogon	Half-beard Spear-grass	3	2	2																																										
P		*Austrostipa mollis*	Soft Spear-grass	19	12	1												3		2	2	2			3		1										1		1										
		Austrostipa multispiculis		2	2				1																				1																				
P		*Austrostipa mundula*	Neat Spear-grass	8	3																																									6		
P		*Austrostipa nitida*	Balcarra Spear-grass	206	42	13		1	2	1	9	6	2	32	2	3		6	1	3		21	1		2		3	1	12	6	5			5	2	3	13	8	19	2	3	2	1	1	3			2	
P		*Austrostipa nodosa*	Tall Spear-grass	106	26	19			4	2	2		2	17	1	1	7	3	3			11	3		5		6		6					1				1	2				2	1	1			2	
		Austrostipa petraea	Flinders Range Spear-grass	2	2				1																				1																				
P		*Austrostipa pilata*	Prickly Spear-grass	12	9	1			1				1	1			3	1				1			2																						1		
P		*Austrostipa platychaeta*	Flat-awn Spear-grass	45	16						1		2	3				1				1					1		9	2	7						2	3	7		1								
P		*Austrostipa puberula*	Fine-hairy Spear-grass	15	10			1	1		1											3			1				3									1	1											
P		*Austrostipa scabra* ssp.	Rough Spear-grass	233	41	44		3	19	2	1		2	6		1	6	9	2	7		34	1		20		9		3	4	6	1					12	3	5			1	2			1		3	1
P		*Austrostipa semibarbata*	Fibrous Spear-grass	13	7								1							4	1	2			3		1																						
P		*Austrostipa setacea*	Corkscrew Spear-grass	38	11	18		6			1		1				2	2		1		2			2		1		2																				

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
P		*Austrostipa stipoides*	Coast Spear-grass	7	5																																										1		
		Austrostipa tenuifolia		2	2																	1					1																						
P		*Austrostipa trichophylla*		5	5							1	1	1					1																		1													
	*	*Avellinia michelii*	Avellinia	80	33	2		1	1			1		6	1		2	1		3		4			1	1	1								1			2	2	1							15	3	1
	*	*Avena barbata*	Bearded Oat	661	71	59	3	9	16	6	13	12	8	55	2	4	20	30	8	8	3	58	5	1	35	4	18	1	27	6	7	2		6		1	16	23	22	8	2	4	5	2	3	1	12	5	4
	*	*Avena fatua*	Wild Oat	38	20	1			3		2			12				1				2	1		1				2	2		1			1				1	1					1				1
	*	*Avena sativa*	Cultivated Oat	5	3									2																							1		2										
P		*Avicennia marina* ssp. *marina*	Grey Mangrove	7	2																																												
P		*Baeckea crassifolia*	Desert Baeckea	16	4																																			2									
		Banksia marginata	Silver Banksia	3	2													1		2																													
	*	*Bartsia trixago*	Bellardia	2	2																																					1				1		
		Baumea arthrophylla	Swamp Twig-rush	2	1																																												
P		*Baumea juncea*	Bare Twig-rush	9	7																																												
	*	*Berula erecta*	Water Parsnip	1	1																																												
P		*Beyeria lechenaultii*	Pale Turpentine Bush	148	33	1			1			1	1	2				2					2							2	2						4	6	4	2		1	3				40	1	1
P		*Billardiera cymosa*	Sweet Apple-berry	14	5																																	1									9		
P		*Billardiera sericophora*	Silky Apple-berry	7	5																																										2		
P		*Billardiera* sp. Yorke Peninsula (P.C.Heyligers 80164)	Lehmann's Apple-berry	6	3																																										1		
		Billardiera versicolor	Yellow-flower Apple-berry	3	2																																2												
		Blennospora drummondii	Dwarf Button-flower	41	13															6	1	1																		3								1		1
P		*Boerhavia dominii*	Tar-vine	16	13	1		1						4			1	1	1										1														1	1	1				
P		*Bolboschoenus caldwellii*	Salt Club-rush	10	6																				1																								
		Boronia coerulescens ssp. *coerulescens*	Blue Boronia	1	1																																												
P		*Boronia inornata* ssp. *leptophylla*	Dryland Boronia	4	2																																2												
		Bossiaea prostrata	Creeping Bossiaea	1	1																1																												
	*	*Brachypodium distachyon*	False Brome	156	36	19	2		5		1		1	25	2	1	6	16	2	5		22	2		6	1	6		4	1	1			1			1	1	4	1			4					3	1
		Brachyscome ciliaris var.		7	7							1		1	1																						1		1	1									
		Brachyscome ciliaris var. *brachyglossa*	Rayless Variable-daisy	3	2												2												1																				
		Brachyscome ciliaris var. *ciliaris*	Variable Daisy	46	19	2			2					4			3					2			1		1		1						1		4	8	3		1							2	1
		Brachyscome ciliaris var. *lanuginosa*	Woolly Variable Daisy	7	6								1	1								1														1		1											
		Brachyscome ciliaris var. *subintegrifolia*		10	6	2											1					4							1										1		1								
		Brachyscome cuneifolia	Wedge-leaf Daisy	15	6																																										10		
		Brachyscome exilis	Slender Daisy	19	9																																										8		
		Brachyscome goniocarpa	Dwarf Daisy	6	3																																										3		
		Brachyscome lineariloba	Hard-head Daisy	95	41	2						3	1	3				1		3		6	2		1				4	1	1			1	2		7	8	9	2	1	1	1	1			3	1	1
		Brachyscome lineariloba/perpusilla		1	1																	1																											
		Brachyscome perpusilla	Tiny Daisy	20	9													1		3		3							2											1							1		
		Brachyscome trachycarpa	Smooth Daisy	1	1																	1																											
	*	*Brassica juncea*	Indian Mustard	1	1																	1																											
	*	*Brassica tournefortii*	Wild Turnip	139	33							2		1				1									3		1		3			2		1	13	6	11	5	1						5	1	3
	*	*Briza maxima*	Large Quaking-grass	82	19	5		2					2	1			1	9	1	10	6	21			13	2	2		1																			1	
	*	*Briza minor*	Lesser Quaking-grass	78	20	6											3	4	2	5	3	15			14		3		1								1						1				10		
	*	*Bromus alopecuros*	Mediterranean Brome	4	3																				2																								

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
		Bromus arenarius	Sand Brome	8	8	1					1																																					1		
	*	*Bromus catharticus*	Prairie Grass	1	1																																												
	*	*Bromus diandrus*	Great Brome	310	54	22	1	4	8	1	4	3	4	25		3	9	10		5		32	1		16	4	13	1	16	5	5			2	1		9	8	14	5			3		1		4		
	*	*Bromus hordeaceus* ssp. *hordeaceus*	Soft Brome	89	25	24		5	3	2	2	2	3	3		1	4	2		2		11			6		1	1	1									1											
	*	*Bromus madritensis*	Compact Brome	65	25	4			1	1			1	4			1	1		4		11	1		10				4		1							1	1								4		
	*	*Bromus rigidus*	Rigid Brome	32	20	6		1	1			1	2	5			1	1	1			1			2		1		2								1	1	1						1	1			1
	*	*Bromus rubens*	Red Brome	365	57	19		1	11	2	10	10	2	36	2	2	17	7	2	2		23	4	1	7		11	1	20	5	7			1		1	23	21	23	4	2		3	1	2		3	3	2
		Brunonia australis	Blue Pincushion	1	1															1																													
	*	*Buglossoides arvensis*	Sheepweed	50	24	2								6	1			1				1					1		3	1							2	1		2								2		
		Bulbine bulbosa	Bulbine-lily	85	21	15		2	3	1	2	1	1	5		1	4	3	2		3	18			14	4	1		2																1				
		Bulbine semibarbata	Small Leek-lily	17	9	1																1							1								1	1			1						7		
	*	*Bupleurum semicompositum*	Hare's Ear	90	32				5		1	3		9	1		2		1			3					2		1		1	1		1			4	8	10	2	1		3				2	3	
		Burchardia umbellata	Milkmaids	1	1																						1																						
P		*Bursaria spinosa* ssp. *spinosa*	Sweet Bursaria	255	39	23	1	1	3		1	4	2	17	1		16	29	7	13	1	33	1		12	2	9		8	2									2	1		1	4				9	3	
		Caesia calliantha	Blue Grass-lily	29	9	1											1			1	4	8			3				2																				
	*	*Cakile maritima* ssp. *maritima*	Two-horned Sea Rocket	36	9																																												
		Caladenia argocalla	White Beauty Spider-orchid	1	1																				1																								
		Caladenia bicalliata ssp. *bicalliata*	Western Daddy-long-legs	2	2																																										1		
		Caladenia brumalis	Winter Spider-orchid	11	7																																			1							1		1
		Caladenia brumalis x *latifolia*	Hybrid Spider-orchid	1	1																																			1									
		Caladenia cardiochila	Heart-lip Spider-orchid	3	3																																										1		
		Caladenia carnea var. *carnea*	Pink Fingers	7	3																																										1		
		Caladenia conferta	Coast Spider-orchid	1	1																																												
		Caladenia dilatata complex	Green-comb Spider-orchid	1	1																	1																											
		Caladenia filamentosa complex	Daddy-long-legs Spider-orchid	1	1																																												
		Caladenia filamentosa var. *tentaculata*	Wispy Spider-orchid	22	4																																										9		
		Caladenia latifolia	Pink Caladenia	47	13																								1											1							9		1
		Caladenia leptochila	Narrow-lip Spider-orchid	2	1															2																													
		Caladenia sp. Brentwood (R.J. Bates 53510)		1	1																																												
		Caladenia stricta	Upright Caladenia	9	4																																			1							2		
		Caladenia tensa	Inland Green-comb Spider-orchid	2	2												1																														1		
		Calandrinia brevipedata	Short-stalked Purslane	10	4																																												
		Calandrinia calyptrata	Pink Purslane	29	15				1				1	1				2		7		4			1		1		2								4		1	1							1		
		Calandrinia calyptrata/*eremaea*	Purslane	4	2																	2																	2										
		Calandrinia eremaea	Dryland Purslane	54	24				1			1					1	2				1	1												1	1	5	4	6	1	2	2							
		Calandrinia granulifera	Pigmy Purslane	3	3																						1																						
		Calandrinia polyandra var. *polyandra*	Parakeelya	1	1																	1																											
		Calandrinia volubilis	Twining Purslane	1	1																							1																					
	*	*Calendula arvensis*	Field Marigold	3	2									2		1																																	
		Callistemon rugulosus		1	1																																												
		Callistemon teretifolius	Needle Bottlebrush	2	2													1																															
P		*Callitris canescens*	Scrubby Cypress Pine	22	7																																									13		1
P		*Callitris glaucophylla*	White Cypress-pine	24	12			1				1		2			1	1				6	7	1	1					1									1										
P		*Callitris gracilis*	Southern Cypress Pine	88	28	2				1		2	2	7			2	4		2	1	6			3		19		6	2	1	1					3	3	7			1	1					1	

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
		Calocephalus citreus	Lemon Beauty-heads	49	12	20		3	1		1			3			3		1			8			6		1		1	1																				
		Calostemma purpureum	Pink Garland-lily	42	17	2		1	1	1			2	4				4	1	2		6	1		5	2			4																					
		Calotis hispidula	Hairy Burr-daisy	67	29	1			1		1	4	1	1			1	1				2	1		1		2		4					2	3	1	12	5	11	2		1	1						1
P		*Calytrix involucrata*	Cup Fringe-myrtle	11	2																																												
P		*Calytrix tetragona*	Common Fringe-myrtle	83	23												1	1	1	4		1	1				1																1				37	1	1
	*	*Capsella bursapastoris*	Shepherd's Purse	3	3														1			1	1																										
	*	*Carduus tenuiflorus*	Slender Thistle	62	24	1			1			1	2	2			2	2		1		17	2		4			1	9								2		3			1	1					1	
P		*Carex appressa*	Tall Sedge	4	3			1														1																											
P		*Carex bichenoviana*	Notched Sedge	4	3																																												
P		*Carex breviculmis*	Short-stem Sedge	6	4								1								3				1																								
	*	*Carex divisa*	Divided Sedge	2	2																																												
		Carex gaudichaudiana	Fen Sedge	1	1																																												
		Carex inversa var. *major*	Knob Sedge	2	2					1															1																								
	*	*Carpobrotus aequilaterus*	Angled Pigface	1	1									1																																			
		Carpobrotus modestus	Inland Pigface	2	2																																1												
P		*Carpobrotus rossii*	Native Pigface	159	22									1													1										2										15		2
	*	*Carrichtera annua*	Ward's Weed	204	40	1			4		5	4	2	20		1	3	1				2	1				3		6	9	9	4	1	5	5	5	25	20	26	1	4		2	2	2		3	2	1
	*	*Carthamus lanatus*	Saffron Thistle	151	35	33	2	6	9	1	7	9	3	21	1		7	4	2	2		8	2		1				8	3		2						1	2			1	3	1	1		1	2	1
P		*Cassinia arcuata*	Drooping Cassinia	17	10				1					1				1	1			5							4		1						1												
P		*Cassinia complanata*	Sticky Cassinia	11	6	2														5									1																			1		
P		*Cassinia laevis*	Curry Bush	14	9	1											4	2	1				1						2	1									1			1							
P		*Cassytha glabella* f. *dispar*	Slender Dodder-laurel	42	10																								1																			17		
P		*Cassytha melantha*	Coarse Dodder-laurel	70	25													1	1	4		1	1						2	1	1					1	10	10	8	2			1				3		
P		*Cassytha peninsularis* var. *peninsularis*	Peninsula Dodder-laurel	64	17																										1						1			1							21	1	
		Cassytha pubescens	Downy Dodder-laurel	2	1																																												
P		*Casuarina pauper*	Black Oak	9	5																								1				1		1		2				4								
	*	*Catapodium rigidum*	Rigid Fescue	96	31	1			2					5		1	2	1				5			4		1	1	1								1	4	4								17	5	
	*	*Centaurea calcitrapa*	Star Thistle	2	1									2																																			
	*	*Centaurea melitensis*	Malta Thistle	38	16	1		1				1		6			5	1				3							3														3				1	2	
	*	*Centaurea solstitialis*	St Barnaby's Thistle	1	1					1																																							
	*	*Centaurium erythraea*	Common Centaury	10	9	1								1				1				1							1									1	1									1	
	*	*Centaurium maritimum*	Sea Centaury	3	2																																										2		
	*	*Centaurium pulchellum/tenuiflorum*		18	9									1																								1									7		1
		Centaurium spicatum	Spike Centaury	2	2	1	1																																										
	*	*Centaurium tenuiflorum*	Branched Centaury	1	1																																										1		
		Centrolepis aristata	Pointed Centrolepis	4	2															3	1																												
		Centrolepis cephaloformis ssp. *cephaloformis*	Cushion Centrolepis	6	6															1		1																		1							1		
		Centrolepis polygyna	Wiry Centrolepis	11	7													1		5							1																				1		
		Centrolepis strigosa ssp. *strigosa*	Hairy Centrolepis	7	5													1		3	1	1					1																						
	*	*Cerastium balearicum*	Chickweed	31	19															2	1	1			1		1		1																			3		
	*	*Cerastium balearicum/pumilum*		1	1																																1												
	*	*Cerastium diffusum*	Mouse-ear Chickweed	3	3																																												
	*	*Cerastium glomeratum*	Common Mouse-ear Chickweed	38	18												1	4		2		6			4	2			1			1						1									1		
	*	*Cerastium pumilum*	Chickweed	7	6																																												

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
	*	*Chamaecytisus palmensis*	Tree Lucerne	1	1																				1																								
		Chamaescilla corymbosa var. *corymbosa*	Blue Squill	15	7															3	2	2																	1				2						
		Chamaesyce drummondii	Caustic Weed	120	26	31	1	3	6	2	6	5	1	24		3	6	2	2			5			4		1	1	5	1					3				1				1	2	2				
	*	*Chasmanthe floribunda* var. *floribunda*	African Corn-flag	1	1																1																												
P		*Cheilanthes austrotenuifolia*	Annual Rock-fern	108	22	9	1		1				3	1			6	15		14	6	28			10	2	1	1	3								1	1					1						
		Cheilanthes distans	Bristly Cloak-fern	2	2	1												1																															
P		*Cheilanthes lasiophylla*	Woolly Cloak-fern	16	13	1									1		4	1	1	1					1				1	1									1			1	1						
P		*Cheilanthes sieberi* ssp. *sieberi*	Narrow Rock-fern	13	7	1				1							3	5	1	1																						1						
P		*Cheiranthera alternifolia*	Hand-flower	7	3																																										1	
		Chenopodium cristatum	Crested Goosefoot	3	3									1															1						1													
P		*Chenopodium curvispicatum*	Cottony Goosefoot	5	4																														2		1		1						1			
P		*Chenopodium desertorum* ssp.	Desert Goosefoot	118	26	4	1		5		3	2	1	3			3		2			15			1		5		8					1	3		22	9	17	2	1							1	
	*	*Chenopodium glaucum*	Glaucous Goosefoot	1	1																																											
		Chenopodium nitrariaceum	Nitre Goosefoot	3	1																																											
		Chenopodium pumilio	Clammy Goosefoot	1	1	1																																										
		Chloris pectinata	Comb Windmill Grass	1	1																															1													
		Chloris truncata	Windmill Grass	1	1																								1																				
	*	*Chondrilla juncea*	Skeleton Weed	1	1																																											
		Choretrum glomeratum var. *chrysanthum*	Yellow-flower Sour-bush	1	1																	1																											
P		*Choretrum glomeratum* var. *glomeratum*	White Sour-bush	12	4																																									7		
	*	*Chrysanthemoides monilifera*	Boneseed	1	1	1																																										
P		*Chrysocephalum apiculatum*	Common Everlasting	156	33	23		5	1		2	2	2	11			9	9	6		1	9	1		8		6		3				1					1		1							25	2	1
		Chrysocephalum baxteri	White Everlasting	1	1															1																													
P		*Chrysocephalum semipapposum*	Clustered Everlasting	86	19	13	1				2			4			5	9	3	2		14			6		4		4								2	1			5	3						
	*	*Cirsium vulgare*	Spear Thistle	18	11	1												1				1							1													1						
	*	*Citrullus lanatus*	Bitter Melon	2	2				1																		1																					
P		*Clematis microphylla* var. *microphylla*	Old Man's Beard	250	46	5			1		1	2		2			5	1	2	1		7			1		2		10	3	1						9	3	5	5			2				25	1	3
		Comesperma scoparium	Broom Milkwort	1	1																																											
P		*Comesperma volubile*	Love Creeper	94	29									2			1	2	1			1					1		3		2						2	1		5			1				15	2	3
P		*Convolvulus angustissimus* ssp. *angustissimus*	Australian Bindweed	19	7	4						2					7	1				3																					1						1
P		*Convolvulus angustissimus* ssp. *peninsularum*	Grassland Bindweed	8	4	2								2																																			
P		*Convolvulus erubescens/remotus*	Native Bindweed	7	5	1							1					1				3							1																				
P		*Convolvulus microsepalus/remotus*		4	3																	1																				2	1					
P		*Convolvulus remotus*	Grassy Bindweed	88	34	22	2		2	1	2	1	3	9	1	1	4	4	1			5	1		5	1		1		2							1	1	2	1	1	2	2	1			1		
P		*Correa backhouseana* var. *coriacea*	Thick-leaf Correa	30	9													1													1									1								1	
		Correa glabra var. *turnbullii*	Rock Correa	3	2													1		2																													
P		*Correa pulchella*	Salmon Correa	60	10																																									28		
		Corybas despectans	Coast Helmet-orchid	11	3																																									4		
	*	*Cotoneaster pannosus*	Cotoneaster	1	1														1																														
		Cotula australis	Common Cotula	7	5																	3	1		1												1												
P	*	*Cotula coronopifolia*	Water Buttons	12	5																																											
		Cotula vulgaris var. *australasica*	Slender Cotula	4	3																																											
		Craspedia variabilis	Billy-buttons	66	20				1					1				1		1	2	1						1									1									25	1	1

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
		Crassula closiana	Stalked Crassula	27	14															3		3			2				1								1			1								1		
		Crassula colligata ssp.		234	45	4			2	1		1	3	4			3	2		8		33	3		6		3		5	1	2			3			12	10	20	1	2	1		1			6		2
		Crassula colligata ssp. *colligata*		3	3			1												1																													
		Crassula colligata ssp. *lamprosperma*	Australian Stonecrop	34	20	1						1					2			1		4			1		1		2						1		2	2				1					5		
		Crassula colorata var.	Dense Crassula	65	26	3			1			2	1	2			5	2	1			16			1		1		6			1			2		3		5	1	2								
		Crassula colorata var. *acuminata*	Dense Crassula	100	34	7		2	2	2	1		1	4			1	2		3		14	2		8		7	1	6			1		3	2		4	4	7		1	1			1				1
		Crassula colorata var. *colorata*	Dense Crassula	25	16		1															2								1							1	1	2		1								
		Crassula colorata/*sieberiana* complex	Crassula	4	4																								1						1	1			1										
		Crassula decumbens var. *decumbens*	Spreading Crassula	107	23	2		1	2	1			1							6		20			11		3		2																		1		
	*	*Crassula natans* var. *minus*	Water Crassula	4	2																																												
		Cratystylis conocephala	Bluebush Daisy	1	1																																1												
	*	*Crepis foetida* ssp. *foetida*	Stinking Hawksbeard	4	4										1			1											1																				1	
		Cressa cretica	Rosinweed	1	1																									1																				
P		*Cryptandra* sp. Floriferous (W.R.Barker 4131)	Pretty Cryptandra	39	16	4	1	1		1				3			2	2	3	2							1													4							1		2
P		*Cryptandra* sp. Long hypanthium (C.R. Alcock 10626)	Long-flower Cryptandra	53	14	21		3	1		3	1		2		1	5	10				1			1				1													2	1						
	*	*Cucumis myriocarpus*	Paddy Melon	1	1	1																																											
		Cullen australasicum	Tall Scurf-pea	1	1	1																																											
		Cullen parvum	Small Scurf-pea	2	1	2																																											
P		*Cymbonotus preissianus*	Austral Bear's-ear	23	9	2						1						1				11	1		4			1																						
P		*Cymbopogon ambiguus*	Lemon-grass	14	7	1			1					5	1			2																																
P	*	*Cynara cardunculus*	Artichoke Thistle	40	13	4		2				1		5		1						2			3																									
P	*	*Cynodon dactylon*	Couch	15	11	2		1	1	1				3											1																					1	1			
P		*Cynoglossum suaveolens*	Sweet Hound's-tongue	13	5															1		8			2				1																				
	*	*Cynosurus echinatus*	Rough Dog's-tail Grass	7	4															1		2			3		1																						
		Cyperus alterniflorus	Umbrella Flat-sedge	3	2																	1																												
		Cyperus exaltatus	Splendid Flat-sedge	1	1																																												
		Cyperus gunnii ssp. *gunnii*	Flecked Flat-sedge	2	2					1																																							
P		*Cyperus gymnocaulos*	Spiny Flat-sedge	28	8	1																																											
		Cyperus laevigatus	Bore-drain Sedge	1	1																																												
		Cyperus tenellus	Tiny Flat-sedge	1	1																						1																						
		Cyperus vaginatus	Stiff Flat-sedge	2	1																																												
		Cyrtostylis reniformis	Small Gnat-orchid	1	1															1																														
		Cyrtostylis robusta	Robust Gnat-orchid	50	15																																			2							11		2
	*	*Dactylis glomerata*	Cocksfoot	1	1																																												
		Dampiera dysantha	Shrubby Dampiera	1	1													1																																
		Dampiera lanceolata var. *lanceolata*	Grooved Dampiera	2	2												1			1																														
P		*Dampiera rosmarinifolia*	Rosemary Dampiera	40	11									2				1	1								1													1									1
		Daucus glochidiatus	Native Carrot	328	56	17		1	1		1	3	2	7			10	8	1	11	1	29	2		5		3		4		1			1	2		9	8	13	3		4	4				38	3	1
P		*Daviesia benthamii* ssp. *humilis*	Mallee Bitter-pea	4	3																																												
		Daviesia genistifolia	Broom Bitter-pea	3	3									1								1	1																										
P		*Dianella brevicaulis*	Short-stem Flax-lily	157	28									1													1										1	1		1							18	1	4
P		*Dianella brevicaulis*/*revoluta* var. *revoluta*		16	8									4																																	1		
		Dianella longifolia var. *grandis*	Pale Flax-lily	2	2																				1																								
P		*Dianella revoluta* var. *divaricata*	Broad-leaf Flax-lily	6	3								1					3				2																											

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
P		*Dianella revoluta* var. *revoluta*	Black-anther Flax-lily	306	47	26	1	3	3	1	4	3	1	24	2		12	21	8	14	6	21	1		12	1	11		12	5	3						12	8	9	4			4				12	3	3
P		*Dichelachne crinita*	Long-hair Plume-grass	8	5															1		1			1			1																			4		
		Dichondra repens	Kidney Weed	2	1	2																																											
P		*Dillwynia hispida*	Red Parrot-pea	4	3															1	2																													
	*	*Diplotaxis muralis* var. *muralis*	Wall Rocket	1	1																																												
	*	*Diplotaxis tenuifolia*	Lincoln Weed	2	2				1																																								
	*	*Dischisma arenarium*	Sand Dichisma	12	7																																												
P		*Disphyma crassifolium* ssp. *clavellatum*	Round-leaf Pigface	57	19																										2	1		1	1	2	2	2											
P		*Dissocarpus biflorus* var. *biflorus*	Two-horn Saltbush	8	5																											1			2	2														
P		*Dissocarpus paradoxus*	Ball Bindyi	7	5																													1	3		1	1	1										
P		*Distichlis distichophylla*	Emu-grass	16	6																																												
	*	*Dittrichia graveolens*	Stinkweed	22	13	1		1	1					8											1									1		1														
		Diuris behrii	Behr's Cowslip Orchid	1	1													1																																
		Diuris orientis	Wallflower Donkey-orchid	7	2																																										4		
		Diuris palustris	Little Donkey-orchid	23	8																										1									1								3		1
		Diuris pardina	Spotted Donkey-orchid	3	3																																			1								1		1
P		*Dodonaea baueri*	Crinkled Hop-bush	45	19						1	1		4	1		5	4				2							4	2	1						2	4	3				2						
P		*Dodonaea bursariifolia*	Small Hop-bush	8	6																						1										1	1	1										
P		*Dodonaea hexandra*	Horned Hop-bush	27	10														1										1										1	1									1	
P		*Dodonaea humilis*	Dwarf Hop-bush	40	7																																										21		
P		*Dodonaea lobulata*	Lobed-leaf Hop-bush	15	7																								4							1			2		1	3	2	2					
		Dodonaea procumbens	Trailing Hop-bush	3	1	3																																											
		Dodonaea stenozyga	Desert Hop-bush	3	1																																3												
		Dodonaea tepperi	Streaked Hop-bush	1	1																																												
P		*Dodonaea viscosa* ssp. *angustissima*	Narrow-leaf Hop-bush	37	17	1					1	1		1			4	1					2				1		4	4							2		3			6	3		1				
		Dodonaea viscosa ssp. *cuneata*	Wedge-leaf Hop-bush	1	1															1																													
P		*Dodonaea viscosa* ssp. *spatulata*	Sticky Hop-bush	38	20									1			1	2		1		4					1		2	1							1						1				7		
		Drosera auriculata	Tall Sundew	7	3																4				2				1																				
		Drosera glanduligera	Scarlet Sundew	12	9								1									1			1		1																					1		
		Drosera macrantha ssp. *planchonii*	Climbing Sundew	73	20	1											1	2	1	6	1	1							2											1							12		1
		Drosera peltata	Pale Sundew	8	6													1				3			1		1																						
		Drosera whittakeri ssp. *whittakeri*		10	5	1														3	2	1			3																								
		Echinopogon ovatus	Rough-beard Grass	1	1													1																															
	*	*Echium plantagineum*	Salvation Jane	352	48	42	2	7	11	4	7	4	5	39	2	3	15	22	6	9	1	48	4	1	26	2	14		18	3		1			1		1	2	11	3	1	4	4	2	2	1		2	1
P	*	*Ehrharta calycina*	Perennial Veldt Grass	5	3																	1			2		2																						
	*	*Ehrharta longiflora*	Annual Veldt Grass	45	19	1		1		1				1		1		2				5	2		3	1	5		4										2										
P		*Einadia nutans* ssp.	Climbing Saltbush	215	44	15			5	1	2	5	2	5	1	1	5	11	1	6		30	1		8		7	1	16	4	1	4		5		1	16	13	14	3	1	2	1		1			1	
		Elachanthus pusillus	Elachanth	9	8	1					1	1	1	2																				1										1					
		Eleocharis acuta	Common Spike-rush	3	3																				1																								
	*	*Elymus elongatus*	Tall Wheat-grass	2	2																																												
P		*Elymus scabrus* var. *scabrus*	Native Wheat-grass	84	18	24		2	2	1	1	1	3	2				4	1		1	24	1		11		1		3									1											
	*	*Emex australis*	Three-corner Jack	7	5																						2		2										1	1									
P		*Enchylaena tomentosa* var. *tomentosa*	Ruby Saltbush	425	58	12	1		6		5	4	1	30		1	7	7	5			18	1		2		13		23	12	13	5	1	8	6	9	54	32	40	6	4	5	5	2	3		3	1	3
P		*Enneapogon nigricans*	Black-head Grass	57	17	11	1		2	1	2	3	1	16			3	3							2		1		3	2									2										
P		*Enteropogon acicularis/ramosus*		24	13	1		1		1	1			8								1			1				2	3						1			1						1				

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
		Epilobium billardierianum ssp. *billardierianum*	Robust Willow-herb	3	2																																												
		Eragrostis australasica	Cane-grass	3	2																																												
		Eragrostis falcata	Sickle Love-grass	1	1																															1													
		Eragrostis setifolia	Bristly Love-grass	1	1																									1																			
P		*Eremophila alternifolia*	Narrow-leaf Emubush	10	7												2																			1	1		2			2	1	1					
P		*Eremophila behriana*	Rough Emubush	4	2																																												
P		*Eremophila deserti*	Turkey-bush	12	12						1			1				1											1									1	1								1		
P		*Eremophila glabra* ssp. *glabra*	Tar Bush	23	11									2									1						1	3	1				1		4	4	3										
P		*Eremophila longifolia*	Weeping Emubush	34	16	1			3		1	1	1	5			5	2				1					3		3	4						1								1	1				
		Eremophila oppositifolia ssp. *oppositifolia*	Opposite-leaved Emubush	1	1																																					1							
P		*Eremophila scoparia*	Broom Emubush	5	3																														1	3			1										
P		*Eremophila serrulata*	Green Emubush	4	3																																		1			2	1						
		Eremophila subfloccosa ssp. Glandulosa (R.Bates 32961)	Green-flower Emubush	1	1				1																																								
		Eriochilus cucullatus	Parson's Bands	22	11	1																																		2							2		1
P		*Eriochiton sclerolaenoides*	Woolly-fruit Bluebush	15	9						1	1	1	2													1			3				1			1		4										
		Eriochlamys behrii	Woolly Mantle	2	2	1								1																																			
	*	*Erodium botrys*	Long Heron's-bill	127	27	18		7	6		7	6	4	15		1	4	8		3	1	14			11		2	1	4									1	1				1		2				1
	*	*Erodium brachycarpum*	Short-fruit Heron's-bill	8	5	3				1				2																															1				
		Erodium carolinianum/janszii		11	8	1		1								1	3						2				1		1																1				
	*	*Erodium cicutarium*	Cut-leaf Heron's-bill	124	42	2			1		1	2		11			6	2		1		5	3		1				5		3			1	3		1	1	4	4		2	5	1	2		5		1
		Erodium crinitum	Blue Heron's-bill	52	23	3			4	1	1			15		1		1	1			3	2				1		3	2		1	1	1			3	1	1				2						
		Erodium crinitum/cygnorum		1	1												1																																
		Erodium crinitum/cygnorum/ carolinianum/jannzii	Blue Heron's-bill	1	1																																		1										
	*	*Erodium moschatum*	Musky Herons-bill	8	6													1				2			2		1		1																				
P		*Eryngium rostratum*	Blue Devil	16	5	12		1		1	1											1																												
		Eucalyptus albens	White Box	1	1			1																																									
P		*Eucalyptus brachycalyx*	Gilja	50	11							1					1												1							4	6	24	8									1	
P		*Eucalyptus calycogona* ssp. *trachybasis*	Square-fruit Mallee	10	5				2																												2	3	1										
P		*Eucalyptus camaldulensis* var. *camaldulensis*	River Red Gum	28	9			1					1								1	1	1																										
P		*Eucalyptus cladocalyx*	Sugar Gum	7	4	2								1				1									3																						
P		*Eucalyptus diversifolia* ssp. *diversifolia*	Coastal White Mallee	54	8																																										32		1
P		*Eucalyptus dumosa*	White Mallee	31	11							1		1													1		1		4						5	1	4	10									
P		*Eucalyptus goniocalyx* ssp. *goniocalyx*	Long-leaf Box	6	2															4	2																												
P		*Eucalyptus gracilis*	Yorrell	120	23				3					2			1										1		1	1	3				2	3	28	35	21	1			1		1		2		
P		*Eucalyptus incrassata*	Ridge-fruited Mallee	17	6																																		2										
		Eucalyptus largiflorens	River Box	3	3								1	1																																1			
P		*Eucalyptus leptophylla*	Narrow-leaf Red Mallee	32	10						1			1				1																			2	3		2								1		
P		*Eucalyptus leucoxylon* ssp.	South Australian Blue Gum	95	12	8					1			3			4	7		2	1	21			40	3	3		2																				
P		*Eucalyptus macrorhyncha* ssp. *macrorhyncha*	Red Stringybark	4	1																4																												
P		*Eucalyptus microcarpa*	Grey Box	9	6	4							1				1	1					1		1																								
P		*Eucalyptus odorata*	Peppermint Box	131	24	4	1		1	1		2	1	2			1	8	3	12		69	3		8	2	3		1	1						1	1		1										

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
P		*Eucalyptus oleosa* ssp.		113	14				1					1																	1	1			2	6	57	9	5	2								14		
P		*Eucalyptus phenax* ssp.		45	14				1																						1			1			9	3	3	3								7		
P		*Eucalyptus porosa*	Mallee Box	120	30				5		2	1	1	6			3	4		2		3			3		3		37	2	3	1		1			2	7	2	1		1			1		5		
P		*Eucalyptus rugosa*	Coastal White Mallee	18	2																																										1		
P		*Eucalyptus socialis* ssp.		114	25				1			1		3			4	2	2	1							1		3					1	1		3	9	51	6			1		1		1	4	
		Euchiton collinus	Creeping Cudweed	2	2	1																																											
		Euchiton sphaericus	Annual Cudweed	13	8												3					2	1				1										2		2										
	*	*Euphorbia helioscopia*	Sun Spurge	5	4																																										1		
P	*	*Euphorbia paralias*	Sea Spurge	20	7																																												
	*	*Euphorbia peplus*	Petty Spurge	4	3																								1																				
		Euphorbia tannensis ssp. *eremophila*	Desert Spurge	2	2												1												1																				
P	*	*Euphorbia terracina*	False Caper	54	16						1			1									1								1	1					1			1								1		2
P		*Euphrasia collina* ssp. *osbornii*	Osborn's Eyebright	4	4																1	1																											
P		*Euphrasia collina* ssp. *tetragona*	Coast Eyebright	7	2																																										6		
P		*Eutaxia diffusa*	Large-leaf Eutaxia	9	8	1								1			1	1				1			1											2													
P		*Eutaxia microphylla* var. *microphylla*	Common Eutaxia	111	30	6				1		1	2	4	1		3	6	6			15			4				2		1						1	2		4								17	3	1
P		*Exocarpos aphyllus*	Leafless Cherry	182	40	2								5			1		1			3		1	1		3		7	3	6		1	1		2	13	11	17	2	1	1	2				18		2
P		*Exocarpos cupressiformis*	Native Cherry	21	10				1									3		6	3	1			3				1																				1	
P		*Exocarpos sparteus*	Slender Cherry	15	8													1	1			1							3																			4		
P		*Exocarpos syrticola*	Coast Cherry	62	13									1																							1											2		
	*	*Filago pyramidata*	Filago	1	1																																						1						
	*	*Foeniculum vulgare*	Fennel	5	2																																												
P		*Frankenia pauciflora* var.	Southern Sea-heath	70	19																										2					1		1											
	*	*Frankenia pulverulenta*	Mediterranean Sea-heath	3	3																																												
P		*Frankenia sessilis*	Small-leaf Sea-heath	11	4																																												
	*	*Freesia cultivar*	Freesia	9	7									1					1			1					3												1										
	*	*Fumaria bastardii*	Bastard Fumitory	7	6																								1											1									
	*	*Fumaria capreolata*	White-flower Fumitory	8	6													1						1	1																									
	*	*Fumaria densiflora*	Dense Fumitory	4	4											1		1																											1					
	*	*Fumaria officinalis* ssp. *officinalis*	Common Fumitory	1	1																	1																											
	*	*Fumaria parviflora* var. *parviflora*	Small-flower Fumitory	1	1				1																																								
P		*Gahnia deusta*	Limestone Saw-sedge	25	7									1																																	8		
P		*Gahnia filum*	Thatching Grass	16	7																								1																			1		
P		*Gahnia lanigera*	Black Grass Saw-sedge	142	27									2			2	3	1								1			1	3						2	1	1	4			2				40	5	5
		Gahnia trifida	Cutting Grass	1	1																																												
P	*	*Galenia pubescens* var. *pubescens*	Coastal Galenia	7	6																													1		1			1		1								
	*	*Galenia secunda*	Galenia	2	2																															1													
		Galium compactum	Compact Bedstraw	3	3																																										1		
	*	*Galium divaricatum*	Slender Bedstraw	12	8	1				1		1		3				1				1			3		1																						
		Galium gaudichaudii	Rough Bedstraw	21	11	3											1			1		9			1			1																			1		
		Galium migrans	Loose Bedstraw	56	27	3						1		1	1			1	1	1		3						1	3						1		3											7	1	
	*	*Galium murale*	Small Bedstraw	268	49	4	1	1					1	6	1		6	5	2	3		21	1		11			1	7		1						5	6	2	3			3				34	2	4
	*	*Galium spurium* ssp. *ibicinum*	Bedstraw	8	3													1											3																					
	*	*Galium tricornutum*	Three-horned Bedstraw	1	1																																												
	*	*Gazania linearis*	Gazania	1	1									1																																			

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
P		*Geijera linearifolia*	Sheep Bush	86	19	1			1					1								1								1	14			1			17	16	11		1						2		2
	*	*Genista monspessulana*	Montpellier Broom	2	2																	1			1																								
		Genoplesium nigricans	Black Midge-orchid	5	4																																	1											
		Genoplesium nigricans/rufum	Midge-orchid	2	1																																												
		Genoplesium rufum	Red Midge-orchid	3	2																																												
		Geococcus pusillus	Earth Cress	1	1																	1																											
	*	*Geranium dissectum*	Cut-leaf Geranium	3	3	1																1										1																	
	*	*Geranium molle* var. *molle*	Soft Geranium	14	10																	1							1																			3		
		Geranium potentilloides var. *potentilloides*	Downy Geranium	34	12																								1																			9		
		Geranium retrorsum	Grassland Geranium	100	28	4							2	4			2	4		2	3	9			16	1		1	5								2						1				7		
		Geranium solanderi var. *solanderi*	Austral Geranium	7	7	1								1			1	1					1						1																					
	*	*Gladiolus tristis*	Evening-flower Gladiolus	2	1																																												
	*	*Glaucium corniculatum* var. *corniculatum*	Bristly Horned-poppy	4	4																						1		1														1						
		Glischrocaryon behrii	Golden Pennants	3	3																																										1		
		Glischrocaryon flavescens	Yellow Pennants	1	1																																											1	
		Glossodia major	Purple Cockatoo	4	2																3	1																											
P		*Glycine rubiginosa*	Twining Glycine	82	29	11	1	1	2		3	4	2	7	1	1	8	8	2	4		7			2		1	1	3	1									1			3	1	1			1	1	
		Gnaphalium indutum	Tiny Cudweed	45	23			1						1			1					1																1									12		
	*	*Gomphocarpus cancellatus*	Broad-leaf Cotton-bush	1	1									1																																			
P		*Gonocarpus elatus*	Hill Raspwort	126	21	15	1	3		1	2		1	2			7	23		16	6	20	2		14	2	4		3								1		1			1						
P		*Gonocarpus mezianus*	Broad-leaf Raspwort	27	8															4		1																											
P		*Gonocarpus tetragynus*	Small-leaf Raspwort	10	3															2	4				4																								
P		*Goodenia albiflora*	White Goodenia	23	10									2			6	5	4			1							1								1		1			1	1						
		Goodenia amplexans	Clasping Goodenia	2	1																																												
P		*Goodenia blackiana*	Native Primrose	59	11	2												2		8	3	12			7																						19		1
P		*Goodenia fascicularis*	Silky Goodenia	10	6									2								1							2	2												2	1						
		Goodenia geniculata	Bent Goodenia	1	1						1																																						
		Goodenia lunata	Stiff Goodenia	1	1	1																																										
		Goodenia pinnatifida	Cut-leaf Goodenia	163	29	23		3	5		5	5	4	30			8	5	3			25	2		13		6	1	7	1	1						1	1				2					4	1	1
		Goodenia pusilliflora	Small-flower Goodenia	74	27	9		1	1		3	5		14			4		1			4	1							1	4							1	3	2		1	2	2			2		1
		Goodenia robusta	Woolly Goodenia	2	2									1				1																															
P		*Goodenia varia*	Sticky Goodenia	56	13																																1			2						17		
		Goodenia willisiana	Silver Goodenia	90	25									4				3	3								1		4		2				1		5	1	2	5			1				6		3
		Goodia medicaginea	Western Golden-tip	2	2																																										1		
P		*Grevillea huegelii*	Comb Grevillea	15	8	1							1	1															1								1	3	6										
P		*Grevillea ilicifolia* ssp. *ilicifolia*	Holly-leaf Grevillea	26	11									1			1	1	3								2										1												
		Grevillea lavandulacea ssp. *lavandulacea*	Spider-flower	1	1																1																												
	*	*Gypsophila tubulosa*	Annual Chalkwort	5	4													1				2																	1										
		Gyrostemon thesioides	Broom Wheel-fruit	1	1																																												
		Haeckeria punctulata	Sticky Haeckeria	3	3																								1										1				1						
		Haegiela tatei	Small Nut-heads	3	3																																												
	*	*Hainardia cylindrica*	Common Barb-grass	2	2	1																																											
P		*Hakea carinata*	Erect Hakea	8	2															7		1																											
P		*Hakea leucoptera* ssp. *leucoptera*	Silver Needlewood	8	6	1								1											1					2												2							

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
		Hakea mitchellii	Heath Needlebush	2	2																																												
		Hakea rostrata	Beaked Hakea	1	1													1																															
P		*Hakea rugosa*	Dwarf Hakea	5	3	1																																											
		Halgania andromedifolia	Scented Blue-flower	2	2																								1									1											
P		*Halgania cyanea*	Rough Blue-flower	19	10	1								5				2	2								1			1										1									
P		*Haloragis acutangula* f.	Smooth Raspwort	37	12	1																																									7		
P		*Haloragis aspera*	Rough Raspwort	13	9	1				2				3			1								1		1		2																				
P		*Halosarcia halocnemoides* ssp.	Grey Samphire	44	9																																												
P		*Halosarcia indica* ssp.	Brown-head Samphire	29	10																								1					1		1		1											
P		*Halosarcia pergranulata* ssp.	Black-seed Samphire	29	10																															1	1												
		Halosarcia pruinosa	Bluish Samphire	1	1																																												
		Halosarcia pterygosperma ssp. *pterygosperma*	Winged-seed Samphire	2	2																										1																		
P		*Halosarcia syncarpa*	Fused Samphire	4	3																																												
P		*Hardenbergia violacea*	Native Lilac	26	7													1				4					1																					10		
		Harmsiodoxa brevipes var. *brevipes*	Short Cress	1	1									1																																			
	*	*Hedypnois rhagadioloides*	Cretan Weed	104	36	17	1	1		1	2	2	3	15	1		5	5	5	2		13	1		1				3	1							1		1		1		2	1			3	3	1
P		*Helichrysum leucopsideum*	Satin Everlasting	229	43	1			2			2	1	3			2	4	1	1		2					2		7	3	4						9	8	5	5			3				28	2	3
		Heliotropium asperrimum	Rough Heliotrope	4	4									1	1																								1					1					
	*	*Heliotropium europaeum*	Common Heliotrope	3	3	1								1					1																														
	*	*Helminthotheca echioides*	Ox-tongue	8	5												1																									1						
P		*Hemichroa diandra*	Mallee Hemichroa	5	4																																												
P		*Hemichroa pentandra*	Trailing Hemichroa	7	4																																												
	*	*Herniaria cinerea*	Rupturewort	11	9								1				1						1							1				1	2		2												
		Hibbertia crinita		3	1															3																														
P		*Hibbertia exutiacies*	Prickly Guinea-flower	20	6			1										1		6	6	5			1																									
P		*Hibbertia pallidiflora*	Round-leaf Guinea-flower	4	3																																										2		
P		*Hibbertia platyphylla* ssp.		28	8																																										9		1
P		*Hibbertia riparia*	Bristly Guinea-flower	15	4																																										11		
P		*Hibbertia* sp. Glabriuscula (D.J.Whibley 9012)	Smooth Guinea-flower	20	8															4																				1								5		
P		*Hibbertia virgata*	Twiggy Guinea-flower	14	4																																			1								9		
	*	*Holcus lanatus*	Yorkshire Fog	1	1	1																																											
		Homoranthus wilhelmii	Wilhelm's Homoranthus	2	1																																												
	*	*Hordeum glaucum*	Blue Barley-grass	180	51	2	1		6	2	3	7		18	1	3	4					4	2		1		3		13	4	3	2	1	4	3	1	18	12	10	1	2		1	1	2				
	*	*Hordeum glaucum/leporinum*		68	24						1		3					2		1		10	1		3		2		6		2	2		2	1		4	7	11	1	1								
	*	*Hordeum hystrix*	Mediterranean Barley-grass	1	1																		1																										
	*	*Hordeum leporinum*	Wall Barley-grass	38	18				1					1					1	1		8			1		2		1			1		2			3	4	2	2									
	*	*Hordeum marinum*	Sea Barley-grass	23	16	1							1												1							1		2			1												
	*	*Hornungia procumbens*	Oval Purse	40	20																														1				1		1								
		Hyalosperma demissum	Dwarf Sunray	28	9	1							1				1			4		10			2																								
		Hyalosperma glutinosum ssp. *glutinosum*	Golden Sunray	14	10	4							1	1				1				2			1		1										1												
		Hyalosperma semisterile	Orange Sunray	37	15	4					1	1	1	5			2	3				8	2		3		1		1		2											2							
P		*Hybanthus floribundus* ssp. *floribundus*	Shrub Violet	6	2															5									1																				
		Hydrocotyle callicarpa	Tiny Pennywort	31	10													1		9	1	9			2				1																				1	

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
		Hydrocotyle capillaris	Thread Pennywort	43	16																																										14		2
		Hydrocotyle foveolata	Yellow Pennywort	5	3															1		3																											
P		*Hydrocotyle laxiflora*	Stinking Pennywort	24	9												1	3		3	1	11			2	1			1																			
		Hydrocotyle medicaginoides	Medic Pennywort	21	10																																2	1									1		
		Hydrocotyle pilifera var. *glabrata*	Buttercup Pennywort	17	8																																	1		2							1		1
P		*Hymenanthera dentata*	Tree Violet	4	3	1																			2			1																					
P	*	*Hypericum perforatum*	St John's Wort	9	4	1															1				6	1																							
	*	*Hypochaeris glabra*	Smooth Cat's Ear	349	54	34	2	5	7	2	6	5	3	24	1	1	17	15	2	14	1	35	6		17	1	4	1	16	2	2			1	1	2	3	3	10	3		6	4		2		12	4	4
	*	*Hypochaeris radicata*	Rough Cat's Ear	116	31	24	1	2	5	1	7	1	3	8			1	6	1	3		10	1		11			1	2	1							1												
		Hypoxis glabella var. *glabella*	Tiny Star	85	29	3						2		6											2							1			1		2					1	2		1		12		1
P	*	*Iris germanica*	Flag Iris	5	5	1								1								1			1																								
		Isoetopsis graminifolia	Grass Cushion	29	19	5					1	2		1			1			2		2						1						1		1	1	2				1	1					
		Isolepis cernua	Nodding Club-rush	7	4																																												
		Isolepis marginata	Little Club-rush	44	23								1					1		4		1			3		1											1		1									
P		*Isolepis nodosa*	Knobby Club-rush	68	10																																												
		Isolepis platycarpa	Flat-fruit Club-rush	1	1																								1																				
		Isotoma scapigera	Salt Isotome	2	2																																												
P		*Ixodia achillaeoides* ssp. *achillaeoides*	Coast Ixodia	18	5																																										6		
		Joycea clelandii	Cleland's Wallaby-grass	1	1				1																																								
	*	*Juncus acutus*	Sharp Rush	1	1																																												
		Juncus aridicola	Inland Rush	1	1																																												
		Juncus bufonius	Toad Rush	9	5				2																																								
	*	*Juncus capitatus*	Dwarf Rush	6	4																	3			1		1																						
	*	*Juncus effusus*	Soft Rush	1	1		1																																										
P		*Juncus flavidus*	Yellow Rush	7	5	1			1	2															2																								
P		*Juncus kraussii*	Sea Rush	23	6				1																																								
		Juncus radula	Hoary Rush	1	1																				1																								
P		*Juncus subsecundus*	Finger Rush	15	9	1		1					2					1			1	3	1		4																						1			
P		*Kennedia prostrata*	Scarlet Runner	38	18	1				1				2				1							2		2																					2	1	
	*	*Kickxia elatine* ssp.	Sharp-leaf Toadflax	2	2	1																																											
P		*Kunzea pomifera*	Muntries	4	2																																												
	*	*Lactuca serriola*	Prickly Lettuce	33	15	6								3			1			2		6			3		1		3								1		1										
		Lagenophora huegelii	Coarse Bottle-daisy	81	26	2						1					1	5	1	4	1	29			11		1		2								1		1									1	1	
	*	*Lagurus ovatus*	Hare's Tail Grass	152	27									1											1		1		3																			16	1	
	*	*Lamarckia aurea*	Toothbrush Grass	32	17	1						1					1					5	1				2		5			1		1	2	1		2	4		2	1							
	*	*Lamium amplexicaule* var. *amplexicaule*	Deadnettle	9	7														1			1			2				1								2				1									
P		*Lasiopetalum baueri*	Slender Velvet-bush	29	10									1															1											2									1
P		*Lasiopetalum behrii*	Pink Velvet-bush	21	6																																			1									
P		*Lasiopetalum discolor*	Coast Velvet-bush	70	13																																			1								25		
P		*Lasiopetalum schulzenii*	Drooping Velvet-bush	11	2																																										9		
P	*	*Lavandula stoechas*	Topped Lavender	7	3																2	2			3																								
		Lawrencia spicata	Salt Lawrencia	1	1																																												
P		*Lawrencia squamata*	Thorny Lawrencia	27	11																										1							1			1								
		Leiocarpa semicalva ssp. *semicalva*	Scented Button-bush	2	2	1																							1																				
P		*Leiocarpa supina*	Coast Plover-daisy	5	3																																												

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
P		*Leiocarpa websteri*	Narrow Plover-daisy	7	5	1					1			3											1																				1				
	*	*Leontodon taraxacoides* ssp. *taraxacoides*	Lesser Hawkbit	1	1																	1																											
	*	*Lepidium africanum*	Common Peppercress	67	20	10			2	1		1		5		2	1	1	1			14			9	1	4		5	1							4	1											
P	*	*Lepidium draba*	Hoary Cress	4	4																																												
		Lepidium oxytrichum	Green Peppercress	1	1																	1																											
		Lepidium oxytrichum/papillosum		5	4																	1																	1			2	1						
		Lepidium papillosum	Warty Peppercress	15	10							1					1					1			1				1						2		2				2	3						1	
		Lepidosperma aff. *congestum*		1	1													1																															
P		*Lepidosperma concavum*	Spreading Sword-sedge	7	5																																	1											
P		*Lepidosperma congestum*	Clustered Sword-sedge	114	18	1								2				2													1									3								37		3
		Lepidosperma curtisiae	Little Sword-sedge	2	2																1	1																											
P		*Lepidosperma gladiatum*	Coast Sword-sedge	37	9																																										1	1	
P		*Lepidosperma viscidum*	Sticky Sword-sedge	69	19	5								2			4	15	5	4		6					2		2	2										1							2		
		Leptinella reptans	Creeping Cotula	1	1																											1																	
		Leptomeria aphylla	Leafless Currant-bush	1	1																	1																											
		Leptorhynchos elongatus	Lanky Buttons	2	2									1																																			
		Leptorhynchos squamatus ssp. *squamatus*	Scaly Buttons	85	24	14	1	6	1		3	1	1	1			2	3		3		7			4																						22		1
		Leptorhynchos tetrachaetus	Little Buttons	36	14	12	1	1					2	2			2	2				7	1		1		2																1					1
		Leptorhynchos waitzia	Button Immortelle	9	5																																1									5		
		Leptospermum coriaceum	Dune Tea-tree	2	1																																											
P		*Leucophyta brownii*	Coast Cushion Bush	34	5																																											
		Leucopogon clelandii	Cleland's Beard-heath	1	1																																									1		
		Leucopogon concurvus	Scrambling Beard-heath	1	1																																											
P		*Leucopogon cordifolius*	Heart-leaf Beard-heath	5	2																																											
P		*Leucopogon parviflorus*	Coast Beard-heath	91	15																																									19	1	
		Levenhookia dubia	Hairy Stylewort	37	9	3												1		5		16			3	2														1								
		Levenhookia stipitata		1	1																																											
	*	*Limonium companyonis*	Sea-lavender	15	12																																											
	*	*Limonium lobatum*	Winged Sea-lavender	15	12	1					1			3	1		1																2			1								1				
P		*Linum marginale*	Native Flax	38	17	5								2	1		3	2	4	1		3														1						1				5	1	
	*	*Linum strictum* ssp. *strictum*	Upright Yellow Flax	133	28							2		2			2	1				1							4		3					1	1		3						29	3	3
	*	*Linum trigynum*	French Flax	7	5	2	1										2												1																	1		
		Lobelia alata	Angled Lobelia	1	1																																											
		Lobelia gibbosa	Tall Lobelia	8	6													1				1																								2		
P		*Logania crassifolia*	Coast Logania	42	10																																									12		
		Logania linifolia	Flax-leaf Logania	1	1																																											
P		*Logania minor*	Spoon-leaf Logania	7	3																																									5		
P		*Logania ovata*	Oval-leaf Logania	26	7																																									12		
		Logania saxatilis	Rock Logania	1	1															1																												
	*	*Logfia gallica*	Narrow Cudweed	8	8	1	1		1	1							1	1		1		1																										
	*	*Lolium loliaceum*	Stiff Ryegrass	7	6	2			1								1					1			1					1																		
	*	*Lolium multiflorum*	Italian Ryegrass	2	1																																											
	*	*Lolium perenne*	Perennial Ryegrass	32	16	5		1	4	1	2			7				1				3			1							1				1				1					1			
	*	*Lolium perenne* x *rigidum*	Hybrid Ryegrass	33	19	2			1					1				1				3			3				1							3	1	2	1									

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
	*	*Lolium rigidum*	Wimmera Ryegrass	218	48	13		1	5	1	2		4	12		3	6	8	1	4		22	1		23		7		10	3		1		3	1		12	6	9	1			2			1	3	1	
	*	*Lolium* x *hybridum*	Hybrid Ryegrass	2	2	1																																											
P		*Lomandra collina*	Sand Mat-rush	73	25	1						1		4	1		2	1	4	1							3		1											2							17	2	4
P		*Lomandra densiflora*	Soft Tussock Mat-rush	89	19	10		2	1				2	3			10	12	1	8	5	17			7	1	2	1	3																				
P		*Lomandra effusa*	Scented Mat-rush	230	41	17	2	2	7		8	12	1	33	1	2	6	8	4			5	2		1		7		9	6	4						2	4	2	2	1		3				34	1	3
		Lomandra leucocephala ssp. *robusta*	Woolly Mat-rush	1	1																																1												
P		*Lomandra micrantha* ssp. *micrantha*	Small-flower Mat-rush	36	17	5	1	1	1	1				1				3		2		3			2		4																			5		
P		*Lomandra multiflora* ssp. *dura*	Hard Mat-rush	241	34	55	2	9	8	1	9	5	3	23	1	2	16	17	5	8	1	25			6		7		10	3									2			1	1	1					
P		*Lomandra nana*	Small Mat-rush	8	4															1	2	2			3																								
P		*Lomandra sororia*	Sword Mat-rush	10	3															4		1			5																								
P		*Lotus australis*	Austral Trefoil	19	7									1															1																		2		
		Lotus cruentus	Red-flower Lotus	2	2																								1						1														
P		*Luzula meridionalis*	Common Wood-rush	5	4															2	1				1			1																					
P		*Lycium australe*	Australian Boxthorn	16	12						1								1					1					1		2					1	2					1	1						
P	*	*Lycium ferocissimum*	African Boxthorn	339	65	6			4	1	4	3	3	13		1	3	6	3			8	1	1	4		6		21	8	12	4		3	1	2	23	12	17	3	2		1	1	2		6		2
P		*Lysiana exocarpi* ssp. *exocarpi*	Harlequin Mistletoe	53	22	3			1								6	8		1							1		4	6	1					2	1		1		1		1						1
		Lythrum hyssopifolia	Lesser Loosestrife	12	8	2				1															1																								
		Lythrum paradoxum		1	1																																												
P		*Maireana aphylla*	Cotton-bush	24	15	4			1			1	1	4		4	1					1					1		1	1				1							1				1				
P		*Maireana appressa*	Pale-fruit Bluebush	5	3																														1		1		3										
P		*Maireana brevifolia*	Short-leaf Bluebush	126	33	2		1	4		5	2		13			1	1				7	1		2		4		12	7	1	6	1	2		2	12	12	13	2	1				1				
		Maireana enchylaenoides	Wingless Fissure-plant	254	33	39	2	5	9	3	8	5	1	29		2	13	10	5	1		31	2		14		10	1	19	3							10	5	10	2	1	3							
P		*Maireana erioclada*	Rosy Bluebush	43	15				1																				1		5	1		1		1	7	7	7		1								
P		*Maireana excavata*	Bottle Fissure-plant	31	13	9		3	5		1	1		2		2			1			1	1						2										2						1				
		Maireana georgei	Satiny Bluebush	1	1																																	1										
P		*Maireana lobiflora*	Lobed Bluebush	5	4	1			1			2											1																										
		Maireana microcarpa	Swamp Bluebush	1	1																												1															
P		*Maireana oppositifolia*	Salt Bluebush	44	16																																											
P		*Maireana pentatropis*	Erect Mallee Bluebush	7	4																															1	2	3	1									
P		*Maireana pyramidata*	Black Bluebush	32	9																	1			1				3			1			7	7	2	4	6									
P		*Maireana radiata*	Radiate Bluebush	4	3																																1	2	1									
P		*Maireana rohrlachii*	Rohrlach's Bluebush	9	7	1			1			1		2				1												2	1																	
P		*Maireana sedifolia*	Bluebush	25	10									2																2		1	1		3	3	4	2	6		1							
P		*Maireana tomentosa* ssp. *urceolata*		4	3				1		1																			2																		
P		*Maireana trichoptera*	Hairy-fruit Bluebush	24	11	1			1		3			4				1												1	4						3	1	4						1				
P		*Maireana turbinata*	Top-fruit Bluebush	23	14						1	1		1		1						1							1	1				1	2	3	2	3	3		2								
		Malva behriana	Australian Hollyhock	3	3	1																																1										
P	*	*Malva parviflora*	Small-flower Marshmallow	23	11				1					3		1											2		1					3			2	2	4										
P	*	*Marrubium vulgare*	Horehound	98	34	6			8		6	2		14	1	2	2	3	2	1		2	1	1	1		4		6	3		4		1	1	1	1		4	2			2	1	6			1	
		Marsdenia australis	Native Pear	1	1																								1																				
		Marsilea costulifera	Narrow-leaf Nardoo	1	1																				1																								
	*	*Medicago arabica*	Spotted Medic	1	1																																1												
	*	*Medicago littoralis*	Strand Medic	5	5				1	1	1			1																																			
	*	*Medicago minima* var. *minima*	Little Medic	243	54	8		1	10	1	4	9	3	30	1	1	7	2	2	4		13	2		5		4		14	6	1	2		3	3	2	11	13	16	4	1	2	7	2	2		6	3	1
	*	*Medicago polymorpha* var. *polymorpha*	Burr-medic	134	46	7			3	2	3			23			1	2	1	1		7			2		5		5	1	1	1		2	2	3	4	4	6	1	1	1			1		4		

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
	*	*Medicago sativa*		8	6	1							1	2											2																				1				
	*	*Medicago truncatula*	Barrel Medic	85	39	3			6		2	3		11		2	2		1			3	2		1		1		3	1	3			2	3		3	3	7	2			1	1	2				
P		*Melaleuca acuminata* ssp. *acuminata*	Mallee Honey-myrtle	60	18																								1		1						6	1	3	5								11		
		Melaleuca brevifolia	Short-leaf Honey-myrtle	3	2																																												
P		*Melaleuca decussata*	Totem-poles	11	4																																										7		
P		*Melaleuca gibbosa*	Slender Honey-myrtle	20	2																																										18		
P		*Melaleuca halmaturorum*	Swamp Paper-bark	16	3																																										2		
P		*Melaleuca lanceolata*	Dryland Tea-tree	232	41							2		4	1		4	3	1								1		10	1	7				1	1	15	12	11	5	1		3				46	5	1
P		*Melaleuca pauperiflora* ssp. *mutica*	Boree	8	2																																6	2											
P		*Melaleuca uncinata*	Broombush	24	5																																	1		1									
	*	*Melilotus indicus*	King Island Melilot	82	17																													1		1											11		
		Menkea australis	Fairy Spectacles	3	2																																	2											
		Mentha satureioides	Native Pennyroyal	1	1																				1																								
	*	*Mesembryanthemum aitonis*	Angled Iceplant	1	1																																1												
	*	*Mesembryanthemum crystallinum*	Common Iceplant	51	18				1																					1	3	3				2	8	3	2										
	*	*Mesembryanthemum nodiflorum*	Slender Iceplant	78	29	1			1				1	4								3							2	2	1	1		4	2	2	11	7	7		2								
		Microcybe multiflora ssp. *multiflora*	Small-leaf Microcybe	1	1																																										1		
		Microcybe pauciflora ssp. *pauciflora*	Yellow Microcybe	3	3																																	1											
		Microlaena stipoides var. *stipoides*	Weeping Rice-grass	1	1																1																												
		Microlepidium pilosulum	Hairy Shepherd's-purse	2	1																																												
	*	*Micropterum papulosum*		3	2																																												
		Microseris lanceolata	Yam Daisy	132	37	1			1								2	4	2	3	4	8					1		1	2	1						2	1		1								34	1	3
		Microtis arenaria	Notched Onion-orchid	9	8									1							1				1																							2		
		Microtis arenaria/frutetorum		10	6													1		1		2			1																							4		
		Microtis frutetorum		5	3																	2					1																					2		
		Millotia major		2	2																																												
		Millotia muelleri	Common Bow-flower	33	15	1														1											1						4			1								6		
		Millotia myosotidifolia	Broad-leaf Millotia	32	15				1			1						3		3		5															1	2		2								5		1
		Millotia perpusilla	Tiny Bow-flower	1	1																														1														
		Millotia tenuifolia var. *tenuifolia*	Soft Millotia	32	11													1		8		2			1				1													1						3		
		Mimulus repens	Creeping Monkey-flower	7	4																																												
	*	*Minuartia mediterranea*	Slender Sandwort	146	27									2			1										2		3									3					2				16	1	2
		Minuria cunninghamii	Bush Minuria	2	2																									1		1																		
		Minuria leptophylla	Minnie Daisy	77	25	16		3	2		4	3		16			1	1	2			3	1		3		2		2	1	3							2	1								4		
	*	*Misopates orontium*	Lesser Snapdragon	3	2																		2																										
	*	*Moenchia erecta*	Erect Chickweed	7	6			1					1									2			1		1	1																					
	*	*Molineriella minuta*	Small Hair-grass	4	2																																												
	*	*Moraea flaccida*	One-leaf Cape Tulip	31	12	3				1							1	2			3	3			12	2																							
	*	*Moraea miniata*	Two-leaf Cape Tulip	2	2									1											1																								
	*	*Moraea setifolia*	Thread Iris	335	60	18		3	10	4	6	5	2	41	1	4	4	11	1	5		23			11		7		15	1	11	4		6			16	8	12	5			2		2		6	2	3
P		*Muehlenbeckia adpressa*	Climbing Lignum	14	6																																												
P		*Muehlenbeckia florulenta*	Lignum	12	6																																												
P		*Muehlenbeckia gunnii*	Coastal Climbing Lignum	71	19																								2								1			2							2	1	2
	*	*Muscari armeniacum*	Grape Hyacinth	1	1																	1																											
P		*Myoporum insulare*	Common Boobialla	56	15																						1		1																		2		

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
P		*Myoporum montanum*	Native Myrtle	31	19	1				1		1	1		1		2			1		2		1	1		1		3													2	2						
P		*Myoporum parvifolium*	Creeping Boobialla	4	4																																										1		1
P		*Myoporum platycarpum* ssp.	False Sandalwood	44	14						1			1				1				4							4	5	5		1	1	4	3	4	3	7										
		Myoporum sp. Petiolatum (R.Taylor 484)	Sticky Boobialla	1	1																	1																											
		Myoporum viscosum	Sticky Boobialla	1	1																																										1		
		Myosotis australis	Austral Forget-me-not	6	5																																												
	*	*Neatostema apulum*	Hairy Sheepweed	43	20	8		3	4		1	3		7	1	1	1	1							2		1		2						1		1	1	1				2					1	1
P		*Neurachne alopecuroidea*	Fox-tail Mulga-grass	39	14	3		1										3		2	2	2			1		1																				1		
P	*	*Nicotiana glauca*	Tree Tobacco	4	2																																												
		Nicotiana goodspeedii	Small-flower Tobacco	4	2																														2														
		Nicotiana maritima	Coast Tobacco	11	6																																		1				1						1
		Nicotiana velutina	Velvet Tobacco	1	1										1																																		
P		*Nitraria billardierei*	Nitre-bush	63	22				1		1																		2		5			7	1	1	7	2							1				
	*	*Nothoscordum gracile*		1	1																																												
	*	*Oenothera stricta* ssp. *stricta*	Common Evening Primrose	2	1																																												
P	*	*Olea europaea* ssp. *europaea*	Olive	38	18	1	1		1					8				3	2	2	1	3	1		8		1		1																1	1			
P		*Olearia axillaris*	Coast Daisy-bush	168	19																										1																13		
		Olearia brachyphylla	Short-leaf Daisy-bush	1	1																																												
		Olearia calcarea	Crinkle-leaf Daisy-bush	2	2																															1			1										
P		*Olearia ciliata* var. *ciliata*	Fringed Daisy-bush	30	5																																										17		
P		*Olearia decurrens*	Winged Daisy-bush	20	11	1							1												1				3	2	1						1		3			4	2						
		Olearia floribunda var. *floribunda*	Heath Daisy-bush	3	3																																1			1									
		Olearia lepidophylla	Clubmoss Daisy-bush	1	1																																												
P		*Olearia minor*	Heath Daisy-bush	20	8												2												1								1	2									5		
P		*Olearia muelleri*	Mueller's Daisy-bush	29	10	1											1					1									1					2	8	5	7										
P		*Olearia pannosa* ssp. *pannosa*	Silver Daisy-bush	17	10												4	2				1							1								1	1											
		Olearia picridifolia	Rasp Daisy-bush	1	1																																											1	
P		*Olearia pimeleoides* ssp. *pimeleoides*	Pimelea Daisy-bush	25	11							2		3			4					3							2	3					1			4	1								1		
P		*Olearia ramulosa*	Twiggy Daisy-bush	29	13												1																														9	1	
		Olearia teretifolia	Cypress Daisy-bush	3	1															3																													
		Olearia tubuliflora	Rayless Daisy-bush	2	1															2																													
		Omphalolappula concava	Burr Stickseed	5	5							1		1																					1				1	1									
	*	*Oncosiphon suffruticosum*	Calomba Daisy	27	15									1								1					2				1	2		1			4	4	3										
	*	*Onopordum acanthium* ssp. *acanthium*	Scotch Thistle	2	1									2																																			
	*	*Onopordum acaulon*	Horse Thistle	26	13	2			2		2	1		6	1					2					2				1										3				1		2				
P		*Opercularia turpis*	Twiggy Stinkweed	51	16									1				1		3																				1							16		
P		*Opercularia varia*	Variable Stinkweed	5	2																1																										4		
		Ophioglossum lusitanicum	Austral Adder's-tongue	11	7	1																3																									1		1
	*	*Opuntia robusta*	Wheel Pear	1	1																						1																						
	*	*Ornithogalum thyrsoides*	Chincherinchee	1	1	1																																											
	*	*Osteospermum clandestinum*	Tripteris	4	3	2																					1		1																				
		Oxalis perennans	Native Sorrel	393	53	34	1	3	11	1	8	6	4	30		2	15	22	5	11	3	51	6		32	2	10	1	24	1	2				2		8	5	7		1	5	5	1	1		7	2	2
	*	*Oxalis pes-caprae*	Soursob	169	47	3		1	3	1	2		1	18		2		2				4		1	9	1	4		4	2	7	3		2		1	13	6	4	3							2		2
	*	*Oxalis purpurea*	One-o'clock	1	1																				1																								
P		*Ozothamnus retusus*	Notched Bush-everlasting	14	6													2				5																											

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
		Ozothamnus scaber	Rough Bush-everlasting	1	1																	1																											
		Panicum decompositum var. *decompositum*	Native Millet	1	1	1																																											
P		*Panicum effusum* var. *effusum*	Hairy Panic	4	4									1																																			
	*	*Papaver aculeatum*	Bristle Poppy	1	1																																												
	*	*Papaver hybridum*	Rough Poppy	10	7									2		1							1						2	1									2	1										
	*	*Papaver somniferum* ssp. *setigerum*	Small-flower Opium Poppy	2	2																						1																						
	*	*Parapholis incurva*	Curly Ryegrass	101	36				2				1	7	1							3			1				2			1		1		1	2	1	4								1		
	*	*Parentucellia latifolia*	Red Bartsia	21	13	1												1		4	1	3			1						1																4		
		Parietaria australis/debilis		66	30	1								1				3		1		5					1	1	1		1				1	1	8	3	7		1						3		
		Parietaria cardiostegia	Mallee Smooth-nettle	13	8																								1									1	3										
		Parietaria cardiostegia/debilis	Smooth-nettle	3	2																								2										1										
		Parietaria debilis	Smooth-nettle	2	2																	1							1																				
		Paspalidium gracile	Slender Panic	1	1																																												
		Pelargonium australe	Australian Pelargonium	28	6																																												
		Pelargonium littorale	Native Pelargonium	31	13																2								1								2	1									9		
	*	*Pennisetum setaceum*	Fountain Grass	2	2																						1												1										
	*	*Pentaschistis airoides*	False Hair-grass	91	23	9			1	1				2			6	7	3	10		21	4		8		6		2								1					1						1	
	*	*Pentaschistis pallida*	Pussy Tail	3	3									1				1				1																											
		Persicaria decipiens	Slender Knotweed	1	1																								1																				
	*	*Petrorhagia nanteuilii*		3	2	2				1																																							
	*	*Petrorhagia velutina*	Velvet Pink	40	17	7	1	2	2		1	1	1				2	2		5		6			4			1	2													1							
P	*	*Phalaris aquatica*	Phalaris	10	5																				1																								
	*	*Phalaris minor*	Lesser Canary-grass	5	5					1															1		1							1															
		Phebalium glandulosum ssp. *glandulosum*	Glandular Phebalium	1	1																																												
		Pheladenia deformis	Bluebeard Orchid	19	7																																			1							4		
		Philotheca angustifolia ssp. *angustifolia*	Narrow-leaf Wax-flower	2	2																																	1	1										
P		*Philotheca pungens*	Prickly Wax-flower	7	3																																										4		
P		*Philotheca verrucosa*	Bendigo Wax-flower	4	1															4																													
		Phlegmatospermum eremaeum	Spreading Cress	1	1																																		1										
P		*Phragmites australis*	Common Reed	20	6																				1																								
	*	*Phyla canescens*	Lippia	2	2																																												
		Phyllangium divergens	Wiry Mitrewort	27	10														1	6		5																									4		
P		*Phyllanthus australis*	Southern Spurge	6	2																																												
P		*Phyllanthus saxosus*	Rock Spurge	18	10												3	4	2				2						1								1					1	1					1	
	*	*Picnomon acarna*	Soldier Thistle	6	6	1									1			1	1										1																				
P		*Picris angustifolia* ssp. *angustifolia*	Coast Picris	11	8																																										1		
P		*Pimelea curviflora* var.	Curved Riceflower	17	9	1					2			3			2	1	1	2					1				4																				
P		*Pimelea flava* ssp. *dichotoma*	Diosma Riceflower	25	7																																										17		1
P		*Pimelea glauca*	Smooth Riceflower	60	19							1		4				4		2	2	1			1				2											1			1				15		
P		*Pimelea humilis*	Low Riceflower	8	5															1	1	2			3																								
		Pimelea imbricata var. *petraea*	Rock Woolly Riceflower	1	1																																												
P		*Pimelea micrantha*	Silky Riceflower	62	21	5	1		2		3	3		21	1		2	4	5	3		1			2				1									1										2	1
P		*Pimelea microcephala* ssp. *microcephala*	Shrubby Riceflower	30	15					1				2				1					2				1		2	1							1	1	9		2			1	1				

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
P		*Pimelea serpyllifolia* ssp. *serpyllifolia*	Thyme Riceflower	174	31									2			1												2		5						7	2	3	2							22	1	3
P		*Pimelea stricta*	Erect Riceflower	8	6														1	3		1							1																				1	
P	*	*Pinus halepensis*	Aleppo Pine	13	7	2				1			1	6					1						1																									
	*	*Pinus ponderosa*	Ponderosa Pine	1	1									1																																				
	*	*Pinus radiata*	Radiata Pine	1	1															1																														
P	*	*Piptatherum miliaceum*	Rice Millet	19	8	3			1				1	6		1															1					1														
P		*Pittosporum angustifolium*	Native Apricot	213	46	4			3		3		1	9			5	3	1			7	1				2		19	5	10	1			1		20	9	26	5	1	1	2		1		5		2
		Plagiobothrys plurisepaleus	White Rochelia	1	1																														1															
		Plantago aff. *debilis*	Shade Plantain	1	1																																													
	*	*Plantago bellardii*	Hairy Plantain	2	2	1																1																												
	*	*Plantago coronopus* ssp.	Bucks-horn Plantain	1	1																											1																		
	*	*Plantago coronopus* ssp. *commutata*	Bucks-horn Plantain	1	1																																													
	*	*Plantago coronopus* ssp. *coronopus*	Bucks-horn Plantain	1	1																																													
		Plantago drummondii	Dark Plantain	6	4																	2																2		1										
P		*Plantago gaudichaudii*	Narrow-leaf Plantain	18	5	3							1				1					4			9																									
P		*Plantago hispida*	Hairy Plantain	36	17	11						1	1	1			3		1	4		3			1			1	2																					
P	*	*Plantago lanceolata* var. *lanceolata*	Ribwort	20	10	3					1		1	4							2	1			5	1	1																							
		Plantago sp. B	Little Plantain	23	13													1		6											1							2	1	1									1	3
P		*Plantago varia* complex	Native Plantain	27	7	9					1		1	3								11			1																									
		Platysace heterophylla var. *heterophylla*	Slender Platysace	1	1															1																														
		Pleuropappus phyllocalymmeus	Silver Candles	1	1																																													
P		*Pleurosorus rutifolius*	Blanket Fern	7	7	1												1		1		1			1			1																						
	*	*Poa annua*	Winter Grass	1	1																																													
P	*	*Poa bulbosa*	Bulbous Meadow-grass	56	19	9	1	1	3	1	3		1	7			1	1	1	2		13			6		1	1	2								1													
		Poa clelandii	Matted Tussock-grass	1	1												1																																	
P		*Poa crassicaudex*	Thick-stem Tussock-grass	59	17	7		1				1	1	2			4	6		8	5	12			6	1	1	1	1																				1	
P		*Poa drummondiana*	Knotted Poa	10	5												1					2			2																							4		
		Poa fax	Scaly Poa	5	2																																													
P		*Poa labillardieri* var. *labillardieri*	Common Tussock-grass	11	10								1					1							2																							1		
P		*Poa poiformis* var. *poiformis*	Coast Tussock-grass	67	15	1																			1																							7		
		Podolepis canescens	Grey Copper-wire Daisy	12	5																										1																	8		
		Podolepis capillaris	Wiry Podolepis	7	5																										1							1												
		Podolepis davisiana	Button Podolepis	1	1																																													
		Podolepis jaceoides	Showy Copper-wire Daisy	14	7									2					1												2									2										
		Podolepis muelleri	Button Podolepis	1	1																		1																											
		Podolepis rugata var.	Pleated Copper-wire Daisy	9	4																																										5		
		Podolepis rugata var. *littoralis*	Coast Copper-wire Daisy	5	3																																										3		
		Podolepis rugata var. *rugata*	Pleated Copper-wire Daisy	4	3																								1																		2		
		Podolepis tepperi	Delicate Copper-wire Daisy	25	12									2						1		1														1	3		2			1				1	1	1
		Podotheca angustifolia	Sticky Long-heads	82	21													1		2							1				1									1							24	1	2
		Pogonolepis muelleriana	Stiff Cup-flower	53	23	5			2	1		2	1	7			1					7	1		1												2	2	4	2		1							
	*	*Polycarena heterophylla*		1	1																						1																							
	*	*Polycarpon tetraphyllum*	Four-leaf Allseed	3	3																		1						1																					
	*	*Polygala myrtifolia*	Myrtle-leaf Milkwort	3	1																																													
	*	*Polygonum aviculare*	Wireweed	13	10				1	1				1						1		2					1							1										2					

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
	*	*Polypogon maritimus*	Coast Beard-grass	1	1																																										1		
	*	*Polypogon monspeliensis*	Annual Beard-grass	14	5																																												
		Polypogon tenellus		1	1																																												
P	*	*Polypogon viridis*	Water Bent	5	4								1												1																								
P		*Pomaderris obcordata*	Wedge-leaf Pomaderris	22	4																																										10		
P		*Pomaderris paniculosa* ssp.		97	26	2	1							5				9	4								4				2						3			1			3				12	1	2
		Poranthera microphylla	Small Poranthera	17	7													1		4			1																								6	2	
		Poranthera triandra	Three-petal Poranthera	26	10												1																					1									6	1	
		Prasophyllum calcicola	Limestone Leek-orchid	1	1																																												
		Prasophyllum elatum	Tall Leek-orchid	1	1																																												
		Prasophyllum fitzgeraldii	Fitzgerald's Leek-orchid	3	2																	1																											
		Prasophyllum goldsackii	Goldsack's Leek-orchid	2	1																																												
		Prasophyllum occidentale	Plains Leek-orchid	1	1																																												1
		Prasophyllum occultans	Hidden Leek-orchid	1	1																																												
		Prasophyllum odoratum	Scented Leek-orchid	7	4												2																					1										3	
		Prasophyllum odoratum complex	Leek-orchid	4	2																																										3		
P		*Prostanthera behriana*	Downy Mintbush	4	1															4																													
		Prostanthera serpyllifolia ssp. *microphylla*	Small-leaf Mintbush	2	2																																										1		
		Prostanthera serpyllifolia ssp. *serpyllifolia*	Thyme Mintbush	3	1																																										3		
		Prostanthera striatiflora	Striated Mintbush	1	1												1																																
	*	*Prunus domestica* ssp.	Plum	1	1																1																												
	*	*Prunus dulcis*	Almond	1	1									1																																			
		Pseudognaphalium luteoalbum	Jersey Cudweed	2	2									1																																			
	*	*Psilurus incurvus*	Bristle-tail Grass	3	2																	2			1																								
		Pterostylis aff. *excelsa*	Dryland Greenhood	1	1																																												
		Pterostylis biseta	Two-bristle Greenhood	17	9													1				3	1						3	1								1	3			3								
		Pterostylis boormanii	Boorman's Greenhood	3	3																																			1							1		
		Pterostylis cycnocephala	Swan-head Greenhood	1	1																						1																						
		Pterostylis dolichochila	Mallee Shell-orchid	1	1																																												
		Pterostylis erythroconcha	Red Shell-orchid	6	4																																	1									1		
		Pterostylis excelsa	Dryland Greenhood	2	2																																	1											
		Pterostylis mutica	Midget Greenhood	26	9																																7	3	2	3							1		
		Pterostylis nana	Dwarf Greenhood	5	3																																										1		
		Pterostylis pedunculata	Maroon-hood	4	1																																												
		Pterostylis plumosa	Bearded Greenhood	3	3															1																											1		
		Pterostylis pusilla	Small Rusty-hood	9	6													1				2															1			1									
		Pterostylis robusta	Large Shell-orchid	11	6															4		3				1											1											1		
		Pterostylis rufa group	Rusty-hood	1	1																																												
		Pterostylis sanguinea	Blood Greenhood	13	8															1	1																			1							1		
		Pterostylis sp. Coastal (R.Bates 37621)	Tall Greenhood	17	6																																	1		1									
P		*Ptilotus erubescens*	Hairy-tails	23	9	14		2	1				1	1		1						1			1				1																					
P		*Ptilotus nobilis* var. *angustifolius*	Yellow-tails	5	5	1		1						1				1																					1										
P		*Ptilotus obovatus* var. *obovatus*	Silver Mulla Mulla	5	5						1						1												1							1							1							
		Ptilotus seminudus	Rabbit-tails	32	11													1				1															9	6	9	1									1

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
P		*Ptilotus spathulatus* f. *spathulatus*	Pussy-tails	186	35	30	1	1	9	1	9	11		19	1	1	12	3	3			14	4		4		8	1	13	2							4	5	5			2	2	2				2	1
	*	*Puccinellia distans*	Reflexed Poa	2	2																																												
P		*Puccinellia stricta* var. *stricta*	Australian Saltmarsh-grass	7	6																																												
P		*Pultenaea acerosa*	Bristly Bush-pea	9	4																																										1		
P		*Pultenaea kraehenbuehlii*	Tothill Bush-pea	5	1															5																														
P		*Pultenaea largiflorens*	Twiggy Bush-pea	34	7													3		7	2	12	1		7	2																								
		Pultenaea laxiflora	Loose-flower Bush-pea	1	1															1																														
P		*Pultenaea tenuifolia*	Narrow-leaf Bush-pea	57	13																																										29	1	1
		Pultenaea vestita	Feather Bush-pea	1	1																																												
P		*Pycnosorus globosus*	Drumsticks	5	3																	1							3									1											
		Pycnosorus pleiocephalus	Soft Billy-buttons	5	4								1	1																2																			
		Pyrorchis nigricans	Black Fire-orchid	1	1																																												
		Ranunculus hamatosetosus	Hill Buttercup	5	4													1				2							1									1											
	*	*Ranunculus muricatus*	Pricklefruit Buttercup	1	1																				1																								
		Ranunculus pachycarpus	Thick-fruit Buttercup	3	2													1																															
		Ranunculus sessiliflorus var.	Annual Buttercup	4	3															1		2																											
		Ranunculus sessiliflorus var. *sessiliflorus*	Annual Buttercup	13	5																																										4		
	*	*Rapistrum rugosum* ssp. *rugosum*	Turnip Weed	68	26	4			1		2			18	1	1		4	1			2	1	1					1		1	1		2			2	1	4	3					1				
	*	*Reichardia tingitana*	False Sowthistle	64	22	1					2	2	1	9											1				1		2	1		1			1		1				1						
P	*	*Reseda lutea*	Cut-leaf Mignonette	10	7														1																												1		
P	*	*Reseda luteola*	Wild Mignonette	4	4									1																																			
	*	*Retama raetam*	White Weeping Broom	1	1																				1																								
P		*Rhagodia candolleana* ssp. *candolleana*	Sea-berry Saltbush	218	35									1													1		1	1	4						9	4		1							16		3
P		*Rhagodia crassifolia*	Fleshy Saltbush	20	7																								1		6						6	2		1							3		
P		*Rhagodia parabolica*	Mealy Saltbush	205	36	4			1		3	2	1	10	1		7	2	2			8			1		5		22	9	8					2	31	18	27	2	2	5	2	1	3				
P		*Rhagodia preissii* ssp. *preissii*	Mallee Saltbush	23	13				1				1	1								1					1		2		1						3	3	2										
P		*Rhagodia spinescens*	Spiny Saltbush	43	20									1					1			2	1		1		3		4	4		1	1	3	3	1	4	2	6		2	1	1						
P		*Rhagodia ulicina*	Intricate Saltbush	10	5												1																			3	1		4		1								
	*	*Rhamnus alaternus*	Blowfly Bush	1	1																				1																								
		Rhodanthe corymbiflora	Paper Everlasting	27	13				1		1		1	3			1					7							2								1	2	5	1			1	1					
		Rhodanthe floribunda	White Everlasting	1	1									1																																			
		Rhodanthe laevis	Smooth Daisy	11	2															8																													
		Rhodanthe polygalifolia	Milkwort Everlasting	2	2																	1					1																						
		Rhodanthe pygmaea	Pigmy Daisy	68	28	5		1	2		2	2		9			5	2				7	3		2		2		5	1					1		1	3	1			2	1	1				1	2
		Rhodanthe stuartiana	Clay Everlasting	9	5									1																							1	2	4										
		Rhodanthe troedelii	Small Paper-everlasting	2	2	1							1																																				
		Rhyncharrhena linearis	Bush Bean	1	1																	1																											
	*	*Ricinus communis*	Castor Oil Plant	1	1																																												
	*	*Romulea minutiflora*	Small-flower Onion-grass	98	18	17	1	4	1	1	5	2	3	11				4		2		25			16	1	1		2																				
	*	*Romulea rosea* var. *australis*	Common Onion-grass	26	10	10	1	1									2	1				6								2							1												
		Romulea rosea var. *australis*	Common Onion-grass	2	1																				2																								
	*	*Rorippa nasturtium-aquaticum*	Watercress	2	1																																												
P	*	*Rosa canina*	Dog Rose	15	9	2								2			1			1					3	1																							
	*	*Rosa rubiginosa*	Sweet Briar	2	2													1			1																												

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
	*	*Rostraria cristata*	Annual Cat's-tail	229	49	5		2	5		3	4		17	1		9	4		2		10	3		4		5	1	10	2				2		1	8	13	16	1	2	1		1			19	3	2
	*	*Rostraria pumila*	Tiny Bristle-grass	11	8	4								1								1																1			1								
	*	*Rubus ulmifolius* var. *ulmifolius*	Blackberry	1	1																				1																								
P		*Rumex brownii*	Slender Dock	30	11	5											3	1		3		1			8		1	1	4																				
P	*	*Rumex conglomeratus*	Clustered Dock	17	8	2							1							1		3			3																								
P	*	*Rumex crispus*	Curled Dock	21	12	3		1		1			1	2											3																								
P		*Rumex dumosus*	Wiry Dock	25	12	10		2	1	1	2		1	3			1	1											1																				
	*	*Rumex obtusifolius*	Broad-leaf Dock	1	1																																												
	*	*Sagina apetala*	Annual Pearlwort	11	11	1								1								1			1				1										1			1							
	*	*Sagina maritima*	Sea Pearlwort	20	10																		1																								2		
		Salsola kali	Buckbush	92	31	3			5		3	1	1	13		1		1	1			8			1				7	4	2	2		1	1		4	3	10		1				1				
	*	*Salvia verbenaca form*	Wild Sage	101	23	14	1		10	2	7	1	4	32		1		1	2	1		3	1		5				2	4		1							2	1					3				
	*	*Salvia verbenaca* var. *verbenaca*	Wild Sage	95	32	19	2	6	1		6	4		12	1	1	4	3	1	1		3	1		4		2		5	1									2					1			1	1
P		*Samolus repens*	Creeping Brookweed	38	10																1																											
	*	*Sanguisorba minor* ssp. *muricata*	Sheep's Burnet	3	1									3																																			
P		*Santalum acuminatum*	Quandong	76	32	1							1	3			1	2	1			3	1				1		2	2	2						6	4	5	2			1			13		1
		Santalum murrayanum	Bitter Quandong	2	2																																												
		Santalum spicatum	Sandalwood	1	1																																				1								
P		*Sarcocornia blackiana*	Thick-head Samphire	12	4																																												
P		*Sarcocornia quinqueflora*	Beaded Samphire	45	10																																												
		Sarcozona praecox	Sarcozona	2	2																						1									1													
		Sauropus rigens	Stiff Spurge	1	1																				1																								
P	*	*Scabiosa atropurpurea*	Pincushion	17	7	2							1	8											3	1																			1				
		Scaevola aemula	Fairy Fanflower	2	2				1										1																														
P		*Scaevola albida*	Pale Fanflower	41	14									9	1		1	3	1	1	1	5			5	2	2		3																				
		Scaevola angustata	Coast Fanflower	2	2																																												
P		*Scaevola crassifolia*	Cushion Fanflower	43	8																																									4		
P		*Scaevola humilis*	Inland Fanflower	21	10	1						1		1			9	4		1		1					1		1																				1
		Scaevola linearis ssp. *confertifolia*	Bundled Fanflower	2	1																																												
P		*Scaevola spinescens*	Spiny Fanflower	36	14						1	1		5																2	5						3	3	3		2				1				2
P	*	*Schinus molle*	Pepper-tree	12	6									5													1							1															
	*	*Schismus barbatus*	Arabian Grass	78	24							1		3	1		1					3			1		1		5	1	2			1	1	3	11	9	12		2								
		Schoenoplectus litoralis	Shore Club-rush	1	1																																												
P		*Schoenoplectus pungens*	Spiky Club-rush	5	3																																												
P		*Schoenus apogon*	Common Bog-rush	26	9	5							1							3	1	5			8		1																						
P		*Schoenus breviculmis*	Matted Bog-rush	24	6															1																														
P		*Schoenus deformis*	Small Bog-rush	4	2																																												
		Schoenus nanus	Little Bog-rush	8	4															3																											1		
		Schoenus nitens	Shiny Bog-rush	3	2																																												
P		*Scleranthus pungens*	Prickly Knawel	11	9	1					1					1									1			1	1										1			2	2						
P		*Sclerolaena brachyptera*	Short-wing Bindyi	10	7	4					1		1	1								1								1																				
		Sclerolaena brevifolia	Small-leaf Bindyi	1	1																																1												
P		*Sclerolaena diacantha*	Grey Bindyi	108	22	2					1	1	1	5								7			1				3	5	3	1	1	2	3	2	26	16	19		2								
		Sclerolaena divaricata	Tangled Bindyi	1	1																																												
P		*Sclerolaena obliquicuspis*	Oblique-spined Bindyi	28	14				1					2								1								1	1	2		1	3	4	2	3	5		1				1				

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
		Sclerolaena parallelicuspis	Western Bindyi	1	1																								1																				
P		*Sclerolaena patenticuspis*	Spear-fruit Bindyi	8	8						1																			1			1		1		1	1	1		1							
P		*Sclerolaena uniflora*	Small-spine Bindyi	11	7					1				2															2																		1		
P		*Sclerostegia arbuscula*	Shrubby Samphire	32	4																																												
		Sclerostegia disarticulata		1	1																																												
		Sclerostegia tenuis	Slender Samphire	1	1																																												
	*	*Scorzonera laciniata*	Scorzonera	5	4	1							1																1																				
		Sebaea ovata	Yellow Sebaea	17	8									2								1																1									7	2	
		Senecio anethifolius ssp.	Feathery Groundsel	1	1																																												
		Senecio dolichocephalus/phelleus		24	13														1	1		7			1		1		2								2		1									1	
		Senecio glossanthus	Annual Groundsel	128	34	3								1			4			1							1		4					1	1	1	19	12	8	3							7	1	2
		Senecio macrocarpus	Large-fruit Groundsel	1	1																																												
		Senecio odoratus	Scented Groundsel	1	1													1																															
		Senecio picridioides	Purple-leaf Groundsel	4	3																	1							1																				
P		*Senecio pinnatifolius*	Variable Groundsel	171	27									1													1									1	3	1									17		1
	*	*Senecio pterophorus*	African Daisy	2	2																																												
		Senecio quadridentatus	Cotton Groundsel	63	24	8	1		2			1		2			6	3	1	2	1	8			7		1		4								1	5	1			2	1				1		
P		*Senna artemisioides* ssp. *artemisioides*	Silver Senna	5	5									1			1	1																								1		1					
P		*Senna artemisioides* ssp. *coriacea*	Broad-leaf Desert Senna	94	26	4			2		2	2		18				2	2			7		1			3		6	12	5	1					5	2	10	1	1		2		1				
P		*Senna artemisioides* ssp. *filifolia*	Fine-leaf Desert Senna	10	7	1							1	2													1			3							1						1						
P		*Senna artemisioides* ssp. *petiolaris*	Flat-stalk Senna	49	18	3					1	2	1	1				1	2			2					3		7	2	1						3	3	11						1				
		Senna artemisioides ssp. *quadrifolia*	Four-leaf Desert Senna	1	1									1																																			
		Senna cardiosperma ssp. *gawlerensis*	Gawler Ranges Senna	1	1																																			1									
P		*Setaria constricta*	Knotty-butt Paspalidium	8	6	2					1			1	1			2											1																				
	*	*Sherardia arvensis*	Field Madder	35	12	1												1			1	6			2																						12		
P		*Sida corrugata* var.	Corrugated Sida	117	23	26	1	2	8	2	4	3	2	21		3	3	3	2			14	3	1	3		1		5	5									2					2	1				
		Sida fibulifera	Pin Sida	1	1	1																																											
P		*Sida intricata*	Twiggy Sida	6	6				1	1			1																			1			1										1				
P		*Sida petrophila*	Rock Sida	8	8						1	1					1												1			1							1			1							
		Sigesbeckia orientalis ssp. *orientalis*	Oriental Sigesbeckia	1	1												1																																
	*	*Silene apetala*	Sand Catchfly	4	4																										1																1		
	*	*Silene gallica* var. *gallica*	French Catchfly	13	9	1						1	1	1			1			3		2																											
	*	*Silene nocturna*	Mediterranean Catchfly	159	41	6	1		1		1	1		2			11	1		1		9	2		1		2	1	7					2			4	10	7	3	1	3	2	1			10	3	2
	*	*Silene tridentata*		5	4																																2									1		
		Siloxerus multiflorus	Small Wrinklewort	18	7					1								1		5		3																											
	*	*Silybum marianum*	Variegated Thistle	8	5								2											1		1																							
	*	*Sisymbrium erysimoides*	Smooth Mustard	177	38	1			2		1	2	2	10								7	3	1	1		3		11	9	3	3		3	4	2	28	17	29	3	2	3	3	1				1	
	*	*Sisymbrium irio*	London Mustard	30	16				2						1		1	1				1					1		3					1	1		2	4	8					1	1				
	*	*Sisymbrium officinale*	Hedge Mustard	5	5	1			1																1																								
	*	*Sisymbrium orientale*	Indian Hedge Mustard	18	15						1			2		1		1				1	2		1				2			1							1			1							
		Solanum coactiliferum	Tomato-bush	1	1									1																																			
	*	*Solanum elaeagnifolium*	Silver-leaf Nightshade	1	1				1																																								
		Solanum ellipticum	Velvet Potato-bush	1	1						1																																						
		Solanum esuriale	Quena	3	3									1																									1										
P	*	*Solanum nigrum*	Black Nightshade	20	14	1								3			1	1		1		2			1				2						1		1	1											

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
		Solanum petrophilum	Rock Nightshade	2	2																																		1				1						
P		*Solenogyne dominii*	Smooth Solenogyne	6	3	4														1					1																								
	*	*Sonchus asper* ssp. *asper*	Rough Sow-thistle	15	9									1				2														1						2	4	1									
	*	*Sonchus asper* ssp. *glaucescens*	Rough Sow-thistle	7	7											1																					1		1										
		Sonchus hydrophilus	Native Sow-thistle	2	2																																												
	*	*Sonchus oleraceus*	Common Sow-thistle	588	77	19	2	1	8	1	5	4	3	37	2	2	16	13	3	7		31	3	1	18		11	1	22	4	4	3		6	6	3	24	18	32	5	3	4	7	2	4	1	17	2	3
	*	*Sonchus tenerrimus*	Clammy Sow-thistle	6	5						1			1																						1			2										
	*	*Sparaxis bulbifera*	Sparaxis	2	1																				2																								
	*	*Sparaxis tricolor*	Tricolor Harlequin Flower	6	3									1											4		1																						
	*	*Spergularia diandra*	Lesser Sand-spurrey	63	25	2			1		1			4			2					1	1		2			1	5		1				1		9	10	7		2								
	*	*Spergularia marina*	Salt Sand-spurrey	20	11							1										2			1												1					1								
	*	*Spergularia media*	Coast Sand-spurrey	1	1																																												
	*	*Spergularia rubra*	Red Sand-spurrey	19	11	3								1			1					7	1						1																				
	*	*Sphenopus divaricatus*	Wedge-foot Grass	12	5																																												
P		*Spinifex hirsutus*	Rolling Spinifex	26	6																																												
P		*Sporobolus virginicus*	Salt Couch	5	4																																												
		Spyridium eriocephalum var. *eriocephalum*	Heath Spyridium	2	1																																										2		
P		*Spyridium parvifolium*	Dusty Miller	14	3													2		11		1																											
P		*Spyridium phylicoides*	Narrow-leaf Spyridium	52	12																																1			1							27		1
P		*Spyridium subochreatum* var. *subochreatum*	Velvet Spyridium	5	2																																										3		
	*	*Stachys arvensis*	Stagger Weed	2	2																	1			1																								
		Stackhousia annua	Annual Candles	2	1																																										2		
P		*Stackhousia aspericocca* ssp.	Bushy Candles	13	7													1																													4		1
P		*Stackhousia monogyna*	Creamy Candles	159	31	18	2	3	2		4		1	9			10	14	4	8	5	17			12	3	7		5		3						2	1				1	1				1	3	1
		Stackhousia spathulata	Coast Candles	2	2																																										1		
	*	*Stellaria media*	Chickweed	115	30												3			1		8			3			1	6		1					1	5	5	1		1							1		
P		*Stenanthemum leucophractum*	White Cryptandra	8	3																																			1									
		Stenopetalum lineare	Narrow Thread-petal	24	12	1											3								1		1		1						1		3	4	5		1								1	
		Stenopetalum sphaerocarpum	Round-fruit Thread-petal	1	1																																		1										
		Stuartina muelleri	Spoon Cudweed	26	7					1								1		9		11			2				1										1											
P		*Suaeda australis*	Austral Seablite	18	6																															1														
		Swainsona behriana	Behr's Swainson-pea	3	3	1		1														1																												
		Swainsona oroboides	Variable Swainson-pea	1	1	1																																											
		Swainsona oroboides complex	Variable Swainson-pea	2	2								1									1																												
		Swainsona stipularis	Orange Swainson-pea	2	2				1																																									
		Swainsona tephrotricha	Ashy-haired Swainson-pea	1	1									1																																				
P		*Templetonia aculeata*	Spiny Mallee-pea	8	4									4				2	1																							1								
P		*Templetonia egena*	Broombush Templetonia	10	5									2																5					1				1		1									
P		*Templetonia retusa*	Cockies Tongue	61	10																																										21		
		Templetonia sulcata	Flat Mallee-pea	1	1																																	1											
		Tetragonia eremaea	Desert Spinach	21	12												1					1							2	1				1	3		3	2	3	1	2	1							
		Tetragonia eremaea/tetragonoides	Native Spinach	7	5																														3	1		1	1			1							
P		*Tetragonia implexicoma*	Bower Spinach	203	32	1					2			1													1				13						13	2	2	2					1		11		3
P		*Tetragonia tetragonioides*	New Zealand Spinach	4	4																								1			1		1		1													

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
		Tetraria capillaris	Hair Sedge	1	1																																										1		
P		*Teucrium racemosum*	Grey Germander	17	11	1	1	1	2	1				5								1																1	2						1				
P		*Teucrium sessiliflorum*	Mallee Germander	69	22				1		1	3	2	8			2	4	2		1	4					1		5	1	1						6	5	11										1
		Thelymitra antennifera	Lemon Sun-orchid	9	2																																												
		Thelymitra aristata	Great Sun-orchid	3	1															3																													
		Thelymitra grandiflora	Great Sun-orchid	1	1																	1																											
		Thelymitra luteocilium	Yellow-tuft Sun Orchid	6	2															5																													
		Thelymitra nuda	Scented Sun-orchid	39	15														1	2	2	4			2															2							1	1	1
		Thelymitra pauciflora	Slender Sun-orchid	4	2															3	1																												
		Thelymitra rubra	Salmon Sun-orchid	5	2															2	3																												
P		*Themeda triandra*	Kangaroo Grass	88	22	24	3	2	1	3	1		1	7			6	13	2	1	1	5			6	1	4		1																				1
		Thomasia petalocalyx	Paper-flower	1	1																																												
P		*Threlkeldia diffusa*	Coast Bonefruit	193	34																						1		1		7					1	10	4		1	1						9		1
		Thryptomene micrantha	Ribbed Thryptomene	3	2																																			1									
		Thysanotus baueri	Mallee Fringe-lily	50	21	5			2					4			5	2	1		1	3					1		3								2	4	6	1			1				3	1	1
		Thysanotus patersonii	Twining Fringe-lily	118	29	5		2				1		3			5	6	2	8	3	9			7		1		1								1	4	2	2							11	2	1
		Thysanotus tenellus	Grassy Fringe-lily	5	4	2						1																									1	1											
		Trachymene cyanopetala	Purple Trachymene	2	2																																												
		Trachymene pilosa	Dwarf Trachymene	11	7																																			1							3		
	*	*Tragopogon porrifolius*	Salsify	5	3																																												
	*	*Tribolium acutiflorum*		1	1																																	1											
P		*Tricoryne elatior*	Yellow Rush-lily	17	14										1		1	2	1		1	1					1		1														1				2	1	
P		*Tricoryne tenella*	Tufted Yellow Rush-lily	11	4																																										7		
	*	*Trifolium angustifolium*	Narrow-leaf Clover	195	31	44	2	4	7	3	5	1	3	8	1	1	10	13	2	7		31			25	1	6		4									1				1						2	1
	*	*Trifolium arvense* var. *arvense*	Hare's-foot Clover	188	29	37	3	4	6	3	3	2	4	13		2	10	15		6		36	5		16		4		3									1	2			2				1			
	*	*Trifolium campestre*	Hop Clover	227	41	41	2	6	5	3	5	1	2	11		1	14	11	2	8		25	2		20		3		8									1	1			1	2				14	4	2
	*	*Trifolium dubium*	Suckling Clover	5	3	3							1	1																																			
	*	*Trifolium fragiferum* var. *fragiferum*	Strawberry Clover	1	1																				1																								
	*	*Trifolium glomeratum*	Cluster Clover	87	21	17		2	2	1		1	2	5		1	1	3	1	3		22			12	2	4	1	3										2										
	*	*Trifolium hirtum*	Rose Clover	7	4												1	2				3			1																								
	*	*Trifolium michelianum* 'var. *balansae*'	Annual White Clover	1	1																				1																								
	*	*Trifolium scabrum*	Rough Clover	57	25	3						1	1	6			1	1		1		10			6		1		2								1						1				2	1	
	*	*Trifolium subterraneum*	Subterranean Clover	25	12	2		1		2		1	2							1		3			9			1	1																				
	*	*Trifolium tomentosum*	Woolly Clover	40	17	4			1				1							3		10	1		6		1	1	4					1				2	1										
		Triglochin calcitrapum	Spurred Arrowgrass	2	2																																									1		1
		Triglochin centrocarpum	Dwarf Arrowgrass	23	13															1		1																									3		
		Triglochin minutissumum	Tiny Arrowgrass	3	3																																												
		Triglochin mucronatum	Prickly Arrowgrass	6	4																																												
P		*Triglochin striatum*	Streaked Arrowgrass	6	3																																												
		Triglochin trichophorum		1	1																																												
P		*Triodia bunicola*	Flinders Ranges Spinifex	35	8	5								1			22	1				1					1		3																				
P		*Triodia bunicola/scariosa*		6	4	2		1											2			1																											
P		*Triodia compacta*	Spinifex	9	2																																									2		
P		*Triodia irritans*	Spinifex	12	4	2	1											4																													5		
P		*Triodia irritans* complex	Spinifex	10	6	4			1					1																1									1								2		

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
P		*Triodia scariosa*	Spinifex	6	5	1								1	2			1				1																											
		Triptilodiscus pygmaeus	Small Yellow-heads	73	18	21		5	2	1	3	2	1	6			4	3		2		9	3		3		2											2				3							
	*	*Triticum aestivum*	Wheat	7	4						1			3																									2										
P		*Trymalium wayae*	Grey Trymalium	9	6									1	2		1	2																			2										1	
P		*Typha domingensis*	Narrow-leaf Bulrush	9	4																																											
	*	*Ulex europaeus*	Gorse	1	1																				1																								
	*	*Urospermum picroides*	False Hawkbit	41	20												3	2				2					1		2									1					1				3	2	
	*	*Urtica urens*	Small Nettle	11	8																		2				1		2								1		1										
	*	*Valerianella discoidea*	Lesser Corn-salad	12	8									3															1														1				3	1	
		Velleia arguta	Toothed Velleia	26	14	1			1			2		7			2	2	1			1			2		1			1	3																	1	
		Velleia paradoxa	Spur Velleia	30	10	11		3			2			1				2	1			4			4		1			1																			
	*	*Verbascum virgatum*	Twiggy Mullein	1	1																				1																								
	*	*Veronica hederifolia*	Ivy-leaf Speedwell	3	2																				2													1											
P		*Veronica hillebrandii*	Rigid Speedwell	23	3																																									18		
		Veronica plebeia	Trailing Speedwell	3	3															1		1							1																				
	*	*Vicia cracca*	Tufted Vetch	1	1										1																																		
	*	*Vicia hirsuta*	Hairy Vetch	2	2									1																									1										
	*	*Vicia monantha*	Spurred Vetch	47	23	2				1			1	10		1			1			3			3				3		1			1		1	3	2	1	2									
	*	*Vicia sativa* ssp.	Common Vetch	4	2	2																			2																								
	*	*Vicia sativa* ssp. *nigra*	Narrow-leaf Vetch	2	1																																												
	*	*Vicia sativa* ssp. *sativa*	Common Vetch	1	1																																												
P		*Vittadinia australasica* var.	Sticky New Holland Daisy	19	11	2						1		2			1	1	1								1		2									1									4		
P		*Vittadinia blackii*	Narrow-leaf New Holland Daisy	62	19	9	2		1		4	1		21	1		1	4	1			2			3		2		3									2						1				2	
		Vittadinia cervicularis var. *cervicularis*	Waisted New Holland Daisy	75	29	5			1	1			1	5			2	1	1			10			3		1		7	1	1			1			4	7	6	1									1
		Vittadinia condyloides	Club-hair New Holland Daisy	4	3	1			2					1																																			
P		*Vittadinia cuneata* var.	Fuzzy New Holland Daisy	152	34	37	1	3	4		7	6	1	19		1	6	5	6	2		12	1		2		4		7	1							2	1	3	1			1				3		
P		*Vittadinia gracilis*	Woolly New Holland Daisy	173	30	33		2	9		16	4	2	35		1	5	9	1	1		15	1		7	1	1	1	8	5	3						1	1	2				3		2				
P		*Vittadinia megacephala*	Giant New Holland Daisy	43	22	1					2	3	1	8			1	2				1			1		1		2		2						3	1	1	2			2					2	
		Vittadinia pterochaeta	Rough New Holland Daisy	2	1									2																																			
		Vittadinia sulcata	Furrowed New Holland Daisy	1	1																	1																											
	*	*Vulpia bromoides*	Squirrel-tail Fescue	38	14	1					1	1	1							5		7			11		4		1								2												
	*	*Vulpia bromoides/myuros*		33	12	2							1	1				3	2	6		11	1		2		1												1										
	*	*Vulpia fasciculata*	Sand Fescue	11	5																																									7		
	*	*Vulpia muralis*	Wall Fescue	62	28	10		1	1		1	2	1	3		1	7	2		1		3	1		3		1		5					1	1				3		1	1	3	1				1	
	*	*Vulpia myuros* f.	Fescue	24	12	5			1			1		1			6					1			2		1	1	3														1						
	*	*Vulpia myuros* f. *megalura*	Fox-tail Fescue	12	10	2			1				1										1		1																								
	*	*Vulpia myuros* f. *myuros*	Rat's-tail Fescue	292	60	26	2	2	8	3	4	4	3	23	2	2	9	11	3	5	1	23	2		19		9		15	2	2			2		1	7	7	10	2	1	2	1	1	1	1	12	2	1
P		*Wahlenbergia communis*	Tufted Bluebell	18	10	1			1			1		2			1		2			1								1																	7		
		Wahlenbergia gracilenta	Annual Bluebell	68	23							1	1	1			6	1	1	8		14			1		1		3									1		1		2					11	1	1
		Wahlenbergia litticola	Coast Bluebell	4	4							1										1								1								1												
		Wahlenbergia luteola	Yellow-wash Bluebell	174	26	33	1	5	6		4	6	2	14			9	7	3	4		28	4		17		4	1	13	1								3				3		2				1	
		Wahlenbergia multicaulis	Tadgell's Bluebell	1	1	1																																											
		Wahlenbergia preissii		1	1																																									1		

P	I	Scientific Name	Common Name	Total Recs	Total Grps	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44
		Wahlenbergia stricta ssp. *stricta*	Tall Bluebell	66	24	4						1	1	2			7	4	2	8	4	6	2		5		1	1	5															2					3	
	*	*Watsonia meriana* var. *bulbillifera*	Bulbil Watsonia	1	1																1																													
		Westringia eremicola	Slender Westringia	1	1																																													
P		*Westringia rigida*	Stiff Westringia	54	15	1								2			2										1			1	5						14	11	6	1			1						
P		*Whalleya proluta*	Rigid Panic	18	9	3	1	1		3	1		1	5											1																									
P		*Wilsonia humilis* var. *humilis*	Silky Wilsonia	23	5																																													
P		*Wilsonia rotundifolia*	Round-leaf Wilsonia	4	3																																													
		Wurmbea dioica ssp. *dioica*	Early Nancy	126	38	7			1	1	1	3		5			4	2		5	3	16			9				6	1		1			1		2	5	2	2			1	1			9	1	2
	*	*Xanthium spinosum*	Bathurst Burr	1	1																											1																		
P		*Xanthorrhoea quadrangulata*	Rock Grass-tree	50	12	6			1					1	1		3	12		19	2	2			1				1																					
		Xerochrysum bracteatum	Golden Everlasting	1	1															1																														
	*	*Zaluzianskya divaricata*	Spreading Night-phlox	23	13	2			1				1				1	1	1	1		7			3		2		1										1											
		Zygophyllum ammophilum	Sand Twinleaf	24	13																	1							1		1	1			1		7	4			1									
P		*Zygophyllum angustifolium*	Scrambling Twinleaf	21	13																										4			1			2	2	2		1						2		1
P		*Zygophyllum apiculatum*	Pointed Twinleaf	50	12	1											1												3	2						2	12	13	11		1	1	2						
P		*Zygophyllum aurantiacum* ssp.		49	17	1								5			1										1		1	4	8					3	6	5	3						1				3
P		*Zygophyllum billardierei*	Coast Twinleaf	28	7																																										7		
P		*Zygophyllum confluens*	Forked Twinleaf	11	6														1											2							4	1	2		1								
		Zygophyllum crenatum	Notched Twinleaf	12	9							1	1	2			1													1					2			1	2				1						
		Zygophyllum eremaeum	Pale-flower Twinleaf	1	1																												1																	
		Zygophyllum glaucum	Pale Twinleaf	18	10						2	1	1	7					1								1		1		1						1	2												
		Zygophyllum ovatum	Dwarf Twinleaf	20	5				1																												6	7	5											
		Zygophyllum simile	White Twinleaf	5	3																																													1
			No. of Taxa Per Group			381	79	120	217	106	177	181	192	401	69	77	268	328	175	249	106	426	137	19	333	56	266	59	372	166	151	73	16	94	99	91	291	279	289	182	90	102	150	55	83	15	330	144	142

APPENDIX 10(b). PLANT TAXA RECORDED AT SITES USED IN THE FLORISTIC ANALYSIS AND THEIR SITE FREQUENCY WITHIN EACH FLORISTIC GROUP (Floristic Groups 45 – 83).

P Perennial taxa used in the floristic analysis (i.e. recorded at more than 3 sites) are designated with the letter P.
I Indigenous/alien designation. Naturalised alien taxa are designated with an asterisk (*).
Total Recs Total number of records of each taxa from all 1209 sites used in the floristic analysis.
Total Grps Total number of floristic groups in which each taxa occurs.
1 - 83 Floristic Group numbers (refer to Vegetation Chapter for descriptions of each group).

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
		Abutilon fraseri ssp. *diplotrichum*	Dwarf Lantern-bush	1	1																																							
		Abutilon fraseri ssp. *fraseri*	Dwarf Lantern-bush	1	1																																							
P		*Acacia acinacea*	Wreath Wattle	20	10																																							
		Acacia ancistrophylla var. *lissophylla*	Hook-leaf Wattle	3	2																																							
		Acacia argyrophylla	Silver Mulga-bush	3	2																																							
P		*Acacia brachybotrya*	Grey Mulga-bush	17	13		1		1	1																																		
P		*Acacia calamifolia*	Wallowa	49	18						2																											2						
P		*Acacia continua*	Thorn Wattle	22	12																																							2
P		*Acacia cupularis*	Cup Wattle	26	12	1		2	1		1	1			1		2		2	9																1								
P		*Acacia cupularis/ligulata*		17	10										1				2	1																								1
P		*Acacia cyclops*	Western Coastal Wattle	13	6			1										2	7	1		1																						
		Acacia enterocarpa	Jumping-jack Wattle	1	1							1																																
		Acacia farinosa	Mealy Wattle	3	3				1						1																					1							
		Acacia glandulicarpa	Hairy-pod Wattle	2	2																																							
		Acacia gracilifolia	Graceful Wattle	2	1																																							2
P		*Acacia hakeoides*	Hakea Wattle	55	20			1						3		3																												
P		*Acacia halliana*	Hall's Wattle	4	4											1																												
P		*Acacia iteaphylla*	Flinders Ranges Wattle	4	2																																							2
P		*Acacia leiophylla*	Coast Golden Wattle	21	4				1	7										2																								
P		*Acacia ligulata*	Umbrella Bush	107	23	3		1	1		3		1		3	1	1	20	31	4		1			1								1											
P		*Acacia longifolia* ssp. *sophorae*	Coastal Wattle	23	6										2		1		3	15							1																	
P		*Acacia microcarpa*	Manna Wattle	12	8							2		3	1																													
P		*Acacia nematophylla*	Coast Wallowa	71	12	2	2			5	1				6		9		4	9			10																					
P		*Acacia notabilis*	Notable Wattle	50	20						1	2		2		3																												
P		*Acacia nyssophylla*	Spine Bush	22	9						1							1																										
P		*Acacia oswaldii*	Umbrella Wattle	41	17						2				1				1																									1
		Acacia papyrocarpa	Western Myall	1	1																																							
P		*Acacia paradoxa*	Kangaroo Thorn	32	10																																							
P		*Acacia pycnantha*	Golden Wattle	155	29						2	2	1		1																							1						1
P		*Acacia retinodes* var. *retinodes*	Wirilda	4	4																																							
P		*Acacia rigens*	Nealie	4	4									1																														
P		*Acacia rupicola*	Rock Wattle	26	5				4	11	1																																	
P		*Acacia salicina*	Willow Wattle	9	7																																	1			2		2	
P		*Acacia sclerophylla* var. *sclerophylla*	Hard-leaf Wattle	12	5											4																												
P		*Acacia* sp. Winged (C.R.Alcock 4936)	Angled Wattle	49	11					3	1				11		1		2	9			4	3	1																			
P		*Acacia spilleriana*	Spiller's Wattle	6	5																																	1						1

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
P		*Acacia spinescens*	Spiny Wattle	89	18	1	2	18	4	7		5	1	5	1		1			2			1																					
P		*Acacia triquetra*	Mallee Wreath Wattle	31	5	1				11										2			1																					
P		*Acacia victoriae* ssp. *victoriae*	Elegant Wattle	31	16																																							2
P		*Acacia wattsiana*	Dog Wattle	18	9																																							
		Acacia wilhelmiana	Dwarf Nealie	3	3																																							
P		*Acaena echinata*	Sheep's Burr	94	21		3		4		3									2																1								
	*	*Acetosa vesicaria*	Rosy Dock	1	1																																							
	*	*Acetosella vulgaris*	Sorrel	1	1																																							
		Acianthus pusillus	Mosquito Orchid	21	9			8	1	4		2			1																													
P		*Acrotriche affinis*	Ridged Ground-berry	28	10	2	2			1					1																													
P		*Acrotriche cordata*	Blunt-leaf Ground-berry	68	11	4		3		7		3		1	4					3			5	3																					
P		*Acrotriche patula*	Prickly Ground-berry	202	32	5	4	20	9	15	7	4		7	11		4	2	8	8			10		2									2											1
		Acrotriche serrulata	Cushion Ground-berry	2	2				1																																			
		Actinobole uliginosum	Flannel Cudweed	36	18			1			1					1																												1
		Actites megalocarpa	Coast Sow-thistle	5	4													1																				1				2		
	*	*Adonis microcarpa*	Pheasant's Eye	3	3																																						1	
P		*Adriana quadripartita*	Coast Bitter-bush	17	7				1						1		3		5	4			2															1						
		Agrostis avenacea var. *avenacea*	Common Blown-grass	3	3					1																								1						1				
		Agrostis billardieri var. *billardieri*	Coast Blown-grass	7	4																													2					1	3		1		
	*	*Agrostis capillaris* var. *capillaris*	Brown-top Bent	1	1																																							
	*	*Agrostis gigantea*	Red-top Bent	3	2																																			1		2		
	*	*Aira caryophyllea*	Silvery Hair-grass	6	4																																							
	*	*Aira cupaniana*	Small Hair-grass	135	30		1		1		1	1	1				1																	2							1			1
	*	*Aira elegantissima*	Delicate Hair-grass	36	13	1				1																																		
		Ajuga australis f. A (A.G.Spooner 9058)	Australian Bugle	7	5																																							
	*	*Ajuga iva*	Bugle	2	2																																							
P		*Alectryon oleifolius* ssp. *canescens*	Bullock Bush	53	17											1																												
	*	*Allium triquetrum*	Three-cornered Garlic	1	1																																							1
P		*Allocasuarina muelleriana* ssp. *muelleriana*	Common Oak-bush	10	3			1				4																																
P		*Allocasuarina pusilla*	Dwarf Oak-bush	8	2	5																																						
P		*Allocasuarina verticillata*	Drooping Sheoak	194	35	1	1	9	9		4				1		6	1	8	3			4		1																				
		Alternanthera denticulata	Lesser Joyweed	1	1																																							
	*	*Alyssum linifolium*	Flax-leaf Alyssum	10	8																														1									
P		*Alyxia buxifolia*	Sea Box	122	30	2		3	2	6	4	1		5	14	5	2	2	12	12	1		4		2									1											
	*	*Amaranthus albus*	Stiff Tumbleweed	2	1																																							
	*	*Ammi majus*	False Bishop's Weed	1	1																																						1	
	*	*Ammophila arenaria*	Marram Grass	2	2														1								1																	
P		*Amphipogon caricinus* var. *caricinus*	Long Grey-beard Grass	13	7		1	3	2																																			
		Amphipogon strictus var. *setifer*	Spreading Grey-beard Grass	2	2																																							
	*	*Amsinckia calycina*	Hairy Fiddle-neck	4	3						1																																	
	*	*Amsinckia lycopsoides*	Bugloss Fiddle-neck	12	4																																							
P		*Amyema melaleucae*	Tea-tree Mistletoe	42	16	1		1	4	1	10			2	2								2																					
P		*Amyema miquelii*	Box Mistletoe	86	21		1				1			1																														1
P		*Amyema miraculosa* ssp. *boormanii*	Fleshy Mistletoe	4	3																																							

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
P		*Amyema preissii*	Wire-leaf Mistletoe	21	11											3																												
	*	*Anagallis arvensis*	Pimpernel	341	49	5	4	14	8	11	11	2	1	1	11	2	8	13	35	17	1	1	17	4	2	1							2	5	1			1						2
	*	*Anagallis minima*	Chaffweed	1	1																																							
		Angianthus preissianus	Salt Angianthus	8	7		1												1					1								1	1	2		1								
		Angianthus tomentosus	Hairy Angianthus	21	11						3				1			6	1														1	2										
		Aotus subspinescens	Mallee Aotus	1	1							1																																
		Aphanes australiana	Australian Piert	17	9	2				2	2				1				1	1			4											1										
		Apium annuum	Annual Celery	28	12			1		1	1								1	1			5	6						1	2			4							1				
	*	*Apium graveolens*	Celery	1	1																																			1				
		Apium prostratum var.	Native Celery	5	3																																	1		3	1			
		Apium prostratum var. *prostratum*	Native Celery	5	4																															1		2			1	1		
	*	*Arctotheca calendula*	Cape Weed	208	45		1	4	5	1	4	1	2					1	5		1			1					1								3					1	3
	*	*Arctotheca populifolia*	Beach Daisy	1	1																						1																	
	*	*Arenaria leptoclados*	Lesser Thyme-leaved Sandwort	8	6						1							1	3		1																							
		Argentipallium obtusifolium	Blunt Everlasting	1	1																																							
	*	*Argyranthemum frutescens* ssp.	Marguerite Daisy	2	2															1						1																		
		Aristida anthoxanthoides	Yellow Three-awn	1	1																																							
		Aristida australis		1	1																																							
P		*Aristida behriana*	Brush Wire-grass	130	20																																							
		Aristida nitidula	Brush Three-awn	1	1																																							
	*	*Artemisia arborescens*	Silver Wormwood	1	1																																							
		Arthropodium fimbriatum	Nodding Vanilla-lily	89	29		1	8	4				1	2	1																													
		Arthropodium minus	Small Vanilla-lily	21	14																												1											
		Arthropodium strictum	Common Vanilla-lily	254	36			3	3		2	1	1			3																												1
P	*	*Asparagus asparagoides*	Bridal Creeper	113	31	1		8	4	1	4	2	3	5	1	5	2		5	6			1											2										
	*	*Asparagus declinatus*		1	1															1																								
	*	*Asparagus officinalis*	Asparagus	1	1																																				1			
		Asperula conferta	Common Woodruff	87	21			1						2																														
	*	*Asphodelus fistulosus*	Onion Weed	85	29											1		3	21		2	1						1														2		1
		Asplenium flabellifolium	Necklace Fern	2	2																																							
P	*	*Aster subulatus*	Aster-weed	15	8						1																											1		2	5	3	1	1
		Asteridea athrixioides f. *athrixioides*	Wirewort	9	8			1			1																																	
	*	*Asteriscus spinosus*	Golden Pallensis	13	8									1																										1				
	*	*Asterolinon linum-stellatum*	Asterolinon	1	1																																							
P		*Astroloma conostephioides*	Flame Heath	6	4							1	1																															
P		*Astroloma humifusum*	Cranberry Heath	58	15			6	2			5		1	1																													
P		*Atriplex acutibractea* ssp.	Pointed Saltbush	14	8																																							
		Atriplex angulata	Fan Saltbush	1	1																																							
P		*Atriplex cinerea*	Coast Saltbush	22	6													1	3	1	7			3			7																	
		Atriplex eardleyae	Eardley's Saltbush	3	3																																							
		Atriplex holocarpa	Pop Saltbush	3	2																																							
		Atriplex lindleyi ssp. *inflata*	Corky Saltbush	7	5						1																																	
		Atriplex lindleyi ssp. *lindleyi*	Baldoo	1	1																																							
P		*Atriplex paludosa* ssp. *cordata*	Marsh Saltbush	47	21						3							1	8	1	1			4		1		1	2	7		4	2	1	1					1				
P		*Atriplex paludosa* ssp. *paludosa*	Marsh Saltbush	4	3													2	1										1															

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
P	*	*Atriplex prostrata*	Creeping Saltbush	10	5																1																	2		2	2	3		
		Atriplex pumilio	Mat Saltbush	2	2																																							
P		*Atriplex semibaccata*	Berry Saltbush	57	20						1															1									1								2	
		Atriplex spongiosa	Pop Saltbush	1	1																																							
P		*Atriplex stipitata*	Bitter Saltbush	48	17									1																														
P		*Atriplex suberecta*	Lagoon Saltbush	5	4																																	1				1		
		Atriplex velutinella	Sandhill Saltbush	1	1																																							
P		*Atriplex vesicaria* ssp.	Bladder Saltbush	43	15													3											1			1	1											
P		*Austrodanthonia auriculata*	Lobed Wallaby-grass	70	15																																							
P		*Austrodanthonia caespitosa*	Common Wallaby-grass	394	53	3	1	3	1		5	1	2	1		5		6	4														1	1				1		1				3
P		*Austrodanthonia carphoides*	Short Wallaby-grass	25	9																																							
		Austrodanthonia duttoniana	Brown-back Wallaby-grass	2	2																																							
P		*Austrodanthonia eriantha*	Hill Wallaby-grass	45	12																																							
P		*Austrodanthonia fulva*	Leafy Wallaby-grass	4	4																																						1	
P		*Austrodanthonia laevis*	Smooth Wallaby-grass	5	4																																							
P		*Austrodanthonia pilosa*	Velvet Wallaby-grass	36	11																																							
P		*Austrodanthonia racemosa* var. *racemosa*	Slender Wallaby-grass	15	9																																							1
P		*Austrodanthonia setacea*	Small-flower Wallaby-grass	163	38			8	1		1	5	1	2				2	5	2					1															1		1		
P		*Austrodanthonia tenuior*	Short-awn Wallaby-grass	12	4																																							
		Austrofestuca littoralis	Coast Fescue	1	1																						1																	
P		*Austrostipa acrociliata*	Graceful Spear-grass	98	29			10	6		2	1	1	6		2		3	2														1											1
P		*Austrostipa blackii*	Crested Spear-grass	188	24																																							1
P		*Austrostipa breviglumis*	Cane Spear-grass	8	5													1																										
P		*Austrostipa curticoma*	Short-crest Spear-grass	15	8						1																																	
		Austrostipa densiflora	Fox-tail Spear-grass	1	1																																							
P		*Austrostipa drummondii*	Cottony Spear-grass	92	32	1			1		4		1			2		3	3											2			1					2						
P		*Austrostipa echinata*	Spiny Spear-grass	4	2	2																																						
P		*Austrostipa elegantissima*	Feather Spear-grass	290	53	2		6	1	1	5	1	1	5	3	3	2	12	12	1	1									1			2	1										
P		*Austrostipa eremophila*	Rusty Spear-grass	177	36			2			1					3		1												1								1				1	1	
P		*Austrostipa exilis*	Heath Spear-grass	33	12					1	1				2	1	1																											
P		*Austrostipa flavescens*	Coast Spear-grass	62	24						1				9		2	3	6	3			6	3	1																			
P		*Austrostipa gibbosa*	Swollen Spear-grass	16	7																																							
		Austrostipa hemipogon	Half-beard Spear-grass	3	2							1																																
P		*Austrostipa mollis*	Soft Spear-grass	19	12			1	1				1																															
		Austrostipa multispiculis		2	2																																							
P		*Austrostipa mundula*	Neat Spear-grass	8	3			1				1																																
P		*Austrostipa nitida*	Balcarra Spear-grass	206	42				1				1			2		2	1																							1	1	1
P		*Austrostipa nodosa*	Tall Spear-grass	106	26						1	1																																2
		Austrostipa petraea	Flinders Range Spear-grass	2	2																																							
P		*Austrostipa pilata*	Prickly Spear-grass	12	9																																							
P		*Austrostipa platychaeta*	Flat-awn Spear-grass	45	16				1		3							1																										
P		*Austrostipa puberula*	Fine-hairy Spear-grass	15	10								1																	2														
P		*Austrostipa scabra* ssp.	Rough Spear-grass	233	41			5	1		2	3	1	3	1	3		2	1	1															1			1						
P		*Austrostipa semibarbata*	Fibrous Spear-grass	13	7														1																									
P		*Austrostipa setacea*	Corkscrew Spear-grass	38	11																																							

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
P		*Austrostipa stipoides*	Coast Spear-grass	7	5	1	1												2					2																				
		Austrostipa tenuifolia		2	2																																							
P		*Austrostipa trichophylla*		5	5																																							
	*	*Avellinia michelii*	Avellinia	80	33	4	1	4	1		6	1					1	6	1	2												1	1	1										
	*	*Avena barbata*	Bearded Oat	661	71	4	3	10	2	1	12	2	3	2	6	5	1	11	17	4	2				1	1			2	5			1	1	2			5		5	4	5	3	7
	*	*Avena fatua*	Wild Oat	38	20																									1			1							1				2
	*	*Avena sativa*	Cultivated Oat	5	3																																							
P		*Avicennia marina* ssp. *marina*	Grey Mangrove	7	2																														4		3							
P		*Baeckea crassifolia*	Desert Baeckea	16	4			6				5		3																														
		Banksia marginata	Silver Banksia	3	2																																							
	*	*Bartsia trixago*	Bellardia	2	2																																							
		Baumea arthrophylla	Swamp Twig-rush	2	1																																			2				
P		*Baumea juncea*	Bare Twig-rush	9	7		1										1																			1		1		2	1	2		
	*	*Berula erecta*	Water Parsnip	1	1																																			1				
P		*Beyeria lechenaultii*	Pale Turpentine Bush	148	33	1		4	3	12	5			2	5	4	3	2	2	8			13	6										2										
P		*Billardiera cymosa*	Sweet Apple-berry	14	5	2				1				1																														
P		*Billardiera sericophora*	Silky Apple-berry	7	5			1		2		1		1																														
P		*Billardiera* sp. Yorke Peninsula (P.C.Heyligers 80164)	Lehmann's Apple-berry	6	3	4													1																									
		Billardiera versicolor	Yellow-flower Apple-berry	3	2							1																																
		Blennospora drummondii	Dwarf Button-flower	41	13		1	15	4		1	5		1	1																													
P		*Boerhavia dominii*	Tar-vine	16	13																																	1			1			1
P		*Bolboschoenus caldwellii*	Salt Club-rush	10	6																																	1	1	1	2	4		
		Boronia coerulescens ssp. *coerulescens*	Blue Boronia	1	1							1																																
P		*Boronia inornata* ssp. *leptophylla*	Dryland Boronia	4	2									2																														
		Bossiaea prostrata	Creeping Bossiaea	1	1																																							
	*	*Brachypodium distachyon*	False Brome	156	36				1		1		1	1		1																						1			2			4
		Brachyscome ciliaris var.		7	7																									1														
		Brachyscome ciliaris var. *brachyglossa*	Rayless Variable-daisy	3	2																																							
		Brachyscome ciliaris var. *ciliaris*	Variable Daisy	46	19						5							3	1											1														
		Brachyscome ciliaris var. *lanuginosa*	Woolly Variable Daisy	7	6			2																																				
		Brachyscome ciliaris var. *subintegrifolia*		10	6																																							
		Brachyscome cuneifolia	Wedge-leaf Daisy	15	6	1				1	1				1										1																			
		Brachyscome exilis	Slender Daisy	19	9		1				1							1					4	1						1		1		1										
		Brachyscome goniocarpa	Dwarf Daisy	6	3				1	2																																		
		Brachyscome lineariloba	Hard-head Daisy	95	41	1	1	3	1	1	6					1		3	3					1					2	2	1	1	1	1										
		Brachyscome lineariloba/perpusilla		1	1																																							
		Brachyscome perpusilla	Tiny Daisy	20	9			4	1			4																																
		Brachyscome trachycarpa	Smooth Daisy	1	1																																							
	*	*Brassica juncea*	Indian Mustard	1	1																																							
	*	*Brassica tournefortii*	Wild Turnip	139	33	1	2	5	1	1	6		3		9		3	11	24	5	2		3		1					2														1
	*	*Briza maxima*	Large Quaking-grass	82	19			2					1																									1						1
	*	*Briza minor*	Lesser Quaking-grass	78	20	1	1		1	3							1			1														2										
	*	*Bromus alopecuros*	Mediterranean Brome	4	3																																			1		1		

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
		Bromus arenarius	Sand Brome	8	8										1					1	1				1							1												
	*	*Bromus catharticus*	Prairie Grass	1	1																																				1			
	*	*Bromus diandrus*	Great Brome	310	54	1	2	3	4		6	1	3		3	2	2	3	8	3			1	2						3								2	1	2	5	4	1	9
	*	*Bromus hordeaceus* ssp. *hordeaceus*	Soft Brome	89	25										1																			1				2		7	2	1		1
	*	*Bromus madritensis*	Compact Brome	65	25				1						1	1	1		3	2			4																		1			1
	*	*Bromus rigidus*	Rigid Brome	32	20								1																															
	*	*Bromus rubens*	Red Brome	365	57		1	9	1	1	11	2	1	6	1	2	1	12	15					1					1	3			1	1	1			2			1			
		Brunonia australis	Blue Pincushion	1	1																																							
	*	*Buglossoides arvensis*	Sheepweed	50	24			2	2		1		1	1	5		4		6	1	1		2										1											
		Bulbine bulbosa	Bulbine-lily	85	21			1			1																																	
		Bulbine semibarbata	Small Leek-lily	17	9				2	2																																		
	*	*Bupleurum semicompositum*	Hare's Ear	90	32						4					2		7	5		1			1				1		1			2	1				1						
		Burchardia umbellata	Milkmaids	1	1																																							
P		*Bursaria spinosa* ssp. *spinosa*	Sweet Bursaria	255	39	1	4	13	10	1	2		1	5	4		5		1																										2
		Caesia calliantha	Blue Grass-lily	29	9			5	4																																			
	*	*Cakile maritima* ssp. *maritima*	Two-horned Sea Rocket	36	9										1			2	7	5	8			4		1	7						1											
		Caladenia argocalla	White Beauty Spider-orchid	1	1																																							
		Caladenia bicalliata ssp. *bicalliata*	Western Daddy-long-legs	2	2															1																									
		Caladenia brumalis	Winter Spider-orchid	11	7			5	1			1			1																													
		Caladenia brumalis x *latifolia*	Hybrid Spider-orchid	1	1																																							
		Caladenia cardiochila	Heart-lip Spider-orchid	3	3	1				1																																		
		Caladenia carnea var. *carnea*	Pink Fingers	7	3			3		3																																		
		Caladenia conferta	Coast Spider-orchid	1	1			1																																				
		Caladenia dilatata complex	Green-comb Spider-orchid	1	1																																							
		Caladenia filamentosa complex	Daddy-long-legs Spider-orchid	1	1					1																																		
		Caladenia filamentosa var. *tentaculata*	Wispy Spider-orchid	22	4					11				1																				1										
		Caladenia latifolia	Pink Caladenia	47	13		1	7		3	3				5		2			9			4		1																			
		Caladenia leptochila	Narrow-lip Spider-orchid	2	1																																							
		Caladenia stricta	Upright Caladenia	9	4			4				2																																
		Caladenia sp. Brentwood (R.J. Bates 53510)		1	1			1																																				
		Caladenia tensa	Inland Green-comb Spider-orchid	2	2																																							
		Calandrinia brevipedata	Short-stalked Purslane	10	4										1		2			4			3																					
		Calandrinia calyptrata	Pink Purslane	29	15								1	1																														
		Calandrinia calyptrata/*eremaea*	Purslane	4	2																																							
		Calandrinia eremaea	Dryland Purslane	54	24			2			3	2			2	2	2	1	7	2	2																							
		Calandrinia granulifera	Pigmy Purslane	3	3							1																						1										
		Calandrinia polyandra var. *polyandra*	Parakeelya	1	1																																							
		Calandrinia volubilis	Twining Purslane	1	1																																							
	*	*Calendula arvensis*	Field Marigold	3	2																																							
		Callistemon rugulosus		1	1			1																																				
		Callistemon teretifolius	Needle Bottlebrush	2	2							1																																
P		*Callitris canescens*	Scrubby Cypress Pine	22	7		1	1		4	1																							1										
P		*Callitris glaucophylla*	White Cypress-pine	24	12																																							1
P		*Callitris gracilis*	Southern Cypress Pine	88	28						1		1			3		2																				1						3

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
		Calocephalus citreus	Lemon Beauty-heads	49	12																																							
		Calostemma purpureum	Pink Garland-lily	42	17			2																														1						3
		Calotis hispidula	Hairy Burr-daisy	67	29				1	1	2			1	1																		1											
P		*Calytrix involucrata*	Cup Fringe-myrtle	11	2			6				5																																
P		*Calytrix tetragona*	Common Fringe-myrtle	83	23	1	2	9		2	1	3			2					4			5	2										1				1						
	*	*Capsella bursapastoris*	Shepherd's Purse	3	3																																							
	*	*Carduus tenuiflorus*	Slender Thistle	62	24			1			1							1		1																		1						4
P		*Carex appressa*	Tall Sedge	4	3																																							2
P		*Carex bichenoviana*	Notched Sedge	4	3																																				2	1		1
P		*Carex breviculmis*	Short-stem Sedge	6	4																																							1
	*	*Carex divisa*	Divided Sedge	2	2																																	1						1
		Carex gaudichaudiana	Fen Sedge	1	1																																			1				
		Carex inversa var. *major*	Knob Sedge	2	2																																							
	*	*Carpobrotus aequilaterus*	Angled Pigface	1	1																																							
		Carpobrotus modestus	Inland Pigface	2	2							1																																
P		*Carpobrotus rossii*	Native Pigface	159	22	5				1	7	1			11		3	11	36	21	6		16	9	2		6			1				1						1				
	*	*Carrichtera annua*	Ward's Weed	204	40			1			3		1		1	4		10	3														1				1						
	*	*Carthamus lanatus*	Saffron Thistle	151	35			1		1	2		1																												1			1
P		*Cassinia arcuata*	Drooping Cassinia	17	10									1		1																												
P		*Cassinia complanata*	Sticky Cassinia	11	6							1		1																														
P		*Cassinia laevis*	Curry Bush	14	9																																							
P		*Cassytha glabella* f. *dispar*	Slender Dodder-laurel	42	10	5		7		3		2			4								1											1		1								
P		*Cassytha melantha*	Coarse Dodder-laurel	70	25	1		2		7	4	1	1	4		1																											1	1
P		*Cassytha peninsularis* var. *peninsularis*	Peninsula Dodder-laurel	64	17			5		5		4		4	4		1	3	1	8			2											1						1				
		Cassytha pubescens	Downy Dodder-laurel	2	1																		2																				
P		*Casuarina pauper*	Black Oak	9	5																																							
	*	*Catapodium rigidum*	Rigid Fescue	96	31	1	1	2		5	3			1	4	1	2	5	9	1			3							1				2										
	*	*Centaurea calcitrapa*	Star Thistle	2	1																																							
	*	*Centaurea melitensis*	Malta Thistle	38	16						1					2		5	2																									1
	*	*Centaurea solstitialis*	St Barnaby's Thistle	1	1																																							
	*	*Centaurium erythraea*	Common Centaury	10	9	2																																						
	*	*Centaurium maritimum*	Sea Centaury	3	2																													1										
	*	*Centaurium pulchellum/tenuiflorum*		18	9			2										3		1										1				1										
		Centaurium spicatum	Spike Centaury	2	2																																							
	*	*Centaurium tenuiflorum*	Branched Centaury	1	1																																							
		Centrolepis aristata	Pointed Centrolepis	4	2																																							
		Centrolepis cephaloformis ssp. *cephaloformis*	Cushion Centrolepis	6	6																1																			1				
		Centrolepis polygyna	Wiry Centrolepis	11	7			1					1																											1				
		Centrolepis strigosa ssp. *strigosa*	Hairy Centrolepis	7	5																																							
	*	*Cerastium balearicum*	Chickweed	31	19			1		1	2				2	1	1	2	4	3	1		1											2										
	*	*Cerastium balearicum/pumilum*		1	1																																							
	*	*Cerastium diffusum*	Mouse-ear Chickweed	3	3															1	1		1																					
	*	*Cerastium glomeratum*	Common Mouse-ear Chickweed	38	18				1	1			1				2		1	1			7													1								
	*	*Cerastium pumilum*	Chickweed	7	6										2			1	1	1	1			1																				

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
	*	*Chamaecytisus palmensis*	Tree Lucerne	1	1																																							
		Chamaescilla corymbosa var. *corymbosa*	Blue Squill	15	7			4	1																																			
		Chamaesyce drummondii	Caustic Weed	120	26																																	1			1			
	*	*Chasmanthe floribunda* var. *floribunda*	African Corn-flag	1	1																																							
P		*Cheilanthes austrotenuifolia*	Annual Rock-fern	108	22			1	1		1																																	1
		Cheilanthes distans	Bristly Cloak-fern	2	2																																							
P		*Cheilanthes lasiophylla*	Woolly Cloak-fern	16	13						1																																	
P		*Cheilanthes sieberi* ssp. *sieberi*	Narrow Rock-fern	13	7																																							
P		*Cheiranthera alternifolia*	Hand-flower	7	3			3				3																																
		Chenopodium cristatum	Crested Goosefoot	3	3																																							
P		*Chenopodium curvispicatum*	Cottony Goosefoot	5	4																																							
P		*Chenopodium desertorum* ssp.	Desert Goosefoot	118	26			2			1	1		3		2																												
	*	*Chenopodium glaucum*	Glaucous Goosefoot	1	1																																			1				
		Chenopodium nitrariaceum	Nitre Goosefoot	3	1																																						3	
		Chenopodium pumilio	Clammy Goosefoot	1	1																																							
		Chloris pectinata	Comb Windmill Grass	1	1																																							
		Chloris truncata	Windmill Grass	1	1																																							
	*	*Chondrilla juncea*	Skeleton Weed	1	1														1																									
		Choretrum glomeratum var. *chrysanthum*	Yellow-flower Sour-bush	1	1																																							
P		*Choretrum glomeratum* var. *glomeratum*	White Sour-bush	12	4					3				1	1																													
	*	*Chrysanthemoides monilifera*	Boneseed	1	1																																							
P		*Chrysocephalum apiculatum*	Common Everlasting	156	33	2	3	10	3	3	1		1		1	1				1																									1
		Chrysocephalum baxteri	White Everlasting	1	1																																							
P		*Chrysocephalum semipapposum*	Clustered Everlasting	86	19		1	6							1																													
	*	*Cirsium vulgare*	Spear Thistle	18	11													1																				2		5	1		3	1
	*	*Citrullus lanatus*	Bitter Melon	2	2																																							
P		*Clematis microphylla* var. *microphylla*	Old Man's Beard	250	46	6	6	13	4	13	5	4	1	6	10	1	6	10	28	19	1	1	14	1	1		1									1		1						
		Comesperma scoparium	Broom Milkwort	1	1							1																																
P		*Comesperma volubile*	Love Creeper	94	29	2	2	9	2	6	6	2		6	2		2	4	3	5		1																						
P		*Convolvulus angustissimus* ssp. *angustissimus*	Australian Bindweed	19	7																																							
P		*Convolvulus angustissimus* ssp. *peninsularum*	Grassland Bindweed	8	4										1			3																										
P		*Convolvulus erubescens/remotus*	Native Bindweed	7	5																																							
P		*Convolvulus microsepalus/remotus*		4	3																																							
P		*Convolvulus remotus*	Grassy Bindweed	88	34		1	1	2									1																									1	2
P		*Correa backhouseana* var. *coriacea*	Thick-leaf Correa	30	9		1	12				8		4	1																													
		Correa glabra var. *turnbullii*	Rock Correa	3	2																																							
P		*Correa pulchella*	Salmon Correa	60	10	1			1	13					4		2		1	2			5	3																				
		Corybas despectans	Coast Helmet-orchid	11	3					3										4																								
	*	*Cotoneaster pannosus*	Cotoneaster	1	1																																							
		Cotula australis	Common Cotula	7	5							1																																
P	*	*Cotula coronopifolia*	Water Buttons	12	5																																	2	1	5	2	2		
		Cotula vulgaris var. *australasica*	Slender Cotula	4	3																			2										1										1
		Craspedia variabilis	Billy-buttons	66	20	5	6	8	3	2	1				3										1											1								

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
		Crassula closiana	Stalked Crassula	27	14			4	1			1					1		3	2			3																					
		Crassula colligata ssp.		234	45	1	1	3		3	10	1		1	5	3	4	7	17	14	2		12	6						3			1											1
		Crassula colligata ssp. *colligata*		3	3													1																										
		Crassula colligata ssp. *lamprosperma*	Australian Stonecrop	34	20	1		2			2	1			2		1	1																										
		Crassula colorata var.	Dense Crassula	65	26				1	1	1	3			1				1																1									1
		Crassula colorata var. *acuminata*	Dense Crassula	100	34			3			2		1			2		1	1	1														1										
		Crassula colorata var. *colorata*	Dense Crassula	25	16									1	6		1	2	2	1			1							1		1												
		Crassula colorata/*sieberiana* complex	Crassula	4	4																																							
		Crassula decumbens var. *decumbens*	Spreading Crassula	107	23			1	1		2				7		2	3	17	11	3		7	2	1																			
	*	*Crassula natans* var. *minus*	Water Crassula	4	2																													3		1								
		Cratystylis conocephala	Bluebush Daisy	1	1																																							
	*	*Crepis foetida* ssp. *foetida*	Stinking Hawksbeard	4	4																																							
		Cressa cretica	Rosinweed	1	1																																							
P		*Cryptandra* sp. Floriferous (W.R.Barker 4131)	Pretty Cryptandra	39	16			10	1					1																														
P		*Cryptandra* sp. Long hypanthium (C.R. Alcock 10626)	Long-flower Cryptandra	53	14																																							
	*	*Cucumis myriocarpus*	Paddy Melon	1	1																																							
		Cullen australasicum	Tall Scurf-pea	1	1																																							
		Cullen parvum	Small Scurf-pea	2	1																																							
P		*Cymbonotus preissianus*	Austral Bear's-ear	23	9			1						1																														
P		*Cymbopogon ambiguus*	Lemon-grass	14	7																																				1			3
P	*	*Cynara cardunculus*	Artichoke Thistle	40	13													1																				4			4	6	3	4
P	*	*Cynodon dactylon*	Couch	15	11																																	1			1	2		
P		*Cynoglossum suaveolens*	Sweet Hound's-tongue	13	5				1																																			
	*	*Cynosurus echinatus*	Rough Dog's-tail Grass	7	4																																							
		Cyperus alterniflorus	Umbrella Flat-sedge	3	2																																							2
		Cyperus exaltatus	Splendid Flat-sedge	1	1																																							1
		Cyperus gunnii ssp. *gunnii*	Flecked Flat-sedge	2	2																																							1
P		*Cyperus gymnocaulos*	Spiny Flat-sedge	28	8																																	5	1	5	5	4	4	3
		Cyperus laevigatus	Bore-drain Sedge	1	1																																					1		
		Cyperus tenellus	Tiny Flat-sedge	1	1																																							
		Cyperus vaginatus	Stiff Flat-sedge	2	1																																							2
		Cyrtostylis reniformis	Small Gnat-orchid	1	1																																							
		Cyrtostylis robusta	Robust Gnat-orchid	50	15		1	8	1	4	2	2		1	5		4			3			2											2										
	*	*Dactylis glomerata*	Cocksfoot	1	1																																							1
		Dampiera dysantha	Shrubby Dampiera	1	1																																							
		Dampiera lanceolata var. *lanceolata*	Grooved Dampiera	2	2																																							
P		*Dampiera rosmarinifolia*	Rosemary Dampiera	40	11		1	19	2			6		5																														
		Daucus glochidiatus	Native Carrot	328	56	3	1	13	2	13	4	3	1	3	13	2	8	3	14	20	3		12	2	1		3		2			3	1	2		1				1				1
P		*Daviesia benthamii* ssp. *humilis*	Mallee Bitter-pea	4	3							2		1																														1
		Daviesia genistifolia	Broom Bitter-pea	3	3																																							
P		*Dianella brevicaulis*	Short-stem Flax-lily	157	28	4	6	2	1	4	7				11		6	11	41	20	5	1	1	2	2		1			2				1						1				
P		*Dianella brevicaulis*/*revoluta* var. *revoluta*		16	8		1	5	2	1		1		1																														
		Dianella longifolia var. *grandis*	Pale Flax-lily	2	2																																							1
P		*Dianella revoluta* var. *divaricata*	Broad-leaf Flax-lily	6	3																																							

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
P		*Dianella revoluta* var. *revoluta*	Black-anther Flax-lily	306	47	2		14	5	5	4	3	2	7	2	5		2	1	1																		1				1		1
P		*Dichelachne crinita*	Long-hair Plume-grass	8	5																																							
		Dichondra repens	Kidney Weed	2	1																																							
P		*Dillwynia hispida*	Red Parrot-pea	4	3							1																																
	*	*Diplotaxis muralis* var. *muralis*	Wall Rocket	1	1																																			1				
	*	*Diplotaxis tenuifolia*	Lincoln Weed	2	2						1																																	
	*	*Dischisma arenarium*	Sand Dichisma	12	7						1				1		2	1	2	3				2																				
P		*Disphyma crassifolium* ssp. *clavellatum*	Round-leaf Pigface	57	19						3								2				1	6		1		3	5	7	2	9	3		4									
P		*Dissocarpus biflorus* var. *biflorus*	Two-horn Saltbush	8	5																								1			2												
P		*Dissocarpus paradoxus*	Ball Bindyi	7	5																																							
P		*Distichlis distichophylla*	Emu-grass	16	6														1	2										1										4	3	5		
	*	*Dittrichia graveolens*	Stinkweed	22	13																									1						2		1			1	1	2	
		Diuris behrii	Behr's Cowslip Orchid	1	1																																							
		Diuris orientis	Wallflower Donkey-orchid	7	2					3																																		
		Diuris palustris	Little Donkey-orchid	23	8			13	2		1	1																																
		Diuris pardina	Spotted Donkey-orchid	3	3																																							
P		*Dodonaea baueri*	Crinkled Hop-bush	45	19			1			3			2	1	2																												
P		*Dodonaea bursariifolia*	Small Hop-bush	8	6							2		2																														
P		*Dodonaea hexandra*	Horned Hop-bush	27	10		1	15	1			3		2																														
P		*Dodonaea humilis*	Dwarf Hop-bush	40	7	2			1	13				1						1			1																					
P		*Dodonaea lobulata*	Lobed-leaf Hop-bush	15	7																																							
		Dodonaea procumbens	Trailing Hop-bush	3	1																																							
		Dodonaea stenozyga	Desert Hop-bush	3	1																																							
		Dodonaea tepperi	Streaked Hop-bush	1	1										1																													
P		*Dodonaea viscosa* ssp. *angustissima*	Narrow-leaf Hop-bush	37	17										1				1																									
		Dodonaea viscosa ssp. *cuneata*	Wedge-leaf Hop-bush	1	1																																							
P		*Dodonaea viscosa* ssp. *spatulata*	Sticky Hop-bush	38	20				2	2	1			1	1			2	2																			1						4
		Drosera auriculata	Tall Sundew	7	3																																							
		Drosera glanduligera	Scarlet Sundew	12	9	1		4	1			1																																
		Drosera macrantha ssp. *planchonii*	Climbing Sundew	73	20	1	1	18	8	6	1	6		2	1																													
		Drosera peltata	Pale Sundew	8	6			1	1																																			
		Drosera whittakeri ssp. *whittakeri*		10	5																																							
		Echinopogon ovatus	Rough-beard Grass	1	1																																							
	*	*Echium plantagineum*	Salvation Jane	352	48				1			1	2			1																						3		2	3	1	1	6
P	*	*Ehrharta calycina*	Perennial Veldt Grass	5	3																																							
	*	*Ehrharta longiflora*	Annual Veldt Grass	45	19							1	2			1			1																								3	8
P		*Einadia nutans* ssp.	Climbing Saltbush	215	44			6	2		4	3		2		2													1					1				2					1	1
		Elachanthus pusillus	Elachanth	9	8																									1														
		Eleocharis acuta	Common Spike-rush	3	3																																						1	1
	*	*Elymus elongatus*	Tall Wheat-grass	2	2																																	1				1		
P		*Elymus scabrus* var. *scabrus*	Native Wheat-grass	84	18									1																														
	*	*Emex australis*	Three-corner Jack	7	5						1																																	
P		*Enchylaena tomentosa* var. *tomentosa*	Ruby Saltbush	425	58	1		8	3	1	10	2	3	7	1	5		5	7	4	3			1					1	1				3				4			1	1	2	3
P		*Enneapogon nigricans*	Black-head Grass	57	17								1																															3
P		*Enteropogon acicularis/ramosus*		24	13																																							2

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
		Epilobium billardierianum ssp. *billardierianum*	Robust Willow-herb	3	2																																	2			1			
		Eragrostis australasica	Cane-grass	3	2																																	1			2			
		Eragrostis falcata	Sickle Love-grass	1	1																																							
		Eragrostis setifolia	Bristly Love-grass	1	1																																							
P		*Eremophila alternifolia*	Narrow-leaf Emubush	10	7																																							
P		*Eremophila behriana*	Rough Emubush	4	2							3		1																														
P		*Eremophila deserti*	Turkey-bush	12	12									1				1	1		1												1												
P		*Eremophila glabra* ssp. *glabra*	Tar Bush	23	11													2															1												
P		*Eremophila longifolia*	Weeping Emubush	34	16																																							1
		Eremophila oppositifolia ssp. *oppositifolia*	Opposite-leaved Emubush	1	1																																							
P		*Eremophila scoparia*	Broom Emubush	5	3																																							
P		*Eremophila serrulata*	Green Emubush	4	3																																							
		Eremophila subfloccosa ssp. Glandulosa (R.Bates 32961)	Green-flower Emubush	1	1																																							
		Eriochilus cucullatus	Parson's Bands	22	11			4	1	5		3		1	1																			1										
P		*Eriochiton sclerolaenoides*	Woolly-fruit Bluebush	15	9																																							
		Eriochlamys behrii	Woolly Mantle	2	2																																							
	*	*Erodium botrys*	Long Heron's-bill	127	27			1	4		1																															1		2
	*	*Erodium brachycarpum*	Short-fruit Heron's-bill	8	5																																						1	
		Erodium carolinianum/janszii		11	8																																							
	*	*Erodium cicutarium*	Cut-leaf Heron's-bill	124	42		2	2	2	1	9				1			10	12				2						1	1		1	1	2		2		1					1	
		Erodium crinitum	Blue Heron's-bill	52	23	1		2																																			1	
		Erodium crinitum/cygnorum		1	1																																							
		Erodium crinitum/cygnorum/carolinianum/janszii	Blue Heron's-bill	1	1																																							
	*	*Erodium moschatum*	Musky Herons-bill	8	6											1																												
P		*Eryngium rostratum*	Blue Devil	16	5																																							
		Eucalyptus albens	White Box	1	1																																							
P		*Eucalyptus brachycalyx*	Gilja	50	11					1			1			2																												
P		*Eucalyptus calycogona* ssp. *trachybasis*	Square-fruit Mallee	10	5									2																														
P		*Eucalyptus camaldulensis* var. *camaldulensis*	River Red Gum	28	9																																	3			5		2	13
P		*Eucalyptus cladocalyx*	Sugar Gum	7	4																																							
P		*Eucalyptus diversifolia* ssp. *diversifolia*	Coastal White Mallee	54	8	1				14	1				1					1			3																					
P		*Eucalyptus dumosa*	White Mallee	31	11									1		2																												
P		*Eucalyptus goniocalyx* ssp. *goniocalyx*	Long-leaf Box	6	2																																							
P		*Eucalyptus gracilis*	Yorrell	120	23			1		8	1			1		1													1	1														
P		*Eucalyptus incrassata*	Ridge-fruited Mallee	17	6			1			1	8	4	1																														
		Eucalyptus largiflorens	River Box	3	3																																							
P		*Eucalyptus leptophylla*	Narrow-leaf Red Mallee	32	10			8				5		8																														
P		*Eucalyptus leucoxylon* ssp.	South Australian Blue Gum	95	12																																							
P		*Eucalyptus macrorhyncha* ssp. *macrorhyncha*	Red Stringybark	4	1																																							
P		*Eucalyptus microcarpa*	Grey Box	9	6																																							
P		*Eucalyptus odorata*	Peppermint Box	131	24							1				3																												1

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
P		*Eucalyptus oleosa* ssp.		113	14					10				2		2																												
P		*Eucalyptus phenax* ssp.		45	14	2		4			1	2	1	7																														
P		*Eucalyptus porosa*	Mallee Box	120	30	1	1	17	1	1	2				1																													
P		*Eucalyptus rugosa*	Coastal White Mallee	18	2					17																																		
P		*Eucalyptus socialis* ssp.		114	25			2			3	7	1	4		1																												
		Euchiton collinus	Creeping Cudweed	2	2											1																												
		Euchiton sphaericus	Annual Cudweed	13	8									1																														1
	*	*Euphorbia helioscopia*	Sun Spurge	5	4		1		2	1																																		
P	*	*Euphorbia paralias*	Sea Spurge	20	7										1				4	2	2			2		1	8																	
	*	*Euphorbia peplus*	Petty Spurge	4	3				2														1																					
		Euphorbia tannensis ssp. *eremophila*	Desert Spurge	2	2																																						
P	*	*Euphorbia terracina*	False Caper	54	16			1	1									9	28	2	2				1																			
P		*Euphrasia collina* ssp. *osbornii*	Osborn's Eyebright	4	4			1				1																																
P		*Euphrasia collina* ssp. *tetragona*	Coast Eyebright	7	2																			1																				
P		*Eutaxia diffusa*	Large-leaf Eutaxia	9	8									1																														
P		*Eutaxia microphylla* var. *microphylla*	Common Eutaxia	111	30	3		6	2	5		2		6	1			1		1			1	3																				
P		*Exocarpos aphyllus*	Leafless Cherry	182	40	2	2	5	8	9	11			3	4		2	5	8	3			5				1						1	8		1									
P		*Exocarpos cupressiformis*	Native Cherry	21	10										1																													1
P		*Exocarpos sparteus*	Slender Cherry	15	8			3		1				1																														
P		*Exocarpos syrticola*	Coast Cherry	62	13	1					2				4		2	2	17	19	4			4			3																	
	*	*Filago pyramidata*	Filago	1	1																																						
	*	*Foeniculum vulgare*	Fennel	5	2																																			1				4
P		*Frankenia pauciflora* var.	Southern Sea-heath	70	19						5							3	7	3			3	7		1		3	1	4	1	9	2	5	11					1				
	*	*Frankenia pulverulenta*	Mediterranean Sea-heath	3	3																														1			1			1			
P		*Frankenia sessilis*	Small-leaf Sea-heath	11	4																1			1								7			2									
	*	*Freesia cultivar*	Freesia	9	7			1								1																												
	*	*Fumaria bastardii*	Bastard Fumitory	7	6				1		1										2																	1						
	*	*Fumaria capreolata*	White-flower Fumitory	8	6																																				1	1		3
	*	*Fumaria densiflora*	Dense Fumitory	4	4																																						1	
	*	*Fumaria officinalis* ssp. *officinalis*	Common Fumitory	1	1																																							
	*	*Fumaria parviflora* var. *parviflora*	Small-flower Fumitory	1	1																																							
P		*Gahnia deusta*	Limestone Saw-sedge	25	7			7		2		2		4																				1										
P		*Gahnia filum*	Thatching Grass	16	7	2			1																					1				7		3								
P		*Gahnia lanigera*	Black Grass Saw-sedge	142	27	7	7	20	4	5	3	6		5	6		2	2	2																										
		Gahnia trifida	Cutting Grass	1	1																																	1						
P	*	*Galenia pubescens* var. *pubescens*	Coastal Galenia	7	6																							1															2	
	*	*Galenia secunda*	Galenia	2	2																																							1
		Galium compactum	Compact Bedstraw	3	3														1	1																								
	*	*Galium divaricatum*	Slender Bedstraw	12	8																																							
		Galium gaudichaudii	Rough Bedstraw	21	11	1					1			1					1																										
		Galium migrans	Loose Bedstraw	56	27			5	2	4	2		1		2		1	2	4	2			1											1										1
	*	*Galium murale*	Small Bedstraw	268	49	5	2	11	3	12	9	4	1	3	9	1	3	13	25	14	1	1	10		2							1	1	3	1	1				1				
	*	*Galium spurium* ssp. *ibicinum*	Bedstraw	8	3																																						4	
	*	*Galium tricornutum*	Three-horned Bedstraw	1	1																																						1	
	*	*Gazania linearis*	Gazania	1	1																																							

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
P		*Geijera linearifolia*	Sheep Bush	86	19		1				3							6	5	1													1												
	*	*Genista monspessulana*	Montpellier Broom	2	2																																							
		Genoplesium nigricans	Black Midge-orchid	5	4					1		1		2																														
		Genoplesium nigricans/rufum	Midge-orchid	2	1					2																																		
		Genoplesium rufum	Red Midge-orchid	3	2					1		2																																
		Geococcus pusillus	Earth Cress	1	1																																							
	*	*Geranium dissectum*	Cut-leaf Geranium	3	3																																							
	*	*Geranium molle* var. *molle*	Soft Geranium	14	10				2	2	1				1		1						1											1										
		Geranium potentilloides var. *potentilloides*	Downy Geranium	34	12		4		1	5	3				4		3			1			1											1		1								
		Geranium retrorsum	Grassland Geranium	100	28		1	1	2	1	2				6		5		4	7			3	3														1						1
		Geranium solanderi var. *solanderi*	Austral Geranium	7	7																																							1
	*	*Gladiolus tristis*	Evening-flower Gladiolus	2	1																																			2				
	*	*Glaucium corniculatum* var. *corniculatum*	Bristly Horned-poppy	4	4																																						1	
		Glischrocaryon behrii	Golden Pennants	3	3							1	1																															
		Glischrocaryon flavescens	Yellow Pennants	1	1																																							
		Glossodia major	Purple Cockatoo	4	2																																							
P		*Glycine rubiginosa*	Twining Glycine	82	29			1			2																																	1
		Gnaphalium indutum	Tiny Cudweed	45	23	1				1	1				1		1	1	1	4	1		6	4					1	1		1		1		1				1				
	*	*Gomphocarpus cancellatus*	Broad-leaf Cotton-bush	1	1																																							
P		*Gonocarpus elatus*	Hill Raspwort	126	21																																							1
P		*Gonocarpus mezianus*	Broad-leaf Raspwort	27	8			10	4			4	1	2	1																													
P		*Gonocarpus tetragynus*	Small-leaf Raspwort	10	3																																							
P		*Goodenia albiflora*	White Goodenia	23	10																																							
		Goodenia amplexans	Clasping Goodenia	2	1																																							2
P		*Goodenia blackiana*	Native Primrose	59	11	1				3	1																																	
P		*Goodenia fascicularis*	Silky Goodenia	10	6																																							
		Goodenia geniculata	Bent Goodenia	1	1																																							
		Goodenia lunata	Stiff Goodenia	1	1																																							
		Goodenia pinnatifida	Cut-leaf Goodenia	163	29	1		1			1			2																						1								
		Goodenia pusilliflora	Small-flower Goodenia	74	27		2	5	1	1	1																					1	1											
		Goodenia robusta	Woolly Goodenia	2	2																																							
P		*Goodenia varia*	Sticky Goodenia	56	13	1				3		1		2	2				2	9			7	8	1																			
		Goodenia willisiana	Silver Goodenia	90	25	3	2	19	5		1	6	2	7	1	2		1																										
		Goodia medicaginea	Western Golden-tip	2	2					1																																		
P		*Grevillea huegelii*	Comb Grevillea	15	8											1																												
P		*Grevillea ilicifolia* ssp. *ilicifolia*	Holly-leaf Grevillea	26	11			7	1			5	1	3																														
		Grevillea lavandulacea ssp. *lavandulacea*	Spider-flower	1	1																																							
	*	*Gypsophila tubulosa*	Annual Chalkwort	5	4						1																																	
		Gyrostemon thesioides	Broom Wheel-fruit	1	1			1																																				
		Haeckeria punctulata	Sticky Haeckeria	3	3																																							
		Haegiela tatei	Small Nut-heads	3	3																								1				1		1										
	*	*Hainardia cylindrica*	Common Barb-grass	2	2																											1												
P		*Hakea carinata*	Erect Hakea	8	2																																							
P		*Hakea leucoptera* ssp. *leucoptera*	Silver Needlewood	8	6																																	1						

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
		Hakea mitchellii	Heath Needlebush	2	2							1		1																														
		Hakea rostrata	Beaked Hakea	1	1																																							
P		*Hakea rugosa*	Dwarf Hakea	5	3			2	2																																			
		Halgania andromedifolia	Scented Blue-flower	2	2																																							
P		*Halgania cyanea*	Rough Blue-flower	19	10			1						4	1																													
P		*Haloragis acutangula* f.	Smooth Raspwort	37	12		1		1	2	4				2			2	5	6			5		1																			
P		*Haloragis aspera*	Rough Raspwort	13	9											1																											1	
P		*Halosarcia halocnemoides* ssp.	Grey Samphire	44	9						2								1									1	1		1	24	2	2	10									
P		*Halosarcia indica* ssp.	Brown-head Samphire	29	10																							2	6	6		8	1		2									
P		*Halosarcia pergranulata* ssp.	Black-seed Samphire	29	10						1								1									10	1	3		4		4	3									
		Halosarcia pruinosa	Bluish Samphire	1	1														1																									
		Halosarcia pterygosperma ssp. *pterygosperma*	Winged-seed Samphire	2	2																														1									
P		*Halosarcia syncarpa*	Fused Samphire	4	3						1																			1	2													
P		*Hardenbergia violacea*	Native Lilac	26	7					8				1						1																								
		Harmsiodoxa brevipes var. *brevipes*	Short Cress	1	1																																							
	*	*Hedypnois rhagadioloides*	Cretan Weed	104	36		1	2			2		1		1	1	1																					1			1			1
P		*Helichrysum leucopsideum*	Satin Everlasting	229	43	7	6	19	7	9	7	5	1	7	13	3	5	3	10	15			5	4	1		1						2		1									
		Heliotropium asperrimum	Rough Heliotrope	4	4																																							
	*	*Heliotropium europaeum*	Common Heliotrope	3	3																																							
	*	*Helminthotheca echioides*	Ox-tongue	8	5																																		1	4	1			
P		*Hemichroa diandra*	Mallee Hemichroa	5	4																							1	1				1		2									
P		*Hemichroa pentandra*	Trailing Hemichroa	7	4																											2		1	3	1								
	*	*Herniaria cinerea*	Rupturewort	11	9						1							1																										
		Hibbertia crinita		3	1																																							
P		*Hibbertia exutiacies*	Prickly Guinea-flower	20	6																																							
P		*Hibbertia pallidiflora*	Round-leaf Guinea-flower	4	3	1				1																																		
P		*Hibbertia platyphylla* ssp.		28	8		1	6	2	7	1						1																											
P		*Hibbertia riparia*	Bristly Guinea-flower	15	4	1		2				1																																
P		*Hibbertia* sp. Glabriuscula (D.J.Whibley 9012)	Smooth Guinea-flower	20	8			3		1		4		1	1																													
P		*Hibbertia virgata*	Twiggy Guinea-flower	14	4	2				2																																		
	*	*Holcus lanatus*	Yorkshire Fog	1	1																																							
		Homoranthus wilhelmii	Wilhelm's Homoranthus	2	1							2																																
	*	*Hordeum glaucum*	Blue Barley-grass	180	51			1	1	1	3					1	1	7	3		1					1		1	2	1			2		1			3		4	2	3	5	1
	*	*Hordeum glaucum/leporinum*		68	24											1					1												1					1		3				1
	*	*Hordeum hystrix*	Mediterranean Barley-grass	1	1																																							
	*	*Hordeum leporinum*	Wall Barley-grass	38	18																							2												1	1			4
	*	*Hordeum marinum*	Sea Barley-grass	23	16																							1		1				2				2	1	2	2	3	1	1
	*	*Hornungia procumbens*	Oval Purse	40	20				1		1				1				3	1	4		6			1	1	1	3	1	2	5	1		4					1				
		Hyalosperma demissum	Dwarf Sunray	28	9			6	2			1																																
		Hyalosperma glutinosum ssp. *glutinosum*	Golden Sunray	14	10			1	1																																			
		Hyalosperma semisterile	Orange Sunray	37	15																																							1
P		*Hybanthus floribundus* ssp. *floribundus*	Shrub Violet	6	2																																							
		Hydrocotyle callicarpa	Tiny Pennywort	31	10			5	1			1																																

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
		Hydrocotyle capillaris	Thread Pennywort	43	16	1		1		9				1	3			1	2				2	2	1								1	1		1				1				
		Hydrocotyle foveolata	Yellow Pennywort	5	3			1																																				
P		*Hydrocotyle laxiflora*	Stinking Pennywort	24	9																																							1
		Hydrocotyle medicaginoides	Medic Pennywort	21	10													3											2	2		3	3	3						1				
		Hydrocotyle pilifera var. *glabrata*	Buttercup Pennywort	17	8		1	9	1						1																													
P		*Hymenanthera dentata*	Tree Violet	4	3																																							
P	*	*Hypericum perforatum*	St John's Wort	9	4																																							
	*	*Hypochaeris glabra*	Smooth Cat's Ear	349	54		4	18	6	3	7	5	2		1	1		5	10	2													1				1				1		4
	*	*Hypochaeris radicata*	Rough Cat's Ear	116	31			1			1				3		2	3	10	2					1					1									1				1
		Hypoxis glabella var. *glabella*	Tiny Star	85	29	2	1	7	2	9	2	1		1			1	3	6				5	2	2								2	3		2								
P	*	*Iris germanica*	Flag Iris	5	5																																							1
		Isoetopsis graminifolia	Grass Cushion	29	19			3	1						1			1																	1								
		Isolepis cernua	Nodding Club-rush	7	4																												1				1		2		3		
		Isolepis marginata	Little Club-rush	44	23			1	1	1	2		1		2		2	1	4	5	1		7	1	1					1													
P		*Isolepis nodosa*	Knobby Club-rush	68	10										2		4	3	22	21	1	1	2	5			7																
		Isolepis platycarpa	Flat-fruit Club-rush	1	1																																							
		Isotoma scapigera	Salt Isotome	2	2																							1						1										
P		*Ixodia achillaeoides* ssp. *achillaeoides*	Coast Ixodia	18	5														1	1			7	3																				
		Joycea clelandii	Cleland's Wallaby-grass	1	1																																							
	*	*Juncus acutus*	Sharp Rush	1	1																																				1			
		Juncus aridicola	Inland Rush	1	1																																							1
		Juncus bufonius	Toad Rush	9	5																							1			1									4				1
	*	*Juncus capitatus*	Dwarf Rush	6	4								1																															
	*	*Juncus effusus*	Soft Rush	1	1																																							
P		*Juncus flavidus*	Yellow Rush	7	5																																							1
P		*Juncus kraussii*	Sea Rush	23	6																																	3	1	10	4	4		
		Juncus radula	Hoary Rush	1	1																																							
P		*Juncus subsecundus*	Finger Rush	15	9																																							
P		*Kennedia prostrata*	Scarlet Runner	38	18		1		1	1		2			5		2	2	5	6			1																					
	*	*Kickxia elatine* ssp.	Sharp-leaf Toadflax	2	2																																						1	
P		*Kunzea pomifera*	Muntries	4	2														1	3																								
	*	*Lactuca serriola*	Prickly Lettuce	33	15						1		1																											1	2	1		
		Lagenophora huegelii	Coarse Bottle-daisy	81	26			6	3	1	1	1	1	1	1	2																	1		1								
	*	*Lagurus ovatus*	Hare's Tail Grass	152	27	5	4	2	4	1	10				13		9	8	29	21	6		2	4	2	1	2			2		1		2	1									
	*	*Lamarckia aurea*	Toothbrush Grass	32	17													1																										1
	*	*Lamium amplexicaule* var. *amplexicaule*	Deadnettle	9	7								1																															
P		*Lasiopetalum baueri*	Slender Velvet-bush	29	10			12	1			3	2	5	1																													
P		*Lasiopetalum behrii*	Pink Velvet-bush	21	6			10	4			4		1		1																												
P		*Lasiopetalum discolor*	Coast Velvet-bush	70	13				1	9	2				2		2	1	2	9			12	3	1																			
P		*Lasiopetalum schulzenii*	Drooping Velvet-bush	11	2					2																																		
P	*	*Lavandula stoechas*	Topped Lavender	7	3																																							
		Lawrencia spicata	Salt Lawrencia	1	1																															1								
P		*Lawrencia squamata*	Thorny Lawrencia	27	11																			4					1	4		1	4	7	2	1								
		Leiocarpa semicalva ssp. *semicalva*	Scented Button-bush	2	2																																							
P		*Leiocarpa supina*	Coast Plover-daisy	5	3						1													3	1																			

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
P		*Leiocarpa websteri*	Narrow Plover-daisy	7	5																																							
	*	*Leontodon taraxacoides* ssp. *taraxacoides*	Lesser Hawkbit	1	1																																							
	*	*Lepidium africanum*	Common Peppercress	67	20																																					1	1	2
P	*	*Lepidium draba*	Hoary Cress	4	4						1																												1	1	1			
		Lepidium oxytrichum	Green Peppercress	1	1																																							
		Lepidium oxytrichum/papillosum		5	4																																							
		Lepidium papillosum	Warty Peppercress	15	10																																							
		Lepidosperma aff. *congestum*		1	1																																							
P		*Lepidosperma concavum*	Spreading Sword-sedge	7	5			2							1		2	1																										
P		*Lepidosperma congestum*	Clustered Sword-sedge	114	18	7	8	17	10	3	2	3		3	7		1						4																					
		Lepidosperma curtisiae	Little Sword-sedge	2	2																																							
P		*Lepidosperma gladiatum*	Coast Sword-sedge	37	9						1				8		7		7	9			2		1																			
P		*Lepidosperma viscidum*	Sticky Sword-sedge	69	19		1	6	1			5	2	3	1																													
		Leptinella reptans	Creeping Cotula	1	1																																							
		Leptomeria aphylla	Leafless Currant-bush	1	1																																							
		Leptorhynchos elongatus	Lanky Buttons	2	2		1																																					
		Leptorhynchos squamatus ssp. *squamatus*	Scaly Buttons	85	24	2	1	2	4	2	1								1	1			1																					
		Leptorhynchos tetrachaetus	Little Buttons	36	14			1																																				
		Leptorhynchos waitzia	Button Immortelle	9	5	1	1																									1												
		Leptospermum coriaceum	Dune Tea-tree	2	1							2																																
P		*Leucophyta brownii*	Coast Cushion Bush	34	5														9	10	1			10			4																	
		Leucopogon clelandii	Cleland's Beard-heath	1	1																																							
		Leucopogon concurvus	Scrambling Beard-heath	1	1	1																																						
P		*Leucopogon cordifolius*	Heart-leaf Beard-heath	5	2			1				4																																
P		*Leucopogon parviflorus*	Coast Beard-heath	91	15	1				5	2				9		5	1	4	23			10	8			1							1						1				
		Levenhookia dubia	Hairy Stylewort	37	9			4	2																																			
		Levenhookia stipitata		1	1							1																																
	*	*Limonium companyonis*	Sea-lavender	15	12										1			1	1		3					1				2		1	1	1	1					1		1		
	*	*Limonium lobatum*	Winged Sea-lavender	15	12						1					1																						1			1			
P		*Linum marginale*	Native Flax	38	17	2	1	4												1														1										
	*	*Linum strictum* ssp. *strictum*	Upright Yellow Flax	133	28	5	7	14	9	10	4			3	10		2	3	4	3			1		2											1								
	*	*Linum trigynum*	French Flax	7	5																																							
		Lobelia alata	Angled Lobelia	1	1																																	1						
		Lobelia gibbosa	Tall Lobelia	8	6					1		2																																1
P		*Logania crassifolia*	Coast Logania	42	10	2					1				2		2		2	2			12	6	1																			
		Logania linifolia	Flax-leaf Logania	1	1									1																														
P		*Logania minor*	Spoon-leaf Logania	7	3	1														1																								
P		*Logania ovata*	Oval-leaf Logania	26	7	2		2		5		3			1					1																								
		Logania saxatilis	Rock Logania	1	1																																							
	*	*Logfia gallica*	Narrow Cudweed	8	8																																							
	*	*Lolium loliaceum*	Stiff Ryegrass	7	6																																							
	*	*Lolium multiflorum*	Italian Ryegrass	2	1												2																											
	*	*Lolium perenne*	Perennial Ryegrass	32	16																									1								1						1
	*	*Lolium perenne* x *rigidum*	Hybrid Ryegrass	33	19										3			1	3	2	2					1									1							1		

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
	*	*Lolium rigidum*	Wimmera Ryegrass	218	48			1			4		1		2	1	3		2	2						1		3	1	3								4	1	6	3	5	5	4
	*	*Lolium* x *hybridum*	Hybrid Ryegrass	2	2														1																										
P		*Lomandra collina*	Sand Mat-rush	73	25	5	2	11	1	1	1		1	2	3			1	1																										
P		*Lomandra densiflora*	Soft Tussock Mat-rush	89	19			2						1	1																														
P		*Lomandra effusa*	Scented Mat-rush	230	41	5	5	4	5	3	1			3	6		4	2	2						1																				
		Lomandra leucocephala ssp. *robusta*	Woolly Mat-rush	1	1																																							
P		*Lomandra micrantha* ssp. *micrantha*	Small-flower Mat-rush	36	17			1	1	3		1	1																															
P		*Lomandra multiflora* ssp. *dura*	Hard Mat-rush	241	34		1	5	4		1		1	2	1	2																												3
P		*Lomandra nana*	Small Mat-rush	8	4																																							
P		*Lomandra sororia*	Sword Mat-rush	10	3																																							
P		*Lotus australis*	Austral Trefoil	19	7										1				8	4				2																				
		Lotus cruentus	Red-flower Lotus	2	2																																							
P		*Luzula meridionalis*	Common Wood-rush	5	4																																							
P		*Lycium australe*	Australian Boxthorn	16	12													3					1										1											
P	*	*Lycium ferocissimum*	African Boxthorn	339	65	2	2	9	5	1	12	1	2	1	8	4	5	12	35	15	6		1	2	1	1		3	1	1			2	2	1	1		2			1	3	2	8
P		*Lysiana exocarpi* ssp. *exocarpi*	Harlequin Mistletoe	53	22			4	4		1				1		1	2	2																									
		Lythrum hyssopifolia	Lesser Loosestrife	12	8																																	2		3	1	1		1
		Lythrum paradoxum		1	1																																							1
P		*Maireana aphylla*	Cotton-bush	24	15																																	1						
P		*Maireana appressa*	Pale-fruit Bluebush	5	3																																							
P		*Maireana brevifolia*	Short-leaf Bluebush	126	33						1					1					1									2								2			1		2	1
		Maireana enchylaenoides	Wingless Fissure-plant	254	33				2		2		1	2		3																												1
P		*Maireana erioclada*	Rosy Bluebush	43	15						4				1			4		1													1											
P		*Maireana excavata*	Bottle Fissure-plant	31	13																																							
		Maireana georgei	Satiny Bluebush	1	1																																							
P		*Maireana lobiflora*	Lobed Bluebush	5	4																																							
		Maireana microcarpa	Swamp Bluebush	1	1																																							
P		*Maireana oppositifolia*	Salt Bluebush	44	16						2							1	2		1		1	2		1		2	2	4	1	8	1	1	14					1				
P		*Maireana pentatropis*	Erect Mallee Bluebush	7	4																																							
P		*Maireana pyramidata*	Black Bluebush	32	9																																							
P		*Maireana radiata*	Radiate Bluebush	4	3																																							
P		*Maireana rohrlachii*	Rohrlach's Bluebush	9	7																																							
P		*Maireana sedifolia*	Bluebush	25	10																																							
P		*Maireana tomentosa* ssp. *urceolata*		4	3																																							
P		*Maireana trichoptera*	Hairy-fruit Bluebush	24	11																																							
P		*Maireana turbinata*	Top-fruit Bluebush	23	14																																							
		Malva behriana	Australian Hollyhock	3	3																																						1	
P	*	*Malva parviflora*	Small-flower Marshmallow	23	11																																					1		3
P	*	*Marrubium vulgare*	Horehound	98	34		1				2																											2					1	3
		Marsdenia australis	Native Pear	1	1																																							
		Marsilea costulifera	Narrow-leaf Nardoo	1	1																																							
	*	*Medicago arabica*	Spotted Medic	1	1																																							
	*	*Medicago littoralis*	Strand Medic	5	5			1																																				
	*	*Medicago minima* var. *minima*	Little Medic	243	54		2	1	1	1	6			1	3	2		5	3		1								1	2			1					3					2	2
	*	*Medicago polymorpha* var. *polymorpha*	Burr-medic	134	46			1	2		1							1	2	1			1	2				1	1	4		2		1				1		4	3	4	5	3

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
	*	*Medicago sativa*		8	6																																							1
	*	*Medicago truncatula*	Barrel Medic	85	39		1			1	1		1		1	1		2	1	1									1			1	1		1			1			2			
P		*Melaleuca acuminata* ssp. *acuminata*	Mallee Honey-myrtle	60	18	2	1	8		5	2	2	3	6	1	1	1																											
		Melaleuca brevifolia	Short-leaf Honey-myrtle	3	2																																				1	2		
P		*Melaleuca decussata*	Totem-poles	11	4	1				2							1																											
P		*Melaleuca gibbosa*	Slender Honey-myrtle	20	2					2																																		
P		*Melaleuca halmaturorum*	Swamp Paper-bark	16	3																													13		1								
P		*Melaleuca lanceolata*	Dryland Tea-tree	232	41	3		11	8	17	23	3	2	4	4	1	1	1		2			10		1					1				2		1		1			1			
P		*Melaleuca pauperiflora* ssp. *mutica*	Boree	8	2																																							
P		*Melaleuca uncinata*	Broombush	24	5			9				9		4																														
	*	*Melilotus indicus*	King Island Melilot	82	17					10	2				10				7	10			11	6						1		2		6	1	1		1					1	
		Menkea australis	Fairy Spectacles	3	2																												1											
		Mentha satureioides	Native Pennyroyal	1	1																																							
	*	*Mesembryanthemum aitonis*	Angled Iceplant	1	1																																							
	*	*Mesembryanthemum crystallinum*	Common Iceplant	51	18					1	6						1	6	3		6			1		1		1		2														
	*	*Mesembryanthemum nodiflorum*	Slender Iceplant	78	29					1	3							2			1							6	2	4	2	1	1		2			1			1			
		Microcybe multiflora ssp. *multiflora*	Small-leaf Microcybe	1	1																																							
		Microcybe pauciflora ssp. *pauciflora*	Yellow Microcybe	3	3	1				1																																		
		Microlaena stipoides var. *stipoides*	Weeping Rice-grass	1	1																																							
		Microlepidium pilosulum	Hairy Shepherd's-purse	2	1																		2																					
	*	*Micropterum papulosum*		3	2													1	2																									
		Microseris lanceolata	Yam Daisy	132	37	5	5	10	1	3	1			1	5		3		2	3			7	6	1				1			2	1	2				1						
		Microtis arenaria	Notched Onion-orchid	9	8	1		1					1					1																										
		Microtis arenaria/frutetorum		10	6																													1										
		Microtis frutetorum		5	3																																							
		Millotia major		2	2	1									1																													
		Millotia muelleri	Common Bow-flower	33	15			6	1	3				1	1			2	1															3		1								
		Millotia myosotidifolia	Broad-leaf Millotia	32	15		1	3	2		1				1																													
		Millotia perpusilla	Tiny Bow-flower	1	1																																							
		Millotia tenuifolia var. *tenuifolia*	Soft Millotia	32	11			6			1	6		2																														
		Mimulus repens	Creeping Monkey-flower	7	4																																	1	1	4	1			
	*	*Minuartia mediterranea*	Slender Sandwort	146	27	1	2	2		4	10			1	11		6	12	23	14	1		17		2				2	2			2	2										
		Minuria cunninghamii	Bush Minuria	2	2																																							
		Minuria leptophylla	Minnie Daisy	77	25	1	1	2		1					1																			1										
	*	*Misopates orontium*	Lesser Snapdragon	3	2																																							1
	*	*Moenchia erecta*	Erect Chickweed	7	6																																							
	*	*Molineriella minuta*	Small Hair-grass	4	2			1																								3												
	*	*Moraea flaccida*	One-leaf Cape Tulip	31	12		1				1																											1		1				
	*	*Moraea miniata*	Two-leaf Cape Tulip	2	2																																							
	*	*Moraea setifolia*	Thread Iris	335	60	1	4	8	2	1	11	3	3	5	1	1		8	6	1	1	1		1				2	3	5		1	2	2	2			3		3	2	2		1
P		*Muehlenbeckia adpressa*	Climbing Lignum	14	6			1			2						3		1	5			2																					
P		*Muehlenbeckia florulenta*	Lignum	12	6															1																		1			1	1	6	2
P		*Muehlenbeckia gunnii*	Coastal Climbing Lignum	71	19	3		1		1	1				7		6	3	28	5	2	1		2			1																	
	*	*Muscari armeniacum*	Grape Hyacinth	1	1																																							
P		*Myoporum insulare*	Common Boobialla	56	15	1			1						10		5	10	11	8			1	1									2							1			1	

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
P		*Myoporum montanum*	Native Myrtle	31	19						1																											4			1	1		4
P		*Myoporum parvifolium*	Creeping Boobialla	4	4													1		1																								
P		*Myoporum platycarpum* ssp.	False Sandalwood	44	14																																							
		Myoporum sp. Petiolatum (R.Taylor 484)	Sticky Boobialla	1	1																																							
		Myoporum viscosum	Sticky Boobialla	1	1					1																																		
		Myosotis australis	Austral Forget-me-not	6	5					1							1			1			2																					
	*	*Neatostema apulum*	Hairy Sheepweed	43	20																																							
P		*Neurachne alopecuroidea*	Fox-tail Mulga-grass	39	14			12	3			6	1	1																														
P	*	*Nicotiana glauca*	Tree Tobacco	4	2														1																									3
		Nicotiana goodspeedii	Small-flower Tobacco	4	2													2																										
		Nicotiana maritima	Coast Tobacco	11	6						1							6																										1
		Nicotiana velutina	Velvet Tobacco	1	1																																							
P		*Nitraria billardierei*	Nitre-bush	63	22													2	6	2	9				1	1		1		4			2		4			2			1			
	*	*Nothoscordum gracile*		1	1																																							1
	*	*Oenothera stricta* ssp. *stricta*	Common Evening Primrose	2	1														2																									
P	*	*Olea europaea* ssp. *europaea*	Olive	38	18				1						1				1																									
P		*Olearia axillaris*	Coast Daisy-bush	168	19	3	2		1	1	1				10		7	15	48	24	8		14	10	1		7									1					1				
		Olearia brachyphylla	Short-leaf Daisy-bush	1	1							1																																
		Olearia calcarea	Crinkle-leaf Daisy-bush	2	2																																							
P		*Olearia ciliata* var. *ciliata*	Fringed Daisy-bush	30	5	7		2				3		1																														
P		*Olearia decurrens*	Winged Daisy-bush	20	11											1																												
		Olearia floribunda var. *floribunda*	Heath Daisy-bush	3	3									1																														
		Olearia lepidophylla	Clubmoss Daisy-bush	1	1									1																														
P		*Olearia minor*	Heath Daisy-bush	20	8	1				7	1																																	
P		*Olearia muelleri*	Mueller's Daisy-bush	29	10											2			1																									
P		*Olearia pannosa* ssp. *pannosa*	Silver Daisy-bush	17	10			3			1			2	1																													
		Olearia picridifolia	Rasp Daisy-bush	1	1																																							
P		*Olearia pimeleoides* ssp. *pimeleoides*	Pimelea Daisy-bush	25	11						1																																	
P		*Olearia ramulosa*	Twiggy Daisy-bush	29	13	1	1	6	2	2				2	1		1						1		1																			
		Olearia teretifolia	Cypress Daisy-bush	3	1																																							
		Olearia tubuliflora	Rayless Daisy-bush	2	1																																							
		Omphalolappula concava	Burr Stickseed	5	5																																							
	*	*Oncosiphon suffruticosum*	Calomba Daisy	27	15						2					1			1									2		1														1
	*	*Onopordum acanthium* ssp. *acanthium*	Scotch Thistle	2	1																																							
	*	*Onopordum acaulon*	Horse Thistle	26	13																																						1	
P		*Opercularia turpis*	Twiggy Stinkweed	51	16	3		5	1	6		6		2	1		2		1	1					1																			
P		*Opercularia varia*	Variable Stinkweed	5	2																																							
		Ophioglossum lusitanicum	Austral Adder's-tongue	11	7			3	1																																			1
	*	*Opuntia robusta*	Wheel Pear	1	1																																							
	*	*Ornithogalum thyrsoides*	Chincherinchee	1	1																																							
	*	*Osteospermum clandestinum*	Tripteris	4	3																																							
		Oxalis perennans	Native Sorrel	393	53		5	6	8	3	5	1	1	3	3	1	2	4	9	1																		4					2	4
	*	*Oxalis pes-caprae*	Soursob	169	47			2		1	2	2	2				1	5	14	3	6			4	1			1					1	1				2		2	5	4	1	8
	*	*Oxalis purpurea*	One-o'clock	1	1																																							
P		*Ozothamnus retusus*	Notched Bush-everlasting	14	6			1				3		2		1																												

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
		Ozothamnus scaber	Rough Bush-everlasting	1	1																																							
		Panicum decompositum var. *decompositum*	Native Millet	1	1																																							
P		*Panicum effusum* var. *effusum*	Hairy Panic	4	4								1																														1	1
	*	*Papaver aculeatum*	Bristle Poppy	1	1						1																																	
	*	*Papaver hybridum*	Rough Poppy	10	7																																							
	*	*Papaver somniferum* ssp. *setigerum*	Small-flower Opium Poppy	2	2														1																									
	*	*Parapholis incurva*	Curly Ryegrass	101	36				1	2						1		3	8	4	3		2	3				6		6	1	7	2	6	4			2	1	3	3	4		1
	*	*Parentucellia latifolia*	Red Bartsia	21	13		1	1	1																											1								1
		Parietaria australis/debilis		66	30				1	3	2				1		3	2	3	4	3		1						1	1		1						1						
		Parietaria cardiostegia	Mallee Smooth-nettle	13	8						1						2	3		1	1																							
		Parietaria cardiostegia/debilis	Smooth-nettle	3	2																																							
		Parietaria debilis	Smooth-nettle	2	2																																							
		Paspalidium gracile	Slender Panic	1	1																																							1
		Pelargonium australe	Australian Pelargonium	28	6	1													10	7	1		8				1																	
		Pelargonium littorale	Native Pelargonium	31	13		2	1	3	2	3						1		2				2																					
	*	*Pennisetum setaceum*	Fountain Grass	2	2																																							
	*	*Pentaschistis airoides*	False Hair-grass	91	23			1			1	1	2			1																						1						1
	*	*Pentaschistis pallida*	Pussy Tail	3	3																																							
		Persicaria decipiens	Slender Knotweed	1	1																																							
	*	*Petrorhagia nanteuilii*		3	2																																							
	*	*Petrorhagia velutina*	Velvet Pink	40	17						1																																	1
P	*	*Phalaris aquatica*	Phalaris	10	5																																	1		2		5	1	
	*	*Phalaris minor*	Lesser Canary-grass	5	5																																							1
		Phebalium glandulosum ssp. *glandulosum*	Glandular Phebalium	1	1									1																														
		Pheladenia deformis	Bluebeard Orchid	19	7			3	1	6		3			1																													
		Philotheca angustifolia ssp. *angustifolia*	Narrow-leaf Wax-flower	2	2																																							
P		*Philotheca pungens*	Prickly Wax-flower	7	3	1						2																																
P		*Philotheca verrucosa*	Bendigo Wax-flower	4	1																																							
		Phlegmatospermum eremaeum	Spreading Cress	1	1																																							
P		*Phragmites australis*	Common Reed	20	6																																	1		5	5	6		2
	*	*Phyla canescens*	Lippia	2	2																																	1			1			
		Phyllangium divergens	Wiry Mitrewort	27	10			3	2	2		1						1					2																					
P		*Phyllanthus australis*	Southern Spurge	6	2			3				3																																
P		*Phyllanthus saxosus*	Rock Spurge	18	10						2																																	
	*	*Picnomon acarna*	Soldier Thistle	6	6																																							1
P		*Picris angustifolia* ssp. *angustifolia*	Coast Picris	11	8		1	1							2		1	2	2	1																								
P		*Pimelea curviflora* var.	Curved Riceflower	17	9																																							
P		*Pimelea flava* ssp. *dichotoma*	Diosma Riceflower	25	7	2	1		1	2																								1										
P		*Pimelea glauca*	Smooth Riceflower	60	19	5		8	4	3	1			3	1					1																								
P		*Pimelea humilis*	Low Riceflower	8	5			1																																				
		Pimelea imbricata var. *petraea*	Rock Woolly Riceflower	1	1			1																																				
P		*Pimelea micrantha*	Silky Riceflower	62	21		1				1			1																														1
P		*Pimelea microcephala* ssp. *microcephala*	Shrubby Riceflower	30	15													3																										2

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
P		*Pimelea serpyllifolia* ssp. *serpyllifolia*	Thyme Riceflower	174	31	2	2	1	6	10	6			4	11	3	3	6	21	19			14	5	2		1						2	5		1								
P		*Pimelea stricta*	Erect Riceflower	8	6								1																															
P	*	*Pinus halepensis*	Aleppo Pine	13	7															1																								
	*	*Pinus ponderosa*	Ponderosa Pine	1	1																																							
	*	*Pinus radiata*	Radiata Pine	1	1																																							
P	*	*Piptatherum miliaceum*	Rice Millet	19	8																																							5
P		*Pittosporum angustifolium*	Native Apricot	213	46	1	1	8	3	2	8	2	2	4	3	3	1	8	7	4			5						1							1		1						1
		Plagiobothrys plurisepaleus	White Rochelia	1	1																																							
		Plantago aff. *debilis*	Shade Plantain	1	1																																							1
	*	*Plantago bellardii*	Hairy Plantain	2	2																																							
	*	*Plantago coronopus* ssp.	Bucks-horn Plantain	1	1																																							
	*	*Plantago coronopus* ssp. *commutata*	Bucks-horn Plantain	1	1																			1																				
	*	*Plantago coronopus* ssp. *coronopus*	Bucks-horn Plantain	1	1																			1																				
		Plantago drummondii	Dark Plantain	6	4						1																																	
P		*Plantago gaudichaudii*	Narrow-leaf Plantain	18	5																																							
P		*Plantago hispida*	Hairy Plantain	36	17				1						2									1												1		1						1
P	*	*Plantago lanceolata* var. *lanceolata*	Ribwort	20	10															1																								
		Plantago sp. B	Little Plantain	23	13			3	1		1																					1	1											
P		*Plantago varia* complex	Native Plantain	27	7				1																																			
		Platysace heterophylla var. *heterophylla*	Slender Platysace	1	1																																							
		Pleuropappus phyllocalymmeus	Silver Candles	1	1																							1																
P		*Pleurosorus rutifolius*	Blanket Fern	7	7																																							1
	*	*Poa annua*	Winter Grass	1	1										1																													
P	*	*Poa bulbosa*	Bulbous Meadow-grass	56	19								1																															
		Poa clelandii	Matted Tussock-grass	1	1																																							
P		*Poa crassicaudex*	Thick-stem Tussock-grass	59	17																																			1				
P		*Poa drummondiana*	Knotted Poa	10	5																													1										
		Poa fax	Scaly Poa	5	2																		3									2												
P		*Poa labillardieri* var. *labillardieri*	Common Tussock-grass	11	10												1			1																1				1	1			1
P		*Poa poiformis* var. *poiformis*	Coast Tussock-grass	67	15	2	1				1				10		4	3	16	11				5	2		1							2										
		Podolepis canescens	Grey Copper-wire Daisy	12	5		1				1																									1								
		Podolepis capillaris	Wiry Podolepis	7	5						2							2															1											
		Podolepis davisiana	Button Podolepis	1	1											1																												
		Podolepis jaceoides	Showy Copper-wire Daisy	14	7						1			5	1																													
		Podolepis muelleri	Button Podolepis	1	1																																							
		Podolepis rugata var.	Pleated Copper-wire Daisy	9	4	1														1			2																					
		Podolepis rugata var. *littoralis*	Coast Copper-wire Daisy	5	3																		1	1																				
		Podolepis rugata var. *rugata*	Pleated Copper-wire Daisy	4	3															1																								
		Podolepis tepperi	Delicate Copper-wire Daisy	25	12			7	4																																			
		Podotheca angustifolia	Sticky Long-heads	82	21	3		1		5	7				5		2	6	3	4			8		1								1	3										
		Pogonolepis muelleriana	Stiff Cup-flower	53	23		1	3			1								1										1	4		1	2												
	*	*Polycarena heterophylla*		1	1																																							
	*	*Polycarpon tetraphyllum*	Four-leaf Allseed	3	3																																							1
	*	*Polygala myrtifolia*	Myrtle-leaf Milkwort	3	1															3																								
	*	*Polygonum aviculare*	Wireweed	13	10																																	1				2		

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
	*	*Polypogon maritimus*	Coast Beard-grass	1	1																																							
	*	*Polypogon monspeliensis*	Annual Beard-grass	14	5																													1				3		4	3	3		
		Polypogon tenellus		1	1																													1										
P	*	*Polypogon viridis*	Water Bent	5	4																																	2				1		
P		*Pomaderris obcordata*	Wedge-leaf Pomaderris	22	4					10				1						1																								
P		*Pomaderris paniculosa* ssp.		97	26		4	14	5		2			1	3		3	7	2	1			4		1																			1
		Poranthera microphylla	Small Poranthera	17	7				2			1																																
		Poranthera triandra	Three-petal Poranthera	26	10	1		8	1	5				1									1																					
		Prasophyllum calcicola	Limestone Leek-orchid	1	1					1																																		
		Prasophyllum elatum	Tall Leek-orchid	1	1			1																																				
		Prasophyllum fitzgeraldii	Fitzgerald's Leek-orchid	3	2					2																																		
		Prasophyllum goldsackii	Goldsack's Leek-orchid	2	1					2																																		
		Prasophyllum occidentale	Plains Leek-orchid	1	1																																							
		Prasophyllum occultans	Hidden Leek-orchid	1	1			1																																				
		Prasophyllum odoratum	Scented Leek-orchid	7	4			1																																				
		Prasophyllum odoratum complex	Leek-orchid	4	2			1																																				
P		*Prostanthera behriana*	Downy Mintbush	4	1																																							
		Prostanthera serpyllifolia ssp. *microphylla*	Small-leaf Mintbush	2	2									1																														
		Prostanthera serpyllifolia ssp. *serpyllifolia*	Thyme Mintbush	3	1																																							
		Prostanthera striatiflora	Striated Mintbush	1	1																																							
	*	*Prunus domestica* ssp.	Plum	1	1																																							
	*	*Prunus dulcis*	Almond	1	1																																							
		Pseudognaphalium luteoalbum	Jersey Cudweed	2	2																												1											
	*	*Psilurus incurvus*	Bristle-tail Grass	3	2																																							
		Pterostylis aff. *excelsa*	Dryland Greenhood	1	1										1																													
		Pterostylis biseta	Two-bristle Greenhood	17	9																																							1
		Pterostylis boormanii	Boorman's Greenhood	3	3			1																																				
		Pterostylis cycnocephala	Swan-head Greenhood	1	1																																							
		Pterostylis dolichochila	Mallee Shell-orchid	1	1									1																														
		Pterostylis erythroconcha	Red Shell-orchid	6	4					3				1																														
		Pterostylis excelsa	Dryland Greenhood	2	2																																							1
		Pterostylis mutica	Midget Greenhood	26	9			4		1		1		4																														
		Pterostylis nana	Dwarf Greenhood	5	3					2		2																																
		Pterostylis pedunculata	Maroon-hood	4	1					4																																		
		Pterostylis plumosa	Bearded Greenhood	3	3					1																																		
		Pterostylis pusilla	Small Rusty-hood	9	6			1						3																														
		Pterostylis robusta	Large Shell-orchid	11	6		1																																					
		Pterostylis rufa group	Rusty-hood	1	1									1																														
		Pterostylis sanguinea	Blood Greenhood	13	8			1		4		2		2																														
		Pterostylis sp. Coastal (R.Bates 37621)	Tall Greenhood	17	6	1				10		1		3																														
P		*Ptilotus erubescens*	Hairy-tails	23	9																																							
P		*Ptilotus nobilis* var. *angustifolius*	Yellow-tails	5	5																																							
P		*Ptilotus obovatus* var. *obovatus*	Silver Mulla Mulla	5	5																																							
		Ptilotus seminudus	Rabbit-tails	32	11						1		1	1		1																												

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
P		*Ptilotus spathulatus* f. *spathulatus*	Pussy-tails	186	35		1	5	2		3			1		2																												2
	*	*Puccinellia distans*	Reflexed Poa	2	2																																			1		1		
P		*Puccinellia stricta* var. *stricta*	Australian Saltmarsh-grass	7	6														1						1						1			1	2					1				
P		*Pultenaea acerosa*	Bristly Bush-pea	9	4					3		3								2																								
P		*Pultenaea kraehenbuehlii*	Tothill Bush-pea	5	1																																							
P		*Pultenaea largiflorens*	Twiggy Bush-pea	34	7																																							
		Pultenaea laxiflora	Loose-flower Bush-pea	1	1																																							
P		*Pultenaea tenuifolia*	Narrow-leaf Bush-pea	57	13	7		1		3		1			1			3	2	6			1	1																				
		Pultenaea vestita	Feather Bush-pea	1	1					1																																		
P		*Pycnosorus globosus*	Drumsticks	5	3																																							
		Pycnosorus pleiocephalus	Soft Billy-buttons	5	4											1																												
		Pyrorchis nigricans	Black Fire-orchid	1	1							1																																
		Ranunculus hamatosetosus	Hill Buttercup	5	4																																							
	*	*Ranunculus muricatus*	Pricklefruit Buttercup	1	1																																							
		Ranunculus pachycarpus	Thick-fruit Buttercup	3	2																																						2	
		Ranunculus sessiliflorus var.	Annual Buttercup	4	3					1																																		
		Ranunculus sessiliflorus var. *sessiliflorus*	Annual Buttercup	13	5					5	1												2											1										
	*	*Rapistrum rugosum* ssp. *rugosum*	Turnip Weed	68	26				1						1													2													2		4	6
	*	*Reichardia tingitana*	False Sowthistle	64	22						1		2					6	22	4	2			1	1															1				
P	*	*Reseda lutea*	Cut-leaf Mignonette	10	7	1	1		1		4				1																													
P	*	*Reseda luteola*	Wild Mignonette	4	4				1																											1							1	
	*	*Retama raetam*	White Weeping Broom	1	1																																							
P		*Rhagodia candolleana* ssp. *candolleana*	Sea-berry Saltbush	218	35	2	1	8	2	6	10	1	1		11		6	11	45	23	10	1	15	6	1	1	2			2		1		8	2	1								
P		*Rhagodia crassifolia*	Fleshy Saltbush	20	7																		1																					
P		*Rhagodia parabolica*	Mealy Saltbush	205	36			1			5	1	3	1		1		7	5																			1					1	
P		*Rhagodia preissii* ssp. *preissii*	Mallee Saltbush	23	13						1		1			5																												
P		*Rhagodia spinescens*	Spiny Saltbush	43	20																								1															
P		*Rhagodia ulicina*	Intricate Saltbush	10	5																																							
	*	*Rhamnus alaternus*	Blowfly Bush	1	1																																							
		Rhodanthe corymbiflora	Paper Everlasting	27	13																																							
		Rhodanthe floribunda	White Everlasting	1	1																																							
		Rhodanthe laevis	Smooth Daisy	11	2							3																																
		Rhodanthe polygalifolia	Milkwort Everlasting	2	2																																							
		Rhodanthe pygmaea	Pigmy Daisy	68	28		1	2			1				1			2																										
		Rhodanthe stuartiana	Clay Everlasting	9	5						1																																	
		Rhodanthe troedelii	Small Paper-everlasting	2	2																																							
		Rhyncharrhena linearis	Bush Bean	1	1																																							
	*	*Ricinus communis*	Castor Oil Plant	1	1																																							1
	*	*Romulea minutiflora*	Small-flower Onion-grass	98	18				1																																1			
	*	*Romulea rosea* var. *australis*	Common Onion-grass	26	10																																				1			1
		Romulea rosea var. *australis*	Common Onion-grass	2	1																																							
	*	*Rorippa nasturtium-aquaticum*	Watercress	2	1																																	2						
P	*	*Rosa canina*	Dog Rose	15	9																																			2	2			1
	*	*Rosa rubiginosa*	Sweet Briar	2	2																																							

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
	*	*Rostraria cristata*	Annual Cat's-tail	229	49	2		2		2	9	1			7	2	2	10	16				6	1				1		4		1	1	2				2					1	1
	*	*Rostraria pumila*	Tiny Bristle-grass	11	8								1																	1			1												
	*	*Rubus ulmifolius* var. *ulmifolius*	Blackberry	1	1																																							
P		*Rumex brownii*	Slender Dock	30	11						1																																	2
P	*	*Rumex conglomeratus*	Clustered Dock	17	8																																				2	3		2
P	*	*Rumex crispus*	Curled Dock	21	12																																	2	1	2		2	1	2
P		*Rumex dumosus*	Wiry Dock	25	12						1																																	1
	*	*Rumex obtusifolius*	Broad-leaf Dock	1	1																																							1
	*	*Sagina apetala*	Annual Pearlwort	11	11			1		1								1												1														
	*	*Sagina maritima*	Sea Pearlwort	20	10										1				1	5	1		1	6										1						1				
		Salsola kali	Buckbush	92	31						1		1						5		5			1			1															1	1	2
	*	*Salvia verbenaca form*	Wild Sage	101	23																																	1						2
	*	*Salvia verbenaca* var. *verbenaca*	Wild Sage	95	32		1		1		2		2	1				1																								2	1	2
P		*Samolus repens*	Creeping Brookweed	38	10															1				7								1		8	4			3		6	3	4		
	*	*Sanguisorba minor* ssp. *muricata*	Sheep's Burnet	3	1																																							
P		*Santalum acuminatum*	Quandong	76	32	3		4		4	1		1	2	1	1		2	2	1			1		1																			
		Santalum murrayanum	Bitter Quandong	2	2							1		1																														
		Santalum spicatum	Sandalwood	1	1																																							
P		*Sarcocornia blackiana*	Thick-head Samphire	12	4																									1		7		1	3									
P		*Sarcocornia quinqueflora*	Beaded Samphire	45	10																					1		2				2		7	25	1	1	1			2	3		
		Sarcozona praecox	Sarcozona	2	2																																							
		Sauropus rigens	Stiff Spurge	1	1																																							
P	*	*Scabiosa atropurpurea*	Pincushion	17	7																																							1
		Scaevola aemula	Fairy Fanflower	2	2																																							
P		*Scaevola albida*	Pale Fanflower	41	14				6		1																																	
		Scaevola angustata	Coast Fanflower	2	2					1									1																									
P		*Scaevola crassifolia*	Cushion Fanflower	43	8										3		1		6	7			10	10	2																			
P		*Scaevola humilis*	Inland Fanflower	21	10																																							
		Scaevola linearis ssp. *confertifolia*	Bundled Fanflower	2	1			2																																				
P		*Scaevola spinescens*	Spiny Fanflower	36	14						1							6															1											
P	*	*Schinus molle*	Pepper-tree	12	6																																	1				1		3
	*	*Schismus barbatus*	Arabian Grass	78	24						4				1			3	9		1									1													1	
		Schoenoplectus litoralis	Shore Club-rush	1	1																																				1			
P		*Schoenoplectus pungens*	Spiky Club-rush	5	3																																	2		2		1		
P		*Schoenus apogon*	Common Bog-rush	26	9				1			1																																
P		*Schoenus breviculmis*	Matted Bog-rush	24	6			13	1			6	1	2																														
P		*Schoenus deformis*	Small Bog-rush	4	2	1						3																																
		Schoenus nanus	Little Bog-rush	8	4			3	1																																			
		Schoenus nitens	Shiny Bog-rush	3	2	2																																		1				
P		*Scleranthus pungens*	Prickly Knawel	11	9																																							
P		*Sclerolaena brachyptera*	Short-wing Bindyi	10	7																									1														
		Sclerolaena brevifolia	Small-leaf Bindyi	1	1																																							
P		*Sclerolaena diacantha*	Grey Bindyi	108	22											1													2	4														
		Sclerolaena divaricata	Tangled Bindyi	1	1																																							1
P		*Sclerolaena obliquicuspis*	Oblique-spined Bindyi	28	14																																							

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
		Sclerolaena parallelicuspis	Western Bindyi	1	1																																							
P		*Sclerolaena patenticuspis*	Spear-fruit Bindyi	8	8																																							
P		*Sclerolaena uniflora*	Small-spine Bindyi	11	7																		2	2								1												
P		*Sclerostegia arbuscula*	Shrubby Samphire	32	4													1														1		4	26										
		Sclerostegia disarticulata		1	1																											1												
		Sclerostegia tenuis	Slender Samphire	1	1																									1														
	*	*Scorzonera laciniata*	Scorzonera	5	4																																			2				
		Sebaea ovata	Yellow Sebaea	17	8			1		2																				1														
		Senecio anethifolius ssp.	Feathery Groundsel	1	1																																							1
		Senecio dolichocephalus/phelleus		24	13			1		2	1			3																														
		Senecio glossanthus	Annual Groundsel	128	34			8		6	5	2		4		1		2	1		1							3	4	1	1	8	3	6	2					1				
		Senecio macrocarpus	Large-fruit Groundsel	1	1																															1								
		Senecio odoratus	Scented Groundsel	1	1																																							
		Senecio picridioides	Purple-leaf Groundsel	4	3					2																																		
P		*Senecio pinnatifolius*	Variable Groundsel	171	27	4	2			3	4				7		2	13	39	21	8		16	10	1	1	5			2			3	3	1					1				
	*	*Senecio pterophorus*	African Daisy	2	2			1																																				1
		Senecio quadridentatus	Cotton Groundsel	63	24						2			1						1																								1
P		*Senna artemisioides* ssp. *artemisioides*	Silver Senna	5	5																																							
P		*Senna artemisioides* ssp. *coriacea*	Broad-leaf Desert Senna	94	26						1		1			1		1																				1						
P		*Senna artemisioides* ssp. *filifolia*	Fine-leaf Desert Senna	10	7																																							
P		*Senna artemisioides* ssp. *petiolaris*	Flat-stalk Senna	49	18						2					3																												
		Senna artemisioides ssp. *quadrifolia*	Four-leaf Desert Senna	1	1																																							
		Senna cardiosperma ssp. *gawlerensis*	Gawler Ranges Senna	1	1																																							
P		*Setaria constricta*	Knotty-butt Paspalidium	8	6																																							
	*	*Sherardia arvensis*	Field Madder	35	12	1	2		3	4	1			1																														
P		*Sida corrugata* var.	Corrugated Sida	117	23																																							
		Sida fibulifera	Pin Sida	1	1																																							
P		*Sida intricata*	Twiggy Sida	6	6																																							
P		*Sida petrophila*	Rock Sida	8	8													1																										
		Sigesbeckia orientalis ssp. *orientalis*	Oriental Sigesbeckia	1	1																																							
	*	*Silene apetala*	Sand Catchfly	4	4						1								1																									
	*	*Silene gallica* var. *gallica*	French Catchfly	13	9											1																												2
	*	*Silene nocturna*	Mediterranean Catchfly	159	41			6		2	7				8	3	1	11	15	4	1		2							2			1											1
	*	*Silene tridentata*		5	4														1				1																					
		Siloxerus multiflorus	Small Wrinklewort	18	7			6	1			1																																
	*	*Silybum marianum*	Variegated Thistle	8	5																																						1	3
	*	*Sisymbrium erysimoides*	Smooth Mustard	177	38		1				5	1	1			1	1	4					3														1					1	3
	*	*Sisymbrium irio*	London Mustard	30	16				1							1																												
	*	*Sisymbrium officinale*	Hedge Mustard	5	5			1															1																					
	*	*Sisymbrium orientale*	Indian Hedge Mustard	18	15						1				1			1																									1	
		Solanum coactiliferum	Tomato-bush	1	1																																							
	*	*Solanum elaeagnifolium*	Silver-leaf Nightshade	1	1																																							
		Solanum ellipticum	Velvet Potato-bush	1	1																																							
		Solanum esuriale	Quena	3	3																																	1						
P	*	*Solanum nigrum*	Black Nightshade	20	14			1																																			1	3

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
		Solanum petrophilum	Rock Nightshade	2	2																																							
P		*Solenogyne dominii*	Smooth Solenogyne	6	3																																							
	*	*Sonchus asper* ssp. *asper*	Rough Sow-thistle	15	9							1									1																							2
	*	*Sonchus asper* ssp. *glaucescens*	Rough Sow-thistle	7	7																												1							1		1		1
		Sonchus hydrophilus	Native Sow-thistle	2	2																																	1		1				
	*	*Sonchus oleraceus*	Common Sow-thistle	588	77	2	3	11	4	4	17	4	1	2	10	2	8	17	35	18	6	1	12	7	2	1	1	5	2	7		3	2	6	3	1		5		8	4	4	5	7
	*	*Sonchus tenerrimus*	Clammy Sow-thistle	6	5								1																															
	*	*Sparaxis bulbifera*	Sparaxis	2	1																																							
	*	*Sparaxis tricolor*	Tricolor Harlequin Flower	6	3																																							
	*	*Spergularia diandra*	Lesser Sand-spurrey	63	25	1									1				1											2	1	3	1		2					1				
	*	*Spergularia marina*	Salt Sand-spurrey	20	11																							3						3	3					2	1	2		
	*	*Spergularia media*	Coast Sand-spurrey	1	1																					1																		
	*	*Spergularia rubra*	Red Sand-spurrey	19	11						1					1		1														1	1											
	*	*Sphenopus divaricatus*	Wedge-foot Grass	12	5																							4		2	1	1			4									
P		*Spinifex hirsutus*	Rolling Spinifex	26	6													1	3	8	4			2			8																	
P		*Sporobolus virginicus*	Salt Couch	5	4													1						2												1				1				
		Spyridium eriocephalum var. *eriocephalum*	Heath Spyridium	2	1																																							
P		*Spyridium parvifolium*	Dusty Miller	14	3																																							
P		*Spyridium phylicoides*	Narrow-leaf Spyridium	52	12	3		5		4		2		2						1			4													1								
P		*Spyridium subochreatum* var. *subochreatum*	Velvet Spyridium	5	2			2																																				
	*	*Stachys arvensis*	Stagger Weed	2	2																																							
		Stackhousia annua	Annual Candles	2	1																																							
P		*Stackhousia aspericocca* ssp.	Bushy Candles	13	7	2				2		2											1																					
P		*Stackhousia monogyna*	Creamy Candles	159	31		3	10	4		2			2		1																												
		Stackhousia spathulata	Coast Candles	2	2															1																								
	*	*Stellaria media*	Chickweed	115	30			4	2	2	9	1		2	9		3	5	18	10	4	1	4											2		1								1
P		*Stenanthemum leucophractum*	White Cryptandra	8	3			4				3																																
		Stenopetalum lineare	Narrow Thread-petal	24	12						2																																
		Stenopetalum sphaerocarpum	Round-fruit Thread-petal	1	1																																							
		Stuartina muelleri	Spoon Cudweed	26	7																																							
P		*Suaeda australis*	Austral Seablite	18	6																1					2								1	12		1								
		Swainsona behriana	Behr's Swainson-pea	3	3																																							
		Swainsona oroboides	Variable Swainson-pea	1	1																																							
		Swainsona oroboides complex	Variable Swainson-pea	2	2																																							
		Swainsona stipularis	Orange Swainson-pea	2	2									1																														
		Swainsona tephrotricha	Ashy-haired Swainson-pea	1	1																																							
P		*Templetonia aculeata*	Spiny Mallee-pea	8	4																																							
P		*Templetonia egena*	Broombush Templetonia	10	5																																							
P		*Templetonia retusa*	Cockies Tongue	61	10					15	1						2		1	1			16	1	1									2										
		Templetonia sulcata	Flat Mallee-pea	1	1																																							
		Tetragonia eremaea	Desert Spinach	21	12																																							
		Tetragonia eremaea/tetragonoides	Native Spinach	7	5																																							
P		*Tetragonia implexicoma*	Bower Spinach	203	32	3	1	2	1		13				13		5	19	42	16	10	1	13	5	1	1	1			1			2	1										
P		*Tetragonia tetragonioides*	New Zealand Spinach	4	4																																							

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
		Tetraria capillaris	Hair Sedge	1	1																																							
P		*Teucrium racemosum*	Grey Germander	17	11																																						1	
P		*Teucrium sessiliflorum*	Mallee Germander	69	22			2						3	1	4																												
		Thelymitra antennifera	Lemon Sun-orchid	9	2			7				2																																
		Thelymitra aristata	Great Sun-orchid	3	1																																							
		Thelymitra grandiflora	Great Sun-orchid	1	1																																							
		Thelymitra luteocilium	Yellow-tuft Sun Orchid	6	2							1																																
		Thelymitra nuda	Scented Sun-orchid	39	15			11		2		4		4	1																			1										
		Thelymitra pauciflora	Slender Sun-orchid	4	2																																							
		Thelymitra rubra	Salmon Sun-orchid	5	2																																							
P		*Themeda triandra*	Kangaroo Grass	88	22				1						1																													3
		Thomasia petalocalyx	Paper-flower	1	1			1																																				
P		*Threlkeldia diffusa*	Coast Bonefruit	193	34	2	1	1			10				11		3	15	44	17	10	1	14	7	1	1	3	2		2		1	2	6	1	1				1				
		Thryptomene micrantha	Ribbed Thryptomene	3	2									2																														
		Thysanotus baueri	Mallee Fringe-lily	50	21					1	1					2																												
		Thysanotus patersonii	Twining Fringe-lily	118	29	1	1	16	2	7		7	1	6	1																													
		Thysanotus tenellus	Grassy Fringe-lily	5	4																																							
		Trachymene cyanopetala	Purple Trachymene	2	2			1					1																															
		Trachymene pilosa	Dwarf Trachymene	11	7			1	1	3			1										1																					
	*	*Tragopogon porrifolius*	Salsify	5	3																																		1	3	1			
	*	*Tribolium acutiflorum*		1	1																																							
P		*Tricoryne elatior*	Yellow Rush-lily	17	14	2	1								1																													
P		*Tricoryne tenella*	Tufted Yellow Rush-lily	11	4	1				2				1																														
	*	*Trifolium angustifolium*	Narrow-leaf Clover	195	31			1			1		1																									2			2	1		4
	*	*Trifolium arvense* var. *arvense*	Hare's-foot Clover	188	29						1	1				1																						1			2		1	3
	*	*Trifolium campestre*	Hop Clover	227	41		2	4	4	4	3	1	1		3					1																1		2		1	2	1		2
	*	*Trifolium dubium*	Suckling Clover	5	3																																							
	*	*Trifolium fragiferum* var. *fragiferum*	Strawberry Clover	1	1																																							
	*	*Trifolium glomeratum*	Cluster Clover	87	21																													1							1			
	*	*Trifolium hirtum*	Rose Clover	7	4																																							
	*	*Trifolium michelianum* 'var. *balansae*'	Annual White Clover	1	1																																							
	*	*Trifolium scabrum*	Rough Clover	57	25		2		1	4	3		1		2				1	2															1	2								
	*	*Trifolium subterraneum*	Subterranean Clover	25	12			1																																1				
	*	*Trifolium tomentosum*	Woolly Clover	40	17																									1										1			1	1
		Triglochin calcitrapum	Spurred Arrowgrass	2	2																																							
		Triglochin centrocarpum	Dwarf Arrowgrass	23	13				1	1					3				3		1		4		1						1		2			1								
		Triglochin minutissumum	Tiny Arrowgrass	3	3																											1		1						1				
		Triglochin mucronatum	Prickly Arrowgrass	6	4																			1				1			1			3										
P		*Triglochin striatum*	Streaked Arrowgrass	6	3																																	2		3		1		
		Triglochin trichophorum		1	1																																			1				
P		*Triodia bunicola*	Flinders Ranges Spinifex	35	8						1																																	
P		*Triodia bunicola/scariosa*		6	4																																							
P		*Triodia compacta*	Spinifex	9	2	7																																						
P		*Triodia irritans*	Spinifex	12	4																																							
P		*Triodia irritans* complex	Spinifex	10	6																																							

P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
P		*Triodia scariosa*	Spinifex	6	5																																							
		Triptilodiscus pygmaeus	Small Yellow-heads	73	18																																							1
	*	*Triticum aestivum*	Wheat	7	4																																						1	
P		*Trymalium wayae*	Grey Trymalium	9	6																																							
P		*Typha domingensis*	Narrow-leaf Bulrush	9	4																																	4		1	2	2		
	*	*Ulex europaeus*	Gorse	1	1																																							
	*	*Urospermum picroides*	False Hawkbit	41	20	1		5		2	1		1					3	5	2			2	1																				1
	*	*Urtica urens*	Small Nettle	11	8								1								1																							2
	*	*Valerianella discoidea*	Lesser Corn-salad	12	8						1				1																							1						
		Velleia arguta	Toothed Velleia	26	14		1																																					
		Velleia paradoxa	Spur Velleia	30	10																																							
	*	*Verbascum virgatum*	Twiggy Mullein	1	1																																							
	*	*Veronica hederifolia*	Ivy-leaf Speedwell	3	2																																							
P		*Veronica hillebrandii*	Rigid Speedwell	23	3	1				4																																		
		Veronica plebeia	Trailing Speedwell	3	3																																							
	*	*Vicia cracca*	Tufted Vetch	1	1																																							
	*	*Vicia hirsuta*	Hairy Vetch	2	2																																							
	*	*Vicia monantha*	Spurred Vetch	47	23									3						1														1		1		2					1	2
	*	*Vicia sativa* ssp.	Common Vetch	4	2																																							
	*	*Vicia sativa* ssp. *nigra*	Narrow-leaf Vetch	2	1																																				2			
	*	*Vicia sativa* ssp. *sativa*	Common Vetch	1	1																																				1			
P		*Vittadinia australasica* var.	Sticky New Holland Daisy	19	11		3																																					
P		*Vittadinia blackii*	Narrow-leaf New Holland Daisy	62	19									1																														1
		Vittadinia cervicularis var. *cervicularis*	Waisted New Holland Daisy	75	29				1		1	1	2	1	1	3																						1						4
		Vittadinia condyloides	Club-hair New Holland Daisy	4	3																																							
P		*Vittadinia cuneata* var.	Fuzzy New Holland Daisy	152	34			6	2	1	1	1		2		1	1	1																										
P		*Vittadinia gracilis*	Woolly New Holland Daisy	173	30			1					1	1																															1
P		*Vittadinia megacephala*	Giant New Holland Daisy	43	22		1			1	2			3																														
		Vittadinia pterochaeta	Rough New Holland Daisy	2	1																																							
		Vittadinia sulcata	Furrowed New Holland Daisy	1	1																																							
	*	*Vulpia bromoides*	Squirrel-tail Fescue	38	14							1				1			1	1																								
	*	*Vulpia bromoides/myuros*		33	12																																							2
	*	*Vulpia fasciculata*	Sand Fescue	11	5										1			1												1				1											
	*	*Vulpia muralis*	Wall Fescue	62	28										1		1		4															1											
	*	*Vulpia myuros* f.	Fescue	24	12						1																																	
	*	*Vulpia myuros* f. *megalura*	Fox-tail Fescue	12	10	1									1			1	1		2																							
	*	*Vulpia myuros* f. *myuros*	Rat's-tail Fescue	292	60	2	1	3		4	9	2	1	1	6	1		4	11	1	1		1					2	2	4		1		2				1			1			
P		*Wahlenbergia communis*	Tufted Bluebell	18	10						1																																	
		Wahlenbergia gracilenta	Annual Bluebell	68	23	1		5		2	1	3		1																														
		Wahlenbergia litticola	Coast Bluebell	4	4																																							
		Wahlenbergia luteola	Yellow-wash Bluebell	174	26						1																													1				1
		Wahlenbergia multicaulis	Tadgell's Bluebell	1	1																																							
		Wahlenbergia preissii		1	1																																							

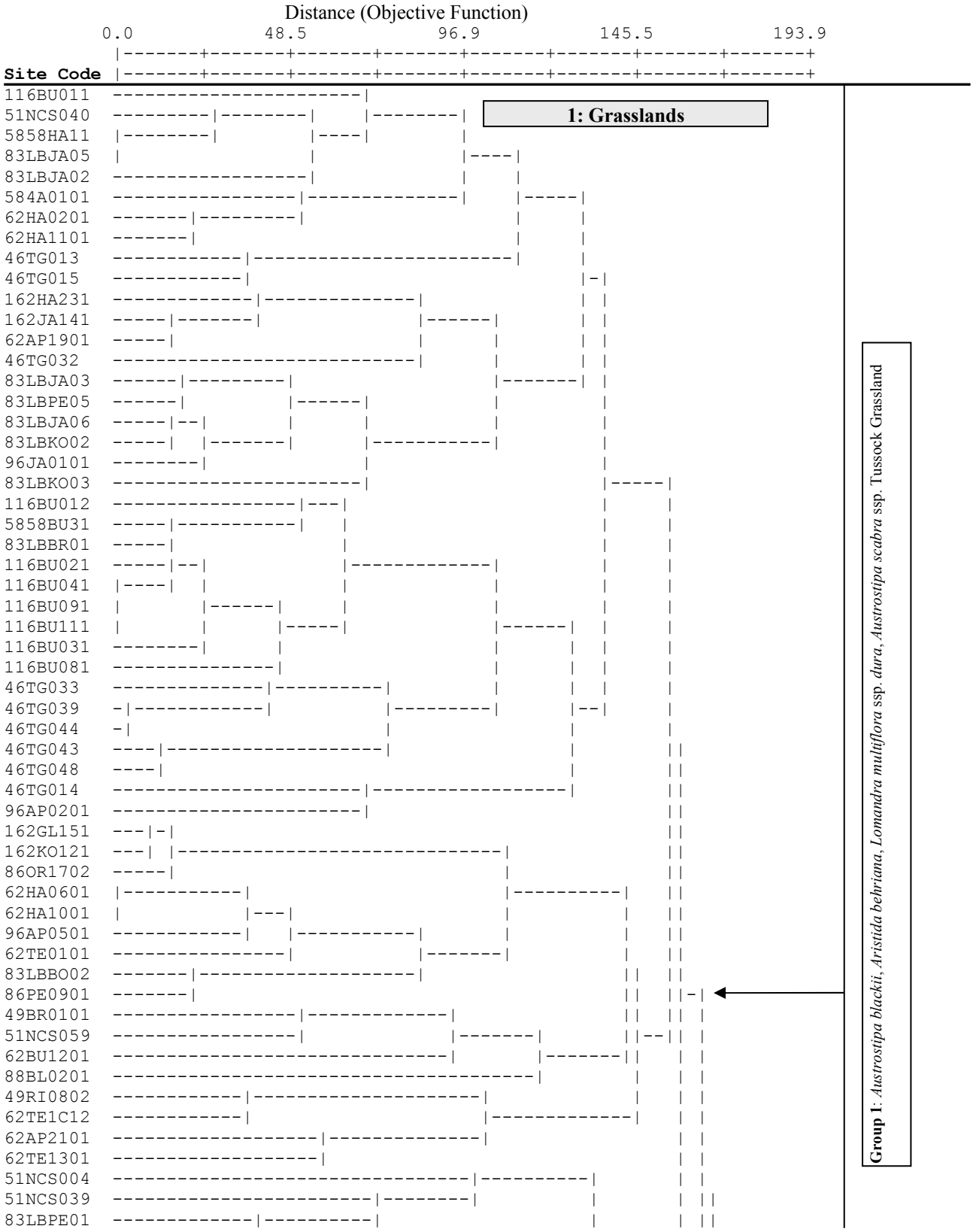
P	I	Scientific Name	Common Name	Total Recs	Total Grps	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83
		Wahlenbergia stricta ssp. *stricta*	Tall Bluebell	66	24			2	1		1		1		1																							1						1
	*	*Watsonia meriana* var. *bulbillifera*	Bulbil Watsonia	1	1																																							
		Westringia eremicola	Slender Westringia	1	1					1																																		
P		*Westringia rigida*	Stiff Westringia	54	15						3			2		1		3																										
P		*Whalleya proluta*	Rigid Panic	18	9																																						2	
P		*Wilsonia humilis* var. *humilis*	Silky Wilsonia	23	5																									1		7	1	5	9									
P		*Wilsonia rotundifolia*	Round-leaf Wilsonia	4	3																													1		1				2				
		Wurmbea dioica ssp. *dioica*	Early Nancy	126	38	2		11	4	2	2			2	3		2		2				2	1										1										1
	*	*Xanthium spinosum*	Bathurst Burr	1	1																																							
P		*Xanthorrhoea quadrangulata*	Rock Grass-tree	50	12						1																																	
		Xerochrysum bracteatum	Golden Everlasting	1	1																																							
	*	*Zaluzianskya divaricata*	Spreading Night-phlox	23	13								1																															
		Zygophyllum ammophilum	Sand Twinleaf	24	13					1	3						1	1	1																										
P		*Zygophyllum angustifolium*	Scrambling Twinleaf	21	13						1				1			1															1	2											
P		*Zygophyllum apiculatum*	Pointed Twinleaf	50	12													1																											
P		*Zygophyllum aurantiacum* ssp.		49	17		1				1							4															1												
P		*Zygophyllum billardierei*	Coast Twinleaf	28	7						1								2	1			13	3	1																				
P		*Zygophyllum confluens*	Forked Twinleaf	11	6																																							
		Zygophyllum crenatum	Notched Twinleaf	12	9																																							
		Zygophyllum eremaeum	Pale-flower Twinleaf	1	1																																							
		Zygophyllum glaucum	Pale Twinleaf	18	10																																							
		Zygophyllum ovatum	Dwarf Twinleaf	20	5						1																																	
		Zygophyllum simile	White Twinleaf	5	3						1							3																											
			No. of Taxa Per Group			**142**	**123**	**266**	**194**	**208**	**274**	**172**	**110**	**177**	**204**	**116**	**118**	**178**	**197**	**174**	**79**	**16**	**127**	**91**	**60**	**27**	**31**	**38**	**43**	**84**	**17**	**58**	**81**	**121**	**51**	**55**	**3**	**122**	**14**	**101**	**84**	**72**	**72**	**193**

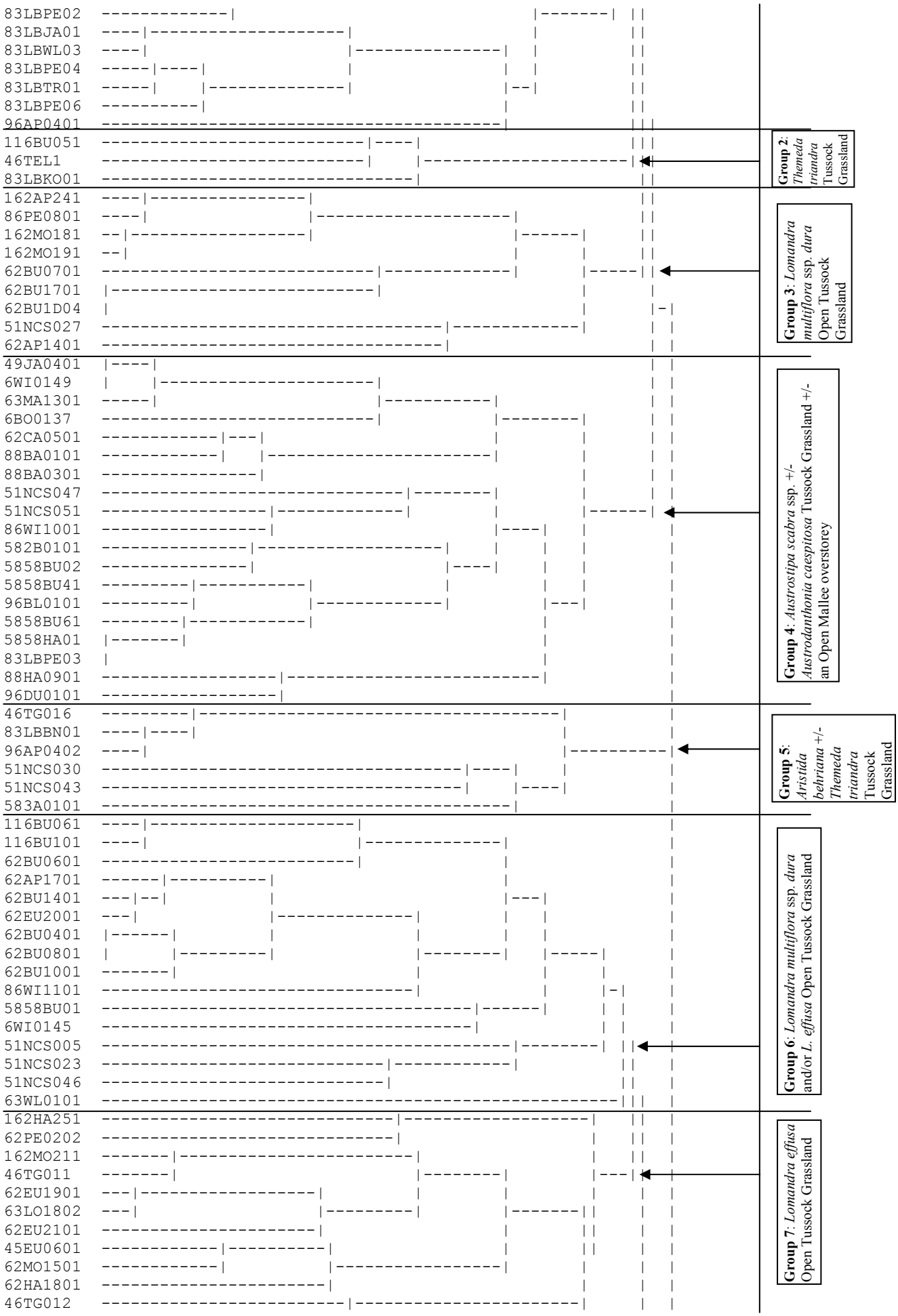
APPENDIX 11. DENDROGRAM OF THE 1209 SITES USED IN THE FLORISTIC VEGETATION ANALYSIS USING PC-ORD.

Site Code A unique code for each site used in the analysis that is a combination of the Survey Number and Site Identification Code.

Floristic Groups The Floristic Vegetation Group numbers (1-83) and names are provided down the right side of the dendrogram. In some instances there has been insufficient space to include the name.

Clusters The Floristic Vegetation Groups have been combined into clusters of 13 broader vegetation types. Their numbers and names are provided at the beginning of each cluster.

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162MO191
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62BU1701
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6WI0149
63MA1301
6BO0137
62CA0501
88BA0101
88BA0301
51NCS047
51NCS051
86WI1001
582B0101
5858BU02
5858BU41
96BL0101
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5858HA01
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88HA0901
96DU0101
46TG016
83LBBN01
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51NCS030
51NCS043
583A0101
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116BU101
62BU0601
62AP1701
62BU1401
62EU2001
62BU0401
62BU0801
62BU1001
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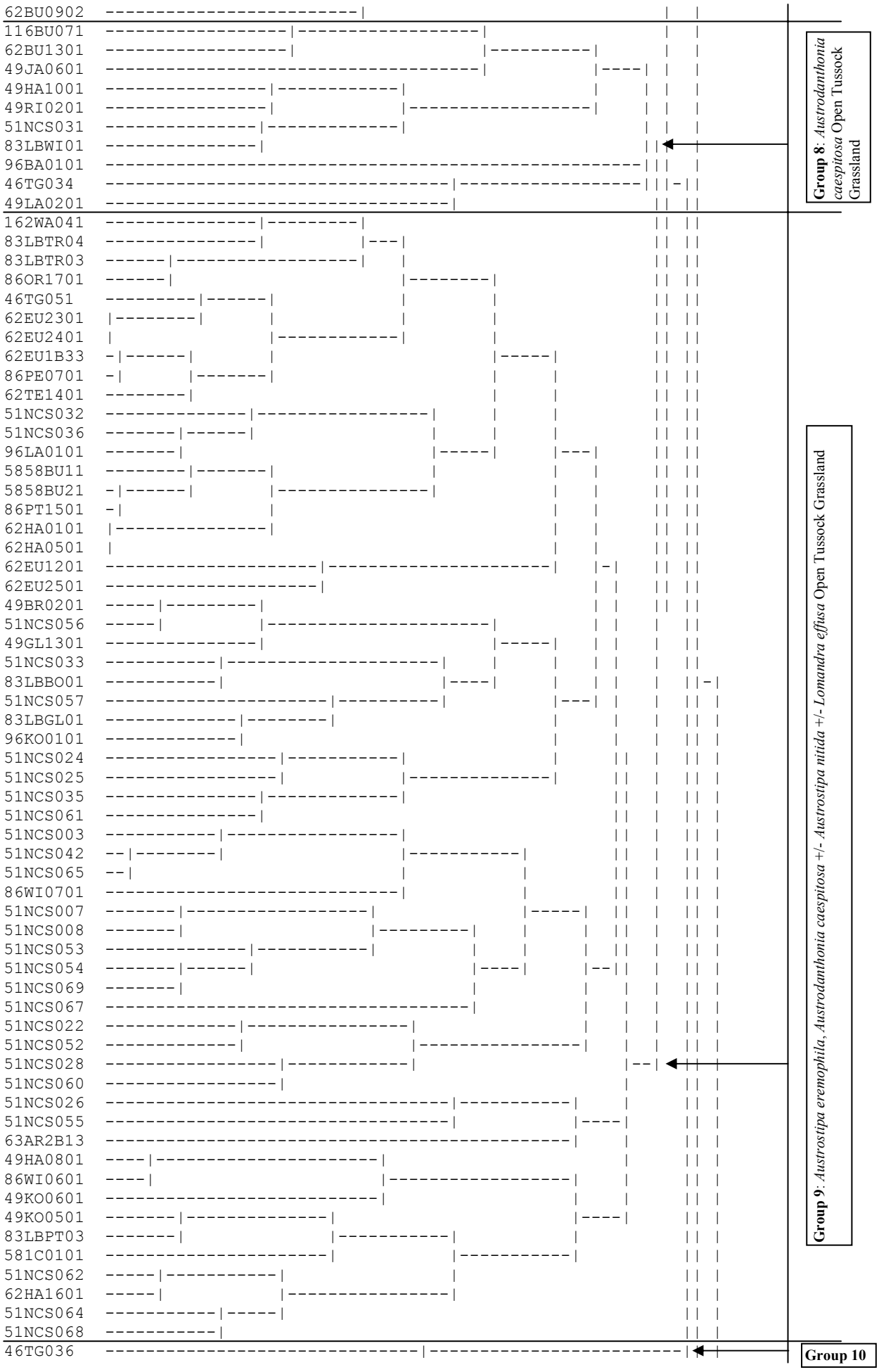
63WL0101
162HA251
62PE0202
162MO211
46TG011
62EU1901
63LO1802
62EU2101
45EU0601
62MO1501
62HA1801
46TG012
Group 2: Themeda triandra Tussock Grassland
Group 3: Lomandra multiflora ssp. dura Open Tussock Grassland
Group 4: Austrostipa scabra ssp. +/- Austrodanthonia caespitosa Tussock Grassland +/- an Open Mallee overstorey
Group 5: Aristida behriana +/- Themeda triandra Tussock Grassland
Group 6: Lomandra multiflora ssp. dura and/or L. effusa Open Tussock Grassland
Group 7: Lomandra effusa Open Tussock Grassland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83LBTR03
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46TG051
62EU2301
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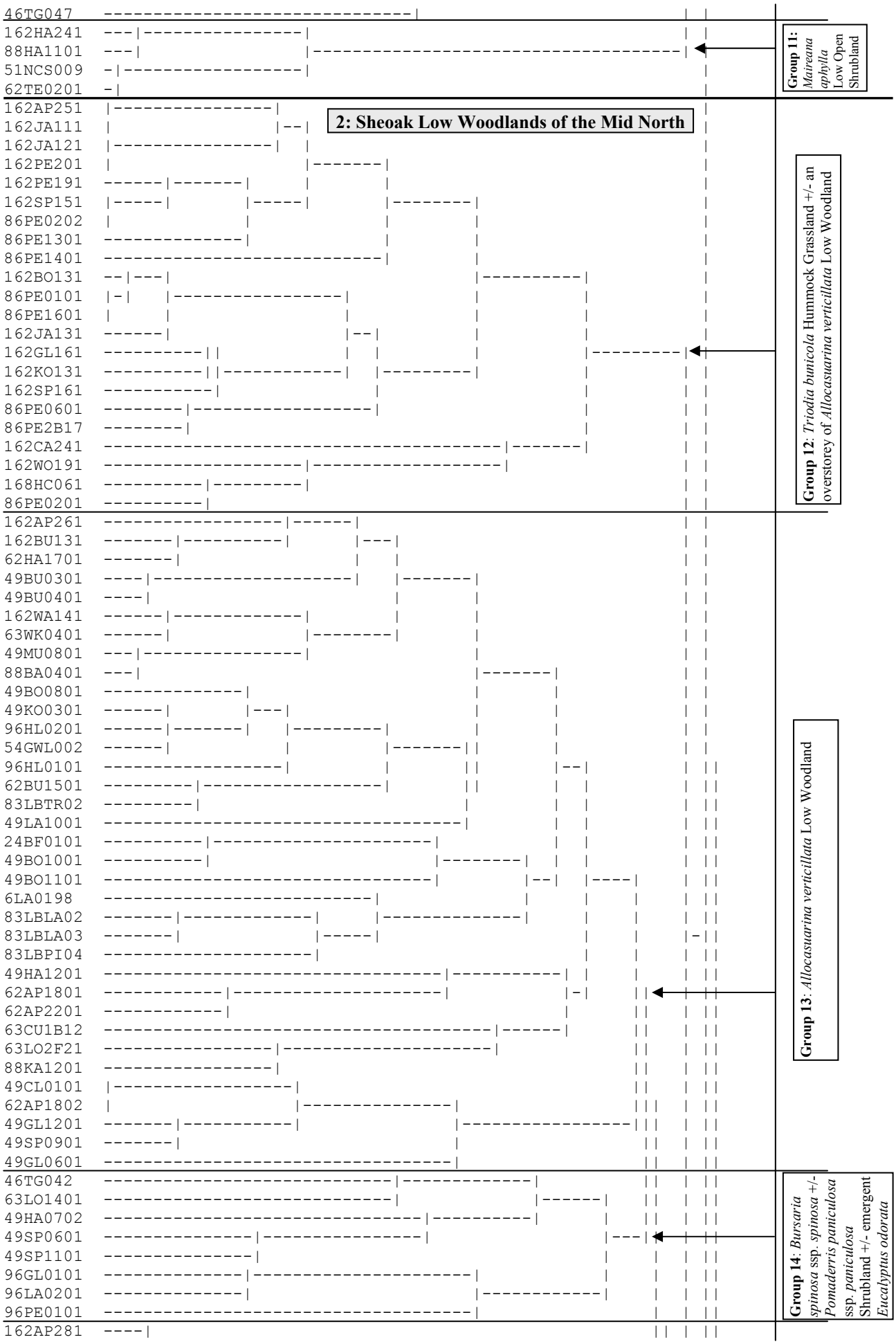
49KO0601
49KO0501
83LBPT03
581C0101
51NCS062
62HA1601
51NCS064
51NCS068
46TG036
Group 8: Austrodanthonia caespitosa Open Tussock Grassland
Group 9: Austrostipa eremophila, Austrodanthonia caespitosa +/- Austrostipa nitida +/- Lomandra effusa Open Tussock Grassland
Group 10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162JA131
162GL161
162KO131
162SP161
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162CA241
162WO191
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162AP261
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49MU0801
88BA0401
49BO0801
49KO0301
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96HL0101
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49BO1001
49BO1101
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49HA1201
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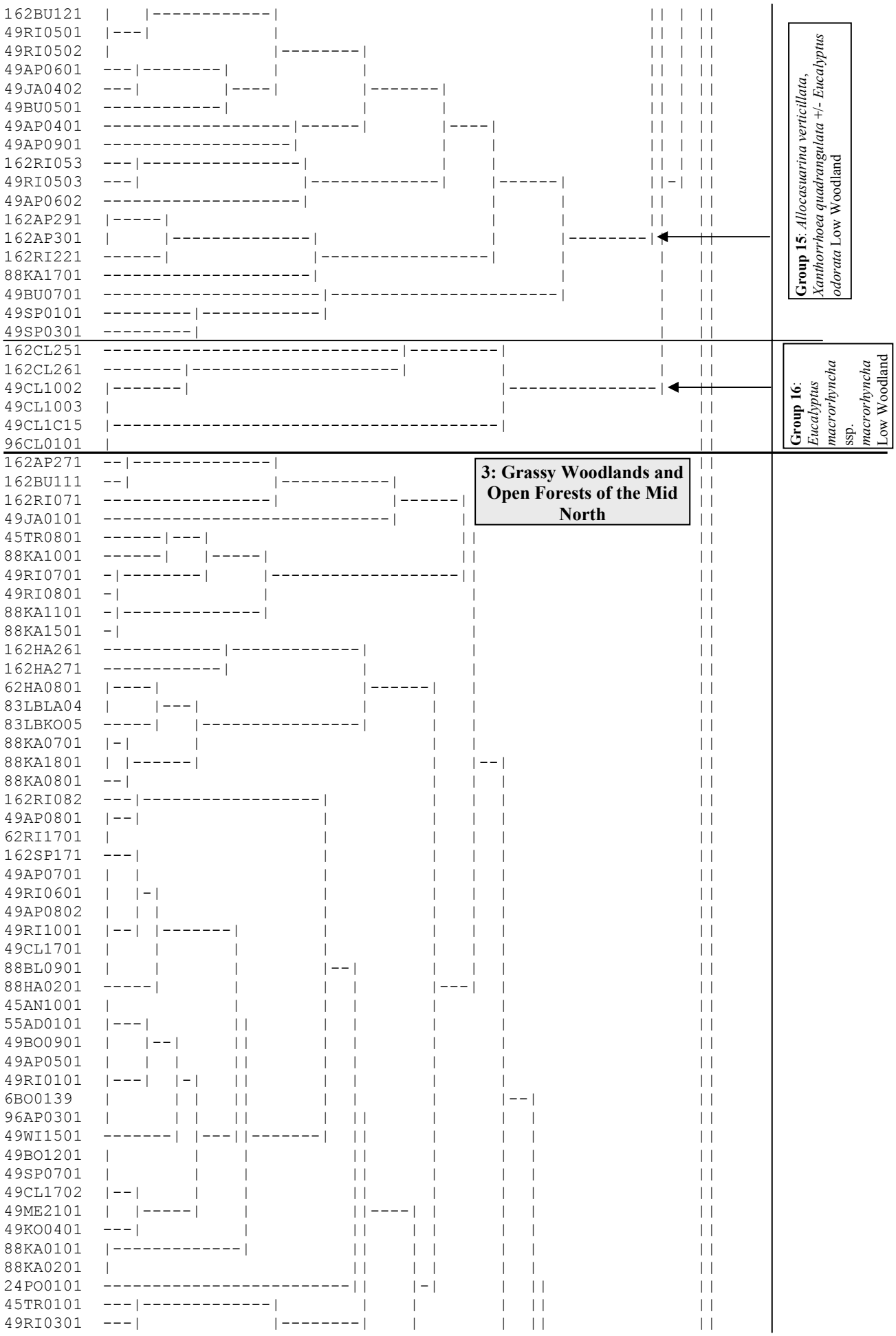
49SP0901
49GL0601
46TG042
63LO1401
49HA0702
49SP0601
49SP1101
96GL0101
96LA0201
96PE0101
162AP281
2: Sheoak Low Woodlands of the Mid North
Group 11: Maireana aphylla Low Open Shrubland
Group 12: Triodia bunicola Hummock Grassland +/- an overstorey of Allocasuarina verticillata Low Woodland
Group 13: Allocasuarina verticillata Low Woodland
Group 14: Bursaria spinosa ssp. spinosa +/- Pomaderris paniculosa ssp. paniculosa Shrubland +/- emergent Eucalyptus odorata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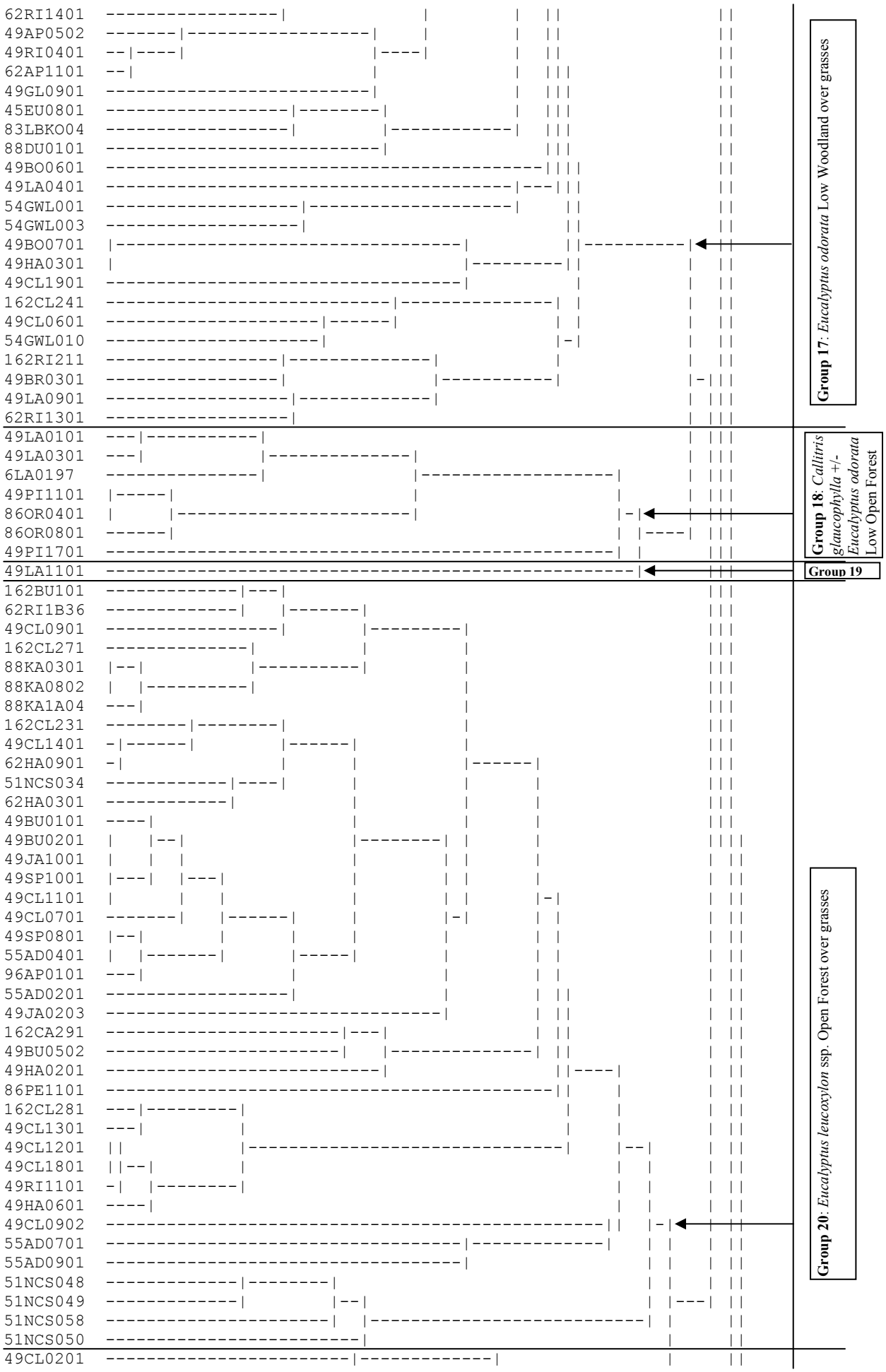
49WI1501
49BO1201
49SP0701
49CL1702
49ME2101
49KO0401
88KA0101
88KA0201
24PO0101
45TR0101
49RI0301
Group 15: Allocasuarina verticillata, Xanthorrhoea quadrangulata +/- Eucalyptus odorata Low Woodland
Group 16: Eucalyptus macrorhyncha ssp. macrorhyncha Low Woodland
3: Grassy Woodlands and Open Forests of the Mid North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162CL231
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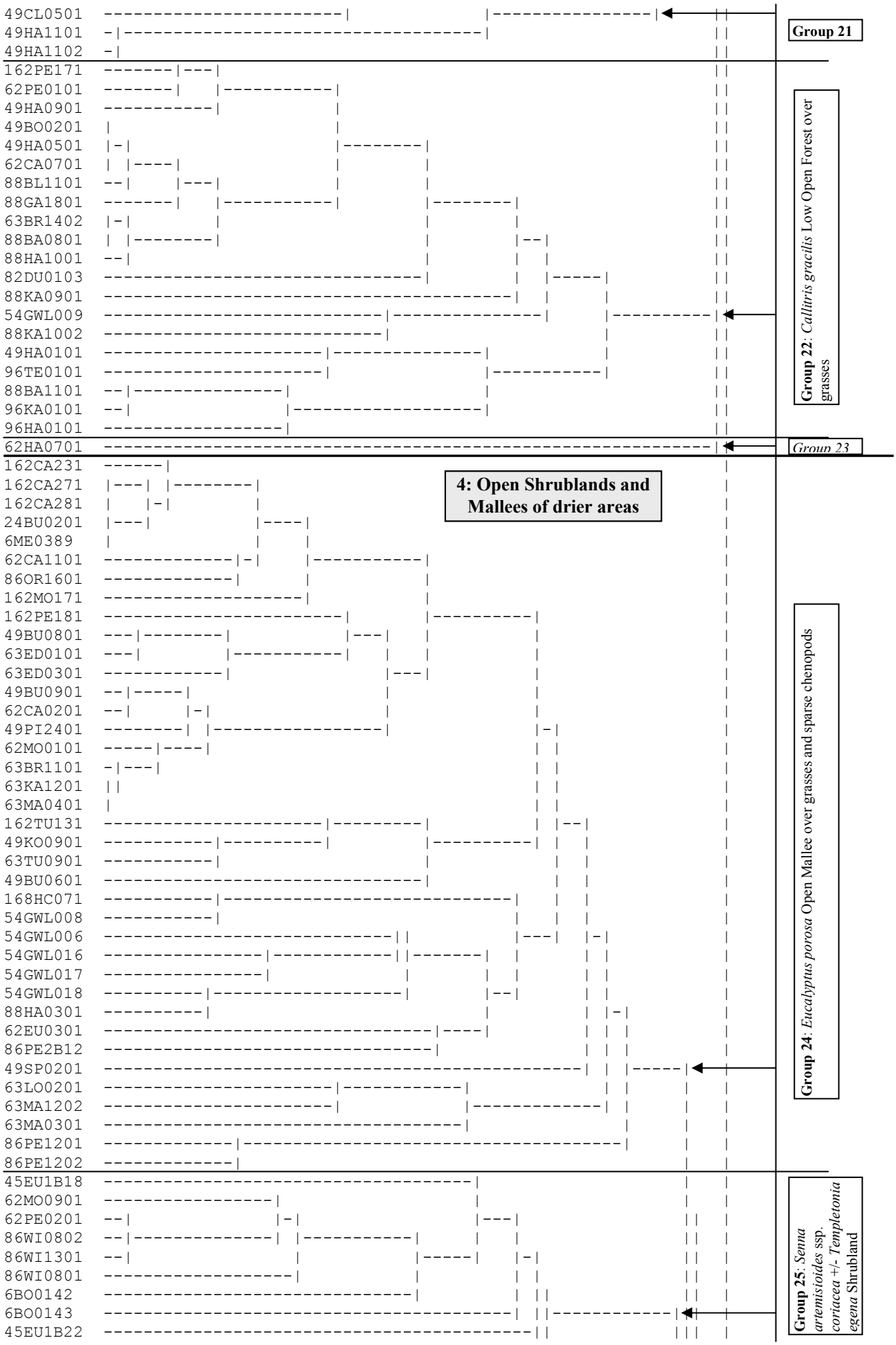
49RI1101
49HA0601
49CL0902
55AD0701
55AD0901
51NCS048
51NCS049
51NCS058
51NCS050
49CL0201
Group 17: Eucalyptus odorata Low Woodland over grasses
Group 18: Callitris glaucophylla +/- Eucalyptus odorata Low Open Forest
Group 19
Group 20: Eucalyptus leucoxylon ssp. Open Forest over grasses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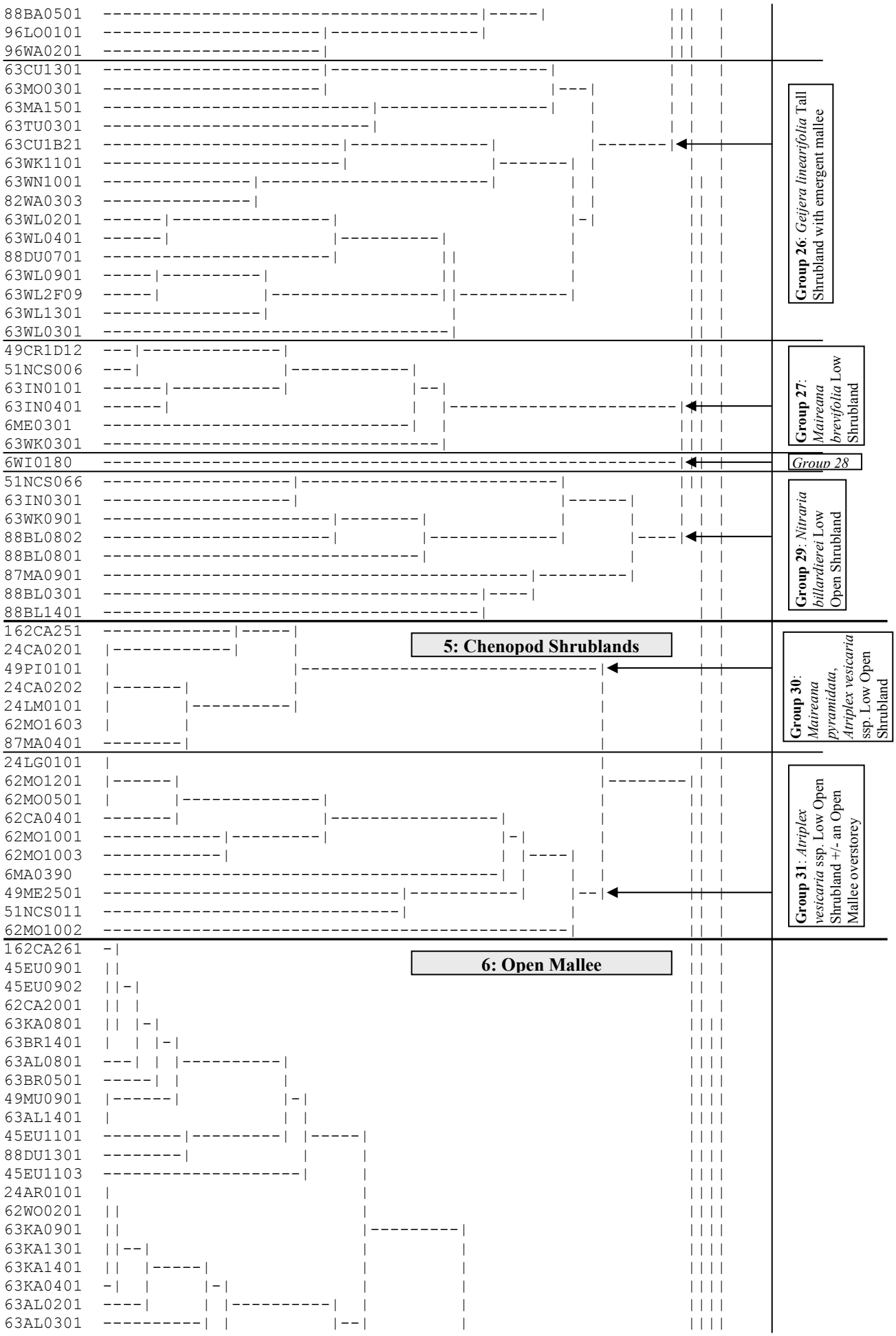
62MO0901
62PE0201
86WI0802
86WI1301
86WI0801
6BO0142
6BO0143
45EU1B22
Group 21
Group 22: Callitris gracilis Low Open Forest over grasses
Group 23
4: Open Shrublands and Mallees of drier areas
Group 24: Eucalyptus porosa Open Mallee over grasses and sparse chenopods
Group 25: Senna artemisioides ssp. coriacea +/- Templetonia egena Shrubland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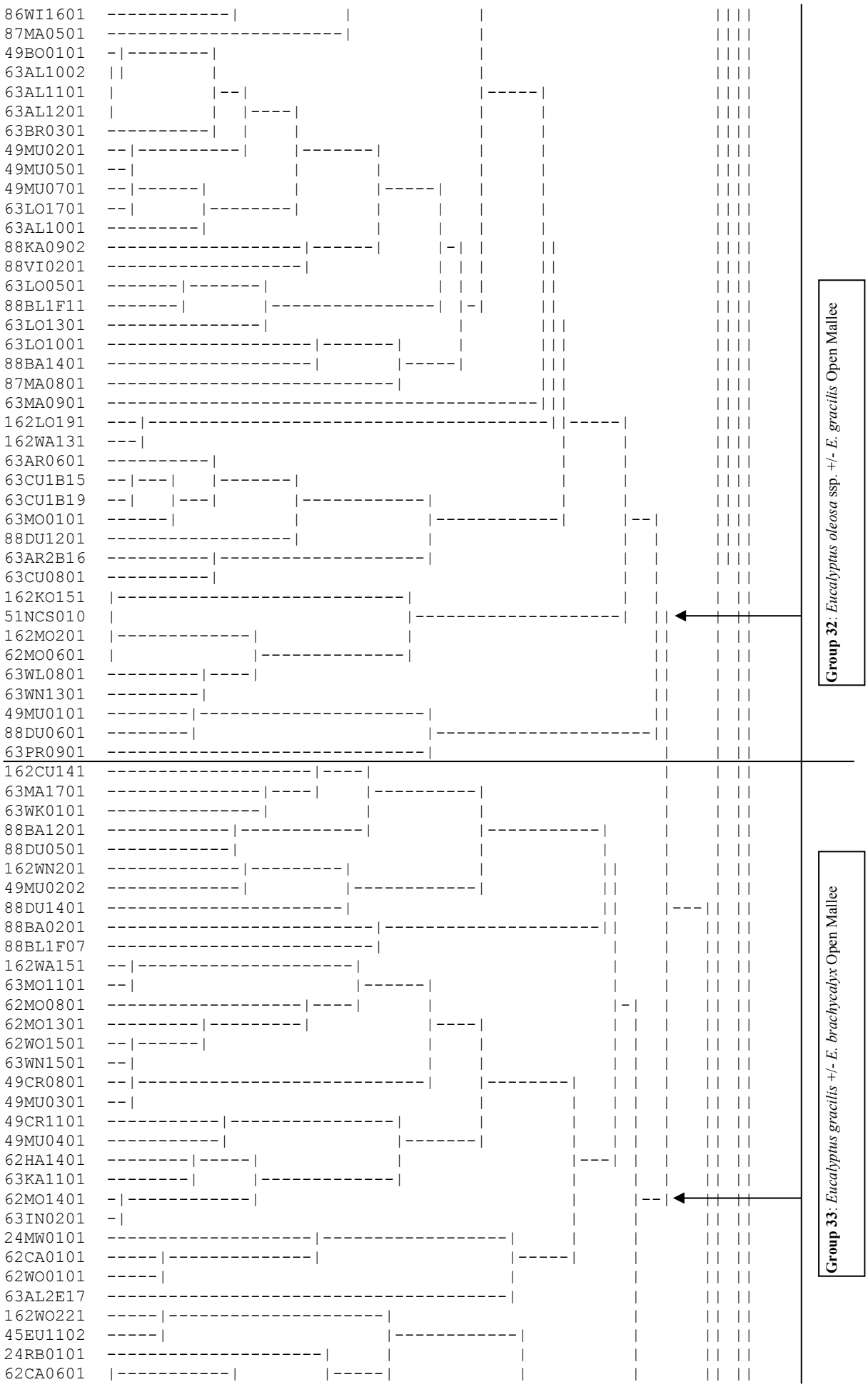
5: Chenopod Shrublands
6: Open Mallee
Group 26: Geijera linearifolia Tall Shrubland with emergent mallee
Group 27: Maireana brevifolia Low Shrubland
Group 28
Group 29: Nitraria billardierei Low Open Shrubland
Group 30: Maireana pyramidata, Atriplex vesicaria ssp. Low Open Shrubland
Group 31: Atriplex vesicaria ssp. Low Open Shrubland +/- an Open Mallee overstorey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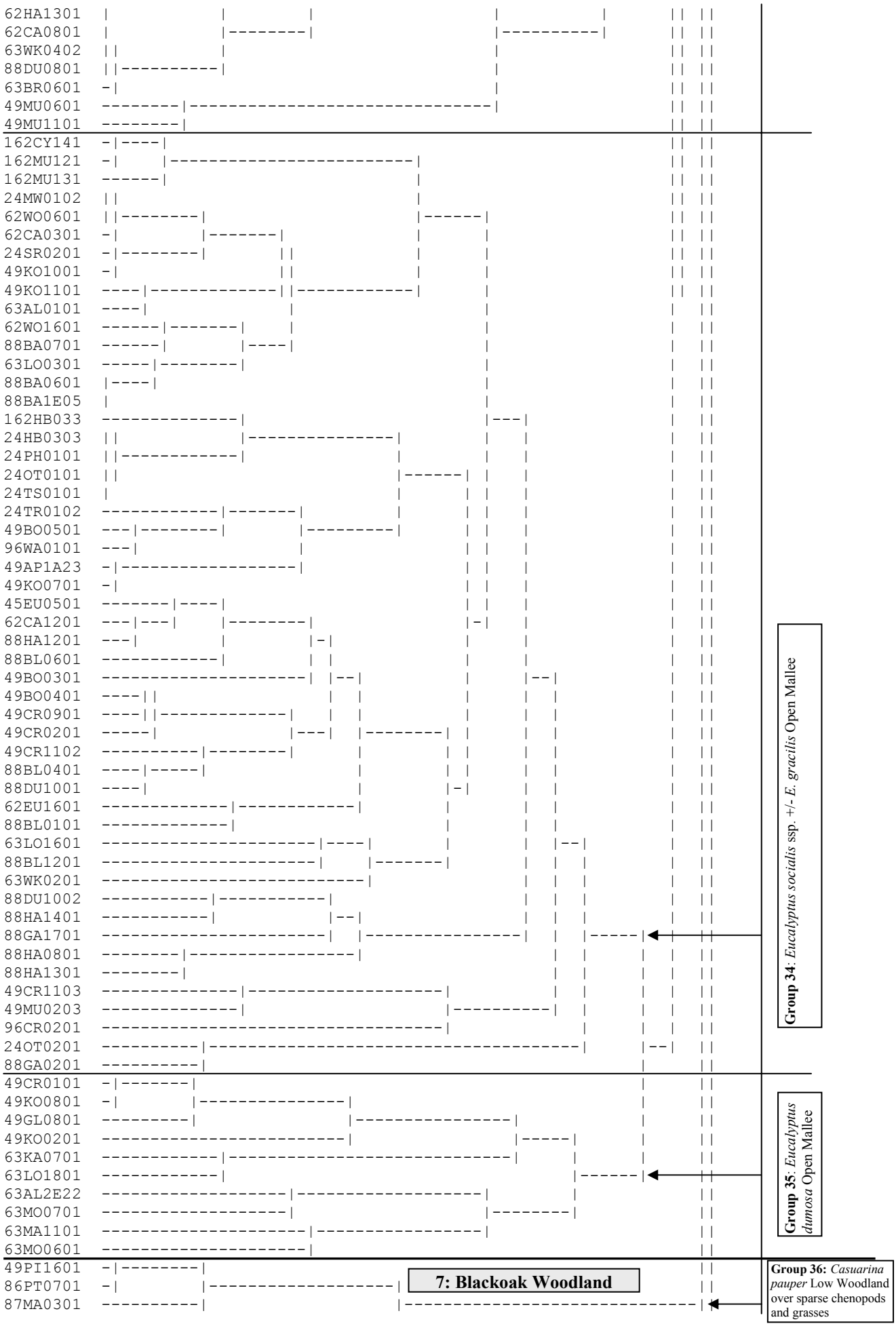
Group 32: Eucalyptus oleosa ssp. +/- E. gracilis Open Mallee
Group 33: Eucalyptus gracilis +/- E. brachycalyx Open Mallee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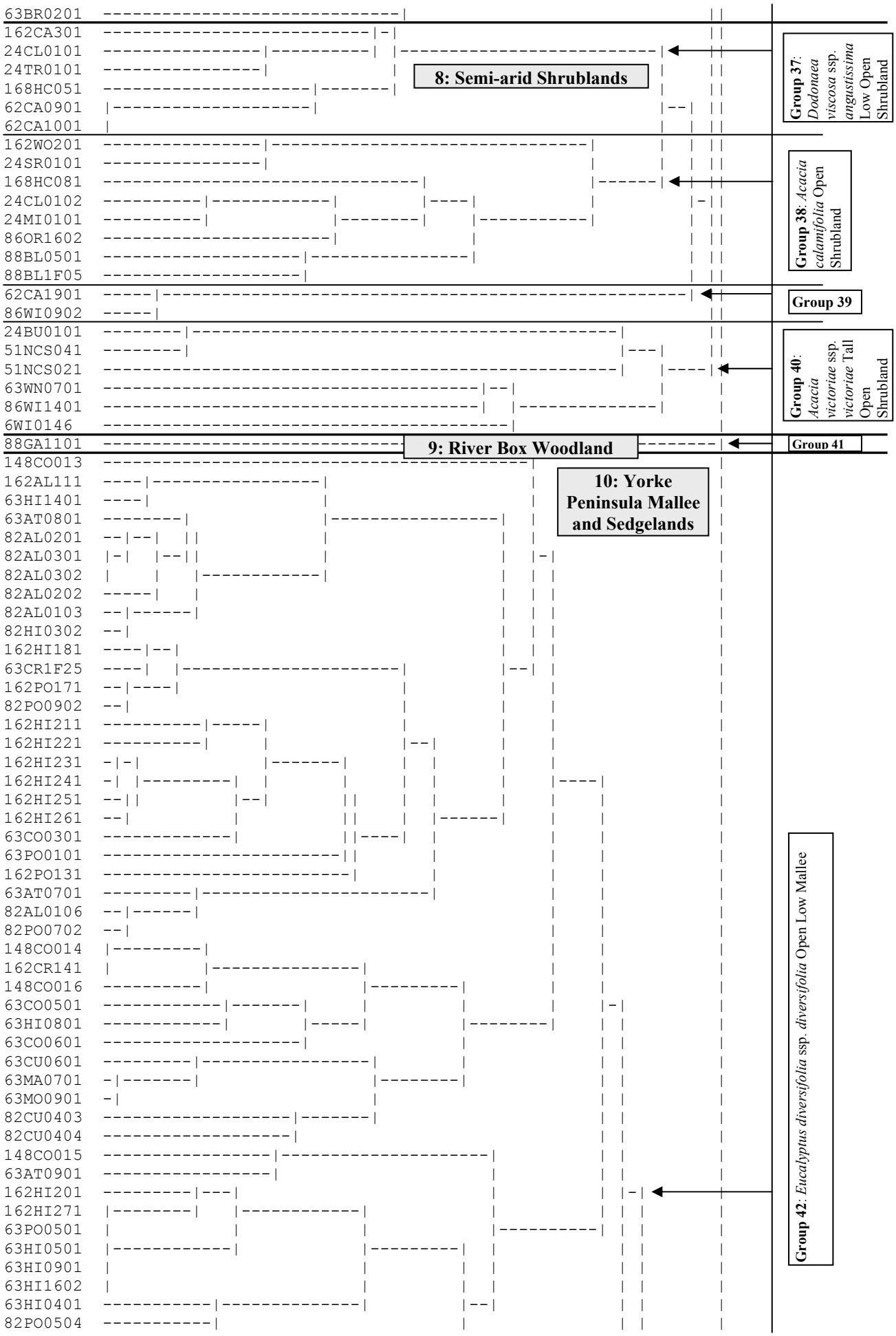
7: Blackoak Woodland
Group 34: Eucalyptus socialis ssp. +/- E. gracilis Open Mallee
Group 35: Eucalyptus dumosa Open Mallee
Group 36: Casuarina pauper Low Woodland over sparse chenopods and grasses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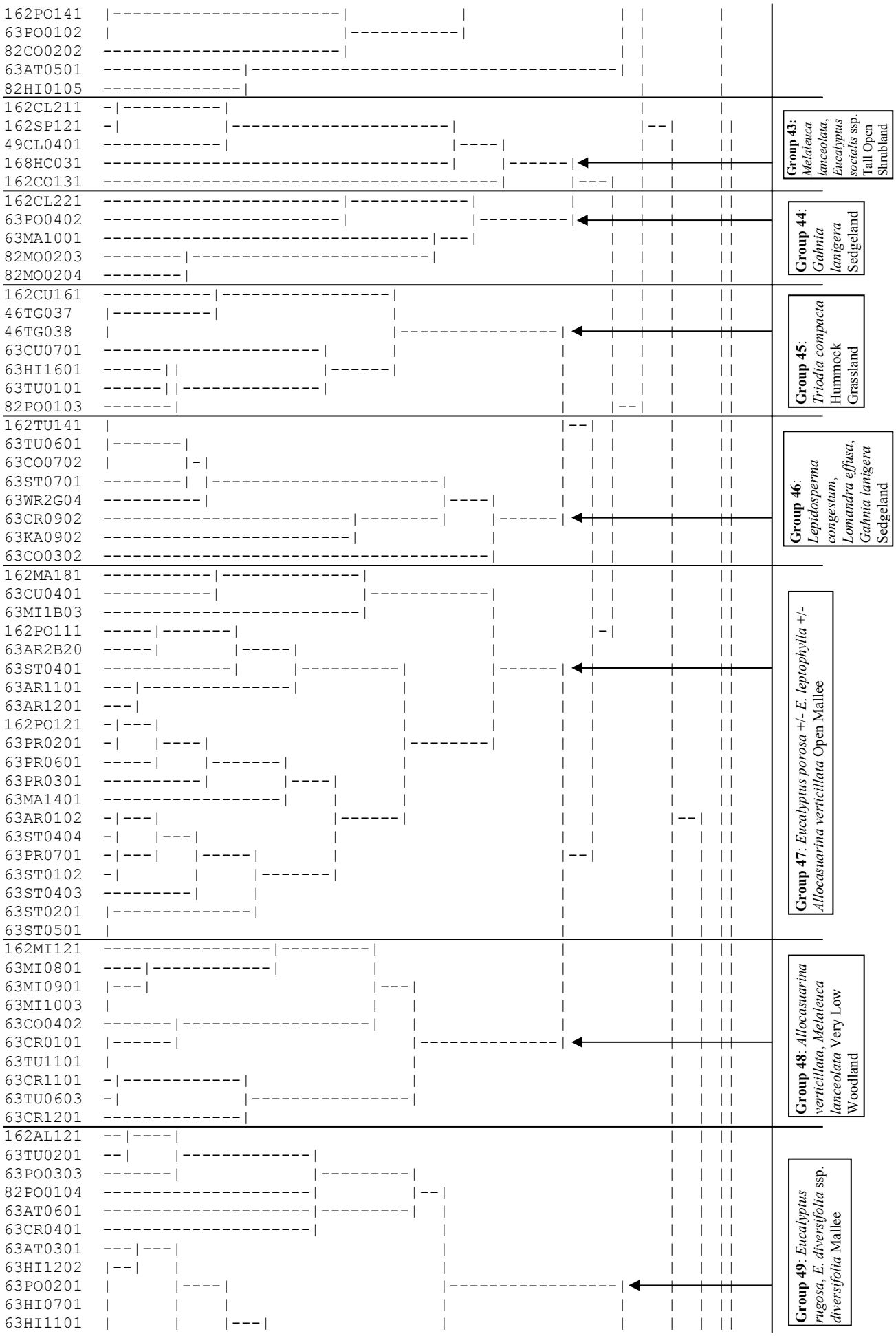
8: Semi-arid Shrublands
9: River Box Woodland
10: Yorke Peninsula Mallee and Sedgelands
Group 37: Dodonaea viscosa ssp. angustissima Low Open Shrubland
Group 38: Acacia calamifolia Open Shrubland
Group 39
Group 40: Acacia victoriae ssp. victoriae Tall Open Shrubland
Group 41
Group 42: Eucalyptus diversifolia ssp. diversifolia Open Low Mallee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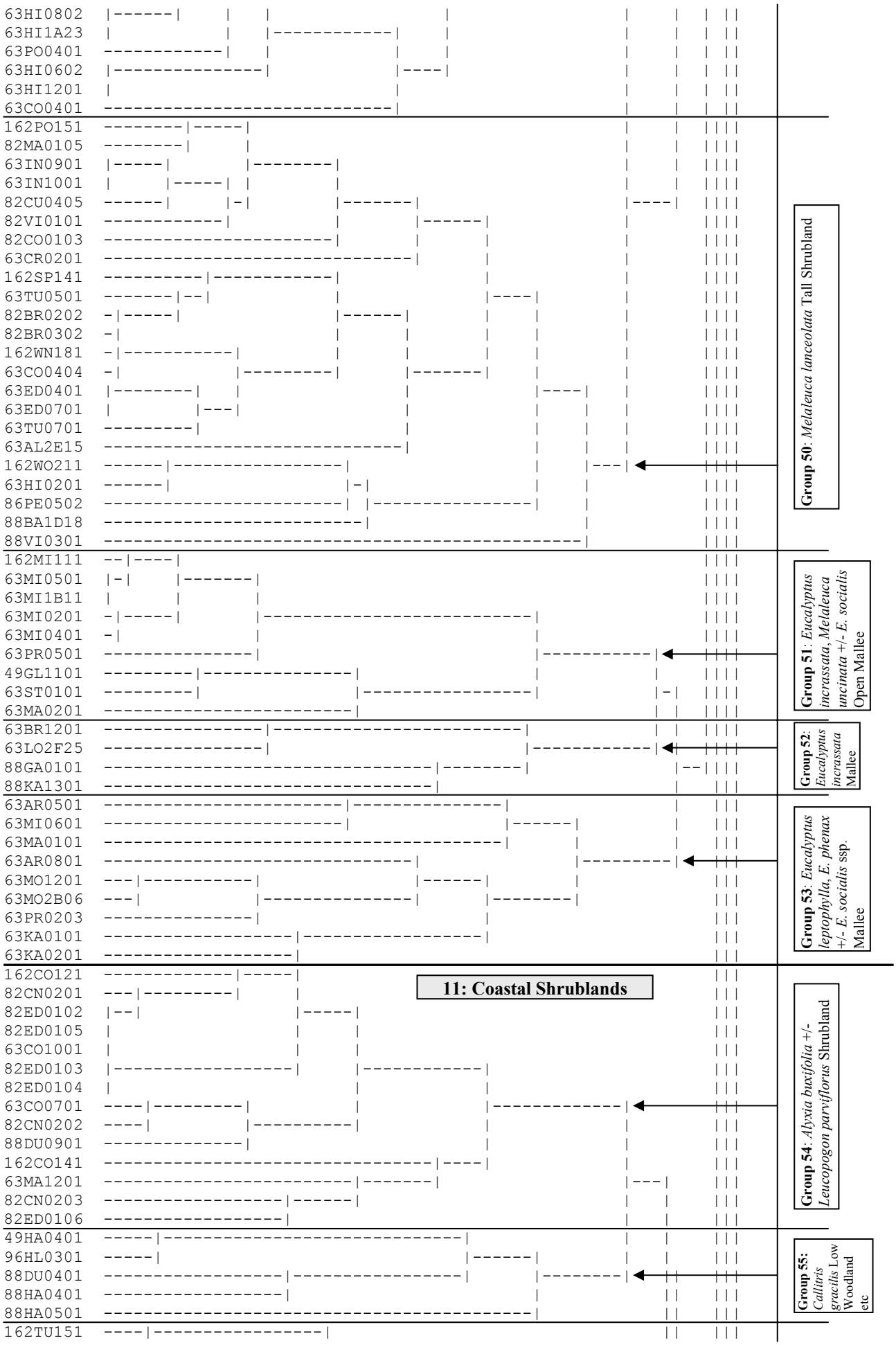
Group 43: Melaleuca lanceolata, Eucalyptus socialis ssp. Tall Open Shrubland
Group 44: Gahnia lanigera Sedgeland
Group 45: Triodia compacta Hummock Grassland
Group 46: Lepidosperma congestum, Lomandra effusa, Gahnia lanigera Sedgeland
Group 47: Eucalyptus porosa +/- E. leptophylla +/- Allocasuarina verticillata Open Mallee
Group 48: Allocasuarina verticillata, Melaleuca lanceolata Very Low Woodland
Group 49: Eucalyptus rugosa, E. diversifolia ssp. diversifolia Mallee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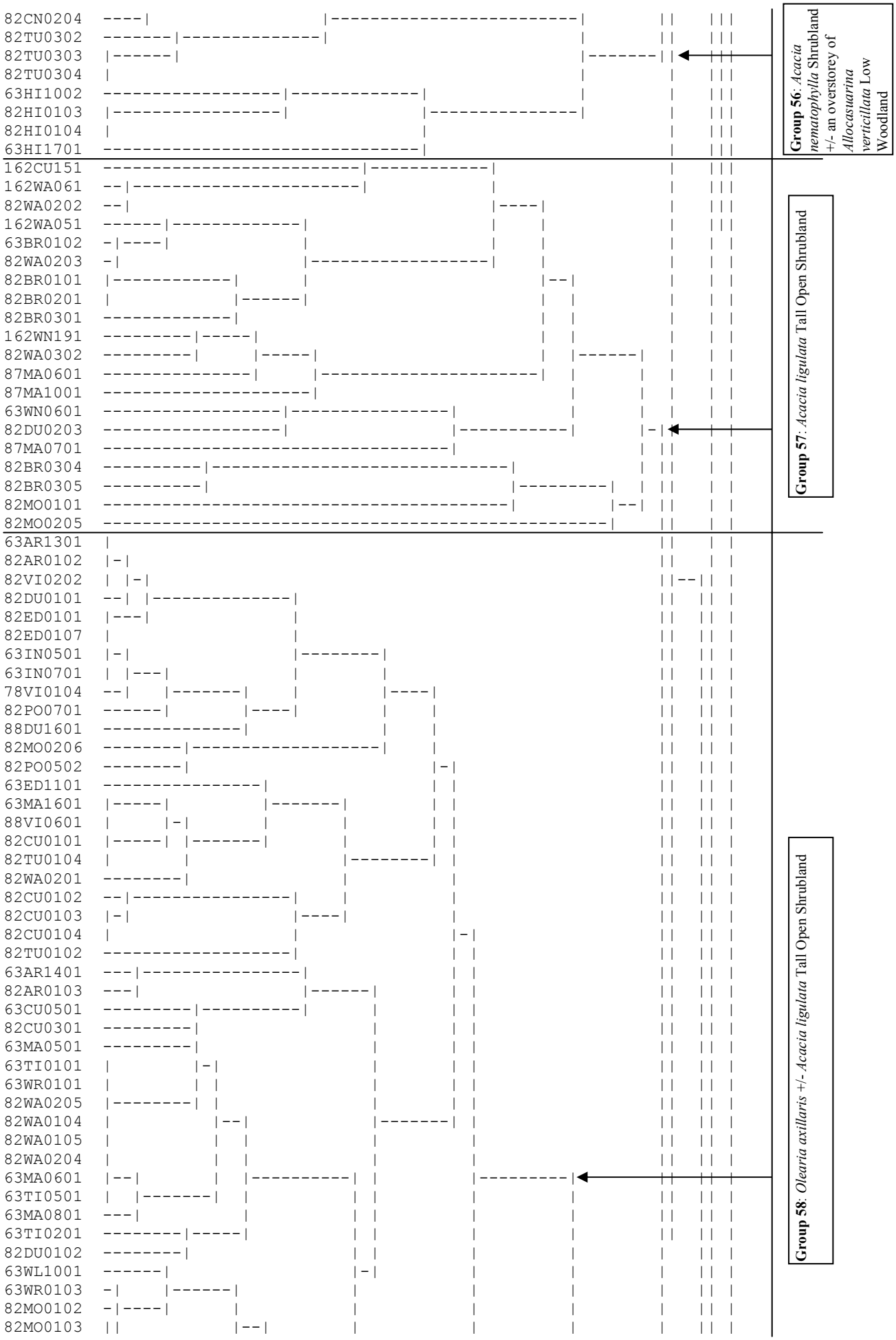
11: Coastal Shrublands
Group 50: Melaleuca lanceolata Tall Shrubland
Group 51: Eucalyptus incrassata, Melaleuca uncinata +/- E. socialis Open Mallee
Group 52: Eucalyptus incrassata Mallee
Group 53: Eucalyptus leptophylla, E. phenax +/- E. socialis ssp. Mallee
Group 54: Alyxia buxifolia +/- Leucopogon parviflorus Shrubland
Group 55: Callitris gracilis Low Woodland etc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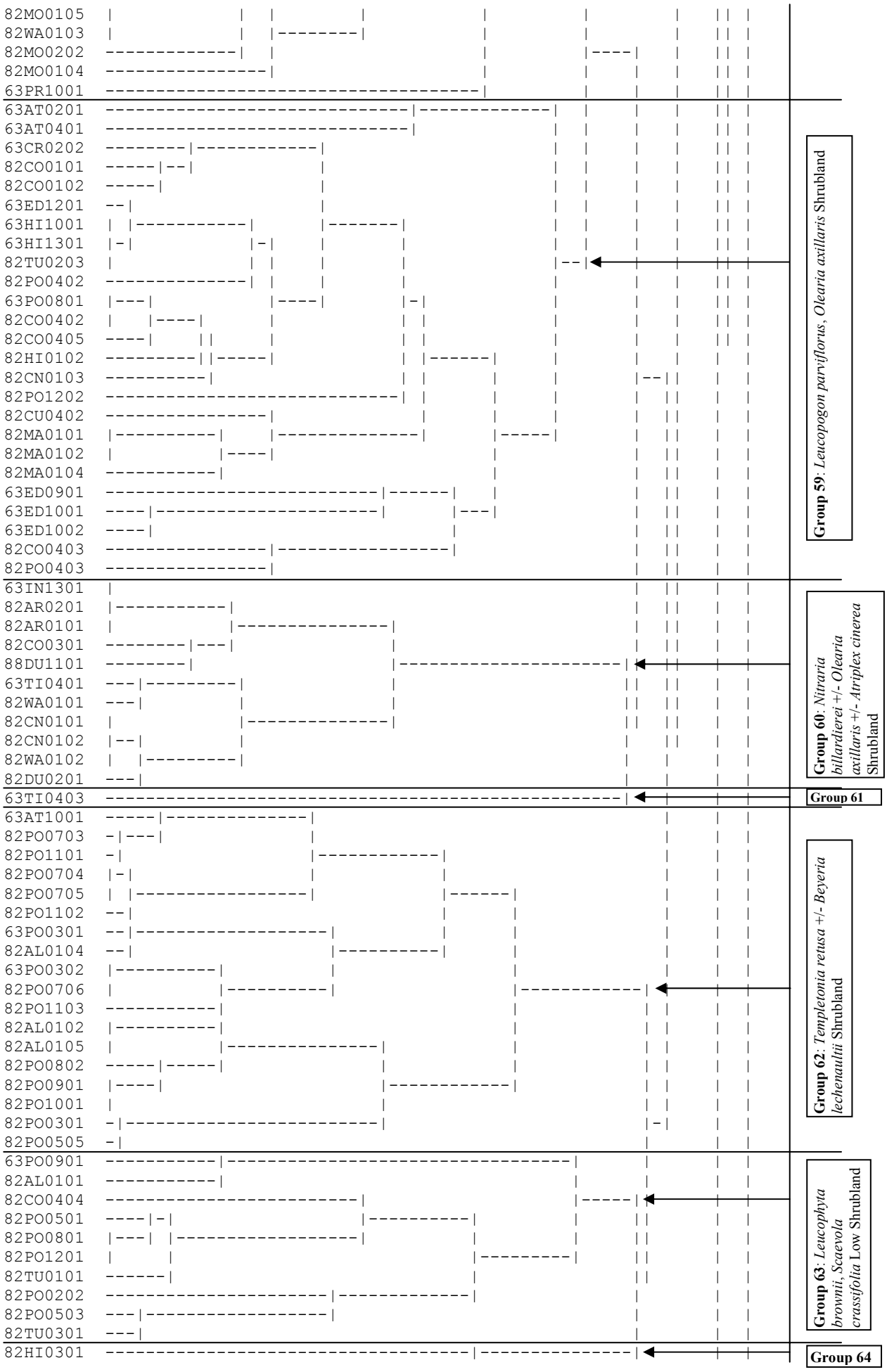
Group 56: Acacia nematophylla Shrubland +/- an overstorey of Allocasuarina verticillata Low Woodland
Group 57: Acacia ligulata Tall Open Shrubland
Group 58: Olearia axillaris +/- Acacia ligulata Tall Open Shrubland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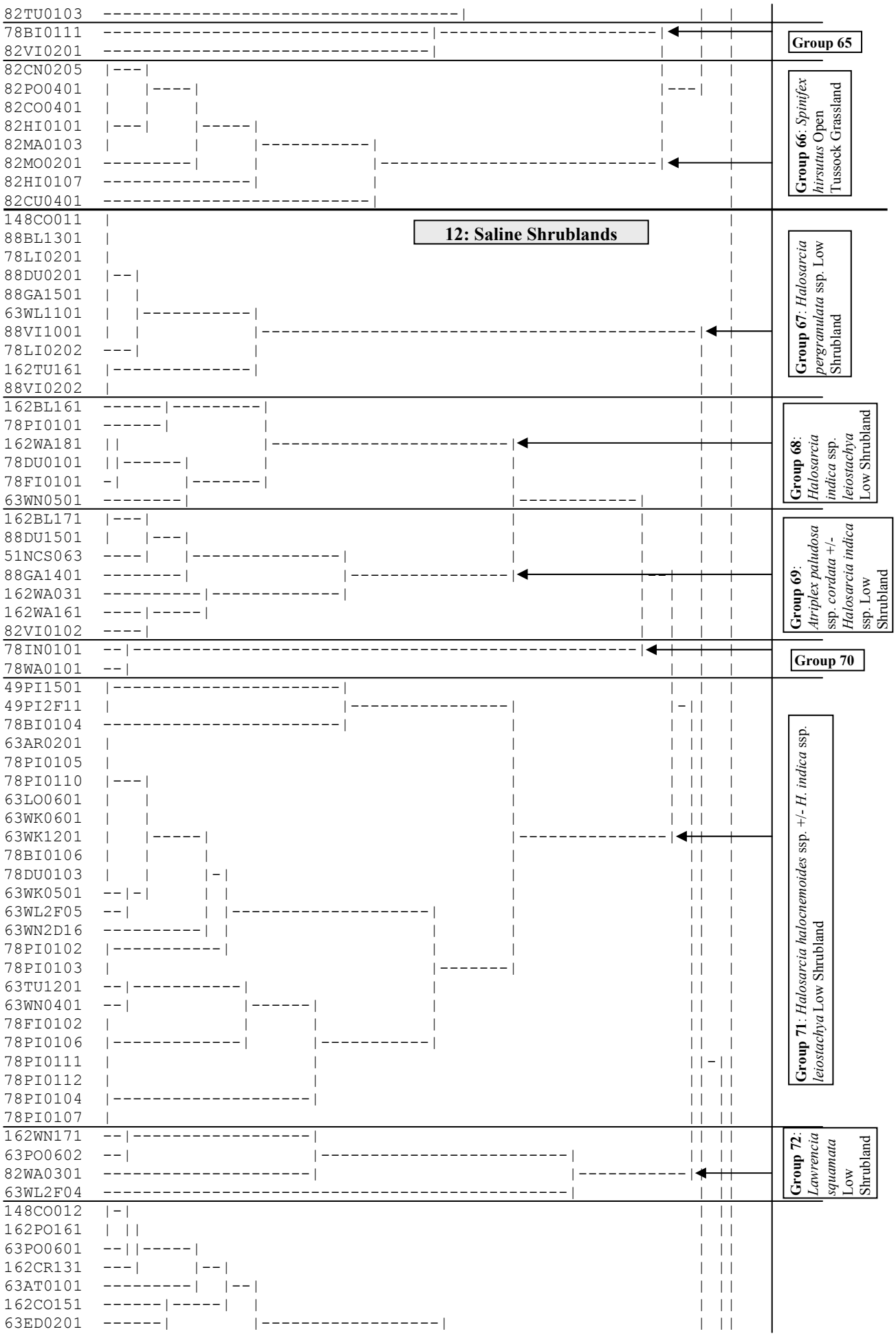
Group 59: Leucopogon parviflorus, Olearia axillaris Shrubland
Group 60: Nitraria billardierei +/- Olearia axillaris +/- Atriplex cinerea Shrubland
Group 61
Group 62: Templetonia retusa +/- Beyeria lechenaultii Shrubland
Group 63: Leucophyta brownii, Scaevola crassifolia Low Shrubland
Group 64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Group 66: Spinifex hirsutus Open Tussock Grassland
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Group 67: Halosarcia pergranulata ssp. Low Shrubland
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Group 68: Halosarcia indica ssp. leiostachya Low Shrubland
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Group 69: Atriplex paludosa ssp. cordata +/- Halosarcia indica ssp. Low Shrubland
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Group 71: Halosarcia halocnemoides ssp. +/- H. indica ssp. leiostachya Low Shrubland
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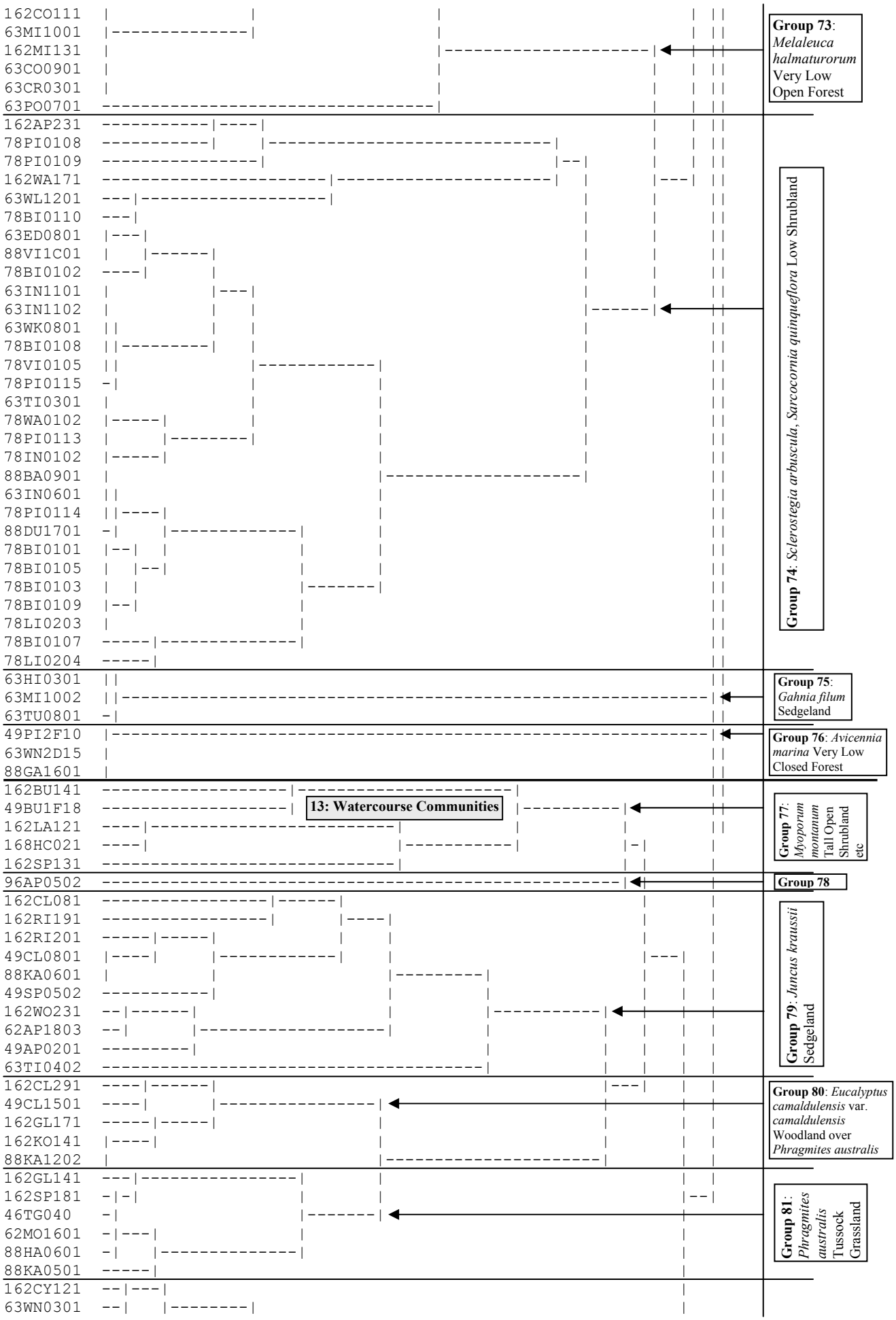
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Group 73: Melaleuca halmaturorum Very Low Open Forest
Group 74: Sclerostegia arbuscula, Sarcocornia quinqueflora Low Shrubland
Group 75: Gahnia filum Sedgeland
Group 76: Avicennia marina Very Low Closed Forest
Group 77: Myoporum montanum Tall Open Shrubland etc
Group 78
Group 79: Juncus kraussii Sedgeland
Group 80: Eucalyptus camaldulensis var. camaldulensis Woodland over Phragmites australis
Group 81: Phragmites australis Tussock Grassland

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Group 82: *Muehlenbeckia florulenta* Shrubland

Group 83: *Eucalyptus camaldulensis* var. *camaldulensis* Open Forest over grasses and herbs

APPENDIX 12. AREA ESTIMATES OF MAPPED VEGETATION COMMUNITIES (INCLUDING PROTECTED AREA STATISTICS) FOR THE MNYPBS STUDY AREA PLUS A COMPARISON WITH THE FLORISTIC VEGETATION GROUPS DERIVED FROM PC-ORD ANALYSIS.

SA VEG ID NVIS Regional Floristic Mapping Group number (taxonomy as per descriptions in NVIS database).

Floristic Group from Analysis The Floristic Group, from floristic group analysis using PC-ORD (refer to Vegetation Chapter for descriptions of each group), that best fits each Mapped Vegetation Community.

Area Protected Protected areas include NPWSA reserves e.g. Conservation Parks and National Parks (*National Parks and Wildlife Act 1972*) and Heritage Agreements (*Native Vegetation Act 1991)* and Forest Reserves (Forestry SA) as at June 2006.

Source SA Vegetation mapping, June 2006.

SAVEGID	Mapped Vegetation Communities (NVIS Floristic Descriptions)	Floristic Group from Analysis	Number of Patches	Area (ha)	Area Protected (ha)	% of Community Protected
	FORESTS					
MN0902	Eucalyptus leucoxylon ssp., Allocasuarina verticillata mid open forest over Bursaria spinosa ssp. spinosa shrubs over Triodia scariosa ssp. (NC[1]), Lomandra multiflora ssp. dura hummock grasses	12[2]	27	475	0	0
MN2102	Eucalyptus camaldulensis var., +/-Eucalyptus leucoxylon ssp. mid open forest over Lycium ferocissimum, Muehlenbeckia florulenta shrubs over Foeniculum vulgare, Piptatherum miliaceum, Cyperus gymnocaulos forbs	83	28	734	0	0
MM2901	Melaleuca halmaturorum low open forest over Sarcocornia quinqueflora, Frankenia pauciflora var., Halosarcia pergranulata ssp., Tetragonia implexicoma, Hemichroa pentandra shrubs	73	170	2,093	815	39
MN2703	Callitris gracilis, +/-Eucalyptus dumosa, +/-Eucalyptus brachycalyx low open forest over Avena barbata, Rhagodia preissii ssp. preissii, Austrostipa sp., Astroloma conostephioides, Bromus diandrus tussock grasses	55	7	28	0	0
MN2704	Callitris gracilis, Eucalyptus camaldulensis var. low open forest over Avena barbata, Astroloma conostephioides, Rhagodia parabolica, Austrostipa sp., Bromus diandrus tussock grasses	83	1	12	0	0
MN2705	Callitris gracilis, Eucalyptus leucoxylon ssp. low open forest over Avena barbata, Astroloma conostephioides, Rhagodia parabolica, Austrostipa sp., Bromus diandrus tussock grasses	9	6	60	0	0
MN4001	Avicennia marina ssp. marina low open forest over +/-Halosarcia sp., +/-Sarcocornia quinqueflora shrubs	76	115	1,337	67	5
MN5001	Callitris verrucosa, +/-Eucalyptus socialis ssp. low open forest over Pittosporum angustifolium shrubs	34[3]	2	6	0	0
SM0704	Callitris gracilis, +/-Eucalyptus socialis (NC) low open forest over Rhagodia parabolica mid shrubs over Avena barbata, Astroloma conostephioides, Austrostipa sp., Bromus diandrus mid tussock grasses	22	8	37	0	0
SM2902	Eucalyptus largiflorens, +/-Eucalyptus odorata, +/-Eucalyptus porosa low open forest over Muehlenbeckia florulenta, Rhagodia parabolica mid shrubs over Austrostipa sp., Maireana sp. low tussock grasses	41	10	54	0	0
SM3602	Melaleuca lanceolata, +/-Callitris gracilis, +/-Eucalyptus gracilis low open forest over Exocarpos aphyllus, Rhagodia candolleana ssp. candolleana tall shrubs over Atriplex paludosa ssp. cordata, Maireana oppositifolia low shrubs over Threlkeldia diffusa, +/-Bromus rubens	50	6	91	0	0
	MALLEE FORESTS					
MN2405	Eucalyptus socialis ssp., +/-Eucalyptus phenax ssp. phenax mid open mallee forest over Enchylaena tomentosa var. tomentosa, Austrodanthonia caespitosa, Hordeum leporinum, Vulpia myuros forma myuros, Austrostipa exilis, Rhagodia parabolica tussock grasses	34	4	20	0	0
MN2407	Eucalyptus socialis ssp., +/-Eucalyptus odorata mid open mallee forest over Enchylaena tomentosa var. tomentosa, Austrodanthonia caespitosa, Hordeum leporinum, Vulpia myuros forma myuros, Austrostipa exilis, Rhagodia parabolica tussock grasses	34	1	2	0	0
MN2504	Eucalyptus gracilis, Eucalyptus odorata mid open mallee forest over Geijera linearifolia, Melaleuca lanceolata shrubs over Carrichtera annua, Austrostipa eremophila, Rhagodia parabolica, Enchylaena tomentosa var., Sclerolaena diacantha shrubs	33	4	37	0	0
MN2505	Eucalyptus gracilis, +/-Eucalyptus dumosa, +/-Eucalyptus brachycalyx, +/-Eucalyptus oleosa ssp. ampliata mid open mallee forest over Geijera linearifolia, Melaleuca lanceolata shrubs over Carrichtera annua, Austrostipa eremophila, Rhagodia parabolica, Enchylaena tomentosa var., Sclerolaena diacantha shrubs	33	24	116	0	0

SAVEGID	Mapped Vegetation Communities (NVIS Floristic Descriptions)	Floristic Group from Analysis	Number of Patches	Area (ha)	Area Protected (ha)	% of Community Protected
MN2602	Eucalyptus dumosa, +/-Eucalyptus phenax ssp. phenax mid open mallee forest over Enchylaena tomentosa var. tomentosa, Austrodanthonia caespitosa, Hordeum leporinum, Vulpia myuros forma myuros, Austrostipa exilis, Rhagodia parabolica tussock grasses	35	2	7	0	0
MN3702	Eucalyptus oleosa ssp. ampliata, +/-Eucalyptus gracilis, +/-Eucalyptus socialis ssp. mid open mallee forest over Sclerolaena diacantha, Enchylaena tomentosa var. tomentosa, Rhagodia parabolica, Atriplex stipitata shrubs	32	5	56	0	0
MN3703	Eucalyptus oleosa ssp. ampliata, +/-Eucalyptus gracilis, +/-Eucalyptus brachycalyx, +/-Eucalyptus dumosa, +/-Eucalyptus phenax ssp. phenax mid open mallee forest over Sclerolaena diacantha, Enchylaena tomentosa var. tomentosa, Rhagodia parabolica, Atriplex stipitata shrubs	32	239	1,652	0	0
MN3705	Eucalyptus oleosa ssp. ampliata, Eucalyptus porosa mid open mallee forest over Sclerolaena diacantha, Enchylaena tomentosa var. tomentosa, Maireana brevifolia shrubs	32	7	85	0	0
MN3802	Eucalyptus brachycalyx, +/-Eucalyptus gracilis, +/-Eucalyptus phenax ssp. phenax mid open mallee forest over Geijera linearifolia, Melaleuca lanceolata shrubs over Carrichtera annua, Austrostipa eremophila, Rhagodia parabolica, Enchylaena tomentosa var., Sclerolaena diacantha shrubs	33	19	101	0	0
YP0901	Eucalyptus brachycalyx, Eucalyptus calycogona ssp. calycogona, Eucalyptus phenax ssp., Eucalyptus gracilis, Eucalyptus oleosa ssp. mid open mallee forest over Melaleuca lanceolata tall shrubs over Austrostipa scabra ssp., Enchylaena tomentosa var. tomentosa low tussock grasses	33	4	53	0	0
YP1001	Eucalyptus diversifolia ssp. diversifolia mid open mallee forest over +/-Templetonia retusa, +/-Melaleuca lanceolata, +/-Beyeria lechenaultii mid shrubs over Acrotriche patula, Correa pulchella, +/-Lasiopetalum discolor low shrubs	42	469	11,364	2,952	26
YP1801	Eucalyptus leptophylla, Eucalyptus leptophylla, Eucalyptus phenax ssp., +/-Eucalyptus incrassata, +/-Eucalyptus gracilis mid open mallee forest over Melaleuca acuminata ssp. acuminata, Melaleuca uncinata tall shrubs over +/-Melaleuca lanceolata over Gahnia deusta, Acrotriche patula mid sedges over Correa backhouseana var. coriacea, Gahnia lanigera, +/-Cassytha peninsularis var. peninsularis, +/-Lepidosperma congestum	53	27	321	3	1
YP1002	Eucalyptus diversifolia ssp. diversifolia , +/-Allocasuarina verticillata low open mallee forest over Melaleuca lanceolata, +/-Templetonia retusa mid shrubs over Acrotriche cordata, Lasiopetalum discolor, +/-Allocasuarina pusilla, +/-Beyeria lechenaultii, +/-Acrotriche patula, +/-Acacia nematophylla low shrubs	42	157	3,665	1,905	52
	WOODLANDS					
MN0402	Eucalyptus microcarpa, +/-Eucalyptus viridis ssp. viridis mid woodland over Acacia pycnantha, Cassinia laevis shrubs over Lomandra multiflora ssp. dura, Maireana enchylaenoides, Lomandra densiflora, Rhagodia parabolica forbs	1[4]	6	59	0	0
MN0602	Eucalyptus odorata mid woodland over Austrostipa nodosa, Austrodanthonia caespitosa tussock grasses	17	6	112	2	2
MN0609	Eucalyptus odorata, +/-Callitris gracilis mid woodland over Acacia pycnantha, Acacia acinacea shrubs over Avena barbata, Austrostipa elegantissima, Austrodanthonia setacea, Austrostipa scabra ssp. falcata tussock grasses	17	10	43	0	0
MN0901	Eucalyptus leucoxylon ssp., +/-Eucalyptus odorata, +/-Amyema miquelii mid woodland over Acacia pycnantha, Acacia paradoxa shrubs over Acaena echinata forbs	21	1271	8,331	63	1
MN2101	Eucalyptus camaldulensis var., +/-Callitris glaucophylla mid woodland over Lycium ferocissimum, Bursaria spinosa ssp. spinosa shrubs over Cyperus vaginatus, Marrubium vulgare, Lomandra multiflora ssp. dura forbs	83	128	1,244	63	5
YP0201	Callitris gracilis mid woodland over Pimelea serpyllifolia ssp. serpyllifolia, Scaevola spinescens, Rhagodia parabolica low shrubs over Westringia rigida, Acrotriche patula, Lepidosperma congestum, Lomandra collina, Austrodanthonia setacea, Austrostipa sp.	22	5	27	0	0
SM1104	Eucalyptus camaldulensis var. camaldulensis, Eucalyptus leucoxylon ssp. mid woodland over Medicago sp., Bromus rubens, Avena barbata, Lolium sp. low tussock grasses	83	11	271	0	0
WM7801	Eucalyptus leucoxylon ssp. mid open woodland over +/-Lomandra effusa sedges	20	50	237	0	0
YP0807	Melaleuca lanceolata, Eucalyptus porosa mid open woodland over Acacia ligulata, Acacia hakeoides tall shrubs over Austrodanthonia caespitosa, Austrostipa drummondii, Austrostipa eremophila, Austrostipa nitida, Austrostipa nodosa low tussock grasses	47	53	519	0	0
CT0046	Eucalyptus odorata low woodland over +/-Melaleuca lanceolata over +/-Lycium ferocissimum mid shrubs over +/-Atriplex vesicaria ssp., +/-Enchylaena tomentosa var. tomentosa, +/-Maireana pyramidata low shrubs over Carrichtera annua, +/-Maireana sedifolia	17[5]	13	135	51	38
EP0501	Casuarina pauper low woodland over Geijera linearifolia, Scaevola spinescens tall shrubs over Enchylaena tomentosa var. tomentosa, Austrostipa nitida, +/-Ptilotus obovatus var. obovatus, +/-Maireana sedifolia, +/-Atriplex stipitata low shrubs over Carrichtera annua	28	10	37	0	0

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EP0502	Acacia papyrocarpa, Casuarina pauper low woodland over Enchylaena tomentosa var. tomentosa, Maireana sedifolia, Rhagodia ulicina, +/-Atriplex stipitata low shrubs	28	11	36	0	0
EP0701	Acacia papyrocarpa low woodland over Atriplex vesicaria ssp., Maireana sedifolia, Enchylaena tomentosa var. tomentosa, Rhagodia ulicina low shrubs	30[6]	5	29	0	0
EP0801	Alectryon oleifolius ssp. canescens low woodland over Geijera linearifolia mid shrubs over Enchylaena tomentosa var. tomentosa, Maireana pyramidata low shrubs over Carrichtera annua	30	1	17	0	0
MM0201	Casuarina pauper low woodland over Alectryon oleifolius ssp. canescens, Senna artemisioides ssp. shrubs over Enchylaena tomentosa var. tomentosa, Sclerolaena diacantha/uniflora, Austrostipa sp., Einadia nutans ssp., Austrostipa elegantissima shrubs	36	20	81	0	0
MN0306	Eucalyptus porosa, +/-Eucalyptus odorata low woodland over Acacia sp., Senna artemisioides ssp. shrubs over Rhagodia parabolica, Austrostipa sp., Avena barbata shrubs	24	113	542	0	0
MN0401	Eucalyptus microcarpa, +/-Allocasuarina verticillata low woodland over Xanthorrhoea quadrangulata, Cassinia laevis, +/-Bursaria spinosa ssp. spinosa shrubs over Triodia scariosa ssp. (NC), Lomandra multiflora ssp. dura, Lepidosperma viscidum hummock grasses	1[7]	37	113	0	0
MN0603	Eucalyptus odorata, +/-Eucalyptus leucoxylon ssp., +/-Callitris glaucophylla low woodland over Austrodanthonia caespitosa, Austrostipa scabra ssp., Austrostipa nitida, Elymus scaber var. scaber, +/-Austrostipa eremophila tussock grasses	17	1037	10,134	308	3
MN0604	Eucalyptus odorata, +/-Eucalyptus leucoxylon ssp., Amyema miquelii low woodland over Acacia pycnantha, Acacia paradoxa shrubs over Acaena echinata forbs	17	18	143	34	24
MN0605	Eucalyptus odorata, +/-Allocasuarina verticillata low woodland over Bursaria spinosa ssp. spinosa, Acacia pycnantha shrubs over Dianella revoluta var., Lepidosperma viscidum, Maireana enchylaenoides, Lomandra multiflora ssp. dura, Austrostipa elegantissima, Triodia scariosa ssp. (NC), Austrodanthonia caespitosa tussock grasses	17	268	1,565	23	1
MN0606	Eucalyptus odorata, Allocasuarina verticillata, +/-Eucalyptus leucoxylon ssp., +/-Eucalyptus camaldulensis var. low woodland over Bursaria spinosa ssp. spinosa, +/-Acacia wattsiana shrubs	15[8]	34	478	0	0
MN0607	Eucalyptus odorata low woodland over Allocasuarina verticillata, Acacia pycnantha over Xanthorrhoea quadrangulata shrubs over Dianella revoluta var., Pultenaea largiflorens, Lomandra densiflora, Hibbertia exutiacies shrubs	15	9	190	30	16
MN0903	Eucalyptus leucoxylon ssp., Allocasuarina verticillata low woodland over Xanthorrhoea quadrangulata, Bursaria spinosa ssp. spinosa, Cassinia laevis shrubs over Triodia scariosa ssp. (NC), Lomandra multiflora ssp. hummock grasses	13	48	281	4	1
MN0905	Eucalyptus leucoxylon ssp., +/-Eucalyptus odorata low woodland over Acacia pycnantha shrubs over Xanthorrhoea semiplana ssp. semiplana, Austrostipa elegantissima, Astroloma conostephioides shrubs	21	8	35	0	0
MN0906	Eucalyptus leucoxylon ssp., +/-Eucalyptus cladocalyx, +/-Allocasuarina verticillata low woodland over Bursaria spinosa ssp. spinosa, +/-Acacia wattsiana, +/-Acacia pycnantha shrubs over Astroloma humifusum, Hibbertia exutiacies, Dianella revoluta var., Lomandra multiflora ssp. dura shrubs	20[9]	38	686	34	5
MN1501	Allocasuarina verticillata low woodland over +/-Bursaria spinosa ssp. spinosa, +/-Cassinia laevis, +/-Acacia pycnantha, +/-Xanthorrhoea quadrangulata shrubs over Lomandra densiflora, Cheilanthes austrotenuifolia, Danthonia sp., Avena barbata tussock grasses	13	12	50	1	2
MN1503	Allocasuarina verticillata low woodland over Xanthorrhoea quadrangulata, +/-Cassinia laevis, +/-Bursaria spinosa ssp. spinosa shrubs over Triodia scariosa ssp. (NC), Lomandra multiflora ssp., Lomandra densiflora, Lepidosperma viscidum hummock grasses	15	91	485	0	0
MN1507	Allocasuarina verticillata, +/-Eucalyptus odorata, +/-Eucalyptus gracilis, +/-Acacia pycnantha low woodland over Xanthorrhoea quadrangulata, Bursaria spinosa ssp. spinosa, Beyeria lechenaultii shrubs over Lepidosperma viscidum sedges	13	30	191	0	0
MN1508	Allocasuarina verticillata, +/-Melaleuca lanceolata low woodland over Acacia ligulata shrubs over Pimelea serpyllifolia ssp. serpyllifolia, Tetragonia implexicoma shrubs	48	6	212	0	0
MN1601	Eucalyptus goniocalyx ssp. goniocalyx, +/-Eucalyptus cladocalyx low woodland over Xanthorrhoea quadrangulata, Bursaria spinosa ssp. spinosa, Allocasuarina verticillata, Acacia pycnantha shrubs over Hibbertia exutiacies, Pultenaea largiflorens, Dianella revoluta var., Lomandra densiflora shrubs	15[10]	9	492	89	18
MN1801	Callitris glaucophylla low woodland over Cassinia laevis, Acacia continua, +/-Olearia decurrens shrubs over Lomandra multiflora ssp. dura, Triodia scariosa, Rhagodia parabolica sedges	18	38	151	0	0
MN2201	Acacia salicina, +/-Eucalyptus camaldulensis var. low woodland over Muehlenbeckia florulenta shrubs	19	30	215	0	0
MN2702	Callitris gracilis, Eucalyptus odorata, +/-Eucalyptus porosa low woodland over Avena barbata, Austrostipa elegantissima, Bromus diandrus, Astroloma conostephioides, Rhagodia parabolica tussock grasses	22	27	157	0	0

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MN2706	Callitris gracilis low woodland over Avena barbata, Austrostipa elegantissima, Astroloma conostephioides, Bromus diandrus tussock grasses	22	42	131	1	1
MN3302	Casuarina pauper, Eucalyptus brachycalyx low woodland over Alectryon oleifolius ssp. canescens over Enchylaena tomentosa var. tomentosa shrubs	33	1	6	0	0
MN3303	Casuarina pauper, Myoporum platycarpum ssp. low woodland over Alectryon oleifolius ssp. canescens over Senna artemisioides ssp. coriacea shrubs over Enchylaena tomentosa var. tomentosa shrubs	28	2	8	0	0
MN3901	Eucalyptus macrorhyncha ssp. macrorhyncha low woodland over Xanthorrhoea quadrangulata shrubs over Poa crassicaudex, Danthonia sp., Pultenaea largiflorens, Cheilanthes austrotenuifolia, Hibbertia exutiacies, Acrotriche affinis, Dianella revoluta var. tussock grasses	16	11	799	290	36
OS0005	Avicennia marina ssp. marina low woodland	76	12	255	10	4
SM1802	Eucalyptus odorata, +/-Eucalyptus leucoxylon ssp. low woodland over Acacia pycnantha over Acacia paradoxa, Acacia acinacea mid shrubs over Austrodanthonia setacea, Austrostipa scabra ssp. falcata, Avena barbata, Austrostipa elegantissima low tussock grasses	17	6	37	0	0
SM2804	Eucalyptus porosa, Eucalyptus odorata low woodland over Avena barbata, Austrostipa sp. mid tussock grasses over Lomandra multiflora ssp. dura, Hordeum glaucum	24	11	52	0	0
SP0014	Eucalyptus camaldulensis var., +/-Eucalyptus largiflorens low woodland over Acacia victoriae ssp. mid sparse shrubland over Maireana pyramidata, Rhagodia spinescens, Enchylaena tomentosa var. low sparse shrubland over Brassica tournefortii, Sisymbrium erysimoides	83	4	141	0	0
WM1401	Eucalyptus odorata low woodland over Acacia acinacea, Chenopodium desertorum ssp. desertorum shrubs over Dianella revoluta var. revoluta, Lomandra densiflora, Eutaxia microphylla var. microphylla sedges	17	159	1,555	7	0
WM1501	Eucalyptus odorata, +/-Eucalyptus porosa low woodland over Eremophila longifolia, Senna artemisioides ssp. filifolia, Acacia argyrophylla shrubs over Avena barbata, Glycine rubiginosa, Austrostipa acrociliata group, Maireana rohrlachii tussock grasses	17	105	1,165	2	0
WM6601	Allocasuarina verticillata low woodland over +/-Bursaria spinosa ssp. spinosa shrubs over Lomandra effusa, Austrodanthonia caespitosa, Austrostipa blackii, Lomandra multiflora ssp. dura, +/-Themeda triandra tussock grasses	13	30	177	7	4
WM6801	Allocasuarina verticillata, +/-Callitris gracilis low woodland over +/-Lomandra effusa, Austrostipa sp., Danthonia sp. tussock grasses	13	1	11	0	0
YP0701	Allocasuarina verticillata low woodland over Olearia axillaris, +/-Acacia nematophylla, +/-Acacia ligulata, +/-Alyxia buxifolia, +/-Leucopogon parviflorus, +/-Acacia cupularis mid shrubs over Rhagodia candolleana ssp. candolleana low shrubs over Lagurus ovatus, Anagallis arvensis, +/-Adriana quadripartita, +/-Lepidosperma gladiatum	56	14	856	31	4
YP0703	Allocasuarina verticillata low woodland over +/-Exocarpos aphyllus, +/-Bursaria spinosa ssp., +/-Melaleuca lanceolata tall shrubs over +/-Beyeria lechenaultii, +/-Acrotriche patula low shrubs over +/-Lepidosperma congestum, +/-Lagurus ovatus	48	62	1,897	449	24
YP0704	Allocasuarina verticillata, +/-Melaleuca lanceolata, +/-Eucalyptus porosa, +/-Santalum acuminatum low woodland over +/-Bursaria spinosa ssp., +/-Melaleuca acuminata ssp. acuminata tall shrubs over Lepidosperma congestum, Gahnia lanigera, Lomandra effusa, Acrotriche patula low sedges	48	132	986	24	2
YP0801	Melaleuca lanceolata low woodland	50	212	1,660	222	13
YP0802	Melaleuca lanceolata, +/-Allocasuarina verticillata low woodland over +/-Exocarpos aphyllus, +/-Bursaria spinosa ssp., +/-Rhagodia candolleana ssp. candolleana mid shrubs over Acrotriche patula, +/-Pimelea serpyllifolia ssp. serpyllifolia, +/-Lagurus ovatus, +/-Lepidosperma congestum, +/-Threlkeldia diffusa low shrubs	48	253	3,008	216	7
YP0803	Allocasuarina verticillata low woodland over +/-Melaleuca lanceolata tall shrubs over +/-Lasiopetalum discolor, +/-Exocarpos aphyllus, +/-Beyeria lechenaultii, +/-Templetonia retusa mid shrubs over Rhagodia candolleana ssp. candolleana, +/-Threlkeldia diffusa	48	4	144	10	7
YP0805	Melaleuca lanceolata, +/-Allocasuarina verticillata low woodland over Lycium ferocissimum, +/-Bursaria spinosa ssp., +/-Acacia nematophylla tall shrubs over Austrostipa sp., Moraea setifolia, +/-Lagurus ovatus, +/-Vulpia myuros forma myuros low forbs	48	452	3,889	42	1
YP1502	Melaleuca pauperiflora ssp. mutica, Eucalyptus oleosa ssp., Eucalyptus leptophylla, +/-Eucalyptus socialis ssp. low woodland over +/-Melaleuca lanceolata tall shrubs over Rhagodia candolleana ssp. candolleana low shrubs over Threlkeldia diffusa	32[11]	6	48	0	0
CT0056	Avicennia marina ssp. marina low open woodland over +/-Sarcocornia quinqueflora, +/-Cotula sp., +/-Triglochin sp. low shrubs	76	1	3	0	0
MM0801	Callitris gracilis low open woodland over Austrostipa sp., Enchylaena tomentosa var. tomentosa, Senecio pinnatifolius, Einadia nutans ssp., +/-Danthonia sp. tussock grasses	22	72	172	0	0
MN0601	Eucalyptus odorata low open woodland over Austrostipa flavescens, Austrostipa nitida, Austrostipa elegantissima tussock grasses	17	1	2	0	0

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MN1502	Allocasuarina verticillata low open woodland over +/-Xanthorrhoea quadrangulata, +/-Bursaria spinosa ssp. spinosa, +/-Acacia pycnantha shrubs over Lomandra densiflora, Astroloma humifusum, Dianella revoluta var., Pultenaea largiflorens, Hibbertia exutiacies shrubs	13	102	832	53	6
MN1504	Allocasuarina verticillata low open woodland over Bursaria spinosa ssp. spinosa shrubs over Themeda triandra, Lepidosperma viscidum, Triodia scariosa ssp. (NC) tussock grasses	13	4	86	0	0
MN1505	emergent Eucalyptus leucoxylon ssp. over Allocasuarina verticillata, Bursaria spinosa ssp. spinosa, +/-Acacia wattsiana, +/-Acacia pycnantha low open woodland over Dianella revoluta var., Lomandra multiflora ssp., Astroloma humifusum, +/-Hibbertia exutiacies shrubs	13	184	945	<1	0
MN1506	Allocasuarina verticillata, +/-Eremophila longifolia, +/-Acacia pycnantha low open woodland over Themeda triandra, Austrostipa sp., Lomandra multiflora ssp., Dichanthium sericeum ssp. sericeum tussock grasses	13	7	29	0	0
MN5301	Myoporum platycarpum ssp., Eucalyptus gracilis, +/-Exocarpos aphyllus, +/-Alectryon oleifolius ssp. canescens low open woodland	33	3	38	0	0
MN5501	Eucalyptus behriana, +/-Eucalyptus odorata low open woodland over Gramineae sp. tussock grasses	17[12]	5	22	0	0
SM0703	Callitris gracilis, +/-Eucalyptus porosa low open woodland over Avena barbata, Astroloma conostephioides, Rhagodia parabolica, Austrostipa sp., Bromus diandrus tall tussock grasses	22	3	17	0	0
SM2805	Eucalyptus porosa, +/-Eucalyptus phenax ssp., +/-Eucalyptus oleosa ssp. ampliata low open woodland over Rhagodia parabolica, Senna artemisioides ssp. coriacea, +/-Senna artemisioides ssp. petiolaris (NC), Acacia hakeoides tall shrubs over Enchylaena tomentosa var. tomentosa, Triodia sp. low shrubs	24	7	29	0	0
WM1601	Eucalyptus camaldulensis var. camaldulensis, +/-Eucalyptus leucoxylon ssp. low open woodland over Linum trigynum, Briza maxima, Anagallis arvensis, Avena barbata forbs	83	18	91	0	0
YP0603	Eucalyptus porosa, Allocasuarina verticillata, +/-Eucalyptus leptophylla low open woodland over Gahnia lanigera, Lepidosperma congestum, Acrotriche patula low sedges	47	67	600	7	1
YP0604	Eucalyptus porosa, +/-Callitris gracilis low open woodland over Senna artemisioides ssp. petiolaris, Rhagodia parabolica, Geijera linearifolia, Acacia nyssophylla, +/-Acacia ligulata, +/-Acacia hakeoides tall shrubs over Enchylaena tomentosa var. tomentosa, +/-Brachypodium distachyon low shrubs	47	25	252	0	0
YP0705	Allocasuarina verticillata, +/-Eucalyptus porosa low open woodland over Acacia paradoxa, +/-Melaleuca lanceolata tall shrubs	47	3	32	0	0
	MALLEE WOODLANDS					
CT0045	Eucalyptus oleosa ssp. mid mallee woodland over Lycium ferocissimum, +/-Zygophyllum apiculatum, +/-Maireana pyramidata low shrubs over Sisymbrium erysimoides, Carrichtera annua, Enchylaena tomentosa var. tomentosa, Atriplex vesicaria ssp.	32	21	441	0	0
CT0050	Eucalyptus socialis (NC) mid mallee woodland over Beyeria lechenaultii low shrubs over Olearia muelleri, Lepidium leptopetalum	34	3	43	<1	<1
EP2606	Eucalyptus porosa, Eucalyptus diversifolia ssp. diversifolia mid mallee woodland over Melaleuca lanceolata tall shrubs over Acrotriche patula, Avena barbata, +/-Beyeria lechenaultii low shrubs over +/-Gahnia lanigera	42[13]	43	1,927	1,293	67
MN0301	Eucalyptus porosa, +/-Callitris gracilis mid mallee woodland over Pittosporum angustifolium, Melaleuca lanceolata shrubs	24	212	970	1	0
MN0302	Eucalyptus porosa, +/-Eucalyptus leucoxylon ssp., +/-Eucalyptus socialis ssp. mid mallee woodland over Gahnia lanigera, Acrotriche patula sedges	43[14]	11	113	0	0
MN0304	Eucalyptus porosa, +/-Allocasuarina verticillata, +/-Acacia pycnantha mid mallee woodland over Bursaria spinosa ssp. spinosa shrubs over Dianella revoluta var., Triodia scariosa ssp. (NC), Austrodanthonia caespitosa, Austrostipa nitida, Lomandra multiflora ssp. dura, Lepidosperma viscidum, Maireana enchylaenoides tussock grasses	24	64	452	3	1
MN0305	Eucalyptus porosa, +/-Callitris glaucophylla mid mallee woodland over Cassinia laevis, Olearia decurrens shrubs over Triodia scariosa ssp. (NC), Lomandra multiflora ssp. dura hummock grasses	24	75	320	2	1
MN0307	Eucalyptus porosa, +/-Eucalyptus phenax ssp. phenax, +/-Eucalyptus oleosa ssp. ampliata mid mallee woodland over Acacia sp., Senna artemisioides ssp. shrubs over Rhagodia parabolica, Austrostipa sp., Avena barbata shrubs	24	5	89	0	0
MN0610	Eucalyptus odorata, +/-Eucalyptus leucoxylon ssp. mid mallee woodland over Acacia pycnantha, Acacia acinacea shrubs over Avena barbata, Austrodanthonia setacea, Austrostipa scabra ssp. falcata, Austrostipa elegantissima tussock grasses	17	12	65	0	0
MN2401	Eucalyptus socialis ssp., Callitris gracilis, +/-Eucalyptus gracilis mid mallee woodland over Vulpia myuros forma myuros, Rostraria cristata, Austrostipa drummondii tussock grasses	34	115	605	0	0

SAVEGID	Mapped Vegetation Communities (NVIS Floristic Descriptions)	Floristic Group from Analysis	Number of Patches	Area (ha)	Area Protected (ha)	% of Community Protected
MN2402	+/-Eucalyptus gracilis, Eucalyptus socialis ssp. mid mallee woodland over Pittosporum angustifolium shrubs over Enchylaena tomentosa var. tomentosa, Rhagodia parabolica, Austrostipa nitida, +/-Austrostipa eremophila shrubs	34	471	2,492	502	20
MN2403	Eucalyptus socialis ssp., +/-Eucalyptus gracilis mid mallee woodland over Melaleuca lanceolata, Pittosporum angustifolium shrubs	34	11	49	0	0
MN2404	Eucalyptus socialis ssp., +/-Eucalyptus gracilis, +/-Eucalyptus dumosa, +/-Eucalyptus brachycalyx mid mallee woodland over Enchylaena tomentosa var. tomentosa, Austrodanthonia caespitosa, Hordeum leporinum, Vulpia myuros forma myuros, Austrostipa exilis, Rhagodia parabolica shrubs	34	38	168	0	0
MN2406	Eucalyptus socialis ssp., +/-Eucalyptus calycogona ssp., +/-Eucalyptus odorata, +/-Eucalyptus oleosa ssp. ampliata mid mallee woodland over Enchylaena tomentosa var. tomentosa, Austrodanthonia caespitosa, Hordeum leporinum, Vulpia myuros forma myuros, Rhagodia parabolica, Austrostipa exilis tussock grasses	34	10	82	0	0
MN2408	Eucalyptus socialis ssp., +/-Eucalyptus porosa mid mallee woodland over Enchylaena tomentosa var. tomentosa, Austrodanthonia caespitosa, Hordeum leporinum, Vulpia myuros forma myuros, Austrostipa exilis, Rhagodia parabolica tussock grasses	34	45	239	2	1
MN2501	Eucalyptus gracilis, +/-Eucalyptus socialis ssp., +/-Melaleuca lanceolata mid mallee woodland over Enchylaena tomentosa var. tomentosa, Rhagodia parabolica, Maireana brevifolia shrubs	33	101	663	70	11
MN2502	Eucalyptus gracilis, Eucalyptus phenax ssp. phenax, +/-Eucalyptus socialis ssp. mid mallee woodland over Geijera linearifolia, Melaleuca lanceolata shrubs over Austrostipa eremophila, Carrichtera annua, Rhagodia parabolica, Enchylaena tomentosa var. tomentosa, Sclerolaena diacantha tussock grasses	33	16	130	0	0
MN2503	Eucalyptus gracilis, +/-Eucalyptus brachycalyx, +/-Eucalyptus porosa, +/-Eucalyptus socialis ssp. mid mallee woodland over Geijera linearifolia, Melaleuca lanceolata shrubs over Enchylaena tomentosa var. tomentosa, Carrichtera annua, Austrostipa eremophila, Rhagodia parabolica, Sclerolaena diacantha shrubs	33	86	655	38	6
MN2601	Eucalyptus dumosa, +/-Eucalyptus socialis ssp., +/-Eucalyptus gracilis mid mallee woodland over Enchylaena tomentosa var. tomentosa, Maireana enchylaenoides shrubs	35	45	187	0	0
MN3701	Eucalyptus oleosa ssp. ampliata, +/-Eucalyptus gracilis mid mallee woodland over Enchylaena tomentosa var., Sclerolaena diacantha, Rhagodia parabolica, Austrostipa acrociliata, Einadia nutans ssp. shrubs	32	225	1,652	237	14
MN3704	Eucalyptus oleosa ssp. ampliata, +/-Eucalyptus phenax ssp. phenax mid mallee woodland over Sclerolaena diacantha, Enchylaena tomentosa var. tomentosa, Rhagodia parabolica shrubs	32	1	19	0	0
MN3706	Eucalyptus oleosa ssp. ampliata, +/-Callitris gracilis mid mallee woodland over Sclerolaena diacantha, Enchylaena tomentosa var. tomentosa, Rhagodia parabolica, Atriplex stipitata, Austrostipa sp. shrubs	32	3	13	0	0
MN3801	Eucalyptus brachycalyx, +/-Eucalyptus oleosa ssp. ampliata, +/-Eucalyptus gracilis mid mallee woodland over Enchylaena tomentosa var. tomentosa, Atriplex vesicaria ssp., Sclerolaena diacantha, Maireana pyramidata shrubs	33	162	18,934	1,198	6
MN5101	Eucalyptus incrassata, +/-Eucalyptus socialis ssp., +/-Eucalyptus brachycalyx, +/-Eucalyptus phenax ssp. phenax mid mallee woodland over Melaleuca acuminata ssp. acuminata, Santalum acuminatum, Melaleuca lanceolata shrubs over Lepidosperma viscidum, Triodia scariosa, Helichrysum leucopsideum forbs	52	133	657	0	0
SM3002	Eucalyptus incrassata, +/-Eucalyptus socialis ssp., +/-Eucalyptus odorata, +/-Callitris gracilis mid mallee woodland over Melaleuca acuminata ssp. acuminata, Melaleuca lanceolata, Santalum acuminatum tall shrubs over Lepidosperma viscidum, Triodia scariosa, Helichrysum leucopsideum low sedges	52	44	224	0	0
SM3004	Eucalyptus socialis ssp., +/-Eucalyptus dumosa, +/-Eucalyptus odorata, +/-Eucalyptus oleosa ssp. ampliata mid mallee woodland over Rhagodia parabolica mid shrubs over Enchylaena tomentosa var. tomentosa, Hordeum leporinum mid tussock grasses over Austrodanthonia caespitosa, Vulpia myuros forma myuros, Austrostipa exilis	34	9	41	18	44
SP0001	Eucalyptus gracilis, Eucalyptus oleosa ssp. oleosa, Eucalyptus socialis ssp., +/-Eucalyptus dumosa mid mallee woodland over Enchylaena tomentosa var., Senna artemisioides ssp., Senna artemisioides ssp. petiolaris (NC), Grevillea huegelii, Olearia muelleri mid open shrubland over Zygophyllum aurantiacum ssp., +/-Maireana pentatropis low sparse shrubland	33	114	11,239	393	4
SP0004	Eucalyptus socialis ssp., Eucalyptus gracilis, +/-Myoporum platycarpum ssp., +/-Callitris glaucophylla mid mallee woodland over Rhagodia spinescens, Sida petrophila, Dodonaea viscosa ssp. angustissima, Ptilotus obovatus var. mid sparse shrubland over Triodia irritans, Sclerolaena obliquicuspis, Sclerolaena diacantha, Austrostipa sp. low sparse hummock grassland	34	1	44	0	0
SP0015	Eucalyptus porosa mid mallee woodland over Cassinia laevis, Rhagodia parabolica, Olearia decurrens, Enchylaena tomentosa var. low open shrubland over Chrysocephalum semipapposum, Solanum petrophilum, Atriplex stipitata	24	5	595	0	0

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WM0301	Eucalyptus dumosa, +/-Eucalyptus gracilis mid mallee woodland over Melaleuca acuminata ssp. acuminata shrubs over Atriplex stipitata, Zygophyllum apiculatum, Senecio pinnatifolius, Austrostipa mollis group shrubs	35	6	24	0	0
YP0606	Eucalyptus porosa, +/-Eucalyptus leptophylla, +/-Eucalyptus incrassata, +/-Eucalyptus phenax ssp. mid mallee woodland over Melaleuca uncinata tall shrubs over Gahnia lanigera low sedges	47	40	331	18	5
YP0808	Melaleuca lanceolata, Eucalyptus porosa, +/-Callitris gracilis, +/-Eucalyptus gracilis mid mallee woodland over Exocarpos aphyllus mid shrubs over Acrotriche patula, +/-Austrodanthonia caespitosa low shrubs	47	86	659	0	0
YP1004	Eucalyptus diversifolia ssp. diversifolia , +/-Eucalyptus rugosa, +/-Eucalyptus leptophylla, +/-Eucalyptus oleosa ssp., +/-Eucalyptus phenax ssp., +/-Eucalyptus gracilis, +/-Eucalyptus brachycalyx, +/-Eucalyptus porosa mid mallee woodland over Melaleuca lanceolata tall shrubs over Templetonia retusa, +/-Acacia anceps, +/-Acacia nematophylla, +/-Olearia axillaris over +/-Beyeria lechenaultii, +/-Lasiopetalum discolor low shrubs over +/-Acrotriche patula, +/-Acrotriche cordata, +/-Alyxia buxifolia	49	214	17,745	10,641	60
YP1102	Eucalyptus dumosa, +/-Eucalyptus leptophylla, +/-Eucalyptus socialis ssp. mid mallee woodland over +/-Melaleuca acuminata ssp. acuminata, +/-Melaleuca lanceolata, +/-Melaleuca uncinata tall shrubs over Gahnia lanigera, +/-Lepidosperma congestum, +/-Dianella revoluta var. revoluta, +/-Acrotriche patula low shrubs	35	17	270	17	6
YP1103	Eucalyptus oleosa ssp., +/-Eucalyptus dumosa, +/-Eucalyptus phenax ssp. mid mallee woodland over +/-Melaleuca acuminata ssp. acuminata, +/-Melaleuca lanceolata tall shrubs over Rhagodia parabolica low shrubs over Enchylaena tomentosa var. tomentosa, +/-Austrostipa scabra ssp., +/-Sclerolaena diacantha, +/-Bromus rubens	32	31	351	0	0
YP1201	Eucalyptus gracilis, +/-Eucalyptus leptophylla, +/-Eucalyptus phenax ssp., +/-Eucalyptus oleosa ssp., +/-Eucalyptus brachycalyx, +/-Eucalyptus porosa, +/-Eucalyptus dumosa, +/-Eucalyptus socialis ssp. mid mallee woodland over Melaleuca lanceolata tall shrubs over +/-Acacia notabilis, +/-Geijera linearifolia over +/-Rhagodia parabolica low shrubs over Enchylaena tomentosa var. tomentosa, +/-Avena barbata	33	128	1,284	317	25
YP1401	Eucalyptus leptophylla, Eucalyptus phenax ssp., +/-Eucalyptus socialis ssp., +/-Eucalyptus oleosa ssp. mid mallee woodland over Melaleuca uncinata tall shrubs over Melaleuca acuminata ssp. acuminata, +/-Melaleuca lanceolata over Acrotriche patula, +/-Lasiopetalum discolor low shrubs over Austrodanthonia setacea, +/-Gahnia lanigera, +/-Austrostipa scabra ssp. falcata, +/-Schoenus breviculmis, +/-Lepidosperma congestum	53	77	485	11	2
YP1701	Eucalyptus diversifolia ssp. diversifolia , Eucalyptus rugosa, +/-Eucalyptus oleosa ssp., +/-Eucalyptus gracilis mid mallee woodland over +/-Melaleuca lanceolata over Templetonia retusa, +/-Acacia rupicola low shrubs over Acrotriche patula, Beyeria lechenaultii low shrubs over +/-Pimelea serpyllifolia ssp. serpyllifolia	49	100	5,584	4,089	73
YP1803	Eucalyptus socialis ssp., +/-Eucalyptus gracilis, +/-Eucalyptus brachycalyx, +/-Callitris gracilis mid mallee woodland over Rhagodia parabolica, Senna artemisioides ssp. mid shrubs over Enchylaena tomentosa var. tomentosa	34	13	137	0	0
YP1804	Eucalyptus phenax ssp., +/-Eucalyptus leptophylla, +/-Eucalyptus phenax ssp., +/-Eucalyptus calycogona ssp. calycogona mid mallee woodland over Melaleuca lanceolata, Alyxia buxifolia, +/-Melaleuca uncinata tall shrubs over +/-Gahnia deusta over Acrotriche patula, +/-Gahnia lanigera low shrubs	53	22	249	78	31
YP1805	Eucalyptus socialis ssp., +/-Eucalyptus porosa, +/-Eucalyptus phenax ssp. mid mallee woodland over Melaleuca uncinata tall shrubs over Gahnia lanigera low sedges	47	14	42	0	0
MM0901	Eucalyptus porosa mid open mallee woodland over Austrostipa sp., Lomandra effusa, Helichrysum leucopsideum, Senecio pinnatifolius tussock grasses	24	112	969	7	1
MM1801	Eucalyptus gracilis, Eucalyptus oleosa ssp. oleosa mid open mallee woodland over +/-Melaleuca lanceolata shrubs over Sclerolaena diacantha/uniflora, Austrostipa sp., Zygophyllum apiculatum, Maireana pentatropis shrubs	32	157	1,350	0	0
SM3003	Eucalyptus oleosa ssp. ampliata, +/-Eucalyptus gracilis, +/-Eucalyptus phenax ssp., +/-Eucalyptus socialis ssp. mid open mallee woodland over Rhagodia parabolica mid shrubs over Sclerolaena diacantha, Enchylaena tomentosa var. tomentosa, Atriplex stipitata low shrubs	32	5	54	17	32
YP0501	Eucalyptus odorata mid open mallee woodland over Senna artemisioides ssp. petiolaris (NC), Acacia ligulata mid shrubs over Alyxia buxifolia low shrubs over Austrodanthonia setacea, Avena barbata, Carrichtera annua, Westringia rigida	17	3	9	0	0
YP0601	Eucalyptus porosa mid open mallee woodland over Melaleuca lanceolata, +/-Melaleuca uncinata tall shrubs over Bursaria spinosa ssp. over Gahnia lanigera, Lepidosperma congestum, Acrotriche patula, Helichrysum leucopsideum, +/-Austrostipa sp. low sedges	47	149	1,642	71	4
YP0605	Eucalyptus porosa, +/-Eucalyptus oleosa ssp., +/-Eucalyptus incrassata, +/-Eucalyptus dumosa mid open mallee woodland over +/-Melaleuca lanceolata mid shrubs over Acrotriche patula, +/-Bursaria spinosa ssp. low shrubs over Gahnia lanigera, Lepidosperma congestum	47	86	793	59	7

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YP0608	Eucalyptus porosa, +/-Eucalyptus leptophylla, +/-Eucalyptus socialis ssp., +/-Eucalyptus phenax ssp. mid open mallee woodland over +/-Melaleuca lanceolata tall shrubs over Bursaria spinosa ssp. low shrubs over Helichrysum leucopsideum, Gahnia lanigera, Lepidosperma congestum, Acrotriche patula, Bromus rubens	47	101	841	145	17
YP1101	Eucalyptus dumosa mid open mallee woodland over Geijera linearifolia, Rhagodia parabolica, Nitraria billardierei mid shrubs over +/-Austrostipa elegantissima, +/-Austrostipa platychaeta mid tussock grasses over Maireana trichoptera, Carrichtera annua, Moraea setifolia, Austrodanthonia caespitosa, Enchylaena tomentosa var. tomentosa, +/-Austrostipa scabra ssp.	26	4	23	0	0
YP1301	Eucalyptus incrassata, +/-Eucalyptus leptophylla, +/-Eucalyptus socialis ssp., +/-Eucalyptus brachycalyx mid open mallee woodland over +/-Melaleuca uncinata, +/-Melaleuca lanceolata, +/-Melaleuca acuminata ssp. acuminata tall shrubs over Baeckea crassifolia, Calytrix tetragona, Schoenus breviculmis, Gahnia lanigera, +/-Lepidosperma congestum, +/-Acrotriche patula low shrubs	51	178	1,141	8	1
YP1603	Eucalyptus phenax ssp., +/-Eucalyptus leptophylla, +/-Eucalyptus oleosa ssp. mid open mallee woodland over Melaleuca acuminata ssp. acuminata, +/-Melaleuca lanceolata, +/-Melaleuca uncinata tall shrubs over +/-Alyxia buxifolia, +/-Acacia microcarpa over Acrotriche patula, +/-Gahnia deusta, +/-Olearia pannosa ssp. pannosa low shrubs over +/-Gahnia lanigera, +/-Lepidosperma congestum	53	42	441	183	42
	SHRUBLANDS > 1m					
YP1003	Eucalyptus diversifolia ssp. diversifolia , Melaleuca lanceolata, +/-Callitris canescens, +/-Templetonia retusa, +/-Acacia nematophylla low open mallee shrubland over Gahnia lanigera, Acrotriche patula, +/-Acrotriche cordata, +/-Lasiopetalum discolor, +/-Beyeria lechenaultii low shrubs	42	38	1,891	1,048	55
MN3201	Acacia victoriae ssp., +/-Lycium ferocissimum tall shrubland over Avena sp., Enchylaena tomentosa var. tomentosa, Critesion murinum ssp. (NC), Echium plantagineum tussock grasses	40	11	170	9	5
MN5701	Melaleuca brevifolia tall shrubland over Phragmites australis, Juncus kraussii, Baumea juncea grasses	81[15]	3	26	0	0
MN5801	Hakea leucoptera ssp. leucoptera tall shrubland over Rhagodia parabolica shrubs	25[16]	5	35	0	0
MN6001	Melaleuca pauperiflora ssp. mutica, +/-Eucalyptus gracilis tall shrubland over Enchylaena tomentosa var. tomentosa shrubs	32[17]	5	21	0	0
YP0804	emergent +/-Eucalyptus socialis ssp. mid mallee trees over Melaleuca lanceolata, +/-Callitris canescens tall shrubland over Rhagodia candolleana ssp. candolleana, Exocarpos aphyllus low shrubs over Threlkeldia diffusa, Lepidosperma congestum, Acrotriche patula, Maireana oppositifolia	50	3	15	1	4
YP3602	emergent +/-Allocasuarina verticillata mid trees over +/-Dodonaea viscosa ssp. spatulata tall shrubland over +/-Alyxia buxifolia, +/-Acacia nematophylla, +/-Bursaria spinosa ssp., +/-Exocarpos syrticola over Tetragonia implexicoma, Dianella brevicaulis, Clematis microphylla var. microphylla, Rhagodia candolleana ssp. candolleana, +/-Isolepis nodosa low shrubs	56	4	426	0	0
CT0028	Acacia ligulata, Olearia axillaris, +/-Rhagodia parabolica, +/-Lycium ferocissimum, +/-Geijera linearifolia tall open shrubland over Brassica tournefortii, +/-Crassula sieberiana complex, +/-Sonchus oleraceus, +/-Tetragonia implexicoma, +/-Carrichtera annua, +/-Threlkeldia diffusa low forbs	57	58	767	66	9
EP3401	Melaleuca lanceolata, +/-Olearia axillaris, +/-Leucopogon parviflorus tall open shrubland over +/-Rhagodia candolleana ssp. candolleana, +/-Threlkeldia diffusa low shrubs	50	1	29	0	0
MN1101	emergent Callitris glaucophylla trees over Acacia calamifolia (NC), +/-Acacia ligulata tall open shrubland over Rhagodia parabolica shrubs	18	41	219	28	13
MN3401	Acacia ligulata, +/-Pittosporum angustifolium, +/-Allocasuarina verticillata tall open shrubland	57	6	57	0	0
MN4402	Melaleuca lanceolata, +/-Callitris gracilis, +/-Eucalyptus gracilis tall open shrubland over Exocarpos aphyllus over Maireana oppositifolia, Threlkeldia diffusa, Atriplex paludosa ssp. cordata, Rhagodia candolleana ssp. candolleana, Bromus rubens shrubs	50	18	405	105	26
MN5401	Alyxia buxifolia, +/-Callitris gracilis tall open shrubland over Senna artemisioides ssp. shrubs	55	1	6	0	0
NP0019	Dodonaea viscosa ssp. angustissima, +/-Eremophila sturtii, +/-Senna artemisioides ssp., +/-Acacia sp. tall open shrubland over Maireana pyramidata, Rhagodia spinescens low sparse shrubland over Atriplex limbata, Sclerolaena diacantha, Enneapogon avenaceus, Tetragonia eremaea	37	13	5,476	32	1
YP1806	emergent +/-Eucalyptus socialis ssp. mid mallee trees over Acacia ligulata, Pittosporum angustifolium, +/-Acacia notabilis tall open shrubland over Acacia oswaldii, Acacia nyssophylla over Austrostipa drummondii tussock grasses over Austrostipa eremophila, Austrodanthonia caespitosa, +/-Austrostipa platychaeta	57	1	25	0	0

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YP2901	Geijera linearifolia, Acacia oswaldii, +/-Melaleuca lanceolata, +/-Beyeria lechenaultii, +/-Santalum acuminatum tall open shrubland over Austrostipa platychaeta, +/-Senna artemisioides ssp. coriacea low shrubs over Enchylaena tomentosa var. tomentosa, Gahnia lanigera, Stackhousia monogyna, +/-Westringia rigida	26	13	440	271	62
YP3604	Melaleuca lanceolata tall open shrubland over Olearia axillaris, +/-Acacia ligulata, +/-Leucopogon parviflorus over Adriana quadripartita, Lepidosperma gladiatum low shrubs	50	5	125	31	24
MN3402	Acacia cupularis, +/-Dodonaea viscosa ssp. spatulata, Beyeria lechenaultii, Olearia axillaris tall sparse shrubland over Rhagodia parabolica, Dianella revoluta var. revoluta shrubs	57[18]	6	87	0	0
MN4401	emergent +/-Eucalyptus socialis ssp., +/-Casuarina pauper mallee trees over Melaleuca lanceolata tall sparse shrubland over Acacia ligulata over Acrotriche patula, Gahnia lanigera, Scaevola spinescens shrubs	43	19	178	0	0
YP3401	Acacia ligulata, Melaleuca lanceolata ssp. lanceolata (NC), Myoporum insulare tall sparse shrubland over Acacia nyssophylla, Acacia oswaldii over Zygophyllum aurantiacum ssp., Scaevola spinescens, Pimelea serpyllifolia ssp. serpyllifolia low shrubs	57	2	19	0	0
MN1901	emergent Callitris glaucophylla trees over Cassinia laevis, Olearia decurrens, Acacia ligulata, Acacia calamifolia (NC) mid shrubland over Lomandra multiflora ssp. dura, Triodia scariosa ssp. (NC), Acacia continua shrubs	18[19]	6	33	1	3
MN4101	emergent Eucalyptus leucoxylon ssp., Eucalyptus odorata trees over Acacia paradoxa, +/-Acacia pycnantha mid shrubland	21	16	44	0	0
MN5602	Atriplex nummularia ssp. nummularia, +/-Maireana aphylla mid shrubland over +/-Atriplex stipitata, +/-Atriplex paludosa ssp. cordata shrubs	11[20]	2	19	0	0
SE0095	Melaleuca uncinata (NC) mid shrubland	51[21]	12	187	2	1
SM3401	Maireana aphylla mid shrubland over Austrostipa nitida low tussock grasses	11	1	3	0	0
WM7901	Senna artemisioides ssp., +/-Acacia calamifolia (NC), +/-Eremophila longifolia mid shrubland	25	7	88	0	0
CT0027	Melaleuca lanceolata, Geijera linearifolia, +/-Pittosporum angustifolium, +/-Exocarpos aphyllus mid open shrubland over +/-Atriplex paludosa ssp. cordata, +/-Rhagodia crassifolia, +/-Atriplex vesicaria ssp. low shrubs over +/-Carpobrotus rossii, +/-Threlkeldia diffusa, +/-Frankenia sessilis	50	5	157	0	0
EP3902	Dodonaea lobulata, Beyeria lechenaultii, Eremophila alternifolia, Dodonaea viscosa ssp. angustissima mid open shrubland over Carrichtera annua, +/-Ptilotus obovatus var. obovatus low forbs	39	2	22	0	0
MN1103	Acacia calamifolia (NC) mid open shrubland over Triodia scariosa ssp. (NC), Acacia continua, Themeda triandra, Lomandra multiflora ssp. dura, Senecio quadridentatus hummock grasses	10	2	71	0	0
MN1104	Acacia calamifolia (NC), +/-Beyeria lechenaultii, +/-Bursaria spinosa ssp. spinosa, Pomaderris paniculosa ssp. paniculosa mid open shrubland over Dodonaea baueri	38	2	8	0	0
MN1201	Bursaria spinosa ssp. spinosa, +/-Acacia pycnantha, +/-Xanthorrhoea quadrangulata mid open shrubland over Triodia scariosa ssp. (NC), Dianella revoluta var., Austrodanthonia setacea, Lomandra multiflora ssp. dura, Austrostipa elegantissima, Lepidosperma viscidum, Maireana enchylaenoides hummock grasses	14	168	1,173	6	1
MN2801	Senna artemisioides ssp. coriacea, +/-Acacia oswaldii, +/-Alectryon oleifolius ssp. canescens, +/-Eremophila glabra ssp. glabra, +/-Myoporum platycarpum ssp., +/-Senna artemisioides ssp. filifolia mid open shrubland over Sclerolaena diacantha, Zygophyllum aurantiacum ssp. shrubs	25	7	12	5	40
MN3101	Nitraria billardierei, Lycium ferocissimum mid open shrubland over Austrostipa elegantissima, Rhagodia parabolica, Einadia nutans ssp. tussock grasses	29	7	140	0	0
MN3103	Nitraria billardierei, +/-Olearia axillaris mid open shrubland over Threlkeldia diffusa, Tetragonia implexicoma, Rhagodia candolleana ssp. candolleana, Atriplex vesicaria ssp. shrubs	60	6	256	27	11
MN4301	Acacia pycnantha, Bursaria spinosa ssp. spinosa mid open shrubland	14	3	5	0	0
MN6101	+/-Olearia axillaris, +/-Acacia ligulata, +/-Exocarpos aphyllus, +/-Myoporum insulare, +/-Alyxia buxifolia, +/-Dodonaea viscosa ssp. spatulata mid open shrubland over Vulpia myuros forma, Threlkeldia diffusa, Senecio pinnatifolius, Bromus sp., Tetragonia implexicoma, Atriplex paludosa ssp. cordata tussock grasses	58	68	1,797	15	1
MN6201	Geijera linearifolia, +/-Acacia sp., +/-Senna artemisioides ssp. mid open shrubland over Nitraria billardierei over Maireana sp., Austrostipa sp. shrubs	26	2	5	4	73
MN6301	Xanthorrhoea quadrangulata mid open shrubland	15[22]	5	17	0	0

SAVEGID	Mapped Vegetation Communities (NVIS Floristic Descriptions)	Floristic Group from Analysis	Number of Patches	Area (ha)	Area Protected (ha)	% of Community Protected
OS0015	emergent Nitraria billardierei over Maireana oppositifolia, Atriplex paludosa ssp. cordata, Lycium australe mid open shrubland over Frankenia pauciflora var., Frankenia sessilis, Halosarcia halocnemoides ssp., Lawrencia squamata low shrubs over Samolus repens, Sclerolaena uniflora, Disphyma crassifolium ssp. clavellatum, Senecio pinnatifolius, Zygophyllum billardierei	69	73	353	10	3
SM4303	Nitraria billardierei, +/-Olearia ramulosa, +/-Atriplex cinerea, +/-Maireana aphylla mid open shrubland over Rhagodia candolleana ssp. candolleana low shrubs over Threlkeldia diffusa, Tetragonia implexicoma, Senecio pinnatifolius	60	1	11	0	0
SP0012	Lycium australe, Nitraria billardierei mid open shrubland over Sclerostegia tenuis, Maireana pyramidata, Atriplex vesicaria ssp., Maireana aphylla, +/-Eragrostis australasica low open shrubland over Disphyma crassifolium ssp. clavellatum, Sclerolaena brachyptera, Minuria cunninghamii, Malacocera tricornis	29	1	272	0	0
YP0809	emergent +/-Melaleuca lanceolata low trees over Templetonia retusa, Acacia nematophylla, Olearia axillaris, +/-Alyxia buxifolia mid open shrubland over Carpobrotus rossii, +/-Beyeria lechenaultii, +/-Tetragonia implexicoma, +/-Gahnia lanigera low shrubs	62	33	520	158	30
YP2302	Olearia axillaris, +/-Acacia nematophylla, +/-Leucopogon parviflorus, +/-Acacia longifolia ssp. sophorae mid open shrubland over Poa poiformis var. poiformis, Lagurus ovatus, Rhagodia candolleana ssp. candolleana, +/-Tetragonia implexicoma, +/-Lepidosperma gladiatum low shrubs	58	8	798	0	0
YP2402	emergent +/-Eucalyptus porosa mid trees over Alyxia buxifolia, +/-Leucopogon parviflorus, +/-Beyeria lechenaultii mid open shrubland over +/-Rhagodia candolleana ssp. candolleana, +/-Acacia anceps, +/-Pomaderris paniculosa ssp. paniculosa over Helichrysum leucopsideum, +/-Lagurus ovatus, +/-Crassula colorata var., +/-Threlkeldia diffusa, +/-Tetragonia implexicoma, +/-Acrotriche patula low tussock grasses	54	10	172	106	62
YP3201	Olearia axillaris, Leucopogon parviflorus, +/-Acacia nematophylla, +/-Myoporum insulare mid open shrubland over +/-Isolepis nodosa, +/-Scaevola crassifolia, +/-Templetonia retusa, +/-Alyxia buxifolia, +/-Acacia cupularis low shrubs over +/-Senecio pinnatifolius, +/-Rhagodia candolleana ssp. candolleana, +/-Beyeria lechenaultii, +/-Lasiopetalum discolor, +/-Calytrix tetragona	59	59	1,711	656	38
YP3601	+/-Olearia axillaris, +/-Exocarpos syrticola, +/-Beyeria lechenaultii, +/-Atriplex cinerea, +/-Santalum acuminatum mid open shrubland over +/-Senecio pinnatifolius, +/-Rhagodia candolleana ssp. candolleana, +/-Threlkeldia diffusa	58	34	810	13	2
YP3801	emergent +/-Callitris gracilis mid trees over Senna artemisioides ssp. petiolaris, Geijera linearifolia, +/-Eremophila longifolia, +/-Melaleuca lanceolata ssp. lanceolata (NC), +/-Alyxia buxifolia mid open shrubland	26	5	65	0	0
YP3802	emergent +/-Exocarpos aphyllus, +/-Pittosporum angustifolium, +/-Santalum acuminatum, +/-Melaleuca lanceolata ssp. lanceolata (NC) over Senna artemisioides ssp. petiolaris, Acacia nyssophylla, Acacia hakeoides, Acacia ligulata, Geijera linearifolia mid open shrubland	26	7	90	0	0
MM2801	Maireana pyramidata mid sparse shrubland over Austrostipa sp., Rhagodia spinescens, Enchylaena tomentosa var. tomentosa tussock grasses	30	9	1,140	35	3
MM2802	Maireana sedifolia mid sparse shrubland over Enchylaena tomentosa var. tomentosa, Rhagodia spinescens, Austrostipa sp. shrubs	28	40	1,016	141	14
YP2201	Olearia axillaris, +/-Acacia ligulata, +/-Acacia cyclops mid sparse shrubland over Rhagodia candolleana ssp. candolleana, +/-Isolepis nodosa low shrubs over Carpobrotus rossii, Threlkeldia diffusa, +/-Euphorbia terracina, +/-Asphodelus fistulosus	58	38	1,907	113	6
YP2303	+/-Acacia nematophylla mid sparse shrubland over +/-Melaleuca gibbosa low shrubs over +/-Calytrix tetragona, +/-Beyeria lechenaultii, +/-Acrotriche patula	42[23]	1	27	27	100
YP2601	Bursaria spinosa ssp. mid sparse shrubland over Acrotriche patula low shrubs over Bromus diandrus, Lepidosperma congestum	14	7	39	0	0
YP2701	Callitris canescens mid sparse shrubland over Gahnia lanigera, Calytrix tetragona, Lepidosperma congestum, +/-Dianella brevicaulis low sedges	42[24]	11	383	96	25
	SHRUBLANDS < 1m					
CT0005	Sclerostegia arbuscula, +/-Sarcocornia quinqueflora, +/-Lycium australe low shrubland over +/-Suaeda australis	74	16	48	13	28
CT0054	Halosarcia halocnemoides ssp., +/-Sclerostegia arbuscula, +/-Maireana oppositifolia, +/-Frankenia pauciflora var., +/-Wilsonia humilis var. humilis low shrubland	71	84	1,312	423	32
CT0057	Halosarcia indica ssp., +/-Maireana oppositifolia, +/-Halosarcia pergranulata ssp., +/-Atriplex paludosa ssp. low shrubland over +/-Distichlis distichophylla, +/-Cotula sp., +/-Triglochin sp.	68	2	11	0	0
EP3906	Alyxia buxifolia, Beyeria lechenaultii, Lasiopetalum discolor, Geijera linearifolia low shrubland over Acrotriche patula, Carpobrotus rossii	54	1	13	0	0
GL0004	emergent +/-Bursaria spinosa ssp. mid sparse shrubland over Cryptandra amara var. low shrubland	1	11	1,476	0	0
KI1801	Sclerostegia arbuscula low shrubland over +/-Suaeda australis, +/-Sarcocornia quinqueflora, +/-Sarcocornia blackiana, +/-Maireana oppositifolia	74	11	318	29	9

SAVEGID	Mapped Vegetation Communities (NVIS Floristic Descriptions)	Floristic Group from Analysis	Number of Patches	Area (ha)	Area Protected (ha)	% of Community Protected
MN4501	emergent +/-Acacia salicina, +/-Eucalyptus camaldulensis var. trees over Muehlenbeckia florulenta low shrubland	82	9	489	0	0
MN4502	Muehlenbeckia florulenta low shrubland over Halosarcia sp.	82	7	370	0	0
SM4001	Sarcocornia quinqueflora, Sclerostegia arbuscula, +/-Suaeda australis, +/-Sarcocornia blackiana low shrubland over Atriplex paludosa ssp., Lawrencia squamata, Distichlis distichophylla, +/-Maireana oppositifolia, +/-Samolus repens	74	54	1,570	19	1
YE0003	Atriplex vesicaria ssp., +/-Maireana sedifolia, +/-Maireana pentatropis low shrubland over Sclerolaena diacantha, Austrostipa nitida, Sclerolaena obliquicuspis, Tetragonia eremaea, Brassica tournefortii, Stenopetalum lineare, Senecio pinnatifolius	31	23	3,001	49	2
YP3001	Lasiopetalum discolor, Melaleuca lanceolata ssp. lanceolata (NC), +/-Calytrix tetragona, +/-Gahnia lanigera, +/-Pomaderris paniculosa ssp. paniculosa, +/-Templetonia retusa low shrubland over Pultenaea tenuifolia, Logania crassifolia, Beyeria lechenaultii, Acrotriche cordata, +/-Lepidosperma congestum, +/-Prostanthera serpyllifolia ssp. serpyllifolia (purplish-green flowers)	42[25]	6	142	68	48
YP3501	Nitraria billardierei, Rhagodia candolleana ssp. candolleana low shrubland over Mesembryanthemum crystallinum, Enchylaena tomentosa var. tomentosa, +/-Threlkeldia diffusa, +/-Zygophyllum billardierei, +/-Senecio pinnatifolius	60	10	249	1	0
YP3701	Beyeria lechenaultii, +/-Scaevola crassifolia, +/-Goodenia varia, +/-Leucophyta brownii, +/-Olearia axillaris, +/-Lasiopetalum discolor low shrubland over +/-Senecio pinnatifolius, +/-Carpobrotus rossii, +/-Logania crassifolia, +/-Lepidosperma congestum	63	19	243	51	21
CT0004	Maireana oppositifolia, +/-Halosarcia indica ssp. low open shrubland over +/-Disphyma crassifolium ssp. clavellatum, +/-Frankenia sessilis	69[26]	32	2,081	465	22
CT0055	Halosarcia indica ssp., +/-Maireana oppositifolia, +/-Atriplex paludosa ssp., +/-Atriplex vesicaria ssp. low open shrubland over +/-Carpobrotus rossii	68	17	56	1	1
GL0001	Acacia sp. low open shrubland	40	1	17	0	0
MN0801	Maireana aphylla low open shrubland over Vittadinia sp., Austrodanthonia caespitosa, Lomandra multiflora ssp. dura, Lomandra effusa	11	1	3	0	0
MN3501	Halosarcia sp., Sarcocornia blackiana low open shrubland over Disphyma crassifolium ssp. clavellatum, Wilsonia humilis var. humilis	71[27]	220	31,754	1,908	6
MN4201	Acrotriche patula low open shrubland	43[28]	4	10	0	0
MN4701	Maireana brevifolia, Atriplex stipitata, Rhagodia spinescens low open shrubland	27	19	547	0	0
NP0004	Maireana sedifolia, Maireana pyramidata low open shrubland over Sclerolaena obliquicuspis, Eriochiton sclerolaenoides, Carrichtera annua, Austrostipa scabra ssp., Rhodanthe pygmaea	28	4	7,056	161	2
NP0028	emergent Acacia victoriae ssp. mid sparse shrubland over Maireana pyramidata, Rhagodia spinescens, Atriplex vesicaria ssp., Maireana astrotricha low open shrubland over Tetragonia eremaea/tetragonoides, Enneapogon avenaceus, Calotis hispidula, Sclerolaena obliquicuspis, Schismus barbatus, Maireana georgei	30	11	5,610	33	1
NP0032	Atriplex vesicaria ssp., Maireana astrotricha, +/-Maireana pyramidata, +/-Rhagodia spinescens low open shrubland over Enneapogon avenaceus, Sclerolaena ventricosa, Sclerolaena brachyptera, Sclerolaena obliquicuspis, Dissocarpus paradoxus	30	8	2,198	0	0
SM4005	Halosarcia sp., Sarcocornia quinqueflora low open shrubland over Parapholis incurva, Disphyma crassifolium ssp. clavellatum, +/-Wilsonia humilis var. humilis	71[29]	317	12,121	515	4
WM8401	Halosarcia sp., Sclerostegia sp. low open shrubland	74	1	6	0	0
YP3402	Myoporum insulare, Atriplex paludosa ssp. cordata, Muehlenbeckia gunnii low open shrubland over Leiocarpa supina, Disphyma crassifolium ssp. clavellatum, Carpobrotus rossii	58[30]	1	17	0	0
YP3901	Sida petrophila, Scaevola spinescens low open shrubland over Austrostipa eremophila, Ptilotus obovatus var. obovatus, Setaria constricta	6[31]	3	22	0	0
MN3001	Sclerolaena obliquicuspis, Maireana tomentosa ssp. urceolata, Marrubium vulgare, +/-Acacia victoriae ssp. victoriae, +/-Maireana brevifolia low sparse shrubland	40	2	25	0	0
MN3102	Nitraria billardierei, Maireana brevifolia, +/-Atriplex paludosa ssp. cordata, +/-Maireana aphylla low sparse shrubland over Enchylaena tomentosa var. tomentosa, Halosarcia sp.	29	66	7,931	215	3
MN5601	+/-Maireana brevifolia, +/-Atriplex stipitata, +/-Atriplex paludosa ssp. cordata low sparse shrubland over Enchylaena tomentosa var. tomentosa	27	15	893	27	3
	GRASSLANDS					
MN1001	emergent Allocasuarina verticillata trees over Triodia scariosa ssp. (NC), Themeda triandra, Acacia continua, Lomandra multiflora ssp. dura, Senecio quadridentatus mid hummock grassland	12[32]	183	678	0	0

SAVEGID	Mapped Vegetation Communities (NVIS Floristic Descriptions)	Floristic Group from Analysis	Number of Patches	Area (ha)	Area Protected (ha)	% of Community Protected
EP4701	Triodia compacta, Frankenia pauciflora var. fruticulosa, +/-Gahnia lanigera low open shrubland	45	7	35	11	32
EP4703	Triodia scariosa, Avena barbata, Austrodanthonia caespitosa, +/-Austrostipa nitida low hummock grassland	10	3	25	0	0
GL0013	Triodia sp. low hummock grassland	12	40	224	0	0
WM8801	Triodia irritans low hummock grassland	12[33]	2	34	0	0
SE0098	Phragmites australis, Typha domingensis tall grassland	81	11	78	0	0
SM4602	+/-Themeda triandra, +/-Danthonia sp., +/-Lomandra sp., +/-Poa sp., +/-Austrostipa sp. mid closed tussock grassland	9	12	177	0	0
MN2301	emergent Acacia pycnantha shrubs over Austrostipa eremophila, Austrodanthonia caespitosa, +/-Maireana brevifolia mid tussock grassland	9	53	921	216	23
MN4901	Gramineae sp., Lomandra sp., Lepidosperma viscidum, Gahnia lanigera mid tussock grassland	46	28	163	0	0
EP4801	Austrostipa sp. mid open tussock grassland over Avena barbata, Austrodanthonia caespitosa, +/-Trichanthodium skirrophorum	9	7	242	4	2
GL0002	Bothriochloa macra low tussock grassland	9	1	<1	0	0
GL0009	emergent +/-Cryptandra amara var. over Austrostipa eremophila, +/-Austrostipa blackii, +/-Lepidosperma viscidum low tussock grassland	9[34]	1	2	0	0
GL0010	Austrostipa nitida low tussock grassland	9	3	97	0	0
GL0011	Austrostipa sp. low tussock grassland	1	6	170	0	0
GL0012	Themeda triandra, +/-Lomandra effusa, +/-Lomandra multiflora ssp., +/-Austrostipa blackii low tussock grassland	2	3	134	0	0
MN1401	emergent Bursaria spinosa ssp. spinosa, Allocasuarina verticillata shrubs over Lepidosperma viscidum, Austrostipa blackii, Cryptandra sp. Long hypanthium (C.R. Alcock 10626), Lomandra multiflora ssp. low tussock grassland	14	16	74	0	0
MM3502	Austrostipa sp., Hyalosperma semisterile, Sclerolaena diacantha/uniflora, Danthonia sp. low open tussock grassland	9	1	18	0	0
MN0101	Lomandra effusa, Austrostipa nitida, Austrodanthonia caespitosa, Enneapogon nigricans, Austrostipa eremophila low open tussock grassland	7	54	526	2	0
MN0201	Lomandra multiflora ssp. dura, Austrostipa blackii, Aristida behriana, Austrodanthonia caespitosa, Austrostipa nitida low open tussock grassland over Vittadinia gracilis, Vittadinia cuneata var. cuneata forma cuneata, Maireana enchylaenoides	1	28	11,493	419	4
SP0013	emergent +/-Alectryon oleifolius ssp. canescens, +/-Myoporum platycarpum ssp. low open woodland over emergent +/-Maireana pyramidata over Enneapogon avenaceus, Carrichtera annua, Sclerolaena obliquicuspis, Sclerolaena diacantha, Enneapogon intermedius low open tussock grassland	30	36	7,198	241	3
YP4101	Austrodanthonia caespitosa, Austrostipa scabra ssp., Chrysocephalum apiculatum, Acacia hakeoides low open tussock grassland over Gahnia deusta, Goodenia pinnatifida, Goodenia willisiana	4	1	3	0	0
	SEDGELANDS					
EP4901	Gahnia filum tall sedgeland over +/-Juncus kraussii	75	52	605	0	0
MN2001	emergent Eucalyptus camaldulensis var. trees over Juncus kraussii, Cyperus gymnocaulos, Phragmites australis, Typha domingensis tall sedgeland over Samolus repens	80[35]	230	1,467	0	0
SM4901	Typha domingensis, Phragmites australis, +/-Aster subulatus, +/-Muehlenbeckia florulenta, +/-Suaeda australis tall sedgeland over Paspalum distichum, Persicaria lapathifolia	81	2	6	0	0
GL0005	Lomandra sp. low sedgeland	6	56	350	0	0
GL0006	Lomandra multiflora ssp. dura, Lomandra effusa low sedgeland	6	10	842	0	0
GL0007	Lomandra multiflora ssp. dura, Themeda triandra low sedgeland	3	1	24	0	0
YP4401	Gahnia lanigera, Lepidosperma congestum, Lomandra effusa, Austrostipa sp. low sedgeland over Linum strictum ssp. strictum, +/-Helichrysum leucopsideum, +/-Craspedia glauca (NC), +/-Lagurus ovatus	46	31	570	3	1
YP4501	Lepidosperma congestum, Dianella brevicaulis low sedgeland over Medicago minima var. minima, Bromus diandrus, Acaena echinata, Danthonia sp.	46	31	239	30	13
MN4601	Gahnia lanigera, +/-Dodonaea baueri low open sedgeland	43[36]	1	2	0	0

SAVEGID	Mapped Vegetation Communities (NVIS Floristic Descriptions)	Floristic Group from Analysis	Number of Patches	Area (ha)	Area Protected (ha)	% of Community Protected
	FORBLANDS					
GL0003	Calocephalus citreus mid forbland	1	1	<1	0	0
MN4801	emergent Bursaria spinosa ssp. spinosa shrubs over Chrysocephalum apiculatum low forbland	12	1	5	0	0
	Floristically Unmapped Vegetation		780	75,903	1,128	1

Notes:
1 = (NC) indicates a non-current taxonomic name.
2 = NVIS Group is subgroup of Floristic Group 12 based on Triodia understorey.
3 = No sites sampled with C. verrucosa as dominant, but Floristic Group 34 represents an allied community.
4 = NVIS Group is subgroup of Floristic Group.
5 = Represents nearest match, though there is no E. odorata Floristic Group with chenopod understorey.
6 = No sites sampled in this community, but Floristic Group 30 represents allied community.
7 = NVIS Group is subgroup of Floristic Group.
8 = Atypical overstorey (with the E. leucoxylon or E. camaldulensis) but Floristic Group 15 represents an allied community.
9 = Atypical overstorey (with the E. cladocalyx) but Floristic Group 20 represents an allied community.
10 = Atypical overstorey (with the E. cladocalyx) but Floristic Group 15 represents an allied community.
11 = NVIS Group is subgroup of Floristic Group.
12 = No sites sampled in E. behriana communities, but Floristic Group 174 represents an allied community.
13 = NVIS Group is subgroup of Floristic Group; also some similarities with Floristic Group 48.
14 = Atypical overstorey but Floristic Group represents an allied community.
15 = NVIS Group is subgroup of Floristic Group.
16 = No sites sampled with Hakea leucoptera as dominant, but Floristic Group 25 represents an allied community.
17 = NVIS Group is subgroup of Floristic Group.
18 = Acacia cupularis here possibly refers to A. ligulata.
19 = Represents the nearest match, though understorey is shrubbier than for Floristic Group 18.
20 = No sites sampled in this community, but Floristic Group 11 represents allied community.
21 = NVIS Group is subgroup of Floristic Group.
22 = NVIS Group is subgroup of Floristic Group.
23 = NVIS Group is subgroup of Floristic Group.
24 = NVIS Group is subgroup of Floristic Group.
25 = NVIS Group is subgroup of Floristic Group.
26 = Also similar to Floristic Group 68.
27 = NVIS Group also probably includes Floristic Groups 67, 68, 69 & 70.
28 = NVIS Group is subgroup of Floristic Group.
29 = NVIS Group also probably includes Floristic Groups 67, 68, 69, 70 & 74.
30 = NVIS Group is subgroup of Floristic Group.
31 = Grouped with L. multiflora +/- L. effusa Open Tussock Grassland (Floristic Group 6) in floristic analysis.
32 = Different species of Triodia but probably refers to same community.
33 = Different species of Triodia but Floristic Group 12 represents an allied community.
34 = Also similar to Floristic Group 3.
35 = NVIS Group could equate to both Floristic Groups 79 & 80.
36 = NVIS Group is subgroup of Floristic Group.

APPENDIX 13. MAMMAL SPECIES RECORDED IN THE MID NORTH AND YORKE PENINSULA BIOLOGICAL SURVEY STUDY AREA.

List of mammal species recorded within the MNYPBS study area at survey sites or as opportune records (in the Environmental Database of South Australia) or held as specimens in the South Australian Museum collection.

Aus Australian status under the *Environment Protection and Biodiversity Conservation Act 1999* as at December 2006.

SA South Australian status under the *National Parks and Wildlife Act 1972* (2000 update of Schedules 7, 8 and 9).

Ratings X = extinct; E = endangered, V = vulnerable, R = rare, LR = low risk; * indicates species reintroduced.

SU & OP Number of survey sites (SU) and opportunistic (OP) records for each species from all Biological Surveys conducted in the MNYPBS study area.

SAM Number of specimens of each species in the South Australian Museum collection from the MNYPBS study area prior to this survey.

Family Name	Scientific Name	Common Name	Aus	SA	SU	OP	SAM	Total
Native Species								
TACHYGLOSSIDAE	*Tachyglossus aculeatus*	Short-beaked Echidna			61	12	4	77
DASYURIDAE	*Dasyurus viverrinus*	Eastern Quoll		X			3	3
DASYURIDAE	*Sminthopsis crassicaudata*	Fat-tailed Dunnart					17	17
DASYURIDAE	*Sminthopsis murina*	Common Dunnart			14	1	3	18
VOMBATIDAE	*Lasiorhinus latifrons*	Southern Hairy-nosed Wombat			5	2	9	16
PHALANGERIDAE	*Trichosurus vulpecula*	Common Brushtail Possum			15	15	10	40
POTOROIDAE	*Bettongia lesueur*	Burrowing Bettong	E	E*			14	14
POTOROIDAE	*Bettongia penicillata*	Brush-tailed Bettong	LR	R*			1	1
MACROPODIDAE	*Macropus eugenii*	Tammar Wallaby	X*	X*			2	2
MACROPODIDAE	*Macropus fuliginosus*	Western Grey Kangaroo			174	461	3	638
MACROPODIDAE	*Macropus robustus*	Euro			79	133	7	219
MACROPODIDAE	*Macropus rufus*	Red Kangaroo			22	47	1	70
BURRAMYIDAE	*Cercartetus concinnus*	Western Pygmy-possum			60	1	15	76
EMBALLONURIDAE	*Saccolaimus flaviventris*	Yellow-bellied Sheathtail Bat					1	1
MOLOSSIDAE	*Mormopterus* spp. (species complex)	Southern Freetail-bats			23	5	5	33
MOLOSSIDAE	*Tadarida australis*	White-striped Freetail-bat			15	25	10	50
VESPERTILIONIDAE	*Miniopterus schreibersii*	Large Bentwing-Bat					1	1
VESPERTILIONIDAE	*Nyctophilus geoffroyi*	Lesser Long-eared Bat			43	21	12	76
VESPERTILIONIDAE	*Chalinolobus gouldii*	Gould's Wattled Bat			38	23	28	89
VESPERTILIONIDAE	*Chalinolobus morio*	Chocolate Wattled Bat			46	50	9	105
VESPERTILIONIDAE	*Scotorepens balstoni*	Inland Broad-nosed Bat			1		1	2
VESPERTILIONIDAE	*Vespadelus baverstocki*	Inland Forest Bat			1		1	2
VESPERTILIONIDAE	*Vespadelus darlingtoni*	Large Forest Bat			4	1		5
VESPERTILIONIDAE	*Vespadelus regulus*	Southern Forest Bat			17	2	3	22
CANIDAE	*Canis lupus dingo*	Dingo					1	1
MURIDAE	*Hydromys chrysogaster*	Water Rat					2	2
		Number of Species	**3**	**4**	**17**	**15**	**25**	**26**
		Number of Records			**618**	**799**	**163**	**1580**
Introduced Species								
CANIDAE	*Vulpes vulpes*	Fox			47	59	5	111
FELIDAE	*Felis catus*	Cat			7	15	1	23
EQUIDAE	*Equus caballus*	Horse				1		1
CERVIDAE	*Cervus dama*	Fallow Deer			2	11		13
CERVIDAE	*Cervus elaphus*	Red Deer				2		2
BOVIDAE	*Bos taurus*	Cattle			1	1		2
BOVIDAE	*Capra hircus*	Goat			10	31		41
BOVIDAE	*Ovis aries*	Sheep			9	6	2	17
MURIDAE	*Mus musculus*	House Mouse			406	20	37	463
MURIDAE	*Rattus rattus*	Black Rat			20	5	12	37
LEPORIDAE	*Lepus capensis*	Brown Hare			12	45	1	58
LEPORIDAE	*Oryctolagus cuniculus*	Rabbit			41	145	6	192
		Number of Species			**10**	**12**	**7**	**12**
		Number of Records			**555**	**341**	**64**	**960**
		TOTAL Number of Species	**3**	**4**	**27**	**27**	**32**	**38**
		TOTAL Number of Records			**1173**	**1140**	**227**	**2540**

APPENDIX 14. MAMMAL SPECIES FREQUENCY BY ALL SURVEYS CONDUCTED WITHIN THE MID NORTH AND YORKE PENINSULA BIOLOGICAL SURVEY STUDY AREA.

Survey Number 13 = Innes National Park (1976-77), 24 = South Olary Plains (1991), 116 = Mt. Cone Baseline Survey (1999), 162 = Mid North and Yorke Peninsula (2003-04), 168 = Hopkins Creek (Nature Conservation Society 2003), 196 = Warrenben CP Flora and Fauna Survey (2004).
Total SU sites Total number of site records for each species from all surveys in the study area.
% of all 168 sites Total number of sites where recorded as a percentage of all 168 sites where mammal trapping undertaken in the study area.
Relative abundance Total number of individual records for each species from all surveys in the study area.
% Recording rate Total number of individual records as a percentage of all records in the study area.

Family Name	Scientific Name	Common Name	Survey Number						Total SU sites	% of all 168 sites	Relative abundance	% Recording rate
			13	24	116	162	168	196				
TACHYGLOSSIDAE	*Tachyglossus aculeatus*	Short-beaked Echidna				37	4		41	24	61	4.9
DASYURIDAE	*Sminthopsis murina*	Common Dunnart		2		4			6	4	14	1.1
VOMBATIDAE	*Lasiorhinus latifrons*	Southern Hairy-nosed Wombat				1			1	1	5	0.4
PHALANGERIDAE	*Trichosurus vulpecula*	Common Brushtail Possum				11	1		12	7	15	1.2
MACROPODIDAE	*Macropus fuliginosus*	Western Grey Kangaroo	1	3	2	46	2	6	60	36	174	13.9
MACROPODIDAE	*Macropus robustus*	Euro				34			34	20	79	6.3
MACROPODIDAE	*Macropus rufus*	Red Kangaroo		1	1	5			7	4	22	1.8
MACROPODIDAE	*Macropus* sp.			1		49			50	30	76	6.1
BURRAMYIDAE	Cercartetus concinnus	Western Pygmy-possum	2			15		3	20	12	60	4.8
MOLOSSIDAE	*Mormopterus* spp. (species complex)	Southern Freetail-bats		1		21			22	13	23	1.8
MOLOSSIDAE	Tadarida australis	White-striped Freetail-bat				12			12	7	15	1.2
VESPERTILIONIDAE	*Nyctophilus geoffroyi*	Lesser Long-eared Bat		1		30			31	18	43	3.4
VESPERTILIONIDAE	*Chalinolobus gouldii*	Gould's Wattled Bat		1		23			24	14	38	3.0
VESPERTILIONIDAE	*Chalinolobus morio*	Chocolate Wattled Bat				20			20	12	46	3.7
VESPERTILIONIDAE	*Scotorepens balstoni*	Inland Broad-nosed Bat				1			1	1	1	0.1
VESPERTILIONIDAE	*Vespadelus baverstocki*	Inland Forest Bat				1			1	1	1	0.1
VESPERTILIONIDAE	*Vespadelus darlingtoni*	Large Forest Bat				4			4	2	4	0.3
VESPERTILIONIDAE	*Vespadelus regulus*	Southern Forest Bat				12			12	7	17	1.4
VESPERTILIONIDAE	*Vespadelus* sp.					1			1	1	2	0.2
		Native Species	**2**	**7**	**2**	**19**	**3**	**2**	**142**	**85**	**696**	**55.6**
CANIDAE	Vulpes vulpes	Fox				35		1	36	21	47	3.8
FELIDAE	*Felis catus*	Cat				6			6	4	7	0.6
CERVIDAE	*Cervus dama*	Fallow Deer				1	1		2	1	2	0.2
BOVIDAE	*Bos taurus*	Cattle				1			1	1	1	0.1
BOVIDAE	*Capra hircus*	Goat				5	1		6	4	10	0.8
BOVIDAE	*Ovis aries*	Sheep				8			8	5	9	0.7
MURIDAE	*Mus musculus*	House Mouse	4	3		78		4	89	53	406	32.5
MURIDAE	*Rattus rattus*	Black Rat	3			8			11	7	20	1.6
LEPORIDAE	*Lepus capensis*	Brown Hare				8			8	5	12	1.0
LEPORIDAE	*Oryctolagus cuniculus*	Rabbit		1		25	2	1	29	17	41	3.3
		Introduced Species	**2**	**2**	**0**	**10**	**3**	**3**	**126**	**75**	**555**	**44.4**
		Total Species	**4**	**9**	**2**	**29**	**6**	**5**	**161**	**96**	**1251**	

APPENDIX 15. RELATIVE ABUNDANCE OF MAMMAL SPECIES AT SITES WITHIN SALINITY CLASSES AND THEIR DEVIATION FROM RANDOM EXPECTATION, USING THE FORMULA (OBSERVED – EXPECTED / EXPECTED).

Total Records Total number of records of each mammal species from all sites where trapping was undertaken in the MNYPBS study area.

Records Number of records of each mammal species within each salinity class.

O – E / E Observed – Expected / Expected where Expected = (number sites in habitat/total number of sites) X total number of observations for that species. The expected value is a hypothetical calculated value derived from the proportion of sites sampled in each salinity class if species were distributed randomly.

N.B. The domestic animals cattle and sheep have been omitted from this table.
Figures in bold indicate species (with >1 record) that appear to favour this salinity class.

Family Name	Species Name	Common Name	Total Records	Nil		Low		Moderate		High	
				Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E
TACHYGLOSSIDAE	*Tachyglossus aculeatus*	Short-beaked Echidna	61	**61**	**0.3**						
DASYURIDAE	*Sminthopsis murina*	Common Dunnart	14	**14**	**0.3**						
VOMBATIDAE	*Lasiorhinus latifrons*	Southern Hairy-nosed Wombat	5			**5**	**7.9**				
PHALANGERIDAE	*Trichosurus vulpecula*	Common Brushtail Possum	15	**15**	**0.3**						
MACROPODIDAE	*Macropus fuliginosus*	Western Grey Kangaroo	174	141	0.1	5	-0.7	**28**	**1.0**		
MACROPODIDAE	*Macropus robustus*	Euro	79	**76**	**0.3**	3	-0.7				
MACROPODIDAE	*Macropus rufus*	Red Kangaroo	22	**22**	**0.3**						
MACROPODIDAE	*Macropus* sp.		76	56	-0.04	5	-0.4	**14**	**1.3**	1	-0.7
BURRAMYIDAE	*Cercartetus concinnus*	Western Pygmy-possum	60	47	0.03	**8**	**0.2**	5	0.03		
MOLOSSIDAE	*Mormopterus* spp. (species complex)	Southern Freetail-bats	23	**22**	**0.3**	1	-0.6				
MOLOSSIDAE	*Tadarida australis*	White-striped Freetail-bat	15	**14**	**0.2**					1	0.5
VESPERTILIONIDAE Nyctophilinae	*Nyctophilus geoffroyi*	Lesser Long-eared Bat	43	33	0.005	4	-0.2	**5**	**0.4**	1	-0.5
VESPERTILIONIDAE Vespertilioninae	*Chalinolobus gouldii*	Gould's Wattled Bat	38	**36**	**0.2**	1	-0.8			1	-0.4
VESPERTILIONIDAE Vespertilioninae	*Chalinolobus morio*	Chocolate Wattled Bat	46	**40**	**0.1**	5	-0.03			1	-0.5
VESPERTILIONIDAE Vespertilioninae	*Scotorepens balstoni*	Inland Broad-nosed Bat	1	1	0.3						
VESPERTILIONIDAE Vespertilioninae	*Vespadelus baverstocki*	Inland Forest Bat	1	1	0.3						
VESPERTILIONIDAE Vespertilioninae	*Vespadelus darlingtoni*	Large Forest Bat	4	3	-0.02	1	1.2				
VESPERTILIONIDAE Vespertilioninae	*Vespadelus regulus*	Southern Forest Bat	17	12	-0.1	2	0.1	**2**	**0.5**	1	0.4
VESPERTILIONIDAE Vespertilioninae	*Vespadelus* sp.		2					**2**	**11.4**		
CANIDAE	*Vulpes vulpes*	Fox	47	26	-0.3	3	-0.4	10	1.6	**8**	**2.9**
FELIDAE	*Felis catus*	Cat	7	3	-0.4	1	0.3	**2**	**2.5**	1	2.3
CERVIDAE	*Cervus dama*	Fallow Deer	2	**2**	**0.3**						
BOVIDAE	*Capra hircus*	Goat	10	**10**	**0.3**						
MURIDAE	*Mus musculus*	House Mouse	406	299	-0.04	35	-0.2	45	0.4	**27**	**0.5**
MURIDAE	*Rattus rattus*	Black Rat	20	**18**	**0.2**			1	-0.4	1	0.2
LEPORIDAE	*Lepus capensis*	Brown Hare	12	9	-0.02	1	-0.3	1	0.03	1	0.9
LEPORIDAE	*Oryctolagus cuniculus*	Rabbit	41	31	-0.01	6	0.3	1	-0.7	**3**	**0.7**
		No. of Species	**27**	**25**		**16**		**12**		**12**	
		No. of Sites	**161**	**123**		**18**		**13**		**7**	

APPENDIX 16. RELATIVE ABUNDANCE OF MAMMAL SPECIES AT SITES WITHIN VEGETATION ALLIANCES AND THEIR DEVIATION FROM RANDOM EXPECTATION, USING THE FORMULA (OBSERVED – EXPECTED / EXPECTED).

Total Records Total number of records of each mammal species from all sites where trapping was undertaken in the MNYPBS study area.
Records not in analysis Number of records from sites not used in the floristic analysis.
Records Number of records of each mammal species within each vegetation alliance.
O – E / E Observed – Expected / Expected where Expected = (number sites in habitat/total number of sites) X total number of observations for that species. The expected value is a hypothetical calculated value derived from the proportion of sites sampled in each vegetation alliance if species were distributed randomly.
N.B. The domestic animals cattle and sheep have been omitted from this table.
Figures in bold indicate species (with >1 record) that appear to favour this vegetation alliance.

Family Name	Species Name	Common Name	Total Records	Records not in analysis	Grasslands		Sheoak Low Woodlands MN		Grassy Woodlands/ Forests MN		Open Shrublands & Mallees in drier areas		Chenopod Shrublands		Open Mallee		Semi-arid Shrublands		YP Mallee & Sedgelands		Coastal Shrublands		Saline Shrublands		Watercourse Communities	
				Records	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E
TACHYGLOSSIDAE	*Tachyglossus aculeatus*	Short-beaked Echidna	61		1	-0.8	16	0.8	10	0.8	**7**	**1.6**			**16**	**1.6**	1	-0.3	7	-0.4					3	-0.5
DASYURIDAE	*Sminthopsis murina*	Common Dunnart	14						1	-0.2	**5**	**7.2**			7	4.0			1	-0.6						
VOMBATIDAE	*Lasiorhinus latifrons*	Southern Hairy-nosed Wombat	5												**5**	**9.1**										
PHALANGERIDAE	*Trichosurus vulpecula*	Common Brushtail Possum	15				4	0.8	**8**	**4.7**					1	-0.3									2	0.3
MACROPODIDAE	*Macropus fuliginosus*	Western Grey Kangaroo	174	11	22	0.7	25	-0.04	19	0.2	13	0.7	**4**	**0.9**	13	-0.2	6	0.4	36	0.1	1	-0.9	4	-0.7	20	0.2
MACROPODIDAE	*Macropus robustus*	Euro	79		7	0.2	14	0.2	**33**	**3.5**	1	-0.7	1	0.02	10	0.3	1	-0.5	8	-0.5					4	-0.5
MACROPODIDAE	*Macropus rufus*	Red Kangaroo	22		1	-0.4			13	5.3			**5**	**17.3**	3	0.4										
MACROPODIDAE	*Macropus* sp.		76		2	-0.6	9	-0.2	4	-0.4	4	0.2			9	0.2	2	0.1	29	1.0	**7**	**1.1**	8	0.3	2	-0.7
BURRAMYIDAE	*Cercartetus concinnus*	Western Pygmy-possum	60	12											1	-0.8			**44**	**2.8**			3	-0.4		
MOLOSSIDAE	*Mormopterus* spp. (species complex)	Southern Freetail-bats	23		1	-0.4	6	0.8	4	0.9	1	0.00	1	2.5	3	0.3	1	0.8	1	-0.8					**5**	**1.2**
MOLOSSIDAE	*Tadarida australis*	White-striped Freetail-bat	15		1	-0.1	4	0.8	2	0.4					2	0.3							1	-0.2	**5**	**2.4**
VESPERTILIONIDAE Nyctophilinae	*Nyctophilus geoffroyi*	Lesser Long-eared Bat	43				6	-0.1	**8**	**1.0**	3	0.6	1	0.9	3	-0.3			8	-0.03			6	0.7	8	0.9
VESPERTILIONIDAE Vespertilioninae	*Chalinolobus gouldii*	Gould's Wattled Bat	38		1	-0.6	4	-0.3	8	1.3	2	0.2	**3**	**5.4**	3	-0.2	1	0.1	2	-0.7			1	-0.7	13	2.4
VESPERTILIONIDAE Vespertilioninae	*Chalinolobus morio*	Chocolate Wattled Bat	46		2	-0.4	2	-0.7	5	0.2	2	0.00			3	-0.3			11	0.2			6	0.6	**15**	**2.3**
VESPERTILIONIDAE Vespertilioninae	*Scotorepens balstoni*	Inland Broad-nosed Bat	1																						1	9.1
VESPERTILIONIDAE Vespertilioninae	*Vespadelus baverstocki*	Inland Forest Bat	1								1	22.0														
VESPERTILIONIDAE Vespertilioninae	*Vespadelus darlingtoni*	Large Forest Bat	4								1	4.8			1	1.5			1	0.3					1	1.5

Family Name	Species Name	Common Name	Total Records	Records not in analysis	Grasslands		Sheoak Low Woodlands MN		Grassy Woodlands/ Forests MN		Open Shrublands & Mallees in drier areas		Chenopod Shrublands		Open Mallee		Semi-arid Shrublands		YP Mallee & Sedgelands		Coastal Shrublands		Saline Shrublands		Watercourse Communities	
				Records	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E
VESPERTILIONIDAE Vespertilioninae	*Vespadelus regulus*	Southern Forest Bat	17				1	-0.6	4	1.5	**4**	**4.4**			1	-0.4			1	-0.7			2	0.5	4	1.4
VESPERTILIONIDAE Vespertilioninae	*Vespadelus* sp.		2																				**2**	**11.4**		
CANIDAE	*Vulpes vulpes*	Fox	47	3	3	-0.1	5	-0.3	4	-0.1	3	0.5			5	0.1			5	-0.4	3	0.5	**14**	**2.7**	2	-0.6
FELIDAE	*Felis catus*	Cat	7																1	-0.3	1	2.3	**3**	**4.3**	2	1.9
CERVIDAE	*Cervus dama*	Fallow Deer	2						1	4.4	1	10.5														
BOVIDAE	*Capra hircus*	Goat	10				2	0.3			**6**	**12.8**					1	3.0							1	0.01
MURIDAE	*Mus musculus*	House Mouse	406	48	21	-0.3	51	-0.2	9	-0.8	10	-0.4	4	-0.2	47	0.2	1	-0.9	49	-0.4	13	-0.3	56	0.7	**97**	**1.4**
MURIDAE	*Rattus rattus*	Black Rat	20	3			1	-0.7	2	0.1											1	0.2			**13**	**5.5**
LEPORIDAE	*Lepus capensis*	Brown Hare	12		1	0.1	1	-0.4	**5**	**3.5**	1	0.9							2	-0.1			1	0.03	1	-0.2
LEPORIDAE	*Oryctolagus cuniculus*	Rabbit	41	2	4	0.3	5	-0.2	**11**	**1.9**	2	0.1			5	0.2	2	1.0	4	-0.5	3	0.7	3	-0.1		
		No. of Species	**27**	**6**	**13**		**17**		**19**		**18**		**7**		**19**		**9**		**17**		**7**		**14**		**19**	
		No. of Sites	**161**	**14**	**12**		**24**		**15**		**7**		**2**		**16**		**4**		**31**		**7**		**13**		**16**	

APPENDIX 17. RELATIVE ABUNDANCE OF MAMMAL SPECIES AT SITES WITHIN MAJOR LANDFORM TYPES AND THEIR DEVIATION FROM RANDOM EXPECTATION, USING THE FORMULA (OBSERVED – EXPECTED / EXPECTED).

Total Records Total number of records of each mammal species from all sites where trapping was undertaken in the MNYPBS study area.

Records Number of records of each mammal species within each major landform type.

O – E / E Observed – Expected / Expected where Expected = (number sites in habitat/total number of sites) X total number of observations for that species. The expected value is a hypothetical calculated value derived from the proportion of sites sampled in each major landform type if species were distributed randomly.

N.B. The domestic animals cattle and sheep have been omitted from this table.
Figures in bold indicate species (with >1 record) that appear to favour this major landform type.

Family Name	Species Name	Common Name	Total Records	Not recorded	Dune		Hill		Lake		Plain		Watercourse	
				Records	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E
TACHYGLOSSIDAE	*Tachyglossus aculeatus*	Short-beaked Echidna	61		4	-0.5	**45**	**0.6**			3	-0.7	9	0.1
DASYURIDAE	*Sminthopsis murina*	Common Dunnart	14				**14**	**1.2**						
VOMBATIDAE	*Lasiorhinus latifrons*	Southern Hairy-nosed Wombat	5								**5**	**6.0**		
PHALANGERIDAE	*Trichosurus vulpecula*	Common Brushtail Possum	15				**13**	**0.9**					2	0.02
MACROPODIDAE	*Macropus fuliginosus*	Western Grey Kangaroo	174	11	20	-0.1	62	-0.2	14	0.1	**40**	**0.6**	27	0.2
MACROPODIDAE	*Macropus robustus*	Euro	79		3	-0.7	**67**	**0.9**			2	-0.8	7	-0.3
MACROPODIDAE	*Macropus rufus*	Red Kangaroo	22				**17**	**0.7**			4	0.3	1	-0.7
MACROPODIDAE	*Macropus* sp.		76		**19**	**0.9**	26	-0.2	4	-0.3	**21**	**0.9**	6	-0.4
BURRAMYIDAE	*Cercartetus concinnus*	Western Pygmy-possum	60	12	18	1.3	2	-0.9	3	-0.3	**25**	**1.9**		
MOLOSSIDAE	*Mormopterus* spp. (species complex)	Southern Freetail-bats	23		1	-0.7	15	0.4			1	-0.7	**6**	**1.0**
MOLOSSIDAE	*Tadarida australis*	White-striped Freetail-bat	15				9	0.3	1	-0.1			**5**	**1.6**
VESPERTILIONIDAE Nyctophilinae	*Nyctophilus geoffroyi*	Lesser Long-eared Bat	43		1	-0.8	18	-0.1	6	0.9	7	0.1	**11**	**1.0**
VESPERTILIONIDAE Vespertilioninae	*Chalinolobus gouldii*	Gould's Wattled Bat	38		1	-0.8	18	0.04	1	-0.6	3	-0.4	**15**	**2.0**
VESPERTILIONIDAE Vespertilioninae	*Chalinolobus morio*	Chocolate Wattled Bat	46		11	0.8	12	-0.4	6	0.8			**17**	**1.8**
VESPERTILIONIDAE Vespertilioninae	*Scotorepens balstoni*	Inland Broad-nosed Bat	1										1	6.7
VESPERTILIONIDAE Vespertilioninae	*Vespadelus baverstocki*	Inland Forest Bat	1										1	6.7
VESPERTILIONIDAE Vespertilioninae	*Vespadelus darlingtoni*	Large Forest Bat	4				1	-0.4			1	0.8	**2**	**2.8**
VESPERTILIONIDAE Vespertilioninae	*Vespadelus regulus*	Southern Forest Bat	17				6	-0.2	3	1.4	1	-0.6	**7**	**2.2**
VESPERTILIONIDAE Vespertilioninae	*Vespadelus* sp.		2						**2**	**12.4**				
CANIDAE	*Vulpes vulpes*	Fox	47	1	5	-0.2	16	-0.2	**10**	**1.9**	8	0.2	7	0.1
FELIDAE	*Felis catus*	Cat	7		**2**	**1.2**			1	0.9	2	1.0	**2**	**1.2**
CERVIDAE	*Cervus dama*	Fallow Deer	2				**2**	**1.2**						
BOVIDAE	*Capra hircus*	Goat	10				4	-0.1					**6**	**3.6**
MURIDAE	*Mus musculus*	House Mouse	406	42	44	-0.2	136	-0.3	29	-0.04	36	-0.4	**119**	**1.2**
MURIDAE	*Rattus rattus*	Black Rat	20	2	2	-0.2	3	-0.7					**13**	**4.0**
LEPORIDAE	*Lepus capensis*	Brown Hare	12				7	0.3	**3**	**2.4**	2	0.2		
LEPORIDAE	*Oryctolagus cuniculus*	Rabbit	41	1	3	-0.4	**29**	**0.6**	4	0.3	4	-0.3		
		No. of Species	**27**	**6**	**14**		**22**		**14**		**17**		**20**	
		No. of Sites	**161**	**11**	**21**		**73**		**12**		**23**		**21**	

APPENDIX 18. RELATIVE ABUNDANCE OF MAMMAL SPECIES AT SITES WITHIN BROAD SURFACE SOIL CATEGORIES AND THEIR DEVIATION FROM RANDOM EXPECTATION, USING THE FORMULA (OBSERVED – EXPECTED / EXPECTED).

Total Records Total number of records of each mammal species from all sites where trapping was undertaken in the MNYPBS study area.

Records Number of records of each mammal species within each broad surface soil category.

O – E / E Observed – Expected / Expected where Expected = (number sites in habitat/total number of sites) X total number of observations for that species. The expected value is a hypothetical calculated value derived from the proportion of sites sampled in each broad surface soil category if species were distributed randomly.

N.B. The domestic animals cattle and sheep have been omitted from this table.
Figures in bold indicate species (with >1 record) that appear to favour this broad surface soil texture class.

Family Name	Species Name	Common Name	Total Records	Not recorded	Clay		Loam		Sand	
				Records	Records	O-E/E	Records	O-E/E	Records	O-E/E
TACHYGLOSSIDAE	*Tachyglossus aculeatus*	Short-beaked Echidna	61		16	-0.2	**40**	**0.8**	5	-0.7
DASYURIDAE	*Sminthopsis murina*	Common Dunnart	14		5	0.1	4	-0.2	**5**	**0.5**
VOMBATIDAE	*Lasiorhinus latifrons*	Southern Hairy-nosed Wombat	5		**5**	**2.0**				
PHALANGERIDAE	*Trichosurus vulpecula*	Common Brushtail Possum	15		6	0.2	**9**	**0.6**		
MACROPODIDAE	*Macropus fuliginosus*	Western Grey Kangaroo	174	9	**71**	**0.2**	67	0.03	27	-0.4
MACROPODIDAE	*Macropus robustus*	Euro	79		**43**	**0.7**	32	0.1	4	-0.8
MACROPODIDAE	*Macropus rufus*	Red Kangaroo	22		**12**	**0.7**	10	0.2		
MACROPODIDAE	*Macropus* sp.		76		15	-0.4	27	-0.05	**34**	**0.8**
BURRAMYIDAE	*Cercartetus concinnus*	Western Pygmy-possum	60	11	3	-0.8	2	-0.9	**44**	**2.0**
MOLOSSIDAE	*Mormopterus* spp. (species complex)	Southern Freetail-bats	23		9	0.2	**13**	**0.5**	1	-0.8
MOLOSSIDAE	*Tadarida australis*	White-striped Freetail-bat	15		**10**	**1.0**	4	-0.3	1	-0.7
VESPERTILIONIDAE Nyctophilinae	*Nyctophilus geoffroyi*	Lesser Long-eared Bat	43		**20**	**0.4**	19	0.2	4	-0.6
VESPERTILIONIDAE Vespertilioninae	*Chalinolobus gouldii*	Gould's Wattled Bat	38		**18**	**0.4**	17	0.2	3	-0.7
VESPERTILIONIDAE Vespertilioninae	*Chalinolobus morio*	Chocolate Wattled Bat	46		**25**	**0.7**	10	-0.4	11	-0.01
VESPERTILIONIDAE Vespertilioninae	*Scotorepens balstoni*	Inland Broad-nosed Bat	1		1	2.0				
VESPERTILIONIDAE Vespertilioninae	*Vespadelus baverstocki*	Inland Forest Bat	1				1	1.7		
VESPERTILIONIDAE Vespertilioninae	*Vespadelus darlingtoni*	Large Forest Bat	4		1	-0.2	**3**	**1.0**		
VESPERTILIONIDAE Vespertilioninae	*Vespadelus regulus*	Southern Forest Bat	17		**8**	**0.4**	8	0.3	1	-0.8
VESPERTILIONIDAE Vespertilioninae	*Vespadelus* sp.		2		**2**	**2.0**				
CANIDAE	*Vulpes vulpes*	Fox	47	1	**17**	**0.1**	16	-0.1	**13**	**0.1**
FELIDAE	*Felis catus*	Cat	7		3	0.3	1	-0.6	**3**	**0.8**
CERVIDAE	*Cervus dama*	Fallow Deer	2				**2**	**1.7**		
BOVIDAE	*Capra hircus*	Goat	10				**8**	**1.1**	2	-0.2
MURIDAE	*Mus musculus*	House Mouse	406	36	**188**	**0.4**	79	-0.5	103	0.05
MURIDAE	*Rattus rattus*	Black Rat	20	2	**14**	**1.1**	1	-0.9	3	-0.4
LEPORIDAE	*Lepus capensis*	Brown Hare	12		3	-0.2	**7**	**0.6**	2	-0.3
LEPORIDAE	*Oryctolagus cuniculus*	Rabbit	41		**20**	**0.5**	16	0.05	5	-0.5
		No. of Species	**27**	**5**	**24**		**24**		**19**	
		No. of Sites	**161**	**9**	**53**		**60**		**39**	

APPENDIX 19. NUMBER OF RECORDS OF EACH BIRD SPECIES RECORDED IN THE MID NORTH AND YORKE PENINSULA BIOLOGICAL SURVEY STUDY AREA.

I Indigenous/alien designation. Naturalised alien species are designated with an asterisk (*).
Aus Australian status under the *Environment Protection and Biodiversity Conservation Act 1999* as at June 2006.
SA South Australian status under the *National Parks and Wildlife Act 1972* (2000 update of schedules 7, 8 and 9).
Status Codes: **E** = endangered; **V** = vulnerable; **R** = rare; **O** = occasional visitor.
Total Total number of records for each species from all sources.
SU 162 Number of records for each species recorded at sites in the Mid North And Yorke Peninsula Biological Survey (MNYPBS).
OP 162 Number of records for each species recorded opportunistically during the Mid North And Yorke Peninsula Biological Survey.
13, 24, 116, 168, 196 Number of records for each species recorded at sites on the Innes National Park (13), South Olary Plains (24), Mt Cone Baseline (116), Hopkins Creek (NCS) (168) and Warrenben Conservation Park (196) Surveys within the MNYPBS study area.
OP Number of records for each species from the DEH Opportunistic Sightings database recorded within the MNYPBS study area.
RE Number of records for each species from the DEH Reserves database recorded within the MNYPBS study area.
SAM Number of specimens for each species in the SA Museum recorded within the MNYPBS study area.
Bird Atlas Number of records for each species from the Birds Australia Bird Atlas database (to 2001) recorded within the MNYPBS study area.
SAOA Number of records for each species from both the SAOA Parks and Trips databases recorded within the MNYPBS study area.
Wader SG Number of records for each species from the Australasian Waders Study Group database recorded within the MNYPBS study area.
N.B. The total number of records and species from each source is provided at the end of the table.

Family	I	Scientific Name	Common Name	Aus	SA	Total	SU 162	OP 162	13	24	116	168	196	OP	RE	SAM	Bird Atlas	SAOA	Wader SG
CASUARIIDAE		*Dromaius novaehollandiae*	Emu			271	37	71			27		4	19	21	4	73	15	
MEGAPODIIDAE		*Leipoa ocellata*	Malleefowl	V	V	38		6					1	12	11	2	2	4	
PHASIANIDAE		*Coturnix pectoralis*	Stubble Quail			145	3	16							9	17	92	8	
PHASIANIDAE		*Coturnix* sp.				2	2												
PHASIANIDAE		*Coturnix ypsilophora*	Brown Quail		V	2										1	1		
ANATIDAE		*Anas castanea*	Chestnut Teal			4147	75	178							3	1	3393	497	
ANATIDAE		*Anas gracilis*	Grey Teal			11788	2427	1008							1	4	5294	3054	
ANATIDAE	*	*Anas platyrhynchos*	Mallard			59											59		
ANATIDAE		*Anas rhynchotis*	Australasian Shoveler		R	23										1	19	3	
ANATIDAE		*Anas* sp.				1										1			
ANATIDAE		*Anas superciliosa*	Pacific Black Duck			2219	118	63						1	2	5	1834	196	
ANATIDAE		*Anas superciliosa* x *Anas platyrhynchos*	Pacific Black Duck/Mallard Hybrid			22											22		
ANATIDAE		*Aythya australis*	Hardhead (White-eyed Duck)			393	3	30								2	345	13	
ANATIDAE		*Biziura lobata*	Musk Duck		R	740									1	1	374	364	
ANATIDAE		*Cereopsis novaehollandiae*	Cape Barren Goose		R	20	3	3									13	1	
ANATIDAE		*Chenonetta jubata*	Australian Wood Duck, (Maned Duck)			1769	159	91						5	2	1	1511		
ANATIDAE		*Cygnus atratus*	Black Swan			27246	1	109								2	19412	7722	
ANATIDAE		*Malacorhynchus membranaceus*	Pink-eared Duck			321		10								4	279	28	
ANATIDAE		*Oxyura australis*	Blue-billed Duck		R	432		20								5	368	39	
ANATIDAE		*Stictonetta naevosa*	Freckled Duck		V	25											20	5	
ANATIDAE		*Tadorna tadornoides*	Australian Shelduck			4195	201	116							1		2270	1607	

Family	I	Scientific Name	Common Name	Aus	SA	Total	SU 162	OP 162	13	24	116	168	196	OP	RE	SAM	Bird Atlas	SAOA	Wader SG
PODICIPEDIDAE		*Podiceps cristatus*	Great Crested Grebe		R	498											168	330	
PODICIPEDIDAE		*Poliocephalus poliocephalus*	Hoary-headed Grebe			15171	4	14								8	10543	4602	
PODICIPEDIDAE		*Tachybaptus novaehollandiae*	Australasian Grebe, (Little Grebe)			541	4	13							3	1	513	7	
SPHENISCIDAE		*Eudyptula minor*	Little Penguin			6									2	3	1		
PROCELLARIIDAE		*Lugensa brevirostris*	Kerguelen Petrel			3										3			
PROCELLARIIDAE		*Macronectes giganteus*	Southern Giant-Petrel			2									2				
PROCELLARIIDAE		*Pachyptila belcheri*	Slender-billed Prion			3										3			
PROCELLARIIDAE		*Pachyptila desolata*	Antarctic Prion			1										1			
PROCELLARIIDAE		*Pachyptila* sp.				1										1			
PROCELLARIIDAE		*Pachyptila turtur*	Fairy Prion			1										1			
PROCELLARIIDAE		*Pterodroma lessonii*	White-headed Petrel			1											1		
PROCELLARIIDAE		*Puffinus carneipes*	Fleshy-footed Shearwater		R	1											1		
PROCELLARIIDAE		*Puffinus gavia*	Fluttering Shearwater			1											1		
PROCELLARIIDAE		*Puffinus huttoni*	Hutton's Shearwater			1										1			
PROCELLARIIDAE		*Puffinus tenuirostris*	Short-tailed Shearwater			2										1	1		
DIOMEDEIDAE		*Diomedea cauta*	Shy Albatross	V	V	3										2	1		
DIOMEDEIDAE		*Diomedea exulans*	Wandering Albatross	V	V	1										1			
DIOMEDEIDAE		*Diomedea melanophris*	Black-browed Albatross		V	3										2	1		
SULIDAE		*Morus serrator*	Australasian Gannet			32		1							3		9	19	
ANHINGIDAE		*Anhinga melanogaster*	Darter			16											5	11	
PHALACROCORACIDAE		*Phalacrocorax carbo*	Great Cormorant			282		3							3		225	51	
PHALACROCORACIDAE		*Phalacrocorax fuscescens*	Black-faced Cormorant			88		20							5	4	27	32	
PHALACROCORACIDAE		*Phalacrocorax melanoleucos*	Little Pied Cormorant			3100	20	79						2	2	3	2103	891	
PHALACROCORACIDAE		*Phalacrocorax sulcirostris*	Little Black Cormorant			6207		5								2	2861	3339	
PHALACROCORACIDAE		*Phalacrocorax varius*	Pied Cormorant			1126		196							8	12	630	280	
PELECANIDAE		*Pelecanus conspicillatus*	Australian Pelican			1530	5	44							3	3	800	675	
ARDEIDAE		*Ardea alba*	Great Egret, (White Egret)			269		11							1		153	104	
ARDEIDAE		*Ardea ibis*	Cattle Egret			4										1	3		
ARDEIDAE		*Ardea intermedia*	Intermediate Egret		R	4										1	2	1	
ARDEIDAE		*Ardea pacifica*	White-necked Heron			11	1									1	9		
ARDEIDAE		*Botaurus poiciloptilus*	Australasian Bittern		V	3										2		1	
ARDEIDAE		*Egretta garzetta*	Little Egret			612		6								3	271	332	
ARDEIDAE		*Egretta novaehollandiae*	White-faced Heron			1648	21	39				1		5	12	1	882	687	
ARDEIDAE		*Egretta sacra*	Eastern Reef Egret		R	5									3	1		1	
ARDEIDAE		*Ixobrychus minutus*	Little Bittern		R	2										2			
ARDEIDAE		*Nycticorax caledonicus*	Nankeen Night Heron			59										5	16	38	
THRESKIORNITHIDAE		*Platalea flavipes*	Yellow-billed Spoonbill			234	1	5									152	76	
THRESKIORNITHIDAE		*Platalea regia*	Royal Spoonbill			730											399	331	
THRESKIORNITHIDAE		*Plegadis falcinellus*	Glossy Ibis		R	6		1									1	4	
THRESKIORNITHIDAE		*Threskiornis molucca*	Australian White Ibis			1813		19									1056	738	
THRESKIORNITHIDAE		*Threskiornis spinicollis*	Straw-necked Ibis			14											2	12	
ACCIPITRIDAE		*Accipiter cirrhocephalus*	Collared Sparrowhawk			110	3	1	1	1				2	8	7	83	4	
ACCIPITRIDAE		*Accipiter fasciatus*	Brown Goshawk			161	10	5	1	1					12	14	103	15	

Family	I	Scientific Name	Common Name	Aus	SA	Total	SU 162	OP 162	13	24	116	168	196	OP	RE	SAM	Bird Atlas	SAOA	Wader SG
ACCIPITRIDAE		*Accipiter* sp.				3	1		1					1					
ACCIPITRIDAE		*Aquila audax*	Wedge-tailed Eagle			288	43	40			5	8		4	18	18	143	9	
ACCIPITRIDAE		*Circus approximans*	Swamp Harrier			165	2	2								1	103	57	
ACCIPITRIDAE		*Circus assimilis*	Spotted Harrier			98	4	16	1			1			3	8	61	4	
ACCIPITRIDAE		*Elanus axillaris*	Black-shouldered Kite			411	1	8							4	24	348	26	
ACCIPITRIDAE		*Haliaeetus leucogaster*	White-bellied Sea-Eagle		V	47		1							5		25	16	
ACCIPITRIDAE		*Haliastur sphenurus*	Whistling Kite			182	5	5						1	6	6	106	53	
ACCIPITRIDAE		*Hieraaetus morphnoides*	Little Eagle			32	2	1						1		4	19	5	
ACCIPITRIDAE		*Lophoictinia isura*	Square-tailed Kite		V	1	1												
ACCIPITRIDAE		*Milvus migrans*	Black Kite			133	1	8								7	107	10	
ACCIPITRIDAE		*Pandion haliaetus*	Osprey		R	26		1							8	4	9	4	
FALCONIDAE		*Falco berigora*	Brown Falcon			363	24	31				3		1	14	23	254	13	
FALCONIDAE		*Falco cenchroides*	Nankeen Kestrel			684	35	35	1	3	1	3		5	25	34	487	55	
FALCONIDAE		*Falco hypoleucos*	Grey Falcon		R	1										1			
FALCONIDAE		*Falco longipennis*	Australian Hobby			114		2			1			1	1	9	90	10	
FALCONIDAE		*Falco peregrinus*	Peregrine Falcon		R	92	3	7	2					3	4	16	52	5	
FALCONIDAE		*Falco subniger*	Black Falcon			79	8	4							1	8	55	3	
GRUIDAE		*Grus rubicunda*	Brolga		V	1										1			
RALLIDAE		*Fulica atra*	Eurasian Coot			701	16	211								2	306	166	
RALLIDAE		*Gallinula tenebrosa*	Dusky Moorhen			113	7							2		1	84	19	
RALLIDAE		*Gallinula ventralis*	Black-tailed Native-hen			964	26	167								16	365	390	
RALLIDAE		*Gallirallus philippensis*	Buff-banded Rail			11										7	4		
RALLIDAE		*Porphyrio porphyrio*	Purple Swamphen			38	5									2	29	2	
RALLIDAE		*Porzana fluminea*	Australian Spotted Crake			94	1									11	45	37	
RALLIDAE		*Porzana pusilla*	Baillon's Crake		R	6	1									1	3	1	
RALLIDAE		*Porzana* sp.				1	1												
RALLIDAE		*Porzana tabuensis*	Spotless Crake			11	5										6		
OTIDIDAE		*Ardeotis australis*	Australian Bustard		V	3								1			2		
TURNICIDAE		*Turnix pyrrhothorax*	Red-chested Button-quail		R	2										1	1		
TURNICIDAE		*Turnix* sp.				1		1											
TURNICIDAE		*Turnix varia*	Painted Button-quail		V	43	9	2					3	1	10	1	10	7	
TURNICIDAE		*Turnix velox*	Little Button-quail			42	7	1				2			1	18	13		
PEDIONOMIDAE		*Pedionomus torquatus*	Plains-wanderer	V	E	12										12			
SCOLOPACIDAE		*Actitis hypoleucos*	Common Sandpiper			310		1							1	1	61	39	207
SCOLOPACIDAE		*Arenaria interpres*	Ruddy Turnstone			6166		6							3		116	116	5925
SCOLOPACIDAE		*Calidris acuminata*	Sharp-tailed Sandpiper			190046	60	67								22	2116	5156	182625
SCOLOPACIDAE		*Calidris alba*	Sanderling			27		15									1	11	
SCOLOPACIDAE		*Calidris canutus*	Red Knot			27872		999								1	126	19	26727
SCOLOPACIDAE		*Calidris ferruginea*	Curlew Sandpiper			145303		30								14	518	1088	143653
SCOLOPACIDAE		*Calidris melanotos*	Pectoral Sandpiper			13										1	1	2	9
SCOLOPACIDAE		*Calidris minuta*	Little Stint		O	1													1
SCOLOPACIDAE		*Calidris ruficollis*	Red-necked Stint			538426	20	507						1	4	31	15342	19096	503425
SCOLOPACIDAE		*Calidris subminuta*	Long-toed Stint			67											6	1	60

Family	I	Scientific Name	Common Name	Aus	SA	Total	SU 162	OP 162	13	24	116	168	196	OP	RE	SAM	Bird Atlas	SAOA	Wader SG
SCOLOPACIDAE		*Calidris tenuirostris*	Great Knot			12702										1	32		12669
SCOLOPACIDAE		*Gallinago hardwickii*	Latham's Snipe		V	4										1			3
SCOLOPACIDAE		*Heteroscelus brevipes*	Grey-tailed Tattler			68											7	2	59
SCOLOPACIDAE		*Limicola falcinellus*	Broad-billed Sandpiper		O	4										2			2
SCOLOPACIDAE		*Limosa lapponica*	Bar-tailed Godwit			24666											65	10	24591
SCOLOPACIDAE		*Limosa limosa*	Black-tailed Godwit			1903											41	271	1591
SCOLOPACIDAE		*Numenius madagascariensis*	Eastern Curlew		V	5242		20								1	55	357	4809
SCOLOPACIDAE		*Numenius minutus*	Little Curlew		O	6													6
SCOLOPACIDAE		*Numenius phaeopus*	Whimbrel			858											88	46	724
SCOLOPACIDAE		*Phalaropus lobatus*	Red-necked Phalarope		O	27											17	8	2
SCOLOPACIDAE		*Philomachus pugnax*	Ruff			18											6	3	9
SCOLOPACIDAE		*Tringa glareola*	Wood Sandpiper			154										1	19	25	109
SCOLOPACIDAE		*Tringa nebularia*	Common Greenshank			20783	1	41								1	613	791	19336
SCOLOPACIDAE		*Tringa stagnatilis*	Marsh Sandpiper			2037								1		1	300	157	1578
SCOLOPACIDAE		*Tringa totanus*	Common Redshank		O	1													1
SCOLOPACIDAE		*Xenus cinereus*	Terek Sandpiper			78										1	9	4	64
JACANIDAE		*Irediparra gallinacea*	Comb-crested Jacana			2											2		
ROSTRATULIDAE		*Rostratula benghalensis*	Painted Snipe		R	3										2	1		
BURHINIDAE		*Burhinus grallarius*	Bush Stone-curlew		V	6										6			
HAEMATOPODIDAE		*Haematopus fuliginosus*	Sooty Oystercatcher			227		9							6		69	11	132
HAEMATOPODIDAE		*Haematopus longirostris*	Pied Oystercatcher			866		9						1	1	1	128		726
RECURVIROSTRIDAE		*Cladorhynchus leucocephalus*	Banded Stilt			531248	200	161							2	22	32528	28601	469734
RECURVIROSTRIDAE		*Himantopus himantopus*	Black-winged Stilt			17272	42	22							3	5	2613	2319	12268
RECURVIROSTRIDAE		*Recurvirostra novaehollandiae*	Red-necked Avocet			41163	400	154								2	759	2853	36995
CHARADRIIDAE		*Charadrius australis*	Inland Dotterel			70										8	32		30
CHARADRIIDAE		*Charadrius bicinctus*	Double-banded Plover			632										7	19		606
CHARADRIIDAE		*Charadrius leschenaultii*	Greater Sand Plover			87										2			85
CHARADRIIDAE		*Charadrius mongolus*	Lesser Sand Plover			484													484
CHARADRIIDAE		*Charadrius ruficapillus*	Red-capped Plover			63532	3	90							9	15	2685	1154	59576
CHARADRIIDAE		*Charadrius veredus*	Oriental Plover			32													32
CHARADRIIDAE		*Elseyornis melanops*	Black-fronted Dotterel			228	1	3							1	7	182	3	31
CHARADRIIDAE		*Erythrogonys cinctus*	Red-kneed Dotterel			2280	6	15								2	56	119	2082
CHARADRIIDAE		*Pluvialis fulva*	Pacific Golden Plover			331											18	77	236
CHARADRIIDAE		*Pluvialis squatarola*	Grey Plover			15603		1							2	1	79	415	15105
CHARADRIIDAE		*Thinornis rubricollis*	Hooded Plover		V	111		7						2	6	2	24	11	59
CHARADRIIDAE		*Vanellus miles*	Masked Lapwing			5433	47	42	2						13	11	906	528	3884
CHARADRIIDAE		*Vanellus* sp.				66		66											
CHARADRIIDAE		*Vanellus tricolor*	Banded Lapwing			3438	58	34							1	15	81		3249
GLAREOLIDAE		*Stiltia isabella*	Australian Pratincole			26		3								14	3		6
LARIDAE		*Catharacta skua*	Great Skua			2									1		1		
LARIDAE		*Chlidonias hybridus*	Whiskered Tern			9357		81								10	4135	5131	
LARIDAE		*Chlidonias leucopterus*	White-winged Black Tern			4											2	2	
LARIDAE		*Larus novaehollandiae*	Silver Gull			25657	86	128	2					3	15	7	12061	13355	

Family	I	Scientific Name	Common Name	Aus	SA	Total	SU 162	OP 162	13	24	116	168	196	OP	RE	SAM	Bird Atlas	SAOA	Wader SG
LARIDAE		*Larus pacificus*	Pacific Gull			234		29						1	10	5	156	33	
LARIDAE		*Stercorarius parasiticus*	Arctic Jaeger, (Arctic Skua)			3											3		
LARIDAE		*Sterna albifrons*	Little Tern	E	V	4									1		3		
LARIDAE		*Sterna bergii*	Crested Tern			717		162	2						9	3	266	275	
LARIDAE		*Sterna caspia*	Caspian Tern			501	1	28						1	6		235	230	
LARIDAE		*Sterna hirundo*	Common Tern		R	2										2			
LARIDAE		*Sterna nereis*	Fairy Tern		V	261		33						1	1	17	121	88	
LARIDAE		*Sterna nilotica*	Gull-billed Tern			4											4		
LARIDAE		*Sterna paradisaea*	Arctic Tern		O	3										1	2		
COLUMBIDAE	*	*Columba livia*	Rock Dove			912	107	43	3		1			1	15	7	439	296	
COLUMBIDAE		*Geopelia cuneata*	Diamond Dove			8									2	5	1		
COLUMBIDAE		*Geopelia placida*	Peaceful Dove			284	26	15						1	6	8	227	1	
COLUMBIDAE		*Ocyphaps lophotes*	Crested Pigeon			2074	161	51			6	2		2	31	12	1276	533	
COLUMBIDAE		*Phaps chalcoptera*	Common Bronzewing			433	87	17		9		1	8	8	22	8	229	44	
COLUMBIDAE		*Phaps elegans*	Brush Bronzewing			201	70	1	18				21	3	21		49	18	
COLUMBIDAE		*Phaps* sp.				2	1								1				
COLUMBIDAE	*	*Streptopelia chinensis*	Spotted Turtle-dove			632	8	5						2		2	447	168	
CACATUIDAE		*Cacatua galerita*	Sulphur-crested Cockatoo			53									2	10	28	13	
CACATUIDAE		*Cacatua roseicapilla*	Galah			3445	955	307	34	77	111	216	6	54	46	19	1248	372	
CACATUIDAE		*Cacatua sanguinea*	Little Corella			510		41				2		26		24	417		
CACATUIDAE		*Cacatua tenuirostris*	Long-billed Corella			3										3			
CACATUIDAE		*Nymphicus hollandicus*	Cockatiel			123	13	1		11				6	1	7	84		
PSITTACIDAE		*Barnardius* sp.				1									1				
PSITTACIDAE		*Barnardius zonarius*	Australian Ringneck, (Ring-necked Parrot)			609	158	88		33		5		6	1	19	286	13	
PSITTACIDAE		*Glossopsitta concinna*	Musk Lorikeet			330	84	12							4	5	186	39	
PSITTACIDAE		*Glossopsitta porphyrocephala*	Purple-crowned Lorikeet			365	9						2	2	5	13	280	54	
PSITTACIDAE		*Glossopsitta pusilla*	Little Lorikeet		V	4										4			
PSITTACIDAE		*Melopsittacus undulatus*	Budgerigar			296	47	40		47				37	2	7	116		
PSITTACIDAE		*Neophema chrysostoma*	Blue-winged Parrot		V	31	22	1								1	7		
PSITTACIDAE		*Neophema elegans*	Elegant Parrot			216	2				5	8		2	3	31	56	109	
PSITTACIDAE		*Neophema petrophila*	Rock Parrot		R	242	8	32	6				3		12		119	62	
PSITTACIDAE		*Neophema* sp.				18	16	1							1				
PSITTACIDAE		*Northiella haematogaster*	Blue Bonnet			190	17	54	3					9	6	6	95		
PSITTACIDAE		*Platycercus elegans*	Crimson Rosella			1121	132	19				25		8	14	77	652	194	
PSITTACIDAE		*Platycercus eximius*	Eastern Rosella			5	4										1		
PSITTACIDAE		*Psephotus haematonotus*	Red-rumped Parrot			1237	206	230						2	7	16	669	107	
PSITTACIDAE		*Psephotus varius*	Mulga Parrot			197	49	38		5		5	2	22	23	7	35	11	
PSITTACIDAE		*Trichoglossus haematodus*	Rainbow Lorikeet			148	24	23						1	1	10	58	31	
CUCULIDAE		*Cacomantis flabelliformis*	Fan-tailed Cuckoo			64	10	1	1				5	3	13	5	22	4	
CUCULIDAE		*Chrysococcyx basalis*	Horsfield's Bronze-cuckoo			175	37	7	1			1	3	4	12	19	74	17	
CUCULIDAE		*Chrysococcyx lucidus*	Shining Bronze-Cuckoo		R	11	2						2		2	2	3		
CUCULIDAE		*Chrysococcyx osculans*	Black-eared Cuckoo			12	2							2		2	5	1	
CUCULIDAE		*Cuculus pallidus*	Pallid Cuckoo			53	5	1							3	5	39		

Family	I	Scientific Name	Common Name	Aus	SA	Total	SU 162	OP 162	13	24	116	168	196	OP	RE	SAM	Bird Atlas	SAOA	Wader SG
STRIGIDAE		*Ninox novaeseelandiae*	Southern Boobook			113	3	3						3	3	23	73	5	
TYTONIDAE		*Tyto alba*	Barn Owl			98	4	7							1	23	62	1	
PODARGIDAE		*Podargus strigoides*	Tawny Frogmouth			80	11	7					1	1	10	20	28	2	
CAPRIMULGIDAE		*Eurostopodus argus*	Spotted Nightjar			24		3					1		3	7	9	1	
AEGOTHELIDAE		*Aegotheles cristatus*	Australian Owlet-nightjar			58	7	3					2	4	4	5	31	2	
APODIDAE		*Apus pacificus*	Fork-tailed Swift			13			6						3	2	2		
ALCEDINIDAE		*Dacelo novaeguineae*	Laughing Kookaburra			345	23	11				8		6	7	12	253	25	
ALCEDINIDAE		*Todiramphus pyrrhopygia*	Red-backed Kingfisher			35		2		1				2	1	5	24		
ALCEDINIDAE		*Todiramphus sanctus*	Sacred Kingfisher			162	6	5							1	2	100	48	
MEROPIDAE		*Merops ornatus*	Rainbow Bee-eater			298	4	19		5		1		6	3	11	143	106	
CORACIIDAE		*Eurystomus orientalis*	Dollarbird		O	1											1		
CLIMACTERIDAE		*Climacteris affinis*	White-browed Treecreeper		R	2										1	1		
CLIMACTERIDAE		*Climacteris picumnus*	Brown Treecreeper			445	49	53		15		2		8	3	10	289	16	
CLIMACTERIDAE		*Cormobates leucophaeus*	White-throated Treecreeper			1											1		
MALURIDAE		*Malurus cyaneus*	Superb Fairy-wren			485	5	4							7	6	168	295	
MALURIDAE		*Malurus lamberti*	Variegated Fairy-wren			1069	407	119	69	8		6	26	29	28	19	227	131	
MALURIDAE		*Malurus leucopterus*	White-winged Fairy-wren			826	151	27						4		32	133	479	
MALURIDAE		*Malurus splendens*	Splendid Fairy-wren			9										8	1		
PARDALOTIDAE		*Pardalotus punctatus*	Spotted Pardalote			306	51	20	23	8			10	3	19	3	81	88	
PARDALOTIDAE		*Pardalotus rubricatus*	Red-browed Pardalote			1									1				
PARDALOTIDAE		*Pardalotus striatus*	Striated Pardalote			947	164	49		21		18	2	8	15	8	493	169	
ACANTHIZIDAE		*Acanthiza apicalis*	Inland Thornbill			462	185	7	2				8	5	16	14	77	148	
ACANTHIZIDAE		*Acanthiza chrysorrhoa*	Yellow-rumped Thornbill			807	185	102	5	11		16	3	30	28	17	330	80	
ACANTHIZIDAE		*Acanthiza iredalei*	Slender-billed Thornbill	V	V	136	4	12								47	24	49	
ACANTHIZIDAE		*Acanthiza lineata*	Striated Thornbill			5											5		
ACANTHIZIDAE		*Acanthiza nana*	Yellow Thornbill			253	72	8				24			4	5	116	24	
ACANTHIZIDAE		*Acanthiza pusilla*	Brown Thornbill			95[1]									13	6	42	34	
ACANTHIZIDAE		*Acanthiza reguloides*	Buff-rumped Thornbill			250	31	8				12			11	2	25	161	
ACANTHIZIDAE		*Acanthiza* sp.				14	14												
ACANTHIZIDAE		*Acanthiza uropygialis*	Chestnut-rumped Thornbill			164	61	31		4				4	9	2	40	13	
ACANTHIZIDAE		*Aphelocephala leucopsis*	Southern Whiteface			416	73	151						15	3	9	159	6	
ACANTHIZIDAE		*Aphelocephala* sp.				1									1				
ACANTHIZIDAE		*Calamanthus campestris*	Rufous Fieldwren			68	12	14							2	4	4	32	
ACANTHIZIDAE		*Calamanthus cautus*	Shy Heathwren (Shy Hylacola)			19		1							7	3	8		
ACANTHIZIDAE		*Calamanthus pyrrhopygius*	Chestnut-rumped Heathwren		V	7										4	3		
ACANTHIZIDAE		*Gerygone fusca*	Western Gerygone		R	1											1		
ACANTHIZIDAE		*Pyrrholaemus brunneus*	Redthroat		R	88	31	20		14				7		2	14		
ACANTHIZIDAE		*Sericornis frontalis*	White-browed Scrubwren			857	271	20	99				22	4	21	20	188	212	
ACANTHIZIDAE		*Smicrornis brevirostris*	Weebill			949	222	62		19		65	6	17	14	13	258	273	
MELIPHAGIDAE		*Acanthagenys rufogularis*	Spiny-cheeked Honeyeater			1371	362	65	19	10		25	10	21	24	8	538	289	
MELIPHAGIDAE		*Acanthorhynchus tenuirostris*	Eastern Spinebill			8									1	1	6		
MELIPHAGIDAE		*Anthochaera carunculata*	Red Wattlebird			1627	282	71	163	4		11	74	25	34	19	780	164	
MELIPHAGIDAE		*Anthochaera chrysoptera*	Little Wattlebird			48	1									1	46		

Family	I	Scientific Name	Common Name	Aus	SA	Total	SU 162	OP 162	13	24	116	168	196	OP	RE	SAM	Bird Atlas	SAOA	Wader SG
MELIPHAGIDAE		*Certhionyx niger*	Black Honeyeater			15										1	14		
MELIPHAGIDAE		*Certhionyx variegatus*	Pied Honeyeater			8											8		
MELIPHAGIDAE		*Epthianura albifrons*	White-fronted Chat			1689	36	30							15	26	209	1373	
MELIPHAGIDAE		*Epthianura aurifrons*	Orange Chat			27	7	1								17	2		
MELIPHAGIDAE		*Epthianura tricolor*	Crimson Chat			44	20	4								14	6		
MELIPHAGIDAE		*Gliciphila melanops*	Tawny-crowned Honeyeater			169	35	2	3						11	1	15	102	
MELIPHAGIDAE		*Lichenostomus chrysops*	Yellow-faced Honeyeater			125	9	1				9		3	5		67	31	
MELIPHAGIDAE		*Lichenostomus cratitius*	Purple-gaped Honeyeater			476	177	19	21				95	12	18	2	30	102	
MELIPHAGIDAE		*Lichenostomus leucotis*	White-eared Honeyeater			33	5	3				11		3			11		
MELIPHAGIDAE		*Lichenostomus ornatus*	Yellow-plumed Honeyeater			82		29		5				1	1	2	44		
MELIPHAGIDAE		*Lichenostomus penicillatus*	White-plumed Honeyeater			1507	274	61				4		14	7	22	1032	93	
MELIPHAGIDAE		*Lichenostomus plumulus*	Grey-fronted Honeyeater			12										2	10		
MELIPHAGIDAE		*Lichenostomus virescens*	Singing Honeyeater			1946	245	75	16	1			1	13	29	28	1063	475	
MELIPHAGIDAE		*Manorina flavigula*	Yellow-throated Miner			791	127	65		19		3		6	5	35	416	115	
MELIPHAGIDAE		*Manorina melanocephala*	Noisy Miner			321	61	15							2	11	231	1	
MELIPHAGIDAE		*Manorina* sp.				10	2	8											
MELIPHAGIDAE		*Melithreptus brevirostris*	Brown-headed Honeyeater			479	110	10	15			5	24	14	24	6	124	147	
MELIPHAGIDAE		*Melithreptus gularis*	Black-chinned Honeyeater		V	3										2	1		
MELIPHAGIDAE		*Melithreptus lunatus*	White-naped Honeyeater			20									4		11	5	
MELIPHAGIDAE		*Phylidonyris albifrons*	White-fronted Honeyeater			187	55	57		3		10			2	4	52	4	
MELIPHAGIDAE		*Phylidonyris novaehollandiae*	New Holland Honeyeater			488	22	10	60				5	10	14	4	250	113	
MELIPHAGIDAE		*Phylidonyris pyrrhoptera*	Crescent Honeyeater			12											1	11	
MELIPHAGIDAE		*Plectorhyncha lanceolata*	Striped Honeyeater		R	15									1	4	10		
PETROICIDAE		*Drymodes brunneopygia*	Southern Scrub-robin			74	12	1	2				6	5	15	1	20	12	
PETROICIDAE		*Melanodryas cucullata*	Hooded Robin			153	24	7		2					1	8	111		
PETROICIDAE		*Microeca fascinans*	Jacky Winter			158	11	5		7				2	6	12	115		
PETROICIDAE		*Petroica goodenovii*	Red-capped Robin			285	29	6				12		1	12	16	187	22	
PETROICIDAE		*Petroica multicolor*	Scarlet Robin			111	7	3					5	4	13	3	33	43	
PETROICIDAE		*Petroica phoenicea*	Flame Robin		R	1											1		
POMATOSTOMIDAE		*Pomatostomus ruficeps*	Chestnut-crowned Babbler			19		16						2			1		
POMATOSTOMIDAE		*Pomatostomus* sp.				1	1												
POMATOSTOMIDAE		*Pomatostomus superciliosus*	White-browed Babbler			1094	233	115	59	8		13	9	18	20	14	409	196	
EUPETIDAE		*Cinclosoma castanotus*	Chestnut Quail-thrush		R	3									2	1			
EUPETIDAE		*Psophodes cristatus*	Chirruping Wedgebill			5		1								3	1		
EUPETIDAE		*Psophodes nigrogularis leucogaster*	Western Whipbird	V	V	46	5	2	10				5	4	13	4	1	2	
NEOSITTIDAE		*Daphoenositta chrysoptera*	Varied Sittella			219	52	37		6		1	6	3	10	12	77	15	
PACHYCEPHALIDAE		*Colluricincla harmonica*	Grey Shrike-thrush			1149	196	33	9	9		36	12	10	41	12	671	120	
PACHYCEPHALIDAE		*Falcunculus frontatus*	Crested Shrike-tit		V	13	1								1	4	7		
PACHYCEPHALIDAE		*Oreoica gutturalis*	Crested Bellbird			68	12	1	2					3	19	4	23	4	
PACHYCEPHALIDAE		*Pachycephala inornata*	Gilbert's Whistler			13	4									2	6	1	
PACHYCEPHALIDAE		*Pachycephala pectoralis*	Golden Whistler			239	50	4	11				11	8	25	9	68	53	
PACHYCEPHALIDAE		*Pachycephala rufiventris*	Rufous Whistler			362	66	11				25		4	16	19	187	34	
PACHYCEPHALIDAE		*Pachycephala* sp.				1	1												

Family	I	Scientific Name	Common Name	Aus	SA	Total	SU 162	OP 162	13	24	116	168	196	OP	RE	SAM	Bird Atlas	SAOA	Wader SG
DICRURIDAE		*Grallina cyanoleuca*	Magpie-lark			1319	32	35				1		10	4	19	976	242	
DICRURIDAE		*Myiagra cyanoleuca*	Satin Flycatcher		V	2										1	1		
DICRURIDAE		*Myiagra inquieta*	Restless Flycatcher			57	4	5							2	6	40		
DICRURIDAE		*Rhipidura albiscapa*	Grey Fantail			500	33	7	13			19	3	3	35	6	248	133	
DICRURIDAE		*Rhipidura leucophrys*	Willie Wagtail			2562	113	58	4	1		1	1	18	34	16	1378	938	
ARTAMIDAE		*Artamus cinereus*	Black-faced Woodswallow			54	5	2								10	37		
ARTAMIDAE		*Artamus cyanopterus*	Dusky Woodswallow			369	50	36					2	14	11	10	231	15	
ARTAMIDAE		*Artamus personatus*	Masked Woodswallow			246	59	40		20				15	3	36	73		
ARTAMIDAE		*Artamus* sp.				8		2		6									
ARTAMIDAE		*Artamus superciliosus*	White-browed Woodswallow			126	20	10		7				3		8	74	4	
ARTAMIDAE		*Cracticus nigrogularis*	Pied Butcherbird			5											4	1	
ARTAMIDAE		*Cracticus torquatus*	Grey Butcherbird			438	86	14	1	8		10	5	2	21	6	246	39	
ARTAMIDAE		*Gymnorhina tibicen*	Australian Magpie			2371	455	168	4	15	10	23	2	18	45	82	1384	165	
ARTAMIDAE		*Strepera* sp.				1										1			
ARTAMIDAE		*Strepera versicolor*	Grey Currawong			502	225	12	25	1		3	9	15	30	5	121	56	
CAMPEPHAGIDAE		*Coracina novaehollandiae*	Black-faced Cuckoo-shrike			570	69	32		1		10	3	7	16	8	383	41	
CAMPEPHAGIDAE		*Coracina papuensis*	White-bellied Cuckoo-shrike		R	1											1		
CAMPEPHAGIDAE		*Lalage tricolor*	White-winged Triller			88	7	10				1		1	1	14	53	1	
CORVIDAE		*Corvus bennetti*	Little Crow			8										3	5		
CORVIDAE		*Corvus coronoides*	Australian Raven			479	47	12						5	4	6	396	9	
CORVIDAE		*Corvus mellori*	Little Raven			2079	528	157	4	16		14	9	32	35	37	887	360	
CORVIDAE		*Corvus* sp.				171	2			11					2	3	153		
CORCORACIDAE		*Corcorax melanorhamphos*	White-winged Chough			726	150	201		34		25		1	17	2	201	95	
CORCORACIDAE		*Struthidea cinerea*	Apostlebird			485	38	363				7		14			63		
MUSCICAPIDAE	*	*Turdus merula*	Eurasian Blackbird			626	46	13				6		5	2	5	517	32	
STURNIDAE	*	*Sturnus vulgaris*	Common Starling			6379	492	612	1	4	20	8		65	27	22	1168	3960	
HIRUNDINIDAE		*Cheramoeca leucosternus*	White-backed Swallow			46	11	5							1	6	22	1	
HIRUNDINIDAE		*Hirundo neoxena*	Welcome Swallow			3055	120	48	29	1	1	1		10	28	16	854	1947	
HIRUNDINIDAE		*Hirundo* sp.				1									1				
HIRUNDINIDAE		*Petrochelidon ariel*	Fairy Martin			189	20	7						12		14	68	68	
HIRUNDINIDAE		*Petrochelidon nigricans*	Tree Martin			1526	103	39		9				14	6	4	350	1001	
ZOSTEROPIDAE		*Zosterops lateralis*	Silvereye			1343	478	36	109	1		11	82	18	33	7	355	213	
SYLVIIDAE		*Acrocephalus australis*	Australian Reed Warbler, (Clamorous Reed-Warbler)			150	25	19						3		9	77	17	
SYLVIIDAE		*Cincloramphus cruralis*	Brown Songlark			211	21	12			9				1	17	145	6	
SYLVIIDAE		*Cincloramphus mathewsi*	Rufous Songlark			135	37	25		3				2	2	9	56	1	
SYLVIIDAE		*Cisticola exilis*	Golden-headed Cisticola		R	6											1	5	
SYLVIIDAE		*Megalurus gramineus*	Little Grassbird			203	17	8						2		10	121	45	
FRINGILLIDAE	*	*Carduelis carduelis*	European Goldfinch			82	8	19							2	2	48	3	
FRINGILLIDAE	*	*Carduelis chloris*	European Greenfinch			10											10		
ALAUDIDAE	*	*Alauda arvensis*	Eurasian Skylark			527	160	33			5				3	5	236	85	
ALAUDIDAE		*Mirafra javanica*	Horsfield's Bushlark			117	14	10							3	21	67	2	
DICAEIDAE		*Dicaeum hirundinaceum*	Mistletoebird			274	73	11				11		4	11	4	139	21	
PASSERIDAE	*	*Passer domesticus*	House Sparrow			1836	338	110			6			8	16	5	1168	185	

Family	I	Scientific Name	Common Name	Aus	SA	Total	SU 162	OP 162	13	24	116	168	196	OP	RE	SAM	Bird Atlas	SAOA	Wader SG
MOTACILLIDAE		*Anthus novaeseelandiae*	Richard's Pipit			562	72	42		2	38			2	15	15	296	80	
ESTRILDIDAE		*Neochmia temporalis*	Red-browed Finch			9											5	4	
ESTRILDIDAE		*Stagonopleura bella*	Beautiful Firetail		R	1									1				
ESTRILDIDAE		*Stagonopleura guttata*	Diamond Firetail		V	227	12	14				3			3	5	187	3	
ESTRILDIDAE		*Taeniopygia guttata*	Zebra Finch			52	2	9			3				1	8	24	5	
			Total Records			**1859773**	**15045**	**10289**	**863**	**507**	**249**	**754**	**520**	**924**	**1615**	**2099**	**166170**	**127233**	**1533505**
			Total Species[2]	**7**	**63**	**327**	**180**	**197**	**44**	**47**	**16**	**54**	**44**	**115**	**175**	**244**	**280**	**205**	**44**

Notes: 1 = Most likely a number of these records are *Acanthiza apicalis* (Inland Thornbill) but unable to verify all.
2 = Includes taxa identified only to genus level.

APPENDIX 20. BIRD SPECIES SITE FREQUENCY FOR EACH GENERALISED STRUCTURAL VEGETATION FORMATION CATEGORY SAMPLED.

I Indigenous/alien designation. Naturalised alien species are designated with an asterisk (*).

N.B. The total number of species recorded in each structural vegetation formation category is provided at the end of the table.

			No. of sites sampled →	15	4	7	16	14	8	3	41	34	20	8	170
Family	**I**	**Species Name**	**Common Name**	**Tussock Grassland**	**Hummock Grassland**	**Sedgeland**	**Low Shrubland**	**Shrubland**	**Tall Shrubland**	**Low Mallee**	**Mallee**	**Low Woodland**	**Woodland**	**not recorded**	**Total Sites**
Casuariidae		*Dromaius novaehollandiae*	Emu	3			1		2	3	7	2	3	1	22
Megapodiidae		*Leipoa ocellata*	Malleefowl										1		1
Phasianidae		*Coturnix pectoralis*	Stubble Quail			1	1	1							3
Phasianidae		*Coturnix* sp.										1			1
Anatidae		*Anas castanea*	Chestnut Teal	1					1						2
Anatidae		*Anas gracilis*	Grey Teal	1			1		1				1		4
Anatidae		*Anas superciliosa*	Pacific Black Duck	2		1		1			1	3	2		10
Anatidae		*Aythya australis*	Hardhead (White-eyed Duck)				1						1		2
Anatidae		*Cereopsis novaehollandiae*	Cape Barren Goose				1								1
Anatidae		*Chenonetta jubata*	Australian Wood Duck, (Maned Duck)	1								1	2		4
Anatidae		*Cygnus atratus*	Black Swan	1											1
Anatidae		*Tadorna tadornoides*	Australian Shelduck				1					1			2
Podicipedidae		*Poliocephalus poliocephalus*	Hoary-headed Grebe	1								1			2
Podicipedidae		*Tachybaptus novaehollandiae*	Australasian Grebe, (Little Grebe)									1	1		2
Phalacrocoracidae		*Phalacrocorax melanoleucos*	Little Pied Cormorant	1		1						2	2		6
Pelecanidae		*Pelecanus conspicillatus*	Australian Pelican	1			1								2
Ardeidae		*Ardea pacifica*	White-necked Heron	1											1
Ardeidae		*Egretta novaehollandiae*	White-faced Heron	1		4	1	1	1			3	3		14
Threskiornithidae		*Platalea flavipes*	Yellow-billed Spoonbill										1		1
Accipitridae		*Accipiter cirrhocephalus*	Collared Sparrowhawk							1	2	1		1	5
Accipitridae		*Accipiter fasciatus*	Brown Goshawk					1			6	2	2	1	12
Accipitridae		*Accipiter* sp.											1	1	2
Accipitridae		*Aquila audax*	Wedge-tailed Eagle	3	3		2	1	1	1	6	10	5		32
Accipitridae		*Circus approximans*	Swamp Harrier					1				1			2
Accipitridae		*Circus assimilis*	Spotted Harrier						1		1	2		1	5
Accipitridae		*Elanus axillaris*	Black-shouldered Kite	1											1
Accipitridae		*Haliastur sphenurus*	Whistling Kite	1								1	1		3
Accipitridae		*Hieraaetus morphnoides*	Little Eagle						1				1		2
Accipitridae		*Lophoictinia isura*	Square-tailed Kite								1				1
Accipitridae		*Milvus migrans*	Black Kite					1							1
Falconidae		*Falco berigora*	Brown Falcon				2	1	1		2	7	4		17
Falconidae		*Falco cenchroides*	Nankeen Kestrel	5	2	4	7	4			2	4	3	1	32
Falconidae		*Falco longipennis*	Australian Hobby	1											1
Falconidae		*Falco peregrinus*	Peregrine Falcon								1	1	1	1	4
Falconidae		*Falco subniger*	Black Falcon				2	1	1			1			5
Rallidae		*Fulica atra*	Eurasian Coot	1								2	2		5
Rallidae		*Gallinula tenebrosa*	Dusky Moorhen	1								1	1		3
Rallidae		*Gallinula ventralis*	Black-tailed Native-hen	1				1					1		3
Rallidae		*Porphyrio porphyrio*	Purple Swamphen	1								1	1		3
Rallidae		*Porzana fluminea*	Australian Spotted Crake	1											1
Rallidae		*Porzana pusilla*	Baillon's Crake			1									1
Rallidae		*Porzana* sp.											1		1
Rallidae		*Porzana tabuensis*	Spotless Crake	1								1			2
Turnicidae		*Turnix varia*	Painted Button-quail								1	2	2	1	6
Turnicidae		*Turnix velox*	Little Button-quail	1	1							1	1		4
Scolopacidae		*Calidris acuminata*	Sharp-tailed Sandpiper				1								1
Scolopacidae		*Calidris ruficollis*	Red-necked Stint				1								1
Scolopacidae		*Tringa nebularia*	Common Greenshank						1						1
Recurvirostridae		*Cladorhynchus leucocephalus*	Banded Stilt				1								1
Recurvirostridae		*Himantopus himantopus*	Black-winged Stilt	1			1								2
Recurvirostridae		*Recurvirostra novaehollandiae*	Red-necked Avocet				1								1
Charadriidae		*Charadrius ruficapillus*	Red-capped Plover				1								1
Charadriidae		*Elseyornis melanops*	Black-fronted Dotterel			1									1

			No. of sites sampled →	15	4	7	16	14	8	3	41	34	20	8	170
Family	**I**	**Species Name**	**Common Name**	**Tussock Grassland**	**Hummock Grassland**	**Sedgeland**	**Low Shrubland**	**Shrubland**	**Tall Shrubland**	**Low Mallee**	**Mallee**	**Low Woodland**	**Woodland**	**not recorded**	**Total Sites**
Charadriidae		*Erythrogonys cinctus*	Red-kneed Dotterel	1											1
Charadriidae		*Vanellus miles*	Masked Lapwing	1		1	1				1	2		1	7
Charadriidae		*Vanellus tricolor*	Banded Lapwing				2	1							3
Laridae		*Larus novaehollandiae*	Silver Gull			1	4	2	3		1			2	13
Laridae		*Sterna bergii*	Crested Tern											1	1
Laridae		*Sterna caspia*	Caspian Tern					1							1
Columbidae	*	*Columba livia*	Rock Dove	2					1		1	2		1	7
Columbidae		*Geopelia placida*	Peaceful Dove								1	4	4		9
Columbidae		*Ocyphaps lophotes*	Crested Pigeon	3	1	2	4	5	3		4	11	4		37
Columbidae		*Phaps chalcoptera*	Common Bronzewing					2	2		16	7	6	2	35
Columbidae		*Phaps elegans*	Brush Bronzewing				1	3	5	2	11	6	4	7	39
Columbidae		*Phaps* sp.											1		1
Columbidae	*	*Streptopelia chinensis*	Spotted Turtle-dove					1				1			2
Cacatuidae		*Cacatua roseicapilla*	Galah	12	3	3	6	10	6	1	32	26	18	6	123
Cacatuidae		*Cacatua sanguinea*	Little Corella										1		1
Cacatuidae		*Nymphicus hollandicus*	Cockatiel								4	1	1		6
Psittacidae		*Barnardius zonarius*	Australian Ringneck, (Ring-necked Parrot)		1		1	4			12	11	4		33
Psittacidae		*Glossopsitta concinna*	Musk Lorikeet						1		1	1	6		9
Psittacidae		*Glossopsitta porphyrocephala*	Purple-crowned Lorikeet					1					3		4
Psittacidae		*Melopsittacus undulatus*	Budgerigar					1			6	1			8
Psittacidae		*Neophema chrysostoma*	Blue-winged Parrot				1	1							2
Psittacidae		*Neophema elegans*	Elegant Parrot	1				2			1		1		5
Psittacidae		*Neophema petrophila*	Rock Parrot				1		1		1	1	1	2	7
Psittacidae		*Neophema* sp.				1	1	1	1			1			5
Psittacidae		*Northiella haematogaster*	Blue Bonnet					2			1	2		1	6
Psittacidae		*Platycercus elegans*	Crimson Rosella			2		1	1		3	8	12		27
Psittacidae		*Platycercus eximius*	Eastern Rosella									1	1		2
Psittacidae		*Psephotus haematonotus*	Red-rumped Parrot	1			1		1		7	10	6		26
Psittacidae		*Psephotus varius*	Mulga Parrot				1	1			6	5	4		17
Psittacidae		*Trichoglossus haematodus*	Rainbow Lorikeet								1	2			3
Cuculidae		*Cacomantis flabelliformis*	Fan-tailed Cuckoo				1	1	1	2	4		4	2	15
Cuculidae		*Chrysococcyx basalis*	Horsfield's Bronze-cuckoo				3	6	3	1	7	5	2	2	29
Cuculidae		*Chrysococcyx lucidus*	Shining Bronze-Cuckoo									1	2		3
Cuculidae		*Chrysococcyx osculans*	Black-eared Cuckoo					1			1				2
Cuculidae		*Cuculus pallidus*	Pallid Cuckoo				1		2		2				5
Strigidae		*Ninox novaeseelandiae*	Southern Boobook						1				1		2
Tytonidae		*Tyto alba*	Barn Owl								1	2			3
Podargidae		*Podargus strigoides*	Tawny Frogmouth								3	4	2		9
Caprimulgidae		*Eurostopodus argus*	Spotted Nightjar										1		1
Aegothelidae		*Aegotheles cristatus*	Australian Owlet-nightjar								2	3	2		7
Apodidae		*Apus pacificus*	Fork-tailed Swift											1	1
Alcedinidae		*Dacelo novaeguineae*	Laughing Kookaburra								2	2	11		15
Alcedinidae		*Todiramphus pyrrhopygia*	Red-backed Kingfisher								1				1
Alcedinidae		*Todiramphus sanctus*	Sacred Kingfisher								1		1		2
Meropidae		*Merops ornatus*	Rainbow Bee-eater								4				4
Climacteridae		*Climacteris picumnus*	Brown Treecreeper					1	1		5	6	5		18
Maluridae		*Malurus cyaneus*	Superb Fairy-wren						1		2				3
Maluridae		*Malurus lamberti*	Variegated Fairy-wren	1		1	4	9	6	1	19	10	6	8	65
Maluridae		*Malurus leucopterus*	White-winged Fairy-wren	1			6	4				1			12
Pardalotidae		*Pardalotus punctatus*	Spotted Pardalote								16	1	5	8	30
Pardalotidae		*Pardalotus striatus*	Striated Pardalote				1	2	3		22	18	14		60
Acanthizidae		*Acanthiza apicalis*	Inland Thornbill	1		1		1	3		12	9	2	2	31
Acanthizidae		*Acanthiza chrysorrhoa*	Yellow-rumped Thornbill	1	1		1	4	2		10	20	3	2	44
Acanthizidae		*Acanthiza iredalei*	Slender-billed Thornbill					1							1
Acanthizidae		*Acanthiza nana*	Yellow Thornbill	1				2	2		4	7	5		21
Acanthizidae		*Acanthiza reguloides*	Buff-rumped Thornbill					2	1		1	3	4		11
Acanthizidae		*Acanthiza* sp.									3		1		4
Acanthizidae		*Acanthiza uropygialis*	Chestnut-rumped Thornbill		1			1			6	1			9
Acanthizidae		*Aphelocephala leucopsis*	Southern Whiteface				1		1		1	7			10
Acanthizidae		*Calamanthus campestris*	Rufous Fieldwren				2								2
Acanthizidae		*Calamanthus fuliginosus*	Striated Fieldwren											1	1

			No. of sites sampled →	15	4	7	16	14	8	3	41	34	20	8	170
Family	**I**	**Species Name**	**Common Name**	**Tussock Grassland**	**Hummock Grassland**	**Sedgeland**	**Low Shrubland**	**Shrubland**	**Tall Shrubland**	**Low Mallee**	**Mallee**	**Low Woodland**	**Woodland**	**not recorded**	**Total Sites**
Acanthizidae		*Pyrrholaemus brunneus*	Redthroat				1	1			3	2			7
Acanthizidae		*Sericornis frontalis*	White-browed Scrubwren			1	3	2	4	3	9	7	4	8	41
Acanthizidae		*Smicrornis brevirostris*	Weebill			1		3	1		29	14	8		56
Meliphagidae		*Acanthagenys rufogularis*	Spiny-cheeked Honeyeater	1		2	6	10	4	2	27	13	6	4	75
Meliphagidae		*Anthochaera carunculata*	Red Wattlebird	1	1	1	1	2	4	3	21	13	14	7	68
Meliphagidae		*Anthochaera chrysoptera*	Little Wattlebird								1				1
Meliphagidae		*Epthianura albifrons*	White-fronted Chat		1		6	3			1				11
Meliphagidae		*Epthianura aurifrons*	Orange Chat				1					1			2
Meliphagidae		*Epthianura tricolor*	Crimson Chat									1			1
Meliphagidae		*Gliciphila melanops*	Tawny-crowned Honeyeater				2			1	1			1	5
Meliphagidae		*Lichenostomus chrysops*	Yellow-faced Honeyeater					1			1	1	2		5
Meliphagidae		*Lichenostomus cratitius*	Purple-gaped Honeyeater							3	11	1	4	7	26
Meliphagidae		*Lichenostomus leucotis*	White-eared Honeyeater					1			3	1	3		8
Meliphagidae		*Lichenostomus ornatus*	Yellow-plumed Honeyeater								2				2
Meliphagidae		*Lichenostomus penicillatus*	White-plumed Honeyeater	1			1		1		5	7	8		23
Meliphagidae		*Lichenostomus virescens*	Singing Honeyeater	2		4	7	10	4		12	17	3	3	62
Meliphagidae		*Manorina flavigula*	Yellow-throated Miner	1			1				9	6	2		19
Meliphagidae		*Manorina melanocephala*	Noisy Miner		1						1	2	4		8
Meliphagidae		*Manorina* sp.										1			1
Meliphagidae		*Melithreptus brevirostris*	Brown-headed Honeyeater					1	2		12	6	11	4	36
Meliphagidae		*Phylidonyris albifrons*	White-fronted Honeyeater					4			4	3	2		13
Meliphagidae		*Phylidonyris novaehollandiae*	New Holland Honeyeater				1		1		2	1	4	6	15
Petroicidae		*Drymodes brunneopygia*	Southern Scrub-robin							1	5		3	2	11
Petroicidae		*Melanodryas cucullata*	Hooded Robin				1	1	2		3	3			10
Petroicidae		*Microeca fascinans*	Jacky Winter								4	3	1		8
Petroicidae		*Petroica goodenovii*	Red-capped Robin					1	1		4	8	2		16
Petroicidae		*Petroica multicolor*	Scarlet Robin								1	2	3		6
Pomatostomidae		*Pomatostomus* sp.					1								1
Pomatostomidae		*Pomatostomus superciliosus*	White-browed Babbler			1	2	6	3	1	15	6	2	6	42
Eupetidae		*Psophodes nigrogularis leucogaster*	Western Whipbird							2	2		3	6	13
Neosittidae		*Daphoenositta chrysoptera*	Varied Sittella					1	1		6	3	4		15
Pachycephalidae		*Colluricincla harmonica*	Grey Shrike-thrush				1	6	6	2	33	22	18	7	95
Pachycephalidae		*Falcunculus frontatus*	Crested Shrike-tit										1		1
Pachycephalidae		*Oreoica gutturalis*	Crested Bellbird				1	2		2	3			1	9
Pachycephalidae		*Pachycephala inornata*	Gilbert's Whistler					1	1		1				3
Pachycephalidae		*Pachycephala pectoralis*	Golden Whistler						2	1	13	3	3	6	28
Pachycephalidae		*Pachycephala rufiventris*	Rufous Whistler					2	2		9	13	5		31
Pachycephalidae		*Pachycephala* sp.										1			1
Dicruridae		*Grallina cyanoleuca*	Magpie-lark			4	1					3	6		14
Dicruridae		*Myiagra inquieta*	Restless Flycatcher									1			1
Dicruridae		*Rhipidura albiscapa*	Grey Fantail				1		2		9	5	4	5	26
Dicruridae		*Rhipidura leucophrys*	Willie Wagtail	2		5	3	7	4	1	7	18	6	1	54
Artamidae		*Artamus cinereus*	Black-faced Woodswallow				1					2			3
Artamidae		*Artamus cyanopterus*	Dusky Woodswallow					2	1		1	3	6		13
Artamidae		*Artamus personatus*	Masked Woodswallow								4	1			5
Artamidae		*Artamus* sp.									1				1
Artamidae		*Artamus superciliosus*	White-browed Woodswallow					1			2	1			4
Artamidae		*Cracticus torquatus*	Grey Butcherbird		1	1	1	5	3	3	22	12	10	2	60
Artamidae		*Gymnorhina tibicen*	Australian Magpie	8	3	5	9	6	5	2	26	27	16	2	109
Artamidae		*Strepera versicolor*	Grey Currawong	1			2	4	5	3	24	12	10	5	66
Campephagidae		*Coracina novaehollandiae*	Black-faced Cuckoo-shrike	1	1	1		4	1	1	12	15	7		43
Campephagidae		*Lalage tricolor*	White-winged Triller					1	1		1	2	1		6
Corvidae		*Corvus coronoides*	Australian Raven				3	1	3	1	6	5	2		21
Corvidae		*Corvus mellori*	Little Raven	6	2	4	8	9	7		26	29	15	4	110
Corvidae		*Corvus* sp.						1			4				5
Corcoracidae		*Corcorax melanorhamphos*	White-winged Chough					1			7	5	7		20
Corcoracidae		*Struthidea cinerea*	Apostlebird		1			1				2	1		5
Muscicapidae	*	*Turdus merula*	Eurasian Blackbird	1		1		2	1		2	6	5		18
Sturnidae	*	*Sturnus vulgaris*	Common Starling	2	1	1	6	7	4		13	10	5	1	50
Hirundinidae		*Cheramoeca leucosternus*	White-backed Swallow									2	1		3
Hirundinidae		*Hirundo neoxena*	Welcome Swallow	4		1	2	3	5		1	10	3	6	35

			No. of sites sampled →	15	4	7	16	14	8	3	41	34	20	8	170
Family	**I**	**Species Name**	**Common Name**	**Tussock Grassland**	**Hummock Grassland**	**Sedgeland**	**Low Shrubland**	**Shrubland**	**Tall Shrubland**	**Low Mallee**	**Mallee**	**Low Woodland**	**Woodland**	**not recorded**	**Total Sites**
Hirundinidae		*Petrochelidon ariel*	Fairy Martin	2			1	1					1		5
Hirundinidae		*Petrochelidon nigricans*	Tree Martin				1		1		2	3	3		10
Zosteropidae		*Zosterops lateralis*	Silvereye				3	6	5	2	16	11	7	8	58
Sylviidae		*Acrocephalus australis*	Australian Reed Warbler, (Clamorous Reed-Warbler)	2		3						1	2		8
Sylviidae		*Cincloramphus cruralis*	Brown Songlark	6		2	5								13
Sylviidae		*Cincloramphus mathewsi*	Rufous Songlark			2		4			2	1	2		11
Sylviidae		*Megalurus gramineus*	Little Grassbird	2		2						1	2		7
Fringillidae	*	*Carduelis carduelis*	European Goldfinch			1							1		2
Alaudidae	*	*Alauda arvensis*	Eurasian Skylark	8		3	9	4			2	2			28
Alaudidae		*Mirafra javanica*	Horsfield's Bushlark		1	1	1	1				2			6
Dicaeidae		*Dicaeum hirundinaceum*	Mistletoebird		1			2	2		9	10	9		33
Passeridae	*	*Passer domesticus*	House Sparrow	4		2	3	1			2	7	2		21
Motacillidae		*Anthus novaeseelandiae*	Richard's Pipit	10	2	2	7	3			1	2	1		28
Estrildidae		*Stagonopleura guttata*	Diamond Firetail						1			4	1		6
Estrildidae		*Taeniopygia guttata*	Zebra Finch	1								1			2
			Species Counts Per Category	**57**	**20**	**39**	**74**	**84**	**67**	**26**	**110**	**123**	**113**	**48**	**190**

APPENDIX 21. BIRD SPECIES SITE FREQUENCY FOR EACH LANDFORM PATTERN CATEGORY SAMPLED.

I Indigenous/alien designation. Naturalised alien species are designated with an asterisk (*).
N.B. The total number of species recorded in each landform category is provided at the end of the table.

			No. of sites sampled →	45	42	2	4	11	23	4	18	9	12	170
Family	**I**	**Species Name**	**Common Name**	**Hills**	**Low hills**	**Rises**	**Alluvial plain**	**Flood plain**	**Plain**	**Sand plain**	**Consolidated dunefield**	**Dunefield**	**not recorded**	**Total Sites**
Casuariidae		*Dromaius novaehollandiae*	Emu	5	1	1	1		2	1	7		4	22
Megapodiidae		*Leipoa ocellata*	Malleefowl										1	1
Phasianidae		*Coturnix pectoralis*	Stubble Quail		1				1			1		3
Phasianidae		*Coturnix* sp.									1			1
Anatidae		*Anas castanea*	Chestnut Teal					1		1				2
Anatidae		*Anas gracilis*	Grey Teal		1			1	1	1				4
Anatidae		*Anas superciliosa*	Pacific Black Duck	1	2			5	2					10
Anatidae		*Aythya australis*	Hardhead (White-eyed Duck)		1				1					2
Anatidae		*Cereopsis novaehollandiae*	Cape Barren Goose						1					1
Anatidae		*Chenonetta jubata*	Australian Wood Duck, (Maned Duck)		1			3						4
Anatidae		*Cygnus atratus*	Black Swan					1						1
Anatidae		*Tadorna tadornoides*	Australian Shelduck						2					2
Podicipedidae		*Poliocephalus poliocephalus*	Hoary-headed Grebe					2						2
Podicipedidae		*Tachybaptus novaehollandiae*	Australasian Grebe, (Little Grebe)					2						2
Phalacrocoracidae		*Phalacrocorax melanoleucos*	Little Pied Cormorant	1	1			4						6
Pelecanidae		*Pelecanus conspicillatus*	Australian Pelican					1				1		2
Ardeidae		*Ardea pacifica*	White-necked Heron					1						1
Ardeidae		*Egretta novaehollandiae*	White-faced Heron	3	3			5	1	1	1			14
Threskiornithidae		*Platalea flavipes*	Yellow-billed Spoonbill		1									1
Accipitridae		*Accipiter cirrhocephalus*	Collared Sparrowhawk			1		1			2		1	5
Accipitridae		*Accipiter fasciatus*	Brown Goshawk		3	2			3			3	1	12
Accipitridae		*Accipiter* sp.		1									1	2
Accipitridae		*Aquila audax*	Wedge-tailed Eagle	17	8				5	1	1			32
Accipitridae		*Circus approximans*	Swamp Harrier						2					2
Accipitridae		*Circus assimilis*	Spotted Harrier	1	1				1			1	1	5
Accipitridae		*Elanus axillaris*	Black-shouldered Kite					1						1
Accipitridae		*Haliastur sphenurus*	Whistling Kite		1			2						3
Accipitridae		*Hieraaetus morphnoides*	Little Eagle		2									2
Accipitridae		*Lophoictinia isura*	Square-tailed Kite								1			1
Accipitridae		*Milvus migrans*	Black Kite					1						1
Falconidae		*Falco berigora*	Brown Falcon	4	6		1	1	3		2			17
Falconidae		*Falco cenchroides*	Nankeen Kestrel	11	7	1	2	5	2			3	1	32
Falconidae		*Falco longipennis*	Australian Hobby	1										1
Falconidae		*Falco peregrinus*	Peregrine Falcon	2	1								1	4
Falconidae		*Falco subniger*	Black Falcon	1			1	1			1	1		5
Rallidae		*Fulica atra*	Eurasian Coot	1	1			3						5
Rallidae		*Gallinula tenebrosa*	Dusky Moorhen		1			2						3
Rallidae		*Gallinula ventralis*	Black-tailed Native-hen		1			1				1		3
Rallidae		*Porphyrio porphyrio*	Purple Swamphen					3						3
Rallidae		*Porzana fluminea*	Australian Spotted Crake					1						1
Rallidae		*Porzana pusilla*	Baillon's Crake					1						1
Rallidae		*Porzana* sp.						1						1
Rallidae		*Porzana tabuensis*	Spotless Crake					2						2
Turnicidae		*Turnix varia*	Painted Button-quail	2	2								2	6
Turnicidae		*Turnix velox*	Little Button-quail	3	1									4
Scolopacidae		*Calidris acuminata*	Sharp-tailed Sandpiper						1					1
Scolopacidae		*Calidris ruficollis*	Red-necked Stint						1					1
Scolopacidae		*Tringa nebularia*	Common Greenshank							1				1
Recurvirostridae		*Cladorhynchus leucocephalus*	Banded Stilt						1					1
Recurvirostridae		*Himantopus himantopus*	Black-winged Stilt					1	1					2
Recurvirostridae		*Recurvirostra novaehollandiae*	Red-necked Avocet						1					1
Charadriidae		*Charadrius ruficapillus*	Red-capped Plover						1					1
Charadriidae		*Elseyornis melanops*	Black-fronted Dotterel		1									1
Charadriidae		*Erythrogonys cinctus*	Red-kneed Dotterel					1						1

			No. of sites sampled →	45	42	2	4	11	23	4	18	9	12	170
Family	**I**	**Species Name**	**Common Name**	**Hills**	**Low hills**	**Rises**	**Alluvial plain**	**Flood plain**	**Plain**	**Sand plain**	**Consolidated dunefield**	**Dunefield**	**not recorded**	**Total Sites**
Charadriidae		*Vanellus miles*	Masked Lapwing		1			1	3		1		1	7
Charadriidae		*Vanellus tricolor*	Banded Lapwing		1				2					3
Laridae		*Larus novaehollandiae*	Silver Gull		1				3	1	5	1	2	13
Laridae		*Sterna bergii*	Crested Tern										1	1
Laridae		*Sterna caspia*	Caspian Tern									1		1
Columbidae	*	*Columba livia*	Rock Dove	1	2			2			1		1	7
Columbidae		*Geopelia placida*	Peaceful Dove	4	3			2						9
Columbidae		*Ocyphaps lophotes*	Crested Pigeon	4	13		2	2	6	2	4	4		37
Columbidae		*Phaps chalcoptera*	Common Bronzewing	9	8	1			6		3	3	5	35
Columbidae		*Phaps elegans*	Brush Bronzewing	2	3				7	2	12	2	11	39
Columbidae		*Phaps* sp.		1										1
Columbidae	*	*Streptopelia chinensis*	Spotted Turtle-dove					1				1		2
Cacatuidae		*Cacatua roseicapilla*	Galah	37	35	2	3	9	13	1	10	5	8	123
Cacatuidae		*Cacatua sanguinea*	Little Corella	1										1
Cacatuidae		*Nymphicus hollandicus*	Cockatiel		3	1	1		1					6
Psittacidae		*Barnardius zonarius*	Australian Ringneck, (Ring-necked Parrot)	9	17	1	1	1	3		1			33
Psittacidae		*Glossopsitta concinna*	Musk Lorikeet	6	3									9
Psittacidae		*Glossopsitta porphyrocephala*	Purple-crowned Lorikeet	1	1							1	1	4
Psittacidae		*Melopsittacus undulatus*	Budgerigar	4	1	1	1		1					8
Psittacidae		*Neophema chrysostoma*	Blue-winged Parrot						1			1		2
Psittacidae		*Neophema elegans*	Elegant Parrot	3	1				1					5
Psittacidae		*Neophema petrophila*	Rock Parrot						1		3		3	7
Psittacidae		*Neophema* sp.			2				1		1	1		5
Psittacidae		*Northiella haematogaster*	Blue Bonnet		2					1	1	1	1	6
Psittacidae		*Platycercus elegans*	Crimson Rosella	19	8									27
Psittacidae		*Platycercus eximius*	Eastern Rosella		2									2
Psittacidae		*Psephotus haematonotus*	Red-rumped Parrot	9	15			2						26
Psittacidae		*Psephotus varius*	Mulga Parrot	4	4				5		3		1	17
Psittacidae		*Trichoglossus haematodus*	Rainbow Lorikeet						2		1			3
Cuculidae		*Cacomantis flabelliformis*	Fan-tailed Cuckoo						1	1	6	1	6	15
Cuculidae		*Chrysococcyx basalis*	Horsfield's Bronze-cuckoo	1	1			2	5	2	8	6	4	29
Cuculidae		*Chrysococcyx lucidus*	Shining Bronze-Cuckoo						1				2	3
Cuculidae		*Chrysococcyx osculans*	Black-eared Cuckoo	1	1									2
Cuculidae		*Cuculus pallidus*	Pallid Cuckoo							3	1	1		5
Strigidae		*Ninox novaeseelandiae*	Southern Boobook	1	1									2
Tytonidae		*Tyto alba*	Barn Owl		1			1	1					3
Podargidae		*Podargus strigoides*	Tawny Frogmouth	4	2			1	1				1	9
Caprimulgidae		*Eurostopodus argus*	Spotted Nightjar										1	1
Aegothelidae		*Aegotheles cristatus*	Australian Owlet-nightjar	1	5								1	7
Apodidae		*Apus pacificus*	Fork-tailed Swift										1	1
Alcedinidae		*Dacelo novaeguineae*	Laughing Kookaburra	8	6			1						15
Alcedinidae		*Todiramphus pyrrhopygia*	Red-backed Kingfisher		1									1
Alcedinidae		*Todiramphus sanctus*	Sacred Kingfisher	1	1									2
Meropidae		*Merops ornatus*	Rainbow Bee-eater	2	1	1								4
Climacteridae		*Climacteris picumnus*	Brown Treecreeper	8	7	2			1					18
Maluridae		*Malurus cyaneus*	Superb Fairy-wren	1	2									3
Maluridae		*Malurus lamberti*	Variegated Fairy-wren	7	9	1	1	6	6	2	13	8	12	65
Maluridae		*Malurus leucopterus*	White-winged Fairy-wren	1	1		2	3	5					12
Pardalotidae		*Pardalotus punctatus*	Spotted Pardalote	1	7				4		4	3	11	30
Pardalotidae		*Pardalotus striatus*	Striated Pardalote	23	24	2		1	5	1	2	1	1	60
Acanthizidae		*Acanthiza apicalis*	Inland Thornbill	2	4				10	1	7	4	3	31
Acanthizidae		*Acanthiza chrysorrhoa*	Yellow-rumped Thornbill	10	19			3	7		2		3	44
Acanthizidae		*Acanthiza iredalei*	Slender-billed Thornbill								1			1
Acanthizidae		*Acanthiza nana*	Yellow Thornbill	10	8			1				2		21
Acanthizidae		*Acanthiza reguloides*	Buff-rumped Thornbill	9	2									11
Acanthizidae		*Acanthiza* sp.		1	3									4
Acanthizidae		*Acanthiza uropygialis*	Chestnut-rumped Thornbill	3	5	1								9
Acanthizidae		*Aphelocephala leucopsis*	Southern Whiteface	5	4		1							10
Acanthizidae		*Calamanthus campestris*	Rufous Fieldwren								1	1		2
Acanthizidae		*Calamanthus fuliginosus*	Striated Fieldwren										1	1

			No. of sites sampled →	45	42	2	4	11	23	4	18	9	12	170
Family	**I**	**Species Name**	**Common Name**	**Hills**	**Low hills**	**Rises**	**Alluvial plain**	**Flood plain**	**Plain**	**Sand plain**	**Consolidated dunefield**	**Dunefield**	**not recorded**	**Total Sites**
Acanthizidae		*Pyrrholaemus brunneus*	Redthroat	4	1	1	1							7
Acanthizidae		*Sericornis frontalis*	White-browed Scrubwren		1				9	2	15	2	12	41
Acanthizidae		*Smicrornis brevirostris*	Weebill	17	22	2	1		8		1	4	1	56
Meliphagidae		*Acanthagenys rufogularis*	Spiny-cheeked Honeyeater	10	17	1	2	1	13	3	12	9	7	75
Meliphagidae		*Anthochaera carunculata*	Red Wattlebird	13	21		1	1	5	3	12	1	11	68
Meliphagidae		*Anthochaera chrysoptera*	Little Wattlebird								1			1
Meliphagidae		*Epthianura albifrons*	White-fronted Chat	1			1	1	5	1	1	1		11
Meliphagidae		*Epthianura aurifrons*	Orange Chat		1		1							2
Meliphagidae		*Epthianura tricolor*	Crimson Chat				1							1
Meliphagidae		*Gliciphila melanops*	Tawny-crowned Honeyeater	1							3		1	5
Meliphagidae		*Lichenostomus chrysops*	Yellow-faced Honeyeater	4	1									5
Meliphagidae		*Lichenostomus cratitius*	Purple-gaped Honeyeater						4	2	9		11	26
Meliphagidae		*Lichenostomus leucotis*	White-eared Honeyeater	6	2									8
Meliphagidae		*Lichenostomus ornatus*	Yellow-plumed Honeyeater		1	1								2
Meliphagidae		*Lichenostomus penicillatus*	White-plumed Honeyeater	9	11			3						23
Meliphagidae		*Lichenostomus virescens*	Singing Honeyeater	12	16		1	5	8	1	7	8	4	62
Meliphagidae		*Manorina flavigula*	Yellow-throated Miner	4	7		1	2	3		1	1		19
Meliphagidae		*Manorina melanocephala*	Noisy Miner	3	5									8
Meliphagidae		*Manorina* sp.			1									1
Meliphagidae		*Melithreptus brevirostris*	Brown-headed Honeyeater	10	10				2	1	2	3	8	36
Meliphagidae		*Phylidonyris albifrons*	White-fronted Honeyeater	6	4	1			1		1			13
Meliphagidae		*Phylidonyris novaehollandiae*	New Holland Honeyeater					2	1	1	2		9	15
Petroicidae		*Drymodes brunneopygia*	Southern Scrub-robin						1	1	4		5	11
Petroicidae		*Melanodryas cucullata*	Hooded Robin	2	5	1						2		10
Petroicidae		*Microeca fascinans*	Jacky Winter	1	4	1			2					8
Petroicidae		*Petroica goodenovii*	Red-capped Robin	4	5				3		1	3		16
Petroicidae		*Petroica multicolor*	Scarlet Robin	2					1		1		2	6
Pomatostomidae		*Pomatostomus* sp.		1										1
Pomatostomidae		*Pomatostomus superciliosus*	White-browed Babbler	6	7	1			7	1	5	8	7	42
Eupetidae		*Psophodes nigrogularis leucogaster*	Western Whipbird						2		2		9	13
Neosittidae		*Daphoenositta chrysoptera*	Varied Sittella	5	5				3				2	15
Pachycephalidae		*Colluricincla harmonica*	Grey Shrike-thrush	24	25	1		2	12	4	11	5	11	95
Pachycephalidae		*Falcunculus frontatus*	Crested Shrike-tit	1										1
Pachycephalidae		*Oreoica gutturalis*	Crested Bellbird						3		4	1	1	9
Pachycephalidae		*Pachycephala inornata*	Gilbert's Whistler		1							2		3
Pachycephalidae		*Pachycephala pectoralis*	Golden Whistler		4				6	2	7		9	28
Pachycephalidae		*Pachycephala rufiventris*	Rufous Whistler	13	9			1	5	1		2		31
Pachycephalidae		*Pachycephala* sp.			1									1
Dicruridae		*Grallina cyanoleuca*	Magpie-lark	3	4			3	3			1		14
Dicruridae		*Myiagra inquieta*	Restless Flycatcher						1					1
Dicruridae		*Rhipidura albiscapa*	Grey Fantail	3	5				3	1	4	3	7	26
Dicruridae		*Rhipidura leucophrys*	Willie Wagtail	9	16		2	8	5	2	6	4	2	54
Artamidae		*Artamus cinereus*	Black-faced Woodswallow		1		1					1		3
Artamidae		*Artamus cyanopterus*	Dusky Woodswallow	4	6			2					1	13
Artamidae		*Artamus personatus*	Masked Woodswallow	1	1	1	2							5
Artamidae		*Artamus* sp.							1					1
Artamidae		*Artamus superciliosus*	White-browed Woodswallow		1	1		1	1					4
Artamidae		*Cracticus torquatus*	Grey Butcherbird	8	19	1	1		10	1	10	5	5	60
Artamidae		*Gymnorhina tibicen*	Australian Magpie	31	36	2	2	7	17	1	7	3	3	109
Artamidae		*Strepera versicolor*	Grey Currawong	12	16	1			10	3	15		9	66
Campephagidae		*Coracina novaehollandiae*	Black-faced Cuckoo-shrike	17	10	1	1	4	3		2	3	2	43
Campephagidae		*Lalage tricolor*	White-winged Triller	2	1		1	1		1				6
Corvidae		*Corvus coronoides*	Australian Raven	2	6				1	2	9	1		21
Corvidae		*Corvus mellori*	Little Raven	28	29	1	3	6	16	3	10	7	7	110
Corvidae		*Corvus* sp.		1		1			2		1			5
Corcoracidae		*Corcorax melanorhamphos*	White-winged Chough	9	7		1	1	2					20
Corcoracidae		*Struthidea cinerea*	Apostlebird		5									5
Muscicapidae	*	*Turdus merula*	Eurasian Blackbird	8	2			3	2		2	1		18
Sturnidae	*	*Sturnus vulgaris*	Common Starling	11	13	1		1	10	1	10	2	1	50
Hirundinidae		*Cheramoeca leucosternus*	White-backed Swallow	1	2									3

			No. of sites sampled →	45	42	2	4	11	23	4	18	9	12	170
Family	**I**	**Species Name**	**Common Name**	**Hills**	**Low hills**	**Rises**	**Alluvial plain**	**Flood plain**	**Plain**	**Sand plain**	**Consolidated dunefield**	**Dunefield**	**not recorded**	**Total Sites**
Hirundinidae		*Hirundo neoxena*	Welcome Swallow	5	8		1	4	5		5	1	6	35
Hirundinidae		*Petrochelidon ariel*	Fairy Martin	1	1		1	1			1			5
Hirundinidae		*Petrochelidon nigricans*	Tree Martin	5	2	1	1		1					10
Zosteropidae		*Zosterops lateralis*	Silvereye	12	7			1	8	2	14	2	12	58
Sylviidae		*Acrocephalus australis*	Australian Reed Warbler, (Clamorous Reed-Warbler)		1			7						8
Sylviidae		*Cincloramphus cruralis*	Brown Songlark	5	2		1	1	4					13
Sylviidae		*Cincloramphus mathewsi*	Rufous Songlark	2	2	1		4		1		1		11
Sylviidae		*Megalurus gramineus*	Little Grassbird		1			6						7
Fringillidae	*	*Carduelis carduelis*	European Goldfinch		1			1						2
Alaudidae	*	*Alauda arvensis*	Eurasian Skylark	6	4		2	1	9		6			28
Alaudidae		*Mirafra javanica*	Horsfield's Bushlark	1	2			1	1			1		6
Dicaeidae		*Dicaeum hirundinaceum*	Mistletoebird	17	15	1								33
Passeridae	*	*Passer domesticus*	House Sparrow	6	6			4	5					21
Motacillidae		*Anthus novaeseelandiae*	Richard's Pipit	11	8		2		5		1	1		28
Estrildidae		*Stagonopleura guttata*	Diamond Firetail	3	3									6
Estrildidae		*Taeniopygia guttata*	Zebra Finch	1	1									2
			Species Counts Per Landform	**106**	**128**	**35**	**36**	**76**	**94**	**41**	**68**	**58**	**61**	**190**

APPENDIX 22. BIRD SPECIES SITE FREQUENCY FOR EACH FLORISTIC GROUP CLUSTER (refer Vegetation Chapter).

I Indigenous/alien designation. Naturalised alien species are designated with an asterisk (*).
N.B. The total number of species recorded in each floristic group cluster is provided at the end of the table.

			No. of sites sampled →	17	25	15	7	2	16	5	31	7	14	17	14	170
Family	**I**	**Species Name**	**Common Name**	**Grasslands**	**MN Sheoak Low Woodlands**	**MN Grassy Woodlands**	**Dry Open Shrublands & Mallees**	**Chenopod Shrublands**	**Open Mallee**	**Semi-arid Shrublands**	**YP Mallee & Sedgelands**	**Coastal Shrublands**	**Saline Shrublands**	**Watercourse Communities**	**not in analysis**	**Total Sites**
Casuariidae		*Dromaius novaehollandiae*	Emu	3			2		2		10		1		4	22
Megapodiidae		*Leipoa ocellata*	Malleefowl												1	1
Phasianidae		*Coturnix pectoralis*	Stubble Quail									1	1	1		3
Phasianidae		*Coturnix* sp.										1				1
Anatidae		*Anas castanea*	Chestnut Teal										1	1		2
Anatidae		*Anas gracilis*	Grey Teal										2	2		4
Anatidae		*Anas superciliosa*	Pacific Black Duck			1							2	7		10
Anatidae		*Aythya australis*	Hardhead (White-eyed Duck)										1	1		2
Anatidae		*Cereopsis novaehollandiae*	Cape Barren Goose										1			1
Anatidae		*Chenonetta jubata*	Australian Wood Duck, (Maned Duck)											4		4
Anatidae		*Cygnus atratus*	Black Swan											1		1
Anatidae		*Tadorna tadornoides*	Australian Shelduck										2			2
Podicipedidae		*Poliocephalus poliocephalus*	Hoary-headed Grebe											2		2
Podicipedidae		*Tachybaptus novaehollandiae*	Australasian Grebe, (Little Grebe)											2		2
Phalacrocoracidae		*Phalacrocorax melanoleucos*	Little Pied Cormorant											6		6
Pelecanidae		*Pelecanus conspicillatus*	Australian Pelican									1		1		2
Ardeidae		*Ardea pacifica*	White-necked Heron											1		1
Ardeidae		*Egretta novaehollandiae*	White-faced Heron				1				1	1	2	9		14
Threskiornithidae		*Platalea flavipes*	Yellow-billed Spoonbill											1		1
Accipitridae		*Accipiter cirrhocephalus*	Collared Sparrowhawk					1			2			1	1	5
Accipitridae		*Accipiter fasciatus*	Brown Goshawk					1	4		2	1	1	2	1	12
Accipitridae		*Accipiter* sp.				1									1	2
Accipitridae		*Aquila audax*	Wedge-tailed Eagle	5	7	4	4		1	1	4		2	3	1	32
Accipitridae		*Circus approximans*	Swamp Harrier						1				1			2
Accipitridae		*Circus assimilis*	Spotted Harrier		2						1		1		1	5
Accipitridae		*Elanus axillaris*	Black-shouldered Kite											1		1
Accipitridae		*Haliastur sphenurus*	Whistling Kite											3		3
Accipitridae		*Hieraaetus morphnoides*	Little Eagle			1					1					2
Accipitridae		*Lophoictinia isura*	Square-tailed Kite								1					1
Accipitridae		*Milvus migrans*	Black Kite											1		1
Falconidae		*Falco berigora*	Brown Falcon	2	2	4	1		1		2	1	2	2		17
Falconidae		*Falco cenchroides*	Nankeen Kestrel	7	3	2		1	1	2	2	2	3	7	2	32
Falconidae		*Falco longipennis*	Australian Hobby	1												1
Falconidae		*Falco peregrinus*	Peregrine Falcon		2	1									1	4
Falconidae		*Falco subniger*	Black Falcon	1							1		2	1		5
Rallidae		*Fulica atra*	Eurasian Coot											5		5
Rallidae		*Gallinula tenebrosa*	Dusky Moorhen											3		3
Rallidae		*Gallinula ventralis*	Black-tailed Native-hen									1		2		3
Rallidae		*Porphyrio porphyrio*	Purple Swamphen											3		3
Rallidae		*Porzana fluminea*	Australian Spotted Crake											1		1
Rallidae		*Porzana pusilla*	Baillon's Crake											1		1
Rallidae		*Porzana* sp.												1		1
Rallidae		*Porzana tabuensis*	Spotless Crake											2		2
Turnicidae		*Turnix varia*	Painted Button-quail		1	2			1						2	6
Turnicidae		*Turnix velox*	Little Button-quail	2	1		1									4
Scolopacidae		*Calidris acuminata*	Sharp-tailed Sandpiper										1			1
Scolopacidae		*Calidris ruficollis*	Red-necked Stint										1			1
Scolopacidae		*Tringa nebularia*	Common Greenshank										1			1
Recurvirostridae		*Cladorhynchus leucocephalus*	Banded Stilt										1			1
Recurvirostridae		*Himantopus himantopus*	Black-winged Stilt										1	1		2

			No. of sites sampled →	17	25	15	7	2	16	5	31	7	14	17	14	170
Family	**I**	**Species Name**	**Common Name**	**Grasslands**	**MN Sheoak Low Woodlands**	**MN Grassy Woodlands**	**Dry Open Shrublands & Mallees**	**Chenopod Shrublands**	**Open Mallee**	**Semi-arid Shrublands**	**YP Mallee & Sedgelands**	**Coastal Shrublands**	**Saline Shrublands**	**Watercourse Communities**	**not in analysis**	**Total Sites**
Recurvirostridae		*Recurvirostra novaehollandiae*	Red-necked Avocet										1			1
Charadriidae		*Charadrius ruficapillus*	Red-capped Plover										1			1
Charadriidae		*Elseyornis melanops*	Black-fronted Dotterel											1		1
Charadriidae		*Erythrogonys cinctus*	Red-kneed Dotterel											1		1
Charadriidae		*Vanellus miles*	Masked Lapwing								1		3	2	1	7
Charadriidae		*Vanellus tricolor*	Banded Lapwing	1					1				1			3
Laridae		*Larus novaehollandiae*	Silver Gull	1							3	3	4		2	13
Laridae		*Sterna bergii*	Crested Tern												1	1
Laridae		*Sterna caspia*	Caspian Tern									1				1
Columbidae	*	*Columba livia*	Rock Dove	1		1					2			2	1	7
Columbidae		*Geopelia placida*	Peaceful Dove		2	5								2		9
Columbidae		*Ocyphaps lophotes*	Crested Pigeon	6	3	3	2		3		5	4	6	5		37
Columbidae		*Phaps chalcoptera*	Common Bronzewing	1	5	6	2	1	4		9	1	1		5	35
Columbidae		*Phaps elegans*	Brush Bronzewing		2		1			1	16	5	3		11	39
Columbidae		*Phaps* sp.			1											1
Columbidae	*	*Streptopelia chinensis*	Spotted Turtle-dove									1		1		2
Cacatuidae		*Cacatua roseicapilla*	Galah	9	21	14	6	2	15	5	19	2	6	15	9	123
Cacatuidae		*Cacatua sanguinea*	Little Corella				1									1
Cacatuidae		*Nymphicus hollandicus*	Cockatiel			1		1	3					1		6
Psittacidae		*Barnardius zonarius*	Australian Ringneck, (Ring-necked Parrot)	2	8	5	6	1	6	1	1			3		33
Psittacidae		*Glossopsitta concinna*	Musk Lorikeet		1	6					1			1		9
Psittacidae		*Glossopsitta porphyrocephala*	Purple-crowned Lorikeet			2						1			1	4
Psittacidae		*Melopsittacus undulatus*	Budgerigar		1	2		1	3	1						8
Psittacidae		*Neophema chrysostoma*	Blue-winged Parrot									1	1			2
Psittacidae		*Neophema elegans*	Elegant Parrot	1	1	1			1	1						5
Psittacidae		*Neophema petrophila*	Rock Parrot								3		1		3	7
Psittacidae		*Neophema* sp.		1		1					1	1	1			5
Psittacidae		*Northiella haematogaster*	Blue Bonnet		2				1		1	1			1	6
Psittacidae		*Platycercus elegans*	Crimson Rosella		8	10	1			1	3			4		27
Psittacidae		*Platycercus eximius*	Eastern Rosella			2										2
Psittacidae		*Psephotus haematonotus*	Red-rumped Parrot	1	6	10	1		3		2			3		26
Psittacidae		*Psephotus varius*	Mulga Parrot				4		2	1	4	1	2	2	1	17
Psittacidae		*Trichoglossus haematodus*	Rainbow Lorikeet								1		2			3
Cuculidae		*Cacomantis flabelliformis*	Fan-tailed Cuckoo						1		6	1	1		6	15
Cuculidae		*Chrysococcyx basalis*	Horsfield's Bronze-cuckoo			1	1		4	1	7	4	4	2	5	29
Cuculidae		*Chrysococcyx lucidus*	Shining Bronze-Cuckoo										1		2	3
Cuculidae		*Chrysococcyx osculans*	Black-eared Cuckoo	1	1											2
Cuculidae		*Cuculus pallidus*	Pallid Cuckoo						1		2	1	1			5
Strigidae		*Ninox novaeseelandiae*	Southern Boobook								1			1		2
Tytonidae		*Tyto alba*	Barn Owl				2							1		3
Podargidae		*Podargus strigoides*	Tawny Frogmouth		2	3	1				1			1	1	9
Caprimulgidae		*Eurostopodus argus*	Spotted Nightjar												1	1
Aegothelidae		*Aegotheles cristatus*	Australian Owlet-nightjar		1	3	1		1						1	7
Apodidae		*Apus pacificus*	Fork-tailed Swift												1	1
Alcedinidae		*Dacelo novaeguineae*	Laughing Kookaburra		2	7	1				1			4		15
Alcedinidae		*Todiramphus pyrrhopygia*	Red-backed Kingfisher						1							1
Alcedinidae		*Todiramphus sanctus*	Sacred Kingfisher			2										2
Meropidae		*Merops ornatus*	Rainbow Bee-eater		1	1			2							4
Climacteridae		*Climacteris picumnus*	Brown Treecreeper		2	9		1	2	1	2			1		18
Maluridae		*Malurus cyaneus*	Superb Fairy-wren			2				1						3
Maluridae		*Malurus lamberti*	Variegated Fairy-wren		2	2	6	1	5	3	17	7	2	8	12	65
Maluridae		*Malurus leucopterus*	White-winged Fairy-wren	2				1	1	1			3	3	1	12
Pardalotidae		*Pardalotus punctatus*	Spotted Pardalote		1	1			8		9				11	30
Pardalotidae		*Pardalotus striatus*	Striated Pardalote	1	17	11	3	1	10	2	9			5	1	60
Acanthizidae		*Acanthiza apicalis*	Inland Thornbill		3		1		6		13	1	4		3	31
Acanthizidae		*Acanthiza chrysorrhoa*	Yellow-rumped Thornbill	2	7	7	2		4	2	8	1	3	5	3	44

			No. of sites sampled →	17	25	15	7	2	16	5	31	7	14	17	14	170
Family	**I**	**Species Name**	**Common Name**	**Grasslands**	**MN Sheoak Low Woodlands**	**MN Grassy Woodlands**	**Dry Open Shrublands & Mallees**	**Chenopod Shrublands**	**Open Mallee**	**Semi-arid Shrublands**	**YP Mallee & Sedgelands**	**Coastal Shrublands**	**Saline Shrublands**	**Watercourse Communities**	**not in analysis**	**Total Sites**
Acanthizidae		*Acanthiza iredalei*	Slender-billed Thornbill										1			1
Acanthizidae		*Acanthiza nana*	Yellow Thornbill		5	5	1		2	3	1			4		21
Acanthizidae		*Acanthiza reguloides*	Buff-rumped Thornbill		5	1	1			3				1		11
Acanthizidae		*Acanthiza* sp.				3			1							4
Acanthizidae		*Acanthiza uropygialis*	Chestnut-rumped Thornbill		4		4	1								9
Acanthizidae		*Aphelocephala leucopsis*	Southern Whiteface	1	3	1	1	1		1	1			1		10
Acanthizidae		*Calamanthus campestris*	Rufous Fieldwren								1		1			2
Acanthizidae		*Calamanthus fuliginosus*	Striated Fieldwren												1	1
Acanthizidae		*Pyrrholaemus brunneus*	Redthroat		1		2	2		2						7
Acanthizidae		*Sericornis frontalis*	White-browed Scrubwren				1				18	4	6		12	41
Acanthizidae		*Smicrornis brevirostris*	Weebill		12	8	6	1	13	2	11			2	1	56
Meliphagidae		*Acanthagenys rufogularis*	Spiny-cheeked Honeyeater	2	5	2	6	2	11	3	18	7	8	4	7	75
Meliphagidae		*Anthochaera carunculata*	Red Wattlebird	1	8	12	5		3		19	2	3	4	11	68
Meliphagidae		*Anthochaera chrysoptera*	Little Wattlebird								1					1
Meliphagidae		*Epthianura albifrons*	White-fronted Chat		1				2				7	1		11
Meliphagidae		*Epthianura aurifrons*	Orange Chat	1				1								2
Meliphagidae		*Epthianura tricolor*	Crimson Chat					1								1
Meliphagidae		*Gliciphila melanops*	Tawny-crowned Honeyeater							1	3				1	5
Meliphagidae		*Lichenostomus chrysops*	Yellow-faced Honeyeater		2	1				1				1		5
Meliphagidae		*Lichenostomus cratitius*	Purple-gaped Honeyeater								14		1		11	26
Meliphagidae		*Lichenostomus leucotis*	White-eared Honeyeater		2		2			1	1			2		8
Meliphagidae		*Lichenostomus ornatus*	Yellow-plumed Honeyeater					1	1							2
Meliphagidae		*Lichenostomus penicillatus*	White-plumed Honeyeater	1	3	9	1				2			7		23
Meliphagidae		*Lichenostomus virescens*	Singing Honeyeater	2	9	3	4		8	2	11	6	6	7	4	62
Meliphagidae		*Manorina flavigula*	Yellow-throated Miner	1	3	1	3		7		1	1		2		19
Meliphagidae		*Manorina melanocephala*	Noisy Miner		2	4					1			1		8
Meliphagidae		*Manorina* sp.				1										1
Meliphagidae		*Melithreptus brevirostris*	Brown-headed Honeyeater		6	5	1		7		6			3	8	36
Meliphagidae		*Phylidonyris albifrons*	White-fronted Honeyeater		3	1	1	1		3	1	1		2		13
Meliphagidae		*Phylidonyris novaehollandiae*	New Holland Honeyeater								3	1		2	9	15
Petroicidae		*Drymodes brunneopygia*	Southern Scrub-robin								6				5	11
Petroicidae		*Melanodryas cucullata*	Hooded Robin		2			1	2		2	1	1	1		10
Petroicidae		*Microeca fascinans*	Jacky Winter		2	2		1	3							8
Petroicidae		*Petroica goodenovii*	Red-capped Robin		2	3			3	1	2	1	2	2		16
Petroicidae		*Petroica multicolor*	Scarlet Robin		2						1		1		2	6
Pomatostomidae		*Pomatostomus* sp.								1						1
Pomatostomidae		*Pomatostomus superciliosus*	White-browed Babbler	1	1	1	4	1	7	4	9	5	1	1	7	42
Eupetidae		*Psophodes nigrogularis leucogaster*	Western Whipbird								4				9	13
Neosittidae		*Daphoenositta chrysoptera*	Varied Sittella		3		2		5		2			1	2	15
Pachycephalidae		*Colluricincla harmonica*	Grey Shrike-thrush	1	15	13	3	1	12	2	21	4	5	7	11	95
Pachycephalidae		*Falcunculus frontatus*	Crested Shrike-tit			1										1
Pachycephalidae		*Oreoica gutturalis*	Crested Bellbird								5	2	1		1	9
Pachycephalidae		*Pachycephala inornata*	Gilbert's Whistler				1				1	1				3
Pachycephalidae		*Pachycephala pectoralis*	Golden Whistler						3		12		4		9	28
Pachycephalidae		*Pachycephala rufiventris*	Rufous Whistler		7	5			6	2	6		1	4		31
Pachycephalidae		*Pachycephala* sp.				1										1
Dicruridae		*Grallina cyanoleuca*	Magpie-lark			2	1				2		3	6		14
Dicruridae		*Myiagra inquieta*	Restless Flycatcher				1									1
Dicruridae		*Rhipidura albiscapa*	Grey Fantail		1	1			5		7	2	1	2	7	26
Dicruridae		*Rhipidura leucophrys*	Willie Wagtail	3	6	5	2		4		11	3	6	12	2	54
Artamidae		*Artamus cinereus*	Black-faced Woodswallow		1			1					1			3
Artamidae		*Artamus cyanopterus*	Dusky Woodswallow		2	4					2			4	1	13
Artamidae		*Artamus personatus*	Masked Woodswallow			1		1	3							5
Artamidae		*Artamus* sp.							1							1
Artamidae		*Artamus superciliosus*	White-browed Woodswallow		1			1	1					1		4
Artamidae		*Cracticus torquatus*	Grey Butcherbird	1	4	5	7		12	2	14	2	5	3	5	60
Artamidae		*Gymnorhina tibicen*	Australian Magpie	10	20	15	6	1	11	2	16	3	8	12	5	109

			No. of sites sampled →	17	25	15	7	2	16	5	31	7	14	17	14	170
Family	**I**	**Species Name**	**Common Name**	**Grasslands**	**MN Sheoak Low Woodlands**	**MN Grassy Woodlands**	**Dry Open Shrublands & Mallees**	**Chenopod Shrublands**	**Open Mallee**	**Semi-arid Shrublands**	**YP Mallee & Sedgelands**	**Coastal Shrublands**	**Saline Shrublands**	**Watercourse Communities**	**not in analysis**	**Total Sites**
Artamidae		*Strepera versicolor*	Grey Currawong		11	4	3		6	3	21	3	5	1	9	66
Campephagidae		*Coracina novaehollandiae*	Black-faced Cuckoo-shrike	1	8	10	4		5		6	1		6	2	43
Campephagidae		*Lalage tricolor*	White-winged Triller			1	1	1	1		1			1		6
Corvidae		*Corvus coronoides*	Australian Raven		2	2	2				9	1	4	1		21
Corvidae		*Corvus mellori*	Little Raven	6	17	13	6	1	12	1	21	5	10	9	9	110
Corvidae		*Corvus* sp.						1	2	1	1					5
Corcoracidae		*Corcorax melanorhamphos*	White-winged Chough		6	6			5		1			2		20
Corcoracidae		*Struthidea cinerea*	Apostlebird	1	2	1								1		5
Muscicapidae	*	*Turdus merula*	Eurasian Blackbird			4	1				4	1	1	7		18
Sturnidae	*	*Sturnus vulgaris*	Common Starling	3	4	4	2	1	7	1	10	6	6	5	1	50
Hirundinidae		*Cheramoeca leucosternus*	White-backed Swallow		2									1		3
Hirundinidae		*Hirundo neoxena*	Welcome Swallow	1	3	1	1		2		9	1	4	6	7	35
Hirundinidae		*Petrochelidon ariel*	Fairy Martin										2	2	1	5
Hirundinidae		*Petrochelidon nigricans*	Tree Martin		2	4		1	1		1		1			10
Zosteropidae		*Zosterops lateralis*	Silvereye		5	2	5		2	4	16	4	5	3	12	58
Sylviidae		*Acrocephalus australis*	Australian Reed Warbler, (Clamorous Reed-Warbler)											8		8
Sylviidae		*Cincloramphus cruralis*	Brown Songlark	5									4	2	2	13
Sylviidae		*Cincloramphus mathewsi*	Rufous Songlark			2		1	1			1		6		11
Sylviidae		*Megalurus gramineus*	Little Grassbird											7		7
Fringillidae	*	*Carduelis carduelis*	European Goldfinch											2		2
Alaudidae	*	*Alauda arvensis*	Eurasian Skylark	8					1		4	2	9	2	2	28
Alaudidae		*Mirafra javanica*	Horsfield's Bushlark	3					1		1			1		6
Dicaeidae		*Dicaeum hirundinaceum*	Mistletoebird	1	8	11	3		3	1	2			4		33
Passeridae	*	*Passer domesticus*	House Sparrow	4	2	1			2		1		2	8	1	21
Motacillidae		*Anthus novaeseelandiae*	Richard's Pipit	14	2			1	1	1	1	1	4	2	1	28
Estrildidae		*Stagonopleura guttata*	Diamond Firetail		3		1				1			1		6
Estrildidae		*Taeniopygia guttata*	Zebra Finch	2												2
			Species Counts Per Cluster	**45**	**78**	**79**	**58**	**36**	**72**	**41**	**93**	**54**	**78**	**109**	**68**	**190**

APPENDIX 23. BIRDS OF CONSERVATION STATUS FROM ALL SOURCES IN THE MID NORTH AND YORKE PENINSULA BIOLOGICAL SURVEY STUDY AREA.

Aus Australian status under the *Environment Protection and Biodiversity Conservation Act 1999* as at June 2006.
SA South Australian status under the *National Parks and Wildlife Act 1972* (2000 update of schedules 7, 8 and 9).
MN Status in the Mid North from Carpenter and Reid (2000).
YP Status on Yorke Peninsula from Carpenter and Reid (2000).
Status Codes: **E** = endangered; **V** = vulnerable; **R** = rare; **K** = uncertain (at least rare, and possibly vulnerable or endangered, but insufficient data to enable accurate assessment); **U** = uncommon; **O** = occasional visitor; **X** = believed to be extinct in the region.
Source of Records **SU 162** = sites in the Mid North And Yorke Peninsula Biological Survey (MNYPBS); **OP 162** = opportunistic sightings from MNYPBS; 13 = Innes National Park Survey; **24** = South Olary Plains Survey; **116** = Mt Cone Baseline Survey; **168** = Hopkins Creek (NCS) Survey; **196** = Warrenben Conservation Park Survey; **OP** = DEH Opportunistic Sightings database; **RE** = DEH Reserves database; **SAM** = SA Museum; **Bird Atlas** = Birds Australia Bird Atlas database (to 2001); **SAOA** = SAOA Parks and Trips databases; and **Wader SG** = Australasian Waders Study Group database.
Species Counts The total number of species rated for each level (Aus, SA, MN, YP), as well as the number recorded from each source, is provided at the end of the table.

Family	Species Name	Common Name	Aus	SA	MN	YP	SU 162	OP 162	13	24	116	168	196	OP	RE	SAM	Bird Atlas	SAOA	Wader SG
CASUARIIDAE	*Dromaius novaehollandiae*	Emu			U	V	✔	✔			✔		✔	✔	✔	✔	✔	✔	
MEGAPODIIDAE	*Leipoa ocellata*	Malleefowl	V	V	X	E		✔					✔	✔	✔	✔	✔	✔	
PHASIANIDAE	*Coturnix ypsilophora*	Brown Quail		V	V											✔	✔		
ANATIDAE	*Anas castanea*	Chestnut Teal			U	U	✔	✔							✔	✔	✔	✔	
ANATIDAE	*Anas rhynchotis*	Australasian Shoveler		R	R	R										✔	✔	✔	
ANATIDAE	*Aythya australis*	Hardhead (White-eyed Duck)			U	U	✔	✔								✔	✔	✔	
ANATIDAE	*Biziura lobata*	Musk Duck		R	U	U									✔	✔	✔	✔	
ANATIDAE	*Cereopsis novaehollandiae*	Cape Barren Goose		R	O	R	✔	✔									✔	✔	
ANATIDAE	*Oxyura australis*	Blue-billed Duck		R	U	U		✔								✔	✔	✔	
ANATIDAE	*Stictonetta naevosa*	Freckled Duck		V	V	V											✔	✔	
PODICIPEDIDAE	*Podiceps cristatus*	Great Crested Grebe		R	R	R											✔	✔	
ANHINGIDAE	*Anhinga melanogaster*	Darter			U	U											✔	✔	
ARDEIDAE	*Ardea ibis*	Cattle Egret			U	U										✔	✔		
ARDEIDAE	*Ardea intermedia*	Intermediate Egret		R	O											✔	✔	✔	
ARDEIDAE	*Ardea pacifica*	White-necked Heron			U	U	✔									✔	✔		
ARDEIDAE	*Egretta garzetta*	Little Egret			U	U		✔								✔	✔	✔	
ARDEIDAE	*Egretta sacra*	Eastern Reef Egret		R	R	R									✔	✔		✔	
ARDEIDAE	*Ixobrychus minutus*	Little Bittern		R	O	O										✔			
ARDEIDAE	*Nycticorax caledonicus*	Nankeen Night Heron			U	R										✔	✔	✔	
THRESKIORNITHIDAE	*Platalea regia*	Royal Spoonbill			U	U											✔	✔	
THRESKIORNITHIDAE	*Plegadis falcinellus*	Glossy Ibis		R	R	R		✔									✔	✔	
ACCIPITRIDAE	*Haliaeetus leucogaster*	White-bellied Sea-Eagle		V		V		✔							✔		✔	✔	
ACCIPITRIDAE	*Hieraaetus morphnoides*	Little Eagle			U	U	✔	✔						✔		✔	✔	✔	
ACCIPITRIDAE	*Lophoictinia isura*	Square-tailed Kite		V			✔												
ACCIPITRIDAE	*Pandion haliaetus*	Osprey		R		R		✔							✔	✔	✔	✔	

Family	Species Name	Common Name	Aus	SA	MN	YP	SU 162	OP 162	13	24	116	168	196	OP	RE	SAM	Bird Atlas	SAOA	Wader SG
FALCONIDAE	*Falco longipennis*	Australian Hobby			U	U		✔			✔			✔	✔	✔	✔	✔	
FALCONIDAE	*Falco peregrinus*	Peregrine Falcon		R	R	R	✔	✔	✔					✔	✔	✔	✔	✔	
FALCONIDAE	*Falco subniger*	Black Falcon			U	U	✔	✔							✔	✔	✔	✔	
RALLIDAE	*Gallirallus philippensis*	Buff-banded Rail			V	R										✔	✔		
RALLIDAE	*Porzana pusilla*	Baillon's Crake		R	R	O	✔									✔	✔	✔	
RALLIDAE	*Porzana tabuensis*	Spotless Crake			U		✔										✔		
OTIDIDAE	*Ardeotis australis*	Australian Bustard		V		X								✔			✔		
TURNICIDAE	*Turnix pyrrhothorax*	Red-chested Button-quail		R	R											✔	✔		
TURNICIDAE	*Turnix varia*	Painted Button-quail		V	V	V	✔	✔					✔	✔	✔	✔	✔	✔	
PEDIONOMIDAE	*Pedionomus torquatus*	Plains-wanderer	V	E	E	E										✔			
SCOLOPACIDAE	*Gallinago hardwickii*	Latham's Snipe		V	V	V										✔			✔
SCOLOPACIDAE	*Numenius madagascariensis*	Eastern Curlew		V	V	V		✔								✔	✔	✔	✔
ROSTRATULIDAE	*Rostratula benghalensis*	Painted Snipe		R	R											✔	✔		
BURHINIDAE	*Burhinus grallarius*	Bush Stone-curlew		V	E	X										✔			
HAEMATOPODIDAE	*Haematopus longirostris*	Pied Oystercatcher			U	U		✔						✔	✔	✔	✔		✔
CHARADRIIDAE	*Charadrius australis*	Inland Dotterel			U	U										✔	✔		✔
CHARADRIIDAE	*Thinornis rubricollis*	Hooded Plover		V		V		✔						✔	✔	✔	✔	✔	✔
LARIDAE	*Larus pacificus*	Pacific Gull			U	U		✔						✔	✔	✔	✔	✔	
LARIDAE	*Sterna albifrons*	Little Tern	E	V		V									✔		✔		
LARIDAE	*Sterna nereis*	Fairy Tern		V	V	V		✔						✔	✔	✔	✔	✔	
LARIDAE	*Sterna nilotica*	Gull-billed Tern			U	U											✔		
COLUMBIDAE	*Geopelia placida*	Peaceful Dove			U	X	✔	✔						✔	✔	✔	✔	✔	
COLUMBIDAE	*Phaps elegans*	Brush Bronzewing			V	U	✔	✔	✔				✔	✔	✔		✔	✔	
PSITTACIDAE	*Barnardius zonarius*	Australian Ringneck, (Ring-necked Parrot)			U	E	✔	✔		✔		✔		✔	✔	✔	✔	✔	
PSITTACIDAE	*Glossopsitta concinna*	Musk Lorikeet			U		✔	✔							✔	✔	✔	✔	
PSITTACIDAE	*Neophema chrysostoma*	Blue-winged Parrot		V	V	O	✔	✔								✔	✔		
PSITTACIDAE	*Neophema elegans*	Elegant Parrot			K	K	✔				✔	✔		✔	✔	✔	✔	✔	
PSITTACIDAE	*Neophema petrophila*	Rock Parrot		R	R	R	✔	✔	✔				✔		✔		✔	✔	
PSITTACIDAE	*Northiella haematogaster*	Blue Bonnet			U	U	✔	✔	✔					✔	✔	✔	✔		
PSITTACIDAE	*Psephotus haematonotus*	Red-rumped Parrot				U	✔	✔						✔	✔	✔	✔	✔	
PSITTACIDAE	*Psephotus varius*	Mulga Parrot			V	V	✔	✔		✔		✔	✔	✔	✔	✔	✔	✔	
PSITTACIDAE	*Trichoglossus haematodus*	Rainbow Lorikeet				U	✔	✔						✔	✔	✔	✔	✔	
CUCULIDAE	*Chrysococcyx lucidus*	Shining Bronze-Cuckoo		R	R	R	✔						✔		✔	✔	✔		
CUCULIDAE	*Chrysococcyx osculans*	Black-eared Cuckoo			U	O	✔							✔		✔	✔	✔	
PODARGIDAE	*Podargus strigoides*	Tawny Frogmouth			U	U	✔	✔					✔	✔	✔	✔	✔	✔	
CAPRIMULGIDAE	*Eurostopodus argus*	Spotted Nightjar			V	E		✔					✔		✔	✔	✔	✔	
AEGOTHELIDAE	*Aegotheles cristatus*	Australian Owlet-nightjar			U	U	✔	✔					✔	✔	✔	✔	✔	✔	
ALCEDINIDAE	*Todiramphus pyrrhopygia*	Red-backed Kingfisher			U			✔		✔				✔	✔	✔	✔		
ALCEDINIDAE	*Todiramphus sanctus*	Sacred Kingfisher				R	✔	✔							✔	✔	✔	✔	

Family	Species Name	Common Name	Aus	SA	MN	YP	SU 162	OP 162	13	24	116	168	196	OP	RE	SAM	Bird Atlas	SAOA	Wader SG
CLIMACTERIDAE	*Climacteris affinis*	White-browed Treecreeper		R	V											✔	✔		
CLIMACTERIDAE	*Climacteris picumnus*	Brown Treecreeper			U	E	✔	✔		✔		✔		✔	✔	✔	✔	✔	
MALURIDAE	*Malurus cyaneus*	Superb Fairy-wren			V	U	✔	✔							✔	✔	✔	✔	
MALURIDAE	*Malurus lamberti*	Variegated Fairy-wren			U	U	✔	✔	✔	✔		✔	✔	✔	✔	✔	✔	✔	
MALURIDAE	*Malurus leucopterus*	White-winged Fairy-wren			U	U	✔	✔						✔		✔	✔	✔	
MALURIDAE	*Malurus splendens*	Splendid Fairy-wren			U											✔	✔		
PARDALOTIDAE	*Pardalotus punctatus*	Spotted Pardalote			V		✔	✔	✔	✔			✔	✔	✔	✔	✔	✔	
ACANTHIZIDAE	*Acanthiza apicalis*	Inland Thornbill			U		✔	✔	✔				✔	✔	✔	✔	✔	✔	
ACANTHIZIDAE	*Acanthiza iredalei*	Slender-billed Thornbill	V	V	V	V	✔	✔								✔	✔	✔	
ACANTHIZIDAE	*Acanthiza nana*	Yellow Thornbill			U		✔	✔				✔			✔	✔	✔	✔	
ACANTHIZIDAE	*Acanthiza reguloides*	Buff-rumped Thornbill			V		✔	✔				✔			✔	✔	✔	✔	
ACANTHIZIDAE	*Acanthiza uropygialis*	Chestnut-rumped Thornbill			U	E	✔	✔		✔				✔	✔	✔	✔	✔	
ACANTHIZIDAE	*Aphelocephala leucopsis*	Southern Whiteface			U	E	✔	✔						✔	✔	✔	✔	✔	
ACANTHIZIDAE	*Calamanthus campestris*	Rufous Fieldwren			V	V	✔	✔							✔	✔	✔	✔	
ACANTHIZIDAE	*Calamanthus cautus*	Shy Heathwren (Shy Hylacola)			U	U		✔							✔	✔	✔		
ACANTHIZIDAE	*Calamanthus pyrrhopygius*	Chestnut-rumped Heathwren		V	V											✔	✔		
ACANTHIZIDAE	*Pyrrholaemus brunneus*	Redthroat		R	R		✔	✔		✔				✔		✔	✔		
MELIPHAGIDAE	*Certhionyx niger*	Black Honeyeater			U	U										✔	✔		
MELIPHAGIDAE	*Certhionyx variegatus*	Pied Honeyeater			U												✔		
MELIPHAGIDAE	*Gliciphila melanops*	Tawny-crowned Honeyeater			U	U	✔	✔	✔						✔	✔	✔	✔	
MELIPHAGIDAE	*Lichenostomus cratitius*	Purple-gaped Honeyeater				U	✔	✔	✔				✔	✔	✔	✔	✔	✔	
MELIPHAGIDAE	*Lichenostomus leucotis*	White-eared Honeyeater			U		✔	✔				✔		✔			✔		
MELIPHAGIDAE	*Lichenostomus ornatus*	Yellow-plumed Honeyeater			U	V		✔		✔				✔	✔	✔	✔		
MELIPHAGIDAE	*Manorina melanocephala*	Noisy Miner			U		✔	✔							✔	✔	✔	✔	
MELIPHAGIDAE	*Melithreptus gularis*	Black-chinned Honeyeater		V	E											✔	✔		
MELIPHAGIDAE	*Melithreptus lunatus*	White-naped Honeyeater			U										✔		✔	✔	
MELIPHAGIDAE	*Phylidonyris albifrons*	White-fronted Honeyeater				U	✔	✔		✔		✔			✔	✔	✔	✔	
MELIPHAGIDAE	*Plectorhyncha lanceolata*	Striped Honeyeater		R	E	E									✔	✔	✔		
PETROICIDAE	*Drymodes brunneopygia*	Southern Scrub-robin			V	V	✔	✔	✔				✔	✔	✔	✔	✔	✔	
PETROICIDAE	*Melanodryas cucullata*	Hooded Robin			U	U	✔	✔		✔					✔	✔	✔		
PETROICIDAE	*Microeca fascinans*	Jacky Winter				U	✔	✔		✔				✔	✔	✔	✔		
PETROICIDAE	*Petroica goodenovii*	Red-capped Robin				U	✔	✔				✔		✔	✔	✔	✔	✔	
PETROICIDAE	*Petroica multicolor*	Scarlet Robin			V	V	✔	✔					✔	✔	✔	✔	✔	✔	
PETROICIDAE	*Petroica phoenicea*	Flame Robin		R	O												✔		
POMATOSTOMIDAE	*Pomatostomus ruficeps*	Chestnut-crowned Babbler			U			✔						✔			✔		
POMATOSTOMIDAE	*Pomatostomus superciliosus*	White-browed Babbler			U		✔	✔	✔	✔		✔	✔	✔	✔	✔	✔	✔	
EUPETIDAE	*Cinclosoma castanotus*	Chestnut Quail-thrush		R	E	X									✔	✔			
EUPETIDAE	*Psophodes cristatus*	Chirruping Wedgebill			U			✔								✔	✔		
EUPETIDAE	*Psophodes nigrogularis leucogaster*	Western Whipbird	V	V		V	✔		✔						✔				
PACHYCEPHALIDAE	*Falcunculus frontatus*	Crested Shrike-tit		V	V	E	✔								✔	✔	✔		

Family	Species Name	Common Name	Aus	SA	MN	YP	SU 162	OP 162	13	24	116	168	196	OP	RE	SAM	Bird Atlas	SAOA	Wader SG
PACHYCEPHALIDAE	*Oreoica gutturalis*	Crested Bellbird			U	V	✔	✔	✔					✔	✔	✔	✔	✔	
PACHYCEPHALIDAE	*Pachycephala inornata*	Gilbert's Whistler			V	E	✔									✔	✔	✔	
PACHYCEPHALIDAE	*Pachycephala pectoralis*	Golden Whistler			U		✔	✔	✔				✔	✔	✔	✔	✔	✔	
DICRURIDAE	*Myiagra inquieta*	Restless Flycatcher			U	V	✔	✔							✔	✔	✔		
ARTAMIDAE	*Artamus cinereus*	Black-faced Woodswallow				U	✔	✔								✔	✔		
ARTAMIDAE	*Strepera versicolor*	Grey Currawong			U	V	✔	✔	✔	✔		✔	✔	✔	✔	✔	✔	✔	
CORCORACIDAE	*Corcorax melanorhamphos*	White-winged Chough			V	E	✔	✔		✔		✔		✔	✔	✔	✔	✔	
CORCORACIDAE	*Struthidea cinerea*	Apostlebird			R		✔	✔				✔		✔			✔		
HIRUNDINIDAE	*Cheramoeca leucosternus*	White-backed Swallow				U	✔	✔							✔	✔	✔	✔	
ESTRILDIDAE	*Stagonopleura guttata*	Diamond Firetail		V	V	E	✔	✔				✔			✔	✔	✔	✔	
ESTRILDIDAE	*Taeniopygia guttata*	Zebra Finch			U		✔	✔			✔				✔	✔	✔	✔	
	Species Count	**115**	**5**	**42**	**99**	**87**	**65**	**73**	**15**	**15**	**4**	**15**	**19**	**45**	**67**	**94**	**107**	**72**	**5**

APPENDIX 24. BIRDS OF CONSERVATION STATUS RECORDED AT SITES OR OPPORTUNISTICALLY ON SURVEYS IN THE MID NORTH REGION OF THE MID NORTH AND YORKE PENINSULA BIOLOGICAL SURVEY STUDY AREA.

Aus Australian status under the *Environment Protection and Biodiversity Conservation Act 1999* as at June 2006.
SA South Australian status under the *National Parks and Wildlife Act 1972* (2000 update of schedules 7, 8 and 9).
MN Status in the Mid North from Carpenter and Reid (2000).
Status Codes: **E** = endangered; **V** = vulnerable; **R** = rare; **K** = uncertain (at least rare, and possibly vulnerable or endangered, but insufficient data to enable accurate assessment); **U** = uncommon.
MN SU Sites Total number of survey sites where species recorded in the Mid North.
MN OP Sightings Total number of opportunistic sightings of each species recorded on surveys in the Mid North.
N.B. The total number of species rated for each level (Aus, SA, MN), as well as the number recorded at sites and opportunistically, is provided at the end of the table.

Family	Scientific Name	Common Name	Aus	SA	MN	MN SU Sites	MN OP Sightings
CASUARIIDAE	*Dromaius novaehollandiae*	Emu			U	8	17
ANATIDAE	*Anas castanea*	Chestnut Teal			U	1	1
ANATIDAE	*Aythya australis*	Hardhead (White-eyed Duck)			U	2	7
ANATIDAE	*Oxyura australis*	Blue-billed Duck		R	U		1
ARDEIDAE	*Ardea pacifica*	White-necked Heron			U	1	
ARDEIDAE	*Egretta garzetta*	Little Egret			U		3
ACCIPITRIDAE	*Hieraaetus morphnoides*	Little Eagle			U	2	2
FALCONIDAE	*Falco longipennis*	Australian Hobby			U	1	3
FALCONIDAE	*Falco peregrinus*	Peregrine Falcon		R	R	3	5
FALCONIDAE	*Falco subniger*	Black Falcon			U	5	2
RALLIDAE	*Porzana pusilla*	Baillon's Crake		R	R	1	
RALLIDAE	*Porzana tabuensis*	Spotless Crake			U	2	
TURNICIDAE	*Turnix varia*	Painted Button-quail		V	V	4	1
SCOLOPACIDAE	*Numenius madagascariensis*	Eastern Curlew		V	V		2
LARIDAE	*Larus pacificus*	Pacific Gull			U		3
LARIDAE	*Sterna nereis*	Fairy Tern		V	V		1
COLUMBIDAE	*Geopelia placida*	Peaceful Dove			U	9	5
COLUMBIDAE	*Phaps elegans*	Brush Bronzewing			V	5	1
PSITTACIDAE	*Barnardius zonarius*	Australian Ringneck, (Ring-necked Parrot)			U	32	31
PSITTACIDAE	*Glossopsitta concinna*	Musk Lorikeet			U	9	5
PSITTACIDAE	*Neophema chrysostoma*	Blue-winged Parrot		V	V	2	1
PSITTACIDAE	*Neophema elegans*	Elegant Parrot			K	5	2
PSITTACIDAE	*Neophema petrophila*	Rock Parrot		R	R		1
PSITTACIDAE	*Northiella haematogaster*	Blue Bonnet			U	4	5
PSITTACIDAE	*Psephotus varius*	Mulga Parrot			V	9	9
CUCULIDAE	*Chrysococcyx osculans*	Black-eared Cuckoo			U	2	2
PODARGIDAE	*Podargus strigoides*	Tawny Frogmouth			U	7	8
CAPRIMULGIDAE	*Eurostopodus argus*	Spotted Nightjar			V		3
AEGOTHELIDAE	*Aegotheles cristatus*	Australian Owlet-nightjar			U	6	5
ALCEDINIDAE	*Todiramphus pyrrhopygia*	Red-backed Kingfisher			U	1	3
CLIMACTERIDAE	*Climacteris picumnus*	Brown Treecreeper			U	18	23
MALURIDAE	*Malurus cyaneus*	Superb Fairy-wren			V	3	2
MALURIDAE	*Malurus lamberti*	Variegated Fairy-wren			U	28	21
MALURIDAE	*Malurus leucopterus*	White-winged Fairy-wren			U	12	13
PARDALOTIDAE	*Pardalotus punctatus*	Spotted Pardalote			V	10	4
ACANTHIZIDAE	*Acanthiza apicalis*	Inland Thornbill			U	9	1
ACANTHIZIDAE	*Acanthiza iredalei*	Slender-billed Thornbill	V	V	V	1	3
ACANTHIZIDAE	*Acanthiza nana*	Yellow Thornbill			U	21	3
ACANTHIZIDAE	*Acanthiza reguloides*	Buff-rumped Thornbill			V	11	1
ACANTHIZIDAE	*Acanthiza uropygialis*	Chestnut-rumped Thornbill			U	9	7
ACANTHIZIDAE	*Aphelocephala leucopsis*	Southern Whiteface			U	10	32
ACANTHIZIDAE	*Calamanthus campestris*	Rufous Fieldwren			V	1	5
ACANTHIZIDAE	*Pyrrholaemus brunneus*	Redthroat		R	R	7	8
MELIPHAGIDAE	*Gliciphila melanops*	Tawny-crowned Honeyeater			U	1	
MELIPHAGIDAE	*Lichenostomus leucotis*	White-eared Honeyeater			U	8	5
MELIPHAGIDAE	*Lichenostomus ornatus*	Yellow-plumed Honeyeater			U	2	6

Family	Scientific Name	Common Name	Aus	SA	MN	MN SU Sites	MN OP Sightings
MELIPHAGIDAE	*Manorina melanocephala*	Noisy Miner			U	8	4
PETROICIDAE	*Melanodryas cucullata*	Hooded Robin			U	10	6
PETROICIDAE	*Petroica multicolor*	Scarlet Robin			V	2	
POMATOSTOMIDAE	*Pomatostomus ruficeps*	Chestnut-crowned Babbler			U		4
POMATOSTOMIDAE	*Pomatostomus superciliosus*	White-browed Babbler			U	20	18
EUPETIDAE	*Psophodes cristatus*	Chirruping Wedgebill			U		1
PACHYCEPHALIDAE	*Falcunculus frontatus*	Crested Shrike-tit		V	V	1	
PACHYCEPHALIDAE	*Pachycephala inornata*	Gilbert's Whistler			V	3	
PACHYCEPHALIDAE	*Pachycephala pectoralis*	Golden Whistler			U	3	
DICRURIDAE	*Myiagra inquieta*	Restless Flycatcher			U		1
ARTAMIDAE	*Strepera versicolor*	Grey Currawong			U	28	7
CORCORACIDAE	*Corcorax melanorhamphos*	White-winged Chough			V	20	36
CORCORACIDAE	*Struthidea cinerea*	Apostlebird			R	5	12
ESTRILDIDAE	*Stagonopleura guttata*	Diamond Firetail		V	V	6	3
ESTRILDIDAE	*Taeniopygia guttata*	Zebra Finch			U	2	2
	TOTAL	**61**	**1**	**12**		**51**	**53**

APPENDIX 25. BIRDS OF CONSERVATION STATUS RECORDED AT SITES OR OPPORTUNISTICALLY ON SURVEYS IN THE YORKE PENINSULA REGION OF THE MID NORTH AND YORKE PENINSULA BIOLOGICAL SURVEY STUDY AREA.

Aus Australian status under the *Environment Protection and Biodiversity Conservation Act 1999* as at June 2006.
SA South Australian status under the *National Parks and Wildlife Act 1972* (2000 update of schedules 7, 8 and 9).
YP Status on Yorke Peninsula from Carpenter and Reid (2000).
Status Codes: **E** = endangered; **V** = vulnerable; **R** = rare; **U** = uncommon.
YP SU Sites Total number of survey sites where species recorded on Yorke Peninsula.
YP OP Sightings Total number of opportunistic sightings of each species recorded on surveys on Yorke Peninsula.
N.B. The total number of species rated for each level (Aus, SA, YP), as well as the number recorded at sites and opportunistically, is provided at the end of the table.

Family	Scientific Name	Common Name	Aus	SA	YP	YP SU Sites	YP OP Sightings
CASUARIIDAE	*Dromaius novaehollandiae*	Emu			V	14	18
MEGAPODIIDAE	*Leipoa ocellata*	Malleefowl	V	V	E	1	18
ANATIDAE	*Anas castanea*	Chestnut Teal			U	1	3
ANATIDAE	*Cereopsis novaehollandiae*	Cape Barren Goose		R	R	1	1
THRESKIORNITHIDAE	*Plegadis falcinellus*	Glossy Ibis		R	R		1
ACCIPITRIDAE	*Haliaeetus leucogaster*	White-bellied Sea-Eagle		V	V		1
ACCIPITRIDAE	*Lophoictinia isura*	Square-tailed Kite		V		1	
ACCIPITRIDAE	*Pandion haliaetus*	Osprey		R	R		1
FALCONIDAE	*Falco peregrinus*	Peregrine Falcon		R	R	1	1
FALCONIDAE	*Falco subniger*	Black Falcon			U		1
OTIDIDAE	*Ardeotis australis*	Australian Bustard		V	X		1*
TURNICIDAE	*Turnix varia*	Painted Button-quail		V	V	2	2
HAEMATOPODIDAE	*Haematopus longirostris*	Pied Oystercatcher			U		5
CHARADRIIDAE	*Thinornis rubricollis*	Hooded Plover		V	V		4
LARIDAE	*Larus pacificus*	Pacific Gull			U		11
LARIDAE	*Sterna nereis*	Fairy Tern		V	V		1
COLUMBIDAE	*Phaps elegans*	Brush Bronzewing			U	34	3
PSITTACIDAE	*Barnardius zonarius*	Australian Ringneck, (Ring-necked Parrot)			E	1	
PSITTACIDAE	*Neophema petrophila*	Rock Parrot		R	R	7	1
PSITTACIDAE	*Northiella haematogaster*	Blue Bonnet			U	2	10
PSITTACIDAE	*Psephotus haematonotus*	Red-rumped Parrot			U		2
PSITTACIDAE	*Psephotus varius*	Mulga Parrot			V	8	11
PSITTACIDAE	*Trichoglossus haematodus*	Rainbow Lorikeet			U	3	5
CUCULIDAE	*Chrysococcyx lucidus*	Shining Bronze-Cuckoo		R	R	3	
PODARGIDAE	*Podargus strigoides*	Tawny Frogmouth			U	2	
CAPRIMULGIDAE	*Eurostopodus argus*	Spotted Nightjar			E	1	
AEGOTHELIDAE	*Aegotheles cristatus*	Australian Owlet-nightjar			U	1	2
MALURIDAE	*Malurus lamberti*	Variegated Fairy-wren			U	37	8
ACANTHIZIDAE	*Calamanthus campestris*	Rufous Fieldwren			V	1	1
ACANTHIZIDAE	*Calamanthus cautus*	Shy Heathwren (Shy Hylacola)			U		1
MELIPHAGIDAE	*Gliciphila melanops*	Tawny-crowned Honeyeater			U	4	1
MELIPHAGIDAE	*Lichenostomus cratitius*	Purple-gaped Honeyeater			U	26	7
MELIPHAGIDAE	*Lichenostomus ornatus*	Yellow-plumed Honeyeater			V		1
MELIPHAGIDAE	*Phylidonyris albifrons*	White-fronted Honeyeater			U	2	
PETROICIDAE	*Drymodes brunneopygia*	Southern Scrub-robin			V	11	4
PETROICIDAE	*Microeca fascinans*	Jacky Winter			U	1	1
PETROICIDAE	*Petroica goodenovii*	Red-capped Robin			U	4	2
PETROICIDAE	*Petroica multicolor*	Scarlet Robin			V	4	5
EUPETIDAE	*Psophodes nigrogularis leucogaster*	Western Whipbird	V	V	V	13	6
PACHYCEPHALIDAE	*Oreoica gutturalis*	Crested Bellbird			V	9	4
DICRURIDAE	*Myiagra inquieta*	Restless Flycatcher			V	1	1
ARTAMIDAE	*Strepera versicolor*	Grey Currawong			V	38	7
CORCORACIDAE	*Corcorax melanorhamphos*	White-winged Chough			E		1
	TOTAL	**43**	**2**	**14**		**30**	**37**

Note: * = 1 recent sighting. Regional rating based on no sightings for many years.

APPENDIX 26. BIRD SPECIES SITE FREQUENCIES FOR THE BIRD ASSEMBLAGE GROUPS DEFINED USING PC-ORD.

I Indigenous/alien designation. Naturalised alien species are designated with an asterisk (*).
1 - 7 Bird assemblage group numbers (refer to Birds Chapter for descriptions of each group).
Total Sites Total number of sites each species was recorded at of all the 170 sites used in the analysis.
Total Grps Total number of bird assemblage groups in which each species occurs.
N.B. The total number of species in each group is provided at the end of the table.

			No. of Sites in Each Group →	38	16	25	23	17	19	32	170	7
			Group Number →	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**Total Sites**	**Total Grps**
Sub Family Name	**I**	**Scientific Name**	**Common Name**									
CASUARIIDAE		*Dromaius novaehollandiae*	Emu	14	3	1	1			3	22	5
MEGAPODIIDAE		*Leipoa ocellata*	Malleefowl	1							1	1
PHASIANIDAE		*Coturnix pectoralis*	Stubble Quail						1	2	3	2
ACCIPITRIDAE		*Accipiter cirrhocephalus*	Collared Sparrowhawk				1				1	1
ACCIPITRIDAE		*Accipiter fasciatus*	Brown Goshawk		1	3			1		5	3
ACCIPITRIDAE		*Aquila audax*	Wedge-tailed Eagle						1	2	3	2
ACCIPITRIDAE		*Circus approximans*	Swamp Harrier							1	1	1
ACCIPITRIDAE		*Circus assimilis*	Spotted Harrier			1			1		2	2
ACCIPITRIDAE		*Haliastur sphenurus*	Whistling Kite				2				2	1
FALCONIDAE		*Falco berigora*	Brown Falcon			1	6			1	8	3
FALCONIDAE		*Falco cenchroides*	Nankeen Kestrel				3		1	7	11	3
FALCONIDAE		*Falco longipennis*	Australian Hobby							1	1	1
FALCONIDAE		*Falco peregrinus*	Peregrine Falcon		1						1	1
FALCONIDAE		*Falco subniger*	Black Falcon				1		1		2	2
TURNICIDAE		*Turnix varia*	Painted Button-quail	2		2	1				5	3
CHARADRIIDAE		*Vanellus tricolor*	Banded Lapwing							3	3	1
COLUMBIDAE	*	*Columba livia*	Rock Dove		1		2				3	2
COLUMBIDAE		*Geopelia placida*	Peaceful Dove				8	1			9	2
COLUMBIDAE		*Ocyphaps lophotes*	Crested Pigeon	3	4	3	9		8	6	33	6
COLUMBIDAE		*Phaps chalcoptera*	Common Bronzewing	11	7	5	6	3			32	5
COLUMBIDAE		*Phaps elegans*	Brush Bronzewing	26		5			2		33	3
COLUMBIDAE	*	*Streptopelia chinensis*	Spotted Turtle-dove				1		1		2	2
CACATUIDAE		*Cacatua roseicapilla*	Galah	8	13	10	20	11	5	10	77	7
PSITTACIDAE		*Barnardius zonarius*	Australian Ringneck, (Ring-necked Parrot)	1	14	7	8	1		1	32	6
PSITTACIDAE		*Glossopsitta concinna*	Musk Lorikeet				5				5	1
PSITTACIDAE		*Glossopsitta porphyrocephala*	Purple-crowned Lorikeet	1					1		2	2
PSITTACIDAE		*Neophema chrysostoma*	Blue-winged Parrot						1	1	2	2
PSITTACIDAE		*Neophema elegans*	Elegant Parrot				1	1		1	3	3
PSITTACIDAE		*Neophema petrophila*	Rock Parrot	2							2	1
PSITTACIDAE		*Northiella haematogaster*	Blue Bonnet			1	1		2	1	5	4
PSITTACIDAE		*Platycercus elegans*	Crimson Rosella				9	15		1	25	3
PSITTACIDAE		*Platycercus eximius*	Eastern Rosella				1	1			2	2
PSITTACIDAE		*Psephotus haematonotus*	Red-rumped Parrot		1	4	15	3			23	4
PSITTACIDAE		*Psephotus varius*	Mulga Parrot	3	1	3	2				9	4
STRIGIDAE		*Ninox novaeseelandiae*	Southern Boobook				2				2	1
TYTONIDAE		*Tyto alba*	Barn Owl			1	1				2	2
PODARGIDAE		*Podargus strigoides*	Tawny Frogmouth	1	1	2	3	1			8	5
CAPRIMULGIDAE		*Eurostopodus argus*	Spotted Nightjar	1							1	1
AEGOTHELIDAE		*Aegotheles cristatus*	Australian Owlet-nightjar	1	3	1	2				7	4
ALCEDINIDAE		*Dacelo novaeguineae*	Laughing Kookaburra		1		8	6			15	3
ALCEDINIDAE		*Todiramphus sanctus*	Sacred Kingfisher				2				2	1
CLIMACTERIDAE		*Climacteris picumnus*	Brown Treecreeper		3		11	4			18	3
MALURIDAE		*Malurus cyaneus*	Superb Fairy-wren	1			1	1			3	3
MALURIDAE		*Malurus lamberti*	Variegated Fairy-wren	28	4	13	8	1	9		63	6
MALURIDAE		*Malurus leucopterus*	White-winged Fairy-wren						5	7	12	2
ACANTHIZIDAE		*Acanthiza apicalis*	Inland Thornbill	12		15	1	2	1		31	5
ACANTHIZIDAE		*Acanthiza chrysorrhoa*	Yellow-rumped Thornbill	9	3	10	8	9	2	2	43	7
ACANTHIZIDAE		*Acanthiza iredalei*	Slender-billed Thornbill						1		1	1
ACANTHIZIDAE		*Acanthiza nana*	Yellow Thornbill	1	1	2	6	11			21	5
ACANTHIZIDAE		*Acanthiza reguloides*	Buff-rumped Thornbill	1			1	9			11	3
ACANTHIZIDAE		*Acanthiza uropygialis*	Chestnut-rumped Thornbill		5	4					9	2
ACANTHIZIDAE		*Aphelocephala leucopsis*	Southern Whiteface			2	4		3	1	10	4

			No. of Sites in Each Group →	38	16	25	23	17	19	32	170	7
			Group Number →	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**Total Sites**	**Total Grps**
Sub Family Name	**I**	**Scientific Name**	**Common Name**									
ACANTHIZIDAE		*Calamanthus campestris*	Rufous Fieldwren	1					1		2	2
ACANTHIZIDAE		*Pyrrholaemus brunneus*	Redthroat		1	4			2		7	3
ACANTHIZIDAE		*Sericornis frontalis*	White-browed Scrubwren	33		6			2		41	3
ACANTHIZIDAE		*Smicrornis brevirostris*	Weebill	5	11	19	10	11			56	5
MELIPHAGIDAE		*Acanthagenys rufogularis*	Spiny-cheeked Honeyeater	19	6	25	4	3	15		72	6
MELIPHAGIDAE		*Anthochaera carunculata*	Red Wattlebird	29	11	3	13	3			59	5
MELIPHAGIDAE		*Epthianura albifrons*	White-fronted Chat						5	4	9	2
MELIPHAGIDAE		*Epthianura aurifrons*	Orange Chat						1	1	2	2
MELIPHAGIDAE		*Epthianura tricolor*	Crimson Chat						1		1	1
MELIPHAGIDAE		*Gliciphila melanops*	Tawny-crowned Honeyeater	3					1		4	2
MELIPHAGIDAE		*Lichenostomus chrysops*	Yellow-faced Honeyeater					5			5	1
MELIPHAGIDAE		*Lichenostomus cratitius*	Purple-gaped Honeyeater	25							25	1
MELIPHAGIDAE		*Lichenostomus leucotis*	White-eared Honeyeater	1		1	2	4			8	4
MELIPHAGIDAE		*Lichenostomus ornatus*	Yellow-plumed Honeyeater		1	1					2	2
MELIPHAGIDAE		*Lichenostomus penicillatus*	White-plumed Honeyeater			1	20	2			23	3
MELIPHAGIDAE		*Lichenostomus virescens*	Singing Honeyeater	7	4	19	12		17	3	62	6
MELIPHAGIDAE		*Manorina flavigula*	Yellow-throated Miner	1	7	6	5				19	4
MELIPHAGIDAE		*Manorina melanocephala*	Noisy Miner		2		5				7	2
MELIPHAGIDAE		*Melithreptus brevirostris*	Brown-headed Honeyeater	11	1	9	5	9			35	5
MELIPHAGIDAE		*Phylidonyris albifrons*	White-fronted Honeyeater	2	1	4	1	5			13	5
MELIPHAGIDAE		*Phylidonyris novaehollandiae*	New Holland Honeyeater	11			2				13	2
PETROICIDAE		*Drymodes brunneopygia*	Southern Scrub-robin	11							11	1
PETROICIDAE		*Melanodryas cucullata*	Hooded Robin	1	1	1	5		2		10	5
PETROICIDAE		*Microeca fascinans*	Jacky Winter		2	2	4				8	3
PETROICIDAE		*Petroica goodenovii*	Red-capped Robin	1		6	4	5			16	4
PETROICIDAE		*Petroica multicolor*	Scarlet Robin	4				2			6	2
POMATOSTOMIDAE		*Pomatostomus superciliosus*	White-browed Babbler	12	3	17	1	2	6		41	6
EUPETIDAE		*Psophodes nigrogularis*	Western Whipbird	13							13	1
NEOSITTIDAE		*Daphoenositta chrysoptera*	Varied Sittella	3		7	4	1			15	4
PACHYCEPHALIDAE		*Colluricincla harmonica*	Grey Shrike-thrush	30	7	18	20	16	4		95	6
PACHYCEPHALIDAE		*Falcunculus frontatus*	Crested Shrike-tit				1				1	1
PACHYCEPHALIDAE		*Oreoica gutturalis*	Crested Bellbird	5		1			3		9	3
PACHYCEPHALIDAE		*Pachycephala inornata*	Gilbert's Whistler			1			2		3	2
PACHYCEPHALIDAE		*Pachycephala pectoralis*	Golden Whistler	23		4					27	2
PACHYCEPHALIDAE		*Pachycephala rufiventris*	Rufous Whistler			9	7	14	1		31	4
PARDALOTIDAE		*Pardalotus punctatus*	Spotted Pardalote	16	1	10		1			28	4
PARDALOTIDAE		*Pardalotus striatus*	Striated Pardalote	7	9	10	19	15			60	5
ARTAMIDAE		*Artamus cinereus*	Black-faced Woodswallow						2		2	1
ARTAMIDAE		*Artamus cyanopterus*	Dusky Woodswallow	1			6				7	2
ARTAMIDAE		*Cracticus torquatus*	Grey Butcherbird	17	13	21	4	2	2		59	6
ARTAMIDAE		*Gymnorhina tibicen*	Australian Magpie	11	15	16	21	12	3	19	97	7
ARTAMIDAE		*Strepera versicolor*	Grey Currawong	31	3	12	1	10	1		58	6
CAMPEPHAGIDAE		*Coracina novaehollandiae*	Black-faced Cuckoo-shrike	2	5	10	11	5	2	2	37	7
CORVIDAE		*Corvus coronoides*	Australian Raven	5	3	1	1		1		11	5
CORVIDAE		*Corvus mellori*	Little Raven	10	7	16	11	9	9	6	68	7
CORCORACIDAE		*Corcorax melanorhamphos*	White-winged Chough		4	2	5	8			19	4
CORCORACIDAE		*Struthidea cinerea*	Apostlebird		3			1			4	2
MUSCICAPIDAE	*	*Turdus merula*	Eurasian Blackbird			3	7	5	2		17	4
STURNIDAE	*	*Sturnus vulgaris*	Common Starling	3	2	10	10		4	5	34	6
HIRUNDINIDAE		*Hirundo neoxena*	Welcome Swallow	3			3			4	10	3
HIRUNDINIDAE		*Petrochelidon nigricans*	Tree Martin		1		4	1			6	3
ZOSTEROPIDAE		*Zosterops lateralis*	Silvereye	31	2	13	2	6	2		56	6
SYLVIIDAE		*Cincloramphus mathewsi*	Rufous Songlark		1		3		4	1	9	4
SYLVIIDAE		*Megalurus gramineus*	Little Grassbird				4			3	7	2
FRINGILLIDAE	*	*Carduelis carduelis*	European Goldfinch				1			1	2	2
ALAUDIDAE	*	*Alauda arvensis*	Eurasian Skylark	3		2	1		5	16	27	5
ALAUDIDAE		*Mirafra javanica*	Horsfield's Bushlark			1	1			3	5	3
DICAEIDAE		*Dicaeum hirundinaceum*	Mistletoebird		5	1	14	6		1	27	5
DICRURIDAE		*Grallina cyanoleuca*	Magpie-lark			2	5			3	10	3
DICRURIDAE		*Myiagra inquieta*	Restless Flycatcher			1					1	1
DICRURIDAE		*Rhipidura albiscapa*	Grey Fantail	12	1	5		4	2		24	5
DICRURIDAE		*Rhipidura leucophrys*	Willie Wagtail	5	3	10	18		14	2	52	6
PASSERIDAE	*	*Passer domesticus*	House Sparrow			2	9		1	8	20	4

			No. of Sites in Each Group →	38	16	25	23	17	19	32	170	7
			Group Number →	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**Total Sites**	**Total Grps**
Sub Family Name	**I**	**Scientific Name**	**Common Name**									
MOTACILLIDAE		*Anthus novaeseelandiae*	Richard's Pipit	1		1	2		4	18	26	5
ESTRILDIDAE		*Stagonopleura guttata*	Diamond Firetail				6				6	1
ESTRILDIDAE		*Taeniopygia guttata*	Zebra Finch							2	2	1
		Total Species	**118**	**59**	**49**	**65**	**79**	**45**	**50**	**37**		

APPENDIX 27. REPTILE SPECIES RECORDED IN THE MID NORTH AND YORKE PENINSULA BIOLOGICAL SURVEY STUDY AREA.

List of reptile species recorded within the MNYPBS study area at survey quadrats or as opportune records (in the Environmental Database of South Australia) or held as specimens in the South Australian Museum collection.

Aus Australian status under the *Environment Protection and Biodiversity Conservation Act 1999* as at December 2006.

SA South Australian status under the *National Parks and Wildlife Act 1972* (2000 update of Schedules 7, 8 and 9). E = endangered, V = vulnerable and R = rare.

SU & OP Number of survey quadrat (SU) and opportunistic (OP) records for each species from all Biological Surveys conducted in the MNYPBS study area.

SAM Number of specimens of each species in the South Australian Museum collection from the MNYPBS study area prior to this survey.

Scientific Name	Common Name	Aus	SA	SU	OP	SAM	Total
CHELIDAE							
Chelodina longicollis	Common Long-necked Tortoise			1		11	12
Emydura macquarii	Macquarie Tortoise			1			1
CHELONIIDAE							
Chelonia mydas	Green Turtle	V	V			2	2
DERMOCHELYIDAE							
Dermochelys coriacea	Leathery Turtle	V	V		1		1
AGAMIDAE							
Amphibolurus nobbi	Nobbi Dragon					2	2
Ctenophorus cristatus	Crested Dragon					2	2
Ctenophorus decresii	Tawny Dragon			28	4	22	54
Ctenophorus pictus	Painted Dragon			19	10	33	62
Pogona barbata	Eastern Bearded Dragon			12	39	8	59
Pogona vitticeps	Central Bearded Dragon			5	7	5	17
Rankinia chapmani	Prickly Dragon			8		1	9
Tympanocryptis lineata	Five-lined Earless Dragon			5		8	13
Tympanocryptis tetraporophora	Eyrean Earless Dragon			1		1	2
GEKKONIDAE Diplodactylinae							
Diplodactylus vittatus	Eastern Stone Gecko			25	6	19	50
Nephrurus milii	Barking Gecko			6	6	30	42
Strophurus intermedius	Southern Spiny-tailed Gecko			2	1	25	28
GEKKONIDAE Gekkoninae							
Christinus marmoratus	Marbled Gecko			18	9	94	121
Gehyra '2n=44'	Southern Rock Dtella			32	2	26	60
Gehyra variegata	Tree Dtella			3		1	4
Gehyra variegata complex				2		3	5
Heteronotia binoei	Bynoe's Gecko			19	2	13	34
GEKKONIDAE Pygopodinae							
Aprasia inaurita	Red-tailed Worm-lizard			1	2	13	16
Aprasia pseudopulchella	Flinders Worm Lizard	V	V	13		22	35
Aprasia striolata	Lined Worm-lizard			17		3	20
Delma australis	Barred Snake-lizard			2			2
Delma butleri	Spinifex Snake-lizard			4		1	5
Delma molleri	Adelaide Snake-lizard			24	1	60	85
Lialis burtonis	Burton's Legless Lizard			4		1	5
Pygopus lepidopodus	Common Scaly-foot			6		7	13
Pygopus schraderi	Hooded Scaly-foot					3	3
SCINCIDAE							
Cryptoblepharus carnabyi cac	Desert Wall Skink			24	2	8	34
Cryptoblepharus plagiocephalus pib						1	1
Cryptoblepharus virgatus	Striped Wall Skink			2	1	5	8
Ctenotus olympicus	Saltbush Ctenotus			1			1
Ctenotus orientalis	Eastern Spotted Ctenotus			16	6	13	35
Ctenotus robustus	Eastern Striped Skink			38	8	22	68
Ctenotus schomburgkii	Sandplain Ctenotus			6			6
Cyclodomorphus venustus	Saltbush Slender Bluetongue			1		30	31
Egernia margaretae	Masked Rock Skink					2	2
Egernia multiscutata	Bull Skink			2		5	7
Egernia stokesii	Gidgee Skink					1	1
Egernia striolata	Eastern Tree Skink			2	2	5	9
Eremiascincus richardsonii	Broad-banded Sandswimmer			2		12	14

Scientific Name	Common Name	Aus	SA	SU	OP	SAM	Total
Hemiergis decresiensis	Three-toed Earless Skink			71	7	47	125
Hemiergis millewae	Rusty Earless Skink					1	1
Hemiergis peronii	Four-toed Earless Skink			57	18	90	165
Lampropholis guichenoti	Garden Skink			73	1	9	83
Lerista bougainvillii	Bougainville's Skink			41	2	27	70
Lerista dorsalis	Southern Four-toed Slider			41	14	41	96
Lerista edwardsae	Myall Slider			3	7	59	69
Lerista muelleri	Dwarf Three-toed Slider			1		2	3
Lerista punctatovittata	Spotted Slider					2	2
Lerista terdigitata	Southern Three-toed Slider			12	4	21	37
Menetia greyii	Dwarf Skink			172	4	61	237
Morethia adelaidensis	Adelaide Snake-eye			20	1	35	56
Morethia boulengeri	Common Snake-eye			79	9	32	120
Morethia obscura	Mallee Snake-eye			66	2	36	104
Pseudemoia entrecasteauxii	Southern Grass Skink					9	9
Tiliqua adelaidensis	Pygmy Bluetongue	E	E	1		26	27
Tiliqua occipitalis	Western Bluetongue			2	3	8	13
Tiliqua rugosa	Sleepy Lizard			192	141	39	372
Tiliqua scincoides	Eastern Bluetongue			5	13	9	27
VARANIDAE							
Varanus gouldii	Sand Goanna			2		8	10
Varanus rosenbergi	Heath Goanna		R			1	1
Varanus varius	Tree Goanna		R		4	5	9
BOIDAE							
Morelia spilota	Carpet Python		V			3	3
ELAPIDAE							
Acanthophis antarcticus	Common Death Adder					25	25
Demansia psammophis	Yellow-faced Whipsnake			8	7	22	37
Demansia reticulata	Desert Whipsnake					1	1
Drysdalia mastersii	Master's Snake					3	3
Notechis ater	Black Tiger Snake				3	6	9
Notechis ater ater	Krefft's Tiger Snake	V				4	4
Pseudechis australis	Mulga Snake					1	1
Pseudonaja inframacula	Peninsula Brown Snake			11	6	32	49
Pseudonaja nuchalis	Western Brown Snake					4	4
Pseudonaja textilis	Eastern Brown Snake			12	28	110	150
Simoselaps australis	Coral Snake					1	1
Simoselaps bertholdi	Desert Banded Snake					37	37
Suta nigriceps	Mitchell's Short-tailed Snake			4		12	16
Suta spectabilis	Mallee Black-headed Snake			9	6	69	84
Suta suta	Curl Snake					1	1
TYPHLOPIDAE							
Ramphotyphlops australis	Southern Blind Snake			2		14	16
Ramphotyphlops bituberculatus	Rough-nosed Blind Snake			2	2	29	33
	Number of Species	**5**	**7**	**59**	**39**	**78**	**83**
	Number of Records			**1238**	**391**	**1462**	**3091**

APPENDIX 28. REPTILE SPECIES FREQUENCY BY ALL SURVEYS CONDUCTED WITHIN THE MID NORTH AND YORKE PENINSULA BIOLOGICAL SURVEY STUDY AREA.

Survey Number 13 = Innes National Park (1976-77), 24 = South Olary Plains (1991), 116 = Mt. Cone Baseline Survey (1999), 162 = Mid North and Yorke Peninsula (2003-04), 168 = Hopkins Creek (Nature Conservation Society 2003), 196 = Warrenben CP Flora and Fauna Survey (2004).
Total SU sites Total number of site records for each species from all surveys in the study area.
% of all sites Total number of sites where recorded as a percentage of all sites in the study area.
Relative abundance Total number of individual records for each species from all surveys in the study area.
% Recording rate Total number of individual records as a percentage of all records in the study area.

Scientific Name	Common Name	Survey Number						Total SU sites	% of all sites	Relative abundance	% Recording rate
		13	24	116	162	168	196				
CHELIDAE											
Chelodina longicollis	Common Long-necked Tortoise				1			1	1	1	0.1
Emydura macquarii	Macquarie Tortoise				1			1	1	1	0.1
AGAMIDAE											
Ctenophorus decresii	Tawny Dragon		1		11	1		13	8	28	2.3
Ctenophorus pictus	Painted Dragon	1	2		6		2	11	7	19	1.5
Pogona barbata	Eastern Bearded Dragon				7		2	9	6	12	1.0
Pogona vitticeps	Central Bearded Dragon			1	4			5	3	5	0.4
Rankinia chapmani	Prickly Dragon				4		1	5	3	8	0.6
Tympanocryptis lineata	Five-lined Earless Dragon				1			1	1	5	0.4
Tympanocryptis tetraporophora	Eyrean Earless Dragon				1			1	1	1	0.1
GEKKONIDAE Diplodactylinae											
Diplodactylus vittatus	Eastern Stone Gecko	1			13	3	1	18	11	25	2.0
Nephrurus milii	Barking Gecko				3		1	4	3	6	0.5
Strophurus intermedius	Southern Spiny-tailed Gecko				2			2	1	2	0.2
GEKKONIDAE Gekkoninae											
Christinus marmoratus	Marbled Gecko				9	1		10	6	18	1.5
Gehyra '2n=44'	Southern Rock Dtella				9	4		13	8	32	2.6
Gehyra variegata	Tree Dtella				2	1		3	2	3	0.2
Gehyra variegata complex			2					2	1	2	0.2
Heteronotia binoei	Bynoe's Gecko		2		9	2		13	8	19	1.5
GEKKONIDAE Pygopodinae											
Aprasia inaurita	Red-tailed Worm-lizard				1			1	1	1	0.1
Aprasia pseudopulchella	Flinders Worm Lizard			1	7			8	5	13	1.1
Aprasia striolata	Lined Worm-lizard				8		1	9	6	17	1.4
Delma australis	Barred Snake-lizard				1		1	2	1	2	0.2
Delma butleri	Spinifex Snake-lizard				2			2	1	4	0.3
Delma molleri	Adelaide Snake-lizard				15			15	9	24	1.9
Lialis burtonis	Burton's Legless Lizard				2	1		3	2	4	0.3
Pygopus lepidopodus	Common Scaly-foot				2		3	5	3	6	0.5
SCINCIDAE											
Cryptoblepharus carnabyi cac	Desert Wall Skink		2		10	3		15	9	24	1.9
Cryptoblepharus virgatus	Striped Wall Skink				1		1	2	1	2	0.2
Ctenotus olympicus	Saltbush Ctenotus				1			1	1	1	0.1
Ctenotus orientalis	Eastern Spotted Ctenotus		2		6			8	5	16	1.3
Ctenotus robustus	Eastern Striped Skink		1		18	2	1	22	14	38	3.1
Ctenotus schomburgkii	Sandplain Ctenotus				3			3	2	6	0.5
Cyclodomorphus venustus	Saltbush Slender Bluetongue				1			1	1	1	0.1
Egernia multiscutata	Bull Skink						2	2	1	2	0.2
Egernia striolata	Eastern Tree Skink				1	1		2	1	2	0.2
Eremiascincus richardsonii	Broad-banded Sandswimmer				2			2	1	2	0.2
Hemiergis decresiensis	Three-toed Earless Skink				27	1		28	18	71	5.7
Hemiergis peronii	Four-toed Earless Skink	1			20	3	1	25	16	57	4.6
Lampropholis guichenoti	Garden Skink				7			7	4	73	5.9
Lerista bougainvillii	Bougainville's Skink			2	18	4		24	15	41	3.3
Lerista dorsalis	Southern Four-toed Slider	3	2		21			26	16	41	3.3
Lerista edwardsae	Myall Slider				1			1	1	3	0.2
Lerista muelleri	Dwarf Three-toed Slider		1					1	1	1	0.1
Lerista terdigitata	Southern Three-toed Slider				5			5	3	12	1.0
Menetia greyii	Dwarf Skink	1	3	1	62	5	3	75	47	172	13.9

Scientific Name	Common Name	Survey Number						Total SU sites	% of all sites	Relative abundance	% Recording rate
		13	24	116	162	168	196				
Morethia adelaidensis	Adelaide Snake-eye		1		9	2		12	8	20	1.6
Morethia boulengeri	Common Snake-eye		1		26	4		31	19	79	6.4
Morethia obscura	Mallee Snake-eye	2	2		21	2	2	29	18	66	5.3
Tiliqua adelaidensis	Pygmy Bluetongue				1			1	1	1	0.1
Tiliqua occipitalis	Western Bluetongue				1		1	2	1	2	0.2
Tiliqua rugosa	Sleepy Lizard	3	5	2	74	4	1	89	56	192	15.5
Tiliqua scincoides	Eastern Bluetongue				5			5	3	5	0.4
VARANIDAE											
Varanus gouldii	Sand Goanna				2			2	1	2	0.2
ELAPIDAE											
Demansia psammophis	Yellow-faced Whipsnake	1			5		1	7	4	8	0.6
Pseudonaja inframacula	Peninsula Brown Snake				8			8	5	11	0.9
Pseudonaja textilis	Eastern Brown Snake			1	7	1	1	10	6	12	1.0
Suta nigriceps	Mitchell's Short-tailed Snake		1		3			4	3	4	0.3
Suta spectabilis	Mallee Black-headed Snake				6			6	4	9	0.7
TYPHLOPIDAE											
Ramphotyphlops australis	Southern Blind Snake				1	1		2	1	2	0.2
Ramphotyphlops bituberculatus	Rough-nosed Blind Snake				2			2	1	2	0.2
	Number of Records									**1238**	
	Number of Species	**8**	**15**	**6**	**56**	**20**	**18**	**59**			
	Number of Sites	**6**	**5**	**4**	**140**	**7**	**6**	**168**			

APPENDIX 29. RELATIVE ABUNDANCE OF REPTILE SPECIES AT SITES WITHIN SALINITY CLASSES AND THEIR DEVIATION FROM RANDOM EXPECTATION, USING THE FORMULA (OBSERVED - EXPECTED / EXPECTED).

Total Records Total number of records of each reptile species from all sites where trapping was undertaken in the MNYPBS study area.

Records Number of records of each reptile species within each salinity class.

O – E / E Observed – Expected / Expected where Expected = (number sites in habitat/total number of sites) X total number of observations for that species. The expected value is a hypothetical calculated value derived from the proportion of sites sampled in each salinity class if species were distributed randomly.

N.B. Figures in bold indicate species (with >1 record) that appear to favour this salinity class.

Scientific Name	Common Name	Total Records	Nil		Low		Moderate		High	
			Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E
CHELIDAE										
Chelodina longicollis	Common Long-necked Tortoise	1			1	6.67				
Emydura macquarii	Macquarie Tortoise	1	1	0.34						
AGAMIDAE										
Ctenophorus decresii	Tawny Dragon	28	**28**	**0.34**						
Ctenophorus pictus	Painted Dragon	19	7	-0.51	5	1.02	**6**	**3.24**	1	0.06
Pogona barbata	Eastern Bearded Dragon	12	**10**	**0.12**	1	-0.36	1	0.12		
Pogona vitticeps	Central Bearded Dragon	5	**5**	**0.34**						
Rankinia chapmani	Prickly Dragon	8	**8**	**0.34**						
Tympanocryptis lineata	Five-lined Earless Dragon	5			**5**	**6.67**				
Tympanocryptis tetraporophora	Eyrean Earless Dragon	1	1	0.34						
GEKKONIDAE Diplodactylinae										
Diplodactylus vittatus	Eastern Stone Gecko	25	**23**	**0.23**	1	-0.69	1	-0.46		
Nephrurus milii	Barking Gecko	6	**6**	**0.34**						
Strophurus intermedius	Southern Spiny-tailed Gecko	2			1	2.83			1	9.06
GEKKONIDAE Gekkoninae										
Christinus marmoratus	Marbled Gecko	18	**17**	**0.27**			1	-0.25		
Gehyra '2n=44'	Southern Rock Dtella	32	**32**	**0.34**						
Gehyra variegata	Tree Dtella	3	**3**	**0.34**						
Gehyra variegata complex		2	**2**	**0.34**						
Heteronotia binoei	Bynoe's Gecko	19	**19**	**0.34**						
GEKKONIDAE Pygopodinae										
Aprasia inaurita	Red-tailed Worm-lizard	1	1	0.34						
Aprasia pseudopulchella	Flinders Worm Lizard	13	**13**	**0.34**						
Aprasia striolata	Lined Worm-lizard	17	13	0.03	1	-0.55	1	-0.21	**2**	**1.37**
Delma australis	Barred Snake-lizard	2	**2**	**0.34**						
Delma butleri	Spinifex Snake-lizard	4	**4**	**0.34**						
Delma molleri	Adelaide Snake-lizard	24	19	0.06	3	-0.04	**2**	**0.12**		
Lialis burtonis	Burton's Legless Lizard	4	**4**	**0.34**						
Pygopus lepidopodus	Common Scaly-foot	6	**5**	**0.12**	1	0.28				
SCINCIDAE										
Cryptoblepharus carnabyi cac	Desert Wall Skink	24	**24**	**0.34**						
Cryptoblepharus virgatus	Striped Wall Skink	2	**2**	**0.34**						
Ctenotus olympicus	Saltbush Ctenotus	1	1	0.34						
Ctenotus orientalis	Eastern Spotted Ctenotus	16	13	0.09	**3**	**0.44**				
Ctenotus robustus	Eastern Striped Skink	38	31	0.09	**6**	**0.21**	1	-0.65		
Ctenotus schomburgkii	Sandplain Ctenotus	**6**	**6**	**0.34**						
Cyclodomorphus venustus	Saltbush Slender Bluetongue	1	1	0.34						
Egernia multiscutata	Bull Skink	2	**2**	**0.34**						
Egernia striolata	Eastern Tree Skink	2	**2**	**0.34**						
Eremiascincus richardsonii	Broad-banded Sandswimmer	2	1	-0.33	1	2.83				
Hemiergis decresiensis	Three-toed Earless Skink	71	**69**	**0.30**	1	-0.89	1	-0.81		
Hemiergis peronii	Four-toed Earless Skink	57	30	-0.29	7	-0.06	**15**	**2.53**	5	0.77
Lampropholis guichenoti	Garden Skink	73	**73**	**0.34**						

Scientific Name	Common Name	Total Records	Nil		Low		Moderate		High	
			Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E
Lerista bougainvillii	Bougainville's Skink	41	**36**	**0.18**	2	-0.63	2	-0.35	1	-0.51
Lerista dorsalis	Southern Four-toed Slider	41	26	-0.15	7	0.31	**7**	**1.29**	1	-0.51
Lerista edwardsae	Myall Slider	3			**3**	**6.67**				
Lerista muelleri	Dwarf Three-toed Slider	1	1	0.34						
Lerista terdigitata	Southern Three-toed Slider	12	7	-0.22	**5**	**2.19**				
Menetia greyii	Dwarf Skink	172	**149**	**0.16**	22	-0.02	1	-0.92		
Morethia adelaidensis	Adelaide Snake-eye	20	10	-0.33	4	0.53	**6**	**3.03**		
Morethia boulengeri	Common Snake-eye	79	**79**	**0.34**						
Morethia obscura	Mallee Snake-eye	66	**62**	**0.26**	2	-0.77	2	-0.59		
Tiliqua adelaidensis	Pygmy Bluetongue	1	1	0.34						
Tiliqua occipitalis	Western Bluetongue	2	**2**	**0.34**						
Tiliqua rugosa	Sleepy Lizard	192	144	0.01	21	-0.16	14	-0.02	**13**	**0.36**
Tiliqua scincoides	Eastern Bluetongue	5	3	-0.20	1	0.53			1	3.03
VARANIDAE										
Varanus gouldii	Sand Goanna	2	**2**	**0.34**						
ELAPIDAE										
Demansia psammophis	Yellow-faced Whipsnake	8	5	-0.16	**3**	**1.88**				
Pseudonaja inframacula	Peninsula Brown Snake	11	**9**	**0.10**	1	-0.30	1	0.22		
Pseudonaja textilis	Eastern Brown Snake	12	**11**	**0.23**	1	-0.36				
Suta nigriceps	Mitchell's Short-tailed Snake	4	**4**	**0.34**						
Suta spectabilis	Mallee Black-headed Snake	9	6	-0.11	**2**	**0.70**	1	0.49		
TYPHLOPIDAE										
Ramphotyphlops australis	Southern Blind Snake	2	**2**	**0.34**						
Ramphotyphlops bituberculatus	Rough-nosed Blind Snake	2			1	2.83			1	9.06
	Number of Records	**1238**	**1037**		**112**		**63**		**26**	
	Number of Species	**59**	**54**		**28**		**17**		**9**	
	Number of Sites	**161**	**120**		**21**		**12**		**8**	

APPENDIX 30. RELATIVE ABUNDANCE OF REPTILE SPECIES AT SITES WITHIN VEGETATION ALLIANCES AND THEIR DEVIATION FROM RANDOM EXPECTATION, USING THE FORMULA (OBSERVED – EXPECTED / EXPECTED).

Total Records Total number of records of each reptile species from all sites where trapping was undertaken in the MNYPBS study area.
Not in analysis Number of records from sites not used in the floristic analysis.
Records Number of records of each reptile species within each vegetation alliance.
O – E / E Observed – Expected / Expected where Expected = (number sites in habitat/total number of sites) X total number of observations for that species. The expected value is a hypothetical calculated value derived from the proportion of sites sampled in each vegetation alliance if species were distributed randomly.
N.B. Figures in bold indicate species (with >1 record) that appear to favour this vegetation alliance.

Scientific Name	Common Name	Total Records	Not in analysis	Grasslands		Sheoak Low Woodland MN		Grassy Woodlands/ Forests MN		Open Shrublands & Mallees in drier areas		Chenopod Shrublands		Open Mallee		Semi-arid Shrublands		YP Mallee & Sedgelands		Coastal Shrublands		Saline Shrublands		Watercourse Communities	
				Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E
CHELIDAE																									
Chelodina longicollis	Common Long-necked Tortoise	1																						1	9.7
Emydura macquarii	Macquarie Tortoise	1																						1	9.7
AGAMIDAE																									
Ctenophorus decresii	Tawny Dragon	28				**18**	**3.5**	2	-0.2	4	2.3			2	-0.2	2	1.3								
Ctenophorus pictus	Painted Dragon	19	4									**3**	**11.7**	1	-0.4			1	-0.7	8	8.7	2	0.3		
Pogona barbata	Eastern Bearded Dragon	12	3					2	0.8									**6**	**1.6**			1	0.03		
Pogona vitticeps	Central Bearded Dragon	5		1	1.1	1	0.4	**2**	**3.3**			1	15.1												
Rankinia chapmani	Prickly Dragon	8	1															**7**	**3.5**						
Tympanocryptis lineata	Five-lined Earless Dragon	5																		**5**	**22.0**				
Tympanocryptis tetraporophora	Eyrean Earless Dragon	1										1	79.5												
GEKKONIDAE	**Diplodactylinae**																								
Diplodactylus vittatus	Eastern Stone Gecko	25	2	1	-0.6	2	-0.4	3	0.3					6	1.6	**4**	**4.2**	7	0.5						
Nephrurus milii	Barking Gecko	6	3							1	2.8							1	-0.1	1	2.8				
Strophurus intermedius	Southern Spiny-tailed Gecko	2																		1	10.5	1	5.2		
GEKKONIDAE	**Gekkoninae**																								
Christinus marmoratus	Marbled Gecko	18				**8**	**2.1**			1	0.3			1	-0.4			5	0.4	1	0.3	1	-0.3	1	-0.4
Gehyra '2n=44'	Southern Rock Dtella	32				9	1.0	2	-0.3	**10**	**6.2**			1	-0.7	6	5.0	1	-0.8					3	0.01
Gehyra variegata	Tree Dtella	3												**2**	**6.2**	1	9.7								
Gehyra variegata complex		2												1	4.4	1	15.1								
Heteronotia binoei	Bynoe's Gecko	19				4	0.5	2	0.1	2	1.4			**6**	**2.4**	**2**	**2.4**	2	-0.5					1	-0.4
GEKKONIDAE	**Pygopodinae**																								
Aprasia inaurita	Red-tailed Worm-lizard	1																1	4.2						

Scientific Name	Common Name	Total Records	Not in analysis	Grasslands		Sheoak Low Woodland MN		Grassy Woodlands/ Forests MN		Open Shrublands & Mallees in drier areas		Chenopod Shrublands		Open Mallee		Semi-arid Shrublands		YP Mallee & Sedgelands		Coastal Shrublands		Saline Shrublands		Watercourse Communities	
				Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E
Aprasia pseudopulchella	Flinders Worm Lizard	13	1	**7**	**4.8**	5	1.7																		
Aprasia striolata	Lined Worm-lizard	17	1															7	1.1	**7**	**8.5**	2	0.5		
Delma australis	Barred Snake-lizard	2	1															1	1.6						
Delma butleri	Spinifex Snake-lizard	4		**3**	**7.1**													1	0.3						
Delma molleri	Adelaide Snake-lizard	24		1	-0.6	6	0.8	3	0.3	1	-0.04			**6**	**1.7**	**2**	**1.7**							5	1.2
Lialis burtonis	Burton's Legless Lizard	4				2	2.5																	**2**	**4.4**
Pygopus lepidopodus	Common Scaly-foot	6	4															1	-0.1	1	2.8				
SCINCIDAE																									
Cryptoblepharus carnabyi cac	Desert Wall Skink	24				2	-0.4	5	1.2	**12**	**10.5**			4	0.8									1	-0.6
Cryptoblepharus virgatus	Striped Wall Skink	2	1																	1	10.5				
Ctenotus olympicus	Saltbush Ctenotus	1										1	79.5												
Ctenotus orientalis	Eastern Spotted Ctenotus	16								7	9.1	**3**	**14.1**	2	0.3	2	3.0	2	-0.4						
Ctenotus robustus	Eastern Striped Skink	38	1			8	0.5	5	0.4					1	-0.7	2	0.7	**18**	**1.5**					3	-0.2
Ctenotus schomburgkii	Sandplain Ctenotus	6												**3**	**4.4**			3	1.6						
Cyclodomorphus venustus	Saltbush Slender Bluetongue	1				1	6.0																		
Egernia multiscutata	Bull Skink	2	2																						
Egernia striolata	Eastern Tree Skink	2								1	10.5					1	15.1								
Eremiascincus richardsonii	Broad-banded Sandswimmer	2				1	2.5							1	4.4										
Hemiergis decresiensis	Three-toed Earless Skink	71		2	-0.7	**30**	**2.0**	16	1.4	1	-0.7			11	0.7	2	-0.1	2	-0.9					7	0.1
Hemiergis peronii	Four-toed Earless Skink	57	2	2	-0.6	2	-0.8			5	1.0							19	0.7	**11**	**3.4**	10	1.2	6	0.1
Lampropholis guichenoti	Garden Skink	73				32	2.1	17	1.5															**24**	**2.5**
Lerista bougainvillii	Bougainville's Skink	41		7	0.8	13	1.2	**11**	**1.9**	1	-0.4			2	-0.5	3	1.4	2	-0.7			1	-0.7	1	-0.7
Lerista dorsalis	Southern Four-toed Slider	41	7											7	0.8			18	1.3	**7**	**2.9**	2	-0.4		
Lerista edwardsae	Myall Slider	3												**3**	**9.7**										
Lerista muelleri	Dwarf Three-toed Slider	1														1	31.2								
Lerista terdigitata	Southern Three-toed Slider	12												2	0.8			8	2.5	**2**	**2.8**				
Menetia greyii	Dwarf Skink	172	8	21	0.3	20	-0.2	**36**	**1.2**	3	-0.6			13	-0.2	4	-0.3	44	0.3	7	-0.1			16	-0.002
Morethia adelaidensis	Adelaide Snake-eye	20				1	-0.7			2	1.3	**4**	**15.1**	5	1.7	1	0.6	1	-0.7			2	0.2	4	1.1
Morethia boulengeri	Common Snake-eye	79		7	-0.05	16	0.4	**23**	**2.1**	3	-0.1			4	-0.5	5	1.0	10	-0.3					11	0.5
Morethia obscura	Mallee Snake-eye	66	7			10	0.1	1	-0.8	1	-0.7			**20**	**2.3**			24	0.9	3	0.05				
Tiliqua adelaidensis	Pygmy Bluetongue	1																1	4.2						
Tiliqua occipitalis	Western Bluetongue	2	1															1	1.6						
Tiliqua rugosa	Sleepy Lizard	192	10	18	0.01	18	-0.3	19	0.1	13	0.6	**4**	**0.7**	18	0.01	3	-0.5	49	0.3	9	0.1	19	0.2	12	-0.3

Scientific Name	Common Name	Total Records	Not in analysis	Grasslands		Sheoak Low Woodland MN		Grassy Woodlands/ Forests MN		Open Shrublands & Mallees in drier areas		Chenopod Shrublands		Open Mallee		Semi-arid Shrublands		YP Mallee & Sedgelands		Coastal Shrublands		Saline Shrublands		Watercourse Communities	
				Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E
Tiliqua scincoides	Eastern Bluetongue	5				1	0.4	**2**	**3.3**													1	1.5	1	1.1
VARANIDAE																									
Varanus gouldii	Sand Goanna	2						1	4.4									1	1.6						
ELAPIDAE																									
Demansia psammophis	Yellow-faced Whipsnake	8	3	1	0.3													**2**	**0.3**	1	1.9			1	0.3
Pseudonaja inframacula	Peninsula Brown Snake	11																7	2.3	**3**	**5.3**	1	0.1		
Pseudonaja textilis	Eastern Brown Snake	12	1	2	0.8	**6**	**2.5**	1	-0.1															2	0.8
Suta nigriceps	Mitchell's Short-tailed Snake	4				1	0.8			1	4.8			1	1.7	1	7.1								
Suta spectabilis	Mallee Black-headed Snake	9				**4**	**2.1**	2	1.4											1	1.6	1	0.4	1	0.2
TYPHLOPIDAE																									
Ramphotyphlops australis	Southern Blind Snake	2												1	4.4			1	1.6						
Ramphotyphlops bituberculatus	Rough-nosed Blind Snake	2																1	1.6	1	10.5				
	Number of Records	**1238**	**63**	**73**		**221**		**155**		**69**		**17**		**124**		**43**		**255**		**70**		**44**		**104**	
	Number of Species	**59**	**20**	**13**		**26**		**20**		**18**		**7**		**26**		**18**		**33**		**18**		**13**		**21**	
	Number of Sites	**161**	**13**	**15**		**23**		**15**		**7**		**2**		**15**		**5**		**31**		**7**		**13**		**15**	

APPENDIX 31. RELATIVE ABUNDANCE OF REPTILE SPECIES AT SITES WITHIN MAJOR LANDFORM TYPES AND THEIR DEVIATION FROM RANDOM EXPECTATION, USING THE FORMULA (OBSERVED – EXPECTED / EXPECTED).

Total Records Total number of records of each reptile species from all sites where trapping was undertaken in the MNYPBS study area.
Not Recorded Landform type not recorded at site at time of survey.
Records Number of records of each reptile species within each major landform type.
O – E / E Observed – Expected / Expected where Expected = (number sites in habitat/total number of sites) X total number of observations for that species. The expected value is a hypothetical calculated value derived from the proportion of sites sampled in each major landform type if species were distributed randomly.
N.B. Figures in bold indicate species (with >1 record) that appear to favour this major landform type.

Scientific Name	Common Name	Total Records	Not Recorded	Dune		Plain		Hill		Watercourse		Lake	
				Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E
CHELIDAE													
Chelodina longicollis	Common Long-necked Tortoise	1								1	7.47		
Emydura macquarii	Macquarie Tortoise	1								1	7.47		
AGAMIDAE													
Ctenophorus decresii	Tawny Dragon	28				1	-0.75	**24**	**0.82**	3	-0.09		
Ctenophorus pictus	Painted Dragon	19	4	**7**	**1.97**	4	0.47	3	-0.67			1	-0.35
Pogona barbata	Eastern Bearded Dragon	12	3	**4**	**1.68**	3	0.75	2	-0.65				
Pogona vitticeps	Central Bearded Dragon	5				**2**	**1.80**	3	0.27				
Rankinia chapmani	Prickly Dragon	8	1	**6**	**5.04**	1	-0.13						
Tympanocryptis lineata	Five-lined Earless Dragon	5		**5**	**7.05**								
Tympanocryptis tetraporophora	Eyrean Earless Dragon	1				1	6.00						
GEKKONIDAE	**Diplodactylinae**												
Diplodactylus vittatus	Eastern Stone Gecko	25	2	3	-0.03	**5**	**0.40**	15	0.27				
Nephrurus milii	Barking Gecko	6	3	1	0.34			1	-0.65	1	0.41		
Strophurus intermedius	Southern Spiny-tailed Gecko	2		1	3.03							1	5.19
GEKKONIDAE	**Gekkoninae**												
Christinus marmoratus	Marbled Gecko	18		1	-0.55	1	-0.61	**14**	**0.65**	2	-0.06		
Gehyra '2n=44'	Southern Rock Dtella	32						20	0.32	**12**	**2.18**		
Gehyra variegata	Tree Dtella	3		1	1.68			**2**	**0.41**				
Gehyra variegata complex		2						**2**	**1.12**				
Heteronotia binoei	Bynoe's Gecko	19						**17**	**0.90**	2	-0.11		
GEKKONIDAE	**Pygopodinae**												
Aprasia inaurita	Red-tailed Worm-lizard	1				1	6.00						
Aprasia pseudopulchella	Flinders Worm Lizard	13						**12**	**0.96**	1	-0.35		
Aprasia striolata	Lined Worm-lizard	17	1	**11**	**4.21**	3	0.24					2	0.46
Delma australis	Barred Snake-lizard	2	1			1	2.50						
Delma butleri	Spinifex Snake-lizard	4						**4**	**1.12**				
Delma molleri	Adelaide Snake-lizard	24				2	-0.42	**17**	**0.50**	3	0.06	2	0.03
Lialis burtonis	Burton's Legless Lizard	4						2	0.06	**2**	**3.24**		
Pygopus lepidopodus	Common Scaly-foot	6	4	**2**	**1.68**								
SCINCIDAE													
Cryptoblepharus carnabyi cac	Desert Wall Skink	24				2	-0.42	12	0.06	**10**	**2.53**		
Cryptoblepharus virgatus	Striped Wall Skink	2	1	1	3.03								
Ctenotus olympicus	Saltbush Ctenotus	1				1	6.00						
Ctenotus orientalis	Eastern Spotted Ctenotus	16				5	1.19	4	-0.47	**7**	**2.71**		
Ctenotus robustus	Eastern Striped Skink	38	1	2	-0.58	3	-0.45	**29**	**0.62**	3	-0.33		
Ctenotus schomburgkii	Sandplain Ctenotus	6				**6**	**6.00**						
Cyclodomorphus venustus	Saltbush Slender Bluetongue	1						1	1.12				
Egernia multiscutata	Bull Skink	2	2										
Egernia striolata	Eastern Tree Skink	2						**2**	**1.12**				
Eremiascincus richardsonii	Broad-banded Sandswimmer	2				1	2.50	1	0.06				
Hemiergis decresiensis	Three-toed Earless Skink	71						**63**	**0.88**	8	-0.05		
Hemiergis peronii	Four-toed Earless Skink	57	2	18	1.54	12	0.47	6	-0.78	6	-0.11	**13**	**1.82**

Scientific Name	Common Name	Total Records	Not Recorded	Dune		Plain		Hill		Watercourse		Lake	
				Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E
Lampropholis guichenoti	Garden Skink	73						32	-0.07	**41**	**3.76**		
Lerista bougainvillii	Bougainville's Skink	41				2	-0.66	**35**	**0.81**	3	-0.38	1	-0.70
Lerista dorsalis	Southern Four-toed Slider	41	4	**20**	**2.93**	14	1.39	3	-0.84				
Lerista edwardsae	Myall Slider	3				**3**	**6.00**						
Lerista muelleri	Dwarf Three-toed Slider	1						1	1.12				
Lerista terdigitata	Southern Three-toed Slider	12		3	1.01	**9**	**4.25**						
Menetia greyii	Dwarf Skink	172	6	18	-0.16	**34**	**0.38**	91	0.12	18	-0.11	5	-0.64
Morethia adelaidensis	Adelaide Snake-eye	20		3	0.21	**8**	**1.80**	4	-0.58	2	-0.15	3	0.86
Morethia boulengeri	Common Snake-eye	79				1	-0.91	**64**	**0.72**	14	0.50		
Morethia obscura	Mallee Snake-eye	66	5	12	0.46	**23**	**1.44**	25	-0.20	1	-0.87		
Tiliqua adelaidensis	Pygmy Bluetongue	1						1	1.12				
Tiliqua occipitalis	Western Bluetongue	2	1	1	3.03								
Tiliqua rugosa	Sleepy Lizard	192	8	15	-0.37	32	0.17	93	0.03	19	-0.16	**25**	**0.61**
Tiliqua scincoides	Eastern Bluetongue	5						3	0.27			**2**	**3.95**
VARANIDAE													
Varanus gouldii	Sand Goanna	2				1	2.50	1	0.06				
ELAPIDAE													
Demansia psammophis	Yellow-faced Whipsnake	8	3	1	0.01	**2**	**0.75**	1	-0.74	1	0.06		
Pseudonaja inframacula	Peninsula Brown Snake	11		**9**	**5.59**	2	0.27						
Pseudonaja textilis	Eastern Brown Snake	12	1					8	0.41	**3**	**1.12**		
Suta nigriceps	Mitchell's Short-tailed Snake	4						**3**	**0.59**	1	1.12		
Suta spectabilis	Mallee Black-headed Snake	9		**2**	**0.79**			6	0.41	1	-0.06		
TYPHLOPIDAE													
Ramphotyphlops australis	Southern Blind Snake	2						**2**	**1.12**				
Ramphotyphlops bituberculatus	Rough-nosed Blind Snake	2		1	3.03	1	2.50						
	Total Records	**1238**	**53**	**148**		**187**		**629**		**166**		**55**	
	No. of Species	**59**	**19**	**25**		**32**		**40**		**26**		**10**	
	No. of Sites	**148**	**10**	**20**		**23**		**76**		**19**		**13**	

APPENDIX 32. RELATIVE ABUNDANCE OF REPTILE SPECIES AT SITES WITHIN BROAD SURFACE SOIL TEXTURE CLASSES AND THEIR DEVIATION FROM RANDOM EXPECTATION, USING THE FORMULA (OBSERVED – EXPECTED / EXPECTED).

Total Records Total number of records of each reptile species from all sites where trapping was undertaken in the MNYPBS study area.
Not Recorded Surface soil texture class not recorded at site at time of survey.
Records Number of records of each reptile species within each broad surface soil texture class.
O – E / E Observed – Expected / Expected where Expected = (number sites in habitat/total number of sites) X total number of observations for that species. The expected value is a hypothetical calculated value derived from the proportion of sites sampled in each broad surface soil texture class if species were distributed randomly.
N.B. Figures in bold indicate species (with >1 record) that appear to favour this broad surface soil texture class.

Scientific Name	Common Name	Total Records	Not Recorded	Clay		Loam		Sand	
				Records	O-E/E	Records	O-E/E	Records	O-E/E
CHELIDAE									
Chelodina longicollis	Common Long-necked Tortoise	1		1	2.16				
Emydura macquarii	Macquarie Tortoise	1		1	2.16				
AGAMIDAE									
Ctenophorus decresii	Tawny Dragon	28		4	-0.55	**18**	**0.62**	6	-0.09
Ctenophorus pictus	Painted Dragon	19	2	1	-0.83	7	-0.07	**9**	**1.01**
Pogona barbata	Eastern Bearded Dragon	12	2	1	-0.74	2	-0.58	**7**	**1.47**
Pogona vitticeps	Central Bearded Dragon	5		1	-0.37	**4**	**1.01**		
Rankinia chapmani	Prickly Dragon	8						**8**	**3.24**
Tympanocryptis lineata	Five-lined Earless Dragon	5				**5**	**1.52**		
Tympanocryptis tetraporophora	Eyrean Earless Dragon	1				1	1.52		
GEKKONIDAE	**Diplodactylinae**								
Diplodactylus vittatus	Eastern Stone Gecko	25	2	2	-0.75	**14**	**0.41**	7	0.19
Nephrurus milii	Barking Gecko	6	3	1	-0.47	2	-0.16		
Strophurus intermedius	Southern Spiny-tailed Gecko	2				1	0.26	1	1.12
GEKKONIDAE	**Gekkoninae**								
Christinus marmoratus	Marbled Gecko	18		4	-0.30	**11**	**0.54**	3	-0.29
Gehyra '2n=44'	Southern Rock Dtella	32		2	-0.80	**25**	**0.97**	5	-0.34
Gehyra variegata	Tree Dtella	3				**2**	**0.68**	1	0.41
Gehyra variegata complex		2		1	0.58	1	0.26		
Heteronotia binoei	Bynoe's Gecko	19		4	-0.34	**14**	**0.85**	1	-0.78
GEKKONIDAE	**Pygopodinae**								
Aprasia inaurita	Red-tailed Worm-lizard	1						1	3.24
Aprasia pseudopulchella	Flinders Worm Lizard	13		5	0.21	**8**	**0.55**		
Aprasia striolata	Lined Worm-lizard	17	1			2	-0.70	**14**	**2.49**
Delma australis	Barred Snake-lizard	2						**2**	**3.24**
Delma butleri	Spinifex Snake-lizard	4		**4**	**2.16**				
Delma molleri	Adelaide Snake-lizard	24		**14**	**0.84**	9	-0.06	1	-0.82
Lialis burtonis	Burton's Legless Lizard	4				2	0.26	**2**	**1.12**
Pygopus lepidopodus	Common Scaly-foot	6	2					**4**	**1.82**
SCINCIDAE									
Cryptoblepharus carnabyi cac	Desert Wall Skink	24		3	-0.61	**17**	**0.78**	4	-0.29
Cryptoblepharus virgatus	Striped Wall Skink	2	1					1	1.12
Ctenotus olympicus	Saltbush Ctenotus	1				1	1.52		
Ctenotus orientalis	Eastern Spotted Ctenotus	16		2	-0.61	**14**	**1.20**		
Ctenotus robustus	Eastern Striped Skink	38	1	11	-0.09	**24**	**0.59**	2	-0.78
Ctenotus schomburgkii	Sandplain Ctenotus	6				2	-0.16	**4**	**1.82**
Cyclodomorphus venustus	Saltbush Slender Bluetongue	1				1	1.52		
Egernia multiscutata	Bull Skink	2	1					1	1.12
Egernia striolata	Eastern Tree Skink	2				1	0.26	1	1.12
Eremiascincus richardsonii	Broad-banded Sandswimmer	2		1	0.58	1	0.26		
Hemiergis decresiensis	Three-toed Earless Skink	71		21	-0.07	**44**	**0.56**	6	-0.64

Scientific Name	Common Name	Total Records	Not Recorded	Clay		Loam		Sand	
				Records	O-E/E	Records	O-E/E	Records	O-E/E
Hemiergis peronii	Four-toed Earless Skink	57	2	14	-0.22	5	-0.78	**36**	**1.68**
Lampropholis guichenoti	Garden Skink	73		**60**	**1.59**	11	-0.62	2	-0.88
Lerista bougainvillii	Bougainville's Skink	41		**20**	**0.54**	19	0.17	2	-0.79
Lerista dorsalis	Southern Four-toed Slider	41	4	4	-0.69	8	-0.51	**25**	**1.58**
Lerista edwardsae	Myall Slider	3		**3**	**2.16**				
Lerista muelleri	Dwarf Three-toed Slider	1				1	1.52		
Lerista terdigitata	Southern Three-toed Slider	12		1	-0.74	2	-0.58	**9**	**2.18**
Menetia greyii	Dwarf Skink	172	5	**58**	**0.065**	66	-0.03	43	0.059
Morethia adelaidensis	Adelaide Snake-eye	20		7	0.10	**10**	**0.26**	3	-0.36
Morethia boulengeri	Common Snake-eye	79		**42**	**0.68**	30	-0.04	7	-0.62
Morethia obscura	Mallee Snake-eye	66	4	7	-0.67	22	-0.16	**33**	**1.12**
Tiliqua adelaidensis	Pygmy Bluetongue	1		1	2.16				
Tiliqua occipitalis	Western Bluetongue	2	1					1	1.12
Tiliqua rugosa	Sleepy Lizard	192	8	**79**	**0.30**	82	0.07	23	-0.49
Tiliqua scincoides	Eastern Bluetongue	5		**4**	**1.53**	1	-0.50		
VARANIDAE									
Varanus gouldii	Sand Goanna	2				1	0.26	1	1.12
ELAPIDAE									
Demansia psammophis	Yellow-faced Whipsnake	8	1	1	-0.61	1	-0.69	**5**	**1.65**
Pseudonaja inframacula	Peninsula Brown Snake	11				1	-0.77	**10**	**2.85**
Pseudonaja textilis	Eastern Brown Snake	12		**9**	**1.37**	1	-0.79	2	-0.29
Suta nigriceps	Mitchell's Short-tailed Snake	4		1	-0.21	**3**	**0.89**		
Suta spectabilis	Mallee Black-headed Snake	9		**4**	**0.40**	4	0.12	1	-0.53
TYPHLOPIDAE									
Ramphotyphlops australis	Southern Blind Snake	2		1	0.58	1	0.26		
Ramphotyphlops bituberculatus	Rough-nosed Blind Snake	2				1	0.26	1	1.12
	Total Records	**1238**	**40**	**400**		**503**		**295**	
	Number of Species	**59**	**16**	**38**		**47**		**40**	
	Number of Sites	**161**	**8**	**51**		**64**		**38**	

APPENDIX 33. FROG SPECIES RECORDED IN THE MID NORTH AND YORKE PENINSULA BIOLOGICAL SURVEY STUDY AREA.

List of frog species recorded within the MNYPBS study area at survey quadrats or as opportune records (in the Environmental Database of South Australia) or held as specimens in the South Australian Museum collection.

Aus Australian status under the *Environment Protection and Biodiversity Conservation Act 1999* as at December 2006.

SA South Australian status under the *National Parks and Wildlife Act 1972* (2000 update of Schedules 7, 8 and 9). E = endangered, V = vulnerable and R = rare.

SU & OP Number of survey quadrat (SU) and opportunistic (OP) records for each species from all Biological Surveys conducted in the MNYPBS study area.

SAM Number of specimens of each species in the South Australian Museum collection from the MNYPBS study area prior to this survey.

Scientific Name	Common Name	Aus	SA	SU	OP	SAM	Total
HYLIDAE							
Litoria ewingii	Brown Tree Frog			1		7	8
MYOBATRACHIDAE							
Crinia riparia	Streambank Froglet			1		18	19
Crinia signifera	Common Froglet			58	7	161	226
Limnodynastes dumerilii	Bull Frog			9	3	10	22
Limnodynastes tasmaniensis	Spotted Grass Frog			18	13	82	113
Neobatrachus pictus	Painted Frog			22	6	31	59
Pseudophryne bibronii	Brown Toadlet			7		10	17
	Number of Species			**7**	**4**	**8**	**8**
	Number of Records			**116**	**29**	**321**	**466**

APPENDIX 34. FROG SPECIES FREQUENCY BY ALL SURVEYS CONDUCTED WITHIN THE MID NORTH AND YORKE PENINSULA BIOLOGICAL SURVEY STUDY AREA.

Survey Number 13 = Innes National Park (1976-77), 24 = South Olary Plains (1991), 116 = Mt. Cone Baseline Survey (1999), 162 = Mid North and Yorke Peninsula (2003-04), 168 = Hopkins Creek (Nature Conservation Society 2003), 196 = Warrenben CP Flora and Fauna Survey (2004).

Total SU sites Total number of site records for each species from all surveys in the study area.

% of all sites Total number of sites where recorded as a percentage of all sites in the study area.

Relative abundance Total number of individual records for each species from all surveys in the study area.

% Recording rate Total number of individual records as a percentage of all records in the study area.

Scientific Name	Common Name	Survey Number						Total SU sites	% of all sites	Relative abundance	% Recording rate
		13	24	116	162	168	196				
HYLIDAE											
Litoria ewingii	Brown Tree Frog				1			1	1	1	0.9
MYOBATRACHIDAE											
Crinia riparia	Streambank Froglet				1			1	1	1	0.9
Crinia signifera	Common Froglet			1	6	2		9	5	58	50.0
Limnodynastes dumerilii	Bull Frog				4			4	2	9	7.8
Limnodynastes tasmaniensis	Spotted Grass Frog				4	1		5	3	18	15.5
Neobatrachus pictus	Painted Frog	1			10			11	6	22	19.0
Pseudophryne bibronii	Brown Toadlet				4			4	2	7	6.0
	Number of Records									**116**	
	Number of Species	**1**	**0**	**1**	**7**	**2**	**0**	**7**			
	Number of Sites	**1**	**0**	**1**	**30**	**3**	**0**	**35**			

APPENDIX 35. RELATIVE ABUNDANCE OF FROG SPECIES AT SITES WITHIN SALINITY CLASSES AND THEIR DEVIATION FROM RANDOM EXPECTATION, USING THE FORMULA (OBSERVED - EXPECTED / EXPECTED).

Total Records Total number of records of each frog species from all sites where trapping was undertaken in the MNYPBS study area.

Records Number of records of each frog species within each salinity class.

O – E / E Observed – Expected / Expected where Expected = (number sites in habitat/total number of sites) X total number of observations for that species. The expected value is a hypothetical calculated value derived from the proportion of sites sampled in each salinity class if species were distributed randomly.

N.B. Figures in bold indicate species (with >1 record) that appear to favour this salinity class.

Scientific Name	Common Name	Total Records	Nil		Low		Moderate		High	
			Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E
HYLIDAE										
Litoria ewingii	Brown Tree Frog	1	1	0.37						
MYOBATRACHIDAE										
Crinia riparia	Streambank Froglet	1	1	0.37						
Crinia signifera	Common Froglet	58	37	-0.13	**21**	**0.88**				
Limnodynastes dumerilii	Bull Frog	9	**8**	**0.22**	1	-0.42				
Limnodynastes tasmaniensis	Spotted Grass Frog	18	14	0.06	**4**	**0.16**				
Neobatrachus pictus	Painted Frog	22	14	-0.13	4	-0.05	**4**	**1.36**		
Pseudophryne bibronii	Brown Toadlet	7	**7**	**0.37**						
	Total Records	**116**	**82**		**30**		**4**		**0**	
	Number of Species	**7**	**7**		**4**		**1**		**0**	
	Number of Sites	**26**	**19**		**5**		**2**		**0**	

APPENDIX 36. RELATIVE ABUNDANCE OF FROG SPECIES AT SITES WITHIN VEGETATION ALLIANCES AND THEIR DEVIATION FROM RANDOM EXPECTATION, USING THE FORMULA (OBSERVED – EXPECTED / EXPECTED).

Total Records Total number of records of each frog species from all sites where trapping was undertaken in the MNYPBS study area.
Not in analysis Number of records from sites not used in the floristic analysis.
Records Number of records of each frog species within each vegetation alliance.
O – E / E Observed – Expected / Expected where Expected = (number sites in habitat/total number of sites) X total number of observations for that species. The expected value is a hypothetical calculated value derived from the proportion of sites sampled in each vegetation alliance if species were distributed randomly.
N.B. Figures in bold indicate species (with >1 record) that appear to favour this vegetation alliance.

Scientific Name	Common Name	Total Records	Not in analysis	Grasslands		Sheoak Low Woodland MN		Grassy Woodlands/ Forests MN		Open Mallee		YP Mallee & Sedgelands		Coastal Shrublands		Saline Shrublands		Watercourse Communities	
				Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E
HYLIDAE																			
Litoria ewingii	Brown Tree Frog	1																1	1.60
MYOBATRACHIDAE																			
Crinia riparia	Streambank Froglet	1																1	1.60
Crinia signifera	Common Froglet	58		1	-0.55													**57**	**1.56**
Limnodynastes dumerilii	Bull Frog	9																**9**	**1.60**
Limnodynastes tasmaniensis	Spotted Grass Frog	18				1	-0.64											**17**	**1.46**
Neobatrachus pictus	Painted Frog	22	1			2	-0.41			4	1.36	**12**	**1.84**	1	0.18	2	1.36		
Pseudophryne bibronii	Brown Toadlet	7				**5**	**3.64**	1	2.71									1	-0.63
	Total Records	**116**	**1**	**1**		**8**		**1**		**4**		**12**		**1**		**2**		**86**	
	Number of Species	**7**	**1**	**1**		**3**		**1**		**1**		**1**		**1**		**1**		**6**	
	Number of Sites	**26**	**1**	**1**		**4**		**1**		**2**		**5**		**1**		**1**		**10**	

APPENDIX 37. RELATIVE ABUNDANCE OF FROG SPECIES AT SITES WITHIN MAJOR LANDFORM TYPES AND THEIR DEVIATION FROM RANDOM EXPECTATION, USING THE FORMULA (OBSERVED – EXPECTED / EXPECTED).

Total Records Total number of records of each frog species from all sites where trapping was undertaken in the MNYPBS study area.
Not Recorded Landform type not recorded at site at time of survey.
Records Number of records of each frog species within each major landform type.
O – E / E Observed – Expected / Expected where Expected = (number sites in habitat/total number of sites) X total number of observations for that species. The expected value is a hypothetical calculated value derived from the proportion of sites sampled in each major landform type if species were distributed randomly.
N.B. Figures in bold indicate species (with >1 record) that appear to favour this major landform type.

Scientific Name	Common Name	Total Records	Not Recorded	Dune		Hill		Lake		Plain		Watercourse	
				Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E	Records	O-E/E
HYLIDAE													
Litoria ewingii	Brown Tree Frog	1										1	1.60
MYOBATRACHIDAE													
Crinia riparia	Streambank Froglet	1										1	1.60
Crinia signifera	Common Froglet	58				1	-0.94	**12**	**1.69**			45	1.02
Limnodynastes dumerilii	Bull Frog	9										**9**	**1.60**
Limnodynastes tasmaniensis	Spotted Grass Frog	18				1	-0.79	**4**	**1.89**			13	0.88
Neobatrachus pictus	Painted Frog	22	1	7	1.07	6	0.01	2	0.18	**6**	**2.55**		
Pseudophryne bibronii	Brown Toadlet	7				**4**	**1.12**					3	0.11
	Total Records	**116**	**1**	**7**		**12**		**18**		**6**		**72**	
	Number of Species	**7**	**1**	**1**		**4**		**3**		**1**		**6**	
	Number of Sites	**26**	**1**	**4**		**7**		**2**		**2**		**10**	

APPENDIX 38. RELATIVE ABUNDANCE OF FROG SPECIES AT SITES WITHIN BROAD SURFACE SOIL TEXTURE CLASSES AND THEIR DEVIATION FROM RANDOM EXPECTATION, USING THE FORMULA (OBSERVED – EXPECTED / EXPECTED).

Total Records Total number of records of each frog species from all sites where trapping was undertaken in the MNYPBS study area.
Not Recorded Surface soil texture class not recorded at site at time of survey.
Records Number of records of each frog species within each broad surface soil texture class.
O – E / E Observed – Expected / Expected where Expected = (number sites in habitat/total number of sites) X total number of observations for that species. The expected value is a hypothetical calculated value derived from the proportion of sites sampled in each broad surface soil texture class if species were distributed randomly.
N.B. Figures in bold indicate species (with >1 record) that appear to favour this broad surface soil texture class.

Scientific Name	Common Name	Total Records	Not Recorded	Clay		Loam		Sand	
				Records	O-E/E	Records	O-E/E	Records	O-E/E
HYLIDAE									
Litoria ewingii	Brown Tree Frog	1		1	1.00				
MYOBATRACHIDAE									
Crinia riparia	Streambank Froglet	1		1	1.00				
Crinia signifera	Common Froglet	58		**49**	**0.69**	4	-0.74	5	-0.55
Limnodynastes dumerilii	Bull Frog	9		**9**	**1.00**				
Limnodynastes tasmaniensis	Spotted Grass Frog	18		**17**	**0.89**			1	-0.71
Neobatrachus pictus	Painted Frog	22	1	3	-0.73	10	0.69	**8**	**0.89**
Pseudophryne bibronii	Brown Toadlet	7		**6**	**0.71**	1	-0.47		
	Total Records	**116**	**1**	**86**		**15**		**14**	
	Number of Species	**7**	**1**	**7**		**3**		**3**	
	Number of Sites	**26**	**1**	**13**		**7**		**5**	

APPENDIX 39. SITE FREQUENCY OF INSECT TAXA RECORDED ON THE MID NORTH AND YORKE PENINSULA BIOLOGICAL SURVEY.

N.B. The term 'Gn sp' in the **Genus species** field indicates the taxon has been identified only to Family level. The term 'Family not identified' in the **Family** field indicates the taxon has been identified only to Order.

Class	Order	Family	Genus species	No. of Sites
Insecta	Blattodea	Blaberidae	Calolampra sp.	28
Insecta	Blattodea	Blaberidae	Gn sp	2
Insecta	Blattodea	Blaberidae	Laxta sp.	4
Insecta	Blattodea	Blattellidae	Blattella germanica	1
Insecta	Blattodea	Blattellidae	Blattella sp.	1
Insecta	Blattodea	Blattellidae	Ellipsidion sp.	1
Insecta	Blattodea	Blattellidae	Gn sp	2
Insecta	Blattodea	Blattellidae	Robshelfordia sp.	2
Insecta	Blattodea	Blattellidae	stripey	2
Insecta	Blattodea	Blattidae	Anamesia sp.	6
Insecta	Blattodea	Blattidae	Anamesia sp. turquoise	1
Insecta	Blattodea	Blattidae	Desmozosteria cincta near	1
Insecta	Blattodea	Blattidae	Desmozosteria sp.	1
Insecta	Blattodea	Blattidae	Desmozosteria sp. near	1
Insecta	Blattodea	Blattidae	Euzosteria sp.	3
Insecta	Blattodea	Blattidae	juvenile	9
Insecta	Blattodea	Blattidae	Platyzosteria blk	7
Insecta	Blattodea	Blattidae	Platyzosteria blk narrow	1
Insecta	Blattodea	Blattidae	Platyzosteria brw narrow	3
Insecta	Blattodea	Blattidae	Platyzosteria melanaria	2
Insecta	Blattodea	Blattidae	Platyzosteria scabre	3
Insecta	Blattodea	Blattidae	Platyzosteria sp.	10
Insecta	Blattodea	Blattidae	Platyzosteria sp. brw	4
Insecta	Blattodea	Blattidae	Platyzosteria sp. lg blk	7
Insecta	Blattodea	Blattidae	Zonioploca sp.	3
Insecta	Blattodea	Family not identified	Gn sp	1
Insecta	Coleoptera	Anobiidae	Mezium affinus	1
Insecta	Coleoptera	Anthicidae	Formicomus sp.	2
Insecta	Coleoptera	Belidae	brown sp	1
Insecta	Coleoptera	Belidae	Rhinotia sp.	1
Insecta	Coleoptera	Bostrichidae	Bostrychopsis jesuita	1
Insecta	Coleoptera	Bostrichidae	Xylion sp. near	1
Insecta	Coleoptera	Carabidae	Teropha sp.	1
Insecta	Coleoptera	Carabidae	Apotomus sp.	2
Insecta	Coleoptera	Carabidae	Carenum brown	1
Insecta	Coleoptera	Carabidae	Carenum elegans	1
Insecta	Coleoptera	Carabidae	Carenum sp black	3
Insecta	Coleoptera	Carabidae	Carenum sp black small	1
Insecta	Coleoptera	Carabidae	Carenum sp blue	2
Insecta	Coleoptera	Carabidae	Carenum sp thin brown	2
Insecta	Coleoptera	Carabidae	Carenum sp.	2
Insecta	Coleoptera	Carabidae	Carenum violaceum	3
Insecta	Coleoptera	Carabidae	Cerotalis sp.	1
Insecta	Coleoptera	Carabidae	Cicindela sp.	1
Insecta	Coleoptera	Carabidae	Craspedophorus sp.	2
Insecta	Coleoptera	Carabidae	Gigadema small	1
Insecta	Coleoptera	Carabidae	Gn sp	2
Insecta	Coleoptera	Carabidae	larva	4
Insecta	Coleoptera	Carabidae	Neocarenum black	6
Insecta	Coleoptera	Carabidae	Pheropsophus verticalis	3
Insecta	Coleoptera	Carabidae	Philophloeus sp.	1
Insecta	Coleoptera	Carabidae	Phorticosomus sp.	2
Insecta	Coleoptera	Carabidae	Platycoelus sp.	1
Insecta	Coleoptera	Carabidae	Scaraphites sp.	5
Insecta	Coleoptera	Carabidae	Secatophus australis	1
Insecta	Coleoptera	Carabidae	Simodontus sp.	1
Insecta	Coleoptera	Cerambycidae	Phlogistus sp.	2
Insecta	Coleoptera	Cerambycidae	Uracantha sp.	1

Class	Order	Family	Genus species	No. of Sites
Insecta	Coleoptera	Chrysomelidae	larva	3
Insecta	Coleoptera	Chrysomelidae	Paropsis sp.	1
Insecta	Coleoptera	Chrysomelidae	Polyoptilus lacordairei	1
Insecta	Coleoptera	Cleridae	Phlogistus sp.	1
Insecta	Coleoptera	Coccinellidae	Coccinella transversalis	7
Insecta	Coleoptera	Coccinellidae	Gn sp	1
Insecta	Coleoptera	Coccinellidae	Harmonia conformis	2
Insecta	Coleoptera	Coccinellidae	larva	2
Insecta	Coleoptera	Coccinellidae	yellow	1
Insecta	Coleoptera	Curculionidae	Acantholophus sp.	3
Insecta	Coleoptera	Curculionidae	Amycterinae Gn sp	1
Insecta	Coleoptera	Curculionidae	Cubicorhynchus sp.	4
Insecta	Coleoptera	Curculionidae	Gn sp	4
Insecta	Coleoptera	Curculionidae	Leptopius sp.	1
Insecta	Coleoptera	Curculionidae	Molochtus sp.	4
Insecta	Coleoptera	Curculionidae	Prypnus sp. near	2
Insecta	Coleoptera	Curculionidae	Psapharus ruficornis	1
Insecta	Coleoptera	Curculionidae	small	2
Insecta	Coleoptera	Curculionidae	tiny	11
Insecta	Coleoptera	Elateridae	Agrypnus sp.	1
Insecta	Coleoptera	Elateridae	Conoderus australasiae	1
Insecta	Coleoptera	Elateridae	Conoderus sp.	7
Insecta	Coleoptera	Family not identified	Gn sp	3
Insecta	Coleoptera	Family not identified	larva	2
Insecta	Coleoptera	Family not identified	tiny	40
Insecta	Coleoptera	Melyridae	Carphurus sp.	2
Insecta	Coleoptera	Melyridae	Dicranolaius bellulus	3
Insecta	Coleoptera	Nitidulidae	Carpophilus hemipterus	14
Insecta	Coleoptera	Ptilidae	Gn sp	2
Insecta	Coleoptera	Rhipiphoridae	Pelecotomoides sp.	1
Insecta	Coleoptera	Scarabaeidae	Automolius sp.	3
Insecta	Coleoptera	Scarabaeidae	Bolboleus sp.	1
Insecta	Coleoptera	Scarabaeidae	Colpochila sp	1
Insecta	Coleoptera	Scarabaeidae	Gn sp	4
Insecta	Coleoptera	Scarabaeidae	Heteronyx sp.	7
Insecta	Coleoptera	Scarabaeidae	larva	1
Insecta	Coleoptera	Scarabaeidae	Liparetrus sp.	1
Insecta	Coleoptera	Scarabaeidae	Neophyllotocus sp.	1
Insecta	Coleoptera	Scarabaeidae	Onthophagus pronus	2
Insecta	Coleoptera	Scarabaeidae	Onthophagus sp.	3
Insecta	Coleoptera	Scarabaeidae	Phyllotocus sp.	1
Insecta	Coleoptera	Scarabaeidae	Scitala sp.	4
Insecta	Coleoptera	Scarabaeidae	tiny	8
Insecta	Coleoptera	Staphylinidae	Gn sp	55
Insecta	Coleoptera	Staphylinidae	Thyreocephalus chloropterus	1
Insecta	Coleoptera	Tenebrionidae	Adelium brevicorne	11
Insecta	Coleoptera	Tenebrionidae	Adelium simillatum	2
Insecta	Coleoptera	Tenebrionidae	Adelium sp	6
Insecta	Coleoptera	Tenebrionidae	Blaps polychresta	8
Insecta	Coleoptera	Tenebrionidae	Brises sp.	2
Insecta	Coleoptera	Tenebrionidae	Celibe sp.	1
Insecta	Coleoptera	Tenebrionidae	Chalcopteroides purpureus	2
Insecta	Coleoptera	Tenebrionidae	Gn sp	1
Insecta	Coleoptera	Tenebrionidae	Gonocephalum elus	1
Insecta	Coleoptera	Tenebrionidae	Gonocephalum sp.	5
Insecta	Coleoptera	Tenebrionidae	Gonocephalum sp. near	1
Insecta	Coleoptera	Tenebrionidae	Helea castor	4
Insecta	Coleoptera	Tenebrionidae	Helea elliptica	1
Insecta	Coleoptera	Tenebrionidae	Helea monilifera near	1
Insecta	Coleoptera	Tenebrionidae	larva	3
Insecta	Coleoptera	Tenebrionidae	Nyctozoilus sp.	2
Insecta	Coleoptera	Tenebrionidae	Pteroheleus sp.	1
Insecta	Coleoptera	Tenebrionidae	Saragus interruptus	3
Insecta	Coleoptera	Tenebrionidae	Seirotrana parallela	5
Insecta	Coleoptera	Tenebrionidae	tiny	9

Class	Order	Family	Genus species	No. of Sites
Insecta	Coleoptera	Tenebrionidae	Trichosaragus sp.	1
Insecta	Coleoptera	Trogidae	Trox sp.	1
Insecta	Dermaptera	Anisolabididae	Gn sp	22
Insecta	Dermaptera	Family not identified	Gn sp	39
Insecta	Dermaptera	Family not identified	juvenile	1
Insecta	Dermaptera	Forficulidae	Forficula sp.	14
Insecta	Diptera	?Sciomyzidae	Gn sp	1
Insecta	Diptera	Agromyzidae	Gn sp	2
Insecta	Diptera	Anthomyiidae	Gn sp	2
Insecta	Diptera	Asilidae	Gn sp	4
Insecta	Diptera	Bombyliidae	Usiinae Gn sp.	1
Insecta	Diptera	Calliphoridae	Calliphora dubia	15
Insecta	Diptera	Calliphoridae	Calliphora sp.	1
Insecta	Diptera	Calliphoridae	Gn sp	9
Insecta	Diptera	Calliphoridae	green	2
Insecta	Diptera	Cecidomyidae	Gn sp	35
Insecta	Diptera	Ceratopogonidae	Gn sp	6
Insecta	Diptera	Chironomidae	Gn sp	6
Insecta	Diptera	Chloropidae	black	4
Insecta	Diptera	Chloropidae	bw	11
Insecta	Diptera	Chloropidae	Gn sp	27
Insecta	Diptera	Chloropidae	spotwing	1
Insecta	Diptera	Chloropidae	yellow	2
Insecta	Diptera	Chloropidae	yellow and black thorax	2
Insecta	Diptera	Culicidae	Aedes annulipes	1
Insecta	Diptera	Culicidae	Aedes sp.	2
Insecta	Diptera	Culicidae	Gn sp	1
Insecta	Diptera	Dolichopodidae	Gn sp	16
Insecta	Diptera	Drosophilidae	Gn sp	5
Insecta	Diptera	Empididae	Gn sp	4
Insecta	Diptera	Ephydridae	Gn sp	14
Insecta	Diptera	Ephydridae	spotty	1
Insecta	Diptera	Ephydridae	spotwing	1
Insecta	Diptera	Lauxaniidae	Gn sp	3
Insecta	Diptera	Lauxaniidae	Homoneura sp.	1
Insecta	Diptera	Lonchopteridae	Gn sp	1
Insecta	Diptera	Muscidae	Gn sp	16
Insecta	Diptera	Muscidae	larva	1
Insecta	Diptera	Muscoidea	Gn sp	2
Insecta	Diptera	Muscoidea	larva	1
Insecta	Diptera	Mycetophillidae	Gn sp	6
Insecta	Diptera	Phoridae	Gn sp	102
Insecta	Diptera	Phoridae	wingless	2
Insecta	Diptera	Pipunculidae	Gn sp	1
Insecta	Diptera	Psychodidae	Gn sp	1
Insecta	Diptera	Sarcophagidae	Gn sp	3
Insecta	Diptera	Sciaridae	Gn sp	49
Insecta	Diptera	Sphaeroceridae	Gn sp	29
Insecta	Diptera	Syrphidae	green sp	1
Insecta	Diptera	Syrphidae	Melangyna sp.	8
Insecta	Diptera	Syrphidae	Simosyrphus grandicornis	1
Insecta	Diptera	Tabanidae	Gn sp	9
Insecta	Diptera	Tachinidae	Gn sp	5
Insecta	Diptera	Therevidae	Gn sp	3
Insecta	Diptera	Tipulidae	Gn sp	2
Insecta	Diptera	Tipulidae	Gynoplistia sp.	1
Insecta	Embioptera	Oligomotidae	Gn sp	1
Insecta	Hemiptera	Aphidae	Gn sp	20
Insecta	Hemiptera	Cercopidae	Gn sp	2
Insecta	Hemiptera	Cicadellidae	Gn sp	3
Insecta	Hemiptera	Cicadellidae	Iassinae	67
Insecta	Hemiptera	Cicadidae	Gn sp	3
Insecta	Hemiptera	Cicadidae	juvenile	1
Insecta	Hemiptera	Coccidae	Gn sp	1
Insecta	Hemiptera	Cydnidae	Adrisa sp.	3

Class	Order	Family	Genus species	No. of Sites
Insecta	Hemiptera	Cydnidae	Gn sp	1
Insecta	Hemiptera	Family not identified	Gn sp	12
Insecta	Hemiptera	Family not identified	juvenile	1
Insecta	Hemiptera	Family not identified	tiny	5
Insecta	Hemiptera	Lygaeidae	Daerlac nigricans near	1
Insecta	Hemiptera	Lygaeidae	Dieuches sp.	3
Insecta	Hemiptera	Lygaeidae	Gn sp	2
Insecta	Hemiptera	Lygaeidae	Lygaeinae Gn sp	1
Insecta	Hemiptera	Lygaeidae	Nysius sp. near	1
Insecta	Hemiptera	Lygaeidae	Nysius vinitor	3
Insecta	Hemiptera	Lygaeidae	Stenophyella sp.	1
Insecta	Hemiptera	Lygaeidae	tiny	1
Insecta	Hemiptera	Miridae	Gn sp	3
Insecta	Hemiptera	Miridae	Myrmecoroides carana	1
Insecta	Hemiptera	Pentatomidae	dark	1
Insecta	Hemiptera	Pentatomidae	Gn sp	3
Insecta	Hemiptera	Pentatomidae	Kapunda sp.	2
Insecta	Hemiptera	Pentatomidae	Ochisme sp.	3
Insecta	Hemiptera	Pentatomidae	Pseudapines geminata	2
Insecta	Hemiptera	Reduviidae	Coranus sp.	4
Insecta	Hemiptera	Reduviidae	Coranus sp. near	1
Insecta	Hemiptera	Reduviidae	Emesinae Gn sp.	1
Insecta	Hemiptera	Reduviidae	Gn sp	2
Insecta	Hemiptera	Reduviidae	juvenile	1
Insecta	Hemiptera	Reduviidae	Peirates sp.	2
Insecta	Hemiptera	Rhopalidae	Leptocoris sp.	4
Insecta	Hemiptera	Tingidae	Gn sp	4
Insecta	Hymenoptera	Apidae	Apis mellifera	6
Insecta	Hymenoptera	Apoidea	Native bee	4
Insecta	Hymenoptera	Encyrtidae	tiny	2
Insecta	Hymenoptera	Family not identified	Gn sp	18
Insecta	Hymenoptera	Family not identified	Native bee	6
Insecta	Hymenoptera	Family not identified	parasitic wasp tiny	4
Insecta	Hymenoptera	Family not identified	small	2
Insecta	Hymenoptera	Family not identified	tiny	24
Insecta	Hymenoptera	Formicidae	Campanotus amperi	2
Insecta	Hymenoptera	Formicidae	Campanotus claripes	2
Insecta	Hymenoptera	Formicidae	Campanotus consobrinus	3
Insecta	Hymenoptera	Formicidae	Campanotus cowlei	1
Insecta	Hymenoptera	Formicidae	Campanotus fergusoni	2
Insecta	Hymenoptera	Formicidae	Campanotus gouldianus	3
Insecta	Hymenoptera	Formicidae	Campanotus nigriceps	3
Insecta	Hymenoptera	Formicidae	Campanotus pawseyi	1
Insecta	Hymenoptera	Formicidae	Campanotus suffusus	1
Insecta	Hymenoptera	Formicidae	Crematogaster sp.	2
Insecta	Hymenoptera	Formicidae	Doilchoderus sp.	1
Insecta	Hymenoptera	Formicidae	Epopostruma sp.	2
Insecta	Hymenoptera	Formicidae	Heteroponera sp.	1
Insecta	Hymenoptera	Formicidae	Iridomyrmex sp.	9
Insecta	Hymenoptera	Formicidae	Melophorus sp.	5
Insecta	Hymenoptera	Formicidae	Meranoplus sp.	2
Insecta	Hymenoptera	Formicidae	Monomorium sp.	6
Insecta	Hymenoptera	Formicidae	Myrmecia desertorum	1
Insecta	Hymenoptera	Formicidae	Myrmecia sp.	15
Insecta	Hymenoptera	Formicidae	Notoncus sp.	6
Insecta	Hymenoptera	Formicidae	Pheidole sp.	5
Insecta	Hymenoptera	Formicidae	Rhytidoponera sp.	8
Insecta	Hymenoptera	Ichneumonidae	Netelia sp.	4
Insecta	Hymenoptera	Mutillidae	Ephutomorpha black	1
Insecta	Hymenoptera	Mutillidae	Ephutomorpha sp.	2
Insecta	Hymenoptera	Mutillidae	Gn sp	1
Insecta	Hymenoptera	Mutillidae	winged	1
Insecta	Hymenoptera	Mutillidae	winged orange	1
Insecta	Hymenoptera	Sphecidae	Ammophila sp.	1
Insecta	Hymenoptera	Sphecidae	Sphex sp.	2

Class	Order	Family	Genus species	No. of Sites
Insecta	Hymenoptera	Sphecidae	Sphex sp. giant black	1
Insecta	Hymenoptera	Thinnidae	Gn sp	1
Insecta	Isoptera	Family not identified	Gn sp	21
Insecta	Lepidoptera	Agaristidae	Phalaenoides glycinae	1
Insecta	Lepidoptera	Family not identified	Gn sp	1
Insecta	Lepidoptera	Family not identified	larva	11
Insecta	Lepidoptera	Geometridae	larva	3
Insecta	Lepidoptera	Lycaenidae	Gn sp	2
Insecta	Lepidoptera	Lycaenidae	Nacaduba biocellata	1
Insecta	Lepidoptera	Lycaenidae	Ogyra ?amaryllis	1
Insecta	Lepidoptera	Lycaenidae	Theclinesthes spotty	2
Insecta	Lepidoptera	Nymphalidae	Danaus chryssipus	1
Insecta	Lepidoptera	Nymphalidae	Vanessa itea	1
Insecta	Lepidoptera	Pieridae	Delias aganippe	1
Insecta	Lepidoptera	Pieridae	Pierus rapae	1
Insecta	Lepidoptera	Psychidae	Clania sp.	1
Insecta	Lepidoptera	Thaumatopoeidae	larva	2
Insecta	Mantodea	Mantidae	Gn sp	1
Insecta	Mantodea	Mantidae	Tenodera sp.	1
Insecta	Mecoptera	Family not identified	Gn sp	1
Insecta	Neuroptera	Chrysopidae	Chrysopa sp.	3
Insecta	Neuroptera	Hemerobiidae	Hemerobius tasmaniae	1
Insecta	Neuroptera	Myrmeleontidae	Glenoleon berthoudi	2
Insecta	Neuroptera	Myrmeleontidae	Gn sp	1
Insecta	Neuroptera	Myrmeleontidae	larvae	1
Insecta	Orthoptera	Acrididae	?Clepsydria sp.	1
Insecta	Orthoptera	Acrididae	Acrida conica	2
Insecta	Orthoptera	Acrididae	Adreppus sp.	1
Insecta	Orthoptera	Acrididae	Aiolopus sp.	1
Insecta	Orthoptera	Acrididae	Aiolopus sp. near	1
Insecta	Orthoptera	Acrididae	Apotropis sp.	2
Insecta	Orthoptera	Acrididae	Austroicetes australis	1
Insecta	Orthoptera	Acrididae	Austroicetes frater	1
Insecta	Orthoptera	Acrididae	Austroicetes sp.	2
Insecta	Orthoptera	Acrididae	Austroicetes vulgaris	2
Insecta	Orthoptera	Acrididae	Beplessia sp.	3
Insecta	Orthoptera	Acrididae	Bermiella sp. near	1
Insecta	Orthoptera	Acrididae	Brachyexarna lobipennis	3
Insecta	Orthoptera	Acrididae	Buforania sp.	1
Insecta	Orthoptera	Acrididae	Cedarina sp.6	1
Insecta	Orthoptera	Acrididae	Collitera sp. near	1
Insecta	Orthoptera	Acrididae	Coryphistes ruricola	14
Insecta	Orthoptera	Acrididae	Cratilopus sp.	6
Insecta	Orthoptera	Acrididae	Desertaria sp.	1
Insecta	Orthoptera	Acrididae	Gastrimargus musicus	1
Insecta	Orthoptera	Acrididae	Genus novum 95 ochracea	1
Insecta	Orthoptera	Acrididae	Gn sp	3
Insecta	Orthoptera	Acrididae	Goniaea australasiae	15
Insecta	Orthoptera	Acrididae	Goniaea furcifera near	1
Insecta	Orthoptera	Acrididae	Goniaea gumleaf	7
Insecta	Orthoptera	Acrididae	Goniaea opomaloides	5
Insecta	Orthoptera	Acrididae	Goniaea sp.	3
Insecta	Orthoptera	Acrididae	Goniaea vocans	3
Insecta	Orthoptera	Acrididae	Goniaeoidea sp.	2
Insecta	Orthoptera	Acrididae	juvenile	9
Insecta	Orthoptera	Acrididae	Maclystria sp.	3
Insecta	Orthoptera	Acrididae	Maclystria sp. near	1
Insecta	Orthoptera	Acrididae	Macrolopholia sp.	1
Insecta	Orthoptera	Acrididae	Macrotona australis	3
Insecta	Orthoptera	Acrididae	Macrotona securiformis	2
Insecta	Orthoptera	Acrididae	Macrotona sp.	12
Insecta	Orthoptera	Acrididae	Macrotona sp. near	1
Insecta	Orthoptera	Acrididae	Peakesia hospita	7
Insecta	Orthoptera	Acrididae	Peakesia sp.	5
Insecta	Orthoptera	Acrididae	Peakesia vitripennis	2

Class	Order	Family	Genus species	No. of Sites
Insecta	Orthoptera	Acrididae	Perloccia evittita	1
Insecta	Orthoptera	Acrididae	Praxibulus/Russalpia sp.	1
Insecta	Orthoptera	Acrididae	Pycnostictus seriatus	1
Insecta	Orthoptera	Acrididae	Qualetta maculata	1
Insecta	Orthoptera	Acrididae	Russalpia sp. near	2
Insecta	Orthoptera	Acrididae	Tapesta sp.	2
Insecta	Orthoptera	Acrididae	Urnisa guttulosa	8
Insecta	Orthoptera	Eumastacidae	Gn sp	7
Insecta	Orthoptera	Eumastacidae	matchstick	1
Insecta	Orthoptera	Gryllacrididae	Paragryllacris sp.	1
Insecta	Orthoptera	Gryllidae	Apteronemobius sp.	1
Insecta	Orthoptera	Gryllidae	Balamara albovittata	1
Insecta	Orthoptera	Gryllidae	Endacusta sp.	1
Insecta	Orthoptera	Gryllidae	Eurepa margipennis	1
Insecta	Orthoptera	Gryllidae	Eurepa sp.	2
Insecta	Orthoptera	Gryllidae	Gn sp	2
Insecta	Orthoptera	Gryllidae	juvenile	19
Insecta	Orthoptera	Gryllidae	Lebinthus sp.	3
Insecta	Orthoptera	Gryllidae	Lebinthus sp. near	1
Insecta	Orthoptera	Gryllidae	Lepidogryllus sp.	2
Insecta	Orthoptera	Gryllidae	Mogoplistinae - ?Biama sp.	1
Insecta	Orthoptera	Gryllidae	Ornebius sp.	1
Insecta	Orthoptera	Gryllidae	Salmanites sp.	1
Insecta	Orthoptera	Gryllidae	Teleogryllus commodus	1
Insecta	Orthoptera	Gryllotalpidae	Gryllotalpa sp	3
Insecta	Orthoptera	Pyrgomorphidae	Monistria pustilifera	3
Insecta	Orthoptera	Tetrigidae	Gn sp	4
Insecta	Orthoptera	Tetrigidae	juvenile	1
Insecta	Orthoptera	Tettigoniidae	Elephantodeta sp.	3
Insecta	Orthoptera	Tettigoniidae	Gn sp	1
Insecta	Orthoptera	Tettigoniidae	Hemisaga sp.	6
Insecta	Orthoptera	Tettigoniidae	juvenile	1
Insecta	Orthoptera	Tettigoniidae	Oligodectes sp.	1
Insecta	Orthoptera	Tettigoniidae	Psacadonotus sp.	1
Insecta	Orthoptera	Tettigoniidae	Zaprochilus sp.	1
Insecta	Phasmatodea	Phasmatidae	Acrophylla sp.	1
Insecta	Phasmatodea	Phasmatidae	juvenile	1
Insecta	Psocoptera	Family not identified	Gn sp	11
Insecta	Siphonaptera	Family not identified	Gn sp	1
Insecta	Thysanoptera	Family not identified	black	4
Insecta	Thysanoptera	Family not identified	Gn sp	7
Insecta	Thysanoptera	Family not identified	pale	1
Insecta	Thysanoptera	Phlaeothripidae	?Emprosthiothrips sp.	1
Insecta	Thysanura	Lepismatidae	Gn sp	25
Insecta	Trichoptera	Family not identified	larva	1
			Total Number of Insect Taxa	**363**
			Total Number of Insect Site Records	**1619**

APPENDIX 40. INSECT FAMILIES SORTED BY ORDER AND FAMILY AND THE FREQUENCY AT WHICH THEY WERE RECORDED WITHIN EACH SOIL SALINITY CLASS.

Salt Classes **A** = nil; **B** = slight salinity; **C** = moderate salinity; **D** = moderately high salinity; **E** = moderately high to high salinity; **F** = high salinity; and **G** = very high to extreme salinity.
Source: Northern Agricultural Districts, Land Resource Information (DWLBC Soil and Land Information 2002)

N.B. The total number (and average) of sites per family recorded in each soil salinity class is provided at the end of the table.

		No. of Sites →	140	89	14	7	11	2	8	9
Class	**Order**	**Family**	**Total**	**A**	**B**	**C**	**D**	**E**	**F**	**G**
Insecta	Blattodea	Blaberidae	34	25	2	1	1			5
Insecta	Blattodea	Blattellidae	9	8					1	
Insecta	Blattodea	Blattidae	62	54	1	2	3		1	1
Insecta	Blattodea	Family	1						1	
Insecta	Coleoptera	Anobiidae	1				1			
Insecta	Coleoptera	Anthicidae	2			1			1	
Insecta	Coleoptera	Belidae	2	2						
Insecta	Coleoptera	Bostrichidae	2				1		1	
Insecta	Coleoptera	Carabidae	49	32	4	5	3	2		3
Insecta	Coleoptera	Cerambycidae	3	2			1			
Insecta	Coleoptera	Chrysomelidae	5	4			1			
Insecta	Coleoptera	Cleridae	1	1						
Insecta	Coleoptera	Coccinellidae	13	9			1		2	1
Insecta	Coleoptera	Curculionidae	33	23	2	3		1	4	
Insecta	Coleoptera	Elateridae	9	5		1	2			1
Insecta	Coleoptera	Family	45	27	7	1	3		3	4
Insecta	Coleoptera	Melyridae	5	2	3					
Insecta	Coleoptera	Nitidulidae	14	12	2					
Insecta	Coleoptera	Ptilidae	2				1			1
Insecta	Coleoptera	Rhipiphoridae	1	1						
Insecta	Coleoptera	Scarabaeidae	37	21	5	5	1	1	2	2
Insecta	Coleoptera	Staphylinidae	56	30	7	4	5	1	4	5
Insecta	Coleoptera	Tenebrionidae	70	42	3	5	2		7	11
Insecta	Coleoptera	Trogidae	1						1	
Insecta	Dermaptera	Anisolabididae	22	12	3	2	2		1	2
Insecta	Dermaptera	Family	40	34	3	2				1
Insecta	Dermaptera	Forficulidae	14	6	2	1	2	1		2
Insecta	Diptera	?Sciomyzidae	1							1
Insecta	Diptera	Agromyzidae	2	1						1
Insecta	Diptera	Anthomyiidae	2	1						1
Insecta	Diptera	Asilidae	4	1	1	1	1			
Insecta	Diptera	Bombyliidae	1	1						
Insecta	Diptera	Calliphoridae	27	14	3	1	3	2	2	2
Insecta	Diptera	Cecidomyidae	35	26		3	2	1	1	2
Insecta	Diptera	Ceratopogonidae	6	4	1					1
Insecta	Diptera	Chironomidae	6	3		1		1	1	
Insecta	Diptera	Chloropidae	47	25	4	4	7	1	1	5
Insecta	Diptera	Culicidae	4		3				1	
Insecta	Diptera	Dolichopodidae	16	11	1	1	1	1		1
Insecta	Diptera	Drosophilidae	5	4		1				
Insecta	Diptera	Empididae	4	1		1	1			1
Insecta	Diptera	Ephydridae	16	5	4		4			3
Insecta	Diptera	Lauxaniidae	4	3						1
Insecta	Diptera	Lonchopteridae	1							1
Insecta	Diptera	Muscidae	17	6	2	2	3		2	2
Insecta	Diptera	Muscoidea	3	3						
Insecta	Diptera	Mycetophillidae	6	3	1					2
Insecta	Diptera	Phoridae	104	68	8	6	7	1	8	6
Insecta	Diptera	Pipunculidae	1	1						
Insecta	Diptera	Psychodidae	1	1						
Insecta	Diptera	Sarcophagidae	3	1			1			1
Insecta	Diptera	Sciaridae	49	30	3	4	5	1	5	1
Insecta	Diptera	Sphaeroceridae	29	13	3	2	3	1	4	3

		No. of Sites →	140	89	14	7	11	2	8	9
Class	**Order**	**Family**	**Total**	**A**	**B**	**C**	**D**	**E**	**F**	**G**
Insecta	Diptera	Syrphidae	10	7		2	1			
Insecta	Diptera	Tabanidae	9	4	2		2	1		
Insecta	Diptera	Tachinidae	5	4						1
Insecta	Diptera	Therevidae	3	3						
Insecta	Diptera	Tipulidae	3	3						
Insecta	Embioptera	Oligomotidae	1							1
Insecta	Hemiptera	Aphidae	20	11	1	2	1		1	4
Insecta	Hemiptera	Cercopidae	2	2						
Insecta	Hemiptera	Cicadellidae	70	40	9	3	7	1	5	5
Insecta	Hemiptera	Cicadidae	4	4						
Insecta	Hemiptera	Coccidae	1	1						
Insecta	Hemiptera	Cydnidae	4	3	1					
Insecta	Hemiptera	Family	18	14	1	1	1		1	
Insecta	Hemiptera	Lygaeidae	13	11		1				1
Insecta	Hemiptera	Miridae	4	2			2			
Insecta	Hemiptera	Pentatomidae	11	5	1	3			1	1
Insecta	Hemiptera	Reduviidae	11	5	1	3	1			1
Insecta	Hemiptera	Rhopalidae	4	2		1			1	
Insecta	Hemiptera	Tingidae	4	4						
Insecta	Hymenoptera	Apidae	6	4			1			1
Insecta	Hymenoptera	Apoidea	4	3						1
Insecta	Hymenoptera	Encyrtidae	2	2						
Insecta	Hymenoptera	Family	54	33	10	4	3		2	2
Insecta	Hymenoptera	Formicidae	16	11	3		1		1	
Insecta	Hymenoptera	Ichneumonidae	4	4						
Insecta	Hymenoptera	Mutillidae	6	5	1					
Insecta	Hymenoptera	Sphecidae	4	3	1					
Insecta	Hymenoptera	Thinnidae	1	1						
Insecta	Isoptera	Family	21	18	2		1			
Insecta	Lepidoptera	Agaristidae	1				1			
Insecta	Lepidoptera	Family	12	3	1		2		2	4
Insecta	Lepidoptera	Geometridae	3	2			1			
Insecta	Lepidoptera	Lycaenidae	6	6						
Insecta	Lepidoptera	Nymphalidae	2	1	1					
Insecta	Lepidoptera	Pieridae	2	2						
Insecta	Lepidoptera	Psychidae	1	1						
Insecta	Lepidoptera	Thaumatopoeidae	2	1	1					
Insecta	Mantodea	Mantidae	2	2						
Insecta	Mecoptera	Family	1	1						
Insecta	Neuroptera	Chrysopidae	3	3						
Insecta	Neuroptera	Hemerobiidae	1	1						
Insecta	Neuroptera	Myrmeleontidae	4	3					1	
Insecta	Orthoptera	Acrididae	148	117	13	4	7	2	4	1
Insecta	Orthoptera	Eumastacidae	8	5	2		1			
Insecta	Orthoptera	Gryllacrididae	1			1				
Insecta	Orthoptera	Gryllidae	37	18	3	3	3	1	4	5
Insecta	Orthoptera	Gryllotalpidae	3	2		1				
Insecta	Orthoptera	Pyrgomorphidae	3	2	1					
Insecta	Orthoptera	Tetrigidae	5	2	1		2			
Insecta	Orthoptera	Tettigoniidae	14	5	4	2	3			
Insecta	Phasmatodea	Phasmatidae	2	2						
Insecta	Psocoptera	Family	11	8		2			1	
Insecta	Siphonaptera	Family	1	1						
Insecta	Thysanoptera	Family	12	11						1
Insecta	Thysanoptera	Phlaeothripidae	1							1
Insecta	Thysanura	Lepismatidae	25	12	5	3	2		2	1
Insecta	Trichoptera	Family	1							1
	Total per Soil Salinity Class		**1554**	**998**	**143**	**96**	**111**	**20**	**80**	**106**
	Average per Soil Salinity Class		**11.1**	**11.2**	**10.2**	**13.7**	**10.1**	**10.0**	**10.0**	**11.8**

APPENDIX 41. INSECT FAMILIES SORTED BY ORDER AND FAMILY AND THE FREQUENCY AT WHICH THEY WERE RECORDED WITHIN EACH STRUCTURAL VEGETATION FORMATION.

N.B. The total number (and average) of sites per family recorded in each structural vegetation formation is provided at the end of the table.

		No. of Sites →	140	9	4	7	16	11	8	3	36	33	13
Class	**Order**	**Family**	**Total**	**Tussock Grassland**	**Hummock Grassland**	**Sedgeland**	**Low Shrubland**	**Shrubland**	**Tall Shrubland**	**Low Mallee**	**Mallee**	**Low Woodland**	**Woodland**
Insecta	Blattodea	Blaberidae	34		1	1	5	1	2		10	5	9
Insecta	Blattodea	Blattellidae	9			1					3	4	1
Insecta	Blattodea	Blattidae	62	1	4	6	6	2	4		16	15	8
Insecta	Blattodea	Family not identified	1									1	
Insecta	Coleoptera	Anobiidae	1								1		
Insecta	Coleoptera	Anthicidae	2									2	
Insecta	Coleoptera	Belidae	2						1			1	
Insecta	Coleoptera	Bostrichidae	2								1	1	
Insecta	Coleoptera	Carabidae	49	5	1	6	4	1	2	2	18	6	4
Insecta	Coleoptera	Cerambycidae	3								3		
Insecta	Coleoptera	Chrysomelidae	5				2			1	1	1	
Insecta	Coleoptera	Cleridae	1										1
Insecta	Coleoptera	Coccinellidae	13	3			2	2	1		3	2	
Insecta	Coleoptera	Curculionidae	33	4	1	2	1		2		4	13	6
Insecta	Coleoptera	Elateridae	9	1					2		3	3	
Insecta	Coleoptera	Family not identified	45			2	5	3	3	3	12	12	5
Insecta	Coleoptera	Melyridae	5	1								2	2
Insecta	Coleoptera	Nitidulidae	14			1	1	1			1	8	2
Insecta	Coleoptera	Ptilidae	2				2						
Insecta	Coleoptera	Rhipiphoridae	1									1	
Insecta	Coleoptera	Scarabaeidae	37	2		2	3	2	5	1	13	6	3
Insecta	Coleoptera	Staphylinidae	56	1	1	3	4	3	5	3	20	9	7
Insecta	Coleoptera	Tenebrionidae	70	5		3	11	5	4		15	20	7
Insecta	Coleoptera	Trogidae	1					1					
Insecta	Dermaptera	Anisolabididae	22		2		4	2	1	2	6	4	1
Insecta	Dermaptera	Family not identified	40		1	2	3	2	3		6	15	8
Insecta	Dermaptera	Forficulidae	14	1			2	1		2	6	2	
Insecta	Diptera	?Sciomyzidae	1				1						
Insecta	Diptera	Agromyzidae	2	1					1				
Insecta	Diptera	Anthomyiidae	2				1						1
Insecta	Diptera	Asilidae	4			1				2		1	
Insecta	Diptera	Bombyliidae	1									1	
Insecta	Diptera	Calliphoridae	27		1	1	6	3	3		8	3	2
Insecta	Diptera	Cecidomyidae	35	1	1	2	3	2			9	10	7
Insecta	Diptera	Ceratopogonidae	6	2			1	1					2
Insecta	Diptera	Chironomidae	6	1		1					2	2	
Insecta	Diptera	Chloropidae	47	1	1	4	5	5	2	2	15	9	3
Insecta	Diptera	Culicidae	4			1	1		1			1	
Insecta	Diptera	Dolichopodidae	16			1	2	1	2	2	7	1	
Insecta	Diptera	Drosophilidae	5			1						2	2
Insecta	Diptera	Empididae	4			1	1					2	
Insecta	Diptera	Ephydridae	16	1			5	3		1	6		
Insecta	Diptera	Lauxaniidae	4			1	1		1		1		
Insecta	Diptera	Lonchopteridae	1				1						
Insecta	Diptera	Muscidae	17	1	1		3	3	1	2	4	2	
Insecta	Diptera	Muscoidea	3	1					2				
Insecta	Diptera	Mycetophillidae	6				2				1	3	
Insecta	Diptera	Phoridae	104	3	3	6	13	9	5	2	28	25	10
Insecta	Diptera	Pipunculidae	1									1	
Insecta	Diptera	Psychodidae	1										1

		No. of Sites →	140	9	4	7	16	11	8	3	36	33	13
Class	**Order**	**Family**	**Total**	**Tussock Grassland**	**Hummock Grassland**	**Sedgeland**	**Low Shrubland**	**Shrubland**	**Tall Shrubland**	**Low Mallee**	**Mallee**	**Low Woodland**	**Woodland**
Insecta	Diptera	Sarcophagidae	3				1			1	1		
Insecta	Diptera	Sciaridae	49	2	1	4	3	4	5	2	10	10	8
Insecta	Diptera	Sphaeroceridae	29	2		4	4	3	2		8	5	1
Insecta	Diptera	Syrphidae	10			1		2			7		
Insecta	Diptera	Tabanidae	9				1			1	6		1
Insecta	Diptera	Tachinidae	5				1				1	1	2
Insecta	Diptera	Therevidae	3						2			1	
Insecta	Diptera	Tipulidae	3								1	1	1
Insecta	Embioptera	Oligomotidae	1				1						
Insecta	Hemiptera	Aphidae	20	3		1	3	2	2		4	4	1
Insecta	Hemiptera	Cercopidae	2	1								1	
Insecta	Hemiptera	Cicadellidae	70	4	1	5	9	6	3	2	22	14	4
Insecta	Hemiptera	Cicadidae	4								3		1
Insecta	Hemiptera	Coccidae	1								1		
Insecta	Hemiptera	Cydnidae	4	1		1	1					1	
Insecta	Hemiptera	Family not identified	18	1		1	1		2		4	7	2
Insecta	Hemiptera	Lygaeidae	13			1	2				3	3	4
Insecta	Hemiptera	Miridae	4							1	2		1
Insecta	Hemiptera	Pentatomidae	11	2		1		1	2			4	1
Insecta	Hemiptera	Reduviidae	11	2		2	1				1	4	1
Insecta	Hemiptera	Rhopalidae	4					1				3	
Insecta	Hemiptera	Tingidae	4				1				1	2	
Insecta	Hymenoptera	Apidae	6				1			1	1	1	2
Insecta	Hymenoptera	Apoidea	4	1			1						2
Insecta	Hymenoptera	Encyrtidae	2								2		
Insecta	Hymenoptera	Family not identified	54	5	2	1	8	3	3	2	11	13	6
Insecta	Hymenoptera	Formicidae	16			1			1	2	7	2	3
Insecta	Hymenoptera	Ichneumonidae	4								3	1	
Insecta	Hymenoptera	Mutillidae	6	2						1	1	2	
Insecta	Hymenoptera	Sphecidae	4	2	1						1		
Insecta	Hymenoptera	Thinnidae	1								1		
Insecta	Isoptera	Family not identified	21	1	1	1		1	1		8	5	3
Insecta	Lepidoptera	Agaristidae	1					1					
Insecta	Lepidoptera	Family not identified	12	1			7		1		1	2	
Insecta	Lepidoptera	Geometridae	3						1		1	1	
Insecta	Lepidoptera	Lycaenidae	6	1					2		3		
Insecta	Lepidoptera	Nymphalidae	2									2	
Insecta	Lepidoptera	Pieridae	2								2		
Insecta	Lepidoptera	Psychidae	1	1									
Insecta	Lepidoptera	Thaumatopoeidae	2					1				1	
Insecta	Mantodea	Mantidae	2		1		1						
Insecta	Mecoptera	Family not identified	1										1
Insecta	Neuroptera	Chrysopidae	3	1				1			1		
Insecta	Neuroptera	Hemerobiidae	1	1									
Insecta	Neuroptera	Myrmeleontidae	4					1			2		1
Insecta	Orthoptera	Acrididae	148	20	4	3	6	6	12	6	53	28	10
Insecta	Orthoptera	Eumastacidae	8			1	1			1	1	3	1
Insecta	Orthoptera	Gryllacrididae	1					1					
Insecta	Orthoptera	Gryllidae	37	4		1	4	2	6	1	9	7	3
Insecta	Orthoptera	Gryllotalpidae	3	2		1							
Insecta	Orthoptera	Pyrgomorphidae	3				1		1		1		
Insecta	Orthoptera	Tetrigidae	5							1	4		
Insecta	Orthoptera	Tettigoniidae	14	1			1	1	2	1	5	3	
Insecta	Phasmatodea	Phasmatidae	2								2		
Insecta	Psocoptera	Family not identified	11	1		1					4	3	2
Insecta	Siphonaptera	Family not identified	1		1								
Insecta	Thysanoptera	Family not identified	12	2				2	2		4	1	1

		No. of Sites →	140	9	4	7	16	11	8	3	36	33	13
Class	**Order**	**Family**	**Total**	**Tussock Grassland**	**Hummock Grassland**	**Sedgeland**	**Low Shrubland**	**Shrubland**	**Tall Shrubland**	**Low Mallee**	**Mallee**	**Low Woodland**	**Woodland**
Insecta	Thysanoptera	Phlaeothripidae	1				1						
Insecta	Thysanura	Lepismatidae	25		1	3	6	3	2	1	6	3	
Insecta	Trichoptera	Family not identified	1				1						
	Total per Vegetation Structure		**1554**	**100**	**31**	**83**	**169**	**95**	**105**	**49**	**432**	**335**	**155**
	Average per Vegetation Structure		**11.1**	**11.1**	**7.8**	**11.9**	**10.6**	**8.6**	**13.1**	**16.3**	**12**	**10.2**	**11.9**

APPENDIX 42. INSECT FAMILIES SORTED BY ORDER AND FAMILY AND THE FREQUENCY AT WHICH THEY WERE RECORDED WITHIN EACH LANDFORM PATTERN.

N.B. The total number (and average) of sites per family recorded in each landform pattern is provided at the end of the table.

		No. of Sites →	140	9	18	4	21	11	4	1	40	32
Class	**Order**	**Family**	**Total**	**Dunefield**	**Consolidated dunefield**	**Sand plain**	**Plain**	**Flood plain**	**Alluvial plain**	**Rises**	**Low hills**	**Hills**
Insecta	Blattodea	Blaberidae	34		1	2	6	1			12	12
Insecta	Blattodea	Blattellidae	9				1		1		4	3
Insecta	Blattodea	Blattidae	62	3	1		9				23	26
Insecta	Blattodea	Family	1				1					
Insecta	Coleoptera	Anobiidae	1		1							
Insecta	Coleoptera	Anthicidae	2				2					
Insecta	Coleoptera	Belidae	2		1						1	
Insecta	Coleoptera	Bostrichidae	2				2					
Insecta	Coleoptera	Carabidae	49	2	14	4	6	11		1	6	5
Insecta	Coleoptera	Cerambycidae	3		1							2
Insecta	Coleoptera	Chrysomelidae	5	1	1		1				2	
Insecta	Coleoptera	Cleridae	1									1
Insecta	Coleoptera	Coccinellidae	13	2			2	2			3	4
Insecta	Coleoptera	Curculionidae	33		4		5	2			10	12
Insecta	Coleoptera	Elateridae	9		2	1	1	1			2	2
Insecta	Coleoptera	Family	45	2	8	3	11	2			15	4
Insecta	Coleoptera	Melyridae	5					2			3	
Insecta	Coleoptera	Nitidulidae	14	1				2			6	5
Insecta	Coleoptera	Ptilidae	2				2					
Insecta	Coleoptera	Rhipiphoridae	1								1	
Insecta	Coleoptera	Scarabaeidae	37	4	11	1	7	1	1		8	4
Insecta	Coleoptera	Staphylinidae	56	5	15	3	9	1	1		11	11
Insecta	Coleoptera	Tenebrionidae	70	3	3	4	18	5	1		21	15
Insecta	Coleoptera	Trogidae	1				1					
Insecta	Dermaptera	Anisolabididae	22	2	6	1	8	1			2	2
Insecta	Dermaptera	Family	40		3		2	3			14	18
Insecta	Dermaptera	Forficulidae	14	1	6		3	1			3	
Insecta	Diptera	?Sciomyzidae	1		1							
Insecta	Diptera	Agromyzidae	2			1		1				
Insecta	Diptera	Anthomyiidae	2		1							1
Insecta	Diptera	Asilidae	4		2			1			1	
Insecta	Diptera	Bombyliidae	1						1			
Insecta	Diptera	Calliphoridae	27	3	5	2	3	2	2		6	4
Insecta	Diptera	Cecidomyidae	35		3		7	1	1	1	13	9
Insecta	Diptera	Ceratopogonidae	6		1			3			2	
Insecta	Diptera	Chironomidae	6		1		1	2			2	
Insecta	Diptera	Chloropidae	47	3	12	2	7	1			13	9
Insecta	Diptera	Culicidae	4	2			1	1				
Insecta	Diptera	Dolichopodidae	16	1	9	1	1				3	1
Insecta	Diptera	Drosophilidae	5					1			1	3
Insecta	Diptera	Empididae	4		1		1				2	
Insecta	Diptera	Ephydridae	16	3	1	1	6	3			2	
Insecta	Diptera	Lauxaniidae	4	1	2				1			
Insecta	Diptera	Lonchopteridae	1				1					
Insecta	Diptera	Muscidae	17	4	4		5	1			2	1
Insecta	Diptera	Muscoidea	3		1			1			1	
Insecta	Diptera	Mycetophillidae	6			1	2				1	2
Insecta	Diptera	Phoridae	104	7	14	3	19	5	1		31	24
Insecta	Diptera	Pipunculidae	1									1
Insecta	Diptera	Psychodidae	1									1
Insecta	Diptera	Sarcophagidae	3		1		2					
Insecta	Diptera	Sciaridae	49	2	6	2	8	4	2		11	14
Insecta	Diptera	Sphaeroceridae	29	4	3	1	7	6	1		5	2

		No. of Sites →	140	9	18	4	21	11	4	1	40	32
Class	**Order**	**Family**	**Total**	**Dunefield**	**Consolidated dunefield**	**Sand plain**	**Plain**	**Flood plain**	**Alluvial plain**	**Rises**	**Low hills**	**Hills**
Insecta	Diptera	Syrphidae	10	1	3			1	1	1	1	2
Insecta	Diptera	Tabanidae	9		3		3			1	1	1
Insecta	Diptera	Tachinidae	5				1					4
Insecta	Diptera	Therevidae	3		1						1	1
Insecta	Diptera	Tipulidae	3								2	1
Insecta	Embioptera	Oligomotidae	1		1							
Insecta	Hemiptera	Aphidae	20	1	4	1	4	2	1		6	1
Insecta	Hemiptera	Cercopidae	2		1			1				
Insecta	Hemiptera	Cicadellidae	70	6	14	3	10	2	2	1	16	16
Insecta	Hemiptera	Cicadidae	4									4
Insecta	Hemiptera	Coccidae	1			1						
Insecta	Hemiptera	Cydnidae	4					2			1	1
Insecta	Hemiptera	Family	18	1	3		6	1			3	4
Insecta	Hemiptera	Lygaeidae	13		2			1	1		5	4
Insecta	Hemiptera	Miridae	4		2	1		1				
Insecta	Hemiptera	Pentatomidae	11		1	1	1	3			4	1
Insecta	Hemiptera	Reduviidae	11		3		2	2			3	1
Insecta	Hemiptera	Rhopalidae	4				2					2
Insecta	Hemiptera	Tingidae	4			1					3	
Insecta	Hymenoptera	Apidae	6		1		1				2	2
Insecta	Hymenoptera	Apoidea	4				1	1				2
Insecta	Hymenoptera	Encyrtidae	2				2					
Insecta	Hymenoptera	Family	54	5	9	3	9	2			16	10
Insecta	Hymenoptera	Formicidae	16	1	4	2	2				1	6
Insecta	Hymenoptera	Ichneumonidae	4						2	1		1
Insecta	Hymenoptera	Mutillidae	6		1			2			2	1
Insecta	Hymenoptera	Sphecidae	4					1				3
Insecta	Hymenoptera	Thinnidae	1				1					
Insecta	Isoptera	Family	21		1	1	2	1			5	11
Insecta	Lepidoptera	Agaristidae	1					1				
Insecta	Lepidoptera	Family	12	1			7	1	1		2	
Insecta	Lepidoptera	Geometridae	3		1		2					
Insecta	Lepidoptera	Lycaenidae	6							1	3	2
Insecta	Lepidoptera	Nymphalidae	2					1	1			
Insecta	Lepidoptera	Pieridae	2									2
Insecta	Lepidoptera	Psychidae	1								1	
Insecta	Lepidoptera	Thaumatopoeidae	2					1			1	
Insecta	Mantodea	Mantidae	2								2	
Insecta	Mecoptera	Family	1									1
Insecta	Neuroptera	Chrysopidae	3								2	1
Insecta	Neuroptera	Hemerobiidae	1								1	
Insecta	Neuroptera	Myrmeleontidae	4				1		1	1	1	
Insecta	Orthoptera	Acrididae	148	6	17	2	9	12	4	7	27	64
Insecta	Orthoptera	Eumastacidae	8	1	1	1		1			1	3
Insecta	Orthoptera	Gryllacrididae	1	1								
Insecta	Orthoptera	Gryllidae	37	3	7	5	5	3		3	5	6
Insecta	Orthoptera	Gryllotalpidae	3					3				
Insecta	Orthoptera	Pyrgomorphidae	3	1	1							1
Insecta	Orthoptera	Tetrigidae	5		2		2					1
Insecta	Orthoptera	Tettigoniidae	14	1	3	2	2				4	2
Insecta	Phasmatodea	Phasmatidae	2								1	1
Insecta	Psocoptera	Family	11			1	1	2			4	3
Insecta	Siphonaptera	Family	1								1	
Insecta	Thysanoptera	Family	12		2	2	2	1			2	3
Insecta	Thysanoptera	Phlaeothripidae	1		1							
Insecta	Thysanura	Lepismatidae	25	5	4	1	6				4	5
Insecta	Trichoptera	Family	1				1					
	Total per Landform Pattern		**1554**	**90**	**239**	**61**	**253**	**117**	**27**	**18**	**377**	**372**
	Average per Landform Pattern		**11.1**	**10.0**	**13.3**	**15.3**	**12.0**	**10.6**	**6.8**	**18.0**	**9.4**	**11.6**

APPENDIX 43. INSECT FAMILIES SORTED BY ORDER AND FAMILY AND THE FREQUENCY AT WHICH THEY WERE RECORDED WITHIN EACH SURFACE SOIL CATEGORY.

N.B. The total number (and average) of sites per family recorded in each surface soil category is provided at the end of the table.

		No. of Sites →	140	11	21	2	18	11	2	24	6	14	8	3	4	4	8	4
Class	**Order**	**Family**	**Total**	**sand**	**loamy sand**	**clayey sand**	**sandy loam**	**loam**	**silty loam**	**sandy clay loam**	**clay loam, sandy**	**clay loam**	**silty clay loam**	**light clay**	**light medium clay**	**medium clay**	**medium heavy clay**	**heavy clay**
Insecta	Blattodea	Blaberidae	34	2	1		8	3	1	9		4	2		2		1	1
Insecta	Blattodea	Blattellidae	9				1	2		3		3						
Insecta	Blattodea	Blattidae	62	2	7		8	4		19	2	11	1	2	2	1	2	1
Insecta	Blattodea	Family	1												1			
Insecta	Coleoptera	Anobiidae	1				1											
Insecta	Coleoptera	Anthicidae	2				1					1						
Insecta	Coleoptera	Belidae	2	1			1											
Insecta	Coleoptera	Bostrichidae	2											1	1			
Insecta	Coleoptera	Carabidae	49	7	14		5	1	3	2	1	3	3		1	3	5	1
Insecta	Coleoptera	Cerambycidae	3		2					1								
Insecta	Coleoptera	Chrysomelidae	5		1		1			2			1					
Insecta	Coleoptera	Cleridae	1							1								
Insecta	Coleoptera	Coccinellidae	13	1	1		2			4					3	1	1	
Insecta	Coleoptera	Curculionidae	33		5		4	3		7	2	6	2		1	1	1	1
Insecta	Coleoptera	Elateridae	9	1	1		3			3							1	
Insecta	Coleoptera	Family	45	6	7		5	2	1	9	3	3	3	1	1	2	1	1
Insecta	Coleoptera	Melyridae	5					1			1				1	1		1
Insecta	Coleoptera	Nitidulidae	14		1		1		1	2	4	3				2		
Insecta	Coleoptera	Ptilidae	2						1	1								
Insecta	Coleoptera	Rhipiphoridae	1				1											
Insecta	Coleoptera	Scarabaeidae	37	5	9		9	3		3		3	1		2		1	1
Insecta	Coleoptera	Staphylinidae	56	8	14	2	10	3	1	4	3	6	4		1			
Insecta	Coleoptera	Tenebrionidae	70	3	6	2	11	5	2	9	4	9	6	2	2	2	6	1
Insecta	Coleoptera	Trogidae	1											1				
Insecta	Dermaptera	Anisolabididae	22	4	4	1	2			5	2	1		1	1	1		
Insecta	Dermaptera	Family	40	1	3		8	2		11	3	7			1	2	2	
Insecta	Dermaptera	Forficulidae	14	3	5					3		2					1	
Insecta	Diptera	?Sciomyzidae	1	1														
Insecta	Diptera	Agromyzidae	2	1													1	
Insecta	Diptera	Anthomyiidae	2	1								1						
Insecta	Diptera	Asilidae	4	1	1			1				1						
Insecta	Diptera	Bombyliidae	1					1										
Insecta	Diptera	Calliphoridae	27	3	8	1	3			4		3	2			1	2	
Insecta	Diptera	Cecidomyidae	35		2		9	4		5	2	4	5	1	2		1	
Insecta	Diptera	Ceratopogonidae	6	1						1	1					1	2	
Insecta	Diptera	Chironomidae	6		1		2					1	1				1	
Insecta	Diptera	Chloropidae	47	5	16		9	2	1	8		2	2		1	1		
Insecta	Diptera	Culicidae	4	2								1						1
Insecta	Diptera	Dolichopodidae	16	5	7		4											
Insecta	Diptera	Drosophilidae	5				2	1					1				1	
Insecta	Diptera	Empididae	4	1						1			1					1
Insecta	Diptera	Ephydridae	16	1	3	1	2	1	1	3			1			1	1	1
Insecta	Diptera	Lauxaniidae	4	2	1			1										
Insecta	Diptera	Lonchopteridae	1							1								
Insecta	Diptera	Muscidae	17	4	3		1			4		1		1	1	1	1	
Insecta	Diptera	Muscoidea	3	1						1							1	
Insecta	Diptera	Mycetophillidae	6		1			1	1	1	1	1						
Insecta	Diptera	Phoridae	104	7	16	2	11	5	1	22	5	11	8	4	4		6	2
Insecta	Diptera	Pipunculidae	1								1							
Insecta	Diptera	Psychodidae	1					1										
Insecta	Diptera	Sarcophagidae	3		1				1	1								
Insecta	Diptera	Sciaridae	49	6	5		8	3		7	1	8	5		2	1	2	1
Insecta	Diptera	Sphaeroceridae	29	3	4	1	3			4		1	4	1	1	1	4	2

		No. of Sites →	140	11	21	2	18	11	2	24	6	14	8	3	4	4	8	4
Class	**Order**	**Family**	**Total**	**sand**	**loamy sand**	**clayey sand**	**sandy loam**	**loam**	**silty loam**	**sandy clay loam**	**clay loam, sandy**	**clay loam**	**silty clay loam**	**light clay**	**light medium clay**	**medium clay**	**medium heavy clay**	**heavy clay**
Insecta	Diptera	Syrphidae	10		3		2	3		1		1						
Insecta	Diptera	Tabanidae	9		5	1		2							1			
Insecta	Diptera	Tachinidae	5					2		1		2						
Insecta	Diptera	Therevidae	3	1			1			1								
Insecta	Diptera	Tipulidae	3				1			1							1	
Insecta	Embioptera	Oligomotidae	1	1														
Insecta	Hemiptera	Aphidae	20	2	3		5	2		1		1	3		1		2	
Insecta	Hemiptera	Cercopidae	2		1												1	
Insecta	Hemiptera	Cicadellidae	70	7	15	1	8	8	1	7	2	7	3	2	3	2	3	1
Insecta	Hemiptera	Cicadidae	4		1					2		1						
Insecta	Hemiptera	Coccidae	1	1														
Insecta	Hemiptera	Cydnidae	4									2				1	1	
Insecta	Hemiptera	Family	18	1	4	1	3			3	1	1	1		1		2	
Insecta	Hemiptera	Lygaeidae	13	1	2		4	2		1		1			1		1	
Insecta	Hemiptera	Miridae	4	1	2											1		
Insecta	Hemiptera	Pentatomidae	11	1			2			1		2	1		2	2		
Insecta	Hemiptera	Reduviidae	11		3		2			2					1		1	2
Insecta	Hemiptera	Rhopalidae	4				1		1	1				1				
Insecta	Hemiptera	Tingidae	4	1							1	1					1	
Insecta	Hymenoptera	Apidae	6		1		1			1	1	1					1	
Insecta	Hymenoptera	Apoidea	4					1				1					2	
Insecta	Hymenoptera	Encyrtidae	2							2								
Insecta	Hymenoptera	Family	54	6	10	2	8	4	2	7	2	3	3	1	3		2	1
Insecta	Hymenoptera	Formicidae	16	3	7		2	1				2	1					
Insecta	Hymenoptera	Ichneumonidae	4					3		1								
Insecta	Hymenoptera	Mutillidae	6	1			1			2							2	
Insecta	Hymenoptera	Sphecidae	4				1	1				1						1
Insecta	Hymenoptera	Thinnidae	1		1													
Insecta	Isoptera	Family	21	1	1	1	3			5	1	4	2		2		1	
Insecta	Lepidoptera	Agaristidae	1													1		
Insecta	Lepidoptera	Family	12	1	1		1	1	1	4			1		1		1	
Insecta	Lepidoptera	Geometridae	3	1	1								1					
Insecta	Lepidoptera	Lycaenidae	6					2		3		1						
Insecta	Lepidoptera	Nymphalidae	2					1								1		
Insecta	Lepidoptera	Pieridae	2							2								
Insecta	Lepidoptera	Psychidae	1					1										
Insecta	Lepidoptera	Thaumatopoeidae	2							1						1		
Insecta	Mantodea	Mantidae	2									1		1				
Insecta	Mecoptera	Family	1		1													
Insecta	Neuroptera	Chrysopidae	3		1					1					1			
Insecta	Neuroptera	Hemerobiidae	1					1										
Insecta	Neuroptera	Myrmeleontidae	4				1	2						1				
Insecta	Orthoptera	Acrididae	148	7	30		20	24		28	7	15	1	1	3	6	6	
Insecta	Orthoptera	Eumastacidae	8	1	2		1				2	1				1		
Insecta	Orthoptera	Gryllacrididae	1		1													
Insecta	Orthoptera	Gryllidae	37	9	6		4	5	1	2		4	1		1		3	1
Insecta	Orthoptera	Gryllotalpidae	3									1					2	
Insecta	Orthoptera	Pyrgomorphidae	3	1	2													
Insecta	Orthoptera	Tetrigidae	5		5													
Insecta	Orthoptera	Tettigoniidae	14	3	3		3	1		3			1					
Insecta	Phasmatodea	Phasmatidae	2							1					1			
Insecta	Psocoptera	Family	11	1	2		3	1		1		1	1				1	
Insecta	Siphonaptera	Family	1											1				
Insecta	Thysanoptera	Family	12	3			3	2		3							1	
Insecta	Thysanoptera	Phlaeothripidae	1	1														
Insecta	Thysanura	Lepismatidae	25	3	6	1	2	1		6	1	2		1	1		1	
Insecta	Trichoptera	Family	1										1					
	Total per Surface Soil Category		**1554**	**148**	**270**	**17**	**219**	**121**	**21**	**256**	**54**	**154**	**74**	**24**	**54**	**39**	**81**	**22**
	Ave per Surface Soil Category		**11.1**	**13.5**	**12.9**	**8.5**	**12.2**	**11.0**	**10.5**	**10.7**	**9.0**	**11.0**	**9.3**	**8.0**	**13.5**	**9.8**	**10.1**	**5.5**

APPENDIX 44. INSECT FAMILIES SORTED BY ORDER AND FAMILY AND THE FREQUENCY AT WHICH THEY WERE RECORDED WITHIN EACH LEAF LITTER COVER CLASS.

N.B. The total number (and average) of sites per family recorded in each leaf litter cover class is provided at the end of the table.

		No. of Sites →	140	72	32	18	15	3
Class	**Order**	**Family**	**Total**	**<10%**	**11 – 30%**	**31 – 50%**	**51 – 70%**	**71 – 100%**
Insecta	Blattodea	Blaberidae	34	13	8	4	7	2
Insecta	Blattodea	Blattellidae	9	2	2	4	1	
Insecta	Blattodea	Blattidae	62	30	17	5	7	3
Insecta	Blattodea	Family not identified	1	1				
Insecta	Coleoptera	Anobiidae	1				1	
Insecta	Coleoptera	Anthicidae	2		1		1	
Insecta	Coleoptera	Belidae	2	2				
Insecta	Coleoptera	Bostrichidae	2	1	1			
Insecta	Coleoptera	Carabidae	49	22	13	5	5	4
Insecta	Coleoptera	Cerambycidae	3	1	2			
Insecta	Coleoptera	Chrysomelidae	5	3	1	1		
Insecta	Coleoptera	Cleridae	1	1				
Insecta	Coleoptera	Coccinellidae	13	7	4	1	1	
Insecta	Coleoptera	Curculionidae	33	16	11	4	1	1
Insecta	Coleoptera	Elateridae	9	4	2		3	
Insecta	Coleoptera	Family not identified	45	26	6	6	5	2
Insecta	Coleoptera	Melyridae	5	1	3	1		
Insecta	Coleoptera	Nitidulidae	14	10	3	1		
Insecta	Coleoptera	Ptilidae	2	2				
Insecta	Coleoptera	Rhipiphoridae	1	1				
Insecta	Coleoptera	Scarabaeidae	37	12	11	3	10	1
Insecta	Coleoptera	Staphylinidae	56	18	16	11	8	3
Insecta	Coleoptera	Tenebrionidae	70	40	16	3	9	2
Insecta	Coleoptera	Trogidae	1		1			
Insecta	Dermaptera	Anisolabididae	22	11	5	1	4	1
Insecta	Dermaptera	Family not identified	40	20	7	8	5	
Insecta	Dermaptera	Forficulidae	14	3	6	2	2	1
Insecta	Diptera	?Sciomyzidae	1		1			
Insecta	Diptera	Agromyzidae	2	1			1	
Insecta	Diptera	Anthomyiidae	2		1	1		
Insecta	Diptera	Asilidae	4			3	1	
Insecta	Diptera	Bombyliidae	1	1				
Insecta	Diptera	Calliphoridae	27	14	7	4	2	
Insecta	Diptera	Cecidomyidae	35	15	10	6	1	3
Insecta	Diptera	Ceratopogonidae	6	4	2			
Insecta	Diptera	Chironomidae	6	2	2	2		
Insecta	Diptera	Chloropidae	47	19	12	7	8	1
Insecta	Diptera	Culicidae	4	3			1	
Insecta	Diptera	Dolichopodidae	16	7	4	2	1	2
Insecta	Diptera	Drosophilidae	5	2		2	1	
Insecta	Diptera	Empididae	4	2	2			
Insecta	Diptera	Ephydridae	16	9	4	1	2	
Insecta	Diptera	Lauxaniidae	4	2	2			
Insecta	Diptera	Lonchopteridae	1	1				
Insecta	Diptera	Muscidae	17	5	7	4	1	
Insecta	Diptera	Muscoidea	3	2	1			
Insecta	Diptera	Mycetophillidae	6	3	2		1	
Insecta	Diptera	Phoridae	104	48	27	17	11	1
Insecta	Diptera	Pipunculidae	1	1				
Insecta	Diptera	Psychodidae	1			1		
Insecta	Diptera	Sarcophagidae	3	1	1	1		
Insecta	Diptera	Sciaridae	49	19	10	13	6	1
Insecta	Diptera	Sphaeroceridae	29	16	4	5	3	1
Insecta	Diptera	Syrphidae	10	4	3	1	2	
Insecta	Diptera	Tabanidae	9	4	3	1		1
Insecta	Diptera	Tachinidae	5	2	1	2		
Insecta	Diptera	Therevidae	3	1	1		1	

		No. of Sites →	140	72	32	18	15	3
Class	**Order**	**Family**	**Total**	**<10%**	**11 – 30%**	**31 – 50%**	**51 – 70%**	**71 – 100%**
Insecta	Diptera	Tipulidae	3	1	1	1		
Insecta	Embioptera	Oligomotidae	1		1			
Insecta	Hemiptera	Aphidae	20	11	4	2	1	2
Insecta	Hemiptera	Cercopidae	2	2				
Insecta	Hemiptera	Cicadellidae	70	35	16	8	10	1
Insecta	Hemiptera	Cicadidae	4	2	2			
Insecta	Hemiptera	Coccidae	1		1			
Insecta	Hemiptera	Cydnidae	4	3	1			
Insecta	Hemiptera	Family not identified	18	7	6	2	1	2
Insecta	Hemiptera	Lygaeidae	13	4	1	6	1	1
Insecta	Hemiptera	Miridae	4	1	2	1		
Insecta	Hemiptera	Pentatomidae	11	3	5	2	1	
Insecta	Hemiptera	Reduviidae	11	8	2		1	
Insecta	Hemiptera	Rhopalidae	4	2	2			
Insecta	Hemiptera	Tingidae	4	3	1			
Insecta	Hymenoptera	Apidae	6	2	1	3		
Insecta	Hymenoptera	Apoidea	4	2		2		
Insecta	Hymenoptera	Encyrtidae	2	1	1			
Insecta	Hymenoptera	Family not identified	54	27	14	9	2	2
Insecta	Hymenoptera	Formicidae	16	2	6	4	3	1
Insecta	Hymenoptera	Ichneumonidae	4	2	2			
Insecta	Hymenoptera	Mutillidae	6	3		1	2	
Insecta	Hymenoptera	Sphecidae	4	2	2			
Insecta	Hymenoptera	Thinnidae	1					1
Insecta	Isoptera	Family not identified	21	9	8	2	1	1
Insecta	Lepidoptera	Agaristidae	1	1				
Insecta	Lepidoptera	Family not identified	12	9	2		1	
Insecta	Lepidoptera	Geometridae	3	2				1
Insecta	Lepidoptera	Lycaenidae	6	3	3			
Insecta	Lepidoptera	Nymphalidae	2	1	1			
Insecta	Lepidoptera	Pieridae	2		2			
Insecta	Lepidoptera	Psychidae	1	1				
Insecta	Lepidoptera	Thaumatopoeidae	2	1	1			
Insecta	Mantodea	Mantidae	2	2				
Insecta	Mecoptera	Family not identified	1			1		
Insecta	Neuroptera	Chrysopidae	3	1	2			
Insecta	Neuroptera	Hemerobiidae	1	1				
Insecta	Neuroptera	Myrmeleontidae	4	1	2		1	
Insecta	Orthoptera	Acrididae	148	84	46	7	11	
Insecta	Orthoptera	Eumastacidae	8	4	2	2		
Insecta	Orthoptera	Gryllacrididae	1		1			
Insecta	Orthoptera	Gryllidae	37	18	4	4	10	1
Insecta	Orthoptera	Gryllotalpidae	3	2		1		
Insecta	Orthoptera	Pyrgomorphidae	3	2	1			
Insecta	Orthoptera	Tetrigidae	5	2	1	1		1
Insecta	Orthoptera	Tettigoniidae	14	6	4		4	
Insecta	Phasmatodea	Phasmatidae	2			2		
Insecta	Psocoptera	Family not identified	11	5	3	1	2	
Insecta	Siphonaptera	Family not identified	1	1				
Insecta	Thysanoptera	Family not identified	12	7	2	1	2	
Insecta	Thysanoptera	Phlaeothripidae	1		1			
Insecta	Thysanura	Lepismatidae	25	18	3	2	2	
Insecta	Trichoptera	Family not identified	1	1				
	Total per Leaf Litter Cover Class		**1554**	**740**	**403**	**198**	**169**	**44**
	Average per Leaf Litter Cover Class		**11.1**	**10.3**	**12.6**	**11.0**	**11.3**	**14.7**

APPENDIX 45. SITE FREQUENCY OF NON-INSECT INVERTEBRATE TAXA RECORDED ON THE MID NORTH AND YORKE PENINSULA BIOLOGICAL SURVEY.

N.B. The term 'Gn sp' in the **Genus species** field indicates the taxon has been identified only to Family level. The term 'Family not identified' in the **Family** field indicates the taxon has been identified only to Order.

Class	Order	Family	Genus species	No. of Sites
Arachnida	Acarina	Anystidae	Gn sp	14
Arachnida	Acarina	Anystidae	Tarsotomus sp.	27
Arachnida	Acarina	Argasidae	Ornithodoros sp.	1
Arachnida	Acarina	Bdellidae	Gn sp	6
Arachnida	Acarina	Caeculidae	black leg	6
Arachnida	Acarina	Caeculidae	Gn sp	1
Arachnida	Acarina	Erythraeidae	Gn sp	51
Arachnida	Acarina	Erythraeidae	Rainbowia? sp.	1
Arachnida	Acarina	Eupodina?	Gn sp	1
Arachnida	Acarina	Eyleyidae	Gn sp	1
Arachnida	Acarina	Family not identified	black	1
Arachnida	Acarina	Family not identified	Gn sp	21
Arachnida	Acarina	Family not identified	grey body - white leg	1
Arachnida	Acarina	Family not identified	tiny	1
Arachnida	Acarina	Gamasidae	Gn sp	6
Arachnida	Acarina	Glycophagidae?	Gn sp	1
Arachnida	Acarina	Ixodidae	Amblyomma trigutattum trigutattum	3
Arachnida	Acarina	Ixodidae	Gn sp	1
Arachnida	Acarina	Ixodidae	Ixodes sp.	3
Arachnida	Acarina	Oribatida	Gn sp	13
Arachnida	Acarina	Trombidiidae	Gn sp	14
Arachnida	Acarina	Trombidiidae	tiny	1
Arachnida	Acarina	Trombidioidea	Gn sp	3
Arachnida	Araneae Araneomorphae	Araneidae	Araneus eburnis	1
Arachnida	Araneae Araneomorphae	Araneidae	Araneus juvenile	1
Arachnida	Araneae Araneomorphae	Araneidae	Araneus sp.	1
Arachnida	Araneae Araneomorphae	Araneidae	Argiope trifasciata	1
Arachnida	Araneae Araneomorphae	Araneidae	Austracantha minax	1
Arachnida	Araneae Araneomorphae	Araneidae	Dolophones sp.	1
Arachnida	Araneae Araneomorphae	Araneidae	Eriophora sp.	1
Arachnida	Araneae Araneomorphae	Araneidae	Eriophora heroine	1
Arachnida	Araneae Araneomorphae	Clubionidae	Clubiona sp. 1	2
Arachnida	Araneae Araneomorphae	Clubionidae	Clubiona sp. 2	1
Arachnida	Araneae Araneomorphae	Clubionidae	Clubiona sp. 3	1
Arachnida	Araneae Araneomorphae	Corinnidae	Poecilipta sp. 1	1
Arachnida	Araneae Araneomorphae	Corinnidae	Poecilipta sp. 2	1
Arachnida	Araneae Araneomorphae	Corinnidae	Supunna picta	2
Arachnida	Araneae Araneomorphae	Corinnidae	Supunna sp. 1	2
Arachnida	Araneae Araneomorphae	Corinnidae	Supunna sp. 2	2
Arachnida	Araneae Araneomorphae	Desidae	Badumna insignis	3
Arachnida	Araneae Araneomorphae	Desidae	Forsterina juvenile	3
Arachnida	Araneae Araneomorphae	Desidae	Forsterina sp. 1	3
Arachnida	Araneae Araneomorphae	Desidae	Forsterina sp. 2	1
Arachnida	Araneae Araneomorphae	Desidae	Gn sp. 1	2
Arachnida	Araneae Araneomorphae	Desidae	Gn sp. 2	1
Arachnida	Araneae Araneomorphae	Desidae	juvenile	1
Arachnida	Araneae Araneomorphae	Desidae	litter sp. 1	1
Arachnida	Araneae Araneomorphae	Dictynidae	Callevopthalmus sp.	3
Arachnida	Araneae Araneomorphae	Family not identified	juvenile	3
Arachnida	Araneae Araneomorphae	Gnaphosidae	Anzacia? juvenile	1
Arachnida	Araneae Araneomorphae	Gnaphosidae	Eilica juvenile	1
Arachnida	Araneae Araneomorphae	Gnaphosidae	Eilica sp. 1	1
Arachnida	Araneae Araneomorphae	Gnaphosidae	Eilica sp. 2	2
Arachnida	Araneae Araneomorphae	Gnaphosidae	Encoptarthria sp. 1	2
Arachnida	Araneae Araneomorphae	Gnaphosidae	Encoptarthria sp. 2	1
Arachnida	Araneae Araneomorphae	Gnaphosidae	Encoptarthria? sp. 3	1
Arachnida	Araneae Araneomorphae	Gnaphosidae	Gn sp. 1	2
Arachnida	Araneae Araneomorphae	Gnaphosidae	Gn sp. 2	1

Class	Order	Family	Genus species	No. of Sites
Arachnida	Araneae Araneomorphae	Gnaphosidae	Gn sp. 3	1
Arachnida	Araneae Araneomorphae	Gnaphosidae	Gn sp. 4	4
Arachnida	Araneae Araneomorphae	Gnaphosidae	Gn sp. 5	3
Arachnida	Araneae Araneomorphae	Gnaphosidae	Gn sp. 6	1
Arachnida	Araneae Araneomorphae	Gnaphosidae	Gn sp. 7	2
Arachnida	Araneae Araneomorphae	Gnaphosidae	Gn sp. 8	1
Arachnida	Araneae Araneomorphae	Gnaphosidae	Gn sp. 9	1
Arachnida	Araneae Araneomorphae	Gnaphosidae	Gn sp. 10	1
Arachnida	Araneae Araneomorphae	Gnaphosidae	Gn sp. 11	1
Arachnida	Araneae Araneomorphae	Gnaphosidae	Gn sp. 12	1
Arachnida	Araneae Araneomorphae	Gnaphosidae	Gn sp. 13	2
Arachnida	Araneae Araneomorphae	Gnaphosidae	Gn sp. 14	1
Arachnida	Araneae Araneomorphae	Gnaphosidae	Gn sp. 15	1
Arachnida	Araneae Araneomorphae	Gnaphosidae	Gn sp. 16	1
Arachnida	Araneae Araneomorphae	Gnaphosidae	juvenile	6
Arachnida	Araneae Araneomorphae	Lamponidae	Lampona juvenile	1
Arachnida	Araneae Araneomorphae	Lamponidae	Lamponina asperrima	2
Arachnida	Araneae Araneomorphae	Lamponidae	Lamponina loftia	1
Arachnida	Araneae Araneomorphae	Linyphiidae	Dunedinia sp. 1	1
Arachnida	Araneae Araneomorphae	Linyphiidae	Dunedinia sp. 2	1
Arachnida	Araneae Araneomorphae	Linyphiidae	Erigone prominens	1
Arachnida	Araneae Araneomorphae	Linyphiidae	Gn sp.	1
Arachnida	Araneae Araneomorphae	Linyphiidae	juvenile	1
Arachnida	Araneae Araneomorphae	Linyphiidae	Laetesia sp.	1
Arachnida	Araneae Araneomorphae	Liocranidae	Gn sp.	1
Arachnida	Araneae Araneomorphae	Liocranidae	juvenile	1
Arachnida	Araneae Araneomorphae	Lycosidae	Artoria ?triangularis	1
Arachnida	Araneae Araneomorphae	Lycosidae	Artoria cf quadrata	1
Arachnida	Araneae Araneomorphae	Lycosidae	Artoria howquensis	1
Arachnida	Araneae Araneomorphae	Lycosidae	Artoria juvenile	5
Arachnida	Araneae Araneomorphae	Lycosidae	Artoria sp. 1	1
Arachnida	Araneae Araneomorphae	Lycosidae	Artoria sp. 2	1
Arachnida	Araneae Araneomorphae	Lycosidae	Artoria sp. 3	1
Arachnida	Araneae Araneomorphae	Lycosidae	Artoria sp. 4	1
Arachnida	Araneae Araneomorphae	Lycosidae	Artoria sp. 5	3
Arachnida	Araneae Araneomorphae	Lycosidae	Artoria sp. 6	1
Arachnida	Araneae Araneomorphae	Lycosidae	Artoria sp. 7	13
Arachnida	Araneae Araneomorphae	Lycosidae	Artoria sp. cf triangularis	1
Arachnida	Araneae Araneomorphae	Lycosidae	Lycosa gilberta?	1
Arachnida	Araneae Araneomorphae	Lycosidae	Lycosa stirlingae	1
Arachnida	Araneae Araneomorphae	Lycosidae	Lycosa ?woonda	4
Arachnida	Araneae Araneomorphae	Lycosidae	Lycosa australicola group	2
Arachnida	Araneae Araneomorphae	Lycosidae	Lycosa australicola?	2
Arachnida	Araneae Araneomorphae	Lycosidae	Lycosa cf senilis	1
Arachnida	Araneae Araneomorphae	Lycosidae	Lycosa gilberta	11
Arachnida	Araneae Araneomorphae	Lycosidae	Lycosa gilberta?	1
Arachnida	Araneae Araneomorphae	Lycosidae	Lycosa juvenile	22
Arachnida	Araneae Araneomorphae	Lycosidae	Lycosa leuckartii	2
Arachnida	Araneae Araneomorphae	Lycosidae	Lycosa molyneuxi?	2
Arachnida	Araneae Araneomorphae	Lycosidae	Lycosa pallabunda group	1
Arachnida	Araneae Araneomorphae	Lycosidae	Lycosa senilis	6
Arachnida	Araneae Araneomorphae	Lycosidae	Lycosa sp. 1	1
Arachnida	Araneae Araneomorphae	Lycosidae	Lycosa sp. 2	1
Arachnida	Araneae Araneomorphae	Lycosidae	Lycosa sp. 3	1
Arachnida	Araneae Araneomorphae	Lycosidae	Lycosa sp.?	2
Arachnida	Araneae Araneomorphae	Lycosidae	Lycosa stirlingae	3
Arachnida	Araneae Araneomorphae	Lycosidae	Lycosa waitei	1
Arachnida	Araneae Araneomorphae	Lycosidae	Trochosa expolita	3
Arachnida	Araneae Araneomorphae	Lycosidae	Trochosa impedita	1
Arachnida	Araneae Araneomorphae	Lycosidae	Trochosa oraria	6
Arachnida	Araneae Araneomorphae	Lycosidae	Trochosa phegeia	1
Arachnida	Araneae Araneomorphae	Lycosidae	Venatrix esposica	2
Arachnida	Araneae Araneomorphae	Lycosidae	Venatrix juvenile	1
Arachnida	Araneae Araneomorphae	Lycosidae	Venatrix pseudospeciosa	4
Arachnida	Araneae Araneomorphae	Lycosidae	Venatrix sp.	1

Class	Order	Family	Genus species	No. of Sites
Arachnida	Araneae Araneomorphae	Lycosidae	Venonia sp. 1	3
Arachnida	Araneae Araneomorphae	Lycosidae	Venonia sp. 2	2
Arachnida	Araneae Araneomorphae	Lycosidae	Venonia? sp.	1
Arachnida	Araneae Araneomorphae	Micropholcommatidae	Micropholcomma sp. 1	2
Arachnida	Araneae Araneomorphae	Micropholcommatidae	Micropholcomma sp. 2	1
Arachnida	Araneae Araneomorphae	Miturgidae	Miturga sp. 1	8
Arachnida	Araneae Araneomorphae	Miturgidae	Miturga sp. 2	2
Arachnida	Araneae Araneomorphae	Miturgidae	Miturga sp. 3	1
Arachnida	Araneae Araneomorphae	Miturgidae	Miturga sp. 4	1
Arachnida	Araneae Araneomorphae	Miturgidae	Miturga sp. 5	5
Arachnida	Araneae Araneomorphae	Miturgidae	Miturga sp. 6	1
Arachnida	Araneae Araneomorphae	Nicodamidae	Nicodamus peregrinus	7
Arachnida	Araneae Araneomorphae	Oonopidae	Gn sp. 1	2
Arachnida	Araneae Araneomorphae	Oonopidae	Gn sp. 2	2
Arachnida	Araneae Araneomorphae	Oonopidae	Grymeus sp.	1
Arachnida	Araneae Araneomorphae	Oxyopidae	Oxyopes juvenile	1
Arachnida	Araneae Araneomorphae	Oxyopidae	Oxyopes sp.	2
Arachnida	Araneae Araneomorphae	Pholcidae	Wugigarra kaurna	1
Arachnida	Araneae Araneomorphae	Prodidomidae	Gn sp. 1	1
Arachnida	Araneae Araneomorphae	Prodidomidae	Gn sp. 2	2
Arachnida	Araneae Araneomorphae	Prodidomidae	Gn sp. 3	1
Arachnida	Araneae Araneomorphae	Prodidomidae	Molycria quadricoorda?	1
Arachnida	Araneae Araneomorphae	Salticidae	Gn sp.	1
Arachnida	Araneae Araneomorphae	Salticidae	Grayenulla juvenile	2
Arachnida	Araneae Araneomorphae	Salticidae	juvenile	2
Arachnida	Araneae Araneomorphae	Salticidae	Lycidas chrysomelas	2
Arachnida	Araneae Araneomorphae	Salticidae	Lycidas juvenile	4
Arachnida	Araneae Araneomorphae	Salticidae	Lycidas sp. 1	1
Arachnida	Araneae Araneomorphae	Salticidae	Lycidas sp. 2	2
Arachnida	Araneae Araneomorphae	Salticidae	Lycidas sp. 3	1
Arachnida	Araneae Araneomorphae	Salticidae	Margaromma sp.	1
Arachnida	Araneae Araneomorphae	Salticidae	Zebraplatys? juvenile	1
Arachnida	Araneae Araneomorphae	Segestriidae	Dysdera sp.	1
Arachnida	Araneae Araneomorphae	Segestriidae	Segestria sp.	1
Arachnida	Araneae Araneomorphae	Sparassidae	Delena cancerides	7
Arachnida	Araneae Araneomorphae	Sparassidae	Delena cancerides?	1
Arachnida	Araneae Araneomorphae	Sparassidae	Holconia murrayensis	1
Arachnida	Araneae Araneomorphae	Sparassidae	Isopeda leishmanni	2
Arachnida	Araneae Araneomorphae	Sparassidae	Isopedella cerussata	1
Arachnida	Araneae Araneomorphae	Sparassidae	Isopedella leai	2
Arachnida	Araneae Araneomorphae	Sparassidae	Neosparassus sp. A4	1
Arachnida	Araneae Araneomorphae	Stiphidiidae	Corasoides australis	4
Arachnida	Araneae Araneomorphae	Tetragnathidae	Nephila edulis	1
Arachnida	Araneae Araneomorphae	Theridiidae	Euryopis sp.	1
Arachnida	Araneae Araneomorphae	Theridiidae	Hadrotarsus sp.	1
Arachnida	Araneae Araneomorphae	Theridiidae	Latrodectus hasselti	5
Arachnida	Araneae Araneomorphae	Thomisidae	Cymbacha sp.	1
Arachnida	Araneae Araneomorphae	Thomisidae	Sidymella hirsuta	1
Arachnida	Araneae Araneomorphae	Thomisidae	Stephanopis sp. 1	1
Arachnida	Araneae Araneomorphae	Thomisidae	Stephanopis sp. 2	1
Arachnida	Araneae Araneomorphae	Thomisidae	Xysticus sp.	3
Arachnida	Araneae Araneomorphae	Trochanteriidae	juvenile	1
Arachnida	Araneae Araneomorphae	Zodariidae	Asteron juvenile	1
Arachnida	Araneae Araneomorphae	Zodariidae	Cavasteron crassicalcar	2
Arachnida	Araneae Araneomorphae	Zodariidae	Habronestes bradleyi	4
Arachnida	Araneae Araneomorphae	Zodariidae	Habronestes juvenile	8
Arachnida	Araneae Araneomorphae	Zodariidae	Habronestes sp. 1	1
Arachnida	Araneae Araneomorphae	Zodariidae	Habronestes sp. 2	3
Arachnida	Araneae Araneomorphae	Zodariidae	Habronestes sp. 3	1
Arachnida	Araneae Araneomorphae	Zodariidae	Habronestes sp. 4	1
Arachnida	Araneae Araneomorphae	Zodariidae	Habronestes sp. 5	4
Arachnida	Araneae Araneomorphae	Zodariidae	Habronestes sp. 6	1
Arachnida	Araneae Araneomorphae	Zodariidae	Habronestes sp. 7	1
Arachnida	Araneae Araneomorphae	Zodariidae	Habronestes sp. 8	2
Arachnida	Araneae Araneomorphae	Zodariidae	Habronestes sp. 9	5

Class	Order	Family	Genus species	No. of Sites
Arachnida	Araneae Araneomorphae	Zodariidae	Habronestes sp.?	6
Arachnida	Araneae Araneomorphae	Zodariidae	Holasteron flinders	2
Arachnida	Araneae Araneomorphae	Zodariidae	Neostorena sp. 1	4
Arachnida	Araneae Araneomorphae	Zodariidae	Neostorena sp. 2	3
Arachnida	Araneae Araneomorphae	Zodariidae	Neostorena sp. 3	1
Arachnida	Araneae Araneomorphae	Zodariidae	Pentasteron intermedium	4
Arachnida	Araneae Araneomorphae	Zodariidae	Pentasteron sp. 1	1
Arachnida	Araneae Araneomorphae	Zodariidae	Pentasteron sp. 2	1
Arachnida	Araneae Araneomorphae	Zodariidae	Pentasteron? juvenile	1
Arachnida	Araneae Araneomorphae	Zodariidae	Storena graeffei?	1
Arachnida	Araneae Araneomorphae	Zodariidae	Storosa sp.	3
Arachnida	Araneae Araneomorphae	Zodariidae	Zillimata scintillans	3
Arachnida	Araneae Araneomorphae	Zoridae	Argoctenus gracilis	10
Arachnida	Araneae Araneomorphae	Zoridae	Argoctenus gracilis?	1
Arachnida	Araneae Araneomorphae	Zoridae	Argoctenus juvenile	7
Arachnida	Araneae Araneomorphae	Zoridae	Argoctenus sp. 1	4
Arachnida	Araneae Araneomorphae	Zoridae	Argoctenus sp. 2	4
Arachnida	Araneae Araneomorphae	Zoridae	Argoctenus sp. 3	3
Arachnida	Araneae Araneomorphae	Zoridae	Argoctenus sp. 4	2
Arachnida	Araneae Araneomorphae	Zoridae	Genus 1 sp. 1	2
Arachnida	Araneae Araneomorphae	Zoridae	Genus 1 sp. 2	1
Arachnida	Araneae Araneomorphae	Zoridae	Genus 1 sp. 3	1
Arachnida	Araneae Araneomorphae	Zoridae	Genus 1 sp. 4	1
Arachnida	Araneae Araneomorphae	Zoridae	Genus 1 sp. 5	1
Arachnida	Araneae Araneomorphae	Zoridae	Genus 2 sp. 1	6
Arachnida	Araneae Araneomorphae	Zoridae	Genus 2? sp. 2	1
Arachnida	Araneae Araneomorphae	Zoridae	Genus 3 sp. 1	2
Arachnida	Araneae Araneomorphae	Zoridae	Genus 4 sp. 1	2
Arachnida	Araneae Araneomorphae	Zoridae	Hestimodema sp.	2
Arachnida	Araneae Araneomorphae	Zoridae	juvenile	2
Arachnida	Araneae Mygalomorphae	Actinopodidae	Missulena dipsaca	1
Arachnida	Araneae Mygalomorphae	Actinopodidae	Missulena insignis	1
Arachnida	Araneae Mygalomorphae	Barychelidae	Gn sp.	1
Arachnida	Araneae Mygalomorphae	Idiopidae	Aganippe sp.	1
Arachnida	Araneae Mygalomorphae	Idiopidae	Anidiops juvenile	1
Arachnida	Araneae Mygalomorphae	Idiopidae	Blakistonia aurea	1
Arachnida	Araneae Mygalomorphae	Nemesiidae	Aname (Chenistonia) tepperi	4
Arachnida	Araneae Mygalomorphae	Nemesiidae	Aname juvenile	4
Arachnida	Araneae Mygalomorphae	Nemesiidae	Aname sp. 1	2
Arachnida	Araneae Mygalomorphae	Nemesiidae	Aname sp. 2	2
Arachnida	Araneae Mygalomorphae	Nemesiidae	Aname sp. 3	1
Arachnida	Araneae Mygalomorphae	Nemesiidae	Aname sp. 4	3
Arachnida	Araneae Mygalomorphae	Nemesiidae	Aname sp. 5	1
Arachnida	Araneae Mygalomorphae	Nemesiidae	Aname sp. 6	5
Arachnida	Araneae Mygalomorphae	Nemesiidae	Aname sp. 7	1
Arachnida	Araneae Mygalomorphae	Nemesiidae	Aname sp.?	1
Arachnida	Araneae Mygalomorphae	Nemesiidae	Kwonkan sp. 1	1
Arachnida	Opiliones	Megalopsalididae	Ballarra sp.	1
Arachnida	Opiliones	Triaenonychidae	Yatala hirsti	1
Arachnida	Pseudoscorpionida	Atemnidae	Gn sp	1
Arachnida	Pseudoscorpionida	Family not identified	Gn sp	7
Arachnida	Pseudoscorpionida	Garypidae	Gn sp	1
Arachnida	Pseudoscorpionida	Geogarypidae	Geogarypus? sp.	1
Arachnida	Pseudoscorpionida	Olpiidae	Gn sp	5
Arachnida	Scorpionida	Buthidae	Isometroides juvenile	2
Arachnida	Scorpionida	Buthidae	Isometroides vescus	5
Arachnida	Scorpionida	Buthidae	Lychas alexandrinus?	3
Arachnida	Scorpionida	Buthidae	Lychas marmoreus	3
Arachnida	Scorpionida	Buthidae	Lychas sp.	1
Arachnida	Scorpionida	Buthidae	Lychas variatus	3
Arachnida	Scorpionida	Family not identified	Gn sp	2
Arachnida	Scorpionida	Urodacidae	Urodacus armatus	4
Arachnida	Scorpionida	Urodacidae	Urodacus elongatus?	1
Arachnida	Scorpionida	Urodacidae	Urodacus manicatus	12
Arachnida	Scorpionida	Urodacidae	Urodacus novaehollandiae	9

Class	Order	Family	Genus species	No. of Sites
Arachnida	Scorpionida	Urodacidae	Urodacus sp.	3
Chilopoda	Scolopendromorpha	Scolopendridae	Arthrorhabdus mjobergi	5
Chilopoda	Scolopendromorpha	Scolopendridae	Cormocephalus michaelsoni	1
Chilopoda	Scolopendromorpha	Scolopendridae	Cormocephalus rubriceps	10
Chilopoda	Scolopendromorpha	Scolopendridae	Cormocephalus sp.	9
Chilopoda	Scolopendromorpha	Scolopendridae	Cormocephalus westrangelasensis	1
Chilopoda	Scolopendromorpha	Scolopendridae	Ethmostigmus rubripes	3
Chilopoda	Scolopendromorpha	Scolopendridae	Gn sp	6
Chilopoda	Scolopendromorpha	Scolopendridae	Scolopendra morsitans	13
Chilopoda	Scutigeromorpha	Scutigeridae	Allothereua maculata	2
Chilopoda	Scutigeromorpha	Scutigeridae	Scutigera sp.	2
Chilopoda	Scutigeromorpha	Scutigeridae	Scutigera sp. Y+bl	1
Collembola	Collembola	Entomobryidae	black stripe	2
Collembola	Collembola	Entomobryidae	dark	1
Collembola	Collembola	Entomobryidae	Entomobrya sp. (hairy)	31
Collembola	Collembola	Entomobryidae	Gn sp	20
Collembola	Collembola	Entomobryidae	pale	1
Collembola	Collembola	Entomobryidae	Willowsia australica	7
Collembola	Collembola	Family not identified	Gn sp	32
Collembola	Collembola	Family not identified	tiny	1
Collembola	Collembola	Hypogasturidae	Gn sp	5
Collembola	Collembola	Hypogasturidae	Hypogastrura vernalis	2
Collembola	Collembola	Poduroidea	Gn sp	30
Collembola	Collembola	Sminthuridae	dark	1
Collembola	Collembola	Sminthuridae	Gn sp	70
Collembola	Collembola	Sminthuridae	Katianna sp.	3
Collembola	Collembola	Sminthuridae	large	1
Collembola	Collembola	Sminthuridae	mottley grey	2
Collembola	Collembola	Sminthuridae	pale	3
Collembola	Collembola	Sminthuridae	Rastriopes sp.	9
Diploda	Diploda	Family not identified	lateral stripe	1
Diploda	Julida	Julidae	Ommatoiulus moreletii	24
Diploda	Polydesmida	Paradoxosomatidae	Oncocladosoma sp.	5
Malacrostraca	Amphipoda	Family not identified	Gn sp	2
Malacrostraca	Decapoda	Grapsidae	Helograpsus haswellianus	2
Malacrostraca	Decapoda	Parastacidae	Cherax destructor	1
Malacrostraca	Isopoda	Armadillidae	Cubaris sp.	1
Malacrostraca	Isopoda	Oniscidea	Gn sp	33
Mollusca	Pulmonata	Camaenidae	Cupedora sp.	1
Mollusca	Pulmonata	Family not identified	Gn sp	11
Mollusca	Pulmonata	Helicidae	Cernuella sp.	1
Mollusca	Pulmonata	Helicidae	Cernuella virgata	1
Mollusca	Pulmonata	Helicidae	Cochlicella sp.	7
Mollusca	Pulmonata	Helicidae	Gn sp	1
Mollusca	Pulmonata	Helicidae	Theba pisana	13
Mollusca	Pulmonata	Succineidae	Succineia australis	8
Mollusca	Pulmonata	Succineidae	Succineia sp.	1
			Total Number of Non-Insect Taxa	**300**
			Total Number of Non-Insect Site Records	**1085**

APPENDIX 46. NON-INSECT FAMILIES SORTED BY CLASS, ORDER AND FAMILY AND THE FREQUENCY AT WHICH THEY WERE RECORDED WITHIN EACH SOIL SALINITY CLASS.

Salt Classes **A** = nil; **B** = slight salinity; **C** = moderate salinity; **D** = moderately high salinity; **E** = moderately high to high salinity; **F** = high salinity; and **G** = very high to extreme salinity.
Source: Northern Agricultural Districts, Land Resource Information (DWLBC Soil and Land Information 2002)

N.B. The total number (and average) of sites per family recorded in each soil salinity class is provided at the end of the table.

		No. of Sites →	140	89	14	7	11	2	8	9
Class	**Order**	**Family**	**Total**	**A**	**B**	**C**	**D**	**E**	**F**	**G**
Arachnida	Acarina	Anystidae	41	29	3	1	4		2	2
Arachnida	Acarina	Argasidae	1	1						
Arachnida	Acarina	Bdellidae	6	6						
Arachnida	Acarina	Caeculidae	7	5	1		1			
Arachnida	Acarina	Erythraeidae	52	35	9	1	2		3	2
Arachnida	Acarina	Eupodina?	1	1						
Arachnida	Acarina	Eyleyidae	1	1						
Arachnida	Acarina	Family not identified	24	11	2	3	5		2	1
Arachnida	Acarina	Gamasidae	6	5	1					
Arachnida	Acarina	Glycophagidae?	1	1						
Arachnida	Acarina	Ixodidae	7	2		1	3			1
Arachnida	Acarina	Oribatida	13	11		1		1		
Arachnida	Acarina	Trombidiidae	15	11	2	2				
Arachnida	Acarina	Trombidioidea	3	2	1					
Arachnida	Araneae Araneomorphae	Araneidae	8	4			2		1	1
Arachnida	Araneae Araneomorphae	Clubionidae	4	2						2
Arachnida	Araneae Araneomorphae	Corinnidae	8	7	1					
Arachnida	Araneae Araneomorphae	Desidae	15	9	2		1			3
Arachnida	Araneae Araneomorphae	Dictynidae	3	2			1			
Arachnida	Araneae Araneomorphae	Family not identified	3	2					1	
Arachnida	Araneae Araneomorphae	Gnaphosidae	39	25	2	4	3		1	4
Arachnida	Araneae Araneomorphae	Lamponidae	4	1	1	1				1
Arachnida	Araneae Araneomorphae	Linyphiidae	6	2			2		1	1
Arachnida	Araneae Araneomorphae	Liocranidae	2	2						
Arachnida	Araneae Araneomorphae	Lycosidae	120	62	12	12	12	3	8	11
Arachnida	Araneae Araneomorphae	Microholcommatidae	3	2			1			
Arachnida	Araneae Araneomorphae	Miturgidae	18	13	1		2		1	1
Arachnida	Araneae Araneomorphae	Nicodamidae	7	2	1		2		1	1
Arachnida	Araneae Araneomorphae	Oonopidae	5	3	1				1	
Arachnida	Araneae Araneomorphae	Oxyopidae	3	1					1	1
Arachnida	Araneae Araneomorphae	Pholcidae	1	1						
Arachnida	Araneae Araneomorphae	Prodidomidae	5	3			2			
Arachnida	Araneae Araneomorphae	Salticidae	17	12	1	1			2	1
Arachnida	Araneae Araneomorphae	Segestriidae	2	2						
Arachnida	Araneae Araneomorphae	Sparassidae	15	12	1		1		1	
Arachnida	Araneae Araneomorphae	Stiphidiidae	4	1	3					
Arachnida	Araneae Araneomorphae	Tetragnathidae	1	1						
Arachnida	Araneae Araneomorphae	Theridiidae	7	5	1		1			
Arachnida	Araneae Araneomorphae	Thomisidae	7	4			2			1
Arachnida	Araneae Araneomorphae	Trochanteriidae	1	1						
Arachnida	Araneae Araneomorphae	Zodariidae	64	45	3	5	5		2	4
Arachnida	Araneae Araneomorphae	Zoridae	52	35	4	1	3		3	6
Arachnida	Araneae Mygalomorphae	Actinopodidae	2	1	1					
Arachnida	Araneae Mygalomorphae	Barychelidae	1						1	
Arachnida	Araneae Mygalomorphae	Idiopidae	3	2					1	
Arachnida	Araneae Mygalomorphae	Nemesiidae	25	14	4	1	2		1	3
Arachnida	Opiliones	Megalopsalididae	1	1						
Arachnida	Opiliones	Triaenonychidae	1	1						
Arachnida	Pseudoscorpionida	Atemnidae	1	1						
Arachnida	Pseudoscorpionida	Family not identified	7	5					1	1
Arachnida	Pseudoscorpionida	Garypidae	1	1						
Arachnida	Pseudoscorpionida	Geogarypidae	1			1				
Arachnida	Pseudoscorpionida	Olpiidae	5	4					1	

		No. of Sites →	140	89	14	7	11	2	8	9
Class	**Order**	**Family**	**Total**	**A**	**B**	**C**	**D**	**E**	**F**	**G**
Arachnida	Scorpionida	Buthidae	17	12		1	1			3
Arachnida	Scorpionida	Family not identified	2	1	1					
Arachnida	Scorpionida	Urodacidae	29	21	3	1	3			1
Chilopoda	Scolopendromorpha	Scolopendridae	48	32	3	3	5		1	4
Chilopoda	Scutigeromorpha	Scutigeridae	5	4			1			
Collembola	Collembola	Entomobryidae	62	27	12	4	7	1	4	7
Collembola	Collembola	Family not identified	33	11	4	3	8	1	3	3
Collembola	Collembola	Hypogasturidae	7	3			1	1	1	1
Collembola	Collembola	Poduroidea	30	20	3	5	1			1
Collembola	Collembola	Sminthuridae	89	62	9	3	7		2	6
Diploda	Diploda	Family not identified	1				1			
Diploda	Julida	Julidae	24	17		3	4			
Diploda	Polydesmida	Paradoxosomatidae	5	4		1				
Malacrostraca	Amphipoda	Family not identified	2							2
Malacrostraca	Decapoda	Grapsidae	2						1	1
Malacrostraca	Decapoda	Parastacidae	1			1				
Malacrostraca	Isopoda	Armadillidae	1	1						
Malacrostraca	Isopoda	Oniscidea	33	22	3	2	1	1	2	2
Mollusca	Pulmonata	Camaenidae	1	1						
Mollusca	Pulmonata	Family not identified	11	6	1	2	1		1	
Mollusca	Pulmonata	Helicidae	23	12		1	4		2	4
Mollusca	Pulmonata	Succineidae	9	2			2		2	3
		Total per Soil Salinity Class	**1085**	**670**	**97**	**65**	**104**	**8**	**55**	**86**
		Ave per Soil Salinity Class	**7.8**	**7.5**	**6.9**	**9.3**	**9.5**	**4.0**	**6.9**	**9.6**

APPENDIX 47. NON-INSECT FAMILIES SORTED BY CLASS, ORDER AND FAMILY AND THE FREQUENCY AT WHICH THEY WERE RECORDED WITHIN EACH STRUCTURAL VEGETATION FORMATION.

N.B. The total number (and average) of sites per family recorded in each structural vegetation formation is provided at the end of the table.

		No. of Sites →	140	9	4	7	16	11	8	3	36	33	13
Class	**Order**	**Family**	**Total**	**Tussock Grassland**	**Hummock Grassland**	**Sedgeland**	**Low Shrubland**	**Shrubland**	**Tall Shrubland**	**Low Mallee**	**Mallee**	**Low Woodland**	**Woodland**
Arachnida	Acarina	Anystidae	41		3	1	4	4	3		10	13	3
Arachnida	Acarina	Argasidae	1								1		
Arachnida	Acarina	Bdellidae	6		1							3	2
Arachnida	Acarina	Caeculidae	7	1			1				3	2	
Arachnida	Acarina	Erythraeidae	52	2	2	2	7	5	4		13	11	6
Arachnida	Acarina	Eupodina?	1								1		
Arachnida	Acarina	Eyleyidae	1	1									
Arachnida	Acarina	Family not identified	24	1		3	1	1	2	2	5	7	2
Arachnida	Acarina	Gamasidae	6		1						5		
Arachnida	Acarina	Glycophagidae?	1								1		
Arachnida	Acarina	Ixodidae	7						1	1	4	1	
Arachnida	Acarina	Oribatida	13		1	1	1				2	4	4
Arachnida	Acarina	Trombidiidae	15	1		1					4	7	2
Arachnida	Acarina	Trombidioidea	3				1					1	1
Arachnida	Araneae Araneomorphae	Araneidae	8	1			1	1			4	1	
Arachnida	Araneae Araneomorphae	Clubionidae	4				1	1	1				1
Arachnida	Araneae Araneomorphae	Corinnidae	8	1							1	2	4
Arachnida	Araneae Araneomorphae	Desidae	15	3		1	5	1			2	2	1
Arachnida	Araneae Araneomorphae	Dictynidae	3			1					1	1	
Arachnida	Araneae Araneomorphae	Family not identified	3				1					2	
Arachnida	Araneae Araneomorphae	Gnaphosidae	39	2	3	3	3	2	2	2	5	10	7
Arachnida	Araneae Araneomorphae	Lamponidae	4			1	1						2
Arachnida	Araneae Araneomorphae	Linyphiidae	6				1					4	1
Arachnida	Araneae Araneomorphae	Liocranidae	2		1								1
Arachnida	Araneae Araneomorphae	Lycosidae	120	16	1	9	12	13	6	1	22	26	14
Arachnida	Araneae Araneomorphae	Micropholcommatidae	3						1		1	1	
Arachnida	Araneae Araneomorphae	Miturgidae	18	1			1				6	9	1
Arachnida	Araneae Araneomorphae	Nicodamidae	7				2		1		3	1	
Arachnida	Araneae Araneomorphae	Oonopidae	5			1	1		1		1	1	
Arachnida	Araneae Araneomorphae	Oxyopidae	3				1	1	1				
Arachnida	Araneae Araneomorphae	Pholcidae	1										1
Arachnida	Araneae Araneomorphae	Prodidomidae	5			1					1	2	1
Arachnida	Araneae Araneomorphae	Salticidae	17		1		2	1	1		5	4	3
Arachnida	Araneae Araneomorphae	Segestriidae	2								2		
Arachnida	Araneae Araneomorphae	Sparassidae	15						1		5	7	2
Arachnida	Araneae Araneomorphae	Stiphidiidae	4				1			2	1		
Arachnida	Araneae Araneomorphae	Tetragnathidae	1									1	
Arachnida	Araneae Araneomorphae	Theridiidae	7	2							3	2	
Arachnida	Araneae Araneomorphae	Thomisidae	7				1				3	3	
Arachnida	Araneae Araneomorphae	Trochanteriidae	1								1		
Arachnida	Araneae Araneomorphae	Zodariidae	64	1		3	4	6	4	2	13	19	12
Arachnida	Araneae Araneomorphae	Zoridae	52	3	2	3	9	6	3	1	10	13	2
Arachnida	Araneae Mygalomorphae	Actinopodidae	2						1		1		
Arachnida	Araneae Mygalomorphae	Barychelidae	1					1					
Arachnida	Araneae Mygalomorphae	Idiopidae	3				1				1	1	
Arachnida	Araneae Mygalomorphae	Nemesiidae	25			1	3	2	2		11	4	2
Arachnida	Opiliones	Megalopsalididae	1										1
Arachnida	Opiliones	Triaenonychidae	1									1	
Arachnida	Pseudoscorpionida	Atemnidae	1										1
Arachnida	Pseudoscorpionida	Family not identified	7	1	1		1	1	2				1

		No. of Sites →	140	9	4	7	16	11	8	3	36	33	13
Class	**Order**	**Family**	**Total**	**Tussock Grassland**	**Hummock Grassland**	**Sedgeland**	**Low Shrubland**	**Shrubland**	**Tall Shrubland**	**Low Mallee**	**Mallee**	**Low Woodland**	**Woodland**
Arachnida	Pseudoscorpionida	Garypidae	1						1				
Arachnida	Pseudoscorpionida	Geogarypidae	1					1					
Arachnida	Pseudoscorpionida	Olpiidae	5		2			1			1	1	
Arachnida	Scorpionida	Buthidae	17			1	3	3	1		2	7	
Arachnida	Scorpionida	Family not identified	2								2		
Arachnida	Scorpionida	Urodacidae	29			1	1	1	3	1	14	6	2
Chilopoda	Scolopendromorpha	Scolopendridae	48	3	1	1	6	3	5	2	16	9	2
Chilopoda	Scutigeromorpha	Scutigeridae	5	1	1						2		1
Collembola	Collembola	Entomobryidae	62			1	10	5	5	3	24	9	5
Collembola	Collembola	Family not identified	33			2	4	2	3	2	13	7	
Collembola	Collembola	Hypogasturidae	7				1	3			3		
Collembola	Collembola	Poduroidea	30	4	2	3	1	2	1		6	6	5
Collembola	Collembola	Sminthuridae	89	2	2	5	11	7	4	2	24	22	10
Diploda	Diplopoda	Family not identified	1				1						
Diploda	Julida	Julidae	24	1	2	4		2	1		6	3	5
Diploda	Polydesmida	Paradoxosomatidae	5	1							1	2	1
Malacrostraca	Amphipoda	Family not identified	2					1	1				
Malacrostraca	Decapoda	Grapsidae	2				1	1					
Malacrostraca	Decapoda	Parastacidae	1			1							
Malacrostraca	Isopoda	Armadillidae	1								1		
Malacrostraca	Isopoda	Oniscidea	33	2	1	4	4	1	4		9	5	3
Mollusca	Pulmonata	Camaenidae	1										1
Mollusca	Pulmonata	Family not identified	11	3		1		2	1		4		
Mollusca	Pulmonata	Helicidae	23	1		3	9	1			3	5	1
Mollusca	Pulmonata	Succineidae	9	2			4		1			2	
	Total per Vegetation Structure		**1085**	**57**	**28**	**59**	**123**	**82**	**68**	**21**	**283**	**250**	**114**
	Average per Vegetation Structure		**7.8**	**6.3**	**7**	**8.4**	**7.7**	**7.5**	**8.5**	**7**	**7.9**	**7.6**	**8.8**

APPENDIX 48. NON-INSECT FAMILIES SORTED BY CLASS, ORDER AND FAMILY AND THE FREQUENCY AT WHICH THEY WERE RECORDED WITHIN EACH LANDFORM PATTERN.

N.B. The total number (and average) of sites per family recorded in each landform pattern is provided at the end of the table.

		No. of Sites →	140	9	18	4	21	11	4	1	40	32
Class	**Order**	**Family**	**Total**	**Dunefield**	**Consolidated dunefield**	**Sand plain**	**Plain**	**Flood plain**	**Alluvial plain**	**Rises**	**Low hills**	**Hills**
Arachnida	Acarina	Anystidae	41		6	2	3	1			18	11
Arachnida	Acarina	Argasidae	1								1	
Arachnida	Acarina	Bdellidae	6								1	5
Arachnida	Acarina	Caeculidae	7			1	1				2	3
Arachnida	Acarina	Erythraeidae	52	6	8	1	6	3	2		17	9
Arachnida	Acarina	Eupodina?	1						1			
Arachnida	Acarina	Eyleyidae	1					1				
Arachnida	Acarina	Family not identified	24	3	5	1	8	1			2	4
Arachnida	Acarina	Gamasidae	6	1	1	1					2	1
Arachnida	Acarina	Glycophagidae?	1						1			
Arachnida	Acarina	Ixodidae	7		2	1	3				1	
Arachnida	Acarina	Oribatida	13	1	1			1			6	4
Arachnida	Acarina	Trombidiidae	15		1	1		2	1		2	8
Arachnida	Acarina	Trombidioidea	3					2				1
Arachnida	Araneae Araneomorphae	Araneidae	8	1	3			1			2	1
Arachnida	Araneae Araneomorphae	Clubionidae	4		1	1					2	
Arachnida	Araneae Araneomorphae	Corinnidae	8					1			5	2
Arachnida	Araneae Araneomorphae	Desidae	15	1	1	1	3				4	5
Arachnida	Araneae Araneomorphae	Dictynidae	3	1			1					1
Arachnida	Araneae Araneomorphae	Family not identified	3	1			1					1
Arachnida	Araneae Araneomorphae	Gnaphosidae	39	1	3	1	7	2			10	15
Arachnida	Araneae Araneomorphae	Lamponidae	4				1	1			1	1
Arachnida	Araneae Araneomorphae	Linyphiidae	6				4					2
Arachnida	Araneae Araneomorphae	Liocranidae	2								2	
Arachnida	Araneae Araneomorphae	Lycosidae	120	3	10	5	27	22	2		27	24
Arachnida	Araneae Araneomorphae	Micropholcommatidae	3		2						1	
Arachnida	Araneae Araneomorphae	Miturgidae	18		1	1	4		2		6	4
Arachnida	Araneae Araneomorphae	Nicodamidae	7		2		3		1		1	
Arachnida	Araneae Araneomorphae	Oonopidae	5	2	1		1				1	
Arachnida	Araneae Araneomorphae	Oxyopidae	3				2				1	
Arachnida	Araneae Araneomorphae	Pholcidae	1									1
Arachnida	Araneae Araneomorphae	Prodidomidae	5		1		1				1	2
Arachnida	Araneae Araneomorphae	Salticidae	17	1		1	2		1		4	8
Arachnida	Araneae Araneomorphae	Segestriidae	2			1						1
Arachnida	Araneae Araneomorphae	Sparassidae	15				3				5	7
Arachnida	Araneae Araneomorphae	Stiphidiidae	4	1	2		1					
Arachnida	Araneae Araneomorphae	Tetragnathidae	1								1	
Arachnida	Araneae Araneomorphae	Theridiidae	7	1			1		1		3	1
Arachnida	Araneae Araneomorphae	Thomisidae	7		1	1	2		1		2	
Arachnida	Araneae Araneomorphae	Trochanteriidae	1								1	
Arachnida	Araneae Araneomorphae	Zodariidae	64		9	2	7	2			28	16
Arachnida	Araneae Araneomorphae	Zoridae	52	5	9	1	9	1	1		17	9
Arachnida	Araneae Mygalomorphae	Actinopodidae	2	1							1	
Arachnida	Araneae Mygalomorphae	Barychelidae	1	1								
Arachnida	Araneae Mygalomorphae	Idiopidae	3						1		1	1
Arachnida	Araneae Mygalomorphae	Nemesiidae	25	2	4	1	5		1		8	4
Arachnida	Opiliones	Megalopsalididae	1									1
Arachnida	Opiliones	Triaenonychidae	1								1	
Arachnida	Pseudoscorpionida	Atemnidae	1									1
Arachnida	Pseudoscorpionida	Family not identified	7		2		1	1			1	2
Arachnida	Pseudoscorpionida	Garypidae	1									1
Arachnida	Pseudoscorpionida	Geogarypidae	1	1								
Arachnida	Pseudoscorpionida	Olpiidae	5				1				2	2

		No. of Sites →	140	9	18	4	21	11	4	1	40	32
Class	**Order**	**Family**	**Total**	**Dunefield**	**Consolidated dunefield**	**Sand plain**	**Plain**	**Flood plain**	**Alluvial plain**	**Rises**	**Low hills**	**Hills**
Arachnida	Scorpionida	Buthidae	17		3		2				6	6
Arachnida	Scorpionida	Family not identified	2				2					
Arachnida	Scorpionida	Urodacidae	29	3	5	2	5				6	8
Chilopoda	Scolopendromorpha	Scolopendridae	48	4	6	1	10	2			15	10
Chilopoda	Scutigeromorpha	Scutigeridae	5		1		1	1			1	1
Collembola	Collembola	Entomobryidae	62	10	13	4	16	1	1		8	9
Collembola	Collembola	Family not identified	33	1	15	2	13				2	
Collembola	Collembola	Hypogasturidae	7		1			2	1		3	
Collembola	Collembola	Poduroidea	30	1	4		3	4	1		9	8
Collembola	Collembola	Sminthuridae	89	8	5	2	9	8	3		32	22
Diploda	Diploda	Family not identified	1				1					
Diploda	Julida	Julidae	24		2		1	5			4	12
Diploda	Polydesmida	Paradoxosomatidae	5					1			2	2
Malacrostraca	Amphipoda	Family not identified	2		1	1						
Malacrostraca	Decapoda	Grapsidae	2		1				1			
Malacrostraca	Decapoda	Parastacidae	1					1				
Malacrostraca	Isopoda	Armadillidae	1									1
Malacrostraca	Isopoda	Oniscidea	33	3	4	1	3	3	1		10	8
Mollusca	Pulmonata	Camaenidae	1									1
Mollusca	Pulmonata	Family not identified	11	1	2		1	3			2	2
Mollusca	Pulmonata	Helicidae	23	2	3		5	2	2		6	3
Mollusca	Pulmonata	Succineidae	9		3		5	1				
	Total per Landform Pattern		**1085**	**67**	**145**	**37**	**185**	**76**	**26**	**0**	**297**	**252**
	Average per Landform Pattern		**7.8**	**7.4**	**8.1**	**9.3**	**8.8**	**6.9**	**6.5**	**0.0**	**7.4**	**7.9**

APPENDIX 49. NON-INSECT FAMILIES SORTED BY CLASS, ORDER AND FAMILY AND THE FREQUENCY AT WHICH THEY WERE RECORDED WITHIN EACH SURFACE SOIL CATEGORY.

N.B. The total number (and average) of sites per family recorded in each surface soil category is provided at the end of the table.

		No. of Sites →	140	11	21	2	18	11	2	24	6	14	8	3	4	4	8	4
Class	**Order**	**Family**	**Total**	**sand**	**loamy sand**	**clayey sand**	**sandy loam**	**loam**	**silty loam**	**sandy clay loam**	**clay loam, sandy**	**clay loam**	**silty clay loam**	**light clay**	**light medium clay**	**medium clay**	**medium heavy clay**	**heavy clay**
Arachnida	Acarina	Anystidae	41	3	5		7	1		10	3	4	2	2	2	1	1	
Arachnida	Acarina	Argasidae	1							1								
Arachnida	Acarina	Bdellidae	6		1		1	1		1							2	
Arachnida	Acarina	Caeculidae	7		1		1	2		1	1			1				
Arachnida	Acarina	Erythraeidae	52	4	10	1	5	3		12	2	5	2	1	1	2	2	2
Arachnida	Acarina	Eupodina?	1					1										
Arachnida	Acarina	Eyleyidae	1														1	
Arachnida	Acarina	Family not identified	24	3	7		4			4		2	3		1			
Arachnida	Acarina	Gamasidae	6	1	2			1						1	1			
Arachnida	Acarina	Glycophagidae?	1					1										
Arachnida	Acarina	Ixodidae	7	1	3		1			1				1				
Arachnida	Acarina	Oribatida	13		1		3	1		3		2		1		1	1	
Arachnida	Acarina	Trombidiidae	15	1	2		4	1		1	1	2	1		1		1	
Arachnida	Acarina	Trombidioidea	3								1					2		
Arachnida	Araneae Araneomorphae	Araneidae	8	2	1		3			1							1	
Arachnida	Araneae Araneomorphae	Clubionidae	4	2			1			1								
Arachnida	Araneae Araneomorphae	Corinnidae	8				2			2			1		2			1
Arachnida	Araneae Araneomorphae	Desidae	15	2	1		2	3		1	2	1	1		1		1	
Arachnida	Araneae Araneomorphae	Dictynidae	3		2								1					
Arachnida	Araneae Araneomorphae	Family not identified	3						1	1			1					
Arachnida	Araneae Araneomorphae	Gnaphosidae	39	3	5		5	4		5		6	3	1	1	1	4	1
Arachnida	Araneae Araneomorphae	Lamponidae	4								1	2	1					
Arachnida	Araneae Araneomorphae	Linyphiidae	6				1	1				1	3					
Arachnida	Araneae Araneomorphae	Liocranidae	2											1	1			
Arachnida	Araneae Araneomorphae	Lycosidae	120	10	10	1	18	10	1	13	5	10	11	1	6	5	14	5
Arachnida	Araneae Araneomorphae	Micropholcommatidae	3		2					1								
Arachnida	Araneae Araneomorphae	Miturgidae	18	1	3		4	2		3		1	2		1		1	
Arachnida	Araneae Araneomorphae	Nicodamidae	7		4			1		1			1					
Arachnida	Araneae Araneomorphae	Oonopidae	5		2		1			1			1					
Arachnida	Araneae Araneomorphae	Oxyopidae	3							1			2					
Arachnida	Araneae Araneomorphae	Pholcidae	1									1						
Arachnida	Araneae Araneomorphae	Prodidomidae	5		1		1			1		1	1					
Arachnida	Araneae Araneomorphae	Salticidae	17	1	5		2	1		3				1	3		1	
Arachnida	Araneae Araneomorphae	Segestriidae	2	1											1			
Arachnida	Araneae Araneomorphae	Sparassidae	15		1		2			3	4	1	1	1			2	
Arachnida	Araneae Araneomorphae	Stiphidiidae	4	3	1													
Arachnida	Araneae Araneomorphae	Tetragnathidae	1								1							
Arachnida	Araneae Araneomorphae	Theridiidae	7			1	1	2		2					1			
Arachnida	Araneae Araneomorphae	Thomisidae	7	1			2	1		3								
Arachnida	Araneae Araneomorphae	Trochanteriidae	1							1								
Arachnida	Araneae Araneomorphae	Zodariidae	64	5	5		10	4	2	8	5	7	4	2	7	2	2	1
Arachnida	Araneae Araneomorphae	Zoridae	52	5	7	1	12	3	1	13	1	4	2	1	1		1	
Arachnida	Araneae Mygalomorphae	Actinopodidae	2			1				1								
Arachnida	Araneae Mygalomorphae	Barychelidae	1	1														
Arachnida	Araneae Mygalomorphae	Idiopidae	3		2					1								
Arachnida	Araneae Mygalomorphae	Nemesiidae	25	2	6	1	5	3		2			2		3	1		
Arachnida	Opiliones	Megalopsalididae	1										1					
Arachnida	Opiliones	Triaenonychidae	1							1								
Arachnida	Pseudoscorpionida	Atemnidae	1									1						
Arachnida	Pseudoscorpionida	Family not identified	7	2								2		2			1	
Arachnida	Pseudoscorpionida	Garypidae	1									1						
Arachnida	Pseudoscorpionida	Geogarypidae	1		1													
Arachnida	Pseudoscorpionida	Olpiidae	5				1					2		2				

		No. of Sites →	140	11	21	2	18	11	2	24	6	14	8	3	4	4	8	4
Class	**Order**	**Family**	**Total**	**sand**	**loamy sand**	**clayey sand**	**sandy loam**	**loam**	**silty loam**	**sandy clay loam**	**clay loam, sandy**	**clay loam**	**silty clay loam**	**light clay**	**light medium clay**	**medium clay**	**medium heavy clay**	**heavy clay**
Arachnida	Scorpionida	Buthidae	17	1	1		5			4	1	2	2		1			
Arachnida	Scorpionida	Family not identified	2		2													
Arachnida	Scorpionida	Urodacidae	29	4	5	2	4	1	1	7	1	2		1	1			
Chilopoda	Scolopendromorpha	Scolopendridae	48	5	7		8	3	1	12	2	5		1	1		3	
Chilopoda	Scutigeromorpha	Scutigeridae	5		1		1						1	1			1	
Collembola	Collembola	Entomobryidae	62	12	14	3	10	2	1	7	1	3	5	1	1			2
Collembola	Collembola	Family not identified	33	6	11	1	5			4			4	1	1			
Collembola	Collembola	Hypogasturidae	7		2		1			1		1				1	1	
Collembola	Collembola	Poduroidea	30	1	4		4	3	1	3	1	4		1	2		4	2
Collembola	Collembola	Sminthuridae	89	3	14	2	13	6	1	16	3	10	6	1	2	4	5	3
Diploda	Diploda	Family not identified	1							1								
Diploda	Julida	Julidae	24		2		1			4	1	7	2	1	1	1	2	2
Diploda	Polydesmida	Paradoxosomatidae	5				1			2		1					1	
Malacrostraca	Amphipoda	Family not identified	2	1	1													
Malacrostraca	Decapoda	Grapsidae	2		2													
Malacrostraca	Decapoda	Parastacidae	1										1					
Malacrostraca	Isopoda	Armadillidae	1				1											
Malacrostraca	Isopoda	Oniscidea	33	3	5		3	2	1	7	1	4	2		2	1	2	
Mollusca	Pulmonata	Camaenidae	1										1					
Mollusca	Pulmonata	Family not identified	11		4			1		2		1		1			2	
Mollusca	Pulmonata	Helicidae	23	2	4		2			6	3	2	1	1		1	1	
Mollusca	Pulmonata	Succineidae	9	1	2					1			4				1	
	Total per Surface Soil Category		**1085**	**93**	**172**	**14**	**158**	**65**	**11**	**181**	**41**	**98**	**76**	**29**	**46**	**23**	**59**	**19**
	Average per Surface Soil Category		**7.8**	**8.5**	**8.2**	**7.0**	**8.8**	**5.9**	**5.5**	**7.5**	**6.8**	**7.0**	**9.5**	**9.7**	**11.5**	**5.8**	**7.4**	**4.8**

APPENDIX 50. NON-INSECT FAMILIES SORTED BY CLASS, ORDER AND FAMILY AND THE FREQUENCY AT WHICH THEY WERE RECORDED WITHIN EACH LEAF LITTER COVER CLASS.

N.B. The total number (and average) of sites per family recorded in each leaf litter cover class is provided at the end of the table.

		No. of Sites →	140	72	32	18	15	3
Class	**Order**	**Family**	**Total**	**<10%**	**11 – 30%**	**31 – 50%**	**51 – 70%**	**71 – 100%**
Arachnida	Acarina	Anystidae	41	20	10	4	7	
Arachnida	Acarina	Argasidae	1				1	
Arachnida	Acarina	Bdellidae	6	2		3	1	
Arachnida	Acarina	Caeculidae	7	3	4			
Arachnida	Acarina	Erythraeidae	52	30	13	5	4	
Arachnida	Acarina	Eupodina?	1		1			
Arachnida	Acarina	Eyleyidae	1	1				
Arachnida	Acarina	Family not identified	24	7	4	5	7	1
Arachnida	Acarina	Gamasidae	6	1		1	4	
Arachnida	Acarina	Glycophagidae?	1		1			
Arachnida	Acarina	Ixodidae	7	1	3	1	1	1
Arachnida	Acarina	Oribatida	13	5	1	4	2	1
Arachnida	Acarina	Trombidiidae	15	5	2	5	3	
Arachnida	Acarina	Trombidioidea	3	1	2			
Arachnida	Araneae Araneomorphae	Araneidae	8	1	3	2	2	
Arachnida	Araneae Araneomorphae	Clubionidae	4	1	1		2	
Arachnida	Araneae Araneomorphae	Corinnidae	8		6	2		
Arachnida	Araneae Araneomorphae	Desidae	15	10	1	1	3	
Arachnida	Araneae Araneomorphae	Dictynidae	3	2	1			
Arachnida	Araneae Araneomorphae	Family not identified	3	2		1		
Arachnida	Araneae Araneomorphae	Gnaphosidae	39	16	8	9	5	1
Arachnida	Araneae Araneomorphae	Lamponidae	4	2		2		
Arachnida	Araneae Araneomorphae	Linyphiidae	6	3		3		
Arachnida	Araneae Araneomorphae	Liocranidae	2	1	1			
Arachnida	Araneae Araneomorphae	Lycosidae	120	69	26	11	12	2
Arachnida	Araneae Araneomorphae	Micropholcommatidae	3	2	1			
Arachnida	Araneae Araneomorphae	Miturgidae	18	8	3	4	1	2
Arachnida	Araneae Araneomorphae	Nicodamidae	7	5	1		1	
Arachnida	Araneae Araneomorphae	Oonopidae	5	4	1			
Arachnida	Araneae Araneomorphae	Oxyopidae	3	3				
Arachnida	Araneae Araneomorphae	Pholcidae	1		1			
Arachnida	Araneae Araneomorphae	Prodidomidae	5	2		2	1	
Arachnida	Araneae Araneomorphae	Salticidae	17	8	2	5	2	
Arachnida	Araneae Araneomorphae	Segestriidae	2		1	1		
Arachnida	Araneae Araneomorphae	Sparassidae	15	9	5		1	
Arachnida	Araneae Araneomorphae	Stiphidiidae	4	2		1	1	
Arachnida	Araneae Araneomorphae	Tetragnathidae	1	1				
Arachnida	Araneae Araneomorphae	Theridiidae	7	2	2	1	1	1
Arachnida	Araneae Araneomorphae	Thomisidae	7	2	2		2	1
Arachnida	Araneae Araneomorphae	Trochanteriidae	1				1	
Arachnida	Araneae Araneomorphae	Zodariidae	64	28	19	9	7	1
Arachnida	Araneae Araneomorphae	Zoridae	52	27	12	4	6	3
Arachnida	Araneae Mygalomorphae	Actinopodidae	2		1	1		
Arachnida	Araneae Mygalomorphae	Barychelidae	1			1		
Arachnida	Araneae Mygalomorphae	Idiopidae	3	3				
Arachnida	Araneae Mygalomorphae	Nemesiidae	25	7	11	3	3	1
Arachnida	Opiliones	Megalopsalididae	1		1			
Arachnida	Opiliones	Triaenonychidae	1			1		
Arachnida	Pseudoscorpionida	Atemnidae	1			1		
Arachnida	Pseudoscorpionida	Family not identified	7	3	3	1		
Arachnida	Pseudoscorpionida	Garypidae	1		1			
Arachnida	Pseudoscorpionida	Geogarypidae	1		1			
Arachnida	Pseudoscorpionida	Olpiidae	5	2	2			1
Arachnida	Scorpionida	Buthidae	17	10	2	1	4	
Arachnida	Scorpionida	Family not identified	2	1				1
Arachnida	Scorpionida	Urodacidae	29	11	7	6	4	1
Chilopoda	Scolopendromorpha	Scolopendridae	48	22	14	5	4	3
Chilopoda	Scutigeromorpha	Scutigeridae	5	2	1		1	1

		No. of Sites →	140	72	32	18	15	3
Class	**Order**	**Family**	**Total**	**<10%**	**11 – 30%**	**31 – 50%**	**51 – 70%**	**71 – 100%**
Collembola	Collembola	Entomobryidae	62	24	16	12	7	3
Collembola	Collembola	Family not identified	33	16	9	2	5	1
Collembola	Collembola	Hypogasturidae	7	3	2	2		
Collembola	Collembola	Poduroidea	30	17	6	5	1	1
Collembola	Collembola	Sminthuridae	89	44	19	16	8	2
Diploda	Diploda	Family not identified	1	1				
Diploda	Julida	Julidae	24	14	6	3	1	
Diploda	Polydesmida	Paradoxosomatidae	5	2	2		1	
Malacrostraca	Amphipoda	Family not identified	2			1	1	
Malacrostraca	Decapoda	Grapsidae	2	1		1		
Malacrostraca	Decapoda	Parastacidae	1	1				
Malacrostraca	Isopoda	Armadillidae	1	1				
Malacrostraca	Isopoda	Oniscidea	33	17	10	3	2	1
Mollusca	Pulmonata	Camaenidae	1		1			
Mollusca	Pulmonata	Family not identified	11	4	6	1		
Mollusca	Pulmonata	Helicidae	23	16	5	1	1	
Mollusca	Pulmonata	Succineidae	9	8	1			
	Total per Leaf Litter Cover Class		**1085**	**516**	**265**	**153**	**121**	**30**
	Average per Leaf Litter Cover Class		**7.8**	**7.2**	**8.3**	**8.5**	**8.1**	**10.0**