Department for Environment and Heritage

Floristic Vegetation and Tree Health Mapping River Murray Floodplain, South Australia

Final Report
July 2005

Government of South Australia

Department for Environment and Heritage

Floristic Vegetation and Tree Health Mapping River Murray Floodplain, South Australia

Please Note: this report is based on a copy of the original internal document.

This report has been written as part of the final stage in a three year project that was funded by the Natural Heritage Trust, the River Murray Catchment Water Management Board and the Department for Water, Land & Biodiversity Conservation.

Disclaimer

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Cover photograph:
River Red Gum over Lignum community on the River Murray Floodplain, South Australia.

ABSTRACT

This report provides preliminary information about the SA River Murray Floodplain vegetation survey in 2002. The vegetation survey will be documented in full in conjunction with the fauna data that was collected in 2003–04 as part of the River Murray Floodplain Biological Survey report.

In 2002 a vegetation survey was carried out along the River Murray Floodplain of South Australia that sampled at 337 sites. In conjunction with the standard vegetation survey under the Biological Survey of SA methodology, a method to measure health of floodplain tree and shrub vegetation was developed. Data was collected following this method at 337 sites. These sites sampled represented areas for all types of floodplain native vegetation, as well as differing tree health categories, and different levels of salinity risk. The total number of records contributing to the Biological Survey Database as a result of the vegetation survey was 4528 plants.

An analysis of the vegetation site data, which included all other biological survey sites within the region, was used to describe 54 floristic vegetation groups, based on overstorey, understorey and structural similarity. Using this analysis a vegetation map of the region was produced for 64 vegetation groups. Remnant native vegetation mapping covers approximately 40% of the floodplain.

The tree health site data was used to map tree health of up to three species across the floodplain. The site data was analysed to form the basis of tree-health mapping. Tree health mapping covered 18% of the floodplain and included areas where dead trees were observed in the water that were not mapped as remnant native vegetation.

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1 INTRODUCTION

The floristic vegetation and health mapping of the River Murray Floodplain formed a component of the Floodplain Impacts Project (FIP). The FIP commenced in 2002 and was designed to assess the current condition and predict future degradation of the River Murray Floodplain as a result of land and water management practices.

New data on groundwater levels, groundwater and soil salinity, and floodplain vegetation and vegetation health were collected. Based on this data a predictive computer model has been developed by CSIRO Land and Water to enable the assessment of impacts of land and water management on salinity inflows into the floodplain and on floodplain vegetation health. Scenarios can be run to assess the impact of various management options, as well as to identify protection zones, and/or risk zones.

The broad aims for the vegetation and health mapping of the floodplain were for incorporating into investigations of the:

- health and diversity of floodplain ecosystems, and
- salinity impacts arising from existing and future irrigation areas and dryland recharge adjacent to the floodplain.

The vegetation data collected by the Department for Environment and Heritage (DEH) provided an inventory of species distribution, composition and location of floristic communities and tree species health assessments along the entire length of the River Murray Floodplain within South Australia for 2002.

The survey area encompassed the extent of the 1956 flood level, from the state border to just east of Meningie and south to the barrages, including the Lakes (Figure 1). The total area of the River Murray Floodplain is 230,000 hectares.

This report provides the summary of the outcomes from the Floristic vegetation and health mapping (datasets) with preliminary analysis of the site data. The full inventory and analysis of the vegetation survey site data will be documented as part of the Biological Survey of River Murray Floodplain, due for publication at the end of 2006. This report will include the fauna survey component that is complementary to this project.

1.1 SCOPE AND RESOURCING

The project was funded by the Natural Heritage Trust, the River Murray Catchment Water Management Board and the Department for Water, Land & Biodiversity Conservation. The River Murray Catchment Water Management Board in partnership with the Department for Water, Land & Biodiversity Conservation (DWLBC), the Department for Environment and Heritage (DEH) and CSIRO Land and Water were working together on this project.

The vegetation survey data contributes towards a comprehensive database of flora for the state. The data links in with adjacent regional vegetation surveys of the South Olary Plains, Murray Mallee and Western Murray Flats regions; north, south and west of the floodplain respectively. As part of the Biological Survey of South Australia the survey methodology collects data in a consistent and compatible format for the state, as administered by Department for Environment and Heritage (DEH). The vegetation mapping data also contributes to the statewide vegetation mapping database to further extend knowledge of remnant vegetation in SA.

1.2 COMPLEMENTARY FLOODPLAIN PROJECTS

The River Murray Floodplain is a unique environment within South Australia and it is also the major source of water to the state. For an area of such importance there are a multitude of projects occurring, covering all or portions of the floodplain. Some of the projects that are relevant within the context of vegetation and health mapping are:

- The River Murray Prescribed Watercourse Water Allocation Plan (WAP), in particular the policies that refer to the impacts of irrigation development on floodplain health. The Department for Water, Land and Biodiversity Conservation is developing policies and processes for implementation of the WAP such as salinity zoning.

- Further development of the SIMPACT model being undertaken by Department for Environment and Heritage (DEH), which identifies the impacts of irrigation on river salinity.

- Development and implementation of the South Australian River Murray Environmental Flows Strategy.

- "The Impacts of Salinity on the Aquatic Invertebrate and Aquatic and Terrestrial Vertebrate Fauna of the River Murray Floodplain in South Australia" by DEH. The aims of the project are to systematically survey the floodplain area for both invertebrates and vertebrates to establish a baseline and determine any relationships between salinity and biodiversity indicators. This will help determine key areas for remedial action and will incorporate the available vegetation data.

- Implementation of the River Murray Act. For example, through local government assessment of the impacts of new development on floodplain health.

Figure 1: Study Area for Vegetation Survey and Mapping data

2 METHODS

The background to the vegetation data capture involved 5 major steps:
- planning and organisation for the vegetation site survey,
- development of a health assessment method,
- field survey,
- post survey database work and feedback to landowners,
- floristic analysis, floristic vegetation and tree health mapping.

2.1 VEGETATION SITE SURVEY

The survey planning phase of the vegetation sites involved determining locations that would:
- sample as many remnants as possible within the project time frames;
- represent all the types of vegetation communities within the region;
- attempt to provide an even coverage of the area;
- sample differing tree health categories;
- be located within different levels of salinity risk;
- be easily accessible for the drill machinery installing test wells.

The main tool used for site selection was aerial photo interpretation, in conjunction with knowledge of the region from literature, field trips, local experts and other resources. Permission was then sought from all landholders in the region. Aboriginal Heritage assessment was undertaken by indigenous custodians of the area and a representative from the Department of State Aboriginal Affairs to ensure no sites of significance or remains were disturbed. The final location of the sites was influenced by permission to by the land owner, ability to access the site by the drilling equipment and Aboriginal Heritage.

The field survey phase involved the recording of information on vegetation and physical aspects within a quadrat area of 900 m^2 based on the Biological Survey of SA methodology (Heard and Channon 1997). The information collected at each site is listed in Appendix 1. In addition tree health data was collected and the method to collect the data is discussed in the following section. Survey sites were permanently marked with posts and a site photo was taken for monitoring purposes. Groundwater test wells (piezometers) were installed to monitor changes in the watertable depth and salinity as part of the collaborative part of the project with CSIRO.

The survey was undertaken in 4 weeks in October–November 2003. Each week was based out of a local town that ensured the surveying involved minimal travel by each survey team. Each week 5 teams of two observers surveyed sites in the local area.

The post survey component involved the lodging and identification of all voucher specimens at the Plant Biodiversity Centre, entry of all the data into the Biological Survey of South Australia and then validation of that data. Vegetation site reports were then sent to all landholders. The point based site data was loaded into DEH's Geographical Information System (GIS) layer for all vegetation sites as part of the Biological Survey of SA.

2.2 TREE HEALTH SITE ASSESSMENTS

The tree health assessment was carried out as part of the floristic survey. As this survey was conducted using multiple sampling teams there was a need to develop a robust health assessment tool that could be applied easily, yet consistently. To determine a robust, rapid assessment of tree health methodology for remnant native vegetation in South Australia, extensive research into existing methods was undertaken.

2.2.1 Review of Current Methods

The only truly objective methods already existing were those involving plant physiological measurements such as plant water potential, stomatal conductance, chemistry, biochemistry,

morphology. These techniques are generally specialised and/or time consuming. More rapid and easily used assessments are most commonly visual ones that are generally somewhat subjective. Two commonly used ones are Lay and Meissner (1985) and Grimes (1987). Lay and Meissner (1985) was developed for assessing the performance of broad scale shrub and tree plantings for amenity purposes. Grimes (1987) was developed for assessing crown condition in plantation forestry. Both techniques are for assessment of tree health and do not deal with understorey or grasses.

Lay and Meissner (1995) uses two criteria, health and vigour. Health is assessed by rating the plant on a scale of 0 (dead) to 5 (healthy, and includes plants with up to 25% of leaves damaged in some way) relative to a healthy and undamaged specimen. Vigour is also scored on a similar scale with reference to maximum expected growth for the species. There are two main problems with applying this technique in the context of native vegetation on lower River Murray floodplains. The first is that vigour is impossible to assess in communities where the ages of the trees vary greatly and are unknown. Secondly, the health rating does not incorporate any assessment of the degree of epicormic growth, a key health indicator for the floodplain communities.

In the case of the Grimes (1987) method, health is assessed using a four component scaling system comprising crown size, crown density, epicormic growth and dead branches. Each component is scored on a scale of 1 to 5, and the four scores are summed to calculate the index of health. In the context of this project the problem identified with this method is that a dead tree does not score a zero (5 is the minimum score). Also, assessment of crown size and density can only be reliably carried out if the age of the tree is known, as is the case in plantations. Conversely, factors such as epicormic growth and dead branches are very good indicators of tree health in the floodplains of the lower River Murray.

2.2.2 Field Assessment

After consultation between the CSIRO and DEH project teams it was decided to develop and test a tree health assessment method that incorporated the best aspects of the methods of Lay and Meissner (1995) and Grimes (1987).

The new method rated tree health on a scale of 0 to 5 (where 0 is dead and 5 is healthy) and was tested and further developed during a field trip to the floodplains on February 25–26 2002. On the second day untrained observers joined the CSIRO, DWLBC and DEH staff to help test the technique's robustness. Each person independently ranked a wide range of trees at a number of sites, with good agreement. As a result of the testing, the method was modified slightly so that the amount of epicormic growth is assessed quantitatively rather than qualitatively. A canopy density criterion was also removed, as it did not appear to add any value. The final methodology adopted is summarised in Table 1 (Appendix 2). It was decided that in the vegetation survey, that health would be assessed on 10 trees in each sampling quadrat if there is only one species, or in the case of multiple species, a proportion of each species based on their cover dominance to a total of 10 assessments.

Table 1: Tree health assessment scale.

Rating	Description
5	Tree with >75% of the original canopy present May include some dead branchlets and leaves <5% epicormic growth
4	Tree with 50-75% of the original canopy present Some dead branchlets (<50% of canopy) <10% epicormic growth
3	Tree with 25-50% of the original canopy present Some small dead branches Some epicormic growth (<50% of remaining canopy)
2	Tree with <25% of the original canopy present Some main branches dead (<50% canopy) Predominantly epicormic growth (>50% of remaining canopy)
1	Tree with no original canopy Most main branches dead All epicormic growth
0	Dead tree

For the understorey shrub species the methodology was simplified. The range of health categories was from 0 to 3 (Table 2, Appendix 2). The health was assessed for up to 4 co-dominant species in the understorey with an appropriate proportion of each species based on their cover dominance to a total of 10 assessments.

Table 2: Understorey health assessment scale.

Rating	Description
0	Dead plant species. For Lignum no stems appear active (green).
1	Plant species with little (1-30%) foliage, including resprouting foliage. Most main branches or stems appear dead or dormant. May appear unhealthy or chlorotic. For Lignum 1-30% of stems appear active (green).
2	Plant species with 30-70% of the original foliage cover present. Some small dead branches or stems with chlorosis or withering of leaves. Resprouting may be present amongst remaining foliage. For Lignum 30-70% of stems appear active (green).
3	Plant species with > 70% original foliage cover present. May include <25% of leaves damaged in some way. For Lignum > 70% of stems appear active (green).

2.2.3 Oracle Database and Survey Datasheets

To accommodate the storage of health data within the biological survey database some changes were required:

1. As dead standing trees are useful as fauna habitat and give an indication of vegetation change it was deemed useful to record this information during a vegetation survey site. New classes to the Structural Summary where added to indicate dead forms of the tree lifeforms.
2. Another category of dead was added to Upper Stratum Age Class. The method for recording this new age class was when an overstorey consists of a tree layer, all age classes are recorded for the dominant and codominant overstorey species (including dead trees). Where vegetation associations are dominated by a non-tree strata but have dead trees present, the dead tree age class is recorded for the appropriate species.
3. Creating new "taxa" (NSXCODES) in Flora data base for "dead *Eucalyptus camaldulensis* var. *camaldulensis*", "dead *Eucalyptus largiflorens* " and "dead *Acacia stenophylla*". This was to ensure that they could be distinguished as a different "species" for PATN analysis and may help to distinguish the Red Gums or Black Box recorded on a plant list that are not the dominant overstorey and are in fact dead.
4. Finally a new table was added to store the overstorey and understorey species health assessments.

2.3 VEGETATION AND TREE HEALTH MAPPING

The vegetation mapping occurred in two stages. In 2001 the floodplain native vegetation was mapped as either non-tree or tree. The mapping used 1:20,000 colour aerial photography dated January 2001 and included field trips to verify that the desktop mapping process was accurately reflecting that seen on the ground. This mapping was captured as a digital polygon layer using ESRI Arc/Info geographic information systems (GIS) and formed the basis for the floristic mapping.

A GIS vegetation mapping layer was created using ESRI's Spatial Database Environment (SDE) editing, to map both the floristic vegetation groups and tree health. Editing is SDE allowed for the mappers to undertake the mapping and interpretation of the photography through on-screen data capture process. In addition the data was modelled to ensure that minimal free typing into the data fields was required, this was done by having what is called domains: drop down lists so the appropriate data can be selected. In addition the SDE model was set up to enforce topology rules to ensure the integrity of the GIS data. The imagery used was infra-red 1:20,000 photography dated December 2002. To get the best from the image the mapping was undertaken at 1:7000.

The mapping allowed for up to three vegetation groups to be mapped. This is referred to as mosaic polygons where more than one floristic community exists and cannot be delineated in the mapping process. This can occur when the area to be mapped is too small, the interpretation of the photography cannot allow a distinction between the communities due to a very similar signature, or the shape of the vegetation extent is too complex to delineate. When the delineated area was a mosaic of more than one floristic group, then the three tree species and tree health data were an average assessment across the entire polygon for each species.

2.3.1 Vegetation Type Mapping

The mapping of vegetation type was based on the extrapolation from known sites to unvisited areas. A subjective floristic analysis of the data was undertaken to derive mapping groups that formed the basis for the mapping component. The analysis assessed 495 sites that fell within the 1956 Floodplain boundary (Table 3). The analysis was based on comparison of the dominant overstorey species, understorey species and structural formation of each site. Each site was assigned a floristic mapping group that was used to guide the mapper in the extrapolation process. Within each delineated boundary up to three vegetation types were mapped which included an indication of the proportion of area they covered.

Table 3: Sites used in analysis were from following surveys:

Survey Name (Survey Number)	Survey Dates (Approximate)	No. Quadrats Contributing to Analysis
SE Coast (4)	March 1982	5
Chowilla – NCS (12)	October 1988	33
Mt Lofty Private Collections (42)	June 1987	3
Western Murray Flats (45)	May 1992	21
Mt Lofty Emu-Wren (52)	October – November 1993	3
Tidal and Salt marsh Communities (78)	August 1995	8
Fleurieu Roadside Survey – MK Hyde (93)	November 1997	1
River Murray (134)	October – November 2002	319
Murray Mouth Reserves (136)	March 2002	17
Murray Wetland Baseline RMCWMB (165)	October – December 2003	85
		Total = 495

As part of the vegetation mapping other data was used to inform the process. The following sources of information were used, in addition to the vegetation survey sites:

- North Eastern Murray Riparian Vegetation – health, species and structural information for the region between Overland Corner and Bookpurnong floodplain,

Ral Ral Creek floodplain, Woolenook Bend floodplain and Lower Pike River. The mapping was undertaken for the LAP groups.

- Mid Murray Riparian Vegetation – mapping includes two overstorey dominant species, up to 3 understorey species, vegetation structure and density, grazing presence, major weeds, tree health assessment and signs of salt stress within the riparian zone of the Mid Murray LAP region.
- Chowilla Floodplain mapping - community mapping including vegetation health for the tree communities only, undertaken by CSIRO in collaboration with DWLBC.
- Riparian vegetation of the floodplain – Margules (1986) – the mapping categorises the vegetation into two broad structural components, tree and non-tree. Tree includes predominantly River Red Gum (Eucalyptus camaldulensis) and Black Box (E. largiflorens) Forests and Woodlands. Non-tree includes Shrublands, Grasslands, Sedgelands and Herblands.
- Pastoral Management Board sites (DWLBC).
- River Red Gum Health mapping (DWLBC)
- Wetlands (DEH).

2.3.2 Tree Health Mapping

At the start of the development of the mapping methodology an assessment of the ability to map health was undertaken from the aerial photography. It was decided that it was only possible to map the tree health of species as the shrub health was not easily detected from the imagery.

A similar extrapolation process to vegetation mapping was undertaken to map health of up to three tree species in an area. The original health codes were 0–5 for up to 10 individuals for each species. These scores were averaged for each species at a site for the extrapolation process during the mapping.

The site methodology of 6 health categories for the trees (0–5) was not feasible to map for such a large area. It was decided to reduce the number of categories to three, whereby a rating 0 stayed as Dead. The ratings of 1, 2 and 3 were amalgamated into a single score of Unhealthy and ratings of 4 and 5 were amalgamated into a single score of Healthy.

The tree health mapping process became quite complicated, depending on the number of tree species present and the type of polygon mapped. There was a maximum of 3 tree health ratings that could be recorded for each polygon.

For every tree species mentioned within a floristic group description a health rating had to be assigned for that species. As mentioned, the maximum number of assessments were three, which was also the maximum number of tree species mentioned in a floristic group description. The species recorded as first, second and third tree species do not indicate dominance or structure within the polygon. They were listed to reflect the order of each tree species in the first, second and third group mapped. The species order was a reflection of how the floristic group was described and any inferences of dominance should be obtained from those floristic descriptions. Vegetation groups are approximations of variations of the group across a distribution and on the ground will not always be identical however the order of the species mapped for any one group with health data will always be the same.

Dead trees that still had a substantial canopy shape were quite readily distinguished on the aerial photography. Mapping of health included areas where dead trees existed in the water. It was presumed that all dead trees in water where Eucalyptus camaldulensis var. camaldulensis. These areas where mapped as they are important habitat for many bird species, they were not assigned a vegetation code, but coded as *Eucalyptus camaldulensis* var*. camaldulensis* with a health of “Dead”.

Due to the complexity of the health mapping the following are some example scenarios of how the mapping was undertaken:

1. The simplest was where all the overstorey tree species were dead. For instance, if the community was a *Muehlenbeckia florulenta* Shrubland but had dead *Eucalyptus camaldulensis* var*. camaldulensis* present then the area was mapped as a *Muehlenbeckia florulenta* shrubland. The tree species was recorded as *Eucalyptus camaldulensis* var*. camaldulensis* and the health for that species was recorded as Dead.
2. A vegetation group is a summary of site data across the region. In one such group, *Eucalyptus camaldulensis* var*. camaldulensis* and *Eucalyptus largiflorens* are defined as co-dominant in this order but at any one location could actually have either species more dominant. The mapping reflects the vegetation group description by consistently describing the first species as *Eucalyptus camaldulensis* var*. camaldulensis* and second species as *Eucalyptus largiflorens*.
3. The tree health ratings were done on the tree species, independent of where they occurred in the vegetation layers, such as the tallest tree layer of *Eucalyptus camaldulensis* var. *camaldulensis* with a second tree layer of *Acacia stenophylla*. Each tree health assessment was "averaged" across the polygon, either based on the survey data or from aerial photography interpretation.
4. If the community comprised healthy *Eucalyptus camaldulensis* var*. camaldulensis* and dead *Eucalyptus largiflorens*, then the polygon would be mapped as *Eucalyptus camaldulensis* var. *camaldulensis* Open forest. However, the first tree species would be recorded as *Eucalyptus camaldulensis var. camaldulensis* and the second tree species as *Eucalyptus largiflorens* with the appropriate tree health (healthy and dead respectively).
5. If there was a change of tree health rating observed within a polygon, then the area was delineated into two separate areas with the same vegetation code and the appropriate health ratings, assuming the delineation was of a mappable size and shape.
6. If the polygon contained a mixture of health classes for one species but the size or shape could not be easily delineated, the tree health reflected the dominance of the health present within the polygon. If there was only one tree species present, but more than one health category, then the first and second species were the same but with a different health rating.
7. Wherever possible, the tree health mapping tried to depict the presence of dead trees. If there was tree health data available after the above rules had been followed, then the mapping was used to record the presence of the dead species.

2.3.3 Mapping Summary Rules

To ensure consistency between the staff undertaking the mapping the following rules for health and vegetation mapping were identified:

1. The minimum area of a mapped area was set for at half a hectare.
2. If the overstorey is all dead, then the vegetation group should reflect the remaining species and their structure.
3. A vegetation polygon may be all one vegetation group, but within the health mapping more than one polygon can be delineated based on the combinations/variations of health of the species of the vegetation group.
4. If the vegetation group is a mix of two trees, *E. camaldulensis* and *E. largiflorens*, the tree health of up to three species will not necessarily indicate dominance within the polygon but rather health of the species with their dominance defined from the vegetation group.
5. Within a vegetation group all trees defined must be mapped with a tree health rating.

3 RESULTS

This section summarises the results from the survey, analysis of the site data and mapping that was undertaken for the floodplain.

3.1 VEGETATION SITE DATA

The vegetation survey component of the Floodplain Impacts Project provided detailed data at 337 locations (Figure 2 and Appendix 3). A further 2 sites, in 2004, have since been added as part of the Vertebrate survey. There were 4528 documented plant records, of which 3451 were collected as specimens and lodged at the State Plant Biodiversity Centre. Considering the dry season, a good representation of local flora was recorded with 428 unique plant species identified, of which 284 were native species. One Vulnerable State rated species and thirteen Rare State rated species under the NPWS Act were recorded (Appendix 4). From this survey 120 species previously not recorded within the floodplain were observed, 66 of these were indigenous (Appendix 4).

The site data was used to subjectively determine the floristic vegetation mapping groups, defined by the dominant overstorey and understorey species and by the overstorey structure. This list of vegetation groups was used to map vegetation across the region. Similarly the health site data was used to map the tree health on the floodplain.

Figure 2: River Murray Vegetation Survey Sites.

3.2 FLORISTIC ANALYSIS

To determine floristic vegetation mapping groups the site data was analysed by subjective assessment. The analysis of the data using an objective analysis will be undertaken and summarised in the biological survey report for this region. A total of 495 sites were used for the analysis, including sites from 10 surveys (Appendix 5 lists the full species list) within the 1956 floodplain to ensure as much floristic data was accessible for the mapping.

The analysis came up with 54 groups which are summarised in the following section. The summary statistics on each of the subjective floristic groups are:

- The floristic group description.
- The number of sites.
- The group's species list which includes information on the percent occurrence (%) of the species at the sites. Each species is listed with the frequency counts for the data collected against that species at a site, presented as numbers in brackets after the code, in some cases there was no data and this is represented by no code in front of a number in a bracket.
    - Frequency counts of Braun-Blanquet cover / abundance scores is presented (COV LIST) (refer to Appendix 6 for more details on Braun-Blanquet codes).
    - The frequency count of the species identified as overstorey dominant (o), understorey dominant (u) or emergent (e) is presented (DOM LIST).
    - The frequency count for each Muir code recorded against a species is presented (MUIR LIST) (refer to Appendix 7 for more details on Muir Codes.).
- Structural Summary for the dominant overstorey layer. Average height is calculated from the measurements of up to 10 individuals in the overstorey layer, which is then averaged across the member sites. The average projective foliage cover measured at the sites for the overstorey layer is also based on measurements from 10 individuals, which is then averaged across the member sites. However the data for shrubland and herbaceous vegetation was sometimes deemed inappropriate. The projective foliage data for these groups is a subjective assessment, based on canopy cover. Where no data was available the subjective assessments were used for height and cover (Appendix 8 shows the table used to assign subjective structural descriptions in the field). This information was used to drive the structural description for the group.
- Environmental parameters listed are based on typical types for the soil surface texture classes and the landform types recorded at the member sites.
- Site list includes the unique identifier (patchid) for each site of each floristic group.
- Distribution map showing the location of all sites in the analysis (small dots) and the sites of the floristic group highlighted (large dots). The major features of roads, towns, vegetation cover are also presented.

Group 101

Eucalyptus camaldulensis var. camaldulensis Open Forest over *Muehlenbeckia florulenta* +/- *Cyperus gymnocaulos*

16 sites

SPECIES	%	COV LIST	DOM LIST	MUIR LIST
Eucalyptus camaldulensis var. *camaldulensis*	100	4(9),3(5),5(2)	o(15)	M(8),LA(8)
Muehlenbeckia florulenta	100	2(6),4(4),3(4),5(1),1(1)	u(14)	SA(9),S(5),SD(1),SB(1)
Cyperus gymnocaulos	75	T(4),2(3),1(3),4(1),3(1)	u(1)	VL(9),VT(3)
Enchylaena tomentosa var. *tomentosa*	63	T(5),N(3),1(1),2(1)	u(1)	SD(8),SC(2)
**Aster subulatus*	44	T(4),N(3)		J(7)
**Cirsium vulgare*	44	T(3),1(3),N(1)		J(7)
Setaria jubiflora	44	2(3),T(2),1(2)	u(1)	GT(4),GL(3)
Einadia nutans ssp. *nutans*	38	N(3),1(2),T(1)		V(4),SD(1),P(1)
**Lactuca serriola*	31	T(4),1(1)		J(5)
**Sonchus oleraceus*	31	T(4),1(1)		J(5)
**Heliotropium curassavicum*	25	N(2),T(1),1(1)		J(4)
'dead *Eucalyptus' camaldulensis* var. *camaldulensis*	25	N(3),T(1)	o(1)	LA(4)
Eclipta platyglossa	25	N(3),1(1)		J(4)
Pseudognaphalium luteoalbum	25	T(2),N(1),1(1)		J(4)
Sporobolus mitchellii	25	T(2),3(1),1(1)		GL(4)
Wahlenbergia fluminalis	25	T(3),1(1)		J(4)

Structural Summary:

Average Overstorey Height: 15 m

Average Percentage Foliage Cover: 38%

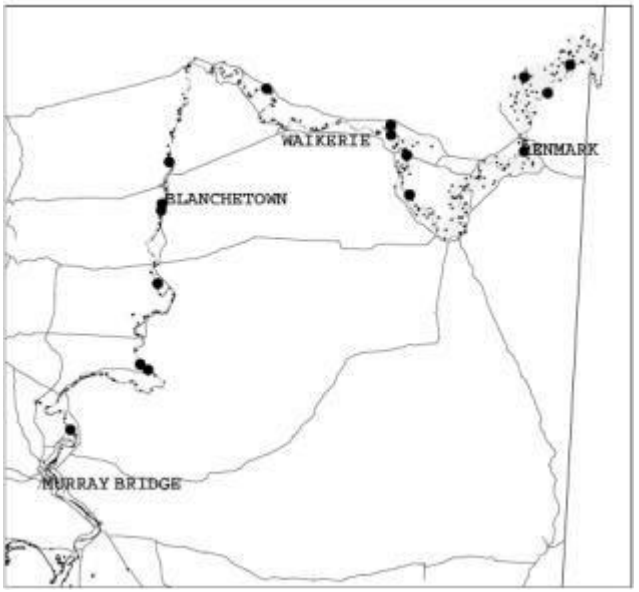
Environmental parameters

Typical Landform Types: Flood plains

Typical Surface Soil Texture: wide range but mostly silty clay loams and clay loams

Site List

6418, 18808, 18814, 18861, 18864, 18885, 18900, 18938, 18958, 19065, 19078, 19088, 19093, 19856, 19859, 19875



Group 102

Eucalyptus camaldulensis var. camaldulensis Open Forest over +/- *Acacia stenophylla* +/- *Cyperus gymnocaulos* +/- *Setaria jubiflora*

7 sites

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Eucalyptus camaldulensis var. *camaldulensis*	100 4(4),3(3)	o(7)	M(7)
Cyperus gymnocaulos	86 2(3),T(2),1(1)	u(2)	VL(6)
Setaria jubiflora	86 2(3),T(2),1(1)	u(3)	GT(3),GL(3)
Wahlenbergia fluminalis	86 T(4),1(2)		J(6)
'dead *Eucalyptus' camaldulensis* var. *camaldulensis*	71 T(2),N(2),2(1)	o(1)	LA(3),M(1),LB(1)
Acacia stenophylla	71 N(2),2(2),T(1)	u(2)	LB(4),LA(1)
Enchylaena tomentosa var. *tomentosa*	57 N(3),T(1)		SD(4)
Muehlenbeckia florulenta	57 T(3),N(1)		SA(4)
Phragmites australis	57 T(2),2(1),1(1)	u(1)	GT(4)
Sporobolus virginicus	57 T(3),1(1)		GL(4)
Stemodia florulenta	57 N(3),2(1)	u(1)	J(2),SD(1),SC(1)
**Hypochaeris glabra*	43 T(3)		J(3)
**Phyla canescens*	43 T(3)		P(3)
**Picris squarrosa* (NC)	43 T(3)		J(3)
**Sonchus oleraceus*	43 T(2),N(1)		J(3)
Calotis cuneifolia	43 1(2),T(1)		J(3)
Chamaesyce drummondii	43 T(2),N(1)		J(3)
Eclipta platyglossa	43 T(2),2(1)	u(1)	J(3)
**Cirsium vulgare*	29 T(2)		J(2)
**Conyza bonariensis*	29 N(2)		J(2)
**Helminthotheca echioides*	29 T(2)		J(2)
**Xanthium occidentale*	29 T(1),1(1)		J(2)
Amyema miquelii	29 T(2)		MI(2)
Asperula gemella	29 T(1),N(1)		J(2)
Bolboschoenus caldwellii	29 T(2)		VL(2)
Brachycome basaltica var. *gracilis*	29 N(2)		J(2)
Centipeda cunninghamii	29 T(1),N(1)		J(2)
Epaltes australis	29 N(2)		J(2)
Juncus usitatus	29 N(1),2(1)	u(1)	VT(1),VL(1)

Structural Summary:

Average Overstorey Height: 17 m

Average Percentage Foliage Cover: 38%

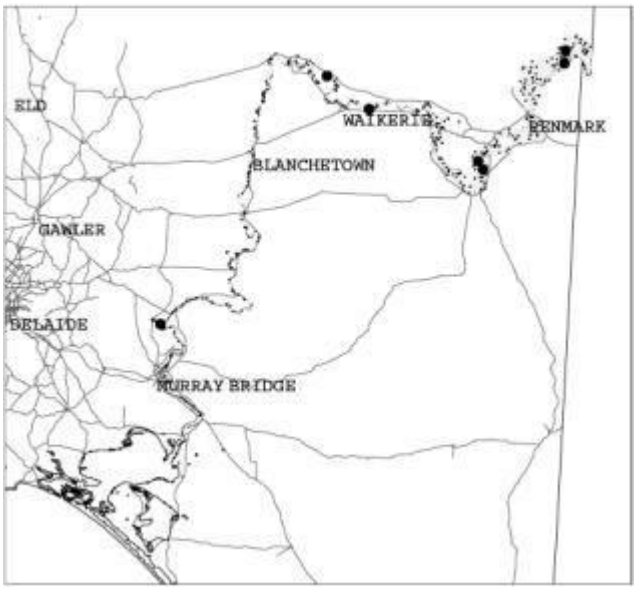
Environmental parameters

Typical Landform Types: Flood plains

Typical Surface Soil Texture: mostly sandy clay loams and loamy sands

Site List

18764, 18779, 18855, 18856, 18872, 18906, 18956



Group 103

Eucalyptus camaldulensis var. camaldulensis Open Forest over *Phragmites australis and Muehlenbeckia florulenta*

11 sites

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Eucalyptus camaldulensis var. *camaldulensis*	100 4(7),3(4)	o(11)	LA(6),M(5)
Phragmites australis	100 5(5),2(3),3(2),4(1)	u(11)	GT(11)
Muehlenbeckia florulenta	91 N(3),T(3),1(3),2(1)	u(3),e(1)	SB(4),S(4),SA(2)
Enchylaena tomentosa var. *tomentosa*	64 N(4),T(2),2(1)	u(1)	SD(4),SC(3)
**Sonchus oleraceus*	55 T(3),N(3)		J(6)
**Cirsium vulgare*	45 1(3),T(1),N(1)		J(5)
'dead *Eucalyptus' camaldulensis* var. *camaldulensis*	36 T(2),N(2)		LA(4)
Asperula gemella	36 N(2),2(1),1(1)		J(4)
Cyperus gymnocaulos	36 T(2),2(1),1(1)	u(1)	VL(4)
Eclipta platyglossa	36 N(2),T(1),1(1)		J(4)
**Aster subulatus*	27 N(3)		J(3)
**Bromus rubens*	27 T(1),2(1),1(1)		GL(3)
**Lepidium africanum*	27 T(3)		J(3)
Einadia nutans ssp. *nutans*	27 T(1),N(1),1(1)		V(2),P(1)

Structural Summary:

Average Overstorey Height: 16 m

Average Percentage Foliage Cover: 33%

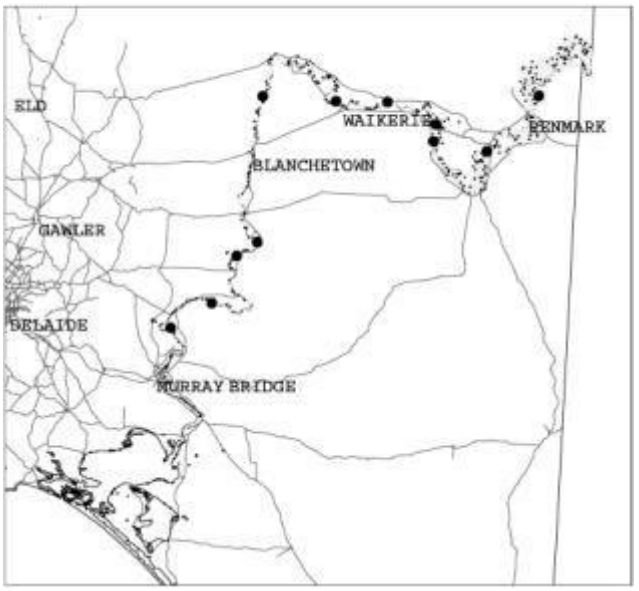
Environmental parameters

Typical Landform Types: Flood plains

Typical Surface Soil Texture: ranging from clayey sand to medium clay

Site List

18797, 18836, 18881, 18910, 18926, 18959, 19044, 19047, 19789, 19798, 19904



Group 201

Eucalyptus camaldulensis var. camaldulensis, Eucalyptus largiflorens Open Forest over *Acacia stenophylla*

5 sites

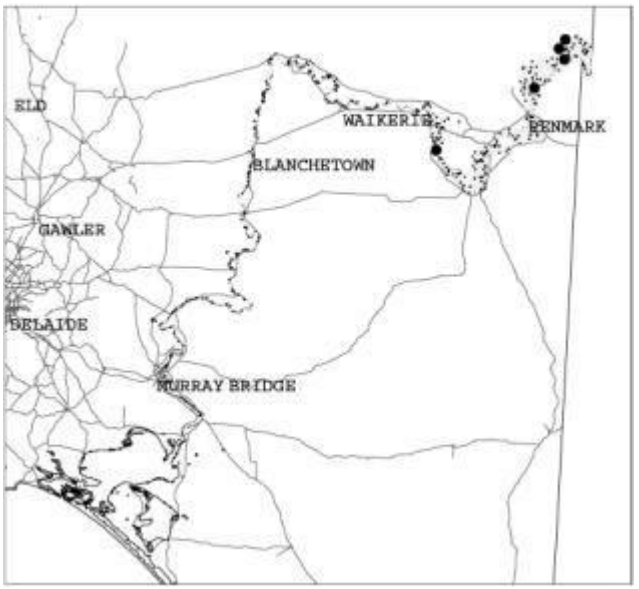
SPECIES	% COV LIST	DOM LIST	MUIR LIST
Acacia stenophylla	100 2(5)	o(2)	S(3),LA(2)
Eucalyptus camaldulensis var. *camaldulensis*	100 2(3),3(2)	o(2)	LA(3),M(2)
Eucalyptus largiflorens	100 2(3),3(2)	o(2)	LA(5)
Enchylaena tomentosa var. *tomentosa*	60 2(2),1(1)		SD(2),SC(1)
**Hypochaeris glabra*	60 1(2),N(1)		J(3)
Muehlenbeckia florulenta	60 2(2),N(1)	u(1)	SA(2),S(1)
Setaria jubiflora	60 1(3)		GL(2),GT(1)
Sonchus sp.	60 1(2),N(1)		J(3)
**Sonchus tenerrimus*	60 1(3)		J(3)
Stemodia florulenta	60 1(3)		J(2),SD(1)
Wahlenbergia fluminalis	60 1(2),N(1)		J(3)
Atriplex leptocarpa	40 1(2)		SD(1),P(1)
**Bromus rubens*	40 2(1),1(1)		GL(2)
Calotis cuneifolia	40 1(2)		J(2)
**Hordeum leporinum*	40 2(1),1(1)		GL(2)
Cyperus gymnocaulos	40 2(1),1(1)	u(1)	VL(2)
Disphyma crassifolium ssp. *clavellatum*	40 N(1),2(1)		P(2)
Eclipta platyglossa	40 N(1),1(1)		J(2)
Einadia nutans ssp. *nutans*	40 2(1),1(1)		SD(2)
Eremophila divaricata ssp. *divaricata*	40 N(1),2(1)	u(1)	SB(1),SA(1)
Halosarcia pergranulata ssp. *pergranulata*	40 T(1),1(1)		SD(1),SB(1)
**Onopordum sp.*	40 1(2)		J(2)
Phragmites australis	40 1(2)		VT(1),GT(1)
**Phyla canescens*	40 N(1),1(1)		P(1),J(1)
Polycalymma stuartii	40 1(2)		J(2)
**Schismus barbatus*	40 2(1),1(1)		GL(2)
**Sisymbrium erysimoides*	40 1(2)		J(2)
**Solanum nigrum*	40 1(2)		J(2)
Tetragonia tetragonioides	40 1(2)		J(2)
'dead *Eucalyptus' camaldulensis* var. *camaldulensis*	20 N(1)		LA(1)
Agrostis avenacea var. *avenacea*	20 T(1)		GL(1)
Amyema miquelii	20 T(1)		MI(1)
**Arctotheca calendula*	20 1(1)		J(1)
Asperula gemella	20 1(1)		V(1)
Atriplex lindleyi (NC)	20 1(1)		SD(1)
Atriplex rhagodioides	20 N(1)		SA(1)
Atriplex semibaccata	20 T(1)		SD(1)
Atriplex sp.	20 1(1)		SD(1)
Atriplex stipitata	20 1(1)		SD(1)
Atriplex suberecta	20 N(1)		SD(1)
Bolboschoenus caldwellii	20 1(1)		VL(1)
**Brassica tournefortii*	20 1(1)		J(1)
Bromus sp.	20 1(1)		GL(1)
Calocephalus sonderi	20 1(1)		J(1)
Centipeda sp.	20 T(1)		J(1)
Chenopodium nitrariaceum	20 2(1)	u(1)	S(1)
Chrysocephalum apiculatum	20 1(1)		J(1)
Convolvulus remotus	20 1(1)		J(1)

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Craspedia glauca (NC)	20 1(1)		J(1)
Cressa cretica	20 N(1)		J(1)
**Hordeum glaucum*	20 N(1)		GL(1)
Austrodanthonia caespitosa	20 1(1)		GL(1)
Daucus glochidiatus	20 1(1)		J(1)
Dissocarpus paradoxus	20 1(1)		SD(1)
Dodonaea viscosa ssp. *angustissima*	20 1(1)		SD(1)
**Echium plantagineum*	20 1(1)		J(1)
Haloragis aspera	20 1(1)		J(1)
Halosarcia indica ssp. *leiostachya*	20 2(1)	u(1)	SB(1)
**Hedypnois rhagadioloides*	20 1(1)		J(1)
Helichrysum sp.	20 1(1)		J(1)
Hornungia procumbens	20 N(1)		J(1)
Juncus aridicola	20 T(1)		VT(1)
Juncus pauciflorus	20 1(1)		VL(1)
**Lamarckia aurea*	20 1(1)		GL(1)
Lepidium pseudohyssopifolium	20 1(1)		J(1)
**Limonium lobatum*	20 1(1)		J(1)
Lysiana exocarpi ssp. *exocarpi*	20 1(1)		MI(1)
Maireana appressa	20 T(1)		SD(1)
Maireana pyramidata	20 1(1)		SD(1)
Marsilea sp.	20 1(1)		X(1)
**Medicago minima var. minima*	20 1(1)		J(1)
Osteocarpum acropterum var. *acropterum*	20 1(1)		SD(1)
Picris squarrosa	20 1(1)		J(1)
Pogonolepis muelleriana	20 1(1)		J(1)
Pseudognaphalium luteoalbum	20 N(1)		J(1)
**Reichardia tingitana*	20 1(1)		J(1)
Rhagodia spinescens	20 1(1)		SD(1)
Rhodanthe moschata	20 1(1)		J(1)
Rumex tenax	20 1(1)		J(1)
Sclerolaena brachyptera	20 1(1)		SD(1)
Sclerolaena muricata var. *muricata*	20 1(1)		SD(1)
Senecio glossanthus	20 1(1)		J(1)
Senecio pinnatifolius	20 1(1)		J(1)
**Silene apetala*	20 1(1)		J(1)
**Sisymbrium irio*	20 1(1)		J(1)
**Sonchus oleraceus*	20 1(1)		J(1)
Sporobolus sp.	20 N(1)		GL(1)
Austrostipa scabra ssp. *falcata*	20 1(1)		GL(1)
Swainsona microphylla ssp. *minima*	20 1(1)		J(1)
Teucrium racemosum	20 T(1)		SD(1)
Typha domingensis	20 T(1)		VT(1)
**Urospermum picroides*	20 1(1)		J(1)
Vittadinia australasica var. *australasica*	20 1(1)		J(1)
Vittadinia cuneata var. *cuneata forma cuneata*	20 1(1)		J(1)

Structural Summary:
Average Overstorey Height: 12 m
Average Percentage Foliage Cover: 42%

Environmental parameters
Typical Landform Types: Flood plains
Typical Surface Soil Texture: ranging from sand to medium clay

Site List
6423, 6432, 6444, 18805, 18932



Group 202

Eucalyptus camaldulensis var. camaldulensis, Eucalyptus largiflorens Woodland over *Senecio cunninghamii var. cunninghamii +/- Phragmites australis*

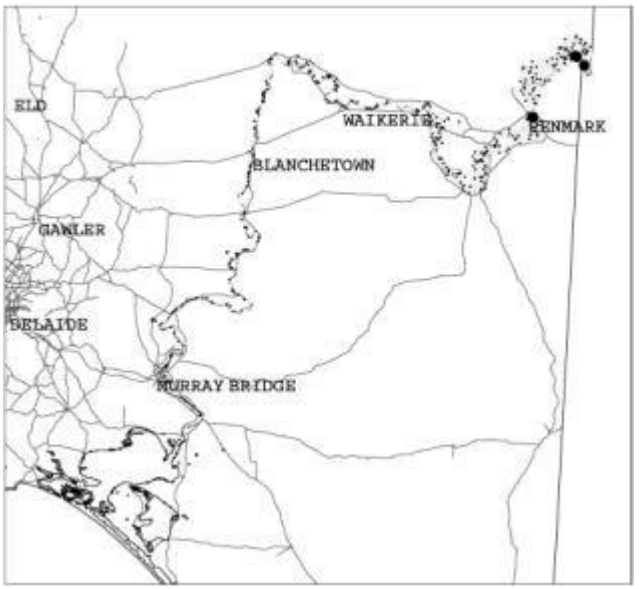
4 sites

SPECIES	% COV	LIST	DOM LIST	MUIR LIST
Eucalyptus camaldulensis var. *camaldulensis*	100	3(2),N(1),4(1)	o(4)	LA(4)
Eucalyptus largiflorens	100	2(3),3(1)	o(4)	LA(4)
Muehlenbeckia florulenta	100	N(4)		S(2),SD(1),SC(1)
Senecio cunninghamii var. *cunninghamii* (NC)	100	N(1),T(1),3(1),4(1)	u(2)	SD(2),SC(1),SB(1)
Cyperus gymnocaulos	75	T(1),N(1),1(1)		VL(3)
Phragmites australis	75	2(2),1(1)	u(3)	GT(3)
**Phyla canescens*	75	T(2),N(1)		P(3)
Acacia stenophylla	50	N(2)		LB(2)
Picris squarrosa	50	T(2)		J(2)
Sporobolus virginicus	50	T(1),3(1)	u(1)	GL(2)
Wahlenbergia fluminalis	50	T(1),N(1)		J(2)
'dead *Eucalyptus' camaldulensis* var. *camaldulensis*	25	T(1)		M(1)
**Asparagus officinalis*	25	N(1)		J(1)
Asperula gemella	25	1(1)		J(1)
Atriplex sp.	25	N(1)		SC(1)
Brachycome basaltica var. *gracilis*	25	N(1)		J(1)
**Bromus rigidus*	25	T(1)		GL(1)
Calotis hispidula	25	N(1)		J(1)
Chamaesyce drummondii	25	N(1)		J(1)
Chenopodium nitrariaceum	25	T(1)		S(1)
**Cirsium vulgare*	25	N(1)		J(1)
Crassula sp.	25	T(1)		J(1)
Disphyma crassifolium ssp. *clavellatum*	25	2(1)	u(1)	P(1)
**Dittrichia graveolens*	25	N(1)		J(1)
Dodonaea viscosa ssp. *angustissima*	25	N(1)		SD(1)
Eclipta platyglossa	25	N(1)		J(1)
Einadia nutans ssp. *nutans*	25	N(1)		SD(1)
Enchylaena tomentosa var. *tomentosa*	25	N(1)		SD(1)
Eragrostis australasica	25	T(1)		GL(1)
Eragrostis elongata	25	N(1)		GL(1)
Exocarpos strictus	25	T(1)		S(1)
Glycyrrhiza acanthocarpa	25	N(1)		SD(1)
**Helminthotheca echioides*	25	1(1)		J(1)
Maireana brevifolia	25	T(1)		SD(1)
Myoporum parvifolium	25	N(1)		P(1)
Olearia pimeleoides ssp. *pimeleoides*	25	T(1)		SC(1)
Setaria jubiflora	25	1(1)	u(1)	GT(1)
Polygonum plebeium	25	N(1)		J(1)
Rhodanthe polygalifolia	25	N(1)		J(1)
Rumex sp.	25	N(1)		J(1)
Sclerolaena brachyptera	25	N(1)		SD(1)
**Sonchus oleraceus*	25	N(1)		J(1)
**Spergularia marina*	25	T(1)		J(1)
Stemodia florulenta	25	T(1)		J(1)
Teucrium racemosum	25	N(1)		J(1)

Structural Summary:
Average Overstorey Height: 12 m
Average Percentage Foliage Cover: 28%

Environmental parameters
Typical Landform Types: Flood plains
Typical Surface Soil Texture: clay loam sandy, sandy clay loam and clayey sand

Site List
18770, 18786, 18787, 18788



Group 301

Eucalyptus largiflorens, Eucalyptus camaldulensis var. camaldulensis Low Open Woodland over *Callistemon brachyandrus and Enchylaena tomentosa var. tomentosa*

5 sites

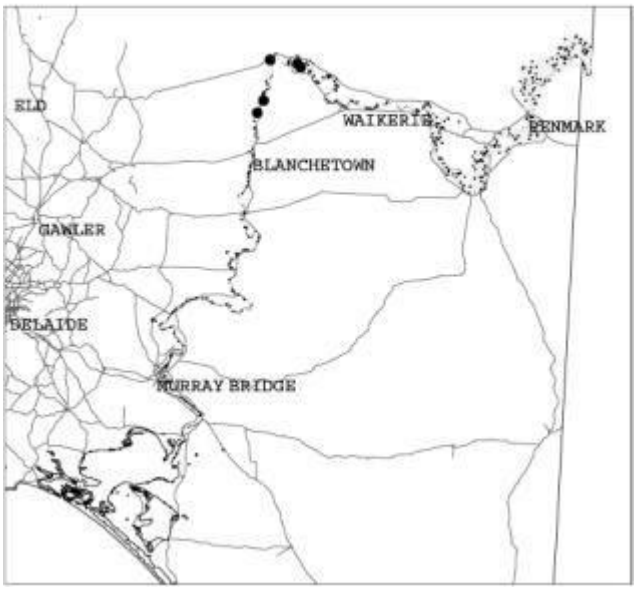
SPECIES	% COV LIST	DOM LIST	MUIR LIST
**Bromus rubens*	100 T(3),1(2)		GL(5)
Callistemon brachyandrus	100 3(3),2(2)	u(3),o(2)	S(5)
Enchylaena tomentosa var. *tomentosa*	100 2(3),T(1),1(1)	u(1)	SD(4),SB(1)
Eucalyptus largiflorens	100 2(3),T(1),N(1)	o(3),e(2)	LA(4),M(1)
Crassula colorata var. *acuminata*	80 1(3),T(1)		J(4)
Eucalyptus camaldulensis var. *camaldulensis*	80 N(2),T(1),2(1)	o(2),e(2)	LA(4)
**Vulpia myuros forma myuros*	80 1(4)		GL(4)
'dead *Eucalyptus' camaldulensis* var. *camaldulensis*	60 N(2),T(1)		LA(3)
**Medicago minima var. minima*	60 1(2),T(1)		J(3)
Muehlenbeckia florulenta	60 N(1),2(1),1(1)	o(1)	SC(1),SB(1),SA(1)
Setaria jubiflora	60 T(1),2(1),1(1)		GL(3)
Acacia stenophylla	40 T(1),N(1)	e(1)	S(1),LB(1)
Amyema miquelii	40 T(2)		MI(2)
Bulbine semibarbata	40 T(1),1(1)		J(2)
Cyperus gymnocaulos	40 T(1),1(1)		VL(2)
Austrodanthonia caespitosa	40 2(2)		GL(2)
Einadia nutans ssp. *nutans*	40 T(1),N(1)		V(1),SD(1)
**Pentaschistis airoides*	40 1(2)		GL(2)
Plantago turrifera	40 T(1),1(1)		J(2)
Polycalymma stuartii	40 T(2)		J(2)
Salsola kali	40 T(2)		SD(1),J(1)
Sclerolaena diacantha	40 N(2)		SD(2)
Austrostipa nitida	40 T(2)		GL(2)
**Vulpia muralis*	40 3(1),2(1)		GL(2)
Acacia oswaldii	20 N(1)		S(1)
**Aster subulatus*	20 N(1)		J(1)
Atriplex leptocarpa	20 N(1)		SD(1)
Atriplex sp.	20 1(1)		SD(1)
**Avena barbata*	20 T(1)		GL(1)
Bolboschoenus caldwellii	20 1(1)		VL(1)
Calandrinia sp.	20 N(1)		J(1)
Calotis cuneifolia	20 T(1)		J(1)
Compositae sp.	20 N(1)		J(1)
Crassula sp.	20 T(1)		J(1)
Cynara cardunculus ssp. flavescens	20 N(1)		J(1)
Eremophila divaricata ssp. *divaricata*	20 N(1)		SB(1)
**Euphorbia terracina*	20 1(1)		J(1)
**Lycium ferocissimum*	20 N(1)		SC(1)
**Medicago polymorpha var. polymorpha*	20 T(1)		J(1)
**Medicago sp.*	20 T(1)		J(1)
Myoporum montanum	20 N(1)		S(1)
Olearia pimeleoides ssp. *pimeleoides*	20 N(1)		SD(1)
**Paspalum distichum*	20 T(1)		GL(1)
Rhagodia spinescens	20 N(1)		SD(1)
Senecio glossanthus	20 T(1)		J(1)
Senecio pinnatifolius	20 1(1)		SD(1)
Austrostipa drummondii	20 T(1)		GL(1)
Austrostipa nodosa	20 1(1)		GL(1)

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Vittadinia cervicularis var. *cervicularis*	20 N(1)		SD(1)

Structural Summary:
Average Overstorey Height: 7 m
Average Percentage Foliage Cover: 9%

Environmental parameters
Typical Landform Types: Sand and flood plains
Typical Surface Soil Texture: loamy sands, clayey sands and sandy loams

Site List
19028, 19054, 19086, 19096, 19097



Group 401

Eucalyptus largiflorens Open Forest *over Muehlenbeckia florulenta* +/- *Enchylaena tomentosa var. tomentosa*

7 sites

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Muehlenbeckia florulenta	100 2(4),3(2),4(1)	u(6)	SA(4),SB(3)
Enchylaena tomentosa var. *tomentosa*	86 1(4),T(1),2(1)	u(1)	SD(6)
Eucalyptus largiflorens	86 4(3),3(3)	o(5)	LA(5),KT(1)
Atriplex leptocarpa	71 1(3),T(1),2(1)		SD(4),P(1)
Sclerolaena tricuspis	71 N(3),T(1),1(1)		SD(5)
Einadia nutans ssp. *nutans*	57 T(3),1(1)		SD(4)
Setaria jubiflora	57 1(2),4(1),2(1)	u(1)	GL(4)
Cressa cretica	43 T(2),N(1)		J(3)
Eremophila divaricata ssp. *divaricata*	43 T(1),N(1),2(1)		SB(2),SD(1)
Hornungia procumbens	43 T(2),1(1)		J(3)
Maireana brevifolia	43 N(3)		SD(2),SC(1)
Acacia stenophylla	29 N(1),2(1)	o(1)	LB(2)
**Bromus rubens*	29 T(1),1(1)		GL(2)
Crassula colorata var. *acuminata*	29 T(2)		J(2)
Disphyma crassifolium ssp. *clavellatum*	29 T(1),N(1)		P(2)
Eragrostis australasica	29 T(1),1(1)		GT(2)
**Mesembryanthemum nodiflorum*	29 1(2)		J(2)
**Phyla canescens*	29 T(1),N(1)		P(2)
**Sonchus oleraceus*	29 T(1),1(1)		J(2)
Sporobolus sp.	29 2(1),1(1)		GL(2)
Vittadinia cuneata var. *cuneata forma cuneata*	29 N(1),1(1)		SD(1),J(1)
**Vulpia myuros forma myuros*	29 1(2)		GL(2)

Structural Summary:

Average Overstorey Height: 11 m

Average Percentage Foliage Cover: 32%

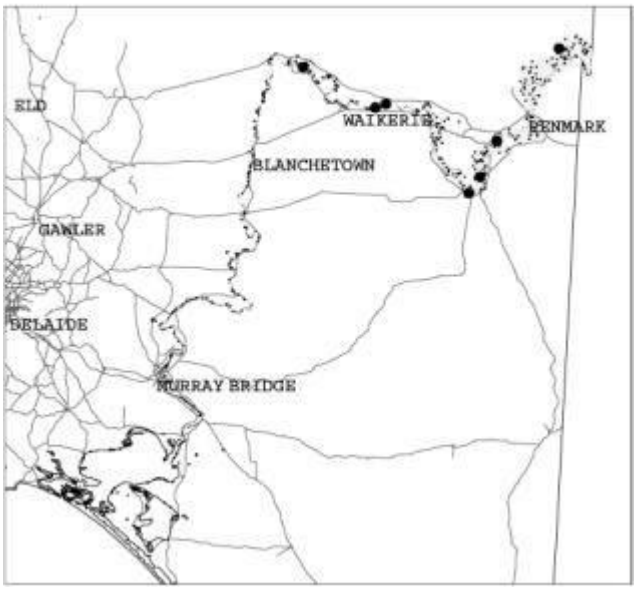
Environmental parameters

Typical Landform Types: Flood plains

Typical Surface Soil Texture: wide ranging from silty loam, sandy clay, clayey sand, silty clay, medium clay.

Site List

6424, 18847, 18854, 18891, 18897, 18925, 19033



Group 402

Eucalyptus largiflorens Low Woodland *over Chenopodium nitrariaceum +/- Muehlenbeckia florulenta +/- Eremophila divaricata*

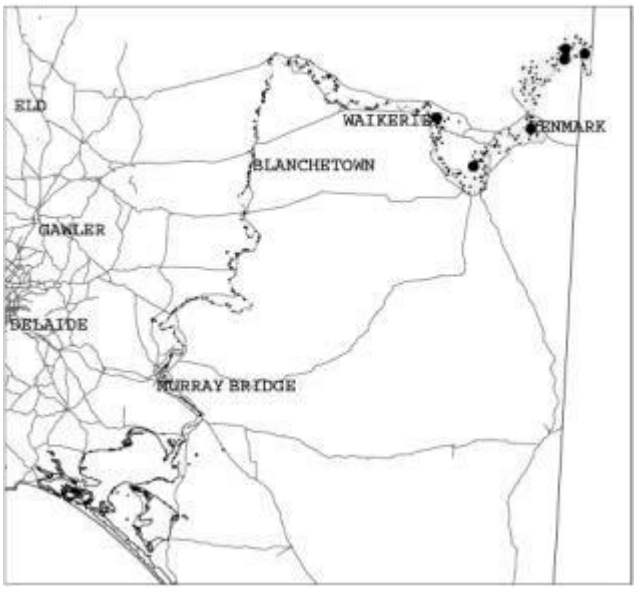
6 sites

SPECIES	%	COV LIST	DOM LIST	MUIR LIST
Eucalyptus largiflorens	100	3(5),T(1)	o(3)	LA(4),LB(2)
Chenopodium nitrariaceum	83	2(5)	u(2)	SB(3),SC(1),S(1)
Muehlenbeckia florulenta	83	2(2),1(2),N(1)	u(1)	SB(2),SD(1),SC(1),SA(1)
Disphyma crassifolium ssp. *clavellatum*	67	3(2),T(1),2(1)		SD(2),P(2)
Einadia nutans ssp. *nutans*	67	1(3),N(1)		SD(3),V(1)
Enchylaena tomentosa var. *tomentosa*	67	1(3),T(1)		SD(3),SC(1)
Eremophila divaricata ssp. *divaricata*	67	3(1),T(1),1(1),2(1)	u(3)	SC(3),SB(1)
Atriplex lindleyi (NC)	50	1(3)		SD(3)
Brachycome lineariloba	50	1(2),N(1)		J(3)
**Bromus rubens*	50	1(2),N(1)		GL(3)
Calandrinia eremaea	50	1(2),T(1)		J(3)
Calocephalus sonderi	50	1(3)		J(3)
Pogonolepis muelleriana	50	1(3)		J(3)
Sclerolaena brachyptera	50	1(2),T(1)		SD(3)
Senecio glossanthus	50	1(3)		J(3)
**Vulpia myuros forma myuros*	50	1(3)		GL(3)
Atriplex leptocarpa	33	1(2)		SD(2)
Atriplex limbata	33	N(2)		SD(2)
Atriplex rhagodioides	33	T(1),N(1)	u(1)	SD(1),SB(1)
Brachycome ciliaris var. *lanuginosa*	33	1(2)		J(2)
Bulbine semibarbata	33	1(2)		J(2)
Calotis hispidula	33	1(2)		J(2)
Crassula colorata var. *acuminata*	33	T(1),1(1)		J(2)
Cressa cretica	33	N(1),1(1)		J(2)
**Hordeum leporinum*	33	1(2)		GL(2)
Austrodanthonia caespitosa	33	1(2)		GL(2)
**Hypochaeris glabra*	33	1(2)		J(2)
Isoetopsis graminifolia	33	1(2)		J(2)
Lepidium papillosum	33	1(2)		J(2)
Maireana pentagona	33	1(2)		SD(2)
Osteocarpum acropterum var. *acropterum*	33	1(2)		SD(2)
Plantago cunninghamii	33	T(1),1(1)		J(2)
Salsola kali	33	T(1),1(1)		SD(2)
Sclerolaena diacantha	33	1(2)		SD(2)
Sclerolaena muricata var. *muricata*	33	N(2)		SD(2)
Sclerolaena obliquicuspis	33	T(1),1(1)		SD(2)
Sclerolaena tricuspis	33	1(2)		SD(2)
Tetragonia tetragonioides	33	1(2)		J(2)
Teucrium racemosum	33	N(1),1(1)		J(2)

Structural Summary:
Average Overstorey Height: 6 m
Average Percentage Foliage Cover: 12%

Environmental parameters
Typical Landform Types: Flood plains
Typical Surface Soil Texture: clay loam sandy, medium clay and light medium clay, sandy loam and clay loam

Site List
6427, 6430, 6449, 18783, 18902, 19773



Group 403

Eucalyptus largiflorens Low Woodland over *Enchylaena tomentosa var. tomentosa +/- Setaria jubiflora*

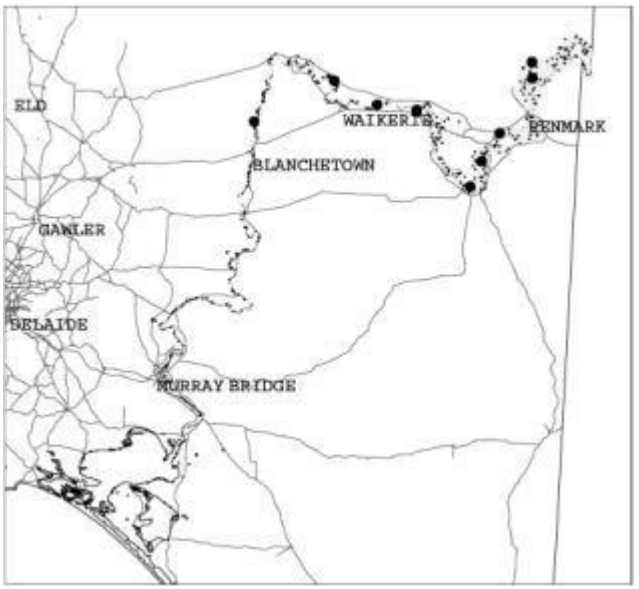
10 sites

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Enchylaena tomentosa var. *tomentosa*	100 2(4),T(2),N(2),3(2)	u(6)	SD(9),SC(1)
Eucalyptus largiflorens	100 4(5),3(5)	o(10)	LA(9),M(1)
Einadia nutans ssp. *nutans*	80 T(5),1(3)		SD(6),V(2)
**Bromus rubens*	50 T(4),1(1)		GL(5)
Crassula colorata var. *acuminata*	50 T(5)		J(5)
**Asphodelus fistulosus*	40 T(3),2(1)		J(4)
Brachycome lineariloba	40 T(3),N(1)		J(4)
**Brassica tournefortii*	40 T(3),1(1)		J(4)
Calandrinia eremaea	40 T(3),N(1)		J(4)
Setaria jubiflora	40 1(2),T(1),2(1)	u(3)	GL(4)
**Schismus barbatus*	40 T(3),1(1)		GL(4)
Austrostipa nitida	40 T(3),1(1)		GL(4)
Actinobole uliginosum	30 T(2),1(1)		J(3)
Amyema miquelii	30 T(2),N(1)		MI(3)
Atriplex rhagodi oides	30 N(3)		SD(1),SA(1),S(1)
Maireana brevifolia	30 N(2),T(1)		SD(2),SC(1)
Muehlenbeckia florulenta	30 N(2),T(1)		SB(2),SD(1)
**Silene apetala*	30 T(3)		J(3)
Stemodia florulenta	30 N(2),T(1)		SD(2),J(1)
Vittadinia cervicularis var. *cervicularis*	30 T(3)		SD(3)
**Vulpia sp.*	30 1(3)		GL(3)
'dead *Eucalyptus' largiflorens*	20 N(2)		LA(2)
Atriplex leptocarpa	20 T(1),N(1)	u(1)	SD(2)
Atriplex lindleyi ssp. *lindleyi*	20 T(1),2(1)	u(1)	SD(2)
Atriplex semibaccata	20 N(2)		SD(2)
**Avena barbata*	20 T(1),N(1)		GL(2)
Bolboschoenus caldwellii	20 T(1),N(1)		VL(2)
Cressa cretica	20 T(1),N(1)		J(2)
Cyperus gymnocaulos	20 T(2)		VL(2)
Disphyma crassifolium ssp. *clavellatum*	20 2(1),1(1)	u(1)	P(2)
Eremophila divaricata ssp. *divaricata*	20 N(2)		SC(2)
Gramineae sp.	20 T(1),1(1)		GL(2)
**Marrubium vulgare*	20 2(2)	u(1)	SD(2)
**Medicago polymorpha var. polymorpha*	20 T(1),1(1)		J(2)
**Phyla canescens*	20 T(1),N(1)		P(1),J(1)
Polycalymma stuartii	20 T(1),1(1)		J(2)
Sclerolaena muricata var. *muricata*	20 T(1),N(1)	u(1)	SD(2)
Sporobolus sp.	20 1(2)		GL(2)
Sporobolus virginicus	20 T(1),1(1)		GL(2)
Swainsona microphylla	20 T(2)		J(2)

Structural Summary:
Average Overstorey Height: 10 m
Average Percentage Foliage Cover: 27%

Environmental parameters
Typical Landform Types: Flood plains
Typical Surface Soil Texture: mostly loamy sands

Site List
18799, 18815, 18823, 18882, 18893, 18894, 18895, 18899, 19066, 19765



Group 501

Eucalyptus largiflorens, Acacia stenophylla Low Woodland over *Muehlenbeckia florulenta, Enchylaena tomentosa var. tomentosa*

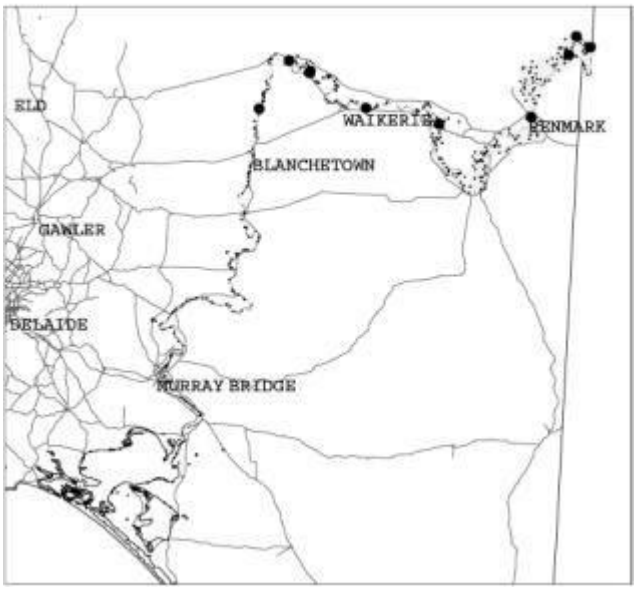
10 sites

SPECIES	% COV	LIST	DOM LIST	MUIR LIST
Acacia stenophylla	100	2(7),N(1),3(1),1(1)	o(7),u(1)	LA(6),LB(3),S(1)
Enchylaena tomentosa var. *tomentosa*	100	2(3),1(3),T(2),3(2)	u(4)	SD(9),SC(1)
Eucalyptus largiflorens	100	2(7),3(3)	o(8)	LA(10)
Muehlenbeckia florulenta	90	2(4),T(3),4(1),3(1)	u(3)	SB(5),SA(2),S(2)
Einadia nutans ssp. *nutans*	70	1(3),T(2),N(1),2(1)	u(1)	SD(5),V(1),P(1)
Atriplex leptocarpa	40	1(4)		SD(4)
**Bromus rubens*	40	N(2),2(1),1(1)		GL(4)
Cyperus gymnocaulos	40	T(3),1(1)		VL(4)
Eremophila divaricata ssp. *divaricata*	40	N(2),2(1),1(1)	u(1)	SC(2),SB(2)
Setaria jubiflora	40	1(3),T(1)		GL(4)
**Sisymbrium erysimoides*	40	T(2),1(2)		J(4)
'dead *Eucalyptus' largiflorens*	30	N(2),T(1)		LA(3)
Atriplex rhagodioides	30	T(1),N(1),3(1)	u(1)	SD(1),SB(1),SA(1)
Brachycome lineariloba	30	T(2),1(1)		J(3)
**Brassica tournefortii*	30	T(2),1(1)		J(3)
Sclerolaena tricuspis	30	N(2),1(1)		SD(2),SC(1)
'dead *Acacia' stenophylla*	20	T(1),1(1)		LB(2)
'dead *Eucalyptus' camaldulensis* var. *camaldulensis*	20	N(1),1(1)		LA(2)
Atriplex lindleyi (NC)	20	1(2)		SD(2)
Atriplex semibaccata	20	T(1),N(1)		P(2)
Atriplex sp.	20	T(1),1(1)		SD(2)
Atriplex stipitata	20	N(2)		SD(1),SC(1)
Calotis cuneifolia	20	N(1),1(1)		J(2)
Crassula sp.	20	T(1),1(1)		J(2)
Cressa cretica	20	1(2)		J(2)
**Hordeum leporinum*	20	1(2)		GL(2)
Disphyma crassifolium ssp. *clavellatum*	20	T(1),N(1)		P(2)
Hornungia procumbens	20	T(2)		J(2)
Maireana pyramidata	20	T(1),2(1)		SC(2)
Plantago cunninghamii	20	T(1),1(1)		J(2)
**Schismus barbatus*	20	N(1),2(1)		GL(2)
Sclerolaena brachyptera	20	1(2)		SD(2)
Sclerolaena obliquicuspis	20	2(1),1(1)		SD(2)
Senecio pinnatifolius	20	T(1),N(1)		SD(2)
**Sonchus oleraceus*	20	T(1),N(1)		J(2)
Sonchus sp.	20	1(2)		J(2)
Stemodia florulenta	20	1(2)		SD(1),J(1)
Tetragonia tetragonioides	20	2(1),1(1)		J(2)
**Vulpia myuros forma myuros*	20	N(1),2(1)		GL(2)

Structural Summary:
Average Overstorey Height: 10 m
Average Percentage Foliage Cover: 20%

Environmental parameters
Typical Landform Types: Flood plains
Typical Surface Soil Texture: light and medium clays, sand, clayey and loamy sands and clay loams

Site List
6438, 6441, 18793, 18800, 18873, 18913, 19027, 19031, 19041, 19785



Group 601

Melaleuca lanceolata ssp. lanceolata +/- *Eucalyptus largiflorens* Low Open Forest over +/- *Enchylaena tomentosa var. tomentosa*

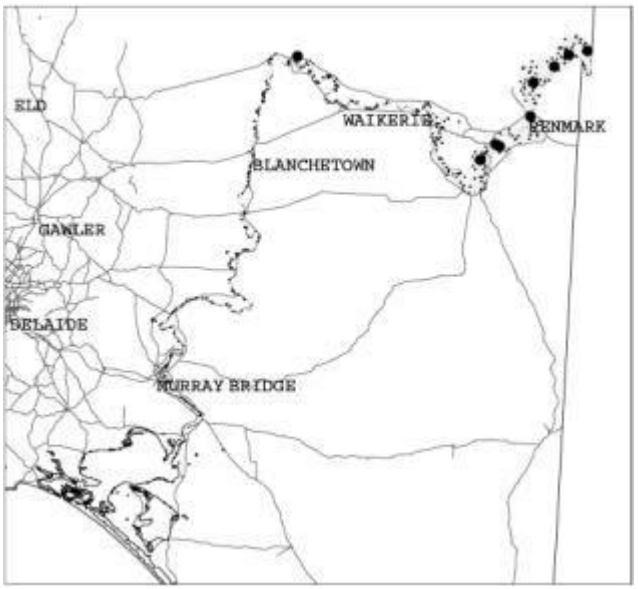
9 sites

SPECIES	% COV	LIST	DOM LIST	MUIR LIST
Eucalyptus largiflorens	100	2(4),T(2),3(2),N(1)	o(6),e(1)	LA(7),LB(2)
Melaleuca lanceolata ssp. *lanceolata*	100	3(3),2(3),4(2),T(1)	o(7)	S(4),LA(4),LB(1)
Enchylaena tomentosa var. *tomentosa*	78	1(4),N(2),2(1)	u(2)	SD(7)
Disphyma crassifolium ssp. *clavellatum*	56	1(3),T(1),2(1)	u(1)	P(4),SD(1)
Atriplex rhagodioides	44	N(2),T(1),2(1)	u(2)	SA(3),SC(1)
Calandrinia eremaea	44	T(2),1(2)		J(4)
Einadia nutans ssp. *nutans*	44	T(2),2(1),1(1)		SD(3),V(1)
Muehlenbeckia florulenta	44	T(2),N(2)		SA(2),SC(1),SB(1)
**Schismus barbatus*	44	T(3),1(1)	u(1)	GL(4)
Senecio glossanthus	44	1(3),T(1)		J(4)
Acacia stenophylla	33	N(3)		SD(1),LB(1),LA(1)
Amyema miquelii	33	T(2),1(1)		MI(3)
Crassula colorata var. *acuminata*	33	T(3)		J(3)
Eremophila divaricata ssp. *divaricata*	33	1(2),4(1)	u(2)	SC(2),SB(1)
'dead *Eucalyptus' largiflorens*	22	N(2)	e(1)	LA(2)
Atriplex lindleyi (NC)	22	1(2)		SD(2)
Atriplex lindleyi ssp. *lindleyi*	22	T(1),1(1)	u(1)	SD(2)
Atriplex semibaccata	22	N(1),1(1)	u(1)	SD(1),P(1)
Brachycome lineariloba	22	1(2)		J(2)
**Bromus rubens*	22	1(2)		GL(2)
Bulbine semibarbata	22	1(2)		J(2)
Carpobrotus sp.	22	T(1),3(1)		P(2)
Chenopodium nitrariaceum	22	N(1),1(1)		SB(1),SA(1)
Hornungia procumbens	22	T(2)		J(2)
**Hypochaeris glabra*	22	1(2)		J(2)
Maireana pyramidata	22	N(1),1(1)		SC(1),SB(1)
**Mesembryanthemum crystallinum*	22	1(2)		J(2)
Myoporum parvifolium	22	T(1),N(1)		P(2)
Plantago cunninghamii	22	1(2)		J(2)
Pogonolepis muelleriana	22	T(1),1(1)		J(2)
Salsola kali	22	1(2)		SD(2)
Sclerolaena brachyptera	22	1(2)		SD(2)
Sclerolaena muricata var. *muricata*	22	N(1),1(1)	u(1)	SD(2)
**Vulpia myuros forma myuros*	22	2(1),1(1)		GL(2)

Structural Summary:
Average Overstorey Height: 6 m
Average Percentage Foliage Cover: 51%

Environmental parameters
Typical Landform Types: Flood plains
Typical Surface Soil Texture: mostly sand and loams and combinations of these

Site List
6425, 6439, 18795, 18804, 18811, 18820, 18868, 19039, 19867



Group 701

Melaleuca halmaturorum Very Low Open Forest over +/- *Juncus kraussii* +/- *Samolus repens* +/- *Suaeda australis* +/- *Sarcocornia quinqueflora*

11 sites

SPECIES	%	COV LIST	DOM LIST	MUIR LIST
Melaleuca halmaturorum	100	3(3),5(3),T(1),N(1),(1),2(1),4(1)	o(9),e(2)	LB(7),LA(2),SC(1),(1)
Juncus kraussii	73	2(4),(2),3(1),1(1)	u(5),o(1)	VT(7),(1)
Samolus repens	64	2(3),T(2),N(1),(1)		J(6),(1)
Sarcocornia quinqueflora	55	2(2),1(2),N(1),(1)	u(2)	SD(4),SC(1),(1)
Suaeda australis	55	N(2),4(1),2(1),(1),1(1)	u(3)	SD(4),SC(1),(1)
Amyema melaleucae	45	N(3),T(1),(1)		MI(4),(1)
Bolboschoenus caldwellii	45	2(2),T(1),4(1),(1)	u(2)	VL(3),VT(1),(1)
Distichlis distichophylla	45	N(2),4(1),1(1),3(1)	u(2)	GL(5)
Muehlenbeckia florulenta	45	N(3),T(2)		S(3),SC(1),J(1)
Centella asiatica	27	T(1),N(1),1(1)		J(3)
**Cotula coronopifolia*	27	T(2),N(1)		J(3)
Frankenia pauciflora var. *gunnii*	27	T(2),N(1)		SD(3)
Maireana oppositifolia	27	T(1),2(1),1(1)		SD(2),SC(1)
**Paspalum vaginatum*	27	T(1),2(1),1(1)	u(1)	GL(3)
**Plantago coronopus ssp. coronopus*	27	T(2),1(1)		J(3)
**Polypogon monspeliensis*	27	1(2),T(1)		GL(3)
Triglochin striatum	27	T(1),N(1),2(1)	u(1)	J(2),GL(1)

Structural Summary:

Average Overstorey Height: 4 m

Average Percentage Foliage Cover: 41%

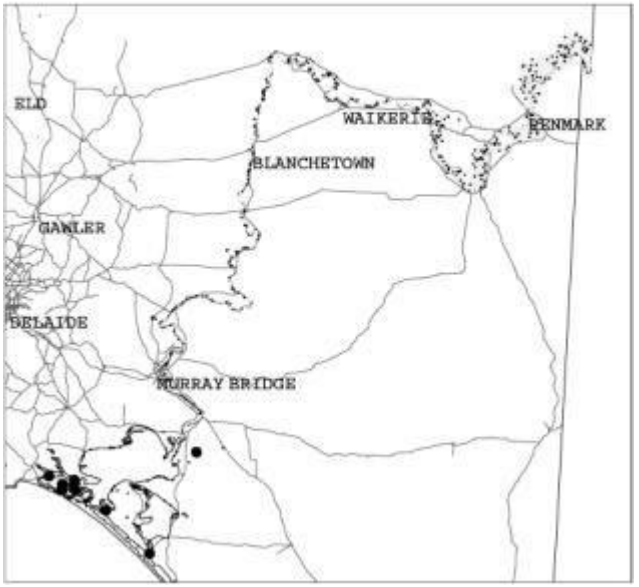
Environmental parameters

Typical Landform Types: Swamps and plains including clay plains

Typical Surface Soil Texture: of a clay nature with 30-55% clay content.

Site List

6747, 18251, 18256, 18257, 18261, 18977, 18986, 18988, 18989, 19010, 19015



Group 801

Eucalyptus camaldulensis var. camaldulensis Woodland over *Muehlenbeckia florulenta* +/- *Setaria jubiflora* +/- *Cyperus gymnocaulos* +/- *Acacia stenophylla*

23 sites

SPECIES	%	COV LIST	DOM LIST	MUIR LIST
Muehlenbeckia florulenta	100	3(10),4(6),2(6),N(1),1(1)	u(19),o(1)	SA(10),S(8),SB(5),SD(1)
Eucalyptus camaldulensis var. *camaldulensis*	100	2(13),3(8),N(1),1(1)	o(19),e(1)	LA(15),M(8)
Cyperus gymnocaulos	61	T(5),2(4),1(4),3(1)	u(2)	VL(11),VT(3)
Einadia nutans ssp. *nutans*	61	1(8),T(3),2(2),N(1)	u(1)	SD(8),V(5),P(1)
Enchylaena tomentosa var. *tomentosa*	61	N(5),1(5),T(3),2(1)	u(1)	SD(11),SB(2),SC(1)
Setaria jubiflora	52	2(5),1(5),T(1),4(1)	u(4)	GL(9),GT(3)
Acacia stenophylla	43	N(5),2(4),T(1)	u(2)	LB(6),S(2),SD(1),LA(1)
Brachycome basaltica var. *gracilis*	43	1(6),T(2),N(2)		J(10)
**Sonchus oleraceus*	43	T(7),N(2),1(1)		J(10)
'dead *Eucalyptus' camaldulensis* var. *camaldulensis*	39	N(3),T(3),1(2),2(1)	o(3),e(2)	LA(6),M(3)
Chamaesyce drummondii	39	N(5),T(3),1(1)		J(9)
Eclipta platyglossa	39	N(3),T(3),1(2),2(1)		J(9)
Atriplex semibaccata	35	1(3),N(2),T(2),2(1)		SD(5),P(3)
Wahlenbergia fluminalis	30	1(4),N(2),T(1)		J(7)
Asperula gemella	26	N(2),2(2),T(1),1(1)	u(1)	J(6)
**Aster subulatus*	26	T(4),N(2)		J(6)
**Cirsium vulgare*	26	T(4),N(1),1(1)		J(6)
Epaltes australis	26	T(3),N(1),1(1),2(1)	u(1)	J(6)
Agrostis avenacea var. *avenacea*	22	T(2),N(2),1(1)		GL(5)
Glycyrrhiza acanthocarpa	22	T(2),N(2),1(1)		SD(5)
Phragmites australis	22	T(2),2(2),3(1)	u(2),o(1)	GT(4),GL(1)
**Phyla canescens*	22	N(2),T(1),1(1),2(1)		P(4),J(1)
Sporobolus mitchellii	22	2(2),1(2),T(1)		GL(5)
Teucrium racemosum	22	1(3),T(1),2(1)	u(1)	J(4),SD(1)

Structural Summary:

Average Overstorey Height: 13 m

Average Percentage Foliage Cover: 23%

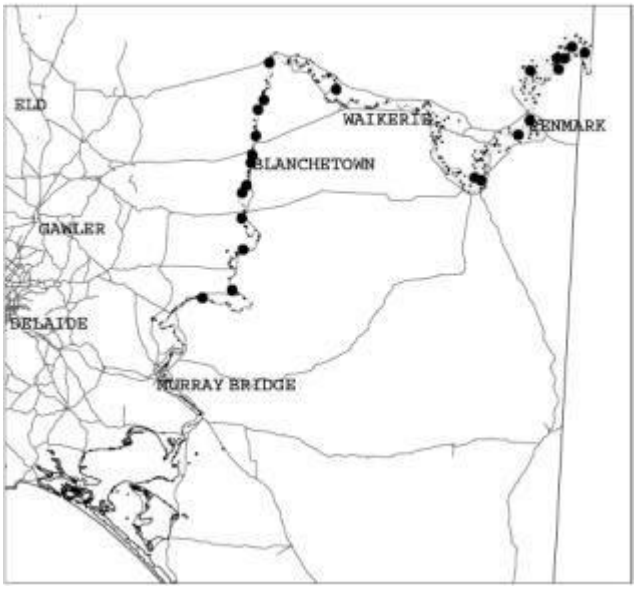
Environmental parameters

Typical Landform Types: Flood plains

Typical Surface Soil Texture: wide range but commonly medium clays, loamy clays or medium heavy clays

Site List

6433, 6446, 6450, 18771, 18821, 18845, 18849, 18871, 18890, 18904, 19034, 19049, 19050, 19055, 19060, 19064, 19072, 19079, 19080, 19081, 19087, 19787, 19878



Group 802

Eucalyptus camaldulensis var. camaldulensis Low Woodland over *Phragmites australis* +/- *Muehlenbeckia florulenta*

5 sites

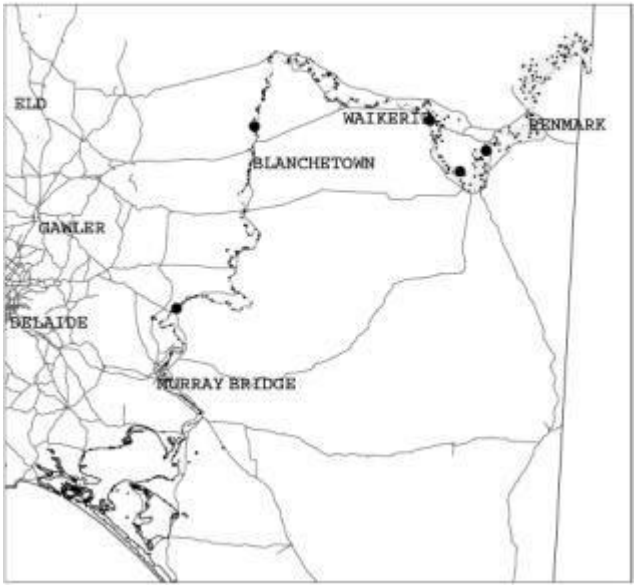
SPECIES	% COV LIST	DOM LIST	MUIR LIST
Eucalyptus camaldulensis var. *camaldulensis*	100 2(3),3(2)	o(5)	LA(3),M(1),LB(1)
Muehlenbeckia florulenta	100 N(3),T(1),2(1)		SA(4),S(1)
Phragmites australis	100 5(2),4(1),2(1),3(1)	u(5)	GT(5)
**Aster subulatus*	80 1(2),T(1),N(1)		J(4)
'dead *Eucalyptus' camaldulensis* var. *camaldulensis*	60 N(2),2(1)	o(1)	LA(2),M(1)
Cyperus gymnocaulos	60 T(1),N(1),1(1)		VL(3)
Einadia nutans ssp. *nutans*	60 T(1),N(1),1(1)		V(1),SD(1),P(1)
**Cirsium vulgare*	40 T(1),N(1)		J(2)
Enchylaena tomentosa var. *tomentosa*	40 T(1),1(1)		SD(1),SC(1)
**Lactuca serriola*	40 T(2)		J(2)
Setaria jubiflora	40 N(1),2(1)	u(1)	GT(1),GL(1)
**Salix babylonica*	40 T(1),N(1)		SD(1),LB(1)
**Sonchus oleraceus*	40 T(2)		J(2)
Sporobolus mitchellii	40 N(1),1(1)		GL(2)
Wahlenbergia fluminalis	40 T(1),N(1)		J(2)
Acacia stenophylla	20 N(1)	u(1)	LB(1)
Agrostis avenacea var. *avenacea*	20 N(1)		GL(1)
Asperula gemella	20 1(1)		J(1)
Atriplex semibaccata	20 1(1)		SD(1)
Atriplex suberecta	20 1(1)		SD(1)
Brachycome basaltica var. *gracilis*	20 N(1)		J(1)
**Bromus catharticus*	20 T(1)		GL(1)
**Bromus diandrus*	20 N(1)		GL(1)
**Bupleurum semicompositum*	20 T(1)		J(1)
Calystegia sepium	20 3(1)		V(1)
**Conyza albida*	20 N(1)		J(1)
**Cotula bipinnata*	20 N(1)		J(1)
Eclipta platyglossa	20 N(1)		J(1)
Eleocharis acuta	20 T(1)		VL(1)
Epaltes australis	20 N(1)		J(1)
**Heliotropium curassavicum*	20 1(1)		J(1)
**Helminthotheca echioides*	20 1(1)		J(1)
Juncus usitatus	20 T(1)		VL(1)
**Lepidium africanum*	20 T(1)		J(1)
**Lycium ferocissimum*	20 N(1)		SD(1)
Lycopus australis	20 1(1)		J(1)
Myoporum montanum	20 N(1)		SC(1)
**Paspalum distichum*	20 1(1)		GL(1)
**Paspalum vaginatum*	20 2(1)		GL(1)
**Phyla canescens*	20 N(1)		P(1)
Picris squarrosa	20 1(1)		J(1)
Pittosporum angustifolium	20 N(1)		LB(1)
Pseudognaphalium luteoalbum	20 N(1)		J(1)
**Puccinellia distans*	20 T(1)		GL(1)
**Reichardia tingitana*	20 T(1)		J(1)
Rumex brownii	20 N(1)		J(1)
**Solanum nigrum*	20 N(1)		J(1)
**Sonchus asper ssp. glaucescens*	20 N(1)		J(1)

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Sonchus hydrophilus	20 N(1)		J(1)
Sporobolus virginicus	20 T(1)		GL(1)
Teucrium racemosum	20 T(1)		J(1)
Typha orientalis	20 T(1)		VT(1)
Vittadinia gracilis	20 T(1)		J(1)
**Xanthium occidentale*	20 N(1)		J(1)

Structural Summary:
Average Overstorey Height: 9 m
Average Percentage Foliage Cover: 16%

Environmental parameters
Typical Landform Types: Flood plains
Typical Surface Soil Texture: variety but all with some loam

Site List
18798, 18880, 18919, 18984, 19901



Group 803

Eucalyptus camaldulensis var. camaldulensis Woodland over +/- *Cyperus gymnocaulos* +/- *Senecio cunninghamii var. cunninghamii*

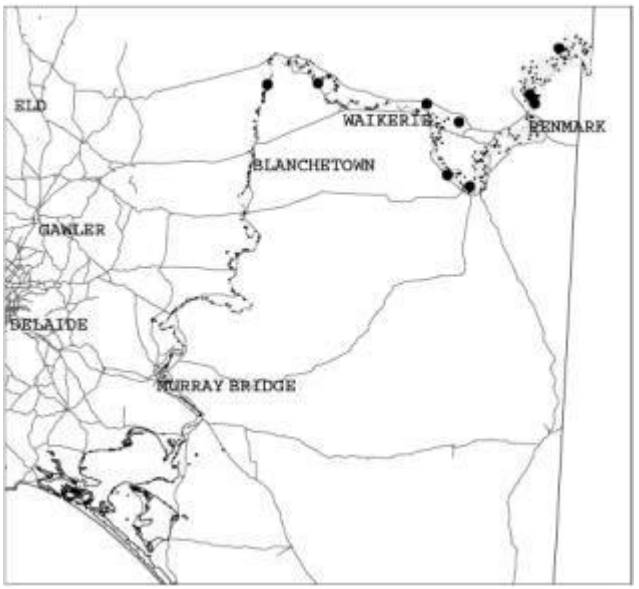
10 sites

SPECIES	%	COV LIST	DOM LIST	MUIR LIST
Eucalyptus camaldulensis var. *camaldulensis*	100	2(9),3(1)	o(9)	LA(6),M(3),LB(1)
'dead *Eucalyptus' camaldulensis* var. *camaldulensis*	80	T(5),N(3)		LA(6),M(2)
Cyperus gymnocaulos	70	3(3),1(3),2(1)	u(4)	VL(7)
Setaria jubiflora	70	1(3),N(2),T(1),3(1)	u(1)	GL(5),GT(2)
Enchylaena tomentosa var. *tomentosa*	60	N(2),T(2),1(1),2(1)	u(1)	SD(6)
Wahlenbergia fluminalis	60	T(3),N(2),1(1)		J(6)
Acacia stenophylla	50	N(3),T(1),2(1)	u(1)	LB(3),LA(2)
Muehlenbeckia florulenta	50	T(2),N(1),1(1),2(1)	u(1)	SA(2),SC(1),SB(1),S(1)
Calotis cuneifolia	40	T(2),N(1),1(1)		J(4)
Eclipta platyglossa	40	T(2),N(1),2(1)	u(2)	J(4)
**Phyla canescens*	40	1(2),T(1),2(1)	u(1)	P(4)
Picris squarrosa	40	T(2),N(1),1(1)		J(4)
Sporobolus virginicus	40	T(2),2(2)	u(1)	GL(4)
Chamaesyce drummondii	30	N(2),T(1)		J(3)
**Cirsium vulgare*	30	1(2),N(1)		J(3)
**Dittrichia graveolens*	30	1(2),2(1)	u(1)	J(3)
**Helminthotheca echioides*	30	T(1),N(1),1(1)		J(3)
Senecio cunninghamii var. *cunninghamii* (NC)	30	4(2),3(1)	u(3)	SB(2),SC(1)
**Sonchus oleraceus*	30	N(2),T(1)		J(3)
**Vulpia myuros forma myuros*	30	1(3)		GL(3)
**Anagallis arvensis*	20	T(1),N(1)		J(2)
**Arctotheca calendula*	20	N(1),1(1)		J(2)
Brachycome basaltica var. *gracilis*	20	T(1),N(1)		J(2)
**Bromus rubens*	20	T(1),1(1)		GL(2)
Chenopodium nitrariaceum	20	T(1),N(1)		SB(1),SA(1)
Einadia nutans ssp. *nutans*	20	T(2)		SD(2)
Eucalyptus largiflorens	20	T(1),N(1)		LA(2)
Glycyrrhiza acanthocarpa	20	T(1),3(1)		SD(1),SC(1)
**Heliotropium curassavicum*	20	N(2)		J(2)
**Hypochaeris glabra*	20	N(1),1(1)		J(2)
**Lactuca serriola*	20	N(1),1(1)		J(2)
**Medicago minima var. minima*	20	N(1),1(1)		J(2)
Sclerolaena tricuspis	20	N(1),1(1)		SD(2)
Senecio glossanthus	20	T(1),1(1)		J(2)
Senecio pinnatifolius	20	1(2)		SD(2)
Senecio runcinifolius	20	N(1),1(1)		SD(1),J(1)
Stemodia florulenta	20	T(1),N(1)		J(2)
**Xanthium occidentale*	20	N(2)		J(2)

Structural Summary:
Average Overstorey Height: 14 m
Average Percentage Foliage Cover: 19%

Environmental parameters
Typical Landform Types: Flood plains
Typical Surface Soil Texture: mostly silty loams, loamy clays and clayey sands

Site List
6422, 18772, 18835, 18837, 18859, 18876, 18892, 18915, 19024, 19084



Group 901

Eucalyptus camaldulensis var. camaldulensis, Acacia stenophylla Low Open Forest over *Muehlenbeckia florulenta, Setaria jubiflora*

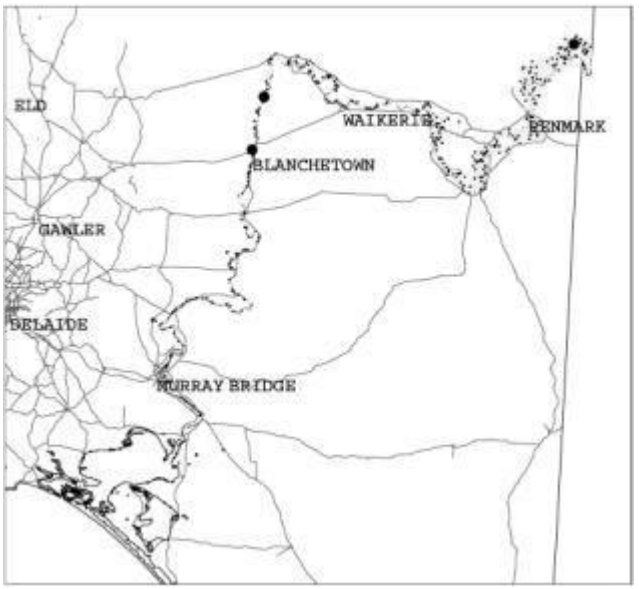
3 sites

SPECIES	% COV	LIST	DOM LIST	MUIR LIST
'dead *Eucalyptus' camaldulensis* var. *camaldulensis*	100	N(2),T(1)	e(2)	M(2),LA(1)
Acacia stenophylla	100	2(2),3(1)	o(3)	LA(2),LB(1)
Einadia nutans ssp. *nutans*	100	T(1),N(1),1(1)		SD(2),V(1)
Enchylaena tomentosa var. *tomentosa*	100	T(2),2(1)	u(1)	SD(2),SB(1)
Eucalyptus camaldulensis var. *camaldulensis*	100	2(2),1(1)	o(3)	LA(2),M(1)
Muehlenbeckia florulenta	100	T(1),5(1),2(1)	u(2)	SB(1),SA(1),S(1)
Setaria jubiflora	100	T(1),3(1),1(1)	u(1)	GL(3)
Teucrium racemosum	100	1(3)		J(2),SD(1)
Atriplex leptocarpa	67	2(1),1(1)		SD(2)
Myoporum montanum	67	N(1),3(1)	u(1)	SB(1),S(1)
Asperula gemella	33	T(1)		J(1)
Atriplex lindleyi ssp. *lindleyi*	33	1(1)		SD(1)
Atriplex semibaccata	33	N(1)		SD(1)
Atriplex sp.	33	N(1)		SD(1)
Brachycome basaltica var. *gracilis*	33	N(1)		J(1)
Brachycome lineariloba	33	N(1)		J(1)
**Bromus rigidus*	33	T(1)		GL(1)
**Centaurea melitensis*	33	N(1)		J(1)
Cyperus gymnocaulos	33	1(1)	u(1)	VL(1)
Eremophila divaricata ssp. *divaricata*	33	N(1)		SD(1)
Eucalyptus largiflorens	33	N(1)		LA(1)
**Euphorbia terracina*	33	T(1)		J(1)
Glycyrrhiza acanthocarpa	33	N(1)		SD(1)
**Heliotropium curassavicum*	33	N(1)		J(1)
Loranthaceae sp.	33	N(1)		MI(1)
Asparagus asparagoides	33	T(1)		V(1)
Oxalis perennans	33	N(1)		J(1)
**Paspalum distichum*	33	T(1)		GL(1)
**Paspalum vaginatum*	33	2(1)		GL(1)
Phragmites australis	33	1(1)	u(1)	GT(1)
Plantago cunninghamii	33	N(1)		J(1)
Trichanthodium skirrophorum	33	N(1)		J(1)
**Vulpia myuros forma myuros*	33	T(1)		GL(1)

Structural Summary:
Average Overstorey Height: 8 m
Average Percentage Foliage Cover: 34%

Environmental parameters
Typical Landform Types: Flats and plains
Typical Surface Soil Texture: silty loam, sandy loam and light medium clay

Site List
18817, 19030, 19085



Group 1001

Eucalyptus camaldulensis var. camaldulensis, Eucalyptus largiflorens Woodland over *Muehlenbeckia florulenta +/- Acacia stenophylla*

10 sites

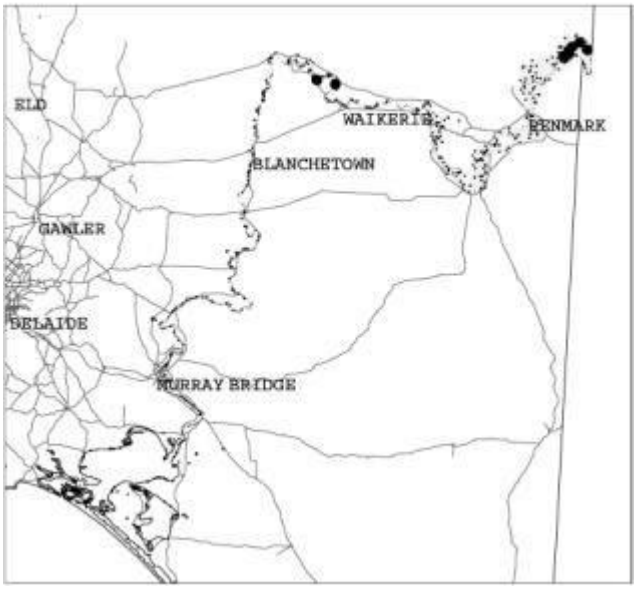
SPECIES	%	COV LIST	DOM LIST	MUIR LIST
Eucalyptus camaldulensis var. *camaldulensis*	100	2(5),T(4),N(1)	o(3)	LA(8),M(2)
Eucalyptus largiflorens	100	2(6),T(3),3(1)	o(3)	LA(10)
Muehlenbeckia florulenta	100	3(4),2(4),1(2)	u(3)	SB(6),SA(2),SC(1),S(1)
Atriplex leptocarpa	80	1(5),T(2),2(1)		SD(8)
**Bromus rubens*	80	1(7),T(1)		GL(8)
Calocephalus sonderi	70	2(4),1(3)		J(7)
Einadia nutans ssp. *nutans*	70	1(6),T(1)		SD(6),V(1)
Enchylaena tomentosa var. *tomentosa*	70	1(3),T(2),2(2)	u(2)	SD(6),GL(1)
Senecio glossanthus	70	1(7)		J(7)
Acacia stenophylla	60	2(5),T(1)		LB(4),S(2)
Brachycome lineariloba	60	1(6)		J(6)
Bulbine semibarbata	60	1(6)		J(6)
Lepidium pseudohyssopifolium	60	1(6)		J(5),SD(1)
Tetragonia tetragonioides	60	1(6)		J(6)
Wahlenbergia fluminalis	60	1(6)		J(6)
Chenopodium nitrariaceum	50	2(2),1(2),T(1)		SD(2),SC(2),SA(1)
**Hordeum leporinum*	50	1(5)		GL(5)
Setaria jubiflora	50	1(4),2(1)		GL(5)
Plantago cunninghamii	50	1(5)		J(5)
**Sisymbrium erysimoides*	50	1(5)		J(5)
**Vulpia myuros forma myuros*	50	1(4),2(1)		GL(5)
Agrostis avenacea var. *avenacea*	40	1(4)		GL(4)
Amyema miquelii	40	1(3),T(1)		MI(4)
Calotis cuneifolia	40	1(4)		J(4)
Calotis hispidula	40	1(4)		J(4)
**Hypochaeris glabra*	40	1(4)		J(4)
**Lamarckia aurea*	40	1(4)		GL(4)
**Schismus barbatus*	40	1(4)		GL(4)
Sonchus sp.	40	1(4)		J(4)
Austrostipa scabra ssp. *falcata*	40	1(4)		GL(4)
Teucrium racemosum	40	1(3),T(1)		SD(2),J(2)
Atriplex sp.	30	1(2),N(1)		SD(2),SC(1)
Calotis scapigera	30	1(3)		J(3)
Craspedia glauca (NC)	30	1(3)		J(3)
Crassula colorata var. *acuminata*	30	1(3)		J(3)
Euchiton sphaericus	30	1(3)		J(3)
Goodenia fascicularis	30	1(3)		J(3)
Marsilea sp.	30	1(2),N(1)		X(2),J(1)
**Rostraria cristata*	30	1(3)		GL(3)
Sclerolaena brachyptera	30	1(2),T(1)		SD(3)
Sclerolaena tricuspis	30	T(2),1(1)		SD(3)
**Sonchus tenerrimus*	30	1(3)		J(3)
Vittadinia sp.	30	1(3)		J(3)
'dead *Eucalyptus' camaldulensis* var. *camaldulensis*	20	T(1),N(1)	o(1)	LB(1),LA(1)
'dead *Eucalyptus' largiflorens*	20	T(1),N(1)		LA(2)
Asperula gemella	20	1(2)		J(2)
Brachycome basaltica var. *gracilis*	20	1(2)		J(2)
**Brassica tournefortii*	20	1(2)		J(2)

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Calandrinia eremaea	20 1(2)		J(2)
Chamaesyce drummondii	20 N(1),1(1)		J(2)
Chrysocephalum apiculatum	20 1(2)		J(2)
Crassula sieberiana ssp. *Tetramera* (NC)	20 1(2)		J(2)
Cressa cretica	20 1(2)		J(2)
Cyperus gymnocaulos	20 2(1),1(1)		VL(2)
Austrodanthonia caespitosa	20 1(2)		GL(2)
Disphyma crassifolium ssp. *clavellatum*	20 1(2)		SD(2)
Eclipta platyglossa	20 1(2)		J(2)
Eleocharis acuta	20 1(2)		VL(2)
Eremophila divaricata ssp. *divaricata*	20 N(1),1(1)		SD(1),SB(1)
**Erodium cicutarium*	20 1(2)		J(2)
Haloragis aspera	20 1(2)		J(2)
Lepidium fasciculatum	20 1(2)		J(2)
Lepidium papillosum	20 1(2)		J(2)
Melaleuca lanceolata ssp. *Lanceolata* (NC)	20 2(2)		S(2)
**Onopordum sp.*	20 1(2)		J(2)
**Phyla canescens*	20 T(1),1(1)		J(2)
**Reichardia tingitana*	20 1(2)		J(2)
Sclerolaena diacantha	20 1(2)		SD(2)
Sclerolaena muricata var. *muricata*	20 1(2)		SD(2)
Sclerolaena stelligera	20 T(1),1(1)		SD(1),J(1)
Senecio pinnatifolius	20 N(1),1(1)		SD(2)
Senecio runcinifolius	20 1(2)		J(2)
**Silene apetala*	20 T(1),1(1)		J(2)

Structural Summary:
Average Overstorey Height: 13 m
Average Percentage Foliage Cover: 17%

Environmental parameters
Typical Landform Types: Flood plains
Typical Surface Soil Texture: mostly medium clays and sandy clay loams but also clay loams and silty loam

Site List
6416, 6417, 6426, 6429, 6434, 6437, 6448, 18840, 18928, 19025



Group 1002

Eucalyptus camaldulensis var. camaldulensis, Eucalyptus largiflorens Woodland over +/- *Enchylaena tomentosa var. tomentosa +/- Muehlenbeckia florulenta +/- Cyperus gymnocaulos*

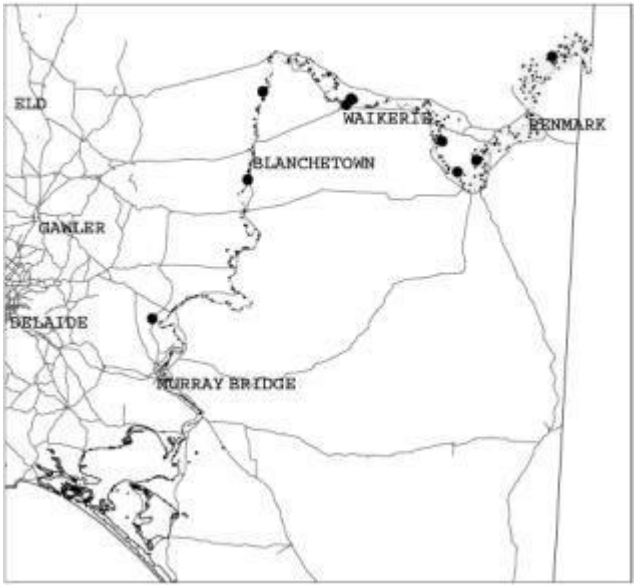
10 sites

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Eucalyptus camaldulensis var. *camaldulensis*	100 2(5),T(2),N(2),1(1)	o(9)	LA(7),M(2),LB(1)
Eucalyptus largiflorens	100 2(6),3(3),T(1)	o(10)	LA(10)
Enchylaena tomentosa var. *tomentosa*	90 N(3),1(3),2(2),T(1)	u(4)	SD(9)
Muehlenbeckia florulenta	70 N(2),T(2),1(2),2(1)	u(1)	SA(3),S(3),SB(1)
'dead *Eucalyptus' camaldulensis* var. *camaldulensis*	60 T(3),N(2),2(1)	o(2)	LA(4),M(1),LB(1)
**Bromus rubens*	60 T(4),N(1),1(1)		GL(6)
Cyperus gymnocaulos	60 2(2),1(2),T(1),3(1)	u(5)	VL(6)
Einadia nutans ssp. *nutans*	50 T(4),N(1)		V(3),P(2)
Calotis cuneifolia	30 T(1),N(1),1(1)		J(3)
Dodonaea viscosa ssp. *angustissima*	30 N(2),2(1)	u(1)	SB(2),S(1)
**Lycium ferocissimum*	30 N(3)		SD(1),SC(1),SB(1)
**Pennisetum clandestinum*	30 N(2),T(1)		GL(3)
**Phyla canescens*	30 T(2),N(1)		P(2),J(1)
Polycalymma stuartii	30 N(2),T(1)		J(3)
**Vulpia myuros forma myuros*	30 T(1),2(1),1(1)	u(1)	GL(3)
'dead *Eucalyptus' largiflorens*	20 N(2)		LA(2)
Acacia oswaldii	20 N(2)		SC(1),SB(1)
Acacia stenophylla	20 T(1),1(1)		SC(1),LB(1)
Agrostis avenacea var. *avenacea*	20 T(1),N(1)		GL(2)
**Arctotheca calendula*	20 T(1),N(1)		J(2)
Atriplex sp.	20 N(2)		SD(2)
Bulbine semibarbata	20 N(2)		J(2)
Chenopodium nitrariaceum	20 T(1),N(1)		SB(1),SA(1)
Crassula colorata var. *acuminata*	20 T(1),N(1)		J(2)
Disphyma crassifolium ssp. *clavellatum*	20 T(1),1(1)		P(2)
**Ehrharta calycina*	20 N(1),3(1)	u(1)	GT(2)
Eremophila divaricata ssp. *divaricata*	20 T(1),N(1)		SC(1),SA(1)
**Euphorbia terracina*	20 T(2)		J(2)
**Hypochaeris glabra*	20 T(1),N(1)		J(2)
Maireana brevifolia	20 T(1),N(1)		SD(2)
Olearia pimeleoides ssp. *pimeleoides*	20 T(1),N(1)		SD(1),SC(1)
Setaria jubiflora	20 2(1),1(1)	u(2)	GL(2)
Sclerolaena tricuspis	20 T(1),1(1)		SD(2)
Senecio pinnatifolius	20 N(2)		SD(2)
**Silene apetala*	20 T(2)		J(2)
Stemodia florulenta	20 T(1),N(1)		SD(1),J(1)
Teucrium racemosum	20 T(2)		SD(1),J(1)
Wahlenbergia fluminalis	20 T(1),1(1)		J(2)

Structural Summary:
Average Overstorey Height: 12 m
Average Percentage Foliage Cover: 13%

Environmental parameters
Typical Landform Types: Flood plains
Typical Surface Soil Texture: mostly sandy loams, sand and loamy sands

Site List
18841, 18850, 18867, 18869, 18911, 18912, 18922, 18973, 19070, 19091



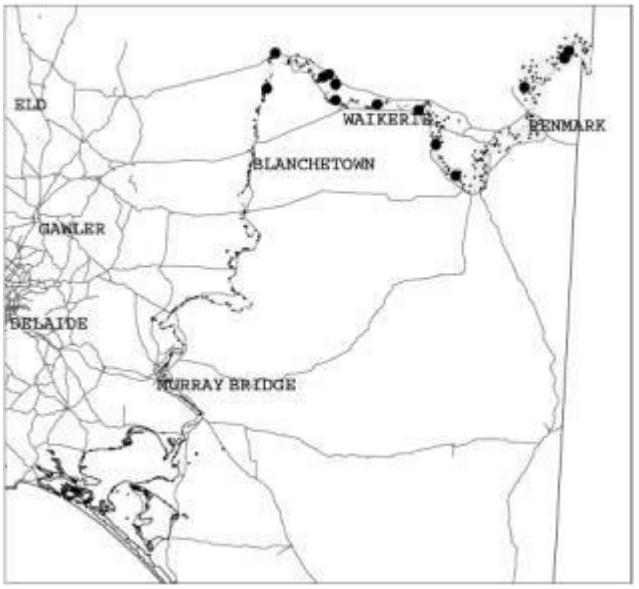
Group 1201
Eucalyptus largiflorens Woodland over *Muehlenbeckia florulenta*
14 sites

SPECIES	%	COV LIST	DOM LIST	MUIR LIST
Eucalyptus largiflorens	100	2(8),3(5),T(1)	o(12)	LA(14)
Muehlenbeckia florulenta	100	2(6),3(3),4(2),T(1),5(1),1(1)	u(12)	S(6),SA(4),SB(3),SC(1)
Enchylaena tomentosa var. *tomentosa*	86	1(6),T(4),N(1),2(1)	u(2)	SD(10),SC(2)
Einadia nutans ssp. *nutans*	71	1(6),T(2),N(2)		V(6),SD(4)
Atriplex semibaccata	43	1(3),T(2),N(1)		P(4),SD(2)
Sclerolaena tricuspis	43	T(2),N(2),1(2)	u(1)	SD(5),SC(1)
Amyema miquelii	36	T(2),N(2),1(1)		MI(5)
Atriplex leptocarpa	36	1(3),T(1),2(1)		SD(3),P(2)
Brachycome lineariloba	36	T(3),1(2)		J(5)
Cressa cretica	36	N(2),1(2),T(1)		J(5)
Setaria jubiflora	36	T(3),N(1),2(1)		GL(5)
Sclerolaena muricata var. *muricata*	36	T(2),1(2),N(1)		SD(4),SC(1)
'dead *Eucalyptus' largiflorens*	29	N(3),1(1)	o(1)	LA(3),LB(1)
Agrostis avenacea var. *avenacea*	29	1(2),T(1),N(1)		GL(4)
**Bromus rubens*	29	1(3),T(1)	u(1)	GL(4)
Crassula colorata var. *acuminata*	29	T(2),N(1),1(1)		J(4)
Plantago cunninghamii	29	T(2),1(2)		J(4)
Teucrium racemosum	29	1(3),N(1)		SD(2),J(2)
**Vulpia myuros forma myuros*	29	T(2),1(2)		GL(4)
Bulbine semibarbata	21	1(2),T(1)		J(3)
Disphyma crassifolium ssp. *clavellatum*	21	N(2),1(1)		P(3)
Eremophila divaricata ssp. *divaricata*	21	N(2),3(1)	u(1)	SB(2),SC(1)
**Hypochaeris glabra*	21	1(2),N(1)		J(3)
**Mesembryanthemum nodiflorum*	21	T(1),N(1),1(1)		J(3)
**Reichardia tingitana*	21	N(2),1(1)		J(3)
Senecio pinnatifolius	21	N(2),T(1)		SD(3)
**Sonchus oleraceus*	21	T(2),N(1)		J(3)

Structural Summary:
Average Overstorey Height: 10 m
Average Percentage Foliage Cover: 14%

Environmental parameters
No data

Site List
6431, 6435, 18775, 18839, 18865, 18898, 18907, 18923, 18929, 18933, 19040, 19069, 19769, 19781



Group 1202

Eucalyptus largiflorens Low Woodland over +/- *Atriplex rhagodioides* +/- *Enchylaena tomentosa var. tomentosa* +/- *Disphyma crassifolium ssp. clavellatum*

25 sites

SPECIES	%	COV LIST	DOM LIST	MUIR LIST
Eucalyptus largiflorens	100	2(17),3(8)	o(25)	LA(19),LB(6)
Enchylaena tomentosa var. *tomentosa*	76	2(7),1(5),N(3),T(3),3(1)	u(10)	SD(17),SC(2)
Disphyma crassifolium ssp. *clavellatum*	56	2(6),1(4),T(2),3(2)	u(8)	P(14)
Einadia nutans ssp. *nutans*	56	T(8),N(4),1(2)	u(1)	SD(9),V(3),P(2)
'dead *Eucalyptus' largiflorens*	48	N(5),1(4),T(3)	o(1)	LA(7),LB(5)
Crassula colorata var. *acuminata*	40	T(7),1(3)		J(10)
Muehlenbeckia florulenta	40	N(4),T(4),1(1),2(1)	u(2)	SB(6),SC(2),SA(2)
Atriplex rhagodioides	36	2(4),N(2),T(1),3(1),4(1)	u(7)	SC(4),SB(2),SA(2),SD(1)
Sclerolaena tricuspis	36	T(4),N(2),1(2),2(1)	u(3)	SD(9)
Atriplex lindleyi ssp. *lindleyi*	28	T(5),N(1),2(1)	u(2)	SD(7)
Brachycome lineariloba	28	T(6),N(1)		J(7)
Maireana pyramidata	24	1(4),T(1),N(1)	u(1)	SD(5),SC(1)
**Vulpia myuros forma myuros*	24	T(4),2(1),1(1)		GL(6)
**Bromus rubens*	20	T(2),1(2),2(1)		GL(5)
Chenopodium nitrariaceum	20	N(2),T(1),1(1),2(1)	u(3)	SC(2),SA(2),SD(1)
**Lycium ferocissimum*	20	N(3),T(1),1(1)		SD(2),SC(2),SA(1)
**Mesembryanthemum nodiflorum*	20	T(4),1(1)		J(5)
Setaria jubiflora	20	1(3),T(2)	u(2)	GL(5)
Sclerolaena muricata var. *muricata*	20	T(3),2(1),1(1)	u(3)	SD(5)

Structural Summary:

Average Overstorey Height: 8m

Average Percentage Foliage Cover: 16%

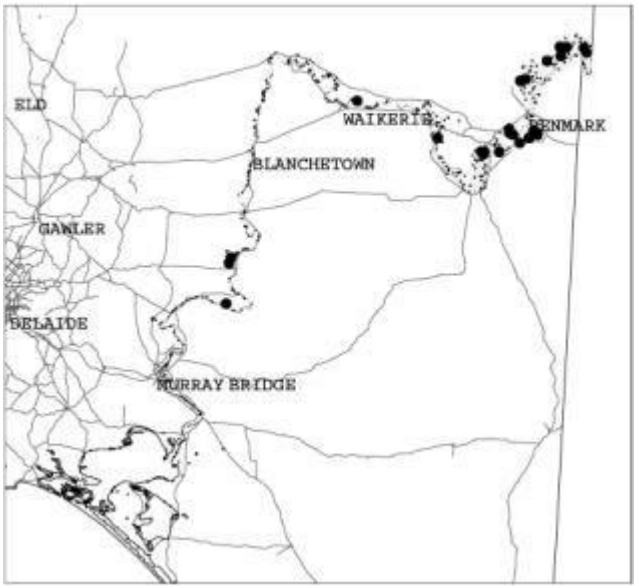
Environmental parameters

Typical Landform Types: Flood plains

Typical Surface Soil Texture: wide range but mostly clayey sands, sand and light medium clays

Site List

18765, 18768, 18769, 18776, 18777, 18780, 18784, 18785, 18790, 18792, 18810, 18824, 18827, 18828, 18829, 18832, 18833, 18842, 18940, 18942, 18944, 19036, 19062, 19067, 19788



Group 1301

Acacia stenophylla Low Woodland over *Muehlenbeckia florulenta, Enchylaena tomentosa var. tomentosa*

5 sites

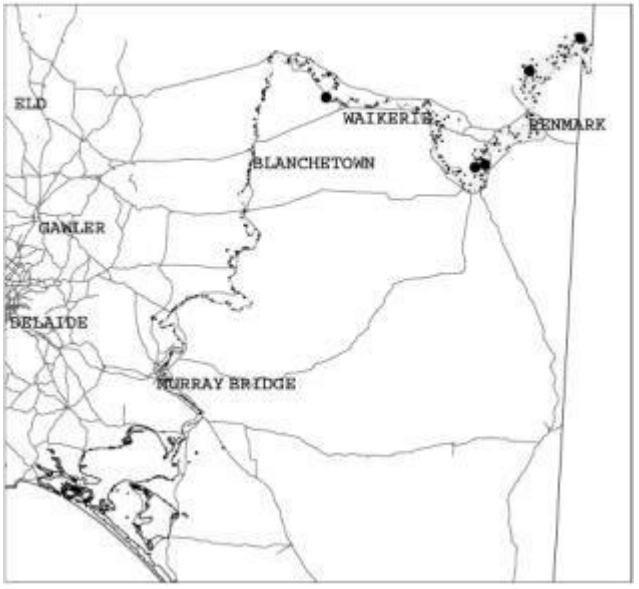
SPECIES	% COV LIST	DOM LIST	MUIR LIST
Acacia stenophylla	100 2(3),N(1),4(1)	o(4),e(1)	LA(4),LB(1)
Enchylaena tomentosa var. *tomentosa*	100 T(2),2(2),1(1)	u(2)	SD(4),SC(1)
Muehlenbeckia florulenta	100 4(2),3(2),5(1)	u(4),o(1)	SA(3),S(2)
Einadia nutans ssp. *nutans*	80 2(2),T(1),1(1)	u(1)	SD(2),V(1),P(1)
Cressa cretica	60 1(2),N(1)		J(3)
Sclerolaena tricuspis	60 T(2),1(1)	u(1)	SC(2),SD(1)
'dead *Acacia' stenophylla*	40 T(1),2(1)	o(1)	LA(2)
Agrostis avenacea var. *avenacea*	40 N(1),1(1)		GL(2)
Atriplex leptocarpa	40 2(2)		SD(1),P(1)
Atriplex lindleyi ssp. *lindleyi*	40 N(1),2(1)		SD(2)
**Avena barbata*	40 T(1),N(1)		GT(2)
**Lactuca serriola*	40 N(2)		J(2)
Plantago cunninghamii	40 T(1),N(1)		J(2)
**Reichardia tingitana*	40 N(1),1(1)		J(2)
Senecio pinnatifolius	40 N(1),1(1)		SD(2)
**Sonchus oleraceus*	40 N(1),2(1)		J(2)
Teucrium racemosum	40 N(1),1(1)		SD(1),J(1)
'dead *Eucalyptus' camaldulensis* var. *camaldulensis*	20 N(1)		LA(1)
Alternanthera nodiflora	20 T(1)		J(1)
Asperula gemella	20 N(1)		J(1)
**Asphodelus fistulosus*	20 2(1)	u(1)	J(1)
Atriplex semibaccata	20 N(1)		SD(1)
Atriplex suberecta	20 2(1)		SD(1)
Brachycome basaltica var. *gracilis*	20 2(1)	u(1)	J(1)
Centipeda cunninghamii (NC)	20 T(1)		J(1)
Cotula australis	20 N(1)		J(1)
***Hordeum glaucum*	20 N(1)		GL(1)
**Cynodon dactylon*	20 T(1)		GL(1)
Disphyma crassifolium ssp. *clavellatum*	20 N(1)		P(1)
Eleocharis acuta	20 N(1)		VT(1)
Epaltes australis	20 T(1)		J(1)
Eremophila divaricata ssp. *divaricata*	20 T(1)		SB(1)
Eriochiton sclerolaenoides	20 T(1)		SD(1)
Euchiton sphaericus	20 N(1)		J(1)
Hornungia procumbens	20 1(1)		J(1)
**Hypochaeris glabra*	20 2(1)		J(1)
**Lepidium africanum*	20 2(1)		J(1)
Lysiana exocarpi ssp. *exocarpi*	20 N(1)		MI(1)
Setaria jubiflora	20 N(1)		GL(1)
**Phyla canescens*	20 N(1)		P(1)
Sarcocornia quinqueflora	20 N(1)		SD(1)
Sclerolaena brachyptera	20 T(1)		SD(1)
Sclerolaena stelligera	20 N(1)		SD(1)
**Sonchus asper ssp. glaucescens*	20 1(1)		J(1)
**Spergularia marina*	20 N(1)		J(1)
Sporobolus mitchellii	20 4(1)		GL(1)
Sporobolus virginicus	20 3(1)		GL(1)
Trichanthodium skirrophorum	20 1(1)		J(1)

SPECIES	% COV LIST	DOM LIST	MUIR LIST
**Vulpia myuros forma myuros*	20 1(1)		GL(1)
Wahlenbergia fluminalis	20 1(1)		J(1)

Structural Summary:
Average Overstorey Height: 7 m
Average Percentage Foliage Cover: 13%

Environmental parameters
Typical Landform Types: Flats, lakes and plains
Typical Surface Soil Texture: variety but all including clay and/or loam

Site List
18802, 18846, 18903, 18930, 19863



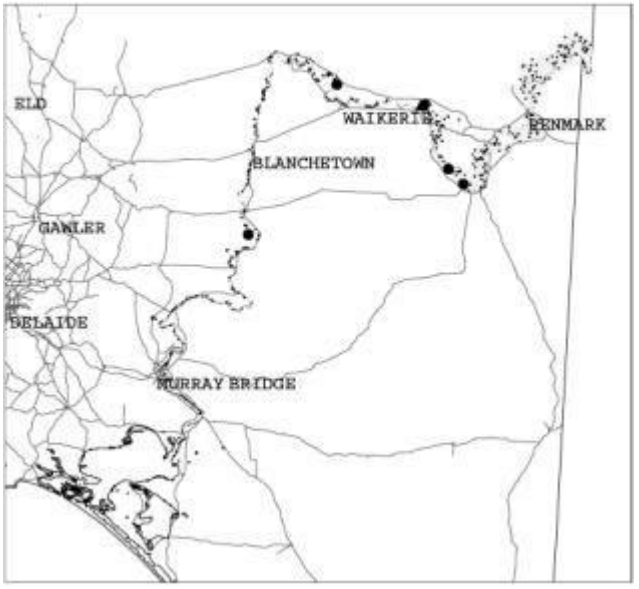
Group 1302
Acacia stenophylla Low Woodland over *Enchylaena tomentosa var. tomentosa*
6 sites

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Acacia stenophylla	100 2(4),3(2)	o(6)	LA(6)
Enchylaena tomentosa var. *tomentosa*	100 2(3),3(2),1(1)	u(6)	SD(5),SC(1)
'dead *Acacia' stenophylla*	83 T(3),N(2)	o(1)	LB(3),LA(2)
**Brassica tournefortii*	83 T(2),1(2),2(1)	u(1)	J(5)
**Bromus rubens*	67 2(2),N(1),1(1)	u(2)	GL(4)
Crassula colorata var. *acuminata*	67 T(2),N(1),1(1)		J(4)
Einadia nutans ssp. *nutans*	67 T(2),N(1),1(1)		V(2),SD(1),P(1)
**Silene apetala*	67 T(2),N(1),2(1)		J(4)
**Asphodelus fistulosus*	50 N(2),1(1)		J(3)
Muehlenbeckia florulenta	50 T(1),N(1),2(1)		S(2),SB(1)
**Schismus barbatus*	50 T(2),1(1)		GL(3)
**Sonchus oleraceus*	50 T(3)		J(3)
Crinum flaccidum	33 N(1),2(1)	u(1)	J(2)
**Hordeum glaucum*	33 T(1),1(1)	u(1)	GL(2)
Eucalyptus largiflorens	33 T(1),N(1)	o(1)	LA(2)
**Lycium ferocissimum*	33 N(2)		SC(1),S(1)
**Pentaschistis airoides*	33 T(1),1(1)		GL(2)
Polycalymma stuartii	33 N(1),1(1)		J(2)

Structural Summary:
Average Overstorey Height: 9 m
Average Percentage Foliage Cover: 11%

Environmental parameters
Typical Landform Types: Hill slopes and dunes
Typical Surface Soil Texture: mostly loamy sands but also sandy clay loam, sand and clayey sand

Site List
18857, 18858, 18877, 18916, 19051, 19766



Group 1501

Muehlenbeckia florulenta Tall Shrubland over +/- *Enchylaena tomentosa var. tomentosa* +/- *Halosarcia pergranulata ssp. pergranulata* +/- *Suaeda australis*

34 sites

SPECIES	%	COV LIST	DOM LIST	MUIR LIST
Muehlenbeckia florulenta	100	4(17),5(8),2(5),3(4)	o(30)	S(16),SA(13),SB(4),SC(1)
Einadia nutans ssp. *nutans*	68	1(11),T(7),2(3),N(2)	u(5)	V(14),SD(8),P(1)
Enchylaena tomentosa var. *tomentosa*	68	N(7),1(6),T(5),2(5)	u(7)	SD(14),SC(7),SB(2)
**Bromus rubens*	38	T(8),1(3),N(2)	u(2)	GL(13)
Atriplex semibaccata	35	T(5),1(5),N(2)	u(6)	SD(8),P(4)
**Sonchus oleraceus*	35	T(5),1(5),N(2)		J(12)
Agrostis avenacea var. *avenacea*	29	T(7),1(2),N(1)		GL(10)
Atriplex lindleyi ssp. *lindleyi*	29	N(3),T(3),1(2),2(1),3(1)	u(3)	SD(10)
Maireana brevifolia	29	N(8),T(1),2(1)	u(1)	SD(7),SC(2),SA(1)
Atriplex leptocarpa	26	1(5),T(3),2(1)	u(3)	SD(8),P(1)
**Lepidium africanum*	26	1(6),2(3)	u(3)	J(9)
Sclerolaena muricata var. *muricata*	26	1(4),N(3),T(2)	u(3)	SD(9)
**Vulpia myuros forma myuros*	26	1(6),T(1),N(1),2(1)	u(1)	GL(9)
Halosarcia pergranulata ssp. *pergranulata*	24	2(4),N(2),3(1),1(1)	u(5)	SD(6),SC(1),SB(1)
Disphyma crassifolium ssp. *clavellatum*	21	1(3),T(2),N(1),2(1)		P(6),SD(1)
**Mesembryanthemum nodiflorum*	21	T(2),2(2),1(2),N(1)	u(1)	J(7)
**Rostraria cristata*	21	1(4),N(2),T(1)		GL(7)

Structural Summary:

Average Overstorey Height: 2 m

Average Percentage Foliage Cover: 47%

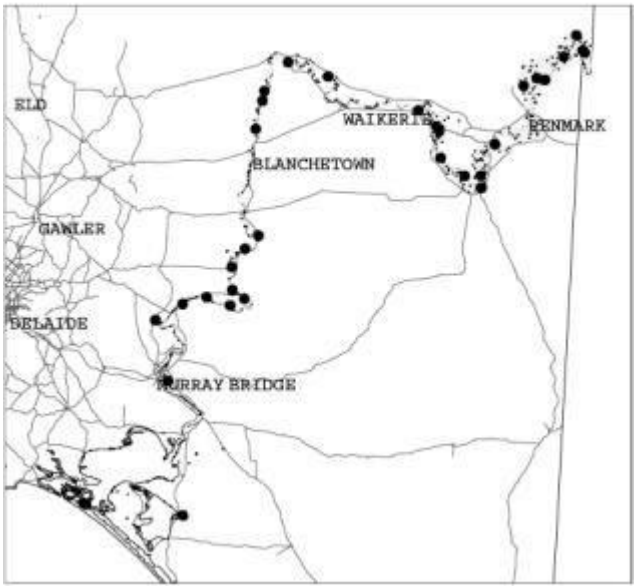
Environmental parameters

Typical Landform Types: Flood plains

Typical Surface Soil Texture: wide variety of soils but mostly silty clay loams, medium clays and clay loams

Site List

140, 6436, 6442, 6451, 18269, 18774, 18838, 18883, 18905, 18937, 18941, 18960, 18971, 18982, 19043, 19052, 19056, 19057, 19071, 19751, 19756, 19763, 19776, 19779, 19783, 19802, 19861, 19866, 19870, 19885, 19895, 19899, 19906, 19923



Group 1502

Muehlenbeckia florulenta Shrubland over +/- *Sporobolus mitchellii* +/- *Sporobolus virginicus*

38 sites

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Muehlenbeckia florulenta	100 4(12),5(9),3(9),2(7),1(1)	o(35)	SA(19),S(15),SB(4)
Einadia nutans ssp. *nutans*	47 1(8),T(6),N(4)		SD(11),V(7)
Enchylaena tomentosa var. *tomentosa*	39 T(9),N(3),1(3)		SD(13),SC(1),SB(1)
Sporobolus mitchellii	39 1(6),T(3),4(2),2(2),3(2)	u(5)	GL(15)
Atriplex leptocarpa	37 T(7),1(5),N(2)		SD(7),P(7)
**Bromus rubens*	37 T(6),1(5),N(2),2(1)		GL(14)
**Sonchus oleraceus*	37 T(9),N(3),1(2)		J(14)
Hornungia procumbens	34 T(7),1(4),N(1),2(1)	u(1)	J(13)
**Vulpia myuros forma myuros*	29 1(6),T(3),4(1),2(1)	u(2)	GL(11)
'dead *Eucalyptus' camaldulensis* var. *camaldulensis*	26 N(7),T(1),1(1),2(1)	e(6)	LA(8),LB(2)
Acacia stenophylla	26 N(7),T(3)	e(6),o(1)	LB(8),LA(2)
Senecio pinnatifolius	26 T(4),N(4),1(2)		SD(9),J(1)
Setaria jubiflora	24 T(5),N(2),1(2)		GL(7),GT(2)
Plantago cunninghamii	24 T(5),1(4)	u(1)	J(9)
Agrostis avenacea var. *avenacea*	21 N(4),T(2),1(1),2(1)		GL(7),GT(1)
**Aster subulatus*	21 T(4),1(3),N(1)		J(8)
**Cirsium vulgare*	21 T(5),N(2),1(1)		J(8)
Cressa cretica	21 N(5),1(3)		J(8)
**Medicago minima var. minima*	21 1(5),T(2),2(1)	u(1)	J(8)
**Medicago polymorpha var. polymorpha*	21 1(4),T(2),2(2)		J(8)
Sporobolus virginicus	21 2(4),N(2),4(1),3(1)	u(6)	GL(8)

Structural Summary:

Average Overstorey Height: 2 m

Average Percentage Foliage Cover: 26%

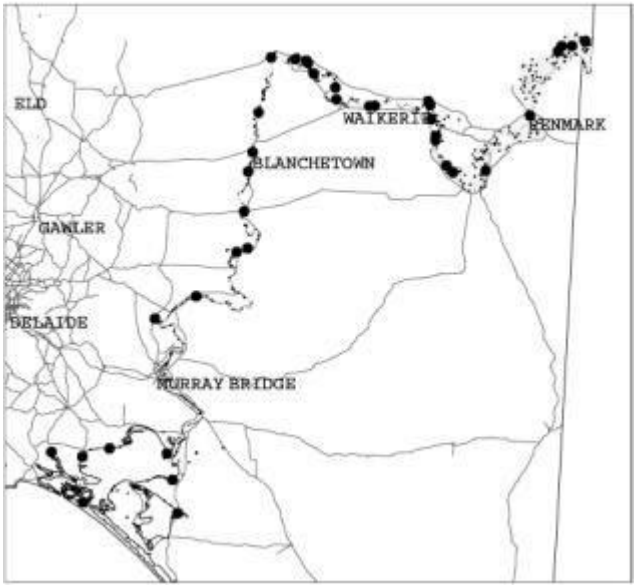
Environmental parameters

Typical Landform Types: Flood plains

Typical Surface Soil Texture: wide range, mostly medium clays, loamy clays, silty clay loams and medium heavy clays

Site List

142, 6447, 6453, 10080, 10095, 11422, 16233, 18763, 18778, 18782, 18796, 18851, 18863, 18874, 18879, 18884, 18886, 18889, 18896, 18909, 18921, 18972, 19012, 19019, 19026, 19029, 19032, 19038, 19045, 19053, 19082, 19089, 19094, 19095, 19098, 19099, 19775, 19909



Group 1601

Dodonaea viscosa ssp. angustissima Tall Open Shrubland over **Bromus rubens, *Schismus barbatus +/- Enchylaena tomentosa var. tomentosa*

2 sites

SPECIES	% COV LIST	DOM LIST	MUIR LIST
**Bromus rubens*	100 T(1),N(1)		GL(2)
Dodonaea viscosa ssp. *angustissima*	100 3(1),2(1)	o(2)	SA(1),S(1)
**Schismus barbatus*	100 T(1),N(1)		GL(2)
Actinobole uliginosum	50 T(1)		J(1)
**Brassica tournefortii*	50 1(1)		J(1)
Crassula colorata var. *acuminata*	50 T(1)		J(1)
Dianella porracea	50 N(1)		VL(1)
Enchylaena tomentosa var. *tomentosa*	50 1(1)	u(1)	SD(1)
Gramineae sp.	50 T(1)		GL(1)
Polycalymma stuartii	50 1(1)	u(1)	J(1)
**Silene apetala*	50 N(1)		J(1)
Sporobolus virginicus	50 N(1)		GL(1)
**Vulpia myuros forma myuros*	50 N(1)		GL(1)

Structural Summary:

Average Overstorey Height: 2m

Average Percentage Foliage Cover: 17%

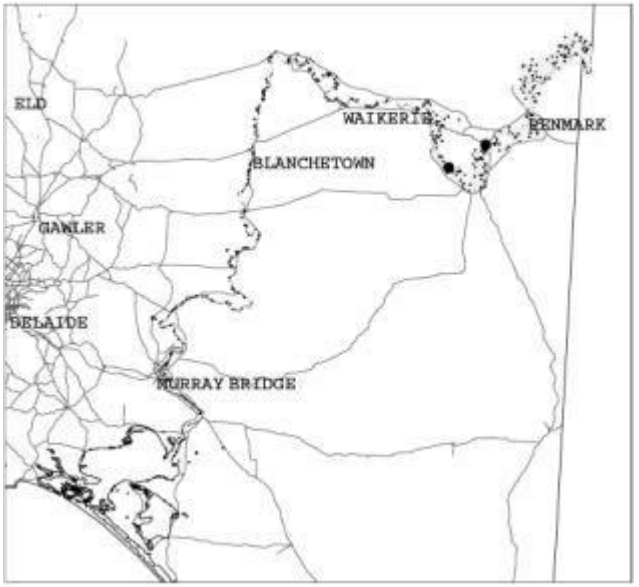
Environmental parameters

Typical Landform Types: Dune fields

Typical Surface Soil Texture: soils sand and clayey sand (2 sites)

Site List

18826, 18878



Group 1701

Atriplex rhagodioides Shrubland over *Enchylaena tomentosa var. tomentosa +/- Halosarcia pergranulata ssp. pergranulata +/- Disphyma crassifolium ssp. clavellatum*

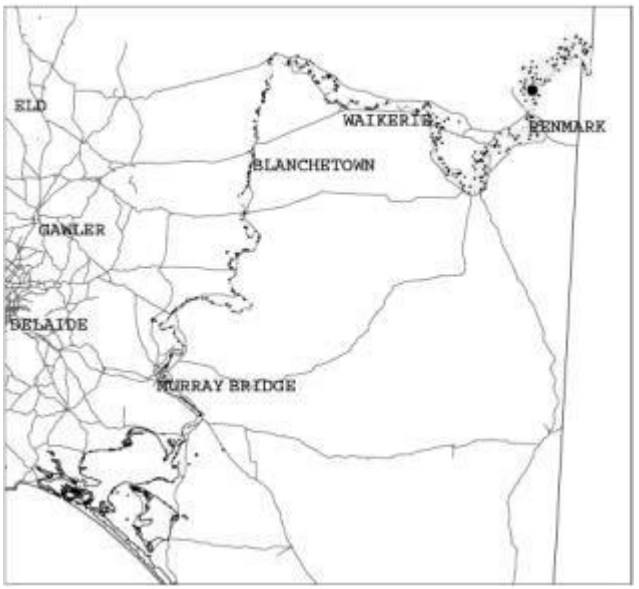
3 sites

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Atriplex rhagodioides	100 3(2),4(1)	o(3)	SC(1),SB(1),S(1)
Enchylaena tomentosa var. *tomentosa*	100 T(2),2(1)	u(1)	SD(3)
Crassula colorata var. *acuminata*	67 T(2)		J(2)
Disphyma crassifolium ssp. *clavellatum*	67 T(1),2(1)		P(2)
Einadia nutans ssp. *nutans*	67 T(1),1(1)		V(1),SD(1)
Halosarcia indica ssp. *leiostachya*	67 2(1),1(1)	u(1)	SD(1),SC(1)
Halosarcia pergranulata ssp. *pergranulata*	67 2(2)	u(2)	SD(2)
**Medicago polymorpha var. polymorpha*	67 T(1),1(1)		J(2)
**Vulpia myuros forma myuros*	67 T(1),1(1)		GL(2)
'dead *Eucalyptus' largiflorens*	33 N(1)		LA(1)
**Avellinia michelii*	33 T(1)		GL(1)
**Bromus rubens*	33 T(1)		GL(1)
Cotula australis	33 T(1)		J(1)
Crassula sp.	33 T(1)		J(1)
**Hordeum glaucum*	33 T(1)		GL(1)
Eucalyptus largiflorens	33 N(1)	e(1)	LA(1)
Gramineae sp.	33 1(1)		GL(1)
**Moraea setifolia*	33 2(1)	u(1)	J(1)
**Heliotropium curassavicum*	33 T(1)		J(1)
**Lycium ferocissimum*	33 N(1)		S(1)
**Medicago minima var. minima*	33 1(1)	u(1)	J(1)
**Medicago truncatula*	33 T(1)		J(1)
Muehlenbeckia florulenta	33 T(1)		S(1)
Myosurus minimus var. *australis*	33 T(1)		J(1)
**Polycarpon tetraphyllum*	33 1(1)		J(1)
Sclerolaena muricata var. *muricata*	33 N(1)		SD(1)
**Silene apetala*	33 T(1)		J(1)
**Sisymbrium erysimoides*	33 T(1)		J(1)
Austrostipa elegantissima	33 T(1)		GT(1)
Austrostipa nodosa	33 T(1)		GL(1)
Teucrium racemosum	33 T(1)		J(1)

Structural Summary:
Average Overstorey Height: 1.3 m
Average Percentage Foliage Cover: mid-dense

Environmental parameters
Typical Landform Types: Plains
Typical Surface Soil Texture: soils medium clay, clayey sand and clay loam sandy

Site List
18955, 19037, 19063



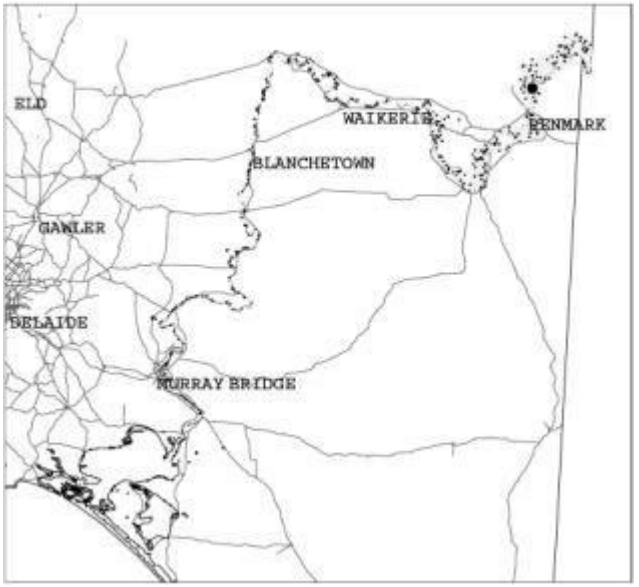
Group 1801
Chenopodium nitrariaceum Shrubland 1
site

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Atriplex leptocarpa	100 1(1)		SD(1)
Atriplex lindleyi ssp. *lindleyi*	100 2(1)	u(1)	SD(1)
Chenopodium nitrariaceum	100 2(1)	o(1)	SA(1)
Crassula sieberiana ssp. tetramera (NC)	100 N(1)		J(1)
Disphyma crassifolium ssp. *clavellatum*	100 N(1)		P(1)
Einadia nutans ssp. *nutans*	100 T(1)		SD(1)
Enchylaena tomentosa var. *tomentosa*	100 N(1)		SD(1)
Hornungia procumbens	100 T(1)		J(1)
**Mesembryanthemum nodiflorum*	100 N(1)		J(1)
Muehlenbeckia florulenta	100 2(1)	o(1)	S(1)
Sclerolaena brachyptera	100 N(1)		SD(1)
Sclerolaena tricuspis	100 2(1)	u(1)	SD(1)
Senecio glossanthus	100 1(1)		J(1)
Senecio runcinifolius	100 N(1)		SD(1)

Structural Summary:
Estimated overstorey height: 1-2 m
Estimated Percentage Foliage Cover: sparse

Environmental parameters
Typical Landform Types: flood plain
Typical Surface Soil Texture: soil silty clay loam

Site List
19891



Group 1901

Suaeda australis +/- *Sarcocornia quinqueflora* Low Closed Shrubland over +/- *Samolus repens*

6 sites

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Suaeda australis	100 3(3),5(1),4(1),2(1)	o(6)	SD(6)
Samolus repens	67 T(2),1(2)		J(3),P(1)
Sarcocornia quinqueflora	50 3(1),2(1),1(1)	o(2)	SD(3)
**Aster subulatus*	33 T(1),3(1)	o(1)	J(2)
**Atriplex prostrata*	33 T(2)		SD(1),J(1)
Distichlis distichophylla	33 T(1),2(1)	u(1)	GL(2)
Juncus kraussii	33 T(1),N(1)	e(1)	VT(1),VL(1)
**Plantago coronopus ssp. coronopus*	33 T(1),1(1)		J(2)

Structural Summary:

Average Overstorey Height: 0.24 m

Average Percentage Foliage Cover: majority dense to mid-dense

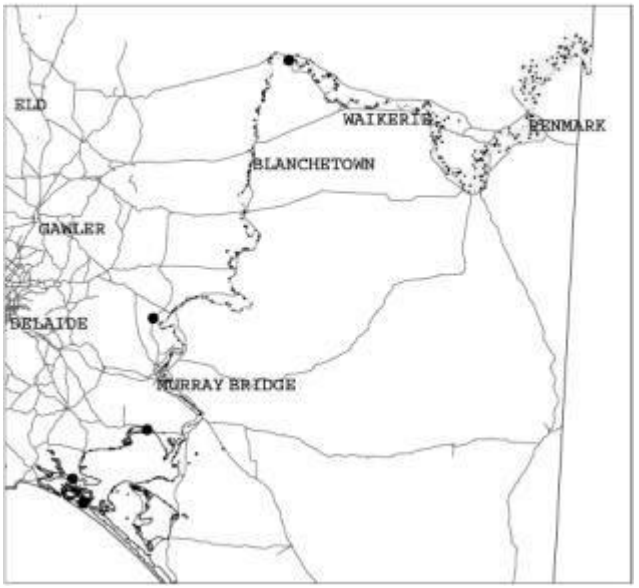
Environmental parameters

Typical Landform Types: Swamps and plains

Typical Surface Soil Texture: soils clayey sands, clay loams, light medium clay and heavy clay

Site List

18268, 18974, 18994, 19008, 19757, 19922



Group 2001

Atriplex lindleyi ssp. lindleyi +/- *Sclerolaena muricata var. muricata* Low Shrubland over +/- *Atriplex semibaccata*

2 sites

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Atriplex lindleyi ssp. *lindleyi*	100 3(1),2(1)	o(2)	SD(2)
Muehlenbeckia florulenta	100 N(1),1(1)	e(1)	SD(2)
Atriplex semibaccata	50 2(1)	u(1)	P(1)
Brachycome lineariloba	50 1(1)		J(1)
Bulbine semibarbata	50 1(1)		J(1)
Cressa cretica	50 N(1)		J(1)
**Hordeum glaucum*	50 1(1)		GL(1)
Danthonia sp.	50 T(1)		GL(1)
Disphyma crassifolium ssp. *clavellatum*	50 T(1)	u(1)	P(1)
Goodenia glauca	50 N(1)		J(1)
Halosarcia pergranulata ssp. *pergranulata*	50 1(1)		SD(1)
Plantago cunninghamii	50 T(1)		J(1)
Sclerolaena muricata var. *muricata*	50 2(1)	o(1)	SD(1)
Sclerolaena tricuspis	50 T(1)		SD(1)
Senecio glossanthus	50 T(1)		J(1)
Sporobolus virginicus	50 T(1)		GL(1)

Structural Summary:

Average Overstorey Height: 0.14 m

Average Percentage Foliage Cover: mid-dense to sparse

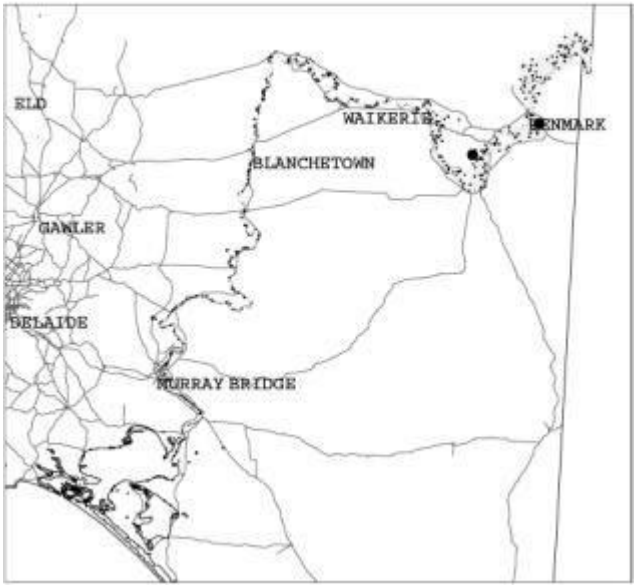
Environmental parameters

Typical Landform Types: flats

Typical Surface Soil Texture: medium heavy clay

Site List

18767, 18830



Group 2102

Halosarcia halocnemoides ssp. halocnemoides, Sclerostegia arbuscula Low Shrubland over *Disphyma crassifolium ssp. clavellatum, Maireana oppositifolia*

7 sites

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Halosarcia indica ssp. *leiostachya*	100 5(3),3(3),4(1)	o(6)	SD(4),SC(2),SB(1)
Disphyma crassifolium ssp. *clavellatum*	57 1(3),2(1)	u(2)	P(4)
Suaeda australis	43 1(2),2(1)	u(1)	SD(3)
Cressa cretica	29 N(2)		J(2)
Enchylaena tomentosa var. *tomentosa*	29 T(1),2(1)	u(1)	SD(2)
Muehlenbeckia florulenta	29 N(1),1(1)	o(1)	SC(1),SB(1)
Samolus repens	29 1(2)		SD(1),J(1)
Sarcocornia quinqueflora	29 T(1),1(1)		SD(2)

Structural Summary:

Average Overstorey Height: 0.56m

Average Percentage Foliage Cover: dense to sparse

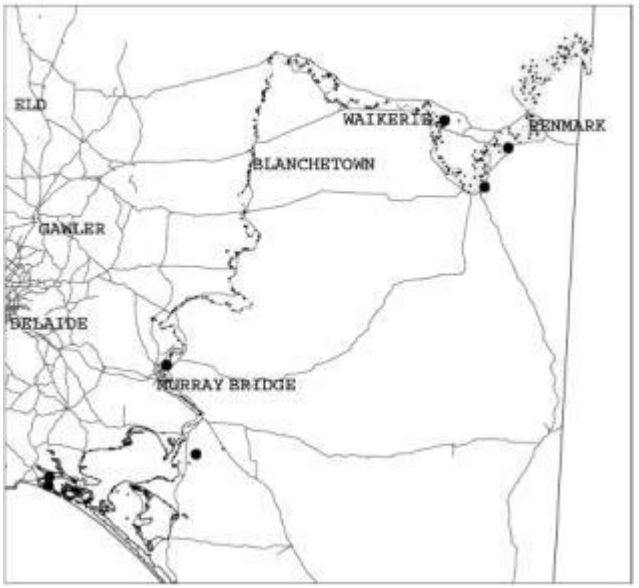
Environmental parameters

Typical Landform Types: Swamps, flats and plains;

Typical Surface Soil Texture: wide variety of types

Site List

18005, 18920, 18946, 18976, 18987, 18991, 19871



Group 2103

Halosarcia pergranulata ssp. pergranulata +/- Halosarcia indica ssp. leiostachya Low Shrubland over *+/- Disphyma crassifolium ssp. clavellatum*

9 sites

SPECIES	% COV	LIST	DOM LIST	MUIR LIST
Halosarcia pergranulata ssp. *pergranulata*	100	2(5),3(3),4(1)	o(9)	SD(6),SC(3)
Halosarcia indica ssp. *leiostachya*	89	2(7),3(1)	o(8)	SD(4),SC(4)
Disphyma crassifolium ssp. *clavellatum*	67	T(2),2(2),1(1),3(1)	u(3)	P(6)
'dead *Eucalyptus' largiflorens*	44	N(1),T(1),1(1),2(1)	e(4)	LA(3),LB(1)
Atriplex lindleyi ssp. *lindleyi*	44	T(2),N(1),1(1)	u(1)	SD(4)
Muehlenbeckia florulenta	44	N(3),T(1)	e(1)	SC(2),SB(1),SA(1)
Einadia nutans ssp. *nutans*	33	T(3)	SD(3)	
Enchylaena tomentosa var. *tomentosa*	33	T(2),N(1)	o(1)	SD(3)
Frankenia pauciflora var. *gunnii*	33	T(1),N(1),2(1)	u(1)	SD(3)
**Mesembryanthemum nodiflorum*	33	1(2),N(1)	u(1)	J(3)
Brachycome lineariloba	22	T(2)	J(2)	
**Bromus rubens*	22	T(2)	GL(2)	
Crassula colorata var. *acuminata*	22	T(1),1(1)	u(1)	J(2)
Cressa cretica	22	T(1),N(1)	J(2)	
**Hordeum marinum*	22	2(2)	u(2)	GL(2)
**Hordeum glaucum*	22	T(2)	GL(2)	
Cyperus gymnocaulos	22	T(1),N(1)	VL(2)	
Eragrostis dielsii var. *dielsii*	22	T(1),N(1)	GL(2)	
**Hypochaeris radicata*	22	T(2)	J(2)	
**Parapholis incurva*	22	2(2)	u(2)	GL(2)
Sclerolaena brachyptera	22	1(2)	SD(2)	
Sclerolaena tricuspis	22	T(2)	SD(2)	
Senecio glossanthus	22	T(2)	J(2)	
**Sonchus oleraceus*	22	T(2)	J(2)	
Sporobolus virginicus	22	T(1),4(1)	u(1)	GL(2)
**Vulpia myuros forma myuros*	22	T(1),1(1)	GL(2)	

Structural Summary:

Average Overstorey Height: 0.48 m

Average Percentage Foliage Cover: mostly mid-dense

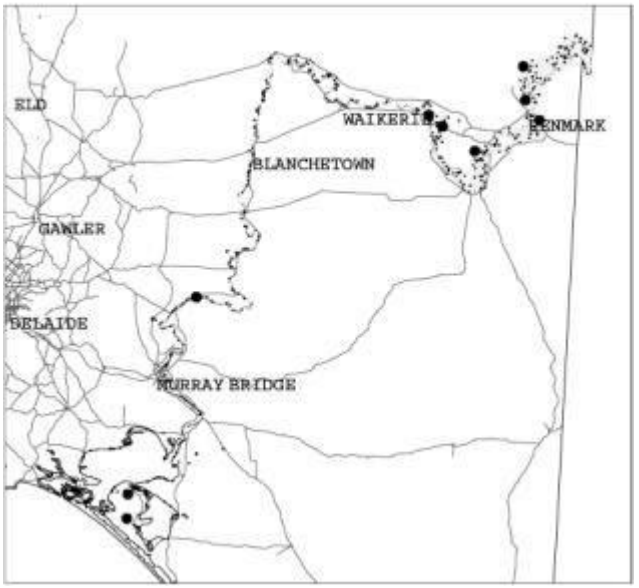
Environmental parameters

Typical Landform Types: Flats, closed depressions and plains

Typical Surface Soil Texture: variety of soils, all including loam apart from 1 site where medium heavy clay was recorded

Site List

18766, 18807, 18831, 18843, 18860, 18943, 18962, 18981, 19046



Group 2104

Halosarcia pergranulata ssp. pergranulata Low Shrubland over +/- **Hordeum marinum* +/- *Disphyma crassifolium ssp. clavellatum* +/- *Suaeda australis*

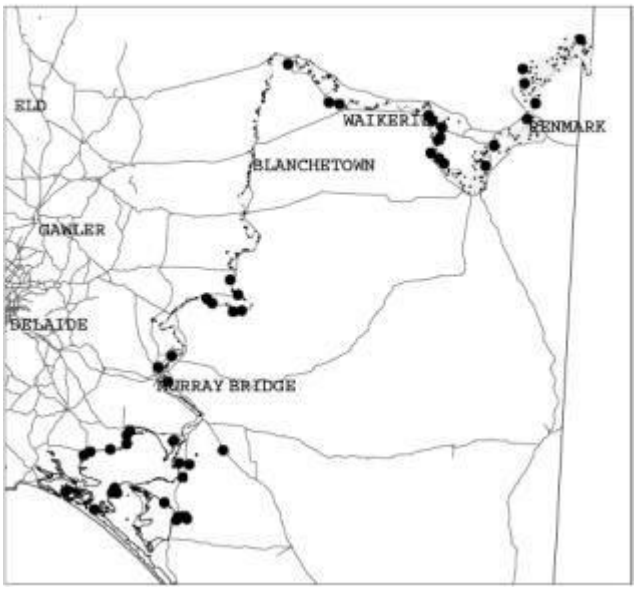
52 sites

SPECIES	%	COV LIST	DOM LIST	MUIR LIST
Halosarcia pergranulata ssp. *pergranulata*	83	3(13),4(12),2(11),5(7)	o(43)	SD(35),SC(8)
**Hordeum marinum*	35	T(9),2(5),1(3),4(1)	u(7)	GL(18)
Suaeda australis	33	T(6),2(5),1(4),N(1),3(1)	u(4),o(2)	SD(17)
**Spergularia marina*	27	T(7),1(5),N(2)		J(14)
Disphyma crassifolium ssp. *clavellatum*	25	N(6),1(3),T(2),2(1),3(1)	u(5)	P(12),J(1)
Senecio glossanthus	25	T(8),1(4),N(1)		J(13)

Structural Summary:
Average Overstorey Height: 0.38 m
Average Percentage Foliage Cover: mostly mid-dense

Environmental parameters
Typical Landform Types: Mostly plains, flats and swamps
Typical Surface Soil Texture: varied soils, mostly silty clay loam, all have clay and/or loam

Site List
10068, 10070, 10073, 18773, 18803, 18844, 18862, 18901, 18936, 18950, 18951, 18952, 18953, 18954, 18966, 18975, 18985, 18990, 18996, 18998, 18999, 19000, 19001, 19006, 19011, 19013, 19018, 19020, 19042, 19061, 19073, 19075, 19076, 19744, 19752, 19753, 19755, 19758, 19760, 19762, 19770, 19774, 19807, 19855, 19857, 19868, 19880, 19884, 19889, 19907, 19910, 19916



Group 2105

Sclerostegia arbuscula Low Open Shrubland over +/- *Sarcocornia quinqueflora* +/- **Hordeum marinum* +/- *Suaeda australis*

8 sites

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Sclerostegia arbuscula	100 4(3),3(3),(2)	o(7)	SD(5),(2),SC(1)
**Hordeum marinum*	63 T(2),(2),1(1)	u(2)	GL(3),(2)
Sarcocornia quinqueflora	63 T(2),(2),4(1)		SD(3),(2)
Suaeda australis	63 (2),T(1),N(1),1(1)	u(2)	SD(3),(2)
Distichlis distichophylla	50 (2),T(1),1(1)	u(1)	GL(2),(2)
Frankenia pauciflora var.	50 T(2),(2)		SD(2),(2)
Samolus repens	50 (2),T(1),1(1)		(2),SD(1),J(1)
Atriplex paludosa ssp.	38 (2),T(1)		(2),SD(1)
**Limonium binervosum*	38 (2),T(1)		(2),SD(1)
**Plantago coronopus ssp.*	38 (2),1(1)	u(1)	(2),J(1)
Sarcocornia blackiana	38 (2),N(1)	u(2)	(2),SD(1)
**Avena barbata*	25 T(2)		GT(1),GL(1)
Carpobrotus rossii	25 T(1),1(1)	u(2)	P(2)
Disphyma crassifolium ssp. *clavellatum*	25 T(2)	u(1)	P(2)
Gramineae sp.	25 T(1),2(1)		GL(2)
Lawrencia squamata	25 (2)	o(1)	(2)
**Medicago polymorpha var. polymorpha*	25 T(1),1(1)	u(1)	J(2)
**Puccinellia distans*	25 (2)		(2)
Austrostipa stipoides	25 (2)	o(2)	(2)
Wilsonia humilis var. *humilis*	25 (2)		(2)

Structural Summary:

Average Overstorey Height: 0.52 m

Average Percentage Foliage Cover: mostly mid-dense

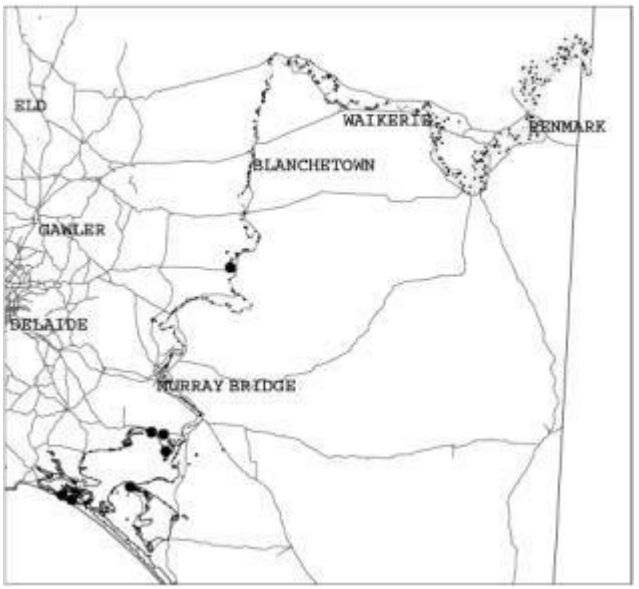
Environmental parameters

Typical Landform Types: Swamps and flats

Typical Surface Soil Texture: soils medium clays and clay loams

Site List

6748, 6749, 10087, 10094, 10096, 10108, 18013, 19801



Group 2201

Sarcocornia quinqueflora Low Shrubland over +/- *Samolus repens* +/- *Suaeda australis*

14 sites

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Sarcocornia quinqueflora	100 4(5),3(5),5(3),2(1)	o(9),u(1)	SD(10),SC(3),J(1)
Samolus repens	64 2(3),1(3),T(2),3(1)	u(3)	J(4),P(3),SD(2)
Suaeda australis	64 1(5),N(1),T(1),(1),2(1)	u(1)	SD(8),SC(1)
Triglochin striatum	43 1(3),2(2),T(1)	u(2)	J(4),GL(2)
**Hordeum marinum*	36 T(4),1(1)	u(1)	GL(4),J(1)
Distichlis distichophylla	29 4(1),T(1),1(1),2(1)		GL(4)
Frankenia pauciflora var. *gunnii*	21 T(1),N(1),1(1)		SD(2),P(1)
Halosarcia pergranulata ssp. *pergranulata*	21 T(1),2(1),(1)	o(1)	SD(2),SC(1)
Mimulus repens	21 T(2),1(1)	u(1)	J(3)
**Paspalum vaginatum*	21 T(1),3(1),2(1)		GL(2),VL(1)
**Plantago coronopus ssp. coronopus*	21 1(2),T(1)		J(3)
Puccinellia stricta var. *stricta*	21 T(2),N(1)		GL(2),GT(1)

Structural Summary:

Average Overstorey Height: 0.46 m

Average Percentage Foliage Cover: dense to mid-dense

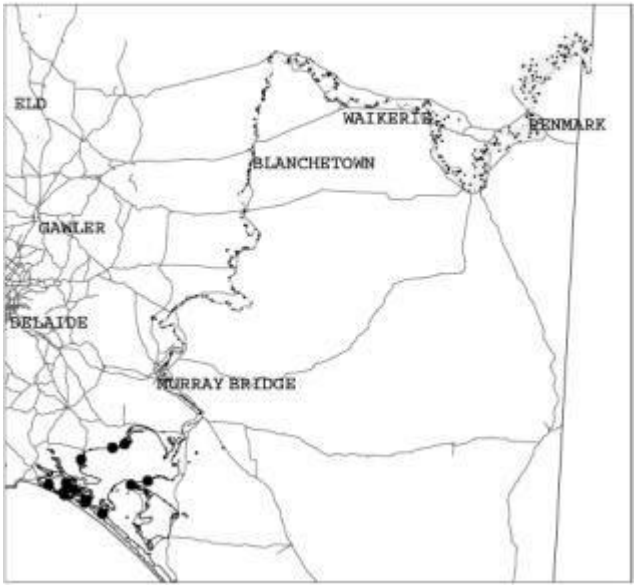
Environmental parameters

Typical Landform Types: Swamps, flats, closed and open depressions and plains

Typical Surface Soil Texture: various soils, all including loam and/or clay

Site List

147, 10072, 10078, 18006, 18008, 18012, 18255, 18262, 18272, 18273, 19009, 19017, 19748, 19809



Group 2401

Maireana brevifolia Low Open Shrubland over *Enchylaena tomentosa var. tomentosa*

2 sites

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Enchylaena tomentosa var. *tomentosa*	100 2(1),1(1)	o(1)	SD(2)
Maireana brevifolia	100 3(1),2(1)	o(2)	SD(2)
**Arctotheca calendula*	50 4(1)	u(1)	J(1)
Atriplex semibaccata	50 2(1)	u(1)	P(1)
Atriplex sp.	50 T(1)	o(1)	SD(1)
**Bromus hordeaceus ssp. hordeaceus*	50 N(1)		GL(1)
Carpobrotus rossii	50 N(1)		P(1)
**Hordeum marinum*	50 4(1)	u(1)	GL(1)
Austrodanthonia setacea	50 T(1)		GL(1)
Distichlis distichophylla	50 2(1)		GL(1)
Einadia nutans ssp. *nutans*	50 N(1)		V(1)
**Erodium cicutarium*	50 1(1)	u(1)	J(1)
Hornungia procumbens	50 N(1)		J(1)
**Lolium rigidum*	50 N(1)		GL(1)
**Lycium ferocissimum*	50 2(1)	e(1)	SC(1)
**Medicago minima var. minima*	50 T(1)		J(1)
**Medicago polymorpha var. polymorpha*	50 4(1)	u(1)	J(1)
Muehlenbeckia florulenta	50 1(1)	e(1)	SC(1)
Muehlenbeckia horrida	50 T(1)	u(1)	SD(1)
**Opuntia robusta*	50 T(1)		SD(1)
Sclerolaena muricata var. *muricata*	50 3(1)	u(1)	SD(1)
Sclerolaena muricata var. *villosa*	50 1(1)		SD(1)
Threlkeldia diffusa	50 N(1)		SD(1)
**Trifolium arvense var. arvense*	50 N(1)		J(1)

Structural Summary:

Average Overstorey Height: 0.37 m

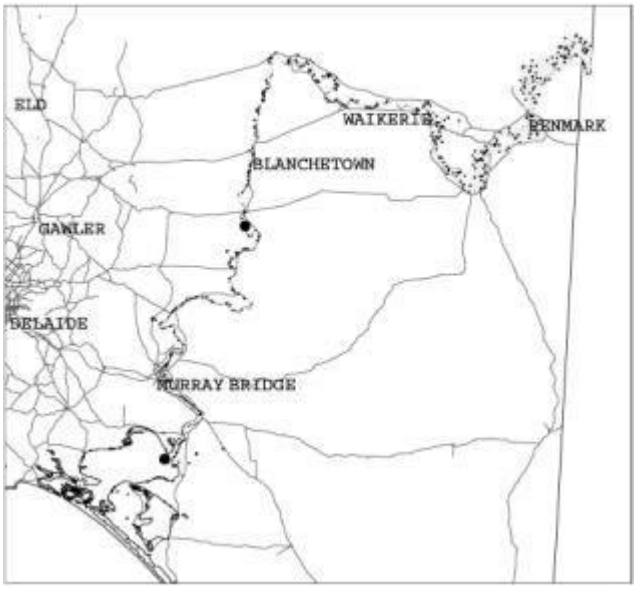
Average Percentage Foliage Cover: sparse

Environmental parameters

No data

Site List

19023, 19083



Group 2501

Maireana oppositifolia Low Open Shrubland over *Austrostipa stipoides*

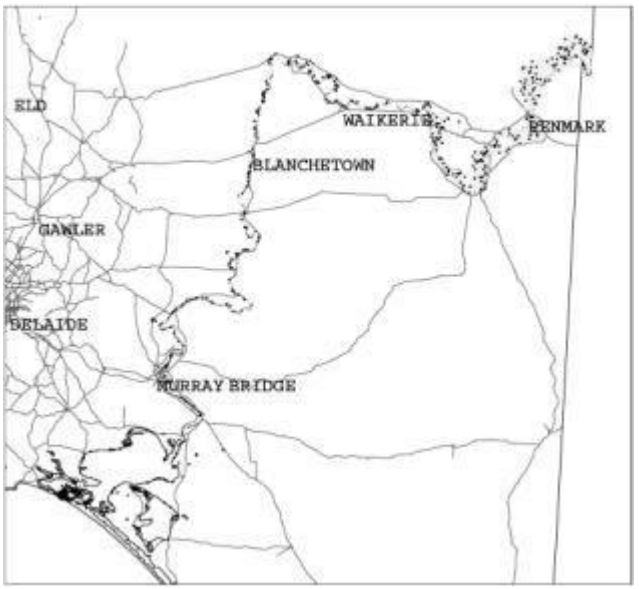
2 sites

SPECIES	% COV	LIST	DOM LIST	MUIR LIST
Atriplex paludosa ssp. *cordata*	100	N(1),2(1)		SD(1),SC(1)
Lawrencia squamata	100	N(1),2(1)		SD(1),SC(1)
**Limonium binervosum*	100	T(1),N(1)		J(2)
Maireana oppositifolia	100	2(2)	o(1)	SD(1),SC(1)
Melilotus indica	100	T(1),N(1)		J(2)
**Sonchus oleraceus*	100	T(1),N(1)		J(2)
Austrostipa stipoides	100	4(1),2(1)		GT(2)
Apium annuum	50	1(1)		J(1)
**Avena barbata*	50	N(1)		GT(1)
Carpobrotus rossii	50	1(1)		J(1)
Cotula vulgaris var. *australasica*	50	1(1)		J(1)
Dianella brevicaulis	50	T(1)		VL(1)
Disphyma crassifolium ssp. *clavellatum*	50	T(1)		P(1)
Distichlis distichophylla	50	1(1)		GT(1)
Enchylaena tomentosa var. *tomentosa*	50	T(1)		SD(1)
Frankenia pauciflora var. *gunnii*	50	N(1)		SD(1)
Geranium retrorsum	50	T(1)		J(1)
Gramineae sp.	50	1(1)		GL(1)
Juncus kraussii	50	1(1)		VL(1)
**Lagurus ovatus*	50	3(1)		GL(1)
**Lycium ferocissimum*	50	N(1)		SC(1)
Melaleuca halmaturorum	50	N(1)		SC(1)
Moss sp.	50	4(1)		LI(1)
Muehlenbeckia gunnii	50	N(1)		V(1)
Myoporum insulare	50	N(1)	e(1)	SA(1)
Pimelea serpyllifolia ssp. *serpyllifolia*	50	N(1)		SD(1)
**Plantago coronopus ssp.*	50	1(1)		J(1)
**Plantago coronopus ssp. coronopus*	50	2(1)		J(1)
Poa poiformis var. poiformis	50	N(1)		GT(1)
Rhagodia candolleana ssp. *candolleana*	50	1(1)		SD(1)
Sarcocornia blackiana	50	2(1)		SD(1)
Sclerostegia arbuscula	50	2(1)		SC(1)
Threlkeldia diffusa	50	T(1)		SD(1)
**Vulpia fasciculata*	50	T(1)		GT(1)

Structural Summary:
Average Overstorey Height: 1 m
Average Percentage Foliage Cover: 25%

Environmental parameters Typical Landform Types: flat and dune/consolidated dune
Typical Surface Soil Texture: soil loamy sand

Site List
18007, 18259



Group 2601

Maireana pyramidata Low Open Shrubland over +/- *Atriplex lindleyi ssp. lindleyi* +/- **Schismus barbatus*

4 sites

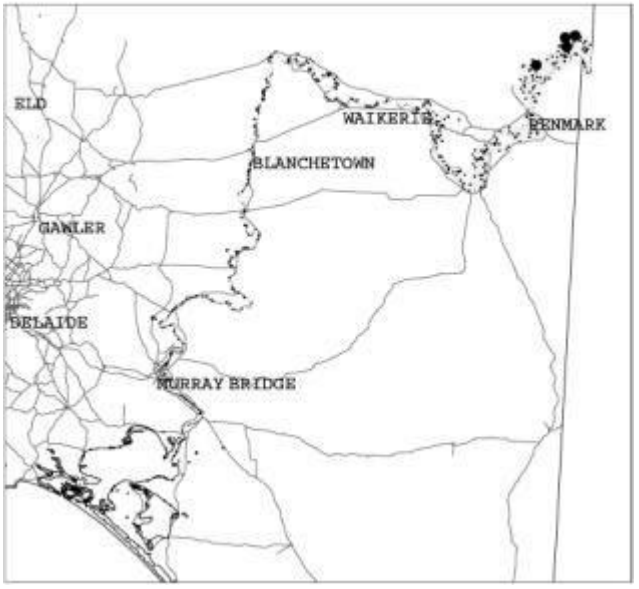
SPECIES	% COV LIST	DOM LIST	MUIR LIST
Maireana pyramidata	100 2(3),1(1)	o(2)	SC(3),SD(1)
**Bromus rubens*	75 N(1),2(1),1(1)		GL(3)
**Schismus barbatus*	75 T(1),2(1),1(1)	u(1)	GL(3)
Sclerolaena brachyptera	75 1(2),N(1)		SD(3)
Brachycome ciliaris var. *lanuginosa*	50 1(2)		J(2)
Brachycome lineariloba	50 T(1),1(1)		J(2)
**Hordeum glaucum*	50 T(2)		GL(2)
**Hordeum leporinum*	50 1(2)		GL(2)
Daucus glochidiatus	50 1(2)		J(2)
Enchylaena tomentosa var. *tomentosa*	50 1(2)	o(1)	SD(2)
**Mesembryanthemum nodiflorum*	50 T(1),1(1)		J(2)
Osteocarpum acropterum var. *acropterum*	50 1(2)		SD(2)
**Rostraria pumila*	50 1(2)		GL(2)
Senecio glossanthus	50 T(1),1(1)		J(2)
Tetragonia tetragonioides	50 2(1),1(1)		J(2)
Actinobole uliginosum	25 1(1)		J(1)
**Alyssum linifolium*	25 T(1)		J(1)
Atriplex holocarpa	25 1(1)		SD(1)
Atriplex lindleyi (NC)	25 1(1)		SD(1)
Atriplex lindleyi ssp. *lindleyi*	25 3(1)	u(1)	SD(1)
Atriplex sp.	25 1(1)		SD(1)
**Centaurea melitensis*	25 1(1)		J(1)
Chamaesyce drummondii	25 1(1)		J(1)
Austrodanthonia caespitosa	25 1(1)		GL(1)
Disphyma crassifolium ssp. *clavellatum*	25 T(1)		P(1)
Dissocarpus paradoxus	25 1(1)		SD(1)
Eragrostis dielsii var. *dielsii*	25 1(1)		GL(1)
Eragrostis lacunaria	25 1(1)		GL(1)
Erodium crinitum	25 T(1)		J(1)
Frankenia cupularis	25 1(1)		SD(1)
Halosarcia pergranulata ssp. *pergranulata*	25 N(1)		SD(1)
**Herniaria cinerea*	25 1(1)		J(1)
**Hypochaeris glabra*	25 1(1)		J(1)
Lepidium papillosum	25 1(1)		J(1)
**Limonium lobatum*	25 T(1)		J(1)
Maireana sp.	25 N(1)		J(1)
Maireana turbinata	25 N(1)		SD(1)
**Medicago minima var. minima*	25 1(1)		J(1)
**Medicago polymorpha var. polymorpha*	25 1(1)		J(1)
**Mesembryanthemum crystallinum*	25 1(1)		J(1)
**Cleretum papulosum ssp. papulosum*	25 T(1)	u(1)	P(1)
Nitraria billardierei	25 2(1)		SB(1)
**Pentaschistis airoides*	25 1(1)		GL(1)
Plantago drummondii	25 N(1)		J(1)
Pogonolepis muelleriana	25 1(1)		J(1)
Polycalymma stuartii	25 T(1)		J(1)
**Reichardia tingitana*	25 1(1)		J(1)
Rhagodia spinescens	25 N(1)		SC(1)

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Salsola kali	25 1(1)		SD(1)
Scleroblitum atriplicinum	25 1(1)		SD(1)
Sclerolaena decurrens	25 1(1)		SD(1)
Sclerolaena muricata var. *muricata*	25 T(1)		SD(1)
Sclerolaena sp.	25 1(1)		SD(1)
Sclerolaena tricuspis	25 1(1)		SD(1)
**Silene apetala*	25 1(1)		J(1)
**Sonchus oleraceus*	25 1(1)		J(1)
**Spergularia diandra*	25 1(1)		J(1)
**Spergularia marina*	25 1(1)		J(1)
Austrostipa scabra ssp. *falcata*	25 1(1)		GL(1)
Swainsona phacoides	25 1(1)		J(1)
Tetragonia eremaea	25 T(1)		J(1)
Threlkeldia diffusa	25 T(1)		SD(1)
**Vulpia myuros forma myuros*	25 2(1)		GL(1)
Wahlenbergia tumidifructa	25 1(1)		J(1)
Zygophyllum iodocarpum	25 1(1)		J(1)

Structural Summary:
Average Overstorey Height: 0.7 m
Average Percentage Foliage Cover: sparse to very sparse

Environmental parameters Typical Landform Types: lake, plain, terrace and other
Typical Surface Soil Texture: soils sandy loam, silty clay loam, clay loam and sand

Site List
6428, 6445, 18812, 18816



Group 2701

Pachycornia triandra Low Open Shrubland over +/- *Disphyma crassifolium ssp. clavellatum*

8 sites

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Pachycornia triandra	100 2(5),3(3)	o(8)	SD(8)
Disphyma crassifolium ssp. *clavellatum*	88 3(3),2(3),4(1)	u(7)	P(7)
Threlkeldia diffusa	75 T(5),1(1)		SD(6)
Atriplex rhagodioides	63 N(3),T(1),1(1)	o(1)	SD(2),SC(2),SB(1)
Brachycome lineariloba	50 T(3),1(1)		J(4)
Crassula colorata var. *acuminata*	50 T(3),1(1)		J(4)
**Mesembryanthemum nodiflorum*	50 T(2),2(1),1(1)		J(4)
Pogonolepis muelleriana	50 T(4)		J(4)
Atriplex lindleyi ssp. *lindleyi*	25 T(1),N(1)		SD(2)
Brachycome ciliaris var. *ciliaris*	25 T(1),N(1)		J(2)
Frankenia pauciflora var. *gunnii*	25 T(1),N(1)		SD(2)
Halosarcia indica ssp. *leiostachya*	25 T(1),1(1)	u(1)	SD(1),SC(1)
Halosarcia pergranulata ssp. *pergranulata*	25 T(1),2(1)	u(1)	SD(2)
Maireana appressa	25 2(2)	o(2)	SD(1),SC(1)
Maireana ciliata	25 T(1),2(1)	o(1)	SD(1),J(1)
Sclerolaena brachyptera	25 T(1),2(1)	u(1)	SD(2)
Sclerolaena obliquicuspis	25 T(2)		SD(2)
Sclerolaena tricuspis	25 T(1),1(1)		SD(2)

Structural Summary:

Average Overstorey Height: 0.37 m

Average Percentage Foliage Cover: mostly sparse

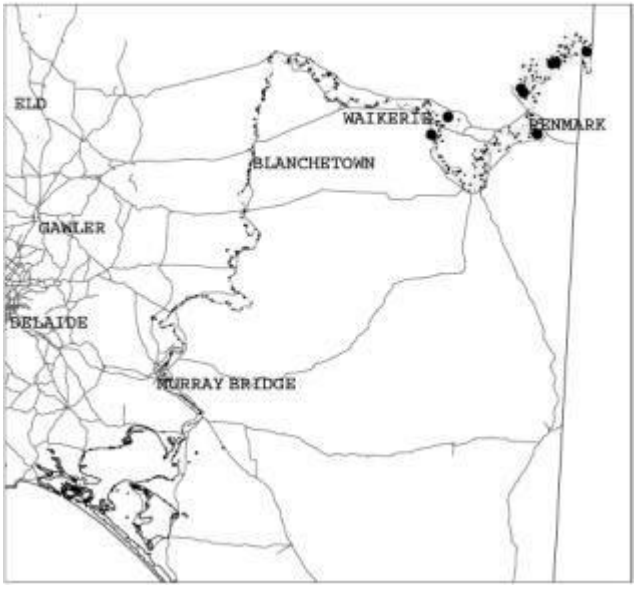
Environmental parameters

Typical Landform Types: Plains and flats

Typical Surface Soil Texture: soils mostly loamy sands and clayey sands

Site List

18789, 18794, 18806, 18809, 18818, 18819, 18914, 18934



Group 2801

Sclerolaena tricuspis, Sclerolaena brachyptera Low Open Shrubland over +/- *Brachycome lineariloba* +/- *Plantago cunninghamii*

5 sites

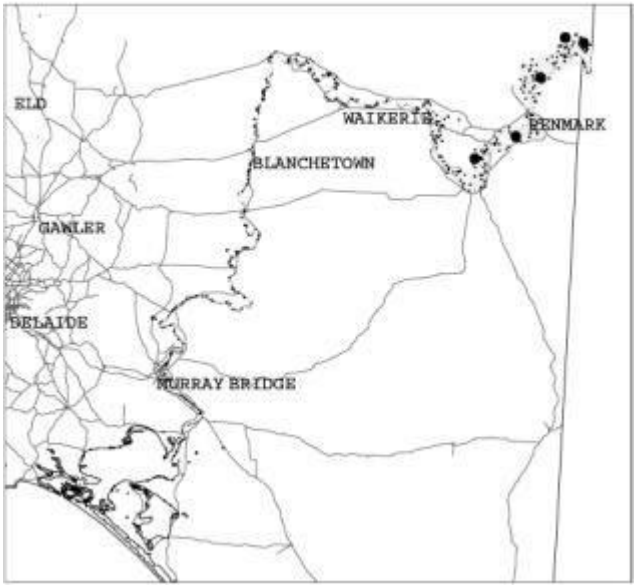
SPECIES	% COV LIST	DOM LIST	MUIR LIST
Brachycome lineariloba	80 T(3),1(1)		J(4)
Plantago cunninghamii	80 T(4)		J(4)
Sclerolaena brachyptera	80 2(2),N(1),1(1)	u(1),o(1)	SD(4)
Sclerolaena tricuspis	80 2(2),T(1),3(1)	o(2)	SD(4)
Senecio glossanthus	80 T(2),N(1),1(1)		J(4)
Angianthus tomentosus	60 T(3)		J(3)
Cressa cretica	60 T(2),1(1)		J(3)
Atriplex leptocarpa	40 T(1),2(1)		SD(2)
Atriplex lindleyi ssp. *lindleyi*	40 T(1),1(1)	u(1)	SD(2)
Atriplex semibaccata	40 T(1),N(1)		SD(2)
**Bromus rubens*	40 N(1),1(1)		GL(2)
Bulbine semibarbata	40 T(2)		J(2)
Chenopodium nitrariaceum	40 N(1),2(1)		SC(2)
Eragrostis australasica	40 N(1),1(1)	e(1)	GT(1),GL(1)
**Erodium cicutarium*	40 T(1),N(1)		J(2)
Goodenia glauca	40 T(2)		J(2)
**Hypochaeris glabra*	40 T(2)		J(2)
**Mesembryanthemum nodiflorum*	40 T(1),1(1)		SD(1),J(1)
Muehlenbeckia florulenta	40 N(1),1(1)		SD(1),SC(1)
Sclerolaena muricata var. *muricata*	40 T(1),1(1)		SD(2)
Sclerolaena stelligera	40 2(1),1(1)	o(1)	SD(2)
**Sonchus oleraceus*	40 T(1),N(1)		J(2)
Trichanthodium skirrophorum	40 2(1),1(1)	u(1)	J(2)
**Vulpia myuros forma myuros*	40 N(1),1(1)		GL(2)
'dead *Eucalyptus' largiflorens*	20 N(1)		LB(1)
Agrostis avenacea var. *avenacea*	20 1(1)		GL(1)
Amphibromus nervosus	20 N(1)		GL(1)
Atriplex lindleyi (NC)	20 1(1)		SD(1)
Atriplex lindleyi ssp.	20 N(1)		SD(1)
Atriplex pseudocampanulata	20 1(1)		SD(1)
Atriplex sp.	20 1(1)		SD(1)
Brachycome dentata	20 N(1)		J(1)
**Brassica tournefortii*	20 1(1)		J(1)
Calocephalus sonderi	20 1(1)		J(1)
Calotis hispidula	20 N(1)		J(1)
Crassula colorata var. *acuminata*	20 T(1)		J(1)
**Hordeum marinum*	20 N(1)		GL(1)
**Hordeum leporinum*	20 1(1)		GL(1)
Disphyma crassifolium ssp. *clavellatum*	20 1(1)		SD(1)
Einadia nutans ssp. *nutans*	20 1(1)		SD(1)
Eremophila divaricata ssp. *divaricata*	20 T(1)		SD(1)
Eriochiton sclerolaenoides	20 2(1)	o(1)	SD(1)
Erodium crinitum	20 N(1)		J(1)
Eucalyptus largiflorens	20 N(1)	e(1)	LB(1)
Halosarcia pergranulata ssp. *divaricata*	20 2(1)		SD(1)
**Herniaria cinerea*	20 1(1)		J(1)
**Lamarckia aurea*	20 1(1)		GL(1)
Maireana ciliata	20 1(1)		J(1)

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Maireana sp.	20 N(1)		SD(1)
Malacocera tricornis	20 1(1)		SD(1)
**Medicago minima var. minima*	20 1(1)		J(1)
**Medicago polymorpha var. polymorpha*	20 1(1)		J(1)
Osteocarpum acropterum var. *acropterum*	20 1(1)		SD(1)
**Schismus barbatus*	20 1(1)		GL(1)
Sclerolaena divaricata	20 1(1)		SD(1)
Sclerolaena obliquicuspis	20 1(1)		SD(1)
**Silene apetala*	20 1(1)		J(1)
**Sisymbrium erysimoides*	20 1(1)		J(1)
Solanum lacunarium	20 N(1)		J(1)
Sonchus sp.	20 1(1)		J(1)
**Spergularia marina*	20 1(1)		J(1)
Sporobolus mitchellii	20 2(1)	u(1)	GL(1)
Sporobolus virginicus	20 1(1)	u(1)	GL(1)
Austrostipa scabra ssp. *falcata*	20 1(1)		GL(1)
Tetragonia eremaea	20 T(1)		J(1)
Teucrium racemosum	20 T(1)		SD(1)
Vittadinia gracilis	20 N(1)		J(1)
Vittadinia sp.	20 1(1)		J(1)

Structural Summary:
Average Overstorey Height: 0.32 m
Average Percentage Foliage Cover: sparse to very sparse

Environmental parameters
Typical Landform Types: Flats, plains and lakes
Typical Surface Soil Texture: soils mostly medium clays but also loamy clays

Site List
6443, 18781, 18822, 18834, 18866



Group 2901

Phragmites australis Closed (Tussock) Grassland over +/- *Muehlenbeckia florulenta* +/- *Bolboschoenus caldwellii*

17 sites

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Phragmites australis	100 5(12),4(3),2(2)	o(15)	GT(15),VT(2)
Muehlenbeckia florulenta	47 T(4),2(2),1(1),N(1)	o(2),e(1)	SA(4),S(3),SC(1)
**Aster subulatus*	35 N(4),T(1),1(1)	u(1)	J(6)
Calystegia sepium	35 1(3),T(2),2(1)		V(6)
Bolboschoenus caldwellii	29 T(2),5(2),2(1)	u(1)	VL(4),VT(1)
Enchylaena tomentosa var. *tomentosa*	29 N(3),T(2)		SC(3),SD(2)
**Sonchus oleraceus*	24 N(3),T(1)		J(4)
Suaeda australis	24 T(2),2(2)	u(2)	SD(2),SC(1),J(1)

Structural Summary:

Average Overstorey Height: 3.7 m

Average Percentage Foliage Cover: mostly dense

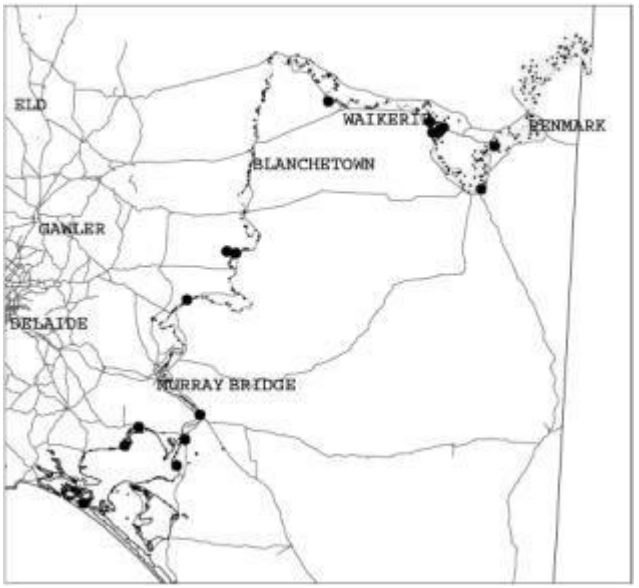
Environmental parameters

Typical Landform Types: Swamps, plains, lakes, flats and depressions

Typical Surface Soil Texture: mostly sandy clay loams, silty clay loams and medium clays

Site List

141, 143, 10100, 18825, 18852, 18875, 18931, 18935, 18948, 18967, 18983, 18995, 19058, 19100, 19771, 19811, 19888



Group 2902

Phragmites australis +/- *Typha domingensis* +/- *Schoenoplectus validus* Closed (Tussock) Grassland over +/- **Paspalum vaginatum* +/- **Paspalum distichum*

14 sites

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Phragmites australis	93 3(6),4(4),5(2),2(1)	o(13)	GT(8),VT(5)
Schoenoplectus validus	64 T(3),2(3),3(2),1(1)	o(6)	VT(8),V(1)
Hydrocotyle verticillata	50 1(5),T(2)	u(2)	J(7)
Typha domingensis	50 4(2),3(2),T(1),5(1),1(1)	o(5)	VT(6),VL(1)
Persicaria decipiens	43 T(3),1(2),2(1)	u(1)	J(6)
**Aster subulatus*	36 T(3),N(1),1(1)		J(5)
**Berula erecta*	36 5(1),T(1),3(1),1(1),2(1)	u(3)	J(5)
**Paspalum distichum*	36 1(2),N(1),3(1),2(1)	u(2)	GL(5)
**Paspalum vaginatum*	36 3(2),1(2),2(1)	u(4)	GL(5)
Triglochin procerum	29 N(1),T(1),1(1),2(1)	u(1)	J(4)
Asperula gemella	21 1(2),T(1)		J(3)
Eleocharis acuta	21 T(1),2(1),1(1)	u(2)	VL(3)
Eleocharis sphacelata	21 1(2),T(1)		VT(3)
Epilobium pallidiflorum	21 1(2),T(1)		J(3)
Lycopus australis	21 1(2),T(1)		J(3)
**Polypogon monspeliensis*	21 T(2),N(1)		GL(3)
Ranunculus amphitrichus	21 1(2),T(1)		J(3)

Structural Summary:

Average Overstorey Height: no data

Average Percentage Foliage Cover: dense to mid-dense

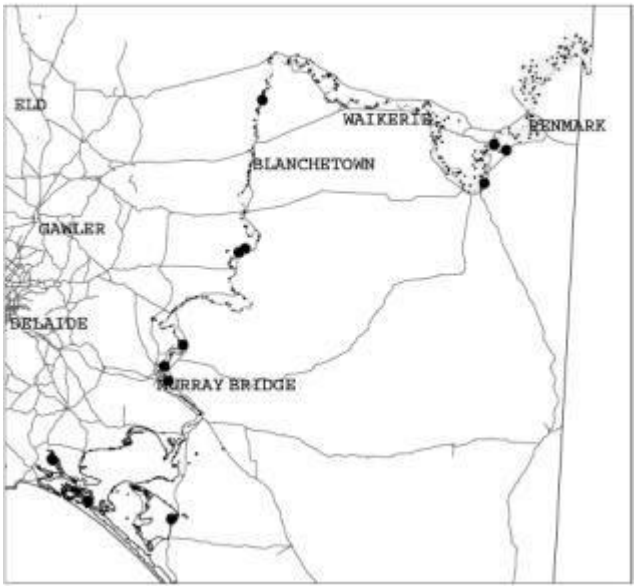
Environmental parameters

Typical Landform Types: Swamps, lakes and plains

Typical Surface Soil Texture: variety, all including clay and/or loam

Site List

10082, 11476, 11477, 18270, 18274, 18853, 18961, 19035, 19782, 19794, 19796, 19805, 19869, 19872



Group 3001

Agrostis avenacea var. avenacea (Tussock) Grassland over *Eleocharis acuta* +/- **Polypogon monspeliensis*

2 sites

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Agrostis avenacea var. *avenacea*	100 4(1),2(1)	o(1)	GL(2)
**Asphodelus fistulosus*	50 T(1)		J(1)
**Aster subulatus*	50 1(1)		J(1)
Atriplex rhagodioides	50 1(1)	o(1)	SD(1)
Brachycome basaltica var. *gracilis*	50 N(1)		J(1)
Centipeda cunninghamii (NC)	50 N(1)		J(1)
Cyperus gymnocaulos	50 T(1)	e(1)	VT(1)
Eleocharis acuta	50 2(1)		VL(1)
Epaltes australis	50 1(1)		J(1)
Juncus usitatus	50 1(1)		VL(1)
Maireana radiata	50 T(1)		SD(1)
**Medicago minima var. minima*	50 1(1)		J(1)
**Polypogon monspeliensis*	50 3(1)	o(1)	GT(1)
Rhagodia ulicina	50 N(1)		SD(1)
Sclerolaena obliquicuspis	50 T(1)		SD(1)
Sporobolus mitchellii	50 1(1)		GL(1)
**Vulpia myuros forma myuros*	50 T(1)		GL(1)
Zygophyllum sp.	50 N(1)		SD(1)

Structural Summary:

Average Overstorey Height: no data

Average Percentage Foliage Cover: mid-dense

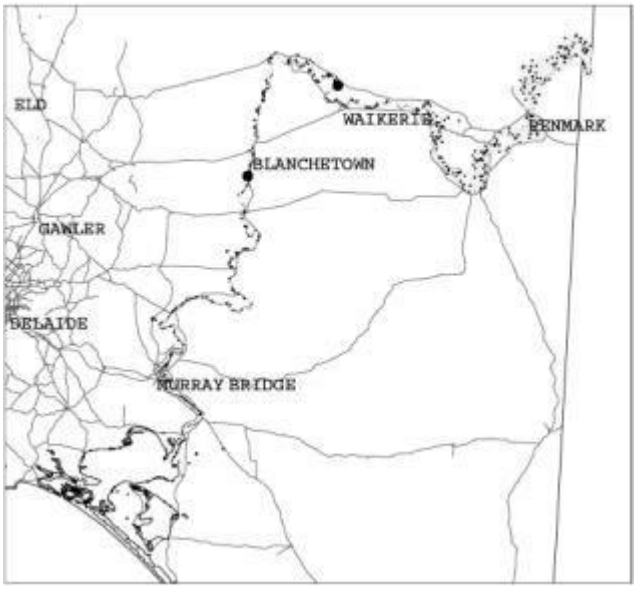
Environmental parameters

Typical Landform Types: open depression and hill slope

Typical Surface Soil Texture: sandy loam and light medium clay

Site List

18908, 19090



Group 3101

Sporobolus virginicus or Sporobolus mitchellii (Tussock) Grassland over +/- *Sclerolaena tricuspis*

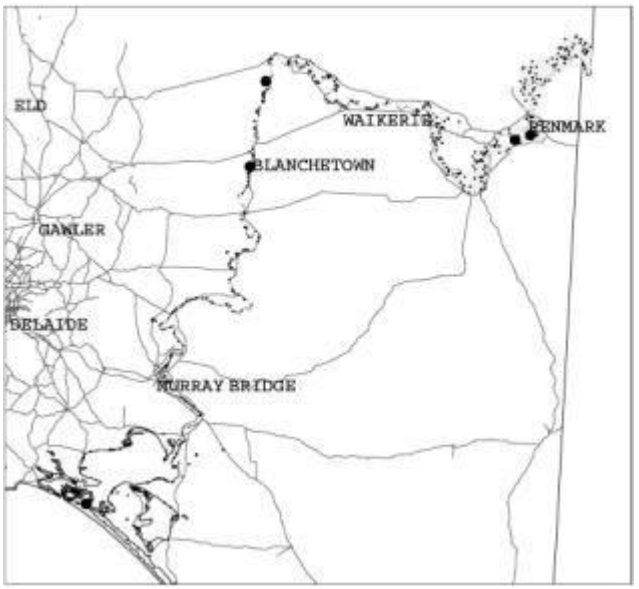
5 sites

SPECIES	%	COV LIST	DOM LIST	MUIR LIST
Muehlenbeckia florulenta	80	T(2),N(2)	e(4)	SC(1),SD(1),S(1),SB(1)
Sporobolus virginicus	60	5(1),4(1),2(1)	o(2)	GL(3)
'dead *Eucalyptus' camaldulensis* var. *camaldulensis*	40	T(1),N(1)	e(2)	LA(2)
**Aster subulatus*	40	N(1),1(1)		J(2)
Atriplex semibaccata	40	N(1),1(1)		SD(2)
Sclerolaena tricuspis	40	N(2)	e(1)	SD(2)
Sporobolus mitchellii	40	4(1),3(1)	o(2)	GL(2)
Actinobole uliginosum	20	N(1)		J(1)
Agrostis avenacea var. *avenacea*	20	2(1)	o(1)	GL(1)
Alternanthera nodiflora	20	1(1)		J(1)
Angianthus tomentosus	20	T(1)		J(1)
Atriplex leptocarpa	20	2(1)	o(1)	SD(1)
Atriplex lindleyi ssp. *lindleyi*	20	2(1)	u(1)	SD(1)
Brachycome lineariloba	20	1(1)		J(1)
Bulbine semibarbata	20	1(1)		J(1)
Calotis hispidula	20	T(1)		J(1)
**Cirsium vulgare*	20	N(1)		J(1)
**Cotula coronopifolia*	20	1(1)		J(1)
Cressa cretica	20	N(1)		J(1)
Cyperus gymnocaulos	20	T(1)	e(1)	VT(1)
Enchylaena tomentosa var. *tomentosa*	20	N(1)		SD(1)
Eucalyptus camaldulensis var. *camaldulensis*	20	2(1)	e(1)	LA(1)
Goodenia glauca	20	N(1)		J(1)
**Hedypnois rhagadioloides*	20	N(1)		J(1)
**Heliotropium curassavicum*	20	T(1)		J(1)
Hornungia procumbens	20	T(1)		J(1)
**Hypochaeris glabra*	20	T(1)		J(1)
Juncus kraussii	20	N(1)		VT(1)
**Lepidium africanum*	20	N(1)		J(1)
Maireana ciliata	20	N(1)		J(1)
**Medicago minima var. minima*	20	1(1)		J(1)
**Plantago coronopus ssp.*	20	T(1)		J(1)
Plantago cunninghamii	20	T(1)		J(1)
Pogonolepis muelleriana	20	N(1)		J(1)
Pseudognaphalium luteoalbum	20	N(1)		J(1)
Samolus repens	20	T(1)		SD(1)
Sclerolaena muricata var. *muricata*	20	N(1)		SD(1)
Senecio glossanthus	20	N(1)		J(1)
**Spergularia marina*	20	N(1)		J(1)
Trichanthodium skirrophorum	20	T(1)		J(1)
Triglochin striatum	20	1(1)		J(1)
**Vulpia myuros forma myuros*	20	T(1)		GL(1)

Structural Summary:
Average Overstorey Height: no data
Average Percentage Foliage Cover: mostly mid-dense

Environmental parameters
Typical Landform Types: Plains, open depressions and flats
Typical Surface Soil Texture: silty clay loams and light medium clays

Site List
18010, 18848, 18939, 19068, 19092



Group 3301

Eragrostis australasica, Muehlenbeckia florulenta Open (Tussock) Grassland over *Trichanthodium skirrophorum, Senecio glossanthus*

2 sites

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Eragrostis australasica	100 3(1),2(1)	o(2)	GT(2)
Muehlenbeckia florulenta	100 2(1),1(1)	o(2)	SC(1),SA(1)
Senecio glossanthus	100 T(2)		J(2)
Trichanthodium skirrophorum	100 T(1),1(1)		J(2)
Angianthus tomentosus	50 T(1)		J(1)
Atriplex leptocarpa	50 1(1)		SD(1)
Atriplex lindleyi ssp. *lindleyi*	50 1(1)		SD(1)
Brachycome lineariloba	50 T(1)		J(1)
Chenopodium nitrariaceum	50 N(1)		SB(1)
Cressa cretica	50 T(1)		J(1)
Einadia nutans ssp. *nutans*	50 T(1)		SD(1)
Enchylaena tomentosa var. *tomentosa*	50 1(1)		SD(1)
Goodenia fascicularis	50 T(1)		J(1)
**Hypochaeris radicata*	50 T(1)		J(1)
Maireana pyramidata	50 N(1)		SD(1)
Maireana radiata	50 T(1)		SD(1)
Plantago cunninghamii	50 T(1)		J(1)
**Polypogon sp.*	50 T(1)		GL(1)
Sclerolaena brachyptera	50 T(1)		SD(1)
Sclerolaena muricata var. *muricata*	50 2(1)	u(1)	SD(1)
Sonchus sp.	50 T(1)		J(1)
Sporobolus sp.	50 3(1)	u(1)	GL(1)
Threlkeldia diffusa	50 T(1)		SD(1)

Structural Summary:

Average Overstorey Height: 1 m

Average Percentage Foliage Cover: mid-dense to sparse

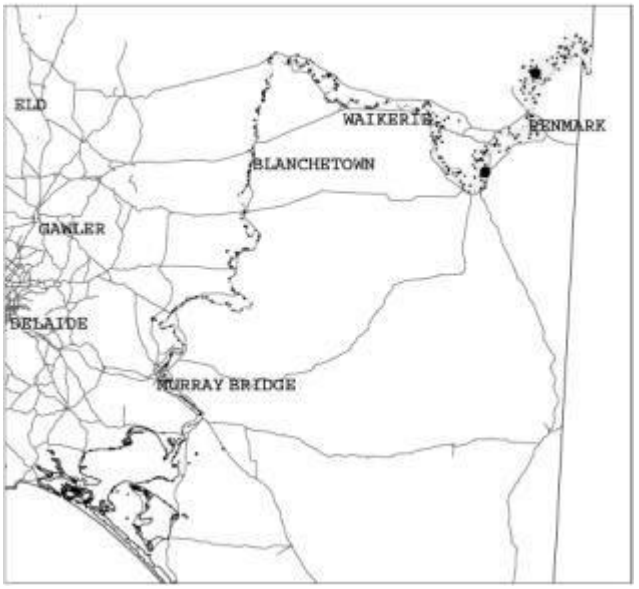
Environmental parameters

Typical Landform Types: Plains

Typical Surface Soil Texture: silty clay loam and medium clay

Site list

18831, 18888



Group 3401

Baumea juncea Closed Sedgeland over *Samolus repens* and *Distichlis distichophylla*

1 site

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Agrostis avenacea var. *avenacea*	100 T(1)		GL(1)
**Aster subulatus*	100 T(1)		J(1)
Baumea juncea	100 5(1)	o(1)	VT(1)
Distichlis distichophylla	100 1(1)	u(1)	GL(1)
Gahnia trifida	100 N(1)	e(1)	VT(1)
Isolepis cernua	100 T(1)		VL(1)
Phragmites australis	100 T(1)		GT(1)
Samolus repens	100 1(1)	u(1)	J(1)
Selliera radicans	100 1(1)	u(1)	J(1)
Sonchus sp.	100 T(1)		J(1)

Structural Summary:

Average Overstorey Height: no data

Average Percentage Foliage Cover: dense

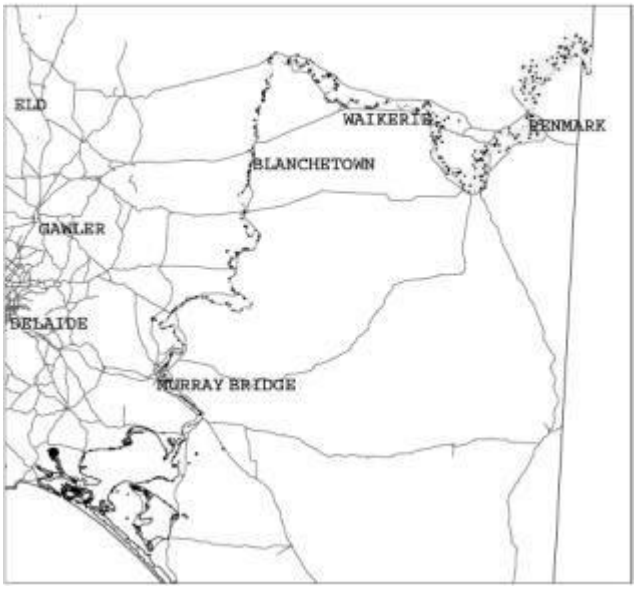
Environmental parameters

Typical Landform Types: Plain

Typical Surface Soil Texture: soil loamy sand

Site List

19003



Group 3501

Gahnia filum +/- *Gahnia trifida* +/- *Juncus kraussii* Sedgeland over *Suaeda australis* +/- *Samolus repens*

4 sites

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Gahnia filum	100 4(2),3(2)	o(4)	VT(4)
Suaeda australis	100 T(2),N(1),2(1)	u(1)	SD(4)
Samolus repens	75 1(2),2(1)	u(1)	J(3)
Sarcocornia quinqueflora	75 T(2),1(1)	u(1)	SD(3)
Distichlis distichophylla	50 T(1),1(1)		GL(2)
Juncus kraussii	50 4(1),2(1)	u(1),o(1)	VT(2)
**Sonchus oleraceus*	50 N(2)		J(2)
**Avena barbata*	25 1(1)		GT(1)
**Bromus hordeaceus ssp. hordeaceus*	25 T(1)		GL(1)
Cressa cretica	25 N(1)		J(1)
**Hordeum marinum*	25 2(1)	u(1)	GL(1)
**Cynodon dactylon*	25 3(1)	u(1)	GL(1)
Frankenia pauciflora var. *gunnii*	25 N(1)		SD(1)
Hemichroa pentandra	25 T(1)		P(1)
**Lolium rigidum*	25 1(1)		GL(1)
**Medicago polymorpha var. polymorpha*	25 2(1)		J(1)
Moss sp.	25 2(1)		MO(1)
Muehlenbeckia florulenta	25 N(1)		SC(1)
Muehlenbeckia gunnii	25 N(1)		V(1)
**Paspalum vaginatum*	25 2(1)		GL(1)
Phragmites australis	25 1(1)		GT(1)
Poa labillardieri var. *labillardieri*	25 1(1)		GT(1)
Puccinellia stricta var. *stricta*	25 N(1)		GT(1)
Austrostipa puberula	25 N(1)		GL(1)
Triglochin striatum	25 T(1)		J(1)
**Vulpia myuros forma myuros*	25 1(1)		GT(1)

Structural Summary:

Average Overstorey Height: no data

Average Percentage Foliage Cover: mid-dense

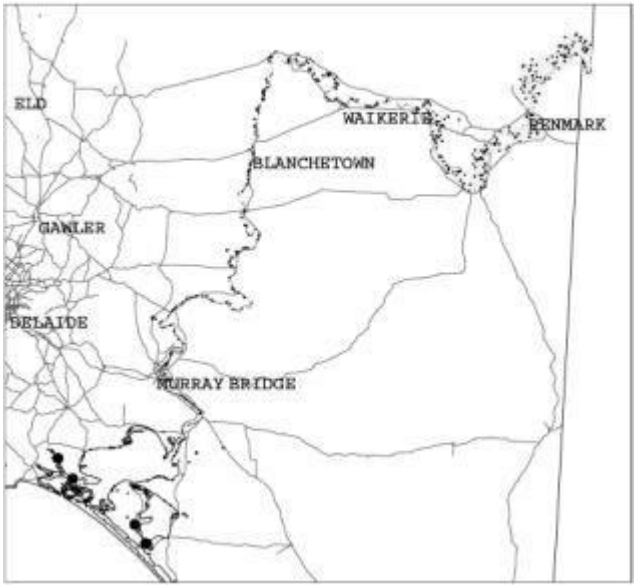
Environmental parameters

Typical Landform Types: Swamp, plain, open and drainage depressions

Typical Surface Soil Texture: soils medium clays, sandy clay loam and clay loam sandy

Site List

19002, 19014, 19016, 19919



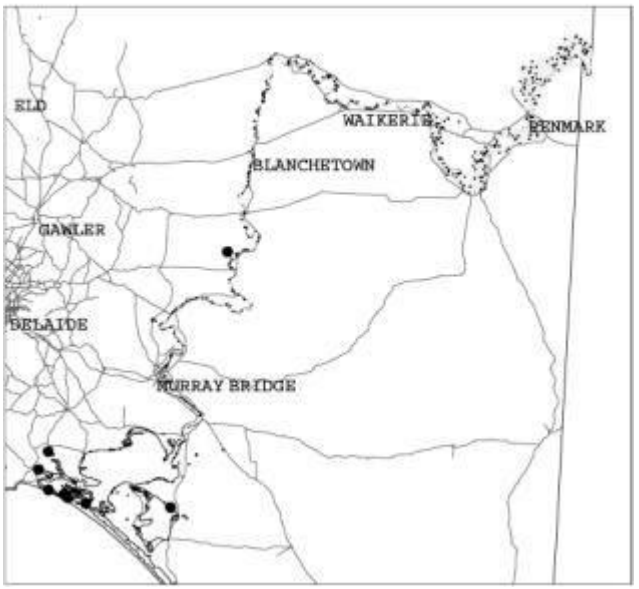
Group 3601
Juncus kraussii Sedgeland over +/- *Suaeda australis* +/- *Samolus repens*
8 sites

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Juncus kraussii	100 3(5),5(2),4(1)	o(7)	VT(7),VL(1)
Samolus repens	88 1(4),T(2),3(1)	u(1)	J(6),SD(1)
Suaeda australis	75 2(2),1(2),T(1),3(1)	u(2)	SD(5),SC(1)
Distichlis distichophylla	50 T(2),4(1),2(1)	u(1)	GL(4)
Sarcocornia quinqueflora	50 2(2),T(1),1(1)	u(1)	SD(4)
Triglochin striatum	50 T(4)		J(4)
**Cotula coronopifolia*	38 T(2),1(1)	u(1)	J(3)
Isolepis cernua	38 1(2),T(1)		VL(3)
**Plantago coronopus ssp. coronopus*	38 T(1),2(1),1(1)	u(1)	J(3)
Agrostis avenacea var. *avenacea*	25 T(2)		GT(1),GL(1)
**Aster subulatus*	25 T(1),1(1)		J(2)
**Atriplex prostrata*	25 T(2)		J(2)
Bolboschoenus caldwellii	25 T(2)		VL(2)
Eleocharis acuta	25 1(2)		VL(2)
Hydrocotyle verticillata	25 T(1),1(1)	u(1)	J(2)
**Polypogon monspeliensis*	25 T(2)		GL(2)
Ranunculus amphitrichus	25 T(1),1(1)	u(1)	J(2)
**Trifolium repens*	25 T(1),1(1)		J(2)
Typha domingensis	25 T(1),1(1)		VL(2)

Structural Summary:
Average Overstorey Height: 0.7 m
Average Percentage Foliage Cover: mostly mid-dense

Environmental parameters
Typical Landform Types: Plains, flats
Typical Surface Soil Texture: open depression and stream bank; various soils, all including loam and/or clay

Site List
18009, 18258, 18993, 18997, 19004, 19005, 19007, 19059



Group 3701

Typha domingensis Sedgeland over +/- **Paspalum vaginatum* +/- **Paspalum distichum*

21 sites

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Typha domingensis	100 5(7),4(6),2(5),3(3)	o(21)	VT(21)
Schoenoplectus validus	48 2(3),T(2),1(2),N(1),3(1),4(1)	o(3)	VT(7),VL(2),J(1)
**Aster subulatus*	43 T(7),N(1),1(1)	u(1)	J(9)
Phragmites australis	38 1(5),T(1),N(1),2(1)	u(2),e(2)	GT(6),VT(2)
Hydrocotyle verticillata	33 T(5),2(1),1(1)	u(2)	J(7)
**Paspalum vaginatum*	33 T(2),1(2),5(1),3(1),4(1)	u(3)	GL(7)
Eleocharis acuta	29 T(3),1(3)		VL(5),VT(1)
**Berula erecta*	24 1(3),N(1),2(1)	u(3)	J(5)
**Paspalum distichum*	24 2(3),1(2)	u(4)	GL(5)

Structural Summary:

Average Overstorey Height: 1.7 m

Average Percentage Foliage Cover: dense to sparse

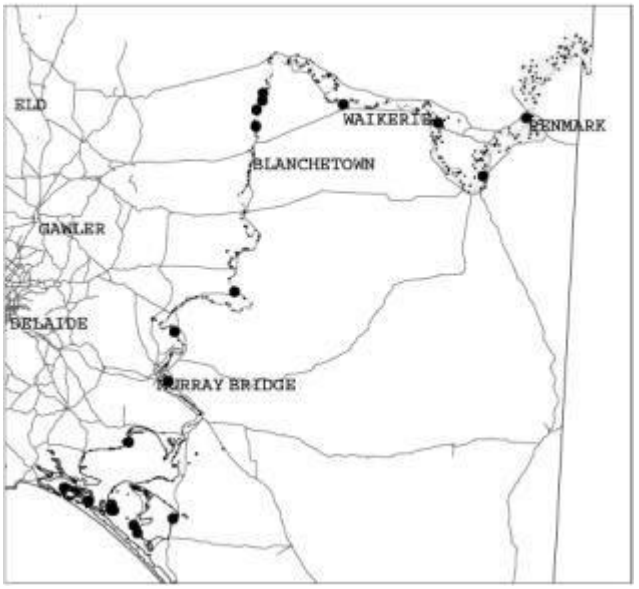
Environmental parameters

Typical Landform types: Swamps

Typical Surface Soil Texture: soils mostly silty clay loams, all soils recorded include clay and/or loam

Site List

10077, 10081, 10101, 10102, 10103, 10104, 18260, 18271, 18275, 18870, 18957, 18978, 19754, 19778, 19786, 19858, 19865, 19902, 19905, 19915, 19918



Group 3702

Typha orientalis Sedgeland over +/- *Schoenoplectus validus*

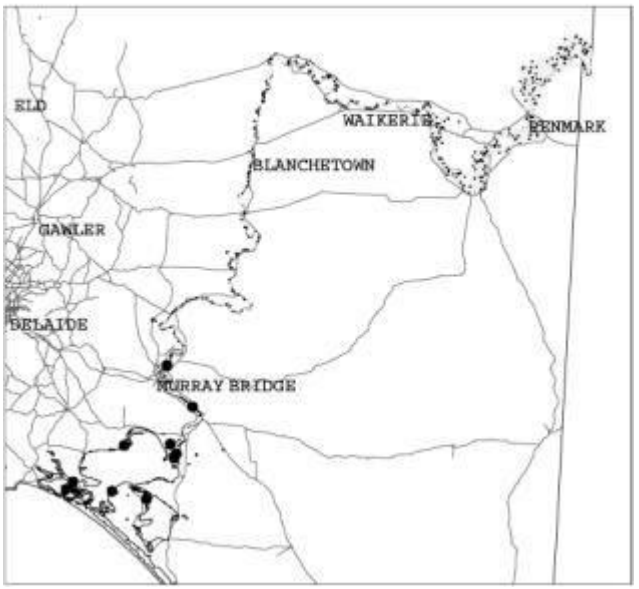
10 sites

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Typha orientalis	100 3(3),2(3),5(2),T(1),4(1)	o(9)	VT(10)
Schoenoplectus validus	70 4(2),2(2),1(2),T(1)	o(4),u(1)	VT(6),VL(1)
Azolla filiculoides	50 1(4),N(1)	u(3)	X(3),P(2)
**Berula erecta*	50 T(2),1(2),2(1)		J(5)
Hydrocotyle verticillata	50 T(2),1(2),N(1)	u(1)	J(5)
Persicaria decipiens	50 T(3),2(1),1(1)	u(1)	J(5)
Eleocharis acuta	40 T(3),1(1)		VL(4)
Lycopus australis	40 T(3),1(1)		J(4)
Triglochin procerum	40 T(2),N(1),1(1)		J(4)
**Aster subulatus*	30 T(3)	u(1)	J(3)
Eleocharis sphacelata	30 T(3)		VT(3)
Epilobium pallidiflorum	30 T(1),N(1),1(1)	u(1)	J(3)
**Ludwigia peploides ssp. montevidensis*	30 1(2),T(1)		J(3)
**Paspalum distichum*	30 T(1),2(1),1(1)	u(2)	GL(2),J(1)
**Paspalum vaginatum*	30 2(2),1(1)	u(2)	GL(3)
**Pennisetum clandestinum*	30 1(2),N(1)		GL(3)
Ranunculus amphitrichus	30 T(2),1(1)		J(3)
**Rumex conglomeratus*	30 N(2),T(1)		J(3)
Spirodela punctata	30 T(2),1(1)	u(1)	J(3)
Asperula gemella	20 N(1),2(1)		J(2)
Calystegia sepium	20 N(1),1(1)		V(2)
Carex appressa	20 T(1),2(1)	o(1)	VT(2)
Carex fascicularis	20 T(2)		VT(2)
**Cotula coronopifolia*	20 T(1),1(1)		J(2)
Crassula helmsii	20 T(1),2(1)	u(1)	J(2)
**Hordeum marinum*	20 T(2)		T(1),J(1)
Muehlenbeckia florulenta	20 2(1),1(1)	o(1),e(1)	SA(1),S(1)
Myriophyllum simulans	20 T(1),1(1)		J(2)
Persicaria lapathifolia	20 T(1),1(1)		J(2)
Phragmites australis	20 T(1),1(1)		GT(2)
Samolus repens	20 T(2)		SD(1),J(1)
Suaeda australis	20 T(1),1(1)		SD(2)
**Trifolium sp.*	20 1(2)		J(2)

Structural Summary:
Average Overstorey Height: 2 m
Average Percentage Foliage Cover: dense to sparse

Environmental parameters
Typical Landform Types: Swamps Typical Surface Soil Texture: soils mostly loams but also medium clays and silty loams

Site List
10097, 10105, 18968, 18969, 18970, 19745, 19793, 19810, 19853, 19921



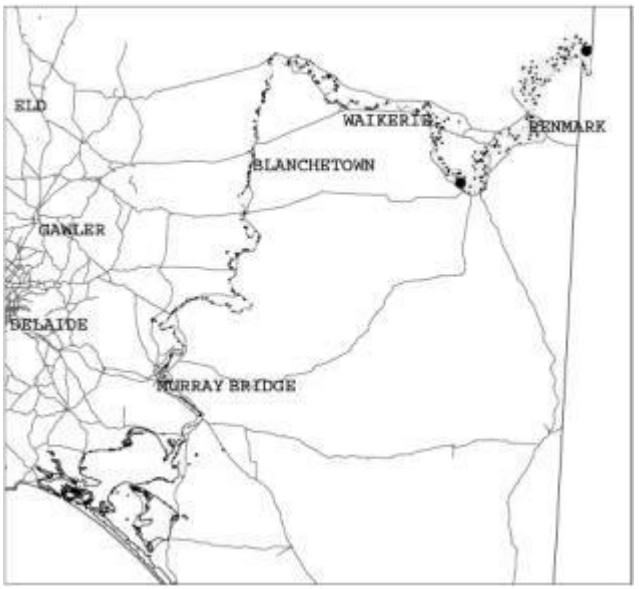
Group 3901
Disphyma crassifolium ssp. clavellatum Very Open Mat Plants over *Atriplex lindleyi ssp. lindleyi*
2 sites

SPECIES	% COV LIST	DOM LIST	MUIR LIST
Atriplex lindleyi ssp. *Lindleyi*	100 T(2)		SD(2)
Disphyma crassifolium ssp. *clavellatum*	100 2(2)	o(2)	P(2)
Brachycome lineariloba	50 T(1)		J(1)
Cotula australis	50 T(1)		J(1)
Cressa cretica	50 T(1)		J(1)
Eriochiton sclerolaenoides	50 2(1)		SD(1)
Isoetopsis graminifolia	50 1(1)		J(1)
Maireana ciliata	50 1(1)	u(1)	J(1)
Pachycornia triandra	50 N(1)		SD(1)
Plantago cunninghamii	50 T(1)		J(1)
Sclerolaena brachyptera	50 1(1)	u(1)	SD(1)
Sclerolaena tricuspis	50 N(1)		SD(1)
Sporobolus virginicus	50 2(1)		GL(1)

Structural Summary
Average Overstorey Height: no data
Average Percentage Foliage Cover: sparse to very sparse

Environmental parameters
Typical Landform types: closed depression and plain
Typical Surface Soil Texture Types soils medium heavy clay and light medium clay

Site List
18791, 18887



3.3 VEGETATION MAPPING

From the subjective floristic analysis the 54 mapping groups formed the basis for the floristic mapping component of the Floodplain Impacts Project. Each group had differences in species overstorey and understorey composition as well as structural differences in the overstorey. These differences formed the basis for the ability to determine the unique signature of each group from the imagery to undertake the extrapolation from known survey sites to unvisited areas. Subsequent field checking as the mapping progressed resulted in an additional 10 mapping groups being identified that had not been surveyed. Within a defined area up to three vegetation groups are mapped with the proportion of area of each defined. Across the region approximately 40% was mapped as vegetation.

The final list of 64 vegetation groups is provided in Table 4. For each of the communities the following information is presented:

- Group code (as presented in Section 3.2)
- A detailed description for each floristic mapping group, including overstorey dominants, understorey dominants and structure.
- Total area in hectares, based on the incorporation of the proportion of area of all groups within a mosaic
- Total area that is protected in hectares. This includes National Parks and Wildlife SA reserves, Heritage Agreements, Conservation Reserves.
- Percentage of each group protected.

Table 4: Detailed mapping groups and area estimates for each, including protection within the SA River Murray Floodplain region.

Group Code	Detailed Floristic Description	Total Area (ha)	Area Protected (ha)	% Protected
	Forests and Woodlands	**36964**	**14125**	**38.0**
101	*Eucalyptus camaldulensis var. camaldulensis* Open Forest over *Muehlenbeckia florulenta* +/- *Cyperus gymnocaulos*	1104	263	23.8
102	*Eucalyptus camaldulensis var. camaldulensis* Open Forest over +/- *Acacia stenophylla* +/- *Cyperus gymnocaulos* +/- *Setaria jubiflora*	466	193	41.4
103	*Eucalyptus camaldulensis var. camaldulensis* Open Forest over *Phragmites australis and Muehlenbeckia florulenta*	1550	484	31.2
201	*Eucalyptus camaldulensis var. camaldulensis, Eucalyptus largiflorens* Open Forest over *Acacia stenophylla*	286	180	62.9
202	*Eucalyptus camaldulensis var. camaldulensis, Eucalyptus largiflorens* Woodland over *Senecio cunninghamii var. cunninghamii* +/- *Phragmites australis*	322	175	54.3
203	*Eucalyptus camaldulensis var. camaldulensis* +/- *E. largiflorens* Open Forest over *Chenopodium nitrariaceum* +/- *Acacia stenophylla* +/- *Muehlenbeckia florulenta*	224	150	67.0
301	*Eucalyptus largiflorens, Eucalyptus camaldulensis var. camaldulensis* Open Forest over *Callistemon brachyandrus and Enchylaena tomentosa var. tomentosa*	292	92	31.5
401	*Eucalyptus largiflorens* Open Forest *over Muehlenbeckia florulenta* +/- *Enchylaena tomentosa var. tomentosa*	946	295	31.2
402	*Eucalyptus largiflorens* Woodland *over Chenopodium nitrariaceum* +/- *Muehlenbeckia florulenta* +/- *Eremophila divaricata*	1754	1013	57.8
403	*Eucalyptus largiflorens* Low Woodland over *Enchylaena tomentosa var. tomentosa* +/- *Setaria jubiflora*	601	107	17.8

Group Code	Detailed Floristic Description	Total Area (ha)	Area Protected (ha)	% Protected
501	*Eucalyptus largiflorens, Acacia stenophylla* Low Woodland over *Muehlenbeckia florulenta, Enchylaena tomentosa var. tomentosa*	1437	790	55.0
601	*Melaleuca lanceolata ssp. lanceolata* +/- *Eucalyptus largiflorens* Low Open Forest over +/- *Enchylaena tomentosa var. tomentosa*	1524	672	44.1
701	*Melaleuca halmaturorum* Very Low Open Forest over +/- *Juncus kraussii* +/- *Samolus repens* +/- *Suaeda australis* +/- *Sarcocornia quinqueflora*	144	12	8.3
801	*Eucalyptus camaldulensis var. camaldulensis* Woodland over *Muehlenbeckia florulenta* +/- *Setaria jubiflora* +/- *Cyperus gymnocaulos* +/- *Acacia stenophylla*	3054	893	29.2
802	*Eucalyptus camaldulensis var. camaldulensis* Low Woodland over *Phragmites australis* +/- *Muehlenbeckia florulenta*	1207	202	16.7
803	*Eucalyptus camaldulensis var. camaldulensis* Woodland over +/- *Cyperus gymnocaulos* +/- *Senecio cunninghamii var. cunninghamii*	1636	523	32.0
901	*Eucalyptus camaldulensis var. camaldulensis, Acacia stenophylla* Woodland over *Muehlenbeckia florulenta, Setaria jubiflora*	272	70	25.7
1001	*Eucalyptus camaldulensis var. camaldulensis, Eucalyptus largiflorens* Low Open Forest over *Muehlenbeckia florulenta* +/- *Acacia stenophylla*	7378	3028	41.0
1002	*Eucalyptus camaldulensis var. camaldulensis, Eucalyptus largiflorens* Woodland over +/- *Enchylaena tomentosa var. tomentosa* +/- *Muehlenbeckia florulenta* +/- *Cyperus gymnocaulos*	1554	438	28.2
1101	*Eucalyptus largiflorens* +/- *Eucalyptus camaldulensis var. camaldulensis* Woodland over *Halosarcia pergranulata ssp. pergranulata* +/- *Halosarcia indica ssp. leiostachya* +/- *Disphyma crassifolium ssp. clavellatum*	515	114	22.1
1201	*Eucalyptus largiflorens* Woodland over *Muehlenbeckia florulenta*	2872	989	34.4
1202	*Eucalyptus largiflorens* Low Woodland over +/- *Atriplex rhagodioides* +/- *Enchylaena tomentosa var. tomentosa* +/- *Disphyma crassifolium ssp. clavellatum*	7302	3203	43.9
1203	*Eucalyptus largiflorens* Low Woodland over *Maireana pyramidata*	119	52	43.7
1301	*Acacia stenophylla* Low Woodland over *Muehlenbeckia florulenta, Enchylaena tomentosa var. tomentosa*	290	148	51.0
1302	*Acacia stenophylla* Low Woodland over *Enchylaena tomentosa var. tomentosa*	93	36	38.7
1303	*Acacia stenophylla* Low Woodland over *Chenopodium nitrariaceum*	21	3	14.3
1401	*Eucalyptus porosa, Acacia stenophylla* Low Open Woodland over *Muehlenbeckia florulenta*	1	0	0.0
	Shrublands	**12119**	**4593**	**38.0**
1501	*Muehlenbeckia florulenta* Tall Shrubland over +/- *Enchylaena tomentosa var. tomentosa* +/- *Halosarcia pergranulata ssp. pergranulata* +/- *Suaeda australis*	8084	3161	39.1
1502	*Muehlenbeckia florulenta* Shrubland over +/- *Sporobolus mitchellii* +/- *Sporobolus virginicus*	3895	1337	34.3
1601	*Dodonaea viscosa ssp. angustissima* Tall Open Shrubland over **Bromus rubens, *Schismus barbatus* +/- *Enchylaena tomentosa var. tomentosa*	140	93	66.4
	Chenopod shrublands	**31284**	**7470**	**24.0**

Group Code	Detailed Floristic Description	Total Area (ha)	Area Protected (ha)	% Protected
1701	*Atriplex rhagodioides* Shrubland over *Enchylaena tomentosa var. tomentosa* +/- *Halosarcia pergranulata ssp. pergranulata* +/- *Disphyma crassifolium ssp. clavellatum*	2501	920	36.8
1801	*Chenopodium nitrariaceum* Shrubland	351	159	45.3
1901	*Suaeda australis* +/- *Sarcocornia quinqueflora* Low Closed Shrubland over +/- *Samolus repens*	285	15	5.3
2001	*Atriplex lindleyi ssp. lindleyi* +/- *Sclerolaena muricata var. muricata* Low Shrubland over +/- *Atriplex semibaccata*	3818	1976	51.8
2101	*Halosarcia halocnemoides ssp. halocnemoides, Sclerostegia arbuscula* Low Shrubland over *Disphyma crassifolium ssp. clavellatum, Maireana oppositifolia*	1091	5	0.5
2102	*Halosarcia indica ssp.* leiostachya Low Shrubland over +/- *Suaeda australis* +/- *Disphyma crassifolium ssp. clavellatum*	1109	191	17.2
2103	*Halosarcia pergranulata ssp. pergranulata* +/- *Halosarcia indica ssp. leiostachya* Low Shrubland over +/- *Disphyma crassifolium ssp. clavellatum*	3441	718	20.9
2104	*Halosarcia pergranulata ssp.* pergranulata Low Shrubland over +/- **Hordeum marinum* +/- *Disphyma crassifolium ssp. clavellatum* +/- *Suaeda australis*	10369	1087	10.5
2105	*Sclerostegia arbuscula* Low Shrubland over +/- *Sarcocornia quinqueflora* +/- **Hordeum marinum* +/- *Suaeda australis*	1207	108	8.9
2201	*Sarcocornia quinqueflora* Low Shrubland over +/- *Samolus repens* +/- *Suaeda australis*	1768	129	7.3
2301	*Atriplex vesicaria* +/- *Maireana sedifolia* Low Open Shrubland	738	253	34.3
2401	*Maireana brevifolia* Low Open Shrubland over *Enchylaena tomentosa var. tomentosa*	406	1	0.2
2501	*Maireana oppositifolia* Low Open Shrubland over *Austrostipa stipoides*	9	1	11.1
2601	*Maireana pyramidata* Low Open Shrubland over +/- *Atriplex lindleyi ssp. lindleyi* +/- **Schismus barbatus*	1351	671	49.7
2701	*Pachycornia triandra* Low Open Shrubland over +/- *Disphyma crassifolium ssp. clavellatum*	1106	491	44.4
2801	*Sclerolaena tricuspis, Sclerolaena brachyptera* Low Open Shrubland over +/- *Brachycome lineariloba* +/- *Plantago cunninghamii*	1734	745	43.0
	Grasslands	**7800**	**1597**	**20.0**
2901	*Phragmites australis* Closed (Tussock) Grassland over +/- *Muehlenbeckia florulenta* +/- *Bolboschoenus caldwellii*	538	81	15.1
2902	*Phragmites australis* +/- *Typha domingensis* +/- *Schoenoplectus validus* Closed (Tussock) Grassland over +/- **Paspalum vaginatum* +/- **Paspalum distichum*	4507	352	7.8
3001	*Agrostis avenacea var. avenacea* (Tussock) Grassland over *Eleocharis acuta* +/- **Polypogon monspeliensis*	252	8	3.2
3101	*Sporobolus virginicus or Sporobolus mitchellii* (Tussock) Grassland over +/- *Sclerolaena tricuspis*	1444	284	19.7
3201	*Austrostipa stipoides* (Tussock) Grassland over *Lawrencia squamata and Distichlis distichophylla*	71	6	8.5
3301	*Eragrostis australasica, Muehlenbeckia florulenta* Open (Tussock) Grassland over *Trichanthodium skirrophorum, Senecio glossanthus*	988	866	87.7
	Sedgeland	**2483**	**121**	**5**
3401	*Baumea juncea* Closed Sedgeland over *Samolus repens* and *Distichlis distichophylla*	42	0	0.0

Group Code	Detailed Floristic Description	Total Area (ha)	Area Protected (ha)	% Protected
3501	*Gahnia filum* +/- *Gahnia trifida* +/- *Juncus kraussii* Sedgeland over *Suaeda australis* +/- *Samolus repens*	806	53	6.6
3601	*Juncus kraussii* Sedgeland over +/- *Suaeda australis* +/- *Samolus repens*	268	2	0.7
3701	*Typha domingensis* Sedgeland over +/- **Paspalum vaginatum* +/- **Paspalum distichum*	1246	61	4.9
3702	*Typha orientalis* Sedgeland over +/- *Schoenoplectus validus*	121	4	3.3
	Herbland	**2158**	**802**	**37**
3801	*Angianthus tomentosus* Herbland over *Atriplex lindleyi ssp. lindleyi*	302	174	57.6
3901	*Disphyma crassifolium ssp. clavellatum* Very Open Mat Plants over *Atriplex lindleyi ssp. lindleyi*	1742	596	34.2
4001	*Polycalymma stuartii* Herbland +/- *Enchylaena tomentosa var. tomentosa*	114	32	28.1

Source: Floristic Vegetation Mapping (GIS) current to December 2004 (DEH).
Protected Areas includes NPWS Reserves (GIS) current to December 2004 (DEH); Heritage Agreements (GIS) current to July 2003 (DEH); Forestry Reserves (GIS) current to December 2004 (Forestry SA).

3.4 HEALTH SITE DATA

The site data was analysed to form the basis for the tree health mapping. Across the 337 sites 208 sites had tree health data with up to three tree species being recorded at site. These scores were averaged for each species at a site to guide the mapping process, with the range of values from 0 to 5 (where 0 is dead and 5 is healthy). For the overstorey species the average health data for each species recorded at the sites is summarised individually when identified as first, second, or third species, as well as an overall health rating for each species (Table 5).

Table 5: Summary of tree health data at averaged from the individuals at a site, including averages for first, second, and third species, overall average health at the sites and total number of sites where data was collected.

Species	First species	Second species	Third species	Overall health	# records
Acacia stenophylla	2.9	3.6	3.7	3.4	57
Casuarina pauper	3.6	-	-	3.6	1
Eucalyptus camaldulensis var. *camaldulensis*	2.8	2.25	1	2	117
Eucalyptus cyanophylla	4.4	4.8	-	4.6	2
Eucalyptus largiflorens	1.7	4.2	5	2.9	107
Eucalyptus oleosa	4.7	-	-	4.7	1
Eucalyptus porosa	2.75	4	-	3.4	1
Eucalyptus socialis	-	4.9	-	4.9	1
Melaleuca halmaturorum	4.2	-	-	4.2	6
Melaleuca lanceolata ssp. *lanceolata*	-	4.1	-	4.1	5
Myoporum montanum	-	4.2	-	4.2	1

Across the sites shrub health data was recorded at 271 sites. The understorey species were recorded with health information for up to four species at a site, with the range of health ratings from 0 to 3 (where 0 is dead and 3 is healthy). The average health data for each species recorded at the sites is summarised individually for the first, second, third or fourth species, as well as an overall health rating for each species (Table 6).

Table 6: Summary of the health averages of the understorey species, including averages for first, second, third and fourth species, overall average health at the sites and total number of sites where data was collected.

Species	First species	Second species	Third species	Fourth species	Overall	# sites
Atriplex lindleyi ssp. *lindleyi*	2.1	1.25	1	2.5	1.6	5
Atriplex nummularia ssp.	1.6	-	-	-	1.6	1
Atriplex paludosa ssp. *cordata*	3	-	-	-	3	1
Atriplex rhagodioides	2.3	2.5	2	-	2.3	17
Atriplex semibaccata	2	3	-	-	2.5	2
Atriplex sp.	3	2.8	-	-	2.9	2
Atriplex stipitata	2.25	-	-	-	2.25	1
Callistemon brachyandrus	2.1	-	-	-	2.1	6
Chenopodium nitrariaceum	1.65	-	-	-	1.6	6
Disphyma crassifolium ssp. *clavellatum*	1.3	1.55	-	-	1.4	5
Dodonaea viscosa ssp. *angustissima*	2.2	-	3	-	2.35	6
Einadia nutans ssp. *nutans*	3	-	0	-	1.5	2
Enchylaena tomentosa var. *tomentosa*	2.4	2.1	2.1	-	2.26	36
Eremophila divaricata ssp. *divaricata*	1.4	2.67	1	-	1.4	7
Eriochiton sclerolaenoides	-	0.7	-	-	0.7	1
Halosarcia indica ssp. *bidens*		-	3	-	3	1
Halosarcia indica ssp. *leiostachya*	2.2	2.8	2.6	-	2.4	21
Halosarcia pergranulata ssp. *pergranulata*	2.1	2.1	-	-	2.1	41
Halosarcia sp.	1.3	-	-	-	1.3	1
Lawrencia squamata	-	2.5	3		2.75	2
Lycium ferocissimum	1.9	-	2.7	-	2.1	3
Maireana appressa	-	1	-		1	1
Maireana brevifolia	1.45	2.75	-	-	1.9	3
Maireana ciliata	-	1.5	-		1.5	1
Maireana pentatropis	-	0.5	-		0.5	1
Maireana pyramidata	1.65	-	-	-	1.65	3
Melaleuca lanceolata ssp. *lanceolata*	2.8	-	-	-	2.8	1
Muehlenbeckia florulenta	1.6	1.5	-	-	1.6	133
Myoporum montanum	3	2	-	-	2.7	3
Pachycornia triandra	1.43	-	2.7	-	1.6	7
Rhagodia parabolica	3	-	-	-	3	2
Rhagodia spinescens	2.8	-	3	-	2.6	2
Samolus repens					3	1
Sarcocornia quinqueflora	2.5	2.4	2	-	2.4	11
Sclerolaena brachyptera	0.7		-	-	0.7	1
Sclerolaena muricata var. *muricata*	-	0.25	-	0	0.25	2
Sclerolaena stelligera	0.7	-	-	-	0.7	1
Sclerolaena tricuspis	0.4	-	1	-	0.9	7
Senecio cunninghamii var. *cunninghamii*	2.9	-	-	-	2.9	5
Senecio pinnatifolius	-	1.7	-	-	1.7	1
Suaeda australis	2.7	2.6	2.5	-	2.6	13
Threlkeldia diffusa	-	3	-	-	3	1

3.5 TREE HEALTH MAPPING

Across the floodplain 18% of the region was mapped with tree health information. As discussed in the method section the proportion of area of each vegetation group was assigned to the polygon but no percent was provided for each tree species assigned a health rating. As the relationship between the health data and vegetation mapping data is complex some assumptions have been made to attempt to summarise the health mapping in this section.

To summarise the mapping each health value was ascribed an arbitrary percent based on the order of the species within the mapped area. To attempt to provide a compromise in the wide variation in the types of spatial mixes of the species mapped, the species health data was given an equal weighting for the calculation:

1. One health value: percent = 100
2. Two health values: percent of each = 50
3. Three health values: percent of each = 33.33

From these calculations (Table 7), across the floodplain slightly more of the area mapped as trees was defined as unhealthy than healthy. Looking at individual trees species, over half the area mapped as *Eucalyptus largiflorens* was unhealthy while in contrast a similar percent of *Eucalyptus camaldulensis var. camaldulensis* trees were healthy. For the species considered minor based on a lower total area mapped (*Acacia stenophylla*, *Melaleuca halmaturorum, Melaleuca lanceolata* ssp*. lanceolata*), were generally healthy.

Table 7: Summary statistics of the tree health mapping data (area in hectares and percent of the area in each health class for the mapped species) based on assumptions for the proportion of area of each species within the delineated area

Species		Healthy	Unhealthy	Dead
Acacia stenophylla	Percent	74%	24%	2%
Acacia stenophylla	Area (ha)	2825	935	69
Eucalyptus camaldulensis var. camaldulensis	Percent	51%	39%	11%
Eucalyptus camaldulensis var. camaldulensis	Area (ha)	7651	5855	1640
Eucalyptus largiflorens	Percent	29%	59%	12%
Eucalyptus largiflorens	Area (ha)	6331	12846	2547
Eucalyptus porosa	Percent	100%	0%	0%
Eucalyptus porosa	Area (ha)	1	0	0
Melaleuca halmaturorum	Percent	100%	0%	0%
Melaleuca halmaturorum	Area (ha)	5	0	0
Melaleuca lanceolata ssp. lanceolata	Percent	99%	1%	0%
Melaleuca lanceolata ssp. lanceolata	Area (ha)	869	3	
Total	**Percent**	**43**	**47**	**10**
	Area (ha)	**17682**	**19639**	**4256**

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Appendix 1: Data Collected during Field Survey

		FIELD DATA COLLECTED
		Physical Datasheet
1.	*	Site number
2.	*	Observers
3.	*	Survey date
4.	*	Field sequence (week, group, sequence of site surveyed in the field)
5.		Hundred
6.		Section
7.		Property (type of public land)
8.		Owners
9.		Mapsheet number
10.		Mapsheet name
11.	*	AMG zone
12.	*	Easting
13.	*	Northing
14.	*	Altitude
15.		Method (used to determine coordinates)
16.		Datum
17.	*	Reliability (accuracy of location)
18.	*	Quadrat size (if not 30 x 30 m)
19.	*	Aerial survey / photo number
20.		East (measurement to pin prick in aerial photo [mm] from western photo edge)
21.		North (measurement to pin prick in aerial photo [mm] from southern photo edge)
22.		Site photo number
23.		Direction of site photo (degrees)
24.		Location map (sketch of location) locations comments (directions to the site from local major features)
25.	*	General landscape description
26.		Site landform pattern
27.	*	Site landform element (type)
28.	*	Site slope (degrees)
29.	*	Site aspect (degrees)
30.		Outcrop cover
31.		Outcrop lithology
32.	*	Surface strew size
33.	*	Surface strew cover
34.	*	Surface strew lithology
35.		Fire scars (y/n) last fire (year)
36.		Bare earth/litter/Salt crystals estimate %
37.		Presence of erosion and comments
38.		Disturbance factors - Power lines/bee hives/water points/fire breaks/coppice regrowth/drains/earthworks/slashing/ remnant adjoins roadside vegetation/fence lines/rubbish dump/quarry pits/access tracks
39.		Vertebrate presence (presence/absence) Rabbit/hare/kangaroo/macropod/goat/sheep/cattle/echidna/mallee fowl/pig possum/wombat/fox/emu/cat/koala/horse/other vertebrate/reptiles
40.	*	Surface soil texture class
		Vegetation Datasheet
41.		Climatic condition
42.	*	Plant species name
43.	*	Voucher number
44.	*	Association Dominance (Overstorey, understorey or emergent)
45.		Lifeform (using Muir's' table)
46.	*	Cover/abundance (adapted Braun-Blanquet measure)
47.		Life stages (flowering fruiting budding etc.) / Comments (about the plant species / voucher specimen)

		FIELD DATA COLLECTED
48.		Structural summary of the vegetation (structural assemblage)S
49.	*	Vegetation association description (overstorey dominant species, structural description (using Muir's' table), dominant shrub & ground species)
50.		Upper stratum age class (presence/absence of seedlings, saplings, mature trees, senescent trees and hollows for dominant/codominant overstorey tree/mallee species)
51.	*	Overstorey height (ten estimates)
52.	*	Crown depth (ten estimates)
53.	*	Canopy diameter (ten estimates)
54.	*	Gap (ten estimates)
55.	*	Canopy type %
56.		Overall vegetation comments
57.		Vegetation Health Assessment – Tree Health (10 assessments in proportion to dominance/codominance of species)
58.		Vegetation Health Assessment – Non Tree Health (10 assessments in proportion to dominance/codominance of species)
59.		Vegetation Health comments

** Considered to be essential for mapping and analysis and thus comprise the minimum data set.*

Appendix 2: Health Assessment Methodology as part of the Biological survey methodology

Please complete the tree health section of the separate datasheet for vegetation health assessment. A total of 10 health assessments for the trees present are required, including living and dead. The trees need to be rated 0 – 5 based on the criteria indicated below. If a mix of tree species is present, then assess the 10 trees (dead or living) in proportion to dominance/codominance. For example, if there is proportionately 80% *E. camaldulensis* var. *camaldulensis* and 20% *E. largiflorens*, then measure 8 and 2 respectively. If less than 10 trees are present in the quadrat then assess trees beyond the quadrat but within the vegetation community type that reflects the vegetation community surveyed in the quadrat. Choose individual trees to assess that represent an overview of tree health (dead or living) within that vegetation community. Stand back from each tree with sufficient distance so that you can view as much as possible of the whole canopy of each individual tree. Assess the health using the Tree Health Rating criteria and the example photos for each species (Tree Health Rating laminated sheets – see attached). In areas of denser trees choose a transect line (can be the same line used to select trees for the overstorey measurements) and move along this line assessing representative trees.

Note: The percentage of original canopy present is the main determining criteria to use in assessing tree health.

Tree Health Assessment Table

Tree Health Rating	Tree Health Rating Description
5	Tree with >75% of original canopy present, Less than 5% epicormic growth, May include some dead branchlets and leaves.
4	Tree with 50 – 75% of original canopy present, Epicormic growth less than 10% of remaining canopy, Some dead branchlets (<50% of canopy)
3	Tree with 25 – 49% of original canopy present, Some epicormic growth (<50% of remaining canopy), Some small dead branches.(<50% canopy)
2	Tree with < 25% of original canopy present, Predominantly epicormic growth (>50% of remaining canopy), Some main branches dead (<50% canopy)
1	Unhealthy tree with no original canopy, All epicormic growth, Most main branches dead. (>50% canopy)
0	Dead Tree

Source: Adapted from Grimes (1987) and Lay & Meissner (1985).

ASSESSMENT										
SPECIES NAME	1	2	3	4	5	6	7	8	9	10

COMMENTS

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Non-Tree Species Health

For the Non-Tree Health assessment focus on the dominant / codominant perennial shrubs including lignum (up to 5 species may be assessed). Rate a total of 10 individuals using the Non-Tree Health Rating criteria in the Non-Tree health Rating table below. If a mix of non-tree species dominate the vegetation community, then complete the 10 assessments of non-tree species (living or dead) in proportion to their dominance / codominance. For example, if there is proportionately 30% *Muehlenbeckia florulent*a, 30% *Halosarcia pergranulata* ssp. *pergranulata,* 20% *Halosarcia indica* ssp. *leiostachya* and 20 % *Enchylaena tomentosa* var. *tomentosa*, then assess 3, 3, 2 and 2 individual plants of each species respectively. If less than 10 individual plants of the dominant non-tree species are present in the quadrat then assess non-tree species beyond the quadrat but within the vegetation community type that reflects the vegetation community surveyed in the quadrat. Choose individual non-tree species (dead or living) to assess that represent an overview of the non-tree species health within that vegetation community. Stand back from each non-tree species with sufficient distance so that you can view as much as possible of the whole canopy of each individual non-tree species.

Non-Tree Health Assessment Table

Rating	Description
0	Dead plant species. For Lignum no stems appear active (green).
1	Plant species with little (1-30%) foliage, including resprouting foliage. Most main branches or stems appear dead or dormant. May appear unhealthy or chlorotic. For Lignum 1-30% of stems appear active (green).
2	Plant species with 30-70% of the original foliage cover present.. Some small dead branches or stems with chlorosis or withering of leaves. Resprouting may be present amongst remaining foliage. For Lignum 30-70% of stems appear active (green).
3	Plant species with > 70% original foliage cover present. May include <25% of leaves damaged in some way. For Lignum > 70% of stems appear active (green).

Source: Adapted from Grimes (1987) and Lay & Meissner (1985).

Chlorosis – deficiency of chlorophyll in a normally green part of the plant, so that it appears yellow-green, yellow or white as a result of mineral deficiency, inadequate light or infection. (Walker PMB (ed.) (1991) Chambers Science and Technology Dictionary, Chambers Ltd, England.

ASSESSMENT										
SPECIES NAME	1	2	3	4	5	6	7	8	9	10

COMMENTS

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Appendix 3: List of River Murray Survey Sites (survey number 134). Site Location information presented is the unique site identifiers (siteid, patchid), survey visit date, site location based on Geocentric Datum of Australia (GDA94), and physical descriptions.

Survey	SITEID	PATCHID	Visit Date	MGA Zone	Easting	Northing	Landform	Surface soil texture
134	MOO01413	18945	25/10/2002	54	448963	6204441	dune slope	sand
134	PAR01608	18940	18/10/2002	54	481148	6210574	dune/consolidated dune	sand
134	POO00402	18912	23/10/2002	54	410098	6219726	plain (incl. undulating plain)	sand
134	POO00402	18912	15/11/2004	54	410098	6219726	plain (incl. undulating plain)	sand
134	POO00401	18911	23/10/2002	54	409657	6219943	dune/consolidated dune	sand
134	POO00401	18911	15/11/2004	54	409657	6219943	dune/consolidated dune	sand
134	OVE00606	18857	23/10/2002	54	437715	6219322	hill slope	sand
134	OVE00606	18857	10/11/2004	54	437715	6219322	hill slope	sand
134	LOX01502	18826	17/10/2002	54	461798	6205286	dune slope	sand
134	CHO00116	18816	14/10/2002	54	493549	6248604	plain (incl. undulating plain)	sand
134	CHO04701	18815	18/10/2002	54	477655	6238463	plain (incl. undulating plain)	sand
134	LOX01513	18810	17/10/2002	54	467118	6203249	dune crest	sand
134	CHO00117	18800	15/10/2002	54	499507	6245365	dune slope	sand
134	CHO00117	18800	11/11/2003	54	499507	6245365	dune slope	sand
134	REN01509	18799	14/10/2002	54	466899	6210726	plain (incl. undulating plain)	sand
134	REN01509	18799	15/11/2003	54	466899	6210726	plain (incl. undulating plain)	sand
134	REN00804	18776	17/10/2002	54	473618	6230670	dune slope	sand
134	CAD00306	19097	21/11/2002	54	389804	6231589	sandy plain	loamy sand
134	CAD00306	19097	1/04/2004	54	389804	6231589	sandy plain	loamy sand
134	CAD00303	19096	21/11/2002	54	388538	6232903	sandy plain	loamy sand
134	CAD00303	19096	31/03/2004	54	388538	6232903	sandy plain	loamy sand
134	BLA01819	19091	19/11/2002	54	372158	6186970	sandy plain	loamy sand
134	MOR01003	19066	21/11/2002	54	373400	6209991	hill slope	loamy sand
134	MOR01003	19066	4/04/2004	54	373400	6209991	hill slope	loamy sand
134	CAU02616	19062	20/11/2002	54	366650	6139791	plain (incl. undulating plain)	loamy sand
134	CAU02616	19062	27/08/2004	54	366650	6139791	plain (incl. undulating plain)	loamy sand
134	MIL03302	19003	14/11/2002	54	304343	6079490	plain (incl. undulating plain)	loamy sand
134	MEN04202	18998	12/11/2002	54	347495	6063334	plain (incl. undulating plain)	loamy sand
134	NAR04111	18980	11/11/2002	54	333166	6059433	sandy plain	loamy sand
134	LOX02013	18916	24/10/2002	54	454240	6189875	dune/consolidated dune	loamy sand
134	OVE01410	18914	24/10/2002	54	446918	6215155	plain (incl. undulating plain)	loamy sand
134	OVE01402	18913	23/10/2002	54	443597	6213044	plain (incl. undulating plain)	loamy sand
134	OVE01402	18913	9/11/2004	54	443597	6213044	plain (incl. undulating plain)	loamy sand
134	OVE01303	18895	23/10/2002	54	434844	6217029	levee	loamy sand
134	OVE01302	18894	23/10/2002	54	434866	6217818	plain (incl. undulating plain)	loamy sand
134	LOX02121	18893	23/10/2002	54	456807	6189841	dune slope	loamy sand
134	OVE00610	18858	23/10/2002	54	437298	6218597	hill footslope	loamy sand
134	OVE00610	18858	10/11/2004	54	437298	6218597	hill footslope	loamy sand
134	LOX02108	18855	22/10/2002	54	459241	6199592	plain (incl. undulating plain)	loamy sand
134	MOO01411	18850	21/10/2002	54	445203	6205722	lunette	loamy sand
134	MOO01411	18850	8/11/2004	54	445203	6205722	lunette	loamy sand
134	PAR00809	18845	17/10/2002	54	477166	6234808	beach	loamy sand
134	LOX01607	18828	17/10/2002	54	474701	6207183	hill footslope	loamy sand
134	PAR00810	18804	16/10/2002	54	478613	6230747	plain (incl. undulating plain)	loamy sand
134	PAR01607	18794	18/10/2002	54	481187	6210453	plain (incl. undulating	loamy sand

Survey	SITEID	PATCHID	Visit Date	MGA Zone	Easting	Northing	Landform	Surface soil texture
							plain)	
134	CHO00129	18789	17/10/2002	54	498204	6242818	plain (incl. undulating plain)	loamy sand
134	CHO00110	18779	18/10/2002	54	490107	6243559	stream bank	loamy sand
134	PAR00804	18772	16/10/2002	54	479534	6222774	flat	loamy sand
134	PAR00804	18772	15/11/2003	54	479534	6222774	flat	loamy sand
134	BLA01809	19093	20/11/2002	54	372664	6192827	plain (incl. undulating plain)	clayey sand
134	MOR01001	19086	18/11/2002	54	376430	6218141	plain (incl. undulating plain)	clayey sand
134	MOR01001	19086	5/04/2004	54	376430	6218141	plain (incl. undulating plain)	clayey sand
134	CAU02704	19057	19/11/2002	54	368179	6139245	plain (incl. undulating plain)	clayey sand
134	CAD00312	19041	18/11/2002	54	385329	6233908	plain (incl. undulating plain)	clayey sand
134	SWA02203	19037	22/11/2002	54	371491	6175465	plain (incl. undulating plain)	clayey sand
134	SWA02305	19036	21/11/2002	54	366887	6155309	plain (incl. undulating plain)	clayey sand
134	SWA02305	19036	27/08/2004	54	366887	6155309	plain (incl. undulating plain)	clayey sand
134	MOR01007	19028	19/11/2002	54	374351	6213307	plain (incl. undulating plain)	clayey sand
134	MOR01007	19028	4/04/2004	54	374351	6213307	plain (incl. undulating plain)	clayey sand
134	CAD00308	19027	18/11/2002	54	393633	6230360	plain (incl. undulating plain)	clayey sand
134	CAD00308	19027	30/03/2004	54	393633	6230360	plain (incl. undulating plain)	clayey sand
134	CAD00316	19024	18/11/2002	54	396822	6225927	plain (incl. undulating plain)	clayey sand
134	GOO04013	19008	15/11/2002	54	316945	6061542	plain (incl. undulating plain)	clayey sand
134	GOO03911	18993	15/11/2002	54	303168	6065665	plain (incl. undulating plain)	clayey sand
134	MIL04001	18992	15/11/2002	54	311971	6075318	plain (incl. undulating plain)	clayey sand
134	WEL03702	18949	11/11/2002	54	355745	6090866	dune slope	clayey sand
134	POO01208	18927	22/10/2002	54	420715	6218140	hill slope	clayey sand
134	POO00506	18926	22/10/2002	54	423575	6220265	dune crest	clayey sand
134	POO00506	18926	13/11/2004	54	423575	6220265	dune crest	clayey sand
134	LOX02120	18892	23/10/2002	54	456671	6189852	plain (incl. undulating plain)	clayey sand
134	MOO02003	18878	24/10/2002	54	448319	6195860	dune slope	clayey sand
134	MOO02004	18877	24/10/2002	54	448188	6195303	dune crest	clayey sand
134	MOO02004	18877	8/11/2004	54	448188	6195303	dune crest	clayey sand
134	LOX02106	18854	22/10/2002	54	456407	6187313	plain (incl. undulating plain)	clayey sand
134	LOX01517	18827	17/10/2002	54	460263	6203024	flat	clayey sand
134	LOX01517	18827	15/11/2003	54	460263	6203024	flat	clayey sand
134	PAR04703	18819	15/10/2002	54	485396	6237594	plain (incl. undulating plain)	clayey sand
134	REN00801	18806	16/10/2002	54	474084	6227406	plain (incl. undulating plain)	clayey sand
134	CHO00120	18801	15/10/2002	54	499493	6246096	dune slope	clayey sand
134	CHO00130	18792	17/10/2002	54	497096	6244578	plain (incl. undulating plain)	clayey sand
134	CHO00130	18792	11/11/2003	54	497096	6244578	plain (incl. undulating plain)	clayey sand
134	PAR01604	18788	16/10/2002	54	479141	6217600	plain (incl. undulating plain)	clayey sand
134	PAR01604	18788	15/11/2003	54	479141	6217600	plain (incl. undulating plain)	clayey sand
134	CHO00106	18777	18/10/2002	54	487963	6244518	plain (incl. undulating plain)	clayey sand
134	CHO00106	18777	12/11/2003	54	487963	6244518	plain (incl. undulating plain)	clayey sand
134	LOX01504	18769	15/10/2002	54	461238	6202059	flat	clayey sand
134	LOX01504	18769	15/11/2003	54	461238	6202059	flat	clayey sand
134	LOX01503	18768	15/10/2002	54	461462	6202889	flat	clayey sand

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134	LOX01503	18768	15/11/2003	54	461462	6202889	flat	clayey sand
134	MOR00216	19070	18/11/2002	54	376056	6220809	plain (incl. undulating plain)	sandy loam
134	MOR00216	19070	4/04/2004	54	376056	6220809	plain (incl. undulating plain)	sandy loam
134	MOR00202	19054	18/11/2002	54	378143	6233755	dune/consolidated dune	sandy loam
134	MOR00202	19054	30/03/2004	54	378143	6233755	dune/consolidated dune	sandy loam
134	MAN04B06	19044	19/11/2002	54	361100	6140350	other	sandy loam
134	MOR00201	19040	18/11/2002	54	379949	6236064	open depression	sandy loam
134	MOR00201	19040	30/03/2004	54	379949	6236064	open depression	sandy loam
134	BLA01804	19030	19/11/2002	54	373176	6199226	plain (incl. undulating plain)	sandy loam
134	TEP02505	18972	14/11/2002	54	340011	6132182	flood out	sandy loam
134	TEP02506	18971	14/11/2002	54	340183	6132054	flood out	sandy loam
134	NAR03B04	18965	12/11/2002	54	332659	6062122	plain (incl. undulating plain)	sandy loam
134	MOB03204	18964	12/11/2002	54	359452	6099580	plain (incl. undulating plain)	sandy loam
134	NAR04110	18963	11/11/2002	54	334261	6062213	plain (incl. undulating plain)	sandy loam
134	MOB02804	18958	14/11/2002	54	349479	6124821	plain (incl. undulating plain)	sandy loam
134	MOB02804	18958	27/08/2004	54	349479	6124821	plain (incl. undulating plain)	sandy loam
134	MAN02801	18957	13/11/2002	54	347641	6128010	stream bank	sandy loam
134	POO00415	18944	22/10/2002	54	412104	6219618	hill slope	sandy loam
134	POO00415	18944	15/11/2004	54	412104	6219618	hill slope	sandy loam
134	MOO02007	18923	21/10/2002	54	451138	6193272	flat	sandy loam
134	MOO02008	18918	25/10/2002	54	452962	6197959	dune crest	sandy loam
134	LOX02009	18917	25/10/2002	54	455132	6196942	plain (incl. undulating plain)	sandy loam
134	CAD00401	18908	22/10/2002	54	404396	6225085	hill slope	sandy loam
134	POO00501	18899	24/10/2002	54	419718	6218967	cliff footslope	sandy loam
134	MOO02005	18876	24/10/2002	54	447871	6193805	plain (incl. undulating plain)	sandy loam
134	MOO02005	18876	9/11/2004	54	447871	6193805	plain (incl. undulating plain)	sandy loam
134	POO01103	18869	22/10/2002	54	407981	6217515	stream channel	sandy loam
134	POO01103	18869	16/11/2004	54	407981	6217515	stream channel	sandy loam
134	CAD00416	18865	25/10/2002	54	398620	6227947	flat	sandy loam
134	CAD00416	18865	31/03/2004	54	398620	6227947	flat	sandy loam
134	CHO04704	18841	16/10/2002	54	485191	6240263	other	sandy loam
134	CHO04704	18841	12/11/2003	54	485191	6240263	other	sandy loam
134	PAR00101	18820	15/10/2002	54	486181	6237263	flat	sandy loam
134	PAR00101	18820	13/11/2003	54	486181	6237263	flat	sandy loam
134	CHO00101	18818	14/10/2002	54	486885	6238153	flat	sandy loam
134	LOX01501	18766	15/10/2002	54	457871	6203023	flat	sandy loam
134	CAD00302	19039	18/11/2002	54	388395	6235606	open depression	loam
134	CAD00302	19039	31/03/2004	54	388395	6235606	open depression	loam
134	MEN04204	18997	12/11/2002	54	349906	6061675	flat	loam
134	ALE03502	18995	11/11/2002	54	336138	6091126	plain (incl. undulating plain)	loam
134	TEP02504	18973	14/11/2002	54	338940	6132130	plain (incl. undulating plain)	loam
134	TEP02504	18973	27/08/2004	54	338940	6132130	plain (incl. undulating plain)	loam
134	WEL03609	18970	13/11/2002	54	350238	6080385	swamp	loam
134	WEL03608	18969	13/11/2002	54	351015	6082127	lake	loam
134	MOB03203	18968	13/11/2002	54	356202	6100244	swamp	loam
134	WEL03205	18967	12/11/2002	54	359125	6097033	closed depression	loam
134	NAR04103	18962	11/11/2002	54	333437	6065365	plain (incl. undulating plain)	loam
134	REN01606	18849	18/10/2002	54	473974	6210126	flat	loam
134	REN01606	18849	15/11/2003	54	473974	6210126	flat	loam
134	REN00809	18846	17/10/2002	54	476874	6234346	plain (incl. undulating plain)	loam
134	PAR01610	18831	18/10/2002	54	481762	6216098	flat	loam
134	PAR01610	18831	15/11/2003	54	481762	6216098	flat	loam

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134	YAM01601	18829	17/10/2002	54	478211	6209200	flat	loam
134	LOX01510	18811	17/10/2002	54	467092	6205752	plain (incl. undulating plain)	loam
134	LOX01510	18811	15/11/2003	54	467092	6205752	plain (incl. undulating plain)	loam
134	PAR00813	18805	16/10/2002	54	479130	6228626	plain (incl. undulating plain)	loam
134	PAR00813	18805	13/11/2003	54	479130	6228626	plain (incl. undulating plain)	loam
134	MIL03906	19005	14/11/2002	54	299041	6073162	plain (incl. undulating plain)	silty loam
134	MAN02510	18984	12/11/2002	54	347896	6136564	flood out	silty loam
134	MAN02510	18984	26/08/2004	54	347896	6136564	flood out	silty loam
134	MOB03105	18961	15/11/2002	54	346416	6109183	swamp	silty loam
134	MOB03105	18961	28/08/2004	54	346416	6109183	swamp	silty loam
134	MAN02512	18959	14/11/2002	54	346057	6130058	stream bank	silty loam
134	MAN02512	18959	27/08/2004	54	346057	6130058	stream bank	silty loam
134	MOL04902	18950	11/11/2002	54	368596	6084486	playa/pan	silty loam
134	WEL03703	18948	11/11/2002	54	353915	6087350	open depression	silty loam
134	POO00502	18898	24/10/2002	54	419768	6218758	back plain	silty loam
134	POO01206	18897	24/10/2002	54	419160	6217870	flat	silty loam
134	LOX02111	18891	22/10/2002	54	460361	6193736	back plain	silty loam
134	LOX02111	18891	7/11/2004	54	460361	6193736	back plain	silty loam
134	OVE01417	18860	23/10/2002	54	445066	6211714	flat	silty loam
134	OVE01417	18860	9/11/2004	54	445066	6211714	flat	silty loam
134	OVE00602	18859	23/10/2002	54	438504	6220348	closed depression	silty loam
134	OVE00602	18859	9/11/2004	54	438504	6220348	closed depression	silty loam
134	REN04705	18843	17/10/2002	54	474458	6236226	closed depression	silty loam
134	REN04705	18843	13/11/2003	54	474458	6236226	closed depression	silty loam
134	CHO00103	18840	16/10/2002	54	489677	6241081	flat	silty loam
134	PAR00801	18837	15/10/2002	54	477441	6226158	flat	silty loam
134	PAR00814	18836	15/10/2002	54	480953	6225861	flat	silty loam
134	PAR00812	18835	15/10/2002	54	478850	6224529	flat	silty loam
134	CHO00111	18817	14/10/2002	54	493146	6246121	flat	silty loam
134	CHO00111	18817	11/11/2003	54	493146	6246121	flat	silty loam
134	SWA02206	19083	22/11/2002	54	372152	6169622	plain (incl. undulating plain)	sandy clay loam
134	BLA01805	19081	21/11/2002	54	373093	6193863	plain (incl. undulating plain)	sandy clay loam
134	BLA01805	19081	6/04/2004	54	373093	6193863	plain (incl. undulating plain)	sandy clay loam
134	SWA02208	19078	20/11/2002	54	372733	6169341	plain (incl. undulating plain)	sandy clay loam
134	SWA02208	19078	7/04/2004	54	372733	6169341	plain (incl. undulating plain)	sandy clay loam
134	CAU02306	19073	19/11/2002	54	367648	6149319	plain (incl. undulating plain)	sandy clay loam
134	SWA02304	19067	22/11/2002	54	367523	6157368	hill footslope	sandy clay loam
134	SWA02304	19067	27/08/2004	54	367523	6157368	hill footslope	sandy clay loam
134	BLA01001	19065	21/11/2002	54	374127	6205299	plain (incl. undulating plain)	sandy clay loam
134	BLA01001	19065	4/04/2004	54	374127	6205299	plain (incl. undulating plain)	sandy clay loam
134	SWA02213	19051	22/11/2002	54	373604	6166171	other	sandy clay loam
134	SWA02213	19051	6/04/2004	54	373604	6166171	other	sandy clay loam
134	MAN02602	19048	21/11/2002	54	359446	6146352	hill slope	sandy clay loam
134	CAD00305	19033	20/11/2002	54	390875	6231732	plain (incl. undulating plain)	sandy clay loam
134	CAD00305	19033	31/03/2004	54	390875	6231732	plain (incl. undulating plain)	sandy clay loam
134	CAD00315	19025	18/11/2002	54	396352	6226738	plain (incl. undulating plain)	sandy clay loam
134	CAD00315	19025	2/04/2004	54	396352	6226738	plain (incl. undulating plain)	sandy clay loam
134	NAR04015	19006	15/11/2002	54	321069	6059216	plain (incl. undulating plain)	sandy clay loam

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134	MIL03306	19002	13/11/2002	54	306199	6077077	drainage depression	sandy clay loam
134	MAN02502	18956	13/11/2002	54	342239	6130997	plain (incl. undulating plain)	sandy clay loam
134	MAN02502	18956	28/08/2004	54	342239	6130997	plain (incl. undulating plain)	sandy clay loam
134	CAD00402	18928	23/10/2002	54	403444	6225500	flat	sandy clay loam
134	CAD00402	18928	13/11/2004	54	403444	6225500	flat	sandy clay loam
134	POO00504	18925	22/10/2002	54	423016	6219451	flat	sandy clay loam
134	POO00504	18925	13/11/2004	54	423016	6219451	flat	sandy clay loam
134	MOO02018	18921	21/10/2002	54	449986	6194137	flat	sandy clay loam
134	CAD00414	18910	23/10/2002	54	404023	6219536	stream bar	sandy clay loam
134	CAD00414	18910	14/11/2004	54	404023	6219536	stream bar	sandy clay loam
134	CAD00406	18906	22/10/2002	54	400133	6228826	stream bar	sandy clay loam
134	LOX02105	18904	21/10/2002	54	458281	6192957	plain (incl. undulating plain)	sandy clay loam
134	LOX02105	18904	9/11/2004	54	458281	6192957	plain (incl. undulating plain)	sandy clay loam
134	LOX02103	18903	21/10/2002	54	458286	6196499	plain (incl. undulating plain)	sandy clay loam
134	POO01203	18872	23/10/2002	54	416756	6217158	other	sandy clay loam
134	CHO04703	18842	16/10/2002	54	483329	6238854	plain (incl. undulating plain)	sandy clay loam
134	CHO04703	18842	12/11/2003	54	483329	6238854	plain (incl. undulating plain)	sandy clay loam
134	LOX01505	18825	17/10/2002	54	465207	6205438	swamp	sandy clay loam
134	LOX01505	18825	15/11/2003	54	465207	6205438	swamp	sandy clay loam
134	REN00810	18807	16/10/2002	54	476018	6223560	plain (incl. undulating plain)	sandy clay loam
134	LOX01508	18798	14/10/2002	54	462176	6203072	plain (incl. undulating plain)	sandy clay loam
134	LOX01508	18798	15/11/2003	54	462176	6203072	plain (incl. undulating plain)	sandy clay loam
134	CHO00114	18770	16/10/2002	54	494478	6241469	flat	sandy clay loam
134	CAU02405	19074	19/11/2002	54	370613	6151810	plain (incl. undulating plain)	clay loam
134	CAU02701	19072	19/11/2002	54	368633	6145151	plain (incl. undulating plain)	clay loam
134	CAU02701	19072	28/08/2004	54	368633	6145151	plain (incl. undulating plain)	clay loam
134	CAU02702	19071	19/11/2002	54	368709	6145173	plain (incl. undulating plain)	clay loam
134	MOR00205	19055	18/11/2002	54	377941	6232257	plain (incl. undulating plain)	clay loam
134	MOR00205	19055	30/03/2004	54	377941	6232257	plain (incl. undulating plain)	clay loam
134	SWA02209	19052	22/11/2002	54	377507	6166232	flat	clay loam
134	SWA02209	19052	7/04/2004	54	377507	6166232	flat	clay loam
134	MEN04506	19015	13/11/2002	54	342979	6042888	plain (incl. undulating plain)	clay loam
134	MIL03305	19004	14/11/2002	54	302277	6080216	plain (incl. undulating plain)	clay loam
134	ALE03601	18994	11/11/2002	54	339374	6090285	plain (incl. undulating plain)	clay loam
134	MOB02802	18991	14/11/2002	54	345419	6115155	plain (incl. undulating plain)	clay loam
134	MOB02802	18991	27/08/2004	54	345419	6115155	plain (incl. undulating plain)	clay loam
134	MOB02803	18990	14/11/2002	54	347111	6119118	clay plain	clay loam

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134	MOB02803	18990	28/08/2004	54	347111	6119118	clay plain	clay loam
134	NAR04403	18978	11/11/2002	54	336310	6053790	open depression	clay loam
134	WEL03705	18977	15/11/2002	54	358602	6082409	plain (incl. undulating plain)	clay loam
134	TEP02501	18974	14/11/2002	54	339266	6132702	swamp	clay loam
134	WEL03704	18966	12/11/2002	54	356060	6078368	stream channel	clay loam
134	OVE01404	18938	25/10/2002	54	443945	6211296	flat	clay loam
134	OVE01403	18937	25/10/2002	54	442708	6211714	flat	clay loam
134	CAD00411	18930	23/10/2002	54	400230	6219886	flat	clay loam
134	CAD00411	18930	15/11/2004	54	400230	6219886	flat	clay loam
134	LOX02011	18905	21/10/2002	54	454459	6193394	plain (incl. undulating plain)	clay loam
134	LOX02011	18905	9/11/2004	54	454459	6193394	plain (incl. undulating plain)	clay loam
134	OVE01401	18881	25/10/2002	54	442562	6212839	plain (incl. undulating plain)	clay loam
134	OVE01401	18881	10/11/2004	54	442562	6212839	plain (incl. undulating plain)	clay loam
134	LOX02110	18856	22/10/2002	54	461414	6196601	plain (incl. undulating plain)	clay loam
134	PAR00807	18808	17/10/2002	54	484551	6231927	plain (incl. undulating plain)	clay loam
134	LOX01507	18797	14/10/2002	54	462450	6203731	plain (incl. undulating plain)	clay loam
134	LOX01507	18797	15/11/2003	54	462450	6203731	plain (incl. undulating plain)	clay loam
134	PAR01601	18795	18/10/2002	54	478175	6217808	plain (incl. undulating plain)	clay loam
134	PAR01603	18793	17/10/2002	54	478573	6217492	plain (incl. undulating plain)	clay loam
134	PAR01603	18793	15/11/2003	54	478573	6217492	plain (incl. undulating plain)	clay loam
134	CHO00119	18782	14/10/2002	54	497558	6246826	plain (incl. undulating plain)	clay loam
134	MOR00210	19068	18/11/2002	54	376985	6225484	plain (incl. undulating plain)	silty clay loam
134	MOR00210	19068	31/03/2004	54	376985	6225484	plain (incl. undulating plain)	silty clay loam
134	ALE03D03	18996	11/11/2002	54	331778	6088206	plain (incl. undulating plain)	silty clay loam
134	MIL03907	18986	13/11/2002	54	303153	6070114	other	silty clay loam
134	MAN02505	18983	12/11/2002	54	351603	6140399	flood out	silty clay loam
134	MAN02506	18982	12/11/2002	54	350156	6138776	flood out	silty clay loam
134	MAN02506	18982	28/08/2004	54	350156	6138776	flood out	silty clay loam
134	NAR04402	18981	11/11/2002	54	333608	6056108	closed depression	silty clay loam
134	MOB03104	18960	15/11/2002	54	346215	6109209	plain (incl. undulating plain)	silty clay loam
134	MOB03104	18960	28/08/2004	54	346215	6109209	plain (incl. undulating plain)	silty clay loam
134	MEN04301	18951	12/11/2002	54	355583	6058616	plain (incl. undulating plain)	silty clay loam
134	OVE01409	18946	24/10/2002	54	445643	6214049	plain (incl. undulating plain)	silty clay loam
134	OVE01409	18946	9/11/2004	54	445643	6214049	plain (incl. undulating plain)	silty clay loam
134	LOX01601	18942	14/10/2002	54	471895	6210026	flat	silty clay loam
134	LOX01601	18942	15/11/2003	54	471895	6210026	flat	silty clay loam
134	MOO01313	18936	25/10/2002	54	441120	6201799	flat	silty clay loam
134	MOO01312	18935	24/10/2002	54	441333	6209187	flat	silty clay loam
134	MOO01408	18932	24/10/2002	54	443115	6202995	flat	silty clay loam
134	CAD00412	18931	23/10/2002	54	401162	6218816	lake	silty clay

Survey	SITEID	PATCHID	Visit Date	MGA Zone	Easting	Northing	Landform	Surface soil texture
								loam
134	CAD00412	18931	15/11/2004	54	401162	6218816	lake	silty clay loam
134	CAD00403	18929	23/10/2002	54	403528	6225547	flat	silty clay loam
134	CAD00403	18929	13/11/2004	54	403528	6225547	flat	silty clay loam
134	MOO02010	18919	25/10/2002	54	452628	6194602	plain (incl. undulating plain)	silty clay loam
134	CAD00405	18907	22/10/2002	54	400838	6229129	plain (incl. undulating plain)	silty clay loam
134	MOO02017	18901	25/10/2002	54	446273	6198103	closed depression	silty clay loam
134	MOO02017	18901	10/11/2004	54	446273	6198103	closed depression	silty clay loam
134	LOX02114	18889	22/10/2002	54	462414	6195397	plain (incl. undulating plain)	silty clay loam
134	LOX02115	18888	22/10/2002	54	462172	6195264	plain (incl. undulating plain)	silty clay loam
134	OVE00607	18885	21/10/2002	54	438842	6219948	open depression	silty clay loam
134	OVE00607	18885	13/11/2004	54	438842	6219948	open depression	silty clay loam
134	OVE00603	18884	21/10/2002	54	439943	6219300	closed depression	silty clay loam
134	OVE00603	18884	13/11/2004	54	439943	6219300	closed depression	silty clay loam
134	LOX02101	18867	21/10/2002	54	458651	6199272	plain (incl. undulating plain)	silty clay loam
134	LOX02101	18867	15/11/2003	54	458651	6199272	plain (incl. undulating plain)	silty clay loam
134	CAD00408	18863	25/10/2002	54	403495	6223784	flat	silty clay loam
134	OVE01306	18861	24/10/2002	54	439053	6217027	swamp	silty clay loam
134	OVE01306	18861	10/11/2004	54	439053	6217027	swamp	silty clay loam
134	LOX02116	18853	22/10/2002	54	462089	6191122	open depression	silty clay loam
134	MOO01406	18851	21/10/2002	54	442806	6207523	plain (incl. undulating plain)	silty clay loam
134	LOX01605	18848	18/10/2002	54	472828	6208527	open depression	silty clay loam
134	LOX01518	18847	18/10/2002	54	465965	6207797	scroll complex (scroll + scroll plain (M))	silty clay loam
134	CHO00105	18839	16/10/2002	54	489745	6240718	flat	silty clay loam
134	REN01515	18832	14/10/2002	54	470370	6212169	flood out	silty clay loam
134	REN01515	18832	15/11/2003	54	470370	6212169	flood out	silty clay loam
134	PAR04701	18814	18/10/2002	54	477384	6236260	lake	silty clay loam
134	PAR04702	18812	18/10/2002	54	479388	6236637	lake	silty clay loam
134	SWA02404	19099	22/11/2002	54	369528	6159235	clay plain	light clay
134	CAD00304	19098	21/11/2002	54	391916	6233452	clay plain	light clay
134	CAD00304	19098	1/04/2004	54	391916	6233452	clay plain	light clay
134	CAD00317	19095	21/11/2002	54	387816	6233851	clay plain	light clay
134	CAD00317	19095	31/03/2004	54	387816	6233851	clay plain	light clay
134	BLA01801	19094	20/11/2002	54	373526	6197466	clay plain	light clay
134	BLA01801	19094	4/04/2004	54	373526	6197466	clay plain	light clay
134	MOR01002	19087	18/11/2002	54	376620	6217966	plain (incl. undulating plain)	light clay
134	MOR01002	19087	5/04/2004	54	376620	6217966	plain (incl. undulating plain)	light clay
134	MOR00219	19084	18/11/2002	54	377583	6224320	plain (incl. undulating plain)	light clay
134	MOR00219	19084	30/03/2004	54	377583	6224320	plain (incl. undulating plain)	light clay
134	BLA01802	19080	21/11/2002	54	373447	6196738	plain (incl. undulating	light clay

Survey	SITEID	PATCHID	Visit Date	MGA Zone	Easting	Northing	Landform	Surface soil texture
							plain)	
134	BLA01802	19080	4/04/2004	54	373447	6196738	plain (incl. undulating plain)	light clay
134	BLA01813	19079	21/11/2002	54	371849	6185093	plain (incl. undulating plain)	light clay
134	MAN02611	19061	20/11/2002	54	361300	6140042	closed depression	light clay
134	MOR00204	19053	18/11/2002	54	378514	6233950	closed depression	light clay
134	MOR00204	19053	30/03/2004	54	378514	6233950	closed depression	light clay
134	CAD00310	19031	20/11/2002	54	393264	6229630	plain (incl. undulating plain)	light clay
134	CAD00310	19031	31/03/2004	54	393264	6229630	plain (incl. undulating plain)	light clay
134	WEL03602	19021	15/11/2002	54	343547	6087623	plain (incl. undulating plain)	light clay
134	GOO04014	19007	15/11/2002	54	317620	6061418	plain (incl. undulating plain)	light clay
134	NAR04106	19001	13/11/2002	54	329324	6065975	plain (incl. undulating plain)	light clay
134	NAR04105	19000	13/11/2002	54	328409	6067606	plain (incl. undulating plain)	light clay
134	NAR04104	18999	13/11/2002	54	328347	6067876	plain (incl. undulating plain)	light clay
134	WEL03611	18975	15/11/2002	54	352168	6078665	swamp	light clay
134	MOO01311	18934	24/10/2002	54	440952	6208018	flat	light clay
134	POO00503	18924	22/10/2002	54	423061	6219381	lake	light clay
134	POO00503	18924	13/11/2004	54	423061	6219381	lake	light clay
134	OVE01412	18915	24/10/2002	54	451202	6214152	plain (incl. undulating plain)	light clay
134	LOX02113	18883	25/10/2002	54	460834	6189192	plain (incl. undulating plain)	light clay
134	POO01201	18873	23/10/2002	54	415507	6217471	plain (incl. undulating plain)	light clay
134	CAD01101	18870	22/10/2002	54	406871	6217996	lagoon	light clay
134	LOX02107	18868	21/10/2002	54	460148	6200281	plain (incl. undulating plain)	light clay
134	LOX02107	18868	15/11/2003	54	460148	6200281	plain (incl. undulating plain)	light clay
134	LOX02119	18866	21/10/2002	54	457976	6199843	plain (incl. undulating plain)	light clay
134	CAD00404	18864	25/10/2002	54	401654	6228532	stream bar	light clay
134	CAD00404	18864	30/03/2004	54	401654	6228532	stream bar	light clay
134	OVE01307	18862	24/10/2002	54	439514	6216040	flat	light clay
134	OVE01307	18862	11/11/2004	54	439514	6216040	flat	light clay
134	PAR01602	18796	18/10/2002	54	478090	6217297	plain (incl. undulating plain)	light clay
134	PAR01613	18784	15/10/2002	54	479861	6212179	plain (incl. undulating plain)	light clay
134	SWA02403	19100	22/11/2002	54	369251	6159209	clay plain	light medium clay
134	BLA01810	19092	20/11/2002	54	372711	6192744	open depression	light medium clay
134	BLA01818	19090	19/11/2002	54	372110	6188681	open depression	light medium clay
134	BLA01817	19089	19/11/2002	54	372188	6190052	clay plain	light medium clay
134	BLA01817	19089	5/04/2004	54	372188	6190052	clay plain	light medium clay
134	BLA01816	19088	19/11/2002	54	372584	6190975	plain (incl. undulating plain)	light medium clay
134	BLA01816	19088	5/04/2004	54	372584	6190975	plain (incl. undulating plain)	light medium clay
134	MOR00217	19085	18/11/2002	54	376577	6219523	plain (incl. undulating plain)	light medium clay
134	MOR00217	19085	5/04/2004	54	376577	6219523	plain (incl. undulating plain)	light medium clay
134	CAU02714	19076	20/11/2002	54	372688	6137867	plain (incl. undulating plain)	light medium clay
134	CAU02707	19075	20/11/2002	54	369482	6137287	plain (incl. undulating plain)	light medium clay
134	CAU02707	19075	27/08/2004	54	369482	6137287	plain (incl. undulating plain)	light medium clay

Survey	SITEID	PATCHID	Visit Date	MGA Zone	Easting	Northing	Landform	Surface soil texture
134	WEL03603	19022	15/11/2002	54	345905	6084631	plain (incl. undulating plain)	light medium clay
134	ALE03505	19020	14/11/2002	54	331846	6084896	plain (incl. undulating plain)	light medium clay
134	MIL03403	19018	14/11/2002	54	318252	6081097	plain (incl. undulating plain)	light medium clay
134	WEL03606	19011	12/11/2002	54	349720	6087144	plain (incl. undulating plain)	light medium clay
134	GOO04005	18989	13/11/2002	54	313099	6068787	clay plain	light medium clay
134	GOO04004	18988	13/11/2002	54	312869	6069121	clay plain	light medium clay
134	NAR04401	18979	11/11/2002	54	329166	6058141	closed depression	light medium clay
134	WEL03706	18976	15/11/2002	54	358454	6081999	swamp	light medium clay
134	PAR01612	18939	15/10/2002	54	478545	6210720	plain (incl. undulating plain)	light medium clay
134	CAD00413	18909	22/10/2002	54	404164	6219354	plain (incl. undulating plain)	light medium clay
134	CAD00413	18909	14/11/2004	54	404164	6219354	plain (incl. undulating plain)	light medium clay
134	LOX02112	18890	22/10/2002	54	460878	6192053	drainage depression	light medium clay
134	REN00806	18824	16/10/2002	54	475627	6231488	flat	light medium clay
134	REN00806	18824	13/11/2003	54	475627	6231488	flat	light medium clay
134	REN00815	18809	17/10/2002	54	475065	6225950	plain (incl. undulating plain)	light medium clay
134	CHO00126	18791	17/10/2002	54	498037	6243851	plain (incl. undulating plain)	light medium clay
134	CHO00128	18790	17/10/2002	54	498134	6242866	plain (incl. undulating plain)	light medium clay
134	CHO00128	18790	11/11/2003	54	498134	6242866	plain (incl. undulating plain)	light medium clay
134	PAR01609	18785	15/10/2002	54	481205	6211230	plain (incl. undulating plain)	light medium clay
134	PAR01609	18785	15/11/2003	54	481205	6211230	plain (incl. undulating plain)	light medium clay
134	PAR01606	18783	15/10/2002	54	478597	6213120	plain (incl. undulating plain)	light medium clay
134	CHO00132	20180	11/11/2003	54	490446	6241355	plain (incl. undulating plain)	medium clay
134	CHO00132	20180	22/11/2004	54	490446	6241355	plain (incl. undulating plain)	medium clay
134	MOR00214	19069	18/11/2002	54	377495	6222347	plain (incl. undulating plain)	medium clay
134	MOR00214	19069	31/03/2004	54	377495	6222347	plain (incl. undulating plain)	medium clay
134	SWA02302	19059	19/11/2002	54	366008	6159898	stream bank	medium clay
134	SWA02303	19058	19/11/2002	54	365776	6159681	plain (incl. undulating plain)	medium clay
134	CAU02709	19056	19/11/2002	54	373443	6142079	plain (incl. undulating plain)	medium clay
134	CAU02709	19056	28/08/2004	54	373443	6142079	plain (incl. undulating plain)	medium clay
134	SWA02205	19050	21/11/2002	54	370723	6172553	flat	medium clay
134	SWA02205	19050	5/04/2004	54	370723	6172553	flat	medium clay
134	SWA02409	19047	20/11/2002	54	377119	6164373	closed depression	medium clay
134	SWA02409	19047	5/04/2004	54	377119	6164373	closed depression	medium clay
134	MAN02605	19045	20/11/2002	54	355146	6141603	flat	medium clay
134	MAN02605	19045	28/08/2004	54	355146	6141603	flat	medium clay
134	SWA02401	19034	21/11/2002	54	371916	6160720	plain (incl. undulating plain)	medium clay
134	SWA02401	19034	27/08/2004	54	371916	6160720	plain (incl. undulating plain)	medium clay
134	CAD00307	19032	20/11/2002	54	392565	6232608	plain (incl. undulating plain)	medium clay
134	CAD00307	19032	31/03/2004	54	392565	6232608	plain (incl. undulating plain)	medium clay

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134	MOR01005	19029	19/11/2002	54	374863	6212729	plain (incl. undulating plain)	medium clay
134	MOR01005	19029	4/04/2004	54	374863	6212729	plain (incl. undulating plain)	medium clay
134	CAD00318	19026	18/11/2002	54	395052	6228625	plain (incl. undulating plain)	medium clay
134	CAD00318	19026	2/04/2004	54	395052	6228625	plain (incl. undulating plain)	medium clay
134	ALE03506	19019	14/11/2002	54	325555	6081988	plain (incl. undulating plain)	medium clay
134	MIL03405	19017	14/11/2002	54	314993	6077136	plain (incl. undulating plain)	medium clay
134	NAR04501	19016	13/11/2002	54	341283	6046680	open depression	medium clay
134	WEL04301	19013	12/11/2002	54	353859	6073312	plain (incl. undulating plain)	medium clay
134	NAR04112	19010	11/11/2002	54	325500	6058375	drainage depression	medium clay
134	NAR04407	19009	11/11/2002	54	324308	6057109	plain (incl. undulating plain)	medium clay
134	MIL03908	18987	13/11/2002	54	303308	6070207	clay plain	medium clay
134	MAN02503	18955	13/11/2002	54	342216	6130808	plain (incl. undulating plain)	medium clay
134	MEN04502	18954	12/11/2002	54	352458	6057053	plain (incl. undulating plain)	medium clay
134	MEN05002	18953	12/11/2002	54	356295	6057776	plain (incl. undulating plain)	medium clay
134	MEN05001	18952	12/11/2002	54	356391	6057700	plain (incl. undulating plain)	medium clay
134	PAR00806	18941	16/10/2002	54	479873	6232060	flat	medium clay
134	PAR00806	18941	13/11/2003	54	479873	6232060	flat	medium clay
134	LOX02117	18920	25/10/2002	54	462320	6189637	swamp	medium clay
134	POO01205	18896	24/10/2002	54	418872	6217751	back plain	medium clay
134	OVE01310	18875	23/10/2002	54	440228	6213181	plain (incl. undulating plain)	medium clay
134	POO01204	18874	23/10/2002	54	416868	6217491	drainage depression	medium clay
134	MOO01405	18852	21/10/2002	54	443972	6209637	flat	medium clay
134	CHO00104	18838	16/10/2002	54	489595	6240766	scroll complex (scroll + scroll plain (M))	medium clay
134	CHO00104	18838	11/11/2003	54	489595	6240766	scroll complex (scroll + scroll plain (M))	medium clay
134	LOX01603	18834	14/10/2002	54	473073	6209098	flat	medium clay
134	PAR00802	18823	16/10/2002	54	478086	6232367	flat	medium clay
134	PAR00802	18823	13/11/2003	54	478086	6232367	flat	medium clay
134	PAR00805	18822	16/10/2002	54	481151	6231999	flat	medium clay
134	CHO00102	18821	15/10/2002	54	487132	6240095	flat	medium clay
134	PAR00803	18813	18/10/2002	54	479282	6233938	plain (incl. undulating plain)	medium clay
134	PAR00803	18813	12/11/2003	54	479282	6233938	plain (incl. undulating plain)	medium clay
134	CHO00124	18803	15/10/2002	54	495606	6248064	lake	medium clay
134	CHO00115	18802	15/10/2002	54	495508	6247859	lake	medium clay
134	CHO00115	18802	11/11/2003	54	495508	6247859	lake	medium clay
134	CHO00118	18781	14/10/2002	54	496920	6245995	plain (incl. undulating plain)	medium clay
134	CHO00121	18765	14/10/2002	54	488469	6241062	flat	medium clay
134	CHO00108	18764	14/10/2002	54	489934	6238634	oxbow	medium clay
134	CHO00108	18764	11/11/2003	54	489934	6238634	oxbow	medium clay
134	MAN02610	19042	19/11/2002	54	359108	6141748	flat	heavy clay
134	WEL04202	19012	12/11/2002	54	350160	6071359	plain (incl. undulating plain)	heavy clay
134	MOO02016	18900	25/10/2002	54	445460	6199695	channel bench	heavy clay
134	MOO02016	18900	8/11/2004	54	445460	6199695	channel bench	heavy clay
134	CAD00410	18871	22/10/2002	54	403835	6223515	closed depression	heavy clay
134	CHO00109	18780	18/10/2002	54	490466	6244469	plain (incl. undulating plain)	heavy clay
134	CHO00107	18778	18/10/2002	54	488575	6244395	plain (incl. undulating plain)	heavy clay
134	CHO00107	18778	11/11/2003	54	488575	6244395	plain (incl. undulating plain)	heavy clay
134	CHO00131	20181	11/11/2003	54	492448	6241399	open depression	clay loam, sandy
134	CHO00131	20181	22/11/2004	54	492448	6241399	open depression	clay loam,

Survey	SITEID	PATCHID	Visit Date	MGA Zone	Easting	Northing	Landform	Surface soil texture
								sandy
134	SWA02406	19082	22/11/2002	54	373591	6160935	plain (incl. undulating plain)	clay loam, sandy
134	SWA02406	19082	6/04/2004	54	373591	6160935	plain (incl. undulating plain)	clay loam, sandy
134	BLA01003	19064	21/11/2002	54	374301	6204138	stream bank	clay loam, sandy
134	CAU02717	19063	20/11/2002	54	376264	6140317	plain (incl. undulating plain)	clay loam, sandy
134	SWA02402	19035	21/11/2002	54	370364	6159487	plain (incl. undulating plain)	clay loam, sandy
134	SWA02402	19035	27/08/2004	54	370364	6159487	plain (incl. undulating plain)	clay loam, sandy
134	WEL03607	19023	15/11/2002	54	346704	6079473	plain (incl. undulating plain)	clay loam, sandy
134	NAR04405	19014	13/11/2002	54	336819	6053677	plain (incl. undulating plain)	clay loam, sandy
134	OVE01308	18943	24/10/2002	54	439473	6215744	flat	clay loam, sandy
134	OVE01308	18943	10/11/2004	54	439473	6215744	flat	clay loam, sandy
134	MOO01416	18933	24/10/2002	54	442894	6204596	flat	clay loam, sandy
134	MOO02006	18922	21/10/2002	54	451714	6194331	flat	clay loam, sandy
134	LOX02102	18902	21/10/2002	54	457552	6197592	plain (incl. undulating plain)	clay loam, sandy
134	LOX02102	18902	9/11/2004	54	457552	6197592	plain (incl. undulating plain)	clay loam, sandy
134	LOX02109	18882	25/10/2002	54	460640	6199669	plain (incl. undulating plain)	clay loam, sandy
134	LOX02109	18882	15/11/2003	54	460640	6199669	plain (incl. undulating plain)	clay loam, sandy
134	OVE01309	18880	25/10/2002	54	440088	6213374	plain (incl. undulating plain)	clay loam, sandy
134	REN01514	18833	14/10/2002	54	470682	6210579	flat	clay loam, sandy
134	REN01514	18833	15/11/2003	54	470682	6210579	flat	clay loam, sandy
134	CHO00125	18787	16/10/2002	54	497590	6238265	plain (incl. undulating plain)	clay loam, sandy
134	CHO00112	18786	16/10/2002	54	493911	6241691	plain (incl. undulating plain)	clay loam, sandy
134	CAU02712	19077	20/11/2002	54	371558	6136950	plain (incl. undulating plain)	medium heavy clay
134	MAN02608	19060	20/11/2002	54	357538	6141502	plain (incl. undulating plain)	medium heavy clay
134	MAN02608	19060	28/08/2004	54	357538	6141502	plain (incl. undulating plain)	medium heavy clay
134	BLA02201	19049	21/11/2002	54	370354	6182224	other	medium heavy clay
134	BLA02201	19049	6/04/2004	54	370354	6182224	other	medium heavy clay
134	MAN02606	19046	20/11/2002	54	355205	6141668	flat	medium heavy clay
134	MAN02609	19043	19/11/2002	54	359117	6141807	open depression	medium heavy clay
134	SWA02204	19038	22/11/2002	54	371526	6174877	plain (incl. undulating plain)	medium heavy clay
134	MOB02801	18985	12/11/2002	54	342098	6114632	flood out	medium heavy clay
134	MOO02012	18887	21/10/2002	54	453009	6191147	closed depression	medium heavy clay
134	OVE00601	18886	21/10/2002	54	439084	6220636	closed depression	medium heavy clay
134	MOO02002	18879	24/10/2002	54	447339	6196595	plain (incl. undulating plain)	medium heavy clay
134	MOO02002	18879	9/11/2004	54	447339	6196595	plain (incl. undulating plain)	medium heavy clay
134	PAR01611	18830	18/10/2002	54	481794	6214623	flat	medium heavy clay

Survey	SITEID	PATCHID	Visit Date	MGA Zone	Easting	Northing	Landform	Surface soil texture
134	REN00803	18775	17/10/2002	54	475339	6228308	flat	medium heavy clay
134	REN00802	18774	17/10/2002	54	474983	6228828	flat	medium heavy clay
134	REN00805	18773	17/10/2002	54	475254	6230197	flat	medium heavy clay
134	PAR00902	18771	16/10/2002	54	487925	6235881	flat	medium heavy clay
134	LOX01516	18767	15/10/2002	54	457065	6201215	flat	medium heavy clay
134	CHO00122	18763	14/10/2002	54	487290	6242242	flat	medium heavy clay
134	REN00808	18844	17/10/2002	54	474351	6235647	lake	

Appendix 4: Plant Species recorded from River Murray Survey

List of vascular plant taxonomic categories recorded on the River Murray Vegetation Biological Survey showing conservation status and sampling frequency.

Generally plant taxonomy and nomenclature follows Barker et al (2005) as updated by the SA FLORA Database to June 2005. Common names are SA FLORA Database.

KEY

Scientific Name with Indigenous/alien designation. Naturalised alien species are designated by an asterisk (*). Those that have undergone nomenclature updating but this has not been updated in the survey data are postfixed by a (NC) indicating the name is non-current.

Conservation Status

AUS Australian status according to *Environment Protection and Biodiversity Conservation Act 1999* current listing of species (as at December 2000).
SA South Australian status is based on the Schedules of the *National Parks and Wildlife Act 1972* (SA) as amended in 2000.
SU denotes the number of records sighted during the Survey 134, River Murray in October – November 2002

Status Explanations

Australian Status Codes
E **Endangered**
V **Vulnerable**
Note that there is no Rare category under the EPBC Act

South Australian Status Codes
E **Endangered** (Schedule 7, Part 2)
Note there is no category specifically for species that are presumed to be extinct. Instead these are included in the Endangered category.
V **Vulnerable** (Schedule 8, Part 2)
R **Rare** (Schedule 9, Part 2)

Scientific Name	Common Name	AUS	SA	SU
Acacia ligulata	Umbrella Bush			1
Acacia oswaldii	Umbrella Wattle			3
Acacia stenophylla	River Cooba			71
Actinobole uliginosum	Flannel Cudweed			6
Agrostis avenacea var. avenacea	Common Blown-grass			33
*Aira cupaniana	Small Hair-grass			2
Alternanthera denticulata	Lesser Joyweed			1
Alternanthera nodiflora	Common Joyweed			14
*Alyssum linifolium	Flax-leaf Alyssum			1
Amphibromus nervosus	Veined Swamp Wallaby-grass			1
Amyema melaleucae	Tea-tree Mistletoe			1
Amyema miquelii	Box Mistletoe			21
Amyema preissii	Wire-leaf Mistletoe			1
*Anagallis arvensis	Pimpernel			5
Angianthus preissianus	Salt Angianthus			1
Angianthus tomentosus	Hairy Angianthus			7
Apium annuum	Annual Celery			5
*Apium graveolens	Celery			1
Apium prostratum var.	Native Celery			1
Apium prostratum var. filiforme	Native Celery			2
*Arctotheca calendula	Cape Weed			4
Aristida sp.	Three-awn/Wire-grass			1
Arthropodium strictum	Common Vanilla-lily			1
*Asparagus asparagoides	Bridal Creeper			7
*Asparagus officinalis	Asparagus			2

Scientific Name	Common Name	AUS	SA	SU
Asperula gemella	Twin-leaf Bedstraw			19
*Asphodelus fistulosus	Onion Weed			12
*Aster subulatus	Aster-weed			46
*Asteriscus spinosus	Golden Pallensis			1
Atriplex eardleyae	Eardley's Saltbush			5
Atriplex leptocarpa	Slender-fruit Saltbush			48
Atriplex limbata	Spreading Saltbush			1
Atriplex lindleyi ssp.	Baldoo			1
Atriplex lindleyi ssp. lindleyi	Baldoo			49
Atriplex paludosa ssp. cordata	Marsh Saltbush			1
*Atriplex prostrata	Creeping Saltbush			10
Atriplex rhagodioides	River Saltbush			35
Atriplex semibaccata	Berry Saltbush			50
Atriplex sp.	Saltbush			19
Atriplex stipitata	Bitter Saltbush			9
Atriplex suberecta	Lagoon Saltbush			13
Atriplex vesicaria ssp.	Bladder Saltbush			2
Austrodanthonia caespitosa	Common Wallaby-grass			4
Austrodanthonia setacea	Small-flower Wallaby-grass			7
Austrostipa drummondii	Cottony Spear-grass			3
Austrostipa elegantissima	Feather Spear-grass			3
Austrostipa nitida	Balcarra Spear-grass			9
Austrostipa nodosa	Tall Spear-grass			5
Austrostipa puberula	Fine-hairy Spear-grass		R	1
Austrostipa scabra ssp. falcata	Slender Spear-grass			3
Austrostipa sp.	Spear-grass			1
Austrostipa trichophylla				2
*Avellinia michelii	Avellinia			2
*Avena barbata	Bearded Oat			17
Azolla filiculoides	Pacific Azolla			2
Azolla pinnata	Ferny Azolla			1
Baumea juncea	Bare Twig-rush			1
*Berula erecta	Water Parsnip			9
Bolboschoenus caldwellii	Salt Club-rush			15
Boraginaceae sp.	Borage Family			1
Brachycome sp.	Native Daisy			2
Brachyscome basaltica var. gracilis	Swamp Daisy		R	22
Brachyscome ciliaris var. ciliaris	Variable Daisy			8
Brachyscome dentata	Lobe-seed Daisy			1
Brachyscome lineariloba	Hard-head Daisy			36
*Brassica tournefortii	Wild Turnip			20
*Briza minor	Lesser Quaking-grass			1
*Bromus catharticus	Prairie Grass			5
*Bromus diandrus	Great Brome			3
*Bromus hordeaceus ssp. hordeaceus	Soft Brome			4
*Bromus rigidus	Rigid Brome			6
*Bromus rubens	Red Brome			62
Bromus sp.	Brome			1
Bulbine semibarbata	Small Leek-lily			17
*Bupleurum semicompositum	Hare's Ear			1
Calandrinia eremaea	Dryland Purslane			8
Calandrinia sp.	Purslane/Parakeelya			1
Callistemon brachyandrus	Prickly Bottlebrush		R	7
*Callitriche stagnalis	Common Water Starwort			1
Calotis cuneifolia	Purple Burr-daisy			22
Calotis erinacea	Tangled Burr-daisy			1
Calotis hispidula	Hairy Burr-daisy			7
Calotis scapigera	Tufted Burr-daisy		R	3
Calotis sp.	Burr-daisy			1
Calystegia sepium	Large Bindweed			11
Carex appressa	Tall Sedge			2
Carex fascicularis	Tassel Sedge			4
Carpobrotus modestus	Inland Pigface			5
Carpobrotus rossii	Native Pigface			1
Carpobrotus sp.	Pigface			2
*Carrichtera annua	Ward's Weed			6
*Carthamus lanatus	Saffron Thistle			3
*Centaurea melitensis	Malta Thistle			2
Centella asiatica	Asian Centella			7
Centipeda cunninghamii (NC)	Common Sneezeweed			11

Scientific Name	Common Name	AUS	SA	SU
Centipeda minima (NC)	Spreading Sneezeweed			2
Centipeda sp.	Sneezeweed			3
Chamaesyce drummondii	Caustic Weed			23
Chenopodium curvispicatum	Cottony Goosefoot			2
Chenopodium desertorum ssp. desertorum	Frosted Goosefoot			1
Chenopodium nitrariaceum	Nitre Goosefoot			20
*Chondrilla juncea	Skeleton Weed			2
*Cirsium vulgare	Spear Thistle			39
*Cleretum papulosum ssp. papulosum				1
Compositae sp.	Daisy Family			2
*Conyza albida	Tall Fleabane			8
*Conyza bonariensis	Flax-leaf Fleabane			5
*Conyza sp.	Fleabane			3
*Coprosma repens	New Zealand Mirror-bush			1
Cotula australis	Common Cotula			7
*Cotula coronopifolia	Water Buttons			17
Cotula vulgaris var. australasica	Slender Cotula			3
Crassula colorata var. acuminata	Dense Crassula			46
Crassula helmsii	Swamp Crassula			8
Crassula sieberiana ssp. tetramera (NC)	Australian Stonecrop			1
Crassula sp.	Crassula/Stonecrop			6
Cressa cretica	Rosinweed			34
Crinum flaccidum	Murray Lily			3
*Critesion murinum ssp. (NC)	Barley-grass			1
Cruciferae sp.	Cress Family			1
*Cuscuta campestris	Golden Dodder			1
*Cynara cardunculus ssp. flavescens	Artichoke Thistle			3
*Cynodon dactylon	Couch			7
Cyperus gunnii ssp. gunnii	Flecked Flat-sedge			2
Cyperus gymnocaulos	Spiny Flat-sedge			84
Danthonia sp.	Wallaby-grass			4
Daucus glochidiatus	Native Carrot			1
'dead Acacia' stenophylla				17
'dead Eucalyptus' camaldulensis var. camaldulensis				75
'dead Eucalyptus' largiflorens				41
Dianella brevicaulis	Short-stem Flax-lily			1
Dianella porracea	Pale Flax-lily		V	1
Disphyma crassifolium ssp. clavellatum	Round-leaf Pigface			71
Dissocarpus biflorus var. biflorus	Two-horn Saltbush			2
Dissocarpus paradoxus	Ball Bindyi			2
Distichlis distichophylla	Emu-grass			22
*Dittrichia graveolens	Stinkweed			10
Dodonaea viscosa ssp. angustissima	Narrow-leaf Hop-bush			13
*Echium plantagineum	Salvation Jane			3
Eclipta platyglossa	Yellow Twin-heads			25
*Ehrharta calycina	Perennial Veldt Grass			2
Einadia nutans ssp. nutans	Climbing Saltbush			124
Eleocharis acuta	Common Spike-rush			18
Eleocharis sphacelata	Tall Spike-rush			4
Elymus scabrus var. scabrus	Native Wheat-grass			2
Enchylaena tomentosa var. tomentosa	Ruby Saltbush			170
Epaltes australis	Spreading Nut-heads			19
Epaltes cunninghamii	Tall Nut-heads			1
Epilobium pallidiflorum	Showy Willow-herb			1
Eragrostis australasica	Cane-grass			12
Eragrostis dielsii var. dielsii	Mulka			5
Eragrostis elongata	Clustered Love-grass			2
Eragrostis falcata	Sickle Love-grass			1
Eragrostis lacunaria	Purple Love-grass		R	1
Eremophila divaricata ssp. divaricata	Spreading Emubush			28
Eriochiton sclerolaenoides	Woolly-fruit Bluebush			9
*Erodium cicutarium	Cut-leaf Heron's-bill			8
Erodium crinitum	Blue Heron's-bill			2
Eucalyptus camaldulensis var. camaldulensis	River Red Gum			100
Eucalyptus largiflorens	River Box			102
Eucalyptus porosa	Mallee Box			2
Euchiton collinus	Creeping Cudweed			1
Euchiton involucratus	Star Cudweed			2
Euchiton sp.	Cudweed			1

Scientific Name	Common Name	AUS	SA	SU
Euchiton sphaericus	Annual Cudweed			6
*Euphorbia terracina	False Caper			10
Exocarpos aphyllus	Leafless Cherry			3
Exocarpos strictus	Pale-fruit Cherry		R	2
*Festuca arundinacea	Tall Meadow Fescue			4
*Filago pyramidata	Filago			1
Frankenia pauciflora var. gunnii	Southern Sea-heath			17
*Fumaria densiflora	Dense Fumitory			1
Gahnia filum	Thatching Grass			4
Gahnia trifida	Cutting Grass			1
*Galenia secunda	Galenia			2
*Gamochaeta spicata (NC)	Spiked Cudweed			1
*Gazania linearis	Gazania			1
Geijera linearifolia	Sheep Bush			1
Geranium retrorsum	Grassland Geranium			2
Glycyrrhiza acanthocarpa	Native Liquorice			11
*Gomphocarpus cancellatus	Broad-leaf Cotton-bush			1
Goodenia fascicularis	Silky Goodenia			3
Goodenia glauca	Pale Goodenia			10
Goodenia pusilliflora	Small-flower Goodenia			1
Gramineae sp.	Grass Family			21
Gratiola peruviana	Austral Brooklime			2
Green alga				1
Halosarcia indica ssp. bidens	Brown-head Samphire			2
Halosarcia indica ssp. leiostachya	Brown-head Samphire			29
Halosarcia pergranulata ssp. pergranulata	Black-seed Samphire			65
Halosarcia sp.	Samphire			2
*Hedypnois rhagadioloides	Cretan Weed			2
*Heliotropium curassavicum	Smooth Heliotrope			28
*Helminthotheca echioides	Ox-tongue			12
Hemichroa pentandra	Trailing Hemichroa			1
*Hordeum glaucum	Blue Barley-grass			27
*Hordeum marinum	Sea Barley-grass			28
*Hornungia procumbens	Oval Purse			43
Hydrocotyle verticillata	Shield Pennywort			15
*Hypochaeris glabra	Smooth Cat's Ear			16
*Hypochaeris radicata	Rough Cat's Ear			6
*Hypochaeris sp.	Cat's Ear			1
*Iris orientalis	Oriental Iris			1
Isoetopsis graminifolia	Grass Cushion			4
Isolepis cernua	Nodding Club-rush			6
Isolepis sp.	Club-rush			1
*Juncus acutus	Sharp Rush			3
Juncus aridicola	Inland Rush			4
*Juncus articulatus	Jointed Rush			4
Juncus caespiticius	Grassy Rush			1
Juncus kraussii	Sea Rush			15
Juncus pallidus	Pale Rush			1
Juncus usitatus	Common Rush			17
*Lactuca serriola	Prickly Lettuce			17
Lawrencia squamata	Thorny Lawrencia			3
*Lepidium africanum	Common Peppercress			4
Lepidium sp.	Peppercress			2
Lichen sp.				3
*Limonium lobatum	Winged Sea-lavender			1
Liverwort sp.				1
Lobelia alata	Angled Lobelia			5
*Lolium rigidum	Wimmera Ryegrass			15
Lomandra leucocephala ssp. robusta	Woolly Mat-rush			1
Loranthaceae sp.	Mistletoe Family			2
*Ludwigia peploides ssp. montevidensis	Water Primrose			1
*Lycium ferocissimum	African Boxthorn			33
Lycopus australis	Australian Gipsywort			8
Lysiana exocarpi ssp. exocarpi	Harlequin Mistletoe			9
Lythrum hyssopifolia	Lesser Loosestrife			2
Lythrum salicaria	Purple Loosestrife		R	2
Maireana appressa	Pale-fruit Bluebush			3
Maireana brevifolia	Short-leaf Bluebush			27
Maireana ciliata	Hairy Fissure-plant			11
Maireana georgei	Satiny Bluebush			1

Scientific Name	Common Name	AUS	SA	SU
Maireana oppositifolia	Salt Bluebush			2
Maireana pyramidata	Black Bluebush			13
Maireana radiata	Radiate Bluebush			3
Maireana rohrlachii	Rohrlach's Bluebush		R	1
Maireana sp.	Bluebush/Fissure-plant			4
Maireana turbinata	Top-fruit Bluebush			2
Malva behriana	Australian Hollyhock			2
Malvaceae sp.				1
*Marrubium vulgare	Horehound			5
Marsilea drummondii	Common Nardoo			1
Marsilea sp.	Nardoo			9
*Medicago minima var. minima	Little Medic			26
*Medicago polymorpha var. polymorpha	Burr-medic			27
*Medicago sp.	Medic			2
*Medicago truncatula	Barrel Medic			4
Melaleuca halmaturorum	Swamp Paper-bark			6
Melaleuca lanceolata ssp. lanceolata (NC)	Dryland Tea-tree			8
*Melilotus indicus	King Island Melilot			12
Mentha australis	River Mint			1
*Mesembryanthemum crystallinum	Common Iceplant			2
*Mesembryanthemum nodiflorum	Slender Iceplant			25
Microtis arenaria	Notched Onion-orchid			1
Millotia muelleri	Common Bow-flower			2
Mimulus repens	Creeping Monkey-flower			3
*Modiola caroliniana	Red-flowered Mallow			3
Montia australasica	White Purslane		R	1
*Moraea setifolia	Thread Iris			2
Moss sp.				1
Muehlenbeckia florulenta	Lignum			200
Muehlenbeckia gunnii	Coastal Climbing Lignum			1
Muehlenbeckia horrida ssp. horrida	Spiny Lignum		R	4
Myoporum montanum	Native Myrtle			14
Myoporum parvifolium	Creeping Boobialla		R	8
Myosurus minimus var. australis	Mousetail			1
Myriophyllum sp.	Milfoil			2
*Nicotiana glauca	Tree Tobacco			1
Nicotiana goodspeedii	Small-flower Tobacco			1
Nicotiana velutina	Velvet Tobacco			1
Nitraria billardierei	Nitre-bush			2
*Olea europaea ssp. europaea	Olive			1
Olearia pimeleoides ssp. pimeleoides	Pimelea Daisy-bush			8
*Opuntia robusta	Wheel Pear			3
Oxalis perennans	Native Sorrel			3
*Oxalis pes-caprae	Soursob			1
Pachycornia triandra	Desert Glasswort			12
*Parapholis incurva	Curly Ryegrass			10
*Paspalum dilatatum	Paspalum			1
*Paspalum distichum	Water Couch			11
*Paspalum sp.				3
*Paspalum vaginatum	Salt-water Couch			12
*Pennisetum clandestinum	Kikuyu			12
*Pentaschistis airoides	False Hair-grass			10
Persicaria decipiens	Slender Knotweed			7
*Phalaris aquatica	Phalaris			3
*Phalaris minor	Lesser Canary-grass			2
*Phoenix canariensis	Canary Island Palm			1
Phragmites australis	Common Reed			52
*Phyla canescens	Lippia			34
Picris sp.	Picris			1
Picris squarrosa	Squat Picris		R	14
Pimelea microcephala ssp. microcephala	Shrubby Riceflower			1
*Piptatherum miliaceum	Rice Millet			1
Pittosporum angustifolium	Native Apricot			3
*Plantago coronopus ssp.	Bucks-horn Plantain			1
*Plantago coronopus ssp. coronopus	Bucks-horn Plantain			9
Plantago cunninghamii	Clay Plantain			25
Plantago drummondii	Dark Plantain			2
*Plantago major	Greater Plantain			1
Plantago turrifera	Crowned Plantain			5
Poa fordeana	Forde's Poa			9

Scientific Name	Common Name	AUS	SA	SU
Poa labillardieri var. labillardieri	Common Tussock-grass			2
Poa sp.	Meadow-grass/Tussock-grass			1
Podolepis capillaris	Wiry Podolepis			1
Pogonolepis muelleriana	Stiff Cup-flower			9
Polycalymma stuartii	Poached-egg Daisy			15
*Polycarpon tetraphyllum	Four-leaf Allseed			1
*Polygonum aviculare (NC)	Wireweed			1
Polygonum plebeium	Small Knotweed			1
*Polypogon maritimus	Coast Beard-grass			1
*Polypogon monspeliensis	Annual Beard-grass			21
*Polypogon sp.	Beard-grass			1
Potamogeton tricarinatus	Floating Pondweed			1
Pratia concolor	Poison Pratia			2
Pseudognaphalium luteoalbum	Jersey Cudweed			12
*Psilocaulon granulicaule	Match-head Plant			2
*Puccinellia distans	Reflexed Poa			5
*Puccinellia fasciculata	Borrer's Saltmarsh-grass			9
Puccinellia stricta var. stricta	Australian Saltmarsh-grass			5
Ranunculus amphitrichus	Small River Buttercup			10
*Rapistrum rugosum ssp. rugosum	Turnip Weed			1
*Reichardia tingitana	False Sow-thistle			12
Rhagodia parabolica	Mealy Saltbush			7
Rhagodia spinescens	Spiny Saltbush			7
Rhagodia ulicina	Intricate Saltbush			5
Rhodanthe polygalifolia	Milkwort Everlasting			2
*Rorippa nasturtium-aquaticum	Watercress			3
*Rorippa palustris	Yellow Marsh-cress			1
*Rostraria cristata	Annual Cat's-tail			1
*Rubus sp.	Blackberry			1
Rumex bidens	Mud Dock			3
Rumex brownii	Slender Dock			3
*Rumex conglomeratus	Clustered Dock			6
Rumex sp.	Dock			15
*Sagina apetala	Annual Pearlwort			1
*Salix babylonica	Weeping Willow			4
*Salix sp.	Willow			1
Salsola kali	Buckbush			14
Samolus repens	Creeping Brookweed			25
Sarcocornia quinqueflora	Beaded Samphire			23
Sarcozona praecox	Sarcozona			2
*Schinus molle	Pepper-tree			2
*Schismus barbatus	Arabian Grass			19
Schoenoplectus pungens	Spiky Club-rush			3
Schoenoplectus validus	River Club-rush			4
Scleranthus pungens	Prickly Knawel			1
Sclerolaena brachyptera	Short-wing Bindyi			13
Sclerolaena diacantha	Grey Bindyi			8
Sclerolaena muricata var. muricata	Five-spine Bindyi			33
Sclerolaena muricata var. villosa	Five-spine Bindyi		R	4
Sclerolaena obliquicuspis	Oblique-spined Bindyi			9
Sclerolaena patenticuspis	Spear-fruit Bindyi			4
Sclerolaena sp.	Bindyi			2
Sclerolaena stelligera	Star Bindyi			3
Sclerolaena tricuspis	Three-spine Bindyi			46
Selliera radicans	Shiny Swamp-mat			2
Senecio cunninghamii var. cunninghamii (NC)	Shrubby Groundsel			9
Senecio glomeratus (NC)	Swamp Groundsel			3
Senecio glossanthus	Annual Groundsel			30
Senecio pinnatifolius	Variable Groundsel			37
*Senecio pterophorus	African Daisy			1
Senecio quadridentatus	Cotton Groundsel			1
Senecio runcinifolius	Thistle-leaf Groundsel			15
Senecio sp.	Groundsel			3
Setaria jubiflora	Warrego Summer-grass			78
Sida sp.	Sida			2
*Silene apetala	Sand Catchfly			17
*Silene tridentata				1
*Sisymbrium erysimoides	Smooth Mustard			9
Solanum lacunarium	Lagoon Nightshade			2
*Solanum nigrum	Black Nightshade			8

Scientific Name	Common Name	AUS	SA	SU
*Sonchus asper ssp. glaucescens	Rough Sow -thistle			4
Sonchus hydrophilus	Native Sow -thistle			8
*Sonchus oleraceus	Common Sow -thistle			65
Sonchus sp.	Sow -thistle			10
*Spergularia marina	Salt Sand-spurrey			11
*Spergularia media	Coast Sand-spurrey			2
*Spergularia rubra	Red Sand-spurrey			10
Spirodela punctata	Thin Duckweed			2
Sporobolus mitchellii	Rat-tail Couch			34
Sporobolus sp.				11
Sporobolus virginicus	Salt Couch			46
Stemodia florulenta	Bluerod			22
Suaeda australis	Austral Seablite			39
Swainsona greyana	Darling Pea			1
Swainsona microphylla	Small-leaf Swainson-pea			3
*Taraxacum officinale	Dandelion			3
Tetragonia eremaea	Desert Spinach			4
Tetragonia implexicoma	Bower Spinach			1
Teucrium racemosum	Grey Germander			29
Threlkeldia diffusa	Coast Bonefruit			17
Trichanthodium skirrophorum	Woolly Yellow -heads			16
*Trifolium arvense var. arvense	Hare's-foot Clover			1
*Trifolium fragiferum var.	Strawberry Clover			1
*Trifolium glomeratum	Cluster Clover			1
*Trifolium repens	White Clover			8
*Trifolium subterraneum	Subterranean Clover			1
Triglochin hexagonum	Six-point Arrowgrass			1
Triglochin procerum	Water-ribbons			11
Triglochin striatum	Streaked Arrowgrass			7
Triptilodiscus pygmaeus	Small Yellow -heads			2
Typha domingensis	Narrow -leaf Bulrush			9
Typha orientalis	Broad-leaf Bulrush			4
*'unverified species - nv`				3
Urtica incisa	Scrub Nettle			1
*Urtica urens	Small Nettle			4
*Vellereophyton dealbatum	White Cudweed			1
*Vicia monantha	Spurred Vetch			2
*Vicia sativa ssp. nigra	Narrow -leaf Vetch			3
Vittadinia cervicularis var. cervicularis	Waisted New Holland Daisy			9
Vittadinia cuneata var. cuneata forma cuneata	Fuzzy New Holland Daisy			4
Vittadinia dissecta var. hirta	Dissected New Holland Daisy			4
Vittadinia gracilis	Woolly New Holland Daisy			9
Vittadinia megacephala	Giant New Holland Daisy			3
*Vulpia fasciculata	Sand Fescue			3
*Vulpia muralis	Wall Fescue			3
*Vulpia myuros forma myuros	Rat's-tail Fescue			45
*Vulpia sp.	Fescue			5
Wahlenbergia fluminalis	River Bluebell			34
Wahlenbergia sp.	Native Bluebell			2
Wilsonia rotundifolia	Round-leaf Wilsonia			1
*Xanthium strumarium	Noogoora (California) Burr			10
Xerochrysum bracteatum	Golden Everlasting			1
*Zaluzianskya divaricata	Spreading Night-phlox			1
Zygophyllum sp.	Twinleaf			2

Appendix 5: Species list from Floristic Analysis recorded within the Floodplain 1956 Region

List of vascular plant taxonomic categories recorded on biological surveys within SA River Murray Floodplain boundary showing sampling frequency.

Generally plant taxonomy and nomenclature follows Barker et al (2005) as updated by the SA FLORA Database up to 2001. Common names are from SA FLORA Database.

KEY

Scientific Name with Indigenous/alien designation. Naturalised alien species are designated by an asterisk (*).

Biological Survey Numbers included in this summary are;

Survey No.	Survey Name	**Survey No.**	Survey Name
4	South East Coast	**78**	Tidal and Salt marsh Communities
12	Chowilla – NCS	**93**	Fleurieu Roadside Survey – MK Hyde
42	Mt Lofty Private Collections	**134**	River Murray
45	Western Murray Flats	**136**	Murray Mouth Reserves
52	Mt Lofty Emu-Wren	**165**	Murray Wetland Baseline RMCWMB

Scientific Name	Common Name	4	12	42	45	52	78	93	134	136	165
Acacia ligulata	Umbrella Bush	0	0	0	0	0	0	0	1	0	0
Acacia oswaldii	Umbrella Wattle	0	0	0	0	0	0	0	3	0	0
Acacia sp. Swamp (N.M. Smith)	Swamp Wattle	0	0	0	0	1	0	0	0	0	0
Acacia stenophylla	River Cooba	0	17	0	0	0	0	0	71	0	5
Actinobole uliginosum	Flannel Cudweed	0	3	0	0	0	0	0	6	0	0
Agrostis avenacea var.	Common Blown-grass	0	0	0	2	0	0	0	0	0	0
Agrostis avenacea var. avenacea	Common Blown-grass	0	15	0	0	0	0	0	33	0	16
Agrostis billardieri var. billardieri	Coast Blown-grass	0	0	0	0	0	0	0	0	0	1
Agrostis sp.	Blown-grass/Bent Grass	0	1	0	0	0	0	0	0	0	0
*Aira cupaniana	Small Hair-grass	0	0	0	0	0	0	0	2	0	0
Alternanthera denticulata	Lesser Joyweed	0	1	0	1	0	0	0	1	0	0
Alternanthera nodiflora	Common Joyweed	0	0	0	0	0	0	0	14	0	0
*Alyssum linifolium	Flax-leaf Alyssum	0	0	0	0	0	0	0	1	0	1
Amphibromus nervosus	Veined Swamp Wallaby-grass	0	2	0	0	0	0	0	1	0	0
Amyema melaleucae	Tea-tree Mistletoe	0	0	1	0	0	0	0	1	3	0
Amyema miquelii	Box Mistletoe	0	7	0	0	0	0	0	21	0	1
Amyema preissii	Wire-leaf Mistletoe	0	0	0	0	0	0	0	1	0	1
*Anagallis arvensis	Pimpernel	0	3	0	0	0	0	0	5	0	0
Angianthus preissianus	Salt Angianthus	0	0	0	0	0	0	0	1	0	0
Angianthus tomentosus	Hairy Angianthus	0	0	0	0	0	0	0	7	0	2
Apium annuum	Annual Celery	0	0	0	0	0	2	0	5	0	0
*Apium graveolens	Celery	0	0	0	0	0	0	0	1	0	0
Apium prostratum var.	Native Celery	0	0	0	0	0	0	0	1	0	3
Apium prostratum var. filiforme	Native Celery	0	0	0	0	0	0	0	2	0	0
*Arctotheca calendula	Cape Weed	0	3	0	1	0	0	0	4	0	0
Aristida sp.	Three-awn/Wire-grass	0	0	0	0	0	0	0	1	0	0
Arthropodium strictum	Common Vanilla-lily	0	0	0	0	0	0	0	1	0	0
*Asparagus asparagoides	Bridal Creeper	0	0	0	0	0	0	0	7	0	1
*Asparagus officinalis	Asparagus	0	0	0	0	0	0	0	2	0	0
Asperula gemella	Twin-leaf Bedstraw	0	6	0	0	0	0	0	19	0	6
*Asphodelus fistulosus	Onion Weed	0	0	0	0	0	0	0	12	0	10
*Aster subulatus	Aster-weed	0	0	0	9	0	0	0	46	4	12
*Asteriscus spinosus	Golden Pallensis	0	0	0	0	0	0	0	1	0	0
Atriplex eardleyae	Eardley's Saltbush	0	2	0	0	0	0	0	5	0	0
Atriplex holocarpa	Pop Saltbush	0	1	0	0	0	0	0	0	0	0
Atriplex leptocarpa	Slender-fruit Saltbush	0	22	0	0	0	0	0	48	0	6
Atriplex limbata	Spreading Saltbush	0	1	0	0	0	0	0	1	0	2
Atriplex lindleyi (NC)	Baldoo	0	16	0	0	0	0	0	0	0	0
Atriplex lindleyi ssp.	Baldoo	0	0	0	0	0	0	0	1	0	0

Scientific Name	Common Name	4	12	42	45	52	78	93	134	136	165
Atriplex lindleyi ssp. lindleyi	Baldoo	0	0	0	0	0	0	0	49	0	12
Atriplex paludosa ssp.	Marsh Saltbush	0	0	2	1	0	0	0	0	0	0
Atriplex paludosa ssp. cordata	Marsh Saltbush	0	0	0	0	0	3	0	1	2	0
Atriplex paludosa ssp. paludosa	Marsh Saltbush	1	0	0	0	0	0	0	0	0	0
*Atriplex prostrata	Creeping Saltbush	0	0	0	2	0	0	0	10	0	2
Atriplex pseudocampanulata	Spreading Saltbush	0	1	0	0	0	0	0	0	0	0
Atriplex rhagodioides	River Saltbush	0	0	0	0	0	0	0	35	0	3
Atriplex semibaccata	Berry Saltbush	0	0	0	0	0	0	0	50	0	12
Atriplex sp.	Saltbush	0	7	0	0	0	0	0	19	0	2
Atriplex stipitata	Bitter Saltbush	0	2	0	0	0	0	0	9	0	5
Atriplex suberecta	Lagoon Saltbush	0	3	0	0	0	0	0	13	0	5
Atriplex velutinella	Sandhill Saltbush	0	1	0	0	0	0	0	0	0	0
Atriplex vesicaria ssp.	Bladder Saltbush	0	0	0	0	0	0	0	2	0	1
Austrodanthonia caespitosa	Common Wallaby-grass	0	8	0	0	0	0	0	4	0	1
Austrodanthonia setacea	Small-flower Wallaby-grass	0	0	0	0	0	0	0	7	0	0
Austrostipa drummondii	Cottony Spear-grass	0	0	0	0	0	0	0	3	0	0
Austrostipa elegantissima	Feather Spear-grass	0	0	0	0	0	0	0	3	0	1
Austrostipa nitida	Balcarra Spear-grass	0	1	0	0	0	0	0	9	0	1
Austrostipa nodosa	Tall Spear-grass	0	0	0	0	0	0	0	5	0	0
Austrostipa puberula	Fine-hairy Spear-grass	0	0	0	0	0	0	0	1	0	0
Austrostipa scabra ssp. falcata	Slender Spear-grass	0	10	0	0	0	0	0	3	0	1
Austrostipa sp.	Spear-grass	0	0	0	0	0	0	0	1	0	0
Austrostipa stipoides	Coast Spear-grass	0	0	2	0	0	1	0	0	1	0
Austrostipa trichophylla		0	0	0	0	0	0	0	2	0	0
*Avellinia michelii	Avellinia	0	0	0	0	0	0	0	2	0	1
*Avena barbata	Bearded Oat	0	0	0	1	0	0	0	17	1	9
Azolla filiculoides	Pacific Azolla	0	1	0	3	0	0	0	2	0	6
Azolla pinnata	Ferny Azolla	0	0	0	0	0	0	0	1	1	4
Baumea arthrophylla	Swamp Twig-rush	0	0	0	0	2	0	0	0	0	0
Baumea articulata	Jointed Twig-rush	0	0	0	0	1	0	0	0	0	0
Baumea juncea	Bare Twig-rush	0	0	0	0	2	0	0	1	0	0
*Berula erecta	Water Parsnip	0	0	0	5	1	0	0	9	4	5
Bolboschoenus caldwellii	Salt Club-rush	2	1	1	0	0	0	0	15	4	6
Bolboschoenus medianus	Marsh Club-rush	0	1	0	0	0	0	0	0	0	1
Boraginaceae sp.	Borage Family	0	0	0	0	0	0	0	1	0	0
Brachycome sp.	Native Daisy	0	0	0	0	0	0	0	2	0	0
Brachyscome basaltica var. gracilis	Swamp Daisy	0	6	0	0	0	0	0	22	0	3
Brachyscome ciliaris var. ciliaris	Variable Daisy	0	0	0	0	0	0	0	8	0	0
Brachyscome ciliaris var. lanuginosa	Woolly Variable Daisy	0	6	0	0	0	0	0	0	0	0
Brachyscome dentata	Lobe-seed Daisy	0	2	0	0	0	0	0	1	0	0
Brachyscome exilis	Slender Daisy	0	0	0	0	0	1	0	0	0	0
Brachyscome lineariloba	Hard-head Daisy	0	21	0	0	0	0	0	36	0	8
*Brassica tournefortii	Wild Turnip	0	8	0	0	0	0	0	20	0	4
*Briza minor	Lesser Quaking-grass	0	0	0	0	0	0	0	1	0	0
Bromus arenarius	Sand Brome	0	2	0	0	0	0	0	0	0	0
*Bromus catharticus	Prairie Grass	0	0	0	0	0	0	0	5	0	0
*Bromus diandrus	Great Brome	0	0	0	0	0	0	0	3	0	9
*Bromus hordeaceus ssp. hordeaceus	Soft Brome	0	0	0	0	0	0	0	4	0	0
*Bromus rigidus	Rigid Brome	0	0	0	0	0	0	0	6	0	0
*Bromus rubens	Red Brome	0	25	0	0	0	0	0	62	0	14
Bromus sp.	Brome	0	1	0	0	0	0	0	1	0	0
Bulbine semibarbata	Small Leek-lily	0	20	0	0	0	0	0	17	0	0
*Bupleurum semicompositum	Hare's Ear	0	0	1	0	0	0	0	1	0	2
Calandrinia eremaea	Dryland Purslane	0	9	0	0	0	0	0	8	0	2
Calandrinia sp.	Purslane/Parakeelya	0	0	0	0	0	0	0	1	0	0
Callistemon brachyandrus	Prickly Bottlebrush	0	0	0	0	0	0	0	7	0	0
*Callitriche stagnalis	Common Water Starwort	0	0	0	0	1	0	0	1	0	0
Calocephalus sonderi	Pale Beauty-heads	0	23	0	0	0	0	0	0	0	2
Calotis cuneifolia	Purple Burr-daisy	0	11	0	0	0	0	0	22	0	1
Calotis erinacea	Tangled Burr-daisy	0	0	0	0	0	0	0	1	0	0
Calotis hispidula	Hairy Burr-daisy	0	15	0	0	0	0	0	7	0	1
Calotis scapigera	Tufted Burr-daisy	0	7	0	0	0	0	0	3	0	0
Calotis sp.	Burr-daisy	0	0	0	0	0	0	0	1	0	0
Calystegia sepium	Large Bindweed	0	0	0	4	1	0	0	11	1	2
*Carduus tenuiflorus	Slender Thistle	0	1	0	0	0	0	0	0	0	0
Carex appressa	Tall Sedge	0	0	0	0	0	0	0	2	1	0
Carex fascicularis	Tassel Sedge	0	0	0	0	0	0	0	4	0	1
Carex gaudichaudiana	Fen Sedge	0	0	0	0	1	0	0	0	0	0

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Carpobrotus modestus	Inland Pigface	0	0	0	0	0	0	0	5	0	0
Carpobrotus rossii	Native Pigface	0	0	0	2	0	0	0	1	2	0
Carpobrotus sp.	Pigface	0	0	0	0	0	0	0	2	0	0
*Carrichtera annua	Ward's Weed	0	0	0	0	0	0	0	6	0	4
*Carthamus lanatus	Saffron Thistle	0	1	0	0	0	0	0	3	0	0
*Centaurea melitensis	Malta Thistle	0	6	0	0	0	0	0	2	0	0
Centella asiatica	Asian Centella	0	0	0	0	0	0	0	7	1	1
Centella cordifolia (NC)		0	0	0	0	2	0	0	0	0	0
Centipeda cunninghamii (NC)	Common Sneezeweed	0	3	0	0	0	0	0	11	0	1
Centipeda minima (NC)	Spreading Sneezeweed	0	0	0	0	0	0	0	2	0	0
Centipeda sp.	Sneezeweed	0	2	0	0	0	0	0	3	0	0
Centipeda thespidioides (NC)	Desert Sneezeweed	0	1	0	0	0	0	0	0	0	0
Chamaesyce drummondii	Caustic Weed	0	2	0	0	0	0	0	23	0	0
Chenopodiaceae sp.	Goosefoot Family	0	1	0	0	0	0	0	0	0	0
Chenopodium curvispicatum	Cottony Goosefoot	0	0	0	0	0	0	0	2	0	2
Chenopodium desertorum ssp. desertorum	Frosted Goosefoot	0	1	0	0	0	0	0	1	0	0
*Chenopodium glaucum	Glaucous Goosefoot	0	0	0	0	0	0	0	0	1	0
Chenopodium nitrariaceum	Nitre Goosefoot	0	16	0	0	0	0	0	20	0	1
*Chondrilla juncea	Skeleton Weed	0	0	0	0	0	0	0	2	0	0
Chrysocephalum apiculatum	Common Everlasting	0	8	0	0	0	0	0	0	0	0
*Cirsium vulgare	Spear Thistle	0	2	0	1	0	0	0	39	0	5
Cladium procerum	Leafy Twig-rush	0	0	0	0	1	0	0	0	0	0
Clematis microphylla var. microphylla	Old Man's Beard	0	0	0	0	0	0	0	0	1	0
*Cleretum papulosum ssp. papulosum		0	0	0	0	0	0	0	1	0	0
Compositae sp.	Daisy Family	0	0	0	0	0	0	0	2	0	0
Convolvulus remotus	Grassy Bindweed	0	1	0	0	0	0	0	0	0	0
*Conyza albida	Tall Fleabane	0	0	0	0	0	0	0	8	0	0
*Conyza bonariensis	Flax-leaf Fleabane	0	0	0	0	0	0	0	5	0	0
*Conyza sp.	Fleabane	0	0	0	0	0	0	0	3	0	0
*Coprosma repens	New Zealand Mirror-bush	0	0	0	0	0	0	0	1	0	0
Cotula australis	Common Cotula	0	3	0	0	0	0	0	7	0	2
*Cotula bipinnata	Ferny Cotula	0	0	0	0	0	0	0	0	0	6
*Cotula coronopifolia	Water Buttons	0	1	0	1	1	1	0	17	4	7
Cotula sp.	Cotula	0	1	0	0	0	0	0	0	0	1
Cotula vulgaris var. australasica	Slender Cotula	0	0	0	0	0	2	0	3	0	4
Craspedia glauca (NC)	Billy-buttons	0	7	0	0	0	0	0	0	0	0
Crassula colorata var. acuminata	Dense Crassula	0	1	0	0	0	0	0	46	0	9
Crassula helmsii	Swamp Crassula	0	0	0	1	1	0	0	8	1	2
Crassula peduncularis	Purple Crassula	0	1	0	0	0	0	0	0	0	0
Crassula sieberiana ssp. tetramera (NC)	Australian Stonecrop	0	6	0	0	0	0	0	1	0	2
Crassula sp.	Crassula/Stonecrop	0	7	0	0	0	0	0	6	0	0
Cressa australis	Rosinweed	0	7	0	0	0	0	0	34	0	10
Crinum flaccidum	Murray Lily	0	1	0	0	0	0	0	3	0	0
*Critesion murinum ssp. (NC)	Barley-grass	0	0	0	0	0	0	0	1	0	0
Cruciferae sp.	Cress Family	0	0	0	0	0	0	0	1	0	0
*Cuscuta campestris	Golden Dodder	0	0	0	0	0	0	0	1	0	0
*Cynara cardunculus ssp. flavescens	Artichoke Thistle	0	0	0	0	0	0	0	3	0	0
*Cynodon dactylon	Couch	0	5	0	0	1	0	0	7	0	2
*Cynodon sp.	Couch	0	0	0	0	0	0	0	0	0	1
Cyperus gunnii ssp. gunnii	Flecked Flat-sedge	0	0	0	0	0	0	0	2	0	0
Cyperus gymnocaulos	Spiny Flat-sedge	0	5	0	2	0	0	0	84	0	9
Damasonium minus	Star-fruit	0	2	0	0	0	0	0	0	0	0
Danthonia sp.	Wallaby-grass	0	0	0	0	0	0	0	4	0	0
Daucus glochidiatus	Native Carrot	0	9	0	0	0	0	0	1	0	0
'dead Acacia' stenophylla		0	0	0	0	0	0	0	17	0	0
'dead Eucalyptus' camaldulensis var. camaldulensis		0	0	0	0	0	0	0	75	0	0
'dead Eucalyptus' largiflorens		0	0	0	0	0	0	0	41	0	0
Dianella brevicaulis	Short-stem Flax-lily	0	0	0	0	0	0	0	1	1	0
Dianella porracea	Pale Flax-lily	0	0	0	0	0	0	0	1	0	0
Disphyma crassifolium ssp. (NC)		0	0	1	0	0	0	0	0	0	0
Disphyma crassifolium ssp. clavellatum	Round-leaf Pigface	1	8	0	2	0	3	1	71	0	10
Dissocarpus biflorus var. biflorus	Two-horn Saltbush	0	0	0	0	0	0	0	2	0	1
Dissocarpus paradoxus	Ball Bindyi	0	2	0	0	0	0	0	2	0	0
Distichlis distichophylla	Emu-grass	1	0	2	3	0	2	1	22	5	0

Scientific Name	Common Name	4	12	42	45	52	78	93	134	136	165
*Dittrichia graveolens	Stinkweed	0	4	0	0	0	0	0	10	0	0
Dodonaea viscosa ssp. angustissima	Narrow-leaf Hop-bush	0	2	0	0	0	0	0	13	0	0
*Echium plantagineum	Salvation Jane	0	6	0	0	0	0	0	3	0	0
Eclipta platyglossa	Yellow Twin-heads	0	6	0	0	0	0	0	25	0	1
*Ehrharta calycina	Perennial Veldt Grass	0	0	0	1	0	0	0	2	0	0
*Ehrharta longiflora	Annual Veldt Grass	0	0	0	0	0	0	0	0	0	2
Einadia nutans ssp. nutans	Climbing Saltbush	0	18	0	0	0	0	0	124	1	26
Eleocharis acuta	Common Spike-rush	0	5	0	3	1	0	0	18	1	8
Eleocharis gracilis	Slender Spike-rush	0	0	0	0	1	0	0	0	0	0
Eleocharis sphacelata	Tall Spike-rush	0	0	0	0	1	0	0	4	0	1
Elymus scabrus var. scabrus	Native Wheat-grass	0	0	0	0	0	0	0	2	0	0
Enchylaena tomentosa var.	Ruby Saltbush	0	0	0	1	0	0	0	0	0	0
Enchylaena tomentosa var. tomentosa	Ruby Saltbush	0	22	0	0	0	0	0	170	2	27
Enteropogon acicularis (NC)	Umbrella Grass	0	1	0	0	0	0	0	0	0	0
Epaltes australis	Spreading Nut-heads	0	0	0	0	0	0	0	19	0	2
Epaltes cunninghamii	Tall Nut-heads	0	0	0	0	0	0	0	1	0	0
Epilobium pallidiflorum	Showy Willow-herb	0	0	0	1	0	0	0	1	1	4
Eragrostis australasica	Cane-grass	0	1	0	0	0	0	0	12	0	0
Eragrostis dielsii var. dielsii	Mulka	0	3	0	0	0	0	0	5	0	0
Eragrostis elongata	Clustered Love-grass	0	0	0	0	0	0	0	2	0	0
Eragrostis falcata	Sickle Love-grass	0	0	0	0	0	0	0	1	0	0
Eragrostis lacunaria	Purple Love-grass	0	1	0	0	0	0	0	1	0	0
Eremophila bignoniiflora	Bignonia Emubush	0	1	0	0	0	0	0	0	0	0
Eremophila divaricata ssp. divaricata	Spreading Emubush	0	6	0	0	0	0	0	28	0	3
Eriochiton sclerolaenoides	Woolly-fruit Bluebush	0	0	0	0	0	0	0	9	0	1
*Erodium cicutarium	Cut-leaf Heron's-bill	0	4	0	0	0	0	0	8	0	0
Erodium crinitum	Blue Heron's-bill	0	3	0	0	0	0	0	2	0	0
Eucalyptus camaldulensis var. camaldulensis	River Red Gum	0	18	0	0	0	0	0	100	0	9
Eucalyptus largiflorens	River Box	0	24	0	0	0	0	0	102	0	8
Eucalyptus porosa	Mallee Box	0	0	0	0	0	0	0	2	0	0
Eucalyptus sp.		0	1	0	0	0	0	0	0	0	0
Euchiton collinus	Creeping Cudweed	0	0	0	0	0	0	0	1	0	7
Euchiton involucratus	Star Cudweed	0	0	0	0	0	0	0	2	0	0
Euchiton sp.	Cudweed	0	0	0	0	0	0	0	1	0	0
Euchiton sphaericus	Annual Cudweed	0	11	0	0	0	0	0	6	0	0
*Euphorbia terracina	False Caper	0	0	0	0	0	0	0	10	0	1
Exocarpos aphyllus	Leafless Cherry	0	0	0	0	0	0	0	3	0	0
Exocarpos strictus	Pale-fruit Cherry	0	0	0	0	0	0	0	2	0	0
*Festuca arundinacea	Tall Meadow Fescue	0	0	0	0	0	0	0	4	0	0
*Filago pyramidata	Filago	0	0	0	0	0	0	0	1	0	0
Frankenia cupularis		0	2	0	0	0	0	0	0	0	0
Frankenia pauciflora var.	Southern Sea-heath	0	0	2	1	0	2	0	0	0	0
Frankenia pauciflora var. fruticulosa	Southern Sea-heath	1	0	0	0	0	0	0	0	0	0
Frankenia pauciflora var. gunnii	Southern Sea-heath	0	1	0	0	0	0	0	17	3	3
Frankenia serpyllifolia	Thyme Sea-heath	0	1	0	0	0	0	1	0	0	0
Frankenia sp.	Sea-heath	0	2	0	1	0	0	0	0	0	0
*Fraxinus angustifolia	Desert Ash	0	0	0	0	0	0	0	0	0	1
*Fumaria densiflora	Dense Fumitory	0	0	0	0	0	0	0	1	0	0
Gahnia filum	Thatching Grass	0	0	0	0	0	0	1	4	0	2
Gahnia trifida	Cutting Grass	0	0	1	0	1	0	0	1	0	0
*Galenia secunda	Galenia	0	1	0	0	0	0	0	2	0	1
*Gamochaeta spicata (NC)	Spiked Cudweed	0	0	0	0	0	0	0	1	0	0
*Gazania linearis	Gazania	0	0	0	0	0	0	0	1	0	2
Geijera linearifolia	Sheep Bush	0	0	0	0	0	0	0	1	0	0
Geranium retrorsum	Grassland Geranium	0	0	0	0	0	0	0	2	1	0
*Gladiolus undulatus	Wild Gladiolus	0	0	0	0	1	0	0	0	0	0
Glyceria australis	Australian Sweet-grass	0	0	0	0	0	0	1	0	0	0
Glycyrrhiza acanthocarpa	Native Liquorice	0	3	0	0	0	0	0	11	0	0
Gnephosis tenuissima	Dwarf Golden-tip	0	2	0	0	0	0	0	0	0	0
*Gomphocarpus cancellatus	Broad-leaf Cotton-bush	0	0	0	0	0	0	0	1	0	0
Goodenia fascicularis	Silky Goodenia	0	7	0	0	0	0	0	3	0	0
Goodenia glauca	Pale Goodenia	0	0	0	0	0	0	0	10	0	1
Goodenia pusilliflora	Small-flower Goodenia	0	0	0	0	0	0	0	1	0	0
Gramineae sp.	Grass Family	0	0	0	1	0	3	0	21	0	0
Gratiola peruviana	Austral Brooklime	0	0	0	0	1	0	0	2	0	0
Green alga		0	0	0	0	0	0	0	1	0	0
*Gypsophila tubulosa	Annual Chalkwort	0	1	0	0	0	0	0	0	0	0

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Haloragis aspera	Rough Raspwort	0	5	0	0	0	0	0	0	0	0
Halosarcia indica ssp.	Brown-head Samphire	0	0	0	0	0	1	0	0	0	0
Halosarcia indica ssp. bidens	Brown-head Samphire	0	0	0	0	0	0	0	2	0	1
Halosarcia indica ssp. leiostachya	Brown-head Samphire	0	0	0	0	0	1	0	29	1	3
Halosarcia pergranulata ssp.	Black-seed Samphire	0	0	0	4	0	1	0	0	0	7
Halosarcia pergranulata ssp. divaricata	Black-seed Samphire	0	1	0	0	0	0	0	0	0	0
Halosarcia pergranulata ssp. pergranulata	Black-seed Samphire	0	0	0	0	0	0	0	65	3	18
Halosarcia sp.	Samphire	0	4	0	1	0	0	0	2	0	1
*Hedypnois rhagadioloides	Cretan Weed	0	2	0	0	0	0	0	2	0	0
Helichrysum sp. (NC)		0	1	0	0	0	0	0	0	0	0
*Heliotropium curassavicum	Smooth Heliotrope	0	1	0	0	0	0	0	28	0	5
*Heliotropium supinum	Creeping Heliotrope	0	1	0	0	0	0	0	0	0	0
*Helminthotheca echioides	Ox-tongue	0	0	0	0	1	0	0	12	0	0
Hemichroa pentandra	Trailing Hemichroa	0	0	1	0	0	1	0	1	0	0
Herb sp.		0	3	0	0	0	0	0	0	0	0
*Herniaria cinerea	Rupturewort	0	4	0	0	0	0	0	0	0	0
*Holcus lanatus	Yorkshire Fog	0	0	0	1	0	0	0	0	0	0
*Hordeum glaucum	Blue Barley-grass	0	0	0	0	0	0	0	27	0	2
*Hordeum leporinum	Wall Barley-grass	0	22	0	0	0	0	0	0	0	0
*Hordeum marinum	Sea Barley-grass	0	0	2	12	0	1	1	28	2	4
*Hornungia procumbens	Oval Purse	0	0	0	0	0	2	0	43	0	2
Hydrocotyle capillaris	Thread Pennywort	0	0	0	0	0	1	0	0	0	0
Hydrocotyle medicaginoides	Medic Pennywort	0	0	1	0	0	0	0	0	0	0
Hydrocotyle pterocarpa	Wing Pennywort	0	0	0	0	1	0	0	0	0	0
Hydrocotyle verticillata	Shield Pennywort	0	0	0	8	2	0	0	15	3	5
*Hypochaeris glabra	Smooth Cat's Ear	0	20	0	0	0	0	0	16	0	8
*Hypochaeris radicata	Rough Cat's Ear	0	0	0	1	0	0	0	6	0	0
*Hypochaeris sp.	Cat's Ear	0	0	0	0	0	0	0	1	0	0
*Iris orientalis	Oriental Iris	0	0	0	0	0	0	0	1	0	0
Isachne globosa	Swamp Millet	0	0	0	0	1	0	0	0	0	0
Isoetopsis graminifolia	Grass Cushion	0	5	0	0	0	0	0	4	0	0
Isolepis cernua	Nodding Club-rush	0	0	0	0	1	0	0	6	1	1
Isolepis inundata	Swamp Club-rush	0	0	0	0	1	0	0	0	0	0
Isolepis nodosa	Knobby Club-rush	0	0	0	2	1	0	0	0	0	0
Isolepis platycarpa	Flat-fruit Club-rush	0	1	0	0	0	0	0	0	0	0
Isolepis sp.	Club-rush	0	0	0	1	0	0	0	1	0	0
*Juncus acutus	Sharp Rush	0	0	0	0	0	0	0	3	0	0
Juncus aridicola	Inland Rush	0	0	0	0	0	0	0	4	0	4
*Juncus articulatus	Jointed Rush	0	0	0	0	1	0	0	4	0	0
Juncus caespiticius	Grassy Rush	0	0	0	0	0	0	0	1	0	0
Juncus kraussii	Sea Rush	0	0	2	0	2	3	0	15	6	1
Juncus pallidus	Pale Rush	0	0	0	0	0	0	0	1	0	0
Juncus pauciflorus	Loose-flower Rush	0	3	0	0	0	0	0	0	0	0
Juncus sarophorus		0	0	0	0	0	0	0	0	2	0
Juncus usitatus	Common Rush	0	0	0	1	0	0	0	17	1	0
*Lactuca serriola	Prickly Lettuce	0	0	0	0	0	0	0	17	0	11
*Lagunaria patersonii	Pyramid Tree	0	0	0	0	0	0	0	0	1	0
*Lagurus ovatus	Hare's Tail Grass	0	0	0	0	0	0	0	0	1	0
*Lamarckia aurea	Toothbrush Grass	0	12	0	0	0	0	0	0	0	1
Lawrencia squamata	Thorny Lawrencia	0	0	2	0	0	2	0	3	2	0
Lemna disperma	Common Duckweed	0	0	0	0	0	0	0	0	0	1
*Lepidium africanum	Common Peppercress	0	0	0	0	0	0	0	4	0	19
Lepidium fasciculatum	Bundled Peppercress	0	5	0	0	0	0	0	0	0	0
Lepidium papillosum	Warty Peppercress	0	9	0	0	0	0	0	0	0	0
Lepidium pseudohyssopifolium		0	16	0	0	0	0	0	0	0	0
Lepidium sp.	Peppercress	0	0	0	0	0	0	0	2	0	0
Lepilaena australis	Austral Water-mat	0	0	0	0	0	0	0	0	0	1
Leptospermum continentale	Prickly Tea-tree	0	0	0	0	1	0	0	0	0	0
Leptospermum lanigerum	Silky Tea-tree	0	0	0	0	2	0	0	0	0	0
Lichen sp.		0	0	0	0	0	0	0	3	1	0
*Limonium binervosum	Dwarf Sea-lavender	0	0	2	0	0	2	0	0	3	0
*Limonium lobatum	Winged Sea-lavender	0	1	0	0	0	0	0	1	0	0
Liverwort sp.		0	0	0	0	0	0	0	1	0	0
Lobelia alata	Angled Lobelia	0	0	0	0	1	0	0	5	1	0
*Lolium rigidum	Wimmera Ryegrass	0	0	0	0	0	0	0	15	0	4
Lomandra leucocephala ssp. robusta	Woolly Mat-rush	0	0	0	0	0	0	0	1	0	0
Loranthaceae sp.	Mistletoe Family	0	0	0	0	0	0	0	2	0	0
*Ludwigia peploides ssp.	Water Primrose	0	1	0	2	0	0	0	1	0	4

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montevidensis											
Lycium australe	Australian Boxthorn	0	0	0	0	0	0	0	0	0	1
*Lycium ferocissimum	African Boxthorn	0	0	0	3	0	0	0	33	2	2
Lycopus australis	Australian Gipsywort	0	0	0	2	0	0	0	8	0	4
Lysiana exocarpi ssp. exocarpi	Harlequin Mistletoe	0	0	0	0	0	0	0	9	0	3
Lythrum hyssopifolia	Lesser Loosestrife	0	0	0	0	0	0	0	2	0	1
Lythrum salicaria	Purple Loosestrife	0	0	0	0	0	0	0	2	0	0
Maireana appressa	Pale-fruit Bluebush	0	0	0	0	0	0	0	3	0	1
Maireana brevifolia	Short-leaf Bluebush	0	0	0	0	0	0	0	27	0	10
Maireana ciliata	Hairy Fissure-plant	0	0	0	0	0	0	0	11	0	0
Maireana georgei	Satiny Bluebush	0	0	0	0	0	0	0	1	0	0
Maireana oppositifolia	Salt Bluebush	0	0	1	0	0	1	0	2	4	0
Maireana pentagona	Slender Fissure-plant	0	6	0	0	0	0	0	0	0	0
Maireana pentatropis	Erect Mallee Bluebush	0	1	0	0	0	0	0	0	0	0
Maireana pyramidata	Black Bluebush	0	5	0	0	0	0	0	13	0	0
Maireana radiata	Radiate Bluebush	0	0	0	0	0	0	0	3	0	0
Maireana rohrlachii	Rohrlach's Bluebush	0	0	0	0	0	0	0	1	0	0
Maireana sp.	Bluebush/Fissure-plant	0	0	0	0	0	0	0	4	0	0
Maireana turbinata	Top-fruit Bluebush	0	0	0	0	0	0	0	2	0	0
Malacocera tricornis	Goat-head Soft-horns	0	3	0	0	0	0	0	0	0	0
Malva behriana	Australian Hollyhock	0	0	0	0	0	0	0	2	0	0
Malvaceae sp.		0	0	0	0	0	0	0	1	0	0
*Marrubium vulgare	Horehound	0	1	0	0	0	0	0	5	0	0
Marsilea drummondii	Common Nardoo	0	0	0	2	0	0	0	1	0	0
Marsilea sp.	Nardoo	0	7	0	0	0	0	0	9	0	0
*Medicago minima var. minima	Little Medic	0	3	0	0	0	0	0	26	0	1
*Medicago polymorpha var. polymorpha	Burr-medic	0	5	0	4	0	0	0	27	1	7
*Medicago sp.	Medic	0	0	0	0	0	0	0	2	0	0
*Medicago truncatula	Barrel Medic	0	0	0	0	0	0	0	4	0	0
Melaleuca halmaturorum	Swamp Paper-bark	0	0	1	0	0	0	0	6	6	0
Melaleuca lanceolata ssp. lanceolata (NC)	Dryland Tea-tree	0	5	0	0	0	0	0	8	0	1
*Melilotus indicus	King Island Melilot	0	0	0	0	0	2	0	12	1	6
Mentha australis	River Mint	0	2	0	0	0	0	0	1	0	0
*Mentha x piperita var.	Peppermint	0	0	0	2	0	0	0	0	0	2
*Mesembryanthemum crystallinum	Common Iceplant	0	5	0	0	0	0	0	2	0	0
*Mesembryanthemum nodiflorum	Slender Iceplant	0	8	0	0	0	0	0	25	0	16
Microtis arenaria	Notched Onion-orchid	0	0	0	0	0	0	0	1	0	0
Millotia muelleri	Common Bow-flower	0	0	0	0	0	0	0	2	0	0
Mimulus repens	Creeping Monkey-flower	0	0	0	1	0	0	0	3	2	3
*Modiola caroliniana	Red-flowered Mallow	0	0	0	0	0	0	0	3	0	0
Montia australasica	White Purslane	0	0	0	0	1	0	0	1	0	0
*Moraea setifolia	Thread Iris	0	0	0	0	0	0	0	2	0	0
Moss sp.		0	2	0	1	0	0	0	1	2	0
Muehlenbeckia florulenta	Lignum	3	24	0	6	1	0	1	200	3	38
Muehlenbeckia gunnii	Coastal Climbing Lignum	0	0	0	0	0	0	0	1	1	1
Muehlenbeckia horrida ssp. horrida	Spiny Lignum	0	3	0	0	0	0	0	4	0	0
Myoporum insulare	Common Boobialla	0	0	0	0	0	0	0	0	4	0
Myoporum montanum	Native Myrtle	0	0	0	0	0	0	0	14	0	3
Myoporum parvifolium	Creeping Boobialla	0	0	0	0	0	0	0	8	0	0
Myosurus minimus var. australis	Mousetail	0	2	0	0	0	0	0	1	0	3
Myriophyllum caput-medusae	Coarse Milfoil	0	0	0	0	0	0	0	0	1	1
Myriophyllum crispatum	Upright Milfoil	0	2	0	0	0	0	0	0	0	1
Myriophyllum papillosum	Robust Milfoil	0	1	0	0	0	0	0	0	0	0
Myriophyllum salsugineum	Lake Milfoil	0	0	0	0	0	0	0	0	1	2
Myriophyllum simulans	Amphibious Milfoil	0	0	0	0	1	0	0	0	0	3
Myriophyllum sp.	Milfoil	0	0	0	0	0	0	0	2	0	0
*Neatostema apulum	Hairy Sheepweed	0	1	0	0	0	0	0	0	0	0
*Nicotiana glauca	Tree Tobacco	0	0	0	0	0	0	0	1	1	0
Nicotiana goodspeedii	Small-flower Tobacco	0	0	0	0	0	0	0	1	0	0
Nicotiana velutina	Velvet Tobacco	0	2	0	0	0	0	0	1	0	1
Nitraria billardierei	Nitre-bush	0	1	0	0	0	0	0	2	0	0
*Olea europaea ssp. europaea	Olive	0	0	0	0	0	0	0	1	0	0
Olearia pimeleoides ssp. pimeleoides	Pimelea Daisy-bush	0	0	0	0	0	0	0	8	0	0
Omphalolappula concava	Burr Stickseed	0	1	0	0	0	0	0	0	0	0
*Onopordum sp.	Thistle	0	6	0	0	0	0	0	0	0	0
*Opuntia robusta	Wheel Pear	0	0	0	0	0	0	0	3	0	0
Osteocarpum acropterum var. acropterum	Tuberculate Bonefruit	0	8	0	0	0	0	0	0	0	0

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Oxalis perennans	Native Sorrel	0	0	0	0	0	0	0	3	0	0
*Oxalis pes-caprae	Soursob	0	0	0	0	0	0	0	1	0	0
Pachycornia triandra	Desert Glasswort	0	1	0	0	0	0	0	12	0	0
Panicum sp.	Panic/Millet	0	0	0	1	0	0	0	0	0	0
*Parapholis incurva	Curly Ryegrass	0	0	0	0	0	0	1	10	0	2
*Parentucellia latifolia	Red Bartsia	0	0	0	0	0	1	0	0	0	0
*Paspalum dilatatum	Paspalum	0	0	0	0	0	0	0	1	0	2
*Paspalum distichum	Water Couch	0	0	0	8	0	0	0	11	0	7
*Paspalum sp.		0	0	0	0	0	0	0	3	0	0
*Paspalum vaginatum	Salt-water Couch	0	0	0	4	0	0	0	12	9	8
*Pennisetum clandestinum	Kikuyu	0	0	0	4	0	0	0	12	0	3
*Pentaschistis airoides	False Hair-grass	0	1	0	0	0	0	0	10	0	0
*Pentaschistis pallida	Pussy Tail	0	0	0	0	0	0	0	0	0	1
Persicaria decipiens	Slender Knotweed	0	0	0	4	0	0	0	7	3	6
Persicaria lapathifolia	Pale Knotweed	0	1	0	6	0	0	0	0	0	0
*Phalaris aquatica	Phalaris	0	0	0	0	0	0	0	3	0	0
*Phalaris minor	Lesser Canary-grass	0	0	0	0	0	0	0	2	0	0
*Phoenix canariensis	Canary Island Palm	0	0	0	0	0	0	0	1	0	0
Phragmites australis	Common Reed	2	2	0	6	3	0	0	52	6	18
*Phyla canescens	Lippia	0	2	0	0	0	0	0	34	0	4
Phyllanthus lacunarius	Lagoon Spurge	0	1	0	0	0	0	0	0	0	0
Picris sp.	Picris	0	0	0	0	0	0	0	1	0	0
Picris squarrosa	Squat Picris	0	0	0	0	0	0	0	14	0	0
*Picris squarrosa (NC)	Squat Picris	0	5	0	0	0	0	0	0	0	0
Pimelea microcephala ssp. microcephala	Shrubby Riceflower	0	0	0	0	0	0	0	1	0	0
Pimelea serpyllifolia ssp. serpyllifolia	Thyme Riceflower	0	0	0	0	0	0	0	0	1	0
*Piptatherum miliaceum	Rice Millet	0	0	0	0	0	0	0	1	0	0
Pittosporum angustifolium	Native Apricot	0	1	0	0	0	0	0	3	0	0
Plagiobothrys plurisepaleus	White Rochelia	0	5	0	0	0	0	0	0	0	0
*Plantago coronopus ssp.	Bucks-horn Plantain	0	0	2	1	0	3	1	1	0	0
*Plantago coronopus ssp. coronopus	Bucks-horn Plantain	0	0	0	0	1	0	0	9	5	1
Plantago cunninghamii	Clay Plantain	0	18	0	0	0	0	0	25	0	6
Plantago drummondii	Dark Plantain	0	0	0	0	0	0	0	2	0	0
*Plantago major	Greater Plantain	0	0	0	0	1	0	0	1	1	0
Plantago turrifera	Crowned Plantain	0	0	0	0	0	0	0	5	0	0
*Poa annua (NC)	Winter Grass	0	0	0	0	1	0	0	0	0	0
Poa fordeana	Forde's Poa	0	1	0	0	0	0	0	9	0	0
Poa labillardieri var. labillardieri	Common Tussock-grass	0	0	0	0	0	0	0	2	0	0
Poa poiformis var. poiformis	Coast Tussock-grass	0	0	0	0	0	0	0	0	1	0
Poa sp.	Meadow-grass/Tussock-grass	0	0	0	0	0	0	0	1	0	0
Podolepis capillaris	Wiry Podolepis	0	0	0	0	0	0	0	1	0	0
Pogonolepis muelleriana	Stiff Cup-flower	0	11	0	0	0	0	0	9	0	1
Polycalymma stuartii	Poached-egg Daisy	0	3	0	0	0	0	0	15	0	4
*Polycarpon tetraphyllum	Four-leaf Allseed	0	0	0	0	0	0	0	1	0	0
*Polygonum aviculare (NC)	Wireweed	0	0	0	0	0	0	0	1	0	0
Polygonum plebeium	Small Knotweed	0	0	0	0	0	0	0	1	0	0
Polygonum sp. (NC)		0	0	0	1	0	0	0	0	0	0
*Polypogon maritimus	Coast Beard-grass	0	0	0	0	0	0	0	1	1	0
*Polypogon monspeliensis	Annual Beard-grass	0	0	0	1	0	0	0	21	2	11
*Polypogon sp.	Beard-grass	0	0	0	0	0	0	0	1	0	0
*Polypogon viridis	Water Bent	0	0	0	0	0	0	0	0	1	0
*Potamogeton crispus	Curly Pondweed	0	0	0	0	0	0	0	0	0	3
*Potamogeton pectinatus	Fennel Pondweed	0	0	0	0	0	0	0	0	0	2
Potamogeton tricarinatus	Floating Pondweed	0	0	0	0	0	0	0	1	0	0
Pratia concolor	Poison Pratia	0	1	0	0	0	0	0	2	0	0
Prunella vulgaris	Self-heal	0	0	0	0	0	0	0	0	3	0
Pseudognaphalium luteoalbum	Jersey Cudweed	0	2	0	0	0	0	0	12	0	2
*Psilocaulon granulicaule	Match-head Plant	0	0	0	0	0	0	0	2	0	0
*Puccinellia distans	Reflexed Poa	0	0	2	0	0	0	0	5	1	1
*Puccinellia fasciculata	Borrer's Saltmarsh-grass	0	0	0	0	0	0	0	9	0	1
Puccinellia stricta var. perlaxa		0	0	0	0	0	0	0	0	0	2
Puccinellia stricta var. stricta	Australian Saltmarsh-grass	0	0	0	0	0	1	0	5	1	3
Ranunculus amphitrichus	Small River Buttercup	0	0	0	3	2	0	0	10	0	2
*Ranunculus muricatus	Pricklefruit Buttercup	0	0	0	0	1	0	0	0	0	0
Ranunculus pentandrus var. platycarpus	Smooth Buttercup	0	3	0	0	0	0	0	0	0	0
Ranunculus sp.	Buttercup	0	1	0	0	0	0	0	0	0	0

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*Rapistrum rugosum ssp. rugosum	Turnip Weed	0	0	0	0	0	0	0	1	0	0
*Reichardia tingitana	False Sowthistle	0	7	0	0	0	0	0	12	0	8
Rhagodia candolleana ssp. candolleana	Sea-berry Saltbush	0	0	0	0	0	0	0	0	2	0
Rhagodia parabolica	Mealy Saltbush	0	0	0	0	0	0	0	7	3	0
Rhagodia spinescens	Spiny Saltbush	0	4	0	0	0	0	0	7	0	0
Rhagodia ulicina	Intricate Saltbush	0	0	0	0	0	0	0	5	0	0
Rhodanthe corymbiflora	Paper Everlasting	0	1	0	0	0	0	0	0	0	0
Rhodanthe floribunda	White Everlasting	0	4	0	0	0	0	0	0	0	0
Rhodanthe moschata	Musk Daisy	0	2	0	0	0	0	0	0	0	0
Rhodanthe polygalifolia	Milkwort Everlasting	0	0	0	0	0	0	0	2	0	0
Rhodanthe pygmaea	Pigmy Daisy	0	2	0	0	0	0	0	0	0	0
Rorippa eustylis	River Bitter-cress	0	5	0	0	0	0	0	0	0	0
*Rorippa nasturtium-aquaticum	Watercress	0	0	0	0	0	0	0	3	0	0
*Rorippa palustris	Yellow Marsh-cress	0	0	0	1	0	0	0	1	0	2
*Rostraria cristata	Annual Cat's-tail	0	7	0	0	0	0	0	1	0	8
*Rostraria pumila	Tiny Bristle-grass	0	8	0	0	0	0	0	0	0	0
*Rubus sp.	Blackberry	0	0	0	0	0	0	0	1	0	0
Rumex bidens	Mud Dock	0	1	0	0	0	0	0	3	0	0
Rumex brownii	Slender Dock	0	0	0	0	0	0	0	3	0	0
*Rumex conglomeratus	Clustered Dock	0	0	0	0	1	0	0	6	1	1
*Rumex crispus	Curled Dock	0	0	0	3	0	0	0	0	0	0
*Rumex pulcher ssp. pulcher	Fiddle Dock	0	0	0	0	0	0	0	0	0	1
Rumex sp.	Dock	0	0	0	6	0	0	0	15	0	2
Rumex tenax	Shiny Dock	0	4	0	0	0	0	0	0	0	0
Ruppia polycarpa	Widgeon Grass	0	0	0	0	0	0	0	0	0	1
Ruppia tuberosa	Widgeon Grass	0	0	0	0	0	0	0	0	0	1
*Sagina apetala	Annual Pearlwort	0	0	0	0	0	0	0	1	0	1
*Sagina maritima	Sea Pearlwort	0	0	0	0	0	1	0	0	0	0
*Salix babylonica	Weeping Willow	0	1	0	0	0	0	0	4	0	0
*Salix sp.	Willow	0	0	0	0	0	0	0	1	0	0
Salsola kali	Buckbush	0	3	0	0	0	0	0	14	0	4
Samolus repens	Creeping Brookweed	2	0	3	5	1	6	1	25	5	6
Sarcocornia blackiana	Thick-head Samphire	0	0	2	0	0	2	0	0	2	0
Sarcocornia quinqueflora	Beaded Samphire	2	0	3	6	0	5	1	23	5	8
Sarcozona praecox	Sarcozona	0	0	0	0	0	0	0	2	0	4
*Schinus molle	Pepper-tree	0	0	0	0	0	0	0	2	0	0
*Schismus barbatus	Arabian Grass	0	14	0	0	0	0	0	19	0	3
Schoenoplectus pungens	Spiky Club-rush	0	0	0	4	0	0	0	3	0	0
Schoenoplectus validus	River Club-rush	0	0	0	7	1	0	0	4	3	13
Scleranthus pungens	Prickly Knawel	0	0	0	0	0	0	0	1	0	0
Scleroblitum atriplicinum	Starry Goosefoot	0	7	0	0	0	0	0	0	0	0
Sclerolaena brachyptera	Short-wing Bindyi	0	17	0	0	0	0	0	13	0	5
Sclerolaena decurrens	Green Bindyi	0	4	0	0	0	0	0	0	0	0
Sclerolaena diacantha	Grey Bindyi	0	4	0	0	0	0	0	8	0	1
Sclerolaena divaricata	Tangled Bindyi	0	1	0	0	0	0	0	0	0	3
Sclerolaena muricata var. muricata	Five-spine Bindyi	0	8	0	0	0	0	0	33	0	7
Sclerolaena muricata var. semiglabra	Five-spine Bindyi	0	2	0	0	0	0	0	0	0	0
Sclerolaena muricata var. villosa	Five-spine Bindyi	0	0	0	0	0	0	0	4	0	1
Sclerolaena obliquicuspis	Oblique-spined Bindyi	0	5	0	0	0	0	0	9	0	2
Sclerolaena patenticuspis	Spear-fruit Bindyi	0	0	0	0	0	0	0	4	0	0
Sclerolaena sp.	Bindyi	0	2	0	0	0	0	0	2	0	0
Sclerolaena stelligera	Star Bindyi	0	8	0	0	0	0	0	3	0	3
Sclerolaena tricuspis	Three-spine Bindyi	0	17	0	0	0	0	0	46	0	6
Sclerostegia arbuscula	Shrubby Samphire	0	0	2	4	0	2	0	0	3	2
Selliera radicans	Shiny Swamp-mat	0	0	0	0	0	0	0	2	0	0
Senecio cunninghamii var. cunninghamii (NC)	Shrubby Groundsel	0	1	0	0	0	0	0	9	0	2
Senecio glomeratus (NC)	Swamp Groundsel	0	0	0	0	0	0	0	3	0	0
Senecio glossanthus	Annual Groundsel	0	25	0	0	0	2	0	30	0	10
Senecio pinnatifolius	Variable Groundsel	0	3	0	0	0	0	0	37	0	7
*Senecio pterophorus	African Daisy	0	0	0	0	0	0	0	1	0	1
Senecio quadridentatus	Cotton Groundsel	0	3	0	0	0	0	0	1	0	0
Senecio runcinifolius	Thistle-leaf Groundsel	0	6	0	0	0	0	0	15	0	8
Senecio sp.	Groundsel	0	0	0	0	0	0	0	3	0	0
Setaria jubiflora	Warrego Summer-grass	0	9	0	0	0	0	0	78	0	5
Sida corrugata var.	Corrugated Sida	0	0	0	0	0	0	0	0	0	1
Sida petrophila	Rock Sida	0	0	0	0	0	0	0	0	0	1
Sida sp.	Sida	0	0	0	0	0	0	0	2	0	0
*Silene apetala	Sand Catchfly	0	6	0	0	0	0	0	17	0	9

Scientific Name	Common Name	4	12	42	45	52	78	93	134	136	165
*Silene tridentata		0	0	0	0	0	0	0	1	0	0
*Sisymbrium erysimoides	Smooth Mustard	0	14	0	0	0	0	0	9	0	5
*Sisymbrium irio	London Mustard	0	5	0	0	0	0	0	0	0	1
Solanum esuriale	Quena	0	1	0	0	0	0	0	0	0	0
Solanum lacunarium	Lagoon Nightshade	0	0	0	0	0	0	0	2	0	0
*Solanum nigrum	Black Nightshade	0	4	0	0	0	0	0	8	0	0
*Sonchus asper ssp. glaucescens	Rough Sow -thistle	0	5	0	0	0	0	0	4	2	10
Sonchus hydrophilus	Native Sow -thistle	0	0	0	0	0	0	0	8	0	3
*Sonchus oleraceus	Common Sow -thistle	0	4	0	1	0	2	0	65	2	25
Sonchus sp.	Sow -thistle	0	16	0	1	0	0	0	10	0	0
*Sonchus tenerrimus	Clammy Sow -thistle	0	13	0	0	0	0	0	0	0	0
*Spergularia diandra	Lesser Sand-spurrey	0	2	0	0	0	0	0	0	0	1
*Spergularia marina	Salt Sand-spurrey	0	9	0	0	0	0	1	11	0	18
*Spergularia media	Coast Sand-spurrey	0	0	0	0	0	0	0	2	0	0
*Spergularia rubra	Red Sand-spurrey	0	0	0	0	0	0	0	10	0	0
*Spergularia sp.	Sand-spurrey	0	1	0	0	0	0	0	0	0	0
Spirodela punctata	Thin Duckweed	0	0	0	0	0	0	0	2	0	5
Sporobolus mitchellii	Rat-tail Couch	0	4	0	0	0	0	0	34	0	12
Sporobolus sp.		0	0	0	0	0	0	0	11	0	0
Sporobolus virginicus	Salt Couch	0	0	0	0	0	1	0	46	0	0
Sporobolus virginicus var. (NC)		0	0	0	1	0	0	0	0	0	0
Stemodia florulenta	Bluerod	0	6	0	0	0	0	0	22	0	2
Suaeda australis	Austral Seablite	2	0	3	8	0	4	1	39	5	14
Swainsona greyana	Darling Pea	0	0	0	0	0	0	0	1	0	1
Swainsona microphylla	Small-leaf Swainson-pea	0	0	0	0	0	0	0	3	0	1
Swainsona microphylla ssp. minima (NC)	Small-leaf Swainson-pea	0	1	0	0	0	0	0	0	0	0
Swainsona phacoides	Dwarf Swainson-pea	0	1	0	0	0	0	0	0	0	0
Swainsona sp.	Swainson-pea	0	1	0	0	0	0	0	0	0	0
*Taraxacum officinale	Dandelion	0	0	0	0	0	0	0	3	0	0
Tetragonia eremaea	Desert Spinach	0	0	0	0	0	0	0	4	0	3
Tetragonia implexicoma	Bower Spinach	0	0	0	0	0	0	0	1	0	0
Tetragonia tetragonioides	New Zealand Spinach	0	24	0	0	0	0	0	0	0	0
Teucrium racemosum	Grey Germander	0	9	0	0	0	0	0	29	0	5
Threlkeldia diffusa	Coast Bonefruit	0	0	0	0	0	0	0	17	4	1
Trichanthodium skirrophorum	Woolly Yellow -heads	0	0	0	0	0	0	0	16	0	0
*Trifolium arvense var. arvense	Hare's-foot Clover	0	0	0	0	0	0	0	1	0	0
*Trifolium fragiferum var.	Strawberry Clover	0	0	0	0	0	0	0	1	0	0
*Trifolium fragiferum var. fragiferum	Strawberry Clover	0	0	0	0	0	0	0	0	3	0
*Trifolium glomeratum	Cluster Clover	0	0	0	0	0	0	0	1	0	0
*Trifolium repens	White Clover	0	0	0	0	0	0	0	8	0	0
*Trifolium sp.	Clover	0	0	0	4	0	0	0	0	0	0
*Trifolium striatum	Knotted Clover	0	0	0	0	0	0	0	0	1	0
*Trifolium subterraneum	Subterranean Clover	0	0	0	0	0	0	0	1	0	0
Triglochin calcitrapum	Spurred Arrowgrass	0	1	0	0	0	0	0	0	0	0
Triglochin hexagonum	Six-point Arrowgrass	0	0	0	0	0	0	0	1	0	1
Triglochin procerum	Water-ribbons	0	0	0	0	2	0	0	11	0	6
Triglochin procerum var. procerum (NC)	Water-ribbons	0	0	0	2	0	0	0	0	0	0
Triglochin sp.	Arrowgrass/Water-ribbons	0	0	0	1	0	0	0	0	0	0
Triglochin striatum	Streaked Arrowgrass	0	0	0	2	0	5	0	7	3	4
Triptilodiscus pygmaeus	Small Yellow -heads	0	2	0	0	0	0	0	2	0	0
Typha domingensis	Narrow -leaf Bulrush	0	1	0	7	0	0	0	9	5	12
Typha orientalis	Broad-leaf Bulrush	0	0	0	3	2	0	0	4	0	5
*'unverified species – nv`		0	0	0	0	0	0	0	3	0	0
*Urospermum picroides	False Hawkbit	0	1	0	0	0	0	0	0	0	0
Urtica incisa	Scrub Nettle	0	0	0	1	0	0	0	1	0	1
*Urtica urens	Small Nettle	0	0	0	5	0	0	0	4	0	0
Vallisneria americana var. americana	River Eel-grass	0	0	0	0	0	0	0	0	0	1
*Vellereophyton dealbatum	White Cudweed	0	0	0	0	0	0	0	1	0	0
*Verbena officinalis	Common Verbena	0	1	0	0	0	0	0	0	0	0
*Veronica peregrina ssp. xalapensis	Wandering Speedwell	0	4	0	0	0	0	0	0	0	0
*Vicia monantha	Spurred Vetch	0	0	0	0	0	0	0	2	0	0
*Vicia sativa ssp. nigra	Narrow -leaf Vetch	0	0	0	0	0	0	0	3	0	0
Villarsia umbricola var. umbricola	Lax Marsh-flower	0	0	0	0	1	0	0	0	0	0
Viminaria juncea	Native Broom	0	0	0	0	1	0	0	0	0	0
Vittadinia australasica var. australasica	Sticky New Holland Daisy	0	1	0	0	0	0	0	0	0	0
Vittadinia cervicularis var. cervicularis	Waisted New Holland Daisy	0	0	0	0	0	0	0	9	0	0

Scientific Name	Common Name	4	12	42	45	52	78	93	134	136	165
Vittadinia cuneata var.	Fuzzy New Holland Daisy	0	0	0	0	0	0	0	0	0	2
Vittadinia cuneata var. cuneata forma cuneata	Fuzzy New Holland Daisy	0	3	0	0	0	0	0	4	0	3
Vittadinia dissecta var. hirta	Dissected New Holland Daisy	0	0	0	0	0	0	0	4	0	0
Vittadinia gracilis	Woolly New Holland Daisy	0	0	0	0	0	0	0	9	0	2
Vittadinia megacephala	Giant New Holland Daisy	0	0	0	0	0	0	0	3	0	1
Vittadinia sp.	New Holland Daisy	0	6	0	0	0	0	0	0	0	0
*Vulpia fasciculata	Sand Fescue	0	0	0	0	0	0	0	3	3	1
*Vulpia muralis	Wall Fescue	0	1	0	0	0	0	0	3	0	3
*Vulpia myuros forma megalura	Fox-tail Fescue	0	0	0	0	0	0	0	0	0	3
*Vulpia myuros forma myuros	Rat's-tail Fescue	0	20	0	0	0	0	0	45	0	7
*Vulpia sp.	Fescue	0	1	0	0	0	0	0	5	0	2
Wahlenbergia fluminalis	River Bluebell	0	16	0	0	0	0	0	34	0	4
Wahlenbergia sp.	Native Bluebell	0	0	0	0	0	0	0	2	0	0
Wahlenbergia tumidifructa	Swollen-fruit Bluebell	0	2	0	0	0	0	0	0	0	0
Waitzia acuminata var. acuminata	Orange Immortelle	0	1	0	0	0	0	0	0	0	0
Wilsonia humilis var. humilis	Silky Wilsonia	0	0	2	0	0	0	0	0	0	0
Wilsonia rotundifolia	Round-leaf Wilsonia	0	1	0	0	0	0	1	1	0	0
*Xanthium occidentale	Noogoora Burr	0	0	0	0	0	0	0	10	0	0
Xerochrysum bracteatum	Golden Everlasting	0	0	0	0	0	0	0	1	0	1
*Zaluzianskya divaricata	Spreading Night-phlox	0	0	0	0	0	0	0	1	0	0
Zygophyllum ammophilum (NC)	Sand Twinleaf	0	2	0	0	0	0	0	0	0	0
Zygophyllum eremaeum	Pale-flower Twinleaf	0	1	0	0	0	0	0	0	0	0
Zygophyllum glaucum	Pale Twinleaf	0	1	0	0	0	0	0	0	0	0
Zygophyllum iodocarpum	Violet Twinleaf	0	1	0	0	0	0	0	0	0	0
Zygophyllum sp.	Twinleaf	0	1	0	0	0	0	0	2	0	1

Appendix 6: Cover Abundance scores recorded against a species at a site. (Adapted from Braun-Blanquet 1965)

N - not many, 1 - 10 individuals (Where large shrubs or trees are involved choose a category to reflect the cover rather than the individuals)
T - sparsely or very sparsely present; cover Very small (less than 5%)
1 - plentiful, but of small cover (less than 5%)
2 - any number of individuals covering 5 - 25% of the area **3**
- any number of individuals covering 25 - 50% of the area **4**
- any number of individuals covering 50 - 75% of the area **5** -
covering more than 75% of the area

Appendix 7: Muir Descriptions and Codes for the Lifeforms recorded against a species at a site.

TREES (T, M, LA, LB) - Woody, usually perennial plants, generally erect, of variable outline but commonly with a spherical or ovoid canopy raised well above the ground. The major part of the canopy from bottom to top less than or equal to two thirds of the total height of the tree. Single stemmed, or if multi-stemmed, with fewer than 5 individual trunks that result from branching of a single trunk (which may be quite short) and which do not arise from a mallee-like lignotuber.

MALLEES (KT, KS) - Woody, usually perennial plants of the genus *Eucalyptus*, generally erect, of variable outline but commonly with a spherical or vertically flattened canopy raised well above the ground. Leaves are commonly born only near the ends of branches. The major part of the canopy from bottom to top may extend from the ground to the maximum height of the plant, or may occupy only the upper portion of the total height. Multi-stemmed, the individual trunks arising from a lignotuber or swelling at the base of the stem, at or below soil-level, and bearing dormant buds.

MALLEE - Usually greater than 3 m* tall
LOW MALLEE - Commonly less than 3 m* tall

SHRUBS (S, SA, SB, SC, SD) - Woody, usually perennial plants, generally erect but may be procumbent or of weeping habit. Commonly broadly conical in form with the foliage occupying all or only part of the total height of the plant. Multiple stems and branches arise from a rootstock or very short common trunk. Lignotubers of the mallee type absent. Shrubs may be of any height but are generally less than 5 m tall. Dead hollow branches rarely reach sufficient size to provide habitats for vertebrates.

MAT PLANTS (P) - Herbaceous or woody plants, usually perennial, prostrate and cushion-like. With densely compacted foliage which may occupy the whole volume of the aerial portion of the plant, or may occupy the outside surface of the cushion. Usually numerous, very short stems. Plants may vary from a few centimetres to several metres in diameter but rarely exceed 10 cm in height. Mat plants may be shrub-like woody species (e.g. *Astroloma humifusum*) or herb-like species such as *Wilsonia humilis*.

HUMMOCK GRASSES (H) - Herbaceous, perennial grasses of the genera *Triodia* or *Plectrachne*. Have a typical mound-like form due to trapping of debris and soil within the stem bases, building up into a hummock. Commonly with dead grass in the middle and living grass on the outer edge. The clumps are of uniform height and the seed heads rise above the clumps. The height of the clump, not the seed heads is stated.

GRASSES (GT, GL) - Herbaceous or rarely woody plants of the family Poaceae (Gramineae). Perennial or annual, generally erect or spreading. Usually with distinct individual shoots arising from a single root system, or if not, then not forming a hummock.

HERBS (J) - Herbaceous or slightly woody, annual or sometimes perennial plants. Herbaceous, annual species are commonly erect and woody, perennial species commonly creepers or climbers. Some species are tufted. Foliage usually covers the majority of the branches in shrubby and creeping forms. May arise from stolons, tubers, bulbs, rhizomes or seeds, but usually not from lignotubers. Rarely exceeds 0.5 m in height, unless climbing species.

SEDGES (VT, VL) - Herbaceous, usually perennial, erect plants. Generally of tufted habit. Arise from stolons, tubers, bulbs, rhizomes or seeds. Term includes Cyperaceae, Juncaceae, Restionaceae, Typhaceae and Xyridaceae and other plants of sedge-like form.

The following table may be of assistance in differentiating between grasses and sedges which are not flowering.

GRASSES	SEDGES
Leaf sheath always split	Leaf sheath never split
Ligule present	Usually no ligule
Leaf always flat	Leaf not always flat
Stem cross section circular	Stem cross section circular, triangular or polygonal
Evenly spaced internodes	Extended internode below inflorescence

Source: Adapted from Muir B.G. (1977) Biological Survey of the Western Australian Wheatbelt. Part 2: Vegetation and Habitat of Bendering Reserve. Records of the Western Australian Museum, Supplement No. 3, WA Museum, Perth.
* Adapted from 8 m to 3 m at the time of the Murray Mallee Survey for the South Australian situation.

Appendix 8: South Australian Structural Formation Table.

Life Form/Height Class	Percentage Foliage Cover of Tallest Stratum			
	Dense (70-100%)	**Mid-dense (30-70%)**	**Sparse (10-30%)**	**Very sparse (<10%)**
Trees > 30 m	Tall Closed Forest	Tall Open Forest	Tall Woodland	Tall Open Woodland
Trees 10-30 m	Closed Forest	Open Forest	Woodland	Open Woodland
Trees 5-10 m	Low Closed Forest	Low Open Forest	Low Woodland	Low Open Woodland
Trees <5 m	Very Low Closed Forest	Very Low Open Forest	Very Low Woodland	Very Low Open Woodland
Mallee (>3 m)	Closed Mallee	Mallee	Open Mallee	Very Open Mallee
Low Mallee (<3 m)	Closed Low Mallee	Low Mallee	Open Low Mallee	Very Open Low Mallee
Shrubs > 2 m	Tall Closed Shrubland	Tall Shrubland	Tall Open Shrubland	Tall Very Open Shrubland
Shrubs 1-2 m	Closed Shrubland	Shrubland	Open Shrubland	Very Open Shrubland
Shrubs < 1 m	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

[Note: Table originally derived from Specht (1972) and Muir (1977)]

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 multi-stemmed, 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 - < 3 m. Mallee - > 3 m

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 <5 m tall.

Mat Plants - Herbaceous or woody plants of prostrate habit, with major stems growing along the ground. Rarely exceeds 10 cm 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 0.5 m 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.

Adapted from: Heard and Channon (1997). *Guide to a Native Vegetation Survey Using the Biological Survey of South Australia.* Information and Data Analysis Branch, Department of Housing and Urban Development