

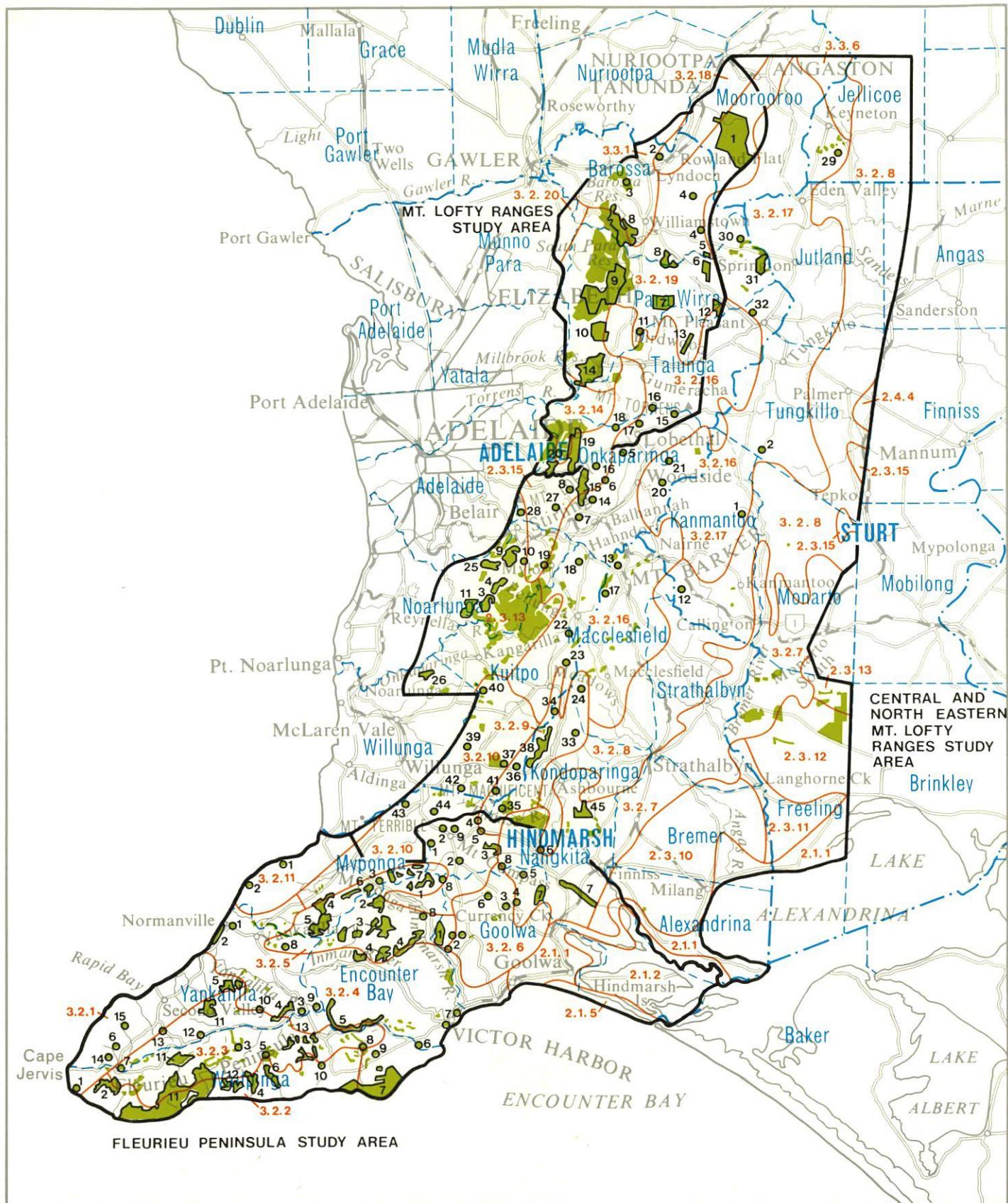
A botanical survey of remnant vegetation
and wetlands in the central and
north eastern Mount Lofty Ranges

South Australian Department for the Environment
January 1981

L Mitchell
A Prizibilla
T Dendy

ERRATUM

p. 265 Dispose all asterisks
down one row



Remnant vegetation in the Mount Lofty Ranges and Fleurieu Peninsula

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GEOGRAPHY DEPARTMENT

Information sources

- The native vegetation of the north-central Mt. Lofty Ranges : Wells, 1976 (Survey sites 1 to 20)
- Biogeographical and landform survey of Fleurieu Peninsula : Lamprey and Mitchell, 1978 (Survey sites numbered from 1 in each Hundred)
- A botanical survey of remnant vegetation and wetlands in the central and north-eastern Mt. Lofty Ranges : Dept. for the Environment, 1981 (Survey sites 1 to 45)

Study area boundary

Survey site - sites less than 150 ha are shown as a circle

Remnant vegetation - shown only within study area - 1974-6 photography

Environmental association

County / hundred

28

STURT

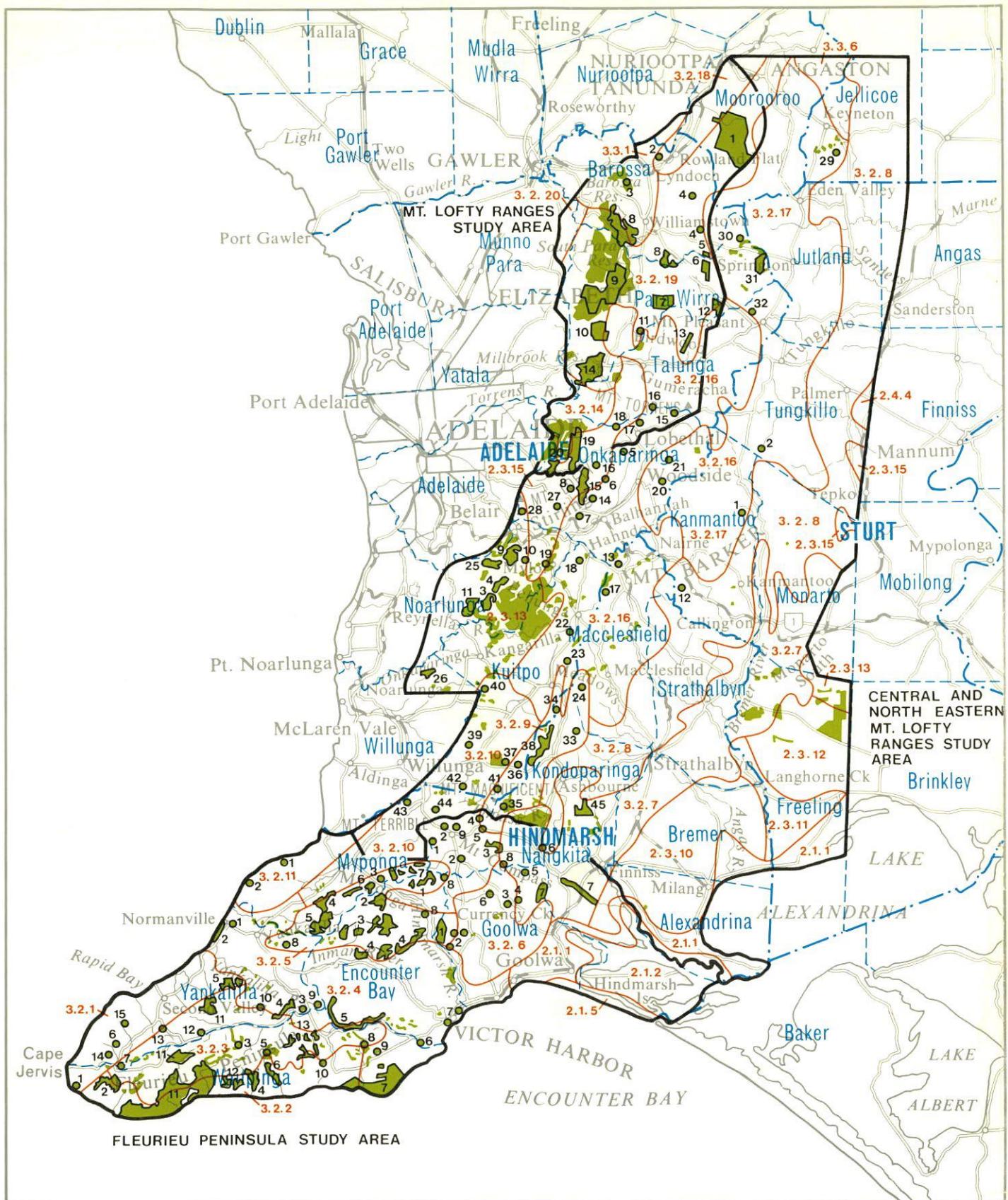
Angas

3.2.15

STURT

Angas





Remnant vegetation in the Mount Lofty Ranges and Fleurieu Peninsula

Study area boundary

Survey site - sites less than 150 ha
are shown as a circle

Remnant vegetation – shown only
within study area – 1974-6 photography

Environmental association

Environmental areas

County / hundred

28

1

3. 2. 15

STURT Angas

Information sources

The native vegetation of the north-central Mt. Lofty Ranges : Wells, 1976
(Survey sites 1 to 20)

Biogeographical and landform survey of Fleurieu Peninsula : Ley and Mitchell, 1978 (Survey sites numbered from 1 in each Hundred)

A botanical survey of remnant vegetation and wetlands in the central and north-eastern Mt. Lofty Ranges : Dept. for the Environment, 1981
(Survey sites 1 to 45.)

(Survey sites 1 to 45)

1 : 750 000
 0 10 20 30 40 kilometres

DEPARTMENT OF ENVIRONMENT AND PLANNING
OCTOBER 1981



**A botanical survey of remnant vegetation
and wetlands in the central and
north eastern Mount Lofty Ranges**

**South Australian Department for the Environment
January 1981**

L Mitchell

A Przibilla

T Dendy

ISBN 7243 4363 6

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- The Co-ordination and Policy Division, Department for the Environment, and in particular, the Projects Section.
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- Mr. D. Whibley of the State Herbarium, for his assistance in identifying plant specimens.
- Drafting Unit for drafting and compilation.

ABSTRACT

Forty-one remnant vegetation areas in the central and north-eastern Mount Lofty Ranges have been surveyed, evaluated and ranked for their scientific significance. Although it would be desirable to retain many of these blocks in their entirity, it is accepted that this would be unrealistic in light of other society needs. However, it is recommended that areas with a high ranking receive conservation priority. Similarly, priority should be given to the retention of associations with a high rating within each site.

It is further recommended that specific attention be given to the five sites ranked 1 - 4. These warrant particular consideration for incorporation within the parks and reserves system, being sites characterized by a relatively large size (greater than 100 ha) and diversity of plants and plant communities.

PREFACE

This study was prepared by Mr. L. Mitchell and Ms. A. Prizibilla, research biologists, on contract for the Department for the Environment. They were supervised by Mr. T. Dendy, an Environmental Officer of the Department.

1. INTRODUCTION

The original vegetation and wetlands of the Mount Lofty Ranges have been greatly depleted. Remnant areas of this resource now cover less than 7% of the Ranges (Counties Adelaide and Hindmarsh). Much of this depletion has occurred since the Second World War due predominantly to agricultural developments, but also as a result of forestry, water conservation, land drainage and home building activities.

The question of vegetation clearance in South Australia's agricultural regions was examined by a State Government Interdepartmental Committee. In its report, Vegetation Clearance in South Australia (1976), the Committee expressed considerable concern at the rate of on-going clearance, and recommended that inter alia, the co-operation of landholders be sought to retain significant areas that do not warrant acquisition and incorporation into the State parks and reserves system. In view of this, the Committee also recommended that all remnant areas of vegetation be assessed for their environmental significance and relevance to a variety of possible uses or needs. State Cabinet gave approval in February 1980 to the implementation of such a scheme.

In recent years, a concerted effort has been made by public and private organizations and individuals to complete a large scale botanical survey of the agricultural regions in the State. In this report, remnant vegetation and wetlands not already included within public reserves (e.g. conservation parks) in the central and North-Eastern Mount Lofty Ranges are surveyed. The remnant areas are mapped, described and evaluated for their scientific significance.

It is considered that this report will assist the Department of Environment and Planning in assessing areas proposed for clearance. It will also assist the Department and District Councils in developing planning policies for the Ranges.

The report does not attempt to evaluate the vegetation areas for their recreation potential, aesthetic significance or other social values, but contains data that should be useful to those considering these aspects.

2. STUDY AREA

Remnant vegetation areas on the north-central Mount Lofty Ranges were surveyed by Wells (1976) and on the Fleurieu Peninsula (including wetlands) by Mitchell (1979). This study complements the above by encompassing the central and north-eastern part of the Ranges.

The study area (fig 1) includes:

- | | |
|------------------|--|
| County Adelaide | - Hundred of Kuitpo and part hundreds of Onkaparinga, Noarlunga, Para Wirra, Talunga and Willunga. |
| County Hindmarsh | - Hundreds of Kondoparinga and Macclesfield and part hundred of Myponga. |
| County Sturt | - Hundreds of Kanmantoo and Tungkillo. |
| County Eyre | - Part hundred of Jellicoe. |

GULF ST. VINCENT



Study Area



North-central Mount Lofty Ranges
(Wells, 1976)



Fleurieu Peninsula (Mitchell, 1979)

0

25 kilometres

Location of study area

3. AIMS

The aim of the study was to survey the larger remnant areas of vegetation and wetlands within the study area and specifically to:

1. describe their botanical composition and structure.
2. assess their condition (impact of grazing, weed invasion, etc.)
3. evaluate their scientific significance.
4. recommend conservation priorities.

4. METHODOLOGY

4.1 Site Selection

The study concentrates on areas of remnant vegetation greater than 20 hectares that are not already included within public reserves. Forty Five areas (referred to hereafter as sites) were visited during the course of the study (see fig 2.), of which 41 were surveyed.

While smaller sites were excluded for logistic reasons, it is accepted that these will have some environmental significance. This is particularly the case in the Mount Lofty Ranges where even very small sites may, amongst other things, form a dominant component of the landscape. However, for the purposes of this report, it has been assumed that sites less than 20 ha will generally be of less scientific significance than the larger site.

1:50 000 cadastral sheets showing remnant vegetation areas (Caldicott, 1977) and 1:16 000 (1977) and 1:5000 (1975) colour aerial photography were used as a basis for field work.

4.2 Site Description

To provide a clear picture of the sites, a format was designed to describe each in terms of,

- location
- physical features
- plant associations (after Specht, 1972)
- condition (modification)
- features of scientific interest.

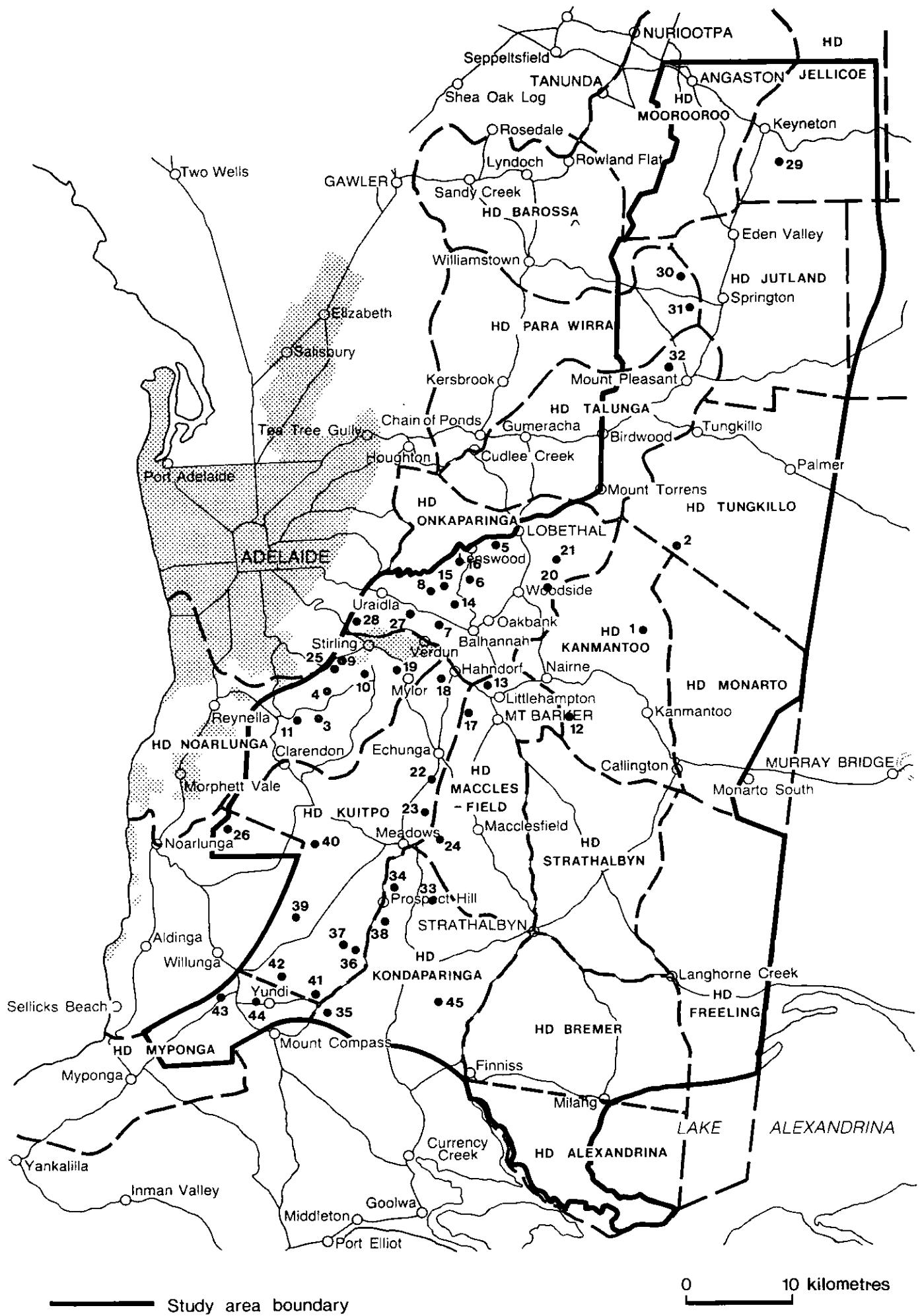
The format with explanations of the parameters used is as follows:

Site Survey number

Date Date of field survey

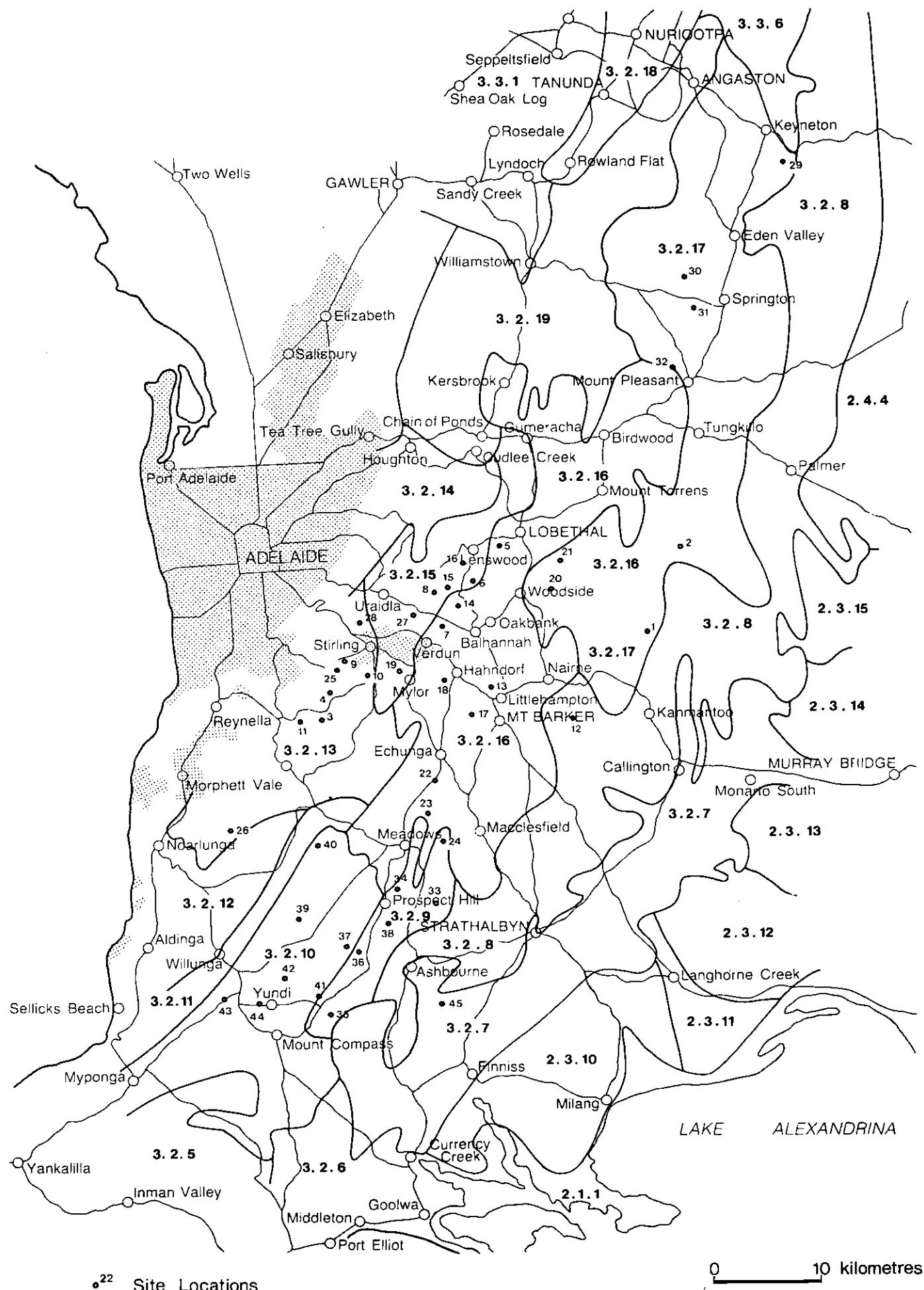
Location (A map is included showing the boundary of the scrub in relation to cadastral information and position of transects for quantitative assessment).

Also noted on the map is the 1:50 000 series mapsheet name and number, the grid reference, and the approximate area (ha) of the site.



Site Locations

Fig 2



Environmental Associations

from Supplementary maps for ENVIRONMENTS
OF SOUTH AUSTRALIA , P Laut . 1978

Fig 3

4.3 Evaluation of Scientific Significance

It is essential that the value of remnant areas of native vegetation be seen in perspective before any decisions are made regarding the development of such areas; be it a proposal to clear the land or acquire it for conservation purposes. An objective of this survey was to provide this information in respect of an area's scientific significance.

It is difficult, if not impossible, to remove all subjectivity from such an assessment. However, based on certain clearly-listed assumptions (see Table 6.1 & 7.1) this report ranks the larger areas of remnant vegetation in the study area according to their scientific significance. It is accepted that experience and/or new scientific evidence may lead to an alteration of these assumptions and/or the values placed on certain features.

Further areas of native vegetation could be sampled if required and ranked against the sites included in this report providing survey techniques are similar and the significance criteria and weighing is consistent.

5. SITE DESCRIPTION

5.1 Hd. Macclesfield

SITE 13

Date: 26.4.79

Environmental Association: 3.2.16

Physiography:

Natural vegetation covers gentle dissected south and east facing slopes which range in elevation from 400m to 470m above sea level.

Plant Communities:

Eucalyptus obliqua open forest/woodland is the dominant plant community at this site. *E. fasciculosa* is co-dominant on the ridge in the northern part of Section 2965, while *E. viminalis*, *E. camaldulensis* and *E. leucoxylon* are intermixed with *E. obliqua* in a broad gully at the southern end of that section.

Acacia pycnantha and young *Eucalyptus obliqua* form a very sparse small tree layer, while a very sparse shrub layer is dominated by *Xanthorrhoea semiplana* and *Lepidosperma semiteres*.

Condition:

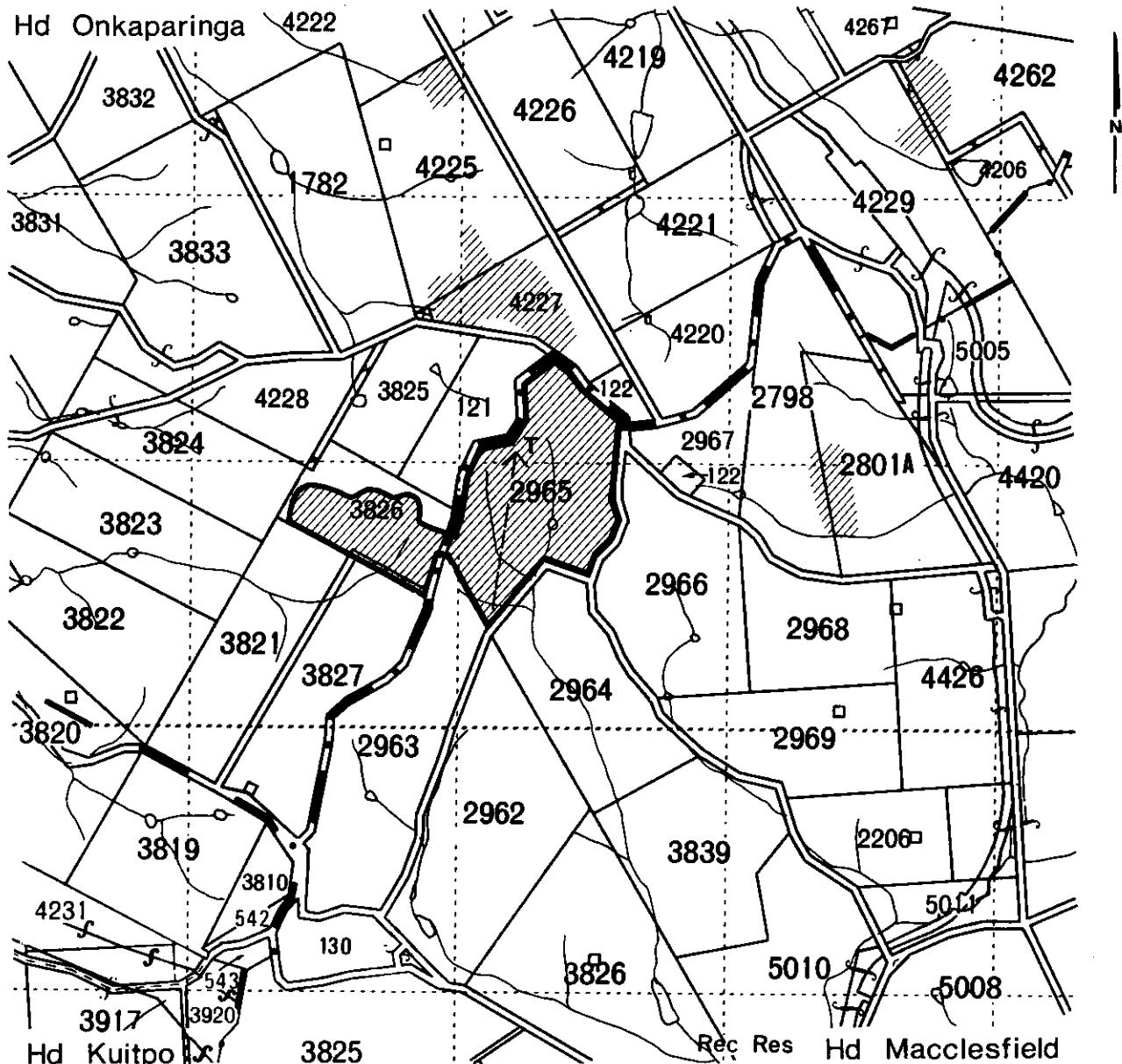
Cattle occupy this site which shows signs of heavy grazing particularly along the gullies where **Rubus fruticosus*, **Ulex europaeus* and **Crataegus sp.* are present. The slopes have a very sparse understorey, but are generally free of introduced plants.

Many tracks traverse the site and an old quarry with cut logs and iron sheeting occurs in the northern part of Section 2965. Straw-filled bags, which appear to be targets for shooting are present near the southern edge of the scrub.

Recent clearing has taken place in the eastern part of Section 2965 and the owner has indicated his intention of clearing most of the native vegetation in this section (personal communication).

General:

The understorey of much of this site has been modified by clearing and grazing and only the steepest slopes and the ridge have remained relatively untouched. However, many *Eucalyptus obliqua* are 25m or more in height and form an attractive park-like setting.



Site 13

HD MACCLESFIELD

Pt Section 2965

HD ONKAPARINGA

Pt Section 3826

SITE 13 - Transect - Along east-facing slope in Section 2965

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|--------------------|---------------------|---------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Eucalyptus camuldenensis</i> | 2 | 2.0 | 11.3 | 2.5 | 22.6 | 0.9 | 0.05 | 4.0 | 7.4 |
| <i>E. fasciculosa</i> | 2 | 7.0 | 11.3 | 2.5 | 79.1 | 3.0 | 0.1 | 8.0 | 13.5 |
| <i>E. obliqua</i> | 73 | 6.0 | 412.7 | 91.2 | 2476.2 | 94.8 | 1.0 | 80.0 | 266 |
| <i>E. viminalis</i> | 3 | 2.0 | 17.2 | 3.8 | 34.4 | 1.3 | 0.1 | 8.0 | 13.1 |
| Totals | 80 | | 452.5 | | 2612.3 | | | | |
| 2m < Shrubs/Trees < 8m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 36 | 1.75 | 135.1 | 49.3 | 236.4 | 54.0 | 0.8 | 45.7 | 149 |
| <i>Banksia marginata</i> | 1 | 1.0 | 3.8 | 1.4 | 3.8 | 0.9 | 0.05 | 2.9 | 5.2 |
| * <i>Crataegus</i> sp. | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus fasciculosa</i> | 1 | 0.5 | 3.8 | 1.4 | 1.9 | 0.4 | 0.05 | 2.9 | 4.7 |
| <i>E. obliqua</i> | 34 | 1.5 | 127.7 | 46.6 | 191.6 | 43.8 | 0.8 | 45.7 | 136.1 |
| <i>Exocarpus cupressiformis</i> | P | - | - | - | - | - | - | - | - |
| * <i>Pinus</i> sp. | P | - | - | - | - | - | - | - | - |
| <i>Pultenaea daphnoides</i> | 1 | 1.0 | 3.8 | 1.4 | 3.8 | 0.9 | 0.05 | 2.9 | 5.2 |
| Totals | 73 | | 274 | | 437.5 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | 2 | 0.03 | 38.2 | 2.6 | 1.1 | 0.2 | 0.1 | 4.5 | 7.3 |
| <i>A. pycnantha</i> | 1 | 0.02 | 19.1 | 1.3 | 0.4 | 0.06 | 0.05 | 2.2 | 3.56 |
| <i>Daviesia virgata</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus obliqua</i> | 5 | 0.16 | 95.6 | 6.5 | 15.3 | 2.4 | 0.18 | 8.1 | 17 |
| <i>E. viminalis</i> | 1 | 0.1 | 19.1 | 1.3 | 1.9 | 0.3 | 0.05 | 2.2 | 3.8 |
| <i>Lepidozperma semiteres</i> | 18 | 0.5 | 344.1 | 23.4 | 712.1 | 26.9 | 0.3 | 17.9 | 68.2 |
| <i>Leptospermum myrsinoides</i> | 12 | 0.07 | 229.4 | 15.6 | 16.1 | 2.5 | 0.25 | 11.2 | 29.3 |
| <i>Platyllobium obtusangulum</i> | 3 | 0.12 | 57.4 | 3.9 | 6.9 | 1.1 | 0.15 | 6.7 | 11.7 |
| <i>Pteridium esculentum</i> | 13 | 0.09 | 248.5 | 16.9 | 22.4 | 3.5 | 0.3 | 13.5 | 33.9 |
| <i>Pultenaea daphnoides</i> | 11 | 0.22 | 210.3 | 14.3 | 46.3 | 7.2 | 0.35 | 15.7 | 37.2 |
| * <i>Rubus fruticosus</i> | P | - | - | - | - | - | - | - | - |
| * <i>Ulex europeus</i> | 2 | 0.18 | 38.2 | 2.6 | 6.9 | 1.1 | 0.05 | 2.2 | 5.6 |
| <i>Xanthorrhoea semiplana</i> | 9 | 2.0 | 175.0 | 11.9 | 350 | 54.7 | 0.35 | 15.7 | 82.3 |
| Totals | 77 | | 1470.6 | | 639.4 | | | | |

Small shrubs < 0.25m, herbs, ferns

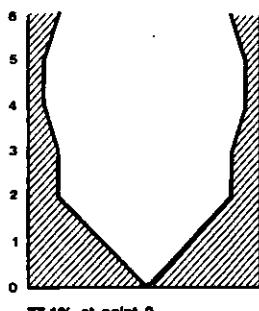
Acaena spp.
Acrotriche serrulata
Astroloma humifusum
Billadiera sericeophora
Cheilanthes tenuifolia
Craspedia uniflora
Godenia primulacea
Haloragis spp.
Hibbertia exutiaces
Kernedia prostrata
Marianthus bignoniaceus
Pimelea sp.
Ranunculus sp.
Tetratheca pilosa

Perennial, grass-like plants

Dianella revoluta
Lepidosperma lineare
Lomandra dura

Other life forms

Lichens
Fungi

Density Movements

SITE 13 - Transect - Cont.

Plants present at site but not recorded in transect

Trees > 8m

Casuarina stricta
Eucalyptus leucoxylon

Small shrubs < 0.25m, herbs, creepers

Cassytha spp.
Eriochilus cucullatus
Hibbertia stricta
Isopogon ceratophyllus
Lissanthe strigosa

0.25m < Shrubs < 2m

Daviesia ulicifolia
**Senecio pterophorus*

FAUNA

Birds

Little Raven
Striated Pardalote
White-throated Tree-creeper
Golden Whistler
Grey Fantail
Magpie
*Starling
Adelaide Rosella
Scarlet Robin

Brown Thornbill
Grey Currawong
Red-browed Finch
Silvereye
Musk Lorikeet
Blue Wren
Brown-headed Honeyeater
Grey Shrike-thrush
Laughing Kookaburra

Other Fauna

Hare
Golden Orb Spider (*Nephila sp.*)

PHOTOGRAPHS

| | | |
|--------------|--------|--|
| C/6627-I/BS/ | 3-9 | Reference Board |
| | 3-10 | Cattle beneath <i>Eucalyptus viminalis</i> , <i>E. camaldulensis</i> , <i>E. obliqua</i> near edge of scrub |
| | 3-11 | <i>Eucalyptus obliqua</i> open forest/woodland |
| | 3-12 | Fungi |
| | 3-13 | Fungi |
| | 3-14 | Tall <i>Eucalyptus obliqua</i> |
| | 3-15) | Clearing, excavation and dumping |
| | 3-16) | |

SITE 17

Date: 10.5.79

Environmental Association: 3.2.16

Physiography:

Natural vegetation covers the gentle to medium dissected slopes south of Totness Recreation Park. Elevation ranges from 380m to 450m above sea level.

Plant Communities:

Eucalyptus obliqua woodland is the dominant plant association at this site. *E. fasciculosa* is scattered throughout this community and *E. leucoxylon* is present in several locations particularly along the gullies. A very sparse small tree layer is dominated by *E. obliqua* while a mid-dense to dense understorey is dominated by *Lepidosperma semiteres* (to 1/2m high only) on ridges and west-facing slopes and *Pteridium esculentum* on south and east-facing slopes. Where the scrub has been grazed (Sections 3698, 3699 and 3823) the understorey is very sparse.

Condition:

The presence of cattle scats and browsed plants indicates grazing by stock in Sections 3698, 3699, 3822 and 3823.

Cleared areas are distributed through the site and most of the scrub in Sections 3698, 3699 and in a small part of Section 3696 has recently been cut over. Many tracks are present.

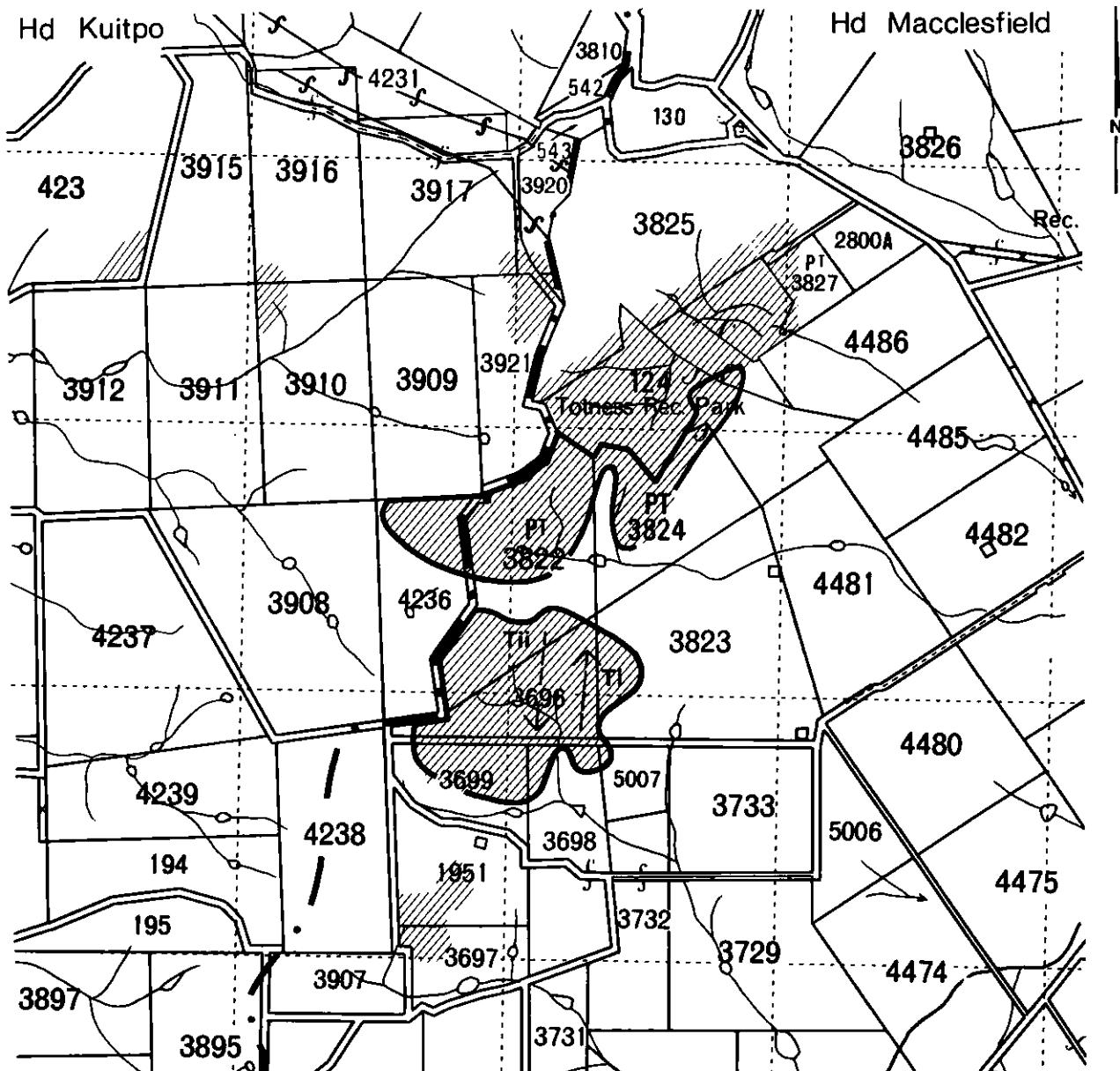
Epicormic growth from stumps is evident over much of the site and many logs from past timber felling litter the ground. Many trees are dead or dying.

Infestations of **Ulex europaeus* occur in some cleared areas.

General:

This area of scrub has been largely modified by stock grazing and clearing operations. However, many large *Eucalyptus obliqua* trees remain and provide adequate nesting sites for parrots and cockatoos.

The scrub lies adjacent to Totness Recreation Park, and, if preserved, would add to the ecological viability of that park.



Reference
Echunga 1:50 000, 6627-I
020E-175N AMG
50 hectares

SCALE 1 : 25 000
0 1000 metres

Site 17

HD MACCLESFIELD

Pt Sections 3696, 3698, 3699, 3822, 3824

HD KUITPO

Pt Section 4236

SITE 17 - Transect (i) - Along Ridge and west-facing slope in Section 3696

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|--------------------|---------------------|--------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 1 | 1.5 | 4.9 | 2.1 | 7.4 | 0.8 | 0.08 | 6.0 | 8.9 |
| <i>Eucalyptus fasciculosa</i> | 2 | 2.5 | 9.9 | 4.2 | 24.8 | 2.6 | 0.17 | 12.8 | 19.6 |
| <i>E. leucoxylon</i> | P | - | - | - | - | - | - | - | - |
| <i>E. obliqua</i> | 43 | 3.8 | 210.3 | 89.6 | 799.1 | 82.4 | 1.0 | 75.3 | 247.3 |
| <i>Exocarpus cupressiformis</i> | 2 | 14.0 | 9.9 | 4.2 | 138.6 | 14.3 | 0.08 | 6.0 | 24.5 |
| Totals | 48 | | 234.7 | | 969.9 | | | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 8 | 1.13 | 39.8 | 19.5 | 45.0 | 9.2 | 0.33 | 20.9 | 49.6 |
| <i>Eucalyptus fasciculosa</i> | 1 | 1.0 | 4.9 | 2.4 | 4.9 | 1.0 | 0.08 | 5.1 | 8.5 |
| <i>E. leucoxylon</i> | P | - | - | - | - | - | - | - | - |
| <i>E. obliqua</i> | 28 | 2.2 | 139.4 | 68.3 | 306.7 | 62.4 | 0.92 | 58.2 | 199.9 |
| <i>Exocarpus cupressiformis</i> | 4 | 6.75 | 20.0 | 9.8 | 135 | 27.5 | 0.25 | 15.8 | 53.1 |
| Totals | 41 | | 204.1 | | 491.6 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>A. pycnantha</i> | 1 | 0.06 | 840 | 2.1 | 50.4 | 1.0 | 0.08 | 4.4 | 7.5 |
| <i>Billardiera sericephora</i> | 1 | 0.13 | 840 | 2.1 | 109.2 | 2.1 | 0.08 | 4.4 | 8.6 |
| <i>Craspedia uniflora</i> | P | - | - | - | - | - | - | - | - |
| <i>Daviesia ulicifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Daviesia virgata</i> | P | - | - | - | - | - | - | - | - |
| <i>Lepidosperma semiteres</i> | 30 | 0.11 | 25000 | 62.5 | 2750 | 53.6 | 0.92 | 50.5 | 166.6 |
| <i>Leptospermum myrginoides</i> | 8 | 0.02 | 6680 | 16.7 | 133.6 | 2.6 | 0.25 | 13.7 | 33.0 |
| <i>Platylobium obtusangulum</i> | 1 | 0.25 | 840 | 2.1 | 210 | 4.1 | 0.08 | 4.4 | 10.6 |
| <i>Pultenaea daphnoides</i> | 2 | 0.04 | 1680 | 4.2 | 67.2 | 1.3 | 0.08 | 4.4 | 9.9 |
| * <i>Senecio pterophorus</i> | 1 | 0.01 | 840 | 2.1 | 8.4 | 0.2 | 0.08 | 4.4 | 6.7 |
| <i>Tetratheca pilosa</i> | 1 | 0.01 | 840 | 2.1 | 8.4 | 0.2 | 0.08 | 4.4 | 6.7 |
| <i>Xanthorrhoea semiplana</i> | 3 | 0.71 | 2520 | 6.3 | 1789.2 | 34.9 | 0.17 | 9.3 | 50.5 |
| Totals | 48 | | 40000 | | 5126.4 | | | | |

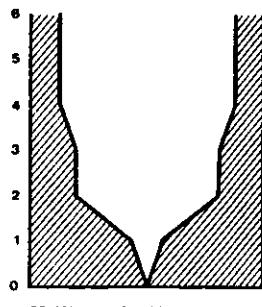
Small shrubs (< 0.25m), herbs, climbers and grasses

Acrotriche serrulata
**Asparagus asparagoides*
Astroloma humifusum
Dillwynia hispida
Drosera sp.
Gonocarpus sp.
Goodenia primulacea

Hibbertia exutiaoides
H. sericea
Kennedia prostrata
Pimelea octophylla
Pultenaea pedunculata

Perennial, grass-like plants

Dianella revoluta
Lomandra dura
Themeda australis

Density measurements

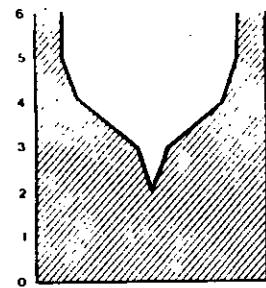
SITE 17 - Transect (ii) - Along an east-facing slope in Section 3696

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|--------------------|---------------------|--------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Eucalyptus fasciculosa</i> | 2 | 2.3 | 20.4 | 5.0 | 46.9 | 2.4 | 0.2 | 16.7 | 24.1 |
| <i>E. obliqua</i> | 38 | 5.0 | 387.8 | 95.0 | 1939.0 | 97.6 | 1.0 | 83.3 | 275.9 |
| Totals | 40 | | 408.2 | | 1985.9 | | | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 6 | 1.2 | 24.7 | 15.4 | 29.6 | 10.8 | 0.6 | 31.6 | 57.8 |
| <i>Eucalyptus fasciculosa</i> | 1 | 0.5 | 4.2 | 2.6 | 2.1 | 0.8 | 0.1 | 5.3 | 8.7 |
| <i>E. obliqua</i> | 30 | 1.72 | 123.3 | 76.9 | 212.1 | 77.6 | 1.0 | 52.6 | 207.1 |
| <i>Exocarpus cupressiformis</i> | 1 | 7.0 | 4.2 | 2.6 | 29.4 | 10.8 | 0.1 | 5.3 | 18.7 |
| * <i>Senecio pterophorus</i> | 1 | 0.04 | 4.2 | 2.6 | 0.2 | 0.07 | 0.1 | 5.3 | 8.0 |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | 2 | 0.025 | 2632 | 5.0 | 65.8 | 0.5 | 0.2 | 10.5 | 16.0 |
| <i>A. rotundifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus obliqua</i> | 1 | 0.04 | 1316 | 2.5 | 52.6 | 0.4 | 0.1 | 5.3 | 8.2 |
| <i>Lepidosperma semiteres</i> | 1 | 0.25 | 1316 | 2.5 | 329.0 | 2.6 | 0.1 | 5.3 | 10.4 |
| <i>Olearia ramulosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Platylobium obtusangulum</i> | 7 | 0.025 | 9211 | 17.5 | 230.3 | 1.9 | 0.4 | 21.1 | 40.5 |
| <i>Pteridium esculentum</i> | 27 | 0.22 | 35527 | 67.5 | 7815.9 | 62.8 | 0.9 | 47.4 | 177.7 |
| <i>Pultenaea daphnoides</i> | P | - | - | - | - | - | - | - | - |
| * <i>Rubus fruticosus</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | 2 | 1.5 | 2632 | 5.0 | 3948 | 31.7 | 0.2 | 10.5 | 47.2 |
| Totals | 40 | | | | 12441 | | | | |

SITE 17 - Transect (ii) - Cont.

Small shrubs (< 0.25m), herbs, climbers and grasses

| | |
|--------------------------------|------------------------------|
| <i>Acrotriche serrulata</i> | <i>Eriochilus cucullatus</i> |
| <i>Astroloma humifusum</i> | <i>Gonocarpus sp.</i> |
| <i>Billardiera sericophora</i> | <i>Hibbertia exutiacies</i> |
| <i>Burchardia umbellata</i> | <i>H. sericea</i> |
| <i>Caseytha sp.</i> | <i>Kennedia prostrata</i> |
| <i>Dianella revoluta</i> | <i>Tetratheca pilosa</i> |

Density Measurements

37.5% at point 4

Plants present at Site but not recorded in either Transect0.25m < Shrubs < 2m

Bursaria spinosa
Dodonaea viscosa
**Genista maderensis*
Iridia achillaeoides
**Ulex europeus*

Perennial, grass-like plants

Juncus spp.
Themeda australis

FAUNABirds

| | |
|-------------------------|-----------------------------|
| Raven | Grey Fantail |
| Purple-crowned Lorikeet | Red Wattlebird |
| Adelaide Rosella | Magpie |
| Willie Wagtail | White-throated Tree-creeper |
| Blue Wren | Blackbird |
| New Holland Honeyeater | Kookaburra |
| Striated Pardalote | Thornbill |

PHOTOGRAPHS

| | |
|--------------|--|
| C/6627-I/BS/ | 3-17 Reference Board |
| | 3-18 Clearing in Section 3699 |
| | 3-19 <i>Eucalyptus obliqua</i> woodland |
| | 3-20 Regrowth from stumps in Transect (i) |
| | 3-21 <i>Eucalyptus obliqua</i> woodland |
| | 3-22 <i>Eucalyptus leucoxylon</i> |

SITE 24

Date: 17.5.79

Environmental Association: 3.2.9

Physiography:

Mid-way between Meadows and Macclesfield a system of ridges and medium dissected slopes is covered by natural vegetation. Elevation ranges from 350m to 470m above sea level.

Plant Communities:

Eucalyptus obliqua woodland/open forest is the dominant plant association at this site. *E. fasciculosa* is commonly associated with *E. obliqua* on north and west-facing slopes, while *E. huberana* and *E. leucoxylon* at low elevations particularly along the gullies. A sparse but conspicuous small tree layer, dominated by *Acacia pycnantha*, occurs in Bk. 52, but, elsewhere, young *Eucalyptus* spp. dominate this stratum. The shrub layer is generally sparse, but, together with the ground stratum, includes a great variety of species.

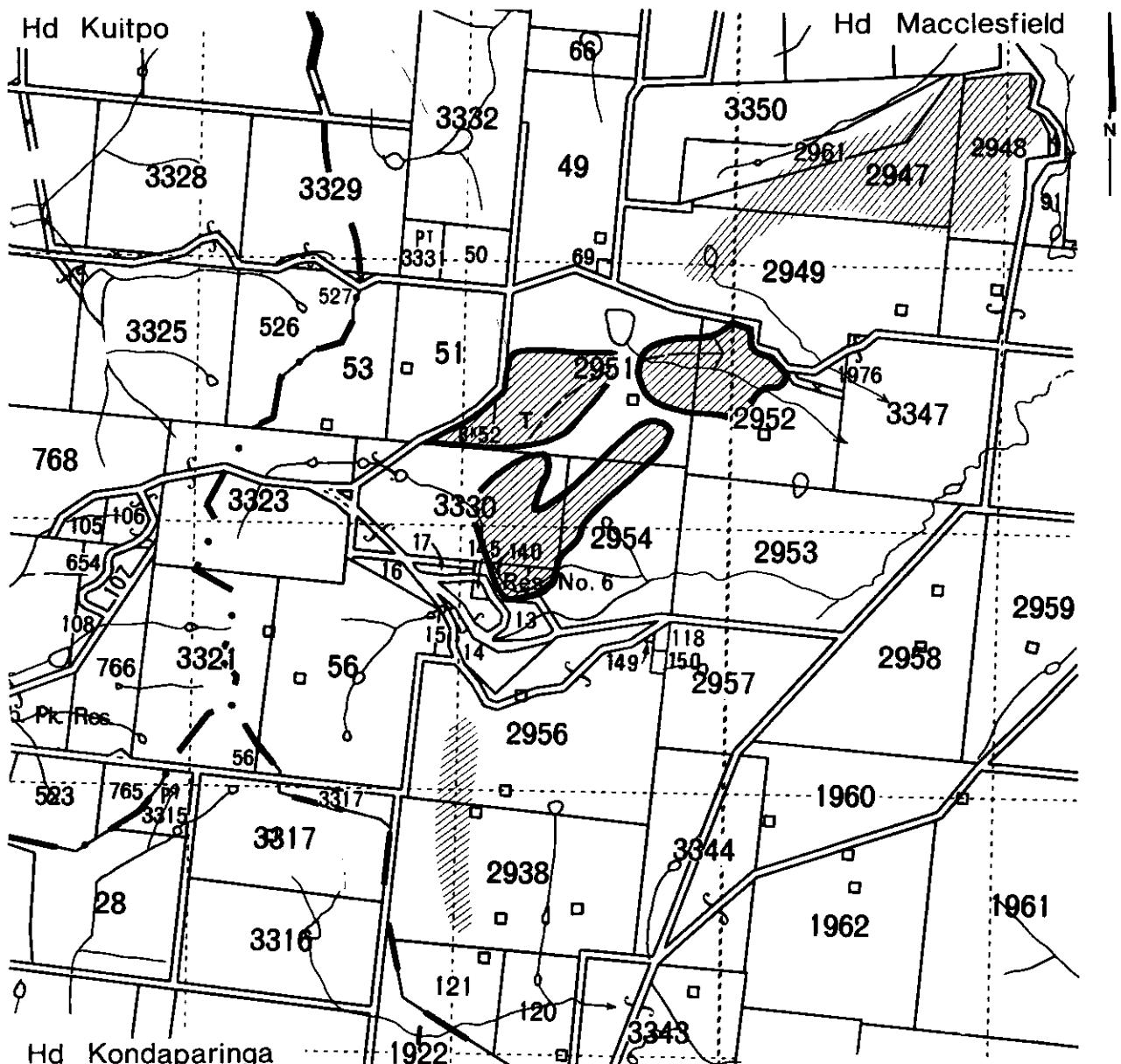
Condition:

The extent to which plants have been browsed indicates heavy grazing by stock in Section 2952, but elsewhere the understorey is relatively unmodified. **Genista maderensis* and **Rubus fruticosus* occur in the water courses.

General:

Asplenium flabellifolium, which is an endangered fern in South Australia (Specht *et al*, 1974) occurs at this site.

This site represents one of several areas of natural vegetation west of Macclesfield. The understorey is relatively unmodified over much of the site and contains a diversity of plant species.



Reference
Echunga 1:50 000, 6627-I
995E-055N AMG
55 hectares approx

SCALE 1 : 25 000

Site 24

HD MACCLESFIELD

Pt Sections 2951, 2952, 3330, 2954, Block 52

SITE 24 - Transect - Along a south-east facing slope in Sections 2951 and 2952

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|--|--------------------|---------------------|--------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Eucalyptus fasciculosa</i> | P | - | - | - | - | - | - | - | - |
| <i>E. obliqua</i> | 48 | 7.5 | 360 | 100 | 2700 | 100 | 1 | 100 | 300 |
| Totals | 48 | | 360 | | 2700 | | | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | | |
| <i>Acacia pycnantha</i> | P | - | - | - | - | - | - | - | - |
| <i>Banksia marginata</i> | P | - | - | - | - | - | - | - | - |
| <i>Bursaria spinosa</i> | 1 | 0.75 | 7 | 2.7 | 5.3 | 1.5 | 0.08 | 6.9 | 11.1 |
| <i>Eucalyptus fasciculosa</i> | 1 | 1.5 | 7 | 2.7 | 10.5 | 3.0 | 0.08 | 6.9 | 12.6 |
| <i>E. obliqua</i> | 34 | 1.4 | 237 | 91.9 | 331.8 | 95.0 | 0.92 | 79.3 | 266.2 |
| <i>Excoecarpus cupressiformis</i> | 1 | 0.25 | 7 | 2.7 | 1.8 | 0.5 | 0.08 | 6.9 | 10.1 |
| Totals | 37 | | 258 | | 349.4 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | 3 | 0.04 | 1211 | 6.3 | 48.4 | 2.1 | 0.17 | 7.9 | 16.3 |
| * <i>Asclepias rotundifolia</i> | 1 | 0.02 | 404 | 2.1 | 8.1 | 0.4 | 0.08 | 3.7 | 6.2 |
| <i>Aetroloma conostephoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Bursaria spinosa</i> | 1 | 0.10 | 404 | 2.1 | 40.4 | 1.8 | 0.08 | 3.7 | 7.6 |
| <i>Daviesia ulicifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>D. virgata</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus obliqua</i> | 1 | 0.02 | 404 | 2.1 | 8.1 | 0.4 | 0.08 | 3.7 | 6.2 |
| <i>Exocarpus cupressiformis</i> | 1 | 0.06 | 404 | 2.1 | 24.2 | 1.1 | 0.08 | 3.7 | 6.9 |
| <i>Grevillea lavandulacea</i> | P | - | - | - | - | - | - | - | - |
| <i>Hakea rostrata</i> | P | - | - | - | - | - | - | - | - |
| <i>Isopogon ceratophyllus</i> | P | - | - | - | - | - | - | - | - |
| <i>Lepidosperma semiteres</i> | 8 | 0.06 | 3211 | 16.7 | 192.7 | 8.5 | 0.42 | 19.5 | 44.7 |
| <i>Leptospermum myrsinoides</i> | 2 | 0.02 | 808 | 4.2 | 16.2 | 0.7 | 0.08 | 3.7 | 8.6 |
| <i>Olearia ramulosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Platylobium obtusangulum</i> | 26 | 0.04 | 10423 | 54.2 | 416.9 | 18.4 | 0.83 | 38.6 | 111.2 |
| <i>Pultenaea largiflora</i> var. <i>latifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>P. daphnoides</i> | 3 | 0.25 | 1211 | 6.3 | 302.8 | 13.3 | 0.25 | 11.6 | 31.2 |
| <i>Xanthorrhoea semiplana</i> | 2 | 1.5 | 808 | 4.2 | 1210.0 | 53.4 | 0.08 | 3.7 | 61.3 |
| Totals | 48 | | 19230 | | 2269.8 | | | | |

SITE 24 - Transect - Cont.

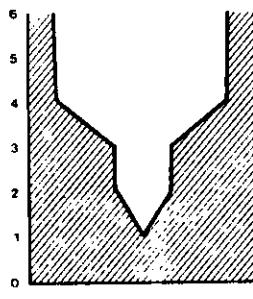
Small shrubs (< 0.25m), herbs, ferns

Acaena sp.
Acrotriche serrulata
Adiantum aethiopicum
Asplenium flabellifolium
Astroloba humifusum
Billardiera sericophora
Burchardia umbellata
Cassytha sp.
Cheilanthes tenuifolia
Drosera spp.
Eriochilus cucullatus
Dampiera lavandulacea
Gonocarpus sp.
Haloragis spp.

Hibbertia exutioides
H. stricta
Kennedia prostrata
Leucopogon virgatus
Marianthus bignoniaceus
Ranunculus sp.
Scaevola albida
Stylium graminifolium
Tetratheca pilosa
Viola sp.
Wahlenbergia sp.
GERANIACEAE (sp. unknown)
POACEAE (sp. unknown)

Perennial, grass-like plants

Carex appressa
Lomandra dura
L. micrantha

Density measurements

45.8% at point 3, T (ii)

Plants present at site but not recorded in transectTrees > 8m

Eucalyptus huberana
E. leucoxylon

Grasses

Themeda australis

0.25m < Shrubs < 2m

**Genista maderensis*
**Rosa sp.*
**Rubus fruticosus*

FAUNABirds

Golden Whistler
Grey Shrike-thrush
Brown-headed Honeyeater
Red-browed Finch
Brown Thornbill
Adelaide Rosella
Superb Blue Wren

PHOTOGRAPHS

| | | |
|--------------|------|--|
| C/6627-I/BS/ | 3-23 | Reference Board |
| | 3-24 | <i>Eucalyptus obliqua</i> and <i>Acacia pyramantha</i> |
| | 4-1 | <i>Eucalyptus obliqua</i> woodland |
| | 4-2 | Grazed scrub in Section 2952 |
| | 4-3 | <i>Asplenium flabellifolium</i> |
| | 4-4 | Gully between Sections 2951 and 2952 |

5.2 Hd. Kondoparinga

SITE 33

Date: 7.6.79Environmental Association: 3.2.9Physiography:

South of Paris Creek a small area of natural vegetation covers a knoll of gentle slope. Elevation ranges from 340m to 370m above sea level.

Plant Communities:

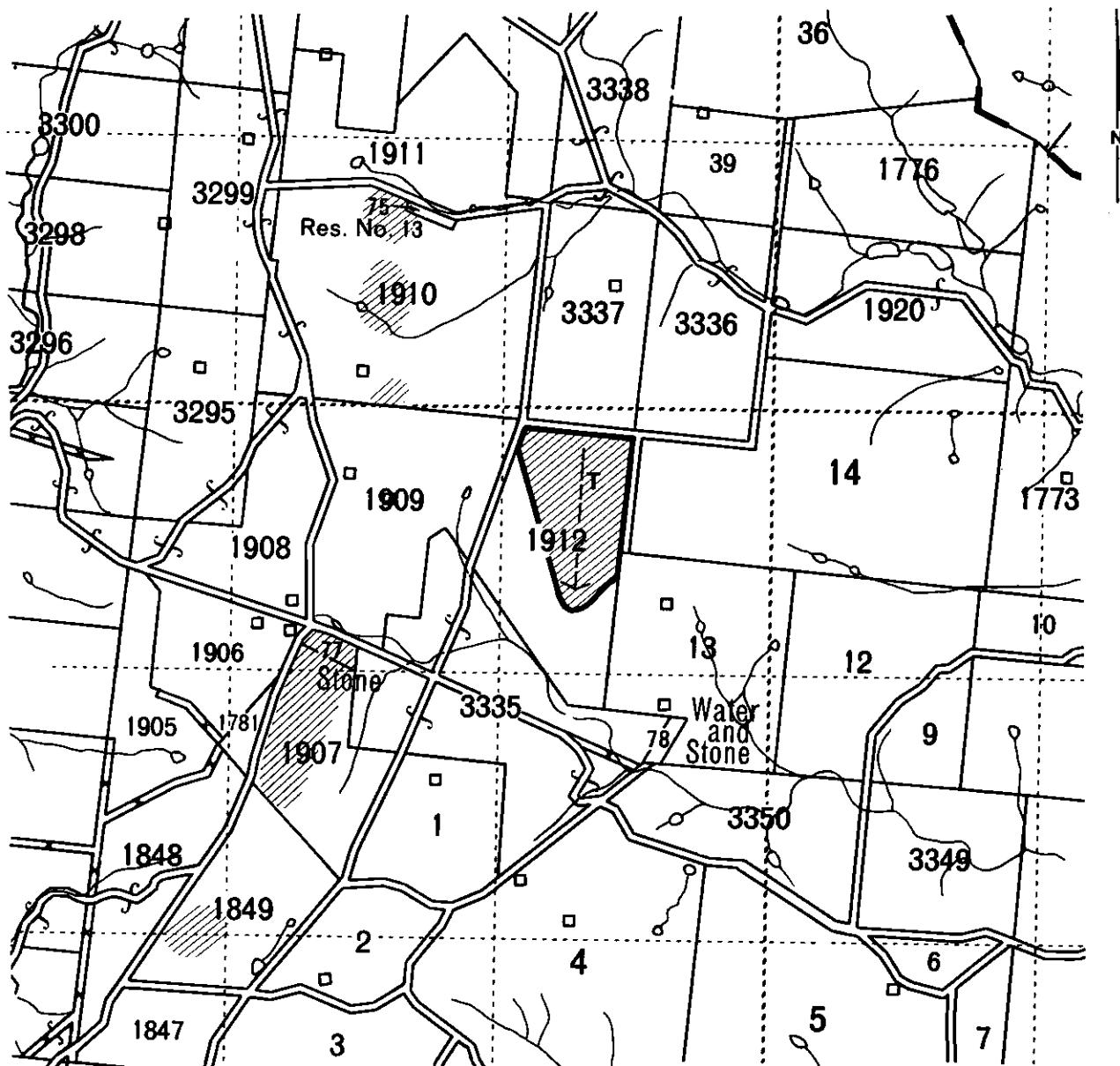
Eucalyptus obliqua - *E. fasciculosa* woodland is the dominant plant association at this site. In the north-western corner of Section 1912, *E. fasciculosa* is the dominant canopy tree, but over most of the site it is a significant component of the smaller tree layer only. A sparse shrub layer is dominated by *Xanthorrhoea semiplana*, but contains a variety of sclerophyllous plants.

Condition:

Grazing by stock is not evident at this site, and the understorey is relatively unmodified. Several old tracks traverse the scrub.

General:

Although small in area, this scrub is relatively unmodified and represents one of the most easterly occurrences of a stringybark formation in this part of the Mount Lofty Ranges.



SCALE 1 : 25 000

0 1000 metres

Reference
Echunga 1:50 000, 6627-I
993E-996N AMG

25 hectares

Site 33

HD KONDAPARINGA

Pt. Section 1912

SITE 33 - Transect - Beginning near northern boundary and proceeding south through middle of scrub

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|--------------------|---------------------|-------------|------------|--------|---------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Eucalyptus fasciculosa</i> | 19 | 3.0 | 65.0 | 23.8 | 195.0 | 16.6 | 0.35 | 28.0 | 68.4 |
| <i>E. huberana</i> | 1 | 5.0 | 3.5 | 1.3 | 17.5 | 1.5 | 0.05 | 4.0 | 6.8 |
| <i>E. leucoxylon</i> | P | - | - | - | - | - | - | - | - |
| <i>E. obliqua</i> | 60 | 4.7 | 204.5 | 75.0 | 961.2 | 81.9 | 0.85 | 68.0 | 224.9 |
| Totals | 80 | | 273 | | | 1173.7 | | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | | |
| <i>Acacia paradoxa</i> | 1 | 1.5 | 8.0 | 1.3 | 12.0 | 2.1 | 0.05 | 3.2 | 6.6 |
| <i>A. pycnantha</i> | 1 | 1.5 | 8.0 | 1.3 | 12.0 | 2.1 | 0.05 | 3.2 | 6.6 |
| <i>Banksia marginata</i> | P | - | - | - | - | - | - | - | - |
| <i>Casuarina striata</i> | P | - | - | - | - | - | - | - | - |
| <i>C. stricta</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus fasciculosa</i> | 38 | 0.8 | 300.7 | 47.5 | 240.6 | 41.9 | 0.70 | 45.2 | 134.6 |
| <i>E. obliqua</i> | 38 | 1.0 | 300.7 | 47.5 | 300.7 | 52.3 | 0.70 | 45.2 | 145.0 |
| <i>Exocarpus cypressiformis</i> | P | - | - | - | - | - | - | - | - |
| <i>Hakea rostrata</i> | 2 | 0.6 | 15.8 | 2.5 | 9.5 | 1.6 | 0.05 | 3.2 | 7.3 |
| Totals | 80 | | 633 | | | 574.8 | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>A. rotundifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Bursaria spinosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Daviesia ulicifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>D. virgata</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus fasciculosa</i> | 4 | 0.12 | 225.0 | 5.0 | 30.6 | 1.2 | 0.20 | 9.5 | 15.7 |
| <i>E. leucoxylon</i> | 1 | 0.10 | 58.5 | 1.3 | 5.9 | 0.2 | 0.05 | 2.4 | 3.9 |
| <i>E. obliqua</i> | 1 | 0.02 | 58.5 | 1.3 | 1.2 | 0 | 0.05 | 2.4 | 3.7 |
| <i>Hakea rostrata</i> | 4 | 0.30 | 225.0 | 5.0 | 67.5 | 2.7 | 0.15 | 7.1 | 14.8 |
| <i>H. rugosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Hibbertia stricta</i> | 2 | 0.05 | 112.5 | 2.5 | 5.6 | 0.2 | 0.05 | 2.4 | 5.1 |
| <i>Isopogon ceratophyllus</i> | P | - | - | - | - | - | - | - | - |
| <i>Lepidosperma semiteres</i> | 14 | 0.11 | 787.5 | 17.5 | 86.6 | 3.4 | 0.35 | 16.7 | 37.6 |
| <i>Leptospermum juniperinum</i> | P | - | - | - | - | - | - | - | - |
| <i>L. myrsinoides</i> | 5 | 0.02 | 283.5 | 6.3 | 5.7 | 0.2 | 0.10 | 4.8 | 11.3 |
| <i>Olearia ramulosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Platylobium obtusangulum</i> | 8 | 0.06 | 450 | 10.0 | 27.0 | 1.1 | 0.35 | 16.7 | 27.8 |
| <i>Pultenaea daphnoides</i> | P | - | - | - | - | - | - | - | - |
| <i>P. largiflorens</i> | P | - | - | - | - | - | - | - | - |
| var. <i>latifolia</i> | P | - | - | - | - | - | - | - | - |
| * <i>Ulex europeus</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | 41 | 1.0 | 2308.5 | 51.3 | 2308.5 | 91.0 | 0.80 | 38.1 | 180.4 |
| Totals | 80 | | 4500 | | | 2535.6 | | | |

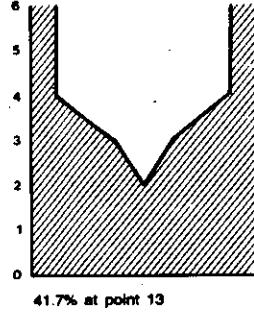
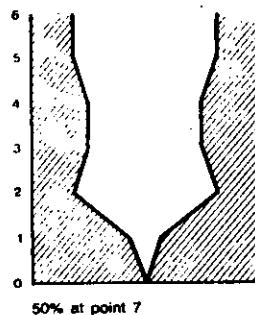
SITE 33 - Transect - Cont.

Small shrubs (< 0.25m), herbs, grasses, climbers

| | |
|-----------------------------|--------------------------------|
| <i>Acaena</i> sp. | <i>Marianthus bignoniaceus</i> |
| <i>Acianthus reniformis</i> | <i>POACEAE</i> (spp. unknown) |
| <i>Acrotriche serrulata</i> | <i>Prasophyllum</i> sp. |
| <i>Astroloma humifusum</i> | <i>Pterostylis</i> sp. |
| <i>Cassytha</i> sp. | <i>Stylium graminifolium</i> |
| <i>Drosera</i> spp. | <i>Tetratheca pilosa</i> |
| <i>Gonocarpus</i> sp. | <i>Viola</i> sp. |
| <i>Goodenia primulacea</i> | |
| <i>Haloragis</i> sp. | |
| <i>Hibbertia exutiacies</i> | |
| <i>H. sericea</i> | |

Perennial, grass-like plants

Juncus sp.
Themeda australis

Density measurementsFAUNABirds

Elegant Parrot
Striated Pardalote
Superb Blue Wren
Magpie
Raven
Eastern Spinebill
White-throated Tree-creepers
Adelaide Rosella
Grey Currawong
Crescent Honeyeater
Thornbill
Grey Fantail
Purple-crowned Lorikeet
Kookaburra
Musk Lorikeet

Mammals

Kangaroo dung over much of the site

PHOTOGRAPHS

| | | |
|--------------|------|--|
| C/6627-I/BS/ | 2-12 | Reference Board |
| | 2-13 | <i>Eucalyptus obliqua</i> |
| | 2-14 | <i>Eucalyptus fasciculosa</i> |
| | 2-15 | General view of <i>E. obliqua</i> - <i>E. fasciculosa</i> woodland |
| | 2-16 | <i>Eucalyptus obliqua</i> |
| | 2-17 | <i>Eucalyptus obliqua</i> |
| | 2-18 | <i>Eucalyptus obliqua</i> - <i>E. fasciculosa</i> woodland |
| | 2-19 | <i>Eucalyptus obliqua</i> - <i>E. fasciculosa</i> woodland |
| | 2-20 | <i>Eucalyptus huberiana</i> near edge of scrub |
| | 2-21 | <i>Eucalyptus leucoxylon</i> near edge of scrub |
| | 2-22 | <i>Casuarina stricta</i> at edge of scrub |

SITE 34

Date: 7.6.79

Environmental Association: 3.2.9

Physiography:

East of Prospect Hill, natural vegetation covers a dissected, medium to steep east-facing slope. Public roads form the western, northern and eastern boundaries of the scrub. Elevation ranges from 330m to 430m above sea level.

Plant Communities:

Eucalyptus fasciculosa - *E. huberana* woodland is the dominant plant association at this site. Trees of *E. obliqua* occur at the highest elevations near the western boundary of the scrub, while *E. leucoxylon* becomes co-dominant at the lowest elevations. A very sparse shrub layer is dominated by *Xanthorrhoea semiplana* and *Pteridium esculentum*, while leaf and bark litter, together with scattered grasses and herbs, constitute the ground stratum.

Condition:

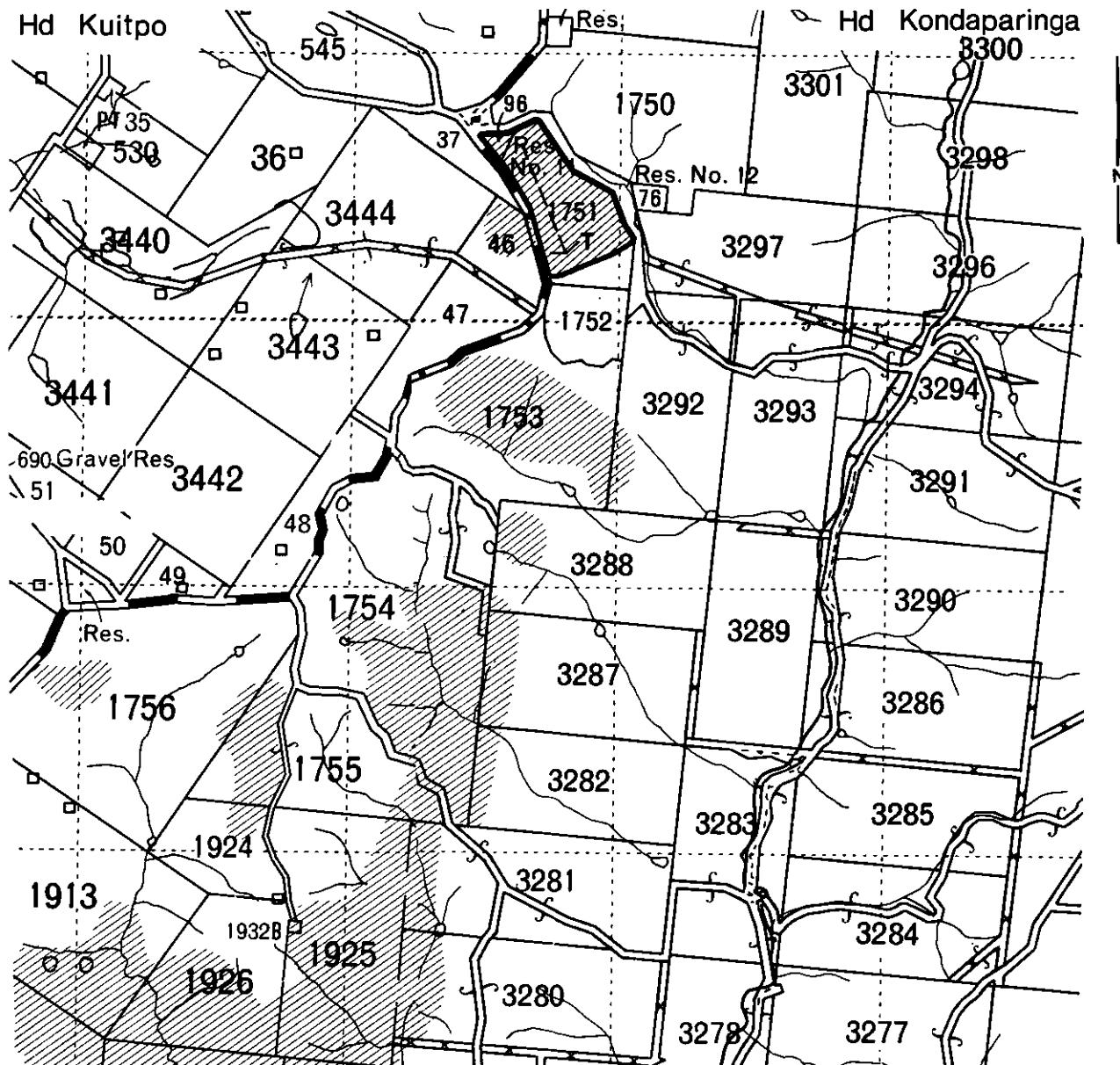
The understorey and ground cover vegetation is unmodified in Reserve No. 11, but is much sparser in Section 1751 which is grazed by sheep. **Rubus fruticosus* is common along the eastern boundary of the scrub, while **Senecio pterophorus* and thistles are scattered through the woodland.

An area of excavation (1/5 ha) lies near the south-western corner of Section 1751. A track leads to this landmark.

General:

Asplenium flabellifolium which is an endangered fern in South Australia (Specht et al, 1974) occurs in sheltered locations at this site.

This is an attractive area of woodland with large spreading trees (particularly *Eucalyptus huberana* and *E. leucoxylon*) which provide ideal nesting sites for various bird species.



Reference
Echunga 1:50 000, 6627-I
957E-004N AMG

25 hectares

SCALE 1 : 25 000

0 1000 metres

Site 34

HD KONDAPARINGA

Pt Section 1751 and Reserve No. 11

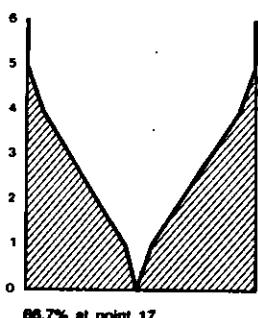
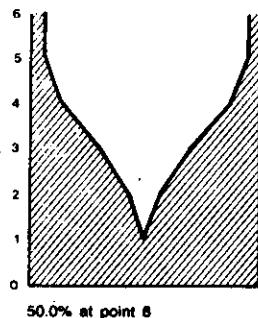
SITE 34 - Transect - Beginning in Reserve No. 11 and proceeding S.S.E. through middle of scrub

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|--------------------|---------------------|-------------|------------|---------------|------------|------------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Acacia melanoxylon</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus fasciculosa</i> | 40 | 5.2 | 95.0 | 50.0 | 494.0 | 42.7 | 0.80 | 42.1 | 134.8 |
| <i>E. huberana</i> | 31 | 6.9 | 73.7 | 38.8 | 508.5 | 43.9 | 0.80 | 42.1 | 124.8 |
| <i>E. leucoxylon</i> | 7 | 7.6 | 16.7 | 8.8 | 126.9 | 11.0 | 0.25 | 13.2 | 33.0 |
| <i>E. obliqua</i> | 2 | 6.0 | 4.8 | 2.5 | 28.8 | 2.5 | 0.05 | 2.6 | 7.6 |
| * <i>Pinus sp.</i> | P | - | - | - | - | - | - | - | - |
| Totals | 80 | | 190 | | 1158.2 | | | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | | |
| <i>Acacia melanoxylon</i> | 5 | 2.5 | 8.0 | 6.3 | 20.0 | 8.6 | 0.25 | 12.5 | 27.4 |
| <i>A. pycnantha</i> | 1 | 5.0 | 1.7 | 1.3 | 8.5 | 3.7 | 0.05 | 2.5 | 7.5 |
| <i>Casuarina stricta</i> | 1 | 0.5 | 1.7 | 1.3 | 0.9 | 0.4 | 0.05 | 2.5 | 4.2 |
| * <i>Erica sp.</i> | 1 | 1.5 | 1.7 | 1.3 | 2.6 | 1.1 | 0.05 | 2.5 | 4.9 |
| <i>Eucalyptus fasciculosa</i> | 52 | 1.6 | 82.6 | 65.0 | 132.2 | 56.9 | 0.95 | 47.5 | 169.4 |
| <i>E. huberana</i> | 9 | 2.6 | 14.3 | 11.3 | 37.2 | 16.0 | 0.30 | 15.0 | 42.3 |
| <i>E. leucoxylon</i> | 3 | 1.7 | 4.8 | 3.8 | 8.2 | 3.5 | 0.15 | 7.5 | 14.8 |
| <i>E. obliqua</i> | 8 | 1.8 | 12.7 | 10.0 | 22.9 | 9.8 | 0.20 | 10.0 | 29.8 |
| <i>Exocarpus cupressiformis</i> | P | - | - | - | - | - | - | - | - |
| <i>Myoporum viscosum</i> | P | - | - | - | - | - | - | - | - |
| <i>Pinus sp.</i> | P | - | - | - | - | - | - | - | - |
| Totals | 80 | | 127 | | 232.5 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia melanoxylon</i> | 1 | 0.50 | 28.0 | 1.3 | 14.0 | 1.8 | 0.05 | 2.6 | 5.7 |
| <i>A. myrtifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Bursaria spinosa</i> | P | - | - | - | - | - | - | - | - |
| * <i>Erica sp.</i> | 2 | 0.08 | 53.8 | 2.5 | 4.3 | 0.5 | 0.05 | 2.6 | 5.6 |
| <i>Eucalyptus fasciculosa</i> | 2 | 0.10 | 53.8 | 2.5 | 5.4 | 0.7 | 0.05 | 2.6 | 5.8 |
| * <i>Genista maderensis</i> | P | - | - | - | - | - | - | - | - |
| <i>Indigofera australis</i> | P | - | - | - | - | - | - | - | - |
| <i>Lepidosperma laterale</i> | 5 | 0.09 | 135.5 | 6.3 | 12.2 | 1.5 | 0.20 | 10.5 | 18.3 |
| <i>L. semiteres</i> | 6 | 0.13 | 161.3 | 7.5 | 21.0 | 2.7 | 0.20 | 10.5 | 20.7 |
| <i>Leptospermum myrsinoides</i> | 1 | 0.10 | 28.0 | 1.3 | 2.8 | 0.4 | 0.05 | 2.6 | 4.3 |
| <i>Olearia ramulosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Platylobium obtusangulum</i> | P | - | - | - | - | - | - | - | - |
| <i>Pteridium esculentum</i> | 48 | 0.10 | 1290 | 60.0 | 129.0 | 16.4 | 0.80 | 42.1 | 118.5 |
| <i>Pultenaea daphnoides</i> | P | - | - | - | - | - | - | - | - |
| * <i>Rubus fruticosus</i> | P | - | - | - | - | - | - | - | - |
| * <i>Senecio pterophorus</i> | 4 | 0.05 | 107.5 | 5.0 | 5.4 | 0.7 | 0.15 | 7.9 | 13.6 |
| <i>Xanthorrhoea semiplana</i> | 11 | 2.0 | 296.7 | 13.8 | 593.4 | 75.4 | 0.35 | 18.4 | 107.6 |
| Totals | 80 | | 2150 | . | 787.5 | | 1.9 | | |

SITE 34 - Transect - Cont.

Small shrubs (< 0.25m), herbs, ferns, perennial grass-like plants

| | |
|------------------------------------|---------------------------------|
| <i>Acaena sp.</i> | <i>Hardenbergia violacea</i> |
| <i>Acianthis reniformis</i> | <i>Hibbertia exutioides</i> |
| <i>Acrotriche serrulata</i> | <i>H. sericea</i> |
| <i>Adiantum aethiopicum</i> | <i>Kennedia prostrata</i> |
| <i>Asplenium flabellifolium</i> | <i>Leucopogon virgatus</i> |
| <i>Billardiera sericophora</i> | <i>Pimelea sp.</i> |
| <i>Burchardia umbellata</i> | <i>POACEAE (spp. unknown)</i> |
| <i>Cheilanthes tenuifolia</i> | <i>Scaevola albida</i> |
| <i>GERANIACEAE (sp. unknown)</i> | <i>Themeda australis</i> |
| <i>Gonocarpus sp.</i> | <i>THISTLES</i> |
| <i>Goodenia primulacea</i> | |
| <i>Haloragis sp.</i> | |
| | <i>MOSSES</i> |

Density measurementsFAUNABirds

Superb Blue Wren
Brown Thornbill
Grey Fantail
White-throated Tree-creeper
Striated Pardalote
Purple-crowned Lorikeet
Golden Whistler
Laughing Kookaburra

PHOTOGRAPHS

| | | |
|--------------|------|--|
| C/6627-I/BS/ | 2-23 | Reference Board |
| | 2-24 | <i>Eucalyptus huberana</i> |
| | 3-1 | <i>Eucalyptus fasciculosa/E. huberana</i> |
| | 3-2 | <i>Eucalyptus fasciculosa/E. huberana</i> |
| | 3-3 | <i>Xanthorrhoea semiplana</i> |
| | 3-4 | <i>Acacia melanoxylon</i> |
| | 3-5 | Tall <i>Eucalyptus huberana</i> |
| | 3-6 | Excavation near western boundary of Section 1751 |
| | 3-7 | Looking east from Section 1751 |
| | 3-8 | <i>Eucalyptus leucoxylon</i> |

SITE 35

Date: 13.6.79

Environmental Association: 3.2.9

Physiography:

The banks of the Finniss River and adjacent east, north and south facing slopes are clothed in natural vegetation. Elevation ranges from 160m to 260m above sea level.

Plant Communities:

1. *Eucalyptus camaldulensis* - *E. huberana* open woodland occupies the river banks at this site. The very sparse tree layer is dominated by *E. camaldulensis* *E. fasciculosa* and *Callistemon salignus* while a very sparse shrub layer is dominated by the sedge *Cyperus vaginatus*.
2. *Eucalyptus fasciculosa* - *E. cosmophylla* low woodland/tall shrubland occurs on slopes with a dense understorey dominated by *Olearia ramulosa*. *Eucalyptus baxteri* and *E. obliqua* become co-dominant at higher elevations adjacent to Finniss Conservation Park.

Condition:

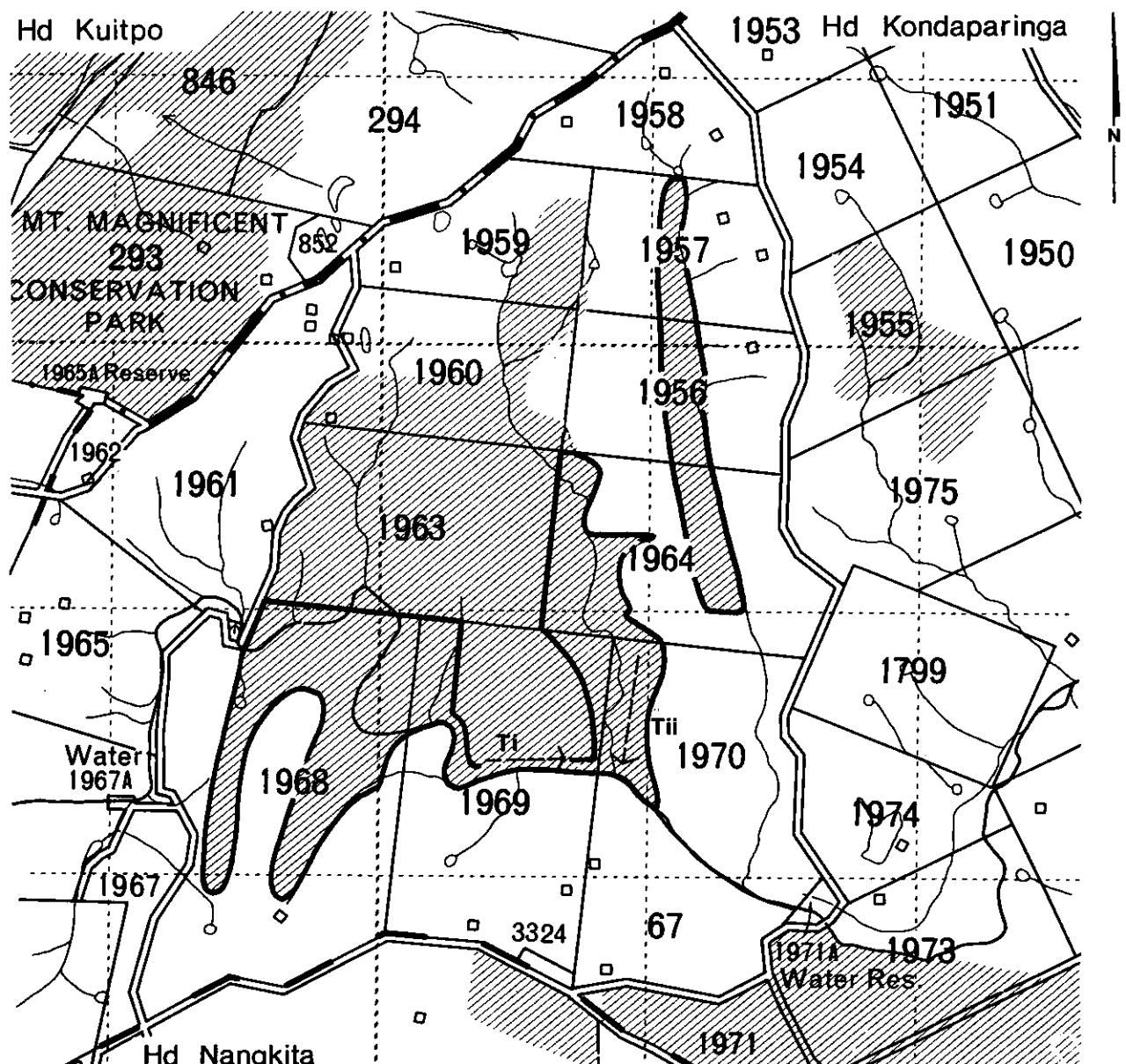
Cattle scats and browsed plants indicate grazing by cattle in Section 1969, and the edge of scrub in Section 1970. The dense scrub in Section 1970 shows no evidence of grazing. A track follows the river in Section 1969.

Within Section 1969, an area of scrub has been cleared for pasture but some regeneration is occurring in parts. Along the river in Section 1969 there are signs of selective logging.

**Rubus fruticosus*, **Rosa sp.*, **Asclepias rotundifolia*, *Senecio pterophorus* and **Fraxinus sp.* are found on the river banks while **Pinus sp.* is scattered throughout the scrub.

General:

Casuarina striata and *Asplenium flabellifolium* are respectively, rare and endangered plants in South Australia (Specht et al, 1974) and are both found at this site.



Reference
Willunga 1:50 000, 6627-III
905E-887N AMG
80 hectares

SCALE 1 : 25 000

Site 35

HD KONDAPARINGA

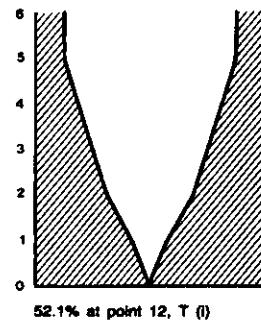
Pt Sections 1956, 1957, 1964, 1968, 1969, 1970

SITE 35 - Transect (i) - Along river bank at a distance of 20m from watercourse

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|--------------------|---------------------|---------------|------------|--------------|------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Acacia retinodes</i> | 1 | 5.0 | 1.1 | 1.3 | 5.5 | 0.6 | 0.05 | 2.5 | 4.4 |
| <i>Eucalyptus camaldulensis</i> | 41 | 12.6 | 45.8 | 51.3 | 577.1 | 67.7 | 0.85 | 42.5 | 161.5 |
| <i>E. fasciculosa</i> | 5 | 8.3 | 5.6 | 6.3 | 46.5 | 5.5 | 0.25 | 12.5 | 24.3 |
| <i>E. huberana</i> | 24 | 6.6 | 26.8 | 30.0 | 176.9 | 20.7 | 0.55 | 27.5 | 78.2 |
| <i>E. leucoxylon</i> | 5 | 4.4 | 5.6 | 6.3 | 24.6 | 2.9 | 0.15 | 7.5 | 16.7 |
| <i>E. obliqua</i> | 1 | 4.0 | 1.1 | 1.3 | 4.4 | 0.5 | 0.05 | 2.5 | 4.3 |
| <i>E. ovata</i> | 2 | 5.3 | 3.4 | 3.8 | 18.0 | 2.1 | 0.1 | 5.0 | 10.9 |
| Totals | | 80 | 89.4 | | 853 | | | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | | |
| <i>Acacia pycnantha</i> | P | - | - | - | - | - | - | - | - |
| <i>A. retinodes</i> | 4 | 3.0 | 5.2 | 5.0 | 15.6 | 7.7 | 0.1 | 3.6 | 16.3 |
| <i>A. verniciflua</i> | 1 | 2.0 | 1.3 | 1.3 | 2.6 | 1.3 | 0.05 | 1.8 | 4.4 |
| <i>Bursaria spinosa</i> | 1 | 1.3 | 2.6 | 2.5 | 3.4 | 1.7 | 0.1 | 3.6 | 7.8 |
| <i>Callistemon salignus</i> | 17 | 2.3 | 22.2 | 21.3 | 51.1 | 25.2 | 0.5 | 17.9 | 64.4 |
| <i>Casuarina striata</i> | P | - | - | - | - | - | - | - | - |
| <i>Dodonaea viscosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus camaldulensis</i> | 19 | 1.0 | 24.9 | 23.8 | 24.9 | 12.3 | 0.65 | 23.2 | 59.3 |
| <i>E. cosmophylla</i> | 3 | 1.7 | 3.9 | 3.8 | 6.6 | 3.3 | 0.1 | 3.6 | 10.7 |
| <i>E. fasciculosa</i> | 7 | 2.4 | 9.2 | 8.8 | 22.1 | 10.9 | 0.25 | 8.9 | 28.6 |
| <i>E. huberana</i> | 12 | 2.4 | 15.7 | 15.0 | 37.7 | 18.6 | 0.4 | 14.3 | 47.9 |
| <i>E. leucoxylon</i> | 6 | 1.6 | 7.9 | 7.5 | 12.6 | 6.2 | 0.2 | 7.1 | 20.8 |
| <i>E. obliqua</i> | 2 | 2.0 | 2.6 | 2.5 | 5.2 | 2.6 | 0.1 | 3.6 | 8.7 |
| <i>E. ovata</i> | 1 | 2.0 | 1.3 | 1.3 | 2.6 | 1.3 | 0.05 | 1.8 | 4.4 |
| <i>Exocarpus cupressiformis</i> | 1 | 10.0 | 1.3 | 1.3 | 13.0 | 6.4 | 0.05 | 1.8 | 9.5 |
| * <i>Fraxinus</i> sp. | P | - | - | - | - | - | - | - | - |
| <i>Leptospermum juniperinum</i> | 1 | 0.5 | 1.3 | 1.3 | 0.7 | 0.3 | 0.05 | 1.8 | 3.4 |
| <i>L. pubescens</i> | 2 | 1.8 | 2.6 | 2.5 | 4.7 | 2.3 | 0.1 | 3.6 | 8.4 |
| * <i>Rosa</i> sp. | 2 | 0.08 | 2.6 | 2.5 | 0.2 | 0.1 | 0.1 | 3.6 | 6.2 |
| Totals | | 80 | 104.7 | | 203 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia retinodes</i> | 1 | 0.5 | 29.1 | 1.3 | 14.6 | 5.7 | 0.05 | 2.9 | 9.9 |
| * <i>Asclepias rotundifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Bursaria spinosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Cyperus vaginatus</i> | 50 | 0.06 | 1453.5 | 62.5 | 87.2 | 33.8 | 0.8 | 47.1 | 143.4 |
| <i>Eucalyptus camaldulensis</i> | 2 | 0.15 | 58.1 | 2.5 | 8.7 | 3.4 | 0.1 | 5.9 | 11.8 |
| <i>Juncus pallidus</i> | 3 | 0.13 | 87.2 | 3.8 | 11.3 | 4.4 | 0.1 | 5.9 | 14.1 |
| <i>Indigofera australis</i> | P | - | - | - | - | - | - | - | - |
| <i>Pteridium esculentum</i> | 18 | 0.11 | 523.3 | 22.5 | 57.6 | 22.3 | 0.4 | 23.5 | 68.3 |
| * <i>Rosa</i> sp. | 3 | 0.07 | 87.2 | 3.8 | 6.1 | 2.4 | 0.15 | 8.8 | 15.0 |
| * <i>Rubus fruticosus</i> | 3 | 0.83 | 87.2 | 3.8 | 72.4 | 28.1 | 0.1 | 5.9 | 37.8 |
| * <i>Seneio pterophorus</i> | P | - | - | - | - | - | - | - | - |
| Totals | | 80 | 2325.6 | | 257.9 | | | | |

Small shrubs (< 0.25m), herbs, grasses, climbers, fernsDensity Measurements

Acaena sp.
Adiantum aethiopicum
Asplenium flabellifolium
Caseytha sp.
Cheilanthes tenuifolia
Drosera spp.
GERANIACEAE
Goodenia ovata
Hibbertia exutioides
Muehlenbeckia adpressa
*i*Viola sativa*

Sedges and Reeds

Dianella revoluta
Lepidosperma laterale
Phragmites australis
Scirpus sp.

SITE 35 - Transect (ii) - Down spur in Section 1970

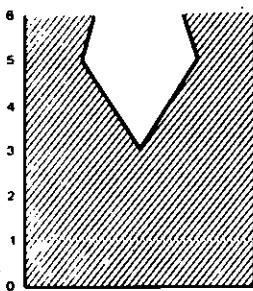
| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|----------------------------------|--------------------|---------------------|--------------|------------|---------------|------------|-------|--------------|---------------|
| 2m < Trees < 8m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>A. pycnantha</i> | 3 | 0.75 | 53.2 | 7.5 | 39.9 | 3.1 | 0.3 | 12.0 | 22.6 |
| <i>Casuarina striata</i> | 3 | 0.38 | 53.2 | 7.5 | 20.2 | 1.6 | 0.1 | 4.0 | 13.1 |
| <i>C. stricta</i> | 2 | 3.5 | 35.5 | 5.0 | 124.3 | 9.8 | 0.2 | 8.0 | 22.8 |
| <i>Dodonea viscosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus baxteri</i> | 1 | 3.0 | 17.7 | 2.5 | 53.1 | 4.2 | 0.1 | 4.0 | 10.7 |
| <i>E. cosmophylla</i> | 12 | 1.56 | 212.8 | 30.0 | 332.0 | 26.1 | 0.7 | 28.0 | 84.1 |
| <i>E. fasciculosa</i> | 17 | 2.09 | 301.4 | 42.5 | 629.9 | 49.6 | 0.9 | 36.0 | 128.1 |
| <i>Exocarpus cupressiformis</i> | 1 | 3.0 | 17.7 | 2.5 | 53.1 | 4.2 | 0.1 | 4.0 | 10.7 |
| <i>Hakea carinata</i> | 1 | 1.0 | 17.7 | 2.5 | 17.7 | 1.4 | 0.1 | 4.0 | 7.9 |
| * <i>Pinus</i> sp. | P | - | - | - | - | - | - | - | - |
| Totals | | 40 | 709.2 | | 1270.2 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Astroloma conostephoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Brachyloma ericoides</i> | 1 | 0.2 | 714.3 | 2.5 | 142.9 | 2.0 | 0.1 | 3.4 | 7.9 |
| <i>Casuarina muelleriana</i> | P | - | - | - | - | - | - | - | - |
| <i>Cryptandra tomentosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Daviesia brevifolia</i> | 1 | 0.1 | 714.3 | 2.5 | 71.4 | 1.0 | 0.1 | 3.4 | 6.9 |
| <i>D. virgata</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus cosmophylla</i> | 4 | 0.12 | 2587 | 10.0 | 342.8 | 4.8 | 0.3 | 10.3 | 25.1 |
| <i>Hakea carinata</i> | 4 | 0.26 | 2587 | 10.0 | 742.8 | 10.3 | 0.4 | 13.8 | 34.1 |
| <i>H. rostrata</i> | 2 | 0.32 | 1428.6 | 5.0 | 457.2 | 6.4 | 0.2 | 6.9 | 18.3 |
| <i>Isopogon ceratophyllum</i> | 1 | 0.13 | 714.3 | 2.5 | 92.9 | 1.3 | | | |
| <i>Lepidosperma carphoides</i> | 1 | 0.1 | 714.3 | 2.5 | 71.4 | 1.0 | 0.1 | 3.4 | 6.9 |
| <i>L. semiteres</i> | 1 | 0.1 | 714.3 | 2.5 | 71.4 | 1.0 | 0.1 | 3.4 | 6.9 |
| <i>Leptospermum myrsinoides</i> | 5 | 0.08 | 3571.4 | 12.5 | 285.7 | 4.0 | 0.4 | 13.8 | 30.3 |
| <i>Leucopogon virgatus</i> | P | - | - | - | - | - | - | - | - |
| <i>Olearia ramulosa</i> | 15 | 0.09 | 10714.1 | 37.5 | 964.3 | 13.4 | 0.8 | 27.6 | 78.5 |
| <i>Platylobium obtusangulum</i> | P | - | - | - | - | - | - | - | - |
| <i>Pultenaea daphnoides</i> | P | - | - | - | - | - | - | - | - |
| <i>P. largiflorens</i> | P | - | - | - | - | - | - | - | - |
| <i>var. latifolia</i> | 1 | 0.01 | 714.3 | 2.5 | 7.1 | 0.1 | 0.1 | 3.4 | 6.0 |
| <i>Spyridium thymifolium</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | 4 | 1.38 | 2857 | 10.0 | 3942.7 | 54.8 | 0.2 | 6.9 | 71.7 |
| Totals | | 40 | 28571 | | 7192.6 | | | | |

Small shrubs (< 0.25m), herbs, climbers, grasses

Astroloma humifusum
Baeckea ramosissima
Burchardia umbellata
Cassythia sp.
Cheilanthes tenuifolia
Drosera app.
Conocarpus sp.
Goodenia primulacea
Haloragis sp.
Hibbertia stricta
Kennedia prostrata
Marianthus bignoniaceus
Pimelea linifolia
Pimelea sp.

Perennial, grass-like plants

Lepidosperma laterale
L. viscidum
Themeda australis

Density Measurements

SITE 35 - Transect (ii) - Cont.

Plants present at site but not recorded in either transect

0.25m < Shrubs < 2m

Banksia marginata
Eucryphia impressa
Leucopogon concurvus
Tetratheca pilosa

Small shrubs (< 0.25m), climbers

Pultenaea canaliculata
P. involucrata

FAUNA

Birds

| | |
|-------------------------|-------------------------|
| Grey Fantail | Scarlet Robin |
| Adelaide Rosella | White-browed Scrub Wren |
| New-Holland Honeyeater | Grey Currawong |
| White-naped Honeyeater | Musk Lorikeet |
| Striated Pardalote | Yellow-faced Honeyeater |
| Blue Wren | Raven |
| Thornbill | Blackbird |
| Purple-crowned Lorikeet | Red-browed Finch |
| Grey Thrush | Mistletoe Bird |
| White-fronted Chat | Fan-tailed Cuckoo |
| Bronze-wing Pigeon | Crescent Honeyeater |
| Magpie | Kookaburra |
| Elegant Parrot | Red Wattlebird |

Other Fauna

Kangaroo

PHOTOGRAPHS

| C/6627-III/BS/ | | Reference Board |
|----------------|--|---|
| 1-1 | | |
| 1-2 | | <i>Eucalyptus camaldulensis/E. huberana</i> open woodland |
| 1-3 | | <i>Eucalyptus fusciculosa/E. cosmophylla</i> low woodland |
| 1-4 | | Finniss River |
| 1-5 | | Finniss Riverbank vegetation |
| 1-6 | | Fungi |
| 1-7 | | Fungi |
| 1-8 | | Clearing on banks of Finniss River |
| 1-9 | | <i>Eucalyptus camaldulensis</i> |
| 1-10 | | <i>E. huberana</i> |
| 1-11 | | <i>E. ovata</i> |
| 1-12 | | <i>Eucalyptus fusciculosa/E. cosmophylla</i> low woodland |
| 1-13 | | <i>Eucalyptus fusciculosa/E. cosmophylla</i> low woodland |
| 1-14 | | Looking west from Section 1970 |
| 1-15 | | <i>Eucalyptus fusciculosa/E. cosmophylla</i> low woodland |
| 1-16 | | Stone fence in Section 1970 |

SITE 38

Dates: 21.6.79 and 22.6.79

Area: Approximately 400 ha.

Environmental Association: 3.2.9

Physiography:

A strip of natural vegetation, extending for approximately five kilometres in a north-south direction, covers the medium to steep, dissected eastern slopes of the Bull Creek Range, south of Meadows. Elevation ranges from 240m to 420m above sea level.

Plant Communities:

1. *Eucalyptus obliqua* - *E. fasciculosa* is the dominant plant association at this site. It varies in structural formation from open forest on the most sheltered slopes to low open woodland on northern aspects where soils are almost skeletal. The understorey varies from mid-dense to dense and includes a variety of sclerophyllous shrubs [see transects (i) to iii)]. Much of this association in the western part of Section 1851 is in the early stages of regeneration.
2. At the lowest elevations (e.g. lower reaches of Sheep Station Creek in Sections 1930 and 1931) occurs a woodland formation of *E. huberana* and *E. fasciculosa*. A very sparse shrub understorey includes **Senecio pterophorus*, *Spyridium parvifolium* and *Pteridium esculentum*, while the ground stratum is dominated by *Cheilanthes tenuifolia* and introduced herbs and grasses. Dense infestations **Rubus fruticosus* occur in most creeks.

Condition:

Cattle scats are present in all sections, while sheep graze Section 1933. Browsed plants are evident but generally the effects of grazing are minimal.

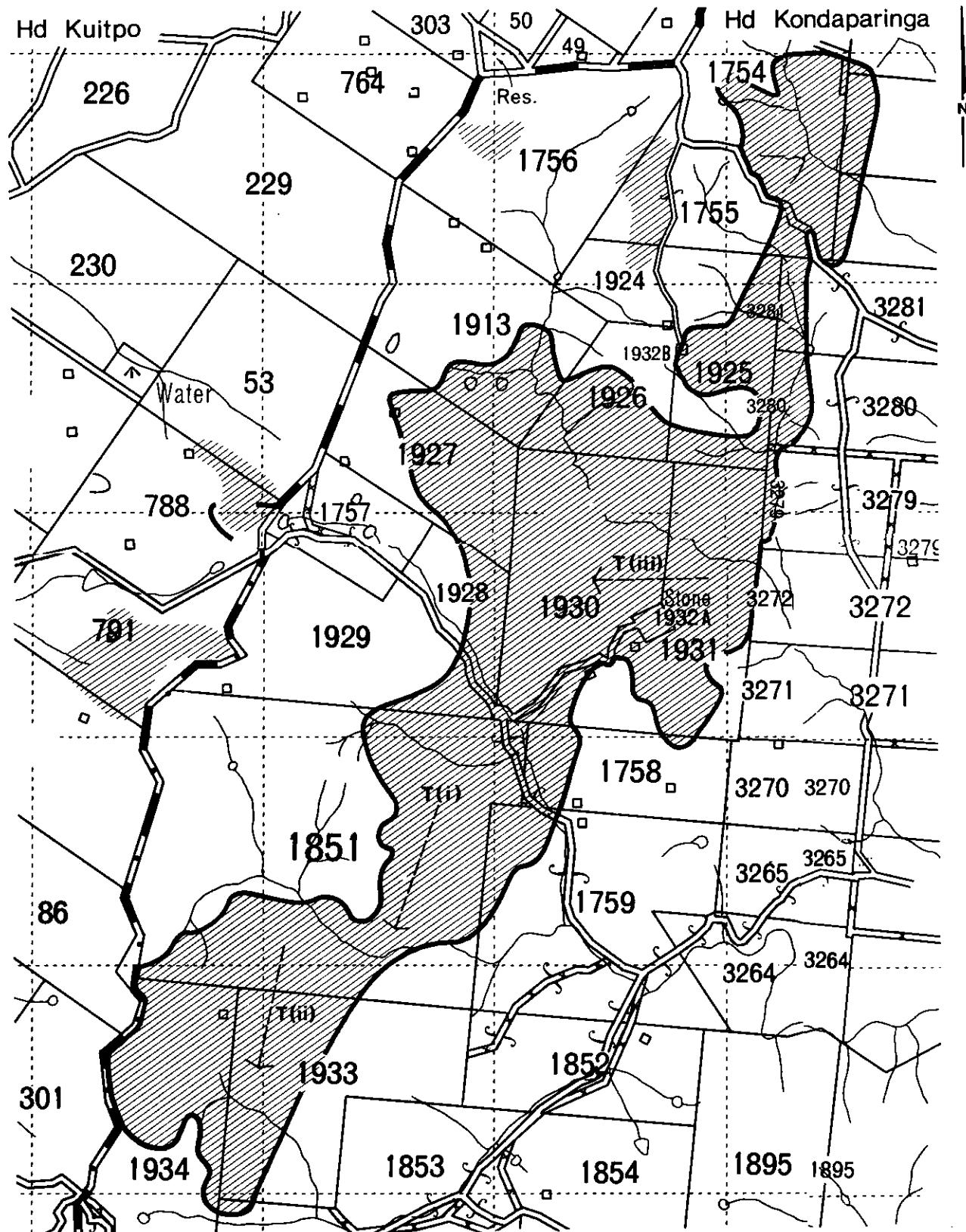
Several tracks and small cleared areas occur over the site, and a camping area with several buildings is situated in Section 1930 adjacent to Stone Reserve 1932A.

Selective logging is apparent in Section 1851, much of the western half of which is in the early stages of secondary succession (see above). Dense infestations of **Rubus fruticosus* occur in most of the gullies, although long stretches of Sheep Station Creek in Sections 1930 and 1931 are free of this pest plant.

General:

Asplenium flabellifolium, which is an endangered fern in South Australia (Specht *et al* , 1974) occurs along Sheep Station Creek, which, together with other damp gullies, contains some large specimens of *Acacia melanoxylon* (up to 20m in height).

This site represents the largest of several significant areas of natural vegetation on the Bull Creek Range, south of Meadows. The *Eucalyptus obliqua* - *E. fasciculosa* gum association has a relatively unmodified understorey which contains a great variety of sclerophyllous shrubs.



SCALE 1 : 25 000

0 1000 metres

Site 38

HD KONDAPARINGA

Reference
Willunga 1:50 000, 6627-III
930E-950N AMG
Adelaide 1:50 000, 6627-IV
945E-970N AMG

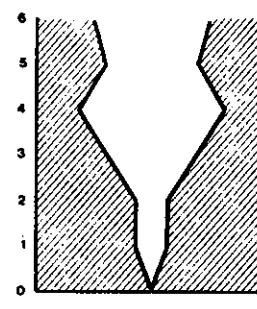
Pt Sections 1754, 1755, 1758, 1759, 1851, 1913,
1925, 1926, 1927, 1928, 1930, 1931,
1932A (Stone Reserve), 3280, 3281

SITE 38 - Transect (i) - Points at 20m intervals - Along east-facing slope in Section 1851

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|---|--------------------|---------------------|--------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Acacia melanoxylon</i> | 3 | 5.3 | 9.0 | 3.8 | 47.7 | 3.3 | 0.15 | 10.0 | 17.1 |
| <i>Eucalyptus fasciculosa</i> | 14 | 3.7 | 42.0 | 17.5 | 155.4 | 10.7 | 0.35 | 23.3 | 51.5 |
| <i>E. obliqua</i> | 63 | 6.6 | 188.8 | 78.8 | 1246.1 | 86.0 | 1.0 | 66.7 | 231.5 |
| * <i>Pinus</i> sp. | P | - | - | - | - | - | - | - | - |
| Totals | 80 | | 239.8 | | 1449.2 | | | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | | |
| <i>Acacia melanoxylon</i> | 6 | 1.9 | 33.4 | 7.5 | 63.5 | 15.3 | 0.25 | 12.2 | 35.0 |
| <i>Banksia marginata</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus cosmophylla</i> | 1 | 2.5 | 5.8 | 1.3 | 14.5 | 3.5 | 0.05 | 2.4 | 7.2 |
| <i>E. fasciculosa</i> | 14 | 0.67 | 78.1 | 17.5 | 52.3 | 12.6 | 0.40 | 19.5 | 49.6 |
| <i>E. obliqua</i> | 42 | 1.06 | 234.4 | 52.5 | 248.5 | 59.7 | 0.80 | 39.0 | 151.2 |
| <i>Exocarpus cupressiformis</i> | P | - | - | - | - | - | - | - | - |
| <i>Leptospermum juniperinum</i> | P | - | - | - | - | - | - | - | - |
| <i>Olearia ramulosa</i> | 1 | 0.1 | 5.8 | 1.3 | 0.6 | 0.1 | 0.05 | 2.4 | 3.8 |
| <i>Pultenaea daphnoides</i> | 15 | 0.23 | 83.9 | 18.8 | 19.3 | 4.6 | 0.45 | 22.0 | 45.4 |
| <i>Xanthorrhoea semiplana</i> | 1 | 3.0 | 5.8 | 1.3 | 17.4 | 4.2 | 0.05 | 2.4 | 7.9 |
| Totals | 80 | | 446.4 | | 416.1 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| * <i>Asclepias rotundifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Daviesia virgata</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus fasciculosa</i> | 1 | 0.10 | 500 | 1.3 | 50 | 1.4 | 0.05 | 2.9 | 5.6 |
| <i>E. obliqua</i> | 1 | 0.10 | 500 | 1.3 | 50 | 1.4 | 0.05 | 2.9 | 5.6 |
| <i>Goodenia ovata</i> | P | - | - | - | - | - | - | - | - |
| <i>Lepidosperma laterale</i> | 1 | 0.10 | 500 | 1.3 | 50 | 1.4 | 0.05 | 2.9 | 5.6 |
| <i>L. semiteres</i> | 1 | 0.13 | 500 | 1.3 | 65 | 1.8 | 0.05 | 2.9 | 6.0 |
| <i>Leptospermum myrsinoides</i> | 4 | 0.06 | 2000 | 5.0 | 120 | 3.4 | 0.05 | 2.9 | 11.3 |
| <i>Olearia ramulosa</i> | 9 | 0.14 | 4500 | 11.3 | 630 | 17.6 | 0.20 | 11.8 | 40.7 |
| <i>Platylobium obtusangulum</i> | 2 | 0.05 | 1000 | 2.5 | 50 | 1.4 | 0.05 | 2.9 | 6.8 |
| <i>Pteridium esculentum</i> | 17 | 0.12 | 8500 | 21.3 | 1020 | 28.5 | 0.40 | 23.5 | 73.3 |
| <i>Pultenaea daphnoides</i> | 44 | 0.07 | 22000 | 55.0 | 1540 | 43.1 | 0.80 | 47.1 | 145.2 |
| <i>P. largiflorens</i> var. <i>latifolia</i> | P | - | - | - | - | - | - | - | - |
| * <i>Rubus fruticosus</i> | P | - | - | - | - | - | - | - | - |
| * <i>Senecio pterophorus</i> | P | - | - | - | - | - | - | - | - |
| <i>Spiridium parvifolium</i> | P | - | - | - | - | - | - | - | - |
| * <i>Ulex europaeus</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | P | - | - | - | - | - | - | - | - |
| Totals | 80 | | 40000 | | 3575 | | | | |

Small shrubs (< 0.25m), climbers, herbs, grasses

Acaena sp.
Acianthus sp.
Acrotriche serrulata
Adiantum aethiopicum
Cheilanthes tenuifolia
Craspedia uniflora
Drosera spp.
GERANIACEAE (sp. unknown)
Gonocarpus sp.
Hardenbergia violacea

Density MeasurementsPerennial, grass-like plants

Dianella revoluta
Lomandra dura

SITE 38 - Transect (ii) - Along ridge in Sections 1851 and 1933

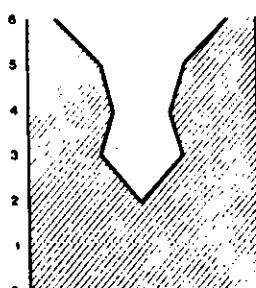
| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|--------------------|---------------------|--------------|------------|---------|----------------|-------|--------------|---------------|
| Trees > 5m | | | | | | | | | |
| <i>Eucalyptus fasciculosa</i> | 8 | 2.6 | 30.6 | 13.3 | 79.6 | 9.7 | 0.33 | 24.8 | 47.8 |
| <i>E. obliqua</i> | 52 | 3.7 | 199.4 | 86.7 | 7378 | 90.3 | 1.00 | 75.2 | 252.2 |
| <i>Exocarpus cupressiformis</i> | P | - | - | - | - | - | - | - | - |
| Totals | 60 | | 230 | | | 817.4 | | | |
| 2m < Trees/Shrubs < 5m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | 1 | 0.13 | 9.4 | 1.7 | 1.2 | 0.2 | 0.07 | 3.6 | 5.5 |
| <i>A. pycnantha</i> | 1 | 0.13 | 9.4 | 1.7 | 1.2 | 0.2 | 0.07 | 3.6 | 5.5 |
| <i>Banksia marginata</i> | 3 | 1.0 | 27.5 | 5.0 | 27.5 | 5.3 | 0.20 | 10.3 | 20.6 |
| <i>Eucalyptus cosmophylla</i> | 3 | 1.4 | 73.2 | 13.3 | 102.5 | 19.7 | 0.27 | 13.9 | 46.9 |
| <i>E. fasciculosa</i> | 13 | 1.0 | 119.4 | 21.7 | 119.4 | 22.9 | 0.40 | 20.6 | 65.2 |
| <i>E. obliqua</i> | 32 | 0.9 | 293.2 | 53.3 | 263.9 | 50.6 | 0.80 | 41.2 | 145.1 |
| <i>Pultenaea daphnoides</i> | 2 | 0.3 | 18.2 | 3.3 | 5.5 | 1.1 | 0.13 | 6.7 | 11.1 |
| Totals | 60 | | 550 | | | 521.2 | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>A. pycnantha</i> | 1 | 0.05 | 1071 | 1.7 | 53.6 | 0.3 | 0.07 | 2.6 | 4.6 |
| <i>Astroloma conostephioides</i> | P | - | - | - | - | - | - | - | - |
| <i>Banksia marginata</i> | 1 | 0.25 | 1071 | 1.7 | 267.8 | 1.5 | 0.07 | 2.6 | 5.8 |
| <i>Bursaria spinosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Daviesia brevifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>D. ulicifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus obliqua</i> | 1 | 0.02 | 1071 | 1.7 | 21.4 | 0.1 | 0.07 | 2.6 | 4.4 |
| <i>Grevillea lavandulacea</i> | P | - | - | - | - | - | - | - | - |
| <i>Hakea carinata</i> | P | - | - | - | - | - | - | - | - |
| <i>H. rostrata</i> | 4 | 0.40 | 4221 | 6.7 | 1688.4 | 9.5 | 0.13 | 4.7 | 20.9 |
| <i>Isopogon ceratophyllum</i> | P | - | - | - | - | - | - | - | - |
| <i>Leptospermum myrsinoides</i> | 13 | 0.06 | 13671 | 21.7 | 820.3 | 4.6 | 0.60 | 21.9 | 48.2 |
| <i>Olearia ramulosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Platylobium obtusangulum</i> | 4 | 0.07 | 4221 | 6.7 | 295.5 | 1.7 | 0.13 | 4.7 | 13.1 |
| <i>Pultenaea daphnoides</i> | 9 | 0.03 | 9450 | 15.0 | 283.5 | 1.6 | 0.40 | 14.6 | 31.2 |
| <i>P. largiflorens</i> | P | - | - | - | - | - | - | - | - |
| <i>var. latifolia</i> | 14 | 0.05 | 14679 | 23.3 | 734.0 | 4.1 | 0.60 | 21.9 | 49.3 |
| <i>Xanthorrhoea semiplana</i> | 13 | 1.0 | 13671 | 21.7 | 13671.0 | 76.7 | 0.67 | 24.5 | 122.9 |
| Totals | 60 | | 63000 | | | 17835.5 | | | |

Small shrubs (< 0.25m), herbs, climbers

Aerotricha serrulata
Astroloma humifusum
Billardiera sericeophora
Cheilanthes tenuifolia
Craspedia uniflora
Drosera spp.
Gonocarpus sp.
Hibbertia exutiacies
 H. sericea
 H. stricta
Leucopogon virgatus
ORCHIDACEAE (spp. unknown)
Tetratheca pilosa

Perennial, grass-like plants

Lepidosperma semiteres

Density Measurements

SITE 38 - Transect (iii) - Plots at 30m intervals - Along north-facing slope in Sections 1931 and 1930

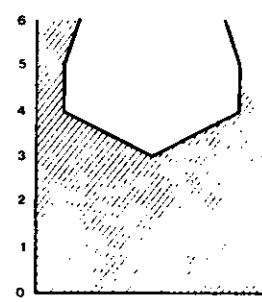
| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE | |
|-------------------------------------|------------------------|---------------------|--------------|------------|---------------|------------|-------|--------------|---------------|------|
| Trees > 8m | | | | | | | | | | |
| <i>Eucalyptus fasciculosa</i> | 16 | 3.7 | 56.8 | 40.0 | 210.2 | 36.5 | 0.60 | 42.9 | 119.4 | |
| <i>E. obliqua</i> | 24 | 4.3 | 85.2 | 60.0 | 366.4 | 63.5 | 0.80 | 57.1 | 180.6 | |
| Totals | 40 | | 142 | | 576.6 | | | | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | | | |
| <i>Eucalyptus cosmophylla</i> | 20 | 0.90 | 205.0 | 50.0 | 184.5 | 49.6 | 0.90 | 40.9 | 140.5 | |
| <i>E. fasciculosa</i> | 15 | 0.75 | 153.8 | 37.5 | 115.4 | 31.0 | 0.80 | 36.4 | 104.9 | |
| <i>E. obliqua</i> | 3 | 0.92 | 30.8 | 7.5 | 28.3 | 7.6 | 0.30 | 13.6 | 28.7 | |
| <i>Exocarpus cupressiformis</i> | 2 | 2.13 | 20.5 | 5.0 | 43.7 | 11.8 | 0.20 | 9.1 | 25.9 | |
| Totals | 410 | | 371.9 | | | | | | | |
| 0.25 < Shrubs < 2m | | | | | | | | | | |
| <i>Acacia myrtifolia</i> | P | - | - | - | - | - | - | - | - | |
| <i>Astroloma conostephioides</i> | 1 | 0.20 | 675.0 | 2.5 | 135.0 | 1.4 | 0.10 | 3.8 | 7.7 | |
| <i>Banksia marginata</i> | P | - | - | - | - | - | - | - | - | |
| <i>Calytrix tetragona</i> | 1 | 0.10 | 675.0 | 2.5 | 67.5 | 0.7 | 0.10 | 3.8 | 7.0 | |
| <i>Daviesia brevifolia</i> | P | - | - | - | - | - | - | - | - | |
| <i>D. ulicifolia</i> | P | - | - | - | - | - | - | - | - | |
| <i>Eucalyptus cosmophylla</i> | 7 | 0.30 | 4725.0 | 17.5 | 1417.5 | 14.2 | 0.40 | 15.4 | 47.1 | |
| <i>Grevillea lavandulacea</i> | P | - | - | - | - | - | - | - | - | |
| <i>Hakea rostrata</i> | P | - | - | - | - | - | - | - | - | |
| <i>Hibbertia sericea</i> | 2 | 0.13 | 1350.0 | 5.0 | 175.5 | 1.8 | 0.10 | 3.8 | 10.6 | |
| <i>Isopogon ceratophyllum</i> | P | - | - | - | - | - | - | - | - | |
| <i>Leptospermum myrsinoides</i> | 3 | 0.06 | 2025.0 | 7.5 | 121.5 | 1.2 | 0.30 | 11.5 | 20.2 | |
| <i>Olearia ramulosa</i> | P | - | - | - | - | - | - | - | - | |
| <i>Pimelea linifolia</i> | 1 | 0.05 | 675.0 | 2.5 | 33.8 | 0.3 | 0.10 | 3.8 | 6.6 | |
| <i>Platylobium obtusangulum</i> | P | - | - | - | - | - | - | - | - | |
| <i>Pultenaea acerosa</i> | var. <i>acicularis</i> | P | - | - | - | - | - | - | - | |
| <i>Pultenaea daphnoidea</i> | P | - | - | - | - | - | - | - | - | |
| <i>P. largiflorens</i> | var. <i>latifolia</i> | 8 | 0.08 | 5400.2 | 20.2 | 432.0 | 4.3 | 0.50 | 19.2 | 43.5 |
| * <i>Senecio pterophorus</i> | 1 | 0.05 | 675.0 | 2.5 | 33.8 | 0.3 | 0.10 | 3.8 | 6.6 | |
| <i>Spyridium parvifolium</i> | 7 | 0.06 | 4725.0 | 17.5 | 283.5 | 2.8 | 0.40 | 15.4 | 35.7 | |
| <i>Xanthorrhoea semiplana</i> | 9 | 1.20 | 6075.0 | 22.5 | 7290.0 | 73.0 | 0.50 | 19.2 | 114.7 | |
| Totals | 40 | | 27000 | | 9990.1 | | | | | |

SITE 38 - Transect (iii) - Cont.

Small shrubs (< 0.25m), herbs, climbers, ferns

Acrotriche serrulata
Astroloma humifusum
Billardiera sericophora
Cheilanthes tenuifolia
Craspedia uniflora
Drosera spp.
Gonocarpus sp.
Haloragis sp.

Hibbertia exutiacies
H. sericea
H. stricta
Leucopogon virgatus
ORCHIDACEAE (spp. unknown)
Tetratheca pilosa

Density Measurements

37.5% at point 10, T (iii)

Perennial, grass-like plants*Lepidosperma semiteres*Plants present at site but not recorded in any transect(predominately on banks of watercourses in *Eucalyptus huberana* - *E. fasciculosa* association)Trees > 8m*Eucalyptus huberana*
*E. leucoxylon*Perennial, grass-like plants*Carex appressa*
Cyperus vaginatus
Juncus pallidus
J. sp.
Scirpus sp.2m < Shrubs/Trees < 8m*Albizia* sp.
Leptospermum pubescens
Olea europaea*Ferns*Asplenium flabellifolium*0.25m < Shrubs < 2mGenista maderensis*
Indigofera australis
**Rosa* sp.FAUNABirds

Brown Thornbill
 Adelaide Rosella
 Striated Thornbill
 Crescent Honeyeater
 White-throated Tree-creeper
 Grey Shrike-thrush
 Golden Whistler
 Elegant Parrot
 Magpie
 Grey Fantail
 Superb Blue Wren
 Galah

Striated Pardalote
 Blackbird
 Raven
 Laughing Kookaburra
 Silvereyes
 Scarlet Robin
 Yellow-tailed Thornbill
 New-Holland Honeyeater
 Purple-crowned Lorikeet
 Grey Currawong
 Brown-headed Honeyeater
 Little Corella

Mammals*Western Grey Kangaroo*PHOTOGRAPHS

| | | |
|----------------|------|---|
| C/6627-III/BS/ | 1-17 | Reference Board |
| | 1-18 | Clearing in Section 1934 |
| | 1-19 | Blackberry infestation in gully, Section 1933 |
| | 1-20 | Fungi on log |
| | 1-21 | Area of regeneration, Section 1851 |
| | 1-22 | Looking north over scrub, from Section 1851 |
| | 1-23 | <i>Eucalyptus obliqua</i> - <i>E. fasciculosa</i> woodland |
| | 1-24 | <i>E. obliqua</i> open woodland/low open woodland |
| | 2-1 | Looking east from ridge in Section 1933 |
| | 2-2 | <i>Eucalyptus obliqua</i> - <i>E. fasciculosa</i> open woodland |
| | 2-3 | <i>E. obliqua</i> - <i>E. fasciculosa</i> open woodland |
| | 2-4 | Sheep Station Creek in Section 1930 |
| | 2-5 | <i>Eucalyptus obliqua</i> open forest/woodland, Section 1930 |

SITE 45

Dates: 9.8.78 and 24.3.79

Environmental Associations: 3.2.7 and 3.2.8

Physiography:

South-east of Ashbourne, natural vegetation covers a relatively large area of gently undulating sandy country with a predominately western aspect. Shallow, poorly drained valleys and ironstone nodules are features of this site. Elevation ranges from 110m to 190m above sea level.

Plant Communities:

1. *Eucalyptus fasciculosa* woodland/low woodland is the dominant plant association in Sections 2077, 2081 and 2080. Smaller trees of *E. cosmophylla* are scattered throughout, while *E. huberana* and *E. leucoxylon* occur in the valleys. The understorey varies from sparse to mid-dense and includes a great variety of sclerophyllous shrubs [see transect (i) and (ii)]
2. *E. baxteri* - *E. cosmophylla* tall shrubland/low woodland occupies sandy soils in Section 2082. The understorey is similar to that in association 1. above, but *Banksia ornata* tends to dominate.
3. A tall shrubland with *Eucalyptus fasciculosa*, *E. cosmophylla*, *E. foecunda*, *E. incrassata* and *Casuarina muelleriana* is located in the eastern part of the site. A mid-dense heath understorey has a variety of plant species [see transect (iii)].

Condition:

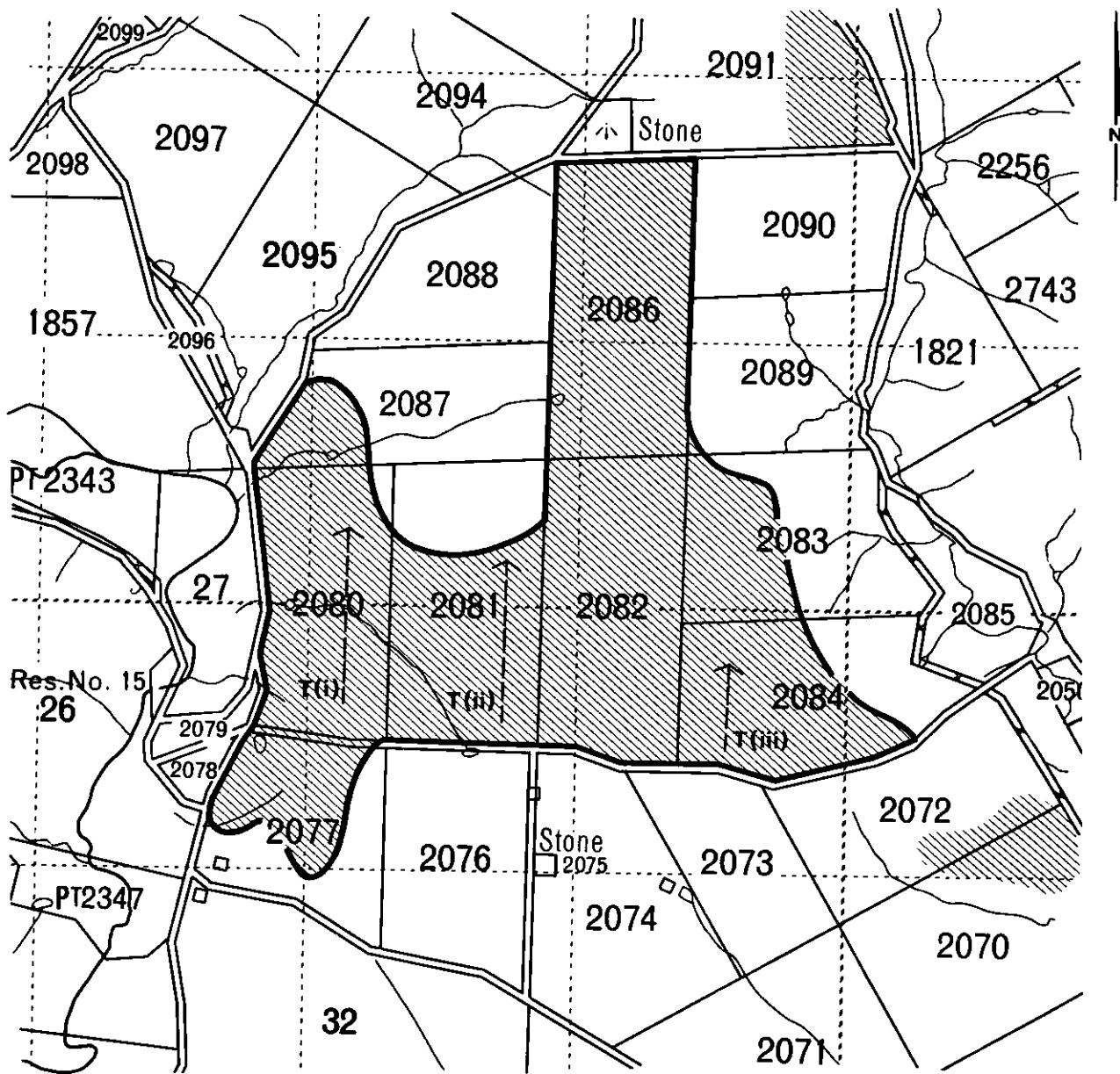
**Asparagus asparagooides* occurs in isolated pockets in section 2080, but otherwise the scrub is relatively free of pest plants. Several tracks traverse Sections 2080 and 2081, providing access to apiarists. Two old quarries are located in these sections, but the scars are being recolonized by native plants.

General:

The scrub at this site represents a transition between the sclerophyll land systems of the Mount Lofty Ranges and the drier mallee areas. The variety of both plant and bird species reflects the ecological diversity of this generally unmodified area of natural vegetation.

Adenanthera terminalis, *Conospermum patens*, *Boronia filifolia* and *Tetratheca pilosa* are regarded as plants with depleted populations in South Australia (Specht et al , 1974).

The Spotted Quail-thrush (*Cinclosoma punctatum*) which is regarded as a threatened bird in South Australia (Margules, 1978) has been recorded at this site by the South Australian Ornithological Association.



Reference
Milang 1:50 000, 6627-II
990E-900N AMG
300 hectares approx

SCALE 1 : 25 000
0 1000 metres

Site 45

HD KONDAPARINGA

Sections 2080, 2082, 2086

Pt Sections 2077, 2081, 2083, 2084

SITE 45 - Transect (i) - (Sampling points at 20m intervals) - Proceeding south to north through Section 2080

| Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE | |
|-----------------------------------|---------------------|------------|------------|-------------|------------|---------------|--------------|---------------|-------|
| Trees/Shrubs > 2m | | | | | | | | | |
| <i>Acacia paradoxa</i> | 1 | 1.0 | 11.6 | 3.3 | 11.6 | 2.2 | 0.13 | 6.9 | 12.4 |
| <i>A. pycnantha</i> | 1 | 4.0 | 11.6 | 3.3 | 46.4 | 8.9 | 0.13 | 6.9 | 19.1 |
| <i>Bursaria spinosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Casuarina muellerana</i> | 1 | 1.0 | 11.6 | 3.3 | 11.6 | 2.2 | 0.13 | 6.9 | 12.1 |
| <i>Eucalyptus cosmophylla</i> | 8 | 2.7 | 93.5 | 26.7 | 252.5 | 48.4 | 0.50 | 26.5 | 101.6 |
| <i>E. fasciculosa</i> | 19 | 0.9 | 221.6 | 63.3 | 199.4 | 38.2 | 1.0 | 52.9 | 154.4 |
| <i>E. leucoxylon</i> | P | - | - | - | - | - | - | - | - |
| Totals | | 30 | | 350 | | 521.5 | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | 1 | 0.20 | 182.6 | 3.2 | 36.5 | 1.5 | 0.13 | 4.3 | 8.9 |
| <i>A. verticillata</i> | 1 | 0.10 | 182.6 | 3.1 | 18.3 | 0.7 | 0.13 | 4.3 | 8.1 |
| <i>Astrolobia conostephioides</i> | 1 | 0.20 | 182.6 | 3.1 | 36.5 | 1.5 | 0.13 | 4.3 | 8.9 |
| <i>Boronia filifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Brachyloma ericoides</i> | 2 | 0.35 | 371.1 | 6.3 | 129.9 | 5.2 | 0.25 | 8.3 | 19.8 |
| <i>Calothrix tetragona</i> | 2 | 0.20 | 371.1 | 6.3 | 74.2 | 3.0 | 0.25 | 8.3 | 17.6 |
| <i>Correa reflexa</i> | P | - | - | - | - | - | - | - | - |
| <i>Daviesia ulicifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Dillwynia sericea</i> | P | - | - | - | - | - | - | - | - |
| <i>Hakea carinata</i> | 11 | 0.77 | 2026.2 | 34.4 | 1560.2 | 62.1 | 0.75 | 24.8 | 121.3 |
| <i>H. rostrata</i> | 1 | 1.0 | 182.6 | 3.1 | 182.6 | 7.3 | 0.13 | 4.3 | 14.7 |
| <i>Isopogon ceratophyllum</i> | P | - | - | - | - | - | - | - | - |
| <i>Leptospermum myrsinoides</i> | 7 | 0.18 | 1289.9 | 21.9 | 232.2 | 9.2 | 0.63 | 20.8 | 51.9 |
| <i>Olearia ramulosa</i> | 6 | 0.22 | 1107/3 | 18.8 | 243.6 | 9.7 | 0.63 | 20.8 | 49.3 |
| <i>Platylobium obtusangulum</i> | P | - | - | - | - | - | - | - | - |
| <i>Thomasia petalocalyx</i> | P | - | - | - | - | - | - | - | - |
| Totals | | 32 | | 5890 | | 2514.0 | | | |

Small shrubs (< 0.25m), herbs, ferns

Astrolobia humifusum
Cheilanthes tenuifolia
Drosera spp.
Hibbertia sericea
 H. stricta
 H. virgata
Leucopogon concurvus
ORCHIDACEAE

Perrenial, grass-like plants

Dianella revoluta
Lepidosperma carphoides
Schoenus sp.

SITE 45 - Transect (ii) - (Sampling points at 20m intervals) - Proceeding south to north through Section 2081

| Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-----------------------------------|---------------------|-------------|---------------|------|------------|-------|--------------|---------------|
| Trees/Shrubs > 3m | | | | | | | | |
| <i>Acacia pycnantha</i> | P | - | - | - | - | - | - | - |
| <i>Eucalyptus baxteri</i> | 4 | 3.7 | 16.0 | 6.3 | 59.2 | 4.9 | 0.12 | 7.8 |
| <i>E. cosmophylla</i> | 10 | 5.8 | 39.6 | 15.6 | 229.7 | 18.9 | 0.29 | 19.0 |
| <i>E. fasciculosa</i> | 46 | 4.6 | 182.6 | 71.9 | 840.0 | 69.2 | 0.94 | 202.5 |
| <i>E. huberiana</i> | 1 | 18.0 | 4.1 | 1.6 | 73.8 | 6.1 | 0.06 | 11.6 |
| <i>E. leucoxylon</i> | 3 | 1.0 | 11.9 | 4.7 | 11.9 | 1.0 | 0.12 | 7.8 |
| <i>E. odorata</i> | P | - | - | - | - | - | - | - |
| * <i>Olea europaea</i> | P | - | - | - | - | - | - | - |
| * <i>Pinus sp.</i> | P | - | - | - | - | - | - | - |
| Totals | 64 | 254 | 1214.6 | | | | | |
| 0.25m < Shrubs < 3m | | | | | | | | |
| <i>Acacia myrtifolia</i> | P | - | - | - | - | - | - | - |
| <i>A. paradoxa</i> | P | - | - | - | - | - | - | - |
| <i>A. spinescens</i> | P | - | - | - | - | - | - | - |
| <i>A. verticillata</i> | P | - | - | - | - | - | - | - |
| <i>Astroloma conostephoides</i> | 1 | 0.25 | 41.1 | 1.5 | 10.3 | 0.4 | 0.06 | 2.7 |
| <i>Banksia marginata</i> | P | - | - | - | - | - | - | - |
| <i>B. ornata</i> | 9 | 2.50 | 361.7 | 13.1 | 904.3 | 37.6 | 0.24 | 10.9 |
| <i>Boronia caeruleascens</i> | P | - | - | - | - | - | - | - |
| <i>Brachyloma ericoides</i> | 9 | 0.40 | 361.7 | 13.2 | 144.7 | 6.0 | 0.24 | 10.9 |
| <i>Callistemon macropunctatus</i> | 6 | 1.25 | 241.1 | 8.8 | 301.4 | 12.5 | 0.12 | 5.5 |
| <i>Correa reflexa</i> | P | - | - | - | - | - | - | - |
| <i>Cryptandra tomentosa</i> | P | - | - | - | - | - | - | - |
| <i>Eucalyptus fasciculosa</i> | 1 | 0.50 | 41.1 | 1.5 | 20.6 | 0.9 | 0.06 | 2.7 |
| <i>Grevillea lavandulacea</i> | 1 | 0.10 | 41.1 | 1.5 | 4.1 | 0.2 | 0.06 | 2.7 |
| <i>Hakea carinata</i> | 2 | 0.50 | 79.5 | 2.9 | 39.8 | 1.7 | 0.12 | 5.5 |
| <i>H. rostrata</i> | 3 | 2.00 | 120.6 | 4.4 | 241.2 | 10.0 | 0.12 | 10.1 |
| <i>H. rugosa</i> | 1 | 0.50 | 41.1 | 1.5 | 20.6 | 0.9 | 0.06 | 5.5 |
| <i>Hibbertia stricta</i> | 1 | 0.10 | 41.1 | 1.5 | 4.1 | 0.2 | 0.06 | 5.1 |
| <i>Isopogon ceratophyllum</i> | P | - | - | - | - | - | - | - |
| <i>Lepidosperma carphoides</i> | 1 | 0.25 | 41.1 | 1.5 | 10.3 | 0.4 | 0.06 | 4.6 |
| <i>Leptospermum juniperinum</i> | 2 | 0.38 | 79.5 | 2.9 | 30.2 | 1.3 | 0.06 | 6.9 |
| <i>L. myrsinoides</i> | 12 | 0.44 | 482.2 | 17.6 | 212.2 | 8.8 | 0.35 | 15.9 |
| <i>Leucopogon concinna</i> | 2 | 0.10 | 79.5 | 2.9 | 8.0 | 0.3 | 0.06 | 42.3 |
| <i>Melaleuca decussata</i> | P | - | - | - | - | - | - | - |
| <i>Olearia ramulosa</i> | 12 | 0.27 | 482.2 | 17.6 | 130.2 | 5.4 | 0.35 | 5.9 |
| <i>Phyllota pleurandroides</i> | 1 | 0.25 | 41.1 | 1.5 | 10.3 | 0.4 | 0.06 | 38.9 |
| <i>Platyladium obtusangulum</i> | 1 | 0.20 | 41.1 | 1.5 | 8.2 | 0.3 | 0.06 | 4.6 |
| <i>Pultenaea sp.</i> | P | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | 3 | 2.50 | 120.6 | 4.4 | 301.5 | 12.6 | 0.06 | 2.7 |
| Totals | 68 | 2740 | 2402.0 | | | | | |

Small shrubs (< 0.25m), herbs, grasses, climbers

Acianthus sp.
Angianthus sp.
 **Asparagus asparagooides*
Astroloma humifuseum
Billardiera sericophora
Caladenia sp.
Clematis microphylla
Drosera spp.
Haloragis sp.
Hibbertia virgata
Pimelea sp.
 POACEAE spp.
Pterostylis sp.
Tetratheca pilosa

MOSSES

Perennial, grass-like plants

Hypolaena fastigiata
Lepidobolus drapetocoleus
Lepidosperma sp.
Lomandra sp.
Schoenus sp.

SITE 45 - Transect (iii) - Proceeding from south to north in Section 2084

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|----------------------------------|--------------------|---------------------|--------------|------------|---------------|------------|-------|--------------|---------------|
| Trees/Shrubs > 3m | | | | | | | | | |
| <i>Casuarina muelleriana</i> | 6 | 1.7 | 171.0 | 30.0 | 290.7 | 19.7 | 0.40 | 16.7 | 66.4 |
| <i>Eucalyptus cosmophylla</i> | 3 | 3.3 | 85.5 | 15.0 | 282.2 | 19.2 | 0.60 | 25.0 | 59.2 |
| <i>E. fasciculosa</i> | 8 | 1.7 | 228.0 | 40.0 | 387.6 | 26.3 | 0.80 | 33.3 | 99.6 |
| <i>E. foecunda</i> | 2 | 5.0 | 57.0 | 10.0 | 285.0 | 19.3 | 0.40 | 16.7 | 46.0 |
| <i>E. incrassata</i> | 1 | 8.0 | 28.5 | 5.0 | 228.0 | 15.5 | 0.20 | 8.3 | 28.8 |
| <i>Exocarpus cupressiformis</i> | P | - | - | - | - | - | - | - | - |
| Totals | 20 | | 570 | | 1473.5 | | | | |
| 0.25m < Shrubs < 3m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>A. paradoxa</i> | P | - | - | - | - | - | - | - | - |
| <i>Adenanthera terminalis</i> | P | - | - | - | - | - | - | - | - |
| <i>Astroloma conostephoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Boronia filifolia</i> | 1 | 0.05 | 900.0 | 5.0 | 45.0 | 1.4 | 0.20 | 6.7 | 13.1 |
| <i>B. caeruleascens</i> | P | - | - | - | - | - | - | - | - |
| <i>Brachyloma ericoides</i> | 1 | 0.10 | 900.0 | 5.0 | 90.0 | 2.9 | 0.20 | 6.7 | 14.6 |
| <i>Calytrix tetragona</i> | 1 | 0.10 | 900.0 | 5.0 | 90.0 | 2.9 | 0.20 | 6.7 | 14.6 |
| <i>Casuarina muelleriana</i> | 1 | 0.20 | 900.0 | 5.0 | 180.0 | 5.8 | 0.20 | 6.7 | 17.5 |
| <i>Conospermum patens</i> | P | - | - | - | - | - | - | - | - |
| <i>Correa reflexa</i> | P | - | - | - | - | - | - | - | - |
| <i>Dodonaea viscosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Hakea carinata</i> | 3 | 0.20 | 2700.0 | 15.0 | 540.0 | 17.4 | 0.60 | 20.0 | 52.4 |
| <i>H. rostrata</i> | 2 | 0.35 | 1800.0 | 10.0 | 630.0 | 20.3 | 0.40 | 13.3 | 43.6 |
| <i>H. rugosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Hibbertia stricta</i> | 10 | 0.15 | 9000.0 | 50.0 | 1350.0 | 43.5 | 1.00 | 33.3 | 126.8 |
| <i>Isopogon ceratophyllum</i> | P | - | - | - | - | - | - | - | - |
| <i>Leptospermum myrsinoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Malaleuca uncinata</i> | P | - | - | - | - | - | - | - | - |
| <i>Platylobium obtusangulum</i> | P | - | - | - | - | - | - | - | - |
| <i>Spyridium sp.</i> | 1 | 0.20 | 900.0 | 5.0 | 180.0 | 5.8 | 0.20 | 6.7 | 17.5 |
| <i>Styphelia exarrhena</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | P | - | - | - | - | - | - | - | - |
| Totals | 20 | | 18000 | | 3105.0 | | | | |

SITE 45 - Transect (iii) - Cont.

Small shrubs (< 0.25m), herbs, climbers

Acanthus sp.
Cassytha sp.
Drosera sp.
Clischrocaryon aureum
Goodenia sp.
Haloragis sp.
Helichrysum sp.
Kernedia prostrata
Lyperanthus nigricans
Prasophyllum sp.
Thysanotus patersonii

Perennial, grass-like plants

Hypolaena fastigiata
Lepidobolus drapetocoleus
Lepidosperma sp.
Schoenus sp.

MOSSESFAUNABirds

Little Raven
 Laughing Kookaburra
 Black-faced Cuckoo-shrike
 Grey Currawong
 *Blackbird
 Grey Shrike-thrush
 Dusky Woodswallow
 Golden Whistler
 White-browed Babbler
 Willie Wagtail
 Grey Fantail
 Fan-tailed Cuckoo
 Scarlet Robin
 New-Holland Honeyeater
 Crescent Honeyeater
 Tree Martin
 Welcome Swallow
 Silvereye
 Striated Thornbill
 Superb Blue Wren
 Galah
 Adelaide Rosella

Rainbow Lorikeet
 Elegant Parrot
 Brown Goshawk
 *Starling
 White face
 Hooded Robin
 Sitella
 Yellow-tailed Thornbill
 Red-browed Finch
 Musk Lorikeet
 Red Wattlebird
 Magpie
 Brown-headed Honeyeater
 White-naped Honeyeater
 Straited Pardalote
 Red-rumped Parrot
 Purple-crowned Lorikeet
 Boobook Owl
 White-faced Heron
 Spotted Pardalote
 Bronzewing Pigeon
 Jacky Winter

Mammals (recorded by the Mammal Club of the Field Naturalists' Society of S.A. Inc.)

Koala (introduced to the area)
 Western Grey Kangaroo
 Southern Bush Rat
 Ring-tailed Possum
 Echidna
 Bat (sp. unknown)
 Rabbit

5.3 Hd. Myponga

SITE 43

Date: 3.7.79Environmental Association: 3.2.10Physiography:

Natural vegetation covers gentle to medium south facing slopes on the Sellicks Hill Range south of Willunga. Elevation ranges from 310m to 370m above sea level.

Plant Communities:

Eucalyptus obliqua woodland is the plant association at this site. *E. fasciculosa* is scattered throughout this community, while *E. huberana* and *E. ovata* occur in the most sheltered locations. A very sparse smaller tree layer is dominated by young *Eucalyptus* spp. and *Acacia melanoxylon*. The shrub layer is generally sparse, and is dominated by *Pteridium esculentum* and *Xanthorrhoea semiplana*. *Hibbertia* spp. and introduced herbs and grasses are the prominent ground cover plants.

Condition:

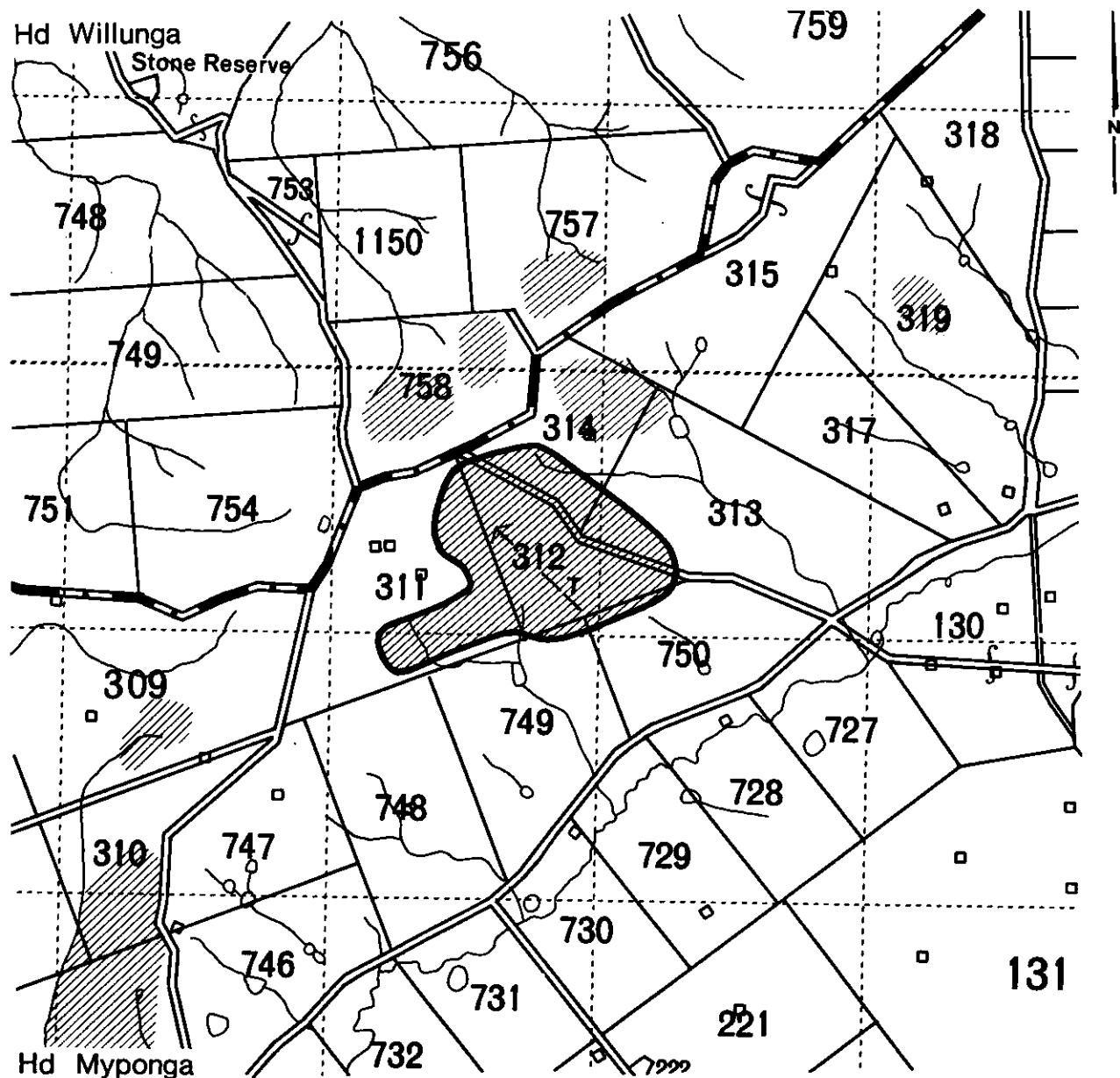
The presence of scats and the sparse and browsed understorey indicate moderate to heavy grazing by cattle over the whole site.

Several tracks traverse the site, one leading to a house in the middle of the scrub in Section 312. A public road separates Section 312 from sections 313 and 314.

Many trees exhibit coppice regrowth, while **Rubus frutisocus* forms small infestations in gullies near the edge of the scrub.

General:

This site lacks ecological diversity but provides shelter for Western Grey Kangaroos (*Macropus fuliginosus*).



Reference
Willunga 1:50 000, 6627-III
777E-894N AMG
40 hectares approx

SCALE 1 : 25 000
0 1000 metres

Site 43

HD MYPONGA

Pt Sections 311, 312, 313, 314, 749, 750

SITE 43 - Transect - (Sampling points at 30m intervals) - Beginning in S-E corner of Section 312 and proceeding N-W through middle of scrub

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|--------------------|---------------------|--------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Eucalyptus baxteri</i> | P | - | - | - | - | - | - | - | - |
| <i>E. fasciculosa</i> | 5 | 5.2 | 27.2 | 8.3 | 141.4 | 8.6 | 0.27 | 19.3 | 36.2 |
| <i>E. huberana</i> | 8 | 6.6 | 43.4 | 13.3 | 286.4 | 17.3 | 0.20 | 14.3 | 44.9 |
| <i>E. obliqua</i> | 47 | 4.8 | 255.4 | 78.3 | 1225.9 | 74.1 | 0.93 | 66.4 | 218.8 |
| <i>E. ovata</i> | P | - | - | - | - | - | - | - | - |
| Totals | 60 | | 326 | | 1653.7 | | | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | | |
| <i>Acacia melanoxylon</i> | 14 | 2.28 | 41.9 | 23.3 | 95.5 | 31.4 | 0.40 | 21.4 | 76.1 |
| <i>A. pycnantha</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus fasciculosa</i> | 9 | 1.90 | 27.0 | 15.0 | 51.3 | 16.9 | 0.40 | 21.4 | 53.3 |
| <i>E. huberana</i> | 1 | 0.75 | 3.1 | 1.7 | 2.3 | 0.8 | 0.07 | 3.7 | 6.2 |
| <i>E. obliqua</i> | 32 | 1.60 | 95.9 | 53.3 | 153.4 | 50.4 | 0.93 | 49.7 | 153.4 |
| <i>Exocarpus cupressiformis</i> | P | - | - | - | - | - | - | - | - |
| <i>Pultenaea daphnoides</i> | 4 | 0.16 | 12.1 | 6.7 | 1.8 | 0.6 | 0.07 | 3.7 | 11.0 |
| Totals | 60 | | 180 | | 304.3 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | | | | | | | | | |
| <i>Daviesia ulicifolia</i> | | | | | | | | | |
| <i>D. virgata</i> | | | | | | | | | |
| <i>Eucalyptus fasciculosa</i> | 1 | 0.01 | 170 | 1.7 | 1.7 | 0.1 | 0.07 | 5.8 | 7.6 |
| <i>E. obliqua</i> | 1 | 0.05 | 170 | 1.7 | 8.5 | 0.4 | 0.07 | 5.8 | 7.9 |
| <i>Olearia ramulosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Pteridium esculentum</i> | 47 | 0.10 | 7830 | 78.3 | 783.0 | 34.7 | 0.87 | 71.9 | 184.9 |
| <i>Pultenaea daphnoides</i> | P | - | - | - | - | - | - | - | - |
| * <i>Rubus fruticosus</i> | P | - | - | - | - | - | - | - | - |
| * <i>Senecio pterophorus</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | 11 | 0.80 | 1830 | 18.3 | 1464.0 | 64.9 | 0.20 | 16.5 | 99.7 |
| Totals | 60 | | 10000 | | 2257.2 | | | | |

Small shrubs (< 0.25m), herbs, climbers

| | |
|----------------------------------|-------------------------------------|
| <i>Acaena sp.</i> | <i>Leucopogon virgatus</i> |
| <i>Acianthus sp.</i> | <i>ORCHIDACEAE (spp. unknown)</i> |
| <i>Acrotriche serrulata</i> | <i>Pimelea sp.</i> |
| <i>Astroloma humifusum</i> | <i>Pterostylis nutans</i> |
| <i>Billardiera sericephora</i> | <i>Ranunculus sp.</i> |
| <i>Burkardia umbellata</i> | <i>Stackhousea monogyna</i> |
| <i>Drosera spp.</i> | <i>*Trifolium sp.</i> |
| <i>GERANIACEAE (sp. unknown)</i> | |
| <i>Gonocarpus sp.</i> | |
| <i>Goodenia primulacea</i> | |
| <i>Hibbertia exutioides</i> | |
| <i>H. stricta</i> | |
| | <i>Introduced herbs and grasses</i> |

MOSSES

FAUNA

Birds

| | |
|-------------------------|------------------------------------|
| <i>Adelaide Rosella</i> | <i>Grey Shrike-thrush</i> |
| <i>Thornbill</i> | <i>Striated Pardalote</i> |
| <i>Little Raven</i> | <i>White-throated Tree-creeper</i> |
| <i>Superb Blue Wren</i> | |

Mammals

Western Grey Kangaroo

PHOTOGRAPHS

| | | |
|----------------|------|------------------------------------|
| C/6627-III/BS/ | 3-16 | Reference Board |
| | 3-17 | General view of scrub |
| | 3-18 | <i>Pterostylis nutans</i> |
| | 3-19 | <i>Eucalyptus obliqua</i> woodland |
| | 3-20 | <i>E. ovata</i> |

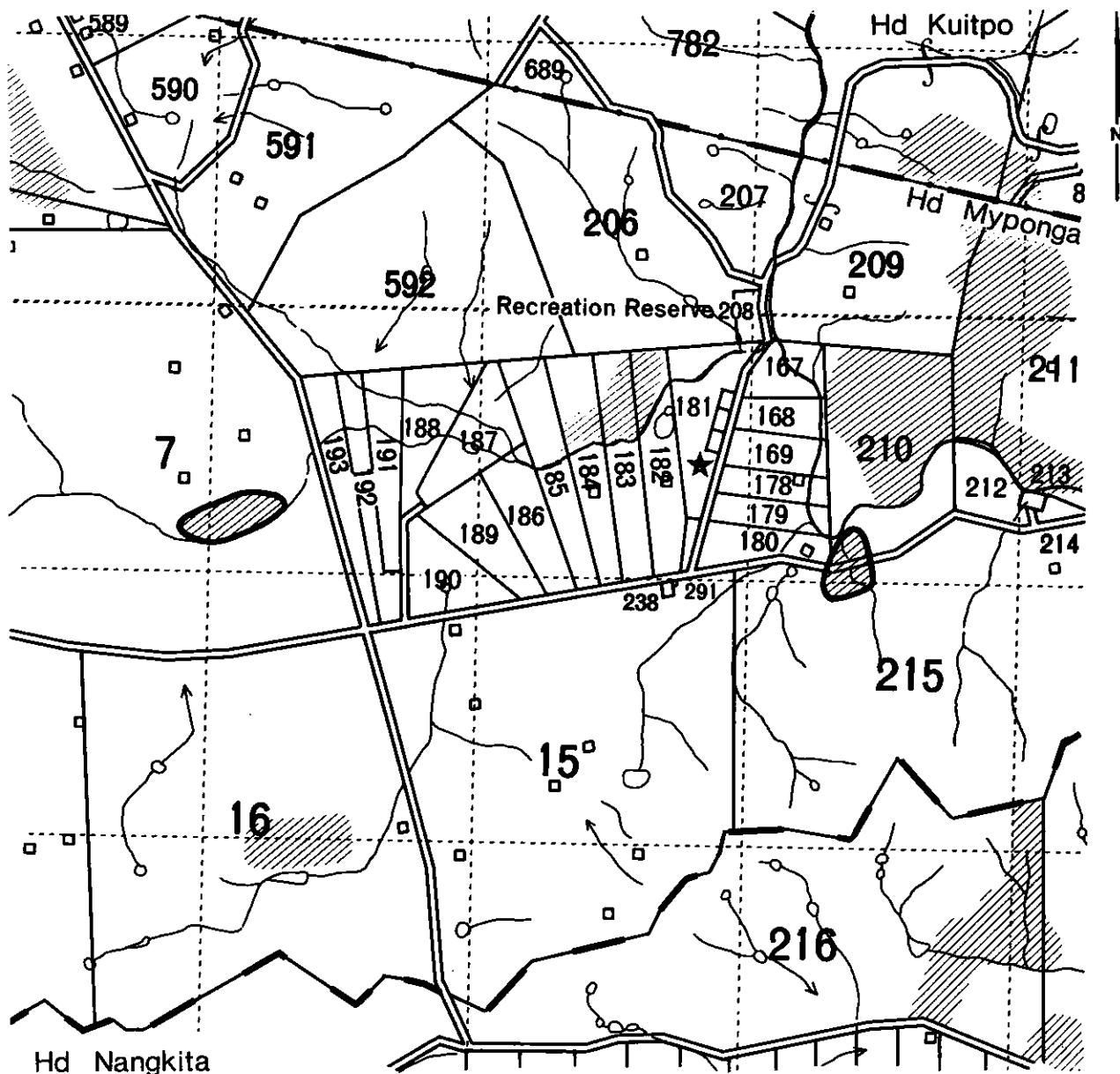
SITE 44

Date: 3.7.79

Environmental Association: 3.2.10

General Description:

Natural vegetation covers two small areas of peat swamp along the upper reaches of the River Finniss. *Gleichenia microphylla* and *Blechnum* sp which are rare ferns in South Australia (Specht *et al*, 1974) occur at this site. Peat swamps in the Mt. Compass - Yundi area have been largely modified by grazing and the invasion of exotic plants such as **Rubus fruticosus*. These two areas are remnants of a vegetation type which is poorly conserved in the Mount Lofty Ranges (Lamprey, Mitchell, 1979).



Reference

Willunga 1:50 000, 6627-III
 (a) 830E-891N
 (b) 855E-931N AMG

5 hectares approx

SCALE 1 : 25 000

0 1000 metres

Site 44

HD MYPONGA

Pt Sections 7, 210, 215

SITE 44

Plant List2m < Tall Shrubs/Small trees < 8m

Acacia retinodes
Leptospermum juniperinum
L. pubescens
Viminaria juncea

Sedges and reeds

Gahnia clarkei
Phragmites australis
CYPERACEAE (app. unknown)
JUNCACEAE (app. unknown)

0.25m < Shrubs < 2m

Melaleuca squamea
**Rubus fruticosus*

Ferns

Blechnum sp.
Gleichenia microphylla
Pteridium esculentum

PHOTOGRAPHS

| | | |
|----------------|------|---|
| C/6627-III/BS/ | 3-21 | Scrub north of Finniss River near Yundi |
| | 3-22 | Peat swamp with <i>Viminaria juncea</i> , Section 210 |
| | 3-23 | Peat swamp with <i>Viminaria juncea</i> , Section 210 |
| | 3-24 | <i>Gleichenia microphylla</i> , Section 210 |
| | 4-1 | <i>Gleichenia microphylla</i> , Section 215 |
| | 4-2 | <i>Gleichenia microphylla</i> , Section 215 |

5.4 Hd. Kuitpo

SITE 18

Date: 10.5.79

Environmental Association: 3.2.16

Physiography:

South-west of Hahndorf, a small area of natural vegetation covers gentle to medium north-west and south-west facing slopes. Elevation ranges from 350 to 400m above sea level.

Plant Communities:

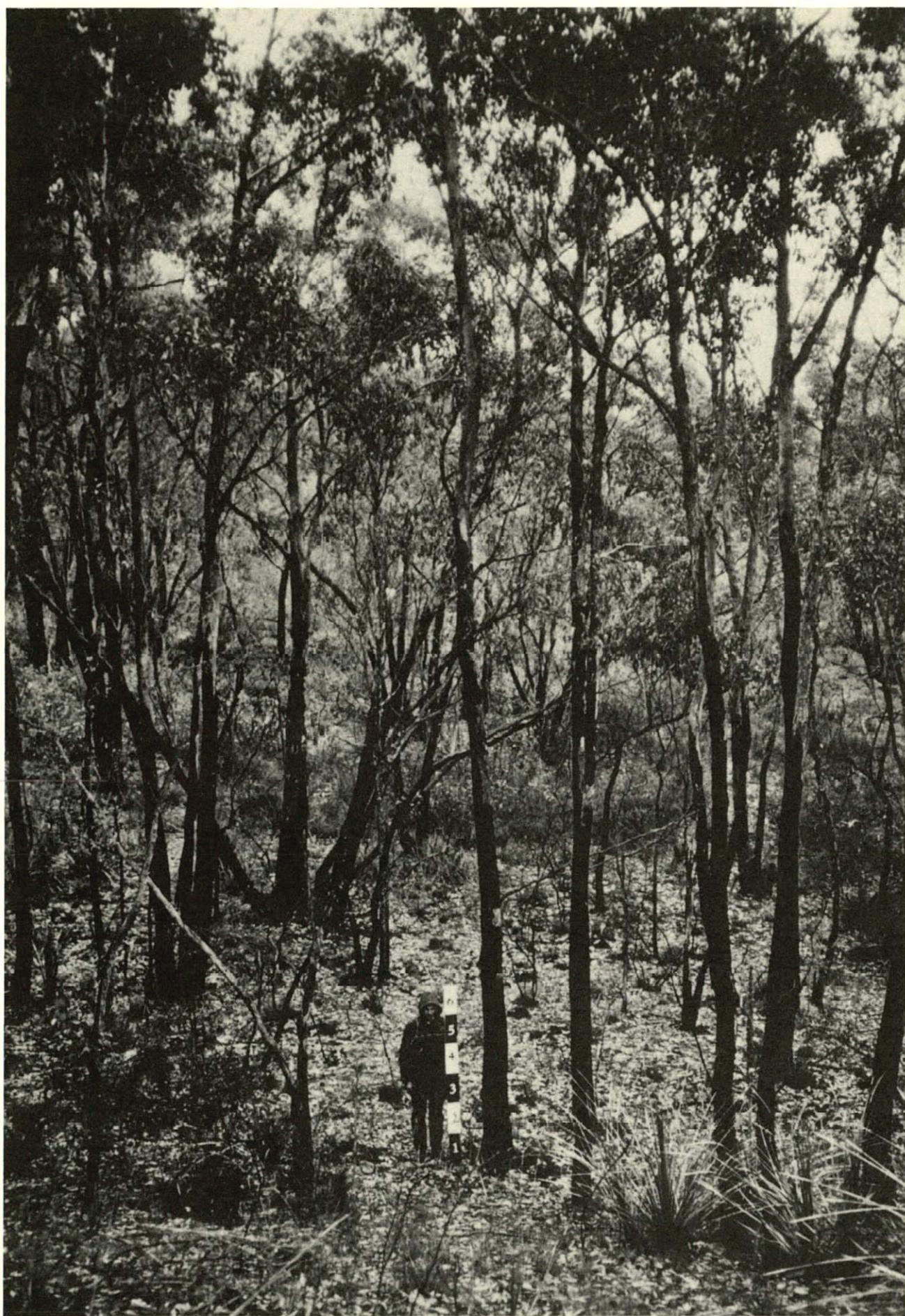
Eucalyptus obliqua open forest is the dominant plant community at this site. On north-west facing slopes it assumes a woodland formation and is intermixed with *E. baxteri* and *E. fasciculosa*. There is a very sparse small tree layer dominated by young *E. obliqua*, while the understorey varies from mid-dense, to sparse in recently burnt areas.

Condition:

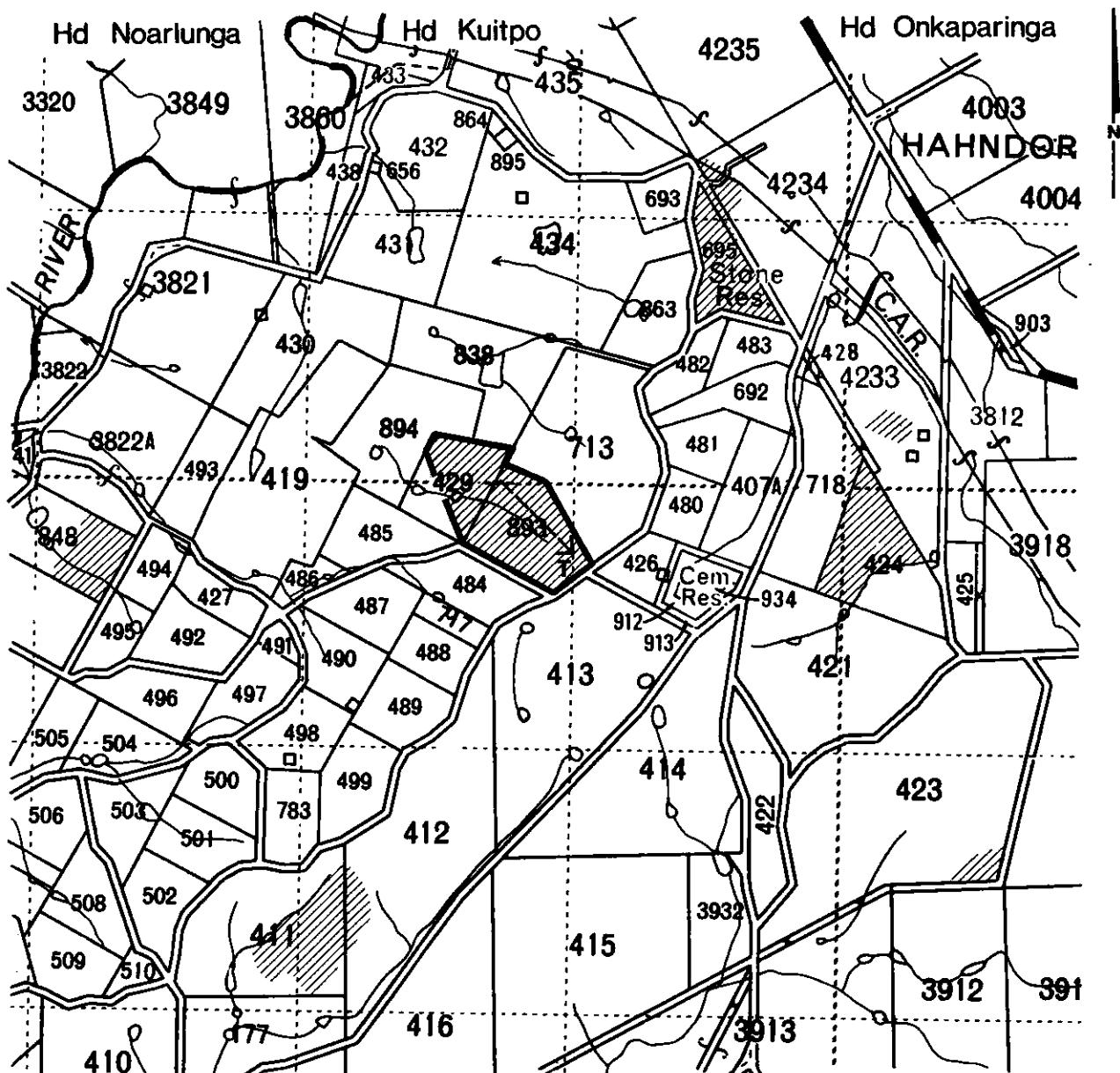
Browsed shrubs and horse scats indicate the presence of domestic animals in the scrub, much of which shows evidence of a recent fire. The understorey in the burnt areas is sparse, but regeneration from vegetative buds is apparent. Recent clearing has taken place in the south-eastern corner of the site.

General:

Despite the effects of fire and grazing the scrub at this site shows a reasonable diversity of understorey vegetation. However, its small size renders it vulnerable to continued impacts of this type. *Casuarina striata* which is a rare plant in South Australia (Specht et al , 1974) occurs at this site.



Site 18 : Fire damage to *Eucalyptus obliqua* open forest



SITE 18 - Transect - Along a South-West facing slope in Section 893

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel. Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|--------------------|---------------------|--------------|-------------|---------------|------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Eucalyptus baxteri</i> | 1 | 3 | 17.7 | 3.1 | 53.1 | 1.8 | 0.13 | 10.3 | 15.2 |
| <i>E. fasciculosa</i> | 1 | 1 | 17.7 | 3.1 | 17.7 | 0.6 | 0.13 | 10.3 | 14.0 |
| <i>E. obliqua</i> | 30 | 5.4 | 535.6 | 93.8 | 2892.2 | 97.6 | 1.0 | 79.4 | 170.8 |
| Totals | 32 | | 571 | | 2963.0 | | | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | | |
| <i>Acacia melanoxylon</i> | P | - | - | - | - | - | - | - | - |
| <i>Banksia marginata</i> | 3 | 2.5 | 50.6 | 9.4 | 126.5 | 24.3 | 0.25 | 11.7 | 45.4 |
| <i>Casuarina striata</i> | 1 | 0.04 | 16.7 | 3.1 | 0.7 | 0.1 | 0.13 | 6.1 | 9.3 |
| <i>Eucalyptus fasciculosa</i> | 3 | 1.6 | 50.6 | 9.4 | 81.0 | 15.5 | 0.25 | 11.7 | 36.6 |
| <i>E. obliqua</i> | 18 | 0.7 | 302.9 | 56.3 | 212.0 | 40.7 | 1.0 | 46.7 | 143.7 |
| <i>Exocarpus cupressiformis</i> | P | - | - | - | - | - | - | - | - |
| <i>Hakea carinata</i> | 6 | 0.75 | 101.1 | 18.8 | 75.8 | 14.5 | 0.38 | 17.8 | 51.1 |
| <i>H. rostrata</i> | 1 | 1.5 | 16.7 | 3.1 | 25.1 | 4.8 | 0.13 | 6.1 | 14.0 |
| Totals | 32 | | 538 | | 521.1 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>A. pycnantha</i> | P | - | - | - | - | - | - | - | - |
| <i>Astroloma conostephoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Bursaria spinosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Daviesia virgata</i> | P | - | - | - | - | - | - | - | - |
| <i>Epacris impressa</i> | 2 | 0.02 | 5078 | 6.3 | 102 | 1.5 | 0.13 | 6.5 | 14.3 |
| <i>Isopogon ceratophyllus</i> | P | - | - | - | - | - | - | - | - |
| <i>Ixodia achillaeoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Lepidosperma semiteres</i> | 19 | 0.1 | 47876 | 59.4 | 4788 | 70.6 | 1.0 | 49.8 | 179.8 |
| <i>Leptospermum juniperinum</i> | P | - | - | - | - | - | - | - | - |
| <i>L. myrsinoides</i> | 7 | 0.02 | 17651 | 21.9 | 353 | 5.2 | 0.50 | 24.9 | 52.0 |
| <i>Lissanthe strigosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Pimelea linifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>P. octophylla</i> | P | - | - | - | - | - | - | - | - |
| <i>Platylobium obtusangulum</i> | 1 | 0.01 | 2499 | 3.1 | 25 | 0.4 | 0.13 | 6.5 | 10.0 |
| <i>Pteridium esculentum</i> | 3 | 0.20 | 7576 | 9.4 | 1515 | 22.3 | 0.25 | 12.4 | 44.1 |
| <i>Pultenaea daphnoides</i> | P | - | - | - | - | - | - | - | - |
| * <i>Rosa</i> sp. | P | - | - | - | - | - | - | - | - |
| * <i>Sarothamnus scoparius</i> | P | - | - | - | - | - | - | - | - |
| * <i>Senecio pterophorus</i> | P | - | - | - | - | - | - | - | - |
| * <i>Rubus fruticosus</i> | P | - | - | - | - | - | - | - | - |
| * <i>Ulex europeus</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | P | - | - | - | - | - | - | - | - |
| Totals | 32 | | 80600 | | 6783 | | | | |

SITE 18 - Transect - Along a South-East facing slope in Section 893

Small shrubs, herbs

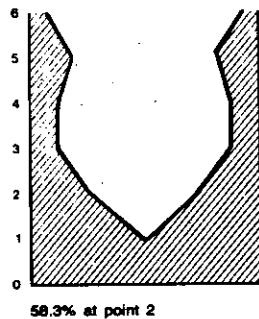
Acrotriche serrulata
Astroloma humifusum
Erchardia umbellata
Casseytha
Dampiera lavandulacea
Drosera spp.
Eriochilus cucullatus
Gonocarpus sp.
Goodenia primulaceae
Hibbertia exutiacies
Hibbertia sericea
Hibberita stricta
Kennedia prostrata
Leucopogon virgatus
Scaevola albida
Tetratheca pilosa
MOSSES

Perennial, grass-like plants

Lepidosperma carphoides
Lomandra dura
Lomandra micrantha

Other life forms

Fungi

Density MeasurementsFAUNABirds

Grey Fantail
Magpie
Brown Thornbill
Scarlet Robin
Adelaide Rosella

Other Fauna

Golden Orb Spider (*Nephila sp.*)

Photographs

| | | |
|--------------|------|--|
| C/6627-1/BS/ | 1-1B | |
| | 1-14 | Fungi |
| | 1-15 | Recent clearing in Section 893 |
| | 1-16 | <i>Eucalyptus obliqua</i> open forest |
| | 1-17 | Fire damage to <i>Eucalyptus obliqua</i> |

SITE 22

Date: 17.5.79

Environmental Association: 3.2.16

Physiography:

Natural vegetation covers the ridges and dissected slopes of part of the Bull Creek Range south of Echunga. Elevation ranges from 410m to 480m above sea level.

Plant Communities:

The dominant plant association is *Eucalyptus obliqua* which varies in structural formation from open forest in sheltered gullies to low woodland on ridges and north facing slopes where *E. fasciculosa* is an associated tree. Beneath the canopy there is a very sparse small tree layer, and a shrub layer which is very sparse where grazing by stock occur, and mid-dense in unmodified areas. On some slopes where the soil is deeper the understorey is naturally grassy.

Condition:

Grazing by stock is indicated by scats and browsed plants and occurs to varying degrees over the whole site.

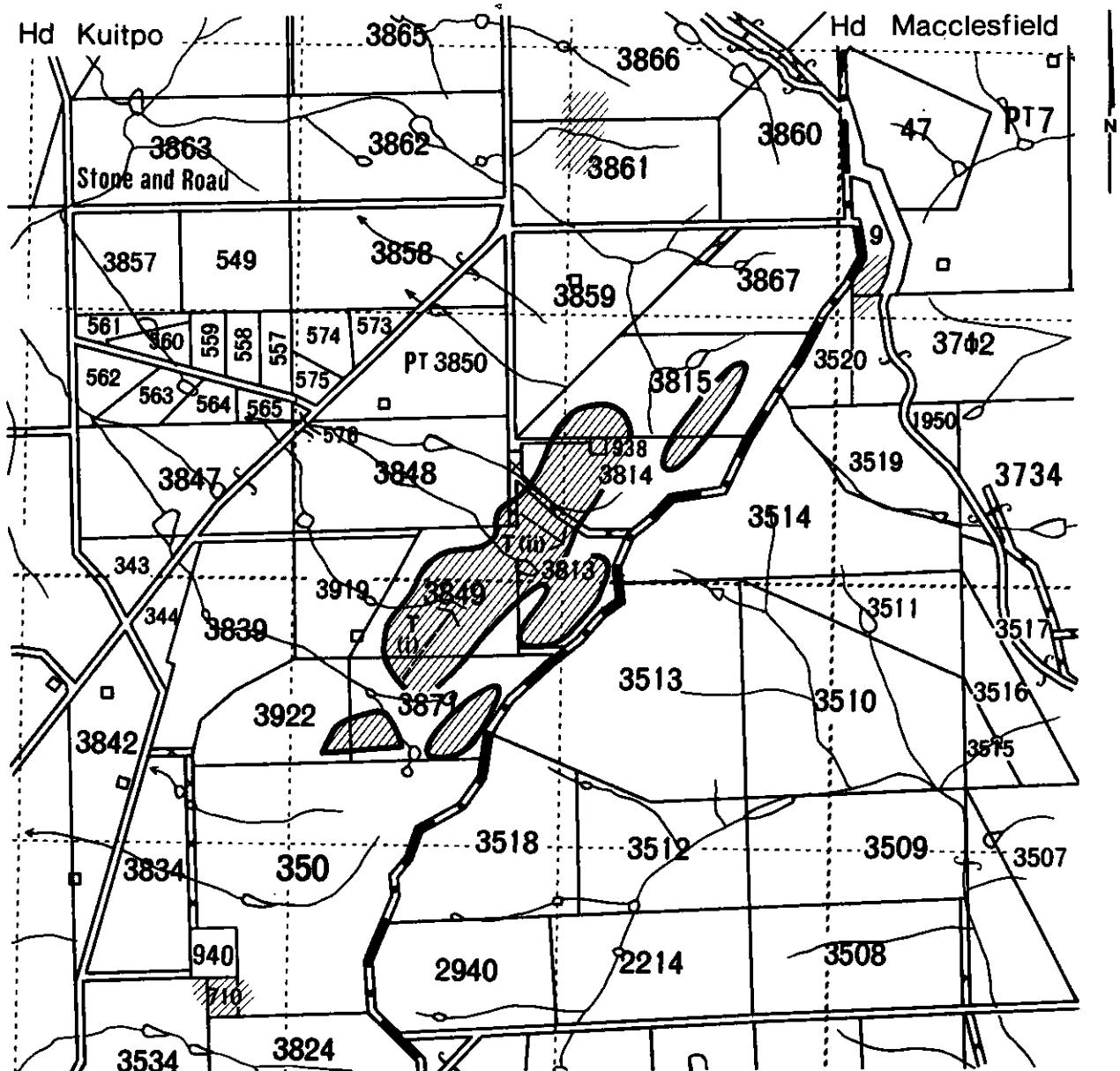
Vehicular tracks traverse the gullies which have been cleared of the natural understorey. **Genista maderensis* and **Rubus fruticosus* have become established in these sheltered locations.

An area of a few hectares has been recently cleared in Section 3849.

General:

Casuarina striata which is a rare plant in South Australia (Specht et al, 1974), occurs at this site. Some impressive specimens of *Eucalyptus obliqua*(to 30m high) occur on the most sheltered slopes and gullies.

Although much of the scrub has been significantly modified by grazing, it forms an aesthetic backdrop to the road between Echunga and Meadows.



Reference
Echunga 1:50 000, 6627-I
990E-100N AMG
60 hectares approx

SCALE 1 : 25 000

Site 22

HD KUITPO

Pt Sections 3813, 3814, 3815, 3849, 3871, 3922

SITE 22 - Transect (i) - Along North-West facing slope in Section 3849

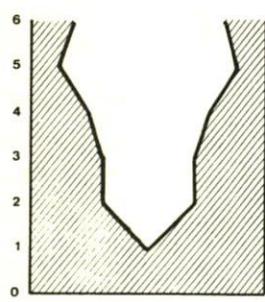
| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|--------------------|---------------------|--------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Eucalyptus obliqua</i> | 29 | 4.5 | 180 | 100 | 810 | 100 | 1.0 | 100 | 300 |
| 2m < Trees/Shrubs < 8m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 4 | 0.7 | 75 | 12.5 | 52.5 | 4.4 | 0.25 | 11.7 | 28.6 |
| <i>Banksia marginata</i> | 1 | 1.5 | 19 | 3.1 | 28.5 | 2.4 | 0.13 | 6.1 | 11.6 |
| <i>Casuarina striata</i> | 3 | 0.4 | 57 | 9.4 | 22.8 | 1.9 | 0.25 | 11.7 | 23.0 |
| <i>Eucalyptus fasciculosa</i> | 4 | 3.4 | 75 | 12.5 | 255.0 | 21.4 | 0.38 | 17.8 | 51.7 |
| <i>E. obliqua</i> | 19 | 1.9 | 358 | 59.4 | 680.2 | 57.1 | 1.0 | 46.7 | 163.2 |
| <i>Exocarpus cupressiformis</i> | 1 | 8.0 | 19 | 3.1 | 152.0 | 12.8 | 0.13 | 6.1 | 22.0 |
| Totals | | 32 | 602 | | 1191.0 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 1 | 0.05 | 980 | 3.1 | 49.0 | 0.7 | 0.13 | 6.1 | 9.9 |
| <i>Daviesia virgata</i> | P | - | - | - | - | - | - | - | - |
| <i>Hakea rostrata</i> | 3 | 1.8 | 2970 | 9.4 | 5346 | 81.7 | 0.38 | 17.8 | 108.9 |
| <i>Lepidosperma semiteres</i> | 17 | 0.05 | 16843 | 53.3 | 842.2 | 12.9 | 0.88 | 41.1 | 107.3 |
| <i>Leptospermum myrsinoides</i> | 5 | 0.03 | 4930 | 15.6 | 147.9 | 2.3 | 0.25 | 11.7 | 29.6 |
| <i>Platyllobium obtusangulum</i> | 2 | 0.04 | 1991 | 6.3 | 79.6 | 1.2 | 0.25 | 11.7 | 19.2 |
| <i>Pultenaea daphnoides</i> | 4 | 0.02 | 3950 | 12.5 | 79.0 | 1.2 | 0.25 | 11.7 | 25.4 |
| <i>Xanthorrhoea semiplana</i> | P | - | - | - | - | - | - | - | - |
| Totals | | 32 | 31650 | | 6543.7 | | | | |

Small shrubs, herbs, grasses

Acrotriche serrulata
Astroloma humifusum
Dillwynia hispida
Drosera sp.
Eriochilus cucullatus
Hibbertia exutiacies
Hibbertia stricta
Leucopogon virgatus
Pultenaea pedunculata
Stylium graminifolium
Tetratheca pilosa
POACEAE (spp. unknown)

Perennial, grass-like plants

Dianella revoluta

Density Measurement

43.8% at point 3

SITE 22 - Transect (ii) - Along a South-facing slope in Section 3813

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPUT VALUE |
|-------------------------------------|--------------------|---------------------|-------------|------------|---------------|------------|-------------|--------------|----------------|
| Trees > 8m | | | | | | | | | |
| <i>Eucalyptus fasciculosa</i> | 2 | 4.5 | 31 | 7.1 | 139.5 | 6.2 | 0.29 | 22.5 | 35.8 |
| <i>E. leucoxylon</i> | P | - | - | - | - | - | - | - | - |
| <i>E. obliqua</i> | 26 | 5.2 | 409 | 92.9 | 2126.8 | 93.8 | 1.0 | 77.5 | 264.2 |
| Totals | 29 | | 440 | | 2266.3 | | 1.29 | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | | |
| <i>Acacia melanoxylon</i> | P | - | - | - | - | - | - | - | - |
| <i>A. pycnantha</i> | 4 | 1.5 | 38 | 14.8 | 57.0 | 9.6 | 0.29 | 15.6 | 40.0 |
| <i>Bursaria spinosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Casuarina striata</i> | 1 | 2.0 | 9 | 3.7 | 18.0 | 3.0 | 0.14 | 7.5 | 14.2 |
| <i>C. stricta</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus obliqua</i> | 16 | 1.6 | 151 | 59.3 | 241.6 | 40.5 | 0.86 | 46.2 | 146.0 |
| <i>Exocarpus cupressiformis</i> | 6 | 5.0 | 56 | 22.2 | 280.0 | 46.9 | 0.57 | 30.6 | 99.7 |
| Totals | 27 | | 254 | | 596.6 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | 1 | 0.01 | 75 | 3.6 | 0.8 | 0.6 | 0.14 | 6.1 | 10.3 |
| <i>Banksia marginata</i> | P | - | - | - | - | - | - | - | - |
| <i>Daviesia ulicifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>D. virgata</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus obliqua</i> | 1 | 0.04 | 75 | 3.6 | 3.0 | 2.2 | 0.14 | 6.1 | 11.9 |
| * <i>Genista maderensis</i> | P | - | - | - | - | - | - | - | - |
| <i>Lepidozperma semiteres</i> | 14 | 0.10 | 1045 | 50.0 | 104.5 | 75.6 | 0.86 | 37.7 | 163.3 |
| <i>Leptospermum myrsinoides</i> | 2 | 0.02 | 148 | 7.1 | 3.0 | 2.2 | 0.29 | 12.7 | 22.0 |
| <i>Lomandra dura</i> | 1 | 0.10 | 75 | 3.6 | 7.5 | 5.4 | 0.14 | 6.1 | 15.1 |
| <i>Olearia ramulosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Platylobium obtusangulum</i> | 1 | 0.02 | 75 | 3.6 | 1.5 | 1.1 | 0.14 | 6.1 | 10.8 |
| <i>Pteridium esculentum</i> | P | - | - | - | - | - | - | - | - |
| <i>Pultenaea daphnoides</i> | 8 | 0.03 | 598 | 28.6 | 17.9 | 13.0 | 0.57 | 25.0 | 66.6 |
| * <i>Rubus fruticosus</i> | P | - | - | - | - | - | - | - | - |
| * <i>Seneio pterophorus</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | P | - | - | - | - | - | - | - | - |
| Totals | 28 | | 2090 | | 138.2 | | | | |

Small shrubs, herbs, creepers, grasses

Acaena sp.
Asianthus sp.
Acrotriche serrulata
Burchardia umbellata
Cassytha sp.
Conocarpus sp.
Hibbertia exutiacies
Hibbertia sericea
Hibbertia stricta
Kennedia prostrata
Marianthus bignoniacaeus
Ranunculus sp.
Stylium graminifolium
POACEAE (spp. unknown)

Perennial, grass-like plants*Dianella revoluta*FAUNABirds

Red Wattlebird
Striated Pardalote
Adelaide Rosella
Scarlet Robin
White-throated Tree-creeper
Red-browed Finch
White-naped Honeyeater
Brown Thornbill
Magpie

Other life forms

Fungi
Lichens

Photographs

- C/6627-I/BS 1-21 Reference board
1-22 *Eucalyptus obliqua* low woodland
1-23 Clearing in Section 3849
C/6627-I/BS 1-24 *Casuarina striata*
2-1 *Casuarina striata* in T(1)
2-2 View west from Section 3849
2-3 Cleared gully in Section 3849
2-4 *Eucalyptus obliqua* woodland
2-5 *E. fasciculosa*/E. obliqua on north-facing slope

SITE 23

Date: 17.5.79

Environmental Association: 3.2.16

Physiography:

Four kilometres north of Meadows a small area of natural vegetation covers ridges and dissected slopes of the Bull Creek Range. Elevation ranges from 400m to 470m above sea level.

Plant Communities:

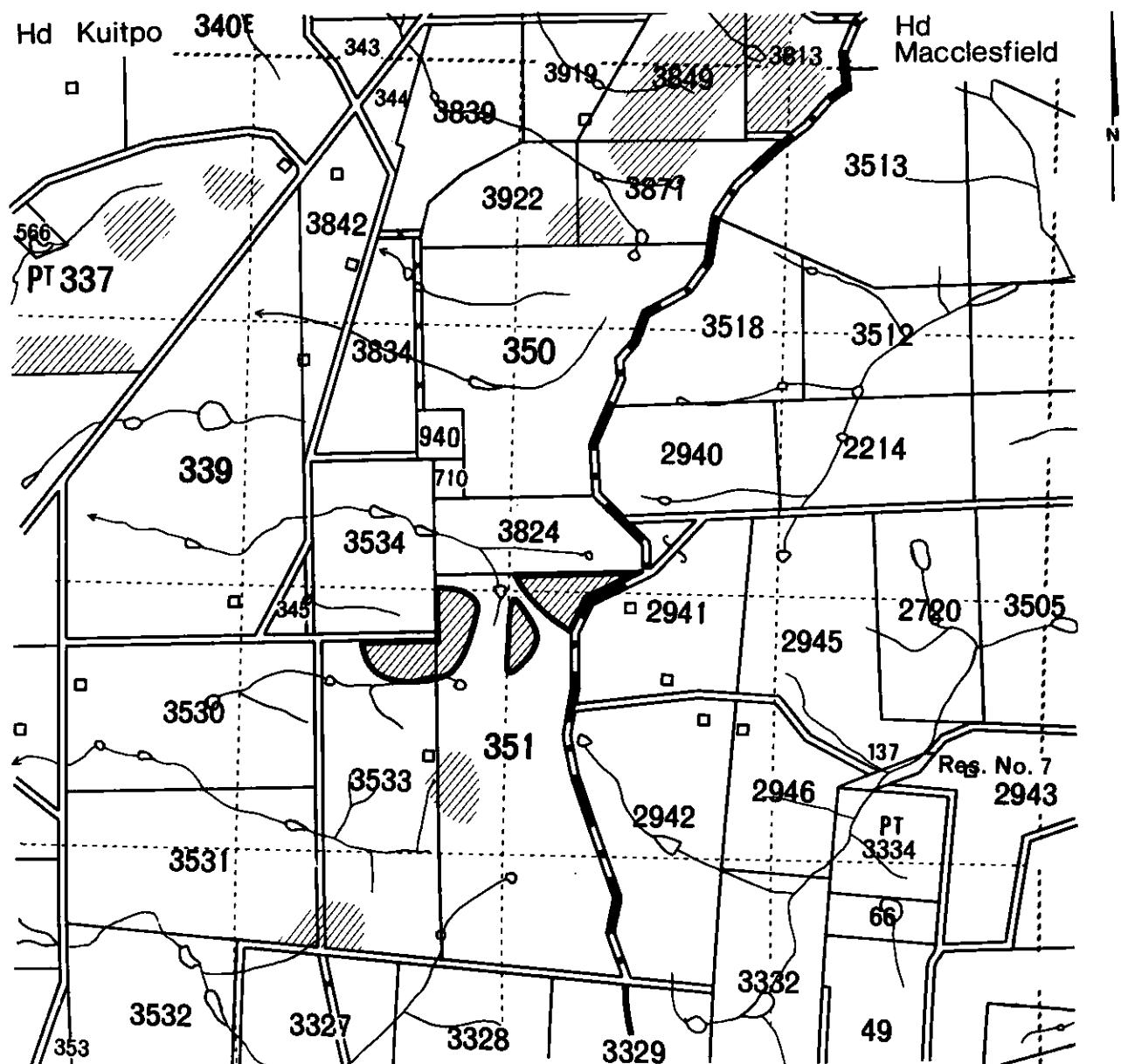
The plant community is similar to that at Site 22, although small trees of *Banksia marginata* and shrubs of *Xanthorrhoea semiplana* and *Pteridium esculentum* are common on sheltered slopes. *Eucalyptus cosmophylla* and *Casuarina muelleriana* are present on the most exposed sites where soils are almost skeletal.

Condition:

The presence of browsed plants in Section 3533 indicates grazing by stock. The understorey in Section 351 is sparse but grazing is not evident.

General:

Together with the scrub at Site 22, the vegetated slopes and ridges of this part of the Bull Creek Range form an aesthetic backdrop to the Meadows-Echunga road. Impressive specimens of *Eucalyptus obliqua* occur in sheltered gullies.



Reference
Echunga 1:50 000, 6627-I
980E-080N AMG
20 hectares approx

SCALE 1 : 25 000
0 1000 metres

Site 23

HD KUITPO

Pt Sections 351, 3533

SITE 23

PLANTSTrees > 8m

Eucalyptus fasciculosa
Eucalyptus obliqua

Small shrubs, herbs, grasses & climbers

Acianthus sp.
Acrotriche serrulata
Burchardia umbellata
Cassytha sp.
Drosera sp.
Eriochilus cucullatus
Gonocarpus sp.
Hibbertia exutioides
Hibbertia stricta
Tetratheca pilosa

2m < Trees/Shrubs < 8m

Acacia pycnantha
Banksia marginata
Casuarina muellerana
Eucalyptus cosmophylla
Exocarpus cupressiformis

Perennial grass-like plants0.25m < Shrubs < 2m

Acacia myrtifolia
Daviesia virgata
Epaearis impressa
Hakea carinata
Hakea rostrata
Isopogon ceratophyllum
Leptospermum myrsinoides
Platylobium obtusangulum
Pteridium esculentum
Pultenaea daphnoides
Pultenaea largiflorens var. *latifolia*
**Rubus fruticosus*
Xanthorrhoea semiplana

Dianella revoluta
Lepidosperma semiteres
Lomandra dura

FAUNABirds

Buff-tailed Thornbill
Blue Wren
Striated Pardalote
White-throated Tree-creeper
Kookaburra
Grey Currawong
Scarlet Robin
Magpie
Grey Shrike-thrush

Other fauna

Nephila sp.

Photographs

| | | |
|-------------|------|--|
| C/6627-1/BS | 2-6 | Reference board |
| | 2-7 | <i>Eucalyptus obliqua</i> woodland/open forest |
| | 2-8 | <i>Nephila</i> sp. |
| | 2-9 | <i>Eucalyptus cosmophylla</i> |
| | 2-10 | <i>Eucalyptus obliqua</i> |
| | 2-11 | <i>Eriochilus cucullatus</i> |



Site 23 : *Eucalyptus cosmophylla* tall shrubland

SITE 36

Date: 14.6.79

Environmental Association: 3.2.9

Physiography:

Natural vegetation covers ridges, slopes and gullies of part of the Bull Creek Range due west of Ashbourne. Elevation ranges from 330m to 420m above sea level.

Plant Communities:

1. *Eucalyptus obliqua* association is the dominant plant community at this site. It varies in structural formation from open forest on sheltered slopes to low woodland on the most exposed ridges. *E. fasciculosa* is an associated tree through most of this association. A mid-dense understorey contains a variety of shrubs (see transects (i) and (ii)).
2. *E. fasciculosa* woodland/low woodland occupies a small area on a north facing slope in Section 299 (see transect (iii)). A very sparse shrub understorey is dominated by young *E. spp.*, while the ground stratum consists predominately of *Hibbertia exutiacies*, and introduced grasses and herbs.

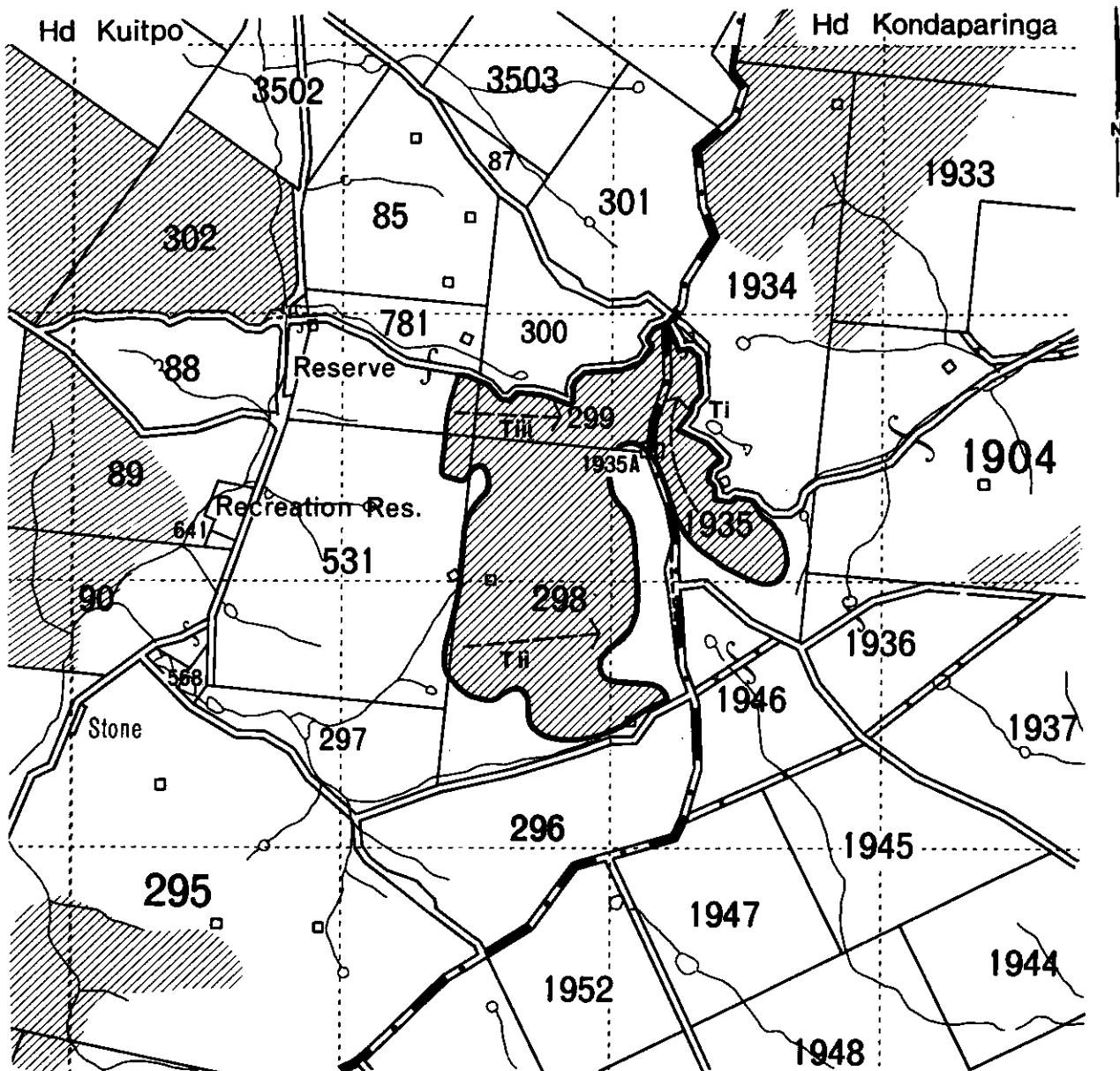
Condition:

A goat was observed in Section 1935, while scats indicate the presence of cattle in Sections 298 and 299. Coppice regrowth of *Eucalyptus obliqua* is apparent, particularly on the ridges, while many trees are dead or dying on a north-facing slope in the southern part of the scrub in Section 298.

A vehicular tracks bissects the scrub in Section 1935, while a small pine plantation occupies the northern corner of Section 1935. The understorey is unmodified throughout most of the scrub.

General:

This site represents one of several relatively large areas of natural vegetation which cover the Bull Creek Range south of Meadows. The stringybark formation is generally unmodified and contains a variety of sclerophyllous understorey shrubs. *Casuarina striata* which is a rare plant in South Australia (Specht *et al.*, 1974) occurs at this site.



Reference
Willunga 1:50 000, 6627-III
917E-932N AMG
100 hectares approx

SCALE 1 : 25 000
0 1000 metres

Site 36

HD KUITPO

Pt Sections 298, 299

HD KONDAPARINGA

Pt Section 1935

SITE 36 - Transect (i) - (Sampling points at 20m intervals) - Along east-facing slope in Section 1935

| Nos of Indiv. | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|---------------------|------------|--------------|------|---------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | |
| <i>Acacia pycnantha</i> | 1 | 1.5 | 5.0 | 1.3 | 7.5 | 0.5 | 0.05 | 3.8 5.6 |
| <i>Eucalyptus fasciculosa</i> | 4 | 2.3 | 20.0 | 5.0 | 46.0 | 2.8 | 0.20 | 15.4 23.2 |
| <i>E. obliqua</i> | 74 | 4.1 | 370.0 | 92.5 | 1517.0 | 93.6 | 1.0 | 76.9 263.0 |
| * <i>Pinus</i> sp. | 1 | 10.0 | | 5.0 | 50.0 | 3.1 | 0.05 | 3.8 8.2 |
| Totals | 80 | | 400 | | 1620.5 | | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | |
| <i>Acacia melanoxylon</i> | 4 | 0.63 | 66.1 | 5.0 | 41.6 | 4.6 | 0.05 | 2.6 12.2 |
| <i>A. pycnantha</i> | 12 | 0.83 | 198.3 | 15.0 | 164.6 | 18.0 | 0.25 | 13.2 46.2 |
| <i>A. retinodes</i> | P | - | - | - | - | - | - | - |
| <i>Banksia marginata</i> | 14 | 0.60 | 231.4 | 17.5 | 138.8 | 15.2 | 0.35 | 18.4 51.1 |
| <i>Casuarina striata</i> | P | - | - | - | - | - | - | - |
| <i>Eucalyptus fasciculosa</i> | 8 | 0.75 | 132.2 | 10.0 | 99.2 | 10.9 | 0.25 | 13.2 34.1 |
| <i>E. obliqua</i> | 34 | 0.80 | 562.0 | 42.5 | 449.6 | 49.3 | 0.70 | 36.8 128.6 |
| <i>Exocarpus cupressiformis</i> | P | - | - | - | - | - | - | - |
| <i>Leptospermum myrsinoides</i> | 1 | 0.10 | 16.5 | 1.3 | 1.7 | 0.2 | 0.05 | 2.6 4.1 |
| <i>Pultenaea daphnoides</i> | 7 | 0.15 | 115.7 | 8.8 | 17.4 | 1.9 | 0.25 | 13.2 23.9 |
| Totals | 80 | | 1322 | | 912.6 | | | |
| 0.25m < Shrubs < 2m | | | | | | | | |
| <i>Acacia melanoxylon</i> | 1 | 0.2 | 462.5 | 1.3 | 92.5 | 2.1 | 0.05 | 1.9 5.3 |
| <i>A. myrtifolia</i> | 2 | 0.06 | 925.0 | 2.5 | 55.5 | 1.3 | 0.10 | 3.8 7.6 |
| <i>A. pycnantha</i> | 4 | 0.08 | 1850.0 | 5.0 | 148.0 | 3.4 | 0.15 | 5.8 14.7 |
| <i>Astroloma conostephioides</i> | P | - | - | - | - | - | - | - |
| <i>Banksia marginata</i> | 2 | 0.10 | 925.0 | 2.5 | 92.5 | 2.1 | 0.05 | 1.9 6.5 |
| <i>Bursaria spinosa</i> | P | - | - | - | - | - | - | - |
| <i>Daviesia ulicifolia</i> | 1 | 0.2 | 462.5 | 1.3 | 92.5 | 2.1 | 0.05 | 1.9 5.3 |
| <i>D. virgata</i> | P | - | - | - | - | - | - | - |
| <i>Eucalyptus obliqua</i> | 2 | 0.04 | 925.0 | 2.5 | 37.0 | 0.9 | 0.10 | 3.8 7.2 |
| <i>Hakea carinata</i> | P | - | - | - | - | - | - | - |
| <i>H. rostrata</i> | P | - | - | - | - | - | - | - |
| <i>Hibbertia stricta</i> | 1 | 0.04 | 462.5 | 1.3 | 18.5 | 0.4 | 0.05 | 1.9 3.6 |
| <i>Isopogon ceratophyllus</i> | P | - | - | - | - | - | - | - |
| <i>Ixodia achillaeoides</i> | P | - | - | - | - | - | - | - |
| <i>Lepidosperma semiteres</i> | 9 | 0.12 | 4162.5 | 11.3 | 499.5 | 11.5 | 0.35 | 13.5 36.3 |
| <i>Leptospermum juniperinum</i> | P | - | - | - | - | - | - | - |
| <i>L. myrsinoides</i> | P | - | - | - | - | - | - | - |
| <i>Olearia ramulosa</i> | 3 | 0.14 | 1387.5 | 3.8 | 194.3 | 4.5 | 0.10 | 3.8 12.1 |
| <i>Platylobium obtusangulum</i> | 4 | 0.03 | 1850.0 | 5.0 | 55.5 | 1.3 | 0.15 | 5.8 12.1 |
| <i>Pteridium esculentum</i> | 25 | 0.11 | 11562.5 | 31.3 | 1271.9 | 29.2 | 0.70 | 26.9 87.4 |
| <i>Pultenaea daphnoides</i> | 24 | 0.07 | 11100.0 | 30.0 | 777.0 | 17.9 | 0.65 | 25.0 72.9 |
| <i>Xanthorrhoea semiplana</i> | 2 | 1.10 | 925.0 | 2.5 | 1017.5 | 23.4 | 0.10 | 3.8 29.7 |
| Totals | 80 | | 37000 | | 4352.2 | | | |

SITE 36 - Transect (i) - (Sampling points at 20m intervals) - Along east-facing slope in Section 1935

Small shrubs (< 0.25m), herbs, ferns, climbers, creepers

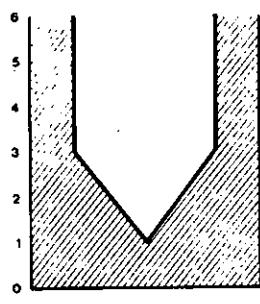
Acaena sp.
Acrotriche serrulata
Adiantum aethiopicum
Astroloma humifusum
Cassytha sp.
Cheilanthes tenuifolia
Craspedia uniflora
Drosera spp.
GERANIACEAE (sp. unknown)
Gonocarpus sp.
Goodenia primulacea

Hibbertia exutiacioides
Kennedia prostrata
Marinathus bignoniacus
Pimela sp.
Pterostylis sp.
Scaevola albida
Tetratheca pilosa

Perennial, grass-like plants

Dianella revoluta
Lepidosperma laterale
Lomandra dura
Juncus pallidus
Juncus sp.

Density measurement



45.8% at point 7, T (i)

SITE 36 - Transect (ii) - (Sampling points at 20m intervals) - Along ridge in Section 298

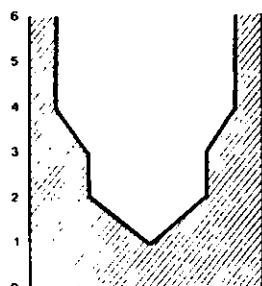
| | Nos of Indiv. | Ave Dom Value | Den/ Ha | Rel Dom | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|---|---------------------|---------------------|--------------|------------|---------------|------------|-------|--------------|---------------|
| Trees/Shrubs > 2m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 1 | 0.5 | 11.2 | 1.4 | 5.6 | 0.3 | 0.06 | 4.1 | 5.8 |
| <i>Eucalyptus cosmophylla</i> | 1 | 1.5 | 11.2 | 1.4 | 16.8 | 0.8 | 0.06 | 4.1 | 6.3 |
| <i>E. fasciculosa</i> | 8 | 0.9 | 88.8 | 11.1 | 79.9 | 3.7 | 0.33 | 22.8 | 37.6 |
| <i>E. obliqua</i> | 62 | 3.0 | 688.8 | 86.1 | 2066.4 | 95.3 | 1.0 | 69.0 | 250.4 |
| Totals | 72 | | 800 | | 2168 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Banksea marginata</i> | 1 | 0.05 | 253.4 | 1.4 | 12.7 | 0.3 | 0.06 | 2.1 | 3.8 |
| <i>Daviesia ulicifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus cosmophylla</i> | 1 | 0.25 | 253.4 | 1.4 | 63.4 | 1.3 | 0.06 | 2.1 | 4.8 |
| <i>E. fasciculosa</i> | 3 | 0.10 | 760.2 | 4.2 | 76.0 | 1.5 | 0.06 | 2.1 | 7.8 |
| <i>E. obliqua</i> | 3 | 0.05 | 760.2 | 4.2 | 38.0 | 0.8 | 0.17 | 5.9 | 10.9 |
| <i>Hakea rostrata</i> | 1 | 0.25 | 253.4 | 1.4 | 63.4 | 1.3 | 0.06 | 2.1 | 4.8 |
| <i>Isopogon ceratophyllus</i> | 1 | 0.10 | 253.4 | 1.4 | 25.3 | 0.5 | 0.06 | 2.1 | 4.0 |
| <i>Ixodia achillaeoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Lepidosperma semiteres</i> | 7 | 0.08 | 1755.7 | 9.7 | 140.5 | 2.8 | 0.33 | 11.4 | 23.9 |
| <i>Leptospermum myrsinoides</i> | 11 | 0.09 | 2769.3 | 15.3 | 249.2 | 5.0 | 0.44 | 15.2 | 35.5 |
| <i>Olearia ramulosa</i> | 12 | 0.04 | 3022.7 | 16.6 | 120.9 | 2.4 | 0.33 | 11.4 | 30.5 |
| <i>Platylobium obtusangulum</i> | 4 | 0.05 | 1013.6 | 5.6 | 50.7 | 1.0 | 0.17 | 5.9 | 12.5 |
| <i>Pteridium esculentum</i> | P | - | - | - | - | - | - | - | - |
| <i>Pultenaea daphnoides</i> | 20 | 0.06 | 5031.8 | 27.8 | 301.9 | 6.1 | 0.72 | 24.8 | 58.7 |
| <i>P. largiflorens</i> var <i>latifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | 8 | 1.9 | 2009.1 | 11.1 | 3817.3 | 77.0 | 0.44 | 15.2 | 103.3 |
| Totals | 72 | | 18100 | | 4959.2 | | | | |

Small shrubs (< 0.25m), herbs, climbers, creepers

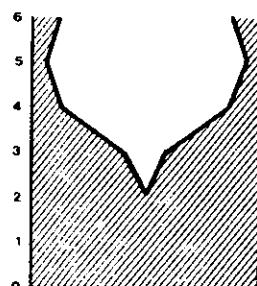
Acaena sp.
Acrotriche serrulata
Astroloma humifusum
Burchardia umbellata
Cassytha sp.
Drosera spp.
Gonocarpus sp.
Hibbertia exutiacies
H. sericea
H. stricta
Kennedia prostrata
Leucopogon virgatus
ORCHIDACEAE (spp. unknown)

Perennial, grass-like plants

Dianella revoluta
Lepidosperma carphoides
Lomandra dura

Density measurements

54.2% at point 7, T (ii)



41.7% at point 15, T (ii)

SITE 36 - Transect (iii) - (Sampling points at 20m intervals) - Along north-facing slope in Section 297

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Dom | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|--------------------------------------|--------------------|---------------------|------------|------------|--------|------------|-------|--------------|---------------|
| Trees/Shrubs > 2m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 1 | 3.0 | 32.0 | 2.1 | 96.0 | 4.6 | 0.08 | 6.0 | 12.7 |
| <i>Eucalyptus fasciculosa</i> | 38 | 1.3 | 1205.4 | 79.2 | 1567.0 | 74.9 | 0.92 | 69.2 | 223.3 |
| <i>E. huberana</i> | P | - | - | - | - | - | - | - | - |
| <i>E. obliqua</i> | 9 | 1.5 | 286.1 | 18.8 | 429.2 | 20.5 | 0.33 | 24.8 | 64.1 |
| Totals | | | 1522 | | 2092.2 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 1 | 0.10 | 13.7 | 2.1 | 1.4 | 1.1 | 0.08 | 3.3 | 6.5 |
| <i>A. verticillata</i> | P | - | - | - | - | - | - | - | - |
| <i>Bursaria spinosa</i> | 1 | 0.04 | 13.7 | 2.1 | 0.5 | 0.4 | 0.08 | 3.3 | 5.8 |
| <i>Daviesia ulicifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus fasciculosa</i> | 21 | 0.11 | 284.7 | 43.8 | 31.3 | 25.1 | 0.75 | 31.3 | 100.2 |
| <i>E. obliqua</i> | 2 | 0.08 | 27.3 | 4.2 | 2.1 | 1.7 | 0.17 | 7.1 | 13.0 |
| <i>Hibbertia exutiacies</i> | 1 | 0.05 | 13.7 | 2.1 | 0.7 | 0.6 | 0.08 | 3.3 | 6.0 |
| <i>Lepidosperma laterale</i> | 5 | 0.40 | 67.6 | 10.4 | 27.0 | 21.8 | 0.33 | 13.8 | 46.0 |
| <i>Leptopernum juniperinum</i> | P | - | - | - | - | - | - | - | - |
| <i>L. myreinoides</i> | 2 | 0.05 | 27.3 | 4.2 | 1.4 | 1.1 | 0.08 | 3.3 | 8.6 |
| <i>Olearia ramulosa</i> | 9 | 0.10 | 122.2 | 18.8 | 12.2 | 9.8 | 0.50 | 20.8 | 49.4 |
| <i>Pultenaea daphnoides</i> | 2 | 0.08 | 27.3 | 4.2 | 2.2 | 1.8 | 0.17 | 7.1 | 13.1 |
| <i>P. largiflorens var latifolia</i> | 3 | 0.10 | 41.0 | 6.3 | 4.1 | 3.3 | 0.08 | 3.3 | 12.9 |
| * <i>Rosa</i> sp. | P | - | - | - | - | - | - | - | - |
| * <i>Rubus fruticosus</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | 1 | 3.0 | 13.7 | 2.1 | 41.1 | 33.1 | 0.08 | 3.3 | 38.5 |
| Totals | | 48 | 650 | | 124.0 | | | | |

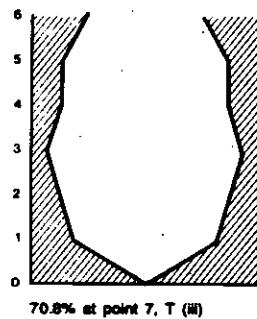
Small shrubs, (< 0.25m), herbs, grasses, creepers

Acrotriche serrulata
Drosera spp.
GERANIACEAE (sp. unknown)
Hibbertia exutiacies
Kennedia prostrata
Marianthus bignoniaceus
Pimelea sp.
POACEAE (spp. unknown)
Viola sp.
 (many introduced herbs)

Perennial, grass-like plants

Dianella revoluta
Lepidosperma semiteres
Themeda australis

Density measurement



SITE 36 - Transect (iii) - (Sampling points at 20m intervals) - Along north-facing slope in Section 297

FAUNA

Birds

| | |
|-----------------------------|-------------------------|
| Grey Fantail | Magpie |
| Thornbill | Little Raven |
| Golden Whistler | Galah |
| Yellow-faced Honeyeater | Grey Shrike-thrush |
| White-throated Tree-creeper | Red-browned Finch |
| Superb Blue Wren | Brown-headed Honeyeater |
| Crescent Honeyeater | |
| Adelaide Rosella | |
| Eastern Spinebill | |
| Scarlet Robin | |
| Elegant Parrot (overhead) | |

Mammals

Western Grey Kangaroo, Feral Goat.

Photographs

| | | |
|---------------|------|---|
| C/6627-III/BS | 2-6 | Reference board |
| | 2-7 | <i>E. obliqua</i> woodland in Section 1935 |
| | 2-8 | Woodland in Section 1935 |
| | 2-9 | Woodland in Section 1935 |
| | 2-10 | <i>Eucalyptus obliqua</i> woodland in Section 298 |
| | 2-11 | <i>Eucalyptus obliqua</i> woodland in Section 298 |
| | 2-12 | Damp gully in Section 298 |
| | 2-13 | <i>Eucalyptus fasciculosa</i> low woodland, Section 299 |

SITE 37

Date: 14.7.79

Environmental Association: 3.2.10

Physiography:

Natural vegetation covers a system of ridges, slopes and gullies south of Kyeema Conservation Park and bordering on Blackfellow Creek. Elevation ranges from 270m to 350m above sea level.

Plant Communities:

The dominant plant community at this site is *Eucalyptus obliqua* woodland which has associated trees of *E. baxteri* on a spur in the north-western corner of Section 89 and *E. rubida* along Blackfellow Creek and extending a short distance along the principal gully in Section 90. The understorey, which has a great variety of sclerophyllous shrubs, varies from sparse on east-facing slopes above Blackfellow Creek, to mid-dense over the rest of the site. A dense infestation of *Rubus fruticosus* occurs along Blackfellow Creek.

Eucalyptus cosmophylla - *Hakea rostrata* - *Leptospermum juniperinum* open scrub occupies poorly drained locations on some slopes.

Of special interest is the presence of a damp gully running from north to south through the scrub, and which has a relatively unmodified wetland vegetation complex. **Rubus fruticosus* and **Senecio pterophorus* are both present, but native plant species, particularly *Gahnia clarkei*, *Leptospermum juniperinum*, *L. pubescens* and *Acacia retinodes*, dominate the community (See Swamp Vegetation Plant List).

Condition:

Scats in both sections indicate the presence of cattle, but grazing has had no noticeable impact on the understorey vegetation.

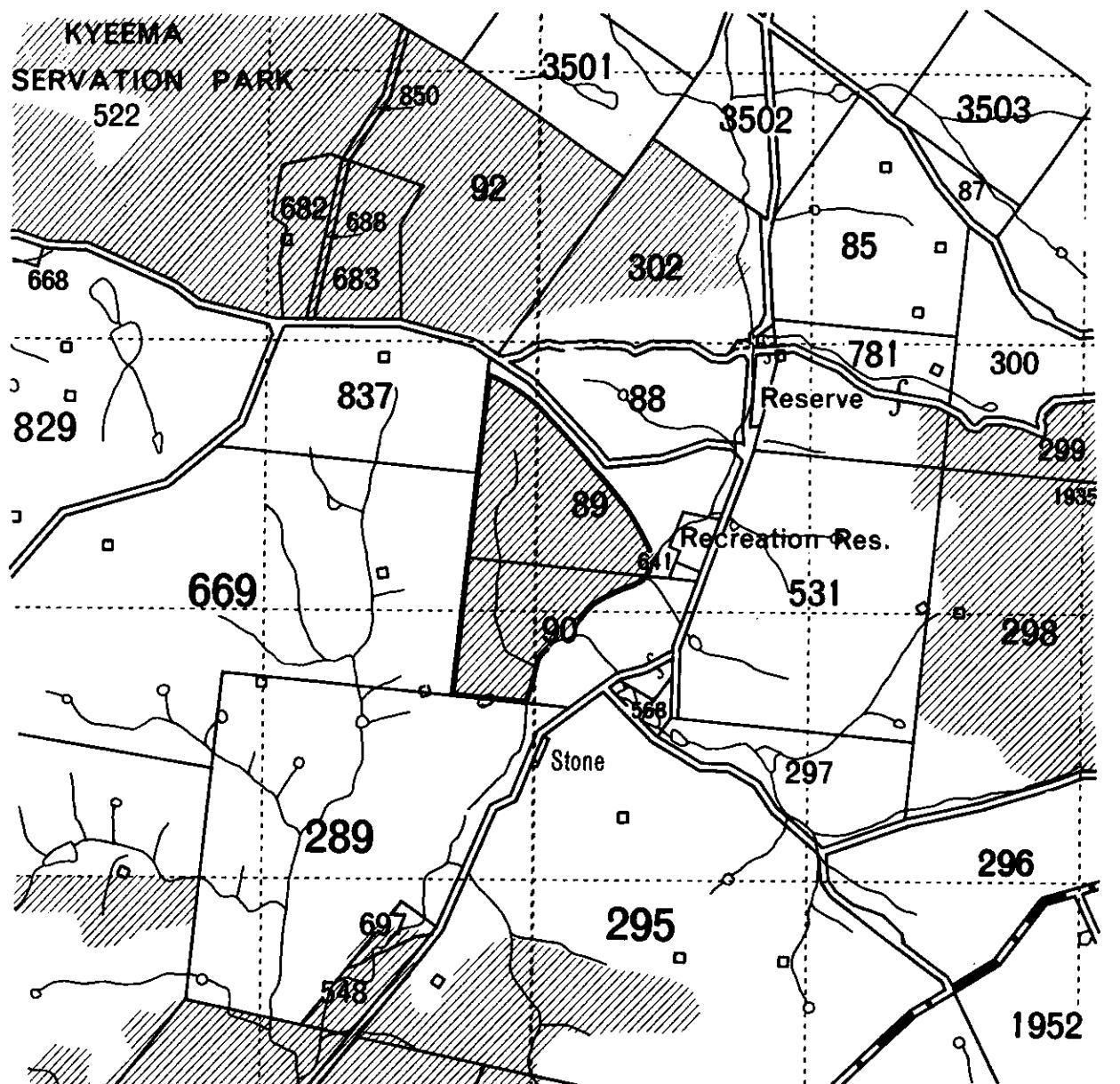
**Rubus fruticosus* heavily infests Blackfellow Creek, and are scattered along the principal gully in the scrub, but remaining areas are generally free of pest plants.

Coppice regrowth of *Eucalyptus obliqua* is apparent over much of the site, and the stumps of dead *E. spp.* occupy swampy areas.

Several old vehicular tracks traverse the site.

General:

E. rubida and *Blechnum sp.* which are rare plants in South Australia (Specht et al , 1974) occur at this site. The *E. obliqua* woodland has an understorey containing a great variety of sclerophyllous shrubs, while the principal gully contains a relatively unmodified wetland vegetation complex.



Reference
Willunga 1:50 000, 6627-III
900E-934N AMG
50 hectares approx

SCALE 1 : 25000
0 1000 metres

Site 37

HD KUITPO

Pt Sections 89, 90

SITE 37

PLANT LIST

Eucalyptus baxteri
E. fasciculosa
E. obliqua
E. rubida
**Pinus sp.*

2m < Trees/Shrubs < 8m

Acacia melanoxylon
A. pycnantha
Banksia marginata
Eucalyptus cosmophylla
Exocarpus cupressiformis
Hakea rostrata
Leptospermum juniperinum
L. pubescens

Perennial grass-like plants

Gahnia clarkei
Lepidosperma carphoides
L. semiteres
Lomandra dura
L. micrantha
Phragmites australis
Scirpus sp.

0.25m < Shrubs < 2m

Acacia myrtifolia
A. verticillata
Bursaria spinosa
Casuarina muelleriana
Daviesia brevifolia
D. virgata
Epacris impressa
Goodenia ovata
Grevillea lavandulaceae
Rankea carinata
Isopogon ceratophyllum
Leptospermum myrsinoides
Melaleuca decussata
Olearia ramosa
Pimelea linifolia
Platylobium obtusangulum
Pteridium esculentum
Pultenaea daphnoides
P. involucrata
P. largiflorens var latifolia
**Rosa sp.*
**Rubus fruticosus*
**Senecio pterophorus*
Senecio sp.
Spyridium parvifolium
S. thymifolium
Xanthorrhoea semiplana

Small shrubs (< 0.25m), herbs, climbers, creepers, grasses

Acaena sp.
Acrotriche serrulata
Astroloma humifusum
Cassytha sp.
Drosera spp.
GERANIACEAE (sp. unknown)
Gonocarpus sp.
Goodenia primulacea
Hibbertia exutioides
H. sericea
H. stricta
Kennedia prostrata
Leucopogon concurvus
L. virgatus
ORCHIDACEAE (app. unknown)
Scaevola albida
Tetratheca pilosa
(Many introduced herbs, particularly
along Blackfellow Creek)

Ferns

Adiantum aethiopicum
Blechnum sp.
Cheilanthes tenuifolia

MOSSESSWAMP VEGETATION (life-forms listed above)

Acacia melanoxylon
A. retinodes
A. verticillata
Acaena sp.
Adiantum aethiopicum
Blechnum sp.
Eucalyptus cosmophylla
E. rubida
Gahnia clarkei
Goodenia ovata

Leptospermum juniperinum
L. pubescens
Melaleuca decussata
**Rubus fruticosus*
**Senecio pterophorus*

Other life forms*Fungi*FAUNABirds

Golden Whistler
Grey Fantail
Blackbird
Striated Thornbill
Superb Blue Wren
New-Holland Honeyeater
Brown Thornbill
Crescent Honeyeater
White-throated Tree-creepers
Red-brown Finch
Brown Goshawk
Grey Shrike-thrush

Other fauna

Western Grey Kangaroo

Photographs

| | | |
|---------------|------|--|
| C/6627-III/BS | 2-14 | Reference Board |
| | 2-15 | <i>E. rubida</i> along gully in Section 90 |
| | 2-16 | Swamp vegetation in Section 90 |
| | 2-17 | Swamp vegetation in Section 89 |
| | 2-18 | Swamp vegetation in Section 89 |
| | 2-19 | Scrub in section 89 |

SITE 39

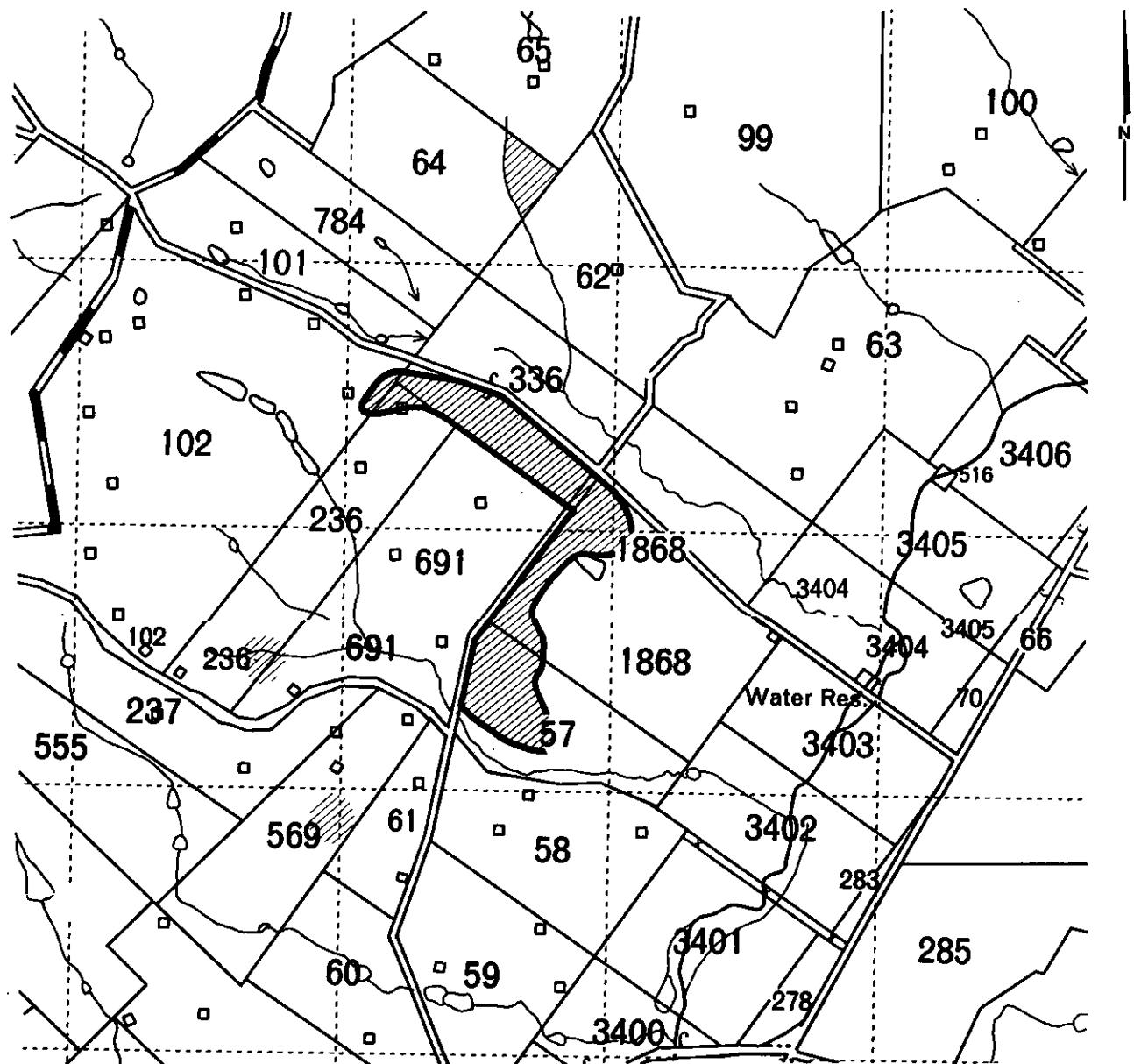
Date: 22.6.79

Environmental Association: 3.2.10

General Description

At an average elevation of 310m above sea level, a *Eucalyptus obliqua* - *E. fasiculosa* woodland covers gentle to medium slopes south-west of Kuitpo. *E. humberana*, *E. leucoxylon* and *E. camaldulensis* occur at low elevations in section 336. A sclerophyllous understorey is relatively unmodified in section 57, but sections 336 and 1868 are heavily grazed and the understorey is sparse.

Quantitative analysis was not undertaken in this site and therefore it has not received any further evaluation in this report.



Reference
Willunga 1:50 000 6627-111
855E-970 AMG
20 hectares

SCALE 1 : 25000
0 1000 metres

Site 39

HD KUITPO

Pt Sections 57, 336, 1868

SITE 40

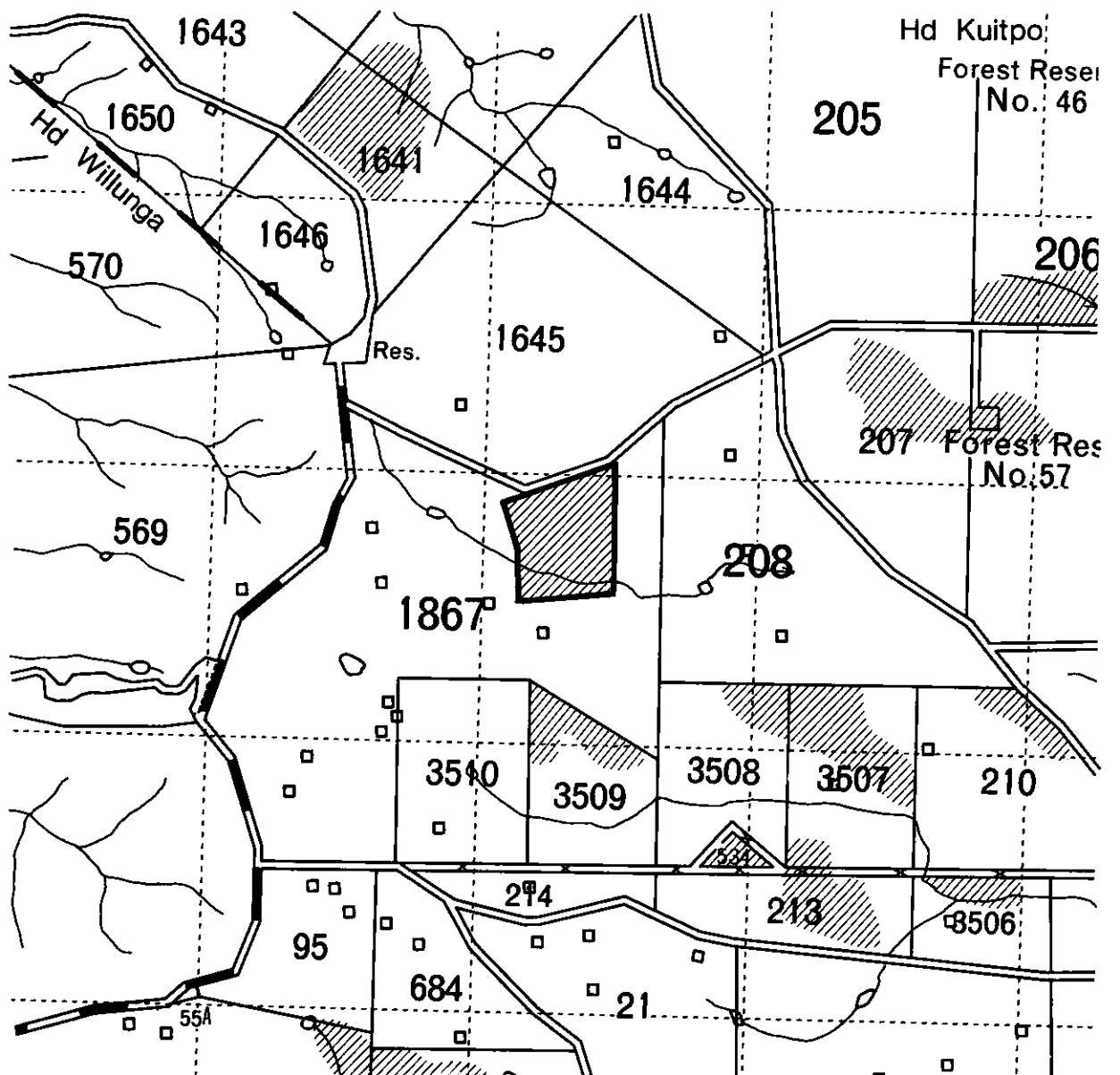
Date: 22.6.79

Environmental Association: 3.2.10

General Description

At an average elevation of 370m above sea level, a *Eucalyptus* *faciculosa* - *E. huberana* - *E. leucoxylon* woodland covers gentle to medium slopes south-east of Wickham Hill. *Acacia pycnantha* dominates a smaller tree layer, while the shrubs layer is sparse and the ground cover grassy. Light grazing is apparent but the understorey appears unmodified.

Quantitative analysis was not undertaken in this site and therefore it has not received any further evaluation in this report.



Reference
Noarlunga 1:50 000 6627-IV and Pt. 6527-1
873E-302N AMG

20 hectares

SCALE 1 : 25 000

0 1000 metres

Site 40

HD KUITPO

Pt Section 1867

SITE 41

Date: 26/6/79

Environmental Association: 3.2.9 and 3.2.10

Physiography:

Natural vegetation surrounds the lower reaches of Blackfellow Creek and lies adjacent to the northern and western boundaries of Mount Magnificent Conservation Park. Topography and soils vary from the relatively flat sandy terrain adjacent to the creek in Section 292 (elevation 230m above sea level) to the medium to steep slopes and ridges on the eastern and western boundaries of the site (elevation 350m above sea level).

Plant Communities:

1. *Eucalyptus obliqua* - *E. fasciculosa* woodland covers the lower slopes west of the creek in Sections 291 and 292. The understorey is sparse on the most sheltered locations (see transect (iii)) but becomes mid-dense on more exposed sites.
2. *E. ovata* - *E. obliqua* woodland flanks Blackfellow Creek. Smaller eucalypts together with *Leptospermum juniperinum* dominate a sparse small tree/tall shrub layer, while a mid-dense shrub layer is dominated by *Pteridium esculentum* and contains several species of sedges. Introduced grasses and herbs are prominent ground cover plants (see transect (iv)).
3. *Eucalyptus fasciculosa* woodland/low woodland covers west facing slopes in Sections 846 and 295. A very sparse shrub layer is dominated by young *E. spp.*, *Olearia ramulosa* and *Xanthorrhoea semiplana*, while *Hibbertia exutioides*, grasses and herbs constitute the ground stratum (see transect (i)).
4. *Eucalyptus baxteri* - *E. obliqua* tall shrubland/low woodland covers the ridges and upper north-facing slopes in Sections 291 and 292. A dense sclerophyllous understorey is dominated by *Pultenea involucrata*, *Xanthorrhoea semiplana* and *Leptospermum myrsinoides* (see transect (ii)). On sandy soils east of Blackfellow Creek this association contains a greater diversity of understorey species and includes large shrubs (to 3m high) of *Banksia ornata* (see transect (v)).

Condition:

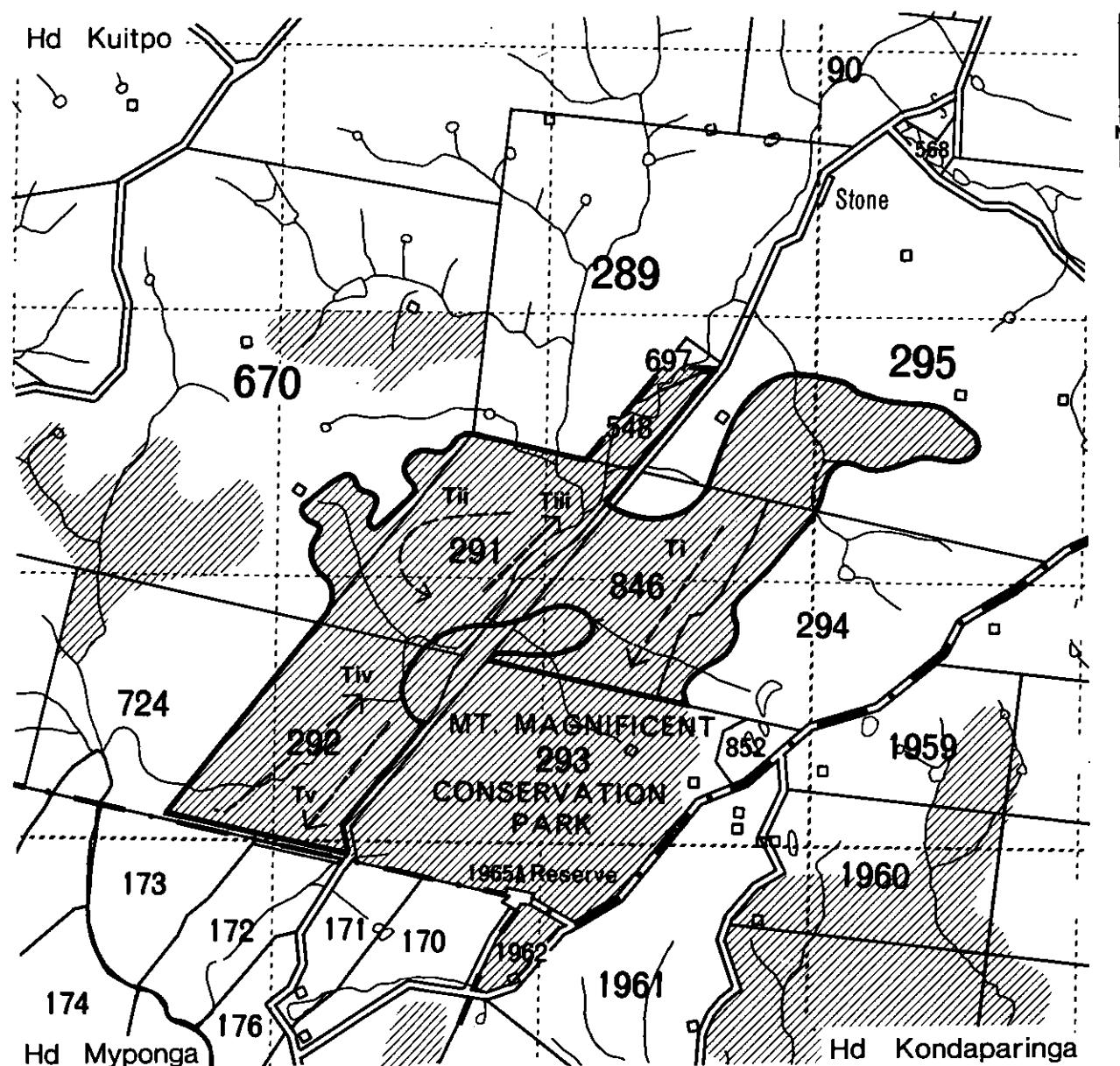
Scats and browsed plants indicate the presence of cattle in Sections 295 and 846, while several sheep were observed in Section 291. Cleared, fenced areas lie adjacent to Mount Magnificent Conservation Park in Section 846, and in the north-eastern corner of Section 292. A number of tracks traverse the site, one giving access to camp sites along Blackfellow Creek, and another leading to a disused mine shaft in Section 291 where introduced plants are common. A public road bissects the site. Many specimens of *Eucalyptus obliqua* and *E. ovata* along Blackfellow Creek exhibit coppice regrowth. Infestations of **Rubus fruticosus* occur in some gullies and in isolated patches along Blackfellow Creek.

General:

Asplenium flabellifolium which is endangered, and *Casuarina striata*, *Eucalyptus rubida* and *Blechnum* sp., which are rare plants in South Australia (Specht et al , 1974), occur at this site. *Eucalyptus ovata* - *E. obliqua* woodland is a rare and endangered plant association in South Australia (Margules, 1978).

The scrub in Sections 295 and 846 has been affected by clearing and grazing, but west of the public road the natural vegetation is relatively unmodified. As indicated above this site contains a variety of plant associations and the *E. obliqua* formations, in particular, have a diverse shrub layer. Over thirty species of birds were observed during a day's examination of the vegetation.

An attractive woodland formation flanks Blackfellow Creek and provides ideal camping and picnicking sites. As it lies adjacent to Mount Magnificent Conservation Park, the scrub adds ecological diversity to the park.



Reference
Willunga 1:50 000, 6627-III
890E-910N AMG
130 hectares approx

SCALE 1 : 25 000
0 1000 metres

Site 41

Pt Sections 295, 846, 670
378, 398, 3936

SITE 41 - Transect (i) - Sampling points at 20m intervals - Along upper west and north facing slopes in Section 846

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Dom | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|--------------------------------------|--------------------|---------------------|------------|------------|--------|------------|-------|--------------|---------------|
| Trees/Shrubs > 2m | | | | | | | | | |
| <i>Acacia pycnantha</i> | P | - | - | - | - | - | - | - | - |
| <i>A. retinodes</i> | P | - | - | - | - | - | - | - | - |
| <i>Casuarina striata</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus cosmophylla</i> | P | - | - | - | - | - | - | - | - |
| <i>E. fasciculosa</i> | 66 | 3.1 | 460.9 | 82.5 | 1428.8 | 84.9 | 0.95 | 67.9 | 235.3 |
| <i>E. huberana</i> | 4 | 3.6 | 27.9 | 5.0 | 100.4 | 6.0 | 0.15 | 10.7 | 21.7 |
| <i>E. leucoxylon</i> | 7 | 2.0 | 48.9 | 8.8 | 97.8 | 5.8 | 0.20 | 14.3 | 28.9 |
| <i>E. obliqua</i> | 2 | 2.5 | 14.0 | 2.5 | 35.0 | 2.1 | 0.05 | 3.6 | 8.2 |
| <i>Exocarpus cupressiformis</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | 1 | 3.0 | 7.0 | 1.3 | 21.0 | 1.2 | 0.05 | 3.6 | 6.1 |
| Totals | | 80 | 558.7 | | 1683.0 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia verniciflua</i> | 1 | 0.05 | 4.9 | 1.3 | 0.2 | 0.3 | 0.05 | 2.1 | 3.7 |
| <i>Acacia verticillata</i> | 1 | 0.04 | 4.9 | 1.3 | 0.2 | 0.3 | 0.05 | 2.1 | 3.7 |
| <i>Asclepias rotundifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Bursaria spinosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus fasciculosa</i> | 33 | 0.14 | 162.4 | 41.3 | 22.7 | 30.2 | 0.8 | 34.0 | 105.5 |
| <i>E. leucoxylon</i> | 5 | 0.17 | 24.6 | 6.3 | 4.2 | 5.6 | 0.1 | 4.3 | 16.2 |
| <i>Goodia lotifolia</i> | 1 | 0.13 | 4.9 | 1.3 | 0.6 | 0.8 | 0.05 | 2.1 | 4.2 |
| <i>Hakea carinata</i> | P | - | - | - | - | - | - | - | - |
| <i>Hibbertia exuttiacies</i> | 4 | 0.15 | 19.7 | 5.0 | 3.0 | 4.0 | 0.1 | 4.3 | 13.3 |
| <i>Lepidosperma laterale</i> | 3 | 0.11 | 14.8 | 3.8 | 1.6 | 2.1 | 0.1 | 4.3 | 10.2 |
| <i>Olearia ramulosa</i> | 21 | 0.1 | 103.3 | 26.3 | 10.3 | 13.7 | 0.65 | 27.7 | 67.7 |
| <i>Pteridium exculentum</i> | 1 | 0.05 | 4.9 | 1.3 | 0.2 | 0.3 | 0.05 | 2.1 | 3.7 |
| <i>Pultenaea daphnoides</i> | 2 | 0.06 | 9.8 | 2.5 | 0.6 | 0.8 | 0.05 | 2.1 | 5.4 |
| <i>P. largiflorens var latifolia</i> | 4 | 0.05 | 19.7 | 5.0 | 1.0 | 1.3 | 0.15 | 6.4 | 12.7 |
| * <i>Rosa</i> sp. | P | - | - | - | - | - | - | - | - |
| * <i>Senecio pterophorus</i> | 1 | 0.2 | 4.9 | 1.3 | 1.0 | 1.3 | 0.05 | 2.1 | 4.7 |
| <i>Xanthorrhoea semiplana</i> | 3 | 2.0 | 14.8 | 3.8 | 29.6 | 39.4 | 0.15 | 6.4 | 49.6 |
| Totals | | 80 | 393.7 | | 75.2 | | | | |

Small shrubs (0.25m) herbs, climbers and grasses

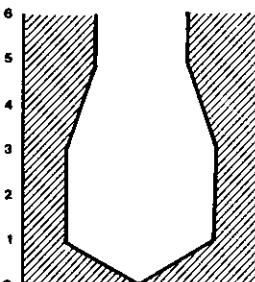
Acaena sp.
Adiantum aethiopicum
Astroloma humifusum
Cheilanthes tenuifolia
Drosera spp.
GERANIACEAE (sp unknown)
Gonocarpus sp.

Hibbertia sericea
Kennedia prostrata
Pimelea sp.
POACEAE (app. unknown)
 MOSSES

Perennial, grass-like plants

Dianella revoluta
Lepidosperma semiteres
Themeda australis

Density measurements



52.1% at point 11 , T (i)

SITE 41 - Transect (ii) - Sampling points at 20m intervals - Along ridges in Section 291

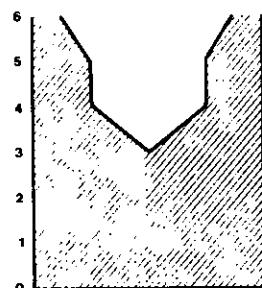
| | Nos in Indiv | Ave Dom Value | Den/ Ha | Rel Dom | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|----------------------------------|--------------------|---------------------|---------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 2m | | | | | | | | | |
| <i>Banksia marginata</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus baxteri</i> | 64 | 1.93 | 637.7 | 72.7 | 1230.8 | 65.2 | 0.91 | 53.8 | 191.7 |
| <i>E. cosmophylla</i> | 4 | 0.75 | 40.4 | 4.6 | 30.3 | 1.6 | 0.18 | 10.7 | 16.9 |
| <i>E. fasciculosa</i> | 4 | 0.68 | 40.4 | 4.6 | 27.5 | 1.5 | 0.14 | 8.3 | 14.4 |
| <i>E. obliqua</i> | 15 | 3.83 | 49.1 | 17.0 | 571.0 | 30.2 | 0.41 | 24.3 | 71.5 |
| <i>Exocarpus cupressiformis</i> | P | - | - | - | - | - | - | - | - |
| <i>Hakea rostrata</i> | 1 | 3.0 | 9.6 | 1.1 | 28.8 | 1.5 | 0.05 | 3.0 | 5.6 |
| Totals | | 88 | 877.2 | | 1888.4 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Astroloma conostephioides</i> | P | - | - | - | - | - | - | - | - |
| <i>Banksia marginata</i> | 2 | 0.12 | 3594 | 2.3 | 431.2 | 2.2 | 0.09 | 3.2 | 7.7 |
| <i>Epacris impressa</i> | 3 | 0.06 | 5313 | 3.4 | 318.8 | 1.6 | 0.14 | 4.9 | 9.9 |
| <i>Eucalyptus cosmophylla</i> | 1 | 0.25 | 1719 | 1.1 | 429.8 | 2.2 | 0.05 | 1.8 | 5.1 |
| <i>Hakea carinata</i> | P | - | - | - | - | - | - | - | - |
| <i>H. rostrata</i> | 4 | 0.22 | 7188 | 4.6 | 1581.4 | 8.0 | 0.18 | 6.4 | 19.0 |
| <i>Isopogon ceratophyllum</i> | 1 | 0.05 | 1719 | 1.1 | 86.0 | 0.4 | 0.5 | 17.7 | 19.2 |
| <i>Ixodia achillaeoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Leptospermum myrsinoides</i> | 9 | 0.05 | 1593.8 | 10.2 | 796.9 | 4.0 | 0.32 | 11.3 | 25.5 |
| <i>Platylobium obtusangulum</i> | P | - | - | - | - | - | - | - | - |
| <i>Pultenaea daphnoides</i> | 2 | 0.08 | 3594 | 2.3 | 287.5 | 1.4 | 0.09 | 3.2 | 6.9 |
| <i>P. involucrata</i> | 53 | 0.09 | 94063 | 60.2 | 8465.7 | 42.5 | 1.0 | 35.3 | 138.0 |
| <i>Spyridium parvifolium</i> | P | - | - | - | - | - | - | - | - |
| <i>S. thymifolium</i> | 1 | 0.04 | 1719 | 1.1 | 68.8 | 0.3 | 0.05 | 1.8 | 3.1 |
| <i>Xanthorrhoea semiplana</i> | 12 | 0.35 | 21250 | 13.6 | 7437.5 | 37.4 | 0.41 | 14.5 | 65.5 |
| Totals | | 88 | 156250 | | 19904 | | | | |

Small shrubs (< 0.25m) herbs, grasses, climbers and ferns

Acaena sp.
Acrotriche serrulata
Adiantum aethiopicum
Astroloma humifusum
Blechnum sp.
Cheilanthes tenuifolia
**Dolichos lignosus*
Gonocarpus sp.
Hibbertia erutioides
Ranunculus sp.
Tetratheca pilosa
Viola sp.

Perennial, grass-like plants

Dianella revoluta
Gahnia darkei
Lepidozperma laterale
L. semiteres
Lomandra dura

Density measurement

29.2% at point 2, T (0)

SITE 41 - Transect (iii)

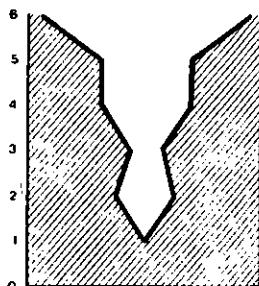
| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|--------------------------------------|--------------------|---------------------|----------------|------------|----------------|------------|-------|--------------|---------------|
| 2m < Trees/Schrubs < 8m | | | | | | | | | |
| <i>Acacia melanoxylon</i> | P | - | - | - | - | - | - | - | - |
| <i>A. myrtifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>A. retinodes</i> | 10 | 0.32 | 302.5 | 16.7 | 96.8 | 12.1 | 0.33 | 16.0 | 44.8 |
| <i>Eucalyptus fasciculosa</i> | 11 | 1.14 | 331.5 | 18.3 | 377.9 | 47.4 | 0.47 | 22.8 | 88.5 |
| <i>E. obliqua</i> | 9 | 0.58 | 271.7 | 15.0 | 157.6 | 19.8 | 0.33 | 16.0 | 50.8 |
| <i>Exocarpus cupressiformis</i> | P | - | - | - | - | - | - | - | - |
| <i>Leptospermum juniperinum</i> | 2 | 0.35 | 59.8 | 3.3 | 20.9 | 2.6 | 0.13 | 6.3 | 12.2 |
| <i>L. pubescens</i> | P | - | - | - | - | - | - | - | - |
| * <i>Pinus</i> sp. | P | - | - | - | - | - | - | - | - |
| <i>Pultenaea daphnoides</i> | 28 | 0.17 | 846.0 | 46.7 | 143.8 | 18.0 | 0.80 | 38.8 | 103.5 |
| Totals | 60 | | 1 811.6 | | 797 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia verticillata</i> | 1 | 0.05 | 197.7 | 1.7 | 9.9 | 0.7 | 0.07 | 3.9 | 6.1 |
| <i>Asclepias rotundifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Epacris impressa</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus obliqua</i> | 1 | 0.05 | 197.7 | 1.7 | 9.9 | 0.7 | 0.07 | 3.9 | 6.3 |
| <i>Goodenia ovata</i> | P | - | - | - | - | - | - | - | - |
| <i>Leptospermum juniperinum</i> | 4 | 0.14 | 779.1 | 6.7 | 109.1 | 7.3 | 0.27 | 14.9 | 28.9 |
| <i>Olearia ramulosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Pteridium esculentum</i> | 9 | 0.12 | 1 744.2 | 15.0 | 209.3 | 14.1 | 0.27 | 14.9 | 44.0 |
| <i>Pultenaea daphnoides</i> | 41 | 0.10 | 7 941.9 | 68.3 | 794.2 | 53.3 | 0.93 | 51.4 | 173.0 |
| * <i>Rubus fruticosus</i> | P | - | - | - | - | - | - | - | - |
| * <i>Senecio pterophorus</i> | 1 | 0.04 | 197.7 | 1.7 | 7.9 | 0.5 | 0.07 | 3.9 | 6.1 |
| <i>Spyridium parvifolium</i> | 3 | 0.60 | 581.4 | 5.0 | 348.8 | 23.4 | 0.13 | 7.2 | 35.6 |
| <i>Xanthorrhoea semiplana</i> | P | - | - | - | - | - | - | - | - |
| Totals | 60 | | 11 628 | | 1 489.1 | | | | |

Small Shrubs (<0.25m) herbs, grasses, climbers, ferns

Acaena sp
Acrotriche serrulata
Adiantum aethiopicum
Astroloma humifusum
Blechnum sp.
Cheilanthes tenuifolia
*i*Dolichos lignosus*
Gonocarpus sp.
Hibbertia exutiacies
Ranunculus sp.
Tetratheca pilosa
Viola sp.

Perennial, grass-like plants

Dianella revoluta
Gahnia clarkei
Lepidosperma laterale
L. semiteres
Lomandra Jura

Density Measurement

33.3% at point 7, T (ii)

SITE 41 - Transect (iv) - Sampling points at 20m intervals - Along banks of Blackfellow Creek in Section 292

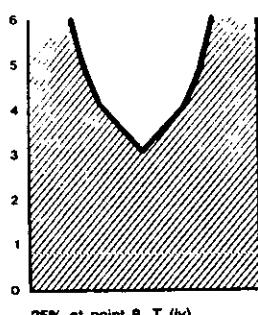
| | Nos in Indiv | Ave Dom Value | Den/ Ha | Rel Dom | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|--------------------|---------------------|--------------|------------|--------|---------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Eucalyptus fasciculosa</i> | 1 | 4.0 | 6.2 | 2.1 | 24.8 | 1.6 | 0.08 | 5.1 | 8.8 |
| <i>E. huberana</i> | 2 | 6.5 | 12.4 | 4.2 | 80.6 | 5.0 | 0.08 | 5.1 | 14.3 |
| <i>E. leucoxylon</i> | P | - | - | - | - | - | - | - | - |
| <i>E. obliqua</i> | 15 | 4.4 | 92.3 | 31.3 | 406.1 | 25.4 | 0.58 | 36.9 | 93.6 |
| <i>E. ovata</i> | 30 | 5.9 | 184.4 | 62.5 | 1088.0 | 68.0 | 0.83 | 52.9 | 183.4 |
| <i>E. rubida</i> | P | - | - | - | - | - | - | - | - |
| * <i>Pinus</i> sp. | P | - | - | - | - | - | - | - | - |
| Totals | 48 | | 295 | | | 1599.5 | | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | | |
| <i>Acacia melanoxylon</i> | P | - | - | - | - | - | - | - | - |
| <i>A. retinodes</i> | 3 | 1.4 | 89.4 | 6.3 | 125.2 | 10.7 | 0.17 | 9.3 | 26.3 |
| <i>Bankia marginata</i> | P | - | - | - | - | - | - | - | - |
| <i>Bursaria spinosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus obliqua</i> | 15 | 1.5 | 446.9 | 31.3 | 670.4 | 57.5 | 0.58 | 31.7 | 120.5 |
| <i>E. ovata</i> | 4 | 0.75 | 118.0 | 8.3 | 88.5 | 7.6 | 0.17 | 9.3 | 25.2 |
| <i>Exocarpus cupressiformis</i> | P | - | - | - | - | - | - | - | - |
| <i>Leptospermum juniperinum</i> | 24 | 0.31 | 715.0 | 50.0 | 221.7 | 19.0 | 0.83 | 45.4 | 114.4 |
| <i>L. pubescens</i> | 2 | 1.0 | 59.6 | 4.2 | 59.6 | 5.1 | 0.08 | 4.4 | 13.7 |
| Totals | 48 | | 1430 | | | 1165.4 | | | |
| 0.25 < Shrubs < 2m | | | | | | | | | |
| <i>Astroloma conostephioides</i> | P | - | - | - | - | - | - | - | - |
| <i>Cyperus vaginatus</i> | 3 | 0.14 | 2125 | 6.3 | 297.5 | 6.4 | 0.25 | 12.0 | 24.7 |
| * <i>Genista maderensis</i> | P | - | - | - | - | - | - | - | - |
| <i>Goodenia ovata</i> | 2 | 0.31 | 1428 | 4.2 | 482.4 | 9.2 | 0.08 | 3.8 | 17.2 |
| <i>Hakea carinata</i> | P | - | - | - | - | - | - | - | - |
| <i>H. rugosa</i> | P | - | - | - | - | - | - | - | - |
| <i>H. rostrata</i> | P | - | - | - | - | - | - | - | - |
| <i>Indigofera australis</i> | P | - | - | - | - | - | - | - | - |
| <i>Juncus pallidus</i> | 2 | 0.03 | 1428 | 4.2 | 42.8 | 0.9 | 0.08 | 3.8 | 8.9 |
| <i>Lepidosperma laterale</i> | 3 | 0.20 | 2125 | 6.3 | 425.0 | 9.1 | 0.17 | 8.2 | 23.6 |
| <i>Leptospermum juniperinum</i> | 8 | 0.09 | 5678 | 16.7 | 511.0 | 10.9 | 0.33 | 15.9 | 43.5 |
| <i>Olearia ramulosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Pteridium esculentum</i> | 23 | 0.16 | 16286 | 47.9 | 2605.8 | 55.8 | 0.75 | 36.1 | 139.8 |
| <i>Pultenaea daphnoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Rosa</i> sp. | P | - | - | - | - | - | - | - | - |
| * <i>Rubus fruticosus</i> | 4 | 0.09 | 2822 | 8.3 | 254.0 | 5.4 | 0.17 | 8.2 | 21.9 |
| <i>Scirpus</i> sp. | 3 | 0.05 | 2125 | 6.3 | 106.3 | 2.3 | 0.25 | 12.0 | 20.6 |
| * <i>Senecio pterophorus</i> | P | - | - | - | - | - | - | - | - |
| <i>Spyridium parvifolium</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | P | - | - | - | - | - | - | - | - |
| Totals | 48 | | 34000 | | | 4670.8 | | | |

Small shrubs (< 0.25m), herbs, ferns

Acaena sp.
Adiantum aethiopicum
Acrotriche serrulata
Asplenium flabellifolium
GERANIACEAE (sp. unknown)
Hibbertia exstioides
Ranunculus sp.
Vicia sativa
 Introduced herbs

Perennial, grass-like plants

Carex appressa
Dianella revoluta
Gahnia clarkei
Juncus sp.
Phragmites australis
Typha sp.

Density measurement

SITE 41 - Transect (v) - Sampling points at 20m intervals - Through sandy soil east of Blackfellow Creek
in Section 292

| Nos in Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|----------------------------------|---------------------|------------|--------------|------|----------------|-------|--------------|---------------|
| Trees/Shrubs > 3m | | | | | | | | |
| <i>Acacia pycnantha</i> | P | - | - | - | - | - | - | - |
| <i>Banksia marginata</i> | 1 | 1.5 | 1.5 | 1.3 | 12.9 | 0.9 | 0.05 | 2.2 |
| <i>B. ornata</i> | 2 | 1.3 | 17.3 | 2.5 | 22.5 | 1.5 | 0.10 | 4.4 |
| <i>Casuarina striata</i> | 2 | 0.2 | 17.3 | 2.5 | 3.5 | 0.2 | 0.10 | 4.4 |
| <i>Eucalyptus baxteri</i> | 47 | 2.2 | 405.4 | 58.8 | 891.9 | 60.2 | 0.95 | 42.2 |
| <i>E. cosmophylla</i> | 10 | 1.9 | 86.3 | 12.5 | 164.0 | 11.1 | 0.40 | 17.8 |
| <i>E. obliqua</i> | 9 | 3.1 | 77.6 | 11.3 | 240.6 | 16.2 | 0.35 | 15.6 |
| <i>Exocarpus cupressiformis</i> | P | - | - | - | - | - | - | - |
| <i>Hakea carinata</i> | 1 | 0.1 | 8.6 | 1.3 | 0.9 | 0.1 | 0.05 | 2.2 |
| <i>H. rostrata</i> | 8 | 2.1 | 69.0 | 10.0 | 144.9 | 9.8 | 0.25 | 11.1 |
| Totals | | 80 | 690 | | 1481.2 | | | |
| 0.25m < Shrubs < 3m | | | | | | | | |
| <i>Acacia myrtifolia</i> | 1 | 0.05 | 968.8 | 1.3 | 48.4 | 0.3 | 0.05 | 1.7 |
| <i>A. spinescens</i> | P | - | - | - | - | - | - | - |
| <i>A. verniciflua</i> | P | - | - | - | - | - | - | - |
| <i>A. verticillata</i> | P | - | - | - | - | - | - | - |
| <i>Astroloma conostephoides</i> | 2 | 0.13 | 1937.5 | 2.5 | 251.9 | 1.4 | 0.10 | 3.4 |
| <i>Banksia marginata</i> | 4 | 0.09 | 3875.0 | 5.0 | 348.8 | 1.9 | 0.20 | 6.8 |
| <i>B. ornata</i> | 3 | 0.83 | 2906.3 | 3.8 | 2412.2 | 13.0 | 0.10 | 3.4 |
| <i>Calythrix tetragona</i> | 2 | 0.04 | 1937.5 | 2.5 | 77.5 | 0.4 | 0.10 | 3.4 |
| <i>Casuarina striata</i> | 1 | 0.02 | 968.8 | 1.3 | 19.4 | 0.1 | 0.05 | 1.7 |
| <i>Correa reflexa</i> | P | - | - | - | - | - | - | - |
| <i>Daviesia brevifolia</i> | P | - | - | - | - | - | - | - |
| <i>Dillwynia sericea</i> | P | - | - | - | - | - | - | - |
| <i>Epacris impressa</i> | 2 | 0.05 | 1937.5 | 2.5 | 96.9 | 0.5 | 0.10 | 3.4 |
| <i>Eucalyptus baxteri</i> | 1 | 0.10 | 968.8 | 1.3 | 96.9 | 0.5 | 0.05 | 1.7 |
| <i>E. cosmophylla</i> | 4 | 0.13 | 3875.0 | 5.0 | 503.8 | 2.7 | 0.15 | 5.1 |
| <i>Hakea carinata</i> | 2 | 0.11 | 1937.5 | 2.5 | 213.1 | 1.1 | 0.10 | 3.4 |
| <i>H. rostrata</i> | 4 | 1.0 | 3875.0 | 5.0 | 3875.0 | 20.9 | 0.20 | 6.8 |
| <i>Hibbertia stricta</i> | 6 | 0.05 | 5812.5 | 7.5 | 290.6 | 1.6 | 0.20 | 6.8 |
| <i>Isopogon ceratophyllus</i> | 2 | 0.05 | 1937.5 | 2.5 | 96.9 | 0.5 | 0.10 | 3.4 |
| <i>Ixodia achillaeoides</i> | P | - | - | - | - | - | - | - |
| <i>Lepidosperma semiteres</i> | 2 | 0.15 | 1937.5 | 2.5 | 290.6 | 1.6 | 0.05 | 1.7 |
| <i>Leptospermum myrsinoides</i> | 25 | 0.06 | 24128.8 | 31.3 | 1453.1 | 7.8 | 0.70 | 23.7 |
| <i>Patersonia fragilis</i> | 2 | 0.23 | 1937.5 | 2.5 | 445.6 | 2.4 | 0.10 | 3.4 |
| <i>Pimelea octophylla</i> | P | - | - | - | - | - | - | - |
| <i>Platyllobium obtusangulum</i> | 5 | 0.05 | 4843.8 | 6.3 | 242.2 | 1.3 | 0.25 | 8.5 |
| <i>Pultenaea involucrata</i> | P | - | - | - | - | - | - | - |
| <i>Spyridium thymifolium</i> | 1 | 0.04 | 968.8 | 1.3 | 38.8 | 0.2 | 0.05 | 1.7 |
| <i>Tetratheca pilosa</i> | 1 | 0.02 | 968.8 | 1.3 | 19.4 | 0.1 | 0.05 | 1.7 |
| <i>Xanthorrhoea semiplana</i> | 10 | 0.80 | 9687.5 | 12.5 | 7750.0 | 41.7 | 0.25 | 8.5 |
| Totals | | 80 | 77500 | | 18571.1 | | | |

SITE 41 - Transect (v) - Sampling points at 20m intervals - Through sandy soil east of Blackfellow Creek in Section 292.

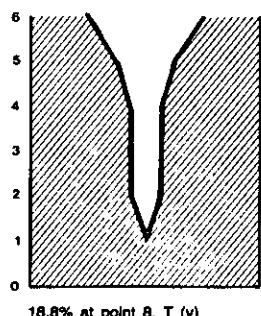
Small shrubs, (< 0.25m), herbs, climbers, grasses

| | |
|-------------------------------|-----------------------------------|
| <i>Acrotriche serrulata</i> | <i>Hybanthus floribundus</i> |
| <i>Astroloma humifusum</i> | <i>Leucopogon concurvus</i> |
| <i>Baeckea ramosissima</i> | <i>L. virgatus</i> |
| <i>Burchardia umbellata</i> | <i>ORCHIDACEAE (app. unknown)</i> |
| <i>Cassytha sp.</i> | <i>Stylium graminifolium</i> |
| <i>Drosera spp.</i> | |
| <i>Goodenia primulacea</i> | |
| <i>Grevillea lavandulacea</i> | |

Perennial, grass-like plants

| |
|----------------------------------|
| <i>Hypoplaena fastigiata</i> |
| <i>Lepidobolus drapetocoleus</i> |
| <i>Lomandra dura</i> |

Density measurement



FAUNA

Birds

| | |
|-------------------------|------------------------------|
| Brown Thornbill | Tree Martin |
| Adelaide Rosella | Little Raven |
| Yellow-tailed Thornbill | Magpie |
| Scarlet Robin | Golden Whistler |
| Brown-headed Honeyeater | Eastern Spinebill |
| New-Holland Honeyeater | Red Wattlebird |
| Grey Fantail | Wedge-tailed Eagle |
| Striated Pardalote | Grey Shrike-thrush |
| Laughing Kookaburra | Rainbow Lorikeet |
| Elegant Parrot | Grey Currawong |
| Crescent Honeyeater | White-throated Tree-creepers |
| Superb Blue Wren | Galah |
| Red-Browed Finch | Yellow-tailed Black Cockatoo |
| Yellow-faced Honeyeater | Striated Thornbill |
| Crested Shrike-tit | Chestnut-tailed Hylacola |
| Blackbird | |

Mammals

| |
|-----------------------|
| Western Grey Kangaroo |
| Rabbit |

PHOTOGRAPHS

| | | |
|----------------|------|---|
| C/6627-III/BS/ | 2-20 | Reference Board |
| | 3-21 | Looking west from Section 846 |
| | 2-22 | <i>Eucalyptus fasciculosa</i> |
| | 2-23 | <i>E. fasciculosa</i> woodland, Section 846 |
| | 2-24 | Blackfellow Creek |
| | 3-1 | Looking south toward Mt. Effie from Section 291 |
| | 3-2 | <i>E. baxteri</i> - <i>E. obliqua</i> |
| | 3-3 | Stick insect |
| | 3-4 | <i>E. baxteri</i> |
| | 3-5 | Old mine shaft in Section 291 |
| | 3-6 | <i>E. obliqua</i> - <i>E. fasciculosa</i> woodland, Section 291 |
| | 3-7 | <i>E. ovata</i> - <i>E. obliqua</i> woodland along Blackfellow Creek |
| | 3-8 | Blackfellow Creek |
| | 3-9 | <i>E. ovata</i> |
| | 3-10 | <i>E. baxteri</i> - <i>E. cosmophylla</i> tall shrubland/low woodland |



Site 41 : *Eucalyptus fasciculosa* woodland



Site 42 : Meadows Creek

SITE 42

Environmental Association: 3.2.10

Physiography:

North of Yundi, natural vegetation covers dissected east facing slopes and extends to the banks of Meadows Creek. Elevation ranges from 250m to 360m above sea level.

Plant Communities:

1. *Eucalyptus obliqua* woodland covers south- and east-facing slopes. *E. baxteri* becomes co-dominant on north-facing slopes. A sparse small tree layer is dominated by young *E. obliqua*, while *Xanthorrhoea semiplana* dominates a generally mid-dense shrub layer. Several damp gullies in Section 733 contain *Acacia retinodes*, *Leptospermum pubescens*, *L. juniperinum*, *Gahnia clarkei* and **Rubus fruticosus*, while *Eucalyptus rubida* occurs at the bottom of these gullies near Meadows Creek.
2. *E. ovata* woodland flanks Meadows Creek and spreads some distance over flood plains in Section 676 and around the Scout Camp in Section 675. **Genista maderensis* dominates the understorey along the creek, but *Leptospermum juniperinum* and *Pteridium esculentum* become dominant on the flood plains (see site 41 Transect (iv)).
3. *Eucalyptus baxteri* - *E. cosmophylla* tall shrubland/low woodland occurs on the most exposed ridges and north-facing slopes. A sclerophyllous shrub understorey is dominated by *Xanthorrhoea semiplana* and *Hakea rostrata*.

Condition:

The presence of scats and browsed plants indicate that the area is grazed by cattle. The impact of grazing on the understorey is less evident in Section 733 than in Section 676 where the shrub layer is sparse. The woodland along Meadows Creek has an alien herbaceous groundcover (see above).

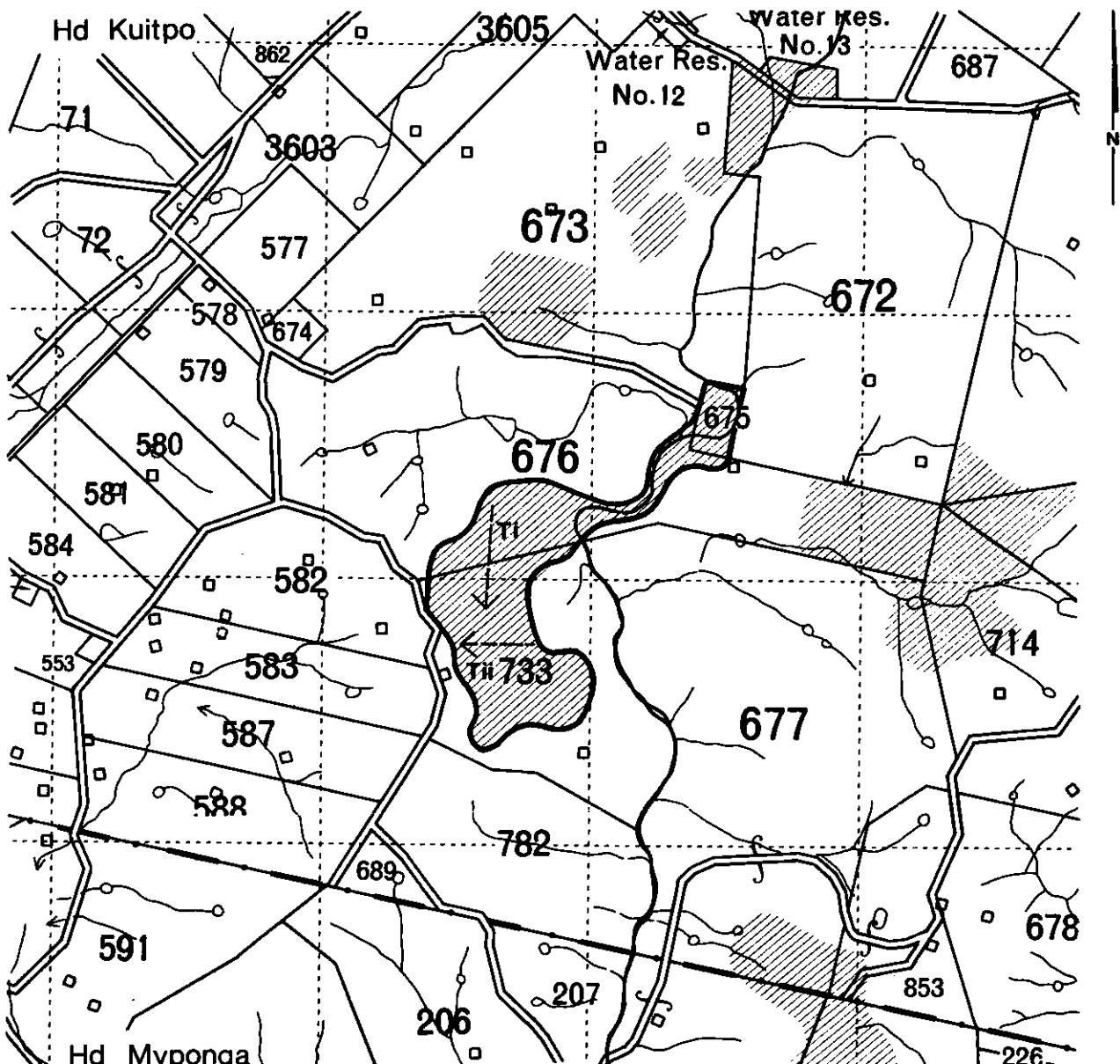
A scout camp with two sheds is located in Section 675 while a prominent and well-used tracks leads to a dam in Section 733.

General:

Eucalyptus ovata woodland is a rare and endangered plant association in South Australia (Margules, 1978). *E. rubida* and *Olearia grandiflora* which are rare plants in South Australia (Specht et al , 1974) occur at this site.

The scrub in Section 733 is relatively unmodified, despite its accessibility to cattle, and the understorey contains a variety of shrubs. (The dairy farmers who own Section 733 indicated a wish to preserve the scrub and minimize the impact of grazing on it).

Despite the presence of introduced plants the woodland along Meadows Creek forms an attractive landscape and provides recreational use for scouts.



Reference
Willunga 1:50 000, 6627-III
846E-920N AMG
50 hectares approx

SCALE 1 : 25 000
0 1000 metres

Site 42

HD KUITPO

Pt Sections 675, 676, 733

SITE 42 - Transect (1) - Sampling points at 20m intervals - Along south and east facing slopes in Sections 676 and 733.

| | Nos in Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|---------------------------------------|--------------------|---------------------|------------|------------|--------|------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Eucalyptus baxteri</i> | 7 | 3.0 | 38.5 | 8.8 | 115.5 | 7.2 | 0.2 | 16.7 | 32.7 |
| <i>E. fasciculosa</i> | P | - | - | - | - | - | - | - | - |
| <i>E. obliqua</i> | 73 | 3.7 | 401.5 | 91.3 | 1485.6 | 92.8 | 1.0 | 83.3 | 267.4 |
| <i>E. rubida</i> | P | - | - | - | - | - | - | - | - |
| Totals | | 80 | 440 | | 1601.1 | | | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | | |
| <i>Acacia melanoxylon</i> | P | - | - | - | - | - | - | - | - |
| <i>A. myrtifolia</i> | 1 | 0.20 | 6.5 | 1.3 | 1.3 | 0.3 | 0.05 | 2.2 | 3.8 |
| <i>A. retinodes</i> | 2 | 1.75 | 13.0 | 2.5 | 22.8 | 6.0 | 0.10 | 4.3 | 12.8 |
| <i>Bankeria marginata</i> | 1 | 0.50 | 6.5 | 1.3 | 3.8 | 1.0 | 0.05 | 2.2 | 4.5 |
| <i>Bursaria spinosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus baxteri</i> | 11 | 0.53 | 71.5 | 13.8 | 37.9 | 10.0 | 0.40 | 17.4 | 41.2 |
| <i>E. cosmophylla</i> | 7 | 0.65 | 45.5 | 8.8 | 29.6 | 7.8 | 0.25 | 10.9 | 27.5 |
| <i>E. fasciculosa</i> | 4 | 0.70 | 26.0 | 5.0 | 18.2 | 4.8 | 0.15 | 6.5 | 16.3 |
| <i>E. obliqua</i> | 48 | 0.80 | 312.0 | 60.0 | 249.6 | 65.9 | 1.0 | 43.5 | 169.4 |
| <i>Exocarpus cupressiformis</i> | P | - | - | - | - | - | - | - | - |
| <i>Leptospermum juniperinum</i> | 3 | 0.53 | 19.5 | 3.8 | 10.3 | 2.7 | 0.15 | 6.5 | 13.0 |
| <i>L. pubescens</i> | 1 | 0.50 | 6.5 | 1.3 | 3.8 | 1.0 | 0.05 | 2.2 | 4.5 |
| <i>Pultenaea daphnoides</i> | 2 | 0.13 | 13.0 | 2.5 | 1.7 | 0.4 | 0.10 | 4.3 | 7.2 |
| Totals | | 80 | 520 | | 378.0 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | 1 | 0.01 | 292.5 | 1.3 | 2.9 | 0.1 | 0.05 | 2.3 | 3.7 |
| <i>A. verticillata</i> | P | - | - | - | - | - | - | - | - |
| <i>Daviesia ulicifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Epacris impressa</i> | 4 | 0.10 | 1170.0 | 5.0 | 117.0 | 2.1 | 0.20 | 9.1 | 16.2 |
| <i>Eucalyptus cosmophylla</i> | 2 | 0.35 | 585.0 | 2.5 | 240.8 | 3.7 | 0.10 | 4.5 | 10.7 |
| <i>Goodenia ovata</i> | 2 | 0.06 | 585.0 | 2.5 | 35.1 | 0.6 | 0.05 | 2.3 | 5.4 |
| <i>Hakea carinata</i> | P | - | - | - | - | - | - | - | - |
| <i>H. rostrata</i> | 1 | 0.05 | 292.5 | 1.3 | 14.6 | 0.3 | 0.05 | 2.3 | 3.9 |
| <i>Isopogon ceratophyllum</i> | 1 | 0.05 | 292.5 | 1.3 | 14.6 | 0.3 | 0.05 | 2.3 | 3.9 |
| <i>Ixodia achillaeoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Leptospermum juniperinum</i> | 2 | 0.19 | 585.0 | 2.5 | 111.2 | 2.0 | 0.10 | 4.5 | 9.0 |
| <i>L. myrsinoides</i> | 5 | 0.07 | 1462.5 | 6.3 | 102.4 | 1.8 | 0.15 | 6.8 | 14.9 |
| <i>Olearia ramulosa</i> | 4 | 0.16 | 1170.0 | 5.0 | 187.2 | 3.3 | 0.10 | 4.5 | 12.8 |
| <i>Platyllobium obtusangulum</i> | 2 | 0.05 | 585.0 | 2.5 | 9.3 | 0.5 | 0.10 | 4.5 | 7.5 |
| <i>Pteridium esculentum</i> | 4 | 0.14 | 1170.0 | 5.0 | 163.8 | 2.9 | 0.10 | 4.5 | 12.4 |
| <i>Pultenaea daphnoides</i> | 3 | 0.04 | 877.5 | 3.8 | 35.1 | 0.6 | 0.15 | 6.8 | 11.2 |
| <i>P. involucrata</i> | 2 | 0.08 | 585.0 | 2.5 | 46.8 | 0.8 | 0.10 | 4.5 | 7.8 |
| <i>P. largiflorens var. latifolia</i> | P | - | - | - | - | - | - | - | - |
| * <i>Rubus fruticosus</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | 47 | 0.33 | 13747.5 | 58.8 | 4536.7 | 81.0 | 0.90 | 40.9 | 180.7 |
| Totals | | 80 | 23400 | | 5601.5 | | | | |

Small shrubs (0.25m), herbs, grasses, climbers & ferns

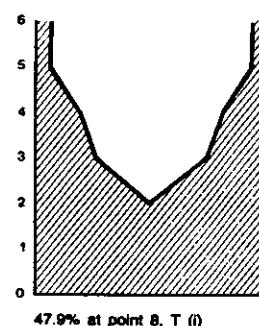
Acena sp.
Acanthus sp.
Acrotriche serrulata
Adiantum aethiopicum
Billardiera sericophora
Burkhardia umbellata
Cassytha sp.
Drosera spp.
Gonocarpus sp.
Goodenia primulacea
Hibbertia exutioides
H. sericea
Kennedia prostrata
Leucopogon concurvus
Olearia grandiflora

POACEAE (spp. unknown)
Tetratheca pilosa
Viola sp.
 (+ introduced herbs)

Perennial, grass-like plants

Dianella revoluta
Lepidosperma semiteres
Gahnia clarkei

Density measurement



SITE 42 - Transect (ii) - Sampling points at 20m intervals - Along ridge in Section 733.

| | Nos in Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|---------------------------------|--------------------|---------------------|---------------|------------|---------|----------------|-------|--------------|---------------|
| Trees/Shrubs 2m | | | | | | | | | |
| <i>Eucalyptus baxteri</i> | 31 | 2.30 | 503.8 | 77.5 | 1258.7 | 90.3 | 1.00 | 66.7 | 234.5 |
| <i>E. corymbifera</i> | 9 | 0.85 | 146.3 | 22.5 | 124.4 | 9.7 | 0.50 | 33.3 | 65.5 |
| <i>E. fasciculosa</i> | P | - | - | - | - | - | - | - | - |
| <i>E. obliqua</i> | P | - | - | - | - | - | - | - | - |
| Totals | 40 | | 650 | | | 1283.1 | | | |
| 0.25m Shrubs 2m | | | | | | | | | |
| <i>Daviesia brevifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Epacris impressa</i> | 2 | 0.04 | 5100 | 5.0 | 240.0 | 1.0 | 0.10 | 4.5 | 10.5 |
| <i>Eucalyptus corymbifera</i> | 3 | 0.10 | 7650 | 7.5 | 765.0 | 3.9 | 0.10 | 4.5 | 15.9 |
| <i>Hakea rostrata</i> | 6 | 0.17 | 20400 | 20.0 | 3468.0 | 17.6 | 0.70 | 31.8 | 69.4 |
| <i>Ieopogon ceratophyllus</i> | P | - | - | - | - | - | - | - | - |
| <i>Ixodia achillaeoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Leptospermum myrsinoides</i> | 1 | 0.05 | 2550 | 2.5 | 127.5 | 0.6 | 0.10 | 4.5 | 7.6 |
| <i>Pimelea octophylla</i> | P | - | - | - | - | - | - | - | - |
| <i>Platylobium obtusangulum</i> | P | - | - | - | - | - | - | - | - |
| <i>Pultenaea daphnoides</i> | 2 | 0.08 | 5100 | 5.0 | 408.0 | 2.1 | 0.10 | 4.5 | 11.6 |
| <i>P. involucrata</i> | 1 | 0.04 | 2550 | 2.5 | 102.0 | 0.5 | 0.10 | 4.5 | 7.5 |
| <i>Xanthorrhoea semiplana</i> | 23 | 0.25 | 58650 | 57.5 | 14662.5 | 74.3 | 1.0 | 45.5 | 177.3 |
| Totals | 40 | | 102000 | | | 19737.0 | | | |

Small shrubs, (< 0.25m) herbs, climbersPerennial, grass-like plants

Cassytha sp.
Drosera spp.
Gonocarpus sp.
Goodenia primulacea
Hibbertia sericea
Leucopogon concurvus
L. virgatus

Lepidosperma semiteres

Plants not recorded in either transect, but present along
Meadows Creek and in Section 675 (Eucalyptus ovata association)

Trees 8mHerbs

Eucalyptus
E. leucoxylon
E. ovata

**Watsonia bulbillifera* and other
introduced herbs

0.25m Shrubs 2mPerennial, grass-like plants

**Genista maderensis*
*i*Rosa sp.*
*i*Ulex europeus*

Carex appressa
Cyperus vaginatus
Juncus pallidus
Phragmites australis

FAUNABirds

Brown-headed Honeyeater
Crescent Honeyeater
New-Holland Honeyeater
Grey Fantail
Adelaide Rosella
Superb Blue Wren
Thornbill

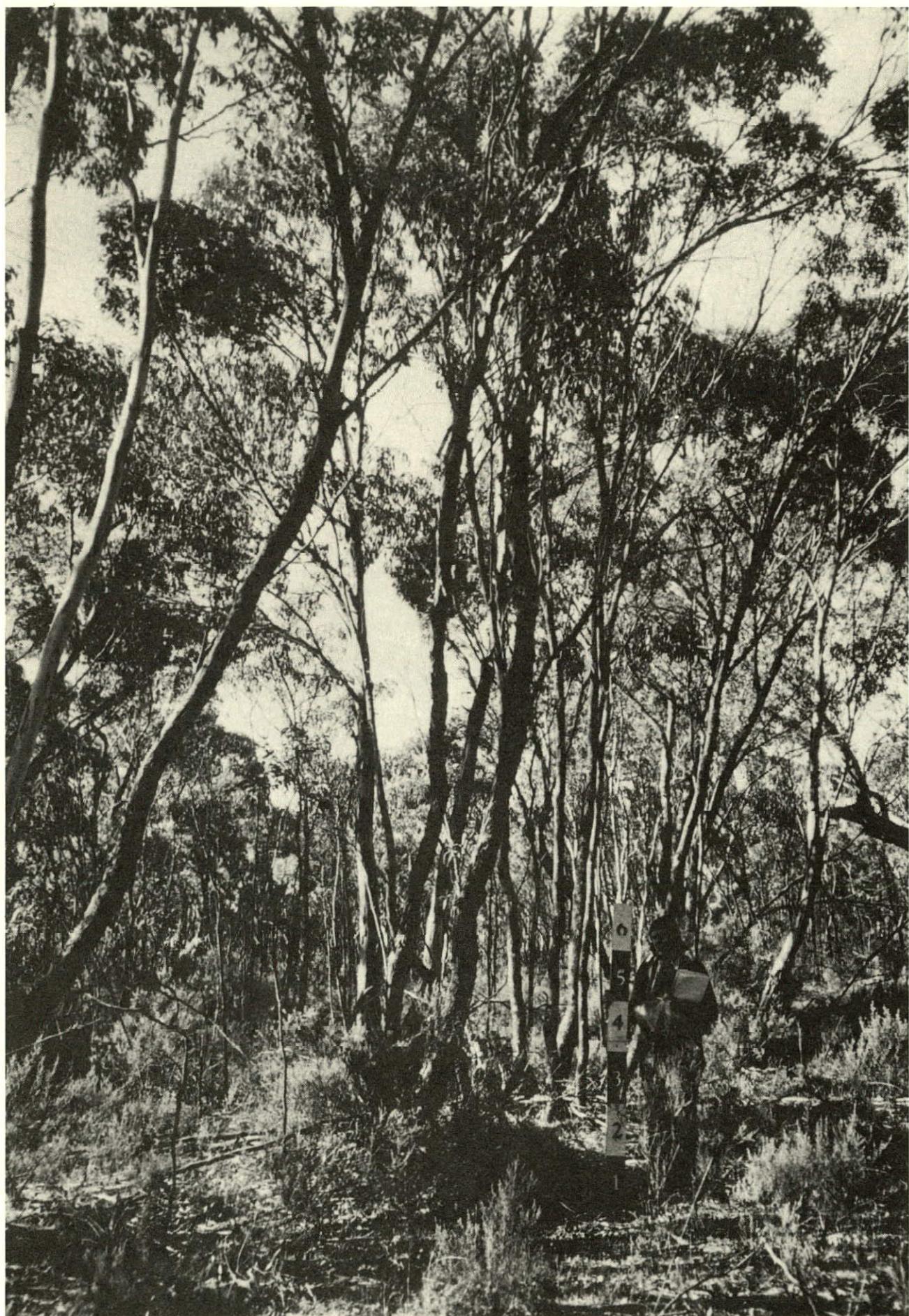
Golden Whistler
Silvereye
Blackbird
White-throated Tree-creeper
Scarlet Robin
Purple-crowned Lorikeet

Mammals

Western Grey Kangaroo

PHOTOGRAPHS

- C/6627-III/BS 3-11 Reference Board
3-12 *Eucalyptus rubida*
3-13 Meadow Creek
3-14 Pond in Section 675
3-15 *E. obliqua* woodland



Site 26: *Eucalyptus odorata* woodland

5.5 Hd. Willunga

SITE 26 (Hardy's Scrub)

Date: 24.5.79

Environmental Association: 3.2.12 and 3.2.13

Physiography:

Due west of Blewitt Springs, natural vegetation covers the gentle to medium slopes which surround an east to west running gully. Elevation ranges from 120m to 190m above sea level.

Plant Communities: *E. nitida* / *E. pauciflora* also present

1. *Eucalyptus odorata* woodland occurs on gentle slopes where soils are relatively fertile (see transect (ii)). *E. fasciculosa* and *E. leucoxylon* are associated trees, while *Acacia pycnantha* dominates a small tree layer. A sparse shrub layer is dominated by *Xanthorrhoea semiplana*. The ground cover is mainly leaf litter.

2. *Eucalyptus leucoxylon* - *E. fasciculosa* low woodland/tall shrubland is the most extensive plant association at this site (see transect (ii)). A very sparse small tree layer is dominated by *Acacia pycnantha*. A great variety of species occurs in the sparse shrub layer but *Xanthorrhoea semiplana*, *Calytrix tetragona*, *Olearia ramosa* and *Hibbertia stricta* are the most conspicuous plants. The ground stratum is dominated by leaf and bark litter.

3. *Eucalyptus fasciculosa* low open woodland with a dense understorey of *Banksia marginata* and *Pteridium esculentum* occupies several small, sandy locations.

Condition:

Several vehicular and walking tracks, which are littered with horse scats, traverse the site. Sheep were observed in the western end of Section 686.

A small area of excavation and rubbish dumping is situated in the northern part of Section 686, adjacent to Range Road. Many *Casuarina* spp. are dead or dying in this area.

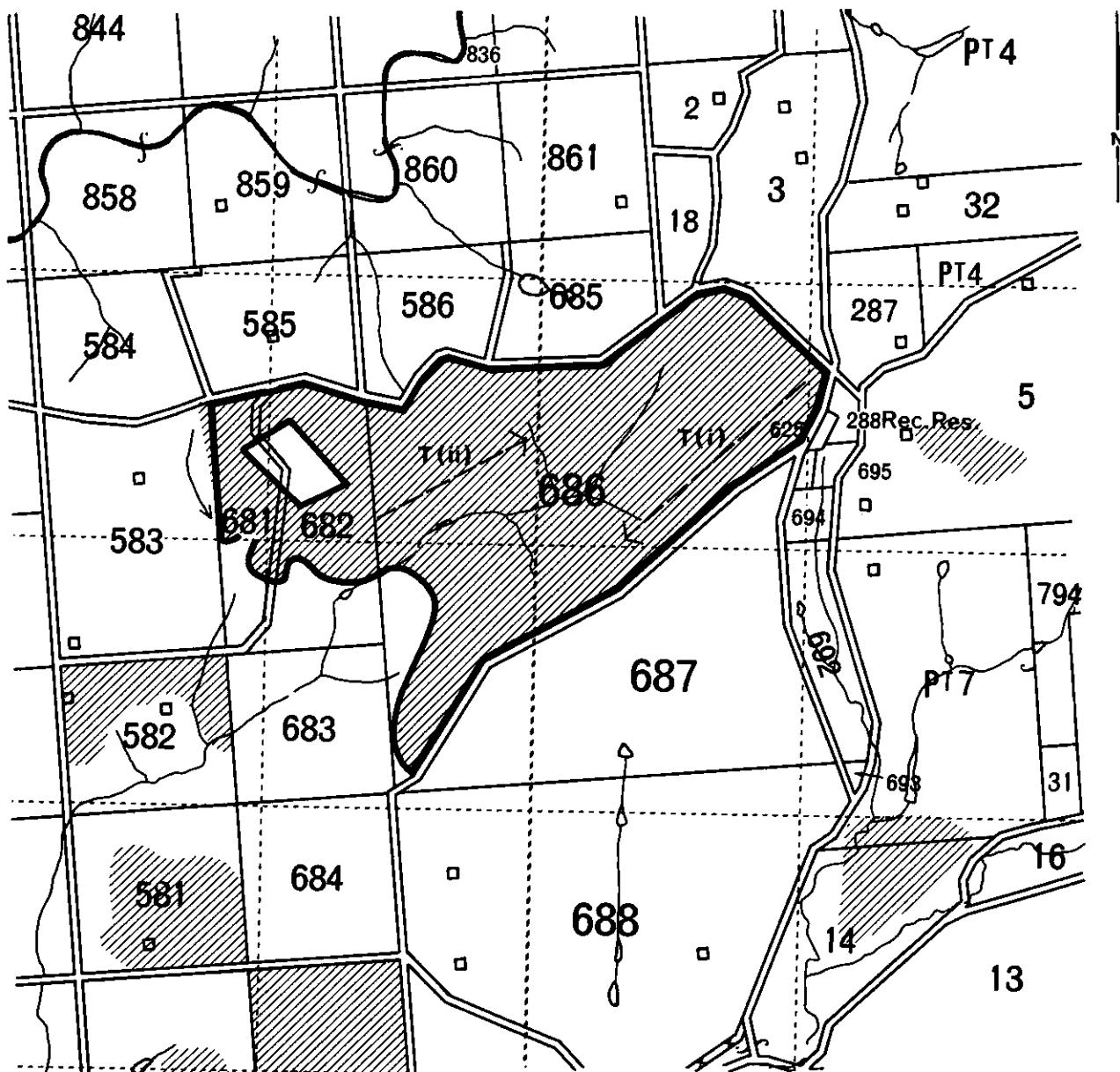
Except for the presence of **Olea europaea* and **Asparagus asparagoides* in the western part of the site, the scrub has a relatively unmodified natural vegetation.

General:

The ecological significance of this area is cited in the Metropolitan Adelaide Planning Study (1977) by the S.A. State Planning Authority, and the Field Naturalists Society of S.A. has undertaken flora and fauna surveys of the area.

This study confirms the ecological diversity of Hardy's Scrub, which is one of the few large areas of natural vegetation in the Blewitt Springs - McLaren Vale region. *Casuarina striata* is rare in South Australia (Specht *et al*, 1974) while *Eucalyptus odorata* woodland is a rare and endangered plant association in South Australia (Margules, 1978).

Reference: N.C.S.S.A. Inc. (1972).



Site 26

HD WILLUNGA

Pt Sections 681, 682, 686

SITE 26 - Transect (i) - at 30m intervals

| | Nos in Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|--------------------|---------------------|--------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 6m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 20 | 1.1 | 73 | 25.0 | 80.3 | 7.6 | 0.45 | 23.1 | 55.7 |
| <i>Eucalyptus fasciculosa</i> | 25 | 4.0 | 91 | 31.3 | 364.0 | 34.5 | 0.75 | 38.5 | 104.3 |
| <i>E. leucoxylon</i> | 34 | 4.8 | 123 | 42.5 | 590.4 | 56.0 | 0.70 | 35.9 | 134.4 |
| <i>E. odorata</i> | 1 | 5.0 | 4 | 1.3 | 20.0 | 1.9 | 0.05 | 2.6 | 5.8 |
| Totals | 80 | | 290 | | 1054.7 | | | | |
| 2m < Trees/Shrubs < 6m | | | | | | | | | |
| <i>Acacia paradoxa</i> | P | - | - | - | - | - | - | - | - |
| <i>A. pycnantha</i> | 64 | 0.40 | 1024 | 80.0 | 409.6 | 72.2 | 1.00 | 58.8 | 211.0 |
| <i>Casuarina striata</i> | 1 | 0.05 | 17 | 1.3 | 0.9 | 0.2 | 0.05 | 2.9 | 4.4 |
| <i>Eucalyptus fasciculosa</i> | 9 | 0.70 | 145 | 11.3 | 101.5 | 17.9 | 0.35 | 20.6 | 49.4 |
| <i>E. leucoxylon</i> | 1 | 0.13 | 17 | 1.3 | 2.2 | 0.4 | 0.05 | 2.9 | 4.6 |
| <i>Exocarpus cupressiformis</i> | P | - | - | - | - | - | - | - | - |
| <i>Hakea carinata</i> | 2 | 1.0 | 32 | 2.5 | 32.0 | 5.6 | 0.10 | 5.9 | 14.0 |
| * <i>Olea europaea</i> | P | - | - | - | - | - | - | - | - |
| <i>Olearia ramulosa</i> | 1 | 1.0 | 17 | 1.3 | 17.0 | 3.0 | 0.05 | 2.9 | 7.2 |
| <i>Prostanthera behriana</i> | 2 | 0.13 | 32 | 2.5 | 4.2 | 0.7 | 0.10 | 5.9 | 9.1 |
| Totals | | | 1280 | | 567.4 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>A. paradoxa</i> | 1 | 0.04 | 160 | 1.3 | 6.4 | 0.4 | 0.05 | 1.9 | 3.6 |
| <i>A. pycnantha</i> | 2 | 0.04 | 315 | 2.5 | 12.6 | 0.7 | 0.10 | 3.8 | 7.0 |
| <i>A. rotundifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>A. rupicola</i> | 1 | 0.50 | 160 | 1.3 | 80.0 | 4.4 | 0.05 | 1.9 | 7.6 |
| <i>A. spinescens</i> | P | - | - | - | - | - | - | - | - |
| <i>Adenanthes terminalis</i> | P | - | - | - | - | - | - | - | - |
| <i>Astroloba conostephoides</i> | 9 | 0.09 | 1424 | 11.3 | 128.2 | 7.1 | 0.35 | 13.5 | 31.9 |
| <i>Calythrix tetragona</i> | 14 | 0.07 | 2205 | 17.5 | 154.4 | 8.6 | 0.35 | 13.5 | 39.6 |
| <i>Casuarina mulleriana</i> | 1 | 0.02 | 160 | 1.3 | 3.2 | 0.2 | 0.05 | 1.9 | 3.4 |
| <i>C. striata</i> | 2 | 0.08 | 315 | 2.5 | 25.2 | 1.4 | 0.05 | 1.9 | 5.8 |
| <i>Correa reflexa</i> | 2 | 0.08 | 315 | 2.5 | 25.2 | 1.4 | 0.05 | 1.9 | 5.8 |
| <i>Cryptandra tomentosa</i> | 3 | 0.20 | 479 | 3.8 | 95.8 | 5.3 | 0.10 | 3.8 | 12.6 |
| <i>Daviesia ulicifolia</i> | 1 | 0.02 | 160 | 1.3 | 3.2 | 0.2 | 0.05 | 1.9 | 3.4 |
| <i>Dillwynia sericea</i> | 1 | 0.05 | 160 | 1.3 | 8.0 | 0.4 | 0.05 | 1.9 | 3.6 |
| <i>Eucalyptus leucoxylon</i> | 1 | 0.04 | 160 | 1.3 | 6.4 | 0.4 | 0.05 | 1.9 | 3.6 |
| <i>Goodenia amplexans</i> | P | - | - | - | - | - | - | - | - |
| <i>Grevillea lavandulacea</i> | P | - | - | - | - | - | - | - | - |
| <i>Hakea carinata</i> | 3 | 0.02 | 479 | 3.8 | 9.6 | 0.5 | 0.05 | 1.9 | 6.2 |
| <i>H. rugosa</i> | 5 | 0.12 | 794 | 6.3 | 95.3 | 5.3 | 0.20 | 7.7 | 19.3 |
| <i>Hibbertia stricta</i> | 12 | 0.09 | 1890 | 15.0 | 170.1 | 9.5 | 0.40 | 15.4 | 39.9 |
| <i>Isopogon ceratophyllus</i> | P | - | - | - | - | - | - | - | - |
| <i>Leptospermum juniperinum</i> | P | - | - | - | - | - | - | - | - |
| <i>L. myrsinoides</i> | 1 | 0.25 | 160 | 1.3 | 40.0 | 2.2 | 0.05 | 1.9 | 5.4 |
| <i>Leucopogon rufus</i> | 1 | 0.05 | 160 | 1.3 | 8.0 | 0.4 | 0.05 | 1.9 | 3.6 |
| <i>Olearia ramulosa</i> | 14 | 0.08 | 2205 | 17.5 | 176.4 | 9.8 | 0.30 | 11.5 | 38.8 |
| <i>Pimelea linifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | 6 | 0.80 | 945 | 7.5 | 756.0 | 42.0 | 0.25 | 9.6 | 59.1 |
| Totals | 80 | | 12600 | | 18000 | | | | |

SITE 26 - Transect (i) - at 30m intervals

Perennial, grass-like plants

Dianella revoluta
Lepidosperma
L. congestum

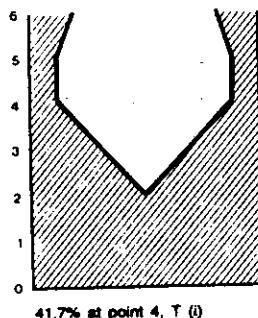
Lomandra dura
L. sp.
Themeda australis

Small shrubs, herbs, climbers, ferns, grasses

Astroloba humifusum
Burchardia umbellata
Cassytha sp.
Cheilanthes tenuifolia
Dampiera lavandulacea
Drosera spp.
Haloragis sp.

Hibbertia virgata
Kennedia prostrata
Kunaea pomifera
Lyperanthus nigricans
other POACEAE (including introduced species)

Density measurement

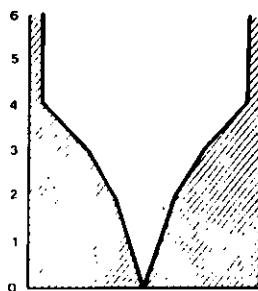


SITE 26 - Transect (ii) - 20m intervals

| | Nos in Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|---------------------------------|--------------------|---------------------|-------------|------------|---------------|------------|-------|--------------|---------------|
| Trees 6m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 24 | 0.8 | 240 | 37.5 | 192 | 10.2 | 0.75 | 35.4 | 83.1 |
| <i>Eucalyptus fasciculosa</i> | 8 | 1.9 | 80 | 12.5 | 152 | 8.1 | 0.31 | 14.6 | 35.2 |
| <i>E. leucoxylon</i> | 8 | 4.8 | 80 | 12.5 | 384 | 20.4 | 0.31 | 14.6 | 47.5 |
| <i>E. odorata</i> | 24 | 4.8 | 240 | 37.5 | 1152 | 61.3 | 0.75 | 35.4 | 134.2 |
| Totals | 64 | | 640 | | 1180 | | | | |
| 2m Shrubs/Trees 6m | | | | | | | | | |
| <i>Acacia paradoxa</i> | P | - | - | - | - | - | - | - | - |
| <i>A. pycnantha</i> | 57 | 0.2 | 1996 | 89.1 | 399.2 | 64.2 | 1.0 | 76.9 | 230.2 |
| <i>Bursaria spinosa</i> | 2 | 0.9 | 69 | 3.1 | 62.1 | 10.0 | 0.06 | 4.6 | 17.7 |
| <i>Casuarina striata</i> | P | - | - | - | - | - | - | - | - |
| <i>Dodonaea viscosa</i> | 1 | 0.25 | 36 | 1.6 | 9.0 | 1.4 | 0.06 | 4.6 | 7.6 |
| <i>Eucalyptus fasciculosa</i> | 1 | 0.25 | 36 | 1.6 | 9.0 | 1.4 | 0.06 | 4.6 | 7.6 |
| <i>E. leucoxylon</i> | 1 | 0.5 | 36 | 1.6 | 18.0 | 2.9 | 0.06 | 4.6 | 9.1 |
| <i>Olea europaea</i> | 2 | 1.8 | 69 | 3.1 | 124.2 | 20.0 | 0.06 | 4.6 | 27.7 |
| Totals | 64 | | 2240 | | 621.5 | | | | |
| 0.25m Shrubs 2m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 3 | 0.02 | 137 | 4.7 | 2.7 | 0.1 | 0.13 | 6.3 | 11.1 |
| <i>A. rotundifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Astroloma conostephoides</i> | 1 | 0.04 | 47 | 1.6 | 1.9 | 0.1 | 0.06 | 2.9 | 4.6 |
| <i>Bursaria spinosa</i> | 2 | 0.25 | 91 | 3.1 | 22.8 | 1.1 | 0.13 | 6.3 | 10.5 |
| <i>Dodonaea viscosa</i> | 2 | 0.07 | 91 | 3.1 | 6.4 | 0.3 | 0.06 | 2.9 | 6.3 |
| <i>Hakea carinata</i> | 1 | 0.04 | 47 | 1.6 | 1.9 | 0.1 | 0.06 | 2.9 | 4.6 |
| <i>Hibbertia striata</i> | 2 | 0.07 | 91 | 3.1 | 6.4 | 0.3 | 0.13 | 6.3 | 9.7 |
| <i>Olea europaea</i> | 2 | 0.6 | 91 | 3.1 | 54.6 | 2.6 | 0.06 | 2.9 | 8.6 |
| <i>Olearia ramulosa</i> | 12 | 0.10 | 549 | 18.8 | 54.9 | 2.6 | 0.50 | 24.2 | 45.6 |
| <i>Xanthorrhoea semiplana</i> | 39 | 1.1 | 1778 | 60.9 | 1955.8 | 92.8 | 0.94 | 45.4 | 199.1 |
| * <i>Senicio pterophorus</i> | P | - | - | - | - | - | - | - | - |
| Totals | 64 | | 2920 | | 2107.4 | | | | |

Small shrubs, (0.25m), herbs, climbers, grasses

Acrotriche serrulata
**Asparagus asparagooides*
Astroloma humifusum
Billardiera sericophora
Cheilanthes tenuifolia
Drosera spp.
Goodenia primulacea
Gonocarpus sp.
Haloragis sp.
Scaevola albida
GERANIACEAE (sp. unknown)
LORANTHACEAE (sp. unknown)
POACEAE (mainly introduced species)

Density measurement

SITE 26 - Transect (ii) - 20m intervals

Plants present at site, but not recorded in either transect

Trees 6m

Callitris preissii
Casuarina stricta
**Pinus sp.*

0.25m Shrubs 2m

**Asclepias rotundifolia*
Banksia ornata
Hakea rostrata
**Chrysantheumoides monilifera*
Pteridium esculentum
**Rosa sp.*

Perennial, grass-like plants

Juncus pallidus
Juncus sp.
Lepidosperma viscidum
Machaerina juncea

Herbs

**Hypericum perforatum*

FAUNA

Birds

Crescent Honeyeater
Superb Blue Wren
Adelaide Rosella
Golden Whistler
Grey Fantail
Striated Pardalote
*Starling
Scarlet Robin
Brown Thornbill
Boobook Owl
White-throated Tree-creeper
Grey Currawong
Striated Thornbill
Fan-tailed Cuckoo

Silveryeye
Dusky Woodswallow
Red rumped Parrot
Brown-headed Honeyeater
Red-brown Finch
Red Wattle-bird
Mistletoe bird
Magpie
White-plumed Honeyeater
Laughing Kookaburra
Black-faced Cuckoo-shrike
Willie Wagtail
Little Raven
Welcome Swallow
New Holland Honeyeater

Other Fauna

Nephila sp. (Golden Orb Spider)

PHOTOGRAPHS

- 3-22 Rubbish dumping in Section 686
- 3-23 Along gully in Section 686
- 3-24 Along gully in Section 686
- 4-1 *Grevillea lavandulacea*
- 4-2 *Cryptandra tomentosa*
- 4-3 *Eucalyptus leucoxylon* - *E. fasciculosa* low woodland/tall shrubland
- 4-4 *Acacia rupicola*
- 4-5 *Eucalyptus odorata* association
- 4-6 *Eucalyptus odorata* woodland
- 4-7 Walking track
- 4-8 *Eucalyptus fasciculosa* low open woodland with *Banksia ornata*

5.6 Hd. Para Wirra

SITE 30

Date: 5.6.79

Environmental Association: 3.2.17

Physiography:

West-north-west of Springton natural vegetation covers gentle undulating land with a predominantly southern aspect. Elevation ranges from 440m to 480m above sea level.

Plant Communities:

Eucalyptus huberana - *E. leucoxylon* open woodland/low open woodland covers this site. A smaller tree layer is dominated by *Acacia pycnantha* and *Banksia marginata*, while a mid-dense diverse shrub layer has *Xanthorrhoea semiplana*, *Astroloba conostephoides* and *Spyridium parvifolium* as the most conspicuous plants. A variety of prostrate shrubs, herbs and grasses, and *Cheilanthes tenuifolia* (rock fern) constitute the ground stratum.

Condition:

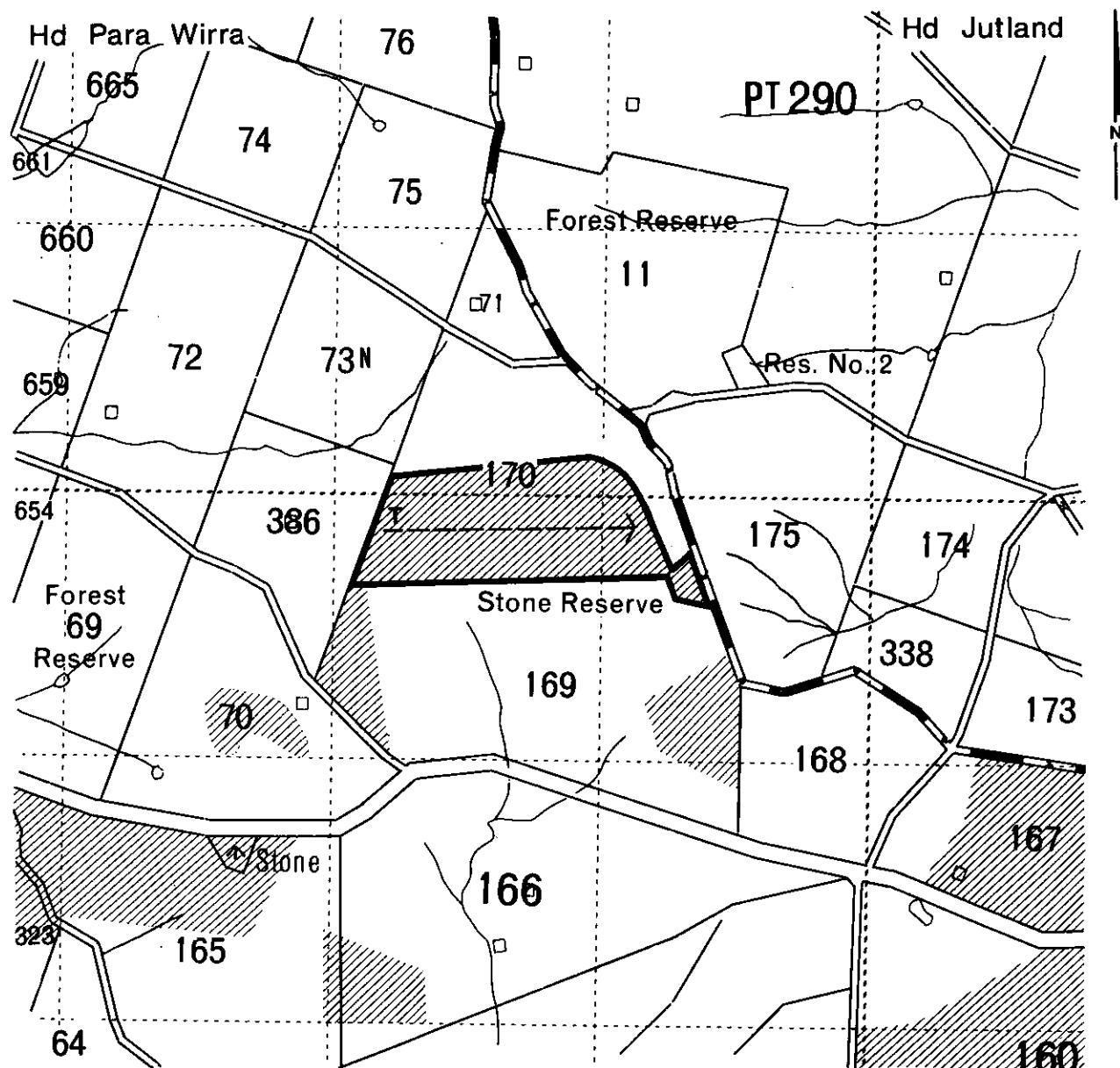
A clearing of about 20m in width exists between the edge of the scrub and the road along the eastern boundary of Section 170. A quarry occupies much of the stone reserve.

The scrub at this site is generally unmodified.

General:

This is an attractive area of open woodland with an unmodified understorey consisting of a variety of sclerophyllous shrubs.

Western Grey Kangaroos (*Macropus fuliginosus*) are present at this site.



Reference
Angaston 1:50 000, 6728-IV
187E-599N AMG

70 hectares approx

SCALE 1 : 25 000
0 1000 metres

Site 30

HD PARA WIRRA

Pt Section 170 and Stone Reserve

SITE 30 - Transect - West to east through middle of scrub

| | Nos in Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|---------------------------------|--------------------|---------------------|-------------|------------|--------------|------------|-------|--------------|---------------|
| Trees 8m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 2 | 2 | 3.1 | 2.8 | 6.2 | 1.3 | 0.11 | 7.1 | 11.2 |
| <i>Casuarina stricta</i> | 2 | 4 | 3.1 | 2.8 | 12.4 | 2.6 | 0.06 | 3.9 | 9.3 |
| <i>Eucalyptus huberana</i> | 56 | 4.2 | 86.4 | 77.8 | 362.9 | 76.9 | 0.94 | 60.6 | 215.3 |
| <i>E. leucoxylon</i> | 12 | 4.9 | 18.5 | 16.7 | 90.7 | 19.2 | 0.44 | 28.4 | 64.3 |
| Totals | | 72 | 111 | | 472.2 | | | | |
| 2m Trees/Shrubs 8m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 46 | 0.4 | 433.0 | 63.9 | 173.2 | 35.3 | 0.94 | 44.3 | 143.5 |
| <i>Banksia marginata</i> | 13 | 1.2 | 122.5 | 18.1 | 147.0 | 30.0 | 0.56 | 26.4 | 74.5 |
| <i>Callitris preissii</i> | P | - | - | - | - | - | - | - | - |
| <i>Casuarina stricta</i> | 1 | 3.0 | 9.5 | 1.4 | 28.5 | 5.8 | 0.06 | 2.8 | 10.0 |
| <i>Eucalyptus huberana</i> | 5 | 1.3 | 47 | 6.9 | 61.1 | 12.5 | 0.28 | 13.2 | 32.5 |
| <i>E. leucoxylon</i> | 5 | 1.1 | 47 | 6.9 | 51.7 | 10.6 | 0.17 | 8.0 | 25.5 |
| <i>Exocarpus cupressiformis</i> | P | - | - | - | - | - | - | - | - |
| <i>Hakea rostrata</i> | 2 | 1.5 | 19 | 2.8 | 28.5 | 5.8 | 0.11 | 5.2 | 13.8 |
| Totals | | 72 | 678 | | 490 | | | | |
| 0.25m Shrubs 2m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>A. pycnantha</i> | 1 | 0.1 | 137 | 1.4 | 13.7 | 0.3 | 0.06 | 2.3 | 4.0 |
| <i>Acrotriche depressa</i> | P | - | - | - | - | - | - | - | - |
| <i>Astroloma conostephoides</i> | 16 | 0.14 | 2176 | 22.2 | 304.6 | 7.7 | 0.67 | 26.0 | 55.9 |
| <i>Bursaria spinosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Calythrix tetragona</i> | 8 | 0.10 | 1088 | 11.1 | 108.8 | 2.7 | 0.28 | 10.9 | 24.7 |
| <i>Cryptandra tomentosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Dillwynia hispida</i> | P | - | - | - | - | - | - | - | - |
| <i>Hakea carinata</i> | 1 | 0.05 | 137 | 1.4 | 6.9 | 0.2 | 0.06 | 2.3 | 3.9 |
| <i>H. rostrata</i> | 3 | 1.5 | 412 | 4.2 | 618 | 15.6 | 0.17 | 6.6 | 25.4 |
| <i>Hibbertia sericea</i> | 2 | 0.1 | 274 | 2.8 | 27.4 | 0.7 | 0.06 | 2.3 | 5.6 |
| <i>Isopogon ceratophyllum</i> | P | - | - | - | - | - | - | - | - |
| <i>Leptospermum myrsinoides</i> | 9 | 0.06 | 1225 | 12.5 | 73.5 | 1.9 | 0.33 | 12.8 | 27.2 |
| <i>Platylobium obtusangulum</i> | P | - | - | - | - | - | - | - | - |
| <i>Spyridium parvifolium</i> | 10 | 0.08 | 1362 | 13.9 | 109.0 | 2.8 | 0.39 | 15.1 | 31.8 |
| <i>Xanthorrhoea semiplana</i> | 22 | 0.9 | 2999 | 30.6 | 2699.1 | 68.1 | 0.56 | 21.7 | 120.4 |
| Totals | | 72 | 9800 | | 3961 | | | | |

SITE 30 - Transect - West to east through middle of scrub

Small scrub (0.25m), herbs, grasses & climbers

Acrotriche serrulata
Astroloba humifusum
Burchardia umbellata
Cassytha sp.
Cheilanthes tenuifolia
Drosera spp.
Gonocarpus sp.
Grevillea lavandulacea
Hibbertia exutiacies

Hybanthus floribundus
Pimelea sp.
POACEAE (unknown spp.)
Prasophyllum sp.
Pultenaea pedunculata
Tetratheca pilosa

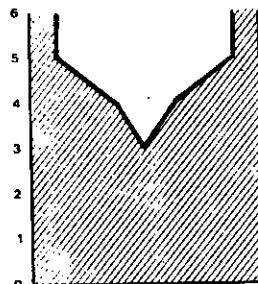
MOSSES
 Introduced herbs

Perennial, grass-like plants

Juncus pallidus
Juncus sp.
Lepidosperma carphoides
L. semiteres
Lomandra dura

Other life-forms

Fungi

Density measurementsFAUNABirds

Magpie
 Scarlet Robin
 Grey Fantail
 Blue Wren
 Thornbill
 Golden Whistler
 Raven

Sitella
 Yellow-faced Honeyeater
 Adelaide Rosella
 New Holland Honeyeater
 Crested Shrike-tit
 Striated Pardalote
 Blackbird
 White-naped Honeyeater
 White-throated Tree-creeper

Other Fauna

Western Grey Kangaroo

PHOTOGRAPHS

| | | |
|---------------|------|--|
| C/6728-IV/BS/ | 1-7 | Reference Board |
| | 1-8 | <i>Eucalyptus huberana</i> |
| | 1-9 | <i>Hibbertia sericea</i> |
| | 1-10 | <i>Eucalyptus huberana/E. leucoxylon</i> open woodland/low open woodland |
| | 1-11 | <i>E. leucoxylon</i> |
| | 1-12 | <i>Eucalyptus huberana/E. leucoxylon</i> open woodland/low open woodland |

SITE 31

Date: 6.6.79

Environmental Association: 3.2.17

Physiography:

Five kilometres due west of Springton natural vegetation covers a relatively large area of land which falls away gently to the west. Elevation ranges from 425m to 460m above sea level.

Plant Communities:

Eucalyptus huberana open woodland/low open woodland covers this site. *E. camaldulensis* is co-dominant along several drainage lines. A smaller tree layer includes *Acacia retinodes*, *Xanthorrhoea semiplana* and *Leptospermum juniperinum*. The latter two species together with *Calytrix tetrogona* dominate a very sparse shrub layer which does, however, include a variety of plants. Much of the area is seasonally waterlogged and a number of sedge species are present (see plant list).

Condition:

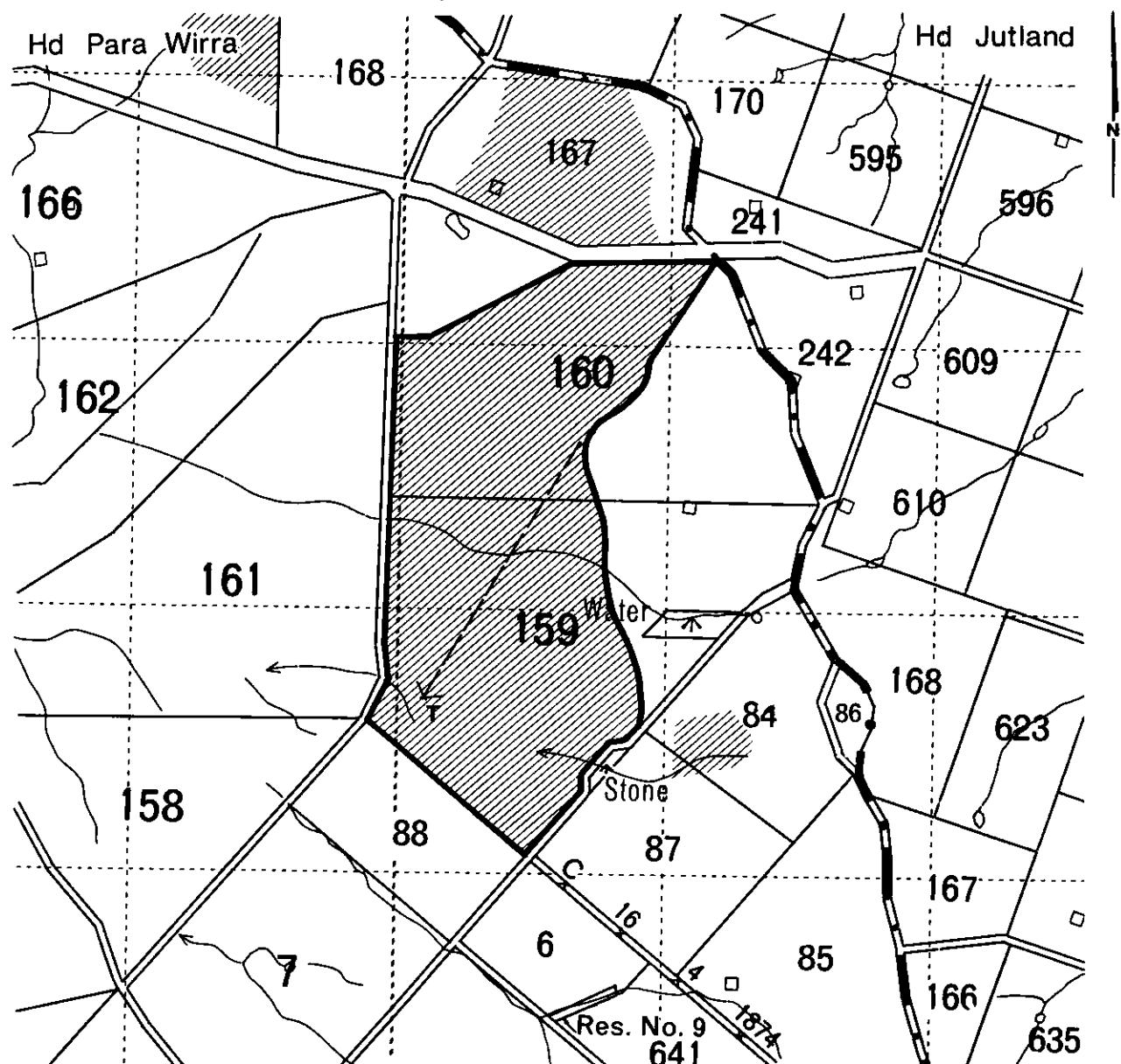
Cattle graze Section 160 which has a quarry adjacent to the eastern boundary of the open woodland. Grazing is less evident in Section 159, although horse scats were observed here. Several tracks traverse the site. Scattered infestations of **Ulex europaeus* occur near the western boundary of the scrub.

General:

Tall specimens of *Xanthorrhoea semiplana* with 2m high stems are a spectacular feature of this site.

Many species of sclerophyll shrubs are sparsely distributed through this relatively large area of open woodland. Faunal diversity is indicated by the presence of Western Grey Kangaroos, Echidna diggings and numerous bird species.

The open, park-like nature of this site renders it suitable for nature study and other forms of passive recreation.



Reference
Angaston 1:50 000, 6728-IV
204E-574N AMG
180 hectares approx

SCALE 1 : 25 000
0 1000 metres

Site 31

HD PARA WIRRA

Pt Sections 159, 160

SITE 31

| | Nos in Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|--------------------|---------------------|-------------|------------|--------------|------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Eucalyptus camaldulensis</i> | 2 | 5.8 | 2.3 | 2.5 | 13.3 | 2.3 | 0.1 | 6.9 | 11.7 |
| <i>E. fasciculosa</i> | 4 | 5.1 | 4.6 | 5.0 | 23.5 | 4.1 | 0.1 | 6.9 | 16.0 |
| <i>E. huberiana</i> | 66 | 6.3 | 75.4 | 82.5 | 475.0 | 83.2 | 0.95 | 65.5 | 231.2 |
| <i>E. leucoxylon</i> | 8 | 6.5 | 9.1 | 10.0 | 59.2 | 10.4 | 0.3 | 20.7 | 41.1 |
| Totals | 80 | | 91.4 | | 571 | | | | |
| 2m < Trees/Shrubs 8m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 4 | 1.4 | 4.8 | 5.0 | 6.7 | 2.8 | 0.1 | 4.2 | 12.0 |
| <i>Acacia retinodes</i> | 8 | 5.2 | 9.5 | 10.0 | 49.4 | 20.7 | 0.3 | 12.5 | 43.2 |
| <i>Banksia marginata</i> | P | - | - | - | - | - | - | - | - |
| <i>Bursaria spinosa</i> | 1 | 0.13 | 1.3 | 1.2 | 0.2 | 0.1 | 0.05 | 2.1 | 3.5 |
| <i>Casuarina muelleriana</i> | P | - | - | - | - | - | - | - | - |
| <i>C. stricta</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus fasciculosa</i> | 7 | 3.4 | 8.4 | 8.8 | 28.6 | 12.0 | 0.25 | 10.4 | 31.2 |
| <i>E. huberiana</i> | 22 | 3.2 | 26.2 | 27.5 | 83.8 | 35.0 | 0.65 | 27.1 | 89.6 |
| <i>E. leucoxylon</i> | 3 | 1.8 | 3.6 | 3.8 | 6.5 | 2.7 | 0.1 | 4.2 | 10.7 |
| <i>Hakea rostrata</i> | 6 | 2.1 | 7.1 | 7.5 | 14.9 | 6.2 | 0.2 | 8.3 | 22.0 |
| <i>Leptospermum juniperinum</i> | 14 | 0.26 | 16.6 | 17.5 | 4.3 | 1.8 | 0.4 | 16.7 | 36.0 |
| * <i>Pinus sp.</i> | P | - | - | - | - | - | - | - | - |
| <i>Santalum acuminatum</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | 15 | 2.5 | 17.9 | 18.8 | 44.8 | 18.7 | 0.35 | 14.6 | 52.1 |
| Totals | 80 | | 95.1 | | 239.2 | | | | |
| 0.25m < Shrubs 2m | | | | | | | | | |
| <i>Acacia paradoxa</i> | P | - | - | - | - | - | - | - | - |
| <i>Acacia retinodes</i> | 3 | 0.03 | 96.2 | 3.8 | 2.9 | 0.5 | 0.15 | 6.5 | 10.8 |
| <i>Astroloma conostephiooides</i> | 1 | 0.13 | 32.1 | 1.3 | 4.2 | 0.7 | 0.05 | 2.2 | 4.2 |
| <i>Brachyloma ericoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Calythrix tetragona</i> | 28 | 0.09 | 897.4 | 35.0 | 80.8 | 13.3 | 0.65 | 28.3 | 76.6 |
| <i>Cryptandra tomentosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Daviesia brevifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Daviesia ulicifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>D. ulicifolia var ruscifolia</i> | 2 | 0.20 | 64.1 | 2.5 | 12.8 | 2.1 | 0.05 | 2.2 | 6.8 |
| <i>Hakea carinata</i> | P | - | - | - | - | - | - | - | - |
| <i>Hakea rostrata</i> | 4 | 0.89 | 128.2 | 5.0 | 114.1 | 18.8 | 0.1 | 4.3 | 28.1 |
| <i>Isopogon ceratophyllus</i> | P | - | - | - | - | - | - | - | - |
| <i>Juncus pallidus</i> | 2 | 0.13 | 64.1 | 2.5 | 8.3 | 1.4 | 0.1 | 4.3 | 8.2 |
| <i>Lepidosperma carphoides</i> | 1 | 0.1 | 32.1 | 1.3 | 3.2 | 0.5 | 0.05 | 2.2 | 4 |
| <i>L. semiteres</i> | 7 | 0.15 | 224.4 | 8.8 | 33.7 | 5.6 | 0.15 | 6.5 | 20.9 |
| <i>Leptospermum juniperinum</i> | 17 | 0.11 | 544.9 | 21.3 | 60.0 | 9.9 | 0.35 | 15.2 | 46.4 |
| <i>L. myrsinoides</i> | 5 | 0.08 | 160.3 | 6.3 | 12.8 | 2.1 | 0.2 | 8.7 | 17.1 |
| <i>Leucopogon virgatus</i> | P | - | - | - | - | - | - | - | - |
| <i>Lomandra dura</i> | 1 | 0.02 | 32.1 | 1.3 | 0.6 | 0.1 | 0.05 | 2.2 | 3.6 |
| <i>Olearia ramulosa</i> | 1 | 0.13 | 32.1 | 1.3 | 4.2 | 0.7 | 0.05 | 2.2 | 4.7 |
| <i>Platylobium obtusangulum</i> | 1 | 0.02 | 32.1 | 1.3 | 0.6 | 0.1 | 0.05 | 2.2 | 3.6 |
| * <i>Ulex europaeus</i> | 1 | 0.25 | 32.1 | 1.3 | 8.0 | 1.3 | 0.05 | 2.2 | 4.8 |
| <i>Xanthorrhoea semiplana</i> | 6 | 1.35 | 192.3 | 7.5 | 259.6 | 42.9 | 0.25 | 10.9 | 61.3 |
| Totals | 80 | | 2564 | | 605.8 | | | | |

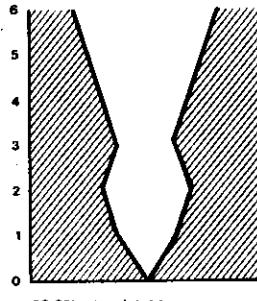
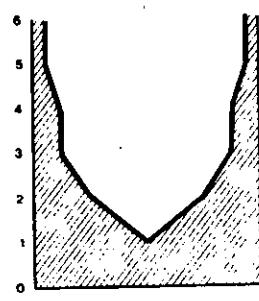
SITE 31**Small shrubs (< 0.25m), herbs, climbers, grasses**

Acacina sp.
Astroloma humifusum
Burchardia umbellata
Cassytha sp.
Cryptandra leucophaea
Drosera sp.
CERANIACEAE (sp. unknown)
Gonocarpus sp.
Goodenia primulacea
Haloragis sp.
Hibbertia sericea
H. virgata

Kennedia prostrata
Pimela sp.
Prasophyllum sp.
Pultenaea pedunculata

Perennial, grass-like plants

Carex appressa
Dianella revoluta, Hyophaena fastigiata
Juncus sp.
Lepidobolus drapetocoleus
Lepidosperma congestum
Machaerina sp.
Scirpus sp.
Themeda australis

Density Measurements**FAUNA****Birds**

Adelaide Rosella
Raven
Chough
White-plumed Honeyeater
Thornbill
Red Wattlebird
Sitella
Blue Wren
Brown-headed Honeyeater
Golden Whistler
White-throated Treecreeper
Red-rumped Parrot

Kookaburra
Crescent Honeyeater
Yellow-faced Honeyeater
Mistletoe Bird
Eastern Spinebill
New-Holland Honeyeater
Grey Shrike-thrush
White-naped Honeyeater
Crested Shrike-tit
Red-browed Finch

Other Fauna

Western Grey Kangaroo
Rabbit
Echidna diggings

PHOTOGRAPHS

| | | |
|---------------|------|--|
| C/6728-IV/BS/ | 1-B | Reference board |
| | 1-14 | <i>Eucalyptus huberana</i> open woodland/low open woodland |
| | 1-15 | <i>Eucalyptus huberana</i> open woodland/low open woodland |
| | 1-16 | <i>Casuarina stricta</i> |
| | 1-17 | <i>Casuarina stricta</i> |
| | 1-18 | <i>Xanthorrhoea semiplana</i> |
| | 1-19 | <i>Xanthorrhoea semiplana</i> |
| | 1-20 | <i>Xanthorrhoea semiplana</i> |
| | 1-21 | <i>Acacia retinodes</i> |
| | 1-22 | * <i>Ulex europeaeus</i> |

5.7 Hd. Talunga

SITE 32

Date: 6.6.79

Environmental Association: 3.2.15 and 3.2.17

Physiography:

North-west of the township of Mt. Pleasant a ridge running north-south is clothed in natural vegetation. Elevation ranges from 470m to 530m above sea level.

Plant Communities:

1. *Eucalyptus obliqua* woodland occurs on the higher, northern part of the ridge with a very sparse understorey dominated by *Xanthorrhoea semiplana*.
2. *Eucalyptus goniocalyx* /*E. obliqua* woodland occurs at lower elevations. The small tree layer is dominated by *E. goniocalyx* and a sparse understorey by *Xanthorrhoea semiplana*.

Condition:

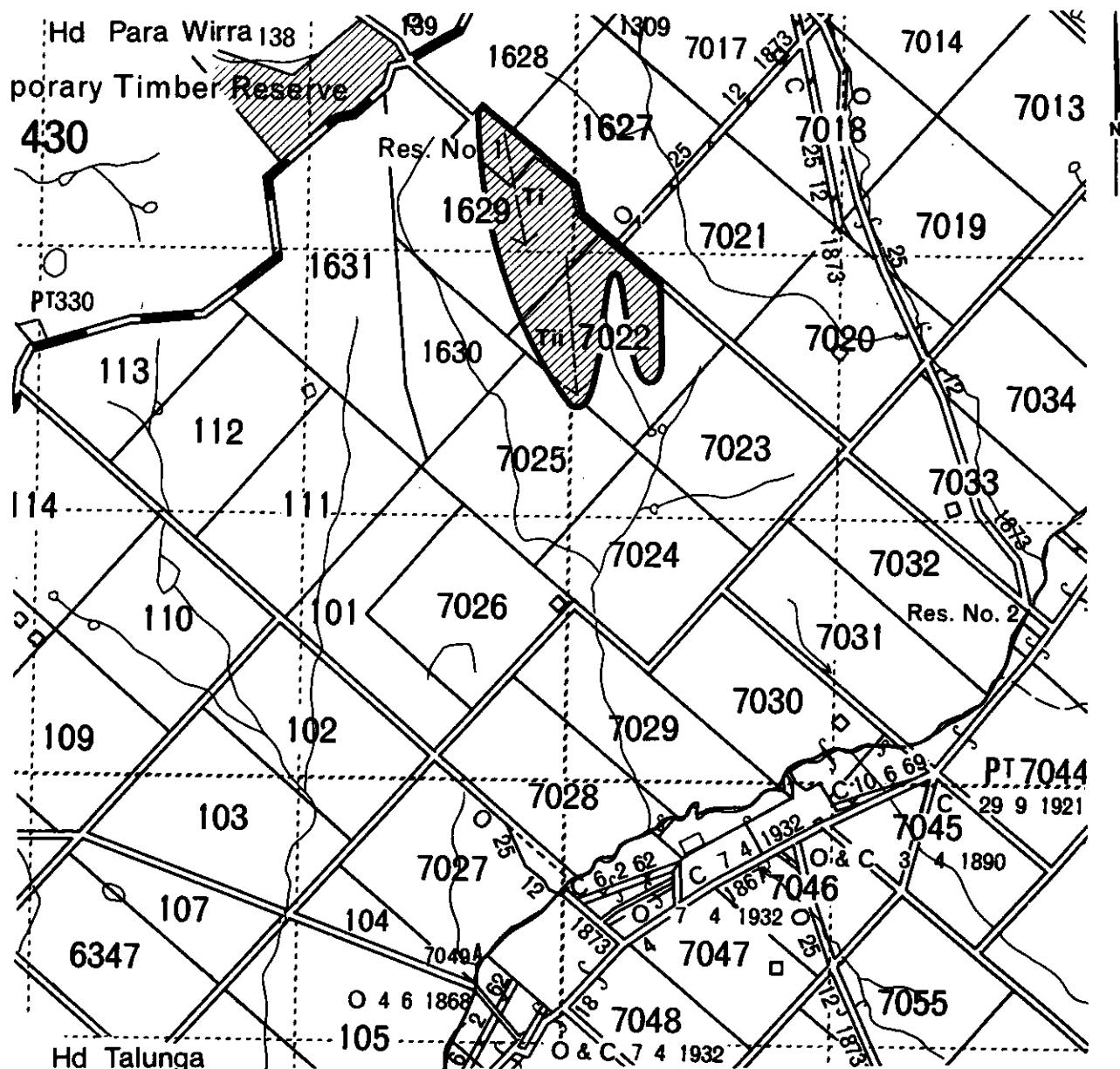
Grazing is evidenced by cattle scats and browsed plants in the northern part of Section 1629 which has some tracks. A rubbish dump occurs in Section 1629 and many trees show coppice regrowth.

A large infestation of **Ulex europaeus* occurs at the edge of the scrub in Section 7022 and **Senecio pterophorus* also occurs in this section.

General:

This site contains the only stand of *Eucalyptus goniocalyx* in the study area. This species is common in the north-central Mount Lofty Ranges and is preserved in Warren and Hale Conservation Parks and Para Wirra Recreation Park (Specht et al , 1974). The association is rare and endangered in South Australia (Margules, 1978).

The scrub on this ridge is of landscape value since it forms an attractive backdrop to the town of Mount Pleasant.



Reference
Topko 1:50 000, 6728-III
200E-520N AMG
30 hectares approx

SCALE 1 : 25 000
0 1000 metres

Site 32

HD TALUNGA

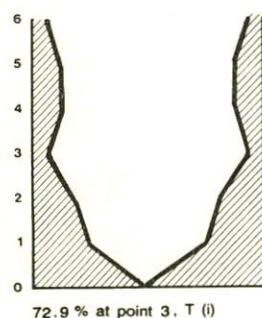
Pt Sections 1629, 7022 and Reserve No. 1

SITE 32 - Transect (i)

| | Nos in Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|--------------------|---------------------|------------|------------|-------|---------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Eucalyptus fasciculosa</i> | 1 | 10.0 | 9.2 | 4.2 | 92.0 | 8.2 | 0.33 | 22.0 | 34.4 |
| <i>E. goniocalyx</i> | 2 | 1.5 | 18.2 | 8.3 | 27.3 | 2.4 | 0.17 | 11.3 | 22.0 |
| <i>E. obliqua</i> | 21 | 5.2 | 192.5 | 87.5 | 101.0 | 89.4 | 1.0 | 66.7 | 243.6 |
| | Totals | 24 | | 220 | | 1120.3 | | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | | |
| <i>Acacia pyxantha</i> | 1 | 1.0 | 7.2 | 4.2 | 7.2 | 2.2 | 0.17 | 10.2 | 16.6 |
| <i>Bursaria spinosa</i> | 1 | 0.2 | 7.2 | 4.2 | 1.4 | 0.4 | 0.17 | 10.2 | 14.8 |
| <i>Eucalyptus goniocalyx</i> | 4 | 0.7 | 28.7 | 16.7 | 20.1 | 6.2 | 0.33 | 19.8 | 42.7 |
| <i>E. obliqua</i> | 18 | 2.3 | 129.0 | 75.0 | 296.7 | 91.2 | 1.0 | 60.0 | 226.2 |
| | Totals | 24 | | 172 | | 325.4 | | | |
| 0.25 < Shrubs < 2m | | | | | | | | | |
| <i>Bursaria spinosa</i> | 4 | 0.05 | 76.8 | 16.7 | 3.8 | 1.0 | 0.17 | 14.5 | 32.2 |
| <i>Eucalyptus goniocalyx</i> | 1 | 0.2 | 19.3 | 4.2 | 3.9 | 1.0 | 0.17 | 14.5 | 19.7 |
| <i>Spiridium parvifolium</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | 19 | 1.0 | 364.3 | 79.2 | 364.3 | 97.9 | 0.83 | 70.9 | 248.0 |
| | Totals | 24 | | 460 | | 372.0 | | | |

Small shrubs (< 0.25m) grasses

Acaena sp.
Astroloma humifusum
Cheilanthes tenuifolia
Drosera spp.
GERANIACEAE (sp. unknown)
Hibbertia sericea
Pultenaea pedunculata
POACEAE (spp. unknown)

Density Measurement

SITE 32 - Transect (ii)

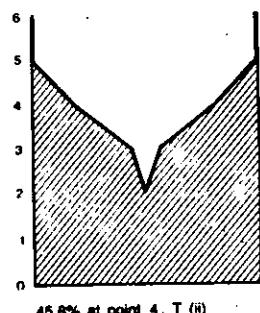
| | Nos in Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT Value |
|-------------------------------------|--------------------|---------------------|-------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Eucalyptus goniocalyx</i> | 19 | 3.9 | 80.8 | 47.5 | 315.1 | 33.7 | 0.70 | 41.2 | 122.4 |
| <i>E. fasciculosa</i> | P | - | - | - | - | - | - | - | - |
| <i>E. leucoxylon</i> | 8 | 5.4 | 34.0 | 20.0 | 183.6 | 19.6 | 0.50 | 29.4 | 69.0 |
| <i>E. obliqua</i> | 13 | 7.9 | 55.3 | 32.5 | 436.9 | 46.7 | 0.50 | 29.4 | 108.6 |
| Totals | 40 | | 170 | | 935.6 | | | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | | |
| <i>Acacia paradoxa</i> | 4 | 0.40 | 12.0 | 10.0 | 4.8 | 2.6 | 0.30 | 15.0 | 27.6 |
| <i>A. pycnantha</i> | 1 | 2.0 | 3.0 | 2.5 | 6.0 | 3.3 | 0.10 | 5.0 | 10.8 |
| <i>Eucalyptus goniocalyx</i> | 24 | 1.5 | 72.0 | 60.0 | 108.0 | 58.7 | 1.0 | 50.0 | 168.4 |
| <i>E. leucoxylon</i> | 7 | 1.9 | 21.0 | 17.5 | 39.9 | 21.7 | 0.4 | 20.0 | 59.2 |
| <i>E. obliqua</i> | 4 | 2.1 | 12.0 | 10.0 | 25.2 | 13.7 | 0.2 | 10.0 | 33.7 |
| <i>Exocarpus cupressiformis</i> | P | - | - | - | - | - | - | - | - |
| Total | 40 | | 120 | | 183.9 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 2 | 0.08 | 106.5 | 5.0 | 8.5 | 0.3 | 01.0 | 8.3 | 13.6 |
| <i>Astrolobia conostephoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Bursaria spinosa</i> | 1 | 0.10 | 53.3 | 2.5 | 5.3 | 0.2 | 0.10 | 8.3 | 11.0 |
| <i>Daviesia virgata</i> | P | - | - | - | - | - | - | - | - |
| <i>Lissanthe strigosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Platylobium obtusangulum</i> | P | - | - | - | - | - | - | - | - |
| * <i>Senecio pterophorus</i> | P | - | - | - | - | - | - | - | - |
| <i>Spyridium parvifolium</i> | P | - | - | - | - | - | - | - | - |
| * <i>Ulex europeus</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | 37 | 1.4 | 1970.2 | 92.5 | 2758.3 | 99.5 | 1.0 | 83.3 | 275.3 |
| Totals | 40 | | 2130 | | 2772.1 | | | | |

Small shrubs (< 0.25m) herbs, climbers and grasses

Acaena sp.
Acrotriche serrulata
Astrolobia humifusum
Burchardia umbellata
Cassytha sp.
Cheilanthes tenuifolia
Craspedia uniflora
Drosera spp.
GERANIACEAE (sp. unknown)
Haloragis sp.
Hibbertia exutiaciones
H. sericea
POACEAE (app. unknown)
Pultenaea pedunculata
Tetratheca pilosa
Viola sp.
MOSSES

Perennial, grass-like plants

Dianella revoluta
Lepidosperma carphoides
L. semiteres

Other LifeformsLichnesDensity MeasurementsFAUNABirds

Wedge-tailed Eagle
Thornbill
White-throated Treecreeper
Adelaide Rosella
Red-browed Finch

PHOTOGRAPHS

C/6728-III/BS/ 1-15
 1-16
 1-17
 1-18

Reference board
E. goniocalyx - E. obliqua woodland
E. goniocalyx
E. goniocalyx

5.8 Hd. Noarlunga

SITE 3

Date: 28.3.79Environmental Association: 3.2.13Physiography:

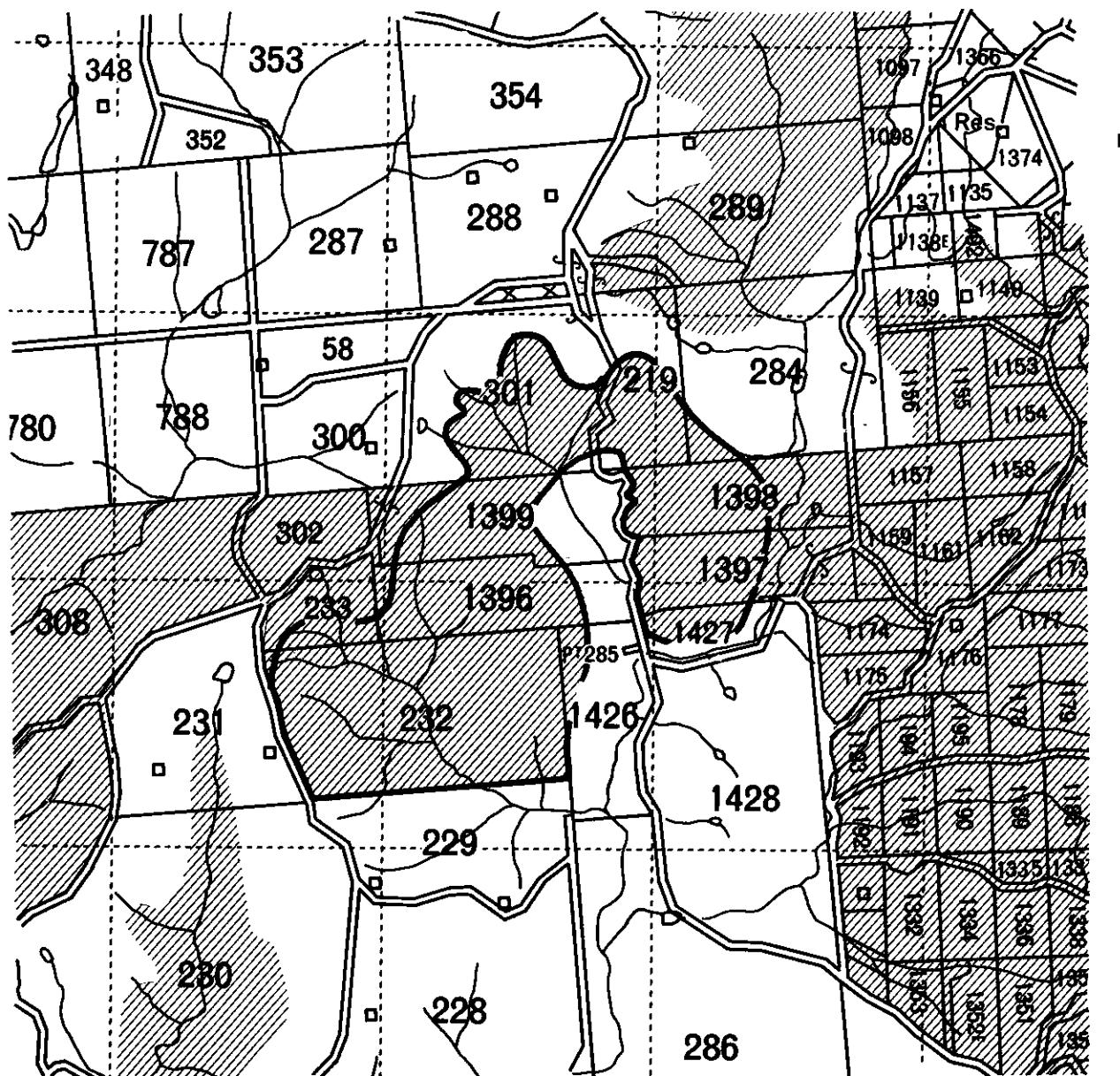
This site includes a swamp which drains into Scott Creek and wooded slopes which are partly cleared around the swamp and which grade into sclerophyll forest at higher elevations.

Plant Communities:

1. *Eucalyptus viminalis* - *E. leucoxylon* woodland/open forest fringes the swamp and extends some distance up the slopes. The understorey has been modified and is dominated by introduced herbs and grasses.
2. *E. obliqua* low open forest with scattered *E. fasciculosa* and *E. cosmophylla* and with a heath understorey occupies higher slopes and ridges.
3. Swamp complex is dominated by *Rubus fruticosos* in upper reaches but *Leptospermum pubescens*, *Acacia retinodes*, *L. juniperinum*, *Pteridium esculentum*, *Phragmites australis* and *Typha spp.* become prominent closer to Scott Creek. *Blechnum sp.* is common in the lower reaches of the swamp.

Condition and Evaluation:

Much of this site (Sections 1396, 1397, 1398, 1399 and 233) is part of S.P.A. Scott Creek Reserve No. 21 and therefore has not received any further evaluation in this report.



Reference
Noarlunga 1:50 000 6627-IV and Pt. 6527-1
875E-150N AMG

170 hectares

SCALE 1 : 25 000

0 1000 metres

Site 3

HD NOARLUNGA

Pt Section 219 , 232 , 233 , 301 , 1397 ,
1398 , 1427

Scrub AreasTrees > 3m

Acacia pycnantha
Eucalyptus fasciculosa
E. cosmophylla
E. leucoxylon
E. obliqua
E. viminalis
Exocarpos cupressiformis

Small shrubs (< 0.25m), herbs and perennial grass-like plants

Acrotriche serrulata
Astroloba humifusum
Hibbertia exutiacies
Isopogon ceratophyllus
Leucopogon virgatus
Dianella revoluta
**Hypericum perforatum*
Lobelia gibbosa

0.25m < Shrubs < 3m

Acacia myrtifolia
A. verticillata
Acrotriche fasciculiflora
Astroloba conostephioides
Bursaria spinosa
Cassinia sp.
**Chrysanthemoidea monilifera*
Daviesia ulicifolia
D. virgata
Epacris impressa
Goodenia ovata
Hakea carinata
H. rostrata
Ixodia achillaeoides
Leptospermum juniperinum
L. myrsinoides
Olearia ramulosa
Platylodium obtusangulum
Pteridium esculentum
Pultenaea daphnoides
**Rubus fruticosus*
**Senecio pterophorus*
Spiridium parvifolium
Xanthorrhoea semiplana

Swamp VegetationTrees > 3m

Acacia melanoxylon
A. retinodes
Eucalyptus viminalis
Leptospermum pubescens
**Malus sylvestris ssp. mitis*

0.25m < Shrubs < 3m

Leptospermum juniperinum
**Rubus fruticosus*

Sedges and Reeds

Cyperus vaginatus
Juncus pallidus
Phragmites australis
Typha sp.

Grasses, herbs and ferns

*POACEAE (introduced)
 FABACEAE (spp. unknown)
Blechnum sp.

FAUNABirds

Adelaide Rosella
 Crescent Honeyeater
 Brown Falcon
 Superb Blue Wren
 *Starling
 Welcome Swallow
 Grey Fantail
 Brown Thornbill
 White-throated Tree-creeper
 White-naped Honeyeater

PHOTOGRAPHS

| | | |
|---------------|------|--|
| C/6627-IV/BS/ | 1-1 | <i>Epacris impressa</i> |
| | 1-2 | Reference Board |
| | 1-3 | Panoramic view of swamp |
| | 1-4 | Upper reaches of swamp |
| | 1-5 | Swamp vegetation |
| | 1-6 | View of swamp |
| | 1-7 | <i>Blechnum sp.</i> |
| | 1-8 | <i>Blechnum sp.</i> |
| | 1-9 | Upper reaches of swamp |
| | 1-10 | Swamp - <i>Leptospermum</i> , <i>Typha</i> and <i>Phragmites</i> |
| | 1-11 | Swamp - <i>Leptospermum</i> , <i>Typha</i> and <i>Phragmites</i> |
| | 1-12 | <i>Leptospermum pubescens</i> |
| | 1-13 | <i>Eucalyptus viminalis</i> , in swamp |



Site 3 : *Blechnum* sp

SITE 4

Date: 28.3.79

Environmental Association: 3.2.13

Physiography:

A system of ridges with dissected slopes clothed in scrub, and a gully with swamp vegetation characterize this site, which lies west of Scott Creek.

Plant Communities:

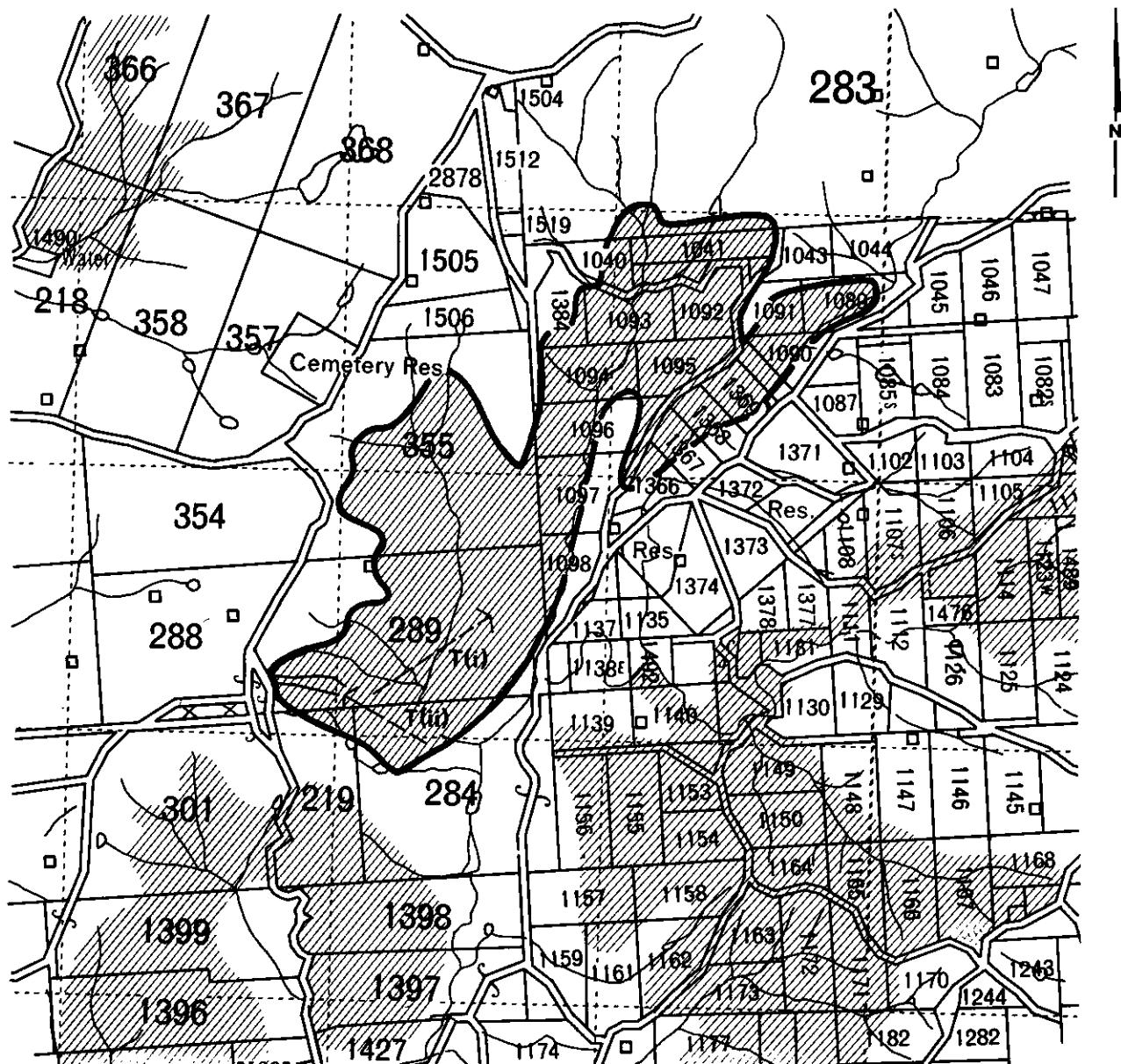
1. *Eucalyptus viminalis* - *E. leucoxylon* open forest/woodland with very sparse understorey of scattered shrubs and groundcover of introduced grasses and herbs fringes the swamp and extends a short distance up the slopes.
2. *E. obliqua* low woodland/woodland occurs on south and east-facing slopes with an understorey which is generally sclerophyllous.
3. *Acacia pycnantha* - *E. fasciculosa* low woodland with heath understorey occupies ridges and north-facing slopes.
4. *Leptospermum pubescens* - *Acacia retinodes* closed scrub occupies a significant though thin strip along the swamp. Elsewhere exotic trees and shrubs dominate this community.

Condition and General:

This area of natural vegetation has been modified by the invasion of weeds (including **Rubus fruticosus*, **Senecio pterophorus* and **Hypericum perforatum*) and **Pinus sp.*, the incursion of motor cycle tracks, and grazing by stock (indicated by cattle scats). Only the steepest slopes are relatively unmodified.

Damage to trees from past fire and drought stress (or *Phytophthora cinnamomi*) is evident on the ridges.

The swamp in Sections 284 and 289 has been invaded by exotic plants, but does contain a thin strip of closed scrub dominated by native species. Wetland vegetation of this type is now uncommon in the Mount Lofty Ranges, and provides an important habitat for animals which require dense vegetation for cover.



Reference
Noarlunga 1:50 000, 6627-IV
885E-165N AMG

150 hectares

SCALE 1 : 25 000

0 1000 metres

Site 4

HD NOARLUNGA

Sections 1041, 1092, 1093, 1094, 1095

Pt Sections 219, 284, 289, 355, 1040, 1089, 1090, 1091, 1096, 1097, 1098, 1366, 1367, 1368, 1369, 138

SITE 4 - Transect (i) - Sampling Points at 20m intervals - Along ridges and north-facing slopes
in Section 289

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|----------------------------------|--------------------|---------------------|--------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 3m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 8 | 1.25 | 77.2 | 20.0 | 96.5 | 6.7 | .4 | 19.0 | 45.7 |
| <i>A. retinodes</i> | P | - | - | - | - | - | - | - | - |
| <i>Banksia marginata</i> | 1 | 3.0 | 9.7 | 2.5 | 29.1 | 2.0 | .1 | 4.8 | 9.3 |
| <i>Eucalyptus cosmophylla</i> | 3 | 2.75 | 29.0 | 7.5 | 79.8 | 5.6 | .3 | 14.3 | 27.4 |
| <i>E. fasciculosa</i> | 10 | 2.25 | 96.5 | 25.0 | 217.1 | 15.1 | .6 | 28.6 | 68.7 |
| <i>E. obliqua</i> | 17 | 6.0 | 164.1 | 42.5 | 984.6 | 68.6 | .6 | 28.6 | 139.7 |
| <i>Exocarpus cupressiformis</i> | 1 | 3 | 9.7 | 2.5 | 29.1 | 2.0 | .1 | 4.8 | 9.3 |
| Totals | 40 | | 386.1 | | 1436.2 | | | | |
| 0.25m < Shrubs < 3m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | 1 | 0.10 | 336 | 2.5 | 34 | 1.0 | 0.1 | 3.1 | 6.5 |
| <i>A. pycnantha</i> | 2 | 0.25 | 672 | 5.0 | 168 | 5.0 | 0.2 | 6.3 | 16.3 |
| <i>A. verticillata</i> | P | - | - | - | - | - | - | - | - |
| <i>Astroloma conostephioides</i> | 1 | 0.25 | 336 | 2.5 | 84 | 2.5 | 0.1 | 3.1 | 8.1 |
| <i>Bursaria spinosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Casuarina muelleriana</i> | P | - | - | - | - | - | - | - | - |
| <i>Daviesia ulicifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>D. virgata</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucryphia impressa</i> | 2 | 0.05 | 672 | 5.0 | 34 | 1.0 | 0.2 | 6.3 | 12.3 |
| <i>Exocarpus cupressiformis</i> | 1 | 0.25 | 336 | 2.5 | 84 | 2.5 | 0.1 | 3.1 | 8.1 |
| <i>Hakea carinata</i> | P | - | - | - | - | - | - | - | - |
| <i>H. rostrata</i> | P | - | - | - | - | - | - | - | - |
| <i>Hibbertia stricta</i> | 1 | 0.25 | 336 | 2.5 | 84 | 2.5 | 0.1 | 3.1 | 8.1 |
| <i>Leptospermum juniperinum</i> | P | - | - | - | - | - | - | - | - |
| <i>L. myreinoides</i> | 15 | 0.25 | 5040 | 37.5 | 1260 | 37.7 | 0.8 | 25.0 | 100.2 |
| <i>Olearia ramulosa</i> | 5 | 0.50 | 1680 | 12.5 | 840 | 25.1 | 0.5 | 15.6 | 53.2 |
| <i>Platylobium obtusangulum</i> | 5 | 0.10 | 1680 | 12.5 | 168 | 5.0 | 0.4 | 12.5 | 30.0 |
| <i>Pteridium esculentum</i> | P | - | - | - | - | - | - | - | - |
| <i>Pultenaea daphnoides</i> | 1 | 0.25 | 672 | 5.0 | 168 | 5.0 | 0.1 | 3.1 | 13.1 |
| <i>Spyridium parvifolium</i> | 5 | 0.25 | 1680 | 12.5 | 420 | 12.6 | 0.6 | 18.8 | 43.9 |
| <i>Xanthorrhoea semiplana</i> | P | - | - | - | - | - | - | - | - |
| Totals | 40 | | 13440 | | 3344 | | | | |

Small shrubs (< 0.25m), herbs, creepers, ferns, grasses

Billardiera sericephora
Cassytha sp.
Cheilanthes tenuifolia
Hibbertia exutiaces
Isopogon ceratophyllum
Ixodia achillaeoides
⁴*Senecio pterophorus*
Themedea australis

FAUNA

Birds

Scarlet Robin
New Holland Honeyeater
Blue Wren
Adelaide Rosella
Blackbirds

PHOTOGRAPHS (Film 3)

| | | |
|---------------|------|--|
| C/6627-IV/BS/ | 2-1 | Reference Board |
| | 2-2 | <i>Eucalyptus cosmophylla</i> |
| | 2-3 | <i>Eucalyptus cosmophylla</i> |
| | 2-4 | View up north-facing slope |
| | 2-5 | <i>Eucalyptus obliqua</i> low woodland |
| | 2-6 | <i>Eucalyptus obliqua</i> low woodland |
| | 2-7 | <i>Acacia pycnantha</i> / <i>E. fasciculosa</i> low woodland |
| | 2-8 | <i>Acacia pycnantha</i> / <i>E. fasciculosa</i> low woodland |
| | 2-9 | <i>Banksia marginata</i> |
| | 2-10 | <i>Acacia pycnantha</i> / <i>E. fasciculosa</i> low woodland |
| | 2-11 | <i>E. obliqua</i> woodland |
| | 2-12 | <i>Eucalyptus obliqua</i> (30m high) |
| | 2-13 | Swamp (view) |
| | 2-14 | Swamp (view) |
| | 2-15 | <i>Leptospermum pubescens</i> in swamp |
| | 2-16 | <i>Leptospermum pubescens</i> in swamp |
| | 2-17 | Swamp |
| | 2-18 | Vehicular tracks |

SITE 4 - Transect (ii) - Sampling Points at 20m intervals - From edge of creek, proceeding up east-facing slope in Sections 284 and 289

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|----------------------------------|--------------------|---------------------|------------|--------------|--------|---------------|-------|--------------|---------------|
| Trees > 3m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 7 | 1.5 | 92.3 | 17.9 | 138.5 | 4.7 | 0.3 | 16.7 | 39.3 |
| <i>Eucalyptus cosmophylla</i> | 1 | 1 | 13.4 | 2.6 | 13.4 | 0.4 | 0.1 | 5.6 | 8.6 |
| <i>E. fasciculosa</i> | 7 | 2.75 | 92.3 | 17.9 | 253.8 | 8.6 | 0.4 | 22.2 | 48.7 |
| <i>E. leucoxylon</i> | 6 | 8.75 | 79.4 | 15.4 | 694.8 | 23.5 | 0.2 | 11.1 | 50 |
| <i>E. obliqua</i> | 10 | 5.25 | 132.0 | 25.6 | 693.0 | 23.4 | 0.5 | 27.8 | 76.8 |
| <i>E. viminalis</i> | 8 | 11.0 | 105.7 | 20.5 | 1162.7 | 39.3 | 0.3 | 16.7 | 76.5 |
| Totals | | 39 | | 515.5 | | 2956.2 | | | |
| 0.25m < Shrubs < 3m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 11 | 0.5 | 290.0 | 29.7 | 145 | 40.1 | 0.4 | 22.2 | 92.0 |
| <i>A. verticillata</i> | 2 | 0.05 | 52.7 | 5.4 | 2.6 | 0.7 | 0.2 | 11.1 | 17.2 |
| <i>Eucalyptus fasciculosa</i> | 1 | 0.25 | 26.4 | 2.7 | 6.6 | 1.8 | 0.1 | 5.6 | 10.1 |
| <i>Leptospermum juniperinum</i> | 1 | 0.25 | 26.4 | 2.7 | 6.6 | 1.8 | 0.1 | 5.6 | 10.1 |
| <i>L. myrsinoides</i> | 3 | 0.25 | 79.1 | 8.1 | 19.8 | 5.5 | 0.1 | 5.6 | 19.2 |
| <i>Platylobium obtusangulum</i> | 2 | 0.25 | 52.7 | 5.4 | 13.2 | 3.7 | 0.2 | 11.1 | 20.2 |
| <i>Pteridium esculentum</i> | 8 | 0.25 | 210.9 | 21.6 | 52.7 | 14.6 | 0.2 | 11.1 | 47.3 |
| <i>Pultenaea daphnoides</i> | 3 | 0.20 | 79.2 | 8.1 | 15.8 | 4.4 | 0.1 | 5.6 | 18.1 |
| <i>P. largiflorens</i> | | | | | | | | | |
| var. <i>latifolia</i> | 3 | 0.25 | 79.1 | 8.1 | 19.8 | 5.5 | 0.2 | 11.1 | 24.7 |
| * <i>Rosa sp.</i> | 2 | 0.50 | 52.7 | 5.4 | 26.4 | 7.3 | 0.1 | 5.6 | 18.3 |
| * <i>Rubus fruticosus</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | 1 | 2 | 26.4 | 2.7 | 52.8 | 14.6 | 0.1 | 5.6 | 22.9 |
| Totals | | 37 | | 976.6 | | 361.3 | | | |

Small shrubs (< 0.25m), creepers, herbs and grasses

| | |
|-------------------------------|------------------------------|
| <i>Acrotriche serrulata</i> | <i>Kennedia prostrata</i> |
| <i>Astrolobia humifusum</i> | <i>Leuropogon virgatus</i> |
| <i>Hibbertia exutioides</i> | * <i>Senecio pterophorus</i> |
| <i>H. stricta</i> | <i>Themeda australis</i> |
| * <i>Hypericum perforatum</i> | POACEAE (introduced) |

Swamp Vegetation

| | |
|-------------------------------|--|
| <u>Trees > 3m</u> | |
| <i>Acacia retinodes</i> | |
| <i>Eucalyptus viminalis</i> | |
| * <i>Fraxinus sp.</i> | |
| <i>Leptospermum pubescens</i> | |

0.5m < Shrubs < 3m

| |
|---------------------------------|
| <i>Leptospermum juniperinum</i> |
| <i>Melaleuca decussata</i> |
| * <i>Rosa sp.</i> |
| * <i>Rubus fruticosus</i> |

Perennial, grass-like plants

CYPERACEAE

PHOTOGRAPHS

| | | |
|---------------|------|--|
| C/6627-IV/BS/ | 2-19 | Trail bike tracks |
| | 2-20 | <i>Eucalyptus viminalis</i> - <i>E. leucoxylon</i> association |
| | 2-21 | <i>Eucalyptus viminalis</i> - <i>E. leucoxylon</i> association |
| | 2-22 | <i>E. obliqua</i> |
| | 2-23 | Tracks present in scrub |

SITE 9

Date: 11.4.79

Environmental Association: 3.2.13

Physiography:

Ridges and gullies running from east to west covered in native vegetation characterize this site. Altitude ranges from 380m to 470m above sea level and slopes are of medium to gentle gradient. Evans Drive bisects the site between Sections 419, 418 and 381, while the Sturt River separates the site from scrub to the north.

Plant Communities:

1. *Eucalyptus obliqua* woodland with a dense understorey of sclerophyllous shrubs occupies the gullies and south-facing slopes.
2. *E. baxteri* - *E. obliqua* woodland with a mid-dense understorey of sclerophyllous shrubs occupies ridges and north-facing slopes.

Smaller trees of *E. fasciculosa* and *E. cosmophylla* are scattered through 1. while *E. cosmophylla* is present in 2.

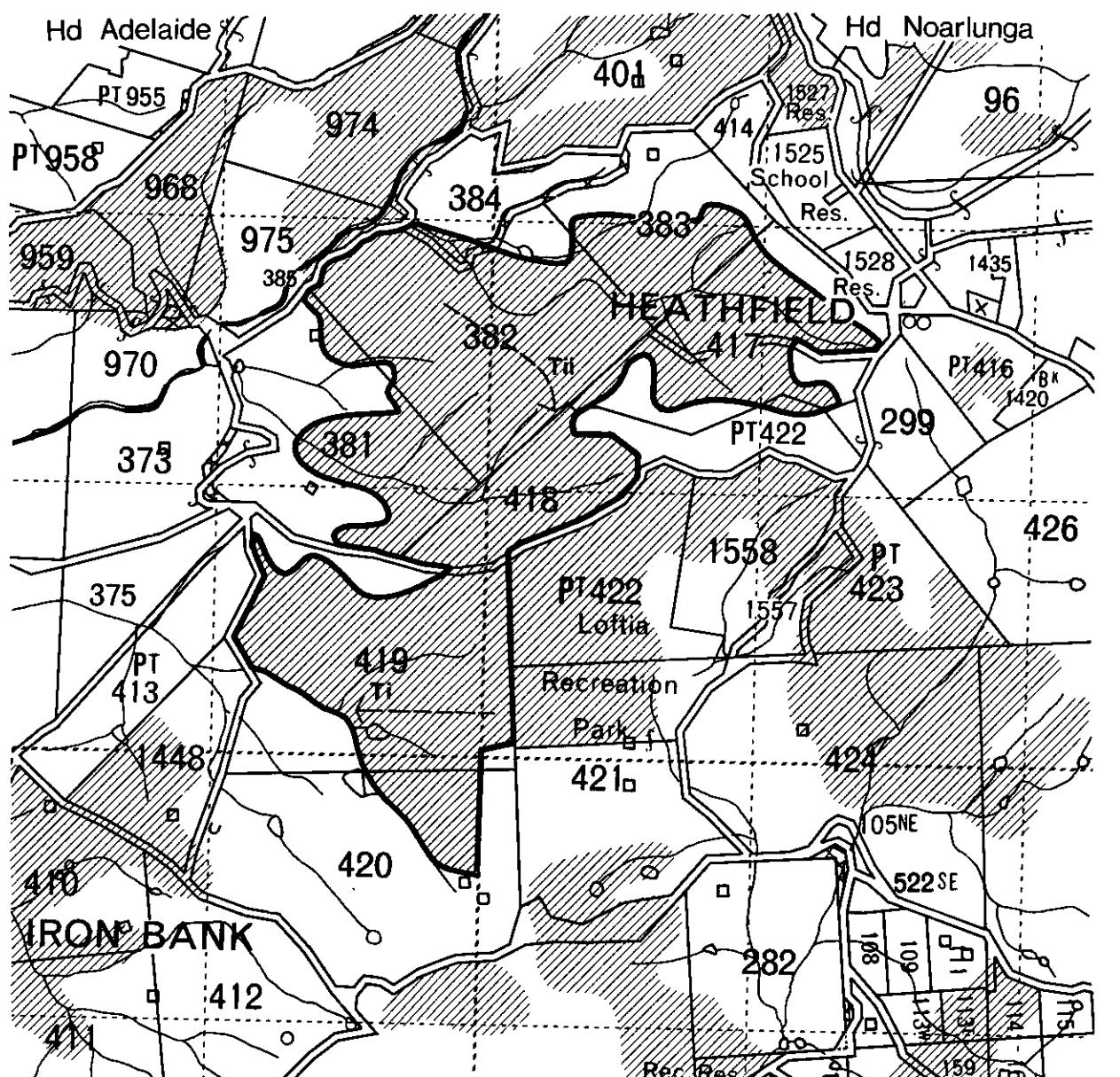
Condition:

Several walking tracks traverse the scrub on both sides of Evans Drive. An old orchard with a number of trees and shrubs occupies about 2 ha adjacent to the road in Section 418.

Scattered individuals of **Pinus sp.* occur through the scrub while **Rubus fruticosus* is choking the wetter gullies (the gully followed in transect (i) is relatively dry and contains only scattered **R. fruticosus*). Elsewhere the generally sclerophyllous understorey is unmodified, although it has been largely removed in Section 420.

General:

This is a relatively large area of scrub which is continuous with natural vegetation to the north and to the south-east through Loftia Recreation Park. The *Eucalyptus obliqua* open forest/woodland is relatively unmodified on the slopes, ridges and drier gullies where the understorey consists of a variety of sclerophyllous shrubs. Rare plants include *Olearia grandiflora* and *Casuarina striata* (Specht et al, 1974).



Reference
Noarlunga 1:50 000 6627-IV and Pt. 6527-1
900E-210N AMG
230 hectares

SCALE 1 : 25 000
0 1000 metres

Site 9

HD NOARLUNGA

Pt Sections 423, 424, 425

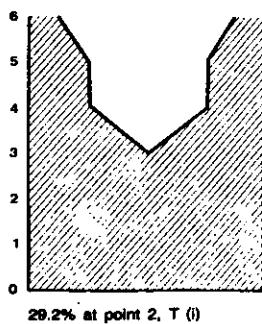
SITE 9 - Transect (i) - Sampling points at 20m intervals - Proceeding west along a gully

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|----------------------------------|--------------------|---------------------|----------------|------------|---------------|------------|-------|--------------|---------------|
| Canopy Trees > 3m | | | | | | | | | |
| <i>Eucalyptus obliqua</i> | 56 | 4.5 | 406.5 | 100 | 1829.3 | 100 | 1 | 100 | 300 |
| Trees > 3m | | | | | | | | | |
| <i>Eucalyptus cosmophylla</i> | P | - | - | - | - | - | - | - | - |
| <i>E. fasciculosa</i> | 1 | .5 | 9.1 | 2.0 | 4.6 | 0.3 | 0.07 | 6.5 | 8.8 |
| <i>E. obliqua</i> | 55 | 4.0 | 443.4 | 98.0 | 1773.6 | 99.7 | 1 | 93.5 | 291.2 |
| Totals | 56 | | 452.5 | | 1778.2 | | | | |
| 0.25m < Shrubs < 3m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Acrotriche fasciculiflora</i> | 8 | 0.20 | 6500 | 14.3 | 1300 | 18.4 | 0.36 | 13.2 | 45.9 |
| <i>Bankeia marginata</i> | P | - | - | - | - | - | - | - | - |
| <i>Bursaria spinosa</i> | P | - | - | - | - | - | - | - | - |
| * <i>Erica sp.</i> | 7 | 0.13 | 5681.8 | 12.5 | 738.6 | 10.4 | 0.29 | 10.7 | 33.6 |
| <i>Hakea carinata</i> | P | - | - | - | - | - | - | - | - |
| <i>Hakea rostrata</i> | P | - | - | - | - | - | - | - | - |
| <i>Hibbertia exutiacies</i> | 1 | 0.25 | 818.2 | 1.8 | 204.6 | 2.9 | 0.07 | 2.6 | 7.3 |
| <i>Ixodia achillaeoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Lepidosperma semiteres</i> | 6 | 0.25 | 4863.6 | 10.7 | 1215.9 | 17.2 | 0.29 | 10.7 | 38.6 |
| <i>Leptospermum juniperinum</i> | 21 | 0.10 | 17045.4 | 37.5 | 1705 | 24.1 | 0.93 | 34.2 | 95.8 |
| <i>L. myrsinoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Olearia ramulosa</i> | 1 | 0.25 | 818.2 | 1.8 | 204.6 | 2.9 | 0.07 | 2.6 | 7.3 |
| <i>Pteridium esculentum</i> | 9 | 0.20 | 7318.2 | 16.1 | 1463.6 | 20.3 | 0.5 | 18.4 | 54.8 |
| <i>Pultenaea daphnoides</i> | 3 | 0.10 | 2454.5 | 5.4 | 245.5 | 3.5 | 0.21 | 7.7 | 16.6 |
| * <i>Rubus fruticosus</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | P | - | - | - | - | - | - | - | - |
| Totals | 56 | | 45454.5 | | 7077.8 | | | | |

Small shrubs (< 0.25m), creepers, herbs and grassesPerennial, grass-like plants

Acaena sp.
Acrotriche serrulata
Cassytha sp.
Haloragis spp.
Hibbertia stricta
Olearia grandiflora
Scaevola albida

Dianella revoluta
Lepidoasperma sp.

Density Measurements

SITE 9 - Transect (ii) - Sampling points at 20m intervals - In an easterly direction along a ridge
in Section 382

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|----------------------------------|--------------------|---------------------|--------------|------------|---------------|------------|-------|--------------|---------------|
| Canopy trees | | | | | | | | | |
| <i>Eucalyptus baxteri</i> | 49 | 6.0 | 167.6 | 58.3 | 1005.6 | 65.1 | 0.86 | 53.0 | 176.4 |
| <i>E. obliqua</i> | 35 | 4.5 | 119.8 | 41.7 | 539.1 | 34.9 | 0.76 | 47.0 | 123.6 |
| Totals | 84 | | 287.4 | | 1544.7 | | | | |
| Trees > 3m | | | | | | | | | |
| <i>Casuarina striata</i> | 3 | 0.75 | 12.4 | 3.6 | 9.3 | 0.6 | 0.10 | 5.6 | 9.8 |
| <i>Eucalyptus baxteri</i> | 42 | 5.75 | 172.5 | 50.0 | 991.9 | 59.6 | 0.81 | 45.8 | 155.4 |
| <i>E. cosmophylla</i> | 1 | 2 | 4.1 | 1.2 | 8.2 | 0.5 | 0.05 | 2.8 | 4.5 |
| <i>E. obliqua</i> | 35 | 4.5 | 143.9 | 41.7 | 647.6 | 38.9 | 0.76 | 42.9 | 123.5 |
| <i>Exocarpus cupressiformis</i> | P | - | - | - | - | - | - | - | - |
| <i>Hakea carinata</i> | 3 | 0.5 | 12.4 | 3.6 | 6.2 | 0.4 | 0.05 | 2.8 | 6.8 |
| * <i>Pinus</i> sp. | P | - | - | - | - | - | - | - | - |
| Totals | 84 | | 345.0 | | 1663.2 | | | | |
| 0.25m < Shrubs < 3m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Acrotriche fuscotuliflora</i> | P | - | - | - | - | - | - | - | - |
| <i>Astrolobia conostephoides</i> | 1 | 0.50 | 499.0 | 1.2 | 250 | 5.0 | 0.05 | 2.0 | 8.2 |
| <i>Banksia marginata</i> | 8 | 0.25 | 3952 | 9.5 | 988 | 19.9 | 0.33 | 13.1 | 42.5 |
| <i>Daviesia brevifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>D. ulicifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>D. virgata</i> | 2 | 0.10 | 998 | 2.4 | 100 | 2.0 | 0.10 | 4.0 | 8.4 |
| <i>Epacris impressa</i> | 2 | 0.02 | 998 | 2.4 | 20 | 0.4 | 0.10 | 4.0 | 6.8 |
| <i>Hakea rostrata</i> | 2 | 0.75 | 998 | 2.4 | 749 | 15.1 | 0.10 | 4.0 | 21.5 |
| <i>H. carinata</i> | 2 | 0.25 | 998 | 2.4 | 250 | 5.0 | 0.10 | 4.0 | 11.4 |
| <i>Hibbertia stricta</i> | 1 | 0.25 | 499 | 1.2 | 250 | 5.0 | 0.05 | 2.0 | 8.2 |
| <i>Ixodia achillaeoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Lepidosperma semiteres</i> | 1 | 0.25 | 499 | 1.2 | 125 | 2.5 | 0.05 | 2.0 | 5.7 |
| <i>Leptospermum myrsinoides</i> | 44 | 0.05 | 21798 | 52.4 | 1090 | 21.9 | 0.90 | 35.9 | 110.2 |
| <i>Platylobium obtusangulum</i> | 16 | 0.05 | 7904 | 19.0 | 395 | 7.9 | 0.48 | 19.1 | 46.0 |
| <i>Pteridium esculentum</i> | P | - | - | - | - | - | - | - | - |
| <i>Pultenaea daphnoides</i> | 2 | 0.13 | 998 | 2.4 | 130 | 2.6 | 0.10 | 4.0 | 9.0 |
| <i>P. involucrata</i> | 1 | 0.25 | 499 | 1.2 | 125 | 2.5 | 0.05 | 2.0 | 5.7 |
| * <i>Rubus fruticosus</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | 2 | 0.50 | 998 | 2.4 | 499 | 10.0 | 0.10 | 4.0 | 16.4 |
| Totals | 84 | | 41600 | | 4951 | | | | |

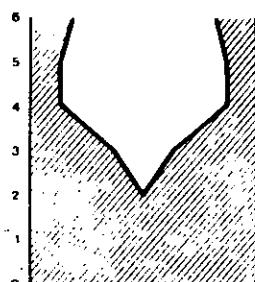
Small shrubs (< 0.25m), herbs, climbers, grasses

Acrotriche serrulata
Astrolobia humifusum
Caesalpinia spp.
Dillwynia hispida
Ericochilus corymbosus
Grevillea primulacea
Isopogon ceratophyllus
Kennedia prostrata
Leucopogon virgatus
Persoonia juniperina
Platysace heterophylla
Stylidium graminifolium
Tetrapheca pilosa

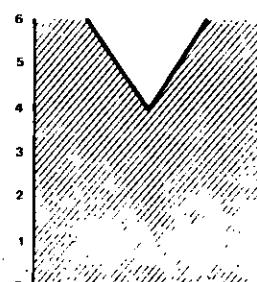
Perennial, grass-like plants

Dianella revoluta
Lomandra micrantha

Density measurements



39.8% at point 7, T (ii)



12.5% at point 21, end of T (ii)

SITE 9 - Transect (ii) - Cont.

Plants present at the site but not recorded in either transectTrees > 3m

Acacia dealbata
A. melanoxylon

Small shrubs (< 0.25m), herbs, grasses

Briza sp.
Burchardia umbellata
Dipodium punctatum
Pimelea linifolia
Prasophyllum sp.
POACEAE (spp. unknown)

0.25m < Shrubs < 3m

Acacia verticillata
**Genista maderensis*
**Rosa sp.*
**Sarrothamnus scoparius*
**Ulex europaeus*

Perennial, grass-like plants

Juncus sp.
Themeda australis

FAUNABirds

Scarlet Robin
 Adelaide Rosella
 Crescent Honeyeater
 Grey Shrike-thrush
 Silvereye
 Blue Wren
 Golden Whistler
 Grey Fantail
 Brown Thornbill
 White-throated Tree-creeper
 Grey Currawong
 Yellow-tailed Black Cockatoo
 Raven
 Dusky Wood Swallow
 Eastern Spinebill
 New-Holland Honeyeater

Other Fauna

Golden orb spider (*Nephila sp.*)
 Skinks
 Red-bellied Black Snake

PHOTOGRAPHS

| | | |
|---------------|------|---------------------------------------|
| C/6627-IV/BS/ | 1-14 | Reference Board |
| | 1-15 | <i>Eucalyptus obliqua</i> woodland |
| | 1-16 | Tree stump |
| | 1-17 | <i>E. obliqua</i> woodland |
| | 1-18 | Tree stump |
| | 1-19 | <i>Epacris impressa</i> |
| | 1-20 | <i>E. cosmophylla</i> |
| | 1-21 | <i>E. caxteri/E. obliqua</i> woodland |
| | 1-22 | <i>Banksia marginata</i> |
| | 1-23 | View from ridge |



Site 9 : *Eucalyptus baxteri* / *Eucalyptus obliqua* woodland



Site 10 : *Eucalyptus baxteri* woodland
Eucalyptus obliqua - baxteri woodland

SITE 10

Date: 18.4.79

Environmental Association: 3.2.13

Physiography:

South of Heathfield there is a system of gullies and ridges with medium to steep slopes and covered in native vegetation. Altitude ranges from 360m to 480m above sea level.

Plant Communities:

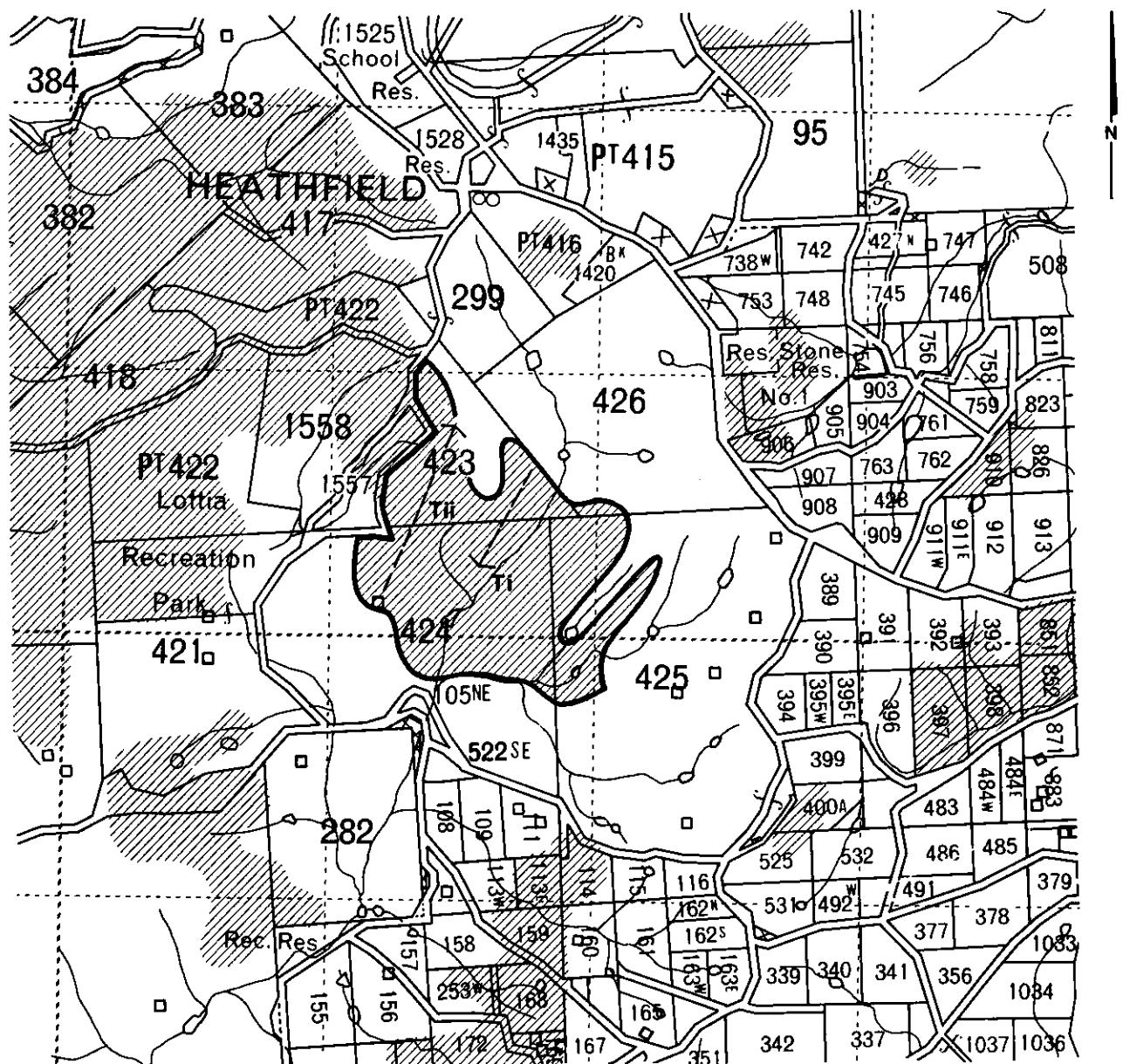
1. *Eucalyptus obliqua* woodland occupies gullies and south and east-facing slopes. The understorey is dense. The principal creek in Section 424 contains *E. viminalis* in addition to *E. obliqua*, together with smaller trees of *Acacia melanoxylon*, *A. retinodes* and *Leptospermum pubescens*. **Rubus fruticosus* is prominent in the understorey (see plant list for "Swamp Vegetation"). *Eucalyptus rubida* occurs near the southern boundary of the scrub in Section 424.
2. *E. baxteri* - *E. obliqua* woodland covers the ridges and north and west-facing slopes. The understorey varies from sparse where grazing is evident to mid-dense in unmodified areas.

Condition and General:

Poplars and pines (**Pinus* sp.) occur at the northern end of the gully in Section 423 where **Rubus fruticosus* dominates the understorey. The presence of cattle scats and the sparseness of the understorey indicate grazing in the western half of Section 424.

Eucalyptus rubida, *Callitris rhomboidea*, *Casuarina striata* and *Blechnum* sp. (in swamp vegetation) which are rare plants in South Australia (Specht et al , 1974) occur at this site. Most of the scrub has a relatively unmodified understorey which is dense on sheltered east-facing slopes, and consists of a variety of sclerophyllous shrubs.

The preservation of this scrub would add ecological viability to Loftia Recreation Park to which it is adjacent.



Reference
Noarlunga 1:50 000, 6627-IV
915E-203N AMG

70 hectares

SCALE 1 : 25 000

0 1000 metres

Site 10

HD NOARLUNGA

Pt. Sections 423, 424, 425

SITE 10 - Transect (i) - Along lower east-facing slope adjacent to gully

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel. Freq. | IMPT VALUE |
|--------------------------------------|--------------------|---------------------|---------------|------------|----------------|------------|-------|---------------|---------------|
| Trees > 10m | | | | | | | | | |
| <i>Acacia melanoxylon</i> | 1 | 4 | 4.4 | 2.1 | 17.6 | 1.2 | 0.08 | 7.4 | 10.7 |
| <i>Eucalyptus obliqua</i> | 47 | 7 | 203.6 | 97.9 | 1425.6 | 98.8 | 1.00 | 92.6 | 289.3 |
| <i>E. rubida</i> | P | - | - | - | - | - | - | - | - |
| Totals | 48 | | 208 | | 1443.2 | | | | |
| 3m < Trees/Shrubs < 10m | | | | | | | | | |
| <i>Acacia melanoxylon</i> | 1 | 0.75 | 11.6 | 2.1 | 8.7 | 1.6 | 0.08 | 3.4 | 7.1 |
| <i>A. retinodes</i> | 1 | 0.50 | 11.6 | 2.1 | 5.8 | 1.0 | 0.08 | 3.4 | 6.5 |
| <i>Banksia marginata</i> | 2 | 0.75 | 23.1 | 4.2 | 17.3 | 3.1 | 0.16 | 6.9 | 14.2 |
| <i>Eucalyptus fasciculosa</i> | 1 | 0.50 | 11.6 | 2.1 | 5.8 | 1.0 | 0.08 | 3.4 | 6.5 |
| <i>E. obliqua</i> | 21 | 1.00 | 241.3 | 43.8 | 241.3 | 43.5 | 1.00 | 43.1 | 130.4 |
| <i>Exocarpus cupressiformis</i> | 13 | 1.50 | 149.3 | 27.1 | 224.0 | 40.4 | 0.50 | 21.6 | 89.1 |
| <i>Pultenaea daphnoides</i> | 9 | 0.50 | 103.6 | 18.8 | 51.8 | 9.3 | 0.42 | 18.1 | 46.2 |
| Totals | 48 | | 551 | | 554.7 | | | | |
| 0.25m < Shrubs < 3m | | | | | | | | | |
| <i>Acrotriche fasciculiflora</i> | 23 | 0.1 | 79993 | 47.9 | 7999.3 | 26.6 | 1.00 | 46.5 | 121.0 |
| <i>Banksia marginata</i> | 5 | 0.25 | 17368 | 10.4 | 4342 | 14.4 | 0.25 | 11.6 | 36.4 |
| <i>Bursaria spinosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Epacris impressa</i> | 1 | 0.05 | 3507 | 2.1 | 175.4 | 0.6 | 0.08 | 3.7 | 6.4 |
| * <i>Erica</i> sp. | P | - | - | - | - | - | - | - | - |
| <i>Hakea rostrata</i> | P | - | - | - | - | - | - | - | - |
| <i>Leptospermum juniperinum</i> | 1 | 0.05 | 3507 | 2.1 | 175.4 | 0.6 | 0.08 | 3.7 | 6.4 |
| <i>L. myrsinoides</i> | 1 | 0.10 | 3507 | 2.1 | 350.7 | 1.2 | 0.08 | 3.7 | 7.0 |
| <i>Platyllobium obtusangulum</i> | 1 | 0.01 | 3507 | 2.1 | 350.7 | 1.2 | 0.08 | 3.7 | 7.0 |
| <i>Pteridium esculentum</i> | 16 | 0.3 | 55611 | 33.3 | 16683.3 | 55.5 | 0.58 | 27.0 | 115.8 |
| <i>Pultenaea daphnoides</i> | P | - | - | - | - | - | - | - | - |
| * <i>Rubus fruticosus</i> | P | - | - | - | - | - | - | - | - |
| * <i>Senecio pterophorus</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | P | - | - | - | - | - | - | - | - |
| Totals | 48 | | 167000 | | 30076.8 | | | | |

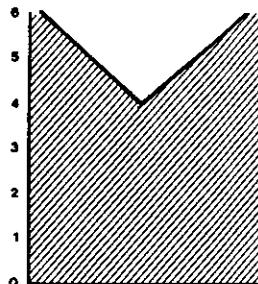
Small shrubs (< 0.25m), herbs, perennial grass-like plants

Acaena sp.
Acrotriche serrulata
Craspedia uniflora
Dianella revoluta
Goodenia ovata
Haloragis spp.
Hibbertia exutiacies
H. stricta
Lepidosperma semiteres
Pimelea linifolia
Tetratheca pilosa

MOSES

Other life forms

Lichens
fungi

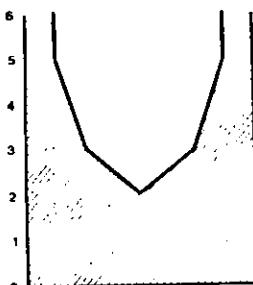
Density measurements

SITE 10 - Transect (ii) - Along a ridge

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|--------------------------------------|--------------------|---------------------|------------|------------|-------|------------|-------|--------------|---------------|
| Trees > 10m | | | | | | | | | |
| <i>Eucalyptus baxteri</i> | 31 | 8.0 | 100 | 72.1 | 800 | 71.9 | 0.93 | 65.0 | 209.0 |
| <i>E. obliqua</i> | 12 | 8.0 | 39 | 27.9 | 312 | 28.1 | 0.50 | 35.0 | 91.0 |
| Totals | | | | | | | | | |
| 3m < Trees/Shrubs < 10m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 18 | 0.75 | 89.9 | 33.3 | 67.4 | 11.7 | 0.50 | 26.9 | 71.9 |
| <i>Callitris rhomboidea</i> | P | - | - | - | - | - | - | - | - |
| <i>Casuarina striata</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus baxteri</i> | 24 | 3.0 | 119.9 | 44.4 | 359.7 | 62.6 | 0.79 | 42.5 | 149.5 |
| <i>E. cosmophylla</i> | P | - | - | - | - | - | - | - | - |
| <i>E. fasciculosa</i> | 1 | 1.0 | 5.1 | 1.9 | 5.1 | 0.9 | 0.07 | 3.8 | 6.6 |
| <i>E. obliqua</i> | 9 | 3.0 | 45.1 | 16.7 | 135.3 | 23.5 | 0.32 | 23.1 | 63.3 |
| <i>Exocarpus cupressiformis</i> | 2 | 0.75 | 10.0 | 3.7 | 7.5 | 1.3 | 0.07 | 3.8 | 8.8 |
| * <i>Pinus sp.</i> | P | - | - | - | - | - | - | - | - |
| Totals | | | | | | | | | |
| 0.25m < Shrubs < 3m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | 2 | 0.1 | 630 | 3.6 | 63.0 | 3.5 | 0.14 | 6.2 | 13.3 |
| <i>Acrotriche fasciculiflora</i> | P | - | - | - | - | - | - | - | - |
| <i>Banksia marginata</i> | 2 | 0.25 | 630 | 3.6 | 157.5 | 8.7 | 0.14 | 6.2 | 18.5 |
| <i>Casuarina muellerana</i> | P | - | - | - | - | - | - | - | - |
| * <i>Chrysanthemoides monilifera</i> | P | - | - | - | - | - | - | - | - |
| <i>Epacris impressa</i> | 4 | 0.05 | 1243 | 7.1 | 62.2 | 3.4 | 0.21 | 9.3 | 19.8 |
| <i>Hakea carinata</i> | P | - | - | - | - | - | - | - | - |
| <i>H. rostrata</i> | 1 | 0.10 | 315 | 1.8 | 31.5 | 1.7 | 0.07 | 3.1 | 6.6 |
| <i>Hibbertia stricta</i> | P | - | - | - | - | - | - | - | - |
| <i>Ixodia achillaeoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Lepidosperma semiteres</i> | 2 | 0.25 | 630 | 3.6 | 157.5 | 8.7 | 0.07 | 3.1 | 15.4 |
| <i>Leptospermum myrsinoides</i> | 28 | 0.10 | 8750 | 50.0 | 875.0 | 48.2 | 0.93 | 41.0 | 139.2 |
| <i>Platylobium obtusangulum</i> | 4 | 0.05 | 1243 | 7.1 | 62.2 | 3.4 | 0.21 | 9.3 | 19.8 |
| <i>Pultenaea daphnoidea</i> | 13 | 0.10 | 4060 | 23.2 | 406.0 | 22.4 | 0.50 | 22.0 | 67.6 |
| <i>P. acerosa var acicularis</i> | P | - | - | - | - | - | - | - | - |
| Totals | | | | | | | | | |

Small shrubs (< 0.25m), herbs, climbers

| | |
|------------------------------|--------------------------------|
| <i>Acrotriche serrulata</i> | <i>Grevillea lavandulacea</i> |
| <i>Astroloma humifusum</i> | <i>Haloragis sp.</i> |
| <i>Burkhardtia umbellata</i> | <i>Helichrysum sp.</i> |
| <i>Cassytha app.</i> | <i>Isopogon ceratophyllum</i> |
| <i>Dianella revoluta</i> | <i>Leucopogon concurvis</i> |
| <i>Dipodium punctatum</i> | <i>L. virgatus</i> |
| <i>Eriochilus cucullatus</i> | <i>Marianthus bignoniaceus</i> |
| <i>Goodenia primulacea</i> | <i>Persoonia juniperina</i> |
| <i>Gonocarpus sp.</i> | <i>Stylidium sp.</i> |
| | <i>Tetratheca pilosa</i> |
| | <i>Xanthosia pusilla</i> |

Density measurements

43.8% at point 10, T (ii)

SITE 10 - Transect (ii) - Cont.

Swamp vegetation

Trees 10m

Acacia melanoxylon
Eucalyptus obliqua
E. viminalis

0.25m Shrubs 3m

Goodenia ovata
**Rubus fruticosus*

3m Trees/Shrubs 10m

Acacia retinodes
Leptospermum pubescens

Sedges and Reeds

Gahnia clarkei
Phragmites australis

Ferns*Blechnum* sp.FAUNABirds

| | |
|------------------------------|---|
| Grey Fantail | Brown Thornbill |
| Blue Wren | Scarlet Robin |
| Grey Currawong | Little Raven |
| Yellow-tailed Black Cockatoo | (An eagle's nest was observed in a large tree of <i>Eucalyptus obliqua</i> in Section 424) |
| Magpie | |
| Starling | |
| Crescent Honeyeater | |
| White-throated Tree-creepers | |
| Adelaide Rosella | |
| New Holland Honeyeater | |
| Red-browed Finch | |
| Golden Whistler | |

Other Fauna

Sleepy Lizard

PHOTOGRAPHS

| | | |
|---------------|------|---|
| C/6627-IV/BS/ | 3-1 | Reference Board |
| | 3-2 | Creek vegetation |
| | 3-3 | <i>Acacia melanoxylon</i> in creek |
| | 3-4 | <i>E. obliqua</i> woodland |
| | 3-5 | Across creek to slope opposite <i>E. obliqua</i> and <i>E. leucoxylon</i> |
| | 3-6 | View along creek |
| | 3-7 | <i>E. baxteri/E. obliqua</i> woodland |
| | 3-8 | <i>Acacia pycnantha</i> |
| | 3-9 | Looking south from Transect (ii) |
| | 3-10 | <i>Erichilus cucullatus</i> |

SITE 11

Date: 19.4.79

Environmental Association: 3.2.13

Physiography:

North-east of Clarendon there is a system of east-west sloping gullies and ridges which are clothed in native vegetation. Altitude ranges from 200m to 340m above sea level.

Plant Communities:

1. *Eucalyptus obliqua* woodland with occasional *E. fasciculosa* occupies sheltered south-east facing slopes and has a mid-dense understorey of sclerophyllous shrubs (see transect (i)). *E. viminalis*, *E. leucoxylon* and *E. camaldulensis* are associated with *E. obliqua* in a damp gully in Section 308 and contain an understorey of moisture loving plants (see plants for "Swamp Vegetation").
2. *E. leucoxylon* - *E. odorata* - *E. fasciculosa* woodland occupies a small area at the lowest elevations in Sections 332, 769 and 772. A small tree and shrub understorey includes *Acacia pycnantha*, *Exocarpus cupressiformis*, *Bursaria spinosa*, *Xanthorrhoea semiplana* and *Olearia ramulosa*.
3. *Eucalyptus obliqua* low woodland with a dense understorey of sclerophyllous shrubs covers the ridges and most north-facing slopes at the highest elevations (see transect (ii)).
4. *E. fasciculosa* - *E. cosmophylla* - *Acacia pycnantha* low woodland occurs near the water reserve at the western side of Section 308. Understorey shrubs include *Hakea rugosa* and *Melaleuca decussata*.
5. *Eucalyptus cosmophylla* open scrub occupies skeletal soils on north-facing slopes.

Condition:

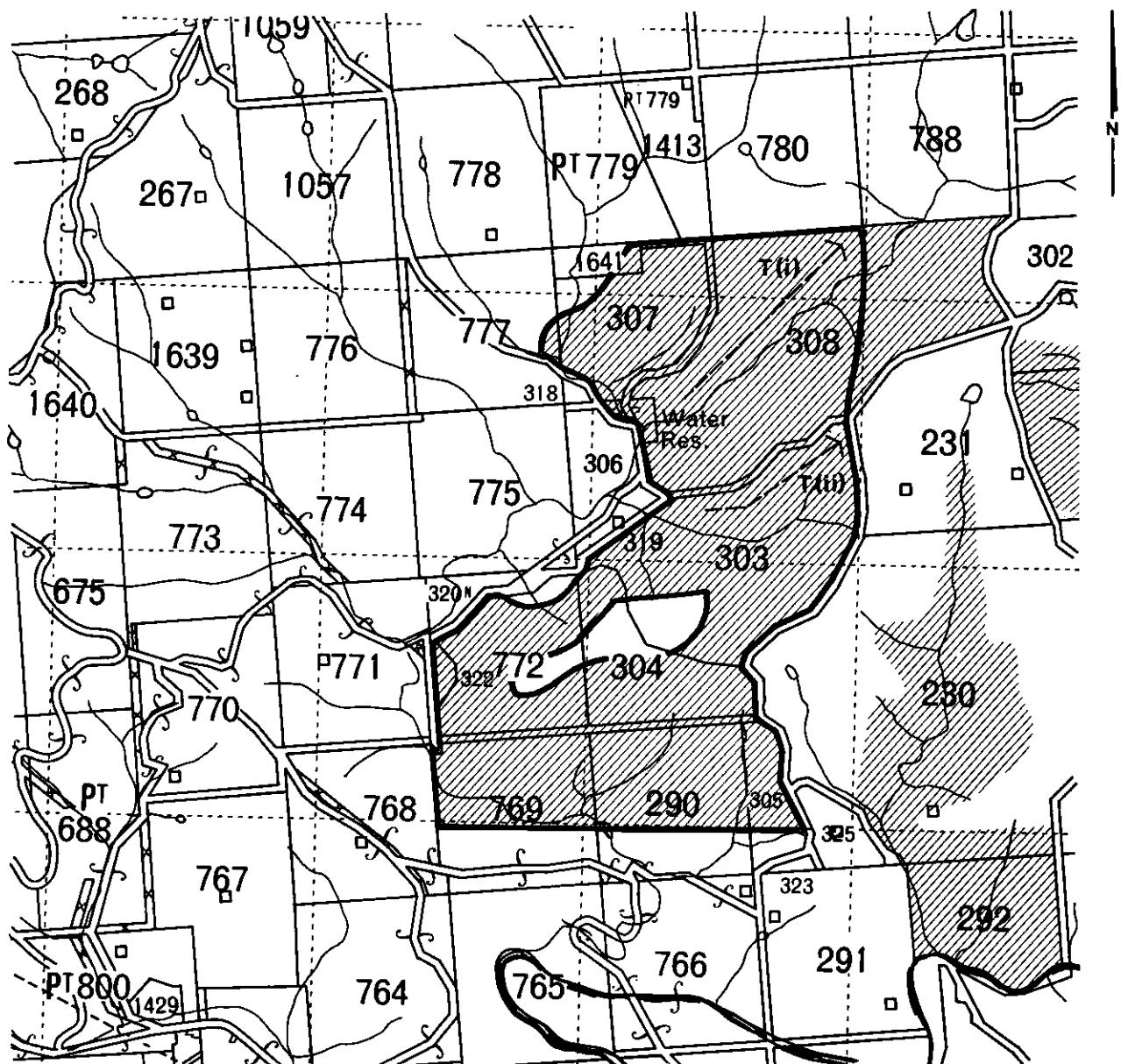
An electricity sub-station is located in the centre of the site and occupies about 15 ha. Power transmission lines radiate from this sub-station.

Car bodies and other rubbish have been dumped near the eastern boundary of the scrub, and there is a quarry in Section 772. There are many tracks traversing the site and use by horses is evidenced by the presence of scats.

The exotics, **Ulex europaeus*, **Senecio pterophorus*, **Crataegus* sp., **Rubus fruticosus* and species of thistle have invaded the gullies. *Olea europaea*, **Erica* sp. and introduced grasses are scattered throughout the area.

General:

This relatively large area of natural vegetation contains a diverse range of plant communities, from open scrub to woodland, and thus provides a variety of faunal habitats. Western Grey Kangaroos (*Macropus fuliginosus*) are present. Though weed infestation is heavy in the gullies, most of the scrub is fairly unmodified.



Reference
Noarlunga 1:50 000, 6627-IV
855E-140N AMG

230 hectares

SCALE 1 : 25000

0 1000 metres

Site 11

HD NOARLUNGA

Section 308

Pt Sections 290, 303, 304, 305, 307, 332, 769, 772
and Water Reserve

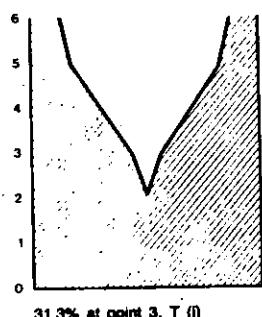
SITE 11 - Transect (i) - Sampling points at 30m intervals - Along bottom of south-facing slope maintaining a distance of 30m from creek

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|----------------------------------|--------------------|---------------------|--------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 10m | | | | | | | | | |
| <i>Eucalyptus fasciculosa</i> | 4 | 4.0 | 20.1 | 8.5 | 80.4 | 6.9 | 0.25 | 15.0 | 30.4 |
| <i>E. obliqua</i> | 35 | 4.5 | 176.1 | 74.5 | 792.5 | 68.1 | 1.00 | 59.9 | 202.5 |
| <i>E. viminalis</i> | 8 | 7.25 | 40.2 | 17.0 | 291.5 | 25.0 | 0.42 | 25.1 | 67.1 |
| Totals | 47 | | 236.4 | | 1164.4 | | | | |
| 5m < Trees < 10m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 2 | 0.75 | 14.4 | 4.2 | 10.8 | 2.0 | 0.17 | 5.8 | 12.0 |
| <i>A. retinodes</i> | 5 | 2.50 | 35.6 | 10.4 | 89.0 | 16.2 | 0.42 | 14.4 | 41.0 |
| <i>Banksia marginata</i> | 4 | 2.0 | 28.4 | 8.3 | 56.8 | 10.3 | 0.25 | 8.6 | 27.2 |
| <i>Eucalyptus fasciculosa</i> | 13 | 1.25 | 92.8 | 27.1 | 116.0 | 21.1 | 0.67 | 22.9 | 71.1 |
| <i>E. leucoxylon</i> | 1 | 0.75 | 7.2 | 2.1 | 5.4 | 1.0 | 0.08 | 2.7 | 5.8 |
| <i>E. obliqua</i> | 16 | 1.50 | 114.1 | 33.3 | 171.2 | 31.1 | 0.75 | 25.7 | 90.1 |
| <i>E. viminalis</i> | 3 | 0.75 | 21.6 | 6.3 | 16.2 | 2.9 | 0.25 | 8.6 | 17.8 |
| <i>Exocarpus cupressiformis</i> | 4 | 3.0 | 28.4 | 8.3 | 85.2 | 15.5 | 0.33 | 11.3 | 35.1 |
| Totals | 48 | | 342.5 | | 550.6 | | | | |
| 2m < Shrubs < 5m. | | | | | | | | | |
| <i>Acacia pycnantha</i> | 6 | 0.75 | 64.4 | 12.5 | 48.5 | 10.1 | 0.33 | 11.1 | 33.7 |
| <i>A. retinodes</i> | 1 | 1.50 | 10.8 | 2.1 | 16.2 | 3.4 | 0.08 | 2.7 | 8.2 |
| <i>Banksia marginata</i> | 1 | 3.0 | 10.8 | 2.1 | 32.4 | 6.8 | 0.08 | 2.7 | 11.6 |
| <i>Bursaria spinosa</i> | 1 | 0.5 | 10.8 | 2.1 | 5.4 | 1.1 | 0.08 | 2.7 | 5.9 |
| * <i>Erica</i> sp. | 1 | 4.0 | 10.8 | 2.1 | 43.2 | 9.0 | 0.08 | 2.7 | 13.8 |
| <i>Eucalyptus fasciculosa</i> | 9 | 0.5 | 96.9 | 18.8 | 48.5 | 10.1 | 0.50 | 16.8 | 45.7 |
| <i>E. leucoxylon</i> | 1 | 0.5 | 10.8 | 2.1 | 5.4 | 1.1 | 0.08 | 2.7 | 5.9 |
| <i>E. obliqua</i> | 4 | 0.5 | 42.8 | 8.3 | 21.4 | 4.5 | 0.33 | 11.1 | 23.9 |
| <i>E. viminalis</i> | 2 | 0.5 | 21.7 | 4.2 | 10.9 | 2.3 | 0.17 | 5.7 | 12.2 |
| <i>Exocarpus cupressiformis</i> | 5 | 1.75 | 53.6 | 10.4 | 93.8 | 19.6 | 0.25 | 8.4 | 38.4 |
| <i>Leptospermum juniperinum</i> | 7 | 1.0 | 75.3 | 14.6 | 75.3 | 15.7 | 0.33 | 11.1 | 41.4 |
| <i>L. myrsinoides</i> | 1 | 0.5 | 10.8 | 2.1 | 5.4 | 1.1 | 0.08 | 2.7 | 5.9 |
| <i>Pultenaea daphnoides</i> | 9 | 0.75 | 96.9 | 18.8 | 72.6 | 15.2 | 0.58 | 19.5 | 53.5 |
| Totals | 48 | | 515.5 | | 479.0 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | 2 | 0.10 | 1826 | 4.2 | 182.6 | 2.6 | 0.08 | 2.9 | 9.7 |
| <i>A. paradoxa</i> | P | - | - | - | - | - | - | - | - |
| <i>Acrotriche fasciculiflora</i> | 3 | 0.05 | 2739 | 6.3 | 137.0 | 1.9 | 0.17 | 6.2 | 14.4 |
| <i>Astroloma conostephioides</i> | 1 | 0.05 | 913 | 2.1 | 45.7 | 0.6 | 0.08 | 2.9 | 5.6 |
| <i>Bursaria spinosa</i> | 1 | 0.05 | 913 | 2.1 | 45.7 | 0.6 | 0.08 | 2.9 | 5.6 |
| <i>Calythrix tetragona</i> | P | - | - | - | - | - | - | - | - |
| <i>Epacris impressa</i> | P | - | - | - | - | - | - | - | - |
| * <i>Erica</i> sp. | P | - | - | - | - | - | - | - | - |
| <i>Hakea carinata</i> | P | - | - | - | - | - | - | - | - |
| <i>H. rostrata</i> | 1 | 0.5 | 913 | 2.1 | 456.5 | 6.4 | 0.08 | 2.9 | 11.4 |
| <i>Hibbertia exutiacies</i> | 1 | 0.10 | 913 | 2.1 | 91.3 | 1.3 | 0.08 | 2.9 | 6.3 |
| <i>H. stricta</i> | 1 | 0.05 | 913 | 2.1 | 45.7 | 0.6 | 0.08 | 2.9 | 5.6 |
| <i>Isopogon ceratophyllus</i> | P | - | - | - | - | - | - | - | - |
| <i>Lepidosperma laterale</i> | P | - | - | - | - | - | - | - | - |
| <i>L. semiteres</i> | 2 | 0.25 | 1826 | 4.2 | 456.5 | 6.4 | 0.17 | 6.2 | 16.8 |
| <i>Leptospermum juniperinum</i> | 4 | 0.05 | 3909 | 8.3 | 195.5 | 2.7 | 0.25 | 9.1 | 20.1 |
| <i>L. myrsinoides</i> | 14 | 0.05 | 12696 | 29.2 | 634.8 | 8.9 | 0.67 | 24.5 | 62.6 |
| <i>Leucopogon australis</i> | P | - | - | - | - | - | - | - | - |
| <i>Olearia ramulosa</i> | 3 | 0.10 | 2739 | 6.3 | 273.9 | 3.8 | 0.25 | 9.1 | 19.2 |
| <i>Pimelea linifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Platylobium obtusangulum</i> | 1 | 0.05 | 913 | 2.1 | 45.7 | 0.6 | 0.08 | 2.1 | 4.8 |
| <i>Pteridium esculentum</i> | 7 | 0.25 | 6348 | 14.6 | 1587.0 | 22.2 | 0.25 | 9.1 | 45.9 |
| <i>Pultenaea daphnoides</i> | 5 | 0.25 | 4522 | 10.4 | 1130.5 | 15.8 | 0.25 | 9.1 | 35.3 |
| * <i>Rubus fruticosus</i> | P | - | - | - | - | - | - | - | - |
| * <i>Senecio pterophorus</i> | P | - | - | - | - | - | - | - | - |
| <i>Tetratheca pilosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | 2 | 1.0 | 1826 | 4.2 | 1826 | 25.5 | 0.17 | 6.2 | 35.9 |
| Totals | 48 | | 43478 | | 7154.4 | | | | |

SITE 11 - Transect (i) - Cont.

Small shrubs (< 0.25m), herbs, climbers, ferns

Acaena sp.
Acrotrichie serrulata
Adiantum aethiopicum
Billardiera sericophora
Cassytha spp.
Cheloneanthus tenuifolia
Dianella revoluta
Eriochilus cucullatus
Grevillea lavandulacea
Hibbertia sericea
Leucopogon virgatus
Stylidium sp.

Density measurements

SITE 11 - Transect (ii) - Sampling points at 30m intervals - Proceeding E.N.E. along a ridge

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|--------------------|---------------------|---------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 5m | | | | | | | | | |
| <i>Eucalyptus cosmophylla</i> | 2 | 3.0 | 9.8 | 3.4 | 29.4 | 2.3 | 0.07 | 5.8 | 11.5 |
| <i>E. fasciculosa</i> | 1 | 2.0 | 4.9 | 1.7 | 9.8 | 0.8 | 0.07 | 5.8 | 8.3 |
| <i>E. obliqua</i> | 54 | 4.5 | 267.3 | 93.1 | 1202.9 | 95.7 | 1.0 | 82.6 | 271.4 |
| <i>Exocarpus cupressiformis</i> | 1 | 3.0 | 4.9 | 1.7 | 14.7 | 1.2 | 0.07 | 5.8 | 8.7 |
| Totals | 58 | | 287.1 | | 1256.8 | | | | |
| 2m < Trees/Shrubs < 5m | | | | | | | | | |
| <i>Casuarina striata</i> | 5 | 0.5 | 17.0 | 8.8 | 8.5 | 3.5 | 0.20 | 10.1 | 22.4 |
| <i>Eucalyptus cosmophylla</i> | 33 | 1.5 | 111.8 | 57.9 | 167.7 | 69.7 | 0.93 | 46.7 | 174.3 |
| <i>E. fasciculosa</i> | 14 | 1.0 | 47.5 | 24.6 | 47.5 | 19.7 | 0.53 | 26.6 | 70.9 |
| <i>E. obliqua</i> | 5 | 1.0 | 17.0 | 8.8 | 17.0 | 7.1 | 0.33 | 16.6 | 32.5 |
| Totals | 57 | | 193.1 | | 240.7 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | 4 | 0.05 | 7444 | 6.7 | 372.2 | 4.0 | 0.2 | 6.8 | 17.5 |
| <i>A. spinescens</i> | P | - | - | - | - | - | - | - | - |
| <i>Astroloma conostephioides</i> | 2 | 0.05 | 3667 | 3.3 | 183.4 | 2.0 | 0.13 | 4.4 | 9.7 |
| <i>Banksia marginata</i> | P | - | - | - | - | - | - | - | - |
| <i>Calythrix tetragona</i> | 2 | 0.05 | 3667 | 3.3 | 183.4 | 2.0 | 0.07 | 2.4 | 7.7 |
| <i>Casuarina muelleriana</i> | 5 | 0.05 | 9222 | 8.3 | 461.1 | 5.0 | 0.27 | 9.2 | 22.5 |
| <i>Daviesia brevifolia</i> | 2 | 0.10 | 3667 | 3.3 | 366.7 | 4.0 | 0.13 | 4.4 | 11.7 |
| <i>D. ulicifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Epacris impressa</i> | 1 | 0.01 | 1889 | 1.7 | 18.9 | 0.2 | 0.07 | 2.4 | 4.3 |
| <i>Hakea carinata</i> | 4 | 0.25 | 7444 | 6.7 | 1861.0 | 20.1 | 0.13 | 4.4 | 31.2 |
| <i>H. rostrata</i> | S | 0.10 | 9222 | 8.3 | 922.2 | 9.9 | 0.27 | 9.2 | 27.4 |
| <i>Hibbertia stricta</i> | 12 | 0.10 | 22222 | 20.0 | 2222.2 | 24.0 | 0.6 | 20.3 | 64.3 |
| <i>Isopogon ceratophyllum</i> | 2 | 0.05 | 3667 | 3.3 | 183.4 | 2.0 | 0.07 | 2.4 | 7.7 |
| <i>Ixodia achillaeoides</i> | 1 | 0.01 | 1889 | 1.7 | 188.9 | 2.0 | 0.07 | 2.4 | 6.1 |
| <i>Lepidosperma laterale</i> | P | - | - | - | - | - | - | - | - |
| <i>L. semiteres</i> | P | - | - | - | - | - | - | - | - |
| <i>Leptospermum myrsinoides</i> | 9 | 0.05 | 16667 | 15.0 | 833.4 | 9.0 | 0.47 | 15.9 | 39.9 |
| <i>Pimelea octophylla</i> | P | - | - | - | - | - | - | - | - |
| <i>Platylobium obtusangulum</i> | 4 | 0.05 | 7444 | 6.7 | 372.2 | 4.0 | 0.20 | 6.8 | 17.5 |
| <i>Pultenaea acerosa</i> | P | - | - | - | - | - | - | - | - |
| <i>var. acicularis</i> | | | | | | | | | |
| <i>Pultenaea daphnoidea</i> | 2 | 0.05 | 3667 | 3.3 | 183.4 | 2.0 | 0.07 | 2.4 | 7.7 |
| <i>Xanthorrhoea semiplana</i> | 5 | 0.10 | 9222 | 8.3 | 922.2 | 9.9 | 0.2 | 6.8 | 25.0 |
| Totals | 60 | | 111111 | | 9274.5 | | | | |

SITE 11 - Transect (ii) - Cont.

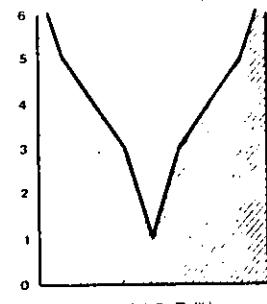
Small shrubs (< 0.25m), herbs, climbers

- | | |
|--------------------------------|------------------------------|
| <i>Acaena</i> sp. | <i>Haloragis</i> sp. |
| <i>Acrotriche serrulata</i> | <i>Hybanthus floribundus</i> |
| <i>Astroloma humifusum</i> | <i>Leucopogon virgatus</i> |
| <i>Billardiera sericophora</i> | <i>Phyllanthus australis</i> |
| <i>Cassytha</i> spp. | <i>Pultenaea involucrata</i> |
| <i>Eriochilus cucullatus</i> | |
| <i>Gonocarpus</i> sp. | |
| <i>Goodenia primulacea</i> | |
| <i>Grevillea lavandulacea</i> | |

Perennial, grass-like plants

- Dianella revoluta*
- Lomandra dura*
- L. micrantha*

Density measurements



41.7% at point 5, T (ii)

Swamp Vegetation

Trees > 10m

- Eucalyptus camaldulensis*
- E. obliqua*
- E. viminalis*

5m < Trees < 10m

- Acacia retinodes*

2m < Shrubs < 5m

- Leptospermum juniperinum*
- L. pubescens*
- **Crataegus* sp.

0.25m < Shrubs < 2m

- **Genista maderensis*
- Pteridium esculentum*
- Pultenaea daphnoides*
- **Rubus fruticosus*
- **Senecio pterophorus*
- **Ulex europaeus*

Herbs and ferns

- Adiantum aethiopicum*
- GERANIACEAE
- Viola* sp.

Sedges

- Cyperus vaginatus*

Plants present at site but not recorded in either transect nor in swamp

Trees > 10m

- Eucalyptus odorata*

2m < Trees/Shrubs < 5m

- **Olea europaea*

Small shrubs (< 0.25m), herbs, grasses

- | |
|----------------------------------|
| <i>Acrotriche affinis</i> |
| * <i>Asparagus asparagooides</i> |
| <i>Burchardia umbellata</i> |
| <i>Hardenbergia violacea</i> |
| <i>Hypericum perforatum</i> |
| <i>Pterospora juniperina</i> |
| <i>Themeda australis</i> |
| THISTLES |

SITE 11 - Transect (ii) - Cont.

0.25m < Shrubs < 2m

**Chrysanthemoides monilifera*
Hakea rugosa
Melaleuca decussata
Pultenaea largiflora var latifolia
*i*Rosa sp.*

FAUNABirds

| | |
|-------------------------|------------------------------|
| Crescent Honeyeater | Goldfinch |
| Blue Wren | Mistletoe Bird |
| Magpie | Restless Flycatcher |
| Little Raven | Dusky Woodswallow |
| Grey Currawong | Grey Shrike-thrush |
| Grey Fantail | Musk Lorikeet |
| White-naped Honeyeater | White-throated Tree-creepers |
| Red-browed Finch | Red Wattlebird |
| Starling | Silvereye |
| Purple-crowned Lorikeet | Brown Thornbill |
| White-browed Scrub-wren | Adelaide Rosella |
| New Holland Honeyeater | |
| Golden Whistler | |
| Scarlet Robin | |
| Yellow-faced Honeyeater | |
| Rainbow Lorikeet | |

Other fauna

Golden orb spider (*Nephila sp.*)
Western Grey Kangaroo (*Macropus fuliginosus*)

PHOTOGRAPHS

| | | |
|---------------|------|--|
| C/6627-IV/BS/ | 3-11 | Reference Board |
| | 3-12 | <i>Eucalyptus obliqua</i> woodland |
| | 3-13 | Creek vegetation |
| | 3-14 | <i>Eucalyptus obliqua</i> woodland |
| | 3-15 | <i>Epacris impressa</i> |
| | 3-16 | Tall <i>Banksia marginata</i> |
| | 3-17 | <i>Eucalyptus fasciculosa</i> - <i>E. cosmophylla</i> association |
| | 3-18 | <i>Eucalyptus obliqua</i> low woodland |
| | 3-19 | Golden orb spider (<i>Nephila sp.</i>) |
| | 3-20 | <i>Eucalyptus cosmophylla</i> |
| | 3-21 | <i>Eucalyptus odorata</i> - <i>E. leucoxylon</i> - <i>E. fasciculosa</i> association |

SITE 19

Date: 10.5.79

Environmental Association: 3.2.15 and 3.2.16

Physiography:

The ridges and slopes overlooking Aldgate and Leslie Creeks north-west of Mylor are partly clothed in native vegetation. Elevation ranges from 310m to 430m above sea level.

Plant Communities:

1. *Eucalyptus obliqua* - *E. baxteri* open forest/woodland occupies south-facing slopes and extends over the ridges to north-east facing slopes at higher elevations. *E. viminalis* and *Acacia melanoxylon* become co-dominant along the creeks together with many exotic tree species. On the slopes the understorey consists of a variety of sclerophyllous shrubs, while dense infestations of **Rubus fruticosus* occur along the creeks.
2. *Eucalyptus baxteri* open woodland occupies the drier north-facing slopes and contains a variety of sclerophyllous shrubs in the understorey.
3. *E. fasciculosa* - *E. cosmophylla* tall shrubland occurs on the most exposed sites which, in places, are poorly drained. The sclerophyll understorey is dense and includes *Melaleuca decussata*, *Hakea rugosa* and *Leptospermum juniperinum* (e.g. Sections 943 and 979).

Condition:

Dwellings and associated clearings and gardens are scattered throughout this site, and are particularly concentrated along Aldgate Creek.

The creeks and their banks have been largely modified and many exotic plants are associated with *E. viminalis* and *A. melanoxylon*. Dense infestations of **Rubus fruticosus* and **Watsonia bulbillifera* occur in damp locations while several stands of **Pinus spp.* occur on the slopes.

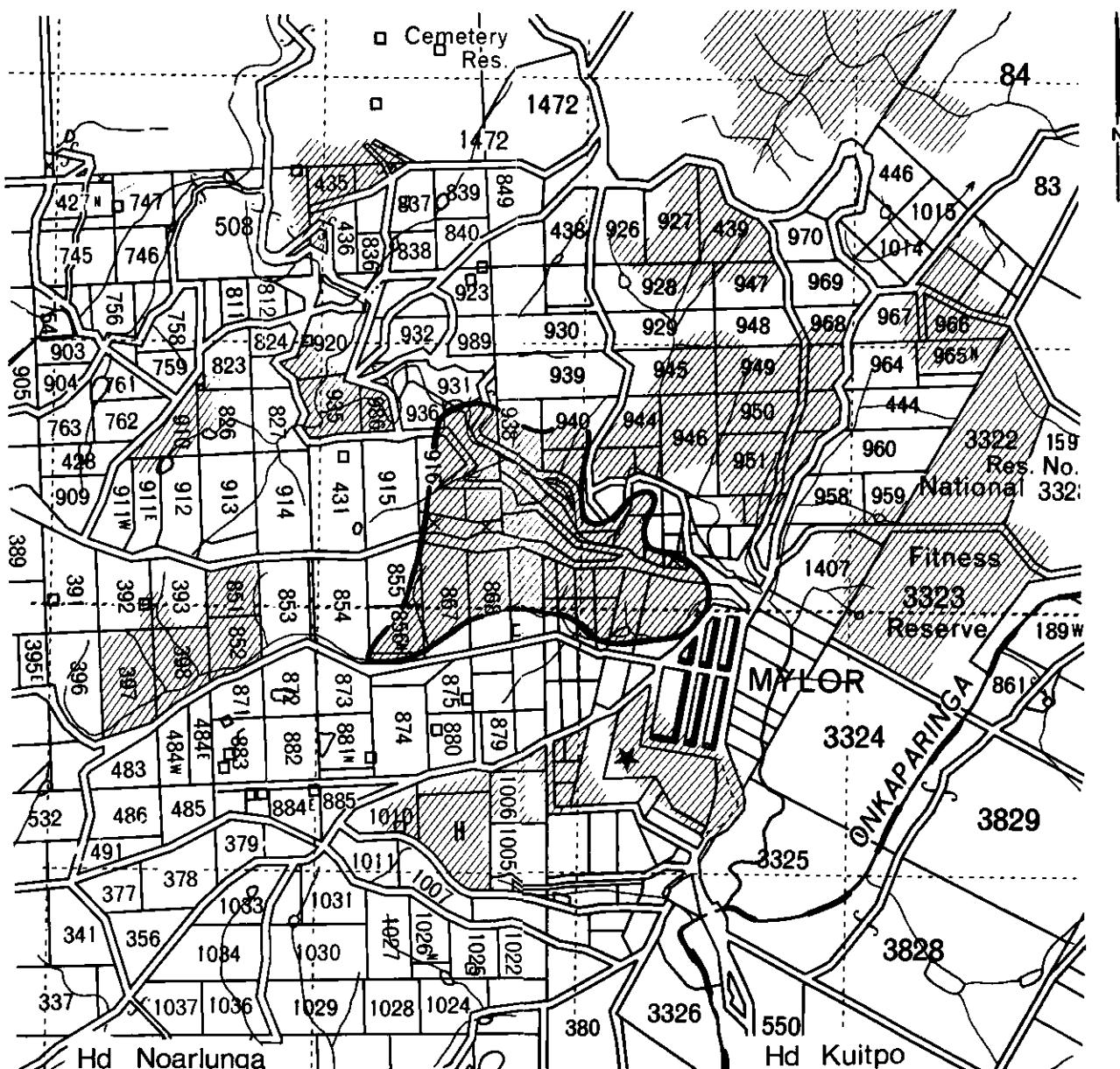
However, much of the scrub on the slopes and ridges is unmodified and numerous species of sclerophyllous shrubs form a mid-dense to dense understorey.

General:

The plant communities at this site vary from open forest to tall shrubland and contain a great diversity of understorey shrub species. *Casuarina striata* which is considered a rare plant in South Australia (Specht et al., 1974) is present here.

Stock Road which bissects the site provides foreground panoramic views to the north over Aldgate Valley.

This site contains a significant stand of native vegetation but the presence of dwellings, particularly along the Aldgate Valley renders the area vulnerable to human impacts.



Reference
Echunga 1:50 000, 6627-I
950E-203N AMG

60 hectares approx

SCALE 1 : 25 000

0 1000 metres

Site 19

HD NOARLUNGA

Pt Sections 856, 867, 868, 938

SITE 19

PlantsTrees > 8m

Eucalyptus baxteri
E. obliqua
E. viminalis
**Pinus spp.*
 (+ Other exotic tree species)

2m < Shrubs/Trees < 8m

Acacia melanoxylon
A. vermiciflua
Casuarina muellerana
C. striata
Eucalyptus cosmophylla
E. fasciculosa
Exocarpus cupressiformis

Small shrubs (< 0.25m), herbs, climbers

Billardiera sericophora
Burchardia umbellata
Caseytha spp.
Dillwynia hispida
Eriochilus cucullatus
Gonocarpus sp.
Goodenia primulacea
Hibbertia exutiacies
H. sericea
H. stricta
Leucopogon virgatus
Tetratheca pilosa
Xanthosia pusilla
 (+ Introduced herbs)

0.25m < Shrubs < 2m

Acacia myrtifolia
A. spinescens
Acrotriche fasciculiflora
Bursaria spinosa
Calythrix tetragona
Daviesia virgata
Epacris impressa
Hakea carinata
H. rostrata
H. rugosa
Ixodia achilleoides
Leptospermum juniperinum
L. myrsinoides
Leucopogon concurvus
Lissanthe strigosa
Melaleuca decussata
Olearia ramulosa
Pimelea linifolia
Platylobium obtusangulum
Pultenaea daphnoides
P. involucrata
**Rubus fruticosus*
**Sarothamnus scoparius*
**Senecio pterophorus*
Spyridium parvifolium
Watsonia bulbillifera
Xanthorrhoea semiplana

Perennial, grass-like plants

Dianella revoluta
Lepidosperma semiteres
Lomandra dura

PHOTOGRAPHS

| | | |
|--------------|------|---|
| C/6627-I/BS/ | 1-18 | <i>Eucalyptus fasciculosa/E. cosmophylla</i> tall shrubland |
| | 1-19 | " " " |
| | 1-20 | <i>Melaleuca decussata</i> |

SITE 25

Date: 23.5.79

Environmental Association: 3.2.13

Physiography:

West of Ironbank, a tributary of the Sturt River is surrounded by medium, dissected slopes which are clothed in natural vegetation. Elevation ranges from 300m to 420m above sea level.

Plant Communities:

1. *Eucalyptus obliqua* woodland/open forest occurs on south and east-facing slopes (e.g. Site 15 Transect (ii)). *E. viminalis* becomes co-dominant along the principal creek, where *Acacia melanoxylon* occurs as a small tree and **Rubus fruticosus* dominates the shrub layer.
2. *Eucalyptus leucoxylon* woodland occupies a north-west facing slope of relatively fertile soil in Section 410. A sparse small tree layer is dominated by *Acacia pycnantha*, while a very sparse shrub layer has *Bursaria spinosa* as the most conspicuous plant. The ground cover is predominately leaf litter (Transect (iii)).
3. *Eucalyptus obliqua* - *E. fasciculosa* woodland covers the lower north and west-facing slopes. A mid-dense shrub layer is dominated by *Spyridium parvifolium*. (Transect (ii)).
4. *Eucalyptus obliqua* low woodland/low open forest occurs on ridges and contains a variety of sclerophyllous shrubs in the understorey.
5. *E. fasciculosa* - *E. cosmophylla* tall shrubland/low woodland occupies skeletal soils on north-facing slopes. A dense shrub layer includes a variety of sclerophyllous plants.

Condition:

The extent to which plants have been browsed indicates heavy grazing by stock in Section 408. Elsewhere the tracks and scats of horses are evident. Excavations for dams and homesites, and wide vehicular tracks are located in Sections 404 and 408.

The creeks are infested with **Rubus fruticosus* and other introduced shrubs and herbs, but the slopes are relatively unmodified.

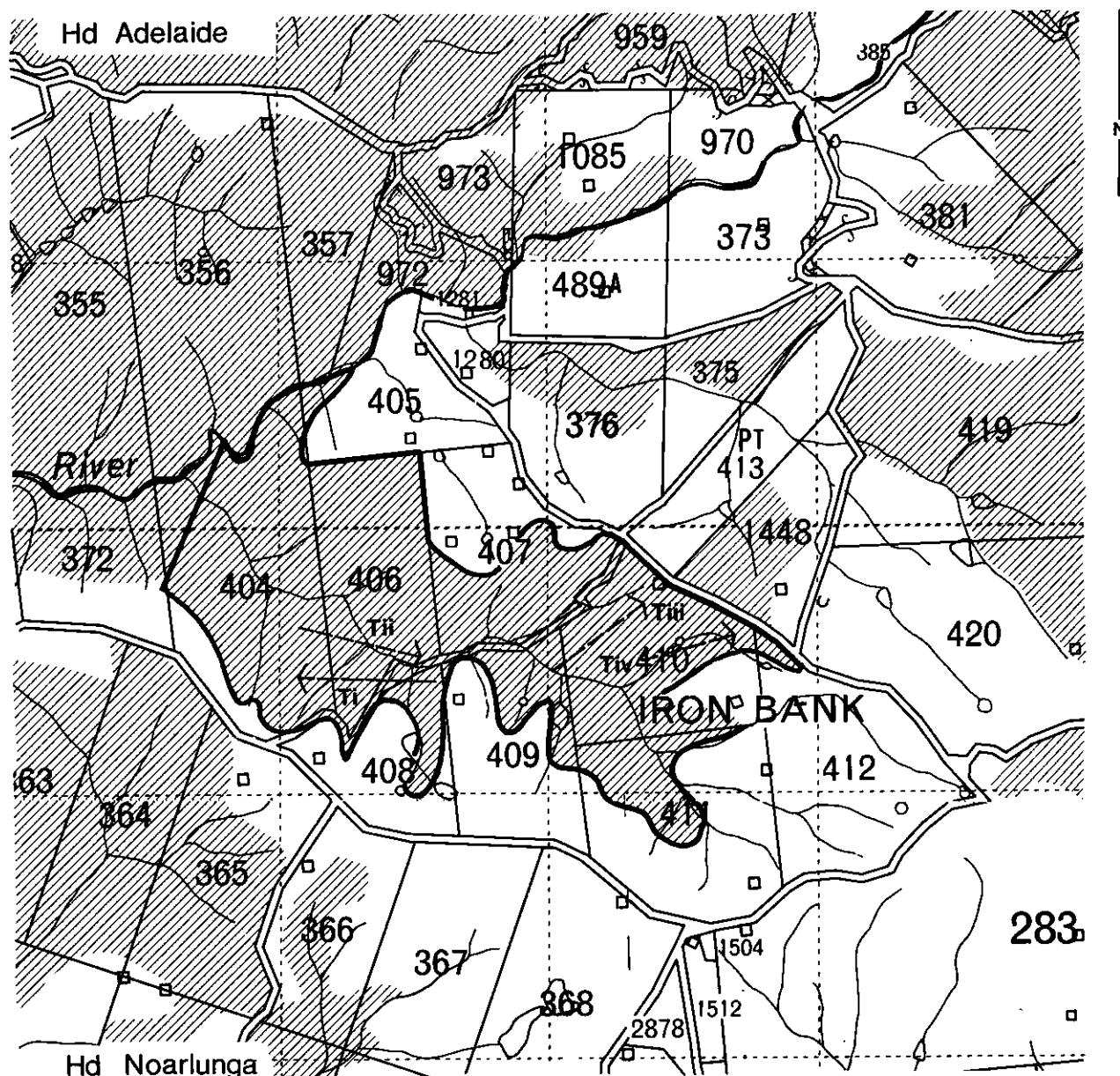
Rubbish dumping has occurred adjacent to the road in Section 410.

General:

Olearia grandiflora which is a rare plant in South Australia (Specht et al , 1974), occurs at this site .

As indicated above there is a diversity of plant associations ranging from open forest to tall shrubland. The *Eucalyptus leucoxylon* woodland alliance which is considered rare and endangered in South Australia (Margules, 1978) contains some impressive trees at 30m or more in height.

The scrub at this site extends into the Hills Face Zone along the Sturt River and the ridges north of the river, and is thus more or less contiguous with the vegetation of Belair Recreation Park.



Reference
Noarlunga 1:50 000, 6627-IV
880E-195N AMG
160 hectares

SCALE 1 : 25 000
0 1000 metres

Site 25

HD NOARLUNGA

Pt Sections 404, 406, 407, 409, 410, 411

SITE 25 - Transect (i) - Sampling points at 20m intervals - Along a north-facing slope in Sections 406 & 409

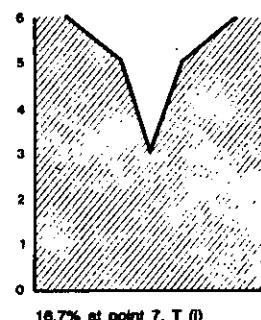
| Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE | |
|--|---------------------|------------|--------------|--------------|------------|---------------|--------------|---------------|-------|
| Trees > 8m | | | | | | | | | |
| <i>None were present within the transect</i> | | | | | | | | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 3 | 1.33 | 50.7 | 7.5 | 67.4 | 6.4 | 0.3 | 15.0 | 28.9 |
| <i>Eucalyptus cosmophylla</i> | 12 | 1.56 | 202.7 | 30.0 | 316.2 | 29.8 | 0.7 | 35.0 | 94.8 |
| <i>E. fasciculosa</i> | 25 | 1.6 | 422.3 | 62.5 | 675.7 | 63.8 | 1.0 | 50.0 | 176.3 |
| <i>E. obliqua</i> | P | - | - | - | - | - | - | - | - |
| <i>Exocarpus cupressiformis</i> | P | - | - | - | - | - | - | - | - |
| Totals | | | 675.7 | | | 1059.3 | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | 2 | 0.09 | 3572 | 5.0 | 321.5 | 3.8 | 0.2 | 6.9 | 15.7 |
| <i>A. pycnantha</i> | 1 | 0.02 | 1786 | 2.5 | 35.7 | 0.4 | 0.1 | 3.5 | 6.4 |
| <i>Acrotriche fasciculiflora</i> | P | - | - | - | - | - | - | - | - |
| <i>Astroloma conostephioides</i> | P | - | - | - | - | - | - | - | - |
| <i>Calythrix tetragona</i> | P | - | - | - | - | - | - | - | - |
| <i>Casuarina muelleriana</i> | 3 | 0.42 | 5357 | 7.5 | 2250 | 26.8 | 0.2 | 6.9 | 41.2 |
| <i>Dillwynia hispida</i> | 3 | 0.02 | 5357 | 7.5 | 107 | 1.3 | 0.3 | 10.3 | 19.1 |
| <i>Epacris impressa</i> | 2 | 0.02 | 3572 | 5.0 | 71.4 | 0.9 | 0.2 | 6.9 | 12.8 |
| <i>Eucalyptus cosmophylla</i> | 2 | 0.18 | 3572 | 5.0 | 643 | 7.7 | 0.2 | 6.9 | 19.6 |
| <i>Hakea rostrata</i> | 3 | 0.42 | 5357 | 7.5 | 2250 | 26.8 | 0.3 | 10.3 | 44.6 |
| <i>Iopogon ceratophyllus</i> | 1 | 0.05 | 1786 | 2.5 | 89.2 | 1.1 | 0.1 | 3.5 | 7.1 |
| <i>Ixodia achillaeoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Leptospermum myrsinoides</i> | 6 | 0.06 | 10714 | 15.0 | 642.8 | 7.7 | 0.4 | 13.8 | 36.5 |
| <i>Lissanthe strigosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Olearia ramulosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Platylobium obtusangulum</i> | P | - | - | - | - | - | - | - | - |
| <i>Pultenaea acerosa</i> | | | | | | | | | |
| var. <i>acicularis</i> | P | - | - | - | - | - | - | - | - |
| <i>Pultenaea daphnoides</i> | P | - | - | - | - | - | - | - | - |
| <i>P. involucrata</i> | P | - | - | - | - | - | - | - | - |
| <i>Spyridium parvifolium</i> | 15 | 0.05 | 26786 | 37.5 | 1339 | 16.0 | 0.7 | 24.1 | 77.6 |
| <i>Xanthorrhoea semiplana</i> | 2 | 0.18 | 3572 | 5.0 | 643 | 7.7 | 0.2 | 6.9 | 19.6 |
| Totals | | 40 | | 71429 | | 8393 | | | |

Small shrubs (< 0.25m), herbs, climbers and grasses

Acrotriche serrulata
Astroloma humifusum
Burchardia umbellata
Cassytha sp.
Gonocarpus sp.
Goodenia primulacea

Hibbertia exutiacies
H. stricta
Leucopogon virgatus
Scaevola albida
Tetratheca pilosa

Density measurements



Perennial, grass-like plants

Dianella revoluta
Lepidosperma semiteres

SITE 25 - Transect (ii) - Along a north-facing slope at a lower elevation than Transect (i)

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|---|--------------------|---------------------|--------------|------------|-------|---------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Eucalyptus fasciculosa</i> | 35 | 2.54 | 169.8 | 43.8 | 431.3 | 43.1 | 0.85 | 43.6 | 130.5 |
| <i>E. leucoxylon</i> | 1 | 4.0 | 4.7 | 1.2 | 18.8 | 1.9 | 0.05 | 2.6 | 5.7 |
| <i>E. obliqua</i> | 43 | 2.55 | 208.5 | 53.8 | 531.7 | 53.1 | 1.0 | 51.3 | 158.2 |
| <i>E. viminalis</i> | 1 | 4.0 | 4.7 | 1.2 | 18.8 | 1.9 | 0.05 | 2.6 | 5.7 |
| Totals | 80 | | 387.6 | | | 1000.6 | | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 2 | 0.63 | 11.8 | 2.5 | 7.4 | 1.9 | 0.1 | 3.8 | 8.2 |
| <i>Bursaria spinosa</i> | 1 | 0.1 | 5.9 | 1.3 | 0.6 | 0.2 | 0.05 | 1.9 | 3.4 |
| <i>Casuarina muelleriana</i> | 3 | 0.33 | 17.7 | 3.8 | 5.8 | 1.5 | 0.1 | 3.8 | 9.1 |
| <i>Casuarina stricta</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus cosmophylla</i> | 4 | 0.75 | 23.6 | 5.0 | 17.7 | 4.6 | 0.2 | 7.5 | 17.1 |
| <i>E. fasciculosa</i> | 41 | 0.7 | 241.7 | 51.3 | 169.2 | 44.3 | 1.0 | 37.7 | 133.3 |
| <i>E. leucoxylon</i> | 1 | 0.5 | 5.9 | 1.3 | 3.0 | 0.8 | 0.05 | 1.9 | 4.0 |
| <i>E. obliqua</i> | 17 | 1.04 | 100.2 | 21.3 | 104.2 | 27.3 | 0.7 | 26.4 | 75 |
| <i>Exocarpus cupressiformis</i> | 7 | 1.7 | 41.3 | 8.8 | 70.2 | 18.4 | 0.35 | 13.2 | 40.4 |
| <i>Logania vaginalis</i> | P | - | - | - | - | - | - | - | - |
| * <i>Olea europaea</i> | P | - | - | - | - | - | - | - | - |
| <i>Pultenaea daphnoides</i> | 4 | 0.15 | 23.6 | 5.0 | 3.5 | 0.9 | 0.1 | 3.8 | 9.4 |
| Totals | 80 | | 471.7 | | | 381.6 | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>A. pycnantha</i> | 1 | 0.13 | 1083 | 1.3 | 140.8 | 2.2 | 0.05 | 2.9 | 6.4 |
| <i>A. verticillata</i> | 1 | 0.02 | 1083 | 1.3 | 21.7 | 0.3 | 0.05 | 2.9 | 4.5 |
| <i>Acrotriche fasciculiflora</i> | 4 | 0.05 | 4167 | 5.0 | 208.4 | 3.2 | 0.2 | 11.4 | 19.6 |
| <i>Astroloma conostephoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Daviesia virgata</i> | P | - | - | - | - | - | - | - | - |
| <i>Dillwynia hispida</i> | P | - | - | - | - | - | - | - | - |
| <i>Epaacris impressa</i> | 1 | 0.04 | 1083 | 1.3 | 43.3 | 0.7 | 0.05 | 2.9 | 4.9 |
| <i>Eucalyptus fasciculosa</i> | 2 | 0.05 | 2083 | 2.5 | 104.2 | 1.6 | 0.1 | 5.7 | 9.8 |
| <i>Grevillea lavandulacea</i> | P | - | - | - | - | - | - | - | - |
| <i>Hakea rostrata</i> | P | - | - | - | - | - | - | - | - |
| <i>Ixodia achillaeoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Leptospermum myrsinoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Lissanthe strigosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Olearia ramulosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Pultenaea daphnoides</i> | 3 | 0.18 | 3167 | 3.8 | 570.1 | 8.8 | 0.15 | 8.6 | 20.8 |
| <i>Pultenaea largiflorens</i> var <i>latifolia</i> | 5 | 0.03 | 5250 | 6.3 | 157.5 | 2.4 | 0.2 | 11.4 | 20.1 |
| * <i>Senecio pterophorus</i> | P | - | - | - | - | - | - | - | - |
| <i>Spyridium parvifolium</i> | 63 | 0.08 | 65666 | 78.8 | 52533 | 80.8 | 0.95 | 54.3 | 213.9 |
| <i>Xanthorrhoea semiplana</i> | P | - | - | - | - | - | - | - | - |
| Totals | 80 | | 83333 | | | 6499.3 | | | |

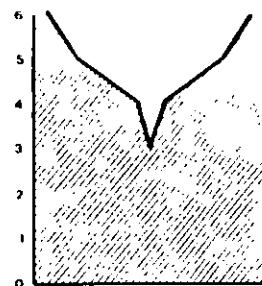
SITE 25 - Transect (ii) - Cont.

Small shrubs (< 0.25m), herbs, grasses, ferns and climbers

| | |
|----------------------------------|--------------------------------|
| <i>Acrotriche serrulata</i> | <i>Marianthus bignoniaceus</i> |
| <i>Adiantum aethiopicum</i> | <i>Olearia grandiflora</i> |
| <i>Burchardia umbellata</i> | <i>Pimelea linifolia</i> |
| <i>Cheilanthes tenuifolia</i> | <i>Pleurozorus mutifolius</i> |
| <i>Drosera</i> sp. | <i>Scaevola albida</i> |
| <i>GERANIACEAE</i> (sp. unknown) | |
| <i>Gonocarpus</i> sp. | |
| <i>Goodenia primulacea</i> | |
| <i>Haloragis</i> sp. | |
| <i>Hardenbergia violacea</i> | |
| <i>Hibbertia exutioides</i> | |
| <i>H. stricta</i> | |
| <i>Kennedia prostrata</i> | |
| <i>LILIACEAE</i> (sp. unknown) | |

Perennial, grass-like plants

Dianella revoluta
Lomandra dura
 L. micrantha
Lepidozamia laterale
 L. semiteres
Themeda australis

Density measurements

27% at point 4, T (ii)

Eucalyptus obliqua association (e.g. Site 15 Transect (ii))Plant species present in this association

Acacia melanoxylon
Acacia myrtifolia
Acaena sp.
Acrotriche fasciculiflora
Banksia marginata
Dianella revoluta
Eucalyptus obliqua
**Genista maderensis*
Goodenia ovata
Gonocarpus sp.
Olearia grandiflora
Pteridium esculentum
Pultenaea daphnoides
**Rubus fruticosus*
Stylium graminifolium
Tetratheca pilosa

SITE 25 - Transect (iii) - Along a north-west facing slope in Sections 409 and 410.

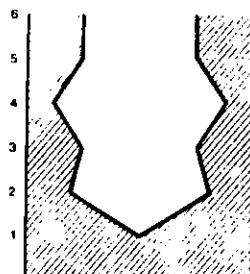
| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|--------------------|---------------------|---------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Eucalyptus fasciculosa</i> | 6 | 3.4 | 68.1 | 18.8 | 231.5 | 11.3 | 0.38 | 27.5 | 57.6 |
| <i>E. leucoxylon</i> | 26 | 6.2 | 294.5 | 81.3 | 1826 | 88.7 | 1.0 | 72.5 | 242.5 |
| <i>E. obliqua</i> | P | - | - | - | - | - | - | - | - |
| Totals | 32 | | 362.3 | | 2057.5 | | | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 25 | 0.6 | 2170 | 78.1 | 1302 | 76.1 | 1.0 | 56.5 | 210.7 |
| <i>Bursaria spinosa</i> | 1 | 0.5 | 86.1 | 3.1 | 43.1 | 2.5 | 0.13 | 7.3 | 12.9 |
| <i>Eucalyptus cosmophylla</i> | P | - | - | - | - | - | - | - | - |
| <i>E. fasciculosa</i> | 2 | 0.8 | 175 | 6.3 | 140 | 8.2 | 0.25 | 14.2 | 28.7 |
| <i>E. leucoxylon</i> | 2 | 0.5 | 175 | 6.3 | 87.5 | 5.1 | 0.13 | 7.3 | 18.7 |
| <i>Exocarpus cupressiformis</i> | 1 | 1.5 | 86.1 | 3.1 | 129.2 | 7.6 | 0.13 | 7.3 | 18.0 |
| <i>Olea europaea</i> | P | - | - | - | - | - | - | - | - |
| <i>Pultenaea daphnoides</i> | 1 | 0.1 | 86.1 | 3.1 | 8.6 | 0.5 | 0.13 | 7.3 | 10.9 |
| Totals | 32 | | 2778 | | 1710.4 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 5 | 0.06 | 201.8 | 15.6 | 12.1 | 4.8 | 0.38 | 15.7 | 36.1 |
| <i>Acrotriche fasciculiflora</i> | 6 | 0.12 | 243.2 | 18.8 | 29.2 | 11.5 | 0.38 | 15.7 | 46.0 |
| <i>Bursaria spinosa</i> | 8 | 0.47 | 3234 | 25.0 | 152 | 60.0 | 0.63 | 26.0 | 111.0 |
| <i>Dianella revoluta</i> | 1 | 0.04 | 40.1 | 3.1 | 1.6 | 0.6 | 0.13 | 5.4 | 9.1 |
| <i>Eucalyptus fasciculosa</i> | 1 | 0.5 | 40.1 | 3.1 | 20.0 | 7.9 | 0.13 | 5.4 | 16.4 |
| <i>Exocarpus cupressiformis</i> | 1 | 0.1 | 40.1 | 3.1 | 0.3 | 0.1 | 0.13 | 5.4 | 8.6 |
| * <i>Hypericum perforatum</i> | P | - | - | - | - | - | - | - | - |
| <i>Lissanthe strigosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Pultenaea daphnoides</i> | 6 | 0.07 | 243.2 | 18.8 | 17.0 | 6.7 | 0.38 | 15.7 | 41.2 |
| <i>Pultenaea largiflorens</i> | 1 | 0.01 | 40.1 | 3.1 | 4.0 | 1.6 | 0.13 | 5.4 | 10.1 |
| var. <i>latifolia</i> | | | | | | | | | |
| * <i>Senecio pterophorus</i> | P | - | - | - | - | - | - | - | - |
| <i>Spyridium parvifolium</i> | 3 | 0.14 | 121.6 | 9.4 | 17.0 | 6.7 | 0.13 | 5.4 | 21.5 |
| <i>Xanthorrhoea semiplana</i> | P | - | - | - | - | - | - | - | - |
| Totals | 32 | | 1293.7 | | 253.2 | | | | |

Small shrubs (< 0.25m), herbs, climbers and grasses

Astroloma humifueum
Cassytha sp.
Cheilanthes tenuifolia
GERIANACEAE (sp. unknown)
Gonocarpus sp.
Goodenia primulaceae
Hardenbergia violacea
Hibbertia exutiacies
Scaevola albida
Vinca major

Perennial, grass-like plants

Lomandra dura

Density measurements

47.8% at point 3, T (iv)

SITE 25 - Transect (iv) - Along a ridge in Section 410

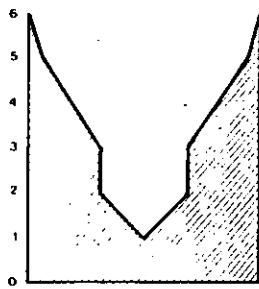
| Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|--------------------------------------|---------------------|---------------|------------|---------------|------------|-------|--------------|---------------|
| 2m < Trees/Shrubs < 10m | | | | | | | | |
| <i>Acacia pycnantha</i> | 6 | 1.0 | 230.8 | 15.0 | 230.8 | 9.8 | 0.5 | 22.7 |
| <i>Eucalyptus cosmophylla</i> | 2 | 1.0 | 76.9 | 5.0 | 76.9 | 3.3 | 0.2 | 9.1 |
| <i>E. fasciculosa</i> | 2 | 1.8 | 76.9 | 5.0 | 138.4 | 5.9 | 0.2 | 9.1 |
| <i>E. obliqua</i> | 27 | 1.8 | 1038.5 | 67.5 | 1869.3 | 79.8 | 1.0 | 45.5 |
| <i>Exocarpus cupressiformis</i> | 3 | 3.7 | 115.4 | 7.5 | 27.8 | 1.2 | 0.3 | 13.6 |
| Totals | 40 | 1538.5 | | 2343.2 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | |
| <i>Acacia myrtifolia</i> | 1 | 0.01 | 806.5 | 2.5 | 8.1 | 0.3 | 0.1 | 3.5 |
| <i>A. pycnantha</i> | 2 | 0.05 | 1612.9 | 5.0 | 80.6 | 2.7 | 0.2 | 6.9 |
| <i>A. rotundifolia</i> | P | - | - | - | - | - | - | - |
| <i>Acrotriche fasciculiflora</i> | 5 | 0.07 | 4032.3 | 12.5 | 282.3 | 9.4 | 0.4 | 13.8 |
| <i>Daviesia virgata</i> | 7 | 0.09 | 5645.2 | 17.5 | 508.1 | 17.0 | 0.3 | 10.3 |
| <i>Dillwynia hispida</i> | P | - | - | - | - | - | - | - |
| <i>Epacris impressa</i> | 1 | 0.02 | 806.5 | 2.5 | 16.1 | 0.5 | 0.1 | 3.5 |
| <i>Eucalyptus cosmophylla</i> | 2 | 0.11 | 1612.9 | 5.0 | 177.4 | 5.9 | 0.2 | 6.9 |
| <i>E. obliqua</i> | 1 | 0.05 | 806.5 | 2.5 | 40.3 | 1.3 | 0.1 | 3.5 |
| <i>Hakea carinata</i> | P | - | - | - | - | - | - | - |
| <i>H. rostrata</i> | P | - | - | - | - | - | - | - |
| <i>Icogonon ceratophyllum</i> | P | - | - | - | - | - | - | - |
| <i>Ixodia achillaeoides</i> | P | - | - | - | - | - | - | - |
| <i>Lepidosperma semiteres</i> | 1 | 0.05 | 806.5 | 2.5 | 40.3 | 1.3 | 0.1 | 3.5 |
| <i>Lissanthe strigosa</i> | 1 | 0.05 | 806.5 | 2.5 | 40.3 | 1.3 | 0.1 | 3.5 |
| <i>Olearia ramulosa</i> | 1 | 0.1 | 806.5 | 2.5 | 80.6 | 2.7 | 0.1 | 3.5 |
| <i>Platylobium obtusangulum</i> | 1 | 0.01 | 806.5 | 2.5 | 8.1 | 0.3 | 0.1 | 3.5 |
| <i>Pultenaea acerosa</i> | P | - | - | - | - | - | - | - |
| var. <i>acicularis</i> | | | | | | | | |
| <i>Pultenaea daphnoides</i> | 14 | 0.07 | 11290.3 | 35.0 | 790.3 | 26.4 | 0.8 | 27.6 |
| <i>P. largiflorens</i> | P | - | - | - | - | - | - | - |
| var. <i>latifolia</i> | | | | | | | | |
| <i>Scaevola albida</i> | 1 | 0.13 | 806.5 | 2.5 | 104.8 | 3.5 | 0.1 | 3.5 |
| <i>Tetratheca pilosa</i> | 1 | 0.01 | 806.5 | 2.5 | 8.1 | 0.3 | 0.1 | 3.5 |
| <i>Xanthorrhoea semiplana</i> | 1 | 1.0 | 806.5 | 2.5 | 806.5 | 27.0 | 0.1 | 3.5 |
| Totals | 40 | 32258 | | 2991.9 | | | | |

Small shrubs (< 0.25m), herbs, climbers, and grasses

Acrotriche serrulata
Astroloma humifusum
Billardiera sericophora
Burchardia umbellata
Caseytha sp.
Goodenia primulaceae
Hibbertia exutiacies
 H. stricta
Olearia grandiflora
Scaevola albida

Perennial, grass-like plants

Dianella revoluta
Lomandra dura

Density measurements

SITE 25 - Transect (iv) - Cont.

Creek Vegetation

Trees > 8m

Eucalyptus viminalis

Small shrubs (< 0.25m), herbs

Introduced herbs

2m < Trees/Shrubs < 8m

Acacia melanoxylon

Sedges and Reeds

Cyperus vaginatus

Juncus sp.

Typha sp.

0.25m < Shrubs < 2m

**Genista maderensis*

**Rosa sp.*

**Rubus fruticosus*

Plants present at site but not recorded in any transect

2m < Trees/Shrubs < 8m

**Pinus sp.*

0.25m < Shrubs < 2m

**Asclepias rotundifolia*

Daviesia ulicifolia

Indigofera australis

**Watsonia bulbillifera*

FAUNA

Birds

Mistletoe bird
 Crescent Honeyeater
 Grey Fantail
 Brown Thornbill
 Striated Thornbill
 Grey Currawong
 Adelaide Rosella
 Magpie
 New Holland Honeyeater
 White-naped Honeyeater
 Yellow-faced Honeyeater
 Silvereye

Raven
 Striated Pardalote
 Purple-crowned Lorikeet
 Golden Whistler
 White-throated Tree-creeper
 Scarlet Robin
 Galah
 Grey Thrush
 *Blackbird
 Rainbow Lorikeet

Other Fauna

Millipedes

PHOTOGRAPHS

Film 13 Photo

1. Reference Board
2. Fire-charred trees in Section 410
3. *Eucalyptus obliqua* association on south-facing slope (Transect (iii))
4. Cottage near dam in Section 410
5. *Eucalyptus viminalis*
6. *E. coemophylla* - *E. fasciculosa* in Transect (i)
7. Panoramic view of scrub
8. View up gully in Section 404 (side gully)
9. View along main gully in Section 404
10. Along Transect (ii)
11. Along Transect (ii)
12. View of side gully
13. *Astroloma conostephiooides*
14. Along Transect (iv)
15. *E. leucoxylon* in Transect (iv)
16. Along Transect (v)
17. Along Transect (v)
18. Dumped Rubbish in Section 410

Film 16 Photo

5.9 Hd. Onkaparinga

SITE 5

Date: 3.4.79

Environmental Association: 3.2.16

Physiography:

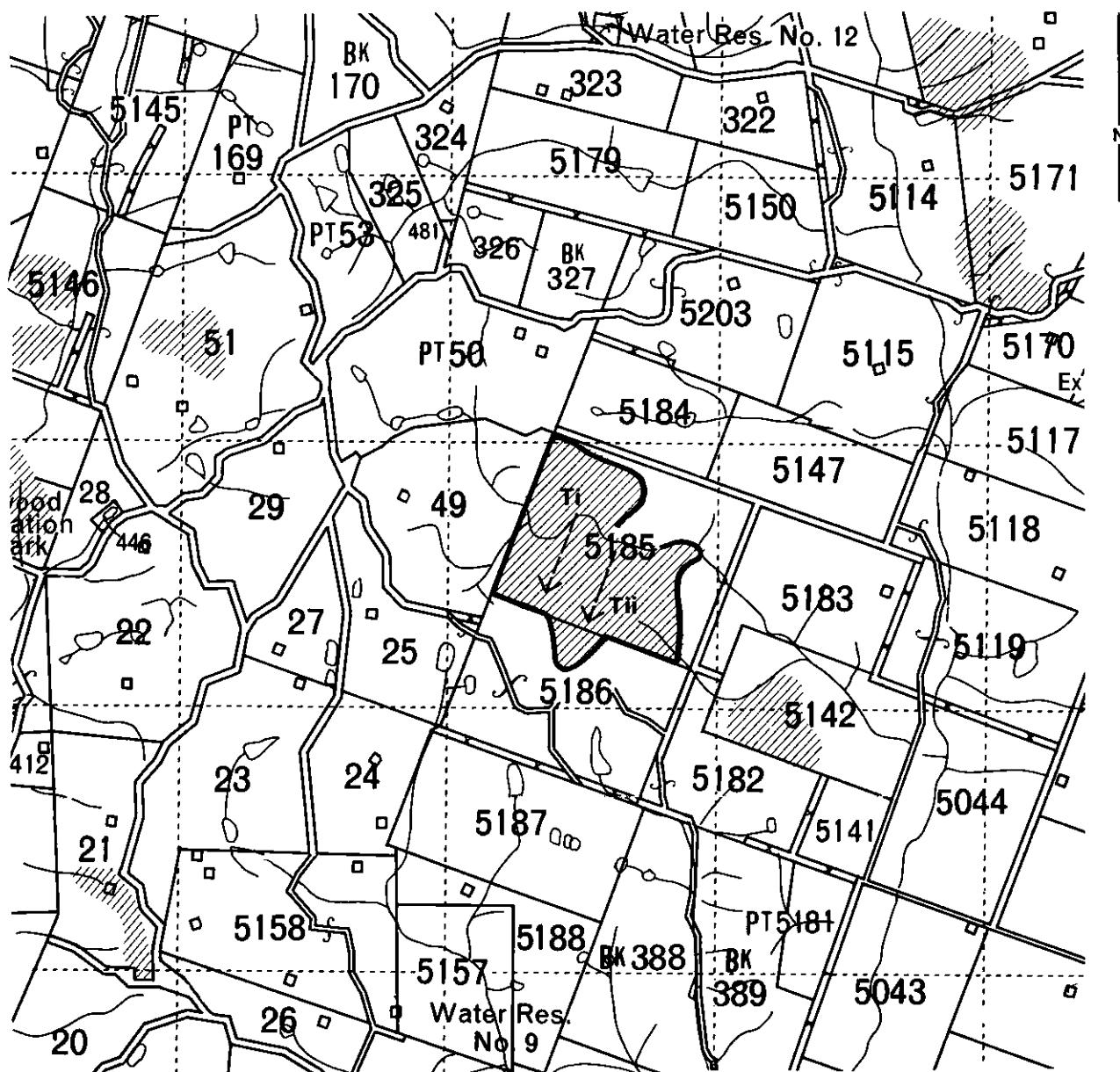
Gentle to medium slopes which surround the upper reaches of a creek in Section 5185 are clothed in native vegetation. Altitude ranges from 400m to 460m above sea level.

Plant Communities:

This site is generally dominated by *Eucalyptus obliqua* open forest, with *E. fasciculosa* co-dominant on north-facing slopes and *E. rubida* in sheltered gullies. The understorey varies from sparse on north-facing slopes and ridges to mid-dense on east-facing slopes and ridges to mid-dense on east-facing slopes where *Pteridium esculentum* is dominant (not shown in transects).

Condition and General:

This area of natural vegetation is largely unmodified on ridges and slopes, but the wetter gullies have been invaded by **Rubus fruticosus*, **Rosa* sp. and **Ulex europaeus*. Grazing is indicated by the presence of cattle scats. Impressive specimens of *Eucalyptus rubida*, which is a rare plant in South Australia (Specht et al , 1974), occupy the wettest gullies.



Reference
Onkaparinga 1:50 000, 6628-II
035E-335N AMG

40 hectares

SCALE 1 : 25 000

0 1000 metres

Site 5

HD ONKAPARINGA

Pt Sections 5185, 5186

SITE 5 - Transect (i) - Sampling points at 20m intervals - Proceeding S.S.W. along a gully

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|----------------------------------|--------------------|---------------------|--------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 3m | | | | | | | | | |
| <i>Acacia melanoxylon</i> | P | - | - | - | - | - | - | - | - |
| <i>A. pycnantha</i> | 1 | 1.0 | 13.5 | 2.5 | 13.5 | .7 | 0.1 | 6.7 | 9.9 |
| <i>Eucalyptus fasciculosa</i> | 2 | 5.0 | 27.0 | 5 | 54 | 2.8 | 0.2 | 13.3 | 21.1 |
| <i>E. obliqua</i> | 35 | 3.25 | 473 | 87.5 | 1537.3 | 79.1 | 1 | 66.7 | 233.3 |
| <i>E. rubida</i> | 2 | 12.5 | 27.0 | 5 | 337.5 | 17.4 | 0.2 | 13.3 | 35.7 |
| Totals | 40 | | 540.5 | | 1942.3 | | | | |
| 0.25m < Shrubs < 3m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | 12 | 0.10 | 480 | 30 | 48 | 5.1 | 0.5 | 18.5 | 53.6 |
| <i>A. pycnantha</i> | 1 | 0.25 | 40 | 2.5 | 10 | 1.1 | 0.1 | 3.7 | 7.3 |
| <i>Daviesia ulicifolia</i> | 6 | 0.25 | 240 | 15 | 60 | 6.4 | 0.5 | 18.5 | 39.4 |
| <i>Eucalyptus obliqua</i> | 1 | 0.25 | 40 | 2.5 | 10 | 1.1 | 0.1 | 3.7 | 7.3 |
| <i>Leptospermum juniperinum</i> | 7 | 0.25 | 280 | 17.5 | 70 | 7.5 | 0.6 | 22.2 | 47.2 |
| <i>Olearia ramulosa</i> | 1 | 0.5 | 40 | 2.5 | 20 | 2.1 | 0.1 | 3.7 | 8.3 |
| <i>Pteridium esculentum</i> | 1 | 0.25 | 40 | 2.5 | 10 | 1.1 | 0.1 | 3.7 | 7.3 |
| * <i>Mibus fruticosus</i> | 8 | 1.75 | 320 | 20 | 560 | 59.7 | 0.5 | 18.5 | 98.2 |
| * <i>Senecio pterophorus</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | 3 | 1.25 | 120 | 7.5 | 150 | 16.0 | 0.2 | 7.4 | 30.9 |
| Totals | 40 | | 1600 | | 938 | | | | |

Small shrubs (< 0.25m), herbs, grasses and climbers*Hibbertia exutioides*
POACEAEPerennial, grass-like plants*Carex appressa*
Juncus sp.

SITE 5 - Transect (ii) - Sampling points at 20m intervals

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|----------------------------------|--------------------|---------------------|---------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 3m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 2 | 0.75 | 131.6 | 10 | 98.7 | 3.0 | 0.2 | 14.3 | 27.3 |
| <i>Eucalyptus obliqua</i> | 17 | 2.75 | 1118.4 | 85 | 3075.6 | 93.0 | 1 | 71.4 | 249.4 |
| <i>Exocarpus cupressiformis</i> | 1 | 2 | 65.8 | 5 | 131.6 | 4.0 | 0.2 | 14.3 | 23.3 |
| Totals | 20 | | 1315.8 | | 3305.9 | | | | |
| 0.25m < Shrubs < 3m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | 2 | 0.5 | 112.0 | 10 | 56.0 | 10.8 | 0.4 | 11.8 | 32.6 |
| <i>A. paradoxa</i> | P | - | - | - | - | - | - | - | - |
| <i>A. pycnantha</i> | 8 | 0.25 | 449.0 | 40 | 112.3 | 21.6 | 1 | 29.4 | 91 |
| <i>Eucalyptus obliqua</i> | 1 | 0.2 | 56.2 | 5 | 14.1 | 2.7 | 0.2 | 5.9 | 13.6 |
| <i>Hakea rostrata</i> | P | - | - | - | - | - | - | - | - |
| <i>Ixodia achillaeoides</i> | 2 | 0.25 | 112.0 | 10 | 28.0 | 5.4 | 0.4 | 11.8 | 27.2 |
| <i>Lepidosperma semiteres</i> | 1 | 0.5 | 56.2 | 5 | 28.1 | 5.4 | 0.2 | 5.9 | 16.3 |
| <i>Leptospermum myrsinoides</i> | 1 | 0.25 | 56.2 | 5 | 14.1 | 2.7 | 0.2 | 5.9 | 13.6 |
| <i>Olearia ramulosa</i> | 2 | 0.75 | 112.0 | 10 | 84.0 | 16.2 | 0.4 | 11.8 | 38 |
| <i>Platylobium obtusangulum</i> | 1 | 0.25 | 56.2 | 5 | 14.1 | 2.7 | 0.2 | 5.9 | 13.6 |
| <i>Pultenaea daphnoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | 2 | 1.5 | 112.0 | 10 | 168 | 32.4 | 0.4 | 11.8 | 34.2 |
| Totals | 20 | | 1123.6 | | 518.7 | | | | |

Small shrubs (< 0.25m), herbs, grasses, climbers etc.

Acrotriche serrulata
Astroloma humifusum
Hibbertia stricta
Pultenaea pedunculata

FAUNABirds

Grey Fantail
 Adelaide Rosella
 Blue Wren
 Red-browed Finch
 Yellow-faced honeyeater
 Brown Thornbill
 White-throated Tree-creepers
 Grey Thrush
 Magpie
 Kookaburra
 Crested Shrike-tit

Plants present but not recorded in either transectTrees > 3m

Acacia retinodes
Eucalyptus leucoxylon

Mammals

Possoms
 Foxes

0.25m < Shrubs < 3m

Bursaria spinosa
Epacris impressa
Indigofera australis
 **Rosa* sp.
 **Ulex europaeus*

Small shrubs (< 0.25m), herbs, grasses and climbers

Acrotriche affinis
 **Briza* sp.
Hardenbergia violacea
Themeda australis
 Thistles

PHOTOGRAPHS

| | | |
|---------------|-----|---|
| C/6628-II/BS/ | 1-1 | Reference Board |
| | 1-2 | <i>Eucalyptus obliqua</i> and * <i>Rubus fruticosus</i> |
| | 1-3 | <i>Acacia melanoxylon</i> |
| | 1-4 | <i>Eucalyptus rubida</i> |
| | 1-5 | <i>Eucalyptus obliqua</i> open forest |
| | 1-6 | <i>E. obliqua/Xanthorrhoea semiplana</i> |
| | 1-7 | <i>E. obliqua</i> open forest |
| | 1-8 | <i>E. rubida</i> (730m) |
| | 1-9 | Fungi |

SITE 6

Date: 3.4.79

Environmental Association: 3.2.15

Physiography:

This site comprises broad ridges, gentle to medium slopes and several gullies covered in native vegetation. Altitude ranges from 380m to 460m above sea level.

Plant Communities:

1. *Eucalyptus obliqua* open forest/woodland occupies south and east-facing slopes and gullies in which *E. rubida* and *Acacia melanoxylon* are associated species. The understorey is dense and includes **Rubus fruticosus* in the wettest gullies.
2. *Eucalyptus baxteri* - *E. obliqua* - *E. fasciculosa* woodland/open forest covers ridges and north-facing slopes and contains a mid-dense understorey of sclerophyllous shrubs.

Condition:

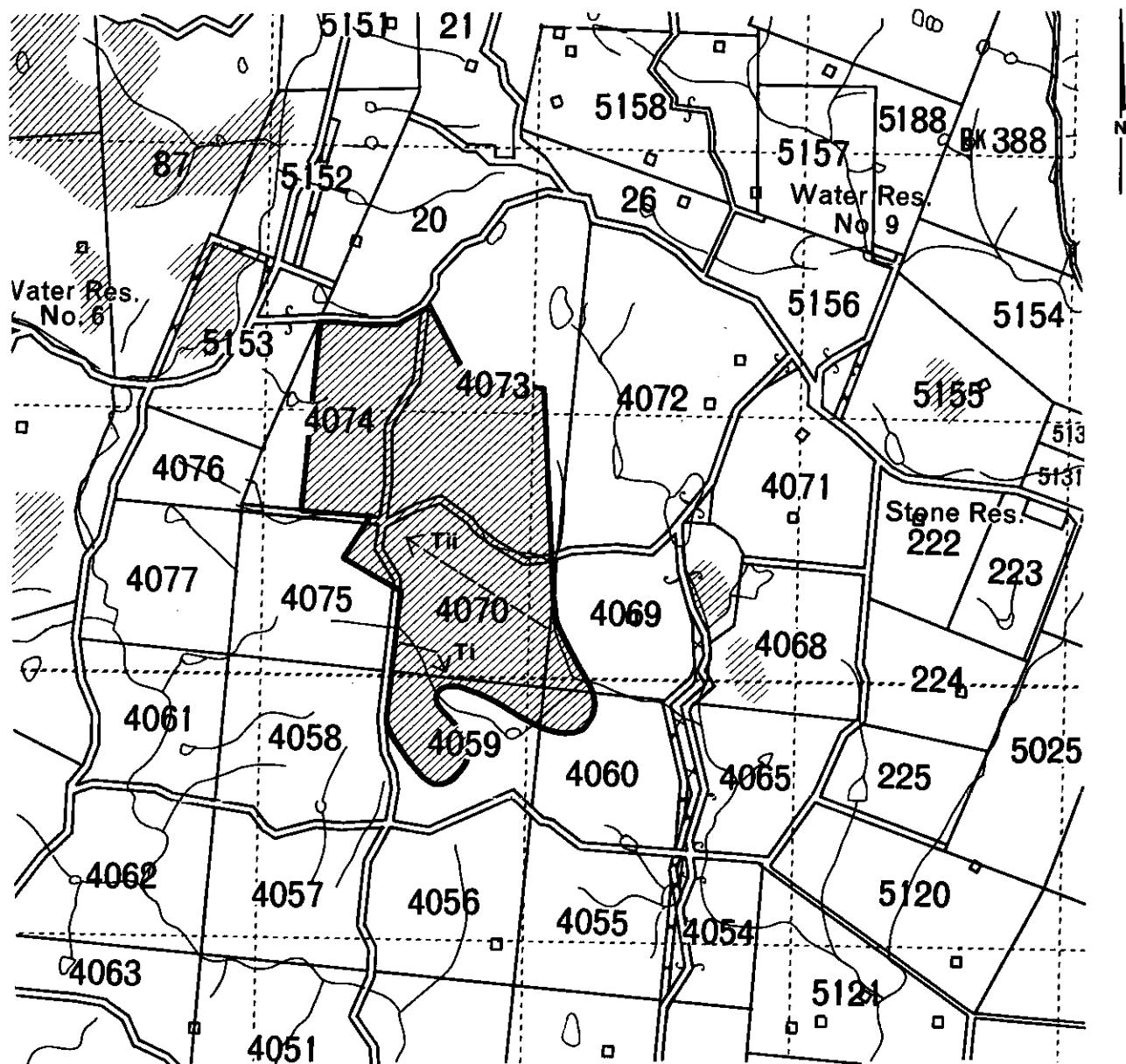
The ridges and slopes of this site consist of unmodified native vegetation, but invasion by **Rubus fruticosus* and **Ulex europaeus* has occurred in the gullies. Recent fire damage is evident in parts of association (2) above.

A large fire break and several tracks traverse the area and extensive clearing has recently taken place in sections 4073 and 4075.

General:

Eucalyptus rubida which is a rare plant in South Australia (Specht et al, 1974) occurs at the site.

Despite recent clearing, a relatively large area of *E. obliqua* woodland with an unmodified understorey (except for the wettest gullies) remains.



Reference
Onkaparinga 1:50 000, 6628-II
015E-305N AMG

120 hectares

SCALE 1 : 25 000

0 1000 metres

Site 6

Section 4070

Pt Sections 4059, 4060, 4069, 4073, 4074, 4075

SITE 6 - Transect (i) - Sampling points at 20m intervals - South-East along a gully at the edge of a creek

| Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|----------------------------------|---------------------|------------|---------------|------|---------------|-------|--------------|---------------|
| Trees > 3m | | | | | | | | |
| <i>Acacia melanoxylon</i> | 8 | 1.5 | 173.9 | 16.7 | 260.9 | 9.8 | 0.5 | 27.3 |
| <i>Banksia marginata</i> | 1 | 2.0 | 21.9 | 2.1 | 43.8 | 1.6 | 0.08 | 4.4 |
| <i>Eucalyptus obliqua</i> | 35 | 2.5 | 759.3 | 72.9 | 1898.3 | 71.4 | 1.0 | 54.6 |
| <i>E. rubida</i> | 4 | 5.25 | 86.5 | 8.3 | 454.1 | 17.1 | 0.25 | 13.7 |
| <i>Exocarpus cupressiformis</i> | P | - | - | - | - | - | - | - |
| Totals | 48 | | 1041.6 | | 2657.1 | | | |
| 0.25m < Shrubs < 3m | | | | | | | | |
| <i>Acacia melanoxylon</i> | 1 | 0.25 | 207 | 2.07 | 51.8 | .7 | 0.08 | 3.7 |
| <i>A. myrtifolia</i> | 1 | 0.13 | 207 | 2.07 | 27.0 | .36 | 0.08 | 3.7 |
| <i>Ixodia achillaeoides</i> | 1 | 0.13 | 207 | 2.07 | 27.0 | .36 | 0.08 | 3.7 |
| <i>Leptospermum juniperinum</i> | 26 | 0.5 | 5420 | 54.2 | 2710 | 36.7 | 0.92 | 42.8 |
| <i>Pteridium esculentum</i> | 6 | 0.5 | 1250 | 12.5 | 6250 | 8.5 | 0.25 | 11.6 |
| <i>Pultenaea daphnoides</i> | 2 | 0.25 | 420 | 4.2 | 105.0 | 1.4 | 0.08 | 3.7 |
| * <i>Rubus fruticosus</i> | 10 | 1.75 | 2080 | 20.8 | 3640 | 49.2 | 0.58 | 27 |
| * <i>Senecio pterophorus</i> | P | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | 1 | 1 | 207 | 2.07 | 207 | 2.8 | 0.08 | 3.7 |
| Totals | 48 | | 10000 | | 7392.8 | | | |

Small shrubs (< 0.25m), herbs, climbers and grasses

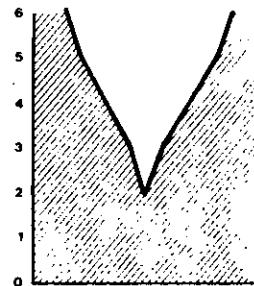
Acaena sp.
Adiantum aethiopicum
Hibbertia exutiacies
 POACEAE (Intro.)

SITE 6 - Transect (ii) - Sampling points at 20m intervals - Proceeding N.N.W. along ridge from S.E.
corner of Section 4070

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|----------------------------------|--------------------|---------------------|----------------|------------|-------|---------------|-------|--------------|---------------|
| Trees > 3m | | | | | | | | | |
| <i>Acacia paradoxa</i> | 1 | 5.0 | 11.9 | 1.3 | 59.5 | 3.4 | 0.05 | 2.5 | 7.2 |
| <i>Eucalyptus baxteri</i> | 31 | 2.0 | 356 | 38.8 | 712 | 41.0 | 0.65 | 32.5 | 112.3 |
| <i>E. fasciculosa</i> | 19 | 1.75 | 218.3 | 23.8 | 382 | 22.0 | 0.6 | 30.0 | 75.8 |
| <i>E. obliqua</i> | 29 | 1.75 | 332.1 | 36.2 | 581.2 | 33.5 | 0.7 | 35.0 | 104.7 |
| <i>Exocarpus cupressiformis</i> | P | - | - | - | - | - | - | - | - |
| Totals | 80 | | 917.4 | | | 1734.7 | | | |
| 0.25m < Shrubs < 3m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | 13 | 0.25 | 3326.5 | 16.3 | 831.6 | 26.0 | 0.35 | 14.0 | 56.3 |
| <i>A. paradoxa</i> | 4 | 0.75 | 1020.4 | 5.0 | 765.3 | 24.0 | 0.15 | 6.0 | 35.0 |
| <i>Daviesia virgata</i> | P | - | - | - | - | - | - | - | - |
| <i>Epacris impressa</i> | 33 | 0.01 | 8428.6 | 41.3 | 84.3 | 2.6 | 0.85 | 34.0 | 77.9 |
| <i>Eucalyptus baxteri</i> | 1 | 0.13 | 265.3 | 1.3 | 34.5 | 1.1 | 0.05 | 2.0 | 4.4 |
| <i>Exocarpus cupressiformis</i> | P | - | - | - | - | - | - | - | - |
| <i>Hakea rostrata</i> | 1 | 0.25 | 265.3 | 1.3 | 66.3 | 2.1 | 0.05 | 2.0 | 5.4 |
| <i>Ixodia achillaeoides</i> | 15 | 0.05 | 3816.3 | 18.7 | 190.8 | 6.0 | 0.45 | 18.0 | 42.7 |
| <i>Lepidosperma semiteres</i> | 1 | 0.5 | 265.3 | 1.3 | 132.7 | 4.2 | 0.05 | 2.0 | 7.5 |
| <i>Leptospermum myrsinoides</i> | 3 | 0.10 | 775.5 | 3.8 | 77.6 | 2.4 | 0.15 | 6.0 | 12.2 |
| <i>Platylobium obtusangulum</i> | 4 | 0.05 | 1020.4 | 5.0 | 51.0 | 1.6 | 0.2 | 8.0 | 14.6 |
| <i>Pultenaea daphnoides</i> | 3 | 0.25 | 775.5 | 3.8 | 193.9 | 6.1 | 0.1 | 4.0 | 13.9 |
| <i>Xanthorrhoea semiplana</i> | 2 | 1.5 | 510.2 | 2.5 | 765.3 | 24.0 | 0.1 | 4.0 | 30.5 |
| Totals | 80 | | 20408.2 | | | 3193.3 | | | |

Small shrubs (< 0.25m), herbs, grasses and climbers

Density measurements



31.3% at point 2, T (i)

Plants present but not recorded in either transect

0.25m < Shrubs < 3m

Daviesia brevifolia
 D. ulicifolia
Olearia ramulosa
**Ulex europaeus*

Small shrubs (< 0.25m), herbs, grasses and climbers

Acrotriche affinis
Grevillea lavandulacea
Scaevola sp.
Themeda australis

FAUNA

Birds

Grey Fantail
Blue Wren
Golden Whistler
White-throated Tree-creeper
Crescent Honeyeater
Scarlet Robin
Grey Thrush
Red-browed Finch
Adelaide Rosella
Brown Thornbill

PHOTOGRAPHS

| | | |
|---------------|------|---|
| C/6628-II/BS/ | 1-10 | Reference Board |
| | 1-11 | <i>Xanthorrhoea semiplana</i> |
| | 1-12 | <i>Banksia marginata</i> |
| | 1-13 | Gully view <i>Rubus</i> sp. and <i>A. melanoxylon</i> |
| | 1-14 | <i>E. baxteri/E. obliqua</i> open forest |
| | 1-15 | Fire damage to trees |
| | 1-16 | Recent clearing of vegetation |
| | 1-17 | Juvenile <i>E. rubida</i> |

SITE 7

Date: 4.4.79

Environmental Association: 3.2.15

Physiography:

The natural vegetation at this site covers a varying topography of broad ridges, slopes ranging from gentle to steep, and gullies which converge to form the principal creek in Section 115. The altitude range is from 360m to 540m above sea level.

Plant Communities:

1. *Eucalyptus obliqua* woodland/open forest occurs along gullies and south and east-facing slopes. The understorey varies from mid-dense to dense (see transect (i)). *E. rubida* is an associated tree on a south-facing slope in Section 115. While *E. viminalis* and smaller trees of *Acacia melanoxylon*, *A. retinodes* and *Leptospermum pubescens* occupy the principal creek in this section (see plant list for "Swamp Vegetation").
2. *Eucalyptus obliqua* - *E. baxteri* woodland/open forest covers the drier ridges and north-facing slopes.

The understorey is generally mid-dense and consists of a variety of sclerophyllous shrubs (see transect (ii)).

Condition:

Various tracks, a dam and several areas of rubbish dumping near the road in Section 115 occur at this site. A power transmission line and associated clearing traverse the northern extremity of the scrub.

The principal creek has been invaded by **Rubus fruticosus*, **R. Laciiniatus* and *Rosa sp.* while individuals of **Senecio pterophorus*, **Pinus sp.*, **Erica sp.* and **Olea sp.* are scattered through the site. The garden escapee, **Euryops abrotanifolius* occurs near the dumps in Section 115.

There is evidence of recent fire in Section 117 where epicormic growth on trees and dense *Ixodia achillaeoides* occur.

The presence of horse scats indicates the use of the tracks but there is no evidence of grazing by stock.

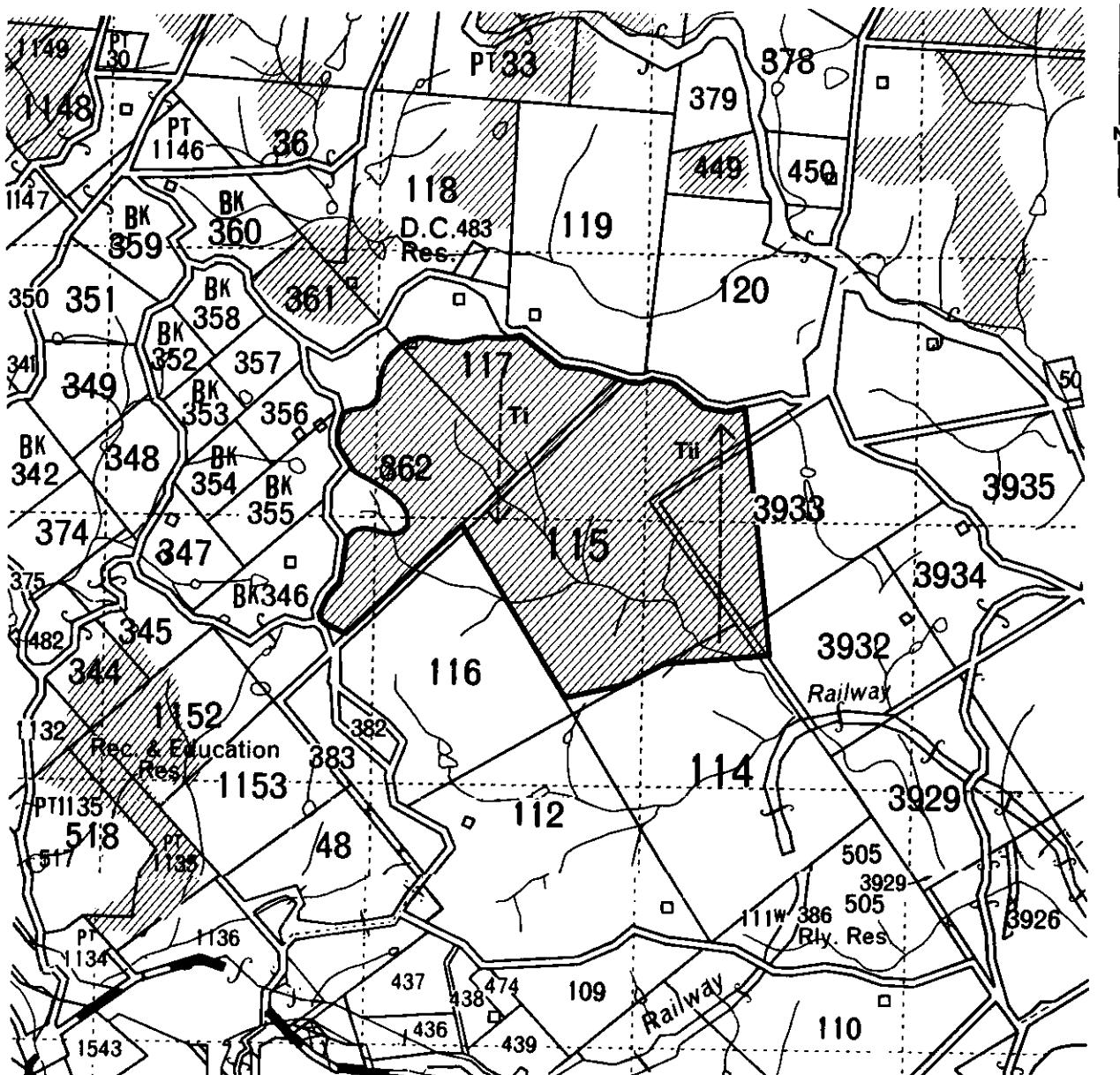
Within an area at the junction of two creeks in Section 115, many stringybarks are dying.

General:

Present at this site are the endangered plant, *Asplenium flabellifolium* and the rare plants, *Eucalyptus rubida*, *Olearia grandiflora*, and *Blechnum nudum* (Specht et al , 1974).

Impressive specimens of *Eucalyptus obliqua*, *E. rubida*, *E. viminalis* (to 30m high) and *Acacia melanoxylon* occur near and along the principal creek in Section 115.

Despite degradation of the edge of the scrub (see above) this site represents a relatively large area of *Eucalyptus obliqua* vegetation with a generally unmodified understorey (except for gullies).



Site 7

HD ONKAPARINGA

Pt Sections 115, 117, 362, 3933

SITE 7 - Transect (i) - Sampling points at 20m intervals - South along a gully

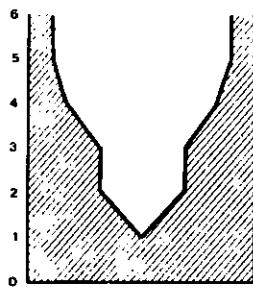
| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|----------------------------------|--------------------|---------------------|--------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 3m | | | | | | | | | |
| <i>Acacia melanoxylon</i> | 7 | 1.75 | 51 | 8.8 | 89.3 | 5.4 | 0.25 | 17.9 | 32.1 |
| <i>A. retinodes</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus baxteri</i> | 1 | 3.0 | 7.5 | 1.3 | 22.5 | 1.4 | 0.05 | 3.6 | 6.3 |
| <i>E. obliqua</i> | 70 | 3.0 | 507.5 | 87.5 | 1522.5 | 92.1 | 1.0 | 71.4 | 251 |
| <i>E. rubida</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucarpus cypressiformis</i> | 1 | 1.5 | 7.5 | 1.3 | 11.3 | 0.7 | 0.05 | 3.6 | 5.6 |
| <i>Leptospermum juniperinum</i> | 1 | 1.0 | 7.5 | 1.3 | 7.5 | 0.5 | 0.05 | 3.6 | 5.4 |
| <i>L. pubescens</i> | P | - | - | - | - | - | - | - | - |
| Totals | | 80 | 580 | | 1653.1 | | | | |
| 0.25m < Shrubs < 3m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | 1 | 0.10 | 1034 | 1.3 | 103 | 0.5 | 0.05 | 1.9 | 3.7 |
| <i>Acrotriche fasciculiflora</i> | 10 | 0.25 | 9938 | 12.5 | 2485 | 11.7 | 0.25 | 9.4 | 33.6 |
| <i>Banksia marginata</i> | P | - | - | - | - | - | - | - | - |
| <i>Blechnum nudum</i> | 5 | 0.25 | 5009 | 6.3 | 1252 | 5.9 | 0.10 | 3.8 | 16.0 |
| <i>Daviesia virgata</i> | 1 | 0.25 | 1034 | 1.3 | 259 | 1.2 | 0.05 | 1.9 | 4.4 |
| <i>Epacris impressa</i> | P | - | - | - | - | - | - | - | - |
| * <i>Erica sp.</i> | 1 | 0.25 | 1034 | 1.3 | 259 | 1.2 | 0.05 | 1.9 | 4.4 |
| <i>Gahnia clarkei</i> | 1 | 1.0 | 1034 | 1.3 | 1034 | 4.9 | 0.05 | 1.9 | 8.1 |
| <i>Goodenia ovata</i> | 8 | 0.25 | 7950 | 10.0 | 1988 | 9.3 | 0.25 | 9.4 | 28.7 |
| <i>Hibbertia stricta</i> | 1 | 0.25 | 1034 | 1.3 | 259 | 1.2 | 0.05 | 1.9 | 4.4 |
| <i>Ixodia achillaeoides</i> | 15 | 0.05 | 14946 | 18.8 | 747 | 3.5 | 0.55 | 20.8 | 43.1 |
| <i>Leptospermum juniperinum</i> | 1 | 0.25 | 1034 | 1.3 | 259 | 1.2 | 0.05 | 1.9 | 4.4 |
| <i>Platylobium obtusangulum</i> | 4 | 0.05 | 3975 | 5.0 | 199 | 0.9 | 0.20 | 7.5 | 13.4 |
| <i>Pteridium esculentum</i> | 16 | 0.25 | 15900 | 20.0 | 3975 | 18.7 | 0.45 | 17.0 | 55.7 |
| <i>Pultenaea daphnoides</i> | 7 | 0.25 | 6996 | 8.8 | 1749 | 8.2 | 0.25 | 9.4 | 26.4 |
| * <i>Rubus fruticosus</i> | 9 | 0.75 | 8984 | 11.3 | 6738 | 31.6 | 0.30 | 11.3 | 54.2 |
| * <i>R. laciniatus</i> | P | - | - | - | - | - | - | - | - |
| * <i>Senecio pterophorus</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | P | - | - | - | - | - | - | - | - |
| Totals | | 80 | 79500 | | 21306 | | | | |

Small shrubs (< 0.25m), herbs, grasses and climbers

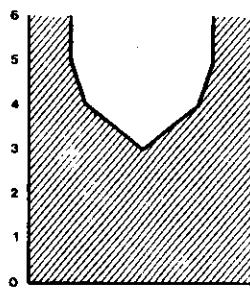
Acaena sp.
Asplenium flabellifolium
Dipodium punctatum
Haloragis spp.
Hibbertia exutioides
Marianthus bignoniaceus
Pimela linifolia
Tetratheca pilosa
POACEAE

SITE 7 - Transect (ii) - Sampling points at 20m intervals - North along a ridge

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|----------------------------------|--------------------|---------------------|------------|------------|--------|------------|-------|--------------|---------------|
| Trees > 3m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 4 | 1.0 | 55 | 5.0 | 55 | 1.8 | 0.15 | 8.1 | 14.9 |
| <i>Bankeria marginata</i> | 4 | 2.25 | 55 | 5.0 | 123.8 | 4.1 | 0.10 | 5.4 | 14.5 |
| <i>Eucalyptus baxteri</i> | 28 | 3.5 | 385 | 35.0 | 1347.5 | 44.7 | 0.65 | 35.1 | 114.8 |
| <i>E. obliqua</i> | 43 | 2.5 | 592 | 53.8 | 1480.0 | 49.1 | 0.90 | 48.6 | 151.5 |
| <i>Exocarpus cupressiformis</i> | P | - | - | - | - | - | - | - | - |
| * <i>Pinus sp.</i> | P | - | - | - | - | - | - | - | - |
| <i>Pultenaea daphnoidea</i> | 1 | 0.5 | 14 | 1.3 | 7.0 | 0.2 | 0.05 | 2.7 | 4.2 |
| Totals | | 80 | 1100 | | 3013.3 | | | | |
| 0.25m < Shrubs < 3m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | 3 | 0.10 | 1178 | 3.8 | 117.8 | 1.6 | 0.15 | 6.4 | 11.8 |
| <i>A. pycnantha</i> | P | - | - | - | - | - | - | - | - |
| <i>Acrotriche fasciculiflora</i> | 3 | 0.25 | 1178 | 3.8 | 294.5 | 3.9 | 0.15 | 6.4 | 14.1 |
| <i>Daviesia virgata</i> | 1 | 0.50 | 403 | 1.3 | 201.5 | 2.7 | 0.05 | 2.1 | 6.1 |
| <i>Epacris impressa</i> | 7 | 0.01 | 2728 | 8.8 | 27.3 | 0.4 | 0.35 | 14.9 | 24.1 |
| <i>Hakea rostrata</i> | 3 | 0.50 | 1178 | 3.8 | 589 | 7.9 | 0.15 | 6.4 | 18.1 |
| <i>H. carinata</i> | 1 | 0.25 | 403 | 1.3 | 100.8 | 1.3 | 0.05 | 2.1 | 4.7 |
| <i>Hibbertia stricta</i> | 1 | 0.25 | 403 | 1.3 | 100.8 | 1.3 | 0.05 | 2.1 | 4.7 |
| <i>Ixodia achilleoides</i> | 1 | 0.05 | 403 | 1.3 | 20.2 | 0.3 | 0.05 | 2.1 | 3.7 |
| <i>Lepidosperma semiteres</i> | 1 | 0.25 | 403 | 1.3 | 100.8 | 1.3 | 0.05 | 2.1 | 4.7 |
| <i>Leptospermum juniperinum</i> | P | - | - | - | - | - | - | - | - |
| <i>L. myrsinoides</i> | 9 | 0.15 | 3503 | 11.3 | 525.5 | 7.0 | 0.30 | 12.8 | 31.1 |
| <i>Olearia ramulosa</i> | 1 | 0.20 | 403 | 1.3 | 80.6 | 1.1 | 0.05 | 2.1 | 4.5 |
| <i>Platylobium obtusangulum</i> | 1 | 0.05 | 403 | 1.3 | 20.2 | 0.3 | 0.05 | 2.1 | 3.7 |
| <i>Pteridium esculentum</i> | 4 | 0.25 | 1550 | 5.0 | 387.5 | 5.2 | 0.10 | 4.3 | 14.5 |
| <i>Pultenaea daphnoidea</i> | 11 | 0.25 | 4278 | 13.8 | 1069.5 | 14.3 | 0.30 | 12.8 | 40.9 |
| <i>P. involucrata</i> | 33 | 0.30 | 12803 | 41.3 | 3840.9 | 51.4 | 0.50 | 21.3 | 114.0 |
| Totals | | 80 | 31000 | | 7476.9 | | | | |

Density measurements

47.9% at point 1, T (ii)



31.3% at point 12, T (ii)

Small shrubs (< 0.25m), herbs, grasses and climbers

Acacia gurnii
Acrotriche fasciculiflora
Astroloma humifusum
Caseytha sp.
Dianella revoluta
Dillwynia hispida
Grevillea lavandulacea
Haloragis spp.
Hibbertia exutioides
Isopogon ceratophyllus
Olearia grandiflora
ORCHIDACEAE
Pimelea sp.
Stylidium sp.
Tetrapathaea pilosa

SITE 7 - Transect (ii) - Cont.

Plants present at site but not recorded in other transectTrees > 3m

Eucalyptus cosmophylla
E. viminalis
**Olea europaea*

Small shrubs (< 0.25m), herbs, grasses and ferns

Adiantum aethiopicum
Burkardia umbellata
Themeda australis

0.25m < Shrubs < 3m

Bursaria spinosa
Euryops abrotanifolius
**Genista maderensis*
**Rosa sp.*
**Sarothamnus scoparius*

Perennial, grass-like plants

Lomandra dura
Phragmites australis

FAUNABirds

Adelaide Rosella
Golden Whistler
Blue Wren
Grey Fantail
Grey Thrush
White browed Scrub Wren
Scarlet robin
Brown thornbill
Silvereyes
Yellow-tailed Black Cockatoos
White-throated tree creeper
Grey Currawong
Striated Pardalote
Dusky Woodswallow
New Holland Honeyeater
Crescent Honeyeater
Crested Shrike-tit

Swamp Vegetation (principal creek in Section 115)Trees > 3m

Acacia melanoxylon
A. retinodes
Eucalyptus viminalis
Leptospermum juniperinum

Sedges and Reeds

Gahnia clarkei
Phragmites australis

0.25m < Shrubs < 3m

Goodenia ovata
Leptospermum juniperinum
**Rubus fruticosus*
**R. laciniatus*
**Senecio pterophorus*

Ferns

Blechnum nudum
Pteridium esculentum

PHOTOGRAPHS

| | | |
|---------------|-------|--|
| C/6628-II/BS/ | 1-18 | Reference Board |
| | 1-19 | Track in <i>Eucalyptus obliqua</i> forest (fire charred trees) |
| C/6628-II/BS/ | 1-20 | <i>E. obliqua</i> open forest in gully |
| | 1-21 | <i>E. obliqua</i> open forest in gully |
| | 1-22 | Reference Board |
| | 1-23 | Gully/swamp vegetation |
| | 1-24) | <i>E. rubida</i> > 30m high |
| | 2-1) | <i>E. obliqua</i> > 30m high |
| | 2-2 | <i>E. viminalis</i> |
| | 2-3 | |
| | 2-4 | Dump in scrub |

SITE 8

Date: 5.4.79

Environmental Association: 3.2.15

Physiography:

Natural vegetation covers the steep and dissected slopes which descend in a north-westerly direction from the main ridge at 600m above sea level. Rocky outcrops occur near the tops of steep slopes.

Plant Communities:

1. *Eucalyptus obliqua* - *E. viminalis* woodland/open forest with a mid-dense understorey occurs in the gullies and extends some distance up the slopes (see transect (i)).
2. *E. obliqua* woodland/open forest with a sparse to mid-dense understorey occurs on most slopes at higher elevations.
3. *E. obliqua* - *E. baxteri* woodland/open forest with a dense understorey is found on the ridges particularly adjacent to the road on the eastern side of Section 133 (see transect (ii)).
4. *E. obliqua* - *E. leucoxylon* woodland with a sparse understorey of shrubs occupies a small area on a north-facing slope on the western side of the scrub.

Condition:

Many tracks traverse the site and recent clearing for new tracks and possible home sites is evident. A ruin and associated exotic trees and shrubs are located on approximately 1 ha near the south-eastern border of the site.

There is a dense cover of **Rubus fruticosus* in the gullies, while **Erica sp.*, and **Senecio pterophorus* are scattered over a wide area. Several individuals of **Pinus sp.* occur along the eastern margin.

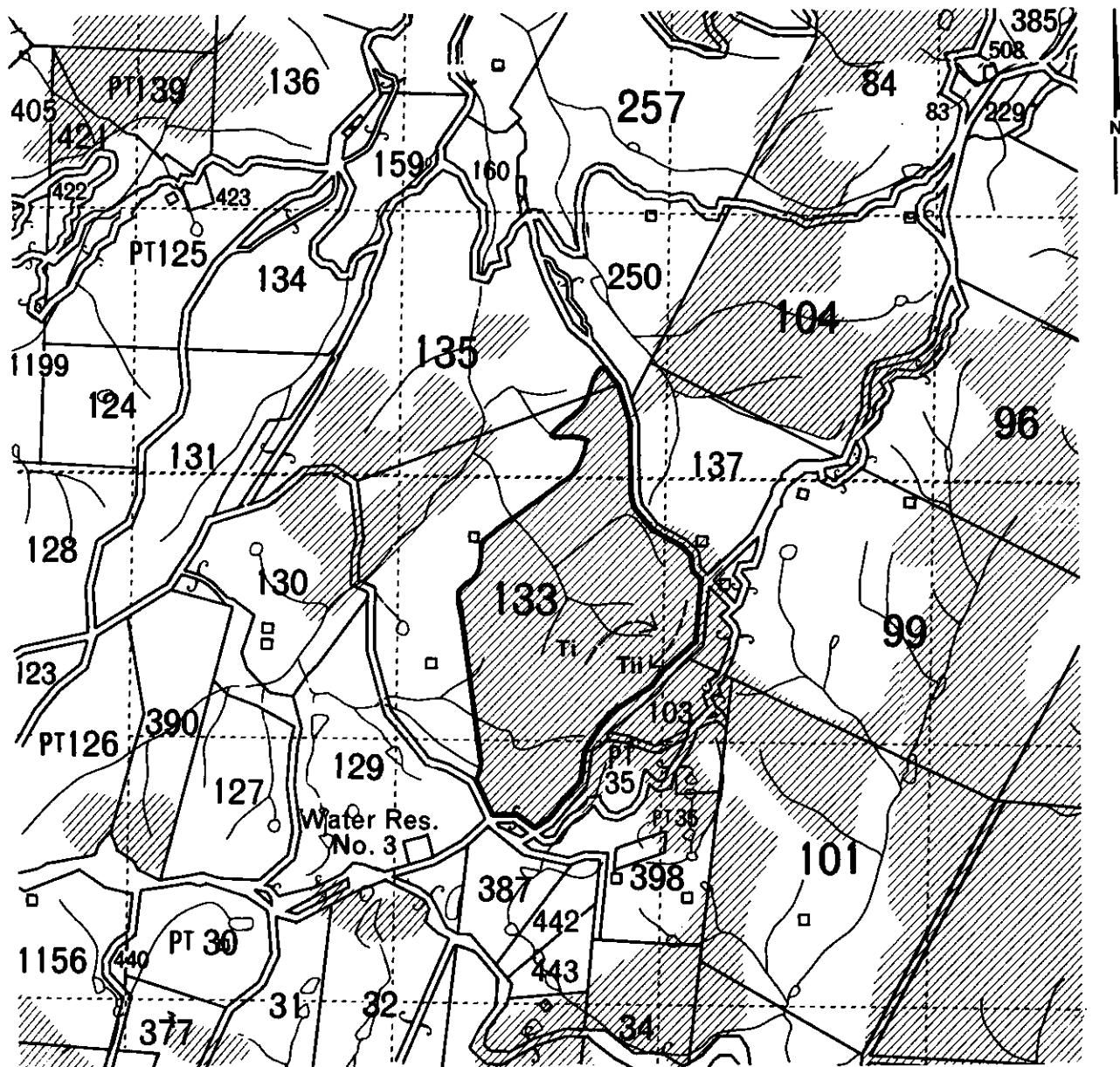
The presence of horse scats indicates the use made of the tracks.

General:

Olearia grandiflora which is a rare plant in South Australia (Specht et al, 1974) occurs at this site.

Except for the gullies and the clearing around the ruins, the understorey is relatively unmodified and contains a variety of sclerophyllous shrubs.

This site is one of several large areas of natural vegetation which are more or less contiguous in the high rainfall region between Carey Gully and Forest Range.



Reference
Onkaparinga 1:50 000, 6628-II
967E-295N AMG
90 hectares

Site 8

HD ONKAPARINGA

Section 133

SITE 8 - Transect (i) - Sampling points at 20m intervals - Along a north-west and later north-facing slope just above gully base

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|----------------------------------|--------------------|---------------------|--------------|------------|-------------|------------|-------|--------------|---------------|
| Trees > 3m | | | | | | | | | |
| <i>Acacia melanoxylon</i> | P | - | - | - | - | - | - | - | - |
| <i>Banksia marginata</i> | 4 | 1 | 58 | 5.0 | 58 | 2.0 | 0.10 | 5.1 | 12.1 |
| <i>Eucalyptus baxteri</i> | 1 | 8 | 15 | 1.3 | 120 | 4.1 | 0.05 | 2.6 | 8.0 |
| <i>E. obliqua</i> | 45 | 2.25 | 655 | 56.3 | 1474 | 50.0 | 0.90 | 46.2 | 152.5 |
| <i>E. viminalis</i> | 29 | 3.0 | 422 | 36.3 | 1266 | 42.9 | 0.85 | 43.6 | 122.8 |
| <i>Exocarpus opressiformis</i> | 1 | 2 | 15 | 1.3 | 30 | 1.0 | 0.05 | 2.6 | 4.9 |
| <i>Leptospermum pubescens</i> | P | - | - | - | - | - | - | - | - |
| Totals | | 80 | 1163 | | 2948 | | | | |
| 0.25m < Shrubs < 3m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | 10 | 0.13 | 3541 | 12.5 | 460 | 6.9 | 0.3 | 11.8 | 31.2 |
| <i>A. verticillata</i> | P | - | - | - | - | - | - | - | - |
| <i>Acrotriche fasciculiflora</i> | 28 | 0.25 | 9915 | 35.0 | 2479 | 37.3 | 0.8 | 31.4 | 103.7 |
| <i>Banksia marginata</i> | 1 | 0.5 | 368 | 1.3 | 184 | 2.8 | 0.05 | 2.0 | 6.1 |
| <i>Bursaria spinosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Daviesia uliginosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Epacris impressa</i> | P | - | - | - | - | - | - | - | - |
| * <i>Erica sp.</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus obliqua</i> | 1 | 0.25 | 368 | 1.3 | 92 | 1.4 | 0.05 | 2.0 | 4.7 |
| <i>E. viminalis</i> | 4 | 0.25 | 1416 | 5.0 | 354 | 5.3 | 0.20 | 7.8 | 18.1 |
| <i>Goodenia ovata</i> | 1 | 0.25 | 368 | 1.3 | 92 | 1.4 | 0.05 | 2.0 | 4.7 |
| <i>Hakea rostrata</i> | P | - | - | - | - | - | - | - | - |
| <i>Hibbertia exutiacies</i> | 1 | 0.25 | 368 | 1.3 | 184 | 2.8 | 0.05 | 2.0 | 6.1 |
| <i>H. stricta</i> | 2 | 0.25 | 708 | 2.5 | 177 | 2.7 | 0.05 | 2.0 | 7.2 |
| <i>Ixodia achillaeoides</i> | 7 | 0.13 | 2493 | 8.8 | 324 | 4.9 | 9.25 | 9.8 | 23.5 |
| <i>Lepidosperma laterale</i> | 1 | 0.50 | 368 | 1.3 | 184 | 2.8 | 0.05 | 2.0 | 6.1 |
| <i>Leptospermum juniperinum</i> | P | - | - | - | - | - | - | - | - |
| <i>Olearia ramulosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Pteridium esculentum</i> | 12 | 0.25 | 4149 | 15.0 | 1062 | 16.0 | 0.4 | 15.7 | 46.7 |
| <i>Pultenaea daphnoides</i> | 12 | 0.25 | 4249 | 15.0 | 1062 | 16.0 | 0.3 | 11.8 | 42.8 |
| * <i>Rubus fruticosus</i> | P | - | - | - | - | - | - | - | - |
| * <i>Senecio pterophorus</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | P | - | - | - | - | - | - | - | - |
| Totals | | 80 | 28328 | | 6654 | | | | |

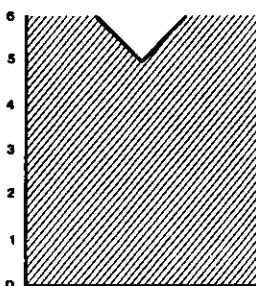
Small shrubs (< 0.25m), herbs, grasses, creepers and ferns

| | |
|-------------------------------|---------------------------------|
| <i>Acaena sp.</i> | <i>Olearia grandiflora</i> |
| <i>Acrotriche serrulata</i> | <i>Platylobium obtusangulum</i> |
| <i>Adiantum aethiopicum</i> | <i>Frasophyllum sp.</i> |
| <i>Burkardia umbellata</i> | <i>Pultenaea pedunculata</i> |
| <i>Gonocarpus tetragynus</i> | <i>Scaevola albida</i> |
| <i>Goodenia primulacea</i> | <i>Tetratheca pilosa</i> |
| <i>Grevillea lavandulacea</i> | <i>Trifolium sp.</i> |
| | <i>Wahlenbergia sp.</i> |

Perennial, grass-like plants

| |
|-------------------------------|
| <i>Dianella revoluta</i> |
| <i>Lepidosperma semiteres</i> |
| <i>Lomandra dura</i> |
| <i>Themeda australis</i> |

Density measurements



SITE 8 - Transect (ii) - Sampling points at 20m intervals - Along ridge in S.S.W. direction, parallel to track along eastern boundary of Section 133

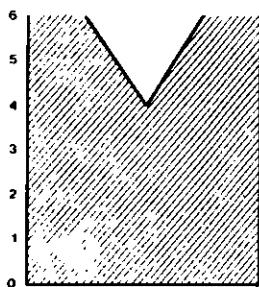
| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|----------------------------------|--------------------|---------------------|---------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 3m | | | | | | | | | |
| <i>Eucalyptus baxteri</i> | 14 | 2.75 | 147 | 17.5 | 404.0 | 16.6 | 0.4 | 25.8 | 59.9 |
| <i>E. obliqua</i> | 63 | 3.0 | 662 | 78.8 | 1986.0 | 81.6 | 1.0 | 64.5 | 224.9 |
| <i>Exocarpus cupressiformis</i> | 2 | 1.75 | 21 | 2.5 | 37.0 | 1.5 | 0.1 | 6.4 | 10.4 |
| * <i>Pinus</i> sp. | 1 | 0.50 | 11 | 1.3 | 5.5 | 0.2 | 0.05 | 3.2 | 4.7 |
| Totals | 80 | | 840 | | 2432.5 | | | | |
| 0.25m < Shrubs < 3m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | 5 | 0.10 | 7875 | 6.3 | 788 | 3.8 | 0.25 | 9.6 | 19.7 |
| <i>Acrotriche fasciculiflora</i> | 3 | 0.20 | 4750 | 3.8 | 950 | 4.6 | 0.15 | 5.8 | 14.2 |
| <i>Daviesia ulicifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>D. virgata</i> | 13 | 0.25 | 20375 | 16.3 | 5094 | 24.4 | 0.35 | 13.5 | 54.2 |
| <i>Epaoris impressa</i> | P | - | - | - | - | - | - | - | - |
| <i>Goodenia ovata</i> | P | - | - | - | - | - | - | - | - |
| <i>Hibbertia exutiacies</i> | 1 | 0.25 | 1625 | 1.3 | 406 | 1.9 | 0.05 | 1.9 | 5.1 |
| <i>Ixodia achillaeoides</i> | 13 | 0.05 | 20375 | 16.3 | 1019 | 4.9 | 0.35 | 13.5 | 34.7 |
| <i>Lepidosperma semiteres</i> | 2 | 0.25 | 3125 | 2.5 | 781 | 3.7 | 0.10 | 3.9 | 10.1 |
| <i>Leptospermum juniperinum</i> | 3 | 0.10 | 4750 | 3.8 | 475 | 2.3 | 0.15 | 5.8 | 11.9 |
| <i>Platylobium obtusangulum</i> | 5 | 0.05 | 7875 | 6.3 | 394 | 1.9 | 0.20 | 7.7 | 15.9 |
| <i>Pteridium esculentum</i> | 21 | 0.20 | 32875 | 26.3 | 6575 | 31.5 | 0.50 | 19.6 | 77.4 |
| <i>Pultenaea daphnoidea</i> | 14 | 0.20 | 21875 | 17.5 | 4375 | 21.0 | 0.50 | 19.6 | 58.1 |
| * <i>Rubus fruticosus</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | P | - | - | - | - | - | - | - | - |
| Totals | 80 | | 125500 | | 20857 | | | | |

SITE 8 - Transect (ii) - Cont.Small shrubs (< 0.25m), climbers, herbs and grasses

Acrotriche serrulata
Astroloma humifusum
Caseytha sp.
Goodenia primulaceae
Haloragis spp.
Tetratheca pilosa

Perennial, grass-like plants

Dianella revoluta

Density measurements

12.5% at point 5, T (II)

Plants present at site but not recorded in either transectTrees > 3m

Eucalyptus leucoxylon

Small shrubs (< 0.25m)

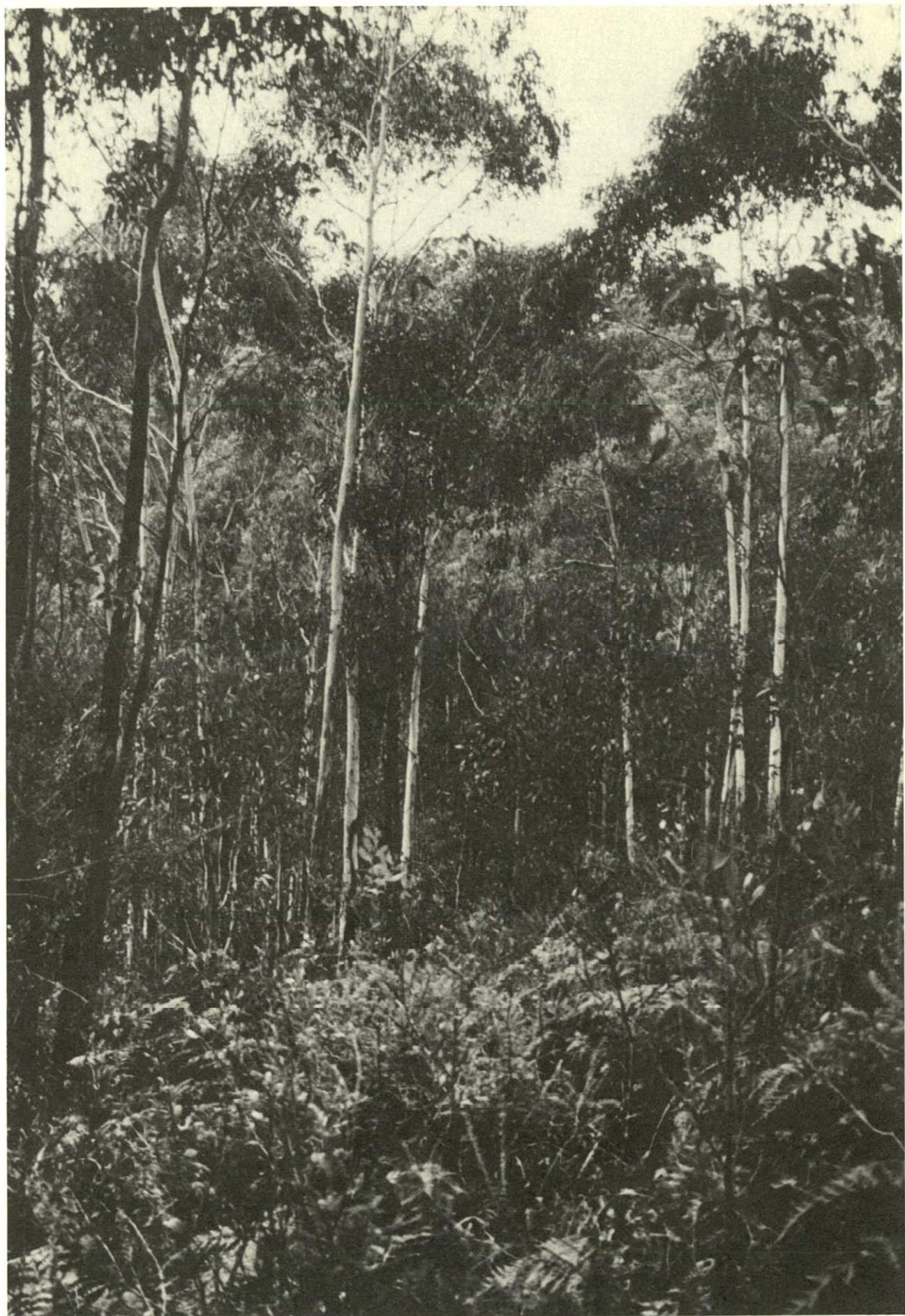
Correa decumbens
Persoonia juniperina

0.25m < Shrubs < 3m

Hakea carinata
Leptospermum myrsinoides
**Rosa sp.*
**Sarothamnus scoparius*

FAUNABirds

Golden Whistler
Grey Shrike-thrush
Superb Blue Wren
Blackbird
Scarlet Robin
Adelaide Rosella
Crescent Honeyeater
New Holland Honeyeater
Grey Fantail
White-browed Scrub-wren
Crested Shrike-tit
Chestnut-tailed Hylacola
White-throated Tree creeper



Site 8 : *Eucalyptus obliqua* / *Eucalyptus viminalis* open forest / woodland

SITE 14

Date: 26.4.79

Environmental Association: 3.2.16

Physiography:

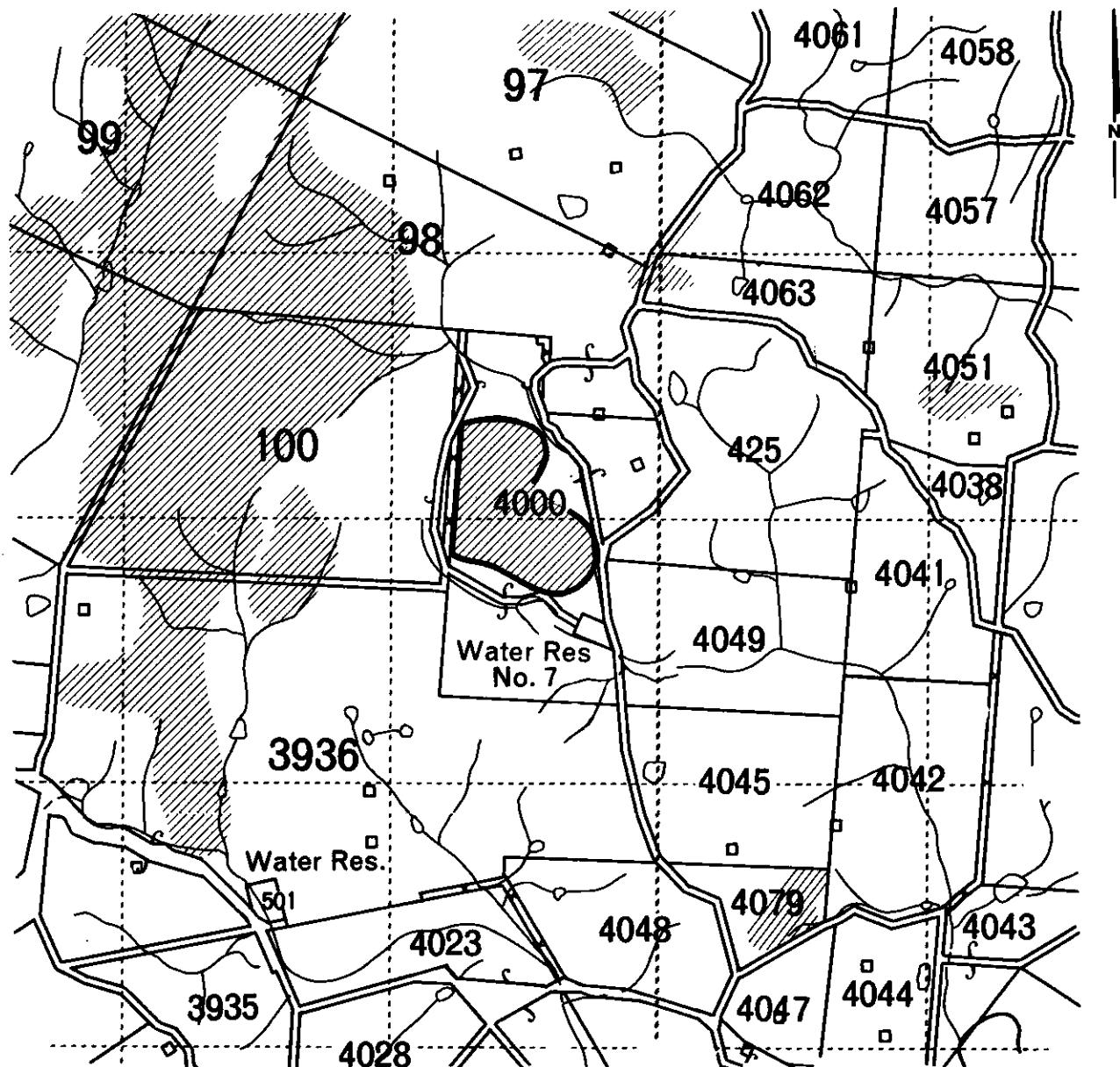
Natural vegetation covers a knoll which has gentle to medium dissected slopes and which rises to 420m above sea level.

Plant Communities:

Eucalyptus obliqua woodland/open forest with *E. baxteri* on the ridge and *E. rubida* near the edge of the scrub on sheltered slopes is the plant community at this site. *Acacia melanoxylon* occurs in the gullies, some of which are fairly heavily infested with **Rubus fruticosus* and **Ulex europaeus*. The ridge and slopes have a sparse understorey which is dominated by *Pultenaea daphnoides*, *Pteridium esculentum* and *Acacia myrtifolia*. Ground cover plants include *Lepidosperma semiteres*, *Hibbertia stricta* and *H. exutiacies*. The north-west portion of the scrub has been heavily grazed and the ground cover is predominately leaf litter.

Condition and General:

The scrub has been heavily grazed in its north-western portion, while **Rubus fruticosus*, **Ulex europaeus* and **Genista maderensis* are present in some gullies. Many trees show coppice regrowth as a result of timber felling in the distant past. The southern portion of the scrub has an unmodified understorey (except in gullies) and contains *Eucalyptus rubida* and *Olearia grandiflora* which are rare plants in South Australia (Specht *et al*, 1974). Some impressive specimens of *E. obliqua* (30m high) occur at this site.



Reference
Onkaparinga 1:50 000, 6628-II
995E-280N AMG

25 hectares

SCALE 1 : 25 000
0 1000 metres

Site 14

HD ONKAPARINGA

Pt Section 4000

SITE 14

PLANTSTrees 8m

Eucalyptus baxteri
E. leucoxylon
E. obliqua
E. rubida

2m Shrubs/Trees 8m

Acacia melanoxylon
A. pycnantha
Banksia marginata
Exocarpus cupressiformis

0.25m Shrubs 2m

Acacia myrtifolia
Acrotriche fasciculiflora
Bursaria spinosa
Epacris impressa
**Genista maderensis*
Hakea rostrata
Ixodia achillaeoides
Leptospermum juniperinum
L. myrsinoides
Olearia ramulosa
Pimelea linifolia
Platylobium obtusangulum
Pteridium esculentum
Pultenaea daphnoides
**Rubus fruticosus*
Spyridium parvifolium
**Ulex europaeus*
Xanthorrhoea semiplana

Small shrubs (0.25m), herbs, creepers, ferns

Acrotriche serrulata
Adiantum aethiopicum
Astrolooma hunifusum
Burchardia umbellata
Cassytha sp.
Graspedia uniflora
Dipodium punctatum
Eriochilus cucullatus
Goodenia primulacea
Haloragis sp.
Hibbertia exutiacies
H. stricta
Kennedia prostrata
Olearia grandiflora
Pultenaea pedunculata
Scaevola albida
Stylium sp.
Tetratheca pilosa
Viola sp.

Perennial, grass-like plants

Dianella revoluta
Juncus pallidus
Lepidosperma semiteres
Lomandra dura

FAUNABirds

Adelaide Rosella
 Blue Wren
 Grey Fantail
 Little Raven
 Brown Thornbill
 White-throated Tree-creeper
 Grey Currawong
 Brown Goshawk
 Yellow-tailed Black Cockatoo
 Crescent Honeyeater

PHOTOGRAPHS

| | | |
|---------------|------|---------------------------|
| C/6628-II/BS/ | 2-17 | Reference Board |
| | 2-18 | Black stump in forest |
| | 2-19 | <i>Eucalyptus baxteri</i> |
| | 2-20 | <i>E. rubida</i> |

SITE 15

Date: 2.5.79 and 8.5.79

Environmental Association: 3.2.15

Physiography:

South of Filsell Hill a system of ridges, gullies and gentle to steep slopes is covered by natural vegetation interspersed with several cleared areas. Elevation ranges from 400m to 580m above sea level.

Plant Communities:

1. *Eucalyptus obliqua* open forest occurs on sheltered south and east-facing slopes (see transects (ii) and (iv)). The understorey is generally dense and is dominated by *Acrotriche fasciculiflora*. *Eucalyptus viminalis* (Sections 34 and 378) and *E. rubida* (Sections 98 and 100) become co-dominant in some of the gullies where **Rubus fruticosus* often forms a dense understorey. Several gullies in Sections 96, 98 and 100 have a dense tall shrub/small tree layer together with sedges and ferns (see plants for "Swamp Vegetation")

2. *Eucalyptus obliqua* woodland with a sparse to mid-dense understorey dominated by *Lepidosperma carphoides* occupies some gentle slopes in Section 100.

3. *Eucalyptus baxteri* - *E. obliqua* woodland/open forest covers an extensive area at this site, from the highest ridges to north-facing slopes at the lowest elevations. The understorey varies from sparse in fire-scarred areas (transect (i)) to mid-dense in transect (iii) where *E. obliqua* is dominant.

A spring-fed swamp on a west-facing slope in Section 99 supports a closed heath formation of *Leptospermum juniperinum*, *L. pubscens*, *Goodenia ovata*, *Gahnia clarkei* and *Blechnum* sp. A clump of dead coral fern *Gleichenia microphylla* is present in this swamp.

Condition:

Several cleared areas and orchards lie within the scrub. The banks of the north-south flowing creek in Section 99 have been recently cleared for horticultural purposes, while tracks and small clearings associated with selective logging operations are evident in Sections 98 and 100. Sheep were observed in Section 99.

A large proportion of the scrub in Sections 98, 99, 100 and 101 shows secondary succession following a recent fire.

Many of the gullies are infested with **Rubus fruticosus* and **Genista maderensis* which extend some distance up the most sheltered south-facing slopes. Elsewhere the slopes and ridges are generally unmodified.

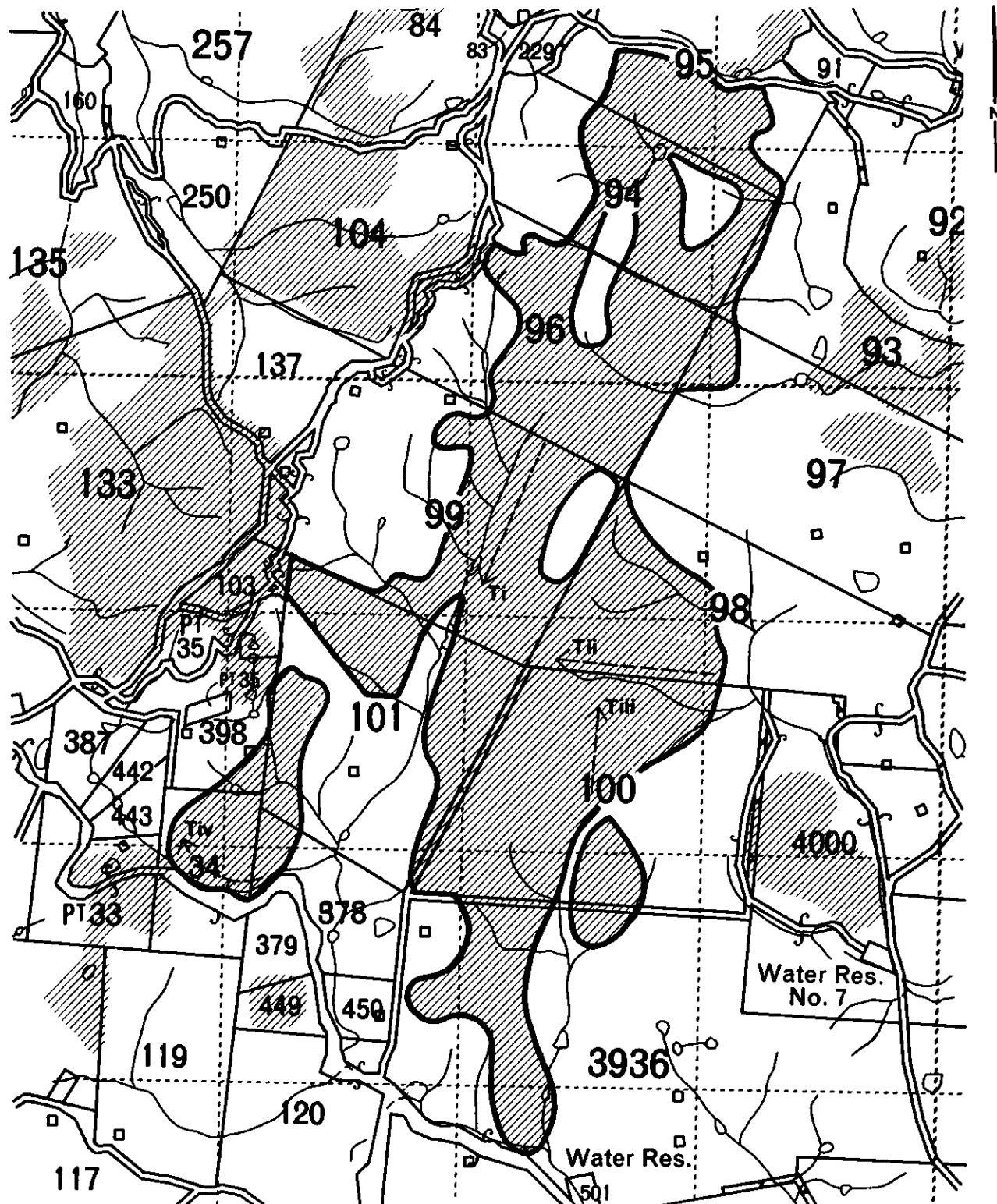
General:

The natural vegetation at this site forms the major component of several significant areas of stringybark open forest/woodland which are more or less contiguous in the high rainfall area between Carey Gully and Forest Ranges (see sites 8 & 16).

Eucalyptus rubida, *Olearia grandiflora*, *Logania recurva* and *Blechnum* sp. which are rare plants in South Australia and *Asplenium flabellifolium* which is endangered (Specht et al, 1974), occur in this site.

While most of the wet gullies are heavily infested with **Rubus fruticosus*, several in Sections 96, 98 and 100 contain a dense native scrub formation beneath majestic trees of *Eucalyptus rubida*, *Gahnia clarkei* and *Blechnum* sp. dominate the understorey.

The Scaly Thrush (*Zoothera dauma*) which is a threatened bird in South Australia (Margules, 1978) was observed at this site.



SCALE 1 : 25 000

0

1000 metres

Site 15

HD ONKAPARINGA

Reference
Onkaparinga 1:50 000, 6628-II
985E-290N AMG
300 hectares approx

Pt Sections 34, 94, 95, 96, 97, 98, 99, 100, 101,
291, 292, 548,

SITE 15 - Transect (i) - Proceeding S.S.W. on west-facing slope in Section 99

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|--------------------|---------------------|--------------|------------|--------------|------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Eucalyptus baxteri</i> | 52 | 5.5 | 336 | 65.0 | 1848 | 61.1 | 0.90 | 58.1 | 184.2 |
| <i>E. obliqua</i> | 28 | 6.5 | 181 | 35.0 | 1177 | 38.9 | 0.65 | 41.9 | 115.8 |
| Totals | 80 | | 517 | | 3025 | | | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 3 | 1.0 | 9.3 | 4.1 | 9.3 | 3.4 | 0.10 | 4.8 | 12.3 |
| <i>Banksia marginata</i> | 7 | 1.7 | 21.8 | 9.6 | 37.1 | 13.4 | 0.20 | 9.5 | 32.5 |
| <i>Eucalyptus baxteri</i> | 34 | 1.25 | 105.8 | 46.6 | 132.3 | 47.9 | 0.90 | 42.9 | 137.4 |
| <i>E. obliqua</i> | 26 | 1.0 | 80.8 | 35.6 | 80.8 | 29.3 | 0.75 | 35.7 | 100.6 |
| <i>Exocarpus cupressiformis</i> | 3 | 1.8 | 9.3 | 4.1 | 16.7 | 6.0 | 0.15 | 7.1 | 17.2 |
| Totals | 73 | | 227 | | 276.2 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | 2 | 0.1 | 400 | 2.5 | 40 | 1.7 | 0.10 | 3.3 | 7.5 |
| <i>Acrotriche fasciculiflora</i> | P | - | - | - | - | - | - | - | - |
| <i>Banksia marginata</i> | 8 | 0.08 | 1600 | 10.0 | 128 | 5.4 | 0.40 | 13.3 | 28.7 |
| <i>Boronia edwardsii</i> | 1 | 0.20 | 200 | 1.3 | 40 | 1.7 | 0.05 | 1.7 | 4.7 |
| <i>Daviesia virgata</i> | 4 | 0.30 | 800 | 5.0 | 240 | 10.1 | 0.15 | 5.0 | 20.1 |
| <i>Epacris impressa</i> | 1 | 0.01 | 200 | 1.3 | 2 | 0.1 | 0.05 | 1.7 | 3.1 |
| <i>Eucalyptus baxteri</i> | 4 | 0.20 | 800 | 5.0 | 160 | 6.7 | 0.10 | 3.3 | 15.0 |
| <i>E. obliqua</i> | 1 | 0.10 | 200 | 1.3 | 20 | 0.8 | 0.05 | 1.7 | 3.8 |
| <i>Grevillea lavandulacea</i> | 1 | 0.02 | 200 | 1.3 | 4 | 0.2 | 0.05 | 1.7 | 3.2 |
| <i>Hakea rostrata</i> | 6 | 0.55 | 1200 | 7.5 | 660 | 27.7 | 0.25 | 8.3 | 43.5 |
| <i>Hibbertia stricta</i> | 2 | 0.25 | 400 | 2.5 | 100 | 4.2 | 0.10 | 3.3 | 10.0 |
| <i>Isopogon ceratophyllus</i> | 1 | 0.05 | 200 | 1.3 | 10 | 0.4 | 0.05 | 1.7 | 3.4 |
| <i>Ixodia achillaeoides</i> | 5 | 0.02 | 1000 | 6.3 | 20 | 0.8 | 0.20 | 6.7 | 13.8 |
| <i>Lepidosperma semiteres</i> | 1 | 0.10 | 200 | 1.3 | 20 | 0.8 | 0.05 | 1.7 | 3.8 |
| <i>Leptospermum juniperinum</i> | 3 | 0.10 | 600 | 3.8 | 60 | 2.5 | 0.10 | 3.3 | 9.6 |
| <i>L. myrsinoides</i> | 9 | 0.12 | 1800 | 11.3 | 216 | 9.1 | 0.30 | 10.0 | 30.4 |
| <i>Pimelea linifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Platylobium obtusangulum</i> | P | - | - | - | - | - | - | - | - |
| <i>Pteridium esculentum</i> | 2 | 0.10 | 400 | 2.5 | 40 | 1.7 | 0.10 | 3.3 | 7.5 |
| <i>Pultenaea daphnoides</i> | 12 | 0.10 | 2400 | 15.0 | 240 | 10.1 | 0.35 | 11.7 | 36.8 |
| <i>P. involucrata</i> | 7 | 0.20 | 1400 | 8.8 | 280 | 11.8 | 0.15 | 5.0 | 25.6 |
| * <i>Senecio pterophorus</i> | P | - | - | - | - | - | - | - | - |
| <i>Tetratheca pilosa</i> | 10 | 0.05 | 2000 | 12.5 | 100 | 4.2 | 0.40 | 13.3 | 30.0 |
| <i>Xanthorrhoea semiplana</i> | P | - | - | - | - | - | - | - | - |
| Totals | 80 | | 16000 | | 2380 | | | | |

SITE 15 - Transect (i) - Cont.

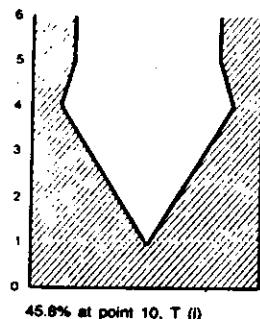
Small shrubs (< 0.25m), herbs, climbers

Acrotriche serrulata
Astrolobia humifusum
Burchardia umbellata
Cassytha sp.
Goodenia primulacea
Haloragis sp.
Hibbertia exutiacies
Kennedia prostrata

Leucopogon virgatus
Lobelia gibbosa
Marianthus bignoniaceus
Stylidium sp.

Perennial, grass-like plants

Dianella revoluta
Lomandra sp.

Density measurements

Note: Sixteen of the twenty sample points in Transect (i) were located in an area which showed secondary succession after a recent fire.

SITE 15 - Transect (ii) - Along sheltered south and east facing slopes in Section 98

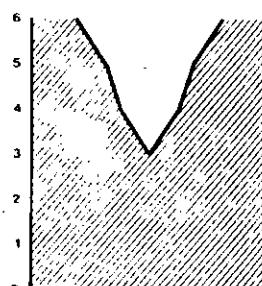
| | Nos. of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|---------------------|---------------------|---------------|------------|--------|---------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Eucalyptus obliqua</i> | 56 | 8.8 | 332.0 | 93.3 | 2921.6 | 98.5 | 1.0 | 88.5 | 280.3 |
| <i>E. rubida</i> | 4 | 1.9 | 23.8 | 6.7 | 45.2 | 1.5 | 0.13 | 11.5 | 19.7 |
| Totals | 60 | | 355.9 | | | 2966.8 | | | |
| 2m < Shrubs/Trees < 8m | | | | | | | | | |
| <i>Acacia melanoxylon</i> | 1 | 1.0 | 33.3 | 1.7 | 33.3 | 2.3 | 0.07 | 3.3 | 7.3 |
| <i>A. retinodes</i> | 3 | 0.92 | 98.0 | 5.0 | 90.1 | 6.3 | 0.13 | 6.1 | 17.4 |
| <i>Banksia marginata</i> | 8 | 1.22 | 260.8 | 13.3 | 318.2 | 22.1 | 0.40 | 18.7 | 54.1 |
| <i>Eucalyptus obliqua</i> | 24 | 0.77 | 784.3 | 40.0 | 603.9 | 42.0 | 0.60 | 28.0 | 110.0 |
| <i>E. rubida</i> | 1 | 0.13 | 33.3 | 1.7 | 4.3 | 0.3 | 0.07 | 3.3 | 5.3 |
| <i>Exocarpus cupressiformis</i> | 1 | 2.0 | 33.3 | 1.7 | 66.6 | 4.6 | 0.07 | 3.3 | 9.6 |
| <i>Leptospermum juniperinum</i> | 3 | 0.75 | 98.0 | 5.0 | 73.5 | 5.1 | 0.20 | 9.3 | 19.4 |
| <i>Pultenaea daphnoides</i> | 19 | 0.40 | 621.6 | 31.7 | 248.6 | 17.3 | 0.60 | 28.0 | 77.0 |
| Totals | 60 | | 1960.8 | | | 1438.5 | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | 3 | 0.14 | 9434 | 5.0 | 1321 | 4.9 | 0.2 | 8.3 | 18.2 |
| <i>A. verticillata</i> | P | - | - | - | - | - | - | - | - |
| <i>Acrotriche fasciculiflora</i> | 25 | 0.16 | 78679 | 41.7 | 12589 | 47.0 | 0.67 | 27.7 | 116.4 |
| <i>Epacris impressa</i> | 3 | 0.01 | 9434 | 5.0 | 94 | 0.4 | 0.20 | 8.3 | 13.7 |
| <i>Goodenia ovata</i> | 1 | 0.02 | 3208 | 1.7 | 64 | 0.2 | 0.07 | 2.9 | 4.8 |
| <i>Hibbertia exutiacies</i> | 3 | 0.08 | 9434 | 5.0 | 755 | 2.8 | 0.13 | 5.4 | 13.2 |
| <i>Ixodia achillaeoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Lepidozperma semiteres</i> | 5 | 0.20 | 15660 | 8.3 | 3132 | 11.7 | 0.27 | 11.2 | 31.2 |
| <i>Leptospermum juniperinum</i> | 4 | 0.13 | 12641 | 6.7 | 1643 | 6.1 | 0.07 | 2.9 | 15.7 |
| <i>L. myrsinoides</i> | 2 | 0.18 | 6226 | 3.3 | 1121 | 4.2 | 0.07 | 2.9 | 10.4 |
| <i>Olearia grandiflora</i> | P | - | - | - | - | - | - | - | - |
| <i>Pimelea linifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Platylobium obtusangulum</i> | 4 | 0.02 | 12641 | 6.7 | 253 | 0.9 | 0.27 | 11.2 | 18.8 |
| <i>Pteridium esculentum</i> | 5 | 0.20 | 15660 | 8.3 | 3132 | 11.7 | 0.27 | 11.2 | 31.2 |
| <i>Pultenaea daphnoides</i> | 5 | 0.17 | 15660 | 8.3 | 2662 | 10 | 0.2 | 8.3 | 26.6 |
| <i>*Rubus fruticosus</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | P | - | - | - | - | - | - | - | - |
| Totals | 60 | | 188679 | | | 26766 | | | |

Small shrubs (< 0.25m), herbs, climbers

Acrotriche serrulata
Cassytha sp.
Haloragis spp.
Hibbertia striata
Marianthus bignoniaceus
Tetratheca pilosa

Perennial, grass-like plants

Dianella revoluta
Lomandra dura

Density measurements

20.8% at point 8, T (ii)

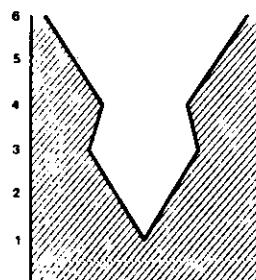
SITE 15 - Transect (iii) - Along ridge in Section 100

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|--------------------|---------------------|--------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Eucalyptus baxteri</i> | 7 | 8.0 | 88.9 | 17.5 | 711.2 | 29.8 | 0.4 | 28.6 | 75.9 |
| <i>E. obliqua</i> | 33 | 4.0* | 418.7 | 82.5 | 1674.8 | 70.2 | 1.0 | 71.4 | 224.1 |
| Totals | 40 | | 507.6 | | 2386.0 | | | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | 2 | 0.1 | 16.4 | 5.1 | 1.6 | 0.4 | 0.20 | 7.4 | 12.9 |
| <i>A. pycnantha</i> | 1 | 0.25 | 8.4 | 2.6 | 2.1 | 0.6 | 0.10 | 3.7 | 6.9 |
| <i>Banksia marginata</i> | 1 | 2.0 | 8.4 | 2.6 | 16.8 | 4.4 | 0.10 | 3.7 | 10.7 |
| <i>Daviesia virgata</i> | 2 | 0.6 | 16.4 | 5.1 | 9.8 | 2.6 | 0.20 | 7.4 | 15.1 |
| <i>Eucalyptus baxteri</i> | 4 | 1.4 | 33.1 | 10.3 | 46.3 | 12.2 | 0.30 | 11.1 | 33.6 |
| <i>E. obliqua</i> | 18 | 1.1 | 148.5 | 46.2 | 163.4 | 42.9 | 0.90 | 33.3 | 122.4 |
| <i>Exocarpus cupressiformis</i> | 7 | 2.1 | 57.5 | 17.9 | 120.8 | 31.7 | 0.60 | 22.2 | 71.8 |
| <i>Pultenaea daphnoides</i> | 4 | 0.6 | 33.1 | 10.3 | 19.9 | 5.2 | 0.30 | 11.1 | 26.6 |
| Totals | 39 | | 321.5 | | 380.7 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>A. rotundifolia</i> | 1 | 0.05 | 1838 | 2.5 | 92 | 1.9 | 0.10 | 3.2 | 7.6 |
| <i>Acrotriche fusciculiflora</i> | P | - | - | - | - | - | - | - | - |
| <i>Daviesia ulicifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>D. virgata</i> | 13 | 0.05 | 23888 | 32.5 | 1194 | 24.2 | 0.90 | 29.0 | 85.7 |
| <i>Epacris impressa</i> | 4 | 0.01 | 7350 | 10.0 | 74 | 1.5 | 0.30 | 9.7 | 21.2 |
| <i>Grevillea lavandulacea</i> | P | - | - | - | - | - | - | - | - |
| <i>Hakea rostrata</i> | P | - | - | - | - | - | - | - | - |
| <i>Ixodia achillaeoides</i> | 3 | 0.02 | 5513 | 7.5 | 110 | 2.2 | 0.30 | 9.7 | 19.4 |
| <i>Lepidosperma semiteres</i> | 6 | 0.15 | 11025 | 15.0 | 1654 | 33.5 | 0.50 | 16.1 | 64.6 |
| <i>Leptospermum juniperinum</i> | 1 | 0.10 | 1838 | 2.5 | 184 | 3.7 | 0.10 | 3.2 | 9.4 |
| <i>L. myrsinoides</i> | 8 | 0.08 | 14700 | 20.0 | 1176 | 23.8 | 0.50 | 16.1 | 59.9 |
| <i>Olearia grandiflora</i> | P | - | - | - | - | - | - | - | - |
| <i>Pimelea linifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Platylobium obtusangulum</i> | 1 | 0.05 | 1838 | 2.5 | 92 | 1.9 | 0.10 | 3.2 | 7.6 |
| <i>Pteridium esculentum</i> | P | - | - | - | - | - | - | - | - |
| <i>Pultenaea daphnoides</i> | 2 | 0.05 | 3675 | 5.0 | 184 | 3.7 | 0.20 | 6.5 | 15.2 |
| <i>Tetratheca pilosa</i> | P | 0.10 | 1838 | 2.5 | 184 | 3.7 | 0.10 | 3.2 | 9.4 |
| <i>Xanthorrhoea semiplana</i> | P | - | - | - | - | - | - | - | - |
| Totals | 40 | | 73500 | | 4944 | | | | |

Small shrubs (< 0.25m) herbs, climbers, grasses

Acrotriche serrulata
Cassytha spp.
Dillwynia hispida
Eriochilus cucullatus
Gonocarpus tetragynus
Goodenia primulacea
Hibbertia exutioides
H. stricta

Pultenaea pedunculata
Scaevola albida
Stylidium graminifolium
Themeda australis

Density measurement

43.8% at point 4, T (iii)

SITE 15 - Transect (iv) - Along sheltered south-facing slope in Sections 378 and 34

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|--------------------|---------------------|--------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Eucalyptus fasciculosa</i> | 5 | 1.5 | 38.2 | 6.3 | 57.3 | 1.5 | 0.10 | 8.0 | 15.8 |
| <i>E. obliqua</i> | 71 | 6.5 | 538.1 | 88.8 | 3497.7 | 89.9 | 0.95 | 76.0 | 254.7 |
| <i>Exocarpus cupressiformis</i> | 4 | 11.0 | 30.3 | 5.0 | 333.3 | 8.6 | 0.20 | 16.0 | 29.6 |
| Totals | 80 | | 607 | | 3888.3 | | | | |
| 2m < Shrubs/Trees < 8m | | | | | | | | | |
| <i>Acacia melanoxylon</i> | 5 | 1.0 | 73.0 | 6.3 | 73.0 | 9.3 | 0.10 | 4.0 | 19.6 |
| <i>A. myrtifolia</i> | 1 | 1.0 | 15.1 | 1.3 | 15.1 | 1.9 | 0.05 | 2.0 | 5.2 |
| <i>Eucalyptus fasciculosa</i> | 1 | 0.25 | 15.1 | 1.3 | 3.8 | 0.5 | 0.05 | 2.0 | 3.8 |
| <i>E. obliqua</i> | 14 | 0.60 | 203.0 | 17.5 | 121.8 | 15.5 | 0.55 | 22.0 | 55.0 |
| <i>Exocarpus cupressiformis</i> | 6 | 4.5 | 87.0 | 7.5 | 391.5 | 49.7 | 0.20 | 8.0 | 65.2 |
| * <i>Genista maderensis</i> | 19 | 0.20 | 276.1 | 23.8 | 55.2 | 7.0 | 0.65 | 26.0 | 56.8 |
| <i>Pultenaea daphnoides</i> | 33 | 0.25 | 479.1 | 41.3 | 119.8 | 15.2 | 0.85 | 34.0 | 90.5 |
| <i>Spiridium parvifolium</i> | 1 | 0.50 | 15.1 | 1.3 | 7.6 | 1.0 | 0.05 | 2.0 | 4.3 |
| Totals | 80 | | 1160 | | 788.1 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Acrotriche fasciculiflora</i> | 41 | 0.14 | 47504 | 51.3 | 6651 | 53.6 | 0.85 | 37.0 | 141.9 |
| <i>Daviesia virgata</i> | 1 | 0.02 | 1204 | 1.3 | 24 | 0.2 | 0.05 | 2.2 | 3.7 |
| <i>Eucalyptus obliqua</i> | 1 | 0.10 | 1204 | 1.3 | 120 | 1.0 | 0.05 | 2.2 | 4.5 |
| <i>Epacris impressa</i> | P | - | - | - | - | - | - | - | - |
| * <i>Genista maderensis</i> | 13 | 0.03 | 15094 | 16.3 | 453 | 3.7 | 0.45 | 19.6 | 39.6 |
| <i>Goodenia ovata</i> | 2 | 0.04 | 2315 | 2.5 | 93 | 0.7 | 0.10 | 4.3 | 7.5 |
| <i>Ixodia achillaeoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Olearia grandiflora</i> | P | - | - | - | - | - | - | - | - |
| <i>Pteridium esculentum</i> | 8 | 0.15 | 9260 | 10.0 | 1389 | 11.2 | 0.20 | 8.7 | 29.9 |
| <i>Pultenaea daphnoides</i> | 7 | 0.10 | 8149 | 8.8 | 815 | 6.6 | 0.35 | 15.2 | 30.6 |
| * <i>Rosa sp.</i> | 1 | 0.02 | 1204 | 1.3 | 24 | 0.2 | 0.05 | 2.2 | 3.7 |
| * <i>Rubus fruticosus</i> | 1 | 0.25 | 1204 | 1.3 | 301 | 2.4 | 0.05 | 2.2 | 4.9 |
| <i>Senecio hypoleucus</i> | P | - | - | - | - | - | - | - | - |
| <i>S. pterophorus</i> | 1 | 0.01 | 1204 | 1.3 | 12 | 0.1 | 0.05 | 2.2 | 3.6 |
| <i>Spiridium parvifolium</i> | 3 | 0.70 | 3519 | 3.8 | 2463 | 19.9 | 0.05 | 2.2 | 25.9 |
| <i>Tetratheca pilosa</i> | 1 | 0.05 | 1204 | 1.3 | 60 | 0.5 | 0.05 | 2.2 | 4.0 |
| <i>Xanthorrhoea semiplana</i> | P | - | - | - | - | - | - | - | - |
| Totals | 80 | | 92600 | | 12405 | | | | |

Small shrubs (< 0.25m), herbs, ferns, climbers, etc.

Adiantum aethiopicum
Cassytha spp.
Cheilanthes tenuifolia
Dipodium punctatum
Gonocarpus tetragynus
Haloragis sp.
Hibbertia exutiacies
POACEAE (mainly introduced species)
Ranunculus sp.

Perennial, grass-like plants

Dianella revoluta
Lepidosperma laterale

SWAMP VEGETATION (including gullies and spring fed "perched" swamps on hillsides, e.g. in Section 99)Trees > 8m

Eucalyptus obliqua
 E. rubida
 E. viminalis

Perennial, grass-like plants

Gahnia clarkei
Juncus pallidus
Patersonia occidentalis
Phragmites australis
Typha sp.

2m < Shrubs/Trees < 8m

Acacia melanoxylon
 A. retinodes
Exocarpus cupressiformis
Leptospermum juniperinum
 L. pubescens

Herbs

Gonocarpus tetragynus

0.25m < Shrubs < 2m

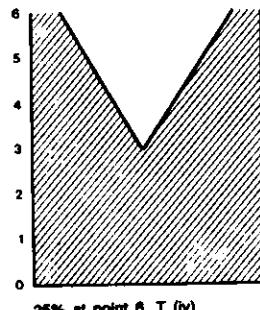
Acacia verticillata
**Erica* sp.
Goodenia ovata
*i*Rubus fruticosus*

Ferns

Adiantum aethiopicum
Asplenium flabellifolium
Blechnum sp.

SITE 15 - Transect (iv) - Along sheltered south facing slope in Sections 378 and 34

Density measurement



25% at point 6, T (iv)

PLANTS NOT RECORDED IN ANY OF TRANSECTS NOR IN SWAMPS

Trees > 8m

Eucalyptus leucoxylon
**Pinus* sp.

0.25m < Shrubs < 2m

Bursaria spinosa
Logania recurva
**Sarothamnus scoparius*
**Rubus laciniatus*
Watsonia bulbillifera

2m < Shrubs/Trees < 8m

**Olea europaea*

Small shrubs (< 0.25m), herbs

Helichrysum apiculatum
Xanthosia pusilla

Sedge

Lepidosperma carphoides

FAUNA

Birds

Scarlet Robin
Superb Blue Wren
Grey Fantail
Crescent Honeyeater
White-browed Scrub-wren
Blackbird
Brown Thornbill
Adelaide Rosella
Grey Shrike-thrush
Laughing Kookaburra

White-naped Honeyeater
New Holland Honeyeater
Dusky Woodswallow
Restless Flycatcher
Common Bronzewing
White-throated Tree-creeper
Scaly Thrush
Tree Martin
Red-browed Finch
Eastern Spinebill
Striated Thornbill

Other Fauna

Sleepy Lizard

PHOTOGRAPHS

- | | | |
|--------------|------|---|
| c/6628-II/BS | 2-21 | Reference Board |
| | 2-22 | Clearing along creek bank |
| | 2-23 | Tall <i>Eucalyptus obliqua</i> in Section 99 |
| | 2-24 | <i>Boronia edwardsii</i> |
| | 3-1 | <i>Eucalyptus baxteri/E obliqua</i> woodland/open forest (unburnt) |
| | 3-2 | <i>Eucalyptus baxteri/E obliqua</i> woodland/open forest (fire-scarred) |
| | 3-3 | Rocky outcrops in Section 99 |
| | 3-4 | <i>Eucalyptus baxteri/E obliqua</i> woodland/open forest (fire-scarred) |
| | 3-5 | Recent clearing of scrub |
| | 3-6 | View from ridge in Section 99 |
| | 3-7 | Recent clearing in Section 99 |
| | 3-8 | <i>Eucalyptus obliqua</i> open forest |
| | 3-9 | <i>Eucalyptus rubida</i> in Section 98 |
| | 3-10 | <i>Eucalyptus obliqua</i> woodland |
| | 3-11 | <i>Eucalyptus baxteri</i> in transect (iii), Section 100 |
| | 3-12 | <i>Eucalyptus obliqua</i> open forest |

SITE 16

Date: 9.5.79

Environmental Association: 3.2.15

Physiography:

East of Forest Range, natural vegetation covers a system of ridges, gentle to medium slopes and gullies. Elevation ranges from 400m to 520m above sea level.

Plant Communities:

Eucalyptus obliqua woodland is the dominant plant association at this site. *E. rubida* becomes co-dominant in the gullies and on gentle slopes, while *E. leucoxylon* is present on north-facing slopes at low elevations. There is a very sparse small tree layer and an understorey which varies from very sparse in areas which are grazed (e.g. northern part of Section 87) to dense in parts of Section 89. The gully in the eastern part of Section 87 is heavily infested with **Rubus fruticosus* and **Genista maderensis*.

Condition:

Several tracks traverse the scrub and Section 89 contains a small cleared area which has been recently planted with a variety of eucalypts. Recent clearing has occurred over an area of about 2 ha in the western part of Section 87 adjacent to Section 89.

The presence of scats indicates grazing by stock which is heavy in the northern part of Section 87, where there is little cover, and the shrubs are browsed, but light in Section 88 and 89.

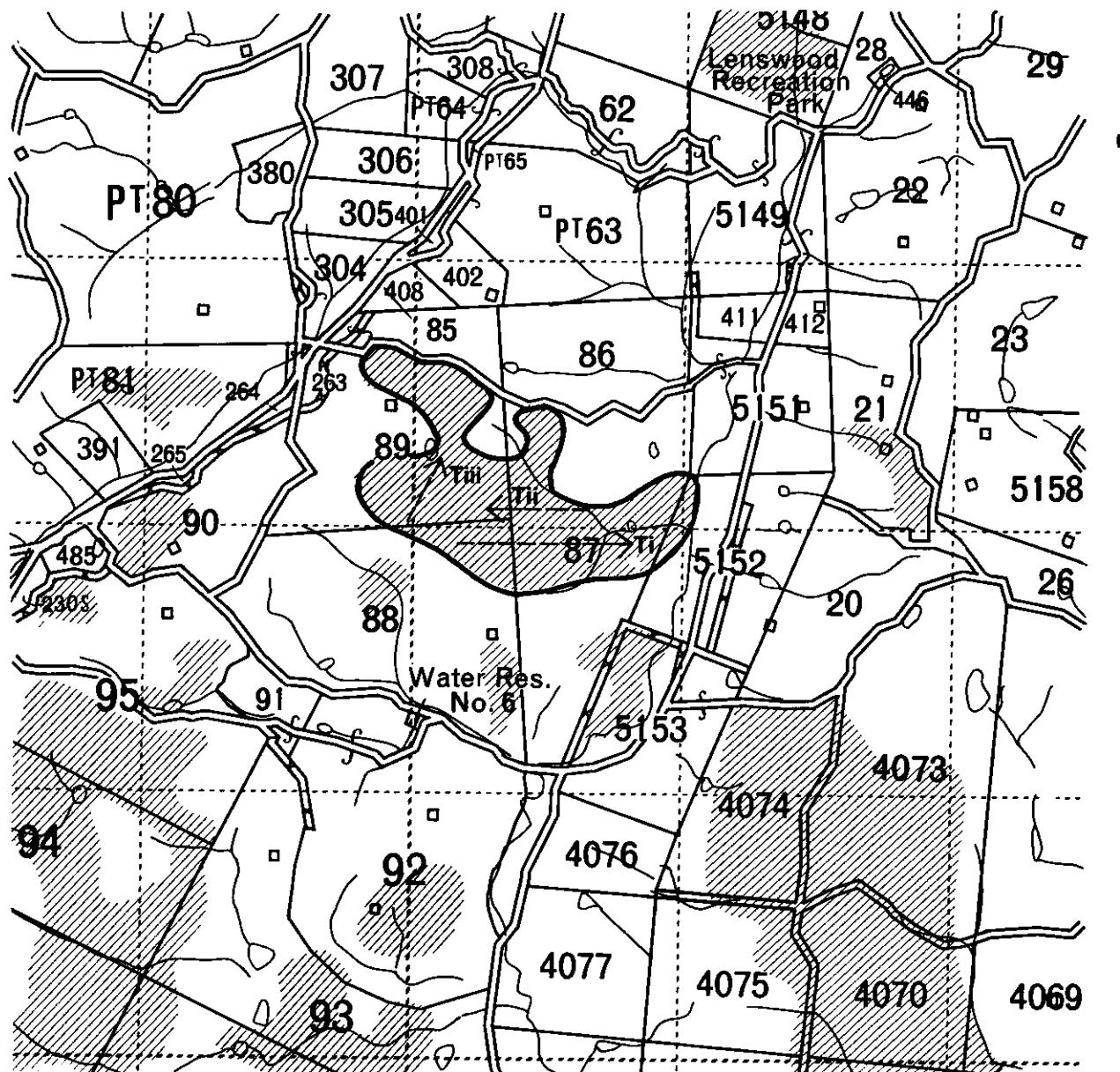
The gullies in Section 87 are choked by **Rubus fruticosus* and **Genista maderensis*, but the ridges and slopes are generally free of weeds except for introduced grasses. Many *Eucalyptus obliqua* trees are dead or dying.

General:

This patch of *E. obliqua* woodland is one of several significant areas of natural vegetation which are more or less contiguous between Carey Gully and Lenswood (see sites 8 and 15). *E. rubida* and *Olearia grandiflora* which are rare plants in South Australia (Specht *et al*, 1974) occur here. Impressive specimens of *Eucalyptus obliqua* and *E. rubida* occupy the sheltered slopes and gullies.



Site 16: *Eucalyptus obliqua* woodland with *Eucalyptus rubida* and *Eucalyptus leucoxylon* co dominant



Reference
Onkaparinga 1:50 000, 6628-II
005E-320N AMG

45 hectares

SCALE 1 : 25 000

0 1000 metres

Site 16

HD ONKAPARINGA

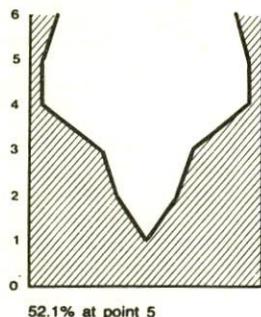
Pt Sections 87, 88, 89, 5152

SITE 16 - Transect (i) - Along a south-facing slope

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|--------------------|---------------------|--------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Eucalyptus obliqua</i> | 72 | 5.9 | 503 | 100 | 2967.7 | 100 | 1 | 100 | 300 |
| <i>E. rubida</i> | P | - | - | - | - | - | - | - | - |
| Totals | 72 | | 503 | | 2967.7 | | | | |
| 2m < Trees/Shrubs < 2m | | | | | | | | | |
| <i>Acacia pycnantha</i> | P | - | - | - | - | - | - | - | - |
| <i>Banksia marginata</i> | 1 | 4.0 | 5.1 | 1.6 | 20.4 | 9.3 | 0.06 | 3.6 | 14.5 |
| <i>Bursaria spinosa</i> | 1 | 0.5 | 5.1 | 1.6 | 2.6 | 1.2 | 0.06 | 3.6 | 6.4 |
| <i>Eucalyptus obliqua</i> | 47 | 0.54 | 237.6 | 74.6 | 128.3 | 58.4 | 0.94 | 56.3 | 189.3 |
| <i>Exocarpus cupressiformis</i> | 3 | 3.3 | 15.3 | 4.8 | 50.5 | 23.0 | 0.17 | 10.2 | 38.0 |
| <i>Pultenaea daphnooides</i> | 11 | 0.32 | 55.7 | 17.5 | 17.8 | 8.1 | 0.44 | 26.3 | 51.9 |
| Totals | 63 | | 318.5 | | 219.6 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia melanoxylon</i> | P | - | - | - | - | - | - | - | - |
| <i>Acrotriche fasciculiflora</i> | 10 | 0.14 | 2527.3 | 13.9 | 353.8 | 14.6 | 0.44 | 20.3 | 48.8 |
| <i>Daviesia ulicifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Hibbertia exutiacies</i> | 1 | 0.1 | 254.5 | 1.4 | 25.5 | 1.1 | 0.06 | 2.8 | 5.3 |
| <i>H. stricta</i> | 1 | 0.05 | 254.5 | 1.4 | 12.7 | 0.5 | 0.06 | 2.8 | 4.7 |
| <i>Lepidosperma semiteres</i> | 31 | 0.11 | 7836.4 | 43.1 | 862.0 | 35.5 | 0.83 | 38.2 | 116.8 |
| <i>Leptospermum myrsinoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Pteridium esculentum</i> | 29 | 0.16 | 7327.4 | 40.3 | 1172.4 | 48.3 | 0.78 | 35.9 | 124.5 |
| * <i>Rubus fruticosus</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | P | - | - | - | - | - | - | - | - |
| Totals | 72 | | 18182 | | 2426.4 | | | | |

Small shrubs (< 0.25m), herbs

Acrotriche serrulata
Gonocarpus sp.
Olearia grandiflora
Tetratheca pilosa

Density measurement

SITE 16 - Transect (ii) - Along a north-facing slope which is sheltered by a higher ridge in the north-west

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|--------------------|---------------------|---------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Eucalyptus leucoxylon</i> | 8 | 4.6 | 50.5 | 16.7 | 232.3 | 19.0 | 0.58 | 26.9 | 62.6 |
| <i>E. obliqua</i> | 31 | 3.73 | 195.2 | 64.6 | 728.1 | 59.6 | 1.0 | 46.3 | 170.5 |
| <i>E. rubida</i> | 9 | 4.6 | 56.8 | 18.8 | 261.3 | 21.4 | 0.58 | 26.9 | 67.1 |
| Totals | 48 | | 302.1 | | 1221.7 | | | | |
| 2m < Shrubs/Trees < 8m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 2 | 3.0 | 11.4 | 4.3 | 34.2 | 6.4 | 0.17 | 6.0 | 16.7 |
| <i>Bursaria spinosa</i> | 3 | 0.57 | 17.3 | 6.5 | 9.9 | 1.9 | 0.25 | 8.9 | 17.3 |
| <i>Eucalyptus Leucoxylon</i> | 2 | 1.0 | 11.4 | 4.3 | 11.4 | 2.2 | 0.17 | 6.0 | 12.5 |
| <i>E. obliqua</i> | 16 | 0.58 | 92.6 | 34.8 | 53.7 | 10.1 | 0.75 | 26.6 | 71.5 |
| <i>Exocarpus cupressiformis</i> | 13 | 5.0 | 75.3 | 28.3 | 376.5 | 70.9 | 0.83 | 29.5 | 128.7 |
| * <i>Genista maderensis</i> | 1 | 0.1 | 5.9 | 2.2 | 0.6 | 0.1 | 0.08 | 2.8 | 5.1 |
| <i>Hakea rostrata</i> | 1 | 4.0 | 5.9 | 2.2 | 23.6 | 4.4 | 0.08 | 2.8 | 9.4 |
| <i>Leptospermum juniperinum</i> | 1 | 1.0 | 5.9 | 2.2 | 5.9 | 1.1 | 0.08 | 2.8 | 6.1 |
| * <i>Olea europaea</i> | 1 | 1.0 | 5.9 | 2.2 | 5.9 | 1.1 | 0.08 | 2.8 | 6.1 |
| * <i>Pinus sp.</i> | P | - | - | - | - | - | - | - | - |
| <i>Pultenaea daphnoides</i> | 6 | 0.26 | 34.6 | 13.0 | 9.0 | 1.7 | 0.33 | 11.7 | 26.4 |
| Totals | 46 | | 266 | | 530.7 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acrotriche fasciculiflora</i> | 2 | 0.1 | 81.6 | 4.2 | 8.2 | 1.8 | 0.17 | 7.6 | 13.6 |
| * <i>Asclepias rotundifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Burarisa spinosa</i> | 7 | 0.14 | 283.5 | 14.6 | 39.7 | 8.9 | 0.33 | 14.7 | 38.2 |
| <i>Hakea rostrata</i> | 5 | 1.23 | 201.9 | 10.4 | 248.3 | 55.9 | 0.25 | 11.2 | 77.5 |
| <i>Hibbertia stricta</i> | 3 | 0.14 | 122.3 | 6.3 | 17.1 | 3.9 | 0.25 | 11.2 | 21.4 |
| <i>Lepidosperma semiteres</i> | 10 | 0.14 | 403.9 | 20.8 | 56.5 | 12.7 | 0.58 | 25.9 | 59.4 |
| <i>Leptospermum juniperinum</i> | 3 | 0.07 | 122.3 | 6.3 | 8.6 | 1.9 | 0.08 | 3.6 | 11.8 |
| * <i>Olea europaea</i> | 1 | 0.1 | 40.8 | 2.1 | 4.1 | 0.9 | 0.08 | 3.6 | 6.6 |
| <i>Pteridium esculentum</i> | 17 | 0.09 | 687.4 | 61.9 | 13.9 | 0.5 | 0.5 | 22.3 | 71.6 |
| * <i>Rubus fruticosus</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | P | - | - | - | - | - | - | - | - |
| Totals | 48 | | 1941.7 | | 444.4 | | | | |

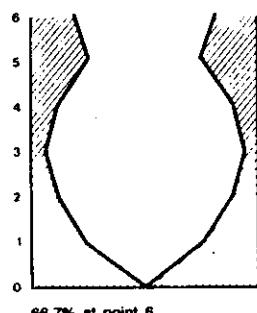
Small shrubs (< 0.25m) herbs

Hibbertia exutioides
Ranunculus sp.

Perennial, grass-like plants

Lepidosperma laterale
Themeda australis

Density measurements



SITE 16 - Transect (iii) - Along a west-facing slope

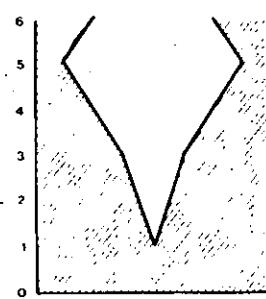
| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|--------------------|---------------------|--------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Eucalyptus obliqua</i> | 36 | 4.1 | 346.1 | 90 | 1419 | 86.5 | 1.0 | 71.4 | 247.9 |
| * <i>Pinus</i> sp. | 4 | 5.75 | 38.5 | 10 | 221.4 | 13.5 | 0.4 | 28.6 | 52.1 |
| | Totals | 40 | 384.1 | | 1640.4 | | | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | | |
| <i>Banksia marginata</i> | 1 | 1.0 | 14.5 | 2.6 | 14.5 | 2.6 | 0.1 | 4.0 | 9.2 |
| <i>Eucalyptus obliqua</i> | 17 | 0.69 | 243.5 | 43.6 | 168.0 | 29.9 | 0.9 | 36.0 | 109.5 |
| <i>Exocarpus cupressiformis</i> | 9 | 2.39 | 129.0 | 23.1 | 308.3 | 54.8 | 0.7 | 28.0 | 105.9 |
| * <i>Pinus</i> sp. | 2 | 1.5 | 28.5 | 5.1 | 42.8 | 7.6 | 0.2 | 8.0 | 20.7 |
| <i>Pultenaea daphnoides</i> | 10 | 0.20 | 143.0 | 25.6 | 28.6 | 5.1 | 0.6 | 24.0 | 54.7 |
| | Totals | 39 | 558.6 | | 562.2 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Acrotriche faurieiiflora</i> | 6 | 0.1 | 13636 | 15.0 | 1364 | 12.0 | 0.5 | 20.8 | 47.8 |
| <i>Bursaria spinosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Craspedia uniflora</i> | P | - | - | - | - | - | - | - | - |
| <i>Daviesia ulicifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Daviesia virgata</i> | 3 | 0.05 | 6818 | 7.5 | 341 | 3.0 | 0.3 | 12.5 | 23.0 |
| <i>Hibbertia stricta</i> | 1 | 0.1 | 2273 | 2.5 | 227 | 2.0 | 0.1 | 4.2 | 8.7 |
| <i>Ixodia achillaeoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Lepidosperma semiteres</i> | 22 | 0.12 | 50000 | 55.0 | 6000 | 52.7 | 0.9 | 37.5 | 145.2 |
| <i>Leptospermum juniperinum</i> | P | - | - | - | - | - | - | - | - |
| <i>Leptospermum myrsinoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Pimelea linifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Platylobium obtusangulum</i> | P | - | - | - | - | - | - | - | - |
| <i>Pteridium esculentum</i> | 7 | 0.21 | 15909 | 17.5 | 3341 | 29.3 | 0.5 | 20.8 | 67.7 |
| <i>Pultenaea daphnoides</i> | 1 | 0.05 | 2273 | 2.5 | 114 | 1.0 | 0.1 | 4.2 | 7.7 |
| * <i>Rubus fruticosus</i> | P | - | - | - | - | - | - | - | - |
| * <i>Senecio pterophorus</i> | P | - | - | - | - | - | - | - | - |
| <i>Tetratheca pilosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | P | - | - | - | - | - | - | - | - |
| | Totals | 40 | 90909 | | 11387 | | | | |

Small shrubs (< 0.25m) herbs, grasses and climbers

Acrotriche serrulata
Astrolobia humifusum
Cassytha sp.
Eriochilus cucullatus
Gonocarpus sp.
Goodenia primulacea
Hibbertia exutioides
Olearia grandiflora
Ranunculus sp.
Stylidium sp.
Viola sp.

Perennial, grass-like plants

Dianella revoluta
Lomandra dura
L. micrantha

Density measurements

SITE 16 - Transect (iii) - Along a west-facing slope

Plants present but not recorded in any Transect (mainly plants in gullies)

2m < Shrubs/Trees < 8m

Acacia retinodes
Leptospermum pubescens

Small shrubs (< 0.25m) herbs, climbers

Adiantum aethiopicum
Kennedia prostrata

0.25m < shrubs < 2m

Grevillea rosmarinifolia
Hakea carinata
**Rubus laciniatus*
Thistles

Sedges & reeds

Gahnia clarkei
Phragmites australis

FAUNA

Birds

Striated Thornbill
Crescent Honeyeater
Grey Fantail
Scarlet Robin
Fantail cuckoo
Adelaide rosella
Golden Whistler
Magpie
Silvereye
Red-browed Finch
White-browed Scrub-Wren

Blue Wren
Blackbird
Kookaburra
Yellow-faced Honeyeater
White-throated Treecreeper
Grey Thrush
White-naped Honeyeater
Striated Pardalote
Red Wattle-bird
Musk Lorikeet
Brown Thornbill

PHOTOGRAPHS

| | | |
|--------------|------|---|
| C/6628-II/BS | 3-16 | Reference Board |
| | 3-17 | <i>Eucalyptus plantation</i> |
| | 3-18 | Tall <i>Eucalyptus obliqua</i> |
| | 3-19 | <i>Eucalyptus rubida</i> |
| | 3-20 | <i>Eucalyptus obliqua</i> woodland |
| | 3-21 | Creek vegetation |
| | 3-22 | <i>Eucalyptus rubida</i> |
| C/6628-II/BS | 4-1 | <i>Exocarpus cupressiformis</i> T(ii) |
| | 4-2 | Fungi on <i>E. obliqua</i> |
| | 4-3 | <i>Eucalyptus obliqua</i> woodland |
| | 3-23 | <i>Eucalyptus obliqua</i> woodland with <i>E. rubida</i> and <i>E. leucoxylon</i> co-dominant |
| | 3-24 | <i>Eucalyptus obliqua/E. rubida</i> woodland |

SITE 20

Date: 16.5.79

Environmental Association: 3.2.16

Physiography:

Due east of Woodside a gentle dissected slope with a predominately northern aspect is covered in natural vegetation. Elevation ranges from 420m to 480m above sea level.

Plant Communities:

The plant community at this site is *Eucalyptus leucoxylon* - *E. camaldulensis* woodland. A very sparse small tree layer is dominated by *Acacia pycnantha* which, together with *Olearia ramulosa*, also dominates the very sparse shrub layer. The ground stratum is generally grassy, although small shrubs of *Acrotriche serrulata*, *Hibbertia sericea* and *Lissanthe strigosa*, and the fern, *Cheilanthes tenuifolia* are prominent in the rocky north-eastern corner of the site.

Condition:

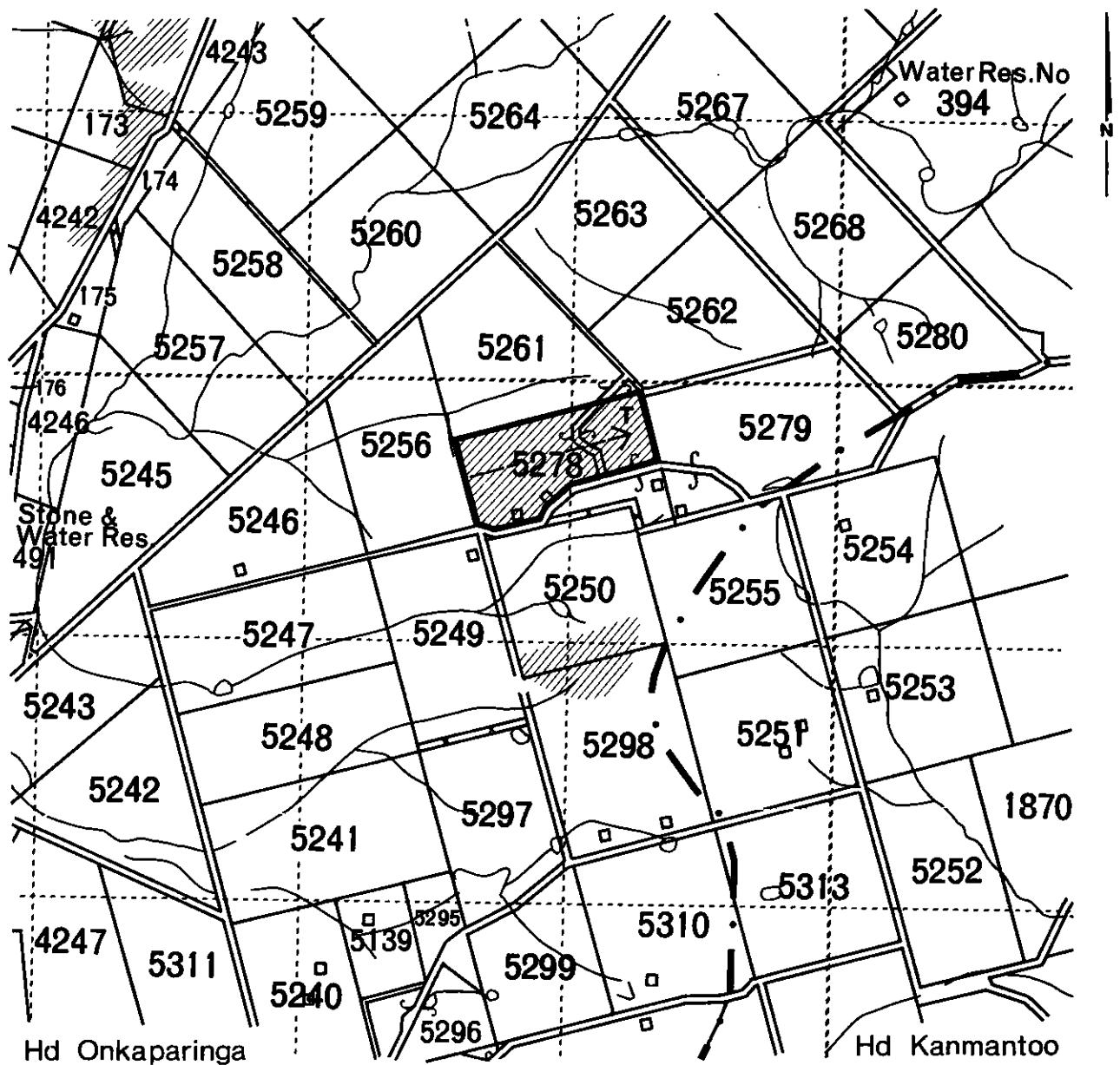
An old mine site ("Bird in Hand Mine") which is enclosed by a high barbed wire fence and in which sheep graze, occupies a few hectares in the south-western corner of Section 5278.

A few tracks traverse the site and an old car body and parts occur east of the public road which bisects the site.

**Ulex europaeus* infests a small area near the western boundary, and introduced grasses and herbs are prominent in the ground cover.

General:

This site represents one of the few areas of relatively unmodified savannah woodland in the Mount Lofty Ranges. Although small in area, it provides a refuge for many native bird species and has an attractive park-like setting. *Eucalyptus leucoxylon*- *E. camaldulensis* is a rare and endangered plant association in South Australia (Margules, 1978).



Reference
Onkaparinga 1:50 000, 6628-II
090E-298N AMG

19 hectares

SCALE 1 : 25 000

0 1000 metres

Site 20

HD ONKAPARINGA

Section 5278

SITE 20 - Transect - From west to east through middle of scrub

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|--------------------|---------------------|--------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Callitris preissii</i> | P | - | - | - | - | - | - | - | - |
| <i>Casuarina stricta</i> | 1 | 3.0 | 3.2 | 2.1 | 9.6 | 0.6 | 0.08 | 5.1 | 7.8 |
| <i>Eucalyptus camaldulensis</i> | 10 | 11.6 | 32.9 | 21.3 | 380.0 | 25.5 | 0.42 | 26.6 | 73.4 |
| <i>E. huberiana</i> | 2 | 13.0 | 6.6 | 4.3 | 85.8 | 5.7 | 0.08 | 5.1 | 15.1 |
| <i>E. leucoxylon</i> | 34 | 9.1 | 111.6 | 72.3 | 1016.0 | 68.1 | 1.0 | 63.3 | 203.7 |
| Totals | 47 | | 154.3 | | 1491.4 | | | | |
| 2m < Shrubs/Trees < 8m | | | | | | | | | |
| <i>Acacia paradoxa</i> | 4 | 4.0 | 36.6 | 8.5 | 146.4 | 26.2 | 0.25 | 12.0 | 46.7 |
| <i>A. pycnantha</i> | 31 | 1.0 | 284.5 | 66.0 | 295.9 | 53.0 | 1.0 | 48.1 | 167.1 |
| <i>Banksia marginata</i> | 1 | 0.5 | 9.1 | 2.1 | 4.6 | 0.8 | 0.08 | 3.8 | 6.7 |
| <i>Casuarina stricta</i> | 3 | 0.08 | 27.6 | 6.4 | 2.2 | 0.4 | 0.25 | 12.0 | 18.8 |
| <i>Eucalyptus camaldulensis</i> | 2 | 3.25 | 18.5 | 4.3 | 60.1 | 10.8 | 0.17 | 8.2 | 23.3 |
| <i>E. leucoxylon</i> | 6 | 0.90 | 55.2 | 12.8 | 48.6 | 8.7 | 0.33 | 15.9 | 37.4 |
| * <i>Olea europaea</i> | P | - | - | - | - | - | - | - | - |
| Totals | 47 | | 431.0 | | 557.8 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia paradoxa</i> | 2 | 0.55 | 29.2 | 4.2 | 16.1 | 14.1 | 0.17 | 6.6 | 24.9 |
| <i>A. pycnantha</i> | 21 | 0.15 | 305.0 | 43.8 | 45.8 | 40.2 | 0.92 | 35.7 | 119.7 |
| <i>Bursaria spinosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Casuarina stricta</i> | 1 | 0.1 | 14.6 | 2.1 | 1.5 | 1.3 | 0.08 | 3.1 | 6.5 |
| <i>Dianella revoluta</i> | 1 | 0.05 | 14.6 | 2.1 | 0.7 | 0.6 | 0.08 | 3.1 | 5.8 |
| <i>Grevillea lavandulacea</i> | P | - | - | - | - | - | - | - | - |
| <i>Hibbertia sericea</i> | 5 | 0.07 | 72.4 | 10.4 | 5.1 | 4.5 | 0.42 | 16.3 | 31.2 |
| <i>Leptospermum myrsinoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Lissanthe strigosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Olearia ramulosa</i> | 8 | 0.19 | 116.3 | 16.7 | 22.1 | 19.4 | 0.33 | 12.8 | 48.9 |
| <i>Platyllobium obtusangulum</i> | 1 | 0.02 | 14.6 | 2.1 | 0.3 | 0.3 | 0.08 | 3.1 | 5.5 |
| <i>Pteridium esculentum</i> | P | - | - | - | - | - | - | - | - |
| * <i>Rosa sp.</i> | 1 | 0.05 | 14.6 | 2.1 | 0.7 | 0.6 | 0.08 | 3.1 | 5.8 |
| * <i>Rubus fruticosus</i> | P | - | - | - | - | - | - | - | - |
| * <i>Sarothamnus scoparius</i> | P | - | - | - | - | - | - | - | - |
| * <i>Senecio pterophorus</i> | 2 | 0.05 | 29.2 | 4.2 | 1.5 | 1.3 | 0.17 | 6.6 | 12.1 |
| * <i>Ulex europeus</i> | 6 | 0.23 | 87.1 | 12.5 | 20.0 | 17.6 | 0.25 | 9.7 | 39.8 |
| Totals | 48 | | 696.4 | | 113.8 | | | | |

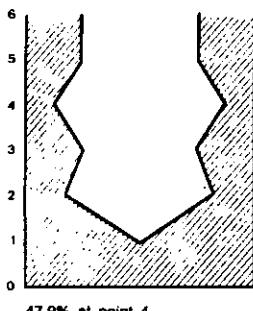
SITE 20 - Transect - From west to east through middle of scrub

Perennial, grass-like plants

Juncus spp.
Lepidosperma carphoides
Lomandra spp.
Themeda australis

Small shrubs, (< 0.25m) herbs, grasses, climbers, ferns

Acaena sp.
Acrotriche serrulata
Astroloma humifluum
Burchardia umbellata
Cheilanthes tenuifolia
Drosera sp.
Gonocarpus sp.
Pultenaea pedunculata
Ranunculus sp.
Scaevola albida
POACEAE (mainly introduced species)
Vinca major

Density measurementFAUNABirds

Little Wattle-bird
 Blue Wren
 Grey Fantail
 Adelaide Rosella
 Striated Pardalote
 White-naped Honeyeater
 Magpie
 Red-browed Finch
 Grey Thrush
 Yellow-faced Honeyeater

Red Wattle-bird
 New Holland Honeyeater
 White-plumed Honeyeater
 Quail
 Kookaburra
 Purple-crowned Lorikeet
 Red-rumped Parrot
 Raven
 Galah
 Musk Lorikeet

Other Fauna

Hare

PHOTOGRAPHS

- | | | |
|---------------|------|--|
| C/6628-II/BS/ | 4-4 | Reference Board |
| | 4-5 | <i>Acacia pycnantha/Eucalyptus leucoxylon</i> |
| | 4-6 | Car body at site |
| | 4-7 | <i>Eucalyptus camaldulensis</i> |
| | 4-8 | <i>E. leucoxylon/E. camaldulensis</i> woodland |
| | 4-9 | <i>Callitris preissii</i> |
| | 4-10 | <i>Casuarina stricta</i> |
| | 4-11 | Abandoned dwelling at Old Mine site |

SITE 21

Date: 16.5.79

Environmental Association: 3.2.16

Physiography:

South-east of Charleston, natural vegetation covers the summit and surrounding ridges of Mount Charles. Elevation ranges from 450m to 530m above sea level.

Plant Communities:

1. *Eucalyptus obliqua* open forest/woodland occupies a small area on sheltered south-facing slopes at the highest elevations.
2. *E. viminalis* woodland is the dominant plant association on south-facing slopes. A small tree layer is dominated by *Banksia marginata* and *Acacia pycnantha*, while a sparse shrub layer is dominated by *Pteridium esculentum*, *Banksia marginata* and *Xanthorrhoea semiplana*. Ground cover plants include *Cheilanthes tenuifolia*, *Hibbertia sericea* and grasses.
3. *Eucalyptus fasciculosa* woodland/low woodland occurs on north-facing slopes and contains a smaller tree layer dominated by *Acacia pycnantha*. A very sparse shrub layer has *Hakea rostrata* and *Lepidosperma semiteres* (to 1/2m high) as the most conspicuous plants. The ground cover is predominately leaf litter.

Condition:

Much of the scrub in Sections 166 and 3955 is grazed by sheep and pigs. The latter have extensively disturbed the soil by their rootings, but, as yet, the tree layer shows no visible effects from the disturbance to the understorey. The free-range pigs radiate from a piggery in Section 3955.

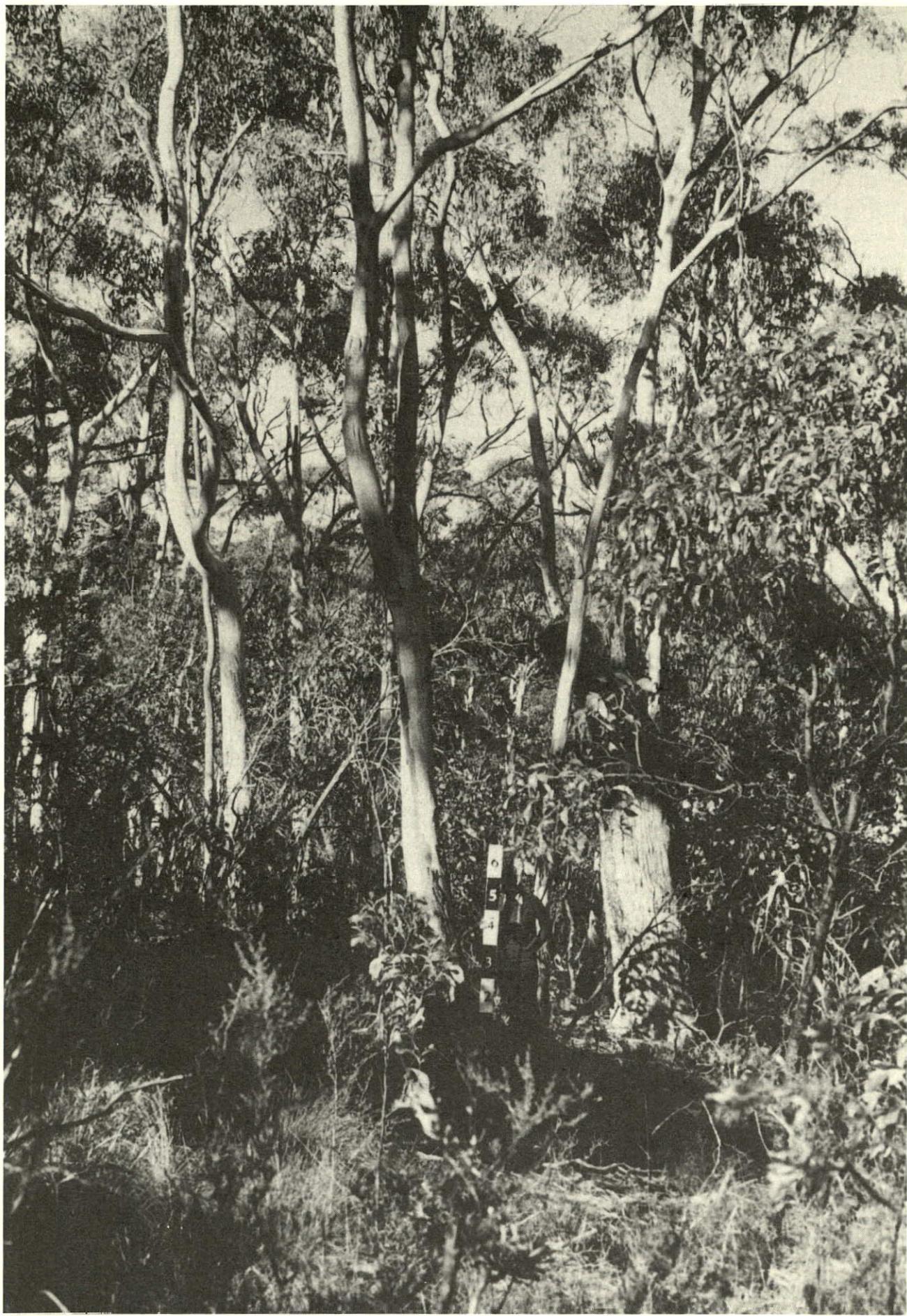
Vehicular tracks traverse the site and beehives are located in Section 165. Dumping of iron has occurred to a minor extent in Section 166.

The scrub is generally free of weeds although introduced grasses form part of the ground cover stratum.

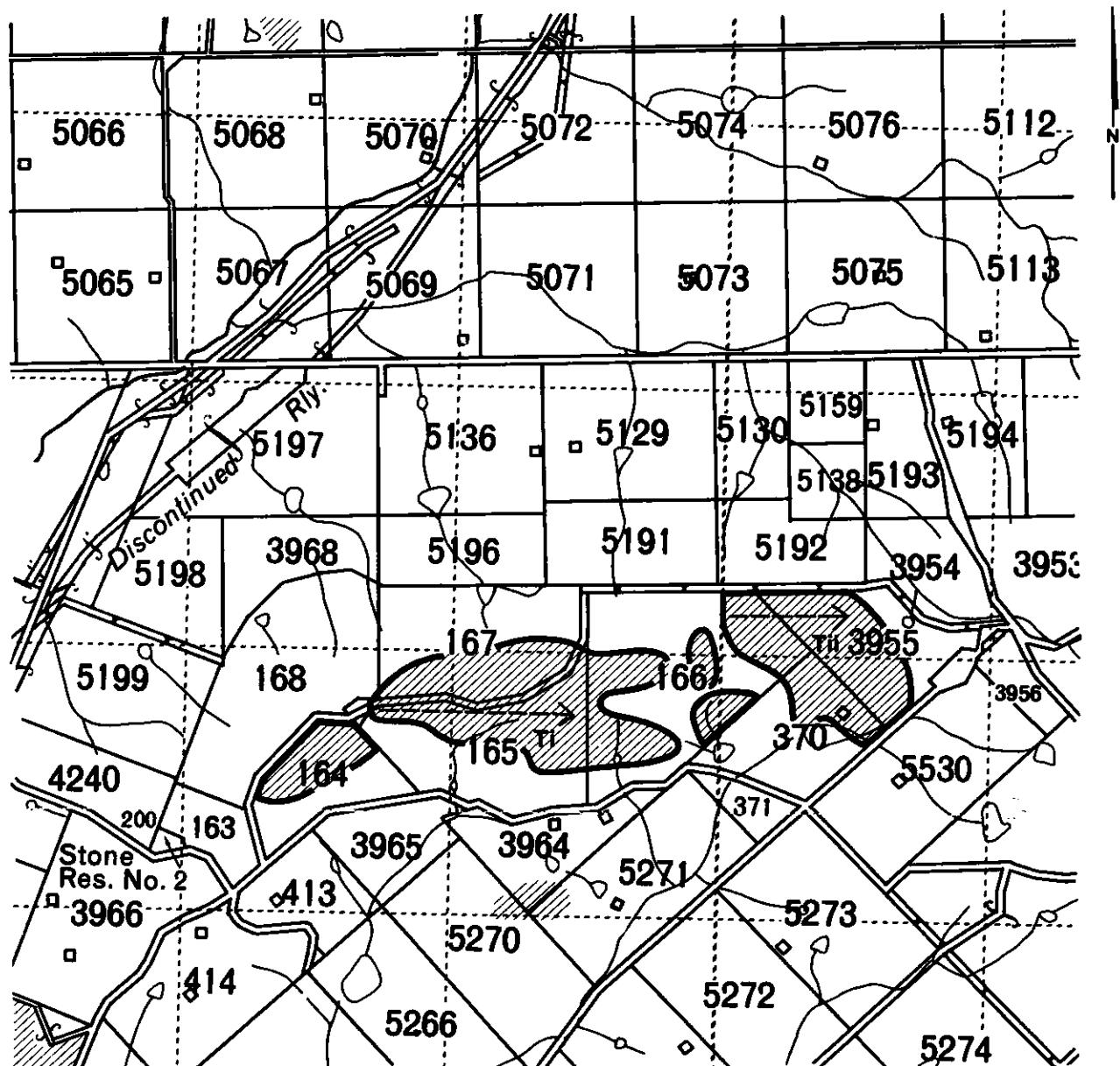
General:

The scrub covering Mount Charles forms an aesthetic backdrop to the Onkaparinga Valley between Woodside and Charleston. Apart from Charleston Conservation Park to the east and the scrub in Section 5278 (Site 20) to the south it is one of the few areas of natural vegetation in the eastern part of the Hundred of Onkaparinga.

The smooth white trunks of the manna gums (*Eucalyptus viminalis*) and the delicate green rock ferns (*Cheilanthes tenuifolia*) are a feature of the attractive and relatively unmodified woodland in Section 165.



Site 21 : *Eucalyptus viminalis* woodland



Site 21

HD ONKAPARINGA

Pt Sections 164, 165, 166, 167, 370, 3955

SITE 21 - Transect (i) - Along south-facing slope in Section 165

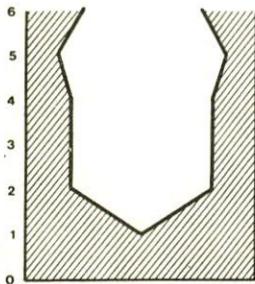
| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|--------------------|---------------------|--------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Casuarina stricta</i> | 1 | 5.0 | 3.8 | 2.2 | 19.0 | 1.6 | 0.08 | 5.1 | 8.9 |
| <i>Eucalyptus fasciculosa</i> | 6 | 8.4 | 23.0 | 13.3 | 193.2 | 15.8 | 0.33 | 20.9 | 50.0 |
| <i>E. leucoxylon</i> | 2 | 7.0 | 7.6 | 4.4 | 53.2 | 4.4 | 0.17 | 10.8 | 19.6 |
| <i>E. viminalis</i> | 36 | 6.9 | 138.4 | 80.0 | 955.0 | 78.3 | 1.0 | 63.3 | 221.6 |
| Totals | 45 | | 173.0 | | 1220.4 | | | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | | |
| <i>Acacia melanoxylon</i> | P | - | - | - | - | - | - | - | - |
| <i>A. pycnantha</i> | 14 | 0.7 | 159 | 29.2 | 111.3 | 23.1 | 0.58 | 31.7 | 84.0 |
| <i>Banksia marginata</i> | 29 | 0.9 | 330 | 60.4 | 297.0 | 61.6 | 1.0 | 54.6 | 176.6 |
| <i>Eucalyptus fasciculosa</i> | 4 | 1.4 | 45 | 8.3 | 63.0 | 13.1 | 0.17 | 9.3 | 30.7 |
| <i>E. viminalis</i> | 1 | 1.0 | 11 | 2.1 | 11.0 | 2.3 | 0.08 | 4.4 | 8.8 |
| <i>Exocarpus cupressiformis</i> | P | - | - | - | - | - | - | - | - |
| * <i>Pinus</i> sp. | P | - | - | - | - | - | - | - | - |
| Totals | 48 | | 546 | | 482.3 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 4 | 0.05 | 535 | 8.3 | 26.8 | 1.7 | 0.17 | 8.2 | 18.2 |
| <i>Banksia marginata</i> | 7 | 0.10 | 942 | 14.6 | 94.2 | 5.9 | 0.50 | 24.0 | 44.5 |
| <i>Hakea rostrata</i> | P | - | - | - | - | - | - | - | - |
| <i>Lepidosperma semiteres</i> | 6 | 0.20 | 806 | 12.5 | 161.2 | 10.1 | 0.25 | 12.0 | 34.6 |
| <i>Leptospermum myrsinoides</i> | 7 | 0.05 | 942 | 14.6 | 47.1 | 2.9 | 0.25 | 12.0 | 29.5 |
| <i>Olearia ramulosa</i> | 4 | 0.07 | 535 | 8.3 | 37.5 | 2.3 | 0.25 | 12.0 | 22.6 |
| <i>Platylobium obtusangulum</i> | P | - | - | - | - | - | - | - | - |
| <i>Pteridium esculentum</i> | 17 | 0.13 | 2283 | 35.4 | 296.8 | 18.6 | 0.58 | 27.9 | 81.9 |
| * <i>Senecio pterophorus</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | 3 | 2.3 | 406 | 6.3 | 933.8 | 58.5 | 0.08 | 3.8 | 68.6 |
| Totals | 48 | | 6450 | | 1597.4 | | | | |

Small shrubs, (< 0.25m) herbs, climbers, ferns, grasses

Acrotriche serrulata
Astroloma humifusum
Cassytha sp.
Cheilanthes tenuifolia
Clematis microphylla
Gonocarpus sp.
Hibbertia sericea
POACEAE (mainly introduced species)

Perennial, grass-like plants

Dianella revoluta
Themeda australis

Density measurement

SITE 21 - Transect (ii) - Along north-facing slope in Sections 166 and 3955

| | Nos of Indiv. | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|---------------------|---------------------|-------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Casuarina stricta</i> | 1 | 4.0 | 8 | 3.6 | 32 | 2.6 | 0.06 | 7.4 | 13.6 |
| <i>Eucalyptus fasciculosa</i> | 27 | 5.5 | 216 | 96.4 | 1188 | 97.4 | 0.75 | 92.6 | 286.4 |
| Totals | 28 | | 224 | | 1220 | | | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 50 | 0.50 | 1421 | 78.1 | 710.5 | 61.4 | 1.00 | 61.7 | 201.2 |
| <i>Banksia marginata</i> | P | - | - | - | - | - | - | - | - |
| <i>Casuarina muellerana</i> | 1 | 0.10 | 29 | 1.6 | 2.9 | 0.3 | 0.06 | 3.7 | 5.6 |
| <i>Eucalyptus fasciculosa</i> | 13 | 1.20 | 369 | 20.3 | 442.8 | 38.3 | 0.56 | 34.6 | 93.2 |
| <i>Exocarpus cupressiformis</i> | P | - | - | - | - | - | - | - | - |
| Totals | 64 | | 1820 | | 1156.2 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 15 | 0.07 | 878 | 23.4 | 61.5 | 14.8 | 0.56 | 20.4 | 58.6 |
| <i>Banksia marginata</i> | 1 | 0.01 | 60 | 1.6 | 0.6 | 0.1 | 0.06 | 2.2 | 3.9 |
| <i>Bursaria spinosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Hakea rostrata</i> | 18 | 0.12 | 1054 | 28.1 | 126.5 | 30.5 | 0.69 | 25.1 | 83.7 |
| <i>Hybanthus floribundus</i> | P | - | - | - | - | - | - | - | - |
| <i>Isopogon ceratophyllum</i> | 1 | 0.13 | 60 | 1.6 | 7.8 | 1.9 | 0.06 | 2.2 | 5.7 |
| <i>Lepidosperma semiteres</i> | 18 | 0.10 | 1054 | 28.1 | 105.4 | 25.4 | 0.81 | 29.5 | 83.0 |
| <i>Leptospermum myrsinoides</i> | 4 | 0.01 | 236 | 6.3 | 2.4 | 0.6 | 0.19 | 6.9 | 13.8 |
| <i>Lissanthe strigosa</i> | 3 | 0.05 | 176 | 4.7 | 8.8 | 2.1 | 0.13 | 4.7 | 11.5 |
| <i>Lomandra dura</i> | 3 | 0.07 | 176 | 4.7 | 12.3 | 3.0 | 0.19 | 6.9 | 14.6 |
| <i>Olearia ramulosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Platylobium obtusangulum</i> | P | - | - | - | - | - | - | - | - |
| * <i>Senecio pterophorus</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | 1 | 1.5 | 60 | 1.6 | 90.0 | 21.7 | 0.06 | 2.2 | 25.5 |
| Totals | 64 | | 3750 | | 415.3 | | | | |

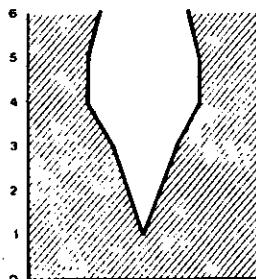
SITE 21 - Transect (ii) - Along north-facing slope in Sections 166 and 3955

Small shrubs (< 0.25m), herbs, climbers, ferns

Acrotriche serrulata
Astroloma humifusum
Burchardia umbellata
Cassytha sp.
Cheilanthes tenuifolia
Drosera sp.
Hibbertia sericea
Kennedia prostrata
POACEAE (mainly introduced species)

Perennial, grass-like plants

Dianella revoluta
Juncus pallidus
Lepidozperma carphoides

Density measurement

27.1% at point 5, T (ii)

Plants present at site but not recorded in either transectTrees > 8m*Eucalyptus obliqua*0.25m < Shrubs < 2m

**Rosa sp.*
**Rubus fruticosus*
Senecio sp.
**Ulex europaeus*

FAUNABirds

Grey Fantail
Yellow-tailed Thornbill
Adelaide Rosella
New Holland Honeyeater
Blue Wren
Striated Pardalote
White-naped Honeyeater
Raven

Red-browed Finch
Golden Whistler
Magpie
White-throated Treecreeper
Grey Thrush

Other Life Forms

Fungi, lichens

PHOTOGRAPHS

- | | |
|---------------|--|
| C/6628-11/BS/ | 4-12 Reference Board |
| | 4-13 Fungi |
| | 4-14 <i>E. viminalis</i> woodland |
| | 4-15 <i>E. viminalis</i> woodland |
| | 4-16 View towards Mt. Barker |
| | 4-17 <i>Eucalyptus fasciculosa</i> woodland/low woodland |
| | 4-18 Old <i>E. fasciculosa</i> |
| | 4-19 Pig diggings in the scrub |
| | 4-20 Piggery in Section 3955 |

SITE 27

Date: 30.5.79

Environmental Association: 3.2.15

Physiography:

South of Uraidla, natural vegetation covers dissected south and east-facing slopes. Elevation ranges from 500m in the south to 600m above sea level in the north. Rocky outcrops occur in the northern part of Section 1149.

Plant Communities:

Eucalyptus obliqua open forest is the dominant plant association at this site. *E. baxteri* is an associated tree on spurs and western aspects. A sparse small tree/tall shrub layer is dominated by young stringybarks, *Exocarpus cupressiformis* and *Pultenaea graveolens*, while a dense shrub layer is dominated by *Acrotriche fasciculiflora* and *Pteridium esculentum*. Grasses and leaf litter constitute the ground stratum.

In one sheltered gully in Section 1149 *Acacia melanoxylon* forms an open forest above skeletons of dead **Rubus fruticosus* and *Gahnia clarkei* and *Blechnum* sp. This forest is never more than 40m in width.

Condition:

Several sheep were observed in a small clearing in the northern part of Section 1149, where some old fruit trees occur and ornamental plants (including eastern Australian *Eucalyptus* spp.) have been established. Control burning of the native understorey has been undertaken around a house just west of the clearing. A power transmission line and associated clearing traverses the southern part of the site. A vehicular track traverses the site. A dense infestation of blackberries occurs along the edge of the forest in Section 1148. They occupy gullies in the forest but many are dead as a result of spraying.

Elsewhere the native understorey is unmodified.

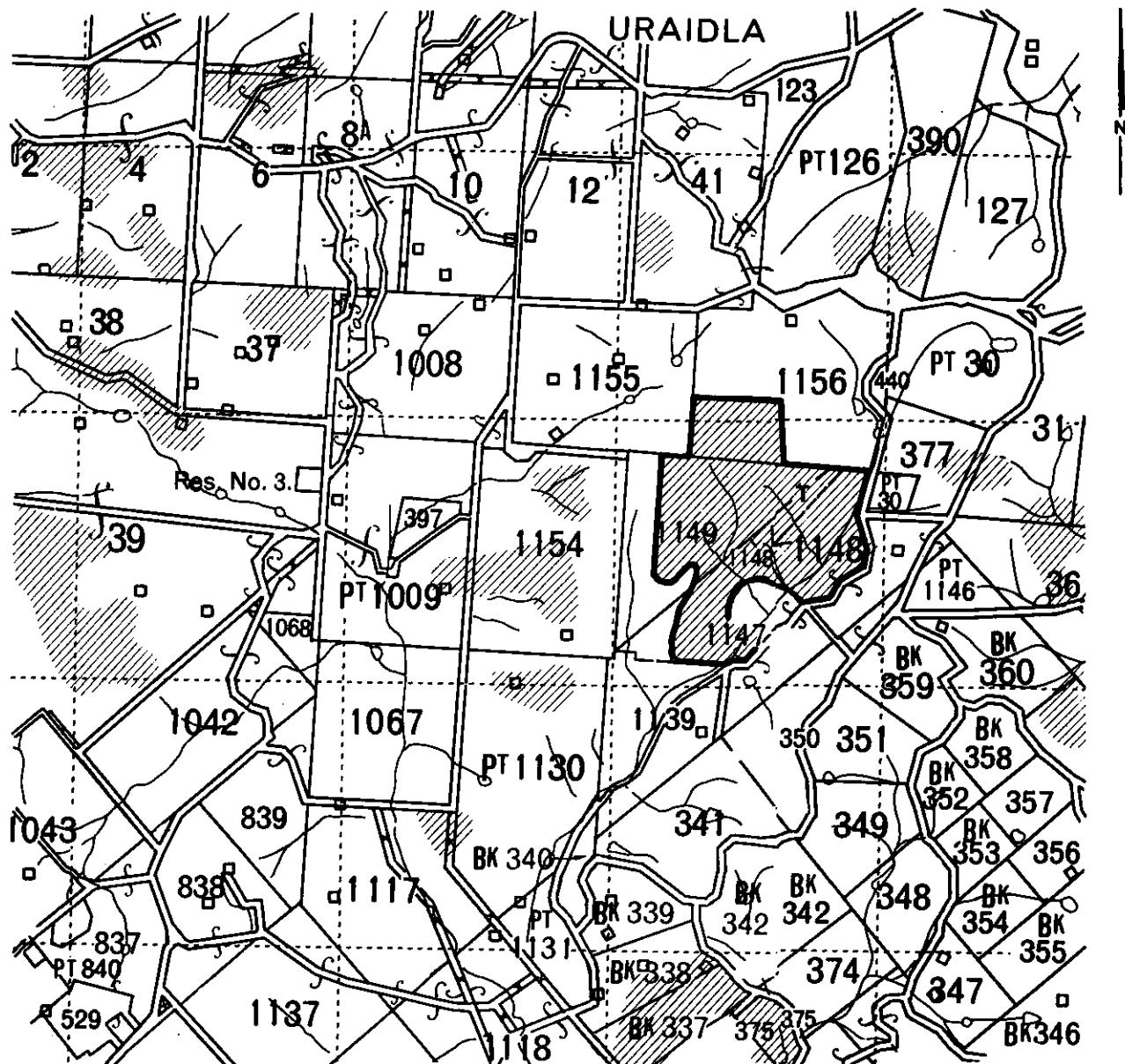
General:

Olearia grandiflora and *Blechnum* sp. which are rare plants in South Australia (Specht et al, 1974) occur at this site.

Apart from the margins of the forest and the gullies, the dense shrub understorey is unmodified. Many of the *E. obliqua* show coppice regrowth, but some fine specimens to 30m in height are scattered throughout.

A well-developed forest of *Acacia melanoxylon* occupies a thin strip along a gully in Section 1149. Some of the trees are 20m or more in height.

The Scaly Thrush (*Zoothera dauma*) which is a threatened bird in South Australia (Margules, 1978) was observed at this site.



Reference
Onkaparinga 1:50 000, 6628-II
345E-277N AMG

40 hectares

SCALE 1 : 25000

1000 metres

Site 27

HD ONKAPARINGA

Pt Sections 1147, 1148, 1149, 1155, 1156

SITE 27 - Transect (i) - Along South and East facing slopes

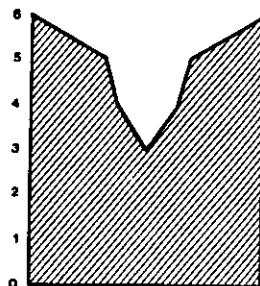
| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|--------------------|---------------------|--------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Eucalyptus baxteri</i> | 5 | 3.6 | 47.0 | 6.3 | 169.2 | 5.1 | 0.1 | 9.1 | 20.5 |
| <i>E. obliqua</i> | 75 | 4.5 | 700.0 | 93.8 | 3150 | 94.9 | 1.0 | 91.0 | 279.7 |
| Totals | 80 | | 746.3 | | 3319.2 | | | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | | |
| <i>Acacia melanoxylon</i> | P | - | - | - | - | - | - | - | - |
| <i>A. retinodes</i> | P | - | - | - | - | - | - | - | - |
| <i>Banksia marginata</i> | P | - | - | - | - | - | - | - | - |
| <i>Daviesia virgata</i> | 2 | 0.12 | 10.0 | 2.5 | 1.2 | 0.3 | 0.1 | 4.6 | 7.6 |
| <i>Eucalyptus baxteri</i> | 3 | 0.29 | 15.2 | 3.8 | 4.4 | 0.9 | 0.1 | 4.6 | 9.3 |
| <i>E. obliqua</i> | 22 | 0.94 | 110 | 27.5 | 103.4 | 21.8 | 0.7 | 31.8 | 81.1 |
| <i>Exocarpus cupressiformis</i> | 23 | 2.9 | 115.2 | 28.8 | 334.1 | 70.4 | 0.5 | 22.7 | 121.9 |
| <i>Pultenaea daphnoides</i> | 10 | 0.15 | 50 | 12.5 | 7.5 | 1.6 | 0.3 | 13.6 | 27.7 |
| <i>P. graveolens</i> | 20 | 0.24 | 100 | 25.0 | 24.0 | 5.1 | 0.5 | 22.7 | 52.8 |
| Totals | 80 | | 400 | | 474.6 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia myrtifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Acrotriche fasciculiflora</i> | 32 | 0.11 | 36364 | 40 | 4000 | 41.1 | 0.65 | 27.1 | 108.2 |
| <i>Boronia edwardsii</i> | P | - | - | - | - | - | - | - | - |
| <i>Daviesia ulicifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>D. virgata</i> | 9 | 0.06 | 10273 | 11.3 | 616 | 6.3 | 0.4 | 16.7 | 34.3 |
| <i>Epacris impressa</i> | 2 | 0.01 | 2273 | 2.5 | 23 | 0.2 | 0.1 | 4.2 | 6.9 |
| <i>Goodenia ovata</i> | P | - | - | - | - | - | - | - | - |
| <i>Hakea carinata</i> | P | - | - | - | - | - | - | - | - |
| <i>Hakea rostrata</i> | 1 | 0.13 | 1182 | 1.3 | 154 | 1.6 | 0.05 | 2.1 | 5 |
| <i>Ixodia achillaeoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Lepidosperma semiteres</i> | 1 | 0.13 | 1182 | 1.3 | 154 | 1.6 | 0.05 | 2.1 | 5 |
| <i>Leptospermum juniperinum</i> | P | - | - | - | - | - | - | - | - |
| <i>L. myrsinoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Platylobium obtusangulum</i> | 1 | 0.01 | 1182 | 1.3 | 12 | 0.1 | 0.05 | 2.1 | 3.5 |
| <i>Pteridium esculentum</i> | 13 | 0.13 | 14818 | 16.3 | 1926 | 19.8 | 0.45 | 18.7 | 54.8 |
| <i>Pultenaea daphnoides</i> | 12 | 0.04 | 13636 | 15.0 | 545 | 5.6 | 0.35 | 14.6 | 35.2 |
| <i>Pultenaea graveolens</i> | 6 | 0.09 | 6818 | 7.5 | 641 | 6.3 | 0.2 | 8.3 | 22.1 |
| * <i>Rubus fruticosus</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea semiplana</i> | 3 | 0.5 | 3364 | 3.7 | 1682 | 17.3 | 0.1 | 4.2 | 25.7 |
| Totals | | | 90909 | | 9726 | | | | |

Small shrubs (< 0.25m), herbs, climbers & grasses

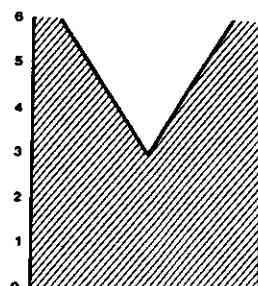
Acaena sp.
Acrotriche serrulata
Burhardia umbellata
Caesalpinia sp.
Dipodium punctatum
GERANIACEAE
Gonocarpus sp.
Goodenia primulacea
Hibbertia exutioides
H. sericea
Isopogon ceratophyllus
Olearia grandiflora
Pimelea linifolia
Scaevola albida
Tetratheca pilosa
Viola sp.

Perennial, grass-like plants

Dianella revoluta
Juncus pallidus
Juncus sp.
Lomandra dura
L. micrantha

Density measurements

83% at point 5, T (i)



72.9% at point 6, T (i)

SITE 27 - Transect (ii) - Along gully in Section 1149

| | Nos of Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq | IMPT VALUE |
|--------------------|--------------------|---------------------|------------|------------|-------------|------------|-------|-------------|---------------|
| Trees 8m | | | | | | | | | |
| Acacia melanoxylon | 29 | 5.6 | 697 | 90.6 | 3903 | 78.2 | 1.0 | 80.0 | 248.8 |
| E. obliqua | 3 | 15 | 72.3 | 9.4 | 1085 | 21.8 | 0.25 | 20.0 | 51.2 |
| Totals | 32 | | 769 | | 4988 | | | | |

Other Life Forms

Fungi, lichens

FAUNABirds

Little Raven
 Scarlet Robin
 Crescent Honeyeater
 Adelaide Rosella
 Grey Currawong
 White-throated Treecreeper
 Eastern Spinebill
 White-grown Scrub Wren
 Grey Fantail
 Striated Pardalote
 Golden Whistler
 Grey Shrike-thrush
 Brown Thornbill
 Scaly Thrush
 Striated Thornbill
 Magpie
 Blackbird

Mammals

An introduced cat and two small rat-like animals were observed

Other Fauna

Scorpion

PHOTOGRAPHS

C/6628-II/BS/ 4-21 Reference Board
 4-22 grove with cleared understorey
 4-23 Cleared area with small orchard
 4-24
 5-1 Clearing in Section 1156
 5-2 Along Transect (i)
 5-4 General view of forest
 5-5 View along track
 5-6 Along Gully of *Acacia melanoxylon* forest
 5-7 *Acacia melanoxylon* forest
 5-8 *Acacia melanoxylon* forest

SITE 28

Date: 30.5.79

Environmental Association: 3.2.13

Physiography:

To the south-east of the Mount Lofty summit an east-facing slope below Summit Road and with several gullies is clothed in natural vegetation. Elevation ranges from 550m to 680m above sea level.

Plant Communities:

The slope is covered by *Eucalyptus obliqua* woodland which includes *E. baxteri* on the spurs. The understorey is generally dominated by *Pteridium esculentum* (e.g. Site 16 Transect (i)).

Several gullies contain a wetland vegetation which includes *Leptospermum pubescens*, *Acacia retinodes*, *Todea barbara*, **Rubus fruticosus* and some exotic trees (see plant list for swamp vegetation).

Condition:

Buildings and associated gardens lie adjacent to Summit Road and extend for 100m or more down the slope. **Pinus spp.* from these properties extend into the *Eucalyptus obliqua* woodland.

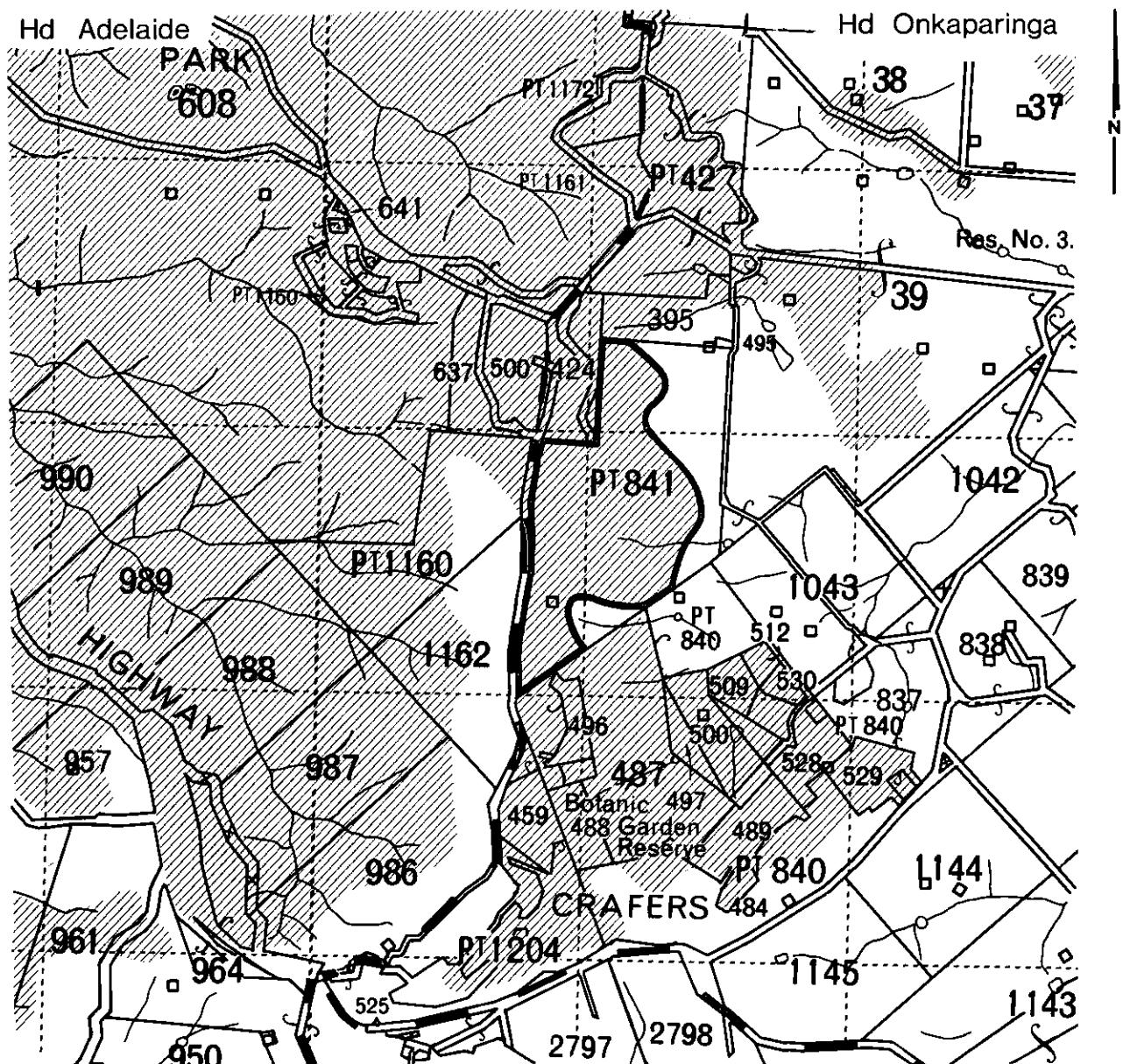
Stock grazing, indicated by scats and browsed plants, is evident over most of the site, except for the area in the northern part of the section, immediately east of Mount Lofty. Several old tracks traverse the site, and selective logging has thinned the tree layer.

**Rubus fruticosus* is common where the scrub borders the homesteads, and along the gullies which also contain many dead trees.

General:

Todea barbara which is an endangered fern in South Australia (Specht *et al.*, 1974), occurs in one of the gullies which is permanently waterlogged. The rare plants, *Blechnum* sp. and *Olearia grandiflora* also occur at this site.

The *Eucalyptus obliqua* woodland at this site has suffered from heavy grazing, but contributes to the vegetated eastern slopes of Mount Lofty which provides an attractive backdrop to the Piccadilly Valley.



Reference
Onkaparinga 1:50 000, 6628-II
910E-267N AMG
40 hectares

SCALE 1 : 25 000
0 1000 metres

Site 28

HD ONKAPARINGA

Pt Section 841

SITE 28

PLANTSTrees > 8m

Eucalyptus baxteri
E. obliqua

2m < Trees/Shrubs < 8m

Acacia melanoxylon
Banksia marginata
Exocarpus cupressiformis
Leptospermum juniperinum
L. pubescens
**Pinus sp.*

0.25m < Shrubs < 2m

Acacia myrtifolia
A. retinoides
Acrotriche fasciculiflora
Daviesia virgata
Epacris impressa
**Erica sp.*
**Genista maderensis*
Goodenia ovata
Leptospermum myrsinoides
Persoonia juniperina
Platylobium obtusangulum
Pteridium esculentum
Pultenaea daphnoides
**Rubus fruticosus*
**R. laciniatus*
**Sarothamnus scoparius*
**Senecio pterophorus*
**Ulex europaeus*

Small shrubs (0.25m), herbs, grasses & climbers

Acaena sp.
Goodenia primulacea
Hibbertia exutioides
H. sericea
Marianthus bignoniaceus
Olearia grandiflora
Pimelea linifolia
Utricularia sp.

Perennial, grass-like plants

Dianella revoluta
Gahnia clarkei
Juncus pallidus
Lepidosperma semiteres
Phragmites australis

Ferns

Blechnum sp.
Todea barbara

SWAMP VEGETATION2m < Trees/Shrubs < 8m

Acacia melanoxylon
Acacia retinodes
Leptospermum juniperinum
Leptospermum pubescens

Herbs

Utricularia sp.
POACEAE (introduced)

Sedges and Reeds

Gahnia clarkei
Juncus pallidus
Phragmites australis

Ferns

Blechnum sp.
Todea barbara

PHOTOGRAPHS

C/6628-111/BS 1-1 Reference Board
 1-2 *Todea barbara*
 1-3 *Todea barbara*

5.10 Rd. Tungkillo

SITE 2 - Mount Beevor

Date: 21.3.79

Environmental Association: 3.2.17

Physiography:

The gentle to medium north-east facing slopes of Mt. Beevor are lightly clothed in a woodland vegetation. Scattered rocky outcrops and loose quartz rocks occur on the site.

Plant Communities:

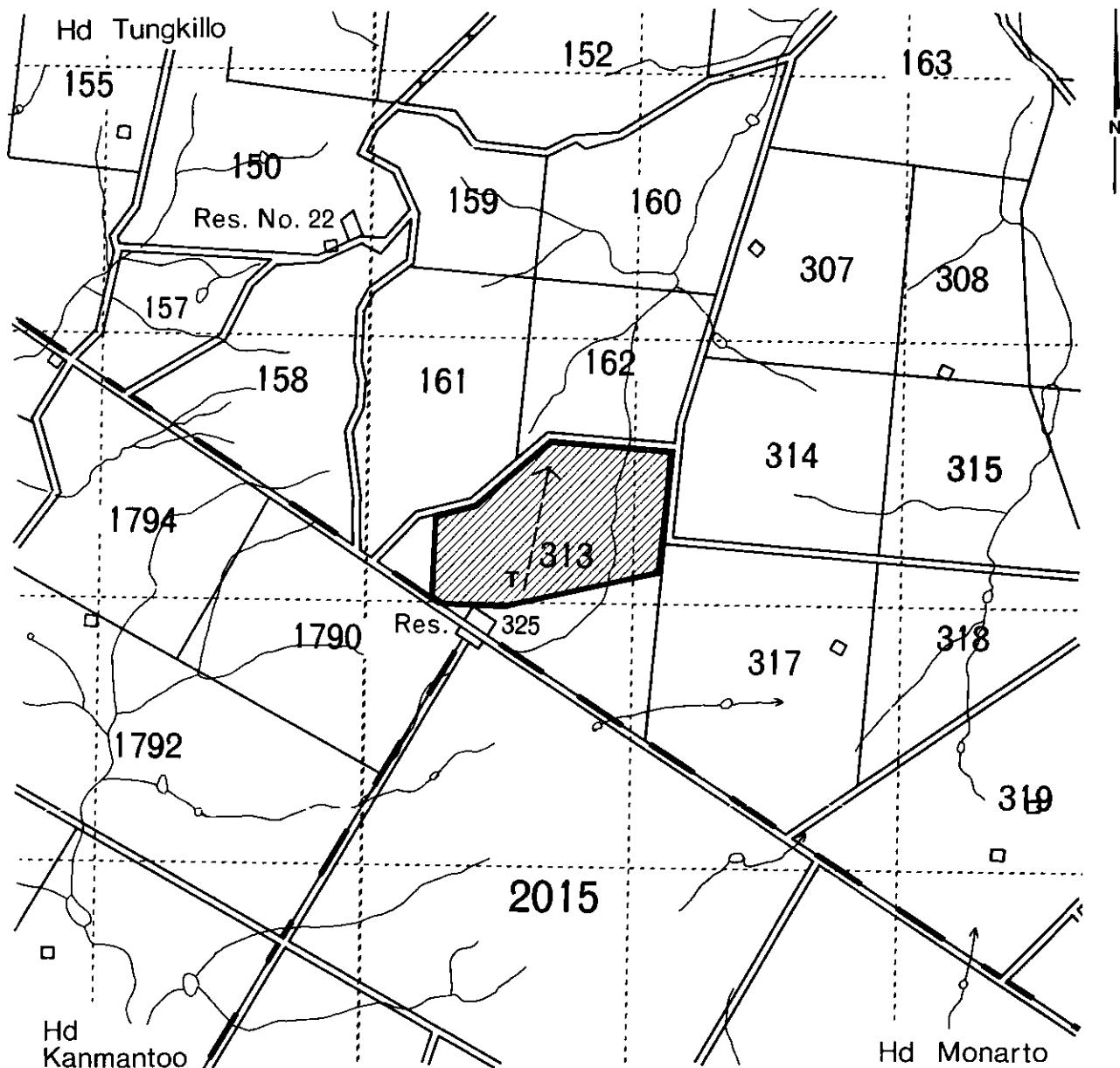
Eucalyptus fasciculosa open woodland with a very sparse understorey of scattered shrubs and a groundcover of sedges and grasses occupies this site. Many dead tree limbs occur here.

Condition:

The understorey is grazed by stock and very little regeneration of trees and shrubs is occurring. Several old vehicular tracks traverse the site.

General:

Although this open woodland has been modified by grazing and lacks diversity it is aesthetically attractive and provides an important refuge for birds. It is one of the few areas of bushland remaining in the Hundred of Tungkillo.



Reference
Tepko 1:50 000, 6728-III
205E-333N AMG

45 hectares

SCALE 1 : 25 000
0 1000 metres

Site 2

HD TUNGKILLO

Pt Section 313

SITE 2 - Sampling Points at 40m intervals

| | Nos in Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|--|--------------------|---------------------|------------|------------|--------|------------|-------|--------------|---------------|
| Trees > 2m | | | | | | | | | |
| <i>Eucalyptus canadulensis</i> | P | - | - | - | - | - | - | - | - |
| <i>E. fasciculosa</i> | 31 | 11.8 | 108 | 100 | 1274.4 | 100 | 1 | 100 | 300 |
| <i>E. leucoxylon</i> | P | - | - | - | - | - | - | - | - |
| Shrubs 0.25 > 2m | | | | | | | | | |
| <i>Acacia paradoxa</i> | 2 | 1.5 | 13 | 8.7 | 19.5 | 23.7 | .25 | 15.2 | 47.6 |
| <i>A. pycnantha</i> | P | - | - | - | - | - | - | - | - |
| <i>Bursaria spinosa</i> | 14 | 0.5 | 88 | 60.9 | 44 | 53.5 | .88 | 53.3 | 167.7 |
| <i>Casuarina stricta</i> | 1 | 0.25 | 6 | 4.3 | 1.5 | 1.8 | .13 | 7.9 | 14 |
| <i>Hakea rugosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Pultenaea largiflora</i> var. <i>latifolia</i> | 3 | 0.25 | 19 | 13.0 | 4.75 | 5.8 | .13 | 7.9 | 26.7 |
| <i>Thomastia petalocalyx</i> | 1 | 1 | 6 | 4.3 | 6 | 7.2 | .13 | 7.9 | 19.4 |
| <i>Xanthorrhaea quadrangularis</i> | 2 | 0.5 | 13 | 8.7 | 6.5 | 7.9 | .13 | 7.9 | 24.5 |
| Total | 23 | | 145 | | 82.25 | | 1.65 | | |

Small Shrubs, (0.25m), herbs, creepers, ferns

Acrotriche affinis
Astroloma humifusum
Cheilanthes tenuifolia
Kennedia prostrata

Perennial, grass-like plants

Lepidosperma carphoides
Themeda australis

FAUNABirds

Adelaide Rosella
Wedge-tail Eagle
Australian Magpie
Laughing Kookaburra
Crested Shrike-tit
Brown Tree-crupper
Diamond Firetail
Striated Pardalote
Tree Martin
Red-rumped Parrot
Raven

PHOTOGRAPHS

C/6728-III/BS/ 1-1
 1-2

Panorama
 Panorama

5.11 Hd. Kanmantoo

SITE 1

Date: 21.3.79Environmental Association: 3.2.17Physiography:

A gentle north-east facing slope supports a remnant patch of scrub. Scattered quartz rocks occur over the site.

Plant Communities:

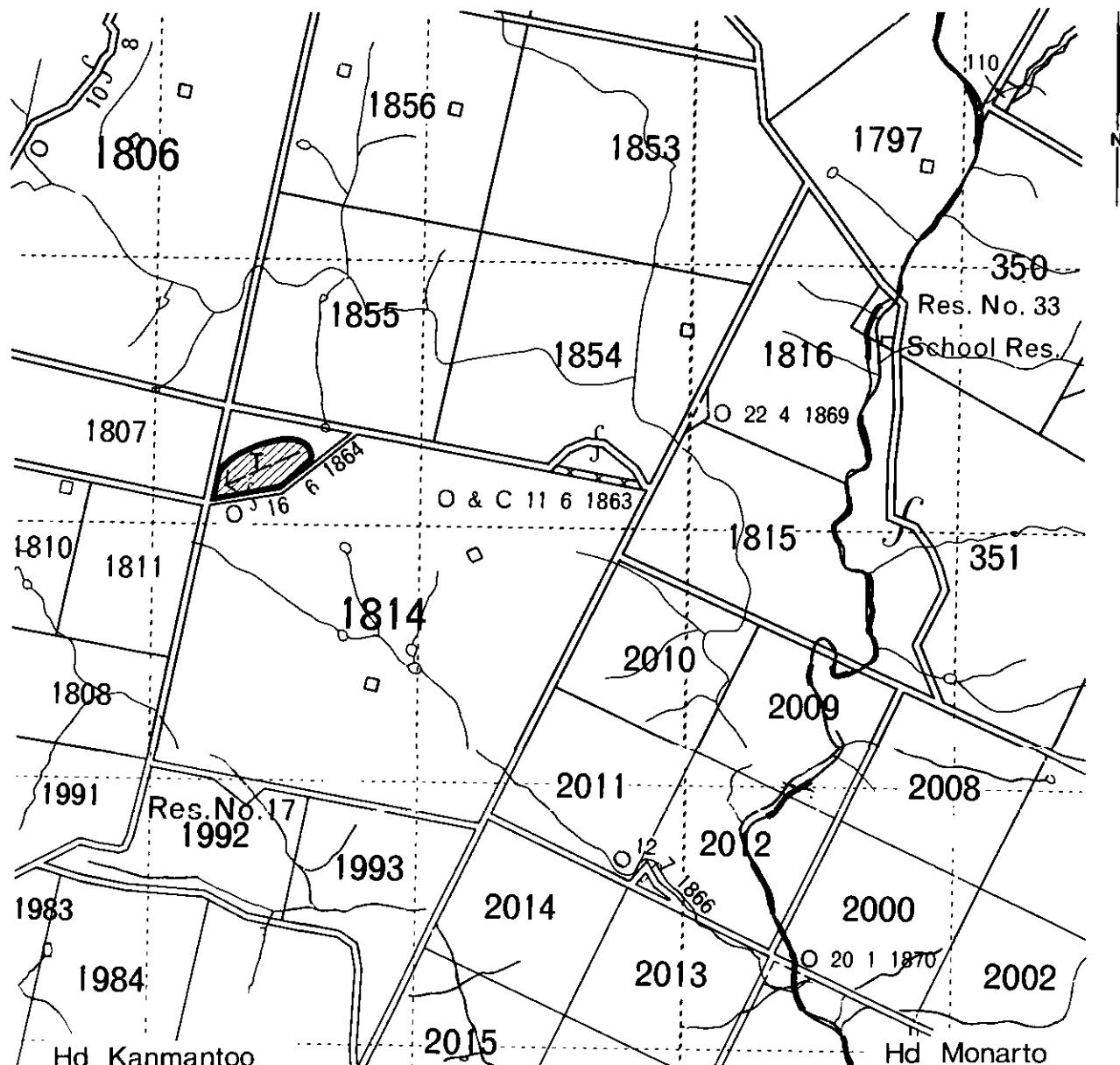
Eucalyptus odorata low woodland/open scrub with a very sparse understorey of scattered shrubs and a ground cover of introduced grasses and leaf litter occupies this site. Taller trees of *E. leucoxylon* occur near the perimeter of the scrub.

Condition:

Sheep scats show evidence of grazing but there is some regeneration of shrubs and trees. The ground cover is dominated by introduced grasses and several plants of the noxious weed, **Senecio pterophorus*, are present.

General:

Although this is a small area of scrub with a largely modified ground cover, the presence of five species of eucalypts, including two mallees (*Eucalyptus anceps* and *E. calycogona*) in a transition zone between the savannah woodland and mallee formations is ecologically significant. The site provides a refuge for birds and several species of the spider family, *ARGIOPIDEA*, which are absent from the surrounding cleared countryside.



Reference
Tepko 1:50 000, 6728-III
184E-262N AMG
15 hectares

SCALE 1 : 25 000
0 1000 metres

Site 1

HD KANMANTOO

Pt Section 1814

SITE 1 - Transect - Sampling Points at 20m intervals

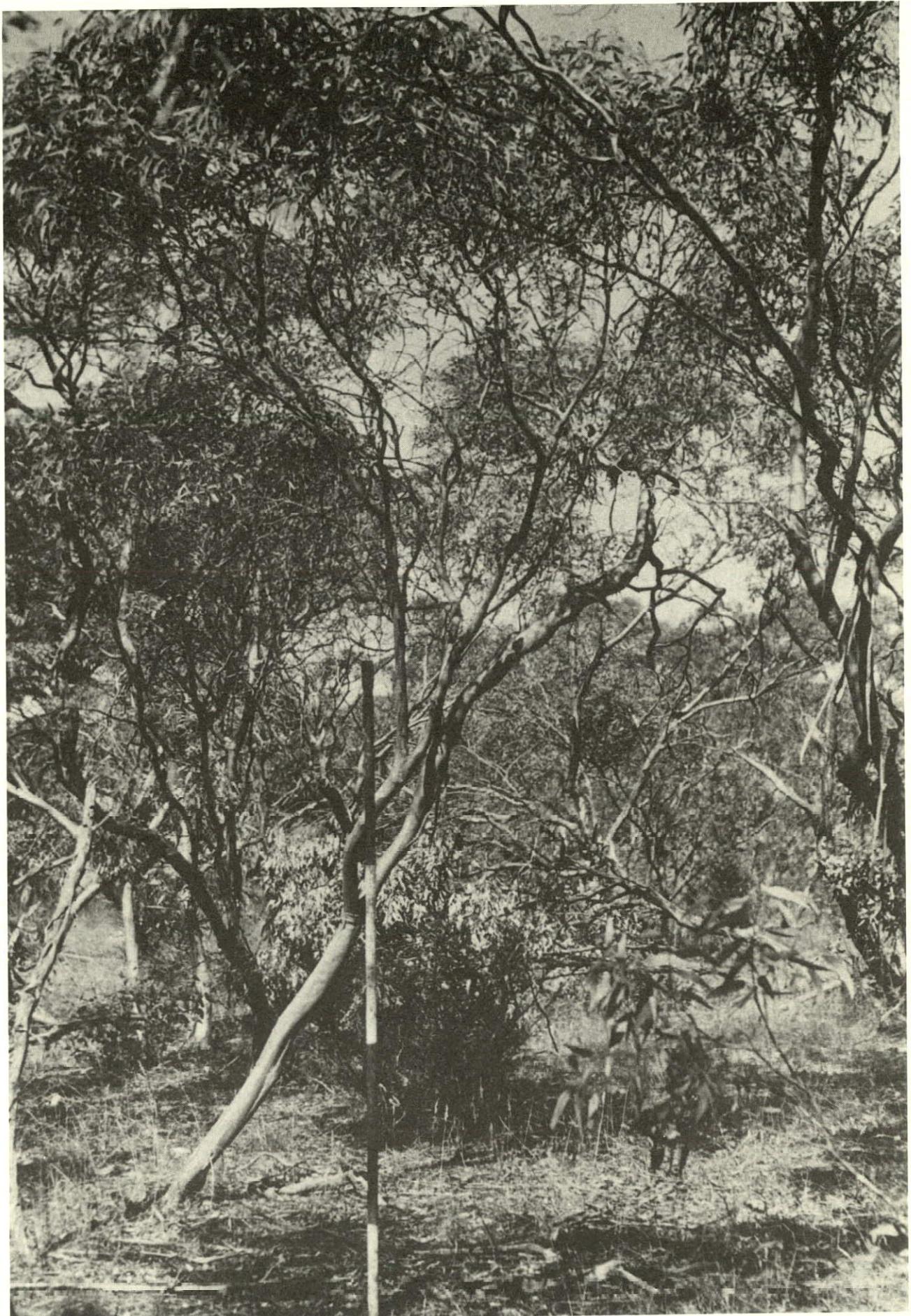
| | Nos in Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|--|--------------------|---------------------|--------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 2m | | | | | | | | | |
| <i>Eucalyptus anceps</i> | 1 | 3 | 37.0 | 3.1 | 111 | 2.5 | .13 | 10.3 | 15.9 |
| <i>E. calycogona</i> | P | - | - | - | - | - | - | - | - |
| <i>E. foecunda</i> | P | - | - | - | - | - | - | - | - |
| <i>E. leucoxylon</i> | 2 | 9 | 75.3 | 6.3 | 677.7 | 15.5 | .13 | 10.3 | 32.1 |
| <i>E. odorata</i> | 29 | 3.3 | 1082.7 | 90.6 | 3572.9 | 81.9 | 1 | 79.4 | 251.9 |
| Totals | 32 | | 1195 | | 4361.6 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia menzelli</i> | P | - | - | - | - | - | - | - | - |
| <i>A. pycnantha</i> | P | - | - | - | - | - | - | - | - |
| <i>Bursaria spinosa</i> | 6 | 0.25 | 129.4 | 37.4 | 32.3 | 31.5 | 0.5 | 36.0 | 104.9 |
| <i>Caesularia stricta</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus anceps</i> | 1 | 0.25 | 21.7 | 6.3 | 5.4 | 5.3 | 0.13 | 9.4 | 21.0 |
| <i>E. odorata</i> | 3 | 0.5 | 64.5 | 18.7 | 32.3 | 31.5 | 0.25 | 18 | 68.2 |
| <i>Eutaxia microphylla</i> | 5 | 0.25 | 108.0 | 31.3 | 27.0 | 26.4 | 0.38 | 27.3 | 85.0 |
| <i>Pultenaea largiflorens</i> var. <i>latifolia</i> | 1 | 0.25 | 21.7 | 6.3 | 5.4 | 5.3 | 0.13 | 9.4 | 21.0 |
| Total | 16 | | 345.3 | | 102.4 | | | | |

Small shrubs, (< 0.25m) herbs, climbers and parasites

| | | |
|-------------------------------|--|--------|
| <i>Amyema miquelii</i> | | |
| <i>Astroloma humifusum</i> | | |
| * <i>Briza</i> spp. | | |
| <i>Clematis microphylla</i> | | |
| * <i>Convolvulus arvensis</i> | | |
| <i>Dianella revoluta</i> | | Mosses |
| <i>Rhagodia nutans</i> | | |
| * <i>Senecio pterophorus</i> | | |

PHOTOGRAPHS

| | | |
|---------------|-------|--|
| C/6728-III/BS | 1-1 | Reference board |
| | 1-2 | <i>E. odorata</i> |
| C/6728-III/BS | 1-3 | Quartz reef |
| | 1-4 | <i>Eutaxia microphylla</i> |
| | 1-5 | <i>Bursaria spinosa</i> |
| | 1-6 | <i>Pultenaea largiflorens</i> + <i>Acacia pycnantha</i> seedling |
| | 1-7 | <i>Eucalyptus anceps</i> |
| | 1-8) | <i>E. leucoxylon</i> |
| | 1-9) | |
| | 1-10 | <i>E. anceps</i> |
| | 1-11) | <i>E. odorata</i> |
| | 1-12) | |



Site 1: *Eucalyptus anceps*

SITE 12

Date: 24.4.79

Environmental Association: 3.2.16

Physiography:

The higher slopes and summit of Mt. Barker, which rises to 510m above sea level are covered in native vegetation. Rocky outcrops on the western and eastern slopes of the summit are a feature of this site.

Plant Communities:

1. The dominant plant association is *Eucalyptus huberana* - *E. leucoxylon* - *Casuarina stricta* open woodland with an understorey of tall shrubs and small trees dominated by *Casuarina stricta*, *Acacia pycnantha* and *Banksia marginata* (on western side of summit only). This layer varies from mid-dense to very sparse.

A very sparse smaller shrub layer is dominated by *Olearia ramulosa*. Around the summit, *Correa schlechtendalii* replaces *Olearia ramulosa* as the dominant species.

2. A small area of *Casuarina stricta* - *Acacia pycnantha* low woodland occurs on the north-west facing slope of Mt. Barker. A sparse to mid-dense shrub layer is dominated by *Olearia ramulosa*.

Condition:

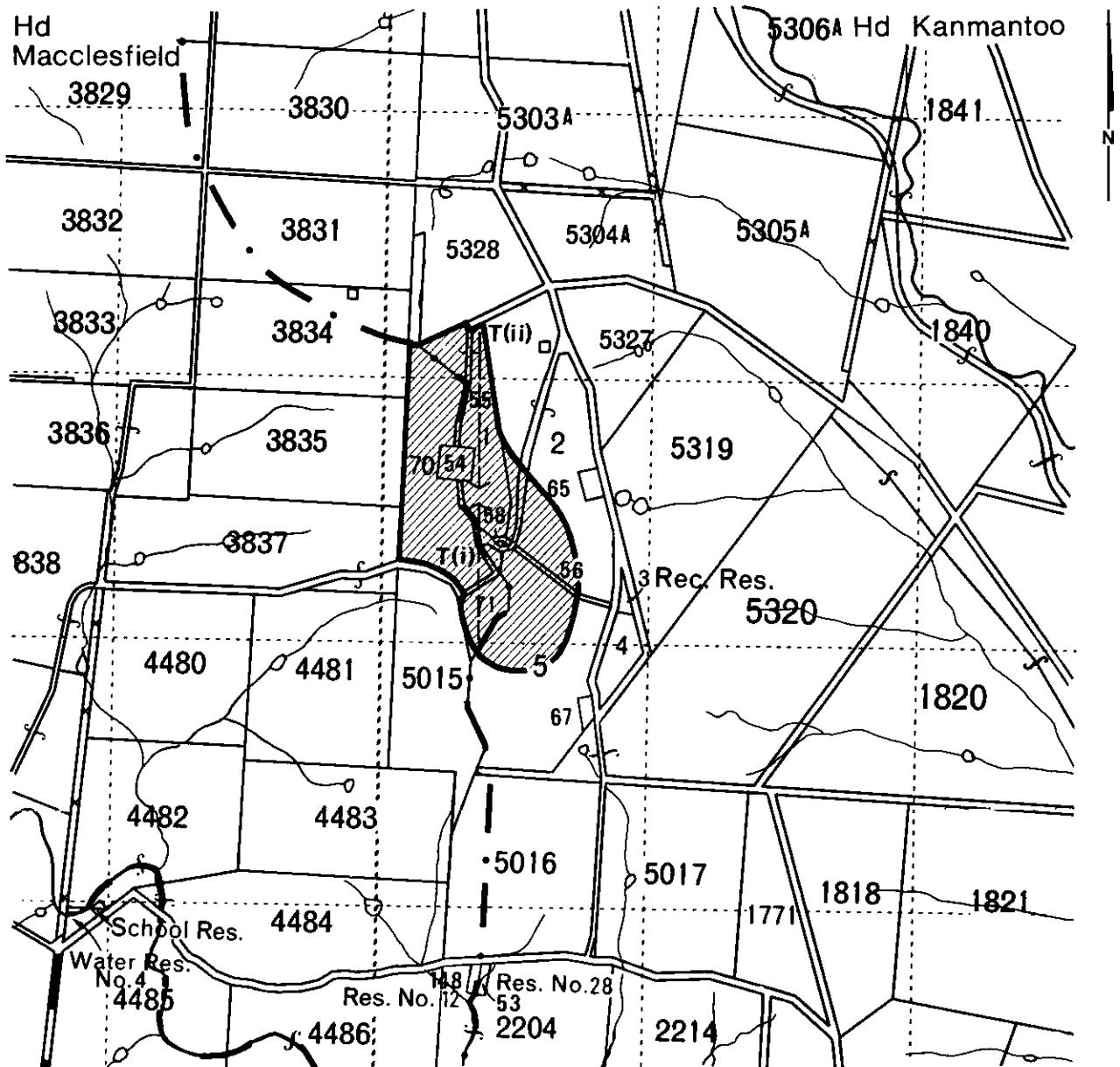
Several vehicular tracks, a walking track around the summit and a car parking area occur at this site. Section 5 is grazed by cattle and the native ground cover plants here have been largely removed. A small area of **Ulex europaeus* occurs in Section 5, while occasional plants of **Asclepias rotundifolia*, and introduced grasses and herbs occur throughout. Many dead eucalypts of the tree layer (> 8m) are evident.

General:

Black (1943-1957) indicates the presence at Mt. Barker of *Prostanthera eurybioides* and *Boronia edwardsii* which are, respectively, rare and depleted plants in South Australia (Specht *et al*, 1974).

This site represents one of the few areas of natural vegetation in a relatively unmodified condition, remaining in the hundreds of Kanmantoo and Macclesfield. More particularly it is a remnant patch of woodland which once covered the fertile soils of the eastern side of the Mt. Lofty Ranges.

The summit of Mt. Barker offers 360° panoramic views and is a prominent landmark of the district.



Reference
Echunga 1:50 000 6627-1
105E-175N AMG
65 hectares

SCALE 1 : 25 000
0 1000 metres

Site 12

HD MACCLESFIELD

Sections 70, 71

HD KANMANTOO

Pt Sections 2, 5

SITE 12 - Transect (1) - Proceeding south towards Mt Barker summit on west-facing slope

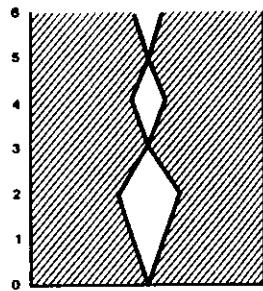
| | Nos in Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|--------------------|---------------------|-------------|------------|--------------|------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Casuarina stricta</i> | 2 | 3.5 | 9.7 | 7.7 | 34.0 | 4.3 | 0.10 | 11.1 | 23.1 |
| <i>Eucalyptus huberana</i> | 24 | 6.5 | 116.3 | 92.3 | 756.0 | 95.7 | 0.80 | 88.9 | 276.9 |
| Totals | 26 | | 126 | | 790 | | | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | | |
| <i>Acacia paradoxa</i> | 4 | 3.0 | 79.2 | 10.3 | 237.6 | 24.1 | 0.40 | 16.7 | 51.1 |
| <i>A. pycnantha</i> | 10 | 1.0 | 196.9 | 25.6 | 196.9 | 19.9 | 0.60 | 25.0 | 70.5 |
| <i>Banksia marginata</i> | 16 | 1.0 | 315.3 | 41.0 | 315.3 | 31.9 | 0.70 | 29.2 | 102.1 |
| <i>Casuarina stricta</i> | 3 | 1.0 | 59.2 | 7.7 | 59.2 | 6.0 | 0.30 | 12.5 | 26.2 |
| <i>Eucalyptus huberana</i> | 6 | 1.5 | 118.4 | 15.4 | 177.6 | 18.0 | 0.40 | 16.7 | 50.1 |
| <i>Exocarpos cupressiformis</i> | P | - | - | - | - | - | - | - | - |
| Totals | 39 | | 769 | | 987.0 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia paradoxa</i> | 2 | 0.3 | 125.6 | 5.0 | 37.7 | 8.3 | 0.20 | 9.1 | 22.4 |
| <i>A. pycnantha</i> | 2 | 0.04 | 125.6 | 5.0 | 5.0 | 1.1 | 0.20 | 9.1 | 15.2 |
| <i>Banksia marginata</i> | 9 | 0.04 | 565.2 | 22.5 | 22.6 | 5.0 | 0.40 | 18.2 | 45.7 |
| <i>Casuarina stricta</i> | 1 | 0.01 | 62.8 | 2.5 | 0.6 | 0.1 | 0.10 | 4.5 | 7.1 |
| <i>Correa schlechtendalii</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus huberana</i> | 1 | 0.05 | 62.8 | 2.5 | 3.1 | 0.7 | 0.10 | 4.5 | 7.7 |
| <i>Olearia ramulosa</i> | 18 | 0.25 | 1130.4 | 45.0 | 282.6 | 62.2 | 0.70 | 31.8 | 139.0 |
| <i>*Rubus fruticosus</i> | P | - | - | - | - | - | - | - | - |
| <i>Senecio biserratus</i> | 2 | 0.02 | 125.6 | 5.0 | 2.5 | 0.5 | 0.10 | 4.5 | 10.0 |
| <i>Senecio lautus</i> | 3 | 0.20 | 188.4 | 7.5 | 37.7 | 8.3 | 0.20 | 9.1 | 24.9 |
| <i>*Ulex europaeus</i> | 1 | 0.25 | 62.8 | 2.5 | 15.7 | 3.5 | 0.10 | 4.5 | 10.5 |
| <i>Xanthorrhoea quadrangulata</i> | 1 | 0.75 | 62.8 | 2.5 | 47.1 | 10.4 | 0.10 | 4.5 | 17.4 |
| Totals | 40 | | 2512 | | 454.6 | | | | |

Small shrubs (< 0.25m) herbs, climbers, ferns, grasses

Astroloma humifusum
Billardiera sericeophora
Cheilanthes tenuifolia
Hardenbergia violacea
Hibbertia sericea
Kemedia prostrata
 POACEAE (mostly introduced species)
Scaevola albida

Perennial, grass-like plants

Dianella revoluta

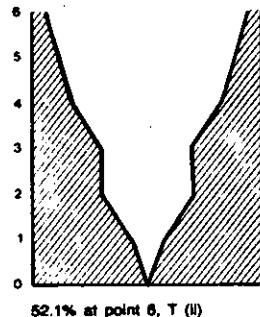
Density measurements

SITE 12 - Transect (ii) - Proceeding north along east-facing slope of Mt Barker

| | Nos in Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|-------------------------------------|--------------------|---------------------|-------------|------------|--------------|------------|-------|--------------|---------------|
| Tráes > 8m | | | | | | | | | |
| <i>Casuarina stricta</i> | 11 | 3.0 | 16.0 | 25.0 | 48.0 | 17.7 | 0.40 | 26.7 | 69.4 |
| <i>Eucalyptus huberana</i> | 19 | 4.0 | 27.6 | 43.2 | 110.4 | 40.8 | 0.60 | 40.0 | 124.0 |
| <i>E. leucoxylon</i> | 14 | 5.5 | 20.4 | 31.8 | 112.2 | 41.5 | 0.50 | 33.3 | 106.6 |
| Totals | 44 | | 64 | | 270.6 | | | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 37 | 0.40 | 384.3 | 46.3 | 153.8 | 23.8 | 0.80 | 43.2 | 113.3 |
| <i>Bursaria spinosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Casuarina stricta</i> | 35 | 1.0 | 363.5 | 43.8 | 363.5 | 56.4 | 0.70 | 37.8 | 138.0 |
| <i>Eucalyptus huberana</i> | 1 | 1.0 | 10.8 | 1.3 | 10.8 | 1.7 | 0.05 | 2.7 | 5.7 |
| <i>E. leucoxylon</i> | 1 | 4.0 | 10.8 | 1.3 | 43.2 | 6.7 | 0.05 | 2.7 | 10.7 |
| <i>Exocarpus cupressiformis</i> | 4 | 1.40 | 41.5 | 5.0 | 58.1 | 9.0 | 0.15 | 8.1 | 22.1 |
| <i>Xanthorrhoea quadrangulata</i> | 2 | 0.75 | 20.8 | 2.5 | 15.6 | 2.4 | 0.10 | 5.4 | 10.4 |
| Totals | 80 | | 830 | | 645.0 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia paradoxa</i> | P | - | - | - | - | - | - | - | - |
| <i>A. pycnantha</i> | 14 | 0.02 | 539 | 17.5 | 10.8 | 2.6 | 0.5 | 23.3 | 43.4 |
| <i>*Asclepias rotundifolia</i> | P | - | - | - | - | - | - | - | - |
| <i>Casuarina stricta</i> | 2 | 0.25 | 77 | 2.5 | 19.3 | 4.2 | 0.10 | 4.7 | 11.4 |
| <i>Correa schlechtendalii</i> | P | - | - | - | - | - | - | - | - |
| <i>Dianella revoluta</i> | 1 | 0.10 | 40.0 | 1.3 | 4.0 | 0.9 | 0.05 | 2.3 | 4.5 |
| <i>Dodonaea viscosa</i> | P | - | - | - | - | - | - | - | - |
| <i>Exocarpus cupressiformis</i> | 1 | 0.05 | 40 | 1.3 | 2.0 | 0.4 | 0.05 | 2.3 | 4.0 |
| <i>Gonocarpus elatus</i> | 5 | 0.02 | 194 | 6.3 | 3.9 | 0.8 | 0.20 | 9.3 | 16.4 |
| <i>Hybanthus floribundus</i> | P | - | - | - | - | - | - | - | - |
| <i>Lepidosperma viscidum</i> | 1 | 0.50 | 40 | 1.3 | 20.0 | 4.3 | 0.05 | 2.3 | 7.9 |
| <i>L. semiteres</i> | P | - | - | - | - | - | - | - | - |
| <i>Leptospermum myrsinoides</i> | P | - | - | - | - | - | - | - | - |
| <i>Olearia ramulosa</i> | 49 | 0.15 | 1888 | 61.3 | 283.2 | 61.2 | 0.90 | 41.9 | 164.4 |
| <i>Senecio lautus</i> | 1 | 0.10 | 40 | 1.3 | 4.0 | 0.9 | 0.05 | 2.3 | 4.5 |
| <i>*S. pterophorus</i> | P | - | - | - | - | - | - | - | - |
| <i>Xanthorrhoea quadrangulata</i> | 6 | 0.50 | 231 | 7.5 | 115.5 | 25.0 | 0.25 | 11.6 | 44.1 |
| Total | 80 | | 3080 | | 462.7 | | | | |

Small shrubs (< 0.25m) herbs, ferns, grasses, climbers

Astroloma humifusum
Cheilanthes tenuifolia
Convolvulus erubescens
Haloragis sp.
Hibbertia sericea
H. stricta
Kennedia prostrata
POACEAE (mostly introduced species)

Density measurementsPerennial, grass-like plants

Lomandra dura
Themeda australis

Plants present at site but not recorded in either transect

Trees > 8m

Eucalyptus camaldulensis

Small shrubs, (< 0.25m) herbs, climbers grasses

Acaena sp.
**Briza sp.*
Burchardia umbellata
Ranunculus sp.
Scaevola albida
Wahlenbergia sp.
Viola sp.

FAUNABirds

| | |
|-------------------------|-----------------------------------|
| Adelaide Rosella | Tree Martin |
| New Holland Honeyeater | Silveryeye |
| Grey Fantail | Dusky Woodswallow |
| Striated Pardalote | Purple-crowned Lorikeet |
| Blue Wren | Kookaburra |
| Golden Whistler | Raven |
| Grey Thrush | Brown Goshawk |
| Scarlet Robin | Sitella |
| Yellow-tailed Thornbill | White-naped Honeyeater |
| Magpie | White-throated Tree creeper |
| Yellow-faced Honeyeater | Buff-tailed (or Little) Thornbill |
| Red-brown Finch | |
| White-browed Babbler | |
| Red Wattle-bird | |
| Blackbird | |

MammalsFoxes

Echidna - evidence of digging in ants' nest

PHOTOGRAPHS

| | | |
|--------------|------|-----------------------------------|
| C/6627-I/BS/ | 1-1 | Reference board |
| | 1-2 | <i>Xanthorrhoea quadrangulata</i> |
| | 1-3 | <i>Xanthorrhoea quadrangulata</i> |
| | 1-4 | Rock outcrops (See 5) |
| | 1-5 | <i>Acacia paradoxa</i> (T(i)) |
| | 1-6 | Transect (i) |
| | 1-7 | <i>Casuarina stricta</i> |
| | 1-8 | Transect (ii) |
| | 1-9 | <i>E. leucoxylon</i> (T(ii)) |
| | 1-10 | South from summit |
| | 1-11 | <i>Dodonaea viscosa</i> |
| | 1-12 | <i>Correa schlechtendalii</i> |

5.12 Hd. Jellicoe

SITE 29

Date: 5.6.79Environmental Association: 3.2.17Physiography:

South of Keyneton, natural woodland covers a small area of gentle undulating land which ranges in elevation from 390m to 410m above sea level.

Plant Communities:

1. *Eucalyptus leucoxylon* open woodland covers this site. A sparse smaller tree layer is dominated by *E. odorata* and *Acacia pycnantha*, while young plants of the latter dominate a very sparse shrub layer. Due to heavy grazing the ground is devoid of vegetative cover.

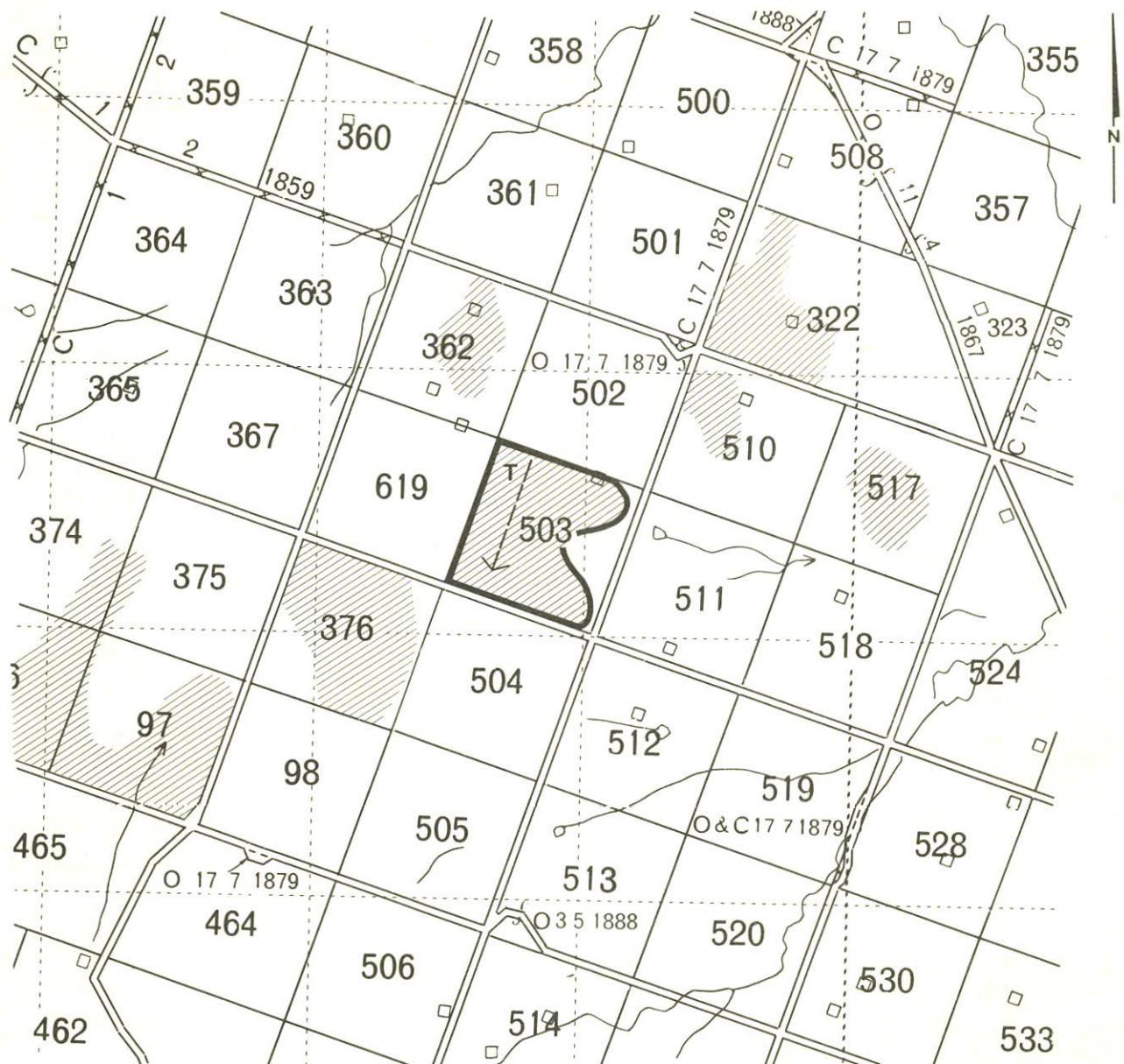
Condition:

Cattle scats, browsed shrubs and the lack of ground cover plants indicate heavy grazing by stock. Many trees (particularly *Eucalyptus odorata*) show coppice regrowth.

Several tracks traverse the site, and an area of excavation lies in the centre of the scrub.

General:

This site represents one of the few remaining areas of natural woodland with some native understorey component in the hundred of Jellicoe. Small areas of woodland without a natural understorey which are also grazed occur nearby in Section 322 (grid reference 296-733), in Section 376 (grid reference 280-720) and in Sections 96, 97 and 374 (grid reference 271-718).



Reference
Angaston 1:50 000, 6728-IV
287E-723N AMG

25 hectares

SCALE 1 : 25 000

1000 metres

Site 29

HD JELLICOE

Pt Section 503

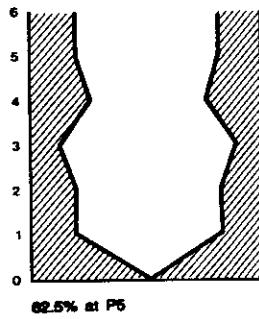
SITE 29 - Transect - through middle of scrub from north to south

| | Nos in Indiv | Ave Dom Value | Den/ Ha | Rel Den | Dom | Rel Dom | Freq. | Rel Freq. | IMPT VALUE |
|--|--------------------|---------------------|--------------|------------|---------------|------------|-------|--------------|---------------|
| Trees > 8m | | | | | | | | | |
| <i>Eucalyptus leucoxylon</i> | 49 | 7.5 | 92.3 | 94.2 | 692.3 | 92.9 | 1.0 | 87.0 | 274.1 |
| <i>E. odorata</i> | 3 | 9.3 | 5.7 | 5.8 | 53.0 | 7.1 | 0.15 | 13.0 | 25.9 |
| | Totals | 52 | 98 | | 745.3 | | | | |
| 2m < Trees/Shrubs < 8m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 40 | 0.9 | 680.6 | 76.9 | 612.5 | 53.6 | 1.0 | 59.5 | 190.0 |
| <i>Casuarina stricta</i> | P | - | - | - | - | - | - | - | - |
| <i>Eucalyptus anceps</i> | 2 | 0.38 | 33.6 | 3.8 | 12.8 | 1.1 | 0.15 | 8.9 | 13.8 |
| <i>E. leucoxylon</i> | 3 | 1.0 | 51.3 | 5.8 | 51.3 | 4.5 | 0.15 | 8.9 | 19.2 |
| <i>E. odorata</i> | 7 | 3.9 | 119.5 | 13.5 | 466.1 | 40.8 | 0.38 | 22.6 | 76.9 |
| | Totals | 52 | 885 | | 1142.7 | | | | |
| 0.25m < Shrubs < 2m | | | | | | | | | |
| <i>Acacia pycnantha</i> | 43 | 0.1 | 574.3 | 82.7 | 57.4 | 50.8 | 1.0 | 68.5 | 202.0 |
| <i>Bursaria spinosa</i> | 4 | 0.04 | 53.5 | 7.7 | 2.1 | 1.9 | 0.23 | 15.8 | 25.4 |
| <i>Eucalyptus odorata</i> | 4 | 0.53 | 53.5 | 7.7 | 28.4 | 25.1 | 0.15 | 10.3 | 43.1 |
| <i>Pimelea stricta</i> | 1 | 0.04 | 13.2 | 1.9 | 25.1 | 22.2 | 0.08 | 5.5 | 29.6 |
| <i>Pultenaea largiflora</i> var. <i>latifolia</i> | P | - | - | - | - | - | - | - | - |
| | Totals | 57 | 694.4 | | 113.0 | | | | |

Small shrubs (< 0.25m) herbs, climbers, ferns

Astroloma humifusum
Cassytha sp.
Chileanthes tenuifolia
Clematis microphylla
Drosera sp.

Goodenia primulacea
Haloragis sp.
Hibbertia emodioides

Density measurementFAUNA

Birds
Adelaide Rosella
White-plumed Honeyeater
Brown Tree-creeper
Striated Pardalote
Quail
Musk Lorikeet
Raven
Red-rumped Parrot

Spiders

Nephila sp.

PHOTOGRAPHS

| | | |
|---------------|-----|-------------------------------|
| C/6728-IV/BS/ | 1-1 | Reference Board |
| | 1-2 | General view of open woodland |
| | 1-3 | <i>Eucalyptus odorata</i> |
| | 1-4 | <i>E. odorata</i> |
| | 1-5 | <i>E. leucoxylon</i> |
| | 1-6 | Bare ground cover |

6. SITE EVALUATION

As stated in 4.3 above, a system has been developed to attempt to remove subjectivity from the evaluation of these remnant vegetation areas, or, at least to indicate the assumptions made.

Factors which are considered to attribute to (i.e. diversity, habitat, uniqueness, biogeographical significance) or detract from (i.e. modification) the scientific integrity of the native vegetation are detailed and weighted according to their significance in Table 6.1. Items A-G relate to individual plant associations within a site area. This information is combined with items H-S to give a numerical value for each site. Table 6.2 lists a numerical score for each site.

Table 6.1 Criteria and Weighting for the Evaluation of Remnant Native Vegetation Areas

| ITEM | WEIGHTING | CATEGORY | COMMENT |
|------|-------------------|---|----------------------------|
| A | 3 | <u>PLANT ASSOCIATION (No.)</u> Rare or endangered plant association (Margules, 1978) | Uniqueness: |
| B | | Diversity of shrub layer (0.25m < 2m) | Diversity: |
| | 1 | 0 - 10 species | |
| | 2 | 11 - 20 species | |
| | 3 | > 20 species | |
| C | Number of Species | Rare or endangered plant species (Specht <i>et al.</i> , 1974). | Uniqueness: |
| D | | Depleted species and/or those of geographical importance (Specht <i>et al.</i> , 1974). | Uniqueness: |
| | 1 | Present | |
| | 0 | Absent | |
| E | | Dominance of shrub layer (0.25m < 2m) | Habitat for small mammals: |
| | 1 | Sparse 30% | |
| | 2 | Mid-dense 30 - 70% | |
| | 3 | Dense > 70% | |
| F | | Pest Plants | Modification: |
| | -2 | Present | |
| | 0 | Absent | |

| ITEM | WEIGHTING | CATEGORY | COMMENT |
|------|------------------------|--|--|
| G | | Other Exotic Plants | Modification: |
| -1 | Present | | |
| 0 | Absent | | Excluding pasture grasses and herbs |
| H | Number of Associations | Plant Associations | |
| I | | Size of Area | Habitat: |
| 1 | 0 - 40 ha. | | |
| 2 | 41 - 100 ha. | | |
| 3 | > 100 ha. | | |
| J | | Site as % of Total scrub within 2.5 km radius from centre of site. | Biogeographical importance: |
| 1 | 0 - 25% | | |
| 2 | 26 - 50% | | |
| 3 | > 50% | | |
| K | | Proximity to Conservation and/or Recreation Parks | Habitat: |
| 1 | Contiguous | | |
| 0 | Not contiguous | | Contiguous = 0.1 km from Park. |
| L | | Tracks > 1m wide | Modification: |
| -1 | Present | | |
| 0 | Absent | | |
| M | | Land Excavation, Buildings and Dams. | Modification: |
| -1 | Present | | |
| 0 | Absent | | Dams may, however provide habitat for Fauna species. |
| N | | Grazing | Modification: |
| -2 | Significant | | |
| -1 | Insignificant | | |
| 0 | Absent | | Evidence of numerous scats and browsed plants indicates significant grazing. |

| ITEM | WEIGHTING | CATEGORY | COMMENT |
|------|-----------|---|---|
| | 0 | Recent Logging | Modification: |
| | -1 | Present | |
| | 0 | Absent | Excluding logging for Land excavation, tracks and coppice regrowth, bearing in mind that few areas in the Mt. Lofty Ranges have escaped at least selective logging. |
| P | | Fire | Modification: |
| | -1 | Recent History | |
| | 0 | No recent history | Recent history indicated by pronounced scorching and/or epicormic regrowth. |
| Q | | Dieback | Modification: |
| | -1 | Present | |
| | 0 | Absent | e.g. Cinnamon Fungus, drought, Insect attack or other causes. |
| R | | Rubbish | Modification: |
| | -1 | Present | |
| | 0 | Absent | |
| S | | Wetland vegetation rating (see wetland evaluation) | Habitat: |
| | 1 | 0 - 10 | |
| | 2 | 11 - 20 | |
| | 3 | 20 | Nine sites were found to have relatively unmodified wetland vegetation in spring-fed swamps and waterlogged gullies. The presence of these areas is considered to enhance the value of the sites. |

Table 6.2 Numerical Evaluation of remnant native vegetation areas in the central and north-eastern Mount Lofty Ranges

| Site No. | Hd. Macclesfield | | | | Hd. Kondoparinga | | | |
|------------------------------|------------------|-------|-------|-------|------------------|-----------|-----------|----------------|
| | 13 | 17 | 24 | 33 | 34 | 35 | 38 | 45 |
| Association No. | | | | | | 1 2 | 1 2 | 1 2 3 |
| ITEM | | | | | | | | |
| A | 0 | 0 | 0 | 0 | 0 | 0 0 | 0 0 | 0 0 0 |
| B | 2 | 2 | 2 | 3 | 2 | 2 2 | 3 1 | 3 3 3 |
| C | 0 | 0 | 1 | 0 | 1 | 1 1 | 0 1 | 0 0 0 |
| D | 1 | 1 | 1 | 1 | 1 | 1 1 | 1 0 | 1 1 1 |
| E | 1 | 2 | 1 | 1 | 1 | 1 2 | 3 1 | 1 1 2 |
| F | -2 | -2 | -2 | -2 | -2 | -2 0 | -2 -2 | 0 0 0 |
| G | -1 | -1 | -1 | 0 | -1 | -1 -1 | -1 -1 | 0 -1 0 |
| Total for Plant Associations | 1 - 1 | 2 - 2 | 2 - 2 | 3 - 3 | 2 - 2 | 2 + 5 - 7 | 4 + 0 = 4 | 5 + 4 + 6 = 15 |
| H | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 3 |
| I | 2 | 2 | 2 | 1 | 1 | 2 | 3 | 3 |
| J | 3 | 3 | 2 | 2 | 1 | 1 | 3 | 3 |
| K | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 |
| L | -1 | -1 | 0 | -1 | -1 | -1 | -1 | -1 |
| M | -1 | 0 | 0 | 0 | -1 | 0 | -1 | -1 |
| N | -2 | -2 | -1 | 0 | -2 | -1 | -1 | 0 |
| O | -1 | -1 | 0 | 0 | 0 | -1 | -1 | 0 |
| P | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Q | 0 | -1 | 0 | 0 | 0 | 0 | 0 | 0 |
| R | -1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| S | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| TOTAL FOR SITE | 1 | 4 | 6 | 6 | 1 | 10 | 8 | 22 |

| Site No. | Hd. Myponga | Hd. Kuitpo | | | | | |
|------------------------------------|-------------|------------|-------|-------|-----------|-------|--------------------|
| | 43 | 18 | 22 | 23 | 36 | 37 | 41 |
| Association No. | | | | | 1 2 | | 1 2 3 4 |
| ITEM | | | | | | | |
| A | 0 | 0 | 0 | 0 | 0 0 | 0 | 0 3 0 0 |
| B | 2 | 3 | 2 | 2 | 3 2 | 3 | 2 2 2 3 |
| C | 0 | 1 | 1 | 0 | 1 0 | 2 | 1 2 1 1 |
| D | 1 | 1 | 1 | 1 | 1 1 | 1 | 1 1 1 1 |
| E | 1 | 2 | 2 | 2 | 2 1 | 2 | 1 2 1 3 |
| F | -2 | -2 | -2 | -2 | 0 -2 | -2 | -2 -2 -2 0 |
| G | -1 | -1 | -1 | 0 | -1 -1 | -1 | -1 -1 -1 0 |
| Total for Plant Associations | 1 = 1 | 4 = 4 | 3 = 3 | 3 = 3 | 6 + 1 = 7 | 5 - 5 | 2 + 7 + 2 + 8 - 19 |
| H | 1 | 1 | 1 | 1 | 2 | 1 | 4 |
| I | 1 | 1 | 2 | 1 | 2 | 2 | 3 |
| J | 2 | 2 | 3 | 2 | 2 | 1 | 2 |
| K | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| L | -1 | 0 | -1 | 0 | -1 | -1 | -1 |
| M | -1 | 0 | 0 | 0 | 0 | 0 | -1 |
| N | -2 | -2 | -2 | -1 | -1 | -1 | -1 |
| O | 0 | -1 | -1 | 0 | 0 | 0 | 0 |
| P | 0 | -1 | 0 | 0 | 0 | 0 | 0 |
| Q | 0 | 0 | 0 | 0 | -1 | -1 | 0 |
| R | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| S | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
| TOTAL FOR SITE | 1 | 4 | 5 | 6 | 10 | 9 | 26 |

| Site No. | Hd. Kuitpo | Hd. Willunga | Hd. Para Wirra | | Hd. Talunga |
|------------------------------------|----------------|--------------|----------------|-------|-------------|
| | 42 | 26 | 30 | 31 | 32 |
| Association No. | 1 2 3 | 1 2 | | | 1 2 |
| ITEM | | | | | |
| A | 0 3 0 | 3 0 | 0 | 0 | 0 3 |
| B | 2 2 2 | 2 3 | 2 | 3 | 1 1 |
| C | 2 0 0 | 1 1 | 0 | 0 | 0 0 |
| D | 1 1 1 | 1 1 | 1 | 1 | 0 1 |
| E | 2 2 3 | 1 1 | 2 | 1 | 1 1 |
| F | -2 -2 0 | -2 0 | 0 | -2 | 0 -2 |
| G | 0 -1 0 | -1 -1 | 0 | -1 | 0 0 |
| Total for Plant Associations | 5 + 5 + 6 = 16 | 5 + 5 = 10 | 5 = 5 | 2 = 2 | 2 + 4 = 6 |
| H | 3 | 2 | 1 | 1 | 2 |
| I | 2 | 3 | 2 | 3 | 1 |
| J | 2 | 3 | 2 | 3 | 2 |
| K | 0 | 0 | 0 | 0 | 0 |
| L | -1 | -1 | 0 | -1 | -1 |
| M | -1 | -1 | -1 | -1 | 0 |
| N | -2 | -1 | 0 | -1 | -2 |
| O | 0 | 0 | -1 | 0 | 0 |
| P | 0 | 0 | 0 | 0 | 0 |
| Q | 0 | -1 | 0 | 0 | 0 |
| R | 0 | -1 | 0 | 0 | -1 |
| S | 0 | 0 | 0 | 0 | 0 |
| TOTAL FOR SITE | 19 | 13 | 8 | 6 | 7 |

| Site No. | Hd. Noarlunga | | | | | | | | | | | |
|------------------------------|---------------|----|----|---|-------------------|-----------|-----------|------------------------|------------------------|------------------------|------------------------|------------------------|
| | 4 | | 9 | | 10 | | 11 | | | 19 | | |
| Association No. | 1 | 2 | 3 | 4 | 1 | 2 | 1 | 2 | 3 | 4 | 5 | |
| ITEM | | | | | | | | | | | | |
| A | 0 | 0 | 0 | - | 0 | 0 | 0 | 0 | 0 | - | - | 0 |
| B | 2 | 3 | 3 | - | 2 | 2 | 2 | 2 | 3 | - | 3 | - |
| C | 0 | 0 | 0 | - | 1 | 1 | 1 | 2 | 0 | - | 1 | - |
| D | 1 | 1 | 1 | - | 1 | 1 | 1 | 1 | 1 | - | 1 | - |
| E | 1 | 2 | 2 | - | 3 | 2 | 3 | 1 | 3 | - | 3 | - |
| F | -2 | -2 | -2 | - | -2 | -2 | -2 | 0 | -2 | - | 0 | - |
| G | -1 | 0 | 0 | - | -1 | -1 | -1 | -1 | -1 | - | 0 | - |
| Total for Plant Associations | | | | | 1 + 4 + 4 + - = 9 | 4 + 3 = 7 | 4 + 5 = 9 | 4 + - + 8 + - + - = 12 | 4 + - + 8 + - + - = 12 | 4 + - + 8 + - + - = 12 | 4 + - + 8 + - + - = 12 | 4 + - + 8 + - + - = 12 |
| H | | | | | 4 | 2 | 2 | | | 5 | 1 | |
| I | | | | | 3 | 3 | 2 | | | 3 | 2 | |
| J | | | | | 2 | 2 | 2 | | | 3 | 2 | |
| K | | | | | 0 | 1 | 1 | | | 0 | 0 | |
| L | | | | | -1 | -1 | 0 | | | -1 | -1 | |
| M | | | | | 0 | 0 | 0 | | | 0 | -1 | |
| N | | | | | -1 | 0 | -2 | | | 0 | 0 | |
| O | | | | | 0 | 0 | 0 | | | 0 | 0 | |
| P | | | | | 0 | 0 | 0 | | | 0 | 0 | |
| Q | | | | | -1 | 0 | 0 | | | 0 | 0 | |
| R | | | | | 0 | 0 | 0 | | | -1 | 0 | |
| S | | | | | 1 | 0 | 1 | | | 2 | 0 | |
| TOTAL FOR SITE | | | | | 16 | 14 | 15 | | | 23 | 7 | |

| Site No. | Hd. Noarlunga | | | | | Hd. Onkaparinga | | | | | | | | |
|------------------------------|---------------|----|----|---|---|------------------------|-------|-----------|------------|---------------------|----|---|----|----|
| | 25 | | | | | 5 | 6 | 7 | 8 | | | | | |
| Association No. | 1 | 2 | 3 | 4 | 5 | 1 | 2 | 1 | 2 | 1 | 2 | 3 | 4 | |
| ITEM | | | | | | | | | | | | | | |
| A | 0 | 3 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | - | 0 | - | - |
| B | 2 | 2 | 3 | 3 | 3 | 2 | 1 | 2 | 2 | 2 | 3 | - | 2 | - |
| C | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 0 | 3 | 1 | 1 | - | 0 | - |
| D | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | - | 1 | - |
| E | 3 | 1 | 2 | 1 | 3 | 1 | 3 | 2 | 3 | 3 | 2 | - | 1 | - |
| F | -2 | -2 | -2 | 0 | 0 | -2 | -2 | 0 | -2 | 0 | -2 | - | -2 | - |
| G | -1 | -1 | -1 | 0 | 0 | 0 | 0 | -1 | -1 | -1 | -1 | - | -1 | - |
| Total for Plant Associations | | | | | | 4 + 4 + 4 + 6 + 7 = 25 | 3 = 3 | 3 + 5 = 8 | 6 + 6 = 12 | 4 + - + 1 + - - = 5 | | | | |
| H | | | | | | 5 | 1 | 2 | 2 | | | | | 4 |
| I | | | | | | 3 | 1 | 3 | 3 | | | | | 2 |
| J | | | | | | 1 | 3 | 3 | 3 | | | | | 2 |
| K | | | | | | 1 | 0 | 0 | 0 | | | | | 0 |
| L | | | | | | -1 | 0 | -1 | -1 | | | | | -1 |
| M | | | | | | -1 | 0 | -1 | -1 | | | | | -1 |
| N | | | | | | -2 | -1 | 0 | 0 | | | | | 0 |
| O | | | | | | 0 | 0 | 0 | 0 | | | | | 0 |
| P | | | | | | 0 | 0 | -1 | -1 | | | | | 0 |
| Q | | | | | | 0 | 0 | 0 | -1 | | | | | 0 |
| R | | | | | | -1 | 0 | 0 | -1 | | | | | 0 |
| S | | | | | | 0 | 0 | 0 | 2 | | | | | 0 |
| TOTAL FOR SITE | | | | | | 30 | 7 | 13 | 17 | | | | | 11 |

| | Hd. Tungkillo | Hd. Kanmantoo | | Hd. Jellicoe | |
|------------------------------------|---------------|---------------|-------|--------------|--|
| Site No. | 2 | 1 | 12 | 29 | |
| Association No. | | | 1 2 | | |
| ITEM | | | | | |
| A | 0 | 0 | 0 - | 3 | |
| B | 1 | 1 | 3 - | 1 | |
| C | 0 | 0 | 1 - | 0 | |
| D | 1 | 0 | 1 - | 0 | |
| E | 1 | 1 | 1 - | 1 | |
| F | 0 | -2 | -2 - | 0 | |
| G | -1 | -1 | -1 - | 0 | |
| Total for Plant Associations | 2 2 | -1 -1 | 3 - 3 | 5 5 | |
| H | 1 | 1 | 2 | 1 | |
| I | 2 | 1 | 2 | 1 | |
| J | 3 | 3 | 3 | 2 | |
| K | 0 | 0 | 0 | 0 | |
| L | -1 | 0 | -1 | -1 | |
| M | 0 | 0 | -1 | -1 | |
| N | -1 | -1 | -1 | -2 | |
| O | 0 | 0 | 0 | 0 | |
| P | 0 | 0 | 0 | 0 | |
| Q | 0 | 0 | 0 | 0 | |
| R | 0 | 0 | 0 | 0 | |
| S | 0 | 0 | 0 | 0 | |
| TOTAL FOR SITE | 6 | 3 | 7 | 5 | |

7. WETLAND EVALUATION

For the purpose of this study, wetlands have been defined as permanently waterlogged areas which have a significant component of natural vegetation. This excludes those areas which have been largely cleared of natural vegetation for agricultural purposes and/or choked with blackberry (*Rubus fruticosus*). These latter areas are considered to have limited scientific value.

Wetland areas were found in several sites associated with other vegetation and occur as a single community at site 44, Hd. Myponga. The vegetation along the banks of the Finniss River and Blackfellow and Meadows Creeks (sites 35, 41, and 42 respectively) has been assessed quantitatively and evaluated with other plant associations of those sites.

Wetland vegetation at the following sites was confined to waterlogged gullies and spring-fed swamps.

- . Site 37, Hd. Kuitpo
- . Site 44, Hd. Myponga
- . Sites 4, 10 and 11, Hd. Noarlunga
- . Sites 7, 15 and 28, Hd. Onkaparinga

These areas were evaluated for their significance by the categories listed in Table 7.1. The results of this evaluation are shown in Table 7.2. These values (excluding site 44) are included in category S, Table 6.1, as part of the total site evaluation.

Table 7.1 Criteria and Weighting for the Evaluation of Wetland Areas

| ITEM | CATEGORY | WEIGHTING |
|-------|--|---------------------------------|
| A | Diversity: Number of plant species (including ferns but excluding annual herbs and grasses) | Number of species |
| B | Uniqueness: Rare or endangered plant species | Number of species |
| C | Uniqueness: peat swamp. This vegetation complex is poorly conserved in the Mount Lofty Ranges. | 5 |
| D | Modification: presence of pest plants. | minus the number of species. |
| TOTAL | | |

Table 7.2 Numerical Evaluation of Wetland Areas in the Central and North-Eastern Mount Lofty Ranges

| ITEM | SITE | | | | | | | |
|-------|------|----|----|----|----|----|----|----|
| | 15 | 44 | 37 | 28 | 11 | 7 | 10 | 4 |
| A | 21 | 13 | 15 | 15 | 16 | 13 | 10 | 9 |
| B | 3 | 2 | 2 | 2 | 0 | 1 | 1 | 0 |
| C | 0 | 5 | 0 | 0 | 0 | 0 | 0 | 0 |
| D | -1 | -1 | -2 | -3 | -3 | -3 | -1 | -1 |
| TOTAL | 23 | 19 | 15 | 14 | 13 | 11 | 10 | 8 |

8. SUMMARY AND RECOMMENDATIONS

Forty-one remnant vegetation areas in the central and north-eastern Mount Lofty Ranges have been surveyed and evaluated for their scientific significance. A numerical value has been obtained for each site. Table 8.1 summarizes these values and ranks the sites according to their significance.

Table 8.1 Significance Ranking of Remnant Vegetation Areas in the Central and North-Eastern Mount Lofty Ranges

| SITE | HUNDRED | RATING 1 = Low | RANKING 1 = High |
|------|--------------|-------------------|---------------------|
| 25 | Noarlunga | 30 | 1 |
| 41 | Kuitpo | 26 | 2 |
| 11 | Noarlunga | 23 | 3 |
| 45 | Kondoparinga | 22 | 4= |
| 15 | Onkaparinga | 22 | 4= |
| 42 | Kuitpo | 19 | 6 |
| 7 | Onkaparinga | 17 | 7 |
| 4 | Noarlunga | 16 | 8 |
| 10 | Noarlunga | 15 | 9 |
| 9 | Noarlunga | 14 | 10 |
| 26 | Willunga | 13 | 11= |
| 6 | Onkaparinga | 13 | 11= |
| 8 | Onkaparinga | 11 | 13 |
| 35 | Kondoparinga | 10 | 14= |
| 36 | Kuitpo | 10 | 14= |
| 37 | Kuitpo | 9 | 16 |
| 30 | Para Wirra | 8 | 17= |
| 38 | Kondoparinga | 8 | 17= |
| 32 | Talunga | 7 | 19= |
| 12 | Kanmantoo | 7 | 19= |
| 20 | Onkaparinga | 7 | 19= |
| 5 | Onkaparinga | 7 | 19= |
| 19 | Noarlunga | 7 | 19= |

| SITE | HUNDRED | RATING 1 = Low | RANKING 1 = High |
|------|--------------|-------------------|---------------------|
| 31 | Para Wirra | 6 | 24 |
| 33 | Kondoparinga | 6 | 24 |
| 24 | Macclesfield | 6 | 24 |
| 2 | Tungkillo | 6 | 24 |
| 23 | Kuitpo | 6 | 24 |
| 21 | Onkaparinga | 6 | 24 |
| 22 | Kuitpo | 5 | 30= |
| 29 | Jellicoe | 5 | 30= |
| 16 | Onkaparinga | 5 | 30= |
| 27 | Onkaparinga | 5 | 30= |
| 17 | Macclesfield | 4 | 34= |
| 18 | Kuitpo | 4 | 34= |
| 14 | Onkaparinga | 4 | 34= |
| 28 | Onkaparinga | 4 | 34= |
| 1 | Kanmantoo | 3 | 38 |
| 13 | Macclesfield | 1 | 39= |
| 34 | Kondoparinga | 1 | 39= |
| 43 | Myponga | 1 | 39= |

Although it would be desirable to retain many of these sites in their entirety, it is accepted that this may be unrealistic. However, it is recommended that highly ranked areas receive conservation priority. Similarly, priority should be given to the retention of associations with a high rating within each site (see Table 7.2).

It is also recommended that specific attention be given to the five areas ranked 1 - 4. These warrant particular consideration for acquisition and incorporation within the State parks and reserves systems, being sites characterized by a relatively large size (greater than 100 ha) and diversity of plants and plant communities.

APPENDIX 1

SURVEY TECHNIQUE

Quantitative Vegetation Assessments

Method:

Quantitative data was collected by use of the "point-centred quarter" plotless sampling technique (Mueller-Dombois, 1974).

1. Study Area

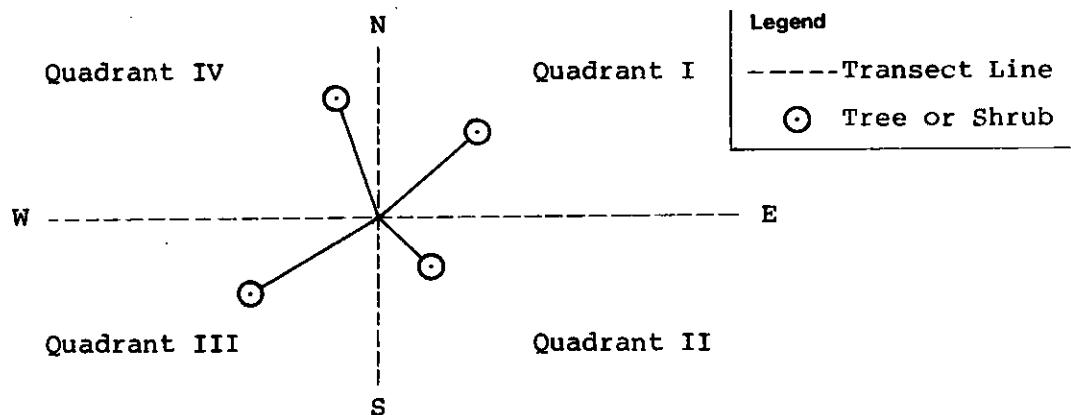
The boundaries of a particular plant community were determined by using aerial photographs and inspection of the site. From a starting point a transect was then carried out along a compass bearing through the middle of the community.

2. Sampling Points

Sampling points (approx 20) were located at either 20 or 30 pace (approximately 20m or 30m) intervals, depending upon the density of trees and the area covered by the plant association.

3. Sampling Procedure

During the initial examination of each site, the number of strata (e.g. trees, small trees, shrubs, ground cover plants) was determined. At each sampling point the distance to the mid-point of the nearest individual of each layer (excluding ground cover plants) was measured in each of four quadrants.



The height and cover area for each of those individuals was also recorded.

(Dominance is expressed in $m^2/10\ 000m^2$ and thus percentage cover can be determined.) Initially two layers were described (trees > 3m, 0.25m < shrubs < 3m), but later a closer examination of the layers was undertaken, and three strata were invariably isolated (i.e. trees, small trees/tall shrubs, shrubs). The stratification was allied as closely as possible to Raunkiaer (1934), but occasionally, because of the need to record an individual in each quadrant or such factors as secondary succession, the dimensions of the various life forms differed from the standard classes.

| e.g. | <u>Raunkiaer's Life Form</u> | <u>Observed Life Form</u> |
|------|--------------------------------------|---------------------------|
| | Trees > 8m | Small trees > 3m |
| | 2m < Small trees/tall shrubs < 8m | 0.25m < shrubs < 3m |
| | 0.25m < Shrubs < 2m | Ground cover plants |
| | Ground cover plants | |

Strata species are listed for each transect and include those for which no data was collected but which were observed in the particular plant association. Ground cover plants (shrubs < 0.25m, herbs, grasses, ferns and climbers) and perennial grass-like plants, which did not appear as shrubs over 0.25m in the transect, are also listed.

Vegetation associated with wetland areas is listed as a separate category.

Density Reading:

A board (6' x 4" x 1/2") with numbered one foot intervals (1-6) was used to assess density of the understorey. With the stick at a fixed point, readings were taken at a distance of twenty metres at eight compass bearings (i.e. N, N-W, W etc.) and the numbers observed were recorded at each bearing.

Results:

Parameters obtained from the method are:

1. Species
2. Density (from mean distance)
3. Cover area (and therefore dominance)
4. Frequency (as the occurrence of a species at a sampling point)

From these absolute values, the relative density, relative dominance, and relative frequency of the components of each layer can be calculated by the following procedure, using species Y as an example:

$$\text{Average Dominance value for species Y} = D = \frac{\text{Total coverage of all individuals of species Y}}{\text{Total number of species Y sampled.}}$$

$$\text{Mean Area/Plant} = M = \frac{\text{Total point-plant distance for all individuals of all species at all points}}{\text{Total number of individuals sampled.}}^2$$

$$\text{Density/hectare of all individuals of all species} = A = \frac{10\ 000}{M}$$

$$\text{Relative density of species Y} = \frac{\text{Total number of species Y sampled}}{\text{Total number of individuals sampled}} \times \frac{100}{1}$$

$$\text{Density of species Y} = B = A \times \frac{\text{Relative density of species Y}}{100}$$

$$\text{Dominance of species Y} = E = B \times D$$

$$\text{Relative Dominance} = \frac{E}{\text{Total dominance for all species}} \times \frac{100}{1}$$

$$\text{Frequency of species Y} = F = \frac{\text{Number of sampling points at which species Y occurs}}{\text{Total no of sampling points}}$$

$$\text{Relative frequency} = \frac{F}{\text{Total frequency Values of all species}} \times \frac{100}{1}$$

$$\text{Importance Value} = \frac{\text{Relative Dominance} + \text{Relative Density} + \text{Relative Frequency}}{3}$$

Discussion:

The importance value is a relative measure and is consequently of limited information value. Both densely vegetated and sparsely vegetated areas of bushland could have the same relative densities, relative dominances and relative frequencies of a species. For this reason, modifications were made during the course of the survey to make use of the absolute value of dominance and thus described the structural formation of both canopy and understorey.

The numbers of each target point observed from the eight compass bearings were plotted on a graph.

i.e. No. 6 - observed at 3 bearings
No. 5 - observed at 2 bearings
No. 4 - observed at 3 bearings
No. 3 - observed at 1 bearings
No. 2 - observed at 0 bearings
No. 1 - observed at 0 bearings

The proportion of numbers observed (i.e. clear area) is expressed as a percentage.

$$\text{i.e. } \frac{9}{48} \times 100\%$$

Reference: Wight 1938.

X DISPOSE all Asterisks down one row!

| Species | Site no. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Incidence within survey | | | | | | | | |
|---|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|---|---|----|----|----|----|---|---|---|---|----|-------------------------|----|----|----|----|----|---|---|----|
| | 13 | 17 | 24 | 33 | 34 | 35 | 38 | 45 | 43 | 44 | 18 | 22 | 23 | 36 | 37 | 41 | 42 | 26 | 30 | 31 | 32 | 3 | 4 | 9 | 10 | 11 | 19 | 25 | 5 | 6 | 7 | 8 | 14 | 15 | 16 | 20 | 21 | 27 | 28 | 2 | 1 | 12 |
| <i>Acacia dealbata</i> | | | | | | | | | | | | | | | | | | | | | | * | | | | | | | | | | | | | | | | | 1 | | | |
| <i>A. dealbata</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| <i>A. gummifera</i> (was <i>A. vomeriformis</i>) | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 24 | | | | |
| <i>A. melanoxylon</i> | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 1 | | | | |
| <i>A. menziesii</i> | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 34 | | | | | |
| <i>A. myrtifolia</i> | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 35 | | | | | |
| <i>A. pycnantha</i> | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 12 | | | | | |
| <i>A. paradoxa</i> (was <i>A. armata</i>) | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 17 | | | | | |
| <i>A. retinodes</i> | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | |
| <i>A. rotundifolia</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | |
| <i>A. ripicola</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | | | | | |
| <i>A. spinescens</i> | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | | | | |
| <i>A. verniciflua</i> | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 11 | | | | | |
| <i>A. verticillata</i> | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 25 | | | | | |
| <i>Acaena</i> sp. | * | * | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | |
| <i>Acianthus reniformis</i> | | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 6 | | | | | |
| <i>A.</i> sp. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | |
| <i>Acrotriche affinis</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | |
| <i>A. depressa</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 13 | | | | | |
| <i>A. fasciculiflora</i> | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 31 | | | | | |
| <i>A. serrulata</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | |
| <i>Adenanthera terminalis</i> | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 16 | | | | | |
| <i>Adiantum aethiopicum</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | |
| <i>Albizia</i> sp. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | |
| <i>Agnianthus</i> sp. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | |
| <i>Amyema miquelianum</i> | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 8 | | | | | |
| * <i>Asclepias rotundifolia</i> | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | |
| * <i>Asparagus asparagoides</i> | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 7 | | | | | |
| <i>Asplenium flabellifolium</i> | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 16 | | | | | |
| <i>Astroloma conostephioideum</i> | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 35 | | | | | |
| <i>A. humifueum</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| Species | Site no. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Incidence within survey | | | | | | | |
|--|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|---|---|----|----|----|----|---|---|---|---|----|----|-------------------------|----|----|----|----|---|---|----|
| | 13 | 17 | 24 | 33 | 34 | 35 | 38 | 43 | 44 | 18 | 22 | 23 | 36 | 37 | 41 | 42 | 26 | 30 | 31 | 32 | 3 | 4 | 9 | 10 | 11 | 19 | 25 | 5 | 6 | 7 | 8 | 14 | 15 | 16 | 20 | 21 | 27 | 28 | 2 | 1 | 12 |
| <i>Correa decumbens</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| <i>C. schlechtendalii</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| <i>C. reflexa</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | | |
| <i>Craspedia uniflora</i> | * | * | | | * | | | | | * | | | | * | | | | * | | | | | | | | | | | | | | | | | | | | 8 | | | |
| * <i>Crataegus</i> sp. | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | |
| <i>Cryptandra leucophracta</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| <i>C. tomentosa</i> | | | * | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | | | |
| CYPERACEAE | | | | | | | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | |
| <i>Cyperus vaginatus</i> | | | | | | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 | | | |
| <i>Dampiera lavandulacea</i> | | | | | | | | | | | | | | * | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| <i>Daviesia brevifolia</i> | | | * | * | | | | | | | | | | * | | | * | | | | | | | | | | | | | | | | | | | | | 23 | | | |
| <i>D. ulicifolia</i> | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 1 | | | |
| <i>D. ulicifolia</i> var <i>ruscifolia</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 25 | | | |
| <i>D. virgata</i> | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 31 | | | |
| <i>Dianella revoluta</i> | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 8 | | | |
| <i>Dillwynia hispida</i> | * | | | | | | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | | |
| <i>D. sericea</i> | | | | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 | | | |
| <i>Dipodium punctatum</i> | | | | | * | * | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | | | |
| <i>Dodonaea viscosa</i> | * | | | | * | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| * <i>Dolichos lignosus</i> | | | | | | | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 22 | | | |
| <i>Drosera</i> spp. | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 21 | | | |
| <i>Epacris impressa</i> | | | * | | | | * | | | * | | * | | * | | | * | | * | | * | | * | | * | | | | | | | | | | | | | 8 | | | |
| <i>Erica</i> sp. | | | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 13 | | | |
| <i>Eriochilus cucullatus</i> | * | * | * | | | | * | * | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | * | | | |
| <i>Eucalyptus anceps</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | |
| <i>E. baxteri</i> | | | | | | | * | * | * | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | 17 | | | |
| <i>E. calycogona</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| <i>E. camaldulensis</i> | * | | | | | | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 7 | | | |
| <i>E. cosmophylla</i> | | | | | | | * | * | * | | | | | * | * | * | * | | | | | | | | | | | | | | | | | | | | | 16 | | | |
| <i>E. fasciculosa</i> | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 31 | | | |

| Species | Site no. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | Incidence within survey | | | | | | | | | | |
|-----------------------------------|----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|---|---|---|----|----|----|----|---|---|---|-------------------------|----|----|----|----|----|----|----|---|---|----|
| | 13 | 17 | 24 | 33 | 34 | 35 | 38 | 45 | 43 | 44 | 18 | 22 | 23 | 36 | 37 | 41 | 42 | 26 | 30 | 31 | 32 | 3 | 4 | 9 | 10 | 11 | 19 | 25 | 5 | 6 | 7 | 8 | 14 | 15 | 16 | 20 | 21 | 27 | 28 | 2 | 1 | 12 |
| <i>Viola</i> sp. | * | * | * | | | | * | * | * | * | | | | | | | | | | | | | | | | | | | | | | | | | | | 11 | | | | | |
| <i>Vittadinia megacephala</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | |
| <i>Wahlenbergia</i> sp. | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | | | | |
| <i>*Watsonia bulbillifera</i> | | | | | | | * | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | |
| <i>Xanthorrhoea quadrangulata</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | |
| <i>X. semiplana</i> | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | * | 36 | | | | | |
| <i>Xanthosia pusilla</i> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | | | | |

APPENDIX 111

BOTANICAL NAMES OF SELECTED SPECIES AND THEIR VERNACULAR EQUIVALENT

This information has been compiled from Black (1943-57), Black (1978), Boomsma and Lewis (1980), Galbraith (1977), and Whibley (1980).

| | |
|---------------------------------|--------------------------------|
| <i>Acacia melanoxylon</i> | Blackwood |
| <i>Acacia pycnantha</i> | Golden wattle |
| <i>Acacia retinodes</i> | Wirilda |
| <i>Acrotriche serrulata</i> | Honeypots |
| <i>Adenanthes terminalis</i> | Basket flower |
| * <i>Asclepias rotundifolia</i> | Broad-leaved cotton-bush |
| <i>Astroloma conostephoides</i> | Flame heath |
| <i>Banksia marginata</i> | Silver-leaved banksia |
| <i>Banksia ornata</i> | Desert banksia |
| <i>Blechnum nudum</i> | Fishbone water-fern |
| <i>Boronia filifolia</i> | Slender boronia |
| <i>Boronia edwardsii</i> | Island boronia |
| <i>Bursaria spinosa</i> | Sweet bursaria, Christmas tree |
| <i>Callistemon salignus</i> | Willow bottle-brush |
| <i>Callitris rhomboidea</i> | Oyster Bay cypress pine |
| <i>Calytrix tetragona</i> | Fringed myrtle |
| <i>Casuarina muellerana</i> | Dwarf oak |
| <i>Casuarina striata</i> | Small bull oak |
| <i>Casuarina stricta</i> | Sheoak |
| <i>Cheilanthes tenuiifolia</i> | Rock fern |
| <i>Conospermum patens</i> | Slender conosperm |
| <i>Correa schlechtendalii</i> | Narrow bell Correa |
| <i>Eucalyptus anceps</i> | White mallee |
| <i>E. baxteri</i> | Brown stringybark |
| <i>E. calycogona</i> | Square fruited mallee |
| <i>E. camaldulensis</i> | River red gum |
| <i>E. cosmophylla</i> | Cup gum |
| <i>E. fasciculosa</i> | Pink gum |
| <i>E. foecunda</i> | Slender-leaved mallee |
| <i>E. goniocalyx</i> | Long leaved box |
| <i>E. huberana</i> | Rough barked manna gum |
| <i>E. incrassata</i> | Ridge-fruited mallee |
| <i>E. leucocalyx</i> | Blue gum |
| <i>E. obliqua</i> | Messmate stringybark |

| | |
|---------------------------------|-----------------------------------|
| <i>Eucalyptus odorata</i> | Peppermint box |
| <i>E. ovata</i> | Swamp gum |
| <i>E. rubida</i> | Candlebark gum |
| <i>E. viminalis</i> | Manna gum |
| <i>Exocarpus cupressiformis</i> | Native cherry |
| <i>Gahnia clarkei</i> | Tall saw-sedge |
| * <i>Genista maderensis</i> | Cape broom |
| <i>Gleichenia microphylla</i> | Coral fern |
| <i>Goodenia ovata</i> | Swamp goodenia |
| <i>Hakea rostrata</i> | Needlebush |
| <i>Hibbertia exutiacies</i> | Tangled guinea-flower |
| <i>H. sericea</i> | Silky guinea-flower |
| <i>H. stricta</i> | Erect guinea-flower |
| * <i>Hypericum perforatum</i> | St. Johns Wart |
| <i>Ixodia achillaeoides</i> | Fire weed |
| <i>Lepidosperma carphoides</i> | Black rapier-sedge |
| <i>L. semiteres</i> | Wire rapier-sedge |
| <i>Leptospermum juniperinum</i> | Prickly tea-tree |
| <i>L. myrsinoides</i> | Grey tea-tree |
| <i>L. pubescens</i> | Silky tea-tree |
| <i>Lissanthe strigosa</i> | Peach heath |
| <i>Logania recurva</i> | Curved logania |
| <i>Melaleuca decussata</i> | Totem-poles |
| * <i>Olea europaea</i> | Olive |
| <i>Olearia grandiflora</i> | Mount Lofty daisy-bush |
| <i>O. ramulosa</i> | Twiggy daisy-bush |
| <i>Pteridium esculentum</i> | Bracken fern |
| <i>Pultenaea daphnoides</i> | Native Broom, large-leaf bush pea |
| <i>P. greveolens</i> | Native Broom, scented bush pea |
| <i>P. involucrata</i> | Mount Lofty bush pea |
| * <i>Rubus fruticosus</i> | Blackberry |
| * <i>Senecio pterophorus</i> | African daisy |
| <i>Spiridium parvifolium</i> | Australian dusty miller |
| <i>Tetratheca pilosa</i> | Pink eye |
| <i>Todea barbara</i> | King fern |
| <i>Typha sp.</i> | Bulrush |
| * <i>Ulex europaeus</i> | Gorse or Furze |
| <i>Xanthorrhoea semiplana</i> | YACCA |

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