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A vertebrate fauna survey and some notes on the vegetation of the Ravensthorpe Range, Western Australia

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ABSTRACT

The vertebrate fauna of the Ravensthorpe Range comprises 14 species of native mammal, 89 bird species, 27 reptile species, 7 frog species and 2 species of inland fish. Accordingly, with the exception of reptiles, which for a semi-arid area are impoverished, owing partly to its southerly location, it has a rich and abundant fauna. The Range habitats have not been degraded by the effects of excessive fire, dieback disease, clearing or grazing to any significant extent. Of particular interest to wildlife conservation are the presence of Tammar (*Macropus eugenii)*, Short-nosed Bandicoot (*Isoodon obesulus*), Heath Rat (*Pseudomys shortridgei*), Western Whipbird (*Psophodes nigrogularis*), Carnaby's Cockatoo (*Calyptorhynchus latirostris*), Red-eared Firetail (*Emblema oculatum),* Mallee Fowl *(Leipoa ocellata)* and Carpet Python (*Morelia spilota imbricata*). These are all gazetted declared rare or specially protected fauna. One species, a small skink, *Lerista viduata,* is endemic to the Ravensthorpe Range.

Fauna is compared with that of two local reserves, Fitzgerald River National Park and Lake Magenta Nature Reserve, as well as two 'greenstone' outliers: the Wongan Hills and Kangaroo Hills Timber Reserve.

Vegetation and flora were recorded mainly at fauna sites, with some opportunistic recording between sites. Fifteen vegetation types were identified, based on the Muir classification. The recorded flora consists of four species of fern, and 532 species of flowering plants including 10 subspecies, and 12 varieties. A total of 35 taxa are introduced. Ten species appear to be confined to the range with an additional 10 almost confined. Three species are gazetted declared rare flora: *Eucalyptus bennettiae*, *Billardiera mollis* and *Daviesia megacalyx* ms.

INTRODUCTION

The Ravensthorpe Range (referred to hereafter as 'the RANGE') consists mainly of a ridge rising up to 150 m above the surrounding undulating plain. It forms a crescent nearly 30 km long around the wheatbelt township of Ravensthorpe (Fig. 1). Mount Short is the most north-westerly feature, while the southern end grades into a marine plain.

The area surveyed consists of the ridge and a few associated foothills. Width of the ridge is mainly 2-4 km but reaches 7 km wide east-south-east of Kundip. In most places, the boundary between ridge and surrounding plain is relatively distinct, in other places poorly defined. Tenure is largely vacant Crown land, reserves for water and 'common'. Mining tenements cover much of the proposed reserve.

Survey

Phase 1

Prior to this survey, the vegetation and flora had received limited study, while the vertebrate fauna was completely unknown. The primary aim of this survey was to document the vertebrate fauna as a basis for conservation management of the RANGE. The survey (by AC) consisted originally of intermittent recording on the northern half of the RANGE, i.e. north of Ravensthorpe-Esperance Road during 1982-83 and the southern half in 1983-84. Site descriptions were brief. This trapping period is referred to as 'Phase 1'. Also included in this report are relevant data recorded at Bandalup Hill, an outlier of similar geological structure to that of much of the RANGE, about 32 km east-south-east of Ravensthorpe. A wildfire burnt the hill in November 1980 and AC assessed the effects in July 1983.

Phase 2

In 1987 the Heath Mouse (*Pseudomys shortridgei*) was rediscovered in Western Australia (WA) from material collected as part of Phase 1 and mis-identified as *Rattus fuscipes* (Baynes *et al.* 1987). This discovery led the Department of Conservation and Land Mananagement to offer AC a consultancy to reassess the distribution and abundance of *Pseudomys shortridgei* in the RANGE. KRN was also contracted to provide detailed data on landform,

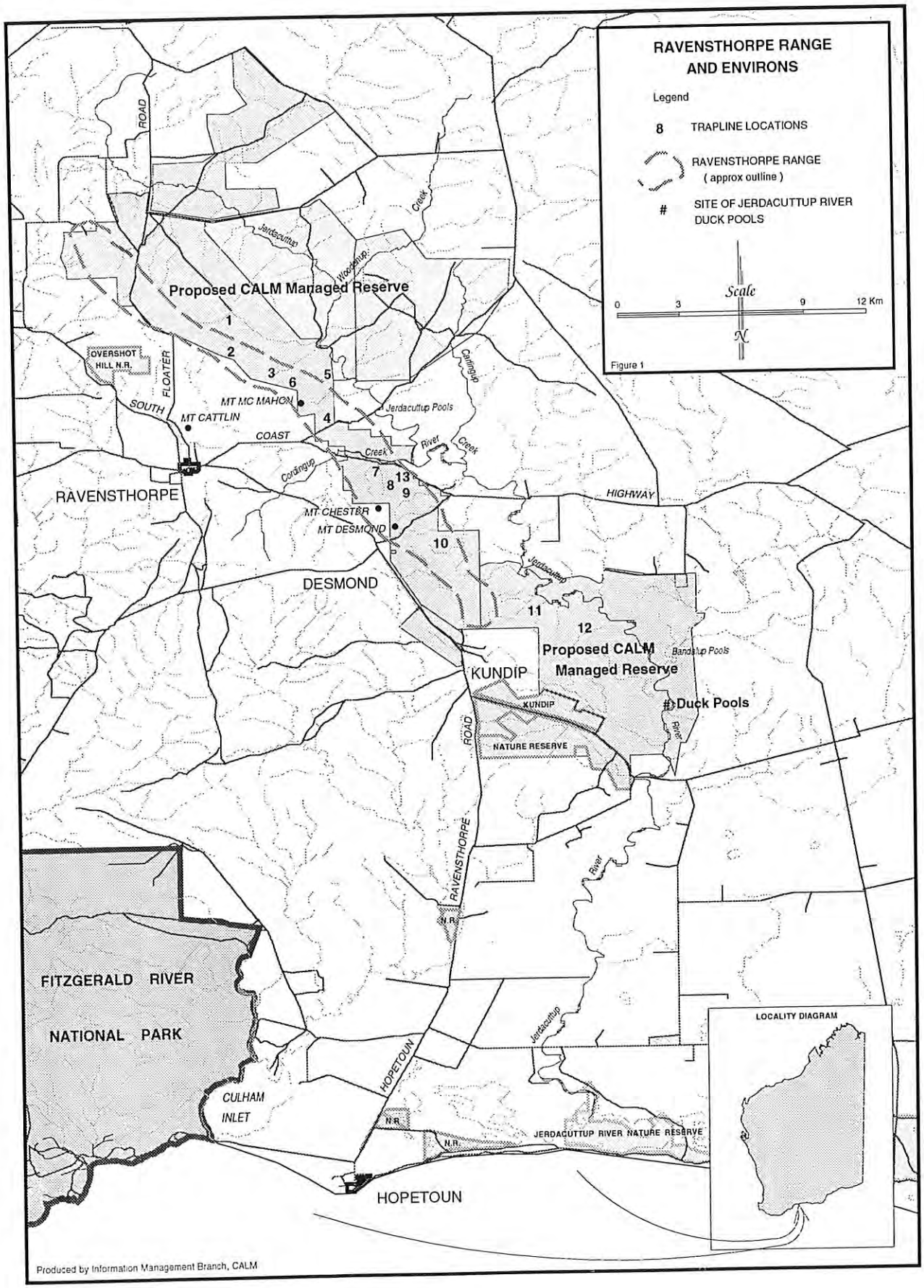

Figure 1. Ravensthorpe Range and environs.

soil, vegetation and floristics at all trapping sites on the RANGE. Some vegetation and floristic data were also recorded opportunistically between sites. AC ran trap lines between 30 November and 19 December 1987. KRN recorded site and opportunistic data between 26 and 29 October 1987.

Gravel Pit Survey

During the general period of Phase 2, AC and Keith Bradby were contracted by the Main Roads Department of WA to sample vertebrate fauna, vegetation and flora of five areas proposed as borrow pits (Bradby and Chapman[1]). Relevant data are incorporated into this report, e.g. mammal weights and breeding conditions, plant taxa.

Levels of Sampling

As a result of both Phases 1 and 2, the vertebrate fauna of the RANGE has been sampled in detail. However, the overall level of sampling of vegetation and flora is not as extensive, because only 3.5 days were spent in the RANGE, supplemented by some earlier opportunistic plant collecting. The differences in levels of sampling are important to consider when reading this report.

History

John Septimus Roe named the Ravensthorpe Range and its highest peak (Mount Short) in 1848 (Sofoulis 1958). In 1868 John Dunn leased 'Cocanarup', a property 15 km south-west of the present town of Ravensthorpe. Gold was found on the lease by the Dunn brothers in 1898, leading to the establishment of the town of Ravensthorpe and several small mines. Gold and silver were also extracted in small quantities and the RANGE has experienced two periods of major copper production. The first was approximately 1902-1910, and the second during the late 1950s and the 1960s. Until the mid-1970s about half of the copper produced in WA had been mined in the lower slopes of the RANGE (Thom *et al.* 1977).

Most of the RANGE has never been considered suitable for agriculture because of steep slopes, bedrock outcrops and skeletal soils. However, most of the RANGE's colluvial lower slopes are being farmed. Mining operations have been mainly centred on Mount Cattlin (north of Ravensthorpe), Elverdton and Kundip. However, exploratory grid lines have been cut over extensive areas of the RANGE on more than one occasion. While the grid lines provide access through dense vegetation covering most of the RANGE, many have suffered extensive water erosion. At present, a number of small 'weekend' mines are in occasional operation. One open-cut mine near Kundip commenced in 1988 but closed the following year.

Apart from areas disturbed for mining, most of the vegetation is in good condition. Almost all of the RANGE has remained unburnt for a long period: except for the cases described below large fires have not occurred in the RANGE for at least 45 years (R. Daw, personal communication). The size of many trees and mallees suggests no fire for at least 75 years. Since field-work for this survey took place several wildfires have burnt small portions of the RANGE. A fire on 17 September 1987 burnt the northern lower slopes from near Floater Road eastward to the Jerdacuttup River. Another fire burnt between 29 December 1987 and 6 January 1988 through the RANGE between Kundip and the Jerdacuttup River. A larger fire in December 1990 burnt northern slopes of the RANGE in the vicinity of Woodenup Creek. Access within the RANGE is moderate owing to the presence of mining exploration grids and fire control tracks. The high clay content of many soils makes most tracks impassable following a minimum of 10 mm of rain.

Reserve Proposal

The first proposal for a reserve over the Ravensthorpe Range and surrounds was made in 1974 by the Conservation Through Reserves Committee (CTRC 1974). This recommendation was accepted by State Cabinet in 1976. Implementation of the proposed reserve lapsed owing to the highly prospective nature of the RANGE for mining purposes. A change in government policy in 1990, allowing mining under certain conditions in nature reserves, and the South Coast Regional Plan (CALM 1992) now make it more likely that implementation will proceed. The current proposal (CALM 1992) is for a 31 500 ha 'C' class nature reserve vested in the National Parks and Nature Conservation Authority, which differs only very slightly from the original recommendation (see Fig. 1).

METHODS

Phase 1

Sites were subjectively selected to record the main vegetation types present on the RANGE. Initially, three vegetation types were recognized on the northern section, and four on the southern section. A total of thirteen sites were selected so that most vegetation types were sampled more than once. Sampling for small mammals was by trapping for a seven-day period at each site during each of the four seasons.

The trapping efforts at most sites were:

(a) a line of nine 23 x 9 x 7.5 cm Shermann box traps and nine breakback traps about 10 m apart, in alternative sequence; bait was 'universal';

(b) a 50 m drift-fence 20 cm high of flywire, with five PVC cylinders 13 cm in diameter and 60 cm long. Pitfall traps could only be set after blasting the massive lateritic cap-rock with gelignite;

(c) at least one cage trap associated with (a) and (b).

In a few places, the total area of a particular vegetation type was too small to include both (a) and (b). At these places, two suitable patches were selected as close as

[1] K.Bradby and A.Chapman, unpublished report, 'Biological data and recommendations for proposed gravel extraction in the Ravensthorpe Range, Western Australia.'An assessment for the Main Roads Department.

possible to each other. Trap lines 4 and 8 did not have pitfall traps. Trapping effort in trap nights was Shermann trap (3024), breakback (3024), pitfall trap (1680) and cage trap (420): total 9148. Note that 420 trap nights for cage traps included some opportunistic trap nights. Only kill-trap animals were taken; others were identified and released. Reptiles were pitfall-trapped as well as recorded opportunistically. All bird data were recorded opportunistically. Additional fauna survey techniques included nocturnal searching for geckoes and frogs using a head torch, mist-netting for birds, and bat-trapping for bats.

Phase 2

Recording during this phase had two main aims:

(a) to re-trap sites where both *Pseudomys shortridgei* and *Rattus fuscipes* had been trapped during Phase 1 (nine sites). At each site, twenty 32.5 x 8 x 10 cm Elliott traps were set at 10 m intervals, baited with 'universal' bait, and run for five consecutive nights. Mammals captured were identified, sexed, weighed, marked to identify recaptures, and then released;

(b) detailed data on geology, landforms, soils, vegetation and flora were recorded at all sites.

Site descriptions used for (b) were similar to those of the biological survey of the Fitzgerald River National Park (Chapman and Newbey 1995). Data were recorded for geology, landform, soil profile, vegetation structure and floristics. Data from the Fitzgerald survey and the present one are compatible, even though site sizes are different. Recording for vegetation structure followed Muir (1977), and flora nomenclature followed Green (1985).

CLIMATE

The RANGE experiences cool and damp winters, and warm to hot summers with variable and unreliable rainfall. Vegetation of the RANGE does not indicate any climatic pattern in relation to either height above the surrounding plain, or aspect. According to the climatic classification of Koppen, the RANGE is within Low latitude steppe (Dick 1975). There are no stations on the RANGE recording climatic data. Data listed are from the nearest town (Ravensthorpe).

Rainfall

Most rainfall tends to fall during the period May to October (Table 1). Annual average is 423 mm with lowest of 240 mm and highest of 738 mm. Winter rainfall is largely from cold fronts and occasional depressions. Summer rainfall is mainly from thunderstorms associated with 'troughs', cyclones that have degenerated into rain-bearing depressions, or coastal rain associated with some on-shore winds. Monthly rainfall for the four years preceding the survey and including its duration are shown in Table 2.

Temperature

Summer temperatures are generally only warm (Table 3) owing to the arrival of a sea breeze about 1530 hours most days. Snow and frost are very rare on the RANGE.

Winds

Winds are an important climatic factor, usually present with moderate velocity. Many small falls of rain are evaporated by wind before soaking to the plant root zone. Evidence of structural damage to vegetation by wind is both rare and minor.

TABLE 1
Mean rainfall and rain days at Ravensthorpe
(85 years of recording at Ravensthorpe to 1986)

	J	F	M	A	M	J	J	A	S	O	N	D	Av.	Low	High
A	21	25	30	33	43	44	46	45	41	40	30	21	419	240	736
B	5	6	7	8	11	12	13	12	11	10	7	6	107	-	-

A = Rainfall (mm) B = No. of Rain Days

TABLE 2
Rainfall (mm) recorded at Ravensthorpe (1979-1987)

	J	F	M	A	M	J	J	A	S	O	N	D	Total
1979	12	64	19	11	34	44	37	78	57	12	16	3	387
1980	23	54	5	34	23	51	22	23	3	40	36	76	390
1981	42	37	10	6	64	41	47	27	11	10	27	3	325
1982	82	8	31	6	26	28	19	67	17	46	21	15	366
1983	28	64	25	17	49	71	49	14	28	34	83	57	519
1984	10	10	11	23	24	14	80	95	42	22	41	1	373
1985	10	2	36	16	16	27	32	69	69	56	43	10	381
1986	15	58	12	5	81	49	75	82	42	22	16	10	467
1987	52	2	1	24	102	20	35	29	51	12	48	77	425

TABLE 3
Temperature data for Ravensthorpe (°C 24 years data to 1986)

		J	F	M	A	M	J	J	A	S	O	N	D
Ave.	Max.	29	28	27	24	20	17	16	17	19	22	25	28
Ave.	Min.	14	15	13	12	9	8	7	7	7	9	11	13
Max.	rec.	44	43	41	38	34	26	26	28	32	38	40	43
Min.	rec.	-	-	-	-	-	-	-	0.1	-	-	-	-

GEOLOGY

Geology of the general Ravensthorpe district has been described and mapped at the scale of 1:250 000 by Thom *et al.* (1977). Detailed mapping of some sections of the RANGE has been presented by Sofoulis (1958).

Briefly, the RANGE consists of a succession of sediments laid down during the Archaean. These sediments were largely igneous in origin and consisted of basalt and volcanic ash (tuff). In this report they are collectively referred to as 'greenstone'. Intermixed through the greenstone were smaller amounts of Banded Ironstone Formation (layered sandstone and iron hydroxides). Greenstones are either mafic or ultra-mafic with pH greater than 8.0. Banded Ironstone Formation is slightly acidic with pH about 6.5 and often more resistant to weathering than greenstone.

The ridge forming the RANGE consists of tilted greenstone and Banded Ironstone Formation. Overlaying some sections of the southern quarter of the RANGE are thin beds of Proterozoic quartzite.

In more recent geological times, much of the RANGE's upper surface has experienced laterization. Much of the lateritic cap remains as massive laterite. Material eroded off the laterite forms colluvial deposits of 'gravel' on some middle and lower slopes. Tectonically, the RANGE has been stable for a great period of geological time.

LANDFORMS

The RANGE is within Swanland of Jutson (1950), or the South Coast System of the South-West Drainage System of WA (Mulcahy and Bettenay 1972). The RANGE rises to 150 m above the surrounding plain with most lower slopes of 5-10 degrees, increasing upslope to 20-30 degrees. Some small areas have steeper slopes. Generally, slopes are steeper in the northern section. Slope tends to decrease in the southern section from north-west to south. Bedrock outcrops are not uncommon and tend to increase with slope. Drainage is usually uni-directional on the RANGE, becoming dendritic into the Jerdacuttup River which is the main drainage line. One tributary, Cordingup Creek, passes through the RANGE; another tributary passes along its north-west face.

SOILS

Soils of the RANGE have not been documented. They are described briefly below but require more detailed study. On the northern section all soils on the ridge crest, upper and middle slopes are skeletal to shallow with moderate amounts of bedrock in their profile. Profile development is rarely more than the accumulation of some organic matter in the upper 8-15 cm. Weathering zones at the profile base are shallow and rarely obvious when augering. Soils are well- or excessively-drained. Deeper soil profiles have developed on some lower slopes with a depth of 1 m, occasionally to 2 m. Profile development is moderate with a sandy A21 horizon over gravelly sand A22 horizon. Occasionally, a shallow combined B and C horizon of sandy clay is present.

On the southern section, where slopes are more moderate, deep soil profiles to at least 1 m have developed. Their A horizon varies from loamy sand to clayey sand, about 10 cm deep, over sandy clay B horizon. East of Kundip, where the crest of the ridge is a few hundred metres wide, at least one colluvial sand sheet up to 1 m deep is present over massive laterite.

Narrow deposits of saline and sub-saline alluviums are associated with the major drainage lines. The alluviums are water-logged during most of the winter. For the purpose of this survey, 11 soil types have been identified (Table 4).

VEGETATION

Beard (1973) has described and mapped the RANGE vegetation at the scale of 1:250 000. Two vegetation types were identified. Barren Range thicket covers most of the RANGE; however, only a few small areas can actually be identified as this vegetation type. The other vegetation type is Mallee on greenstone, which covers much of the area mapped.

During Phase 2, 15 distinct vegetation types were identifed. Table 5 lists both their position(s) on the RANGE and soil types. However, the RANGE has not been traversed in detail and other types may be present. One type, *Eucalyptus astringens* Low Woodland, includes two other types occurring in small patches and often intermixed with it: *E. gardneri* ssp. *ravensthorpensis* and *E. nutans* Low Woodlands.

The names of two vegetation types have, for the sake of simplicity, been used incorrectly: *Banksia lemanniana* shrubland (variable density) and *Dryandra foliosissima* Low Scrub A. Both should be named *Eucalyptus tetragona* Very Open Shrub Mallee. However, if correctly named, then three distinctive vegetation types, with different structure and occurring on different soil groups, would be named the same. *Dryandra foliosissima* Low Scrub A is unique to the RANGE. All the other types have been recorded in the Ravensthorpe Shire.

Distribution of Vegetation (Fig. 2)

The boundary between vegetation types is not always clearly defined. Some patches of vegetation are fine-grained mosaics. Much of the crest, and some upper slopes, of the northern section of the RANGE supports *Dryandra foliosissima* Low Scrub A on Skeletal Gravelly Sand over a lateritic caprock. Where the crest consists of greenstone, *Eucalyptus astringens* Low Woodland is present on Shallow Sandy Loam. Middle and lower slopes are mainly over greenstone with colluvial Clayey Sand supporting *E. flocktoniae* Shrub Mallee. *Eucalyptus astringens* Low Woodland is present as sinuous patches along some minor drainage lines on sandy alluvium.

Less greenstone is present in the southern section of the RANGE, which has *E. annulata* Low Woodland on Red

TABLE 4

Main characteristics of soil groups of the Ravensthorpe range.

SOIL GROUP	A HORIZON	B HORIZON	BEDROCK
SKELETAL SOILS			
Quartzite Sand	15-25 cm deep, pH 6.75	Absent	Quartzite
Shallow Sandy Loam	20-30 cm deep, pH 6.25	Absent	Greenstone
Skeletal Gravelly Sand	10-20 cm deep, pH 6.5	Absent	Lateritic caprock
SHALLOW SOILS			
Clayey Sands	12-15 cm deep, pH 6.75-7.25	Sandy light clay, 12-15 cm deep, pH 7.5-8.5	Greenstone
Colluvial Sand	30-70 cm deep, pH 6.25-6.5	Absent	Lateritic caprock
Shallow Loamy Sand	10-15 cm deep, pH 6.25-6.5	Sandy light clay, 0-70 cm deep, pH 6.25	Banded Ironstone Formation
DEEP SOILS			
Gravelly Sand	15-25 cm deep, pH 6.5	Sandy light clay, 10-30 cm deep, pH 6.0-6.5	Various
Light Brown Sandy Loam	7-15 cm deep, pH 6.5	Sandy clay loam, 20-80 cm deep, pH 7.5-8.0	Various
Red Clay	5-10 cm deep, pH ?	45-60 cm deep, pH ?	Greenstone
Saline Soils	5-30 cm deep, pH ?	Variable, 0-80 cm deep, pH 6.0-7.5	Various
Sandy Alluvium	70-100 cm deep, pH 6.25	?	Greenstone

TABLE 5

Relationships between geology, landforms, soils and vegetation types.

Geol. refers to geological surface of Ravensthorpe 1:250,000 sheet. BIF = Banded Ironstone Formation
B. = Banksia, E. = Eucalyptus, M. = Melaleuca. * Intermixed and grading into E. astringens Low Woodland.
+ Small patches intermixed within Eucalyptus flocktoniae Shrub Mallee
# Small " " " Eucalyptus falcata Open Shrub Mallee
Trapline: D = Drift Fence, M = Metal traps; otherwise both.

GEOLOGY	LANDFORM UNIT/ELEMENT	SOIL	VEGETATION TYPES	TRAP LINE
NORTHERN SECTION				
Ak	Ridge and upper slope	Shallow Sandy Loam	E. astringens Low Woodland E. gardneri Low Woodland* E. nutans Low Woodland*	6
Au	Middle and lower slope	Clayey Sand	E. flocktoniae Shrub Mallee E. flocktoniae Open Shrub Mallee +	4, 5(M)
Czl over BIF	Laterized crest	Skeletal Gravelly Sand	Dryandra foliosissima Low Scrub A	1, 2, 3
Qa in Au	Minor alluvial deposits	Sandy Alluvium	E. astringens Low Woodland5(D)	
SOUTHERN SECTION				
??	Breakaways	??	E. astringens Low Woodland	
Ak	Middle slope	Red Clay	E. annulata Low Woodland	13
Ak, Au	Middle slope	Clayey Sand	E. flocktoniae Open Shrub Mallee	9, 10
Czl	Laterized narrow crest	Skeletal Gravelly Sand	E. preissiana Shrub Mallee	
Czl	Laterized narrow outcrops	Skeletal Gravelly Sand	B. lehmanniana Scrub (variable)	7, 8(M)
Czl over BIF	Broad crest	Shallow Loamy Sand	Open Shrub Mallee Ecotone E. redunca Very Open Shrub Mallee	11(D)
Pbq in Czl	Narrow crest	Quartzite Sand	E. falcata Very Open Shrub Mallee	11(M)
Czs in Czl	Colluvial sand sheet on	Colluvial Sand	E. tetragona Very Open Shrub Mallee	12
COMMON TO BOTH SECTIONS				
Qpv	Alluvial-colluvial flat Colluvial flat	Light Brown Sandy Loam Light Brown Sandy Loam	E. occidentalis Low Woodland E. salmonophloia Woodland	
Qpv	Saline Alluvium	Saline Soils	M. cuticularis Scrub	
Czl in Au	Colluvial middle slope	Gravelly Sand	E. falcata Open Shrub Mallee E. falcata Low Woodland #	

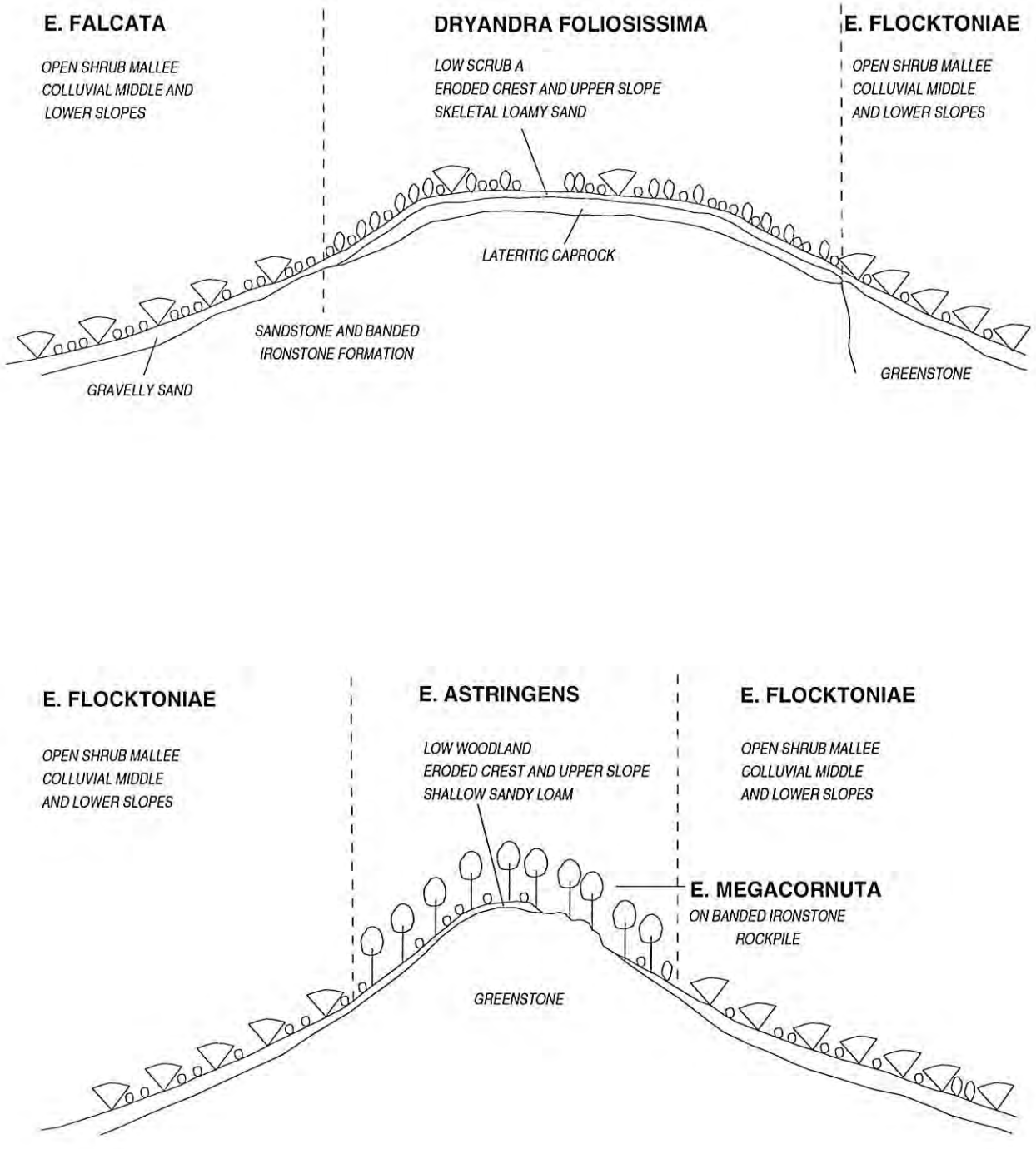

Figure 2a. Northern section of the Range. Diagram showing simple relationships between geology, landforms, soils and vegetation types. Not to scale.

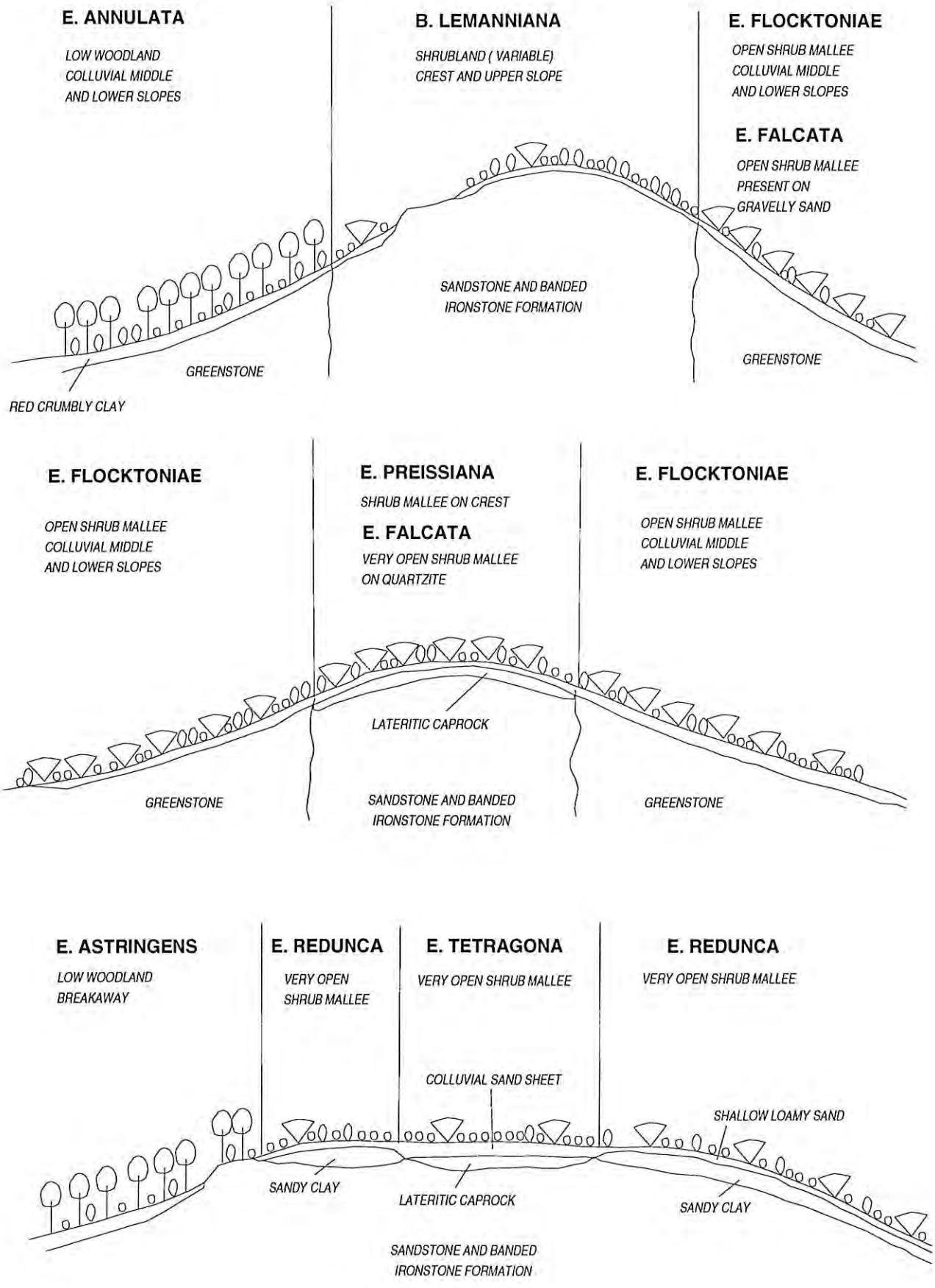

Figure 2b. Southern section of the Range. Diagram showing simple relationships between geology, landforms, soils and vegetation types. Not to scale.

Clay in a few small patches. Where the range crest is narrow, vegetation is variable on Skeletal Gravelly Sand over lateritic caprock. *Banksia lemanniana* shrubland (variable density) is common with a few small patches of *Dryandra foliosissima* Low Scrub A near Elverdton. Dense stands of *E. preissiana* Shrub Mallee are common with *E. falcata* Very Open Shrub Mallee on Quartzite Sand in a few small patches. Broader sections of the crest support mainly *E. redunca* Very Open Shrub Mallee on Shallow Loamy Sand. There is at least one small patch of *E. tetragona* Very Open Shrub Mallee on Colluvial Sand over lateritic caprock.

Eucalyptus flocktoniae Open Shrub Mallee is common on the slopes. Scattered breakaways, which are moderately developed, support *E. redacta* and *E. clivicola* Low Woodland on an unsampled soil type.

Common to both sections are four vegetation types. Scattered colluvial deposits derived from the lateritic crest support *E. falcata* Open Shrub Mallee on Gravelly Sand. Some colluvial flats associated with more prominent drainage lines support either *E. occidentalis* Low Woodland or *E. salmonophloia* Woodland on Light Brown Sandy Loam. Saline drainage lines grow *Melaleuca cuticularis* Scrub, over samphire, on Saline Soils.

Micro-habitats

Some micro-habitats occur within vegetation types. Rockpiles of laterized Banded Ironstone Formation (25-35 m x 10-20 m) support scattered *Eucalyptus megacornuta,* a few shrubs and annuals. Sometimes small dense patches of the tall shrub *Melaleuca cucullata* are present in *E. flocktoniae* Shrub Mallee. A few exploratory mining shafts and holes, dug by hand, provide small and specialized habitats. Also included are the rubbish and debris associated with mining. Small breakaways in the RANGE are poorly developed. Apart from three small patches (see Introduction) the RANGE does not appear to have experienced a major fire for at least 75 years.

It is important to note that of the vegetation types identified in the field, four have not been surveyed in detail (Table 5), while another lacks a typical site description (*E. falcata* Very Open Shrub Mallee). Those not sampled are *E. salmonophloia* Woodland, *E. occidentalis* Low Woodland, *E. preissiana* Shrub Mallee and *Melaleuca cuticularis* Scrub.

FLORA

While botanists have been collecting oportunistically in the RANGE since the last century (George Maxwell, in the 1880s, was probably the earliest collector) the first flora list has only recently been published (Bennett 1987). The study by Bennett consisted mainly of transects of sites across the RANGE to study correlations between soils, vegetation and floristics. Bennett recorded 31 families, consisting of 197 species and two varieties of flowering plants.

Data recorded from both Phase 2 and the independent gravel pit study are presented in Appendix II. The number of families has been increased to 65, including two families of ferns. Appendix II lists four species of ferns, and 532 species of flowering plants including 12 subspecies and 10 varieties. A total of 35 taxa are introduced, dominated by Asteraceae (13) and Poaceae (10).

Conservation Values

Ten taxa appear to be endemic to the RANGE, and another 10 almost confined to the RANGE. Three species are Declared Rare Flora (Government Gazette 12 November 1993): *Eucalyptus bennettiae, Billardiera mollis* and *Daviesia megacalyx* ms. Thirty-four taxa are considered rare and require special attention. No outlier populations were recorded, i.e. more than 150 km from known populations.

Most of the taxa listed in Appendix II were sighted during only about 3.5 days of field work. Some vegetation types were surveyed only very briefly, e.g. *Eucalyptus redunca* Very Open Shrub Mallee and *E. occidentalis* Open Low Woodland. Others had only minimal survey time, e.g. *E. tetragona* Very Open Shrub Mallee on Colluvial Sand. This vegetation type is the closest to sandplain vegetation on deep white sand on both gently undulating plain over granite, and on the Eocene marine plain as in the Fitzgerald area.

MAMMALS

The 14 mammal species recorded during both phases of the survey are listed systematically, below. Vegetation types of each trap line are listed in Table 5. Trap line sites are described in detail in Appendix I. SD refers to standard deviation.

MACROPODIDAE

MACROPUS EUGENII Tammar Wallaby
One record, November 1982, in *Eucalyptus flocktoniae* Shrub Mallee over clumped tall shrubs of *Melaleuca cucullata* with no understorey, near trap line 4.

MACROPUS FULIGINOSUS Western Grey Kangaroo
Twenty-four records (all months), present in pairs and in small groups of three in all habitats except *Dryandra foliosissima* Low Scrub A and *Banksia lemanniana* shrubland on lateritic crest. Relatively scarce compared with surrounding farmland.

MACROPUS IRMA Brush Wallaby
Four records (January, March and April), all single animals in open shrub mallee on crest and lower slopes. Relatively scarce compared with elsewhere in Ravensthorpe Shire.

PHLANGERIDAE

TRICHOSURUS VULPECULA Brush-tailed Possum
One record, a dessicated partial skeleton in mine adit near

Mount Chester. We are unable to decide whether the possum lived and died in the adit or whether it was killed elsewhere by a predator and deposited in the shaft. The surrounding habitat is presumed 'atypical' being 'upper slope' open shrub mallee and not woodland.
Trichosurus do currently live in *Eucalyptus salmonophloia* and *Eucalyptus occidentalis* woodlands around Ravensthorpe and elsewhere in the Shire. Formerly, they did occupy mine shafts and adits (S. Daniels personal communication).

BURRAMYIDAE

CERCARTETUS CONCINNUS Pygmy Possum
Six records, pitfall-trapped at lines 1(1) and 7(5). Most abundant in *Banksia lemanniana* shrubland and very open shrub mallee with *Dryandra quercifolia.* One female (11.0 g), trapped in October, had pouch young. Seasonal abundance is indicated in Figure 3.

TARSIPEDIDAE

TARSIPES ROSTRATUS Honey Possum
Forty-six records, pitfall-trapped at lines 1(2), 2(1), 3(1), 7(7), 10(5), 12(29) and 13(1). *Tarsipes* are widespread and locally abundant in the RANGE, being present in all vegetation types that were trapped except *Eucalyptus astringens* Low Woodland. One was even trapped in *E. annulata* Low Woodland which would generally be considered 'atypical' habitat. Most abundant in a small, isolated patch of sandplain (*E. tetragona* Very Open Shrub Mallee on Colluvial Sand) within the RANGE (line 12); here on one occasion 13 male *Tarsipes* were released from one trap from a single night. Pouch young were present in July, August, October and February, supporting the observations of Scarlett and Woolley (1980) that *Tarsipes* are non-seasonal breeders. Having released a large number of *Tarsipes* we suggest that torpidity is independent of temperature because different animals released from the same place at the same time can be either very active or completely torpid. Males weighed 6.0-9.0 g (N=3), females 3.0-10.5 g (N=3). Seasonal abundance is presented in Figure 3.

PERAMELIDAE

ISOODON OBESULUS Short-nosed Bandicoot
One record, a fresh road-kill in August 1979 in open shrub mallee (*Eucalyptus tetraptera* and *E. leptocalyx)* on fine sandy loam on Ravensthorpe-Hopetoun Road.

DASYURIDAE

SMINTHOPSIS GRISEOVENTER Grey-bellied Dunnart
Twenty records (pitfall traps 19, breakback trap 1), at lines 2(1), 7(2), 9(5), 11(1) and 13(11). Most abundant in *Eucalyptus annulata* Low Woodland, but present on crest in *Dryandra foliosissima* Low Scrub A and *Banksia lemanniana* shrubland, and ecotone Open Shrub Mallee; seasonal abundance is presented in Figure 3.

MURIDAE

RATTUS FUSCIPES Southern Bush Rat
Fifty-four records, trapped (Shermann 22, breakback 26, pit 6) at lines 2(2), 3(2), 5(5), 6(1), 7(7), 8(7), 9(16), 10(13) and 11(1). *Rattus fuscipes* were widespread and locally abundant in the RANGE and present in most vegetation types; one was even in Low Woodland of both *Eucalyptus gardneri* and *E. nutans* on breakaway ridge. Most abundant in shrub mallees and open shrub mallees on clay loam on 'lower slope'. Sub-adults (35-40 g) were trapped in February.
In Phase 2 *Rattus fuscipes* were trapped at five of the nine sites where they were present in Phase 1. These were lines 5(5), 6(2), 9(4), 10(9) and 11(2): these data exclude recaptures. Recapture rate was 40 per cent; this high rate of recapture probably indicates a relatively low population level. Weights were: males - 32.0-110.0 g, average 71.09, SD 30.05 g (N=16); females - 42.0-114.0 g, average 86.65, SD 22.19 g (N=10).

PSEUDOMYS OCCIDENTALIS Western Mouse
Twenty-four records, trapped (Shermann 3, breakback 15, pitfall 6) at lines 1(4), 2(14), 8(1), 9(3) and 10(2). Present in *Dryandra foliosissima* Low Scrub A on crest and upper slopes, *Banksia lemanniana* shrubland and *Eucalyptus transcontinentalis* Open Shrub Mallee on lower slopes; most abundant in *Dryandra foliosissima* Low Scrub A. Not as widespread as other small mammals in the RANGE but locally abundant. In October one female (51.0 g) gave birth to three young (4.0 g each) in an Elliott trap. Males weighed 18.5-35.0 g (N=3); females 24.5-51.0 g (N=4).

PSEUDOMYS SHORTRIDGEI Heath Rat
In Phase 1 at least one '*Rattus fuscipes*' from each of trap lines 7, 8 and 9 was a *Pseudomys shortridgei* (Baynes *et al.* 1987). The Phase 2 reassessment recorded only one animal, a male weighing 63.5 g at trap line 9.
In the RANGE and elswhere *Pseudomys shortridgei* seems only to occur with *Rattus fuscipes,* where it is always less frequently trapped.

MUS MUSCULUS House Mouse
Thirty-five records, trapped (Shermann 21, breakback 10, pitfall 4) at lines 1(2), 2(1), 7(1), 8(7), 9(3), 10(2), 11(17) and 12(1). Present throughout the RANGE in most vegetation types, but relatively scarce compared with native mammals in other areas studied in south-west WA. Most abundant in open shrub mallee on loamy fine sand on crest; here only one other mammal, a *Rattus fuscipes,* was trapped. Seasonal abundance is indicated in Figure 3.

MOLOSSIDAE

TADARIDA AUSTRALIS White-striped Mastiff Bat
This bat with a distinctive call can be readily heard at night in the RANGE.

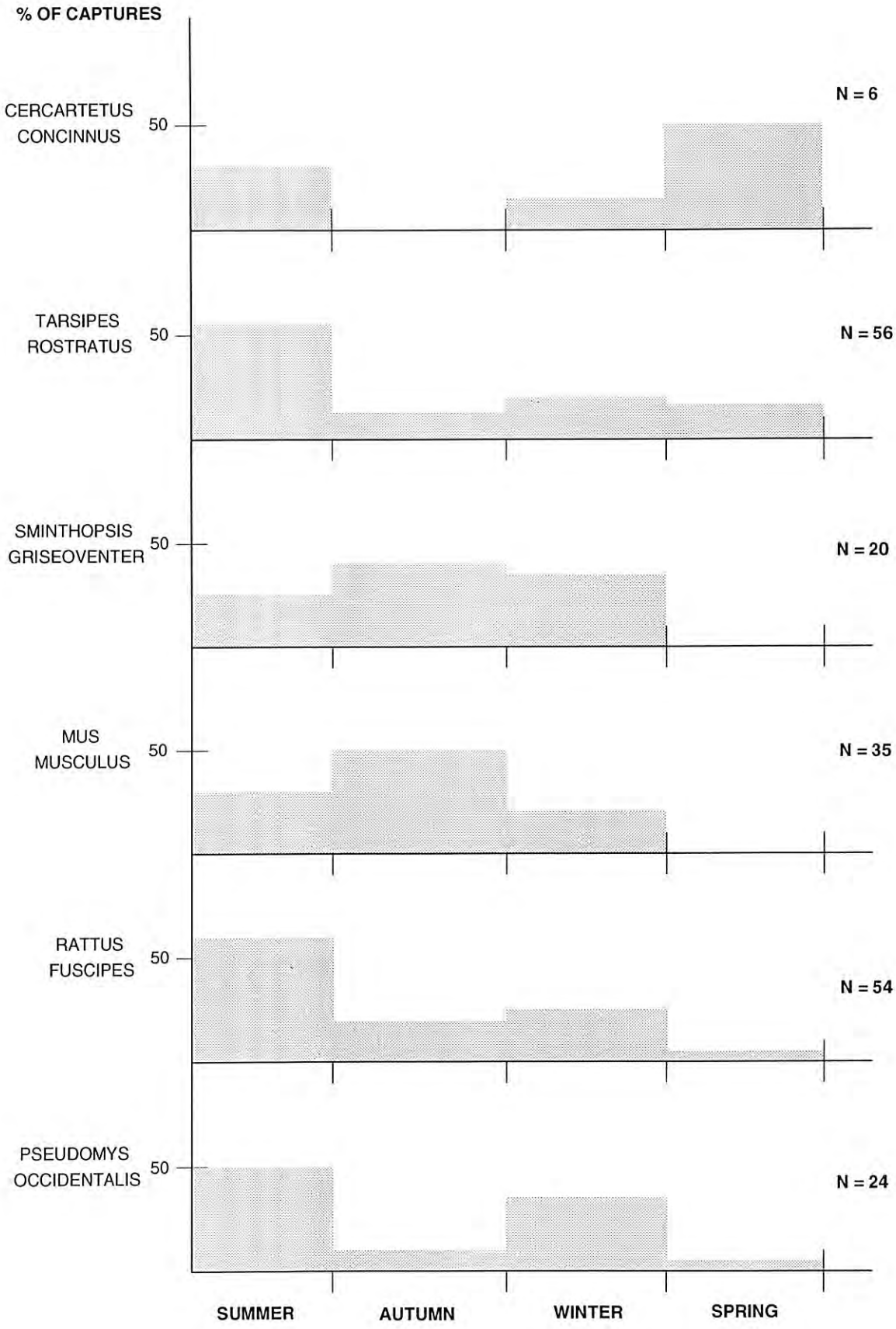

Figure 3. Seasonal abundance of mammal species trapped in the Range (Phase 1 data only).

VESPERTILIONIDAE

CHALINOLOBUS MORIO Chocolate Bat
A colony is sometimes present in a mine adit near Mount Chester. In October 1979 a maternity colony was present there.

TACHYGLOSSIDAE

TACHYGLOSSUS ACULEATUS Echidna
One record, observed at 2.00 p.m. in *Eucalyptus nutans* Low Woodland on crest in April. Present throughout the RANGE, characteristic scratchings and scats frequently seen.

CANIDAE

VULPES VULPES Fox
One record, a dead animal in 1979; tracks and scats occasionally seen during survey. Apparently uncommon, compared with elsewhere in the district.

ORYCTOLAGIDAE

ORYCTOLAGUS CUNICULUS Rabbit
Two records, one in *Eucalyptus flocktoniae* Open Shrub Mallee close to adjoining farmland and one at Kundip. Scarce in the RANGE compared with adjoining farmland.

BIRDS

Listed below are the 89 species of birds known to occur in the RANGE. Most were recorded during both phases of the survey. 'Duck pools' located at 120° 17.20'E, 33° 42.40'S on Jerdacuttup River are marginal to the RANGE as a landform but are contained in the proposed reserve. Detailed descriptions of most vegetation types are given in Appendix 1. Nomenclature follows Storr and Johnstone (1979).

DROMAIUS NOVAEHOLLANDIAE Emu
Four records (April, July and November) on lower slope and crest vegetation, usually Open Mallee *Eucalyptus tetragona* or *E. falcata.* Small groups to 3, adults with chicks (8 and 2) in November. Scarce in RANGE compared with adjoining farmland.

PODICEPS POLIOCEPHALUS Hoary-headed Grebe
Two records (March and April) on Jerdacuttup River 'duck pools', an individual and a pair. This is the common grebe in saline river pools in the district, whereas *P. novaehollandiae* is found on freshwater, particularly farm dams.

PHALACROCORAX VARIUS Pied Cormorant
Two records (March and April) on Jerdacuttup River 'duck pools', seen individually. *Phalacrocorax melanoleucos* may also be present.

ARDEA NOVAEHOLLANDIAE White-faced Heron
Six records (January, February, March and April) singly and in pairs along Cordingup Creek and Jerdacuttup River.

ANAS SUPERCILIOSA Black Duck
One record, a solitary bird on Jerdacuttup River 'duck pools'

ANAS GIBBERIFRONS Grey Teal
Three records (March, April and September), small groups to 7 on Cordingup Creek and Jerdacuttup River 'duck pools'.

ANAS CASTANEA Chestnut Teal
Six records (January, February, March and April) in pairs (male and female) and small groups of 5-6 each with one male on Cordingup Creek and Jerdacuttup River 'duck pools'.

ANAS RHYNCHOTIS Blue-winged Shoveller
One record (April), a group of 12-15 birds on Jerdacuttup River 'duck pools'.

MALACORHYNCHUS MEMBRANACEUS Pink-eared Duck
One record (April), a pair on Jerdacuttup River 'duck pools'.

AYTHA AUSTRALIS Hardhead
One record (April), two separate birds on Jerdacuttup River 'duck pools'.

CHENONETTA JUBATA Wood Duck
One record (April), two groups of 5-6 birds on Jerdacuttup River 'duck pools'.

HALIASTUR SPHENURUS Square-tailed Kite
Four records (August,September, October and December), flying along the RANGE crest or low over vegetation.

AQUILA AUDAX Wedge-tailed Eagle
Ten records (February, March, April, May and July), solitary birds flying along the RANGE crest and in *Eucalyptus salmonophloia* Woodland.

FALCO LONGIPENNIS Australian Hobby
One record (January), flying over the RANGE.

FALCO BERIGORA Brown Falcon
Five records (April, May, July and August), flying over the RANGE, perching in mallee and on telegraph pole.

FALCO CENCHROIDES Australian Kestrel
Five records (January, April, June and August), on ground on firebreak, over Jerdacuttup River and dams, and flying over the RANGE. Nesting in October in vertical mine shaft at Kundip; clutch 4.

LEIPOA OCELLATA Mallee Fowl
Five records (February, March and August). Usually seen in pairs at Kundip townsite dam in mixed low woodland (*Eucalyptus gardneri* ssp. *ravensthorpensis* and *E. nutans*). Seen singly in dense vegetation on the RANGE crest, *Banksia lemmaniana* shrubland and *E. preissiana* Shrub Mallee. Active nest in October.

TURNIX VARIA Painted Button-quail
Two records (February), adult in breakback trap (line 9) and juvenile in pitfall trap (line 7).

FULICA ATRA Coot
One record (April), two pairs and a group of 12 on Jerdacuttup River 'duck pools'. Pair with two chicks on Cordingup Creek in December 1959 (G.M. Storr *personal communication).*

VANELLUS TRICOLOR Banded Lapwing
One record (September), flying over Kundip at night.

CHARADRIUS MELANOPS Black-fronted Plover
Two records (April), a pair and a single bird on Jerdacuttup River 'duck pools'.

TRINGA NEBULARIA Greenshank
Two records (March and October), single birds on rocks in river pools on Jerdacuttup River.

PHAPS CHALCOPTERA Common Bronzewing
Four records (January, April and August), perching in *Eucalyptus gardneri* ssp. *ravenshorpensis* Low Woodland, flying over and drinking at pools on firebreak.

PHAPS ELEGANS Brush Bronzewing
Four records (February, March and June), in *Dryandra foliosissima* Low Scrub A on the RANGE crest, and at trap line 10. Generally in denser vegetation than *P. chalcoptera.*

OCYPHAPS LOPHOTES Crested Pigeon
Two records (February and September), in *Eucalyptus annulata* Low Woodland (trap line 13) opposite road and adjacent to farmland. Not observed within the RANGE until power poles were erected past Mount Desmond in January 1984, thereafter perched thereon. Scarce in the RANGE compared with adjacent farmland.

GLOSSOPSITTA PORPHRYOCEPHALA Purple-crowned Lorikeet
Thirty-two records during all months with a tendency to become scarce over summer and early autumn. Usually flying over in groups to 15. A large group of several hundred feeding in flowering *Eucalyptus astringens* in June, smaller groups feeding in flowering *E. salmonophloia* in February.

PLATYCERCUS ZONARIUS Ring-necked Parrot
Ten records (February, April, June and October), small groups to 4 in *Eucalyptus transcontinentalis* Open Shrub Mallee on lower slopes, *E. falcata* Low Woodland on upper slopes, and *E. salmonophloia* Woodland.

PLATYCERCUS SPURIUS Red-capped Parrot
Ten records (January, February, July, August, October and December), singly and in pairs in *Eucalyptus transcontinentalis* Open Shrub Mallee on lower slope, *E. preissiana* Shrub Mallee on crest, and *E. annulata* Low Woodland.

PLATYCERUS ICTEROTIS Western Rosella
One record (April), a pair recorded by J.R. Ford in *Eucalyptus nutans* Low Woodland.

NEOPHEMA ELEGANS Elegant Parrot
One record (December), a group of 4 in grass by farmland on the edge of the RANGE.

CALYPTORHYNCHUS LATIROSTRIS Carnaby's Cockatoo
Three records (June), 2 in *Eucalyptus falcata* Low Woodland on upper slope, and 3 birds flying over Kundip mining dam in *E. flocktoniae* Open Shrub Mallee on lower slope. We suspect *C. latirostris* does considerable damage to *Dryandra quercifolia* shrubs while feeding on the immature fruit.

POLYTELIS ANTHOPEPLUS Regent Parrot
Two records (June and July), groups of 10 and 15 birds feeding on spilt grain on the roadside in Cordingup Pass.

CUCULUS PALLIDUS Pallid Cuckoo
Two records, calling in September, in April a bird in *Eucalyptus annulata* Low Woodland.

CUCULUS FLABELLIFORMIS Fan-tailed Cuckoo
Fifteen records, all months, except apparently absent in summer; heard calling between June and October, most often heard in open shrub mallee on middle slope, also in *Eucalyptus salmonophloia* Woodland on Jerdacuttup River. Seen in *E. tetragona* shrub mallee on the RANGE crest.

CHRYSOCOCCYX BASALIS Horsfield's Bronze Cuckoo
Six records (September and October), in open shrub mallees on middle slope.

CHRYSOCOCCYX LUCIDUS Shining Bronze Cuckoo
Six records (September, October and December), in *Dryandra foliosissima* Low Scrub A on the crest, and *Eucalyptus flocktoniae* Open Shrub Mallee on lower slope.

NINOX NOVAESEELANDIAE Boobook Owl
Three records (February and March), calling by day in March in *Eucalyptus salmonophloia* Woodland.

PODARGUS STRIGOIDES Tawny Frogmouth
One record (February), perching in *Eucalyptus salmonophloia* Woodland.

AEGOTHELES CRISTATUS Australian Owlet-nightjar
Two records (February), flushed from hollow spout and calling at night in *Eucalyptus salmonophloia* Woodland.

EUROSTOPODUS GUTTATUS Spotted Nightjar
Two records (October), in *Eucalyptus gardneri* ssp. *raventhorpensis* Low Woodland and *E. flocktoniae* Open Shrub Mallee on lower slope.

DACELO GIGAS Laughing Kookaburra
Three records (February and September), in *Eucalyptus salmonophloia* Woodland.

MEROPS ORNATUS Rainbow Bee-eater
Three records (January and March), small groups of 3-4, over open shrub mallees on lower and middle slopes, and in *Eucalyptus salmonophloia* Woodland.

CHERAMOECA LEUCOSTERNA White-backed Swallow
One record (April), one group of 10-15 birds flying over lower slope vegetation at Kundip.

HIRUNDO NEOXENA Welcome Swallow
Ten records (all months), in small groups to 6 birds flying over all main vegetation types. Perching in shrub mallees and on power lines. Nesting in mine shaft in November.

HIRUNDO NIGRICANS Tree Martin
Seven records (January, February, March and April), small groups to 10 flying over the RANGE crest and *Eucalyptus salmonophloia* woodland.

CORACINA NOVAEHOLLANDIAE Black-faced Cuckoo shrike
Eight records (all months), singly and in pairs over most vegetation types. Nesting in *Eucalyptus tetragona* at Kundip in February.

EOPSALTRIA AUSTRALIS Yellow Robin
Twelve records (all months), singly and in pairs (male and female) in shrub mallees, *Eucalyptus astringens* ssp. *raventhorpensis* Low Woodland and in *Dryandra foliosissima* Low Scrub A on the RANGE crest.

PACHYCEPHALA PECTORALIS Golden Whistler
Twenty-eight records (all months), in open shrub mallees on middle and lower slopes, and in *Dryandra foliosissima* Low Scrub A and *Banksia lemanniana* shrubland, and in *Eucalyptus annulata* Low Woodland.

PACHYCEPHALA RUFIVENTRIS Rufous Whistler
Two records (March and November), heard only in open shrub mallees on middle slopes.

COLLURICINCLA HARMONICA Grey Shrike Thrush
Twenty-two records (all months), in all vegetation types.

OREOICA GUTTURALIS Crested Bellbird
Eighteen records (all months), in *Eucalyptus flocktoniae* Open Shrub Mallee and *Banksia lemanniana* shrubland on middle and lower slopes. Like *Psophodes nigrogularis, O. guttaralis* is largely, if not entirely, restricted to the RANGE south of the Ravensthorpe-Esperance Road (see Discussion).

PSOPHODES NIGROGULARIS Western Whipbird
Thirty records (all months), most often heard rather than seen. In denser shrub mallees and shrublands on the RANGE crest, middle and lower slopes, quite abundant between Mount Chester and Kundip. Like *Oreoica gutturalis,* this species is uncommon or absent in the Range north of Ravensthorpe-Esperance Road (see Discussion).

MYIAGRA INQUIETA Restless Flycatcher
Two records (February), in *Eucalyptus salmonophloia* Woodland.

RHIPIDURA FULIGINOSA Grey Fantail
One record (April), recorded by J.R. Ford in *Eucalyptus salmonophloia* Woodland.

RHIPIDURA LEUCOPHRYS Willie Wagtail
Two records (February), in *Eucalyptus salmonophloia* Woodland.

DRYMODES BRUNNEOPYGIUS Southern Scrub-robin
Fifty-four records (all months), seen and heard in all the RANGE vegetation types except open woodlands. Nest with one egg in October.

POMATOSTOMUS SUPERCILIOSUS White-browed Babbler
Nine records (January, April, July, August and November), in *Eucalyptus flocktoniae* Shrub Mallee (with *Melaleuca cucullata* thickets), *Dryandra foliosissima* Low Scrub A on crest, and *E. flocktoniae* Open Shrub Mallee on lower slopes. Usually small groups of 3-4 birds.

SMICRORNIS BREVIROSTRIS Weebill
Seventy-three records (all months), in all shrub mallees, low woodlands and woodlands; present once in *Dryandra foliosissima* Low Scrub A on the RANGE crest in feeding congress with *Zosterops lateralis* and *Sericornis frontalis.*

ACANTHIZA APICALIS Broad-tailed Thornbill
Five records (March, May, July and August), in lower shrubs in *Eucalyptus astringens* Low Woodland on crest, in *Exocarpos aphyllus* in *Eucalyptus salmonophloia* Woodland and in *Dryandra foliosissima* Low Scrub A and open shrub mallees on the RANGE crest. Small groups of 2-3 birds.

ACANTHIZA CHRYSORRHOA Yellow-rumped Thornbill
Two records (February), in lower shrubs in open woodlands, usually 4-5 birds. Generally in more open country than *A. apicalis.*

SERICORNIS FRONTALIS White-browed Scrub-wren
Nine records (January, February, March, June and November), in *Dryandra foliosissima* Low Scrub A on the RANGE crest, *Eucalyptus flocktoniae* Open Shrub Mallee on lower slopes, samphire along Cordingup Creek, lower shrubs in *E. annulata* Low Woodland, and dense small patches of *Melaleuca cucullata*. Singly and in pairs.

SERICORNIS CAUTUS Shy Hylacola
Five records (February, March, April and December), in *Dryandra foliosissima* Low Scrub A on crest, *Eucalyptus flocktoniae* Open Shrub Mallee on lower slopes, and in low shrubs in *E. annulata* Low Woodland. Singly and groups of 3.

MALURUS SPLENDENS Splendid Fairy-wren
One record (March 1980), by B. Newbey in dense shrubland along Cordingup Creek, 4-5 birds. Also present was *M. pulcherrimus*.

MALURUS PULCHERRIMUS Blue-breasted Fairy-Wren
Four records (January, February [nuptial male] and April [eclipse male]). In mallee over *Melaleuca uncinata*, dense shrubs along Jerdacuttup River, low shrubs on Banded Ironstone Formation breakaway. Groups to 5-6 with males and females.

STIPITURUS MALACHURUS Southern Emu Wren
One record, in April in dense low mallee on mid-slope of RANGE.

DAPHOENOSITTA CHRYSOPTERA Australian Sittella
Three records (February, June and September), in *Eucalyptus salmonophloia* and *E. occidentalis* Woodlands; small groups to 5-6 birds.

PARDALOTUS PUNCTATUS Spotted Pardalote
Recorded by J.R. Ford in *Eucalyptus salmonophloia* canopies with *P. xanthopygus*, in April 1984.

PARDALOTUS XANTHOPYGUS Yellow-rumped Pardalote
Twenty-seven records (all months), in *Dryandra foliosissima* Low Scrub A on crest, *Eucalyptus flocktoniae* Open Shrub Mallee on lower slopes, shrublands, *E. salmonophloia* Woodland and *E. annulata* Low Woodland. Nesting in burrows in the RANGE crest in February.

PARDALOTUS STRIATUS Striated Pardalote
Twenty-three records (all months), occasionally in shrub mallee with a tendency to be more of a woodland inhabitant than other pardalotes. Recorded together with *P. xanthopygus*.

ZOSTEROPS LATERALIS Grey-breasted White-eye
Two records (September and November): a small group of 4-5 in *Dryandra foliosissima* Low Scrub A on crest in feeding congress with *Smicrornis brevirostris*, and a single bird in *Eucalyptus flocktoniae* Open Shrub Mallee on lower slopes.

LICHMERA INDISTINCTA Brown Honeyeater
Twenty-seven records (all months), present throughout the RANGE. Feeding in flowering *Eucalyptus flocktoniae* in November and February.

MELIPHAGA ORNATA Yellow-plumed Honeyeater
Three records (February, April and June), in *Eucalyptus gardneri* ssp. *raventhorpensis* Low Woodland and *E. salmonophloia* Woodland.

MELIPHAGA CRATITIA Purple-gaped Honeyeater
Fifty-three records (all months), present throughout the RANGE except in *Eucalyptus salmonophloia* Woodland. Feeding in flowering *Hakea verrucosa* in March and *E. flocktoniae* in November and February.

MELIPHAGA LEUCOTIS White-eared Honeyeater
Twenty-one records (all months), in *Dryandra foliosissima* Low Scrub A on the crest, *Eucalyptus flocktoniae* Open Shrub Mallee on lower slopes, and *E. salmonophloia* Woodland.

MELITHREPTUS LUNATUS White-naped Honeyeater
Three records (February and April), in *Eucalyptus gardneri* ssp. *ravensthorpensis* and *E. megacornuta* Low Woodlands on upper slopes. Small groups to 6 birds.

MELITHREPTUS BREVIROSTRIS Brown-headed Honeyeater
Six records (February, May, July, August and December), only recorded on eucalypts in mallee (*Eucalyptus falcata* and *E. tetragona)* and low woodland (*E. megacornuta* and *E. annulata)* on upper and lower slopes, and *Dryandra foliosissima* Low Scrub A and *Banksia lemanniana* shrubland. In groups to 15 birds.

PHYLIDONYRIS NOVAEHOLLANDIAE New Holland Honeyeater
Seventy-one records (all months), present throughout the RANGE in all vegetation types, occasionally in *Eucalyptus salmonophloia* canopies. Feeding on flowering *E. nutans* (February), *E. flocktoniae* (April), *Hakea crassifolia* (August) and *Grevillea coccinea* (October).

PHYLIDONYRIS NIGRA White-cheeked Honeyeater
Two records, June and September, recorded by R. Hart in *Dryandra foliosissima* Low Scrub A, also a pair in *Eucalyptus flocktoniae* Open Shrub Mallee on lower slopes.

PHYLIDONYRIS MELANOPS Tawny-crowned Honeyeater
Fifty-two records (all months), present throughout the RANGE in all vegetation types.
There is an apparent shift of birds into woodlands in late summer-early autumn, apparently coinciding with eucalypt flowering, particularly *Eucalyptus occidentalis*.

A similar phenomenon has been recorded elsewhere in the district (see Newbey and Chapman 1995). Juveniles were present in December. Feeding on flowering *Eucalyptus flocktoniae* in February.

ACANTHORHYNCHUS SUPERCILIOSUS Western Spinebill
One record (June), a pair (male and female) in *Dryandra quercifolia* in *Eucalyptus tetragona* Very Open Shrub Mallee on colluvial sandsheet on crest.

ANTHOCHAERA CHRYSOPTERA Little Wattlebird
Forty-seven records (all months), throughout southern section of the RANGE in 1983-84 but not recorded in northern section in 1982-83, though subsequently recorded here by R. Hart. Apparently nomadic. Feeding on flowering *Eucalyptus incrassata* in August.

ANTHOCHAERA CARUNCULATA Red Wattlebird
Forty-nine records (all months), throughout the RANGE. Feeding in flowering *Hakea laurina* in April.

MANORINA FLAVIGULA Yellow-throated Miner
One record (September), in *Eucalyptus annulata* Low Woodland by roadside with farmland adjacent. A common townsite and farmland bird in the Ravensthorpe Shire.

ARTAMUS CYANOPTERUS Dusky Woodswallow
Four records (February), generally peripheral to the RANGE in roadside woodlands; penetrating the RANGE after power lines were constructed near Mount Desmond in 1984. See also *Ocyphaps lophotes.*

EMBLEMA OCULATUM Red-eared Firetail
One record, in dense creek-line vegetation where Carlingup Creek crosses Carlingup Road.

GRALLINA CYANOLEUCA Magpie lark
One record (March), single bird flying through *Eucalyptus salmonophloia* Woodland.

CRACTICUS TORQUATUS Grey Butcherbird
Twenty-nine records (all months), throughout the RANGE, juveniles present in April.

CRACTICUS TIBICEN Magpie
Five records (January, February, March and September), usually seen as pairs flying over. More common in farmland.

STREPERA VERSICOLOR Grey Currawong
Forty-seven records (all months), present throughout the RANGE.

CORVUS CORONOIDES Australian Raven
Twenty-four records (all months), usually flying overhead or calling in the distance.

AMPHIBIANS AND REPTILES

Amphibians and reptiles were recorded using a number of techniques (see Methods). Detailed descriptions of trap line sites are presented in Appendix I.

HYLIDAE

LITORIA CYCLORHYNCHUS Spotted-thighed Tree Frog
One record (April), in Banded Ironstone Formation rockpile.

LEPTODACTYLIDAE

HELEIOPORUS ALBOPUNCTATUS Spotted Burrowing Frog
Two records (October), pitfall-trapped in *Eucalyptus flocktoniae* Open Shrub Mallees on middle and lower slopes on gravelly clayey sand.

HELEIOPORUS EYREI Moaning Frog
One record (June), collected in drain near mining dam at Kundip. On clay loam soil with mixed shrub mallee adjacent.

PSEUDOPHRYNE GUENTHERI
Two records (May and October), under moist leaf litter in creek at Kundip townsite. Pitfall-trapped in *Eucalyptus flocktoniae* Open Shrub Mallee on lower slope.

LIMNODYNASTES DORSALIS Banjo Frog
Three records (July and October), in pitfall-trap in *Eucalyptus falcata* Very Open Shrub Mallee on crest, and *E. flocktoniae* Open Shrub Mallee on lower slope.

NEOBATRACHUS sp. Trilling Frog
One record (August) in pitfall trap in *Eucalyptus annulata* Low Woodland on Red Clay. This frog was initially identified as *Neobatrachus centralis*; as this taxa has now been revised, it is likely that this frog was either *Neobatrachus kunapalari* or *N.albipes* (see Roberts *et al.* 1991).

RANIDELLA PSEUDINSIGNIFERA
Three records (April and June), collected under mat of decaying vegetation in identical circumstances to *Heleioporus eyrei.* Calling in April and June.

GEKKONIDAE

CRENADACTYLUS OCELLATUS
Four records, cryptozoic, only found in and under stony rubble and rubbish. Present as a fire survivor, as opposed to a post-fire immigrant, on Bandalup Hill (see Introduction).

DIPLODACTYLUS GRANARIENSIS
Eight records, pitfall-trapped at lines 1(1), 2(1), 3(2), 4(1) and 10(1), and seen at night in the light of a headtorch in

Eucalyptus gardneri ssp. *raventhorpensis* Low Woodland, found under mining debris at Kundip.

Occurs in a wide variety of vegetation types from *Dryandra foliosissima* Low Scrub A on crest on lateritic capstone, to woodlands on lower slopes with clay loams. One female in December had one egg in each oviduct.

DIPLODACTYLUS SPINIGERUS
Four records, pitfall-trapped at lines 2(1) and 3(1), and seen at night in the light of a headtorch in shrub mallee on dead timber on ground and on stem of *Melaleuca uncinata* in *Dryandra foliosissima* Low Scrub A on the crest.

PHYLLURUS MILII Barking Gekko
Fourteen records, pitfall-trapped at lines 6(2), 7(5), 10(8), 11(1) and 13(3), also seen at night in the light of a headtorch in *Eucalyptus gardneri* ssp. *raventhorpensis* Low Woodland on breakaway slope, under lateritic boulders and mining debris. Usually in vegetation types on loose, stony ground irrespective of vegetation type.

PHYLLODACTYLUS MARMORATUS Marbled Gekko
Six records, pitfall-trapped only once (line 12). A cryptozoic species, in and under rubbish, dead fallen timber and old sleepers. Three females in October had one egg in each oviduct.

PYGOPODIDAE

DELMA FRASERI
One record (October) at Elverdton mine site by G. Barron and others.

PYGOPUS LEPIDOPODUS Scale Foot
One record (April), active in shrub mallee, on rocky sandy clay loam on the RANGE crest.

AGAMIDAE

CTENOPHORUS MACULATUS GRISEUS Spotted Dragon
Nine records (active January, February, October and December), in *Dryandra foliosissima* Low Scrub A and *Banksia lemanniana* shrubland on crest, and *Eucalyptus flocktoniae* Open Shrub Mallee on middle slopes. Juveniles (snout-vent length *ca.* 32 mm) pitfall-trapped in February in *E. tetragona* Very Open Shrub Mallee on colluvial sandsheet (line 12).

POGONA MINOR
One record (October), pitfall-trapped in *Eucalyptus flocktoniae* Open Shrub Mallee on lower slopes. Apparently uncommon in the RANGE; perhaps because soil types are unsuitable for burrowing.

SCINCIDAE

CRYPTOBLEPHARUS VIRGATUS
Thirteen records (all months) in vegetation types of upper slopes, *Eucalyptus salmonophloia* Woodland and Banded Ironstone Formation rockpiles. Active entire year on rocks, active in spring and summer in upper branches of *E. megacornuta,* and *E. gardneri* ssp. *raventhorpensis* leaf litter. Also in and on mining debris and old sleepers.

CTENOTUS IMPAR
One record (September), pitfall-trapped at line 12, *Eucalyptus tetragona* Very Open Shrub Mallee on colluvial sandsheet.

CTENOTUS LABILLARDIERI
Five records (February, March and August), recorded only at line 8. Restricted to *Dryandra foliosissima* Low Scrub A and *Banksia lemanniana* shrubland with large lateritic boulders on crest. Apparently a saxicoline species.

EGERNIA MULTISCUTATA
One record (April), dug from a burrow in sandy clay loam in open shrub mallee. This specimen was almost patternless, as are specimens from the vicinity of Cocklebiddy (Storr 1978).

EGERNIA KINGII King's Skink
Two records (February and September), an individual (probably the same one on both occasions) cage-trapped in Banded Ironstone Formation rockpile, adjacent to *Eucalyptus salmonophloia* Woodland.

HEMIERGIS INITIALIS INITIALIS
Four records (February, May, July and November), pitfall-trapped at lines 1(1) and 6(1) in *Dryandra foliosissima* Low Scrub A and *Eucalyptus astringens* ssp. *raventhorpensis* Low Woodland on crest, and *E. flocktoniae* Open Shrub Mallee on lower slopes. Also in mining debris at Kundip and as a fire survivor as opposed to a post-fire immigrant on Bandalup Hill (see Introduction).

HEMIERGIS PERONII PERONII
Eight records (all months) pitfall-trapped at lines 1(1), 5(2), 7(1) and 12(1), under dead vegetation on laterite and in mining rubble and debris. These include most RANGE habitats excluding woodlands.

LERISTA DISTINGUENDA
Five records (February, July and November), pitfall-trapped at lines 5(1) and 6(4). These were *Eucalyptus flocktoniae* Shrub Mallee on lower slope, and *E. astringens* ssp. *raventhorpensis* Low Woodland on upper slope and crest respectively.

LERISTA VIDUATA
One record (October), in woodland with leaf litter south of Mount McMahon. This specimen was originally thought to be an aberrant *Lerista microtis*; it has been subsequently described as a new species by Storr (1991). On present knowledge this is the only vertebrate endemic in the RANGE.

MORETHIA OBSCURA
Fourteen records (active all months), pitfall-trapped at lines 1(1), 3(1), 6(1), 9(1) and 11(1). Also in rubbish and rubble and leaf litter in *Eucalyptus gardneri* ssp. *ravensthorpensis* Low Woodland and *E. flocktoniae* Shrub Mallee. Widespread in most vegetation types in the RANGE; probably the most abundant skink.

TILIQUA OCCIPITALIS Western Blue-tongue
Three records (October and December) in the RANGE crest mallee and woodland in Cordingup Pass.

TILIQUA RUGOSA Bobtail
Twenty-three records (active all months), in all vegetation types, recorded at each trap line, usually cage-trapped.

VARANIDAE

VARANUS ROSENBERGI Southern Monitor
Ten records (January, February, September, November and December), pitfall-trapped at line 7, also in *Dryandra foliosissima* Low Scrub A on crest, Banded Ironstone Formation rockpiles and breakaways.

BOIDAE

MORELIA SPILOTA IMBRICATA Carpet Python
One record, observed in *Dryandra foliosissima* Low Scrub A on the crest near Shire lookout. Gazetted a 'specially protected' species (CALM 1992).

TYPHLOPIDAE

RAMPHOTYPHLOPS AUSTRALIS
One record (April), in *Dryandra foliosissima* Low Scrub A on crest, a 'nest' of 3 juveniles under laterite boulder.

ELAPIDAE

RHINOPLOCEPHALUS GOULDII Gould's Snake
Two records (July and December), pitfall-trapped in *Eucalyptus flocktoniae* Open Shrub Mallee on lower slopes, and under stone in *E. annulata* Low Woodland.

NOTECHIS SCUTATUS OCCIDENTALIS Tiger Snake
Four records (March, April, May and October), in *Dryandra foliosissima* Low Scrub A on crest at line 2, in Banded Ironstone Formation rockpile, and cage-trapped at line 9 in *Eucalyptus flocktoniae* Open shrub Mallee.

PSEUDONAJA AFFINIS Dugite
Three records (October and November), in *Dryandra foliosissima* Low Scrub A on crest at line 3, and *Eucalyptus flocktoniae* Open Shrub Mallee on middle and lower slopes.

INLAND FISH

Two species, *Galaxias maculatus* and *Pseudogobius olorum* were collected using rotenone in a permanent saline pool in Cordingup Creek in 1986. An accompanying water sample had 15 500 mg L^{-1} TSS.

DISCUSSION

With fourteen native species recorded, the RANGE has a relatively rich and abundant mammal fauna, compared with that of other areas in the south-eastern agricultural region.

For example, nine species have been recorded from Lake Magenta Nature Reserve (Steve Toole *personal communication*), five from Stokes National Park (Newbey and Bradby[1]) and twenty-two from Fitzgerald River National Park (Chapman 1995). Further bat collecting in the RANGE will extend the mammal richness of the area.

All mammals recorded in the RANGE are known from elsewhere in the wheatbelt and south coast of WA. However, in most places this number of species rarely exists together in a relatively small area. The presence of *Isoodon obesulus* and *Rattus fuscipes* was unexpected as they are usually found in more mesic habitats in higher rainfall areas, although *Isoodon* once occurred at Lake Grace (e.g. M4521 in WA Museum).

The RANGE is at present the driest area from which *Rattus fuscipes* has been recorded in WA. *Macropus irma, Tarsipes rostratus and Pseudomys occidentalis* are endemic in south-west WA; the latter has a small distribution. It occurs only in a triangle based on Tambellup, Bendering and Ravensthorpe. The presence of *Macropus eugenii* is significant as this species is rare and endangered on the mainland and only known from a few localities. It is obviously uncommon within the RANGE and its survival may be dependent upon future management strategies, particularly with respect to controlled burning and control of feral predators.

Few fauna surveys in WA have extended throughout the year and progressed into a second year. Therefore, the trapping results have been analysed for the six most commonly trapped mammals.

During phase 1 trapping effort was identical for summer, autumn, winter and spring. Results are presented as histogram percentages in Figure 3. With the exception of *Sminthopsis griseoventer* fewer native species were caught in autumn than at other times of the year.

In the case of nectar and pollen feeders, i.e. *Cercartetus* and *Tarsipes,* this is understandable as there is extensive flowering in autumn in the RANGE (see below). For these

[1] B.Newbey and K.Bradby, unpublished manuscript, Biological Survey Report, Stokes National Park, Heritage Committee of Western Australia.

species summer and winter might be times of maximum nutritional stress. For *Tarsipes rostratus, Rattus fuscipes* and *Pseudomys occidentalis* these data indicate they are caught more frequently in summer and winter. The higher numbers of *Rattus fuscipes* and *Pseudomys occidentalis* during summer is the result of post-breeding population increase, as these species breed in spring in south-west WA (Kitchener and Chapman 1977; Chapman and Kitchener 1977).

Table 6 summarizes trapping data for mammals. It shows that each species is most abundant in different trap lines. The situation with respect to *Mus domesticus* is particularly interesting; these data suggest that in situations of high native mammal richness *Mus* is only abundant at times and in habitats with low native mammal numbers.

The 89 bird species recorded during the survey is comparable to the figure of 75 being the average per wheatbelt reserve for the WA Museum survey of 22 reserves (J. Dell personal communication) in de Rebeira and de Rebeira (1977). The species composition of the avifauna is similar to that for comparable areas; for example, the RANGE has all species in common with the Fitzgerald River National Park (Newbey and Chapman 1995) and 73 in common with Lake Magenta Nature Reserve (Dell 1976). Most of the differences between the RANGE avifauna and that of these two areas (except seabirds for FRNP) are attributable to a characteristic suite of open country birds not present in the RANGE, but are present close by in suitable habitat. These include Pipit, White-fronted Chat, Red-capped Robin and Brown Songlark.

The RANGE avifauna includes 13 species of honeyeater (family Meliphagidae). Not recorded is Singing Honeyeater which in the Ravensthorpe Shire is largely an inhabitant of coastal vegetation, road verges and shelter belts. Most honeyeater species were present in the RANGE throughout the year; elsewhere in the wheatbelt Brown Honeyeater, Purple-gaped Honeyeater, New Holland Honeyeater, Red Wattlebird and Brown-headed Honeyeater are considered non-residents (Kitchener *et al.* 1982). Here, at least for the duration of this survey, these species were present throughout the year. This is almost certainly explained by the extended flowering season in the RANGE.

In addition to the usual flowering in Spring some mallees and other eucalypts flower over summer, including *Eucalyptus nutans* and *E. flocktoniae*. In autumn there is an additional flowering with *Dryandra quercifolia, Eucalyptus preissiana, E. occidentalis* and *Hakea laurina* which are all abundant within and around the RANGE. Purple-crowned Lorikeet is present throughout the year, presumably for similar reasons.

Most bird species found in the RANGE have relatively wide distributions; an exception is Western Whipbird, known between Two Peoples Bay and Ravensthorpe and inland to Nyabing (McNee 1986). It is common in *Banksia lemanniana* shrubland on crest and *Eucalyptus flocktoniae* Open Shrub Mallee on lower slope in the southern RANGE but rare north of the Raventhorpe-Esperance road.

The reptile assemblage of the RANGE is an impoverished semi-arid fauna with some additional southern species. There is a marked attenuation in number of reptile species in southern WA, particularly geckoes, agamids and varanids (Chapman and Dell 1985). This, we believe, is owing to climatic and not edaphic factors.

Southern species usually associated with more mesic habitats are *Notechis scutatus, Cryptoblepharus virgatus, Egernia kingii* and the frog *Litoria cyclorhynchus.*

The amphibian fauna, with seven species, is quite rich for a semi-arid area with little or no surface water. *Limnodynastes dorsalis* and *Litoria cyclorhynchus* were both collected high in the RANGE, some kilometres from water. *Neobatrachus* sp. is an arid and semi-arid frog near the southern limit of its range at Ravensthorpe.

The abundance and richness of mammals and birds in the RANGE is probably owing to the lack of any large-scale environmental degradation and the abundance of flowering plants. Habitat diversity, which has been implicated for the survival of vertebrates on wheatbelt reserves (Kitchener *et al.* 1980b), is comparatively low in the RANGE. The situation of having, for example, woodlands, mallee and sandplains in close proximity does not pertain here. Our estimates of vegetation formation proportions are: shrub mallee to very open shrub mallee 85 per cent, low woodlands 10 per cent, *Eucalyptus salmonophloia* woodland 4 per cent, the remaining 1 per cent includes creeks, samphire, roads and disturbed areas.

TABLE 6
Capture data for mammals in Ravensthorpe range

	NORTHERN TRAPLINE						SOUTHERN TRAPLINE						
SPECIES	1	2	3	4	5	6	7	8	9	10	11	12	13
Cercartetus concinnus	1						5						
Tarsipes rostratus	2		1		1		7		5	5	5	29	1
Sminthopsis griseoventer		1					2		5		1		11
Rattus fuscipes		2	2		5	1	7*	7*	16*		13	1	
Pseudomys occidentalis	4	14						1	3	2			
Mus musculus	2	1					1	7	3	2	17	1	

* At least one of this total is a *Pseudomys shortridgei*

Conservation Importance and Comparison with other 'Greenstone' Areas.

'Greenstone' as a landform attracts considerable attention for nature conservation because of its poor representation in conservation reserves and its potential for rare flora. Two similar areas that have been studied in some detail are Kangaroo Hills Timber Reserve in the Goldfields at

121°05'E, 31°03'S, (Bamford, Davies and Ladd[1]) and Wongan Hills in the Wheatbelt at 116°38'E, 30°50'S, (Kenneally 1977; and Coates[2]). All three areas are relatively small topographic isolates comprising dissected Archaen 'greenstones' which have been extensively prospected for minerals.

Neither area has been cleared but there has been extensive timber removal and grazing on Kangaroo Hills.

There has been loss of bird species from Wongan Hills owing to increasing isolation and fragmentation of habitat with agricultural clearing (see de Rebeira and de Rebeira 1977). Thus, although dieback presents a real future threat to the biota of the Ravensthorpe Range, at present it remains the least disturbed of these three 'greenstone' isolates. A general comparison is made in Table 7.

TABLE 7

General comparison between Ravensthorpe Range (RR), Wongan Hills (WH) and Kangaroo Hills (KH)

	RR	WH	KH
AREA (ha)	10 000	1 750	9 721
BEARD BOTANICAL DISTRICT	Eyre	Avon	Coolgardie
ANNUAL RAINFALL (mm)	423	387	256
No. MAMMAL SPECIES	14	9	9
No. BIRD SPECIES	89	125	70
No. REPTILE SPECIES	27	22	32
No. AMPHIBIAN SPECIES	7	4	2
No. VASCULAR PLANT SPP.	554	403	250
No. FERN SPECIES	4	3	1
No. DRF* SPECIES	3	9	NIL

*DECLARED RARE FLORA

The high numbers of vascular plants, mammals, birds and amphibians reflect the relatively undisturbed nature of the Ravensthorpe Range biota. The higher numbers of reptiles from Kangaroo Hills are indicative of its location on the edge of the arid zone.

A further important aspect of the RANGE is its position traversing a major wildlife corridor between Fitzgerald River National Park and extensive areas of natural vegetation north-east of Ravensthorpe, extending into the Goldfields. Rising to only 150 m above the surrounding plain the RANGE is not a physical barrier to faunal movement.

The RANGE obviously has too many biological values to be managed without significant conservation input. The future possible spread of dieback disease represents the greatest single threat to the biological integrity of the Ravensthorpe Range.

[1] M.J. Bamford, S.J.J.F. Davies and P.G. Ladd, unpublished manuscript 'Biological survey of Kangaroo Hills and Calooli Timber Reserves, Western Australia'. Department of Conservation and Land Management

[2] A. Coates, unpublished manuscript, 'Vegetation survey of the Wongan Hills'. Department of Conservation and Land Management.

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APPENDIX I

Description of vegetation types

Listed below are the plant associations identified during field work. They have been based on the structural classification of Muir (1977) and listed in trap line sequence. Some sites have vegetation that varies widely over a few metres in both structure and species composition. They are named according to some dominant physical character, e.g. Granitoid Complex.

Each typical site has a brief description of geology, landform and soils. Location was calculated from R712 series topographical maps at the scale of 1:50 000. 'Miscellaneous plants' includes annuals, aquatics, climbers (non-parasitic), ferns, geophytes (including small perennial rosette plants such as some *Drosera* and *Stylidium* species), parasitic climbers, perennial grasses, sedges (Cyperaceae, Restionaceae, perennial *Juncus* spp.) and sedge-like (e.g. *Lomandra, Patersonia, Xanthorrhoea* spp.). Numbers in parentheses following plant names represent canopy cover (CC). 'Clumping' is a visual assessment into broad categories: none, slight, moderate and strong. A number of plant taxa are unnamed and they are referenced as 'aff.', 'cf.' to a named taxa; or as 'sp.' All are referenced by the 'KRN' number of the voucher specimen housed in PERTH (Appendix II).

Soil surface data of rock (bedrock), stone, pavement and litter are visual estimates. At each site a hole (62 mm diameter) was augered to 1 m wherever possible. For each soil horizon, the following were recorded: texture (Northcote 1971), colour (Munsel or PCCS colours in Munsell not available), inclusions (visual estimate of main type and size range), pH (Inoculo Soil pH Testing Kit) and calcareousness (by Northcote, 1971, if pH was 8.0 or greater). Unless stated in 'COMMENTS', the vegetation was considered mature when recorded. The geological surface classifications used here and in Table 5 are from Thom *et al.* (1977).

SITE No: RA001
LOCATION: Ravensthorpe Range, 7.2 km N of Ravensthorpe
Lat. 33 31'06" Long. 120 03'51" AMG: 227300E 6287300N
Surveyed 27 October 1987

SITE AREA: *ca* 240 m x 40 m ASPECT: NNE
LAST BURNT: Greater than 50 years
DISTURBANCE: None evident or known

LAND REGION: Southern PROVINCE: Eastern Goldfields
SUB-PROVINCE: Desmond SYSTEM: Ravensthorpe

GEOL. REGION: Block LOCAL: Shield
BEDROCK: Lateritic caprock SURFACE: Czl

LANDFORM
PATTERN TYPE: Rolling Hills PATTERN: Residual hills
UNIT: Ridge ELEMENT: Crest
DRAINAGE PATTERN: Dendritic SPACING: Close
SLOPE LENGTH: 50-150 m INCLINATION: To gentle
EXPOSURE: Inland, moderate AGENT: Sheet wash

LAND SURFACE
EROSION: Absent WIND: Absent
SHEET: Absent RILL: Absent
GULLY: Absent GULLY DEPTH: Absent
STREAM BANK: Absent TUNNEL: Absent
WAVE: Absent MASS MOVEMENT: Absent
ACTIVITY: Eroded FREQUENCY: Barely active
MICRO-RELIEF: None SOIL: Hardsetting
INUNDATION FREQUENCY: 1-10 years
DEPTH: Less than 5 cm DURATION:Less than 1 hour

RUN-OFF VELOCITY: Low INFILTRATION: ?
ROCK: Rocky STONE: Very few, subrounded cobbles
PAVEMENT: Scattered, medium pebbles

LOGS: Absent BRANCHES: Absent
LEAVES: Broad, deposits 2-5 cm thick, 3-15 m apart; narrow, 1-2 cm thick, 1-5 m apart

SOIL PROFILE
OBSERVATION: No other THICKNESS: Skeletal, 2-20 cm
MAIN ORIGIN: *In situ* weathering MINOR: None evident
ATTRIBUTE: Skeletal DRAINAGE: Excessive
SRT: Neutral SALINITY: None
NORTHCOTE: Uc1.23-1/0/13/1 SOIL GROUP: Lithosol
NAME: Not named

A 0-13 cm 'Greyish brown' (7.5 YR 4/3) loamy sand; humus content low; roots fine, few; inclusions 10-20% rounded gravel 2-10 mm diameter; pH 6.5; slightly water repellent; boundary sharp,irregular, no obvious weathering zone.

VEGETATION
PROVINCE: South-west DISTRICT: Eyre
SYSTEM: Ravensthorpe
MUIR: KSi.SAr.SBi.SCl.SDr.VLr No. of TAXA: 87

STRATUM 1: Mallees 3-5 m, CC = 15, clumping none *Eucalyptus tetragona* (12), *E. falcata* (3).
STRATUM 2: Shrubs 2.1-3.2 m, CC = 1.2, clumping none *Banksia lemanniana* (0.5), *Isopogon polycephalus* (0.5), *Hakea obtusa* (0.1), *Exocarpos sparteus* (+), *H. laurina* (+), *Melaleuca uncinata* (+).
STRATUM 3: Shrubs 1.6-2.0 m, CC = 3.3, clumping none *Acacia fragilis* (1), *Dryandra foliosissima* (1), *D.* aff. *cirsioides* (1), *Jacksonia lehmannii* (0.2), *Kunzea preissiana* (0.1).
STRATUM 4: Shrubs 1.1-1.5 m, CC = 14, clumping none *Dryandra foliosissima* (7), *Allocasuarina humilis* (2), *Hakea trifurcata* (2), *Grevillea coccinea* (1), *H. lissocarpha* (1), *Acacia* sp. (KRN 938) (0.5), *Daviesia* sp. (KRN 569) (0.5), *Agonis spathulata* (0.2), *Choretrum glomeratum* var. *glomeratum* (+), *D. pachyphylla* (+).
STRATUM 5: Shrubs 0.6-1.0 m, CC = 14, clumping none *Dryandra cirsioides* (6), *Petrophile trifida* (3), *Leptospermum spinescens* (2), *Goodenia pinifolia* (1), *Melaleuca scabra* (1), *Leucopogon cuneifolius* (0.5), *Beaufortia schaueri* (0.2), *Micromyrtus racemosa* (0.1), *Grevillea acuaria* (+), *Lasiopetalum rosmarinifolium* (+), *Logania buxifolia* (+), *Lysinema ciliatum* (+), *Phebalium rude* ssp. *amblyocarpum* (+).
STRATUM 6a: Shrubs 0.0-0.5 m, CC = 3.5, clumping none *Boronia crassifolia* (1), *Hibbertia gracilipes* (1), *Beaufortia micrantha* var. *micrantha* (0.5), *D. sacculata* (0.2), *Leucopogon* aff. *conostephioides* (0.2), *Adenanthos argyreus* (0.1), *Astroloma serratifolium* (0.1), *Leucopogon concinnus* (0.1), *Petrophile seminuda* (0.1), *Platysace maxwellii* (0.1), *Spyridium cordatum* (0.1), *Boronia tenuis* (+), *Calytrix leschenaultii* (+), *Comesperma confertum* (+), *Dampiera lavandulacea* (+), *D. oligophylla* ssp. *juncea* (+), *Darwinia vestita* (+), *Glischrocaryon aureum* var. *angustifolium* (+), *Gompholobium knightianum* (+), *Goodenia scapigera* (+), *Hovea trisperma* (+), *Olax benthamiana* (+), *Persoonia tortifolia* (+), *Stackhousia scoparia* (+), *Tripterococcus brunonis* (+), *Verticordia endlicheriana* (+).
STRATUM 6b: Misc. plants, CC = 4.8, clumping none
CLIMBERS: *Billardiera sericea* (+).
GEOPHYTES: *Drosera scorpoides* (0.1), *Stylidium albomontis* (0.1), *S. piliferum* ssp. *minor* (0.1), *Caladenia saccharata* (+), *Haemodorum paniculatum* (+), *Thelymitra canaliculata* (+), *Thysanotus patersonii* ssp. *patersonii* (+).
PARASITIC CLIMBERS: *Cassytha glabella* (+), *C. micrantha* (+).
PERENNIAL GRASSES: *Neurachne alopecuroidea* (0.5), *Amphipogon turbinatus* (0.1).
SEDGES: *Mesomelaena stygia* ssp. *stygia* (2), *Lepidosperma viscidum* var. *viscidum* (0.5), *Schoenus subflavus* (0.2), *Gahnia ancistrophylla* (0.1), *L. carphoides* (0.1), *L.* aff. *resinosum* (0.1), *S. sublaxus* (0.1), *Lepidobolus chaetocephalus* (+), *Lepidosperma leptostachyum* (+), *S. subbarbatus* (+), *Tetraria capillaris* (+).
SEDGE-LIKE: *Conostylis androstemma* ssp. *argentea* (0.4), *Lomandra collina* (0.2), *L. micrantha* ssp. *teretifolia* (0.1).

FAUNA
BIRDS: No
REPTILES, MAMMALS & AMPHIBIANS: Drift fence 50 m long; metal trap line. INVERTEBRATES: No

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SITE No: RA002
LOCATION: Ravensthorpe Range, 6.5 km NNE of Raventhorpe
Lat. 33 31'37" Long. 120 04'13" AMG: 227950E 6286350N
Surveyed 27 October 1987

SITE AREA: *ca* 150 m x 40 m ASPECT: Crest
LAST BURNT: Greater than 60 years
DISTURBANCE: None evident or known

LAND REGION: Southern PROVINCE: Eastern Goldfields
SUB-PROVINCE: Desmond SYSTEM: Ravensthorpe

GEOL. REGION: Block LOCAL: Shield
BEDROCK: Lateritic caprock SURFACE: Czl

LANDFORM
PATTERN TYPE: Rolling Hills PATTERN: Residual hills
UNIT: Ridge ELEMENT: Crest
DRAINAGE PATTERN: Dendritic SPACING: Close
SLOPE LENGTH: 40-90 m INCLINATION: To gentle
EXPOSURE: Inland, moderate AGENT: Sheet wash

LAND SURFACE
EROSION: Absent WIND: Absent
SHEET: Absent RILL: Absent
GULLY: Absent GULLY DEPTH: Absent
STREAM BANK: Absent TUNNEL: Absent
WAVE: Absent
MASS MOVEMENT: Absent ACTIVITY: Eroded
FREQUENCY: Barely active MICRO-RELIEF: None
SOIL: Hardsetting
INUNDATIONFREQUENCY: 1-10 years
DEPTH: Less than 5 cm DURATION: Less than 1hour
RUN-OFF VELOCITY: Low INFILTRATION: ?
ROCK: Rocky STONE: Very few, subrounded cobbles
PAVEMENT: Scattered, medium pebbles
LOGS: Absent BRANCHES: Absent
LEAVES: Broad, deposits 1-2 cm thick, 15-20 m apart; narrow, 1-2 cm thick, almost continuous

SOIL PROFILE
OBSERVATION: No other THICKNESS: Skeletal, 2-20 cm
MAIN ORIGIN: *In situ* weathering MINOR: None evident
ATTRIBUTE: Skeletal DRAINAGE: Excessive
SRT: Neutral SALINITY: None
NORTHCOTE: Uc1.23-1/0/12/1 SOIL GROUP: Lithosol
NAME: Not named

A 0-12 cm Reddish brown (5 YR 4/4) loamy sand; humus content low; roots fine, frequent; inclusions 15-20% subrounded gravel 4-20 mm diameter; consistence weak; pH 6.25; highly water repellent;boundary sharp, irregular, no obvious weathering zone.

VEGETATION
PROVINCE: South-west DISTRICT: Eyre
SYSTEM: Ravensthorpe
MUIR: KSr.SAr.SBc.SCi.SDr.VLr.GLr
No. of TAXA: 70

STRATUM 1a: Mallees 2.2-3.0 m, CC = 8, clumping none
Eucalyptus tetragona (5), *E. falcata* (3).
STRATUM 1b: Shrubs 2.1-3.0 m, CC = 0.1, clumping none
Banksia lemanniana (0.1), *Exocarpos sparteus* (+).
STRATUM 2: Shrubs 1.6-2.0 m, CC = 7, clumping none
Allocasuarina humilis (2), *Grevillea coccinea* (2), *Dryandra foliosissima* (1), *Hakea obtusa* (1), *Isopogon polycephalus* (1).
STRATUM 3: Shrubs 1.1-1.5 m, CC = 43, clumping none
Dryandra foliosissima (25), *D.* aff. *cirsioides* (7), *Jacksonia lehmannii* (5), *Agonis spathulata* (3), *Acacia fragilis* (2), *Agonis spathulata* (2), *Daviesia unifolia* (2), *D. obtusifolia* (+).
STRATUM 4: Shrubs 0.6-1.0 m, CC = 10, clumping none
Petrophile trifida (4), *Goodenia pinifolia* (2), *Leucopogon cuneifolius* (2), *Beaufortia schaueri* (1), *Phebalium rudes* ssp. *amblyocarpum* (1), *Acacia* sp. (KRN 938) (0.1), *Lysinema ciliatum* (0.1), *Choretrum glomeratum* var. *glomeratum* (+), *Grevillea fulgens* (+), *Logania buxifolia* (+), *Siegfredia darwinioides* (+).
STRATUM 5a: Shrubs 0.0-0.5 m, CC = 9.2, clumping none
Guichenotia apetala (2), *Beaufortia micrantha* var. *micrantha* (1), *Boronia crassifolia* (1), *Dampiera oligophylla* ssp. *juncea* (1), *Hibbertia gracilipes* (1), *Leptospermum spinescens* (1), *Spyridium cordatum* (1), *Melaleuca scabra* (0.5), *Acrotriche cordata* (0.1), *Adenanthos argyreus* (0.1), *Dryandra ferruginea* (0.1), *Hibbertia* aff. *pungens* (0.1), *Leucopogon* aff. *conostephoides A* (0.1), *Acrotriche ramiflora* (+), *Astroloma prostratum* (+), *A. serratifolium* (+), *Boronia tenuis* (+), *Calytrix leschenaultii* (+), *Glischrocaryon aureum* var. *angustifolium* (+), *Goodenia scapigera* (+), *Persoonia striata* (+), *Petrophile seminuda* (+), *Stackhousia scoparia* (+), *Stylidium breviscapum* (+).
STRATUM 5b: Misc. plants, CC = 12, clumping none
CLIMBERS: *Billardiera sericea* (0.1), *B. coriacea* (+).
GEOPHYTES: *Stylidium albomontis* (0.3), *Drosera scorpoides* (+), *Pterostylis vittata* var. *vittata* (+), *P.* sp. (KRN 11340) (+).
PARASITIC CLIMBERS: *Cassytha glabella* (0.1).
PERENNIAL GRASSES: *Amphipogon turbinatus* (1), *Neurachne alopecuroidea* (1).
SEDGES: *Lepidosperma viscidum* var. *viscidum* (4), *Mesomelaena stygia* ssp. *stygia* (1), *Schoenus sublaxus* (1), *L.* aff. *resinosum* (0.2), *Tricostularia neesii* var. *neesii* (0.1), *L. carphoides* (+), *L. leptostachyum* (+).
SEDGE-LIKE:*Conostylis androstemma* ssp. *argentea* (2), *Lomandra collina* (1), *L. micrantha* ssp. *teretifolia* (+).

FAUNA
BIRDS: No
REPTILES, MAMMALS & AMPHIBIANS: Metal trap line; drift fence 50 m long INVERTEBRATES: No

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SITE No: RA003
LOCATION: Ravensthorpe Range, 6.2 km NE of Raventhorpe
Lat. 33 32'07" Long. 120 05'05" AMG: 229300E 6285500N
Surveyed 27 October 87

SITE AREA: *ca* 150 m x 40 m ASPECT: Crest
LAST BURNT: Greater than 60 years
DISTURBANCE: None evident or known

LAND REGION: Southern PROVINCE: Eastern Goldfields
SUB-PROVINCE: Desmond SYSTEM: Ravensthorpe

GEOL. REGION: Block LOCAL: Shield
BEDROCK: Lateritic caprock SURFACE: Czl

LANDFORM
PATTERN TYPE: Rolling Hills PATTERN: Residual hills
UNIT: Ridge ELEMENT: Crest
DRAINAGE PATTERN: Dendritic SPACING: Close
SLOPE LENGTH: 40-90 m INCLINATION: To gentle
EXPOSURE: Inland, moderate AGENT: Sheet wash

LAND SURFACE
EROSION: Absent WIND: Absent
SHEET: Absent RILL: Absent
GULLY: Absent GULLY DEPTH: Absent
STREAM BANK: Absent TUNNEL: Absent
WAVE: Absent
MASS MOVEMENT: Absent ACTIVITY: Eroded
FREQUENCY: Barely active MICRO-RELIEF: None
SOIL: Hardsetting

Appendix I (continued)

INUNDATION FREQUENCY: 1-10 years
DEPTH: Less than 5 cm — DURATION: Less than 1 hour
RUN-OFF VELOCITY: Low — INFILTRATION: ?
ROCK: Rocky — STONE: Very few, subrounded cobbles
PAVEMENT: Scattered, medium pebbles
LOGS: Absent — BRANCHES: Absent
LEAVES: Broad, deposits 1-2 cm thick, 15-20 m apart; narrow, 1-2 cm thick, almost continuous

SOIL PROFILE
OBSERVATION: No other — THICKNESS: Skeletal, 2-27 cm
MAIN ORIGIN: *In situ* weathering — MINOR: None evident
ATTRIBUTE: Skeletal — DRAINAGE: Excessive
SRT: Neutral — SALINITY: None
NORTHCOTE: Uc1.23-1/0/18/1 — SOIL GROUP: Lithosol
NAME: Not named

A 0-18 cm Dark reddish brown (5 YR 3/3) loamy sand; humus content low; roots fine, frequent; inclusions 15-20% rounded gravel 4-10 mm diameter; consistence moderately weak; pH 6.25; not water repellent; boundary sharp, irregular, no obvious weathering zone.

VEGETATION
PROVINCE: South-west — DISTRICT: Eyre
SYSTEM: Ravensthorpe
MUIR: KSr.Sr.SAc.SBr.SDc — No. of TAXA: 51

STRATUM 1: Mallees 4-5 m, CC = 5.1, clumping none *Eucalyptus falcata* (3), *E. tetragona* (1), *E. uncinata* (1), *E. incrassata* (0.1).
STRATUM 2: Shrubs 2.1-2.7 m, CC = 6.3, clumping none *Banksia lemanniana* (5), *Grevillea coccinea* (1), *Persoonia teretifolia* (0.2), *G. platypoda* (0.1).
STRATUM 3: Shrubs 1.6-2.0 m, CC = 49, clumping none *Beaufortia orbifolia* (45), *Jacksonia lehmannii* (2), *Hakea obtusa* (1), *Isopogon polycephalus* (1).
STRATUM 4: Shrubs 1.1-1.5 m, CC = 5.7, clumping none *Beaufortia schaueri* (3), *Leucopogon cuneifolius* (2), *Acacia fragilis* (1), *Phebalium rude* ssp. *amblyocarpum* (0.5), *Kunzea affinis* (0.1), *Beyeria* sp. (KRN 11401) (+), *Hakea lissocarpha* (+).
STRATUM 5: Shrubs 0.6-1.0 m, CC = 0.5, clumping none *Oxylobium parviflorum* var. *parviflorum* (0.2), *Goodenia pinifolia* (0.1), *Acacia* sp. (KRN 938) (+), *Acrotriche ramiflora* (+), *Boronia ternata* var. *elongata* (+), *Lysinema ciliatum* (+).
STRATUM 6a: Shrubs 0.0-0.5 m, CC = 1.3, clumping none *Daviesia anceps* (0.3), *Boronia crenulata* var. *gracilis* (0.2), *B. crassifolia* (0.1), *Hibbertia* aff. *pungens* (0.1), *Lasiopetalum compactum* (0.1), *Leptospermum spinescens* (0.1), *Spyridium cordatum* (0.1), *B. inconspicua* (+), *Brachyloma concolor* (+), *Dampiera oligophylla* ssp. *juncea* (+), *H. acerosa* (+), *Hovea trisperma* (+), *Leucopogon* aff. *conostephioides A* (+), *Logania buxifolia* (+), *Melaleuca scabra* (+), *Persoonia tortifolia* (+).
STRATUM 6b: Misc. plants, CC = 2.0, clumping none
CLIMBERS: *Billardiera sericea* (+).
GEOPHYTES: *Stylidium albomontis* (1), *Pterostylis vittata* var. *vittata* (+).
PARASITIC CLIMBERS: *Cassytha melantha* (0.1), *C. racemosa* (+).
SEDGES: *Lepidosperma* aff. *resinosum* (0.5), *L. viscidum* var. nov. (0.2), *L. leptostachyum* (0.1), *Schoenus sublaxus* (+).

FAUNA
BIRDS: No
REPTILES, MAMMALS & AMPHIBIANS: Metal trapline; drift fence 50 m long. — INVERTEBRATES: No

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SITE No: RA004
LOCATION: Ravensthorpe Range, 7.5 km NE of Ravensthorpe
Lat. 33 32'55" Long. 120 05'15" AMG: 232650E 6283750N
Surveyed 28 October 1987
SITE AREA: *ca* 40 m x 150 m — ASPECT: NE
LAST BURNT: More than 75 years
DISTURBANCE: None evident or known

LAND REGION: Southern — PROVINCE: Eastern Goldfields
SUB-PROVINCE: Desmond — SYSTEM: Ravensthorpe

GEOL. REGION: Block — LOCAL: Shield
BEDROCK: Greenstone — SURFACE: Au

LANDFORM
PATTERN TYPE: Rolling Hills — PATTERN: Residual hills
UNIT: Ridge — ELEMENT: Middle and lower slope
DRAINAGE PATTERN: Uni-directional
SPACING: Close
SLOPE LENGTH: 150-350 m — INCLINATION: Gentle to Moderate A
EXPOSURE: Inland, moderate — AGENT: Sheet wash

LAND SURFACE
EROSION: Absent — WIND: Absent
SHEET: Absent — RILL: Absent
GULLY: Absent — GULLY DEPTH: Absent
STREAM BANK: Absent — TUNNEL: Absent
WAVE: Absent
MASS MOVEMENT: Absent — ACTIVITY: Eroded = Aggraded
FREQUENCY: Barely active — MICRO-RELIEF: None
SOIL: Hardsetting
INUNDATION FREQUENCY: 1-10 years
DEPTH: Less than 5 cm — DURATION: Less than 1hour
RUN-OFF VELOCITY: High — INFILTRATION: ?
ROCK: No exposure — STONE: Absent
PAVEMENT: Absent
LOGS: Absent — BRANCHES: Few
LEAVES: Broad, deposits 1-2 cm thick, continuous

SOIL PROFILE
OBSERVATION: No other — THICKNESS: Shallow, 25-35 cm
MAIN ORIGIN: *In situ* weathering — MINOR: Colluvial
ATTRIBUTE: Calcareous — DRAINAGE: Good
SRT: Calcareous — SALINITY: None
NORTHCOTE: Um1.13-2/1/28/1 — SOIL GROUP: Lithosol
NAME: Not named

A 0-28 cm Dark reddish brown (2.5 YR 3/4) sandy clay loam; humus content low; roots fine, frequent, mainly in upper 12 cm; moderately weak to moderately firm with depth; inclusions 5-7% subangular greenstone 4-15 mm long; pH 8.25; slightly calcareous; boundary sharp, irregular, no obvious weathering zone.

VEGETATION
PROVINCE: South-west — DISTRICT: Eyre
SYSTEM: Ravensthorpe
MUIR: KSc.Sr.SAr.SDi — No. of TAXA: 24

STRATUM 1: Mallees 4-5 m, CC = 40, clumping none *Eucalyptus flocktoniae* (25), *E. celastroides* var. *virella* (10), *E. anceps* (5).
STRATUM 2: Shrubs 2.1-3.5 m, CC = 4, clumping strong *Melaleuca cucullata* (2), *M. eleuterostachya* (2), *Santalum acuminatum* (+).
STRATUM 3: Shrubs 1.6-2.0 m, CC = 2, clumping strong *Melaleuca pauperiflora* (1), *M. undulata* (1), *Daviesia* aff. *nematophylla* (+).
STRATUM 4: Shrubs 1.1-1.5 m, CC = 0.1, clumping none *Exocarpos aphyllus* (+), *Oxylobium parviflorum* var. *parviflorum* (+), *Persoonia teretifolia* (+).

STRATUM 5: Shrubs 0.6-1.0 m, CC = 0.1, clumping none *Hakea commutata* (+), *Olearia muelleri* (+).
STRATUM 6a: Shrubs 0.0-0.5 m, CC = 16, clumping none *Pultenaea conferta* (15), *Acacia* aff. *cometes* (0.5), *A. ingrata* (0.2), *Lasiopetalum compactum* (0.1), *Boroniainconspicua* (+), *B. inornata* ssp. *inornata* (+), *Goodenia laevis* (+), *Grevillea huegelii* (+), *Westringia rigida* (+).
STRATUM 6b: Misc. plants, CC = +, clumping none
SEDGE-LIKE: *Dianella revoluta* (+).

FAUNA
BIRDS: No
REPTILES, MAMMALS & AMPHIBIANS: Metal trapline, drift fence 50 m long
INVERTEBRATES: No

SITE No: RA005(M)
LOCATION: Ravensthorpe Range, 7.0 km NE of Ravensthorpe
Lat. 33 32'10" Long. 120 05'45" AMG: 230600E 628585N
Surveyed 26 October 1987

SITE AREA: *ca* 40 m x 150 m
ASPECT: NE
LAST BURNT: More than 75 years
DISTURBANCE: None evident or known

LAND REGION: Southern
PROVINCE: Eastern Goldfields
SUB-PROVINCE: Desmond
SYSTEM: Ravensthorpe

GEOL. REGION: Block
LOCAL: Shield
BEDROCK: Greenstone
SURFACE: Au

LANDFORM
PATTERN TYPE: Rolling Hills
PATTERN: Residual hills
UNIT: Ridge
ELEMENT: Middle and lower slope
DRAINAGE PATTERN: Dendritic
SPACING: Close
SLOPE LENGTH: 200-700 m
INCLINATION: Gentle
EXPOSURE: Inland, moderate
AGENT: Sheet wash

LAND SURFACE
EROSION: Absent
WIND: Absent
SHEET: Absent
RILL: Absent
GULLY: Absent
GULLY DEPTH: Absent
STREAM BANK: Absent
TUNNEL: Absent
WAVE: Absent
MASS MOVEMENT: Absent
ACTIVITY: Eroded = Aggraded
FREQUENCY: Barely active
MICRO-RELIEF: None
SOIL: Hardsetting
INUNDATION FREQUENCY: 1-10 years
DEPTH: Less than 5 cm
DURATION: Less than 1 hour
RUN-OFF VELOCITY: Low
INFILTRATION: ?
ROCK: No exposure
STONE: Very few, angular, large pebbles
PAVEMENT: Frequent, medium pebbles
LOGS: Absent
BRANCHES: Few
LEAVES: Broad, deposits 1-2 cm thick, almost continuous

SOIL PROFILE
OBSERVATION: No other
THICKNESS: Shallow, 25-35 cm
MAIN ORIGIN: *In situ* weathering
MINOR: Colluvial
ATTRIBUTE: Shallow
DRAINAGE: Good
SRT: Alkaline
SALINITY: None
NORTHCOTE: Um2.21-2/1/14/1
SOIL GROUP: Not identified
NAME: Not named

A 0-14 cm Dark reddish brown (5 YR 3/3) sandy clay loam; humus content low; roots fine, few; inclusions 5-15% subangular greenstone 5-20 mm long; consistence moderately firm; pH 7.25; not water repellent; boundary clear, wavy. B and C 14-27 cm Dark reddish brown (5 YR 3/4) sandy clay loam; inclusions as above, 10-20%; consistence very firm; pH 8.5; highly calcareous; boundary sharp, irregular, no obvious weathering zone.

VEGETATION
PROVINCE: South-west
DISTRICT: Eyre
SYSTEM: Ravensthorpe
MUIR: KSi.Sr.SAr.SBr.SCi.SDr
No. of TAXA: 24

STRATUM 1: Mallee 5-6 m, CC = 26, clumping none *Eucalyptus flocktoniae* (20), *E. anceps* (3), *E. celastroides* var. *virella* (2), *E. spathulata* ssp. *grandiflora* (1).
STRATUM 2: Shrubs 2.1-2.8 m, CC = 2.3, clumping moderate *Melaleuca eleuterostachya (1), M. uncinata (1), Hakea commutata (0.1), H. laurina* (0.1), *M. acuminata (0.1).*
STRATUM 3: Shrubs 1.6-2.0 m, CC = 5.1, clumping moderate *Melaleuca undulata (5), M. lateriflora* var. *lateriflora (0.1), Hakea verrucosa (+).*
STRATUM 4: Shrubs 1.1-1.5 m, CC = 2, clumping none *Melaleuca undulata (2), Exocarpos aphyllus (+).*
STRATUM 5: Shrubs 0.6-1.0 m, CC = 25, clumping moderate *Melaleuca undulata (25), Acacia sulcata* var. *platyphylla (+), Eriostemon gardneri (+), Grevillea huegelii (+).*
STRATUM 6a: Shrubs 0.0-0.5 m, CC = 2.3, clumping none *Pultenaea conferta (2), Acacia* aff. *cometes (0.1), Oxylobium microphyllum (0.1), Boronia inornata* ssp. *inornata (+), Cassia nemophila* var. *nemophila (+), Phebalium microphyllum (+).*
STRATUM 6b: Misc. plants, CC = 0.1, clumping none
PARASITIC CLIMBERS: *Cassytha melantha* (+).
PERENNIAL GRASSES: *Stipa elegantissima (+).*

FAUNA
BIRDS: No
REPTILES, MAMMALS & AMPHIBIANS: Metal trap line
INVERTEBRATES: No

SITE No: RA005(P)
LOCATION: Ravensthorpe Range, 7.0 km NE of Ravensthorpe
Lat. 33 32'10" Long. 120 05'45" AMG: 230600E 6285850N
Surveyed 26 October 87

SITE AREA: *ca* 70 m x 40 m
ASPECT: NE
LAST BURNT: More than 60 years
DISTURBANCE: None evident or known

LAND REGION: Southern
PROVINCE: Eastern Goldfields
SUB-PROVINCE: Desmond
SYSTEM: Ravensthorpe

GEOL. REGION: Block
LOCAL: Shield
BEDROCK: Greenstone
SURFACE: Qa in Au

LANDFORM
PATTERN TYPE: Rolling Hills
PATTERN: Residual hills
UNIT: Ridge
ELEMENT: Minor drainage line
DRAINAGE PATTERN: Dendritic
SPACING: Close
SLOPE LENGTH: 10-30 m
INCLINATION: Gentle
EXPOSURE: Inland, moderate
AGENT: Sheet wash

LAND SURFACE
EROSION: Absent
WIND: Absent
SHEET: Absent
RILL: Absent
GULLY: Absent
GULLY DEPTH: Absent
STREAM BANK: Absent
TUNNEL: Absent
WAVE: Absent
MASS MOVEMENT: Absent
ACTIVITY: Eroded = Aggraded
FREQUENCY: Occasional
MICRO-RELIEF: None
SOIL: Hardsetting
INUNDATION FREQUENCY: >1 per year
DEPTH: 10-30 cm
DURATION: Less than 1 day
RUN-OFF VELOCITY: Low
INFILTRATION: ?
ROCK: No exposure
STONE: Absent
PAVEMENT: Absent
LOGS: Absent
BRANCHES: Few
LEAVES: Broad, deposits 2-5 cm thick, almost continuous

SOIL PROFILE
OBSERVATION: No other
THICKNESS: Deep, 50-120 cm

Appendix I (continued)

MAIN ORIGIN: Colluvial
MINOR: Alluvial
ATTRIBUTE: None
DRAINAGE: Poor
SRT: Neutral
SALINITY: None
NORTHCOTE: Uc1.21-1/0/85+/1
SOIL GROUP: Alluvial Soil
NAME: Stream Alluvium

A 0-85 cm Dark brown (7.5YR 3/2) fine sandy loam; humus content low; roots fine, frequent; inclusions 5-10% angular greenstone 1-5 mm long; consistence moderately weak; pH 6.25; not water repellent; too dry to auger deeper.

VEGETATION
PROVINCE: South-west
DISTRICT: Eyre
SYSTEM: Ravensthorpe
MUIR: LAi.KSr.SBr
No. of TAXA: 40

STRATUM 1: Trees 6-8 m, CC = 17, clumping none *Eucalyptus astringens (15), E. nutans (2).*
STRATUM 2: Mallees 4-7 m, CC = 6, clumping none *Eucalyptus anceps (4), E. celastroides* var. *virella (1), E. flocktoniae (1).*
STRATUM 3: Shrubs 2.1-4.0 m, CC = 0.5, clumping none *Melaleuca acuminata (0.4), M. uncinata (0.1), Hakea laurina (+).*
STRATUM 4: Shrubs 1.6-2.0 m, CC = +, clumping none *Hakea verrucosa* (+).
STRATUM 5: Shrubs 1.1-1.5 m, CC = 2.1 clumping none *Acacia sulcata* var. *platyphylla (1), Exocarpos aphyllus (0.5), Oxylobium parviflorum* var. *parviflorum (0.5), Choretrum glomeratum* var. *glomeratum (+), Santalum acuminatum (+), Trymalium* sp. (KRN 11539) (+).
STRATUM 6: Shrubs 0.6-1.0 m, CC = 0.1, clumping none *Acrotriche ramiflora (+), Hakea commutata* (+).
STRATUM 7a: Shrubs 0.0-0.5 m, CC = 0.7, clumping none *Acacia erinacea (0.4), A.* aff. *cometes (0.1), Cassia nemophila* var. *nemophila (0.1), Dodonaea pinifolia (0.1), Hibbertia rupicola (+), Microcorys glabra (+), Olearia muelleri (+), Oxylobium microphyllum (+), Pimelea* sp. (KRN 70) (+), *Vittadinia gracilis* (+).
STRATUM 7b: Misc. plants, CC = 0.4, clumping none
ANNUALS: **Anagallis arvensis (+), Bulbine semibarbata (+), Daucus glochidiatus (+), Millotia tenuifolia* var. *tenuifolia (+), Poranthera microphylla (+), *Vulpia myuros (+).*
GEOPHYTES: *Oxalis corniculata (+), Pterostylis* sp. (KRN 11340) (+), *Thysanotus patersonii* ssp. *patersonii (+).*
PARASITIC CLIMBERS: *Cassytha melantha (+).*
PERENNIAL GRASSES: *Stipa puberula* (0.1), *Danthonia setacea* var. *breviseta* (+).
SEDGE-LIKE: *Dianella revoluta* (+).

FAUNA
BIRDS: No
REPTILES, MAMMALS & AMPHIBIANS: Drift fence 50 m long
INVERTEBRATES: No

SITE No: RA006
LOCATION: Ravensthorpe Range, 6.5 km NE of Ravensthorpe
Lat. 33 32'20" Long. 120 05'35" AMG: 230100E 6285250N
Surveyed 26 October 1987

SITE AREA: *ca* 50 m x 150 m
ASPECT: Crest
LAST BURNT: More than 50 years
DISTURBANCE: None evident or known

LAND REGION: Southern
PROVINCE: Eastern Goldfields
SUB-PROVINCE: Desmond
SYSTEM: Ravensthorpe

GEOL. REGION: Block
LOCAL: Shield
BEDROCK: Greenstone
SURFACE: Ak

LANDFORM
PATTERN TYPE: Rolling Hills
PATTERN: Residual hills
UNIT: Ridge
ELEMENT: Upper slope and crest

DRAINAGE PATTERN: Dendritic
SPACING: Close
SLOPE LENGTH: 50-80 m
INCLINATION: To Moderate B
EXPOSURE: Inland, moderate
AGENT: Sheet wash

LAND SURFACE
EROSION: Absent
WIND: Absent
SHEET: Absent
RILL: Absent
GULLY: Absent
GULLY DEPTH: Absent
STREAM BANK: Absent
TUNNEL: Absent
WAVE: Absent
MASS MOVEMENT: Absent
ACTIVITY: Eroded
FREQUENCY: Barely active
MICRO-RELIEF: None
SOIL: Hardsetting
INUNDATION FREQUENCY: 1-10 years

DEPTH: Less than 5 cm
DURATION: Less than 1hour
RUN-OFF VELOCITY: Low to high
INFILTRATION: ?
ROCK: Rocky
STONE: Very few, irregular, to stones

PAVEMENT: Absent
LOGS: Absent
BRANCHES: Few
LEAVES: Broad, deposits 1-2 cm thick, continuous

SOIL PROFILE
OBSERVATION: No other
THICKNESS: Shallow, 20-30 cm
MAIN ORIGIN: *In situ* weathering
MINOR: Colluvial on lower slope
ATTRIBUTE: Shallow
DRAINAGE: Good
SRT: Neutral
SALINITY: None
NORTHCOTE: Uc1.21-1/0/23/1
SOIL GROUP: Lithosol
NAME: Not named

A 0-23 cm 'Dark reddish brown' (7.5 YR 2/2) sandy loam; humus content low; roots fine, frequent; inclusions 5-15% angular greenstone 1-5 cm long; consistence moderately weak; pH 6.25; highly water repellent; boundary sharp, irregular, no obvious weathering zone.

VEGETATION
PROVINCE: South-west
DISTRICT: Eyre
SYSTEM: Ravensthorpe
MUIR: LAc.SBr.SDr
No. of TAXA: 35

STRATUM 1: Trees 5-8 m, CC = 30, clumping none *Eucalyptus astringens (28), E. nutans (10), E. megacornuta (2).*
STRATUM 2: Shrubs 2.1-3.0 m, CC = 0.1, clumping none *Hakea laurina (0.1), Melaleuca uncinata* (+).
STRATUM 3: Shrubs 1.6-2.0 m, CC = 0.2, clumping none *Calothamnus quadrifidus (0.1), Persoonia teretifolia (0.1).*
STRATUM 4: Shrubs 1.1-1.5 m, CC = 2.8, clumping none *Exocarpos aphyllus (2), Hovea acanthoclada (0.5), Grevillea platypoda (0.1), Melaleuca undulata (0.1), Oxylobium parviflorum* var. *parviflorum (0.1).*
STRATUM 5: Shrubs 0.6-1.0 m, CC = 0.4, clumping none *Beyeria lechenaultii (0.2), Dodonaea amblyophylla (0.1), Hovea acanthoclada (0.1).*
STRATUM 6a: Shrubs 0.0-0.5 m, CC = 2.2, clumping none *Acacia erinacea (1), Boronia oxyantha* var. *brevicalyx (1), Cassia nemophila* var. *nemophila (0.1), Acacia subcaerulea (+), Acrotriche ramiflora (+), Boronia inconspicua (+), Lasiopetalum compactum (+), Olearia muelleri (+), Vittadinia gracilis (+).*
Stratum 6b: Misc. plants, CC = 0.4, clumping none
ANNUALS: *Calandrinia calyptrata (+), Millotia tenuifolia* var. *tenuifolia (+), *Pentaschistis airoides (+), Poranthera microphylla (+).*
CLIMBERS: *Billardiera coriacea (+).*
GEOPHYTES: *Stylidium albomontis (+), Thysanotus patersonii* ssp. *patersonii (+).*
PARASITIC CLIMBERS: *Cassytha melantha (0.1).*
PERENNIAL GRASSES: *Stipa puberula B* (0.1), *Danthonia setacea* var. *breviseta (+), S. pycnostachya (+).*

FAUNA
BIRDS: No
REPTILES, MAMMALS & AMPHIBIANS: Metal trapline, drift fence 50 m long
INVERTEBRATES: No

COMMENTS
Includes a rockpile of laterized Banded Ironstone Formation growing *Eucalyptus megacornuta*.

SITE No: RA007
LOCATION: Ravensthorpe Range, 10 km E of Ravensthorpe
Lat. 33 35'25" Long. 120 09'05" AMG: 225600E 6279650N
Surveyed 28 October 1987

SITE AREA: *ca* 40 m x 200 m
ASPECT: Crest
1:250,000 SHEET: Ravensthorpe
ZONE: 50
LAST BURNT: Greater than 45 years
DISTURBANCE: None known or evident

LAND REGION: Southern
PROVINCE: Eastern Goldfields
SUB-PROVINCE: Desmond
SYSTEM: Ravensthorpe

GEOL. REGION: Block
LOCAL: Shield
BEDROCK: Laterized BIF
SURFACE: Czl

LANDFORM
PATTERN TYPE: Rolling Hills
PATTERN: Residual hills
UNIT: Ridge
ELEMENT: Crest
DRAINAGE PATTERN: Dendritic
SPACING: Close
SLOPE LENGTH: 20-35 m
INCLINATION: To very gentle
EXPOSURE: Inland, moderate
AGENT: Sheet wash

LAND SURFACE
EROSION: Absent
WIND: Absent
SHEET: Absent
RILL: Absent
GULLY: Absent
GULLY DEPTH: Absent
STREAM BANK: Absent
TUNNEL: Absent
WAVE: Absent
MASS MOVEMENT: Absent
ACTIVITY: Eroded
FREQUENCY: Barely active
MICRO-RELIEF: None
SOIL: Hardsetting
INUNDATION FREQUENCY: 1-10 years
DEPTH: Less than 5 cm
DURATION: Less than 1 hour
RUN-OFF VELOCITY: Low
INFILTRATION: ?
ROCK: Rocky
STONE: Few, subangular quartz coated with iron hydroxides, 2-10 cm long
PAVEMENT: Frequent, medium pebbles
LOGS: Absent
BRANCHES: Absent
LEAVES: Broad, deposits 2-5 cm thick, almost continuous

SOIL PROFILE
OBSERVATION: No other
THICKNESS: Skeletal, 6-15 cm
MAIN ORIGIN: *In situ* weathering
MINOR: None evident
ATTRIBUTE: Skeletal
DRAINAGE: Excessive
SRT: Neutral
SALINITY: None
NORTHCOTE: Uc1.21-1/0/12/1
SOIL GROUP: Lithosol
NAME: Not named

A 0-12 cm Dark brown (7.5 YR 3/2) loamy sand; humus content low; roots fine, frequent; inclusions 15-20% subangular quartz 1-5cm long and subrounded gravel 5-12 mm diameter; consistence moderately weak, pH 6.75; highly water repellent; boundary sharp, irregular, no obvious weathering zone.

VEGETATION
PROVINCE: South-west
DISTRICT: Eyre
SYSTEM: Ravensthorpe
MUIR: KSr.Si.SAi.SBr.SCi.SDr.VLi.
No. of TAXA: 69

STRATUM 1: Mallees 4-5 m, CC = 8, clumping slight *Eucalyptus tetragona (5), E. uncinata (2), E. falcata (1).*
STRATUM 2: Shrubs 2.1-3.5 m, CC = 19, clumping slight *Banksia lemanniana (12), Melaleuca uncinata (3), Calothamnus quadrifidus (2), Adenanthos oreophilus (0.5), Grevillea platypoda (0.5), B. laevigata* ssp. *laevigata (0.1), Persoonia teretifolia (+).*
STRATUM 3: Shrubs 1.6-2.0 m, CC = 11, clumping slight *Dryandra quercifolia (6), Calothamnus quadrifidus (4), Grevillea coccinea (1), Leptospermum maxwellii (0.1), Goodenia pinifolia (+).*
STRATUM 4: Shrubs 1.1-1.5 m, CC = 8, clumping slight *Allocasuarina campestris* ssp. *campestris (5), Agonis spathulata (2), Hakea verrucosa (1), Isopogon polycephalus (0.2), Acacia fragilis (0.1), H. lissocarpha (0.1), Petrophile fastigiata (0.1), Santalum acuminatum (0.1), Choretrum glomeratum* var. *glomeratum (+).*
STRATUM 5: Shrubs 0.6-1.0 m, CC = 13, clumping slight *Lasiopetalum compactum (8), Oxylobium parviflorum* var. *parviflorum (2), Agonis spathulata (1), Beaufortia schaueri (1), Eriostemon gardneri (1), Leucopogon cuneifolius (1), Micromyrtus racemosa (1), Acacia* sp. *(KRN 938) (0.2), Hakea obtusa (0.2), Brachyloma concolor (0.1), Beyeria* sp. *(KRN 11020) (+), Goodenia scapigera (+), Leptospermum spinescens (+), Logania buxifolia (+).*
STRATUM 6a: Shrubs 0.0-0.5 m, CC = 9, clumping slight *Spyridium cordatum (5), Daviesia anceps (2), Platysace maxwellii (1), Boronia crenulata* var. *gracilis (0.1), Dampiera lavandulacea (0.1), Rinzia fumana (0.1), Acrotriche ramiflora (+), Astroloma serratifolium (+), Boronia inconspicua (+), D.* aff. *trigona (+), Eutaxia cuneata (+), Gompholobium marginatum (+), Halgania preissiana (+), Lysinema ciliatum (+), Petrophile seminuda (+), Stackhousia scoparia (+), Stylidium breviscapum (+), Thysanotus dichotomus (+).*
STRATUM 6b: Misc. plants, CC = 15, clumping slight
CLIMBERS: *Billardiera coriacea (+).*
GEOPHYTES: *Stylidium albomontis (0.1), Thysanotus patersonii* ssp. *patersonii (+).*
PARASITIC CLIMBERS: *Cassytha melantha (0.1).*
PERENNIAL GRASSES: *Neurachne alopcuroidea (0.2).*
SEDGES: *Lepidosperma viscidum* var. *viscidum (10), L.* sp. *(KRN 4091) (2), Schoenus sublaxus (1), Tricostularia neesii* var. *neesii (1), L. leptostachyum (0.4), Gahnia ancistrophylla (0.1), Loxocarya fasciculata (0.1).*
SEDGE-LIKE: *Lomandra collina* (0.1).

FAUNA
BIRDS: No
REPTILES, MAMMALS & AMPHIBIANS: Metal trap line, drift fence 50 m long
INVERTEBRATES: No

SITE No: RA008
LOCATION: Ravensthorpe Range, 10.1 km E of Ravensthorpe
Lat. 33 35'25" Long. 120 09'15" AMG: 225700E 6279650N
Surveyed 28 October 1987

SITE AREA: Plotless, 0.5 ha
ASPECT: NE
LAST BURNT: More than 50 years
DISTURBANCE: None known or evident

LAND REGION: Southern
PROVINCE: Eastern Goldfields
SUB-PROVINCE: Desmond
SYSTEM: Ravensthorpe

GEOL. REGION: Block
LOCAL: Shield
BEDROCK: Banded Ironstone Formation
SURFACE: Czl

LANDFORM
PATTERN TYPE: Rolling Hills
PATTERN: Residual hills
UNIT: Ridge
ELEMENT: Crest and upper slope
DRAINAGE PATTERN: Dendritic
SPACING: Close
SLOPE LENGTH: 30-60 m
INCLINATION: Moderate A to B
EXPOSURE: Inland, moderate
AGENT: Sheet wash

Appendix I (continued)

LAND SURFACE
EROSION: Absent
SHEET: Absent
GULLY: Absent
STREAM BANK: Absent
WAVE: Absent
MASS MOVEMENT: Absent
FREQUENCY: Barely active
SOIL: Hardsetting
WIND: Absent
RILL: Absent
GULLY DEPTH: Absent
TUNNEL: Absent
ACTIVITY: Eroded
MICRO-RELIEF: None
INUNDATION FREQUENCY: 1-10 years
DEPTH: Less than 5 cm
RUN-OFF VELOCITY: To high
ROCK: Rocky
DURATION: Less than 1 hour
INFILTRATION: ?
STONE: Scattered, subrounded large pebbles to stone
PAVEMENT: Scattered, medium pebbles
LOGS: Absent
LEAVES: Broad, deposits 1-2 cm thick, 5-35 m apart
BRANCHES: Absent

SOIL PROFILE
OBSERVATION: No other
MAIN ORIGIN: *In situ* weathering
ATTRIBUTE: Skeletal
SRT: Neutral
NORTHCOTE: Uc1.21-
THICKNESS: Skeletal, 2-25 cm
MINOR: Colluvial
DRAINAGE: Excessive
SALINITY: None
SOIL GROUP: Lithosol

Soil Sample missing

VEGETATION
PROVINCE: South-west
SYSTEM: Ravensthorpe
MUIR: KSr.Sr.SAr.SBi.VLr.GLr
DISTRICT: Eyre
No. of TAXA: 56

STRATUM 1: Mallees 3-6 m, CC = 3.1, clumping none *Eucalyptus tetragona (3), E. falcata (0.1).*
STRATUM 2: Shrubs 2.1-3.4 m, CC = 2.5, clumping slight *Banksia lemanniana (1), Leptospermum maxwellii (1), Santalum acuminatum (0.5).*
STRATUM 3: Shrubs 1.6-2.0 m, CC = 4.1, clumping moderate *Allocasuarina campestris* ssp. *campestris (2), Hakea verrucosa (1), Melaleuca uncinata (1), Adenanthos oreophilus (0.1), H. obtusa (+).*
STRATUM 4: Shrubs 1.1-1.5 m, CC = 13, clumping moderate *Allocasuarina campestris* ssp. *campestris (10), Calothamnus quadrifidus (2), Oxylobium parviflorum* var. *parviflorum (1), Jacksonia lehmannii (0.2), Leucopogon cuneifolius (0.1), Exocarpos aphyllus (+), Grevillea fulgens (+), Hovea acanthoclada (+).*
STRATUM 5: Shrubs 0.6-1.0 m, CC = 1.9, clumping moderate *Leucopogon* sp. *(KRN 11795) (1), Eriostemon gardneri (0.2), Hibbertia pungens (0.2), Hybanthus floribundus* ssp. *adpressus (0.2), Dodonaea ceratocarpa (0.1), Labichea lanceolata* ssp. *brevifolia (0.1), Acacia sulcata* var. *platyphylla (+), Goodenia pinifolia (+), Lasiopetalum compactum (+), Micromyrtus racemosa (+).*
STRATUM 6a: Shrubs 0.0-0.5 m, CC = 0.4, clumping none *Platysace maxwellii (0.1), Spyridium cordatum (0.1), Astroloma serratifolium (+), Daviesia anceps (+), Halgania preissiana (+), Pelargonium australe (+) Thomasia angustifolia (+).*
STRATUM 6b: Misc. plants, CC = 12, clumping slight
ANNUALS: *Millotia tenuifolia* var. *tenuifolia (0.1), *Arctotheca calendula (+), Calandrinia calyptrata (+), Crassula exserta (+), Daucus glochidiatus (+), *Ehrharta longiflora (+), *Erodium botrys (+), *Pentaschistis airoides (+), Senecio glossanthus (+), *Sonchus oleraceus (+), *Vulpia myuros (+).*
CLIMBERS: *Billardiera coriacea (+).*
FERNS: *Chielanthes distans (+), Pleurosorus rutifolius (+).*
GEOPHYTES: *Pterostylis vittata* var. *vittata (+), Stylidium albomontis (+), Thysanotus patersonii* ssp. *patersonii (+).*
PERENNIAL GRASSES: *Spartochloa scorpoidea (5), Neurachne alopecuroidea (0.2), Stipa puberula B (+).*
SEDGES: *Lepidosperma viscidum* var. *viscidum (6).*
SEDGE-LIKE: *Lomandra collina (+).*

FAUNA
BIRDS: No
REPTILES, MAMMALS & AMPHIBIANS: Metal trap line
INVERTEBRATES: No

COMMENTS
Bedrock too shallow and too difficult to blast for drift fence.

SITE No: RA009(D)
LOCATION: Ravensthorpe Range, 10.0 km E of Ravensthorpe
Lat. 33 35'20" Long. 120 09'15" AMG: 225700E 6279850N
Surveyed 28 October 1987
SITE AREA: *ca* 40 m x 200 m
ASPECT: NE
LAST BURNT: More than 45 years
DISTURBANCE: Old mining exploration grid line

LAND REGION: Southern
SUB-PROVINCE: Desmond
GEOL. REGION: Block
BEDROCK: Greenstone
PROVINCE: Eastern Goldfields
SYSTEM: Ravensthorpe
LOCAL: Shield
SURFACE: Ak

LANDFORM
PATTERN TYPE: Rolling Hills
UNIT: Ridge
DRAINAGE PATTERN: Dendritic
SLOPE LENGTH: 100-200 m
INCLINATION: Moderate A
EXPOSURE: Inland, moderate
PATTERN: Residual hills
ELEMENT: Middle slope
SPACING: Close
AGENT: Sheet wash

LAND SURFACE
EROSION: Absent
SHEET: Absent
GULLY: Absent
STREAM BANK: Absent
WAVE: Absent
ACTIVITY: Eroded = Aggraded
MICRO-RELIEF: None
WIND: Absent
RILL: Absent
GULLY DEPTH: Absent
TUNNEL: Absent
MASS MOVEMENT: Absent
FREQUENCY: Barely active
SOIL: Hardsetting
INUNDATION FREQUENCY: 1-10 years
DEPTH: Less than 5 cm
RUN-OFF VELOCITY: High
ROCK: Rocky
DURATION: Less than 1 hour
INFILTRATION: ?
STONE: Very few, subangular greenstone cobbles
PAVEMENT: Scattered, medium pebbles
LOGS: Absent
LEAVES: Broad, deposits 1-2 cm thick, 3-8 m apart
BRANCHES: Few

SOIL PROFILE
OBSERVATION: No other
MAIN ORIGIN: *In situ* weathering
ATTRIBUTE: Skeletal
SRT: Neutral
NORTHCOTE: Uf6.21-6/3/14/1
NAME: Not named
THICKNESS: Skeletal, 3-20 cm
MINOR: None evident
DRAINAGE: Excessive
SALINITY: None
SOIL GROUP: Lithosol

A 0-14 cm Dark reddish brown (5 YR 3/4) sandy medium clay; humus content low; roots fine, frequent; inclusions 10-20% subangular greenstone 1-4 cm long; consistence moderately firm; pH 7.75; not water repellent; boundary sharp,irregular, no obvious weathering zone.

VEGETATION
PROVINCE: South-west
SYSTEM: Ravensthorpe
MUIR: KSi.SAr.SBr.SCr.SDr.VLi.
DISTRICT: Eyre
No. of TAXA: 35

STRATUM 1: Mallees 2-3 m, CC = 22, clumping slight *Eucalyptus anceps (12), E. flocktoniae (10), E. uncinata (2).*
STRATUM 2: Shrubs 1.6-2.0 m, CC = 1, clumping slight *Melaleuca uncinata (1), Santalum acuminatum (+).*
STRATUM 3: Shrubs 1.1-1.5 m, CC = 9.2, clumping slight *Hakea verrucosa (6), Melaleuca uncinata (3), Acacia* aff. *fragilis (0.1), M. undulata (0.1).*

STRATUM 4: Shrubs 0.6-1.0 m, CC = 6.4, clumping slight *Hybanthus floribundus* ssp. *adpressus (2), Melaleuca cardiophylla* var. *cardiophylla (2), Dodonaea ceratophylla (1), Allocasuarina campestris* ssp. *campestris (0.1), Exocarpos aphyllus (0.1), Hibbertia pungens (0.1), Pomaderris (0.1), Grevillea platypoda (+), Hakea commutata (+), H. lissocarpha (+).*
STRATUM 5a: Shrubs 0.0-0.5 m, CC = 6, clumping slight *Spyridium cordatum (2), Acacia ingrata (1), Daviesia anceps (1), Styphelia pulchella (1), Hibbertia rupicola (0.5), A.* aff. *cometes (0.1), Coopernookia strophiolata (0.1), Lasiopetalum compactum (0.1), Microcorys glabra (0.1), Acrotriche cordata (+), Daviesia* aff. *trigonophylla (+).*
STRATUM 5b: Misc. plants, CC = 10, clumping slight
GEOPHYTES: *Thysanotus patersonii* ssp. *patersonii (+).*
PARASITIC CLIMBERS: *Cassytha melantha* (0.1).
PERENNIAL GRASSES: *Neurachne alopecuroidea (+), Stipa pycnostachya (+).*
SEDGES: *Lepidosperma* aff. *resinosum (8), L.* sp. *(KRN 5233) (2).*

FAUNA
BIRDS: No
REPTILES, MAMMALS & AMPHIBIANS: Drift fence 50 m long
INVERTEBRATES: No

SITE No: RA009(M)
LOCATION: Ravensthorpe Range, 10.0 km E of Ravensthorpe
Lat. 33 35'10" Long. 120 09'15" AMG: 225700E 6279900N
Surveyed 28 October 1987

SITE AREA: *ca* 40 m x 150 m ASPECT: NE
1:250 000 SHEET: Ravensthorpe ZONE: 50
LAST BURNT: More than 45 years
DISTURBANCE: Old mining exploration grid line

LAND REGION: Southern PROVINCE: Eastern Goldfields
SUB-PROVINCE: Desmond SYSTEM: Ravensthorpe

GEOL. REGION: Block LOCAL: Shield
BEDROCK: Greenstone SURFACE: Ak

LANDFORM
PATTERN TYPE: Rolling Hills PATTERN: Residual hills
UNIT: Ridge ELEMENT: Middle slope
DRAINAGE PATTERN: Dendritic SPACING: Close
SLOPE LENGTH: 300-600 m INCLINATION: Gentle
EXPOSURE: Inland, moderate AGENT: Sheet wash

LAND SURFACE
EROSION: Absent WIND: Absent
SHEET: Absent RILL: Absent
GULLY: Absent GULLY DEPTH: Absent
STREAM BANK: Absent TUNNEL: Absent
WAVE: Absent MASS MOVEMENT: Absent
ACTIVITY: Eroded = Aggraded FREQUENCY: Barely active
MICRO-RELIEF: None SOIL: Hardsetting
INUNDATION FREQUENCY: 1-10 years
DEPTH: Less than 5 cm DURATION: Less than 1 hour
RUN-OFF VELOCITY: Low INFILTRATION: ?
ROCK: No exposure
STONE: Scattered, subangular greenstone cobbles
PAVEMENT: Scattered, medium pebbles
LOGS: Absent BRANCHES: Absent
LEAVES: Broad, deposits 1-2 cm thick, 1-5 m apart

SOIL PROFILE
OBSERVATION: No other THICKNESS: Skeletal, 5-25 cm
MAIN ORIGIN: *In situ* weathering MINOR: Colluvial
ATTRIBUTE: Skeletal DRAINAGE: Good
SRT: Neutral SALINITY: None
NORTHCOTE: Uf6.21-5/3/7/1 SOIL GROUP: Not identified
NAME: Not named

A 0-7 cm 'Dark greysish brown' (2.5 YR 3/3) sandy light clay; humus content low; roots fine, few; inclusions 20-30% subangular greenstone 1-4 cm long; consistence moderately firm; pH 6.75; not water repellent; boundary abrupt, wavy.
B 7-18 cm 'Dark brown' (2.5 YR 2/3) sandy light clay; inclusions as above; consistence very firm to moderately strong; pH 6.75; boundary sharp, irregular, no obvious weathering zone.

VEGETATION
PROVINCE: South-west DISTRICT: Eyre
SYSTEM: Ravensthorpe
MUIR: KSi.SAr.SBr.SCc.SDr.VLr. No. of TAXA: 33

STRATUM 1: Mallees 3-4 m, CC = 20, clumping none *Eucalyptus flocktoniae (19), E. anceps (1).*
STRATUM 2: Shrubs 1.6-2.0 m, CC = 3.2, clumping none Hakea verrucosa (2), *Santalum acuminatum (1).Melaleuca uncinata (0.1), Exocarpos aphyllus (+), Grevillea platypoda (+).*
STRATUM 3: Shrubs 1.1-1.5 m, CC = 4.3, clumping slight *Acacia* sp. *(KRN 11791) (2), Melaleuca undulata (2), Exocarpos aphyllus (0.2), Hakea commutata (+), Persoonia teretifolia (+).*
STRATUM 4: Shrubs 0.6-1.0 m, CC = 47, clumping moderate *Melaleuca undulata (45), Hybanthus floribundus* ssp. *adpressus (1), M. cardiophylla* var. *cardiophylla (1), Dodonaea ceratocarpa (0.1), Eriostemon gardneri (0.1), Hibbertia pungens (+).*
STRATUM 5a: Shrubs 0.0-0.5 m, CC = 5.5, clumping slight *Acacia ingrata (2), A.* aff. *cometes (2), Pultenaea conferta (1), Daviesia anceps (0.2), Acrotriche cordata (+), Cassia nemophila* var. *nemophila (+), Coopernookia strophiolata (+), Hibbertia rupicola (+), Lasiopetalum compactum (+), Microcorys glabra (+), Styphelia pulchella (+).*
STRATUM 5b: Misc. plants, CC = 9.1, clumping slight
GEOPHYTES: *Thysanotus patersonii* ssp. *patersonii (+).*
PARASITIC CLIMBERS: *Cassytha melantha (1).*
PERENNIAL GRASSES: *Danthonia caespitosa (+), Stipa puberula B (+).* SEDGES: *Lepidosperma* sp. *(KRN 5233) (6), L. brunonianum (1), L. resinosum* (1).

FAUNA
BIRDS: No
REPTILES, MAMMALS & AMPHIBIANS: Metal trap line
INVERTEBRATES: No

SITE No: RA010
LOCATION: Ravensthorpe Range, 11.7 km SE of Ravensthorpe
Lat. 33 37'35" Long. 120 09'40" AMG: 236600E 6275500N
Surveyed 28 October 1987

SITE AREA: Plotless, *ca* 0.6 ha ASPECT: SW
1:250,000 SHEET: Ravensthorpe ZONE: 50
LAST BURNT: More than 30 years
DISTURBANCE: None evident or known

LAND REGION: Southern PROVINCE: Eastern Goldfields
SUB-PROVINCE: Desmond SYSTEM: Ravensthorpe

GEOL. REGION: Block LOCAL: Shield
BEDROCK: Greenstone SURFACE: Czl

LANDFORM
PATTERN TYPE: Rolling Hills PATTERN: Residual hills
UNIT: Ridge ELEMENT: Middle slope
DRAINAGE PATTERN: Dendritic SPACING: Moderate
SLOPE LENGTH: 300-800 m INCLINATION: Gentle
EXPOSURE: Inland, moderate AGENT: Sheet wash

LAND SURFACE
EROSION: Absent WIND: Absent
SHEET: Absent RILL: Absent
GULLY: Absent GULLY DEPTH: Absent
STREAM BANK: Absent TUNNEL: Absent
WAVE: Absent MASS MOVEMENT: Absent

Appendix I (continued)

ACTIVITY: Eroded FREQUENCY: Barely active
MICRO-RELIEF: None SOIL: Hardsetting
INUNDATION FREQUENCY: 1-10 years
DEPTH: Less than 5 cm DURATION: Less than 1 hour
RUN-OFF VELOCITY: Low INFILTRATION: ?
ROCK: No exposure
STONE: Few, subangular laterised greenstone cobbles
PAVEMENT: Frequent, medium pebbles
LOGS: Absent BRANCHES: Absent
LEAVES: Broad, deposits 2-5 cm thick, 2-8 m apart

SOIL PROFILE
OBSERVATION: No other THICKNESS: Shallow, 40-60 cm
MAIN ORIGIN: *In situ* weathering MINOR: None evident
ATTRIBUTE: ??? DRAINAGE: Good
SRT: Neutral SALINITY: None
NORTHCOTE: Dr2.22-1/1/2/1 SOIL GROUP: Not identified
NAME: Not named

A 0-2 cm Reddish brown (2.5 YR 4/4) clayey sand; humus content low; roots fine, few; inclusions 3-5% subangular greenstone and quartz 8-20 mm long; consistence moderately firm; pH 6.75; not water repellent; boundary sharp, smooth.
B 2-24 cm Red (10 R 4/6) light clay; consistence very strong; pH 7.25; boundary clear, wavy.
C 24-47 cm Red (2.5 YR 5/6) loam to clay loam; mottles many, coarse, prominent, very pale red (10 YR 8/4); consistence very firm; pH 6.75; boundary sharp, irregular.

VEGETATION
PROVINCE: South-west DISTRICT: Eyre
SYSTEM: Ravensthorpe
MUIR: KSc.Sr.SBr.SCi.SDi.VLr. No. of TAXA: 68

STRATUM 1a: Mallees 1.8-3.2 m, CC = 30, clumping none *Eucalyptus flocktoniae (15), E. leptocalyx (7), E. spathulata* ssp. *grandiflora (5), E. pileata (2), E. uncinata (1), E. gardneri* ssp *ravensthorpensis (0.1).*
STRATUM 1b: Shrubs 2.1-3.1 m, CC = 2, clumping none *Banksia lemanniana (1), Hakea laurina (1), Exocarpos sparteus (+).*
STRATUM 2: Shrubs 1.6-2.0 m, CC = 0.2, clumping none *Hakea obtusa* (0.2).
STRATUM 3: Shrubs 1.1-1.5 m, CC = 9.1, clumping none *Oxylobium parviflorum* var. *parviflorum (3), Daviesia* aff. *nematophylla (2), Melaleuca uncinata (2), Baeckea corynophylla (1), Hakea lissocarpha (1), Choretrum glomeratum* var. *glomeratum (0.1), Nematolepis phebalioides (+).*
STRATUM 4: Shrubs 0.6-1.0 m, CC = 14, clumping none *Melaleuca* sp. *(KRN 2890) (5), Beaufortia schaueri (3), Daviesia mollis (3), M. lateriflora* var. *lateriflora (2), Dryandra cirsioides (0.5), Agonis spathulata (0.2), Grevillea patentiloba (0.1), Leucopogon cuneifolius (0.1), Petrophile fastigiata (0.1), P. trifida (0.1), Acacia gonophylla (+), Dodonaea ceratocarpa (+), Lysinema ciliatum (+), Meialeuca subfalcata (+).*
STRATUM 5a: Shrubs 0.0-0.5 m, CC = 11, clumping none *Boronia inornata* ssp. *inornata (2), Leucopogon* sp. *(KRN 1813) (2), Melaleuca sclerophylla (2), Hibbertia* aff. *pungens (1), Siegfriedia darwinioides (1), Acacia ingrata (0.5), Boronia oxyantha* var. *brevicalyx (0.5), Spyridium cordatum (0.5), Thomasia microphylla (0.5), Boronia inconspicua (0.1), Melaleuca glaberrima (0.1), Acacia laricina (+), Acrotriche ramiflora (+), Burtonia conferta (+), Dampiera* aff. *alata (+), Hovea acanthoclada (+), Microcorys glabra (+).*
STRATUM 5b: Misc. plants, CC = 5.1, clumping none
GEOPHYTES: *Stylidium albomontis (0.1), Thelymitra pauciflora (+), Thysanotus patersonii* ssp. *patersonii (+).*
PARASITIC CLIMBERS: *Cassytha glabella (+), C. melantha (+), C. micrantha (+), C. racemosa (+).*
PERENNIAL GRASSES: *Neurachne alopcuroidea (+), Stipa pycnostachya (+).*
SEDGES: *Lepidosperma viscidum* var. *viscidum (2), L.* aff. *resinosum (2), Gahnia lanigera (0.2), L. brunonianum (0.2), G. ancistrophylla (0.1), L. tuberculatum (0.1), Tetraria capillaris (0.1).*
SEDGE-LIKE: *Dianella revoluta (+), Lomandra micrantha* ssp. *micrantha (+).*

FAUNA
BIRDS: No
REPTILES, MAMMALS & AMPHIBIANS: Metal trap line, drift fence 50 m long INVERTEBRATES: No

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SITE No: RA011(D)
LOCATION: Ravensthorpe Range, 16 km SE of Ravensthorpe
Lat. 33 39'30" Long. 120 11'40" AMG: 239900E 6272300N
Surveyed 28 October 1987

SITE AREA: *ca* 40 m x 80 m ASPECT: SW
LAST BURNT: More than 50 years
DISTURBANCE: None known or evident

LAND REGION: Southern PROVINCE: Eastern Goldfields
SUB-PROVINCE: Desmond SYSTEM: Ravensthorpe

GEOL. REGION: Block LOCAL: Shield
BEDROCK: Greenstone SURFACE: Czl

LANDFORM
PATTERN TYPE: Rolling Hills PATTERN: Residual hills
UNIT: Ridge ELEMENT: Upper slope
DRAINAGE PATTERN: Dendritic SPACING: Moderate
SLOPE LENGTH: 80-100 m INCLINATION: Gentle
EXPOSURE: Inland, moderate AGENT: Sheet wash

LAND SURFACE
EROSION: Absent WIND: Absent
SHEET: Absent RILL: Absent
GULLY: Absent GULLY DEPTH: Absent
STREAM BANK: Absent TUNNEL: Absent
WAVE: Absent MASS MOVEMENT: Absent
ACTIVITY: Eroded FREQUENCY: Barely active
MICRO-RELIEF: None SOIL: Hardsetting
INUNDATION FREQUENCY: 1-10 years
DEPTH: Less than 5 cm DURATION: Less than 1 hour
RUN-OFF VELOCITY: Low INFILTRATION: ?
ROCK: No exposure
STONE: Scattered subangular quartz cobbles
PAVEMENT: Frequent, medium pebbles
LOGS: Absent BRANCHES: Absent
LEAVES: Broad, deposits 1-2 cm thick, 2-15 m apart

SOIL PROFILE
OBSERVATION: No other THICKNESS: Shallow, 30-45 cm
MAIN ORIGIN: *In situ* weathering MINOR: None evident
ATTRIBUTE: Shallow DRAINAGE: Good
SRT: Neutral SALINITY: None
NORTHCOTE: Uc1.21-1/0/18/1 SOIL GROUP:
NAME:

A 0-18 cm Brown (10 YR 5/3) loamy sand; humus content low; roots fine, frequent; inclusions 10-20% subangular quartz 1-5 cm long; consistence moderately weak; pH 6.25; slightly water repellent; too stony to auger deeper.

VEGETATION
PROVINCE: South-west DISTRICT: Eyre
SYSTEM: Ravensthorpe
MUIR: KSi.Sr.SAi.SBr.SCi.SDr.VLi. No. of TAXA: 52

STRATUM 1a: Mallees 2-4 m, CC = 12, clumping slight *Eucalyptus incrassata* (4), *E. falcata (3), E. tetragona (3), E. uncinata (2).*
STRATUM 1b: Shrubs 2.1-3.0 m, CC = 2.5, clumping strong *Banksia lemanniana (2), Hakea laurina (0.5), H. crassifolia* (+).

STRATUM 2: Shrubs 1.6-2.0 m, CC = 12, clumping strong *Dryandra quercifolia (10), Jacksonia lehmannii (1), Oxylobium* sp. *(KRN 4035) (1), Acacia subcaerulea (+).*
STRATUM 3: Shrubs 1.1-1.5 m, CC = 2.1, clumping slight *Hakea lissocarpha (1), H. obtusa (1), Melaleuca uncinata (0.1).*
STRATUM 4: Shrubs 0.6-1.0 m, CC = 14, clumping strong *Beaufortia schaueri (8), Agonis spathulata (2), Allocasuarina humilis (1), Baeckea corynophylla (1), Calothamnus pinifolius (1), Melaleuca* sp. *(KRN 2890) (1), Hakea trifurcata (0.1), Hibbertia pungens (0.1), Acacia gonophylla (+), Brachyloma concolor (+), Isopogon buxifolius (+).*
STRATUM 5a: Shrubs 0.0-0.5 m, CC = 9.7, clumping strong *Melaleuca sclerophylla (6), Leucopogon* aff. *conostephioides A (2), Petrophile seminuda (1), P. squamata (0.2), Calytrix leschenaultii (0.1), Hibbertia* aff. *pungens (0.1), Lysinema ciliatum (0.1), Andersonia parvifolia (+), Boronia tenuis (+), Cheiranthera filifolia (+), Chorizema trigonum (+), Lasiopetalum rosmarinifolium (+).*
STRATUM 5b: Misc. plants, CC = 18, clumping slight
CLIMBERS: *Billardiera sericea (+).*
GEOPHYTES: *Diuris setacea (+), Pterostylis nana (+), Stylidium piliferum* ssp. *minor (+).*
PARASITIC CLIMBERS: *Cassytha micrantha (+).*
PERENNIAL GRASSES: *Amphipogon turbinatus (0.1), Neurachne alopecuroidea (0.1).*
SEDGES: *Lepidosperma* sp. *(KRN 6488) (12), L.* sp. *(KRN 4091) (5), Mesomelaena stygia* ssp. *stygia (0.2), Schoenus subflavus (0.2), Gahnia ancistrophylla (0.1), S. subbarbatus (+).*
SEDGE-LIKE: *Lomandra collina (0.2).*

FAUNA
BIRDS: No
REPTILES, MAMMALS & AMPHIBIANS: Drift fence
INVERTEBRATES: No

COMMENTS
Ecotone between *Eucalyptus falcata* Very Open Shrub Mallee and *Eucalyptus redunca* Very Open Shrub Mallee.

SITE No: RA011(M)
LOCATION: Ravensthorpe Range, 16 km SE of Ravensthorpe
Lat. 33 39'30" Long. 120 11'45" AMG: 239950E 6272300N
Surveyed 28 October 1987

SITE AREA: *ca* 30 m x 200 m ASPECT: Crest
LAST BURNT: More than 40 years
DISTURBANCE: None known or evident

LAND REGION: Southern PROVINCE: Eastern Goldfields
SUB-PROVINCE: Desmond SYSTEM: Ravensthorpe

GEOL. REGION: Block LOCAL: Shield
BEDROCK: Quartzite SURFACE: Pbq

LANDFORM
PATTERN TYPE: Rolling Hills PATTERN: Residual hills
UNIT: Ridge ELEMENT: Crest
DRAINAGE PATTERN: Dendritic SPACING: Moderate
SLOPE LENGTH: 25-70 m INCLINATION: To very gentle
EXPOSURE: Inland, moderate AGENT: Sheet wash

LAND SURFACE
EROSION: Absent WIND: Absent
SHEET: Absent RILL: Absent
GULLY: Absent GULLY DEPTH: Absent
STREAM BANK: Absent TUNNEL: Absent
WAVE: Absent MASS MOVEMENT: Absent
ACTIVITY: Eroded FREQUENCY: Barely active
MICRO-RELIEF: None SOIL: Hardsetting
INUNDATION FREQUENCY: 1-10 years
DEPTH: Less than 5 cm DURATION: Less than 1 hour
RUN-OFF VELOCITY: Low INFILTRATION: ?
ROCK: Rocky
STONE: Scattered, subangular quartzite cobbles
PAVEMENT: Frequent, medium pebbles
LOGS: Absent BRANCHES: Absent
LEAVES: Broad, deposits 1-2 cm thick, 2-12 m apart

SOIL PROFILE
OBSERVATION: No other THICKNESS: Skeletal, 10-25 cm
MAIN ORIGIN: *In situ* weathering MINOR: None evident
ATTRIBUTE: Skeletal DRAINAGE: Good
SRT: Neutral SALINITY: None
NORTHCOTE: Uc1.21-1/0/18/1 SOIL GROUP: Lithosol
NAME: Not named

A 0-18 cm 'Greyish olive' (7.5 YR 4/2) loamy sand; humus content low; roots fine, frequent; inclusions 25-35% subangular to subrounded lorterised quartzite 5-25 mm long; consistence weak; pH 6.75; slightly water repellent; boundary sharp, irregular, no obvious weathering zone.

VEGETATION
PROVINCE: South-west DISTRICT: Eyre
SYSTEM: Ravensthorpe
MUIR: KSr.Si.SAi.SBi.SCc.SDr.VLi. No. of TAXA: 39

STRATUM 1: Mallee 3-4 m, CC = 7, clumping none *Eucalyptus falcata (4), E. tetragona (3).*
STRATUM 2: Shrubs 2.1-2.5 m, CC = 12, clumping none *Banksia lemanniana (12).*
STRATUM 3: Shrubs 1.6-2.0 m, CC = 22, clumping none *Dryandra quercifolia (20), Jacksonia lehmannii (2), Hakea victoria (0.1).*
STRATUM 4: Shrubs 1.1-1.5 m, CC = 26, clumping none *Dryandra quercifolia (20), Calothamnus pinifolius (5), Allocasuarina humilis (1), Daviesia obtusifolia (+).*
STRATUM 5: Shrubs 0.6-1.0 m, CC = 31, clumping none *Calothamnus pinifolius (25), Agonis spathulata (5), Acacia gonophylla (1), Lysinema ciliatum (0.2), Petrophile squamata (0.2), A. subcoerulea (0.1), Isopogon buxifolius (+).*
STRATUM 6a: Shrubs 0.0-0.5 m, CC = 2.6, clumping none *Chorizema trigonum (1), Leptospermum spinescens (0.5), Leucopogon* aff. *conostephioldes A (0.5), Melaleuca sclerophylla (0.2), Lasiopetalum rosmarinifolium (0.1), Boronia tenuis (+), Dampiera lavandulacea (+), Glischrocaryon aureum* var. *angustifolium (+), Gompholobium knightianum (+), Goodenia scapigera (+), Hovea trisperma (+), Lechenaultia formosa (+), Petrophile seminuda (+), Pimelea brevifolia (+).*
STRATUM 6b: Misc. plants, CC = 13, clumping slight
CLIMBERS: *Billardiera coriacea (+).*
GEOPHYTES: *Pterostylis nana (+).*
PERENNIAL GRASSES: *Amphipogon turbinatus (0.1).*
SEDGES: *Lepidosperma* sp. *(KRN 4091) (12), L.* sp. *(KRN 6488) (0.2), Schoenus sublaxus (0.2), Gahnia ancistrophylla (0.1), Mesomelaena stygia* ssp. *stygia (0.1), S. subbarbatus (0.1).*
SEDGE-LIKE: *Lomandra collina (+).*

FAUNA
BIRDS: No
REPTILES, MAMMALS & AMPHIBIANS: Metal trap line
INVERTEBRATES: No

SITE No: RA012
LOCATION: Ravensthorpe Range, 18.5 km SE of Ravensthorpe
Lat. 33 40'35" Long. 120 13'00" AMG: 242000E 6276350N
Surveyed 28 October 1987

SITE AREA: Plotless, *ca* 1.0 ha ASPECT: Level
LAST BURNT: More than 45 years
DISTURBANCE: None evident or known

LAND REGION: Southern PROVINCE: Eastern Goldfields
SUB-PROVINCE: Desmond SYSTEM: Ravensthorpe

Appendix I (continued)

GEOL. REGION: Block — LOCAL: Shield
BEDROCK: Laterite caprock — SURFACE: Czs in Czl

LANDFORM
PATTERN TYPE: Rolling Hills — PATTERN: Residual hills
UNIT: Ridge — ELEMENT: Broad crest
DRAINAGE PATTERN: Dendritic — SPACING: Moderate
SLOPE LENGTH: 300-600 m — INCLINATION: To Very Gentle
EXPOSURE: Inland, moderate — AGENT: Sheet wash

LAND SURFACE
EROSION: Absent — WIND: Absent
SHEET: Absent — RILL: Absent
GULLY: Absent — GULLY DEPTH: Absent
STREAM BANK: Absent — TUNNEL: Absent
WAVE: Absent — MASS MOVEMENT: Absent
ACTIVITY: Eroded = Aggraded — FREQUENCY: Barely active
MICRO-RELIEF: None — SOIL: Hardsetting to loose
INUNDATION FREQUENCY: 1-10 years
DEPTH: Less than 5 cm — DURATION: Less than 1 hour
RUN-OFF VELOCITY: Absent — INFILTRATION: ?
ROCK: Absent — STONE: Absent
PAVEMENT: Absent
LOGS: Absent — BRANCHES: Absent
LEAVES: Broad, deposits 2-5 cm thick, 5-25 m apart

SOIL PROFILE
OBSERVATION: No other — THICKNESS: Shallow, 30-50 cm
MAIN ORIGIN: Colluvial — MINOR: *In situ* weathering
ATTRIBUTE: Siliceous — DRAINAGE: Very good
SRT: Neutral — SALINITY: None
NORTHCOTE: Uc1.21-1/0/31/1 — SOIL GROUP: Not identified
NAME: Not named

A21 0-18 cm Light greyish brown (10 YR 6/2) loamy sand; humus content low; roots fine, scattered; consistence very weak; pH 6.25; slightly water repellent; boundary abrupt, wavy.
A22 18-31 cm Light greyish brown (lighter than 10 YR 6/2); inclusions subangular to subrounded quartzite and laterite 5-15 mm long, increasing with depth from 5% to 45%; consistence very weak; pH 6.5; too stony to auger deeper.

VEGETATION
PROVINCE: South-west — DISTRICT: Eyre
SYSTEM: Ravensthorpe
MUIR: KSi.SCr.SDi.VLi. — No. of TAXA: 60

STRATUM 1: Mallees 2.6-4.0 m, CC = 15, clumping slight *Eucalyptus tetragona (6), E. incrassata (3), E. falcata (0.1).*
STRATUM 2: Shrubs 2.1-2.4 m, CC = 0.5, clumping none *Hakea crassifolia (0.5).*
STRATUM 3: Shrubs 1.6-2.0 m, CC = 0.2, clumping none *Banksia lemanniana (0.1), Leptospermum oligandrum (0.1).*
STRATUM 4: Shrubs 1.1-1.5 m, CC = 1.7, clumping none *Allocasuarina humilis (1), Dryandra quercifolia (0.5), D. cuneata (0.1), Hakea corymbosa (0.1).*
STRATUM 5: Shrubs 0.6-1.0 m, CC = 8.1, clumping slight *Beaufortia micrantha* var. *micrantha (5), Calothamnus gracilis (2), Baeckea preissiana (0.5), Agonis spathulata (0.2), Acacia gonophylla (0.1), Banksia violacea (0.1), Jacksonia* aff. *aphylla (0.1), Conospermum floribundum (+), Grevillea patentiloba (+), Lysinema ciliatum (+).*
STRATUM 6a: Shrubs 0.0-0.5 m, CC = 11, clumping slight *Leucopogon* aff. *conostephioides A (3), Calytrix depressa (2), Isopogon attenuatus (1), Leptospermum spinescens (1), Melaleuca pentagona* var. *pentagona (1), M. scabra (1), Hibbertia gracilipes (0.5), Verticordia densiflora (0.5), Boronia crassifolia (0.2), Darwinia* sp. *(KRN 2426) (0.1), Logania micrantha (0.1), Petrophile seminuda (0.1), Acacia pilosa (+), Allocasuarina thuyoides (+), Astroloma tectum (+), Comesperma virgatum (+), Daviesia teretifolia (+), Glischrocaryon aureum* var. *angustifolium (+), Hakea varia (+), Helichrysum obtusifolium (+), Persoonia striata (+), Synaphea favosa (+).*
STRATUM 6b: Misc. plants, CC = 23, clumping slight
PARASITIC CLIMBERS: *Cassytha glabella (+).*
CLIMBERS: *Billardiera sericea (+).*
GEOPHYTES: *Paracalaena nigrita (+).*
PERENNIAL GRASSES: *Amphipogon turbinatus (0.5), Neurachne alopecuroidea (+).*
SEDGES: *Lepidosperma* sp. *(KRN 4091) (10), L.* sp. *(KRN 6488) (5), Mesomelaena stygia* ssp. *stygia (2), Schoenus* aff. *brevisetis (2), Hypolaena fastigiata (1), Caustis dioica (0.1), Lepidobolus preissianus (+), S.* aff. *laevigatus (+).*
SEDGE-LIKE: *Xanthorrhoea platyphylla (2), Lomandra collina (0.1), Dianella revoluta (+), Patersonia lanata (+), P. limbata (+).*

FAUNA
BIRDS: No
REPTILES, MAMMALS & AMPHIBIANS: Metal trap line, drift fence 50 m long — INVERTEBRATES: No

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SITE No: RA013
LOCATION: Ravensthorpe Range, 9.9 km E of Ravensthorpe
Lat. 33 35'05" Long. 120 09'00" AMG: 225600E 6279950N
Surveyed 27 October 1987

SITE AREA: *ca* 30 m x 150 m — ASPECT: NE
LAST BURNT: More than 45 years
DISTURBANCE: Mining exploration grid line

LAND REGION: Southern — PROVINCE: Eastern Goldfields
SUB-PROVINCE: Desmond — SYSTEM: Ravensthorpe

GEOL. REGION: Block — LOCAL: Shield
BEDROCK: Greenstone — SURFACE: Ak

LANDFORM
PATTERN TYPE: Rolling Hills — PATTERN: Residual hills
UNIT: Ridge — ELEMENT: Middle slope
DRAINAGE PATTERN: Dendritic — SPACING: Close
SLOPE LENGTH: 100-300 m
INCLINATION: Gentle to Moderate A
EXPOSURE: Inland, moderate — AGENT: Sheet wash

LAND SURFACE
EROSION: Absent — WIND: Absent
SHEET: Absent — RILL: Absent
GULLY: Absent — GULLY DEPTH: Absent
STREAM BANK: Absent — TUNNEL: Absent
WAVE: Absent — MASS MOVEMENT: Absent
ACTIVITY: Eroded = Aggraded — FREQUENCY: Barely active
MICRO-RELIEF: None — SOIL: Self-mulching
INUNDATION FREQUENCY: 1-10 years
DEPTH: Less than 5 cm — DURATION: Less than 1 hour
RUN-OFF VELOCITY: Low — INFILTRATION: ?
ROCK: Absent — STONE: Absent
PAVEMENT: Absent
LOGS: Absent — BRANCHES: Few
LEAVES: Broad, deposits 2-5 cm thick, 2-5 m apart

SOIL PROFILE
OBSERVATION: No other — THICKNESS: Deep, 50-70 cm
MAIN ORIGIN: *In situ* weathering — MINOR: Colluvial
ATTRIBUTE: Calcareous — DRAINAGE: Good
SRT: Calcareous — SALINITY: None
NORTHCOTE: Not identified — SOIL GROUP: Not identified
NAME: Not identified - description not detailed

A 0-6 cm Humus content low; roots fine, few; consistence moderately strong; boundary abrupt, smooth.
B 6-57 cm Consistence moderately firm to very firm; boundary sharp,irregular, no obvious weathering zone.

VEGETATION
PROVINCE: South-west DISTRICT: Eyre
SYSTEM: Ravensthorpe
MUIR: LAi.KSr.Sr.SBi. No. of TAXA: 33

STRATUM 1: Trees 6-7 m, CC = 25, clumping none *Eucalyptus annulata (25).*
STRATUM 2: Mallees 4-5 m, CC = 3, clumping none *Eucalyptus flocktoniae (2), E. celastroides* var. *virella (1).*
STRATUM 3: Shrubs 2.1-2.6 m, CC = 5, clumping strong *Melaleuca cucullata (4), M. pauperiflora (1).*
STRATUM 4: Shrubs 1.6-2.0 m, CC = 0.1, clumping none *Dodonaea concinna (0.1), Daviesia* aff. *nematophylla (+).*
STRATUM 5: Shrubs 1.1-1.5 m, CC = 21, clumping slight *Melaleuca undulata (15), Acacia binata (5), Hakea commutata (1), Santalum acuminatum (+).*
STRATUM 6: Shrubs 0.6-1.0 m, CC = 0.1, clumping none *Exocarpos aphyllus (0.1), Grevillea acuaria (+).*
STRATUM 7a: Shrubs 0.0-0.5 m, CC = 0.4, clumping none *Acacia glaucoptera (0.1), Cassia nemophila* var. *nemophila (+), Comesperma polygaloides (+), Dodonaea pinifolia (+), Enchylaena tomentosa* var. *tomentosa (+), Goodenia laevis (+), Hibbertia rupicola (+), Pultenaea conferta (+), Rhagodia preissii* ssp. *preissii (+).*
STRATUM 7b: Misc. plants, CC = 0.6, clumping slight
ANNUALS: *Bulbine semibarbata (+).*
CLIMBERS: *Billardiera coriacea (+).*
GEOPHYTES: *Ptilotus holosericeus (+), Thysanotus patersonii* ssp. *patersonii (+).*
PARASITIC CLIMBERS: *Cassytha melantha (0.1).*
PERENNIAL GRASSES: *Danthonia caespitosa (0.1), Stipa mollis (+), S. puberula B (+).*
SEDGES: *Lepidosperma brunonianum (0.2), L.* sp. *(KRN 5233) (+).*
SEDGE-LIKE: *Dianella revoluta (+).*

FAUNA
BIRDS: No
REPTILES, MAMMALS & AMPHIBIANS: Metal trap line, drift fence 50 m long INVERTEBRATES: No

APPENDIX II

Flora List

Plant families are listed systematically (Green 1985), and alphabetically by genera and then species within families. Nomenclature generally follows that of the Western Australian Herbarium (Green 1985). Unnamed species are referenced by a 'KLB' (K.L. Bradby), 'KRN' (K.R. Newbey) or 'NGM' (N.G. Marchant) collection lodged in the WA Herbarium. Asterisk indicates an introduced species. Taxa have been assessed for life form (Newbey 1979), frequency and cover/abundance by vegetation type, and conservation values.

LF = Life Form (Newbey 1979)	Symbol
(A) Phanerophytes	P
(a) Mesophanerophytes (trees 5-50 m high)	MM
1. Small trees 5-15 m	ST
2. Medium trees 15-30 m	MT
3. Large trees >30 m	LT
(b) Microphanerophytes (trees, shrubs 2-5 m)	M
4. Dwarf trees <5 m	DT
5. Tall shrubs >2 m	TS
6. Mallees - tree form	MAT
- shrub form	MAS
(c) Nanophanerophytes	N
7. Dwarf woody shrubs <0.5 m	DS
8. Small woody shrubs 0.5-1.0 m	SS
9. Medium woody shrubs 1.1-1.5 m	MS
10. Large woody shrubs 1.5-2.0 m	LS
11. Herbaceous shrubs	HP
12. Climbers	CL
(B) Chamaephytes	CH
13. Mat plants	MP
(C) Hemicryphytophytes	H
14. Rosette perennials	RP
15. Perennial grasses	PG
16. Colonial sedges	SC
17. Tufted sedges	SI
18. Sedge-like	SL
(D) Geophytes	G
19. Terrestrial geophytes	AB
20. Hydrophytes	HY
(E) Therophytes	T
21. Annual grasses	AG
22. Other annuals	AS
(F) Parasitic climbers	P
23. Parasitic climbers	PC

Vegetation Type

Northern section
- EA = *Eucalyptus astringens* LAi on upper slopes and ridge
- ET = *Eucalyptus flocktoniae* KSi on lower, colluvial slopes
- DF = *Dryandra foliosissima* Li on laterized ridge and upper slopes

Southern section
- EN = *Eucalyptus annulata* LAi on ultramafic greenstone
- EA = *Eucalyptus astringens* LAi on breakaways
- EP = *Eucalyptus preissiana* KSc on massive laterite
- ET = *Eucalyptus flocktoniae* KSi on moderately weathered greenstone
- EE = *Eucalyptus tetragona* KSr on laterized greenstone ridges
- EQ = *Eucalyptus tetragona* KSr on quartzite
- ER = *Eucalyptus redunca* KSr on deeply weathered greenstone
- ES = *Eucalyptus tetragona* KSr on colluvial siliceous sand sheet
- GR = Granite Complex

Common to both sections
- EF = *Eucalyptus falcata* KSi on colluvial sheets of gravel
- DR = Drainage line Complex on saline creeks and narrow alluvial and colluvial deposits (including *Eucalyptus salmonophloia* Woodland)

Frequency and Cover/abundance

Frequency	Cover/abundance
A = 1 or 2 populations	1 = 1 or 2 plants
B = Few populations	2 = Few plants
C = Scattered "	3 = Few plants to 1per cent canopy cover
D = Frequent "	4 = 1-5 per cent canopy cover
E = Common "	5 = 6-30 per cent " "
	6 = 31-70 per cent " "

Cons. = Conservation values

- A = Almost confined to the Ravensthorpe Range (80-99 per cent of known populations)
- E = Endemic to Ravensthorpe Range (99-100 per cent of known populations)
- G = Gazetted Rare Flora of WA (Government Gazette 12 August 1994)
- R = Rare (less than 1000 plants known in conservation reserves, or few populations (K.R. Newbey and K.L. Bradby unpublished data))
- O = Outlier (more than 150 km from known populations)

Appendix II (continued)

LF	Taxon	Vegetation type													Cons.			
		EA	ET	DF	EN	EA	EP	ET	EE	EQ	ER	ES	GR	EF	DR	A	E	G	R	O
ADIANTACEAE (7)																				
FE	*Cheilanthes austrotenuifolia* H. Quirk & T.C. Chambers	B2																		
FE	*Cheilanthes distans* (R. Br.)Mett.								A2											
FE	*Cheilanthes lasiophylla* Pichi-Serm.								A2											
ASPLENIACEAE (11E)																				
FE	*Pleurosorus rutifolius* (R. Br.)Fee	B1							A2											
CUPRESSACEAE (18)																				
LS	*Callitris drummondii* (Parl.)F. Muell.							A3												
POACEAE (31)																				
AG	**Agrostis plebeia* R. Br.		A2																	
AG	**Aira cupaniana* Guss.														B3					
PG	*Amphipogon turbinatus* R. Br.			D3						D3		D3								
AG	**Avena fatua* L.		A2												B2					
AG	*Bromus arenarius* Labill.	B3																		
PG	*Danthonia caespitosa* Gaudich.	B2			D2			D2												
PG	*Danthonia setacea* R. Br. var. *breviseta* Vick.	B1	B2											B2						
AG	**Ehrharta longiflora* Smith								B2						C3					
PG	*Eragrostis dielsii* Pilger ex Diels & E. Pritzel														B2					
AG	**Hordeum leporinum* Link														E4					
AG	**Lolium rigidum* Gaudin													A2	B2					
PG	*Neurachne alopecuroidea* R. Br.			D3				B2	C3			C2								
AG	**Parapholis incurva* (L.)C.E. Hubb.		B3												D4					
AG	**Pentaschistis airoides* (Nees)Stapf	C2							B2						C3					
AG	**Polypogon monspeliensis* (L.)Desf.	A2																		
AG	**Schismus barbatus* (L.)Thell.	B1	B1																	
PG	*Spartochloa scorpoides* (Steudel) C.E. Hubb.								B4											
PG	*Stipa elegantissima* Labill.	B1	C1										C1							
PG	*Stipa mollis* R. Br.	B1			B1								C1							
PG	*Stipa puberula* Steudel A (KRN 11374)		B2																	
PG	*Stipa puberula* Steudel B (KRN 11373)	D2	B2		C1			C1	A1				B1							
PG	*Stipa pycnostachya* Benth.	B1						B1					B1							
AS	**Vulpia myuros* (L.)G. Gmelin	B2	B2						B2											
CYPERACEAE (32)																				
SI	*Caustis dioica* R. Br.											D3								
SI	*Gahnia ancistrophylla* Benth.			E3				C4	B3	B2				B2						
SI	*Gahnia decomposita* (R. Br.)Benth.														C3					
SI	*Gahnia lanigera* (R. Br.)Benth.							B2												
SI	*Lepidosperma brunonianum* Nees				D3			E4						B3						
SI	*Lepidosperma carphoides* F. Muell. ex Benth.			C1																
SI	*Lepidosperma leptostachyum* Benth.			C2					B3											
SI	*Lepidosperma resinosum* (Nees)Benth.							C4						A2						
SI	*Lepidosperma tuberculatum* Ness							B2												
SI	*Lepidosperma viscidum* R. Br. var. *viscidum* ...			B2					B4					A3						
SI	*Lepidosperma viscidum* var. nov. (KRN 11379)			A2				A2												
SI	*Lepidosperma* aff. *resinosum* (Nees) Benth. (KRN 5232)			C3				C3						B3						
SI	*Lepidosperma* sp. (KRN 4091)								B4	D5		D5								
SI	*Lepidosperma* sp. (KRN 5233)							C3												
SI	*Lepidosperma* sp. (KRN 6488)								B3			E4								
SI	*Mesomelaena stygia* (R. Br.)Nees ssp. *stygia*			E4					D3			E4								
SI	*Schoenus subbarbatus* Kuek.			B2					B2											
SI	*Schoenus subflavus* Kuek.			E4																
SI	*Schoenus sublaxus* Kuek.			D3					C3	E3										
SI	*Schoenus* aff. *brevisetis* (R. Br.)Benth. (KRN 6493)											D4								
SI	*Schoenus* aff. *laevigatus* W. Fitzg. (KRN 3953)											B2								
SI	*Tetraria capillaris* (F. Muell.)J. Black			C3				B3												
SI	*Tricostularia neesii* Lehm. var. *neesii*			B2					A3											
RESTIONACEAE (39)																				
SC	*Hypolaena fastigiata* R. Br.											D3								
SI	*Lepidobolus chaetocephalus* F. Muell.			D1								B1								
SI	*Loxocarya fasciculata* (R. Br.)Benth.								A2											
JUNCACEAE (52)																				
SC	*Juncus krausii* Hochst.														D3					
ASPARAGACEAE (54B)																				
HP	**Asparagus asparagoides* (L.)W. Wight							A3												

Appendix II (continued)

LF	Taxon	Vegetation type													Cons.				
		EA	ET	DF	EN	EA	EP	ET	EE	EQ	ER	ES	GR	EF	DR	A	E	G	R	O
	DASYPOGONACEAE (54C)																			
SL	*Lomandra collina* (R. Br.)Ewart	..	..	C2	..	..	..	..	B1	C2	..	D2	..	B2	..	.	.	.	.	.
SL	*Lomandra effusa* (Lindley)Ewart	..	..	..	..	..	..	..	..	..	..	..	..	..	B2	.	.	.	.	.
SL	*Lomandra hastilis* (R. Br.)Ewart	..	..	..	..	..	..	..	..	..	..	A2	..	..	..	.	.	.	.	.
SL	*Lomandra micrantha* (Endl.)Ewart ssp. *micrantha*	..	..	D2	..	..	..	B2	..	..	..	..	..	..	..	.	.	.	.	.
SL	*Lomandra micrantha* (Endl.)Ewart ssp. *teretifolia* Everett	..	..	A1	..	..	..	B2	..	..	..	..	..	..	..	.	.	.	.	.
	XANTHORRHOEACEAE (54D)																			
SL	*Xanthorrhoea platypoda* D.J. Bedford	..	..	..	..	..	B1	..	..	..	..	E3	..	..	..	.	.	.	.	.
	PHORMIACEAE (54E)																			
SL	*Dianella revoluta* R. Br.	B1	B1	..	D1	..	..	C1	..	..	..	C1	..	..	B1	.	.	.	.	.
	ANTHERICACEAE (54F)																			
SL	*Agrostocrinum scabrum* (R. Br.)Baillon	..	..	..	..	..	..	..	..	..	..	..	..	A2	..	.	.	.	.	.
DS	*Borya constricta* D.M. Churchill	..	..	..	..	..	..	..	..	..	..	..	??	..	..	.	.	.	.	.
DS	*Thysanotus dichotomus* (Labill.)R. Br.	..	..	..	..	..	..	..	A2	..	..	..	..	A2	..	.	.	.	.	.
AB	*Thysanotus gageoides* Diels	..	..	..	..	..	..	..	..	..	A1	..	..	..	..	.	.	.	X	.
AB	*Thysanotus patersonii* R. Br. ssp. *patersonii*	C1	C1	B1	C1	..	..	C1	C1	..	..	..	D1	B2	..	.	.	.	.	.
	ASPHODELACEAE (54G)																			
AS	*Bulbine semibarbata* (R. Br.)Haw.	C2	B1	..	C2	..	..	..	..	..	..	..	..	..	C2	.	.	.	.	.
	HAEMODORACEAE (55)																			
SL	*Conostylis androstemma* F. Muell. ssp. *argentea* J.W. Green	..	..	D3	..	..	..	..	..	..	..	..	..	A2	..	.	.	.	.	.
SL	*Haemodorum paniculatum* Lindley	..	..	C1	..	..	..	..	..	..	..	..	..	A1	..	.	.	.	.	.
	IRIDACEAE (60)																			
SL	*Patersonia lanata* R. Br.	..	..	..	..	..	..	..	..	..	..	A2	..	..	..	.	.	.	.	.
SL	*Patersonia limbata* Endl.	..	..	..	..	..	..	..	..	..	..	A1	..	..	..	.	.	.	.	.
	ORCHIDACEAE (66)																			
AB	*Caladenia deformis* R. Br.	??	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AB	*Caladenia saccharata* H.G. Reichb.	..	..	B1	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AB	*Diuris setacea* R. Br.	..	..	..	..	..	..	..	..	A1	..	..	..	..	..	.	.	.	.	.
AB	*Elythranthera brunonis* (Endl.) A.S. George	..	..	..	..	..	..	..	..	..	..	..	..	A2	..	.	.	.	.	.
AB	*Paracaleana nigrita* (Lindley)Blaxell	..	..	..	..	..	..	..	..	..	..	A1	..	..	..	.	.	.	.	.
AB	*Pterostylis nana* R. Br.	..	..	..	..	..	..	..	..	A2	..	..	..	..	..	.	.	.	.	.
AB	*Pterostylis vittata* Lindley var. *vittata*	..	..	B1	..	..	..	..	B1	..	..	..	..	..	..	.	.	.	.	.
AB	*Pterostylis* sp. (KRN 11340)	B1	B1	A1	..	..	..	..	..	..	..	..	..	..	..	.	.	.	X	.
AB	*Thelymitra canaliculata* R. Br.	..	A1	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AB	*Thelymitra pauciflora* R. Br.	..	..	..	..	..	..	A1	..	..	..	..	..	..	..	.	.	.	.	.
	CASUARINACEAE (70)																			
MS	*Allocasuarina acuaria* (F. Muell.) L. Johnson	..	..	..	..	..	..	..	..	..	..	..	..	A3	..	.	.	.	.	.
TS	*Allocasuarina acutivalvis* (F. Muell.) L. Johnson	..	..	..	..	..	..	..	..	..	..	..	..	B3	..	.	.	.	.	.
MS	*Allocasuarina campestris* (Diels) L. Johnson ssp. *campestris*	..	..	..	..	..	..	B3	D4	..	..	..	..	A4	..	.	.	.	.	.
TS	*Allocasuarina corniculata* (F. Muell.) L. Johnson	??	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
ST	*Allocasuarina huegeliana* (Miq.) L. Johnson	..	..	..	..	..	..	..	..	..	..	..	..	A2	..	.	.	.	.	.
SS	*Allocasuarina humilis* (Otto & Dietr.) L. Johnson	..	..	D3	..	..	..	..	D2	..	D3	..	..	D4	..	.	.	.	.	.
DS	*Allocasuarina microstachya* (Miq.) L. Johnson	??	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
MS	*Allocasuarina scleroclada* (L. Johnson) L. Johnson	..	..	..	..	..	..	..	..	..	..	A2	..	..	..	.	.	.	.	.
DS	*Allocasuarina thuyoides* (Miq.) L. Johnson	..	..	..	..	..	..	..	..	..	..	C1	..	..	..	.	.	.	.	.
	PROTEACEAE (90)																			
SS	*Adenanthos argyreus* Diels	..	..	C3	..	..	..	..	..	..	..	..	..	B2	..	.	.	.	.	.
LS	*Adenanthos oreophilus* E.C. Nelson	..	..	..	..	..	..	..	B3	..	..	..	..	B3	..	X	.	.	.	.
LS	*Banksia laevigata* Meissner var. *laevigata*	..	..	..	..	..	..	..	B3	..	..	..	..	B4	..	.	.	.	.	.
TS	*Banksia lemanniana* Meissner	..	..	D3	..	..	..	B4	D4	E5	..	B3	..	D4	..	.	.	.	.	.
TS	*Banksia media* R. Br.	..	..	..	..	..	..	..	..	..	..	B3	..	..	..	.	.	.	.	.
SS	*Banksia violacea* C. Gardner	..	..	..	..	..	..	..	..	..	..	B3	..	..	..	.	.	.	.	.
SS	*Conospermum floribundum* Benth.	..	..	..	..	..	..	..	..	..	..	A3	..	..	..	.	.	.	.	.
MS	*Dryandra cirsioides* Meissner	..	..	C4	..	..	..	C3	..	..	..	..	..	C3	..	.	.	.	.	.
MS	*Dryandra cuneata* R. Br.	..	..	..	..	..	..	..	..	..	..	D3	..	A2	..	.	.	.	.	.
SS	*Dryandra erythrocephala* C. Gardner	..	..	..	..	..	..	..	..	..	..	..	..	A1	..	.	.	.	.	.
DS	*Dryandra ferruginea* Kipp. ex Meissner	..	..	B2	..	..	..	..	..	..	..	..	..	A2	..	.	.	.	.	.

LF	Taxon	Vegetation type												Cons.				
		EA	ET	DF	EN	EA	EP	ET	EE	EQ	ER	ES	GR	EF	DR	A	E	G	R	O
LS	*Dryandra foliosissima* C. Gardner	. .	. .	E4	. .	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	X	.	.	.
MS	*Dryandra quercifolia* Meissner	. .	. .	. .	. .	. .	D4	. .	D4	E5	. .	C3	. .	B4	. .	.	.	.	.	.
MS	*Dryandra* aff. *cirsioides* Meissner (KRN 768)	. .	. .	B3	. .	. .	. .	. .	. .	. .	. .	. .	. .	B2	. .	.	.	.	.	.
SS	*Dryandra* sp. (KLB 72)	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A1	. .	.	X	.	X	.
SS	*Dryandra* sp. (KLB 73)	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A1	. .	.	X	.	X	.
DS	*Dryandra* sp. (NGM 87-98)	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A1	. .	.	.	.	.	.
SS	*Grevillea acuaria* F. Muell. ex Benth.	. .	. .	A1	B1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
LS	*Grevillea coccinea* Meissner	. .	. .	D2	. .	. .	. .	. .	B2	. .	. .	. .	. .	C2	. .	.	.	.	.	.
LS	*Grevillea fulgens* C. Gardner	. .	. .	B2	. .	. .	. .	. .	B2	. .	. .	. .	. .	A3	. .	.	X	.	.	.
DS	*Grevillea haplantha* F. Muell. ex Benth.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
DS	*Grevillea huegelii* Meissner	. .	C2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	B2	. .	.	.	.	.	.
MS	*Grevillea integrifolia* (Endl.)Meissner ssp. *shuttleworthiana* (Meissner) McGillivray	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
MS	*Grevillea paniculata* Meissner	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
SS	*Grevillea patentiloba* F. Muell.	. .	. .	. .	. .	. .	. .	B2	. .	. .	. .	B1	. .	B2	. .	.	.	.	.	.
MS	*Grevillea pauciflora* R. Br. spp. *pauciflora*	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
MS	*Grevillea pectinata* R. Br.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	B2	. .	A2	. .	.	.	.	.	.
LS	*Grevillea platypoda* F. Muell.	D2	. .	B2	. .	. .	. .	B1	B1	. .	. .	. .	. .	B2	. .	.	X	.	.	.
SS	*Grevillea pritzelii* Diels	??	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
SS	*Grevillea* sp. (KRN 11789)	. .	A1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	?	?	?	?	?
MS	*Hakea commutata* F. Muell.	. .	B1	. .	D3	. .	. .	D2	. .	. .	. .	. .	. .	B2	. .	.	.	.	.	.
LS	*Hakea corymbosa* R. Br.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	D4	. .	B3	. .	.	.	.	.	.
TS	*Hakea crassifolia* Meissner	. .	. .	A2	. .	. .	. .	. .	. .	. .	D2	. .	. .	C3	. .	.	.	.	.	.
SS	*Hakea incrassata* R. Br.	. .	. .	A2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
TS	*Hakea laurina* R. Br.	C2	B1	D1	. .	. .	. .	C1	. .	. .	. .	. .	. .	E2	. .	.	.	.	.	.
DS	*Hakea lehmanniana* Meissner	. .	. .	A2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
MS	*Hakea lissocarpha* R. Br.	. .	. .	C3	. .	. .	. .	C3	C3	. .	. .	. .	. .	D3	. .	.	.	.	.	.
DS	*Hakea marginata* R. Br.	. .	. .	. .	. .	. .	. .	B3	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
TS	*Hakea multilineata* Meissner	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
LS	*Hakea obtusa* Meissner	. .	. .	E3	. .	. .	. .	C3	D3	. .	. .	. .	. .	D3	. .	.	.	.	.	.
TS	*Hakea preissii* Meissner	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	C2	.	.	.	.	.
SS	*Hakea prostrata* R. Br.	??	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
MS	*Hakea subsulcata* Meissner	. .	. .	A2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
MS	*Hakea trifurcata* (Smith)R. Br.	. .	. .	D3	. .	. .	. .	. .	. .	. .	. .	. .	. .	B3	. .	.	.	.	.	.
MS	*Hakea varia* R. Br.	. .	. .	. .	. .	. .	. .	. .	A2	. .	. .	A2	. .	A2	. .	.	.	.	.	.
LS	*Hakea verrucosa* F. Muell.	. .	B1	. .	. .	. .	. .	E4	E4	. .	. .	. .	. .	C3	. .	.	.	.	.	.
MS	*Hakea victoriae* J. Drumm.	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	. .	. .	. .	. .	.	.	.	.	.
DS	*Isopogon attenuatus* R. Br.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	D4	. .	. .	. .	.	.	.	.	.
SS	*Isopogon buxifolius* R. Br.	. .	. .	. .	. .	. .	. .	. .	. .	B1	. .	. .	. .	E3	. .	.	.	.	.	.
MS	*Isopogon linearis* Meissner	??	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
MS	*Isopogon polycephalus* R. Br.	. .	. .	C3	. .	. .	. .	. .	B3	. .	. .	. .	. .	. .	. .	.	.	.	.	.
DS	*Persoonia striata* R. Br.	. .	. .	D1	. .	. .	. .	. .	. .	. .	. .	D1	. .	A1	. .	.	.	.	.	.
LS	*Persoonia teretifolia* R. Br.	D3	D1	. .	. .	. .	. .	D1	B1	. .	. .	. .	. .	D2	. .	.	.	.	.	.
DS	*Persoonia tortifolia* Meissner	. .	. .	B2	. .	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
SS	*Petrophile fastigiata* R. Br.	. .	. .	. .	. .	. .	. .	B3	C3	. .	. .	. .	. .	B3	. .	.	.	.	.	.
DS	*Petrophile seminuda* Lindley	. .	. .	D2	. .	. .	. .	. .	C1	C1	. .	D3	. .	C3	. .	.	.	.	.	.
SS	*Petrophile serruriae* R. Br.	??	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
SS	*Petrophile squamata* R. Br.	. .	. .	. .	. .	. .	B3	. .	B3	C3	. .	. .	. .	B2	. .	.	.	.	.	.
SS	*Petrophile trifida* R. Br.	. .	. .	D3	. .	. .	. .	B2	. .	. .	. .	. .	. .	C2	. .	.	.	.	.	.
DS	*Synaphaea favosa* R. Br.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	C1	. .	B2	. .	.	.	.	.	.
DS	*Synaphaea polymorpha* R. Br.	??	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
	SANTALACEAE (92)																			
MS	*Choretrum glomeratum* R. Br. var. *glomeratum*	. .	B1	A1	. .	. .	. .	B2	A1	. .	. .	. .	. .	A2	. .	.	.	.	.	.
MS	*Exocarpos aphyllus* R. Br.	E4	C1	. .	D3	. .	. .	D3	A1	. .	. .	. .	. .	A3	. .	.	.	.	.	.
MS	*Exocarpos cupressiformis* Labill.	??	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
TS	*Exocarpos sparteus* R. Br.	. .	. .	D1	. .	. .	. .	B1	. .	. .	. .	. .	. .	B2	. .	.	.	.	.	.
TS	*Santalum acuminatum* (R. Br.)A. DC.	A2	B1	. .	B1	. .	. .	C3	B2	. .	. .	. .	D2	B3	. .	.	.	.	.	.
TS	*Santalum murrayanum* (Mitch.)C. Gardner	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	B2	. .	.	.	.	.	.
	OLACACEAE (95)																			
DS	*Olax benthamiana* Miq.	. .	. .	C1	. .	. .	. .	. .	. .	. .	. .	. .	. .	B1	. .	.	.	.	.	.
	POLYGONACEAE (103)																			
DS	*Muehlenbeckia adpressa* (Labill.)Meissner	B1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
	CHENOPODIACEAE (105)																			
MS	*Atriplex cinerea* Poiret	A2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
MP	*Atriplex semibaccata* R. Br.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	B3	.	.	.	.	.
MP	*Chenopodium desertorum* (J. Black) J. Black ssp. *microphyllum* Paul G. Wilson	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	C2	.	.	.	.	.
DS	*Enchylaena tomentosa* R. Br. var. *tomentosa*	C1	. .	. .	C1	. .	. .	. .	. .	. .	. .	. .	. .	. .	D2	.	.	.	.	.
SS	*Halosarcia indica* (Willd.)Paul G. Wilson ssp. *bidens* (Nees)Paul G. Wilson	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	D3	.	.	.	.	.
DS	*Halosarcia lepidosperma* Paul G. Wilson	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	E5	.	.	.	.	.
SS	*Maireana brevifolia* (R. Br.) Paul G. Wilson	. .	A3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A1	D3	.	.	.	.	.

Appendix II (continued)

LF	Taxon	Vegetation type													Cons.				
		EA	ET	DF	EN	EA	EP	ET	EE	EQ	ER	ES	GR	EF	DR	A	E	G	R	O
DS	*Rhagodia crassifolia* R. Br.	..	..	..	..	..	..	..	..	..	..	..	..	..	C2	.	.	.	.	.
SS	*Rhagodia preissii* Moq. ssp. *preissii*	..	..	..	C1	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
DS	*Sclerolaena diacantha* (Nees)Benth.	..	A2	..	..	..	..	..	..	..	..	..	..	A2	..	.	.	.	.	.
	AMARANTHACEAE (106)																			
RP	*Ptilotus holosericeus* (Moq.)F. Muell.	..	..	..	B1	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
RP	*Ptilotus spathulatus* (R. Br.)Poiret	..	..	..	..	..	..	..	..	..	..	..	A2	..	..	.	.	.	.	.
	GYROSTEMONACEAE (108)																			
LS	*Gyrostemon sessilis* A.S. George	..	..	..	..	..	..	..	..	..	..	..	..	A1	..	.	.	.	X	.
MS	*Gyrostemon subnudus* (Nees)Baillon	??	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
	AZOACEAE (110)																			
DS	**Carpobrotus edulis* (L.)L. Bolus	??	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
DS	*Carpobrotus rossii* (Haw.)Schwantes	..	..	..	..	..	..	..	..	..	..	..	..	..	B2	.	.	.	.	.
MP	*Disphyma crassifolium* (L.)L. Bolus	..	B4	..	..	..	..	..	..	..	..	..	..	..	E4	.	.	.	.	.
AS	**Mesembryanthemum nodiflorum* L.	..	B4	..	..	..	..	..	..	..	..	..	..	..	B3	.	.	.	.	.
	PORTULACACEAE (111)																			
AS	*Calandrinia calyptrata* J.D. Hook.	C2	..	..	..	..	..	..	B2	..	..	..	..	..	..	.	.	.	.	.
	CARYOPHYLLACEAE (113)																			
AS	**Petrorhagia velutina* (Guss.)P. Ball & Heyw.	..	..	..	..	..	..	..	..	..	..	..	..	..	B2	.	.	.	.	.
	LAURACEAE (131)																			
PC	*Cassytha glabella* R. Br.	..	..	D1	..	..	..	B1	..	..	..	D1	..	..	..	.	.	.	.	.
PC	*Cassytha melantha* R. Br.	B1	C1	A2	D2	..	..	C3	A2	..	..	..	..	E2	..	.	.	.	.	.
PC	*Cassytha micrantha* Meissner	..	..	B1	..	..	..	A1	..	..	..	..	..	B2	..	.	.	.	.	.
PC	*Cassytha racemosa* Nees	..	..	A1	..	..	..	A2	..	..	..	..	..	A1	..	.	.	.	.	.
	BRASSICACEAE (138)																			
AS	**Brassica rapa* L.	..	A2	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AS	**Brassica tournefortii* Gouan	..	B3	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
	DROSERACEAE (143)																			
RP	*Drosera scorpoides* Planchon	..	..	B2	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
	CRASSULACEAE (149)																			
AS	*Crassula colorata* (Nees)Ostenf. var. *colorata*	B2	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AS	*Crassula exserta* (Reader)Ostenf.	..	..	..	..	..	..	..	A2	..	..	..	..	..	..	.	.	.	.	.
	PITTOSPORACEAE (152)																			
CL	*Billardiera coriacea* Benth.	B1	..	B1	B1	..	..	..	A1	B1	..	..	..	D1	..	.	.	.	.	.
DS	*Billardiera mollis* E.M. Bennett	..	..	..	..	..	..	..	..	..	..	A2	..	..	..	X	.	X	X	.
CL	*Billardiera sericea* (Turcz.)E.M. Bennett	..	..	D1	..	..	..	..	..	..	..	C1	..	B1	..	.	.	.	.	.
DS	*Billardiera villosus* (Turcz.) E.M. Bennett	..	..	..	..	..	..	A2	..	..	..	..	..	A2	..	.	.	.	X	.
DS	*Cheiranthera filifolia* Turcz.	..	..	..	..	..	..	..	..	..	B1	..	..	B2	..	.	.	.	.	.
CL	*Sollya heterophylla* Lindley	C1	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
	MIMOSACEAE (163)																			
ST	*Acacia acuminata* Benth.	..	..	..	..	..	..	..	..	..	..	..	..	..	B4	.	.	.	.	.
MS	*Acacia binata* Maslin	..	B3	..	D4	..	..	..	..	..	..	..	..	A2	..	.	.	.	.	.
DS	*Acacia chrysocephala* Maslin	??	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
TS	*Acacia cyclops* Cunn. ex Don	..	..	..	..	..	..	..	..	..	..	..	..	..	B3	.	.	.	.	.
DS	*Acacia erinacea* Benth.	D3	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
DS	*Acacia ferocoir* Maiden	..	..	..	..	A2	..	..	..	..	..	..	..	..	..	.	.	.	.	.
MS	*Acacia fragilis* Maiden & Blakely	..	..	D2	..	..	..	B2	C2	..	..	..	..	B3	..	.	.	.	.	.
DS	*Acacia glaucoptera* Benth.	..	B3	..	D3	..	..	..	..	..	..	..	..	A2	..	.	.	.	.	.
SS	*Acacia gonophylla* Benth.	..	..	..	..	..	..	B2	..	C3	..	D3	..	C3	..	.	.	.	.	.
SS	**Acacia gunnii* Benth.	..	..	..	..	..	..	A1	..	..	..	..	..	..	..	.	.	.	.	.
DS	*Acacia ingrata* Benth.	..	B2	..	..	..	..	B3	..	..	..	..	..	C3	..	.	.	.	.	.
SS	*Acacia ixiophylla* Benth.	..	..	..	..	..	..	..	..	..	..	..	..	..	B3	.	.	.	.	.
DS	*Acacia laricina* Meissner	..	..	..	..	..	..	B2	..	..	..	..	..	..	..	.	.	.	.	.
TS	*Acacia lasiocalyx* C.R.P. Andrews	..	..	..	..	..	..	..	..	..	..	..	A3	A1	..	.	.	.	.	.
LS	*Acacia ligulata* Cunn. ex Benth.	..	..	..	..	..	..	..	..	..	..	..	..	..	A2	.	.	.	.	.
MS	*Acacia lineolata* Benth.	??	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
SS	*Acacia nitidula* Benth.	??	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
DS	*Acacia pilosa* Benth.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
SS	*Acacia redolens* Maslin	..	..	..	..	..	..	..	..	..	..	A2	..	..	..	.	.	.	.	.
TS	*Acacia saligna* (Labill.)H.L. Wendl.	..	..	..	..	..	..	..	..	..	..	..	..	..	C4	.	.	.	.	.
LS	*Acacia subcaerulea* Lindley	B1	..	..	..	..	..	..	..	..	..	..	..	..	C3	.	.	.	.	.
MS	*Acacia sulcata* R. Br. var. *platyphylla* Maiden & Blakely	..	B2	..	..	..	..	..	D3	..	..	..	..	C3	..	.	.	.	.	.
TS	*Acacia triptycha* F. Muell. ex Benth.	..	..	..	..	..	..	..	..	..	..	..	..	B2	..	.	.	.	.	.
DS	*Acacia varia* Maslin var. *parviflora* (Benth.)Maslin	..	..	..	..	..	..	..	..	..	..	..	..	A3	..	.	.	.	.	.
		..	..	..	..	..	..	..	..	..	..	..	..	B2	..	.	.	.	.	.

LF	Taxon	Vegetation type													Cons.				
		EA	ET	DF	EN	EA	EP	ET	EE	EQ	ER	ES	GR	EF	DR	A	E	G	R	O
LS	*Acacia* aff. *aestivalis* E. Pritzel (KRN ???)	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A3	. .	.	.	.	.	.
SS	*Acacia* aff. *beauverdiana* Ewart & Sharman (KRN 1295)	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	B2	. .	.	.	.	.	.
DS	*Acacia* aff. *cometes* C.R.P. Andrews (KRN 9523)	. .	B3	. .	. .	. .	. .	B3	. .	. .	. .	. .	. .	A2	. .	.	X	.	X	.
TS	*Acacia* aff. *murrayana* F. Muell. ex Benth.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A1	. .	.	.	.	.	.
MS	*Acacia* aff. *myrtifolia* (Smith)Willd. (KRN 938)	. .	. .	B2	. .	. .	. .	. .	C3	. .	. .	. .	. .	C3	. .	X	.	.	X	.
MS	*Acacia* aff. *obovata* Benth. (KRN 2494)	A2	. .	. .	. .	. .	. .	A2	. .	. .	. .	. .	. .	B2	. .	X	.	.	X	.
MS	*Acacia* aff. *fragilis* Maiden & Blakely (KRN 11791)	. .	. .	. .	. .	. .	. .	C4	. .	. .	. .	. .	. .	C4	. .	X	.	.	.	.
LS	*Acacia* sp. (KLB 73)	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	X	.	.	X	.
DS	*Acacia* sp. (KRN 4287)	. .	. .	. .	. .	. .	. .	B2	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
SS	*Acacia* sp. (KRN 9524)	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A3	. .	.	.	.	.	.
DS	*Acacia* sp. (KRN 11793)	. .	. .	. .	. .	. .	. .	A1	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
	CAESALPINIACEAE (164)																			
DS	*Cassia cardiosperma* F. Muell.	??	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
DS	*Cassia nemophila* Cunn. ex Vogel var. *nemophila*	D3	B2	. .	C2	. .	. .	B2	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
MS	*Labichea lanceolata* Benth. ssp. *brevifolia* (Meissner)J.H. Ross	. .	. .	. .	. .	. .	. .	. .	A2	. .	. .	. .	. .	B2	. .	.	.	.	.	.
	PAPILIONACEAE (165)																			
SS	*Bossiaea preissii* Meissner	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	B3	. .	.	.	.	.	.
DS	*Burtonia conferta* DC.	. .	. .	. .	. .	. .	. .	B2	. .	. .	. .	. .	. .	C2	. .	.	.	.	.	.
DS	*Chorizema nervosum* T. Moore	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	B2	. .	.	.	.	.	.
DS	*Chorizema trigonum* Turcz.	. .	. .	. .	. .	. .	. .	. .	. .	C3	. .	. .	. .	. .	. .	.	.	.	.	.
DS	*Chorizema* sp. (KRN 1353)	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	B2	. .	.	.	.	X	.
DS	*Daviesia anceps* Turcz.	. .	. .	A2	. .	. .	. .	C3	B2	. .	. .	. .	. .	B2	. .	.	.	.	.	.
SS	*Daviesia benthamii* Meissner ssp. *benthamii*	. .	. .	. .	. .	. .	. .	B3	. .	. .	. .	. .	. .	A3	. .	.	.	.	.	.
DS	*Daviesia decurrens* Meissner	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	B3	. .	.	.	.	.	.
SS	*Daviesia megacalyx* ms.	. .	. .	A2	. .	. .	. .	. .	. .	. .	. .	. .	. .	B2	. .	.	X	X	X	.
SS	*Daviesia mollis* Turcz.	. .	. .	. .	. .	. .	. .	C4	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
MS	*Daviesia obtusifolia* F. Muell.	. .	. .	C2	. .	. .	. .	. .	. .	B2	. .	. .	. .	. .	. .	.	.	.	.	.
SS	*Daviesia pachyphylla* F. Muell.	. .	. .	C1	. .	. .	. .	. .	. .	. .	. .	. .	. .	B2	. .	.	.	.	.	.
DS	*Daviesia teretifolia* R. Br.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	C2	. .	. .	. .	.	.	.	.	.
SS	*Daviesia unifolia* D.A. Herbert	. .	. .	B2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
MS	*Daviesia* aff. *nematophylla* F. Muell. ex Benth. (KRN 566)	. .	C2	. .	B1	. .	. .	B3	. .	. .	. .	. .	. .	B2	. .	.	.	.	.	.
MS	*Daviesia* aff. *trigonophylla* Meissner (KRN 312)	. .	. .	. .	. .	. .	. .	A2	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
SS	*Eutaxia cuneata* Meissner	. .	. .	. .	. .	. .	. .	. .	B2	. .	. .	. .	. .	C2	. .	.	.	.	.	.
DS	*Gastrolobium reticulatum* (Meissner) Benth.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	B2	. .	.	.	.	.	.
DS	*Gompholobium burtonioides* Meissner	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A1	. .	.	.	.	.	.
DS	*Gompholobium knightianum* Lindley	. .	. .	C1	. .	. .	. .	. .	. .	B1	. .	. .	. .	B2	. .	.	.	.	.	.
DS	*Gompholobium marginatum* R. Br.	. .	. .	A1	. .	. .	. .	. .	B1	. .	. .	. .	. .	A2	. .	.	.	.	.	.
DS	*Gompholobium polymorphum* R. Br.	??	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
DS	*Gompholobium venustrum* R. Br.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
DS	*Gompholobium viscidulum* Meissner	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	B2	. .	.	.	.	.	.
SS	*Hovea acanthoclada* (Turcz.)F. Muell.	D3	. .	. .	. .	. .	. .	A2	B2	. .	. .	. .	. .	B2	. .	.	.	.	.	.
DS	*Hovea trisperma* Benth.	. .	. .	B1	. .	. .	. .	. .	. .	B1	. .	. .	. .	. .	. .	.	.	.	.	.
LS	*Jacksonia lehmannii* Meissner	. .	. .	D3	. .	. .	. .	. .	D3	E4	. .	. .	. .	C3	. .	.	.	.	.	.
DS	*Jacksonia alata* Benth.	. .	. .	. .	. .	. .	A3	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
SS	*Jacksonia* aff. *aphylla* (Turcz.)Druce (KRN 10952)	. .	. .	. .	. .	. .	B1	. .	. .	. .	. .	B1	. .	. .	. .	.	.	.	.	.
DS	*Mirbelia ovata* Meissner	??	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
DS	*Oxylobium microphyllum* Benth.	. .	B2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
MS	*Oxylobium parviflorum* Benth. var. *parviflorum*	D3	C2	A2	. .	. .	. .	C4	C3	. .	. .	. .	. .	E3	. .	.	.	.	.	.
DS	*Oxylobium rigidum* C. Gardner	. .	. .	A1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
TS	*Oxylobium* sp. (KRN 4035)	. .	. .	. .	. .	. .	A2	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
MP	*Pultenaea conferta* Benth.	. .	D4	. .	B1	. .	. .	B3	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
DS	*Pultenaea verruculosa* Turcz. var. ?	??	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
LS	*Templetonia retusa* (Vent.)R. Br.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
	GERANIACEAE (167)																			
AS	**Erodium botrys* (Cav.)Bertol.	. .	. .	. .	. .	. .	. .	. .	A1	. .	. .	. .	. .	. .	. .	.	.	.	.	.
HP	*Pelargonium australe* Willd.	. .	. .	. .	. .	. .	. .	. .	A1	. .	. .	. .	. .	. .	. .	.	.	.	.	.
	OXALIDACEAE (168)																			
HP	*Oxalis corniculata* L.	B1	B1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
	RUTACEAE (175)																			
DS	*Boronia crassifolia* Bartling	. .	. .	E3	. .	. .	. .	. .	. .	. .	. .	. .	D3	. .	B3	. .	.	.	.	.
DS	*Boronia crenulata* Smith var. *gracilis* (Benth.)Paul G. Wilson	. .	. .	. .	. .	. .	. .	. .	B3	. .	. .	. .	. .	C3	. .	.	.	.	.	.
DS	*Boronia inconspicua* Benth.	B2	B1	A1	. .	. .	. .	B2	B2	. .	. .	. .	. .	B2	. .	.	.	.	.	.
DS	*Boronia inornata* Turcz. ssp. *inornata*	. .	C2	. .	. .	. .	. .	C4	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.

Appendix II (continued)

LF	Taxon	Vegetation type														Cons.				
		EA	ET	DF	EN	EA	EP	ET	EE	EQ	ER	ES	GR	EF	DR	A	E	G	R	O
DS	*Boronia octandra* Paul G. Wilson	??	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
DS	*Boronia oxyantha* Turcz. var.*brevicalyx* Paul G. Wilson	B2	. .	. .	. .	. .	. .	B2	. .	. .	. .	. .	. .	B2	. .	.	.	.	.	.
DS	*Boronia ramosa* (Lindley)Benth.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	B2	. .	.	.	.	.	.
DS	*Boronia scabra* Lindley	A3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
DS	*Boronia spathulata* Lindley	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A3	. .	.	.	.	.	.
DS	*Boronia tenuis* (Lindley)Benth.	. .	. .	B1	. .	. .	. .	. .	. .	B1	. .	. .	. .	. .	. .	.	.	.	.	.
DS	*Boronia ternata* Endl. var. *elongata* Paul G. Wilson	. .	. .	B2	. .	. .	. .	C2	. .	. .	. .	. .	. .	B3	. .	X	.	.	X	.
SS	*Eriostemon gardneri* Paul G. Wilson	. .	B1	A2	. .	. .	. .	. .	B2	. .	. .	. .	D2	C2	. .	.	.	.	.	.
MS	*Nematolepis phebalioides* Turcz.	. .	. .	. .	. .	. .	. .	B2	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
DS	*Phebalium microphyllum* Turcz.	. .	B2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
SS	*Phelalium rude* Bartling ssp. *amblycarpum* (F. Muell.)Paul G. Wilson	. .	. .	C1	. .	. .	. .	. .	. .	. .	. .	. .	. .	B3	. .	.	.	.	.	.
DS	*Phebalium tuberculosum* (F. Muell.) Benth. ssp. ?	??	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
	POLYGALACEAE (183)																			
DS	*Comesperma confertum* Labill.	. .	. .	B2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
DS	*Comesperma drummondii* Steetz	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
DS	*Comesperma polygaloides* F. Muell.	. .	. .	. .	C1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
DS	*Comesperma virgatum* Labill.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	B1	. .	. .	. .	.	.	.	.	.
CL	*Comesperma volubile* Labill.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A1	.	.	.	.	.
	EUPHORBIACEAE (185)																			
DS	*Amperea* sp. (KRN 5147)	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A1	. .	. .	. .	.	.	.	.	.
MS	*Beyeria brevifolia* (Muell.Arg.)Benth.	??	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
SS	*Beyeria lechenaultii* (DC.)Baillon	B2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
MS	*Beyeria* sp. (KRN 10966)	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A3	. .	.	.	.	.	.
MS	*Beyeria* sp. (KRN 11020)	. .	. .	. .	. .	. .	. .	A2	. .	. .	. .	. .	. .	A3	. .	.	.	.	X	.
MS	*Beyeria* sp. (KRN 11401)	. .	. .	A2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
SS	*Beyeria* sp. (KRN 11802)	. .	. .	. .	. .	. .	B2	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
DS	*Monotaxis grandiflora* Endl.	??	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
DS	*Monotaxis* sp. (KRN 10868)	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A1	. .	.	.	.	.	.
DS	*Phyllanthus scaber* Klotzsch	A2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
AS	*Poranthera microphylla* Brongn.	B2	B2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
DS	*Pseudanthus virgatus* (Klotzsch) Muell.Arg.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	C2	. .	B2	. .	.	.	.	.	.
	STACKHOUSIACEAE (202)																			
HP	*Stackhousia monogyna* Labill.	A1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	D2	. .	.	.	.	.	.
DS	*Stackhousia scoparia* Benth.	. .	. .	C2	. .	. .	. .	. .	B1	. .	. .	. .	. .	C2	. .	.	.	.	.	.
HP	*Tripterococcus brunonis* Endl.	. .	. .	C1	. .	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
	SAPINDACEAE (207)																			
MS	*Dodonaea amblyophylla* Diels	C2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	B3	. .	.	.	.	.	.
DS	*Dodonaea bursariifolia* F. Muell.	??	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
SS	*Dodonaea ceratocarpa* Endl.	. .	. .	. .	. .	. .	. .	C3	B2	. .	. .	. .	D3	B2	. .	.	.	.	.	.
SS	*Dodonaea concinna* Benth.	. .	. .	. .	C3	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
DS	*Dodonaea pinifolia* Miq.	. .	A1	. .	B1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
LS	*Dodonaea ptarmicaefolia* Turcz.	. .	. .	. .	. .	. .	. .	. .	A3	. .	. .	. .	. .	. .	. .	.	.	.	.	.
DS	*Dodonaea trifida* F. Muell.	. .	A3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	X	.
	RHAMNACEAE (215)																			
DS	*Cryptandra arbutiflora* Fenzl	??	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
SS	*Cryptandra leucophracta* Schldl.	??	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
SS	*Cryptandra pungens* Steudel	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	B2	. .	.	.	.	.	.
SS	*Pomaderris myrtilloides* Fenzl	??	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
MS	*Pomaderris racemosa* Hook.	. .	A1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	X	.
..	? *Pomaderris*	. .	. .	. .	. .	. .	. .	B2	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
DS	*Siegfriedia darwinioides* C. Gardner	. .	. .	B1	. .	. .	. .	B2	. .	. .	. .	. .	. .	C2	. .	.	.	.	.	.
DS	*Spyridium cordatum* (Turcz.)Benth.	. .	. .	D2	. .	. .	. .	C3	B2	. .	. .	. .	. .	C2	. .	.	.	.	.	.
MS	*Spyridium* sp. (KRN 4234)	. .	. .	A2	. .	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
MS	*Trymalium myrtillus* S. Moore	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
MS	*Trymalium* sp. (KRN 11539)	A1	A1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	.	.	X	.
	MALVACEAE (221)																			
HP	*Alyogyne hakeifolia* (Giord.)Alef.	. .	. .	. .	. .	. .	. .	A2	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
HP	*Alyogyne huegelii* (Endl.)Fryx.	. .	. .	. .	. .	. .	. .	A2	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
	STERCULIACEAE (223)																			
DS	*Commersonia crispa* Turcz.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
DS	*Guichenotia apetala* A.S. George	. .	. .	B2	. .	. .	. .	. .	. .	. .	. .	. .	. .	B2	. .	.	X	.	X	.
DS	*Lasiopetalum compactum* S. Paust	D2	B1	A1	. .	. .	. .	C2	A1	. .	. .	. .	. .	C3	. .	.	.	.	.	.
DS	*Lasiopetalum indutum* Steudel	??	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
DS	*Lasiopetalum monticolum* S. Paust	??	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
DS	*Lasiopetalum rosmarinifolium* (Turcz.) Benth.	. .	. .	D2	. .	. .	. .	. .	. .	B3	. .	. .	. .	C2	. .	.	.	.	.	.
DS	*Thomasia angustifolia* Steudel	. .	. .	. .	. .	. .	. .	. .	A1	. .	. .	. .	. .	A2	. .	.	.	.	.	.
DS	*Thomasia foliosa* Gay	A2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
DS	*Thomasia grandiflora* (Lindley)F. Muell.	??	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
DS	*Thomasia microphylla* S. Paust	. .	. .	. .	. .	. .	. .	A2	. .	. .	. .	. .	. .	A2	. .	.	.	.	X	.

LF	Taxon	Vegetation type													Cons.				
		EA	ET	DF	EN	EA	EP	ET	EE	EQ	ER	ES	GR	EF	DR	A	E	G	R	O
	DILLENIACEAE (226)																			
DS	*Hibbertia acerosa* (R. Br. ex DC.)Benth.	. .	. .	B2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
DS	*Hibbertia exasperata* (Steudel)Briq.	??	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
DS	*Hibbertia gracilipes* Benth.	. .	. .	E3	. .	. .	. .	. .	. .	. .	. .	D3	. .	C3	. .	.	.	.	.	.
SS	*Hibbertia mucronata* (Turcz.)Benth.	. .	. .	A2	. .	. .	. .	. .	. .	. .	. .	. .	. .	B2	. .	.	.	.	.	.
SS	*Hibbertia pungens* Benth.	. .	. .	. .	. .	. .	. .	B1	B1	. .	. .	. .	. .	. .	. .	.	.	.	.	.
DS	*Hibbertia rupicola* (S. Moore)C. Gardner	B2	B2	. .	C2	. .	. .	C1	. .	. .	. .	. .	. .	B2	. .	.	.	.	.	.
DS	*Hibbertia* aff. *pungens* Benth. (KRN 11535)	. .	. .	B1	. .	. .	. .	B3	. .	. .	. .	. .	. .	A3	. .	.	.	.	.	.
	VIOLACEAE (243)																			
SS	*Hybanthus floribundus* (Lindley)F. Muell. ssp. *adpressus* E.M. Bennett	. .	. .	. .	. .	. .	. .	C3	B2	. .	. .	. .	. .	C2	. .	.	.	.	.	.
	THYMELAEACEAE (263)																			
DS	*Pimelea angustifolia* R. Br.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
MS	*Pimelea argentea* R. Br.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A3	.	.	.	.	.
DS	*Pimelea brevifolia* R. Br.	. .	. .	. .	. .	. .	. .	. .	. .	C1	. .	. .	. .	. .	. .	.	.	.	.	.
SS	*Pimelea physodes* Hook.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
DS	*Pimelea* sp. (KRN 70)	. .	B1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
DS	*Pimelea* sp. (KRN 11403)	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
	MYRTACEAE (273)																			
SS	*Agonis spathulata* Schauer	. .	. .	D4	. .	. .	. .	B4	C4	E4	. .	E3	. .	D4	. .	.	.	.	.	.
SS	*Baeckea preissiana* (Schauer)Domin	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	E3	. .	B3	. .	.	.	.	.	.
SS	*Baeckea corynophylla* F. Muell.	. .	. .	. .	. .	. .	. .	B4	. .	. .	. .	. .	. .	B3	. .	.	.	.	.	.
DS	*Beaufortia bracteosa* Diels	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
DS	*Beaufortia micrantha* Schauer var. *micrantha*	. .	. .	E4	. .	. .	. .	. .	. .	. .	. .	E4	. .	D4	. .	.	.	.	.	.
TS	*Beaufortia orbifolia* F. Muell.	. .	. .	C4	. .	. .	. .	. .	. .	. .	. .	. .	. .	D4	. .	.	.	.	.	.
SS	*Beaufortia schaueri* Preiss ex Schauer	. .	. .	D3	. .	. .	. .	D3	C3	. .	. .	. .	. .	E4	. .	.	.	.	.	.
MS	*Callistemon phoeniceus* Lindley	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A1	C3	.	.	.	.	.
DS	*Calothamnus gracilis* R. Br.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	E4	. .	. .	. .	.	.	.	.	.
SS	*Calothamnus pinifolius* F. Muell.	. .	. .	. .	. .	. .	E4	. .	. .	E5	. .	. .	. .	B3	. .	.	.	.	.	.
MS	*Calothamnus quadrifidus* R. Br.	D3	. .	. .	. .	. .	. .	. .	D4	. .	. .	. .	. .	E4	. .	.	.	.	.	.
DS	*Calytrix depressa* (Turcz.)Benth.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	D4	. .	. .	. .	.	.	.	.	.
DS	*Calytrix leschenaultii* (Schauer)Benth.	. .	. .	C2	. .	. .	. .	. .	. .	. .	B2	. .	. .	D3	. .	.	.	.	.	.
SS	*Chamelaucium ciliatum* Desf.	. .	. .	A2	. .	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
DS	*Darwinia vestita* (Endl.)Benth.	. .	. .	D1	. .	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
DS	*Darwinia* sp. (KRN 2426)	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	C3	. .	. .	. .	.	.	.	.	.
ST	*Eucalyptus annulata* Benth.	. .	. .	. .	E6	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	.	.	.	.
ST	*Eucalyptus astringens* (Maiden)Maiden	E5	B2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
MA	*Eucalyptus bennettiae* D.J. Carr & S.G.M. Carr	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A2	. .	.	X	X	X	.
MA	*Eucalyptus calycogona* Turcz.	??	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
MA	*Eucalyptus celastroides* Turcz. ssp. *virella* Brooker	. .	E5	. .	D3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
MA	*Eucalyptus conglobata* (R. Br. ex Benth.) Maiden	. .	E5	. .	. .	. .	. .	E4	. .	. .	. .	. .	. .	B4	. .	.	.	.	.	.
MA	*Eucalyptus desmondensis* Maiden & Blakely	. .	. .	. .	. .	. .	. .	. .	B4	. .	. .	. .	. .	. .	. .	.	.	X	.	.
MA	*Eucalyptus falcata* Turcz.	. .	. .	D3	. .	. .	. .	. .	C3	D3	. .	D3	. .	E4	. .	.	.	.	.	.
MA	*Eucalyptus flocktoniae* (Maiden)Maiden	. .	C5	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	B2	. .	.	.	.	.	.
MA	*Eucalyptus gardneri* Maiden	. .	. .	. .	. .	. .	. .	C3	. .	. .	. .	. .	. .	A3	. .	.	.	.	.	.
ST	*Eucalyptus gardneri* Maiden	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	A3	. .	.	.	.	.	.
MA	*Eucalyptus gracilis* F. Muell.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	B3	.	.	.	.	.
MA	*Eucalyptus incrassata* Labill.	. .	. .	C3	. .	. .	. .	. .	. .	. .	. .	E4	. .	C4	. .	.	.	.	.	.
MA	*Eucalyptus lehmannii* (Schauer)Benth.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	B4	. .	.	.	.	.	.
MA	*Eucalyptus leptocalyx* Blakely	. .	. .	. .	. .	. .	. .	D4	. .	. .	. .	. .	. .	B2	. .	.	.	.	.	.
MA	*Eucalyptus leptophylla* F. Muell. ex Miq.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	B3	. .	.	.	.	.	.
ST	*Eucalyptus megacornuta* C. Gardner	B4	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	X	.	.	X	.
MA	*Eucalyptus nutans* F. Muell.	. .	. .	. .	. .	. .	. .	B3	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
ST	*Eucalyptus nutans* F. Muell.	E5	B2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
MT	*Eucalyptus occidentalis* Endl.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	B3	.	.	.	.	.
MA	*Eucalyptus pileata* Blakely	. .	. .	. .	. .	. .	. .	B4	. .	. .	. .	. .	. .	A3	. .	.	.	.	.	.
MA	*Eucalyptus preissiana* Schauer	. .	. .	. .	. .	. .	D4	. .	. .	. .	. .	. .	. .	B4	. .	.	.	.	.	.
MA	*Eucalyptus redunca* Schauer	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	E4	. .	E5	. .	.	.	.	.	.
LT	*Eucalyptus salmonophloia* F. Muell.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	B2	.	.	.	.	.
MA	*Eucalyptus spathulata* Hook. ssp. *grandiflora* (Benth.)L. Johnson & Blaxell	. .	B3	. .	. .	. .	. .	B4	. .	. .	. .	. .	. .	B3	. .	.	.	.	.	.
MA	*Eucalyptus tetragona* (R. Br.)F. Muell.	. .	. .	E5	. .	. .	. .	. .	E4	E4	. .	E4	. .	E4	. .	.	.	.	.	.
MA	*Eucalyptus uncinata* Turcz.	. .	. .	C3	. .	. .	. .	C3	D3	. .	. .	. .	. .	E4	. .	.	.	.	.	.
MA	*Eucalyptus* aff. *occidentalis* Endl. (KRN 10911)	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	B3	. .	.	.	.	.	.
MS	*Kunzea affinis* S. Moore	. .	. .	B2	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
SS	*Kunzea eriocalyx* F. Muell.	??	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
MS	*Kunzea jucunda* Diels	??	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	.	.
SS	*Kunzea pauciflora* Schauer	??	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	X	.
MS	*Kunzea preissiana* Schauer	. .	. .	C2	. .	. .	. .	. .	. .	. .	. .	. .	. .	D3	. .	.	.	.	.	.
MS	*Kunzea* sp. (KRN 11788)	??	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	.	.	.	X	.
TS	*Leptospermum erubescens* Schauer	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	D3	. .	. .	.	.	.	.	.
TS	*Leptospermum maxwellii* S. Moore	. .	. .	. .	. .	. .	. .	. .	A4	. .	. .	. .	. .	B2	. .	.	.	.	.	.
LS	*Leptospermum oliganrdum* Turcz.	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	B2	. .	. .	. .	.	.	.	.	.
SS	*Leptospermum spinescens* Endl.	. .	. .	D1	. .	. .	. .	. .	. .	C1	C2	D2	. .	C2	. .	.	.	.	.	.

Appendix II (continued)

LF	Taxon	Vegetation type													Cons.				
		EA	ET	DF	EN	EA	EP	ET	EE	EQ	ER	ES	GR	EF	DR	A	E	G	R	O
LS	*Melaleuca acuminata* F. Muell.	..	B2	..	..	..	..	..	..	..	..	..	..	B3	..	.	.	.	.	.
DS	*Melaleuca bracteosa* Turcz.	..	..	..	..	..	..	..	..	..	..	..	..	B2	..	.	.	.	.	.
SS	*Melaleuca cardiophylla* F. Muell.	..	..	..	..	..	..	D3	..	..	..	..	..	B3	..	.	.	.	.	.
TS	*Melaleuca cucullata* Turcz.	..	D3	..	E4	..	..	..	..	..	..	..	..	B2	..	.	.	.	.	.
SS	*Melaleuca cuneata* Turcz. sens. lat.	..	..	..	..	..	..	..	..	..	..	..	..	C3	..	.	.	.	.	.
TS	*Melaleuca cuticularis* Labill.	..	..	..	..	..	..	..	..	..	..	..	..	..	E3	.	.	.	.	.
TS	*Melaleuca eleuterostachya* F. Muell.	..	E3	..	..	..	..	..	..	..	..	..	..	B2	..	.	.	.	.	.
TS	*Melaleuca elliptica* Labill.	..	..	..	..	..	..	..	..	..	..	..	A2	..	B2	.	.	.	.	.
DS	*Melaleuca glaberrima* F. Muell.	..	..	..	..	..	..	B3	..	..	..	..	..	C3	..	.	.	.	.	.
TS	*Melaleuca hamulosa* Turcz.	..	..	..	..	..	..	..	..	..	..	..	..	A2	D3	.	.	.	.	.
MS	*Melaleuca lateralis* Turcz.	..	A1	..	..	..	..	..	..	..	..	..	A1	..	..	.	.	.	.	.
MS	*Melaleuca lateriflora* Benth. var. *lateriflora*	..	C3	..	..	..	..	B4	..	..	..	..	..	A2	..	.	.	.	.	.
LS	*Melaleuca pauperiflora* F. Muell.	..	D4	..	D4	..	..	..	..	..	..	..	..	B2	..	.	.	.	.	.
DS	*Melaleuca pentagona* Labill. var. *pentagona*	..	..	..	..	..	..	..	..	..	..	E4	..	..	..	.	.	.	.	.
DS	*Melaleuca pentagona* Labill. var. *latifolia* Benth.	??	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
DS	*Melaleuca pentagona* Labill. var. *subulifolia* Schauer	..	..	..	..	..	..	..	..	..	..	..	..	A3	..	.	.	.	.	.
DS	*Melaleuca pentagona* Labill. sens. lat.	..	..	..	..	..	..	..	..	..	..	..	..	C3	..	.	.	.	.	.
DS	*Melaleuca scabra* R. Br.	..	..	E4	..	..	..	..	..	..	..	E4	..	B2	..	.	.	.	.	.
DS	*Melaleuca sclerophylla* Diels	..	..	..	..	..	..	B4	..	C3	..	..	..	B2	..	.	.	.	.	.
SS	*Melaleuca subfalcata* Turcz.	..	..	..	..	..	..	C2	..	..	..	..	..	B2	..	.	.	.	.	.
SS	*Melaleuca subtrigona* Schauer	??	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
SS	*Melaleuca subfalcata* Turcz.	..	..	..	..	..	..	C2	..	..	..	..	..	B2	..	.	.	.	.	.
SS	*Melaleuca subtrigona* Schauer	??	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
DS	*Melaleuca pentagona* Labill. var. *pentagona*	..	..	..	..	..	..	..	..	..	..	E4	..	..	..	.	.	.	.	.
DS	*Melaleuca pentagona* Labill. var. *latifolia* Benth.	??	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
DS	*Melaleuca pentagona* Labill. var. *subulifolia* Schauer	..	..	..	..	..	..	..	..	..	..	..	..	A3	..	.	.	.	.	.
DS	*Melaleuca pentagona* Labill. sens. lat.	..	..	..	..	..	..	..	..	..	..	..	..	C3	..	.	.	.	.	.
DS	*Melaleuca scabra* R. Br.	..	..	E4	..	..	..	..	..	..	..	E4	..	B2	..	.	.	.	.	.
DS	*Melaleuca sclerophylla* Diels	..	..	..	..	..	..	B4	..	C3	..	..	..	B2	..	.	.	.	.	.
SS	*Melaleuca subfalcata* Turcz.	..	..	..	..	..	..	C2	..	..	..	..	..	B2	..	.	.	.	.	.
SS	*Melaleuca subtrigona* Schauer	??	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
LS	*Melaleuca uncinata* R. Br.	..	A2	D2	..	..	..	D3	C4	..	..	..	..	E4	..	.	.	.	.	.
MS	*Melaleuca undulata* Benth.	D3	D4	..	E6	..	..	E5	..	..	..	..	..	..	..	.	.	.	.	.
TS	*Melaleuca viminea* Lindley	..	..	..	..	..	..	..	..	..	..	..	..	..	D3	.	.	.	.	.
TS	*Melaleuca* sp. (KRN 717)	..	..	..	..	..	..	..	..	..	..	..	..	A2	..	.	.	.	.	.
TS	*Melaleuca* sp. (KRN 1789)	..	..	..	..	..	..	..	..	..	..	..	..	A2	..	.	.	.	.	.
SS	*Melaleuca* sp. (KRN 2890)	..	..	..	..	..	..	B4	..	..	..	..	..	..	..	.	.	.	.	.
MS	*Melaleuca* sp. (KRN 4913)	..	..	..	..	..	..	A3	..	..	..	..	..	..	..	.	.	.	X	.
SS	*Melaleuca* sp. (KRN 6251)	..	..	..	..	..	..	..	..	..	..	..	..	B3	..	.	.	.	.	.
SS	*Micromyrtus racemosa* Benth.	..	..	C2	..	..	..	..	C2	..	..	..	..	B2	..	.	.	.	.	.
DS	*Rinzia fumana* Schauer	..	..	..	..	..	..	..	B2	..	..	..	..	A2	..	.	.	.	.	.
SS	*Thryptomene australis* Endl.	??	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
DS	*Verticordia densiflora* Lindley	..	..	..	..	..	..	..	..	..	..	E4	..	..	..	.	.	.	.	.
DS	*Verticordia endlicheriana* Schauer	..	..	C3	..	..	..	..	..	..	..	..	..	B2	..	.	.	.	.	.
DS	*Verticordia insignis* Endl.	..	..	..	..	..	..	..	..	..	..	..	..	A2	..	.	.	.	.	.
HALORAGACEAE (276)																				
HP	*Glischrocaryon aureum* (Lindley)Orch. var. *angustifolium* (Nees)Orch.	..	..	B1	..	..	..	..	..	B2	..	C2	..	E2	..	.	.	.	.	.
HP	*Glischrocaryon flavescens* (J. Drumm. ex Hook.)Orch.	A2	..	..	..	..	..	..	..	..	..	..	..	B2	..	.	.	.	.	.
HP	*Glischrocaryon roei* Endl.	..	..	..	..	..	..	..	A3	..	..	..	..	B2	..	.	.	.	.	.
HP	*Gonocarpus hamata* Orch.	A3	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
APIACEAE (281)																				
AS	*Apium annua* P.S. Short	..	..	..	..	..	..	..	..	..	..	..	..	..	D4	.	.	.	.	.
AS	**Bulpeurum semicompositum* L.	..	..	..	..	..	..	..	..	..	..	..	..	..	A2	.	.	.	.	.
AS	*Daucus glochidiatus* (Labill.)Fischer, C. Meyer & Ave.Lall.	B2	B2	..	..	..	..	..	B2	..	..	..	..	..	B2	.	.	.	.	.
AS	*Hydrocotyle callicarpa* Bunge	??	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
DS	*Platysace effusa* (Turcz.)Norman	??	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
SS	*Platysace maxwellii* (F. Muell.)Norman	..	..	C2	..	..	..	..	B2	B3	..	..	..	B3	..	.	.	.	.	.
EPACRIDACEAE (288)																				
DS	*Acrotriche cordata* (Labill.)R. Br.	..	..	B1	..	..	..	C2	..	..	..	..	..	..	..	.	.	.	.	.
DS	*Acrotriche ramiflora* R. Br.	C1	B1	B1	..	..	..	B1	B1	..	..	..	..	B2	..	.	.	.	.	.
DS	*Andersonia caerulea* R. Br.	..	..	..	..	..	..	..	..	..	..	..	..	A2	..	.	.	.	.	.
DS	*Andersonia parvifolia* R. Br.	..	..	A3	..	..	..	..	..	..	C4	..	..	..	..	.	.	.	.	.
DS	*Astroloma epacridis* (DC.)Druce	B2	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
DS	*Astroloma microphyllum* Stschegl.	??	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
DS	*Astroloma prostratum* R. Br.	..	..	B1	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
DS	*Astroloma serratifolium* (DC.)Druce	..	..	C2	..	..	..	..	B1	..	..	..	..	B2	..	.	.	.	.	.
DS	*Astroloma tectum* R. Br.	..	..	..	..	..	..	..	..	..	..	B1	..	..	..	.	.	.	.	.
SS	*Brachyloma concolor* (F. Muell.) C. Gardner	..	..	A2	..	..	..	..	B2	..	..	..	..	A2	..	.	.	.	.	.

LF	Taxon	Vegetation type													Cons.				
		EA	ET	DF	EN	EA	EP	ET	EE	EQ	ER	ES	GR	EF	DR	A	E	G	R	O
DS	*Leucopogon concinnus* Benth.	.	.	D3	.	.	.	.	.	.	.	.	.	B2	.	.	.	.	.	.
DS	*Leucopogon conostephioides* DC.	.	.	.	.	.	.	.	.	.	.	.	.	C2	.	.	.	.	.	.
SS	*Leucopogon corynocarpus* Sonder	.	.	.	.	.	.	.	.	B2	.	.	.	.	.	.	.	.	.	.
MS	*Leucopogon cuneifolius* Stschegl.	.	.	C1	.	.	.	A2	B2	.	.	.	D2	D2	.	.	.	.	.	.
DS	*Leucopogon glabellus* R. Br.	?	?	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
DS	*Leucopogon hamulosus* E. Pritzel	?	?	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
DS	*Leucopogon insularis* Cunn. ex DC.	.	.	.	.	.	.	.	.	.	.	.	.	A1	.	.	.	.	.	.
DS	*Leucopogon marginatus* W. Fitzg.	?	?	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
DS	*Leucopogon minutifolius* W. Fitzg.	.	.	.	.	.	.	.	.	.	.	.	.	A2	.	.	.	.	.	.
DS	*Leucopogon striatus* R. Br.	?	?	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
DS	*Leucopogon* aff. *conostephioides* DC. A (KRN 4082)	.	.	D2	.	.	.	.	C3	.	D4	.	.	.	.	.	.	.	.	.
DS	*Leucopogon* sp. (KRN 1813)	.	.	.	.	.	A2	.	.	.	.	.	.	A2	.	X	.	.	X	.
DS	*Leucopogon* sp. (KRN 11795)	.	.	.	.	.	A1	.	.	.	.	.	.	.	.	.	.	.	.	.
SS	*Lysinema ciliatum* R. Br.	.	.	E3	.	.	A2	.	.	.	.	E3	.	D3	.	.	.	.	.	.
DS	*Styphelia pulchella* (Stschegl.)Druce	.	.	.	.	.	.	B2	.	.	.	.	.	A2	.	.	.	.	X	.
SS	*Styphelia tenuiflora* Lindley	?	?	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
PRIMULACEAE (293)																				
AS	**Anagallis arvensis* L.	A3	B2	.	.	.	.	.	.	.	.	.	.	.	C3	.	.	.	.	.
DS	*Samolus junceus* R. Br.	.	.	.	.	.	.	.	.	.	.	.	.	.	C2	.	.	.	.	.
LOGANIACEAE (302)																				
SS	*Logania buxifolia* F. Muell.	.	.	C1	.	.	.	.	B1	.	.	.	.	C2	.	.	.	.	.	.
DS	*Logania micrantha* Benth.	.	.	.	.	.	.	.	.	.	.	C2	.	.	.	.	.	.	.	.
DS	*Logania tortuosa* D.A. Herbert	.	.	A2	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
GENTIANACEAE (303)																				
AS	**Centarium erythraea* Rafn ssp. ?	.	.	.	.	.	.	.	.	.	.	.	.	.	B2	.	.	.	.	.
CONVOLVULACEAE (307)																				
MP	*Wilsonia humilis* R. Br.	.	B3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
BORAGINACEAE (310)																				
SS	*Halgania andromedifolia* Behr & F. Muell.	.	.	.	.	.	.	.	.	.	.	.	.	A2	.	.	.	.	.	.
DS	*Halgania preissiana* Lehm.	.	.	.	.	.	.	.	B2	.	.	.	.	A2	.	.	.	.	.	.
DS	*Halgania viscosa* S. Moore	?	?	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
LAMIACEAE (313)																				
DS	*Hemigenia eutaxioides* C.R.P. Andrews	?	?	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
DS	*Hemigenia* sp. (KRN 10842)	.	.	A2	.	.	.	.	.	.	.	.	.	A3	.	.	.	.	.	.
DS	*Microcorys exserta* Benth.	.	.	.	.	.	.	.	.	.	.	.	.	A3	.	.	.	.	.	.
DS	*Microcorys glabra* (Bartling)Benth.	.	C1	.	.	.	.	C1	.	.	.	.	.	B2	.	.	.	.	.	.
SS	*Microcorys purpurea* R. Br.	.	.	A1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	X	.
MS	*Microcorys virgata* R. Br.	?	?	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
DS	*Westringia rigida* R. Br.	.	D3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
SOLANACEAE (315)																				
DS	**Solanum nigrum* L.	B1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
MYOPORACEAE (326)																				
DS	*Eremophila densifolia* F. Muell.	.	A3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
CAMPANULACEAE (339)																				
AS	*Wahlenbergia gracilenta* Loth.	.	.	.	.	.	.	.	.	.	.	.	B2	.	B2	.	.	.	.	.
LOBELIACEAE (340)																				
AS	*Isotoma hypocrateriformis* (R. Br.)Druce	.	.	.	.	.	.	.	.	.	.	.	.	A2	A2	.	.	.	.	.
AS	*Lobelia rarifolia* E. Wimmer	.	.	.	.	.	.	.	.	.	.	.	.	A2	.	.	.	.	.	.
GOODENIACEAE (341)																				
DS	*Coopernookia polygalacea* (Vriese)Carolin	.	.	.	.	.	.	C3	.	.	.	.	.	.	.	.	.	.	.	.
DS	*Coopernookia strophiolata* (F. Muell.) Carolin	.	.	.	.	.	.	C2	.	.	.	.	.	B2	.	.	.	.	.	.
DS	*Dampiera lavandulacea* Lindley	.	.	D2	.	.	.	B2	C2	B2	.	.	.	B2	.	.	.	.	.	.
SS	*Dampiera oligophylla* Benth. ssp. *juncea* (Benth.)Rajput & Carolin	.	.	D1	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
DS	*Dampiera sacculata* F. Muell.	.	.	D3	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
DS	*Dampiera* aff. *alata* Lindley (KRN 2697)	.	.	.	.	.	.	A2	.	.	.	.	.	.	.	.	.	.	X	.
DS	*Dampiera* aff. *trigona* Vriese (KRN 11261)	.	.	.	.	.	.	A2	B2	.	.	.	.	C2	.	.	.	.	X	.
DS	*Goodenia affinis* Vriese	.	.	.	.	.	.	.	.	.	.	.	.	.	B2	.	.	.	.	.
DS	*Goodenia concinna* Benth.	.	.	.	.	.	.	.	.	.	.	.	.	B3	B2	.	.	.	.	.
DS	*Goodenia laevis* Benth.	.	C2	.	C2	.	.	.	.	.	.	.	.	A2	.	.	.	.	.	.
MS	*Goodenia pinifolia* Vriese	.	.	D3	.	.	.	.	B2	.	.	.	.	C3	.	.	.	.	.	.
DS	*Goodenia scapigera* R. Br.	.	.	D2	.	.	.	.	B2	C2	.	.	B3	E2	.	.	.	.	.	.
SS	*Goodenia stenophylla* F. Muell.	.	.	.	.	.	.	.	.	.	.	.	.	A1	.	.	.	.	X	.
MP	*Lechenaultia formosa* R. Br.	A1	.	.	.	.	.	.	.	A2	.	.	.	.	.	.	.	.	.	.

Appendix II (continued)

LF	Taxon	Vegetation type													Cons.				
		EA	ET	DF	EN	EA	EP	ET	EE	EQ	ER	ES	GR	EF	DR	A	E	G	R	O
STYLIDIACEAE (343)																				
AS	*Levenhookia pusilla* R. Br.	..	..	..	..	..	..	..	..	..	..	..	D3	..	..	.	.	.	.	.
RP	*Stylidium albomontis* Carlq.	B1	..	D2	..	..	..	B2	B2	..	..	..	..	C2	..	.	.	.	.	.
DS	*Stylidium breviscapum* R. Br.	..	..	B2	..	..	..	A2	B2	..	..	..	..	..	..	.	.	.	.	.
RP	*Stylidium piliferum* R. Br. ssp. *minor* (Milbr.)Carlq.	..	..	C2	..	..	..	..	..	..	B2	..	..	A2	..	.	.	.	.	.
ASTERACEAE (345)																				
AS	*Actinobole uliginosum* (A. Gray) H. Eichler	??	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AS	*Angianthus tomentosus* Wendl.	B4	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AS	**Arctotheca calendula* (L.)Levyns	..	A2	..	..	..	..	..	A1	..	..	..	..	..	..	.	.	.	.	.
AS	*Asteridea asteroides* (Turcz.)G. Kroner	??	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AS	*Asteridea athrixioides* (Sonder & Muell.) G. Kroner	B2	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AS	*Brachycome ciliaris* (Labill.)Less. var. *ciliaris*	A2	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AS	**Carduus pycnocephalus* L.	..	A3	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AS	**Carthamus lanatus* L.	A2	A2	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AS	**Centarea melitensis* L.	..	B3	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AS	**Cirsium arvense* (L.)Scop.	A1	B2	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AS	**Conyza bonariensis* (L.)Cronq.	..	B2	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AS	*Cotula coronopifolia* L.	..	..	..	..	..	..	..	..	..	..	..	..	..	C2	.	.	.	.	.
AS	*Cotula cotuloides* (Steetz)Druce	..	..	..	..	..	..	..	..	..	..	..	..	..	D3	.	.	.	.	.
AS	**Dittrichia graveolens* (L.)Greuter	..	B2	..	..	..	..	..	..	..	..	..	..	A2	..	.	.	.	.	.
AS	**Gnaphalium calviceps* Fern.	A2	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AS	*Gnaphalium gymnocephalum* DC.	..	B2	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
DS	*Helichrysum lepidophyllum* (Steetz)Benth.	..	..	..	..	..	..	B2	..	..	..	..	..	..	..	.	.	.	.	.
DS	*Helichrysum obtusifolium* F. Muell. & Sonder ex Sonder	..	..	..	..	..	..	..	..	..	..	C1	..	B2	..	.	.	.	.	.
AS	*Helipterum demissum* (A. Gray)Druce	B2	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AS	*Helipterum gracile* (A. Gray)Benth.	A3	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	X	.
AS	*Helipterum pygmaeum* (DC.)Benth.	..	B2	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AS	**Hypochoeris glabra* L.	B2	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AS	*Millotia tenuifolia* Cass. var. *tenuifolia*	C2	B2	..	..	..	..	..	C2	..	..	..	..	..	..	.	.	.	.	.
DS	*Olearia muelleri* (Sonder)Benth.	C2	B1	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
MS	*Olearia* sp. (KRN 11797)	..	A1	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AS	*Podolepis rugata* Labill. var. *rugata*	A2	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AS	*Podolepis tepperi* (F. Muell.)D.A. Cooke	A2	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AS	*Podotheca angustifolia* (Labill.)Less.	B2	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AS	*Podotheca gnaphalioides* R.A. Graham	??	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AS	*Podotheca pygmaea* A. Gray	??	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AS	*Pogonolepis stricta* Steetz	..	B3	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AS	**Pseudognaphalium luteoalbum* (L.) Hilliard & B.L. Burtt	B2	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AS	*Senecio glossanthus* (Sonder)Belcher	C2	B2	..	..	..	..	..	B2	..	..	..	..	..	..	.	.	.	.	.
AS	*Senecio quadridentatus* Labill.	B2	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AS	**Senecio vulgaris* L.	A1	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AS	**Sonchus asper* Hill ssp. *nymanii* Tin. ex Guss.	..	..	..	..	..	..	..	..	..	..	..	A1	..	A1	.	.	.	.	.
AS	**Sonchus oleraceus* L.	B2	..	..	..	..	..	..	A2	..	..	..	..	..	C2	.	.	.	.	.
DS	*Vittadinia gracilis* (J.D. Hook.)N. Burb.	C2	B1	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.
AS	*Waitzia acuminata* Steetz	A2	..	..	..	..	..	..	..	..	..	..	..	..	..	.	.	.	.	.