A GEOBOTANICAL STUDY OF THE REMNANT NATURAL VEGETATION OF TEMPERATE SOUTH AUSTRALIA.

by

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A thesis submitted to the University of Adelaide

for the degree of Doctor of Philosophy.

January 1991.

VOLUME 2: FIGURES, TABLES AND APPENDICES.

Chapter 1.
BACKGROUND AND AIMS.

Figures 1.1 – 1.2.

Figure 1.1. Previous regional surveys of vegetation in South Australia. Each of the surveys shown included definition and description of vegetation associations and/or correlations of vegetation with soils and climate. Approximate bounds of the survey areas are indicated.

Legend:
1, Adamson & Osborn (1924); 2, Baldwin & Crocker (1941); 3, Barker (1970); 4, Bauer (1959); 5, Boomsma (1946); 6, Boomsma (1948); 7, Boomsma (1949); 8, Carrodus *et al.* (1965); 9, Coaldrake (1951); 10, Crocker (1944); 11, Crocker (1946); 12, Crocker & Skewes (1941); 13, Jackson (1958); 14, Jessup (1946); 15, Jessup (1948); 16, Litchfield (1956); 17, Margules & Nicholls (1987); 17a, Margules and Partners *et al.* (1990); 18, Martin (1961); 19, Murray (1931); 20, Northcote & Tucker (1948); 21, Smith (1963); 22, Specht (1951); 23, Specht *et al.* (1961); 24, Specht & Perry (1948); 25, Stephens *et al.* (1945); 26, Taylor (1933); 27, Tiver *et al.* (1989); 28, Todd (1965).

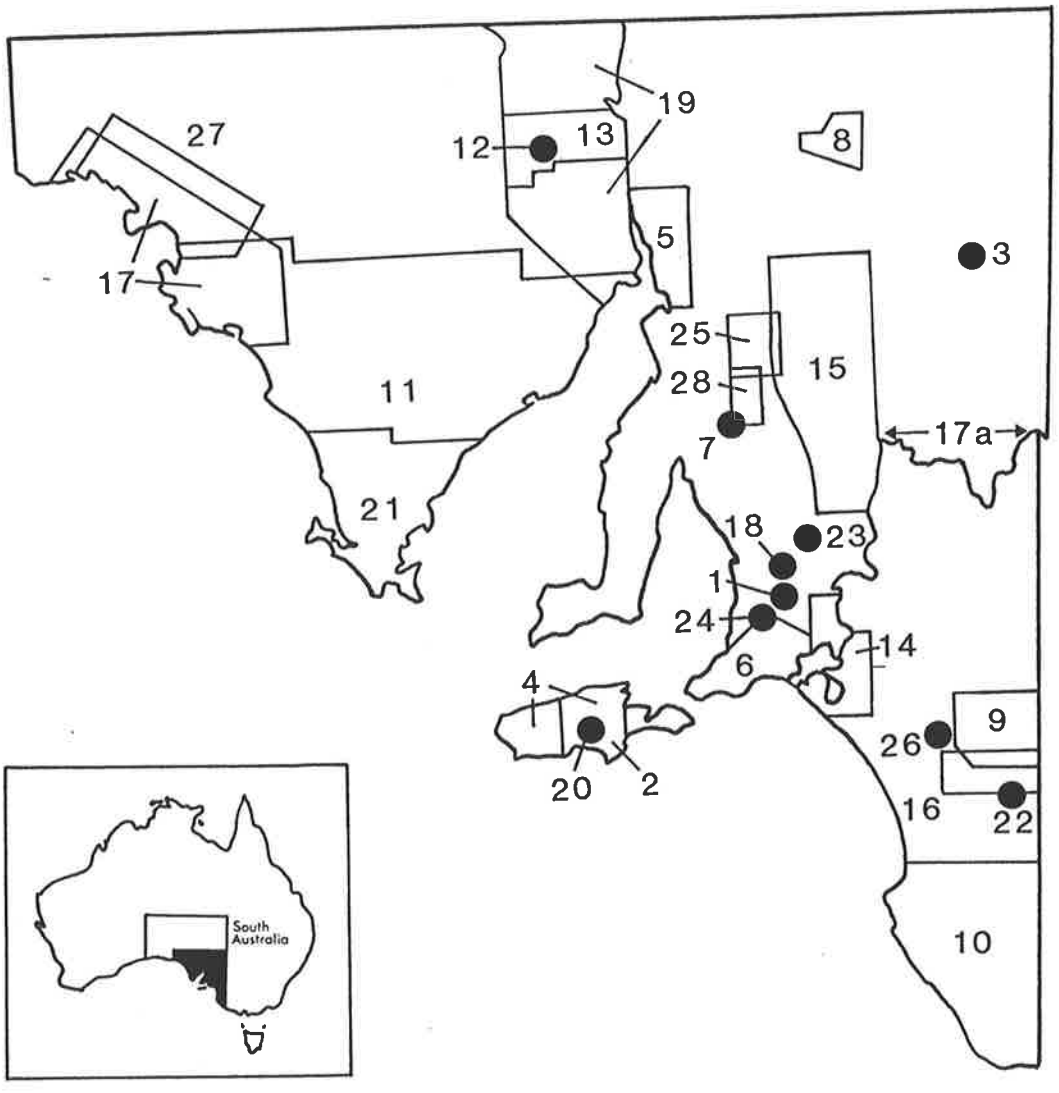
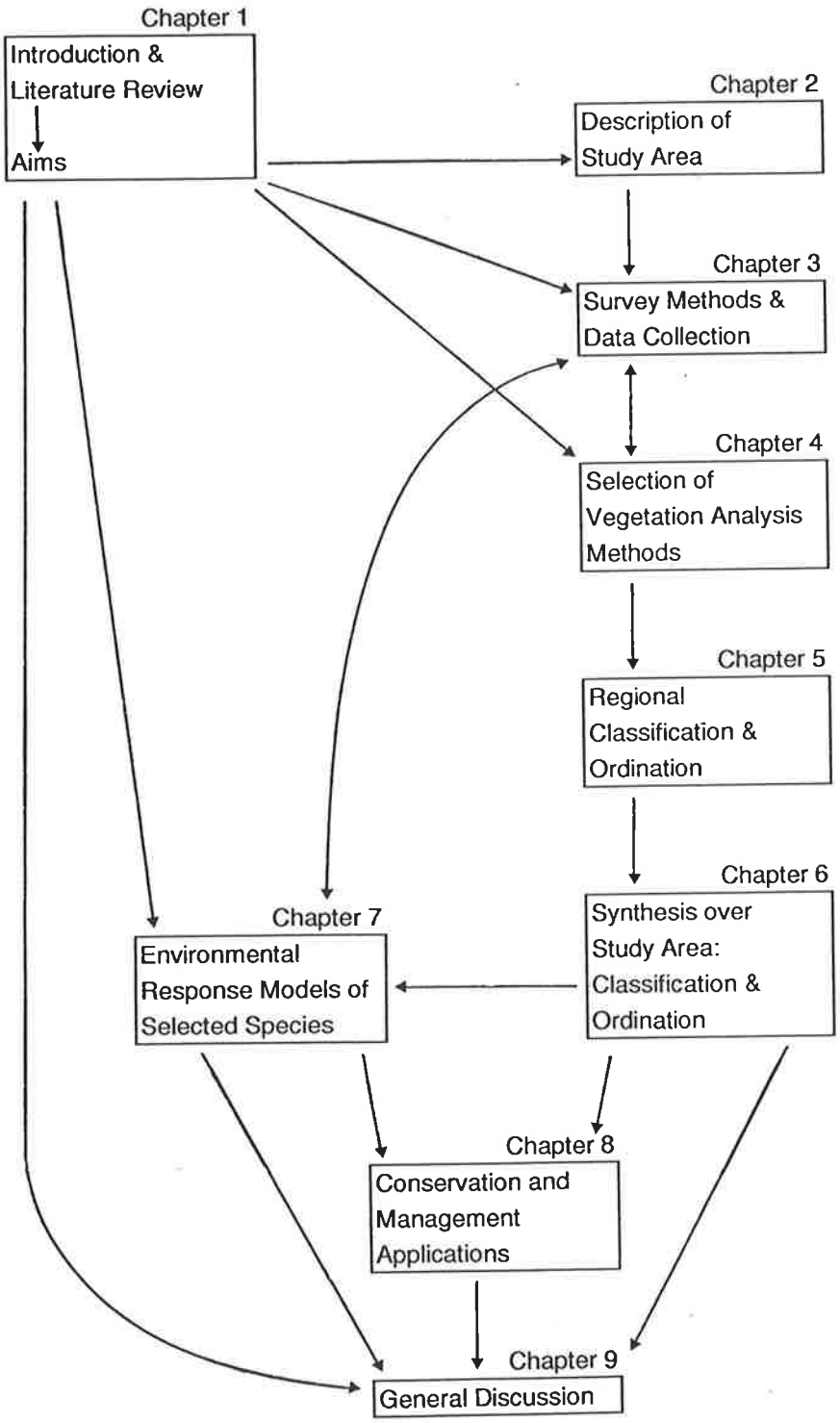


Figure 1.2. Flowchart of thesis structure.



Chapter 2.
STUDY AREA.

Figures 2.1 – 2.16.

Figure 2.1. Map of the study area, showing the northern limit of mallee vegetation and the 250 mm isohyet of mean annual rainfall.

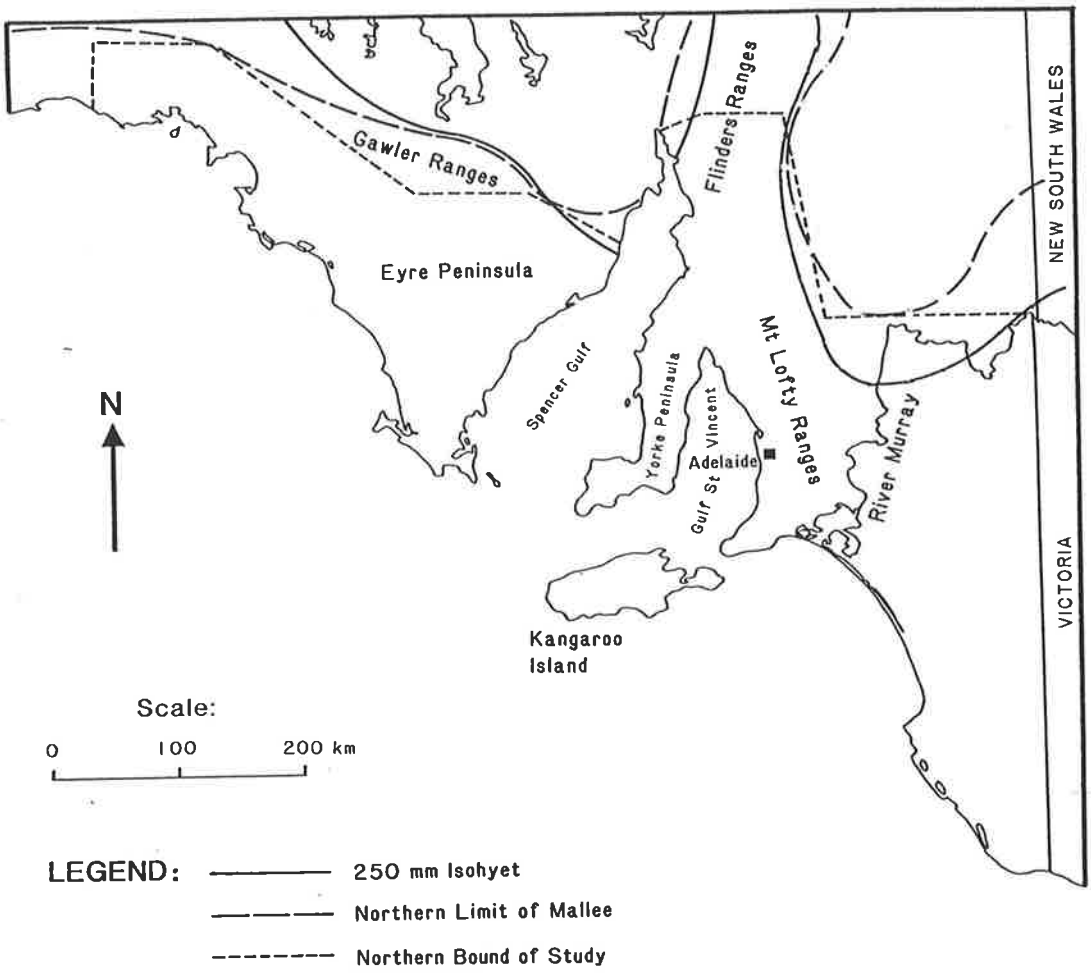


Figure 2.2. Floristic/biogeographic regions of southern South Australia, as defined by the State Herbarium (after Jessop & Toelken 1986). The northern bound of the study area is shown by the dotted line.

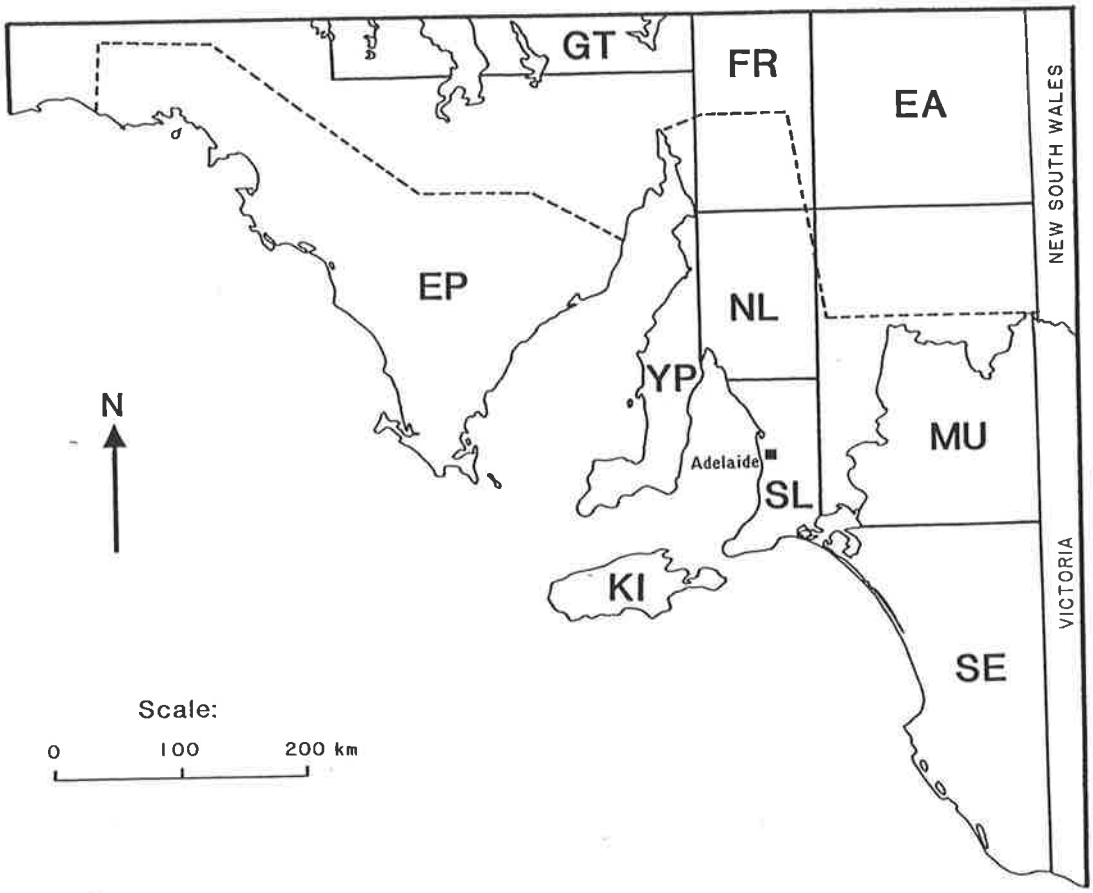


Figure 2.3. Geological provinces based on structural features (after Geological Survey of South Australia 1982).

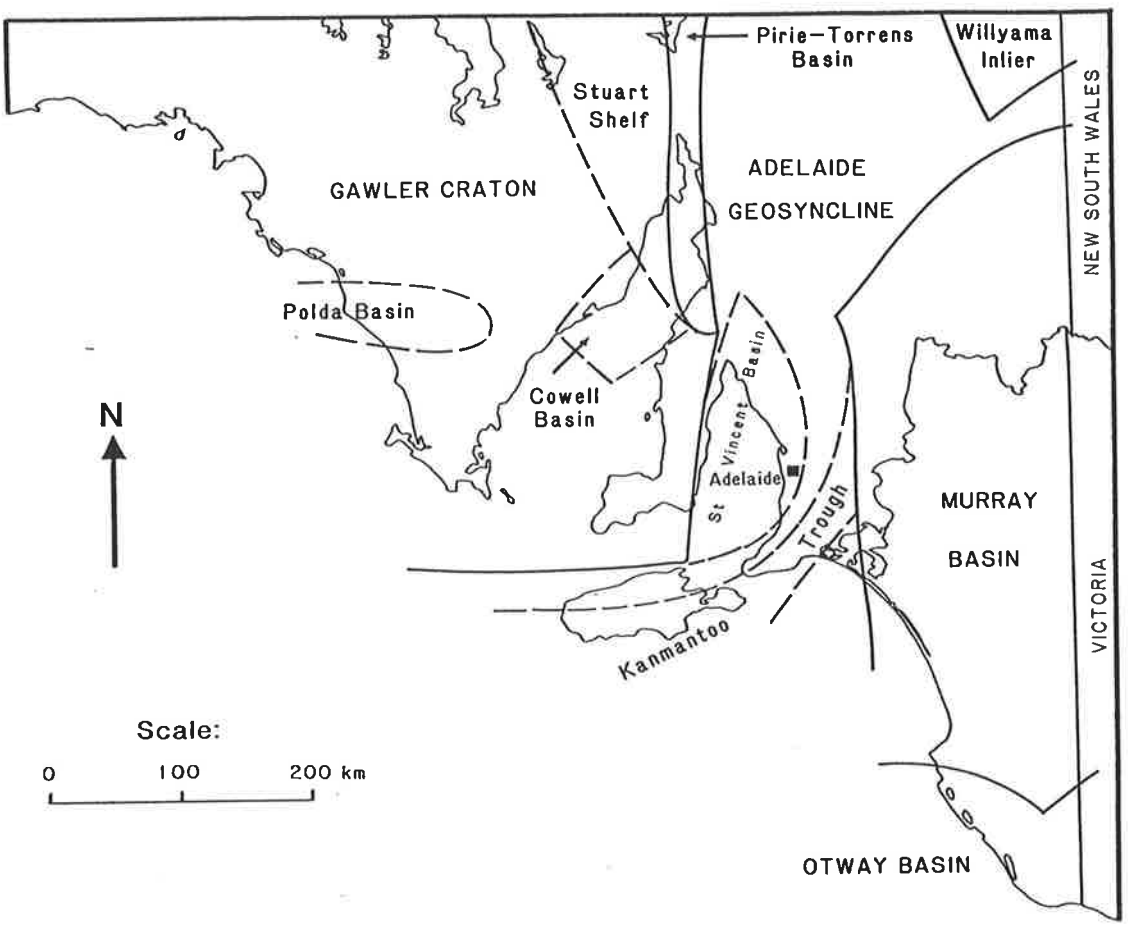


Figure 2.4. General topography of southern South Australia.

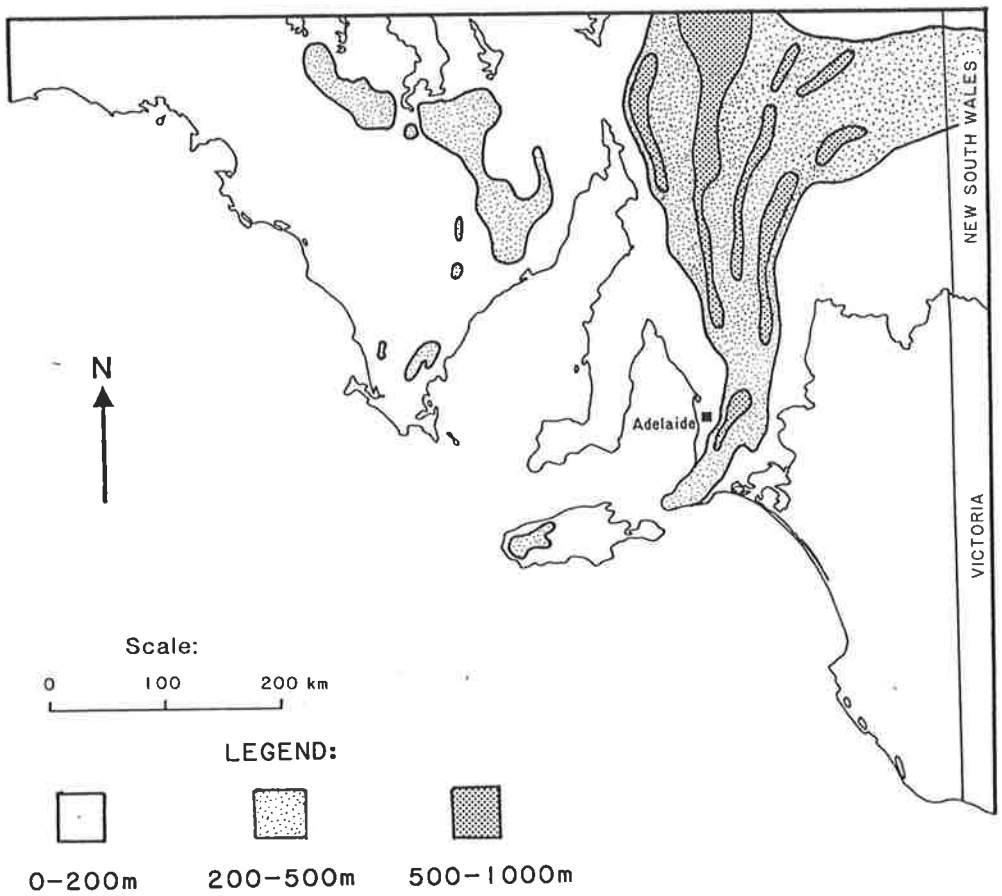


Figure 2.5. Surface geology (after Geological Survey of South Australia, but greatly simplified).

Legend:

Pre	Early Proterozoic formations (granites and volcanics)
Prv	Middle Proterozoic volcanics (Gawler Ranges)
Prl	Late Proterozoic formations (sandstones and quartzites)
Pa	Palaeocene formations (greywacke and siltstones)
Tn	Tertiary (Miocene) marine limestone (Nullarbor and Gambier formations)
Tp	Tertiary (Pliocene) alluvial/lacustrine sands (Parilla formation)
Qa	Quaternary alluvium (including Woorinen formation)
Qa_l	Quaternary lagoonal alluvium
Qb	Quaternary limestone (Bridgewater formation)
Qk	Quaternary limestone (Bakara formation)
Qs	Quaternary sands (a mosaic of Woorinen and Molineaux formations and equivalents)

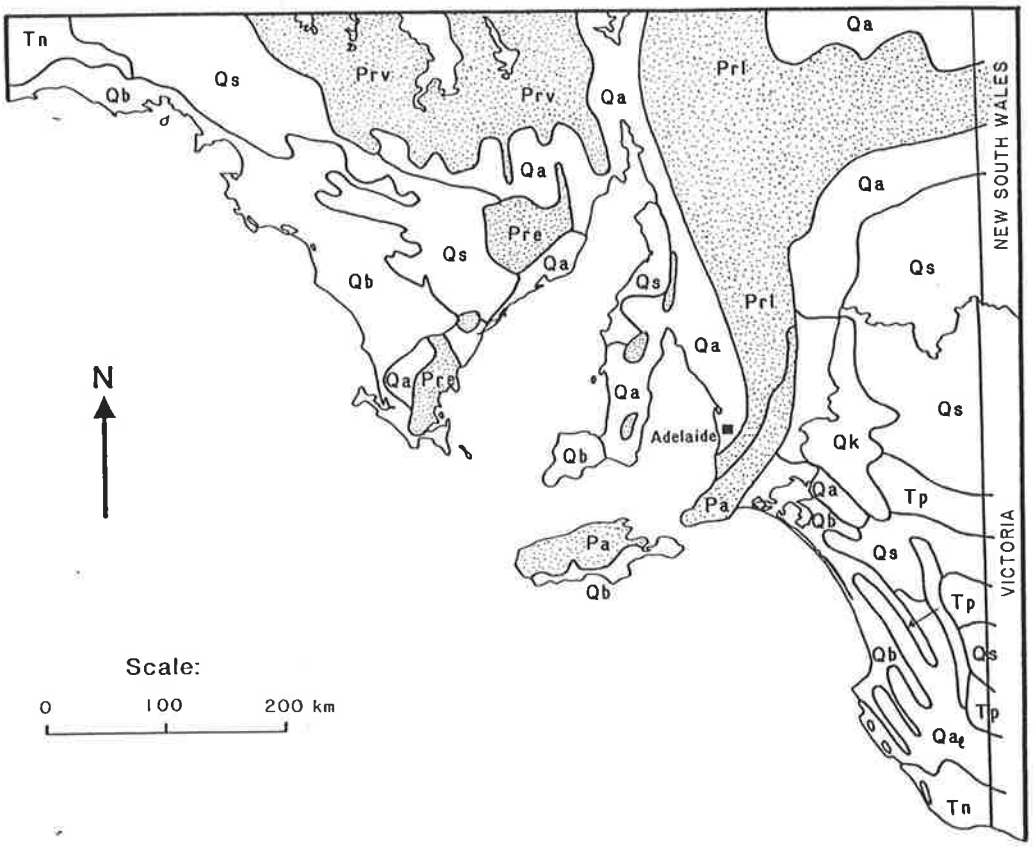


Figure 2.6. Soils (after Northcote 1960, but greatly simplified).

Legend:

1 Calcareous sands ($Uc1$) and shallow red-brown soils ($Uc6$)
2 Leached sands ($Uc2$)
3 Brown sands ($Uc5$)
4 Skeletal or calcareous loams ($Um5$, $Um6$)
5 Shallow loams (rendzina) ($Um6$)
6 Cracking clays ($Ug5$)
7 Brown calcareous earths ($Gc1$)
8 Grey-brown calcareous loamy earths ($Gc1$)
9 Crusty alkaline soils ($Dr1$)
10 Hard alkaline red duplex ($Dr2$)
11 Hard acidic yellow duplex soils ($Dy3$)
12 Sandy alkaline yellow duplex soils ($Dy5$)
13 Sandy acid yellow duplex soils ($Dy5$)

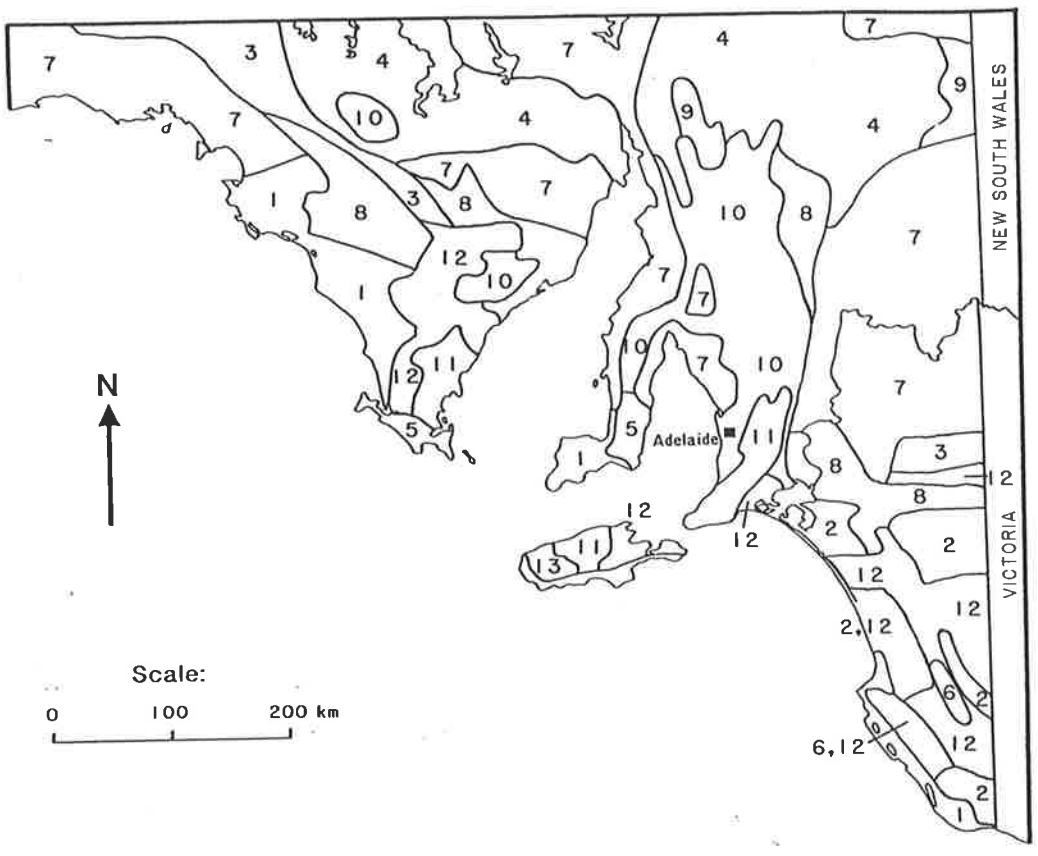


Figure 2.7. Map of the Bridgewater Formation limestone in the Southeast region, showing the dune ranges parallel to the present-day coastline (from Parkin 1969).

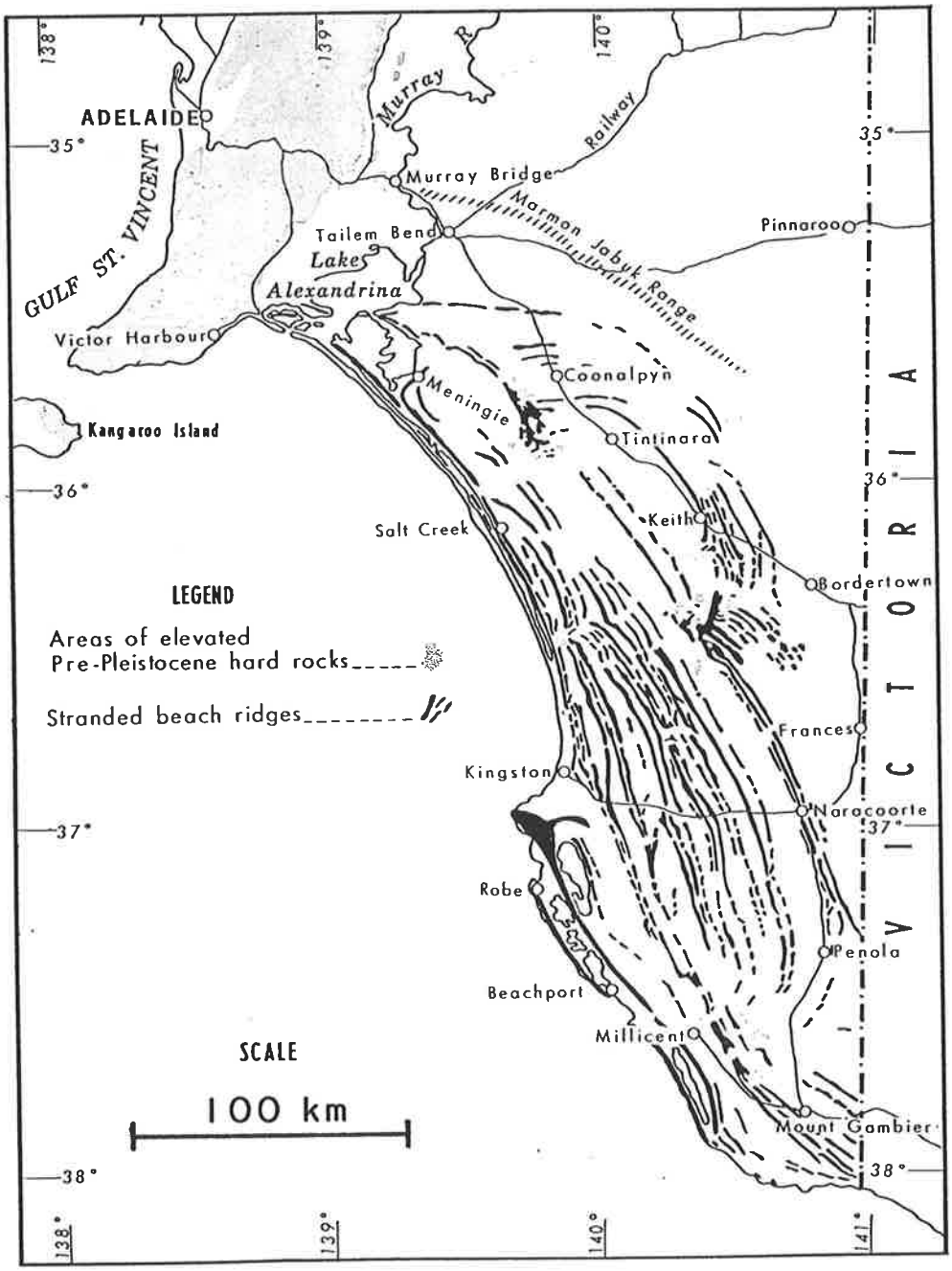


Figure 2.8. Siliceous dunefields of South Australia, showing their predominating orientations (from King 1960).

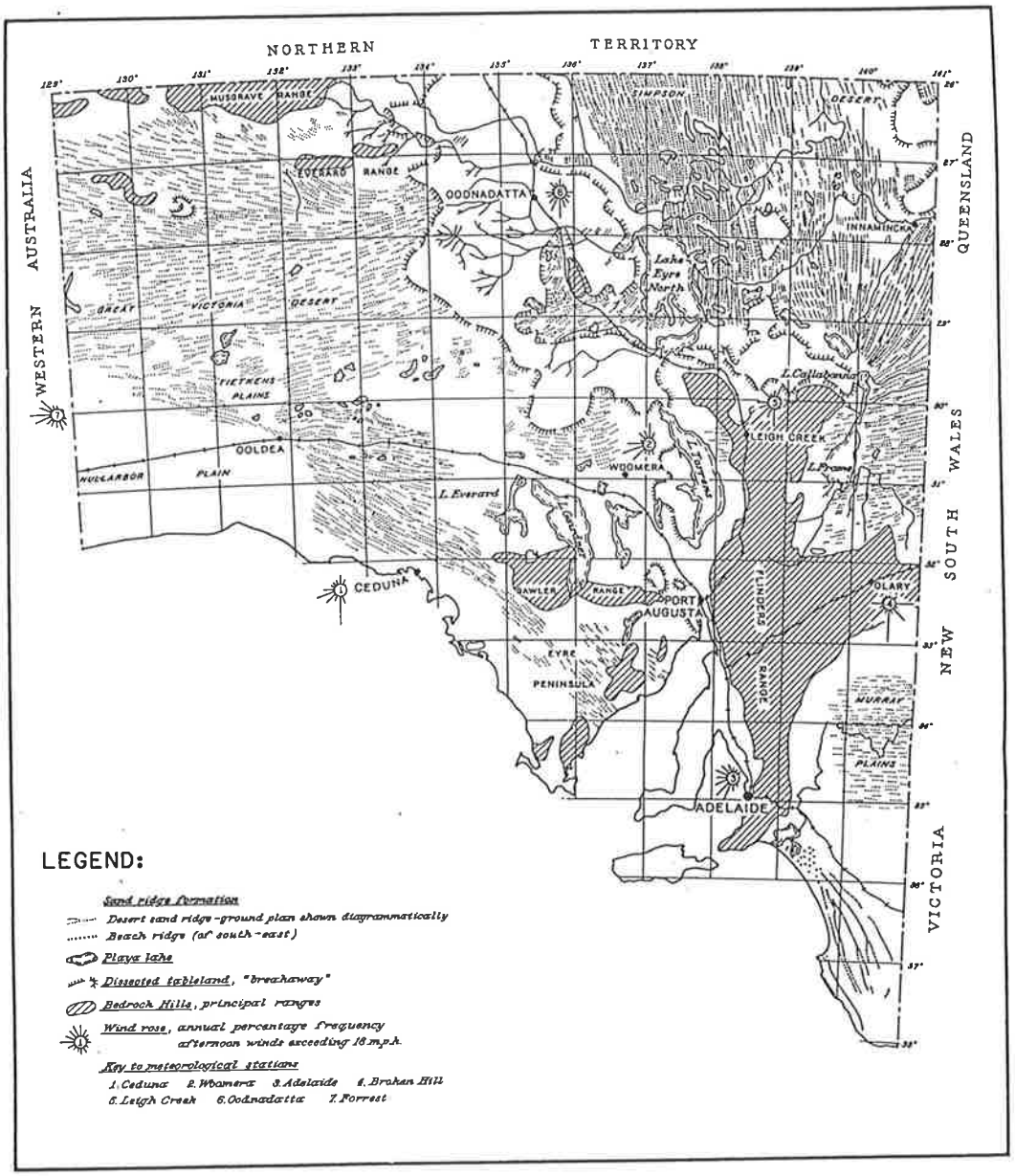


Figure 2.9. Climatic regions of South Australia according to: (a) Koeppen (1936) and (b) Gentilli (1971) (from Gentilli 1971).

Legend:

Koeppen — BWh, arid and hot; BSfh, semiarid and hot (rainfall almost aseasonal); BSfk, arid and cool (rainfall almost aseasonal); CSa, mildly rainy and cool (summer hot); CSb, mildly rainy and cool (summer temperate).

Gentilli — zones based on rainfall evaporation ratios (see text; Section 2.4).

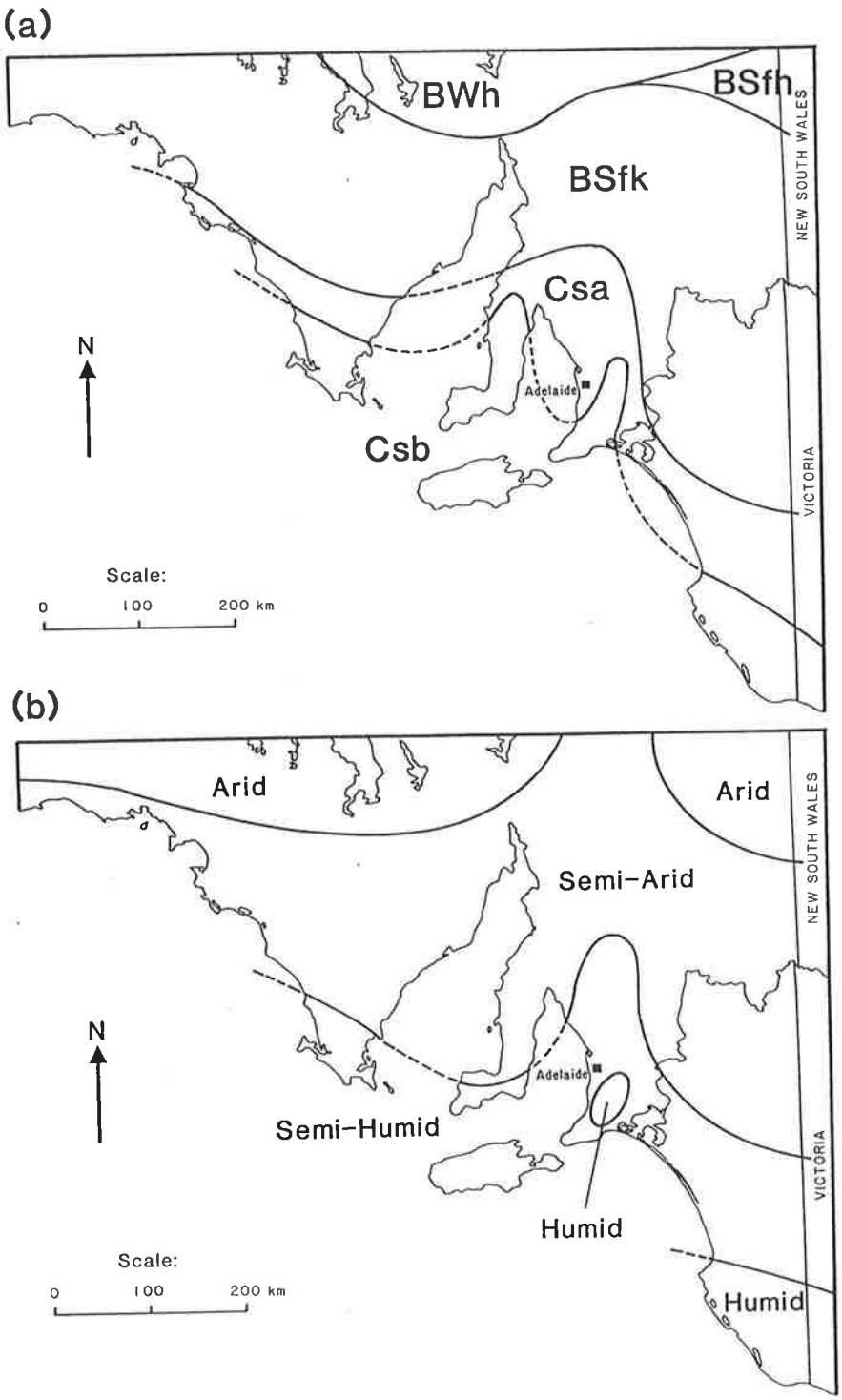


Figure 2.10. Mean annual rainfall patterns (in millimetres; after an unpublished map from the Bureau of Meteorology, Adelaide).

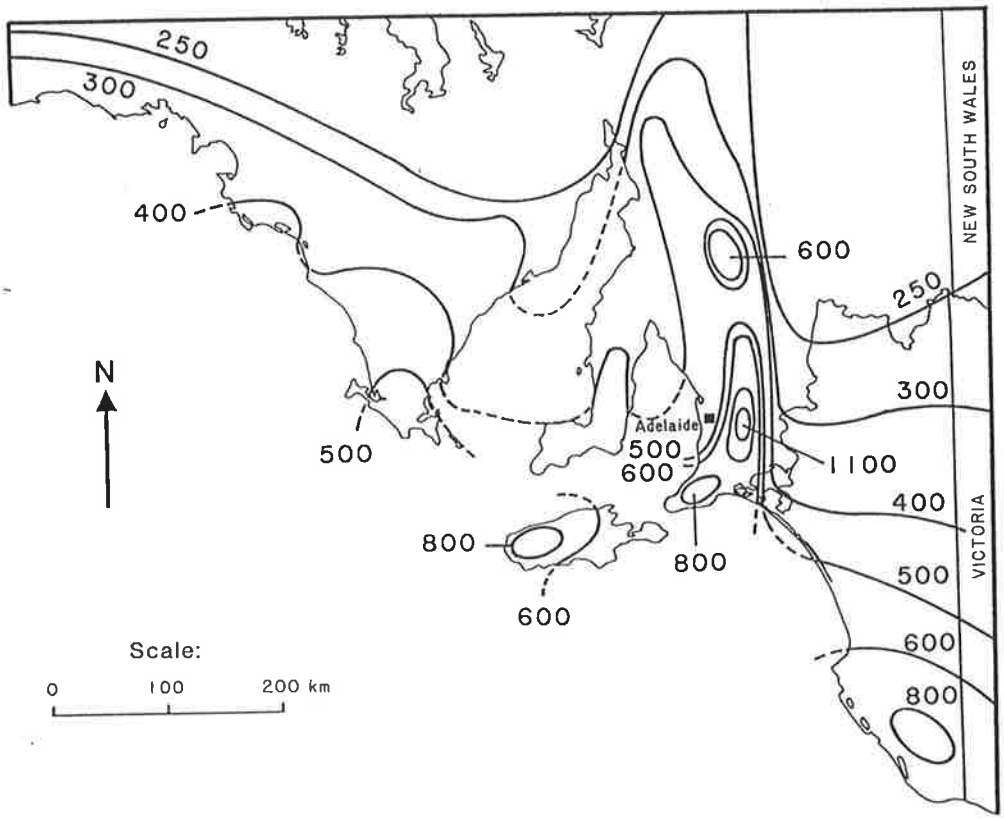


Figure 2.11. Rainfall seasonality zones (after Bureau of Meterology 1975).

Legend:
AZ(W), arid-zone, predominately in winter; AZ(U), arid-zone, rain seasonally uniform; W, mainly winter rainfall, winter:summer ratio < 3.0; WW, winter rainfall, winter:summer ratio > 3.0.

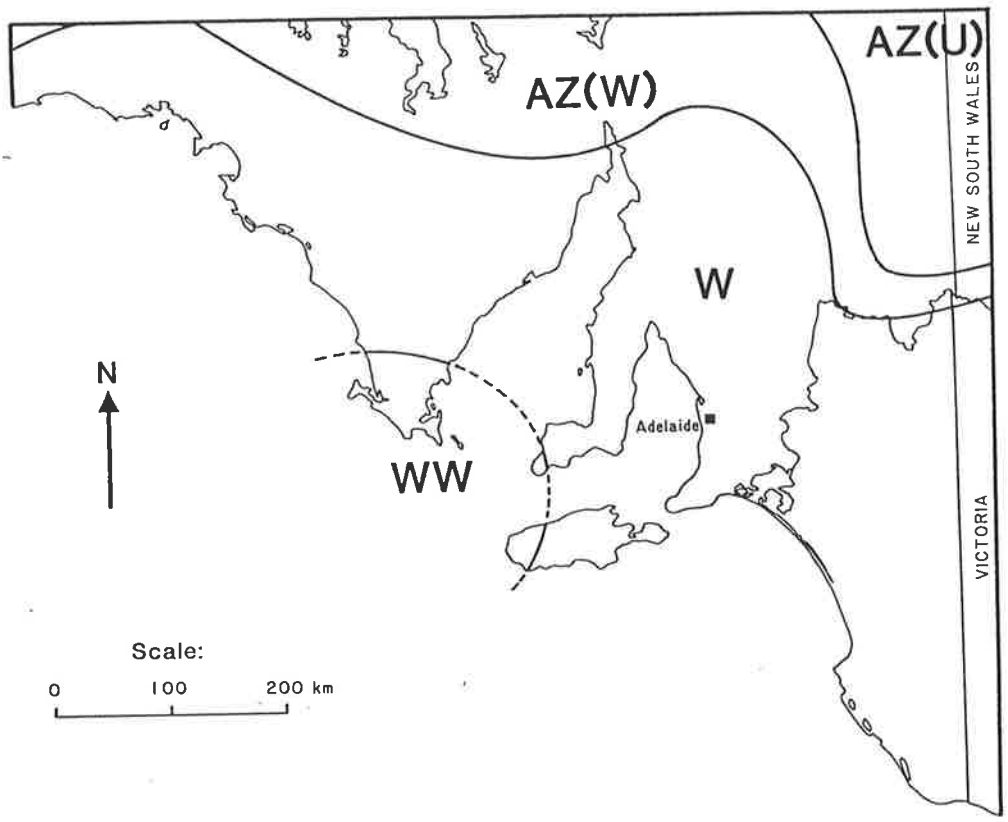


Figure 2.12. Mean maximum temperatues (degrees Celsius) in: (a) January; and (b) July (after Bureau of Meterology 1975).

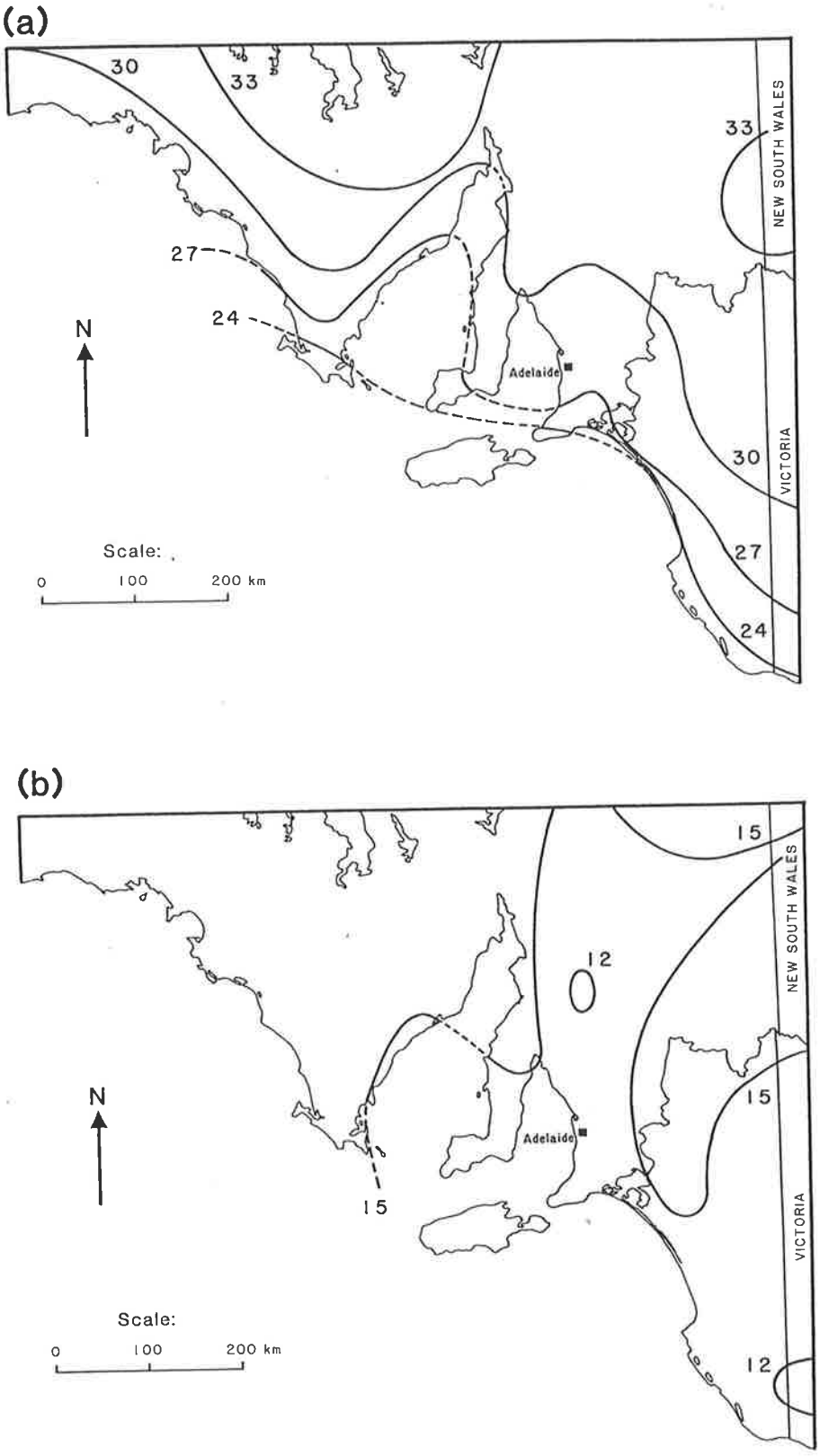


Figure 2.13. Mean annual pan (Type A) evaporation (in millimetres; after an unpublished map from the Bureau of Meteorology, Adelaide).

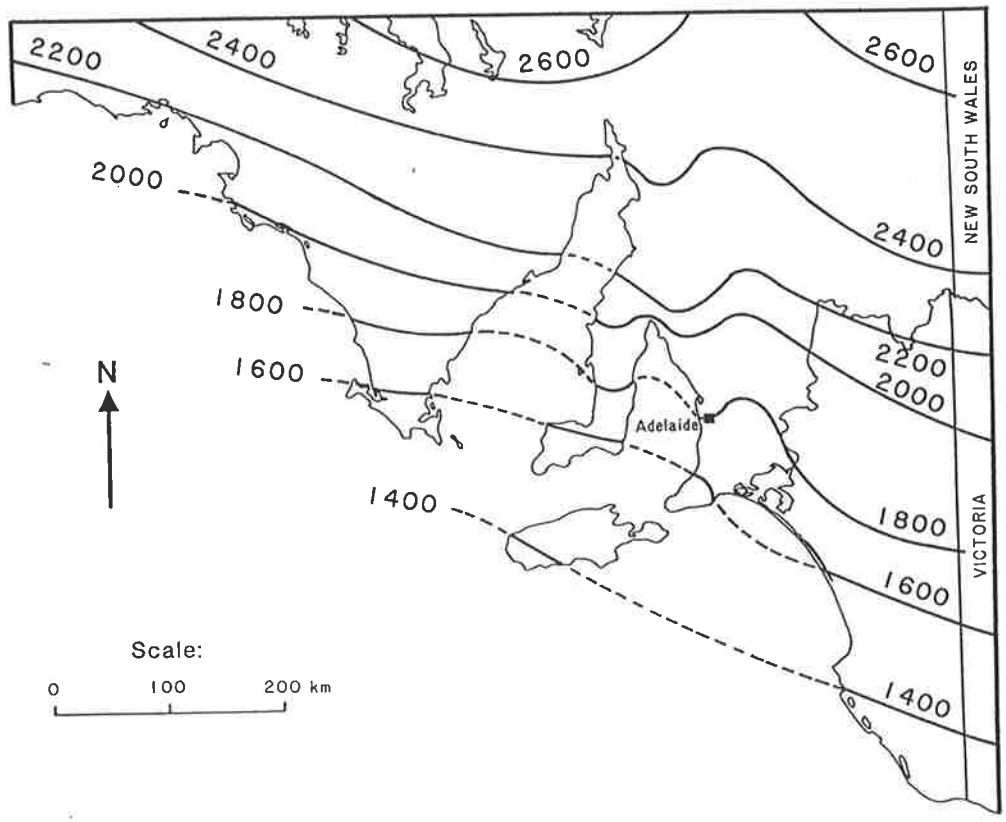


Figure 2.14. Preliminary vegetation map of southern South Australia, showing the distribution of "land systems" (after Specht 1972).

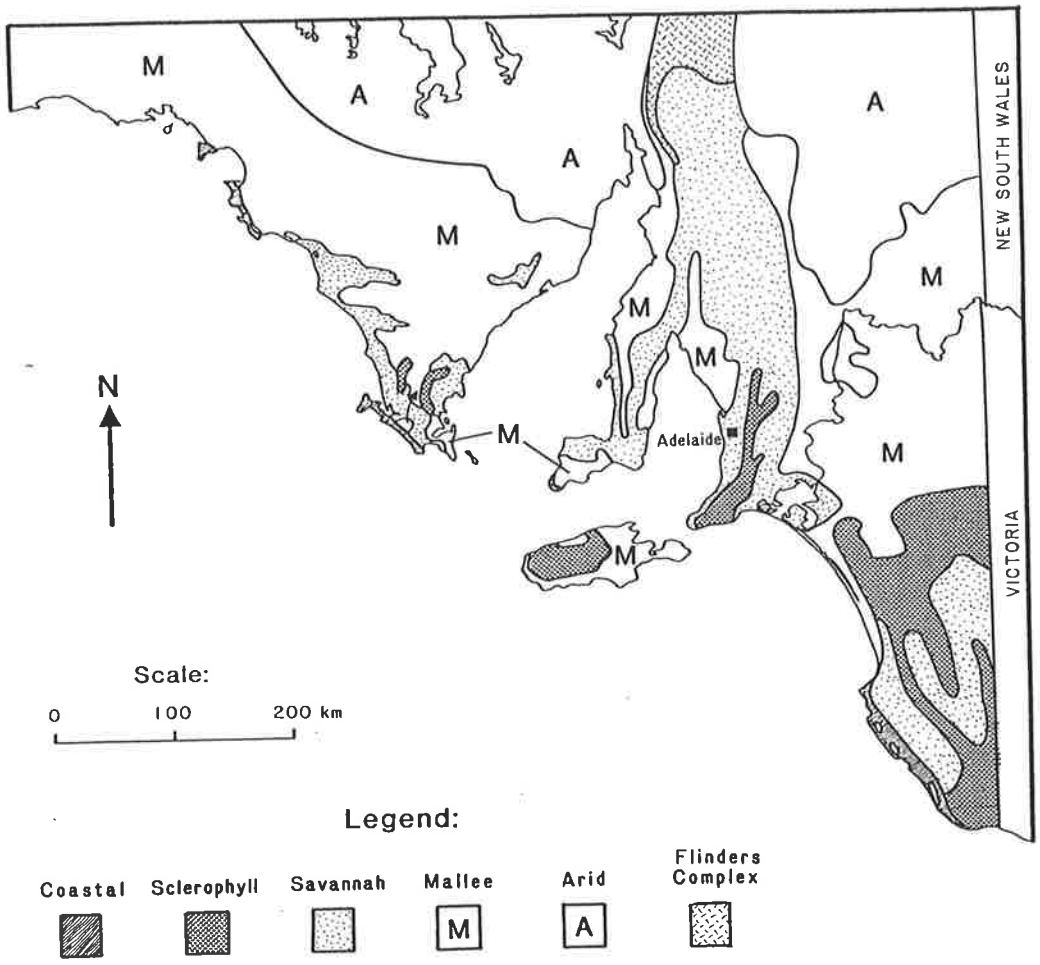


Figure 2.15. Land-use patterns in southern South Australia (after a map by the Department of Lands, Adelaide).

Legend:
A, agriculture (cropping, especially grains); F, forestry (*Pinus radiata*);
G, grazing of sown pastures; H, horticulture (including irrigation);
M, marginal (for cropping); P, pastoral grazing (of native pastures);
U, urban development.

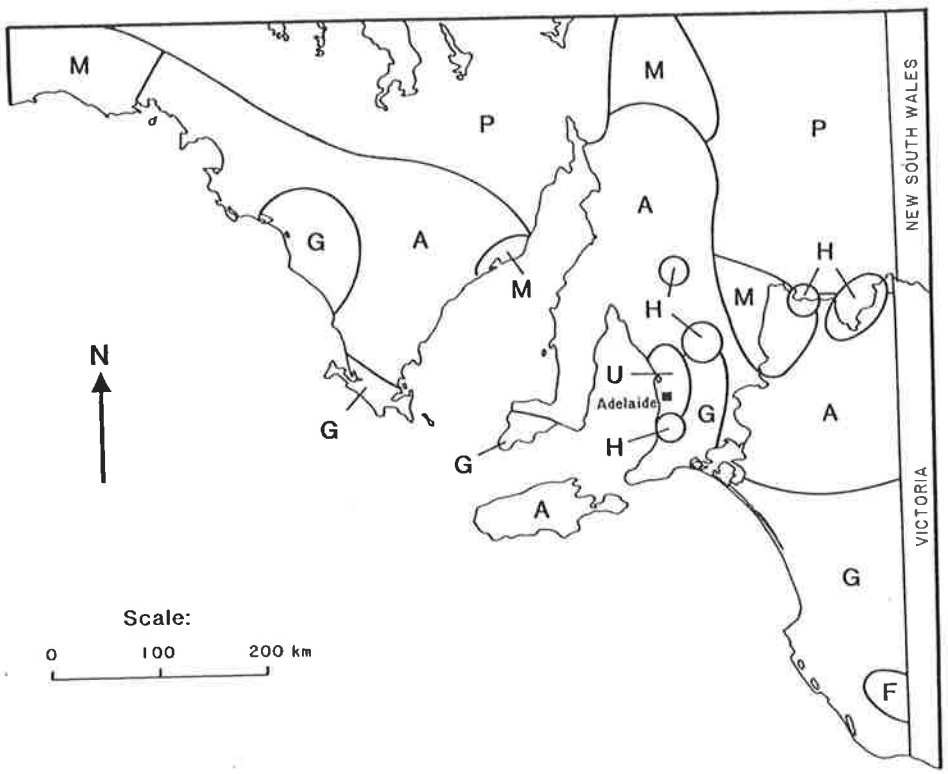
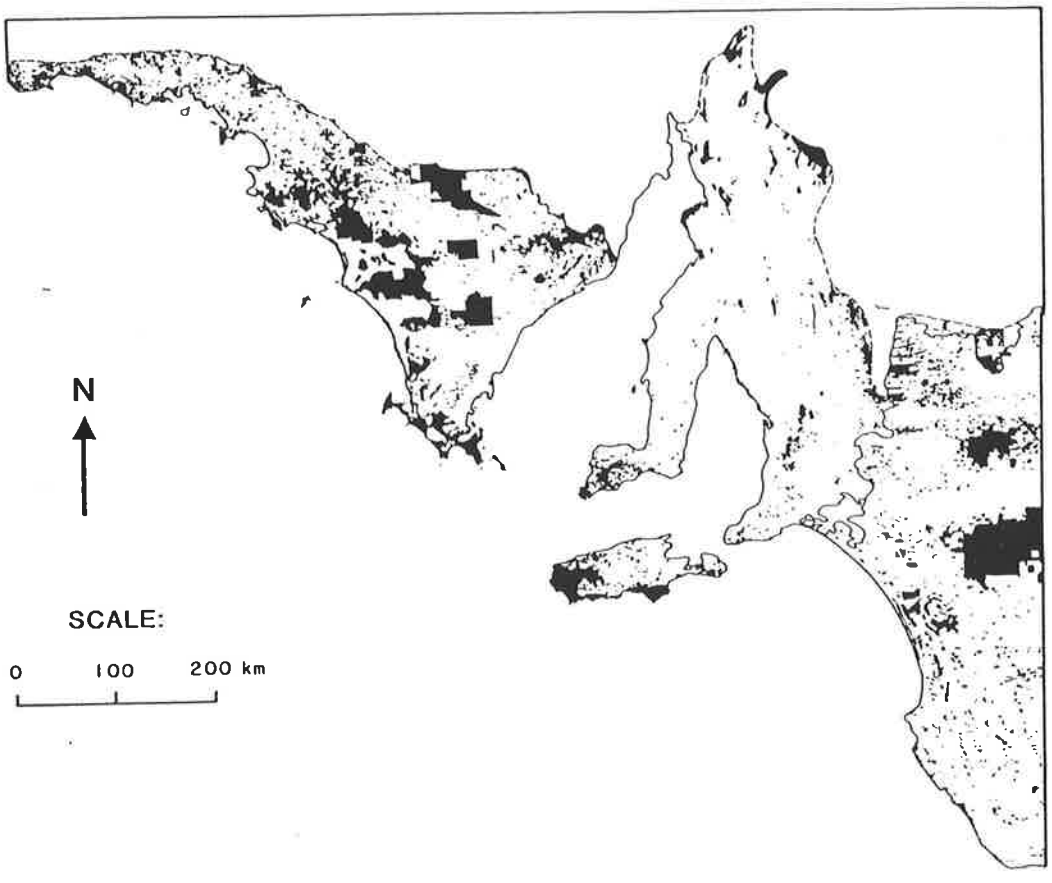


Figure 2.16. Remnant vegetation of southern South Australia in 1986 (after an unpublished map of the Department of Environment and Planning, Adelaide). The dotted line shows the northern limit of aerial photos and LANDSAT imagery surveyed. Almost all larger remnant blocks are reserves of the National Parks and Wildlife Service.



Chapter 3.
SURVEY METHODS AND DESCRIPTION OF THE DATA SET.

Figures 3.1 – 3.5.

Tables 3.1 – 3.8.

Figure 3.1. Preferred transect orientations in the survey regions based largely on the maps of topography (Figure 2.4), dunefields (Figure 2.8) and annual rainfall (Figure 2.10).

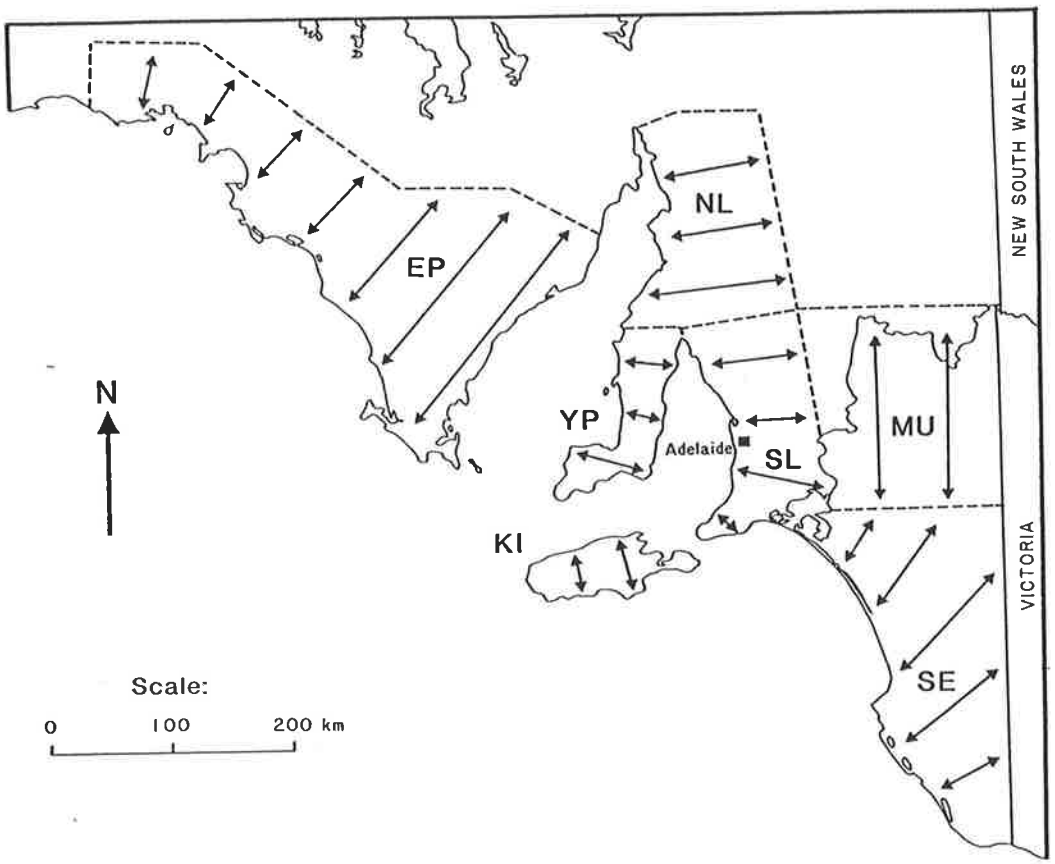


Figure 3.2. Final orientation and spacing of survey transects. The east-west numbering of transects is also indicated.

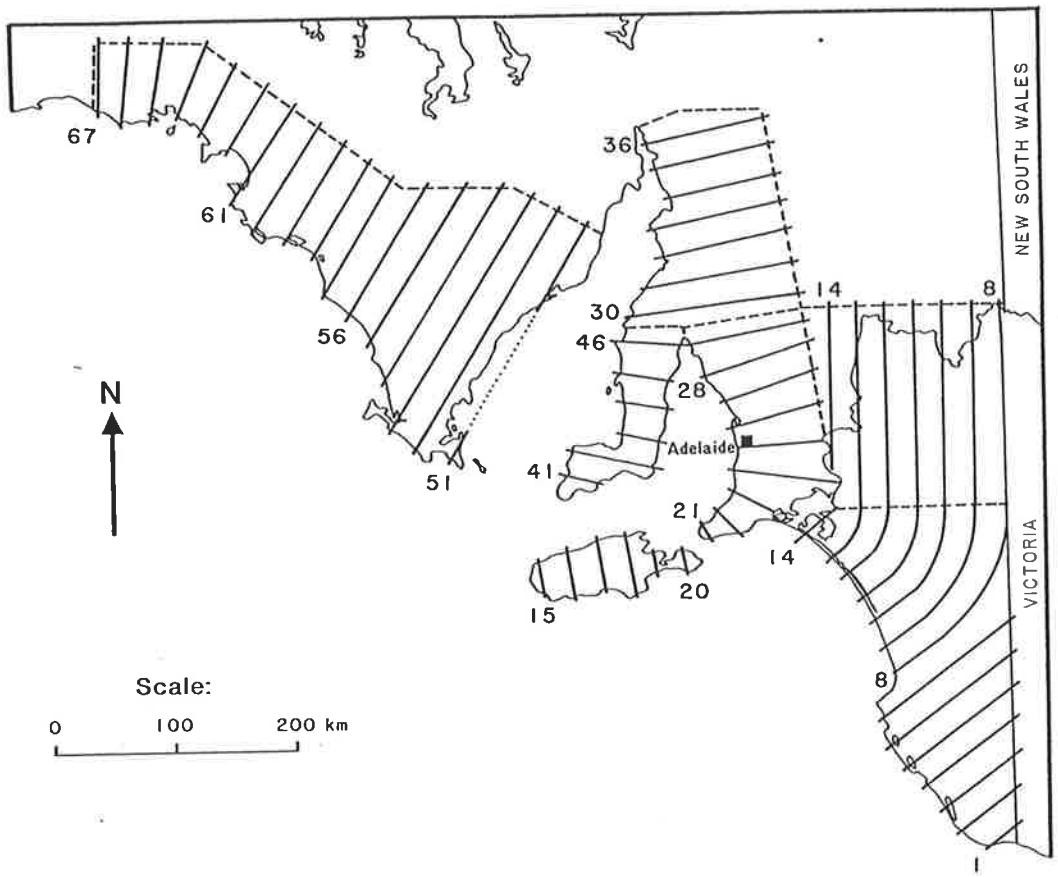


Figure 3.3. Final site locations. Gaps indicate survey gridpoints for which a site could not be found.

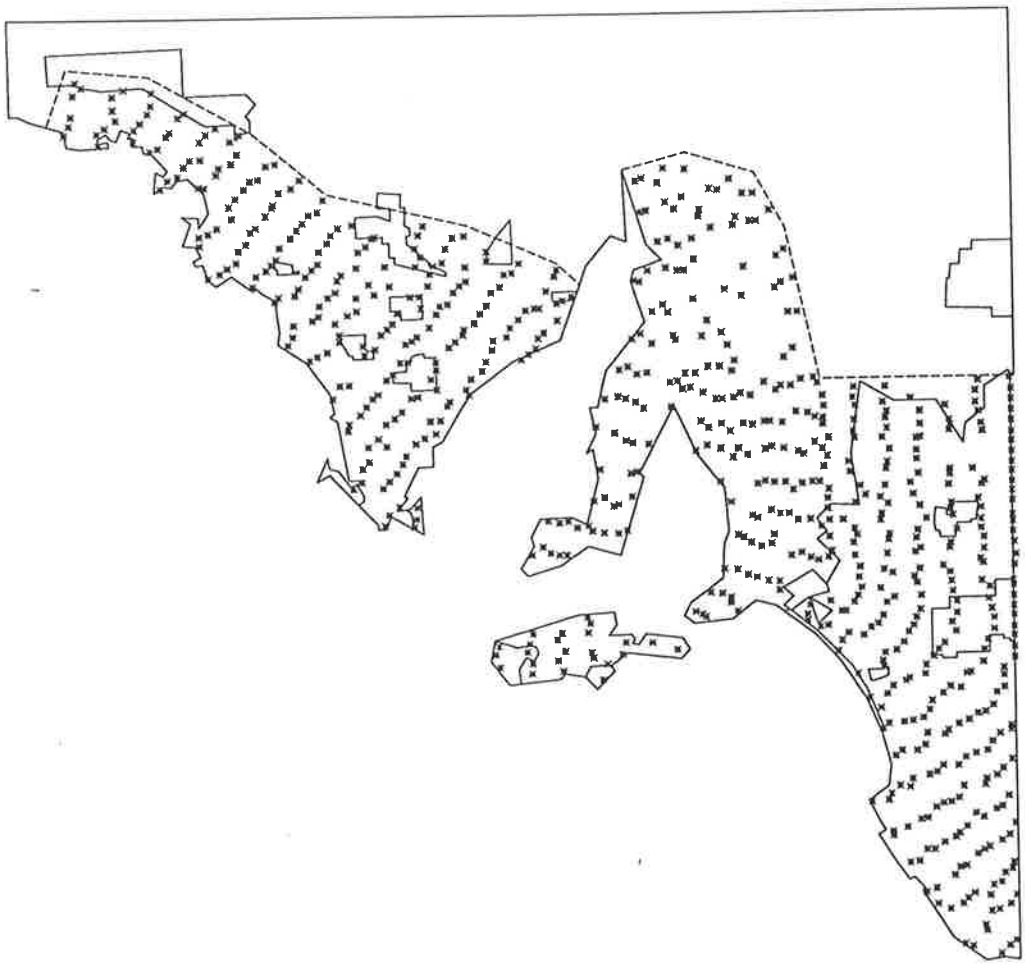


Figure 3.4. Position of the 0.1 ha (50 × 20 m) quadrat at sites in patches of undisturbed, homogeneous vegetation.

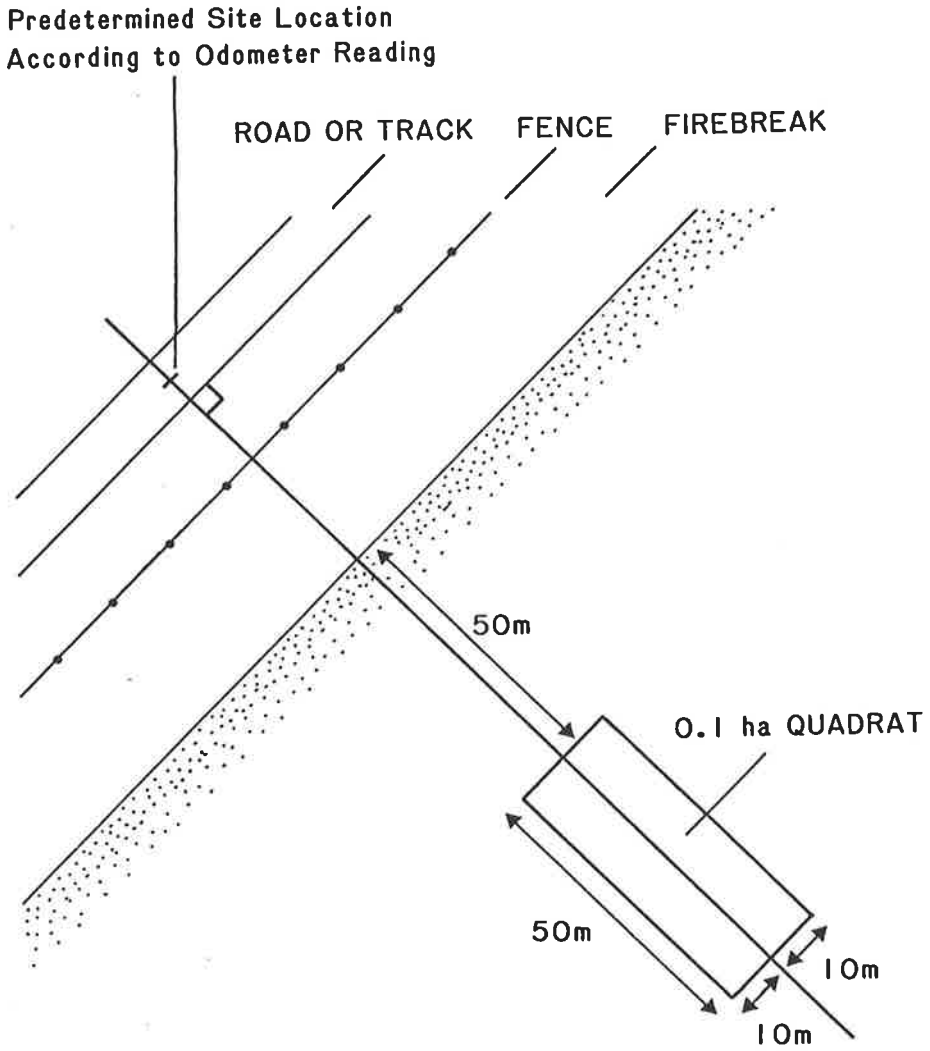


Figure 3.5. Rainfall map for the Murray Mallee region. Rainfall values were calculated from Bureau of Meteorology, Adelaide monthly records for 1983–1983 inclusive. Annual means are uncorrected for stations with more than 30 years of consecutive records. Means for stations with 10–30 years of records were corrected against the nearest station with long-term records.

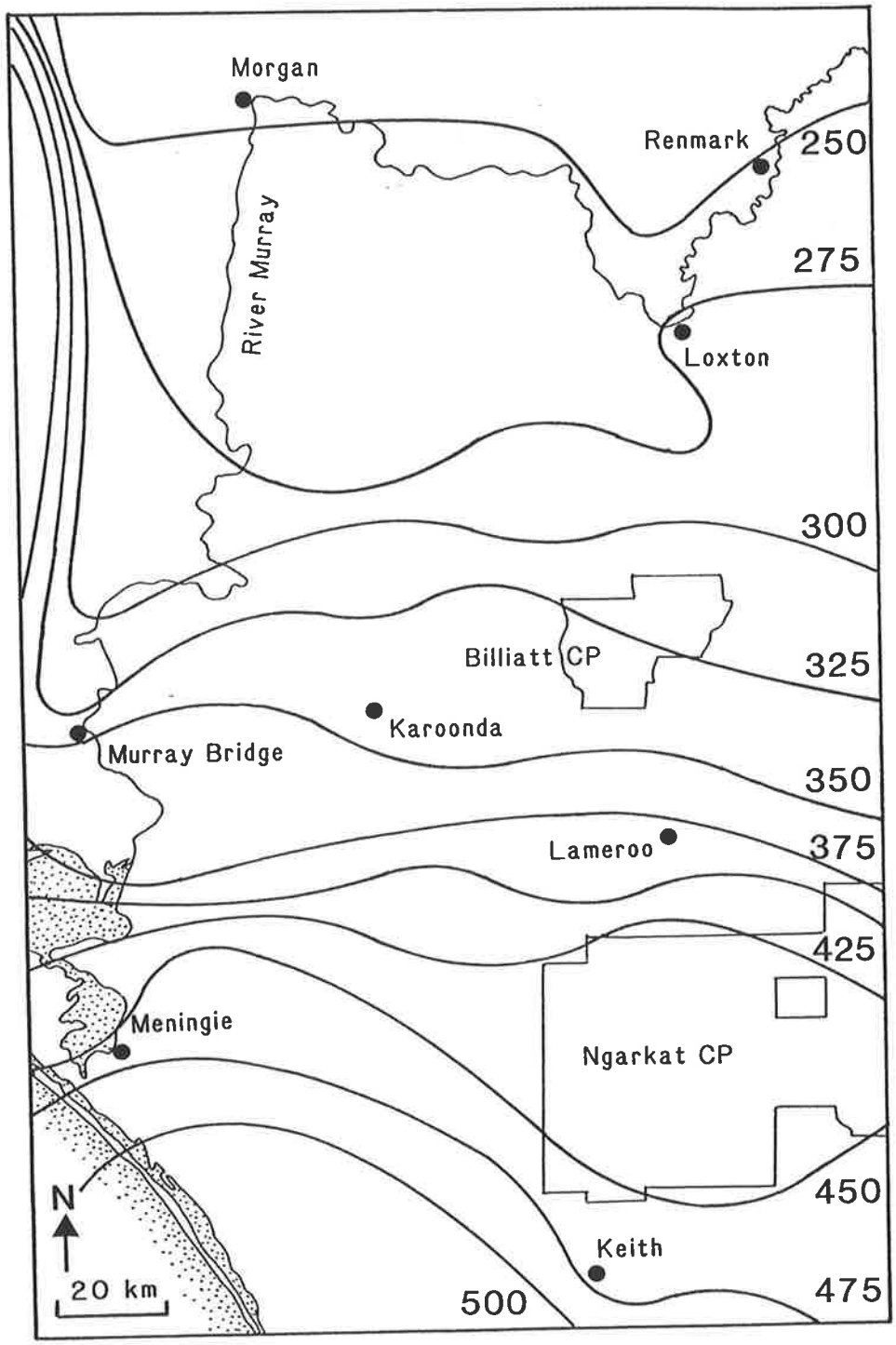


Table 3.1. Regional summary of sites according to conservation and disturbance status.

REGION	SE	MU	KI	SL	NL	YP	EP	TOTAL
AREA (km^2)	32 000	24 000	5 000	16 000	19 000	7 000	48 000	151 000
NO. OF GRID POINTS	169	132	24	84	96	38	241	784
NO. OF SITES IN TOTAL (%)	169 100.00%	127 100.00%	24 100.00%	81 100.00%	17 100.00%	33 100.00%	239 100.00%	744 100.00%
>> IN CONSERVATION PARKS	28 16.60%	5 3.90%	7 29.20%	4 4.80%	2 2.80%	4 12.10%	31 13.00%	78 10.50%
>> ON ROADSIDES	25 14.80%	15 11.80%	0 0.00%	3 3.70%	3 4.20%	1 3.00%	19 7.90%	67 9.00%
>> IN DISTURBED PATCHES	17 10.10%	26 20.50%	0 0.00%	17 21.00%	22 31.00%	9 27.30%	22 9.20%	113 15.20%
>> OTHERS	99 58.60%	81 63.80%	17 70.80%	57 70.50%	44 62.00%	19 56.70%	163 69.90%	486 64.30%
NO. OF SITE-LESS GRID POINTS	0	5	0	3	25	5	2	40

Table 3.2. Simple classification of plant growth forms used to describe each species in quadrats.

NAME	ABBREVIATION	DESCRIPTION
Tall Tree	TT	Single-stemmed perennial, > 10 m tall
Tree	T	Single- or few-stemmed perennial, 4 - 10 m
Mallee Tree	MT	Multi-stemmed mallee-form eucalypt only, 4 - 10 m
Tall Shrub	TS	Perennial woody shrub, 2 - 4 m
Shrub	S	Perennial woody shrub, 0.5 - 2 m
Low Shrub	LS	Perennial woody shrub, < 0.5 m
Herb / Forb	H	Herbaceous (non-woody) perennial or annual, < 0.5 m
Graminoid	G	Grass-like monocot, often forming tussocks, but NOT arising from an underground bulb or tuber
Geophyte	B	Monocot arising from underground bulb or tuber
Parasite	P	Above-ground parasite, particularly mistletoes

Table 3.3. A comparison of the semi-quantitative cover abundance scale used for visual esimation of project foliage cover in this study, with those of Hult-Sernander (1881) and Braun-Blanquet (1932).

THIS STUDY		HULT-SERNANDER (1881)		BRAUN-BLANQUET (1932)	
Cover Range	Score	Cover Range	Score	Cover Range	Score
0 - 2 %	1	minor	+	occasional	+
2 - 5 %	2	< 6.25 %	1	< 5 %	1
5 - 10 %	3	6.25 - 12.5 %	2	5 - 25 %	2
10 - 25 %	4	12.5 - 25 %	3		
25 - 50 %	5	25 - 50 %	4	25 - 50 %	3
50 - 100 %	6	50 - 100 %	5	50 - 75 %	4
				75 - 100 %	5

Table 3.4. List of species complexes which could not be consistently identified to the specific level during the survey.

UNABLE TO BE CONSISTENTLY DISTINGUISHED IN THE FIELD USING VEGETATIVE MATERIAL:

WOODY PERENNIAL

Comesperma calymega, C. polygaloides
Dianella revoluta, D. laevis
Gahnia trifida, G. filum
Glischrocaryon behrii, G. aureum
Goodenia ovata, G. varia
Limonium binervosum, L. companyonis
Maireana erioclada, M. pentatropis
Sarcocornia blackiana, S. quinqueflora

GRASSES AND ANNUAL HERBS

Danthonia spp.
Drosera auriculata, D. peltata
Stipa spp.
Vittadinia dissecta, V. gracilis

TAXONOMIC DISTINCTION PUBLISHED AFTER COMPLETION OF SURVEY OF REGIONS WHERE DISTRIBUTED:

Xanthorrhoea caespitosa, X. australis

TAXONOMY POORLY RESOLVED:

Eucalyptus dumosa, E. calcareana, E. anceps

Table 3.5. List of subspecies and varieties recognised here as of superior (species?) rank (based on field observations).

SPECIES	SUBSPECIES or VARIETIES		
Cassia nemophila	*nemophila*	*coriacea*	
Chenopodium desertorum	*desertorum*	*rectum*	
Dodonaea viscosa	*viscosa*	*angustissima*	
Eucalyptus leucoxylon	*leucoxylon*	*megalocarpa*	*petiolaris*
Grevillea ilicifolia	*ilicifolia*	*lobata*	
Lomandra glauca	*collina*	*nana*	
Lomandra longifolia	*longifolia*	*dura*	
Rhagodia spinescens	*spinescens*	*deltaphylla*	
Xanthorrhoea semiplana	*semiplana*	*tateana*	
Zygophyllum billardieri	coastal form *sensu stricto*	arid form*	

*. This form has recently been named *Zygophyllum confluens sp. nov.* (Eichler 1990).

Table 3.6. Nominal topographic units for description of land-form patterns at sites.

UNIT NO.	UNIT NAME / DESCRIPTION
1	Plain
2	Undulating Plain
3	Interdunal Swale
4	Dune Flank
5	Dune Crest
6	Crabhole or Waterhole
7	Creekline
8	Valley
9	Hillside (slope < 25% from horizontal)
10	Hilltop
11	Steep Hill or Gorge Side (slope > 25% from horizontal), Range Summit

Table 3.7. Scale of soil texture derived from Thompson (1952) and Northcote (1979).

SOIL TEXTURE CLASS	MEDIAL % CLAY*	SCORE
Heavy Clay	> 70	1
Medium Clay	50 - 60	2
Silty Clay	50	2
Sandy Clay	40 - 45	3
Silty Clay Loam	35	4
Clay Loam	35	4
Sandy Clay Loam	25 - 30	5
Silty Loam	10 - 20	6
Loam	15 - 20	6
Sandy Loam	10 - 15	7
Loamy Sand	5 - 10	8
Sand	0 - 5	9
Shell Grit	0	9

* Overlapping ranges indicate variation in silt content of texture classes.

Table 3.8. List of all variables included in the environmental data set. Variable codes are used for labelling environmental correlations with ordination axes (Chapters 5 & 6) and species response models (Chapter 7).

ENVIRONMENTAL VARIABLE			VARIABLE TYPE	CODE
UMG Easting (Longitude)			Continuous	L
UMG Northing (Latitude)			"	-
Distance from the Coast			"	DC
Elevation above Mean Sea Level (Altitude)			"	A
Mean Annual Rainfall			"	R
Topographic Unit			Nominal (11 classes)	-
Aspect of Quadrat			Circular continuous	-
Slope of Quadrat			Continuous	-
Tidal Flooding			Binary	TF
Annual/Seasonal Flooding (Riverine or Wetland)			"	AF
Soil:	Horizon 1:	Depth	Continuous	D1
		Moist Colour	Nominal (many classes)	-
		Texture	Ordinal (9 classes)	T1
		Wettability	Binary	W1
		pH	Continuous	pH1
		Total Soluble Salts	"	TSS1
		Calcium Carbonate	Ordinal (3 classes)	C1
	Horizon 2:	Depth	Continuous	D2
	(= Horizon 1,	Moist Colour	Nominal	-
	when H.1 absent)	Texture	Ordinal	T2 or... DX (duplex)
		Wettability	Binary	W2
		pH	Continuous	pH2
		Total Soluble Salts	"	TSS2
		Calcium Carbonate	Ordinal	C2
Sheet Calcrete (Depth to...)			Continuous	SC
Nodular Calcrete			"	NC
Unconsolidated Carbonate			"	UC
Laterite			"	LT
Granite / Sandstone Geologies			"	G/S
Siltstone / Mudstone Geologies			"	S/M
Shale / Schist			"	SH

Chapter 4.
VEGETATION ANALYSIS I: SELECTION OF METHODS & PRELIMINARY STATISTICS.

Figure 4.1.

Tables 4.1 – 4.3.

Figure 4.1. Histogram of species' frequencies of occurrence. The distribution is right-skewed. Ninety-four species occurred at only one site, while one species occurred at 181 sites. The median frequency is 8 (marked by the arrow).

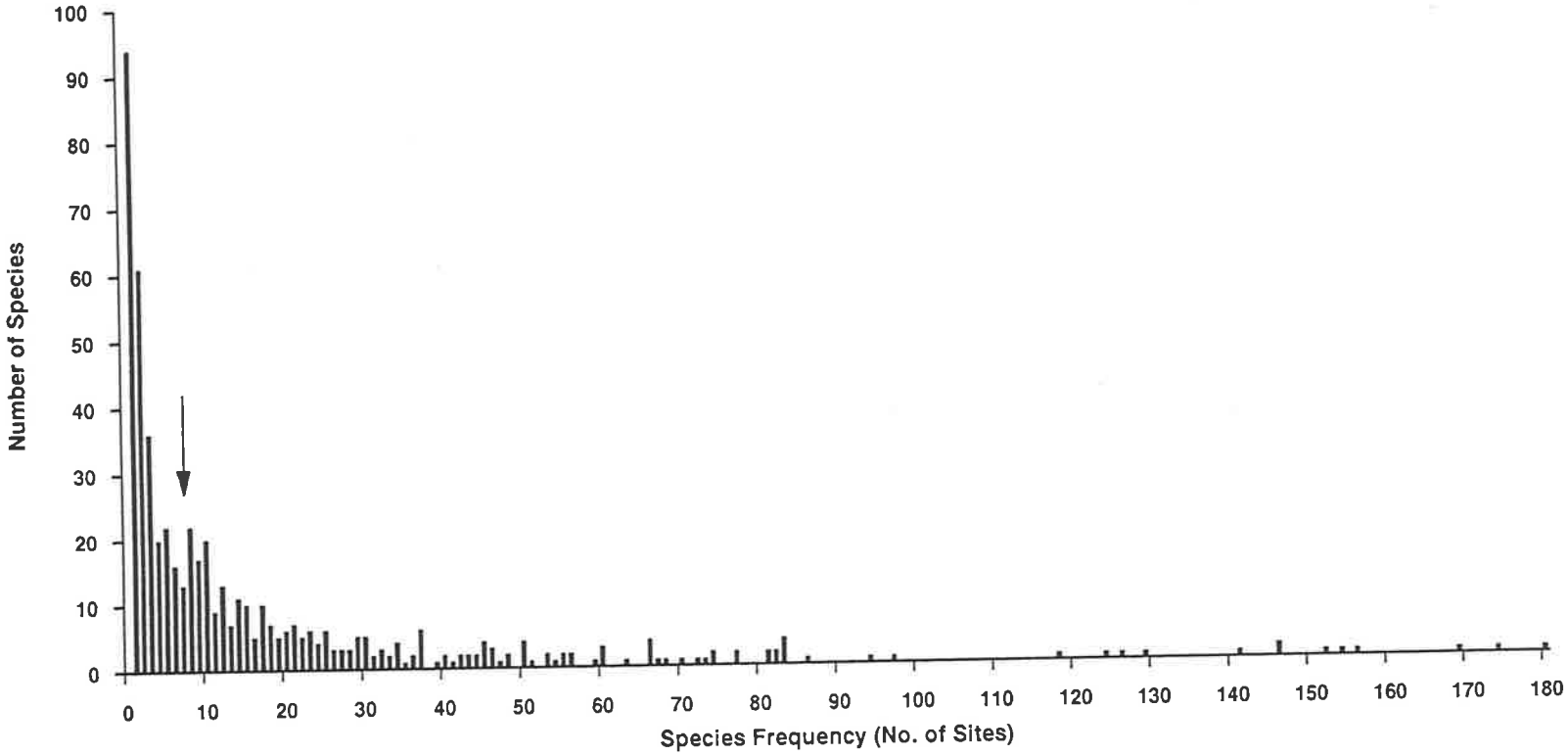


Table 4.1. Frequencies of cover score values in the data sets for each region and in the full data set. Frequencies are given as counts and percentages.

REGION		COVER SCORE VALUE: 0	1	2	3	4	5	6	TOTAL	MEAN NO. OF SPECIES PER SITE
SE	NO.	91309	2115	341	179	126	57	6	94133	16.7
	%	97.00%	2.25%	0.36%	0.19%	0.13%	0.06%	0.00%	[100%]	
MU		72211	994	193	104	20	2	0	73524	10.3
		98.21%	1.35%	0.26%	0.14%	0.03%	0.00%	0.00%	[100%]	
KI		12847	397	82	27	13	2	0	13368	21.7
		96.10%	2.97%	0.61%	0.20%	0.10%	0.02%	0.00%	[100%]	
SL		44320	574	103	70	47	2	1	45117	9.8
		98.23%	1.27%	0.23%	0.16%	0.10%	0.00%	0.00%	[100%]	
NL		39512	414	83	71	21	2	1	40104	8.3
		98.52%	1.03%	0.21%	0.18%	0.05%	0.01%	0.00%	[100%]	
YP		20140	365	54	35	12	2	1	20609	14.2
		97.72%	1.77%	0.26%	0.17%	0.06%	0.01%	0.00%	[100%]	
EP		129635	2772	424	223	62	7	0	133123	14.6
		97.38%	2.08%	0.32%	0.17%	0.05%	0.01%	0.00%	[100%]	
TOTAL		409974	7631	1280	709	301	74	9	419978	13.4
		97.62%	1.82%	0.31%	0.17%	0.07%	0.02%	0.00%	[100%]	

Table 4.2. Summary of the number of species recorded in the data set. Records have been broken down by region and by species category (native perennial; native annual, geophyte or parasite; introduced).

REGION	NATIVE PERENNIAL SPECIES	OTHER NATIVE SPECIES	INTRODUCED SPECIES (ALL)	TOTAL
SE	224	19	10	253
MU	191	22	19	232
KI	145	10	0	155
SL	203	35	14	252
NL	173	32	16	221
YP	138	12	11	161
EP	310	24	11	345
TOTAL	545	67	40	652

Table 4.3. Regional sharing of native perennial flora. Similarity between regional floras is given as species counts and as a percentages. Percentages sum to 100 % across rows. The diagonal of self-similarity lists the number of regionally – endemic species.

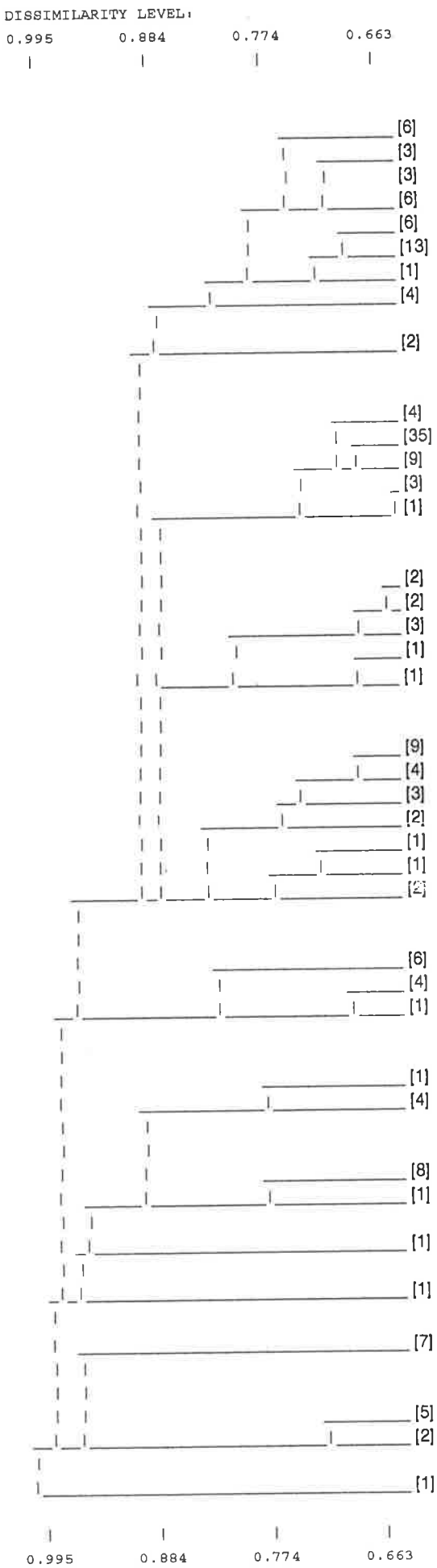
REGION	SE	MU	KI	SL	NL	YP	EP	TOTAL
SE	**39** **17.40%**	76 33.90%	87 38.80%	114 50.90%	46 20.50%	84 37.50%	126 56.30%	224 [100%]
MU	76 39.80%	**23** **12.00%**	33 17.30%	92 48.20%	90 47.10%	72 37.70%	147 77.00%	191 [100%]
KI	87 60.00%	33 22.80%	**29** **20.00%**	67 46.20%	26 17.90%	50 34.50%	77 53.10%	145 [100%]
SL	114 56.20%	92 45.30%	67 33.00%	**13** **6.40%**	93 45.80%	78 38.40%	131 64.50%	203 [100%]
NL	46 26.60%	90 52.00%	26 15.00%	93 53.80%	**28** **16.20%**	63 36.40%	108 62.40%	173 [100%]
YP	84 60.90%	72 52.20%	50 36.20%	78 56.50%	63 45.70%	**6** **4.30%**	121 87.70%	138 [100%]
EP	126 40.60%	147 47.40%	77 24.80%	131 42.30%	108 34.80%	121 39.00%	**64** **20.60%**	310 [100%]

Chapter 5.
VEGETATION ANALYSIS II: REGIONAL ANALYSES — RESULTS AND DISCUSSION.

Figures 5.1 – 5.16.

Tables 5.1 – 5.7.

Figure 5.1. Summary dendrogram of the Southeast regional classification. The dendrogram is truncated at the $d_{BC} = 0.65$ level at which types were defined. The number of sites falling into each type is shown in square brackets. Vegetation complexes are given in capitals and types in lower case.



1. EUCALYPTUS BAXTERI - PTERIDIUM ESCULENTUM COMPLEX

1.1 E. obliqua - P. esculentum

1.2 E. viminalis - P .esculentum

1.3 E. obliqua - E. viminalis - P. esculentum - Banksia ornata

1.4 E. fasciculosa - P. esculentum

1.5 E. baxteri - P. esculentum

1.6 E. baxteri - B. ornata - P. esculentum

1.7 E. baxteri - Xanthorrhoea quadrangulata

1.8 E. viminalis - E. ovata - Leptospermum aff. juniperinum

2. JUNCUS PALLIDUS COMPLEX

3. BANKSIA ORNATA - ALLOCASUARINA PUSILLA COMPLEX

3.1 E. fasciculosa - A. pusilla

3.2 B. ornata - Leptospermu myrsinoides

3.3 A. pusilla - Phyllota pleurandroides

3.4 E. foecunda - Callitris verrucosa

3.5 E. foecunda - Melaleuca brevifolia

4. EUCALYPTUS INCRASSATA COMPLEX

4.1 E. incrassata - E. fascilculosa - M. uncinata

4.2 E. incrassata - M. uncinata

4.3 E. incrassata - Gahnia lanigera

4.4 E. dumosa - E. incrassata

4.5 E. rugosa

5. EUCALYPTUS DIVERSIFOLIA COMPLEX

5.1 E. diversifolia - Leucopogon parviflorus

5.2 E. diversifolia - X. caespitosa

5.3 E. diversifolia - Acrotriche cordata

5.4 E. diversifolia - A. cordata (pyric sere)

5.5 X. caespitosa - Banksia marginata

5.6 X. caespitosa - Callitris preissii

5.7 X. caespitosa - Allocasuarina verticillata

6. LEUCOPOGON PARVIFLORUS COMPLEX

6.1 Leucopogon parviflorus - Acacia longifolia

6.2 Acacia pycnantha

6.3 Acacia pycnantha - E. odorata

7. GAHNIA TRIFIDA/FILUM COMPLEX

7.1 Leptospermum pubescens - G. trifida/filum

7.2 Gahnia trifida/filum

8. MELALEUCA BREVIFOLIA COMPLEX

8.1 M. brevifolia

8.2 M. brevifolia - Callistemon rugulosus

9. EUCALYPTUS DUMOSA COMPLEX

10. MELALEUCA HALMATURORUM COMPLEX

11. EUCALYPTUS CAMALDULENSIS COMPLEX

12. EUCALYPTUS LEUCOXYLON COMPLEX

12.1 E. leucoxylon

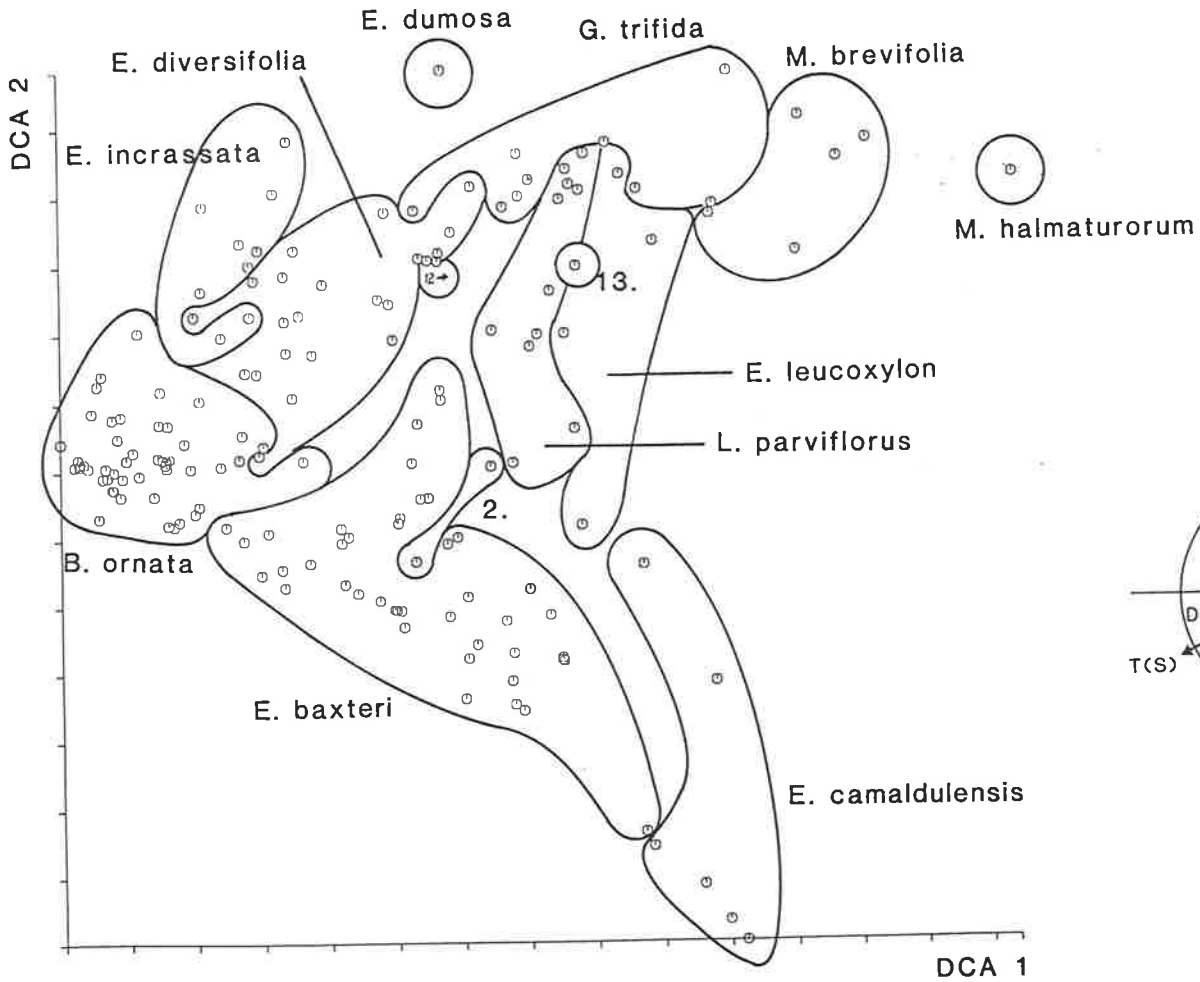
12.1 E. leucoxylon - Chorizandra enodis

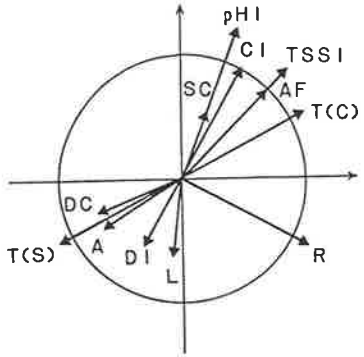
13. EUCALYPTUS MICROCARPA

Figure 5.2. Ordination of the full data set of the Southeast region (axes 1 & 2). The classification from Figure 5.1 is superimposed to show the locus of vegetation complexes. For brevity, the name of most complexes is an abbreviation of the first species in the full complex name. For two complexes, only the complex number is given due to limited space: 2, JUNCUS PALLIDUS COMPLEX; and 13, EUCALYPTUS MICROCARPA COMPLEX.

Rank correlations of environmental variables with the DCA axes are indicated by the inset vector diagram. Each correlation vector (length and orientation) is determined as the geometric product of the rank correlation coefficients with the DCA axes individually.* Labelling of vectors follows the abbreviation of environmental variables in Table 3.8, with the exception of soil texture (horizon 1): T(S) shows the direction and magnitude of the trend towards increasing sand content, and its inversion, T(C), shows the trend towards increasing clay content.

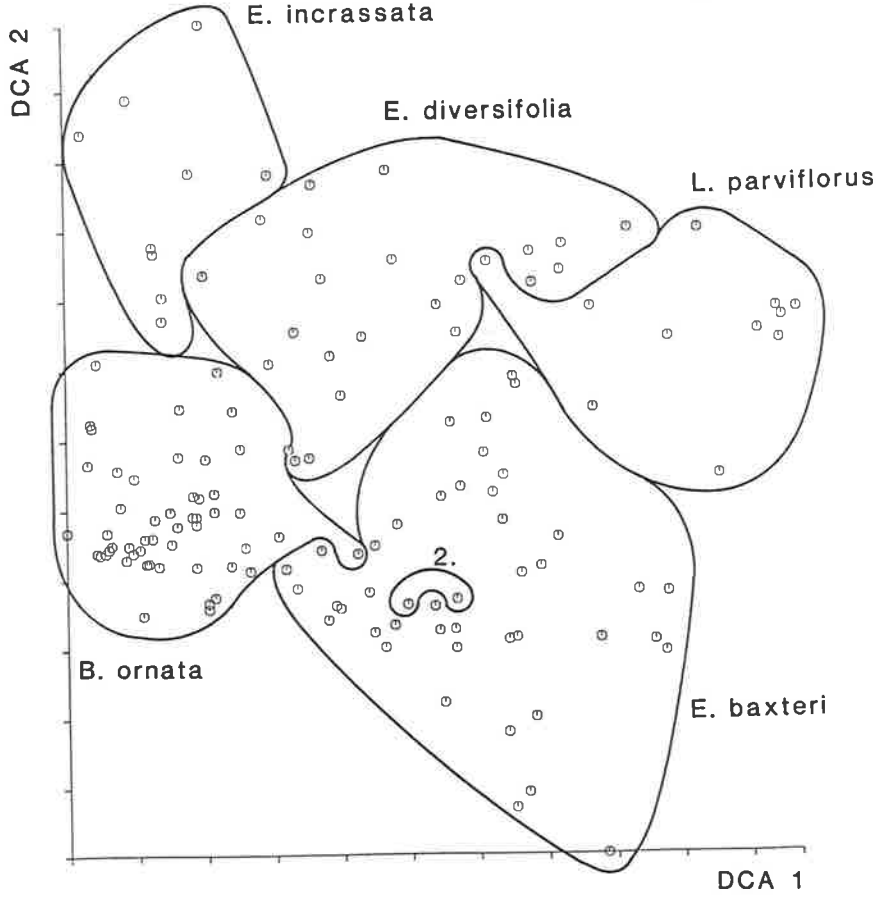
*The circle describes the length of vectors with a net two-dimensional correlation of 0.5.".

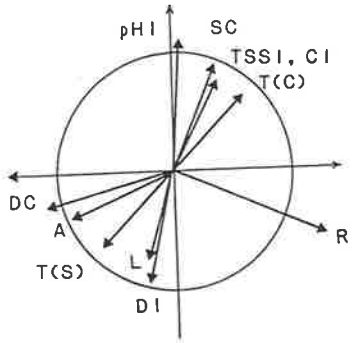




CORRELATIONS

Figure 5.3. Ordination of the reduced Southeast data set (savannah woodland and wetland complexes removed).





CORRELATIONS

Figure 5.4. Dendrogram of the Murray Mallee regional classification.

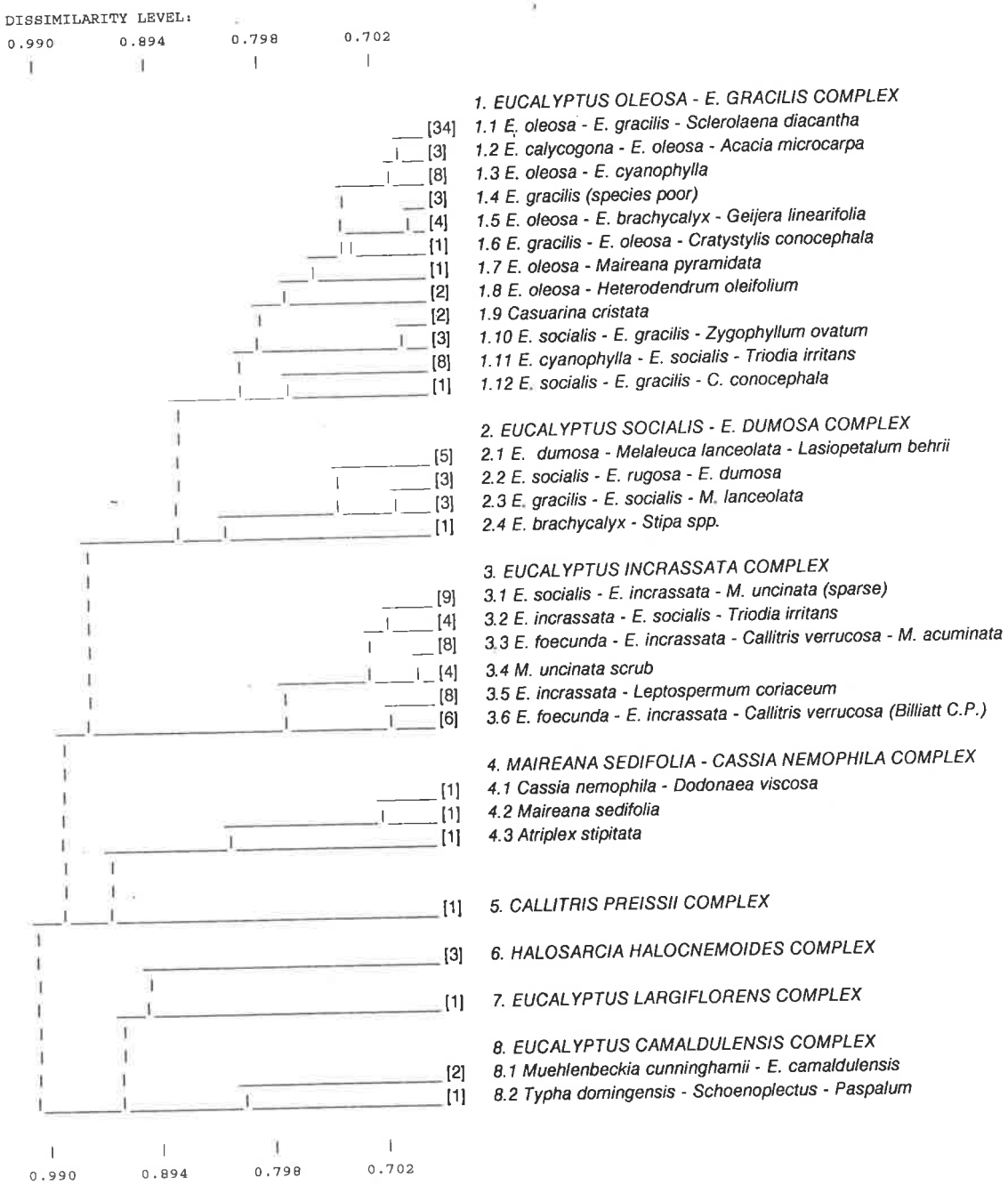


Figure 5.5. Ordination of the full Murray Mallee data set.

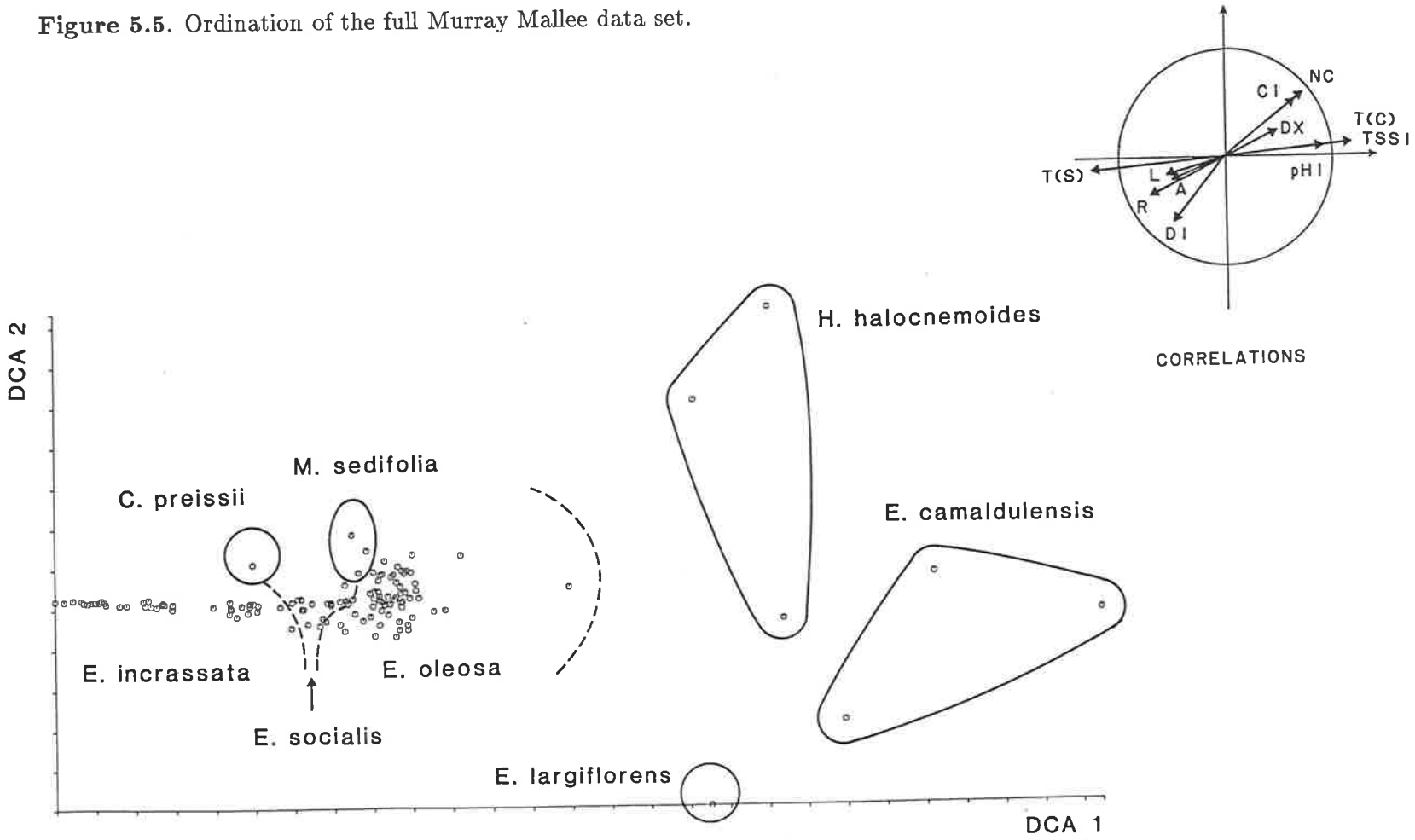


Figure 5.6. Ordination of the reduced Murray Mallee data set (mallee complexes only).

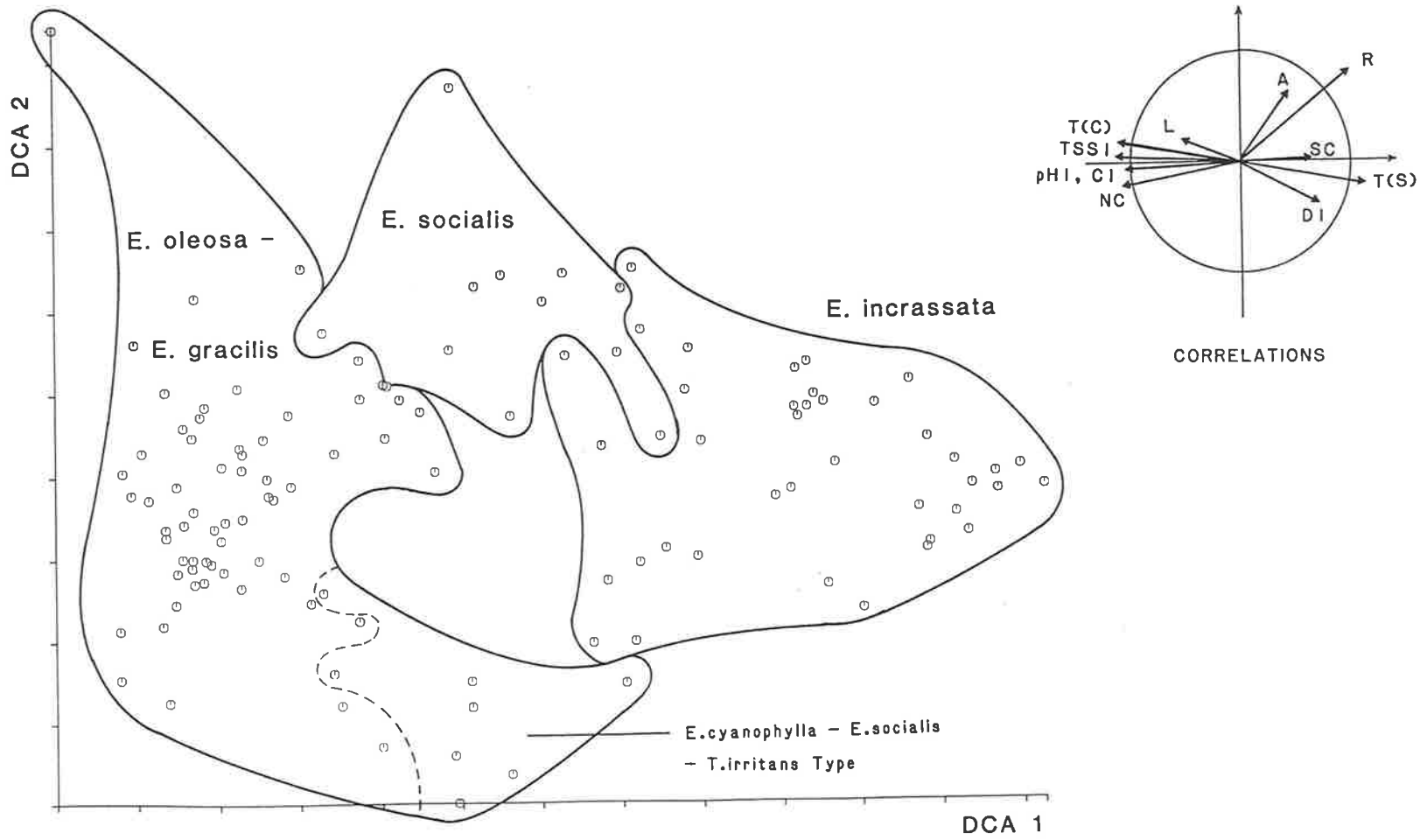


Figure 5.7. Dendrogram of the Kangaroo Island regional classification.

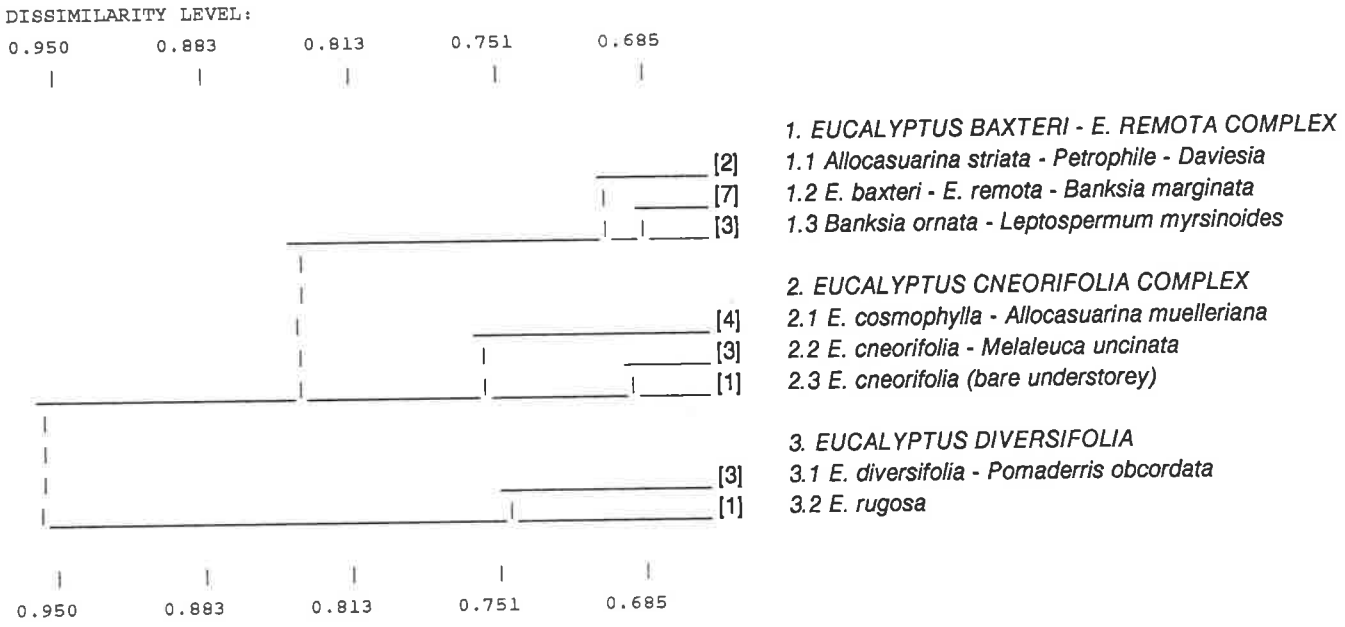


Figure 5.8. Ordination of the full Kangaroo Island data set.

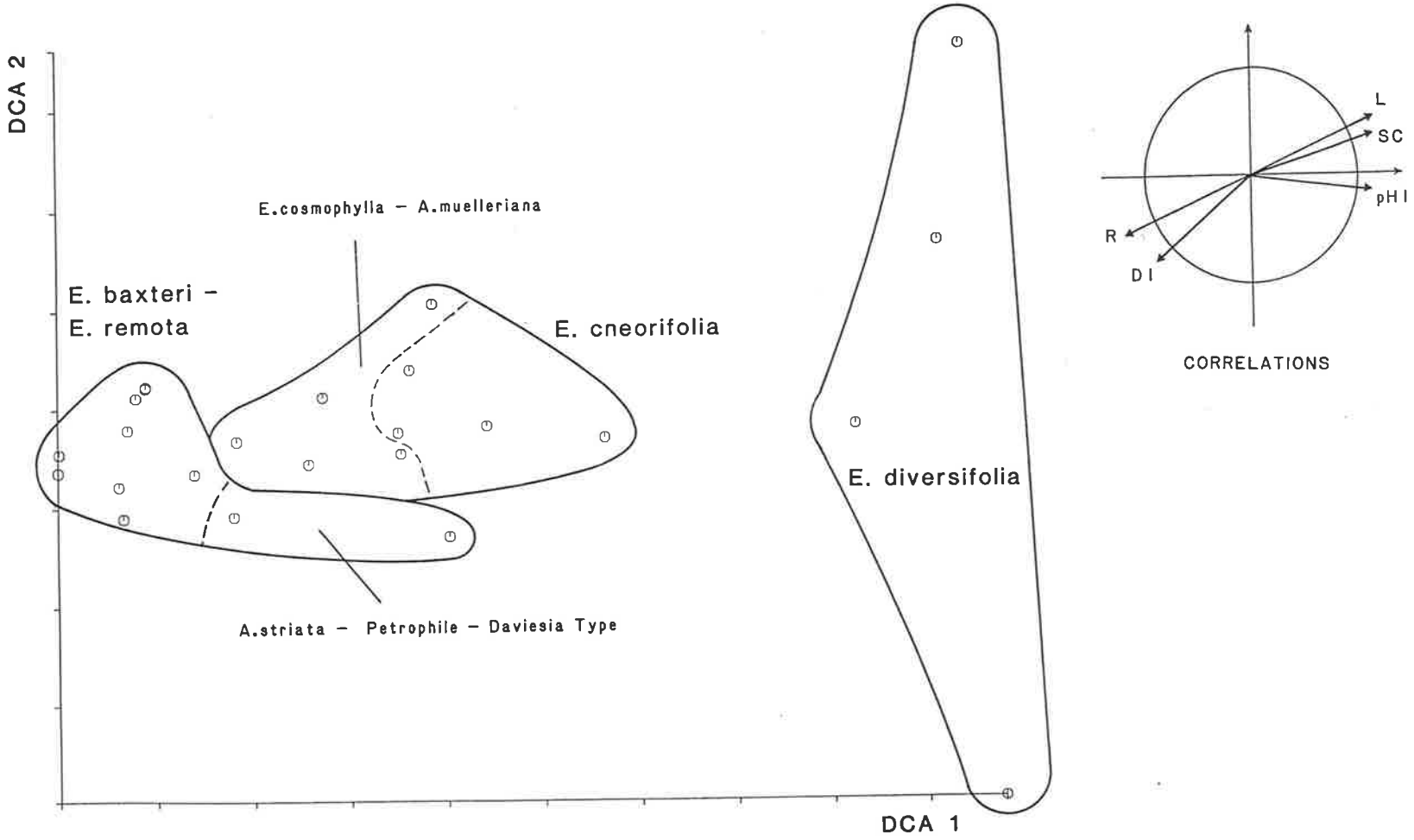
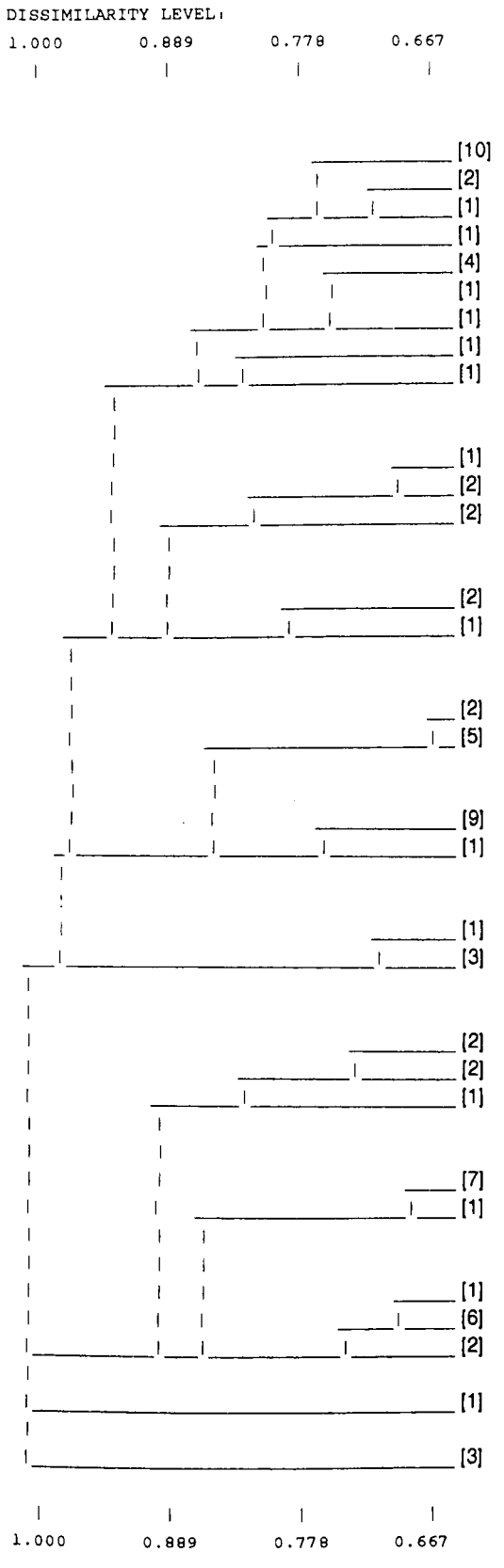


Figure 5.9. Dendrogram of the Southern Mt Lofty Ranges regional classification.



1. EUCALYPTUS OBLIQUA - XANTHORRHOEA SEMIPLANA COMPLEX

1.1 E. obliqua - Lepidosperma semiteres

1.2 E. baxteri - Banksia ornata - Pteridium esculentum

1.3 E. cosmophylla - E. obliqua

1.4 E. cosmophylla - Allocasuarina muelleriana

1.5 E. fasciculosa - X. semiplana - A. verticillata

1.6 E. fasciculosa - X. semiplana - Acacia pycnantha

1.7 E. microcarpa - A. pycnantha

1.8 E. fasciculosa - B. ornata - Leptospermum myrsinoides

1.9 E. leucoxylon - Astroloma conostephioides

2. MELALEUCA UNCINATA COMPLEX

2.1 M. uncinata - E. fasciculosa

2.2 E. incrassata - M. uncinata - Leptospermum coriaceum

2.3 M. uncinata - M. acuminata - E. fasciculosa

3. "COMPLEX C"

3.1 E. fasciculosa - Lepidosperma laterale

3.2 Allocasuarina verticillata - Xanthoorhoea quadrangulata

4. EUCALYPTUS LEUCOXYLON COMPLEX

4.1 E. leucoxylon - Allocasuarina verticllata - Acacia pycnantha

4.2 E. leucoxylon

5. EUCALYPTUS ODORATA COMPLEX

5.1 E. odorata

5.2 E. odorata - Allocasuarina verticillata

6. EUCALYPTUS CAMALDULENSIS COMPLEX

6.1 E. camaldulensis - Acacia pycnantha - Banksia marginata

6.2 E. camaldulensis

7. CALLITRIS PREISSII COMPLEX

7.1 E. gracilis - C. preissii

7.2 C. preissii - E. socialis

7.3 E. dumosa - C. preissii - Alyxia buxifolia

8. EUCALYPTUS SOCIALIS COMPLEX

8.1 E. socialis - Melaleuca lanceolata - Enchylaena tomentosa

8.2 E. socialis - Heterodendrum oleifolium - Alyxia buxifolia

9. EUCALYPTUS GRACILIS - E. OLEOSA COMPLEX

9.1 E. brachycalyx - Sclerolaena diacantha - Emchylaena tomentosa

9.2 E. gracilis - E. brachycalyx

9.3 E. oleosa - Cassia nemophila

10. AVICENNIA MARINA COMPLEX

11. HALOSARCIA HALOCNEMOIDES COMPLEX

Figure 5.10. Ordination of the reduced Southern Mt Lofty Ranges data set (mangrove and samphire complexes removed).

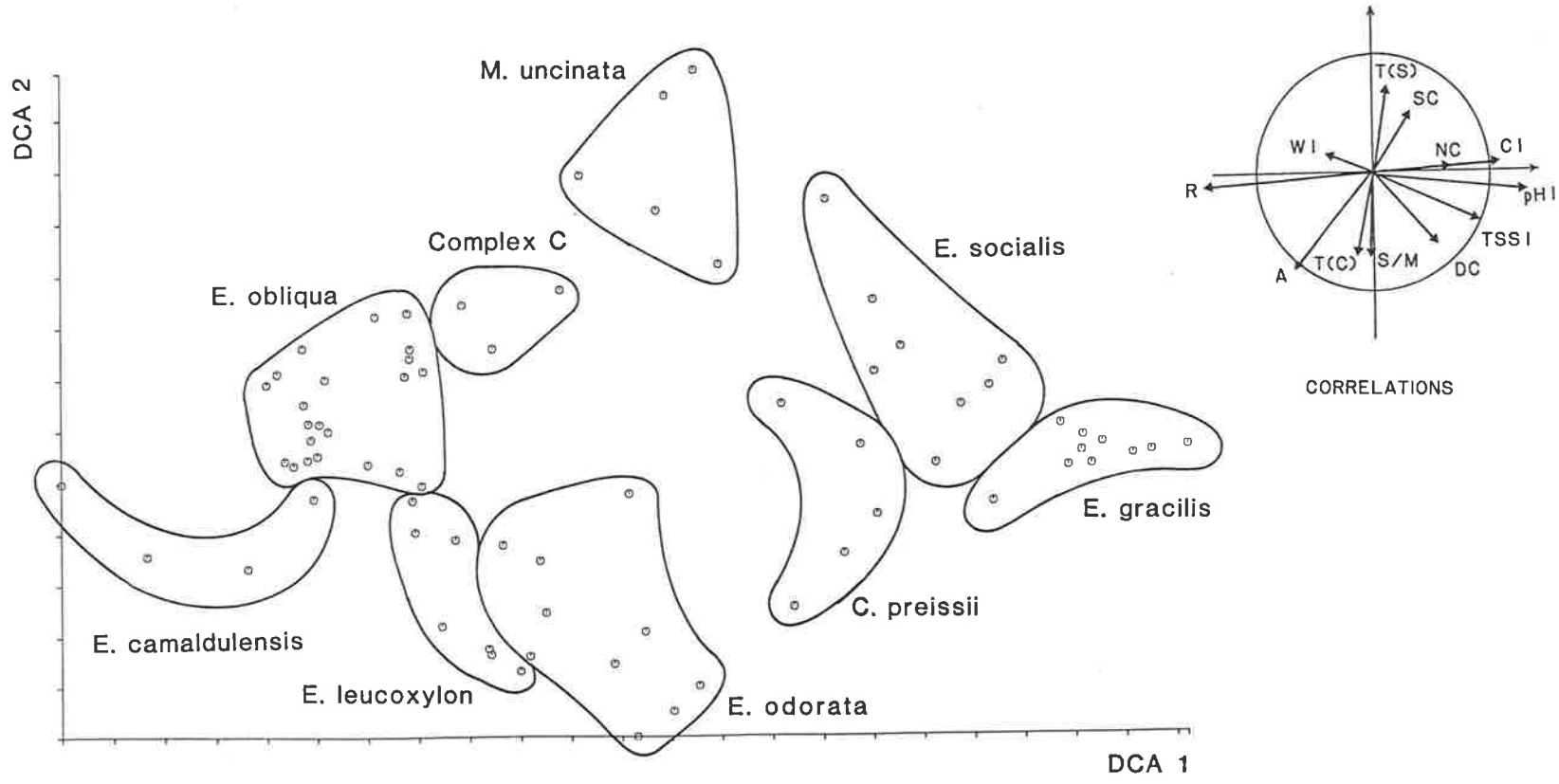
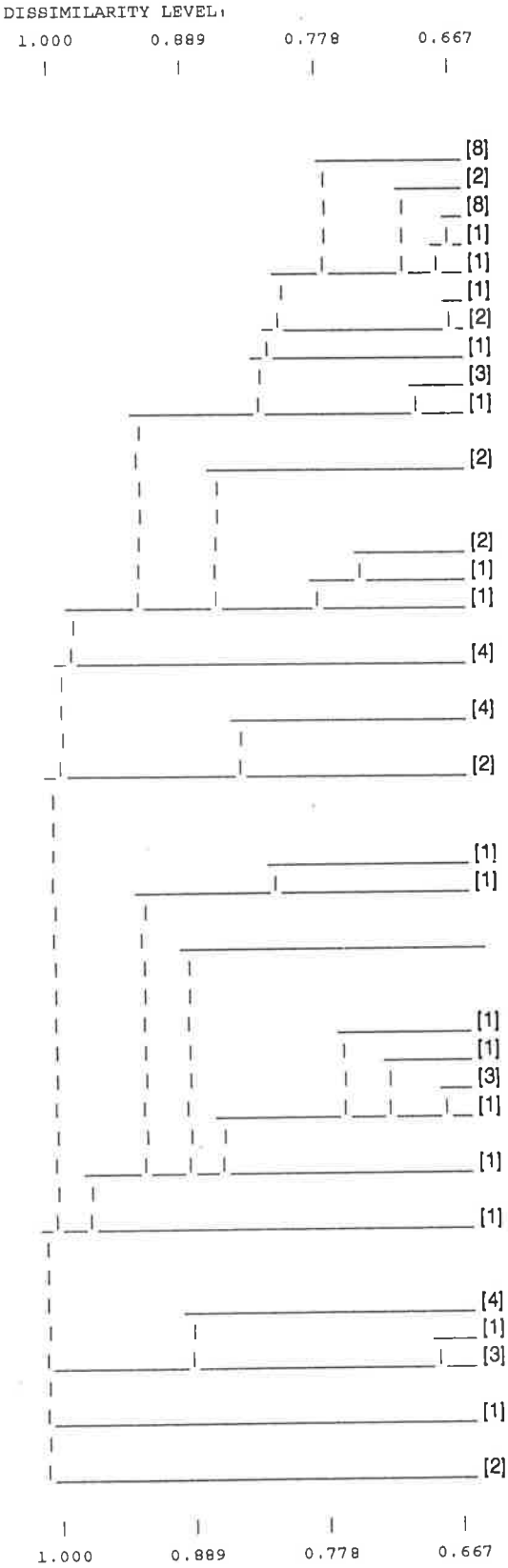


Figure 5.11. Dendrogram of the Northern Mt Lofty Ranges regional classification.



1. EUCALYPTUS SOCIALIS - E. GRACILIS - E. OLEOSA COMPLEX

1.1 E. oleosa - E. gracilis - Rhagodia parabolica

1.2 E. socialis - Heterodendrum oleifolium - Myoporum platycarpum

1.3 E. socialis - E. gracilis - Sclerolaena diacantha

1.4 E. socialis - Olearia muelleri - Rhagodia parabolica

1.5 E. socialis - Triodia irritans

1.6 E. gracilis - Melaleuca puaperiflora

1.7 E. gracilis - E. brachycalyx - S. diacantha

1.8 E. socialis - E. gracilis - Dodonaea baueri

1.9 E. oleosa - E. gracilis - Atriplex vesicaria

1.10 Atriplex vesicaria - Disphyma crassifolium

2. MAIREANA PYRAMIDATA COMPLEX

3. CASUARINA CRISTATA- MAIREANA SEDIFOLIA COMPLEX

3.1 C. cristata- M. pyramidata - M. sedifolia

3.2 C. cristata

3.3 Acacia papyrocarpa - M. sedifolia

4. EUCALYPTUS POROSA COMPLEX

5. EUCALYPTUS ODORATA COMPLEX

6. CALLITRIS COLUMELLARIS COMPLEX

7. EUCALYPTUS MACRORHYNCHA COMPLEX

7.1 E. socialis - Gahnia lanigera - Orpytandra amara

7.2 E. macrorhyncha

8. EUCALYPTUS LEUCOXYLON COMPLEX

9. EUCALYPTUS CLADOCALYX COMPLEX

9.1 Allocasuarina verticillata - E. porosa

9.2 E. gracilis - E. porosa - Cassinia laevis

9.3 E. cladocalyx

9.4 Cassinia laevis - Triodia irritans - Lasiopetalum behrii

10. XANTHORRHOEA QUADRANGULATA COMPLEX

11. CASSIA ARTEMISIOIDES COMPLEX

12. HALOSARCIA HALOCNEMOIDES COMPLEX

12.1 Halosarcia halcnemoides

12.2 Atriplex paludosa - Frankenia pauciflora

12.3 Sclerostegia arbuscula

13. AVICENNIA MARINA COMPLEX

14. EUCALYPTUS CAMALDULENSIS COMPLEX

Figure 5.12. Ordination of the reduced Northern Mt Lofty Ranges data set (mangrove, samphire and EUCALYPTUS CAMALDULENSIS complexes removed).

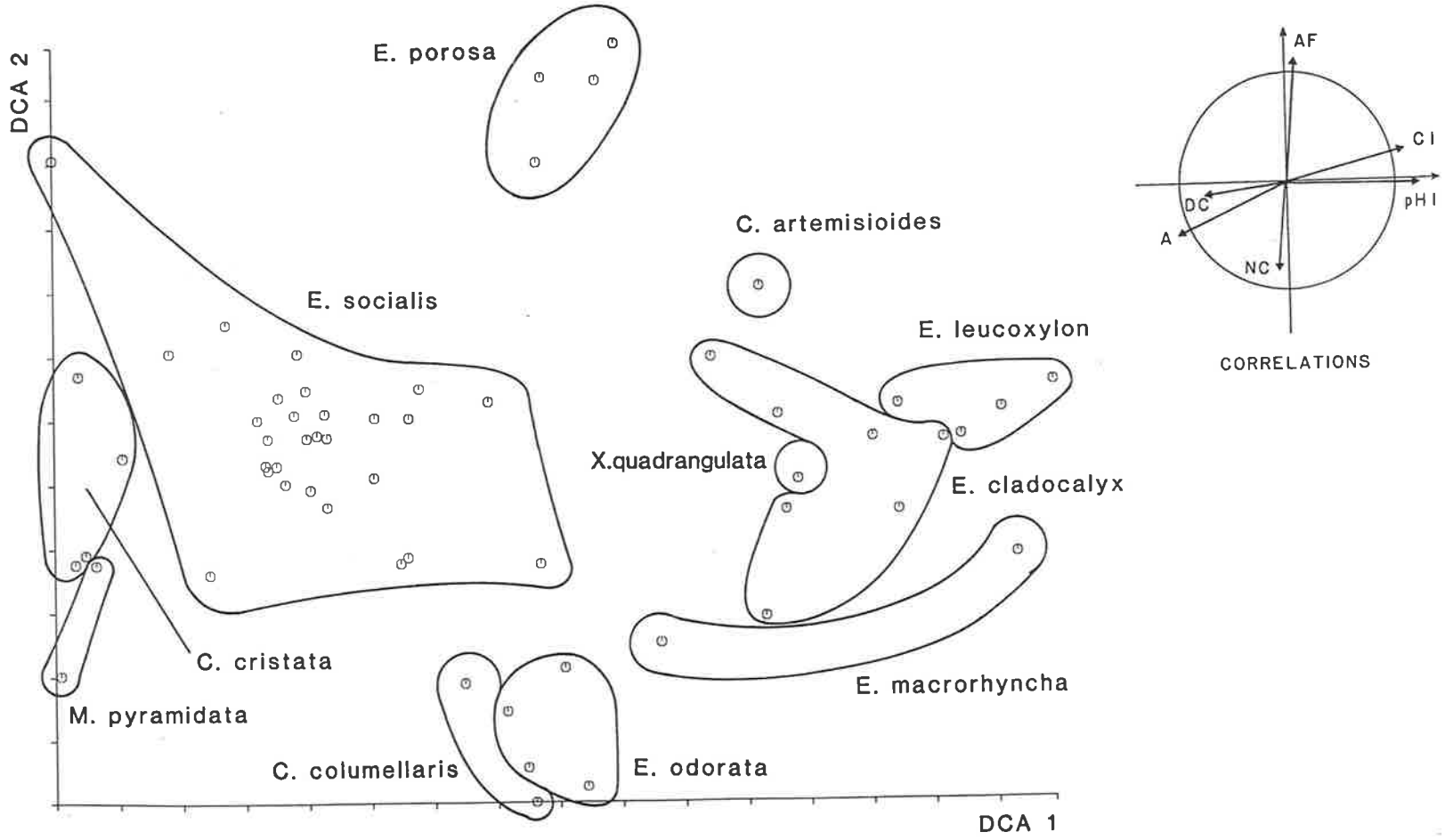
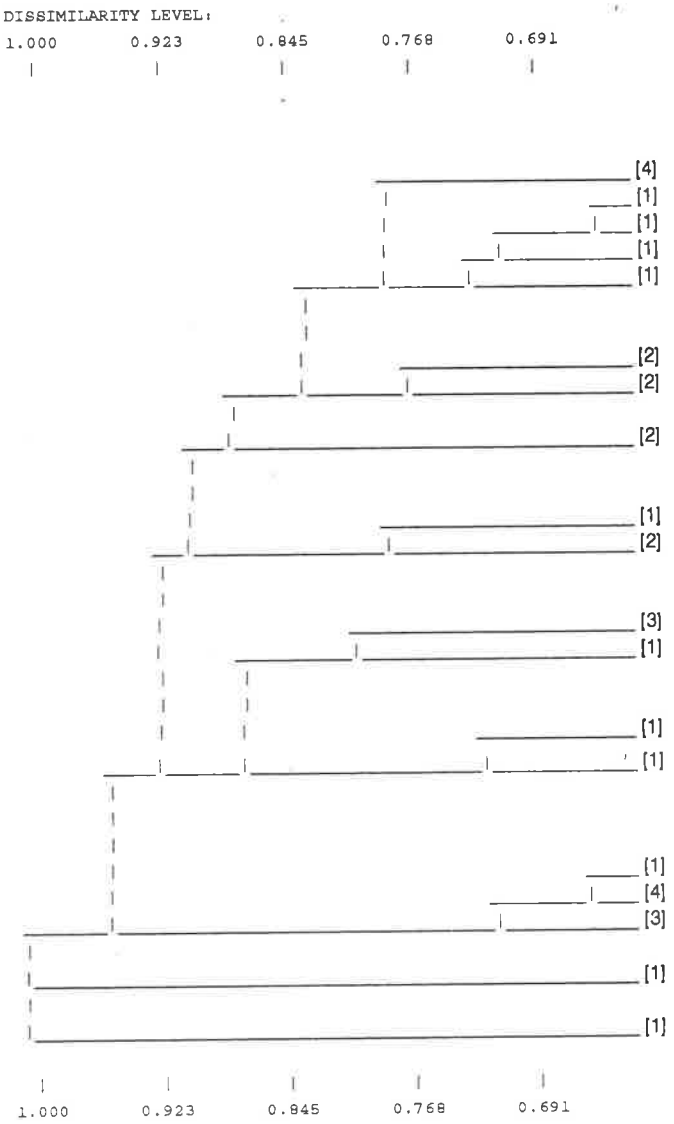


Figure 5.13. Dendrogram of the Yorke Peninsula regional classification.



1. MELALEUCA LANCEOLATA - EUCALYPTUS DIVERSIFOLIA COMPLEX

1.1 E. diversifolia - M. lanceolata - Beyera lechenaultii

1.2 E. brachycalyx - M. lanceolata

1.3 M. lanceolata - Acacia calamifolia

1.4 M. lanceolata - E. porosa

1.5 M. lanceolata

2. EUCALYPTUS GRACILIS - E. DUMOSA COMPLEX

2.1 E. gracilis - E. dumosa - Gahnia lanigera

2.2 E. gracilis - E. socialis - Alyxia buxifolia

3. EUCALYPTUS POROSA COMPLEX

4. GAHNIA TRIFIDA/FILUM COMPLEX

4.1 Melaleuca halmaturorum - G. trifida/filum

4.2 G. trifida/filum

5. OLEARIA AXILLARIS COMPLEX

5.1 Olearia axillaris - Myoporum insulare

5.2 Callitris preissii

6. NITRARIA BILLARDIERI COMPLEX

6.1 N. billardieri - Atriplex cinerea

6.2 E. gracilis - Threlkeldia diffusa - N. billardieri

7. EUCALYPTUS INCRASSATA - MELALEUCA UNCINATA COMPLEX

7.1 E. incrassata - Leptospermum coriaceum

7.2 E. foecunda - E. socialis - Gahnia lanigera

7.3 E. incrassata - E. socialis - M. uncinata

8. HALOSARCIA HALOCNEMOIDES COMPLEX

9. AVICENNIA MARINA COMPLEX

Figure 5.14. Ordination of the reduced Yorke Peninsula data set (mangrove and samphire complexes removed). The position of the single site of *Melaleuca lanceolata* savannah woodland type is indicated by its code number from the classification (1.5).

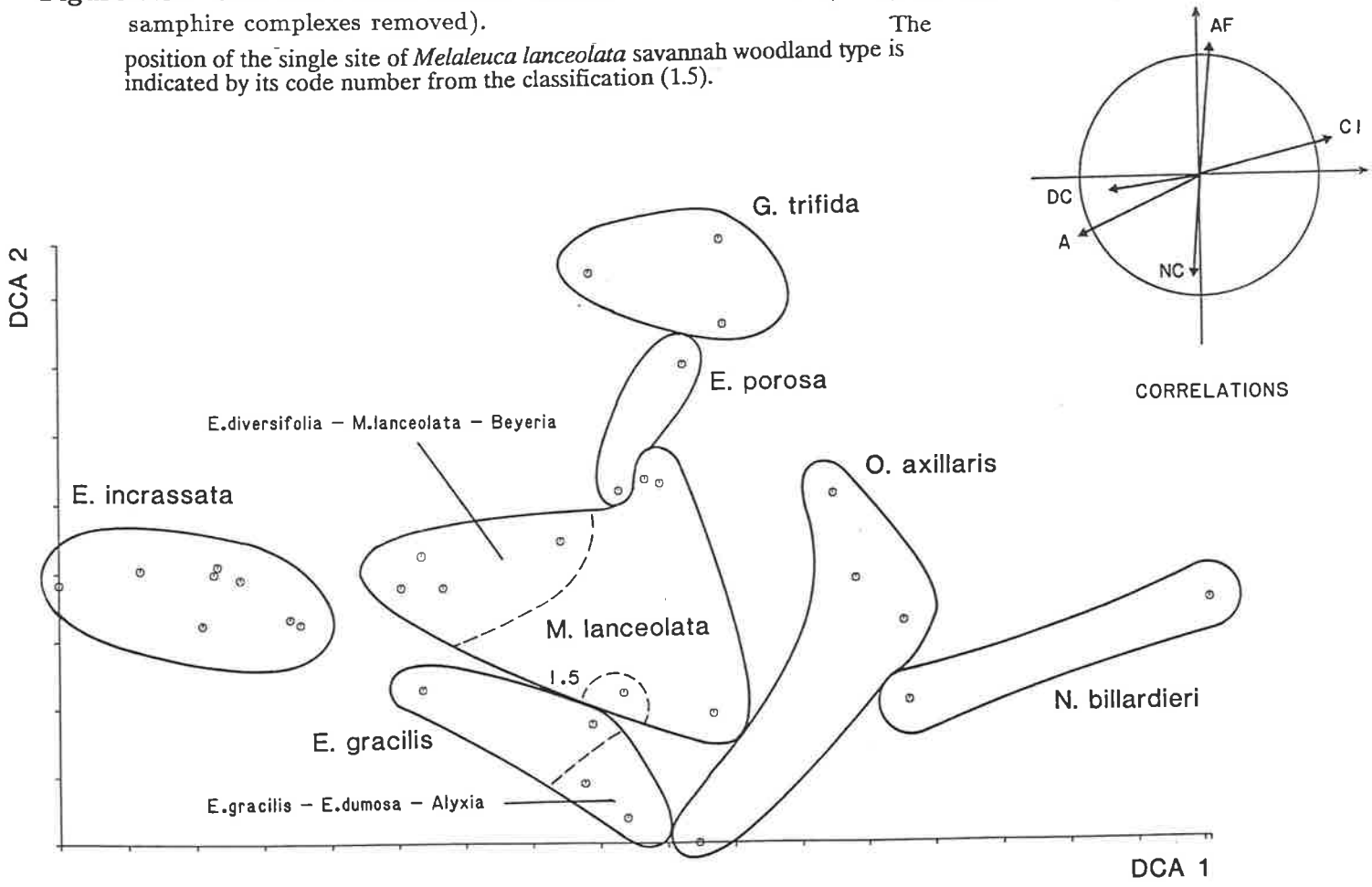
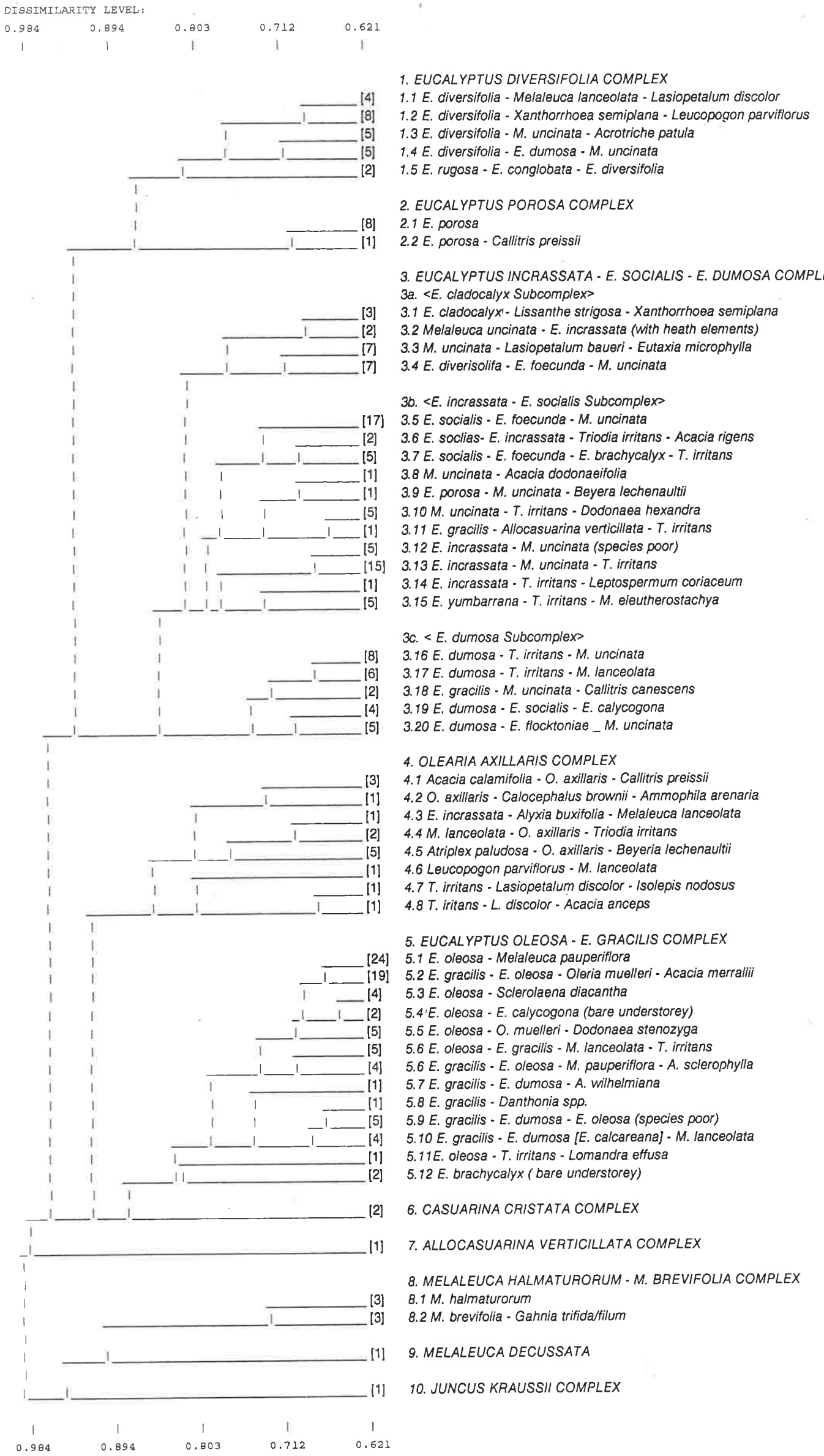


Figure 5.15. Dendrogram of the Eyre Peninsula regional classification. Note the definition of three subcomplexes in the EUCALYPTUS INCRASSATA – E. SOCIALIS – E. DUMOSA COMPLEX).



1. EUCALYPTUS DIVERSIFOLIA COMPLEX

1.1 E. diversifolia - Melaleuca lanceolata - Lasiopetalum discolor

1.2 E. diversifolia - Xanthorrhoea semiplana - Leucopogon parviflorus

1.3 E. diversifolia - M. uncinata - Acrotriche patula

1.4 E. diversifolia - E. dumosa - M. uncinata

1.5 E. rugosa - E. conglobata - E. diversifolia

2. EUCALYPTUS POROSA COMPLEX

2.1 E. porosa

2.2 E. porosa - Callitris preissii

3. EUCALYPTUS INCRASSATA - E. SOCIALIS - E. DUMOSA COMPLEX

3a. <E. cladocalyx Subcomplex>

3.1 E. cladocalyx - Lissanthe strigosa - Xanthorrhoea semiplana

3.2 Melaleuca uncinata - E. incrassata (with heath elements)

3.3 M. uncinata - Lasiopetalum baueri - Eutaxia microphylla

3.4 E. diverisolifa - E. foecunda - M. uncinata

3b. <E. incrassata - E. socialis Subcomplex>

3.5 E. socialis - E. foecunda - M. uncinata

3.6 E. soclias- E. incrassata - Triodia irritans - Acacia rigens

3.7 E. socialis - E. foecunda - E. brachycalyx - T. irritans

3.8 M. uncinata - Acacia dodonaeifolia

3.9 E. porosa - M. uncinata - Beyera lechenaultii

3.10 M. uncinata - T. irritans - Dodonaea hexandra

3.11 E. gracilis - Allocasuarina verticillata - T. irritans

3.12 E. incrassata - M. uncinata (species poor)

3.13 E. incrassata - M. uncinata - T. irritans

3.14 E. incrassata - T. irritans - Leptospermum coriaceum

3.15 E. yumbarrana - T. irritans - M. eleutherostachya

3c. < E. dumosa Subcomplex>

3.16 E. dumosa - T. irritans - M. uncinata

3.17 E. dumosa - T. irritans - M. lanceolata

3.18 E. gracilis - M. uncinata - Callitris canescens

3.19 E. dumosa - E. socialis - E. calycogona

3.20 E. dumosa - E. flocktoniae _ M. uncinata

4. OLEARIA AXILLARIS COMPLEX

4.1 Acacia calamifolia - O. axillaris - Callitris preissii

4.2 O. axillaris - Calocephalus brownii - Ammophila arenaria

4.3 E. incrassata - Alyxia buxifolia - Melaleuca lanceolata

4.4 M. lanceolata - O. axillaris - Triodia irritans

4.5 Atriplex paludosa - O. axillaris - Beyeria lechenaultii

4.6 Leucopogon parviflorus - M. lanceolata

4.7 T. irritans - Lasiopetalum discolor - Isolepis nodosus

4.8 T. iritans - L. discolor - Acacia anceps

5. EUCALYPTUS OLEOSA - E. GRACILIS COMPLEX

5.1 E. oleosa - Melaleuca pauperiflora

5.2 E. gracilis - E. oleosa - Oleria muelleri - Acacia merrallii

5.3 E. oleosa - Sclerolaena diacantha

5.4 E. oleosa - E. calycogona (bare understorey)

5.5 E. oleosa - O. muelleri - Dodonaea stenozyga

5.6 E. oleosa - E. gracilis - M. lanceolata - T. irritans

5.6 E. gracilis - E. oleosa - M. pauperiflora - A. sclerophylla

5.7 E. gracilis - E. dumosa - A. wilhelmiana

5.8 E. gracilis - Danthonia spp.

5.9 E. gracilis - E. dumosa - E. oleosa (species poor)

5.10 E. gracilis - E. dumosa [E. calcareana] - M. lanceolata

5.11E. oleosa - T. irritans - Lomandra effusa

5.12 E. brachycalyx (bare understorey)

6. CASUARINA CRISTATA COMPLEX

7. ALLOCASUARINA VERTICILLATA COMPLEX

8. MELALEUCA HALMATURORUM - M. BREVIFOLIA COMPLEX

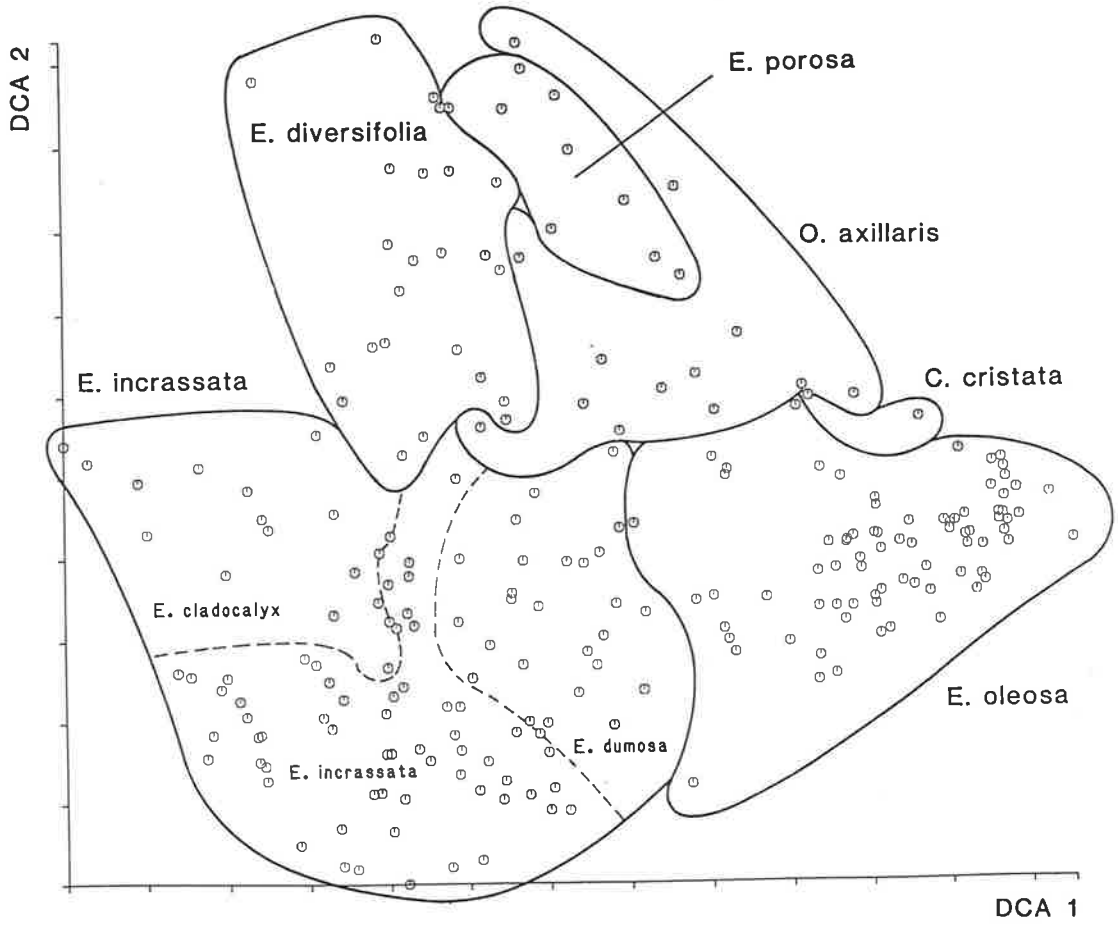
8.1 M. halmaturorum

8.2 M. brevifolia - Gahnia trifida/filum

9. MELALEUCA DECUSSATA

10. JUNCUS KRAUSSII COMPLEX

Figure 5.16. Ordination of the reduced Eyre Peninsula data set (wetland and ALLOCASUARINA VERTICILLATA complexes removed).



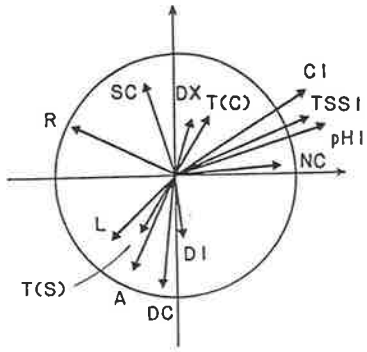


Table 5.1. Characterisation of complexes from the analysis of the Southeast data set. Characteristic species were identified using phytosociological data table rearrangement in the manner of the Zurich – Montpellier school (NTP option TWAY: Belbin *et al.* 1984). Structural formation is after the *schema* of Specht 1972). Habitat description (geology, soil and climate) is based on non-statistical examination of the environmental data, and on general field notes and observations. Literature equivalents are identified as nearly as the descriptions and species lists in previously published regional studies permit.

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1. EUCALYPTUS BAXTERI – PTERIDIUM ESCULENTUM COMPLEX (42 sites)

Structural Formation: Woodland or open forest

Characteristic Species: *P. esculentum* and/or *Leptospermum* sp. nov. aff. *juniperinum*

Other Common Species: *E. baxteri, E. camaldulensis, E. fasciculosa, E. obliqua, E. ovata* and/or *E. viminalis* ssp. *cygnetensis* (overstorey, variable from type to type); *Acacia melanoxylon, Astroloma conostephioides, Banksia ornata, Xanthorrhoea australis, X. quadrangulata* (understorey).

Distribution: Southern third of Southeast region.

Habitat: Well-drained, acidic, siliceous sands; or, less often, sand over clay around swamps which are waterlogged for a few weeks per year; rainfall > 600 mm p.a.

Existing Literature Equivalents: *E. baxteri* and *E. ovata – X. australis* edaphic complexes of Crocker (1944); numerous sclerophyllous woodland and forest alliances as defined for the region by Specht (1972).

Notes: Unified by the dominance of *P. esculentum* in the understorey; overstorey variable in floristic composition, but structurally uniform.

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2. JUNCUS PALLIDUS COMPLEX (2 sites)

Structural Formation: Wet heathland.

Characteristic Species: *J. pallidus*

Other Common Species: *Allocasuarina muelleriana, Banksia marginata, Gahnia trifida/filum, Xanthorrhoea australis*; scattered trees of *Eucalyptus ovata* or *E. viminalis* ssp. *cygnetensis.*

Distribution: Mt Burr and Callendale districts only.

Habitat: Low-lying, seasonally water-logged areas of siliceous sand over podsolic clays; rainfall 700 mm p.a.

Existing Literature Equivalents: None, but most similar to *E. ovata – X. australis* edpahic complex of Crocker (1944).

Notes: Best interpreted as an extreme form of the E. BAXTERI – P. ESCULENTUM COMPLEX; presence of *G. trifida/filum* suggests that it is intermediate to the G. TRIFIDA/FILUM COMPLEX (see below).

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3. BANKSIA ORNATA – ALLOCASUARINA PUSILLA COMPLEX (52 sites)

Structural Formation: Heathland.

Characteristic Species: *A. pusilla, B. ornata, Leptospermum myrsinoides,*

Phyllota pleurandroides.

Other Common Species: *A. muelleriana, Astroloma conostephioides, Correa reflexa, Eucalyptus baxteri, Hypolaena fastigiata, Lepidobolus drapetocoleus, Xanthorrhoea caespitosa.*

Distribution: Northern two-thirds of Southeast region.

Habitat: Siliceous sands, or sands over alkaline sandy clays; rainfall 400–600 mm p.a.

Existing Literature Equivalents: All heathland associations described for the Upper Southeast by Coaldrake (1951) and Rayson (1957); *A. pusilla – B. ornata – L. myrsinoides* floristic nodum of Noy-Meir (1971).

Notes: Distribution of the five types is correlated with rainfall and depth of sands over clay: *E. fasciculosa – A. pusilla* on deep sands, rainfall 600 mm; *B. ornata – L. myrsinoides* on deep sands, rainfall 450–600 mm; *A. pusilla – P. pleurandroides* on deep sands, rainfall 400-450 mm; *E. foecunda – Callitris verrucosa* on sand over clay, rainfall 400–450 mm; *E. foecunda – Melaleuca brevifolia* on sand over clay, rainfall 500 mm (an intermediate with the M. BREVIFOLIA Complex).

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4. EUCALYPTUS INCRASSATA - MELALEUCA UNCINATA COMPLEX (9 sites)

Structural Formation: Mallee scrub (to 6 m).

Characteristic Species: *E. incrassata* and/or *E. foecunda* (overstorey); *M. uncinata* (understorey).

Other Common Species: *E. dumosa, E. rugosa* (overstorey); *Lepidosperma laterale, M. acuminata* (understorey).

Distribution: Northern third of Southeast region.

Habitat: Calcareous loams and clay loams; rainfall < 500 mm p.a.

Existing Literature Equivalents: "Mallee broombush" (Wood 1937; Coaldrake 1951; Specht 1972); *E. incrassata – Callitris verrucosa – Aotus villosus* floristic nodum of Noy-Meir (1971).

Notes: Types represent gradation along environmental gradients to other complexes: e.g. *E. incrassata – Gahnia lanigera* Type along gradient of increasing carbonates (consolidated) toward E. DIVERSIFOLIA COMPLEX; *E. incrassata – M. uncinata* with heath elements along gradients of increasing sand depth over clay subsoil, toward B. ORNATA – A. PUSILLA COMPLEX as above. Types have not been recognised previously with the mallee broombush group.

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5. EUCALYPTUS DIVERSIFOLIA COMPLEX (22 sites)

Structural Formation: Low mallee scrub (to 4 m).

Characteristic Species: *E. diversifolia* (overstorey).

Other Common Species: *Acrotriche cordata, Gahnia deusta, G. lanigera, Melaleuca lanceolata, Xanthorrhoea caespitosa* (understorey).

Distribution: North-western quadrant of Southeast region.

Habitat: Consolidated limestone of the Bridgewater formation, on dune ranges parallel to coast; rainfall 400–600 mm.

Existing Literature Equivalents: *E. diversifolia* association of Crocker (1944) and Coaldrake (1951); *E. diversifolia – E. angulosa* association of Jessup (1946); *E. diversifolia* open scrub alliance of Specht (1972).

Notes: Types indicate variants of soils and gradation into other complexes; e.g. *E. diversifolia – A. cordata* occurs on terra rossa soils of older, inland

dunes and grades into the E. INCRASSATA – M. UNCINATA COMPLEX as depth of loam over calcrete increases; and *E. diversifolia – Leucopogon parviflorus* occurs on younger dunes near the coast where calcareous sand overlies the calcrete and grades into the L. PARVIFLORUS COMPLEX. Types were not recognised in the *E. diversifolia* alliance of Specht (1972). Three types dominated by *X. caespitosa* are also included in this complex. These heathlands occur in the extreme northwest, in the vicinity of Lake Albert, on outcropping calcrete or sandplains, and form a compositional crossroads between E. DIVERSIFOLIA mallees, B. ORNATA – A. PUSILLA heathlands and savannah woodlands of *E. odorata* and *E. leucoxylon* (see Jessup 1946: "*Casuarina stricta [Allocasuarina verticillata] – X. australis* association).

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6. LEUCOPOGON PARVIFLORUS COMPLEX (11 sites)

Structural Formation: Low scrub or heathland (to 3 m).

Characteristic Species: *Acacia longifolia, Clematis microphylla, Isolepis nodosus, L. parviflorus, Olearia axillaris.*

Other Common Species: *Carpobrotus rossii, Lepidospermum gladiatum, Muehlenbeckia adpressa, Pimelea flava.*

Distribution: Coastal strip of entire region.

Habitat: Calcareous sands of the Semaphore Formation.

Existing Literature Equivalents: Coastal complex of Crocker (1944); "coastal dune vegetation" of Specht (1972).

Notes: Also included in this complex are types dominated by *Acacia pycnantha*, which forms a low savannah-like woodland on sheet calcrete immediately inland of the Semaphore Formation. *L parviflorus* and *O. axillaris* occur in the understorey. It is likely that these types are a disturbance disclimax caused by clearing and stock grazing.

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7. GAHNIA TRIFIDA/FILUM COMPLEX (5 sites)

Structural Formation: Tussock grassland (to 1.5 m).

Characteristic Species: *G. trifida* and/or *G. filum.*

Other Common Species: None.

Distribution: South-western quadrant of the Southeast.

Habitat: Seasonally-inundated interdune corridors on chernozem soils; rainfall 550–700 mm p.a.

Existing Literature Equivalents: *Gahnia trifida – Cladium filum [G. filum]* edaphic complex (Crocker 1944); Gahnia trifida – G. filum tussock grassland (Specht 1972).

Notes: Includes a single site dominated by *Leptospermum pubescens* i.e. *L. pubescens – Baumea juncea* alliance in Specht (1972).

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8. MELALEUCA BREVIFOLIA COMPLEX (9 sites)

Structural Formation: Heathland (to 1.5 m).

Characteristic Species: *M. brevifolia.*

Other Common Species: *Baumea juncea, Darwinia micropetala, Gahnia trifida/filum, Leptocarpos brownii.*

Distribution: Central western areas of the Southeast.

Habitat: Grey, saline, heavy clays in seasonally-inundated interdune corridors;

rainfall 500–600 mm p.a.

Existing Literature Equivalents: Possibly the *M. gibbosa [M. brevifolia ?]* – *Hakea rugosa [H. nodosa ?]* association of Crocker (1944).

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9. EUCALYPTUS DUMOSA COMPLEX (1 site)

Structural Formation: Low mallee scrub (to 3 m).

Characteristic Species: *E. dumosa* (overstorey).

Other Common Species: *Acacia microcarpa, Dodonaea bursariifolia, Melaleuca uncinata.*

Distribution: Single site in the far northeast of the region.

Habitat: Red-brown, calcareous hard-setting clay-loam; rainfall, 450 mm p.a.

Existing Literature Equivalents: *E. anceps [E. dumosa]* whipstick mallee (Coaldrake 1951).

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10. MELALEUCA HALMATURORUM COMPLEX (1 sites)

Structural Formation: Tall scrub (to 5 m).

Characteristic Species: *M. halmaturorum* (overstorey).

Other Common Species: *Sarcocornia* spp., *Tetraria capillaris, Wilsonia backhousei* (understorey).

Distribution: Central west of region.

Habitat: Very saline, grey, heavy clays in seasonally-inundated interdune corridors; rainfall 550 mm p.a.

Existing Literature Equivalents: None.

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11. EUCALYPTUS CAMALDULENSIS COMPLEX (7 sites)

Structural Formation: Open savannah woodland

Characteristic Species: *E. camaldulensis* (overstorey).

Other Common Species: Understorey of exotic pasture grasses, clovers and weeds due to almost complete disturbance.

Distribution: Central eastern portion of Southeast.

Habitat: Chernozems with rainfall 650–700 mm p.a.; red-brown to yellow (heavy) clays with rainfall 575–650 mm p.a. around waterholes on heavy, mottled grey clays at 500–575 mm p.a.

Existing Literature Equivalents: *E. rostrata [E. camaldulensis]* edaphic complex of Crocker (1944); *E. camaldulensis* open forests of Specht (1972).

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12. EUCALYPTUS LEUCOXYLON COMPLEX (7 sites)

Structural Formation: Open savannah woodland.

Characteristic Species: *E. leucoxylon* (overstorey).

Other Common Species: Understorey of exotic pasture grasses, clovers and weeds, due to disturbance.

Distribution: North-eastern quadrant of region (Kybybolite – Bordertown); also near Kingston in the southwest.

Habitat: Grey or red-brown mottled clays and clay-loams at 500–575 mm p.a. near Bordertown; chernozems at 650 mm p.a. rainfall near Kingston.

Existing Literature Equivalents: *E. leucoxylon* open forest/woodland (Specht

1951, 1972).

Notes: The *E. leucoxylon* – *Callistemon rugulosus* Type is the nearest to an example of pristine vegetation in this complex; its understorey includes *Acacia farinosa, A. paradoxa, C. rugulosus, Chorizandra enodis, Eutaxia microphylla* and *Hibbertia sericea.* It occurs in low-lying depressions near Western Flat, south of Bordertown.

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13. EUCALYPTUS MICROCARPA COMPLEX (1 site)

Structural Formation: Open savannah woodland.

Characteristic Species: *E. microcarpa* (overstorey).

Other Common Species: Understorey of exotic pasture grasses, clovers and weeds, due to disturbance.

Distribution: Single site at Custon near Bordertown.

Habitat: Grey clay-loam at 500 mm p.a. rainfall.

Existing Literature Equivalents: *E. woolsiana* ssp. *microcarpa* woodland (Specht 1951, 1972).

Table 5.2. Characterisation of complexes from the analysis of the Murray Mallee data set. The format is the same as that of Table 5.1.

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1. EUCALYPTUS OLEOSA – E. GRACILIS COMPLEX (70 sites)

Structural Formation: Mallee scrub or low woodland (to 8 m).

Characteristic Species: *E. oleosa* and/or *E. gracilis* (overstorey).

Other Common Species: *Enchylaena tomentosa, Maireana erioclada, Sclerolaena diacantha, Zygophyllum apiculatum* (understorey).

Distribution: Throughout the region.

Habitat: Woorinen Formation, on clay-loams or sandy loams with calcrete nodules within 50 cm of surface; Bakara calcrete, on terra rossa soils or similar, but rainfall < 350 mm p.a.; Loxton sands, on low dunes of slightly alkaline, siliceous sand in the northwest quadrant of the region, where rainfall < 350 mm p.a.

Existing Literature Equivalents: Most, but not all, of the *E. socialis – E. gracilis* mallee scrub of Specht (1972) — note that *E. oleosa* is consistently misidentified as *E. socialis* in this treatment; the *E. oleosa – E. gracilis – S diacantha* floristic nodum of Noy-Meir (1971, 1974a); the complex also incorporates the *E. oleosa – E. dumosa* edaphic complex of Jessup (1946) and all mallee associations described by Jessup (1948).

Notes: The *E. oleosa – E. gracilis – S. diacantha* Type (as in Noy-Meir 1971, 1974a) best typifies the complex, as it is the most commonly encountered form (34 of 70 sites). The other eleven types can be regarded as variants of this type, differing in composition of overstorey and/or understorey in response to environmental or biogeographic gradients (see Figure 4.7). Thus at higher rainfall, *E. calycogona* characterises a type, and at very low rainfall, *Heterodendrum oleifolium* and *Maireana pyramidata* in the understorey each characterise a type. On heavier soils, *Casuarina cristata* becomes prominent, and do *E. cyanophylla* and *E. socialis* on sandier soils (the Loxton sands). Types dominated by *E. brachycalyx* are restricted to the flanks of the Mt Lofty Ranges in the far west of the region, possibly due to a biogeographic cause.

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2. EUCALYPTUS SOCIALIS – E. DUMOSA COMPLEX (12 sites)

Structural Formation: Mallee scrub (to 5 m).

Characteristic Species: *E. dumosa, E. rugosa, E. socialis* (overstorey); *Melaleuca acuminata, M. lanceolata* (understorey, which is sparse and characterised by a thick layer of leaf litter and moss).

Other Common Species: *E. brachycalyx, E. gracilis* (overstorey); *M. uncinata, Westringia rigida* (understorey).

Distribution: South-western parts of the region.

Habitat: Bakara calcrete, especially the Marmon-Jabuk Range; soils terra rossa; rainfall 350–400 mm p.a.

Existing Literature Equivalents: No close analogues; closest to the *E. conglobata – E. dumosa* alliance of Specht (1972) which he maps as part of the generic group of *E. socialis - E. gracilis* mallee scrubs.

Notes: The five types represent various stages of gradation into the E. OLEOSA – E. GRACILIS COMPLEX (increasing aridity), the E. DIVERSIFOLIA COMPLEX of the Southeast region (increasing rainfall), and the E. INCRASSATA – M UNCINATA COMPLEX (increasing depth of sand over calcrete).

3. EUCALYPTUS INCRASSATA – MELALEUCA UNCINATA COMPLEX (39 sites)

Structural Formation: Mallee scrub (to 5 m); known as "mallee broombush" (Wood 1937).

Characteristic Species: *E. incrassata* and/or *E. foecunda* (overstorey); *Callitris preissii* and/or *M. uncinata* and/or *Triodia irritans* (understorey).

Other Common Species: *E. socialis* (overstorey); *Brachyloma ericoides, Hibbertia riparia, M. acuminata, M. lanceolata, Phyllota remota* (understorey).

Distribution: Throughout the region.

Habitat: Deep sandy soils of the Molineaux and Loxton Formations and, in the southern half of the region (rainfall > 350 mm p.a.) on areas of up to 1 m of such sands over orange-yellow clay of the Parilla Formation.

Existing Literature Equivalents: Mallee broombush (Wood 1937); *E. angulosa [E. incrassata] – M. uncinata* association of Jessup (1946); *E. incrassata – E. foecunda* alliance with broombush understorey and *E. socialis* alliance with hummock grass understorey of Specht (1972); a combination of the *E. incrassata – C. verrucosa – Aotus villosus* and *E. socialis – T. scariosa [T. irritans] – Bassia [Sclerolaena] parviflora* floristic noda of Noy-Meir (1971, 1974a).

Notes: The complex is unified by the mallee *E. incrassata*. The types are characterised by the understorey dominants. *C. verrucosa* dominates on "duplex soils", *M. uncinata* on deep sands where rainfall is > 350 mm p.a., and *T. irritans* on sands where rainfall is < 350 mm p.a. Only two forms of this group have been recognised previously viz. Specht (1972) and Noy-Meir (1971).

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4. MAIREANA SEDIFOLIA – CASSIA NEMOPHILA COMPLEX (3 sites)

Structural Formation: Shrubland (to 3 m).

Characteristic Species: *Atriplex stipitata* and/or *M. sedifolia* and/or *Cassia nemophila*; *Eucalyptus* spp. are absent or very sparse.

Other Common Species: *Acacia nyssophila, Dodonaea viscosa, Pittosporum phylliraeoides, Sclerolaena obliquicuspis.*

Distribution: West of the region, especially in the vicinity of Blanchetown and Swan Reach.

Habitat: Woorinen Formation soils with calcrete nodules and Bakara calcrete; rainfall 250–300 mm p.a.

Existing Literature Equivalents: *Myoporum platycarpum – Kochia [Maireana] sedifolia* association of Jessup (1948).

Notes: This is a collection of three single-site, arid shrubland types whose affinity seems entirely due to the lack of mallee overstorey. It is of dubious status.

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5. CALLITRIS PREISSII COMPLEX (1 site)

Structural Formation: Open savannah woodland (to 10 m).

Characteristic Species: *C. preissii*

Other Common Species: *Acacia brachybotrya, Eucalyptus odorata, Gahnia lanigera, Pimelea curviflora.*

Distribution: Southwest of the region, just northeast of Murray Bridge.

Habitat: Bakara calcrete with friable brown loamy soil; rainfall 350 mm p.a.
Existing Literature Equivalents: None.
Notes: A gradational form between the *C. preissii* and *E. odorata* woodland associations /alliances of Specht (1972), but the former is not mapped to occur in this region; Moore (1985) lists a *C. preissii* association for the region, but does not provide a description nor distribution.

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6. HALOSARCIA HALOCNEMOIDES COMPLEX (3 sites)

Structural Formation: Low succulent Shrubs (to 50 cm).
Characteristic Species: *H. halocnemoides*
Other Common Species: *Maireana oppositifolia, Nitraria billardieri.*
Distribution: Within the gorge of the River Murray and in nearby saltpans.
Habitat: Highly saline, heavy grey clays in seasonally-inundated depressions; rainfall inconsequential.
Existing Literature Equivalents: *"Arthrocnemum [Halosarcia] halocnemoides* associes" of Specht (1972), although this is only described as part of the "coastal succession"; similar to the *H. pergranulata – H. indica* shrubland of Margules and Partners *et al.* (1990).

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7. EUCALYPTUS LARGIFLORENS COMPLEX (1 sites)

Structural Formation: Open woodland (to 15 m).
Characteristic Species: *E. largiflorens*
Other Common Species: *Atriplex rhagodioides, Eremophila divaricata,, Muehlenbeckia cunninghamii, Pachycornia triandra, Sclerolaena tricuspis.*
Distribution: In the River Murray gorge near Loxton and Renmark.
Habitat: Mottled grey, heavy clays, high above mean river level and distant from the banks; rainfall 250 mm p.a.
Existing Literature Equivalents: *E. largiflorens – A. rhagodioides* woodland of Margules and Partners *et al.* (1990).

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8. EUCALYPTUS CAMALDULENSIS COMPLEX (3 sites)

Structural Formation: Open woodland (to 20 m).
Characteristic Species: *E. camaldulensis* (overstorey); *Cyperus gymnocaulis, Muehlenbeckia cunninghamii* (understorey).
Other Common Species: *Phragmites australis, Schoenoplectus litoralis, Typha domingensis* (understorey).
Distribution: Within the gorge of the River Murray.
Habitat: Mottled grey heavy clays, close to mean river level or permanently inundated; rainfall inconsequential.
Existing Literature Equivalents: A combination of the relatively undisturbed associations dominated by *E. camaldulensis* as defined by Margules and Partners *et al.* (1990); Specht (1972) includes a photograph of this complex under the heading "savannah land systems" (p.130) but does not define the association.
Notes: Types are distinguished by floristic composition of understorey and flooding frequency. *M. cunninghamii – E. camaldulensis* Type is flooded for only a few weeks in most years, while the *T. domingensis – S. litoralis* Types is almost permanently inundated.

Table 5.3. Characterisation of complexes from the analysis of the Kangaroo Island data set. The format is the same as that of Table 5.1. Regionally – endemic species are marked with asterisks.

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1. EUCALYPTUS BAXTERI – E. REMOTA COMPLEX (12 sites)

Structural Formation: Low open woodland or open scrub (heathland).

Characteristic Species: *E. baxteri* and/or *E. remota** (overstorey); *Allocasuarina striata, Banksia marginata, B. ornata, Petrophile multisecta**, *Tetratheca halmaturina* (understorey).

Other Common Species: *Adenanthos macropodiana**, *Allocasuarina pusilla, Boronia edwardsii**, *Daviesia brevifolia, Leptospermum myrsinoides, Micrantheum demissum**, *Phyllota pleurandroides, Xanthorrhoea semiplana.*

Distribution: Western half of Kangaroo Island.

Habitat: Siliceous sands; lateritic heavy yellow clays; and sands over clays; rainfall 600–800 mm p.a.

Existing Literature Equivalents: Podsolised soils group of associations in Bauer (1959); *E. baxteri – E. cosmophylla* edaphic complex of Baldwin & Crocker (1941); all low open woodlands or open-scrubs with heath understoreys from Specht (1972).

Notes: Types from this analysis and associations in earlier studies do not correspond, due to emphasis on upper storey eucalypts in definition of these associations.

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2. EUCALYPTUS CNEORIFOLIA COMPLEX (8 sites)

Structural Formation: Mallee scrub.

Characteristic Species: *E. cneorifolia* or *E. cosmophylla* (overstorey); *Allocasuarina muelleriana, A. striata* and *Melaleuca uncinata* (understorey).

Other Common Species: *Astroloma conostephioides, Correa reflexa, Hibbertia riparia, Petrophile multisecta**, *Xanthorrhoea semiplana.*

Distribution: Eastern half of Kangaroo Island.

Habitat: Loams and clay loams; sands with gravelly laterite; rainfall < 600 mm p.a.

Existing Literature Equivalents: Solonised soils group of associations in Bauer (1959); *E. cneorifolia – M uncinata* edaphic complex of Baldwin & Crocker (1941), as well as part of their *E. diversifolia – E. cosmophylla* association.

Notes: *E. cosmophylla – A. muelleriana* Type lies floristically (see Figure 4.9), environmentally and geographically between the E. CNEORIFOLIA and E. BAXTERI – E. REMOTA complexes.

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3. EUCALYPTUS DIVERSIFOLIA COMPLEX (4 sites)

Structural Formation: Mallee scrub.

Characteristic Species: *E. diversifolia* and/or *E. rugosa* (overstorey).

Other Common Species: *Acrotriche cordata, Gahnia deusta, Grevillea muricata**, *Hakea vittata, Pomaderris obcordata, Spyridium halmaturinum** (understorey).

Distribution: Southern and western coastal areas of the region.

Habitat: Bridgewater Formation consolidated limestone; rainfall < 700 mm p.a.

Existing Literature Equivalents: Calcareous soils group of associations in Bauer (1959).

Notes: *E. rugosa* Type occurs in areas of poorly or most recently consolidated calcrete.

Table 5.4. Characterisation of complexes from the analysis of the Southern Mt Lofty Ranges data set. The format is the same as that of Table 5.1.

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1. EUCALYPTUS OBLIQUA – XANTHORRHOEA SEMIPLANA COMPLEX (22 sites)

Structural Formation: Sclerophyllous woodland or open forest (to 10 m).

Characteristic Species: *Astroloma conostephioides, Lepidosperma semiteres, Leptospermum myrsinoides, X. semiplana* (understorey).

Other Common Species: *E. baxteri, E. cosmophylla, E. fasciculosa, E. goniocalyx* and/or *E. obliqua* (overstorey); *Hibbertia riparia, Platylobium obtusangulum, Pteridium esculentum, Tetratheca pilosa* (understorey).

Distribution: From Angaston to Cape Jervis on the highest parts of the Mt Lofty Ranges.

Habitat: Strongly podsolised soils: yellow duplex clays and siliceous sands; rainfall 700–1100 mm p.a.

Existing Literature Equivalents: All "stringybark forest" communities of Adamson & Osborn (1924); "Stringybark edaphic complex" of Specht & Perry (1948).

Notes: The stringybark forests in the Mt Lofty Ranges is the most diverse, most studied and best known vegetation group in South Australia (Adamson & Osborn 1924; Wood 1937; Boomsma 1948; Specht & Perry 1948; Martin 1961; Specht *et al.* 1961). Numerous associations have been defined and their distributions analysed in terms of annual rainfall, topography and soil types. By comparison, types defined here are relatively crude divisions of the complex. The four types dominated by *E. fasciculosa* or *E. microcarpa* have lower α diversity in their understoreys than is usual for the complex, and represent a series grading to the savannah woodlands of the E. LEUCOXYLON and E. ODORATA complexes.

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2. MELALEUCA UNCINATA COMPLEX (5 sites)

Structural Formation: Scrub or tall shrubland (to 4 m).

Characteristic Species: *M. uncinata.*

Other Common Species: *Eucalyptus fasciculosa* or *E. incrassata* (overstorey); *Acacia spinescens, Leptospermum coriaceum, M. acuminata* (understorey).

Distribution: South-eastern foothills of the Mt Lofty Ranges.

Habitat: On both Bakara calcrete with terra rossa soils and deep siliceous sands akin to the Molineaux Formation; rainfall 350–500 mm p.a.

Existing Literature Equivalents: *E. angulosa [E. incrassata] – M. uncinata* association, including areas of admixture with *E. fasciculosa* (Jessup 1946); *E. incrassata – M. uncinata* open scrub of Specht (1972).

Notes: The different types of the complex occur on the different substrates, and are distinguished by lime-tolerant vs. lime-intolerant undershrub species. *E. fasciclosa* occurs on calcrete and *E. incrassata* on sand.

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3. "COMPLEX C" COMPLEX (3 sites)

This complex contains two types intermediate between the sclerophyllous woodlands of the EUCALYPTUS OBLIQUA – XANTHORRHOEA SEMIPLANA COMPLEX and the savannah woodlands of the E. LEUCOXYLON and E. ODORATA complexes. They are woodlands of *E. fasciculosa* and/or

Allocasuarina verticillata with a species-poor understorey of *Bursaria spinosa, Lepidosperma laterale, Lomandra dura* and/or *X. quadrangulata.* The three sites are widely separated across the region and each has a distinctive soil profile. Due to the high degree of vegetation clearance around all three sites, it is difficult to assess the floristic affinities of this complex. It is probably a variant of the *E. odorata – E. leucoxylon – E. fasciculosa* association as described by Jessup (1946).

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4. EUCALYPTUS LEUCOXYLON COMPLEX (8 sites)

Structural Formation: Open woodland or forest (to 1.5 m).

Characteristic Species: *E. leucoxylon* (overstorey).

Other Common Species: *E. odorata* (overstorey); *Allocasuarina verticillata, Dianella laevis, Hibbertia exutiaces* (understorey).

Distribution: Over the ranges in the northern two-thirds of the region, but not on the plains to the east or west.

Habitat: On deep red-brown or grey-brown loams (rainfall 400–600 mm); on skeletal soils on outcropping siltstones (rainfall 450–600 mm) or sandstones (rainfall 600–800 mm).

Existing Literature Equivalents: *E. leucoxylon* forests of Adamson & Osborn (1924); part of the *E. odorata – E. leucoxylon – E. fasciculosa* association of Jessup (1946); *E. leucoxylon – E. viminalis* association of Specht & Perry (1948).

Notes: The *E. leucoxylon – E. odorata* Type is largely disturbed by clearing and grazing, and now has an understorey of exotic species. The *E. leucoxylon – A. verticillata* Type is less disturbed and has other species present as listed. Both types grade into the complexes tabled immediately above and below.

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5. EUCALYPTUS ODORATA COMPLEX (12 sites)

Structural Formation: Open woodland (to 8 m).

Characteristic Species: *E. odorata* (overstorey); understorey of pasture grasses and weeds.

Distribution: Northern third of the region.

Habitat: On deep red clay-loams (red-brown earths) and skeletal soils on outcropping sandstone; rainfall 400–550 mm.

Existing Literature Equivalents: *E. odorata* forests of Adamson & Osborn (1924); part of the *E. odorata – E. leucoxylon – E. fasciculosa* association of Jessup (1946); *E. odorata* association of Specht & Perry (1948).

Notes: The single site of the *E. odorata – Allocasuarina vertillata* Type is an intermediate towards "Complex C".

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6. EUCALYPTUS CAMALDULENSIS COMPLEX (4 sites)

Structural Formation: Open woodland or forest (to 15 m).

Characteristic Species: *E. camaldulensis* (overstorey); understorey of pasture grasses and weeds.

Distribution: Central portion of the ranges within the region.

Habitat: On deep, podsolised, heavy clays, or alluvial loams or sands; rainfall 700–900 mm p.a. (heavier textured soils at higher rainfall).

Existing Literature Equivalents: *E. rostrata [E. camaldulensis]* forests of

Adamson & Osborn (1924); *E. camaldulensis* association of Specht & Perry (1948).

Notes: The *E. camaldulensis – Acacia pycnantha – Banksia marginata* Type (from a single site in the Charleston C.P.) may be similar to the complex in its pre-settlement, undisturbed state.

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7. CALLITRIS PREISSII COMPLEX (5 sites)

Structural Formation: Low woodland, scrub or mallee scrub.

Characteristic Species: *C. preissii*

Other Common Species: *Eucalyptus dumosa, E. gracilis* or *E. socialis.*

Distribution: On plains flanking the ranges, in the northwest and southeast parts of the region.

Habitat: In the southeast, on Bakara calcrete with terra rossa soils or shallow grey loam; in the northwest, on weakly alkaline and calcareous red sands or red-brown hard-setting clay-loams; rainfall 300–400 mm p.a.

Existing Literature Equivalents: Clse to the *C. preissii* association of Specht (1972).

Notes: Types indicate variants on different soil types. *E. gracilis – C. preissii* Types occurs on Bakara calcrete near Mannum and Monarto, east of the ranges. *C. preissi* Type occurs on red sands and *E. dumosa – C. preissii – Alyxia buxifolia* Type on hard-setting clay-loams west of the ranges.

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8. EUCALYPTUS SOCIALIS COMPLEX (8 sites)

Structural Formation: Mallee scrub or low woodland (to 5 m).

Characteristic Species: *E. socialis* (overstorey).

Other Common Species: *Enchylaena tomentosa, Melaleuca acuminata, M. lanceolata* (understorey).

Distribution: On the plains in the northwest quadrant of the region.

Habitat: On Woorinen Formation calcareous loams and on low dunes of red, alkaline and slightly calcareous sands; rainfall 300–400 mm p.a.

Existing Literature Equivalents: Part of the *E. socialis – E. gracilis* open scrub of Specht (1972).

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9. EUCALYPTUS OLEOSA – E. GRACILIS – E. BRACHYCALYX COMPLEX (10 sites)

Structural Formation: Mallee scrub or low woodland (to 5 m).

Characteristic Species: *E. oleosa, E. gracilis* and/or *E. brachycalyx* (overstorey).

Other Common Species: *Maireana erioclada, Rhagodia spinescens, Sclerolaena diacantha, Zygophyllum aurantiacum* (understorey).

Distribution: On the plains in the northeast quadrant of the region.

Habitat: On Woorinen Formation calcareous loams; also areas where these are deposited over biotite schist on the eastern flanks on the ranges; rainfall 250–400 mm p.a.

Existing Literature Equivalents: All mallee associations described by Jessup (1948); part of the *E. socialis – E. gracilis* open scrub of Specht (1972).

Notes: The three types defined here do not correspond with the *E. oleosa – E. brachycalyx* and *E. oleosa – E. gracilis* associations of Jessup (1948), although it is agreed that *E. brachycalyx* - dominated types are confined to the schist geologies on the range flanks.

10. AVICENNIA MARINA COMPLEX (1 site)

Structural Formation: Closed scrub (to 4 m).
Characteristic Species: *A. marina.*
Distribution: Tidal flats from Pt Adelaide to Pt Wakefield.
Existing Literature Equivalents: *A. marina* socies of the "coastal succession" (Specht (1972).

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11. HALOSARCIA HALOCNEMOIDES COMPLEX (3 sites)

Structural Formation: Low chenopod shrubland; saltmarsh.
Characteristic Species: *H. halocnemoides* and/or *Sclerostegia arbuscula.*
Other Common Species: *Disphyma crassifolium, Maireana oppositifolia.*
Distribution: Supratidal saltflats of the coastal strip, and other saline depressions of the northern Adelaide Plains.
Habitat: Grey, mottled, heavy clays which are highly saline; seasonally-inundated flats or depressions; rainfall 300–500 mm p.a.
Existing Literature Equivalents: *Arthrocnemum [Halosarcia] halocnemoides* and *A. arbuscula [S. arbuscula]* associaes of the "coastal succession" (Specht 1972).

Table 5.5. Characterisation of complexes from the analysis of the Northern Mt Lofty Ranges data set. The format is the same as that of Table 5.1.

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1. EUCALYPTUS SOCIALIS – E. GRACILIS – E. OLEOSA COMPLEX (28 sites)

Structural Formation: Mallee scrub or low mallee woodland (to 8 m).

Characteristic Species: *E. socialis, E. gracilis* and/or *E. oleosa* (overstorey).

Other Common Species: *E. brachycalyx* (overstorey); *Enchylaena tomentosa, Geijera linearifolia, Pittosporum phylliraeoides, Rhagodia parabolica, Sclerolaena diacantha, Zygophyllum apiculatum* (understorey).

Distribution: Throughout the region, with the exception of the highest parts of the ranges in the southern half of the region.

Habitat: On Loveday soils with nodular calcrete (rainfall 250–500 mm p.a.); also, less commonly, on alkaline red-brown earths, skeletal loams and red sands (rainfall 250–350 mm p.a.).

Existing Literature Equivalents: *E. transcontinentalis [E. socialis]* association of Boomsma (1946); *E. oleosa - E. brachycalyx* and *E. oleosa – E. gracilis* associations of Jessup (1948); *E. socialis – E. gracilis* open scrub of Specht (1972).

Notes: As was the case with the mallee complex on Woorinen Formation soil in the Murray Mallee region, types in this complex are variants of overstorey dominants and understorey composition which reflect different soil profiles and rainfall regimes. *E. oleosa* (+/- *E. gracilis*) domiantes on Loveday soils and *E. socialis* (+/- *E. gracilis*) dominates on all other soils. *E. brachycalyx* is largely restricted to areas of solonised loams over schist in the southeast portion of the region. *E. tomentosa, R. parabolica* and *S. diacantha* characterise the understorey on Loveday soils where rainfall is > 300 mm and, where rainfall is < 300 mm, *Atriplex vesicaria, Heterodendrum oleifolium* and *Myoporum platycarpum* are common. The understorey on skeletal soils is usually of *Beyeria lechenaultii, Dodonaea baueri* or *Triodia irritans.*

A low shrubland of *Atriplex vesicaria* and *Disphyma crassifolium* is included in the complex. It is an ecotone between low mallee with *A. vesicaria* in the understorey and the HALOSARCIA HALOCNEMOIDES COMPLEX (see below).

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2. MAIREANA PYRAMIDATA COMPLEX (2 sites)

Structural Formation: Chenopod shrubland (to 1 m).

Characteristic Species: *M. pyramidata.*

Other Common Species: *Atriplex inflata, Sclerolaena obliquicuspis.*

Distribution: Extreme northwest and east of the region.

Habitat: In low-lying areas on Loveday soils or deep grey-brown clay-loams lacking calcrete nodules; rainfall < 250 mm p.a.

Existing Literature Equivalents: None in the region specifically. Equivalent to the *Nitraria schoberi [N. billardieri] - Kochia pyramidata [M. pyramidata]* association of Carrodus *et al.* (1965).

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3. CASUARINA CRISTATA – MAIREANA SEDIFOLIA COMPLEX (4 sites)

Structural Formation: Chenopod shrubland or low open woodland (to 5 m).

Characteristic Species: *C. cristata* (overstorey) and/or *M. sedifolia*

(understorey).

Other Common Species: *Enchylaena tomentosa, Rhagodia spinescens, Sclerolaena obliquicuspis* (understorey).

Distribution: Extreme north of the region.

Habitat: Soils as for the M. PYRAMIDATA COMPLEX, but not in low-lying areas; rainfall < 250 mm p.a.

Existing Literature Equivalents: A combination of the *Myoporum platycarpum – Kochia sedifolia [M. sedifolia]* and *Casuarina lepidophloia [C. cristata]* associations of Jessup (1948); *Atriplex vesicaria – Kochia sedifolia* low shrubland of Specht (1972).

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4. EUCALYPTUS POROSA COMPLEX (4 sites)

Structural Formation: Low woodland (to 4 m).

Characteristic Species: *E. porosa* (overstorey).

Other Common Species: *Enchylaena tomentosa, Sida corrugata* (understorey), largely invaded by pasture grasses and weeds.

Distribution: Northeast quadrant of the region, on the ranges (Spalding to Orroroo).

Habitat: Skeletal soils on outcropping sandstone or siltstone; rainfall 300–400 mm p.a.

Existing Literature Equivalents: None in the region specifically. Equivalent to *E. porosa* woodland on Yorke Peninsula (Specht 1972).

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5. EUCALYPTUS ODORATA COMPLEX (4 sites)

Structural Formation: Low woodland (to 5 m).

Characteristic Species: *E. odorata* (overstorey); understorey of pasture grasses and weeds.

Distribution: Northwest quadrant of the region, on the ranges (Crystal Brook to Wilmington).

Habitat: Red-brown earths; skeletal soils over sandstone or siltstone; rainfall 400–500 mm p.a.

Existing Literature Equivalents: *E. odorata* associations of Boomsma (1946) and Specht (1972).

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6. CALLITRIS COLUMELLARIS COMPLEX (2 sites)

Structural Formation: Low woodland (to 5 m).

Characteristic Species: *C. columellaris* (overstorey); *Stipa* spp. (understorey); many pasture grasses and weeds.

Distribution: Extreme northeast of the region (Orroroo district).

Habitat: Deep red-brown clay-laoms.

Existing Literature Equivalents: *C. columellaris* low woodland (Specht 1972); also forms parts of his "Flinders Ranges Complex" further to the north.

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7. EUCALYPTUS MACRORHYNCHA COMPLEX (2 sites)

Structural Formation: Sclerophyll/savannah woodland or forest (to 15 m).

Characteristic Species: *E. macrorhyncha* (overstorey).

Other Common Species: *Acacia continua, Cheilanthes austrotenuifolia, Dianella laevis, Gonocarpus elatum, Hibbertia sericea* (understorey).
Distribution: Spring Gully C.P. near Clare.
Habitat: Skeletal sandy-loam on hillsides of outcropping arcose (feldspar-rich sandstone); rainfall 650 mm p.a.
Existing Literature Equivalents: *E. macrorhyncha* association of Boomsma (1949).
Notes: This disjunct population of *E. macrorhyncha* (the nearest other population is 500 km away in Victoria) is believed to be a relict left by climatic oscillations (Boomsma 1949). The inclusion of the *E. socialis* type in this complex (also on sandstone, but rainfall only 400 mm) is due to shared understorey: *Acacia continua, Gonocarpus elatum*, etc. The relationship between the types is not clear.

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8. EUCALYPTUS LEUCOXYLON COMPLEX (5 sites)
Structural Formation: Savannah woodland (to 15 m).
Characteristic Species: *E. leucoxylon* (overstorey); understorey of pasture grasses and weeds.
Distribution: Throughout the region, except in the northeast quadrant.
Habitat: On deep clay-loams; less often on skeletal soils over sandstone or siltstone; rainfall 450–650 mm p.a.
Existing Literature Equivalents: *E. leucoxylon* association (Jessup 1948; Boomsma 1949; Specht 1972).

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9. EUCALYPTUS CLADOCALYX COMPLEX (7 sites)
Structural Formation: Sclerophyll woodland (to 10 m) or tall shrubland (to 4 m).
Characteristic Species: *E. cladocalyx* and/or *Allocasuarina verticillata* (overstorey); *Cassinia laevis, Lepidosperma laterale, Triodia irritans* (understorey).
Other Common Species: *E. leucoxylon* (overstorey); *Bursaria spinosa, Dianella revoluta, Lomandra fibrata, Pultenaea largiflorens* (understorey).
Distribution: Southern Flinders Ranges (Gladstone to Wilmington).
Habitat: Skeletal or podsolic clay-loams over sandstone, siltstone or siltstone scree of high/steep ridges; rainfall 500–700 mm p.a.
Existing Literature Equivalents: *E. cladocalyx* association and ecotones (Boomsma 1946).
Notes: Types are a reflection of rainfall and degree of exposure e.g. *E. cladocalyx* Type at rainfall > 600 mm, and *Cassinia laevis – Triodia irritans* Types at rainfall < 600 mm on exposed, southwest-facing hillslopes.

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9. XANTHORRHOEA QUADRANGULATA COMPLEX (1 site)
Structural Formation: Low shrubland (to 2 m).
Characteristic Species: *X. quadrangulata, Cassinia laevis*
Distribution: Flinders Ranges, north of Wilmington.
Habitat: Skeletal soils on ridgetops; rainfall 300–500 mm p.a.
Existing Literature Equivalents: Probably part of the "Flinders Ranges Complex" of Specht (1972).
Notes: Closely resembles the *C. laevis – Triodia irritans* Types in the

E. CLADOCALYX COMPLEX, but at a lower rainfall regime.

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10. CASSIA ARTEMISIODES COMPLEX (1 site)

Structural Formation: Low shrubland (to 1 m).
Characteristic Species: *C. artemisioides, Dodonaea lobulata*
Other Common Species: *Acacia continua, Eremophila longifolia, Prostanthera striatiflora, Ptilotus obovatus*
Distribution: Extreme northeast of the region.
Habitat: Skeletal soils over sandstone; on ridgetops; rainfall < 300 mm p.a.
Existing Literature Equivalents: *Cassia – Dodonaea* association of the arid "Hills Scrub Formation" in Wood (1937).

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11. HALOSARCIA HALOCNEMOIDES COMPLEX (3 sites)

Structural Formation: Low chenopod shrubland; saltmarsh.
Characteristic Species: *H. halocnemoides* and/or *Sclerostegia arbuscula.*
Other Common Species: *Atriplex paludosa, Disphyma crassifolium, Frankenia pauciflora.*
Distribution: Western, coastal areas.
Habitat: Grey, mottled, heavy clays which are highly saline; supratidal saltflats or other saline depressions.
Existing Literature Equivalents: *Arthrocnemum [Halosarcia] halocnemoides* and *A. arbuscula [S. arbuscula]* associes of the "coastal succession" (Specht 1972).
Notes: The *S. arbuscula* Type occurs nearest the edge of the sea and the *H. halocnemoides* Type at more inland localities.

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12. AVICENNIA MARINA COMPLEX (1 site)

Structural Formation: Closed scrub (to 4 m).
Characteristic Species: *A. marina.*
Distribution: Tidal flats from Pt Broughton to Pt Augusta.
Existing Literature Equivalents: *A. marina* socies of the "coastal succession" (Specht (1972).

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13. EUCALYPTUS CAMALDULENSIS COMPLEX (2 sites)

Structural Formation: Open woodland/forest (to 20 m).
Characteristic Species: *E. camaldulensis* (overstorey).
Other Common Species: *Cyperus gymnocaulis, Dichondra repens, Juncus aridicola, Marsilea drummondii* (understorey).
Distribution: Along creeklines throughout the region.
Habitat: Deep, non-calcareous, alluvial, red-brown or dark brown clay-loams; all rainfall regimes.
Existing Literature Equivalents: *E. camaldulensis association* (Wood 1937; Boomsma 1946; Specht 1972).

Table 5.6. Characterisation of complexes from the analysis of the Yorke Peninsula data set. The format is the same as that of Table 5.1.

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1. MELALEUCA LANCEOLATA COMPLEX (8 sites)

Structural Formation: Low mallee scrub (2 m) to low open woodland (8 m).
Characteristic Species: *M. lanceolata* and/or *E. diversifolia* (overstorey).
Other Common Species: *Beyeria lechenaultii, Calytrix tetragona, Dianella revoluta, Gahnia lanigera, Templetonia retusa* (understorey).
Distribution: Concentrated in the southern half of the region.
Habitat: On Bridgewater calcrete with terra rossa and rendzina soils; also subcoastal areas of calcareous sand; rainfall 400–500 mm p.a.
Existing Literature Equivalents: A combination of the "*E. diversifolia* open scrub" and "*M. lanceolata* woodland with herbaceous understorey" of Specht (1972).
Notes: This complex contains a diverse collection of types: *E. diversifolia* mallee scrub on calcrete, *E. brachycalyx* mallee woodland on inland dunes of calcareous sand; *M. lanceolata – Acacia calamifolia* scrub on calcareous coastal dunes; and two types of *M. lanceolata* savannah woodland with an understorey of pasture species. The codominance of *M. lanceolata* in either overstorey or understorey unifies these disparate elements which do not appear to form a cogent unit.

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2. EUCALYPTUS GRACILIS – E. DUMOSA COMPLEX (4 sites)

Structural Formation: Low mallee woodland (to 5 m).
Characteristic Species: *E. gracilis* and/or *E. dumosa* (overstorey); *Alyxia buxifolia* (understorey).
Other Common Species: *Bursaria spinosa, Clematis microphylla, Gahnia lanigera, Geijera linearifolia, Melaleuca acuminata.*
Distribution: Northern third of the region.
Habitat: Shallow red to grey loams over Bakara-type calcrete or calcrete nodules (Woorinen Formation); rainfall 350–400 mm p.a.
Existing Literature Equivalents: Closest to *E. socialis – E. gracilis* open scrub of Specht (1972).

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3. EUCALYPTUS POROSA COMPLEX (2 sites)

Structural Formation: Low woodland (to 8 m).
Characteristic Species: *E. porosa* (overstorey); understorey of pasture grasses and weeds.
Distribution: Southeast parts of the region (Yorketown district).
Habitat: Low-lying or undulating Bridgewater calcrete covered by rendzina soils; rainfall 400–450 mm p.a.
Existing Literature Equivalents: None in this area specifically. Similar to *E. porosa* woodland of Specht (1972).

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4. GAHNIA TRIFIDA/FILUM COMPLEX (3 sites)

Structural Formation: Tussock grassland (to 1.5 m).

Characteristic Species: *G. trifida/filum.*
Other Common Species: *Melaleuca halmaturorum* (in one type only).
Distribution: South-central portion of the region.
Habitat: Seasonally-inundated hollows in Bridgewater calcrete shield; slightly saline, mottled grey, heavy clay soils; rainfall 400–450 mm p.a.
Existing Literature Equivalents: None.

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5. OLEARIA AXILLARIS COMPLEX (4 sites)

Structural Formation: Srubland (to 2 m).
Characteristic Species: *Acacia ligulata, Muehlenbeckia gunnii, Myoporum insulare, Olearia axillaris, Threlkeldia diffusa.*
Distribution: Coastal areas throughout the region.
Habitat: Frontal dunes of the Semaphore Formation; no rainfall restriction.
Existing Literature Equivalents: "Coastal dune vegetation" (Specht 1972).
Notes: A site (and type) of *Callitris preissii* woodland (near Moonta) is included in this complex. Its presence is due to the occurrence of a number of otherwise coastal species in its understorey (*A. ligulata, M. gunnii, T. diffusa*).

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6. NITRARIA BILLARDIERI COMPLEX (2 sites)

Structural Formation: Typically a shrubland (to 1.5 m).
Characteristic Species: *N. billardieri.*
Other Common Species: *Atriplex cinerea, Threlkeldia diffusa.*
Distribution: North coast of the "foot" of Yorke Peninsula (Corny Point district).
Habitat: Frontal dunes and beach sands of the Semaphore Formation.
Existing Literature Equivalents: "Coastal dune vegteation" (Specht 1972).
Notes: The *Eucalyptus gracilis – N. billardieri* Type is floristically intermediate between the more typical *N. billardieri – A. cinerea* Type and the E. GRACILIS – E. DUMOSA COMPLEX of inland areas (see above).

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7. EUCALYPTUS INCRASSATA – MELALEUCA UNCINATA COMPLEX (8 sites)

Structural Formation: Mallee scrub (to 5 m).
Characteristic Species: *M. uncinata* (understorey).
Other Common Species: *E. incrassata, E. foecunda* and/or *E. socialis* (overstorey); *Acacia spinescens, Baeckea crassifolia, Correa reflexa, Dodonaea hexandra, Lepidosperma laterale, Schoenus deformis* (understorey).
Distribution: Northern half of the region.
Habitat: Deep siliceous sand (*E. incrassata – Leptospermum coriaceum* Type); terra rossa loams over Bakara calcrete (*E. foecunda - E. socialis – Gahnia lanigera* Type); deep red clay-loams (*E. incrassata – E. socialis – M. uncinata* Type); rainfall 400–500 mm p.a.
Existing Literature Equivalents: *E. incrassata – M. uncinata* open scrub (Specht 1972).

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7. HALOSARCIA HALOCNEMOIDES COMPLEX (3 sites)

Structural Formation: Low chenopod shrubland; saltmarsh.
Characteristic Species: *H. halocnemoides, Maireana oppositifolia.*

Distribution: Southeast parts of the region (Edithburgh to Warooka).
Habitat: Fringes of saltlakes and saline depressions; mottled grey, or white, heavy clays which are highly saline; rainfall 400–450 mm p.a.
Existing Literature Equivalents: Samphire associes of the "coastal succession" (Specht 1972).

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8. AVICENNIA MARINA COMPLEX (1 site)

Structural Formation: Closed scrub (to 5 m).
Characteristic Species: *A. marina.*
Distribution: Tidal flats in the northeast of the region (Pt Clinton to Pt Wakefield).
Existing Literature Equivalents: Mangrove socies of the "coastal succession" (Specht 1972).

Table 5.7. Characterisation of complexes from the analysis of the Eyre Peninsula data set. The format is the same as that of Table 5.1.

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1. EUCALYPTUS DIVERSIFOLIA COMPLEX (26 sites)

Structural Formation: Mallee scrub (to 4 m).

Characteristic Species: *E. diversifolia* (overstorey).

Other Common Species: *E. conglobata, E. rugosa* (overstorey); *Acrotriche patula, Dodonaea hexandra, Lasiopetalum baueri, L. discolor, Melaleuca lanceolata* (understorey).

Distribution: South and southwest Eyre Peninsula (Pt Lincoln to Venus Bay).

Habitat: Bridgewater calcrete; terra rossa, rendzina or shallow calcareous sandy soils; rainfall 375–550 mm p.a.

Existing Literature Equivalents: *E. diversifolia* association of Crocker (1946); a combination of the *E. diversifolia* and *E. conglobata* associations of Smith (1963).

Notes: The five types reflect changes in rainfall regime (primarily) and soil type (to a lesser extent). Thus there is gradation between types and towards other complexes along rainfall and edaphic gradients. The *E. diversifolia* – *M. lanceolata* – *L. discolor* Type only occurs at the southern tip of the peninsula (south of Pt Lincoln and Coffin Bay) where rainfall is > 500 mm p.a. and soils are terra rossa or calcareous sand respectively. Both types have understoreys of high diversity. To the northwest on terra rossa (and occasionally lateritic) soils, these types are supplanted by *E. diversifolia* – *M. uncinata* – *A. patula* Type (rainfall 425–500 mm) and *E. diversifolia* – *E. dumosa* – *M. uncinata* Type (rainfall 375–425 mm). The latter grades into the E. INCRASSATA – E. SOCIALIS – E. DUMOSA COMPLEX on Bakara calcrete where rainfall is < 375 mm p.a.

The fifth type, *E. diversifolia* – *Xanthorrhoea semiplana* – *Leucopogon parviflorus*, occurs on rendzina soils as far north as Venus Bay. Its understorey is mainly pasture grasses and is intermediate to the E. POROSA COMPLEX It is probably also intermediate to the *Casuarina stricta [Allocasuarina verticillata]* association described by Crocker(1946), which formed an open savannah woodland and which has been transformed into open exotic pasture by sheep and rabbit grazing.

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2. EUCALYPTUS POROSA COMPLEX (9 sites)

Structural Formation: Open savannah woodland (to 8 m).

Characteristic Species: *E. porosa* (overstorey).

Other Common Species: *Beyeria lechenaultii, E. diversifolia, Gahnia lanigera, Melaleuca lanceolata, Pittosporum phylliraeiodes, Stipa* spp. (understorey).

Distribution: Central western Eyre Peninsula (subcoastal areas from Mt Hope to Streaky Bay).

Habitat: Bridgewater calcrete; rendzina soils; low-lying depressions or plains; rainfall 350–400 mm p.a.

Existing Literature Equivalents: *E. calcicultrix [E. porosa]* association of Crocker (1946).

3. EUCALYPTUS INCRASSATA – E. SOCIALIS – E. DUMOSA COMPLEX (102 sites)

Structural Formation: Mallee scrub (to 5 m).

Characteristic Species: *E. dumosa, E. flocktoniae, E. foecunda, E. incrassata* and/or *E. socialis* (overstorey); *Melaleuca uncinata* and/or *Triodia irritans* (understorey).

Other Common Species: *Acacia spinescens, Calytrix involucrata, Correa reflexa, Dodonaea bursariifolia, E. cladocalyx, E. yumbarrana, Glischrocaryon behrii/aureum, Leptospermum coriaceum, Leucopogon cordifolius, Lomandra leucocephala, M. acuminata, M. eleutherostachya, M. lanceolata, Podolepis capillaris, Santalum murrayanum.*

Distribution: Throughout the region.

Habitat: Deep acidic to weakly alkaline, siliceous sands, especially in dunefields; also, in the southern half of the region, on acidic to weakly alkaline, red or orange clays, sandy clays or sand over clay, sometimes with nodular laterite; also on terra rossa soils over Bridgewater / Bakara calcrete, particularly the more inland areas; rainfall 225–500 mm p.a.

Existing Literature Equivalents: A combination of the *E. angulosa [E. incrassata] – E. leptophylla [E. foecunda] – E. flocktoniae* and *E. cladocalyx – Xanthorrhoea tateana – [Allo-] Casuarina muelleriana* edpahic complexes of Crocker (1946).

A combination of the *E. incrassata – E. leptophylla, E. flocktoniae – E. pileata [E. dumosa] – M. uncinata* and *E. cladocalyx* assocations of Smith (1963).

Also included in this complex are the *E. socialis [*probably *E. yumbarrana] – M. adnata [M. eleutherostachya]* community of Margules & Nicholls (1987) and the *E. yumbarrana – T. irritans* association of Tiver *et al.* (1989).

Notes: The dendrogram (Figure 5.15) shows 20 types in this large large complex, falling into three groups (subcomplexes). All types and subcomplexes are recognisable in the field. They indicate multivariate variation of habitat conditions, of which the most significant are soil types, rainfall regime and locality in the region. The last is significant for some dominant and/or characteristic species whose distributions are restricted to a part of Eyre Peninsula by geohistorical effects.

The first four types are *E. cladocalyx* woodlands or *M. uncinata* scrubs occurring on strongly podsolised clays with laterite. They are equivalent to the *E. cladocalyx* edaphic complex of Crocker (1946). They share an understorey of sclerophyllous woodland undershrubs which is relatively diverse (20 to 35 native perennial species per site) including *Acacia imbricata, A. rupicola, Astroloma conostephioides, A. humifusum, Dampiera rosmarinifolia, Hakea cycloptera, Hibbertia riparia* and *Xanthorrhoea semiplana.*

Types in the other two subcomplexes (together equivalent to Crocker's other edaphic complex) also include these species, but diversity is lower (5 to 25 species per site). The eleven types in the second subcomplex are different forms of mallee with *E. foecunda, E. incrassata, E. socialis* and/or *E. yumbarrana* on clay soils at high rainfall (400–500 mm) and on siliceous sands at low rainfall (225–400 mm). The understorey is *M. uncinata* at high rainfall (300–500 mm) and *T. irritans* at low rainfall (< 300 mm). Types with *E. yumbarrana* and *M. eleutherostachya* are restricted to the northwest of the region.

E. dumosa is characteristic of the third subcomplex. These types occur

on shallow soils over calcrete and thus grade into the E. DIVERSIFOLIA COMPLEX along soil depth and pH gradients.

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4. OLEARIA AXILLARIS COMPLEX (15 sites)

Structural Formation: Shrubland (0.25 to 3 m).

Characteristic Species: *Carpobrotus rossii, Melaleuca lanceolata, Olearia axillaris* and/or *Rhagodia candolleana.*

Other Common Species: *Acacia anceps, Atriplex paludosa, Beyeria lechenaultii, Callitris preissii, Isolepis nodosus, Muehlenbeckia gunnii, Templetonia retusa, Threlkeldia diffusa.*

Distribution: Along the coastal strip of the entire region.

Habitat: Semaphore Formation unconsolidated calcareous sands, often superimposed over Bridgewater calcrete on coastal clifftops, and exposed to sea winds and saltspray.

Existing Literature Equivalents: "Coastal dune vegetation" (Smith 1963; Specht 1972).

Notes: Distribution of types is correlated with underlying geological formation and exposure to saltspray (both discussed by Specht 1972) and annual rainfall. There also appears to be a differentiation between the east (Spencer Gulf) and west (Great Australian Bight) coastlines e.g. *O .axillaris – Calocephalus brownii – Ammophila arenaria* on high exposure, beach front dunes; *Acacia calamifolia – O. axillaris – C. preissii* on low exposure, east-coast dunes; *Atriplex paludosa – O. axillaris* on low exposure, west-coast dunes where rainfall is < 500 mm p.a. and *Leucopogon parviflorus – O. axillaris* on the same where rainfall is > 500 mm p.a.; *Eucalyptus incrassata – Alyxia buxifolia* on east-coast clifftops, and *M. lanceolata – O. axillaris – Triodia irritans* on west-coast clifftops.

With increasing distance from the coast, this complex grades into the E. DIVERSIFOLIA and E. OLEOSA – E. GRACILIS complexes and the *E. dumosa* types of the E. INCRASSATA – M. UNCINATA COMPLEX depending on geology and rainfall (see other complex descriptions).

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5. EUCALYPTUS OLEOSA – E. GRACILIS COMPLEX (77 sites)

Structural Formation: Mallee scrub or low woodland (to 8 m).

Characteristic Species: *E. oleosa* and/or *E. gracilis* (overstorey).

Other Common Species: *E. brachycalyx, E. dumosa* (overstorey); *Acacia merrallii, Enchylaena tomentosa, Eremophila weldii, Exocarpos aphyllus, Geijera linearifolia, Maireana erioclada, Melaleuca pauperiflora, Olearia muelleri, Sclerolaena diacantha* (understorey).

Distribution: Widespread in the northern two-thirds of the region.

Habitat: Woorinen Formation soils with calcrete nodules; less often on hard-setting red-brown clay-loams, low dunes of calcareous sand, calcareous sand over Bakara calcrete or low dunes of siliceous sand; rainfall < 400 mm p.a.

Existing Literature Equivalents: *E. oleosa – E. dumosa – E. gracilis* edaphic complex of Crocker (1946); *E. oleosa – E. gracilis* association of Smith (1963); a combination of the *E. dumosa – Westringia rigida* and *Melaleuca lanceolata [M. pauperiflora] – E. oleosa* communities of Margules & Nicholls (1987); a combination of all six associations on Woorinen Formation soils as described by Tiver *et al.* (1989).

Notes: The two most common types are *E. oleosa – M. pauperiflora* (on calcareous

sands in the northwest of the region) and *E. gracilis – E. oleosa – Olearia muelleri – Acacia merrallii* on typical Woorinen Formation soils. The remaining types can be viewed as either:

- a variant of either common type through presence of additional species or loss of characteristic species e.g. *E. oleosa – E. gracilis – M. lanceolata – A. merrallii*;
- an intermediate between the common types e.g. *E. gracilis – E. oleosa – M. pauperiflora – A. sclerophylla*; or
- an intermediate between this complex and another complex e.g. *E. oleosa – O. muelleri – Dodonaea stenozyga* and *E. oleosa – Triodia irritans* which grade towards type of the E. INCRASSATA – M. UNCINATA COMPLEX with *T. irritans* in the understorey.

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6. CASUARINA CRISTATA COMPLEX (2 sites)

Structural Formation: Low open woodland (to 5 m).
Characteristic Species: *C. cristata* (overstorey).
Other Common Species: *Alyxia buxifolia, Beyeria lechenaultii, Exocarpos aphyllus, Geijera linearifolia, Pittosporum phylliraeoides, Scaevola spinescens* (understorey).
Distribution: Central northern limits of the region.
Habitat: Hard-setting, alkaline, red-brown clay-loams, with or without calcrete nodules; rainfall < 300 mm p.a.
Existing Literature Equivalents: None.

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7. ALLOCASUARINA VERTICILLATA COMPLEX (1 site)

Structural Formation: Low open woodland (to 5 m).
Characteristic Species: *A. verticillata* (overstorey); understorey of pasture grasses and weeds.
Distribution: Southeast part of the region (Pt Lincoln to Tumby Bay).
Habitat: Red-brown earths and skeletal loams; rainfall 400–500 mm p.a.
Existing Literature Equivalents: *Eucalyptus odorata – Casuarina stricta [A. verticillata]* edaphic complex of Crocker (1946) and Smith (1963).

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8. MELALEUCA HALMATURORUM – M. BREVIFOLIA COMPLEX (6 sites)

Structural Formation: Heathland or shrubland (to 3 m).
Characteristic Species: *M. brevifolia, M. halmaturorum* and/or *Gahnia trifida/filum.*
Distribution: Southwest quadrant of the region, especially in subcaostal areas.
Habitat: Seasonally-inundated depressions; saline, mottled grey, heavy clay soils; rainfall 450–550 mm p.a.
Existing Literature Equivalents: None.
Notes: The *M. halmaturorum* Type occurs on more saline soils in infrequently inundated depressions or around saltlakes. The *M. brevifolia – G. trifida/filum* Type occurs on less saline soils in frequently inundated depressions.

9. MELALEUCA DECUSSATA COMPLEX (1 site)

Structural Formation: Heathland (to 1.5 m).
Characteristic Species: *M. decussata.*
Other Common Species: *Callistemon rugulosus*; scattered trees of *Eucalyptus camaldulensis* (to 10 m) give the impression of an open woodland.
Distribution: Southwest of the region, near Kappawanta.
Habitat: Seasonally-inundated depression between calcrete-capped consolidated dunes; black chernozem soils underlain by calcrete; rainfall 450 mm p.a.
Existing Literature Equivalents: None.

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10. JUNCUS KRAUSSII COMPLEX (1 site)

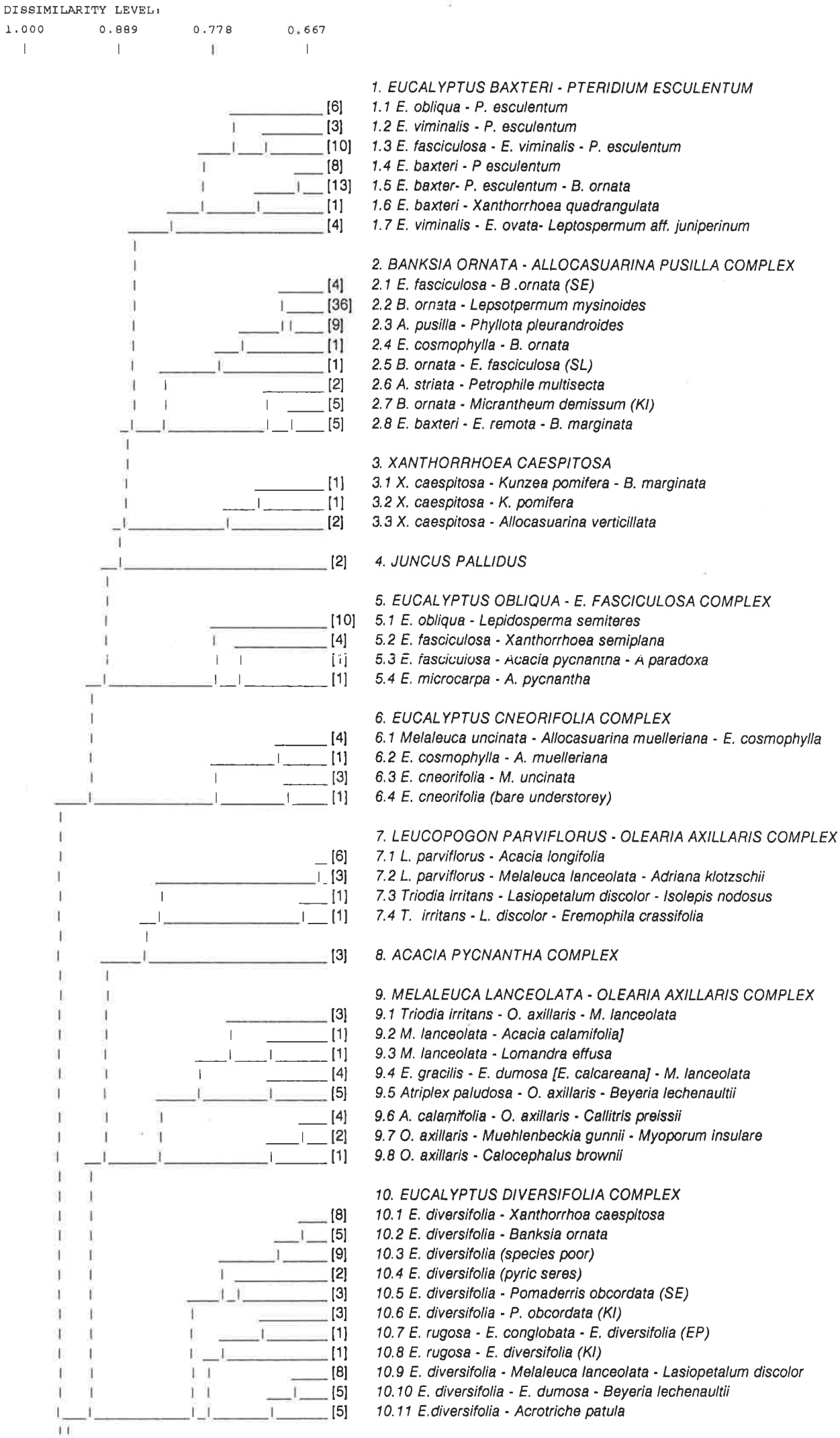
Structural Formation: Tall sedgeland (to 2 m).
Characteristic Species: *J. kraussii.*
Other Common Species: *Leptocarpos brownii, Samolus repens.*
Distribution: Baird bay on the west coast.
Habitat: Tidal flats protected from wave action; pale grey, shelly clay; rainfall 350–400 mm p.a.
Existing Literature Equivalents: None.

Chapter 6.
VEGETATION ANALYSIS III: STUDY AREA SYNTHESIS — RESULTS AND DISCUSSION.

Figures 6.1 – 6.21.

Tables 6.1 – 6.4.

Figure 6.1. Dendrogram of the full data set (744 sites). The format of the dendrogram is the same as used in Figure 5.1.



1. EUCALYPTUS BAXTERI - PTERIDIUM ESCULENTUM

1.1 E. obliqua - P. esculentum

1.2 E. viminalis - P. esculentum

1.3 E. fasciculosa - E. viminalis - P. esculentum

1.4 E. baxteri - P esculentum

1.5 E. baxter- P. esculentum - B. ornata

1.6 E. baxteri - Xanthorrhoea quadrangulata

1.7 E. viminalis - E. ovata- Leptospermum aff. juniperinum

2. BANKSIA ORNATA - ALLOCASUARINA PUSILLA COMPLEX

2.1 E. fasciculosa - B .ornata (SE)

2.2 B. ornata - Lepsotpermum mysinoides

2.3 A. pusilla - Phyllota pleurandroides

2.4 E. cosmophylla - B. ornata

2.5 B. ornata - E. fasciculosa (SL)

2.6 A. striata - Petrophile multisecta

2.7 B. ornata - Micrantheum demissum (KI)

2.8 E. baxteri - E. remota - B. marginata

3. XANTHORRHOEA CAESPITOSA

3.1 X. caespitosa - Kunzea pomifera - B. marginata

3.2 X. caespitosa - K. pomifera

3.3 X. caespitosa - Allocasuarina verticillata

4. JUNCUS PALLIDUS

5. EUCALYPTUS OBLIQUA - E. FASCICULOSA COMPLEX

5.1 E. obliqua - Lepidosperma semiteres

5.2 E. fasciculosa - Xanthorrhoea semiplana

5.3 E. fasciculosa - Acacia pycnantna - A paradoxa

5.4 E. microcarpa - A. pycnantha

6. EUCALYPTUS CNEORIFOLIA COMPLEX

6.1 Melaleuca uncinata - Allocasuarina muelleriana - E. cosmophylla

6.2 E. cosmophylla - A. muelleriana

6.3 E. cneorifolia - M. uncinata

6.4 E. cneorifolia (bare understorey)

7. LEUCOPOGON PARVIFLORUS - OLEARIA AXILLARIS COMPLEX

7.1 L. parviflorus - Acacia longifolia

7.2 L. parviflorus - Melaleuca lanceolata - Adriana klotzschii

7.3 Triodia irritans - Lasiopetalum discolor - Isolepis nodosus

7.4 T. irritans - L. discolor - Eremophila crassifolia

8. ACACIA PYCNANTHA COMPLEX

9. MELALEUCA LANCEOLATA - OLEARIA AXILLARIS COMPLEX

9.1 Triodia irritans - O. axillaris - M. lanceolata

9.2 M. lanceolata - Acacia calamifolia]

9.3 M. lanceolata - Lomandra effusa

9.4 E. gracilis - E. dumosa [E. calcareana] - M. lanceolata

9.5 Atriplex paludosa - O. axillaris - Beyeria lechenaultii

9.6 A. calamifolia - O. axillaris - Callitris preissii

9.7 O. axillaris - Muehlenbeckia gunnii - Myoporum insulare

9.8 O. axillaris - Calocephalus brownii

10. EUCALYPTUS DIVERSIFOLIA COMPLEX

10.1 E. diversifolia - Xanthorrhoa caespitosa

10.2 E. diversifolia - Banksia ornata

10.3 E. diversifolia (species poor)

10.4 E. diversifolia (pyric seres)

10.5 E. diversifolia - Pomaderris obcordata (SE)

10.6 E. diversifolia - P. obcordata (KI)

10.7 E. rugosa - E. conglobata - E. diversifolia (EP)

10.8 E. rugosa - E. diversifolia (KI)

10.9 E. diversifolia - Melaleuca lanceolata - Lasiopetalum discolor

10.10 E. diversifolia - E. dumosa - Beyeria lechenaultii

10.11 E.diversifolia - Acrotriche patula

11. EUCALYPTUS INCRASSATA - E. FOECUNDA COMPLEX

11a. <Melaleuca uncinata Subcomplex>

[16] *11.1 E. incrassata - M. uncinata*

[2] *11.2 E. incrassata - E. foecunda - M. uncinata (species poor, MU)*

[5] *11.3 E. incrassata - M. uncinata (species poor, EP)*

[2] *11.4 E. fasciculosa - M. uncinata*

[1] *11.5 M. uncinata - Beyeria lechenaultii*

[7] *11.6 E. foecunda - E. incrassata - Callitris verrucosa - M. uncinata*

[6] *11.7 E. foecunda - C. verrucosa*

[4] *11.8 E. verrucosa - E. incrassata - C. verrucosa (Billiatt C.P.)*

[17] *11.9 E. incrassata - Triodia irritans _ M. uncinata - Leptospermum coriaceum*

[6] *11.10 E. incrassata - L. coriaceum*

11b. <Triodia irritans Subcomplex>

[6] *11.11 E. incrassata - E. socialis - T. irritans*

[1] *11.12 E. incrassata - Alyxia buxifolia - M. lanceolata*

[16] *11.13 E. socialis - E. foecunda - M. uncinata - T. irritans*

[2] *11.14 E. socialis - E. incrassata - T. irritans - Acacia rigens*

[5] *11.15 E. socialis - E. brachycalyx - T. irritans*

[5] *11.16 E. yumbarrana - T. irritans - M. eleutherostachya*

[5] *11.17 M. uncinata - T. irritans - Dodonaea hexandra*

11c. <Melaleuca uncinata - Lasiopetalum spp. Subcomplex>

[3] *11.18 E. incrassata - L. behrii (SE)*

[7] *11.19 M. uncinata - Lasiopetalum spp. - Eutaxia microphylla*

[7] *11.20 E. diversifolia - E. foecunda - Lasiopetalum baueri (EP)*

[2] *11.21 E. fasciculosa - M. uncinata - M. acuminata*

[2] *11.22 E. gracilis - M. uncinata - Callitris canescens*

[5] *11.23 E. socialis - E. foecunda - Gahnia lanigera - D. hexandra*

[2] *11.24 E. incrassata - Allocaruarina muelleriana*

[3] *11.25 E. cladocalyx - Lissanthe strigosa - Xanthorrhoea semiplana*

12. EUCALYPTUS DUMOSA COMPLEX

[1] *12.1 E. dumosa (bare understorey)*

[4] *12.2 E. dumosa - E. socialis - E. calycogona - Melaleuca uncinata*

[5] *12.3 E. dumosa - E. flocktoniae - M. uncinata*

[10] *12.4 E. dumosa - Triodia irritans - M. uncinata*

[6] *12.5 E. dumosa - E. socialis - M. acuminata*

[5] *12.6 E. dumosa - T. irritans - M. lanceolata*

[1] *12.7 E. dumosa - M. acuminata - Lasiopetalum behrii*

[1] *12.8 E. rugosa - E. socialis*

13. GAHNIA TRIFIDA/FILUM COMPLEX

[1] *13.1 Leptospermum pubscens*

[6] *13.2 Gahnia trifida/filum*

14. MELALEUCA HALMATURORUM COMPLEX

15. MELALEUCA BREVIFOLIA COMPLEX

[9] *15.1 M. brevifolia*

[1] *15.2 M. brevifolia - Callistemon rugulosus*

[1] *15.3 E. foecunda - M. brevifolia - Lepidosperma laterale*

[1] *16. JUNCUS KRAUSSII COMPLEX*

17. EUCALYPTUS OLEOSA - E. GRACILIS COMPLEX

[47] *17.1 E. oleosa - E. gracilis - Sclerolaena diacantha*

[5] *17.2 E. oleosa (bare understorey)*

[27] *17.3 E. oleosa - Melaleuca pauperiflora*

[14] *17.4 E. oleosa - E. gracilis +/- M. pauperiflora (species poor, EP)*

[12] *17.5 E. gracilis - E. oleosa - Eremophila weldii - Acacia merrallii*

[1] *17.6 E. gracilis - E. oleosa - Cratystylis conocephala*

[4] *17.7 E. oleosa - E. gracilis - Olearia muelleri - Acacia notabilis*

[2] *17.8 E. oleosa - Geijera linearifolia - Rhagodia parabolica*

[1] *17.9 E. oleosa - Triodia irritans - Lomandra effusa*

[3] *17.10 E. oleosa - O. muelleri - Dodonaea stenozyga*

[2] *17.11 E. oleosa - Heterodendrum oleifolium*

[14] *17.12 E. gracilis - E. brachycalyx - Stipa spp.*

[1] *17.13 E. gracilis - Threlkeldia diffusa*

[5] *17.14 E. oleosa - Stipa spp.*

[2] *17.15 E. gracilis - E. socialis - Stipa spp.- S. diacantha*

[4] *17.16 E. gracilis - E. dumosa - M. lanceolata - Stipa spp.*

[1] *17.17 E. gracilis - E. dumosa - Acacia wilhelmiana - Westringia rigida*

[2] *17.18 E. gracilis - M. pauperiflora*

[1] *17.19 E. socialis - E. gracilis - G. linearifolia*

[1] *17.20 E. gracilis - G. linearifolia - Alyxia buxifolia (coastal YP)*

[1] *17.21 E. socialis - E. gracilis - W. rigida - Trymalium wayei*

[13] *18. EUCALYPTUS SOCIALIS COMPLEX*
18a. <Melaleuca uncinata Subcomplex>
18.1 E. socialis - E. incrassata - M. uncinata (spare understorey)
[2] *18.2 E. socialis - E. dumosa - M. lanceolata*

18b. <Sclerolaena diacantha Subcomplex>
[4] *18.3 E. socialis - E. gracilis - Zygophyllum ovatum*
[14] *18.4 E. socialis - E. gracilis - M. lanceolata (species poor, SL & NL)*
[1] *18.5 E. socialis - Olearia muelleri - Rhagodia parabolica*

18c. < Triodia irritans Subcomplex>
[7] *18.6 E. socialis - E. gracilis - E. cyanophylla - Maireana erioclada*
[6] *18.7 E. cyanophylla - E. socialis - T. irritans*
[1] *18.8 E. socialis - T. irritans*

19. CALLITRIS PREISSI COMPLEX
[2] *19.1 C. preissii - Lomandra effusa (rendzinas)*
[2] *19.2 E. gracilis - C. preissii*
[2] *19.3 C. preissii (red-brown earths)*
[2] *19.4 E. gracilis - E. dumosa - Alyxia buxifolia - C. preissii*

[3] *20. MAIREANA PYRAMIDATA COMPLEX*

21. CASUARINA CRISTATA COMPLEX
[3] *21.1 Casuarina cristata - Alyxia buxifolia*
[2] *21.2 Casuarina cristata - Maireana sedifolia - M. pyramidata*
[1] *21.3 Casuarina cristata (species poor)*

[1] *22. ACACIA PAPYROCARPA COMPLEX*

23. "COMPLEX 23"
[1] *23.1 Cassia nemophila - Dodonaea viscosa*
[1] *23.2 Maireana sedifolia*
[1] *23.3 Atriplex stipitata*

24. EUCALYPTUS POROSA COMPLEX
[10] *24.1 E. porosa*
[5] *24.2 E. porosa - Melaleuca lanceolata - Beyeria lechenaultii*

[2] *25. CALLITRIS COLUMELLARIS COMPLEX*

26. EUCALYPTUS LEUCOXYLON COMPLEX
[1] *26.1 E. leucoxylon ssp. megacarpa (SE)*
[16] *26.2 E. leucoxylon*
[1] *26.3 E. leucoxylon - Acacia wattsiana (NL, FR)*
[2] *26.4 E. leucoxylon - Chorizandra enodis*

27. ALLOCASUARINA VERTICILLATA COMPLEX
[2] *27.1 E. fasciculosa - Lepidosperma laterale*
[1] *27.2 E. odorata - A. verticillata*
[3] *27.3 A. verticillata - E. porosa*
[2] *27.4 A. verticillata*

28. CASSINIA LAEVIS - XANTHORRHOEA QUADRANGULATA COMPLEX
[1] *28.1 E. leucoxylon - X. quadrangulata*
[1] *28.2 C. laevis - E. gracilis*
[3] *28.3 E. cladocalyx (NL, FR)*
[1] *28.4 C. laevis - Triodia irritans*
[1] *28.5 C. laevis - X. quadrangulata*

[1] *29. EUCALYPTUS MACRORHYNCHA COMPLEX*

30. EUCALYPTUS ODORATA COMPLEX
[14] *30.1 E. odorata*
[1] *30.2 E. odorata - E. cladocalyx*

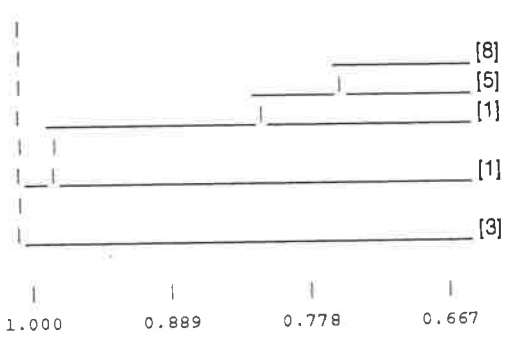
[1] *31. EUCALYPTUS LARGIFLORENS COMPLEX*

[1] *32. DODONAEA LOBULATA COMPLEX*

33. EUCALYPTUS CAMALDULENSIS COMPLEX
[12] *33.1 E. camaldulensis*
[1] *33.2 E. camaldulensis - Banksia marginata (SL)*
[1] *33.3 E. camaldulensis - Melaleuca decussata (EP)*

34. MUEHLENBECKIA CUNNINGHAMII COMPLEX
[2] *34.1 M. cunninghamii - E. camaldulensis*
[1] *34.2 Typha domingensis - Paspalum paspaloides*

[1] *35. EUCALYPTUS MICROCARPA COMPLEX*



36. HALOSARCIA HALOCNEMOIDES COMPLEX

36.1 h. halocnemoides

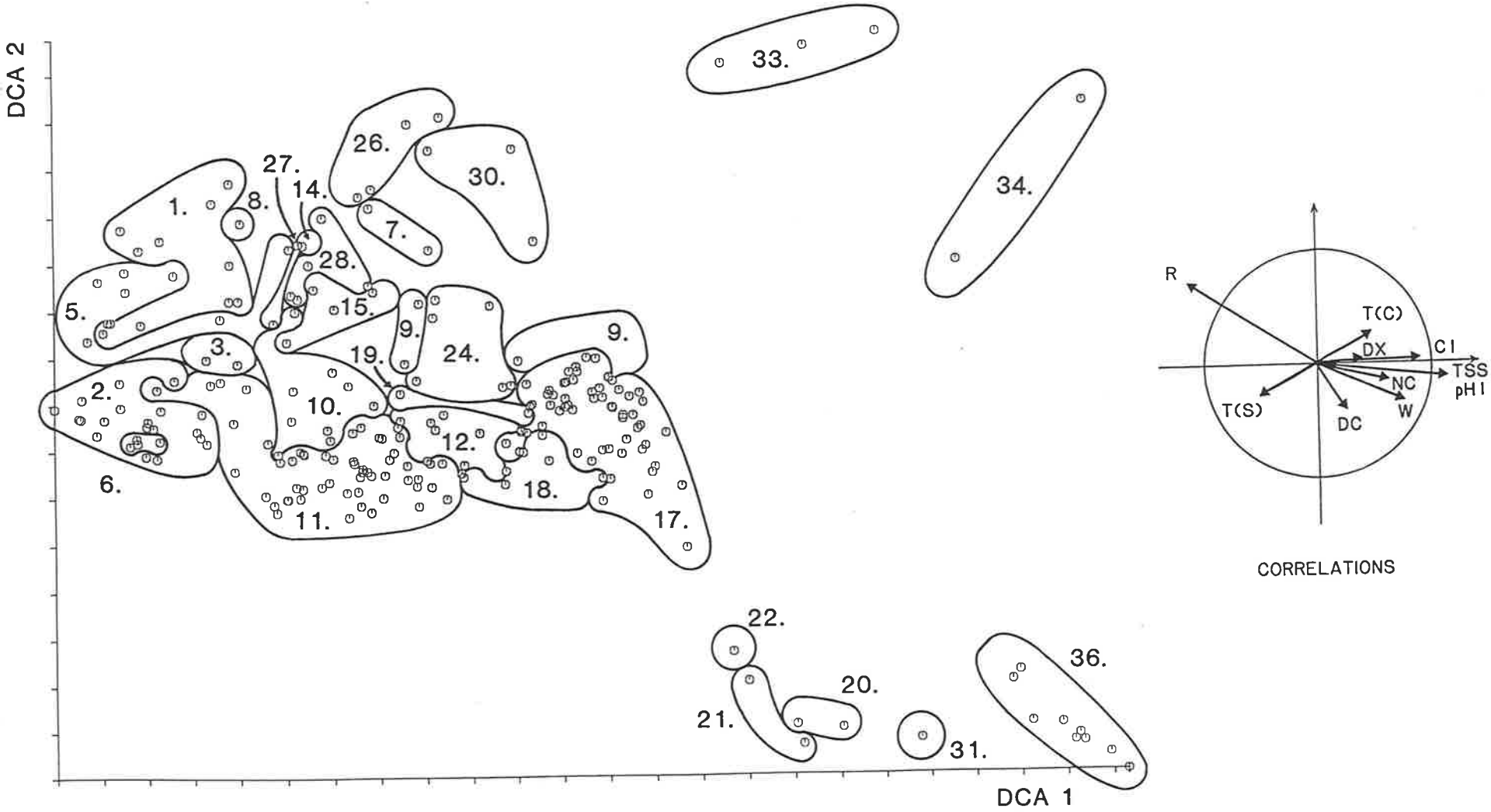
36.2 Sclerostegia arbuscula

36.3 Atriplex paludosa - H. halocnemoides

37. ATRIPLEX CINEREA

38. AVICENNIA MARINA

Figure 6.2. Ordination of a random subsample of 235 sites from the full data set (mangrove and samphire complexes excluded). The vegetation complexes are superimposed and are identified by their sequential code numbers from the classification in Figure 6.1. Rank correlations of environmental variables with the ordination axes are given in the same form as used in Figure 5.2.


DCA 2
DCA 1
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31.
33.
34.
36.
R
T(C)
DX
CI
TSSI
pHI
NC
W
DC
T(S)
CORRELATIONS

Figure 6.3. Trend surface of species diversity (number of species per 0.1 ha site) fitted to the two-dimensional ordination of the random subsample in Figure 6.2. The dotted line shows the approximate limit of data points in the ordination space. The trend surface is quadratic and accounts for 49 % of deviance (r^2).

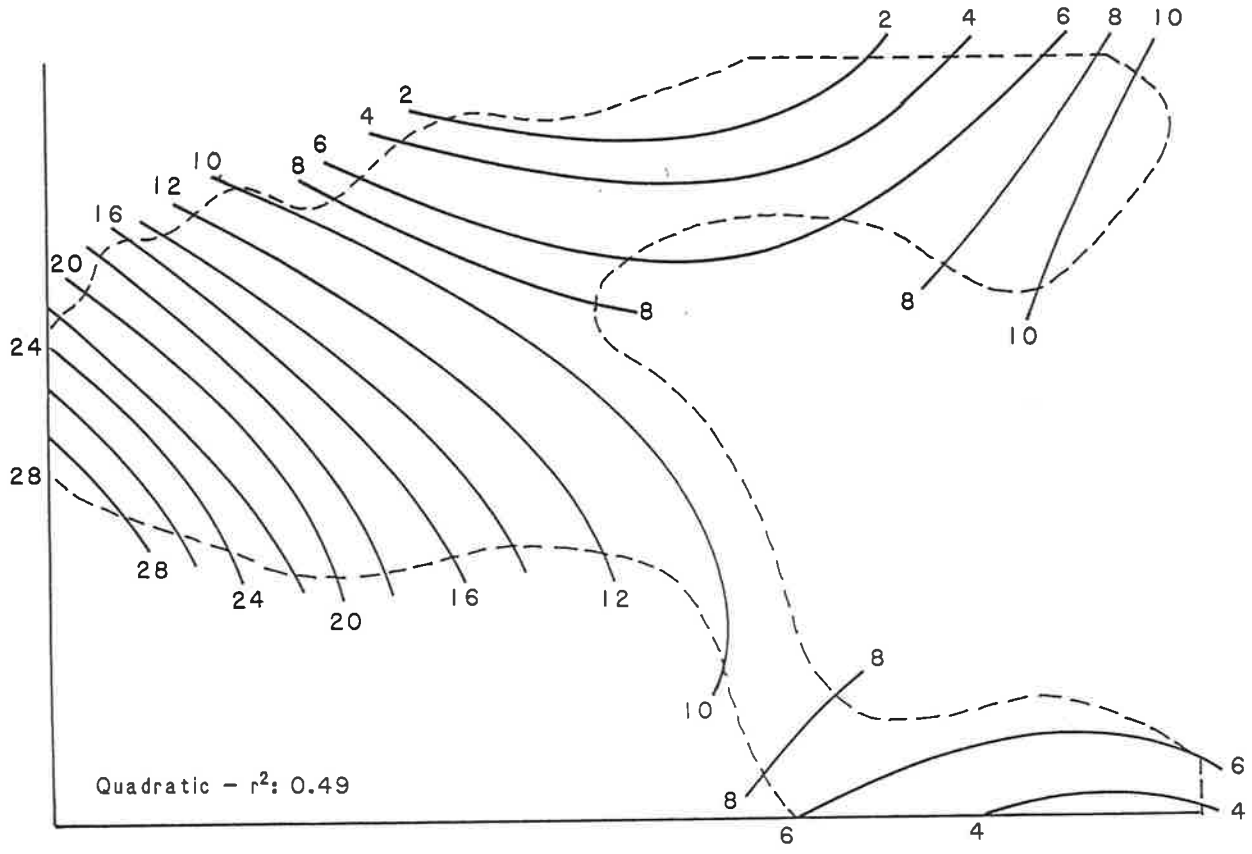
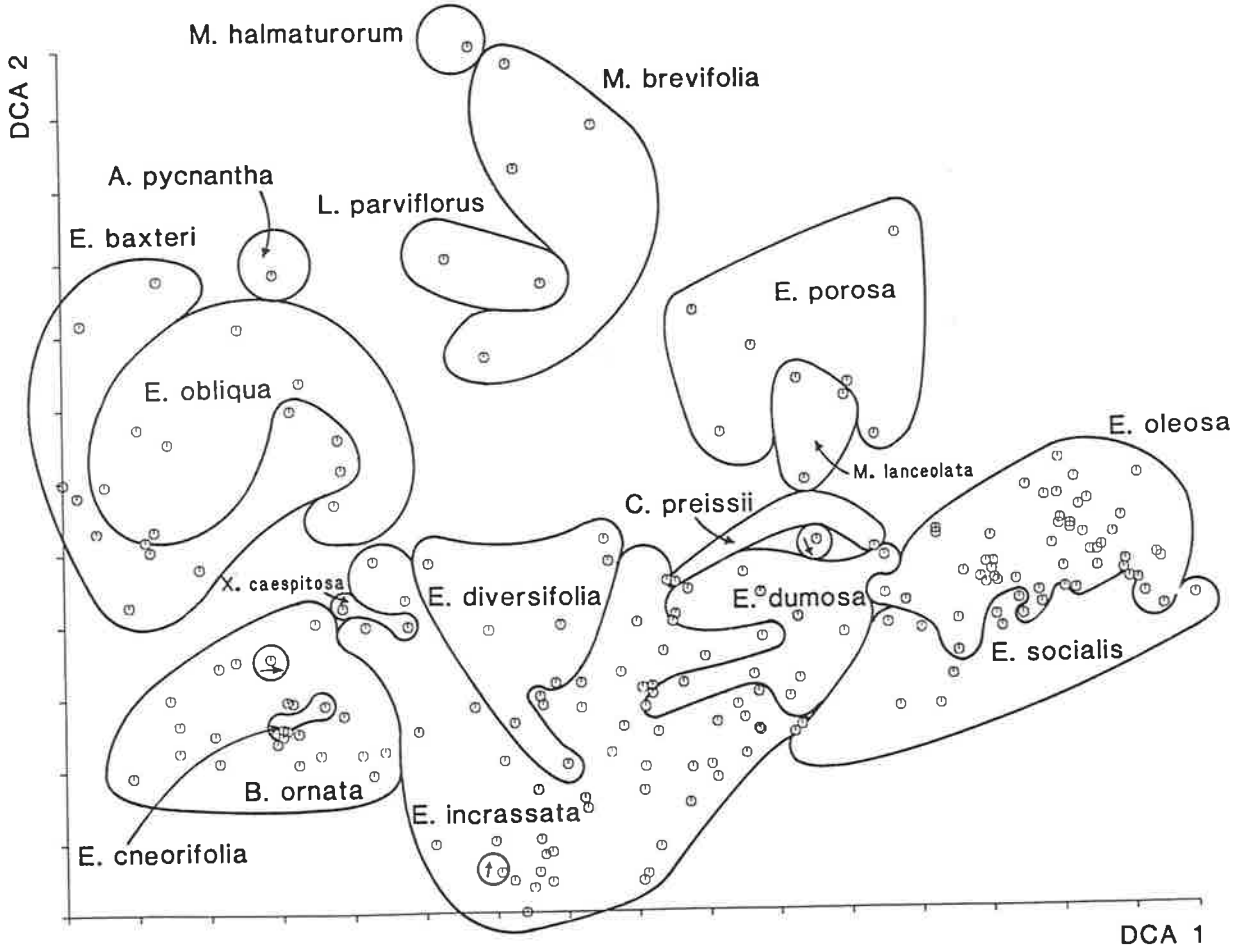


Figure 6.4. Ordination of a reduced random subsample of the full data set (mangrove, samphire, savannah woodland and arid shrubland complexes removed). Complexes are identified by abbreviations of the first species in their full names.



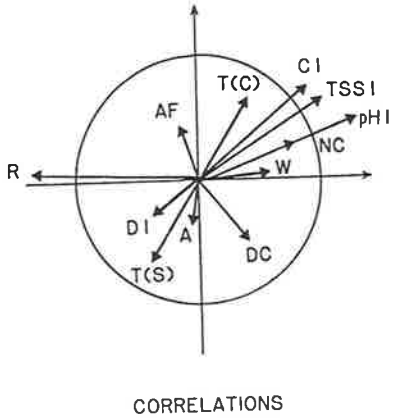


Figure 6.5. Trend surface of species diversity for the ordination of the reduced random subsample (Figure 6.4).

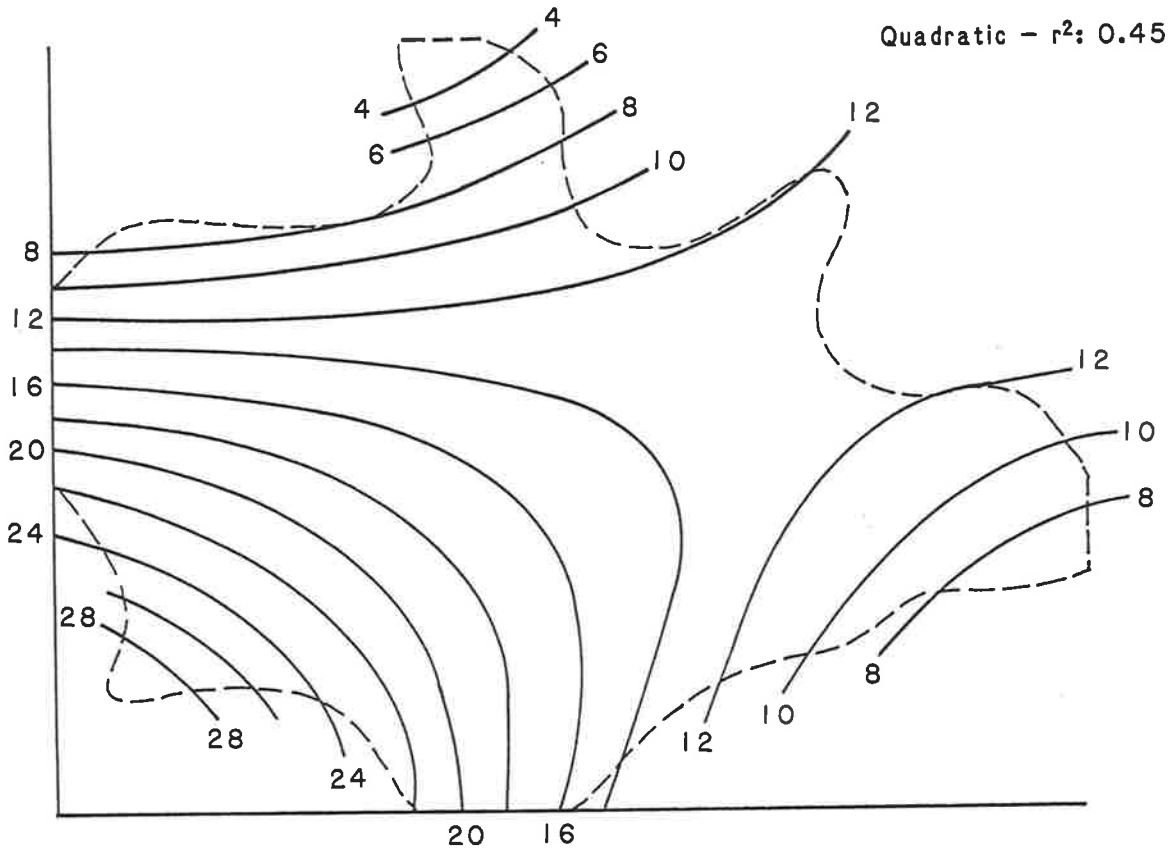
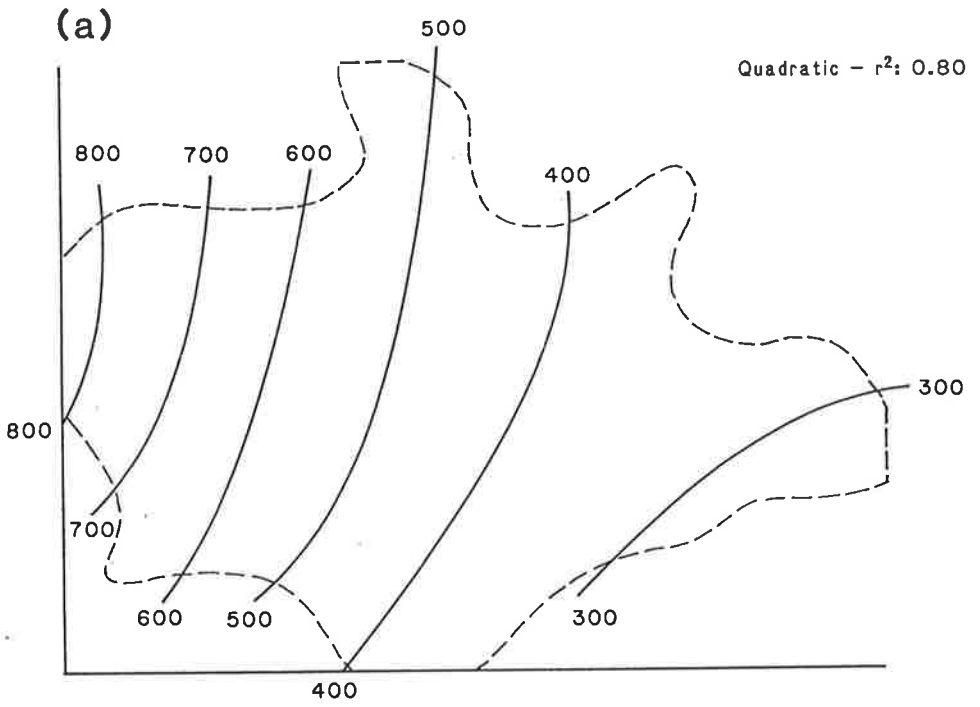
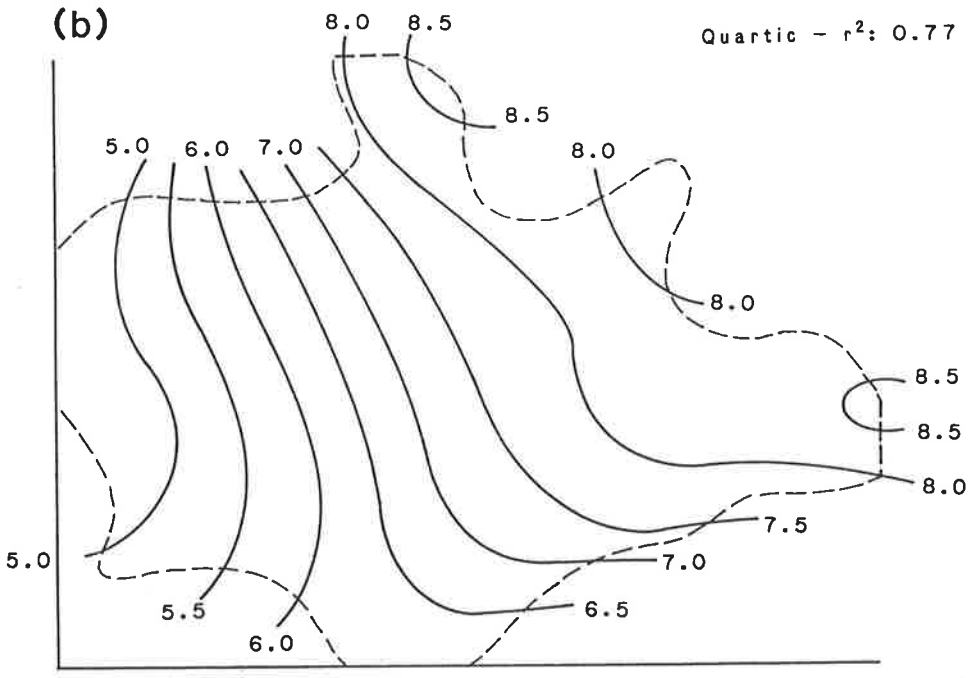
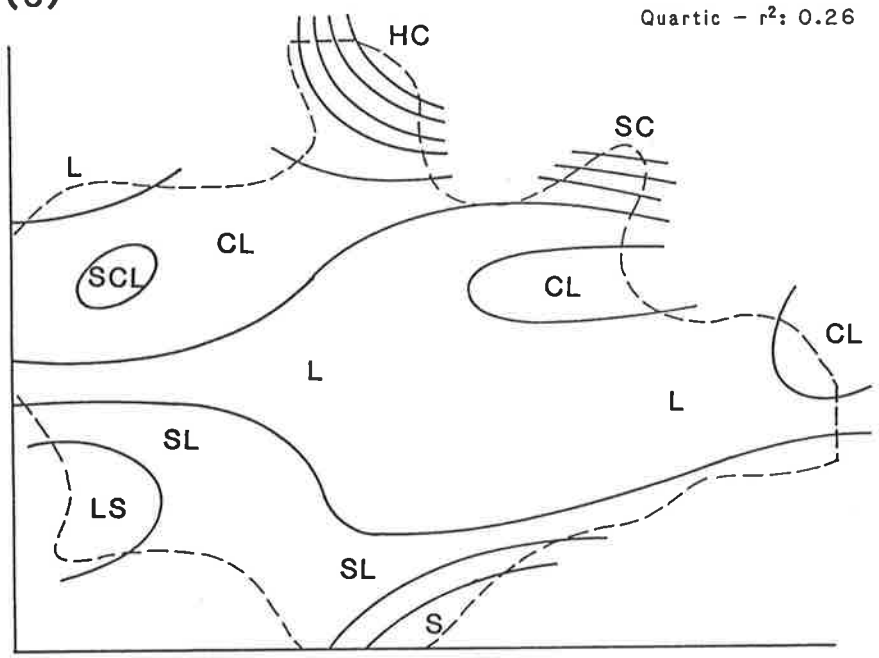


Figure 6.6. Trend surfaces of the most significant environmental correlates on the ordination of the reduced random subsample (as in Figure 6.4): (a) annual rainfall (mm); (b) soil pH; (c) soil texture; (d) soil total soluble salts; and (e) calcium carbonate. Soil texture is abbreviated as acronyms of the texture classes in Table 3.7). Values for total soluble salts are log_{10} [$KCl_{equivalents}$] in the analysed soil suspension. Values for calcium carbonates are the probability of a reaction to HCl solution.

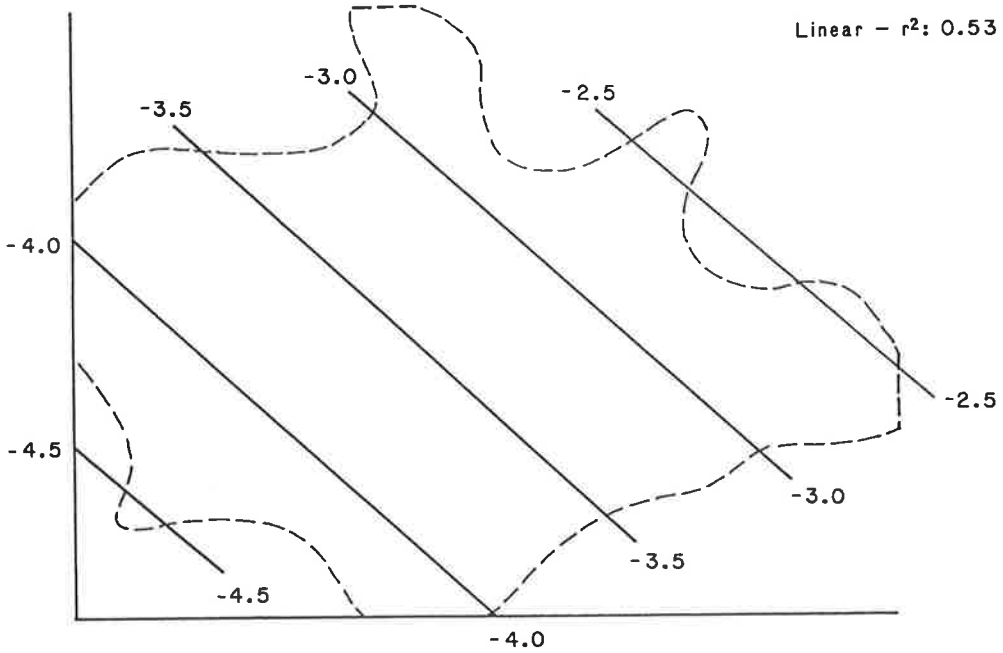




(c)


Quartic – r²: 0.26
HC
SC
L
CL
SCL
CL
CL
L
L
SL
LS
SL
S

(d)


Linear – r²: 0.53
-3.0
-3.5
-2.5
-4.0
-2.5
-4.5
-3.0
-3.5
-4.5
-4.0

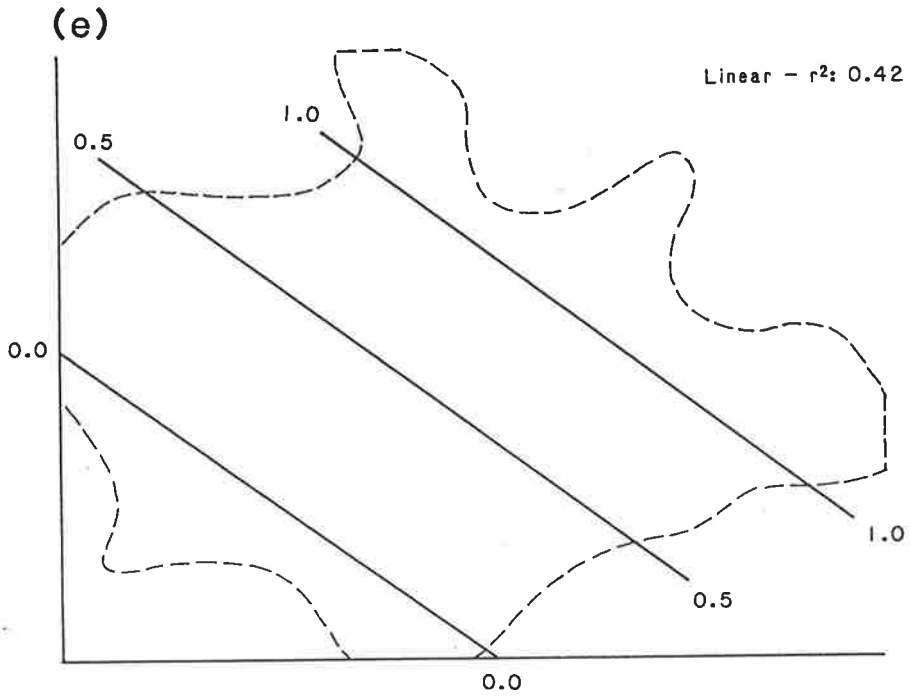

(e)
Linear – r²: 0.42
1.0
0.5
0.0
1.0
0.5
0.0

Figure 6.7. Ordination of sclerophyll woodland and heathland complexes (Complexes 1 to 6) from the full data set. The loci of vegetation types within complexes are shown and coded by the numbers from the classification (Figure 6.1).

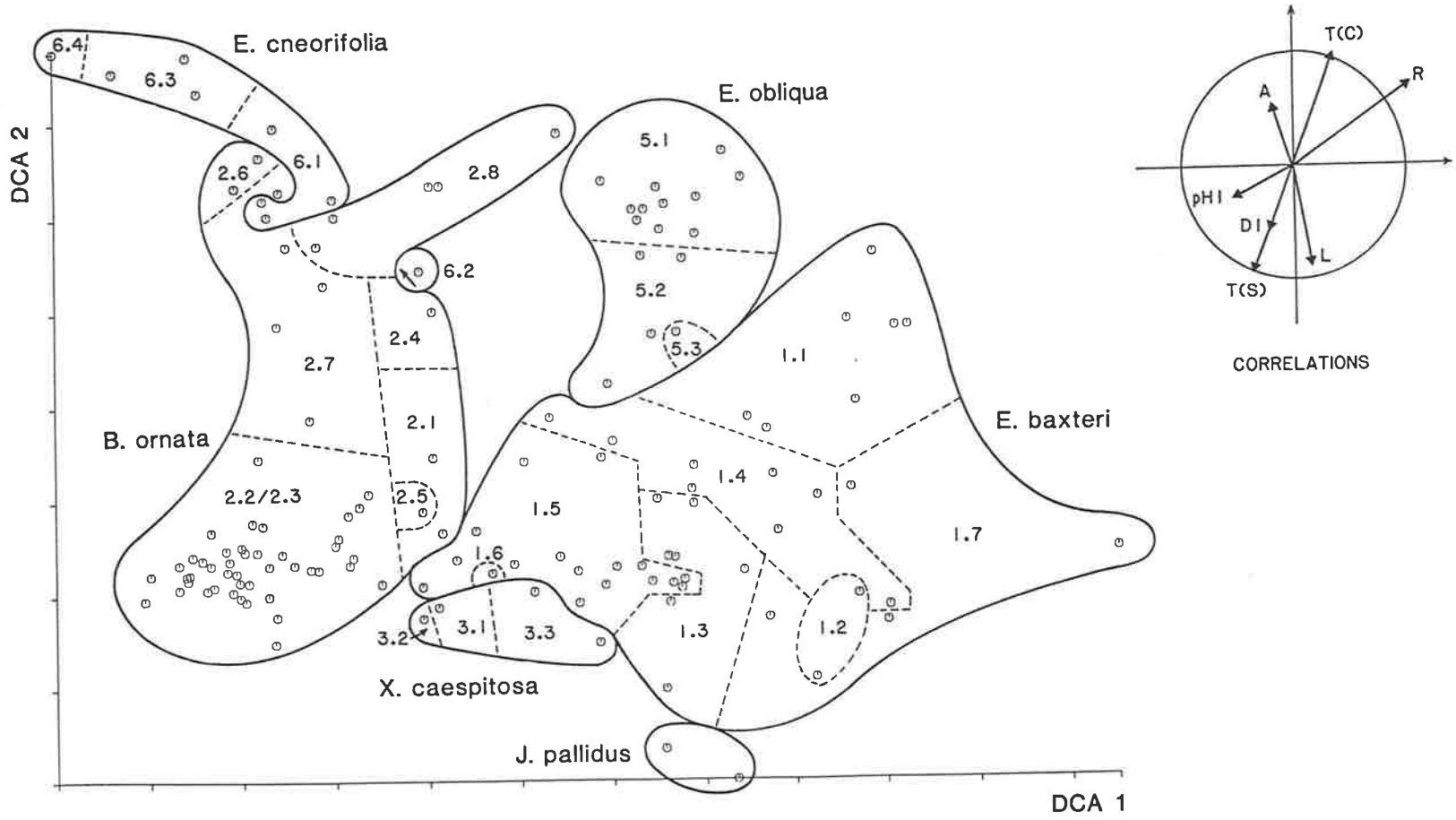
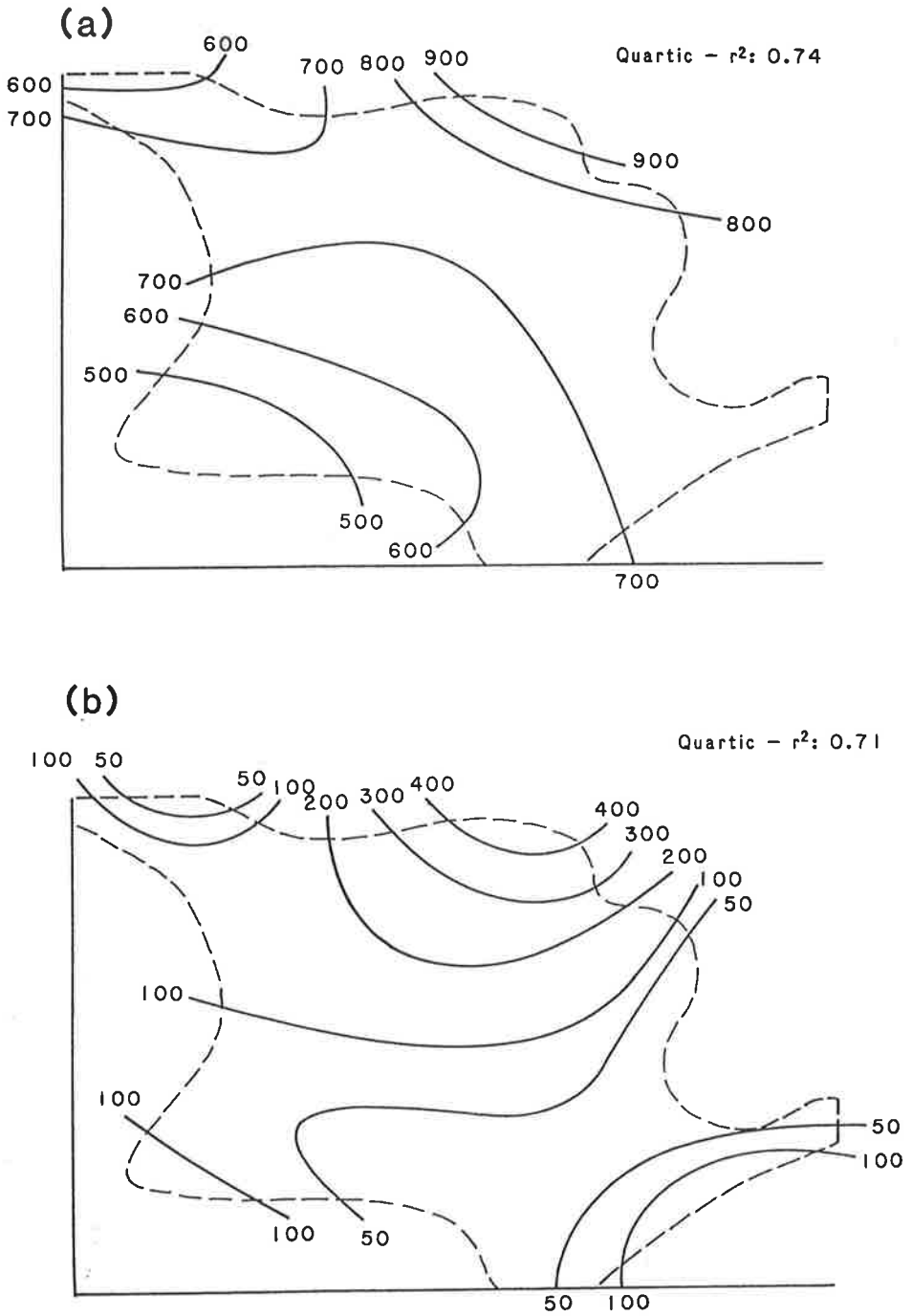


Figure 6.8. Trend surfaces of environmental correlates on the ordination of sclerophyll woodland and heathland complexes (Figure 6.7): (a) annual rainfall (mm); (b) altitude (m); and (c) soil texture (abbreviated as acronyms from Table 3.7).



(c)

Quartic – r^2: 0.66

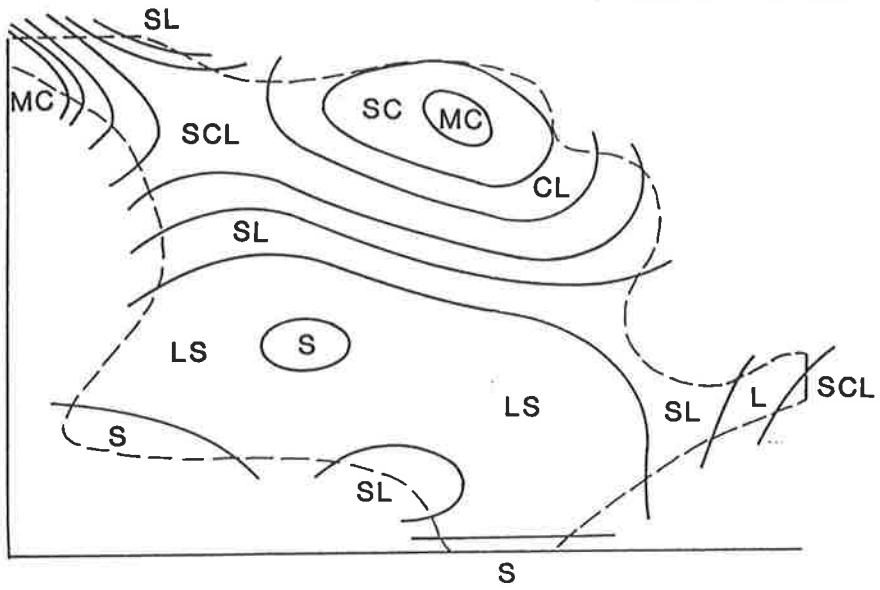
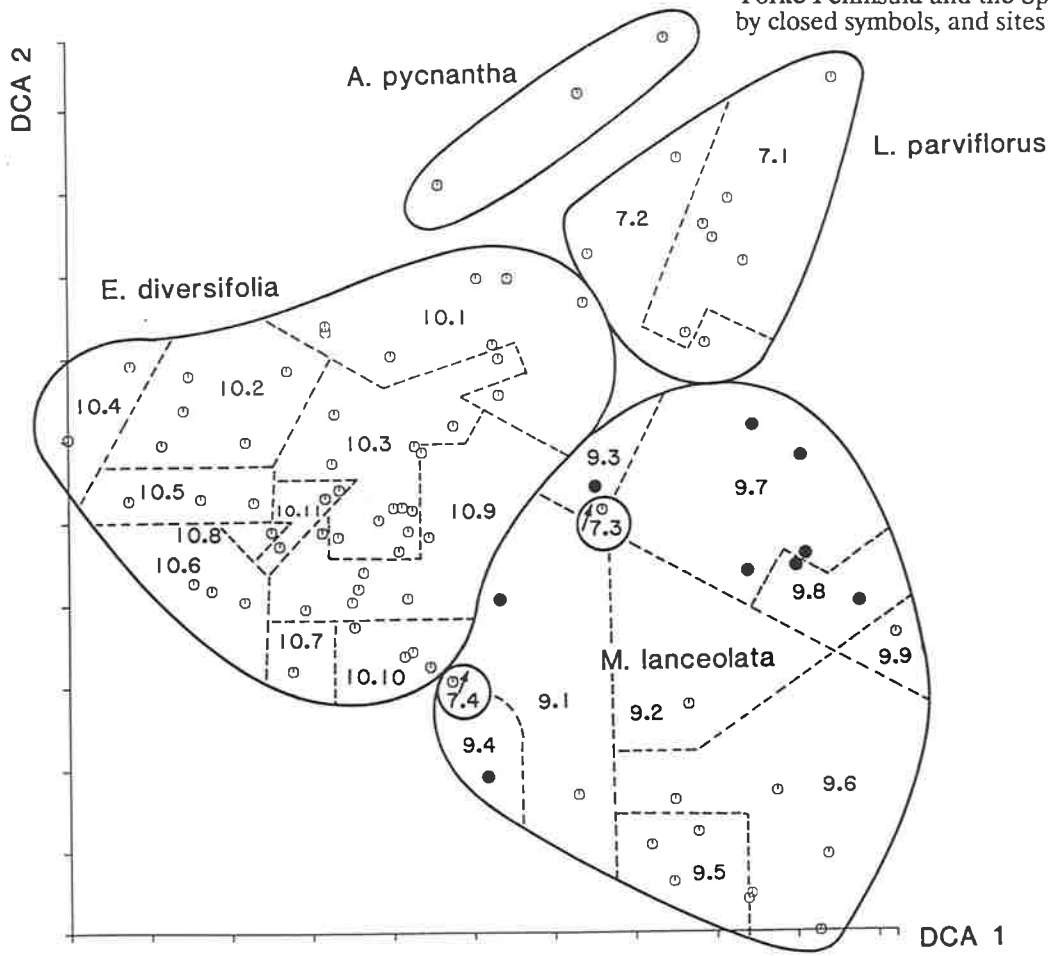
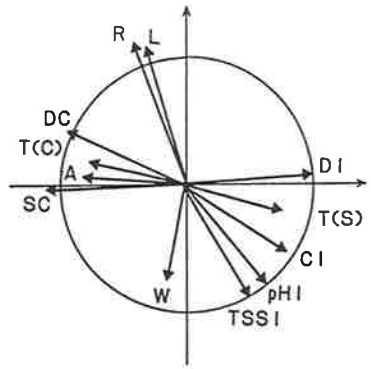


Figure 6.9. Ordination of coastal and EUCALYPTUS DIVERSIFOLIA complexes (Complexes 7 to 10) from the full data set.

The loci of vegetation types are coded by their numbers from the classification (Figure 6.1). In the MELALEUCA LANCEOLATA COMPLEX, sites from Yorke Peninsula and the Spencer Gulf (east) coast of Eyre Peninsula are shown by closed symbols, and sites from western Eyre Peninsula by open symbols.





CORRELATIONS

Figure 6.10. Trend surfaces of environmental correlates on the ordination of coastal complexes (Figure 6.9): (a) annual rainfall (mm); and (b) soil pH.

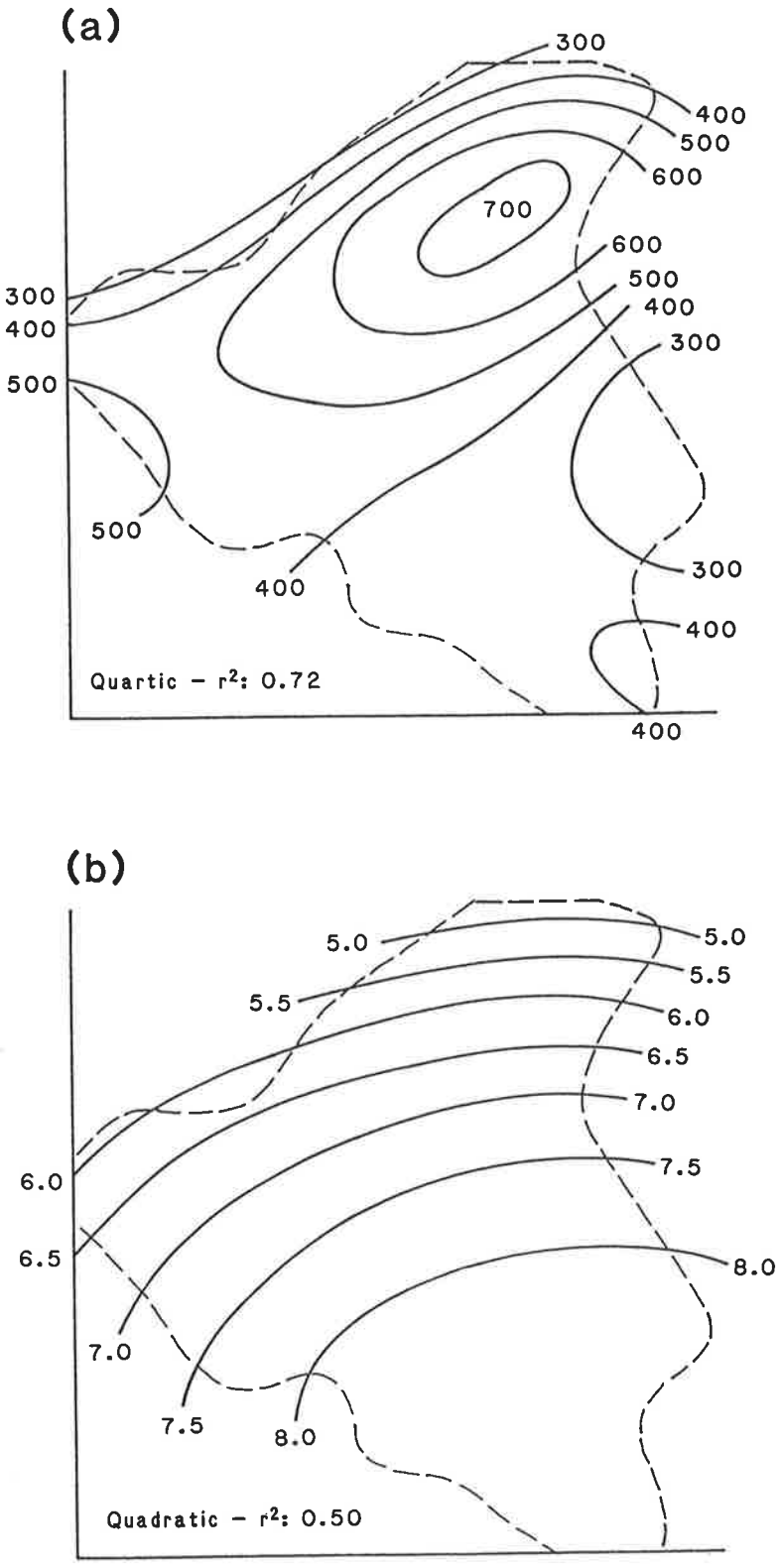


Figure 6.11. Ordination of mallee complexes (Complexes 10, 11, 12, 17 & 18) from the full data set.

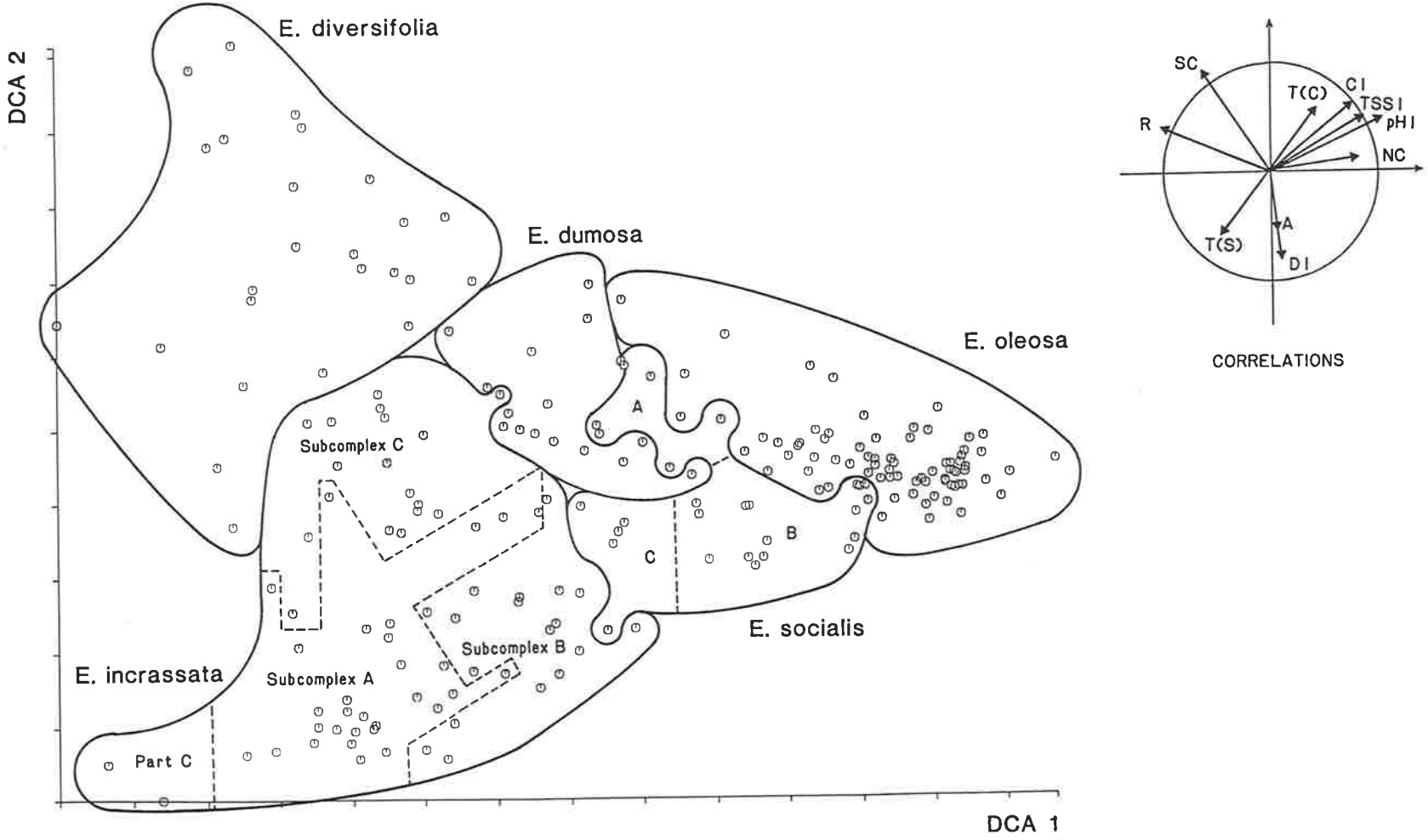
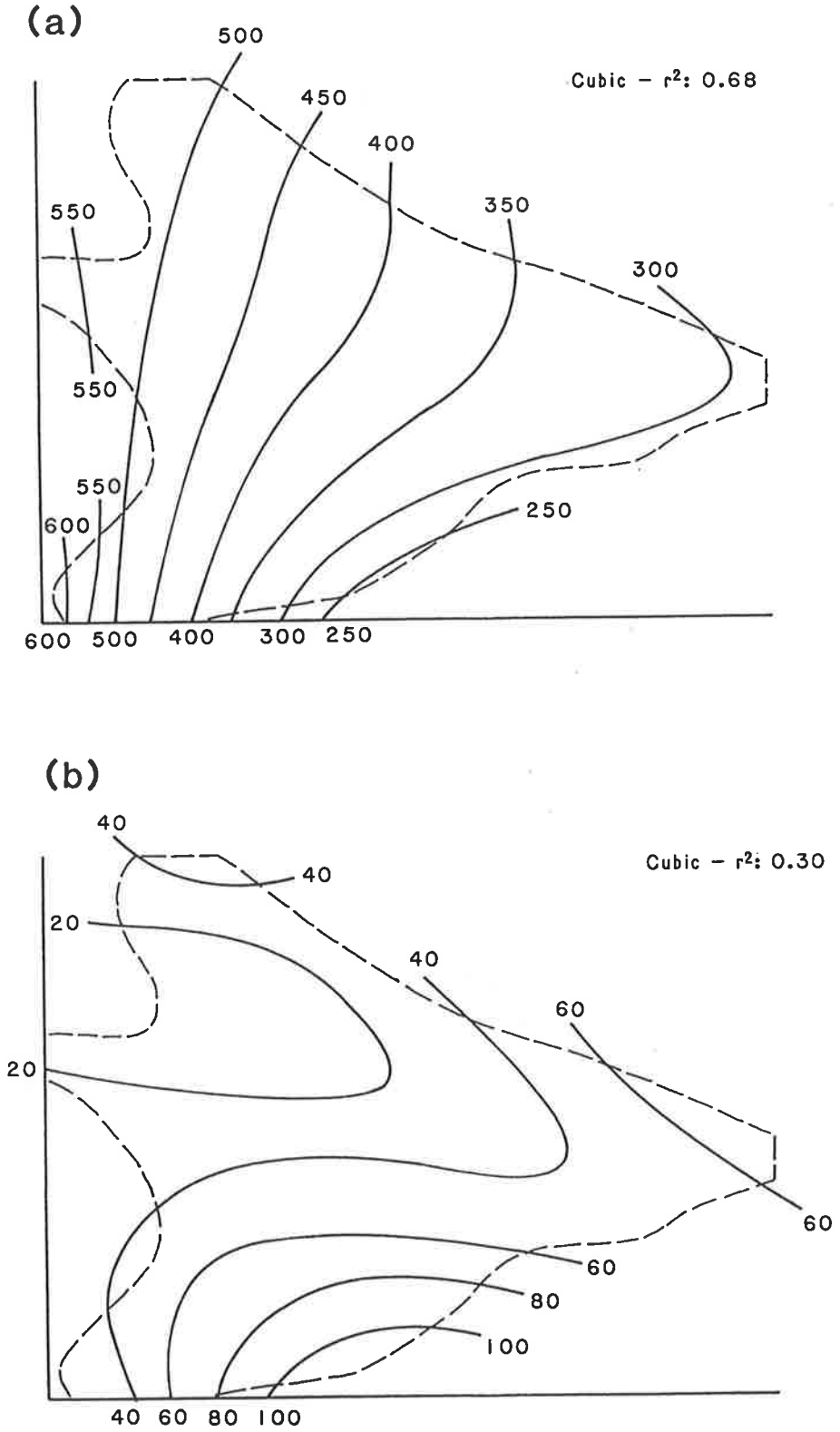
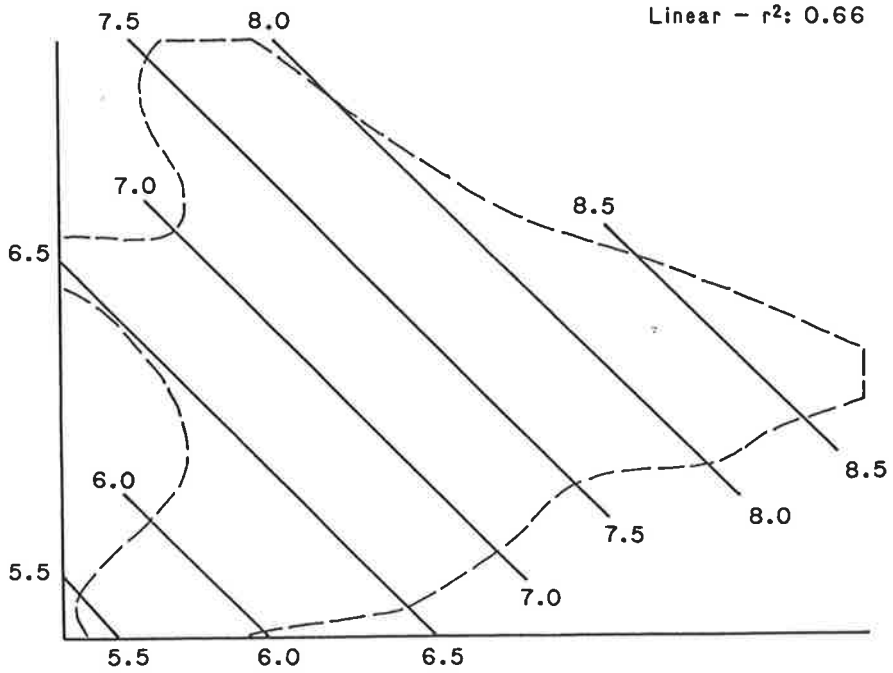


Figure 6.12. Trend surfaces of environmental correlates on the ordination of mallee complexes (Figure 6.11): (a) annual rainfall (mm); (b) soil depth (cm); (c) soil pH; and (d) soil texture (abbreviated as acronyms from Table 3.7)



(c)


Linear – r²: 0.66
7.5
8.0
7.0
8.5
6.5
8.5
6.0
8.0
7.5
5.5
7.0
5.5
6.0
6.5

(d)

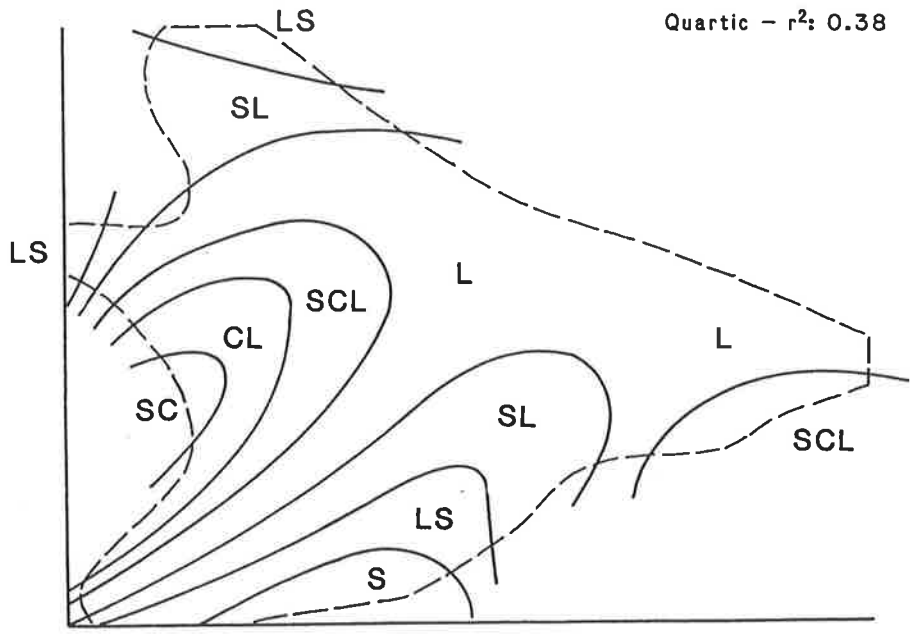

Quartic – r²: 0.38
LS
SL
LS
L
SCL
CL
L
SC
SL
SCL
LS
S

Figure 6.13. Ordination of arid mallee, arid chenopod shrubland and related complexes (Complexes 17 to 23) from the full data set.

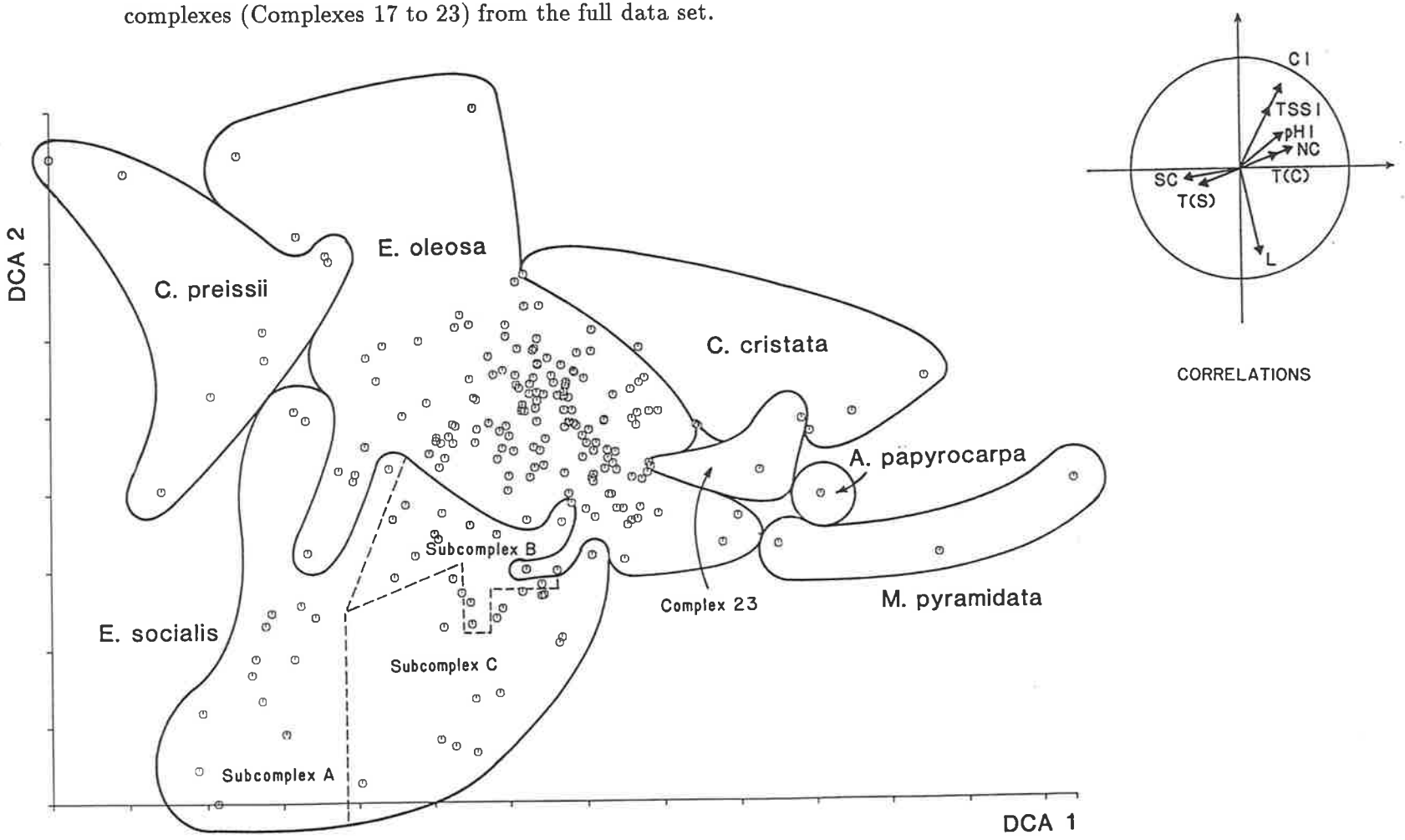
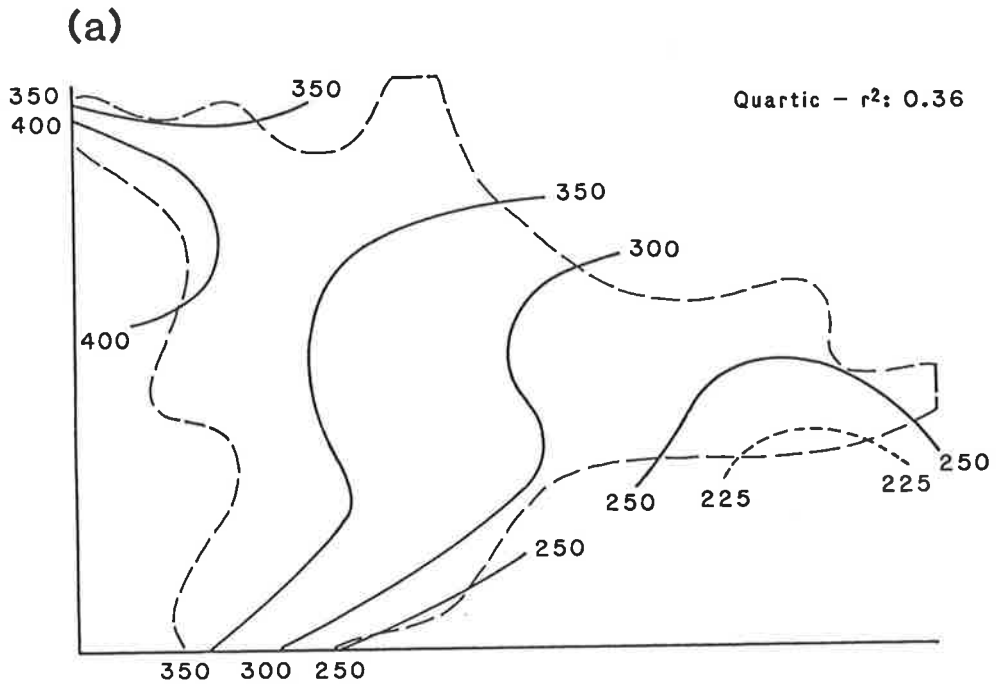


Figure 6.14. Trend surfaces of environmental correlates on the ordination of arid complexes (Figure 6.13): (a) annual rainfall (mm); and (b) soil texture (abbreviated as acronyms from Table 3.7).



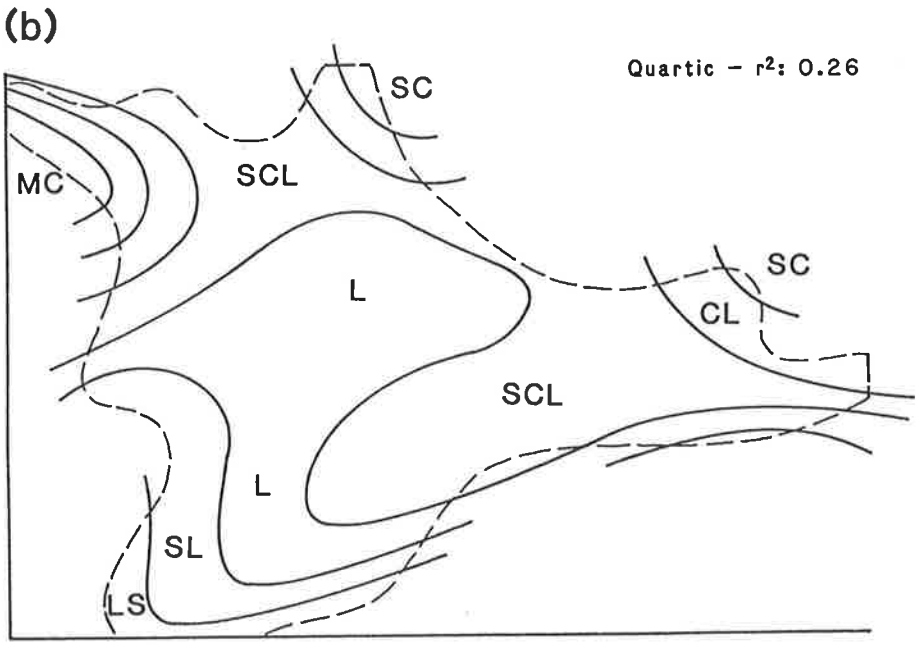


Figure 6.15. Ordination of the savannah woodlands and related complexes (Complexes 26 to 33) from the full data set.

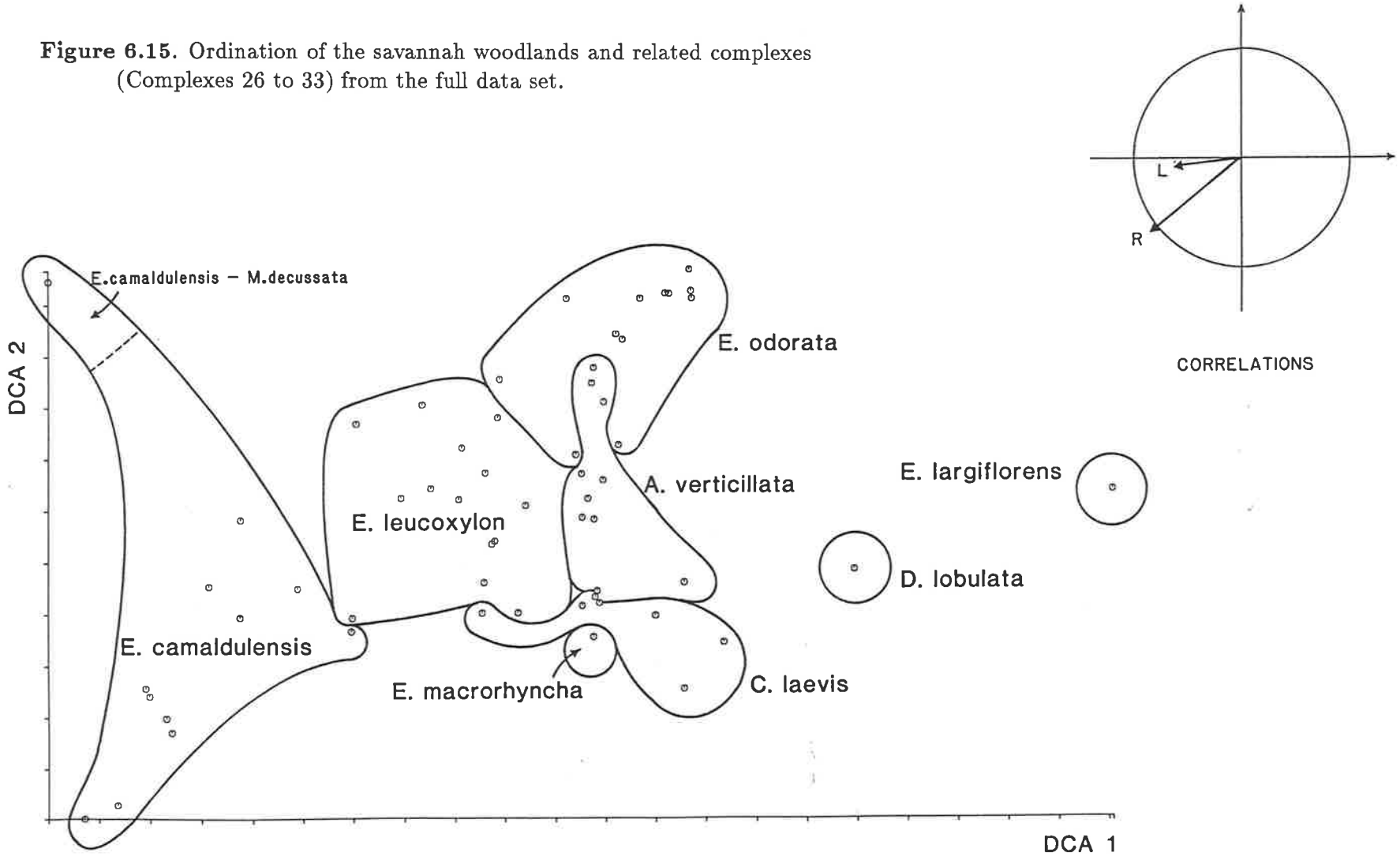


Figure 6.16. Trend surfaces of environmental correlates on the ordination of savannah woodland complexes (Figure 6.15): (a) annual rainfall (mm); and (b) soil pH.

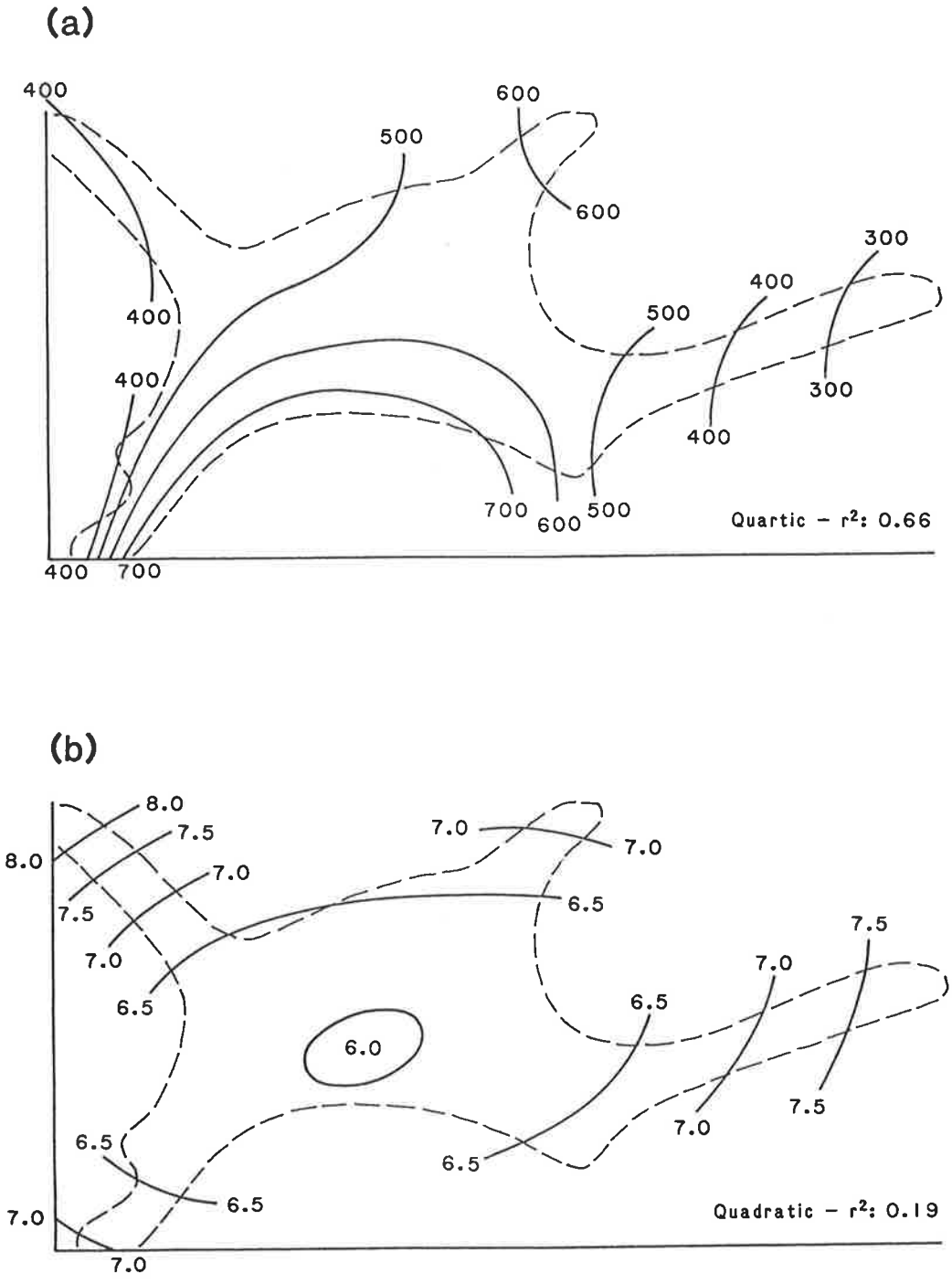


Figure 6.17. Multiple discriminant analysis plot of the catenation of all 38 complexes from the full classification. Centroids of complexes are plotted in the space described by the first two linear discriminant functions. Names of complexes are abbreviated after the first species name. *Linear* correlations of environmental variables with the discriminant functions are shown in the same manner as the environmental correlations with ordination axes (e.g. Figure 5.2).

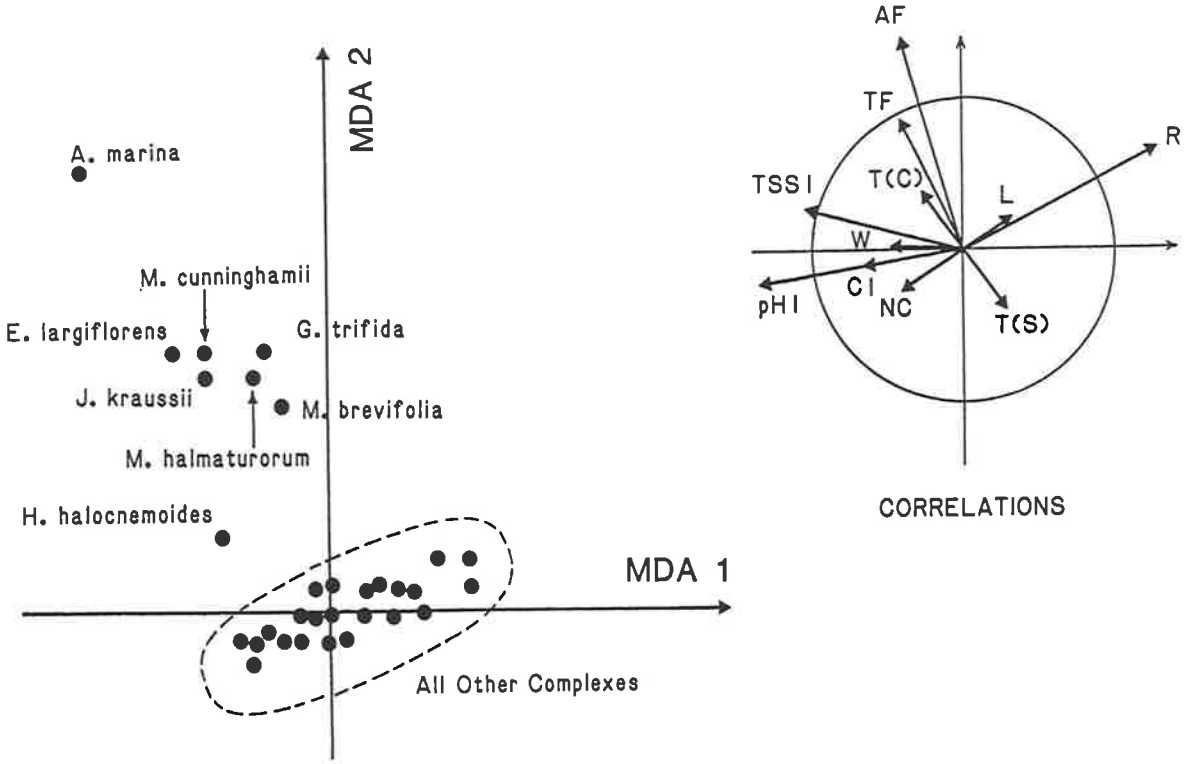


Figure 6.18. Multiple discriminant analysis plot of the catenation of the centroids of the 30 complexes (excluding wetland and saline complexes). Format is as in Figure 6.17.

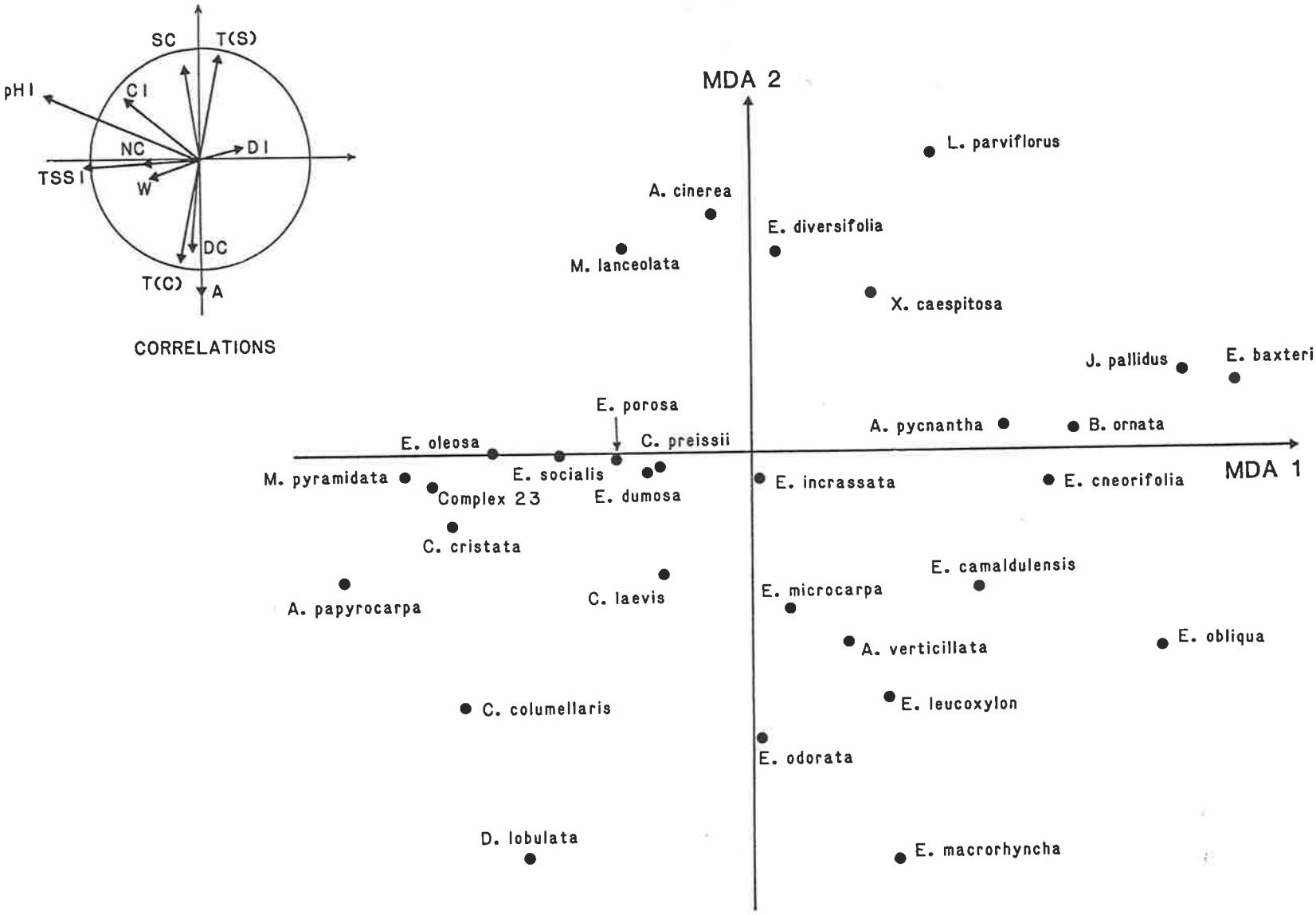
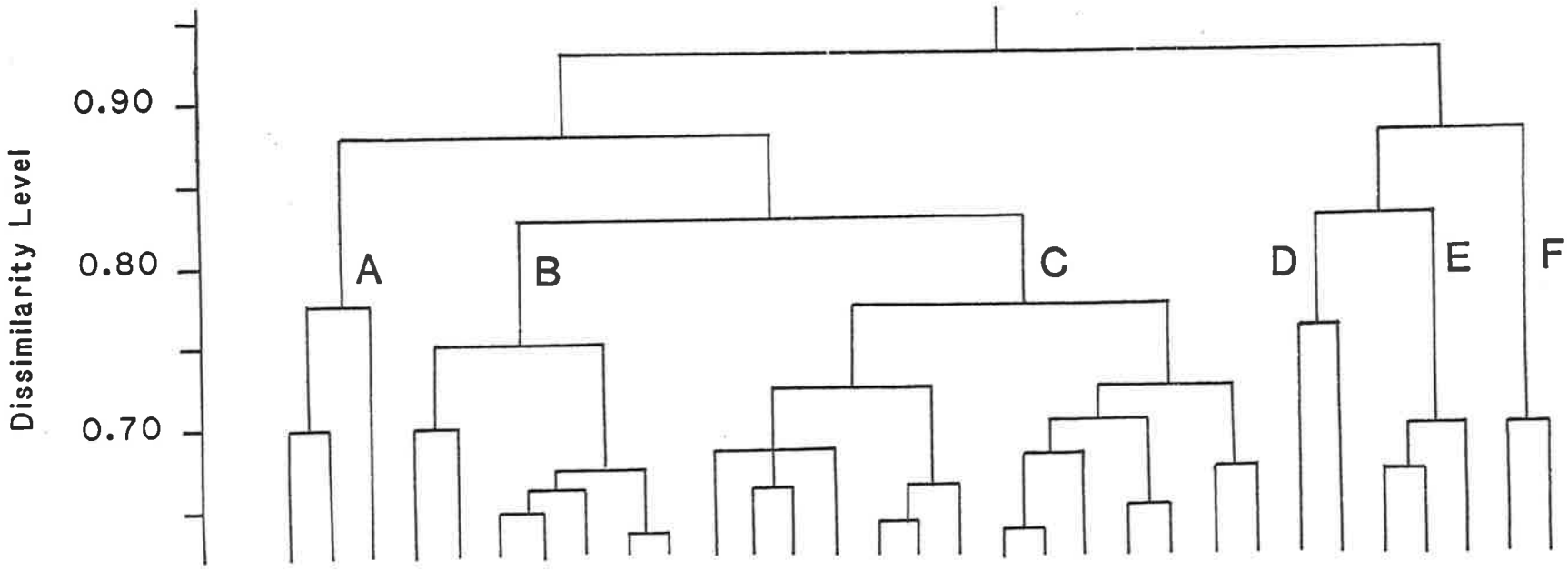

SC
T(S)
pH I
C I
NC
D I
TSS I
W
DC
T(C)
A
CORRELATIONS
MDA 2
MDA 1
L. parviflorus
A. cinerea
E. diversifolia
M. lanceolata
X. caespitosa
J. pallidus
E. baxteri
E. porosa
A. pycnantha
B. ornata
E. oleosa
C. preissii
M. pyramidata
E. socialis
E. dumosa
E. incrassata
E. cneorifolia
Complex 23
C. cristata
E. camaldulensis
E. microcarpa
A. papyrocarpa
C. laevis
A. verticillata
E. obliqua
C. columellaris
E. leucoxylon
E. odorata
D. lobulata
E. macrorhyncha

Figure 6.19. Classification of the random subsample of the full data set (235 sites) using generic data. The dendrogram is truncated at the 31-group level ($d_{BC} = 0.625$). Groups defined at this level are compared with the complexes defined in the full classification of species data (Figure 6.1). The order of complexes is rearranged to maximise the number of sites falling along the leading diagonal of the matrix.



Group Defined by Species Data	Group defined by Generic Data 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31
8. *Acacia pycnantha*	1
7. *Leucopogon parviflorus*	2
9. *Melaleuca lanceolata*	1 3
1. *Eucalyptus baxteri*	8 1 1
5. *Eucalyptus obliqua*	1 1 6
2. *Banksia ornata*	14 1 3 1
3. *Xanthorrhoea caespitosa*	1 1
6. *Eucalyptus cneorifolia*	1 2
24. *Eucalyptus porosa*	6
30. *Eucalyptus odorata*	3
33. *Eucalyptus camaldulensis*	3
26. *Eucalyptus leucoxylon*	2 1 1 1
27. *Allocasuarina verticillata*	1 1
17. *Eucalyptus oleosa*	8 28 4 4
18. *Eucalyptus socialis*	5 1 6 1 3
19. *Callitris preissii*	1 1
10. *Eucalyptus diversifolia*	2 1 2 4 1
12. *Eucalyptus dumosa*	2 8 1
11. *Eucalyptus incrassata*	2 8 6 1 2 12 4 2 13
14. *Melaleuca brevifolia*	4
15. *Melaleuca halmaturorum*	1
28. *Cassinia laevis*	3 1
31. *Eucalyptus largiflorens*	1 2
34. *Muehlenbeckia cunninghamii*	1 1
20. *Maireana pyramidata*	1 1
22. *Acacia papyrocarpa*	1 1
21. *Casuarina cristata*	
36. *Halosarcia halocnemoides*	1 4 4

Figure 6.20. Ordination of a subset of the random subsample using generic data. Sites from generic groups 25 to 31 are excluded. The loci of the five major complexes are superimposed on the plot. All other complexes are too scattered to define loci; sites from them are labelled by complex numbers from Figure 6.1.

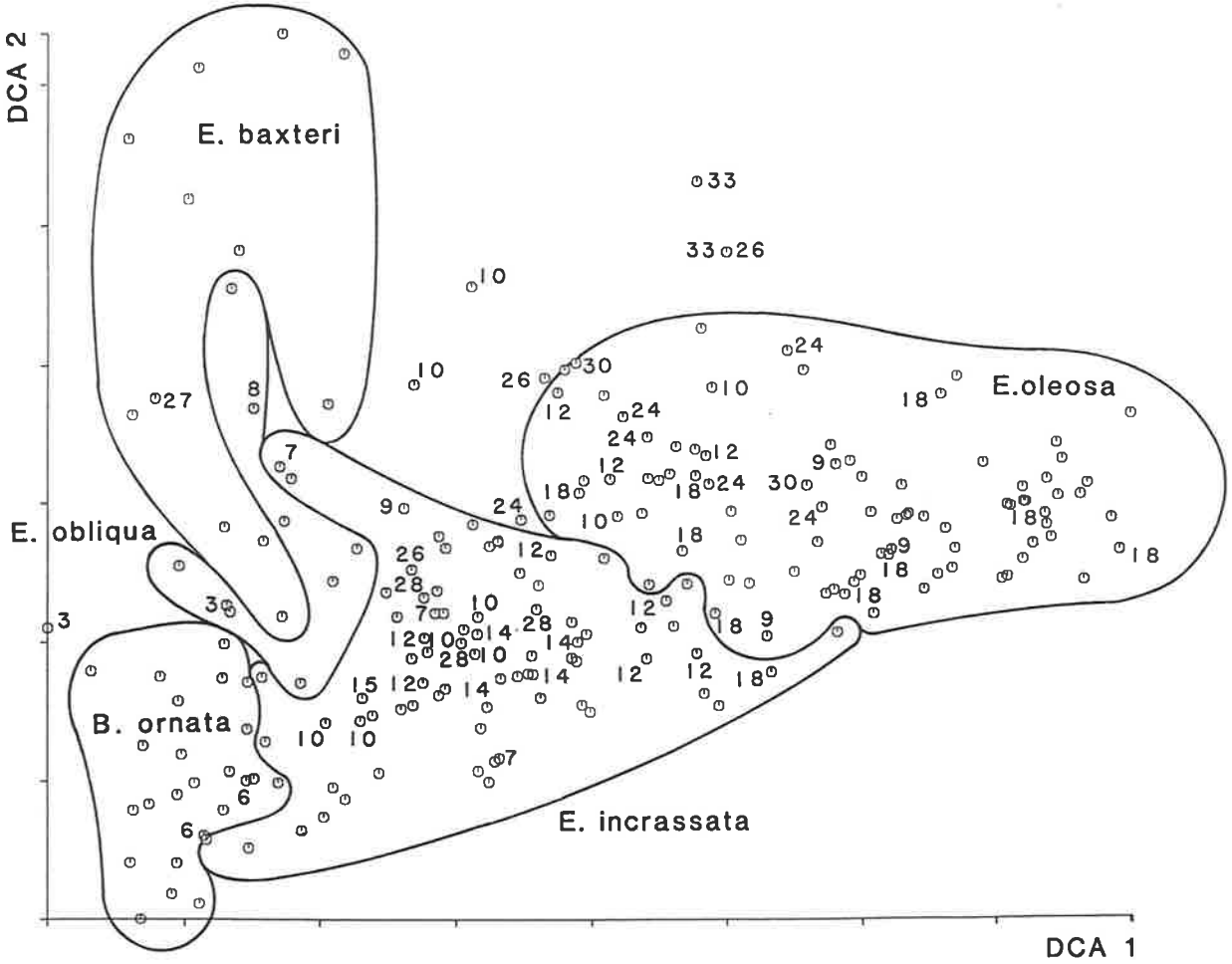

DCA 2
DCA 1
E. baxteri
E. obliqua
B. ornata
E. incrassata
E.oleosa

Figure 6.21. Trend surface of generic diversity for the ordination in Figure 6.20.

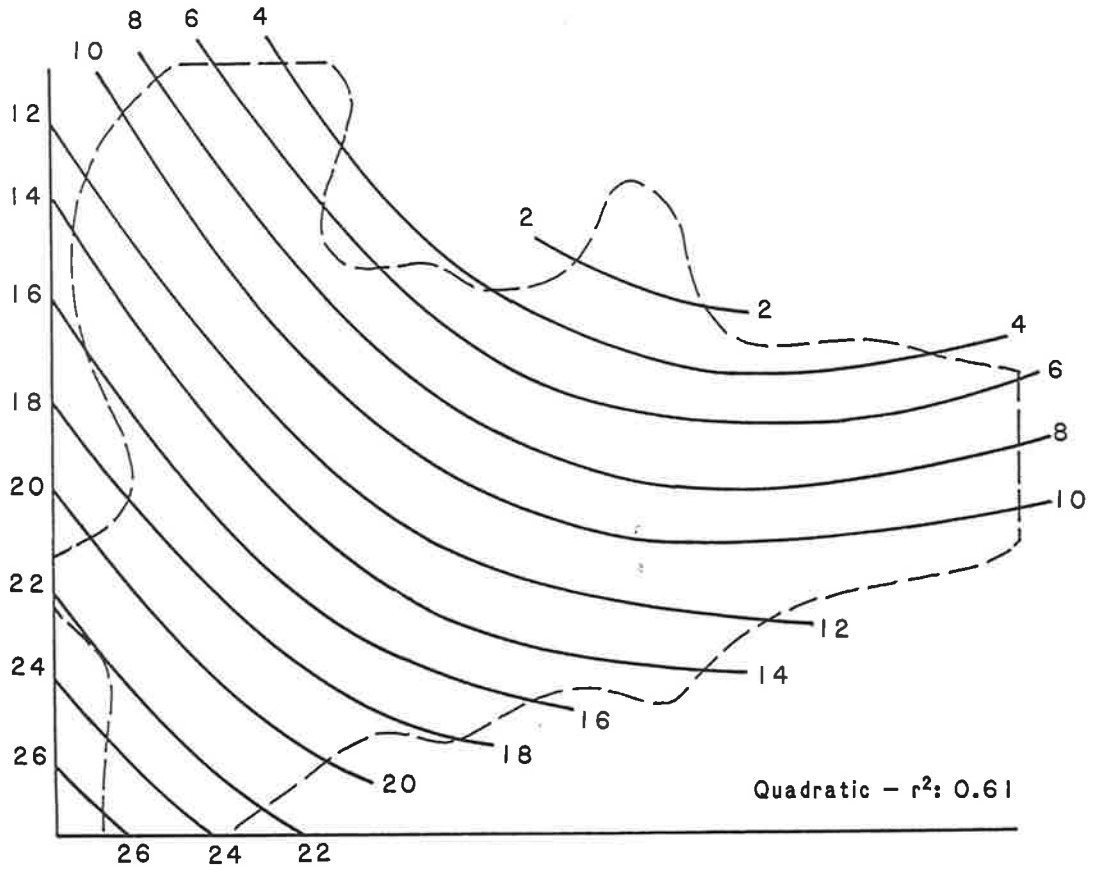


Table 6.1. Summary of the climatic and edaphic environment of the 38 vegetation complexes in the full classification (Figure 6.1). Complex names are abbreviated. Values for continuous variables are given as a mean and standard deviation. Values for binary variables are given as a probability (P) and a standard error of probability: $[P(1-P)/N]^{0.5}$. For classed multinomial variables, values are given as a median and a median deviation based on "percentile deviation": 0.5 × [83.3 percentile − 16.6 percentile]. Substrata variables (sheet calcrete, etc.) are reduced to the probability of occurrence within 75 cm of the soil surface.

	COMPLEX	SITES	ALTITUDE (m, a.s.l.)	ANNUAL RAINFALL (mm)	ANNUAL FLOODING (P)
1	*Eucalyptus baxteri - ...*	44	59.7 / 44.7	681.8 / 80.7	0.00 / 0.00
2	*Banksia ornata - ...*	62	91.7 / 57.9	533.8 / 130.1	0.00 / 0.00
3	*Xanthorrhoea caespitosa*	4	27.5 / 9.5	437.5 / 14.4	0.00 / 0.00
4	*Juncus pallidus*	2	35.0 / 7.0	675.0 / 70.7	0.00 / 0.00
5	*Eucalyptus obliqua - ...*	16	297.5 / 149.1	754.6 / 141.1	0.00 / 0.00
6	*Eucalyptus cneorifolia*	9	102.2 / 77.5	591.6 / 68.4	0.00 / 0.00
7	*Leucopogon parviflorus - ...*	11	26.3 / 22.0	622.7 / 142.5	0.00 / 0.00
8	*Acacia pycnantha*	3	36.6 / 46.1	600.0 / 114.5	0.00 / 0.00
9	*Melaleuca lanceolata - ...*	21	13.3 / 14.6	352.3 / 68.8	1.00 / 0.00
10	*Eucalyptus diversifolia*	50	52.2 / 36.2	483.5 / 76.7	0.83 / 0.15
11	*Eucalyptus incrassata - ...*	137	121.2 / 79.2	367.8 / 64.7	0.73 / 0.13
12	*Eucalyptus dumosa*	33	110.0 / 90.1	371.9 / 42.7	1.00 / 0.00
13	*Gahnia trifida/filum*	7	15.7 / 20.7	578.5 / 101.4	0.00 / 0.00
14	*Melaleuca halmaturorum*	6	43.3 / 49.2	487.5 / 46.7	0.00 / 0.00
15	*Melaleuca brevifolia*	11	23.6 / 15.0	518.1 / 44.8	0.00 / 0.00
16	*Juncus kraussii*	1	0.0 / 0.0	350.0 / 0.0	0.00 / 0.00
17	*Eucalyptus oleosa - ...*	150	99.1 / 97.1	313.1 / 43.8	0.00 / 0.00
18	*Eucalyptus socialis*	48	131.2 / 146.4	326.5 / 61.3	0.00 / 0.00
19	*Callitris preissii*	8	77.5 / 36.5	384.3 / 51.6	0.00 / 0.00
20	*Maireana pyramidata*	3	126.6 / 142.2	250.0 / 0.0	0.00 / 0.00
21	*Casuarina cristata*	6	188.3 / 166.5	295.8 / 29.2	0.00 / 0.00
22	*Acacia papyrocarpa*	1	400.0 / 0.0	275.0 / 0.0	0.05 / 0.05
23	*"Complex 23"*	3	40.0 / 0.0	258.3 / 14.4	0.00 / 0.00
24	*Eucalyptus porosa*	15	165.3 / 207.2	383.3 / 42.9	0.00 / 0.00
25	*Callitris columellaris*	2	405.0 / 49.4	337.5 / 17.6	0.00 / 0.00
26	*Eucalyptus leucoxylon*	20	255.0 / 158.4	538.7 / 99.1	0.00 / 0.00
27	*Allocasuarina verticillata*	8	262.5 / 150.3	471.8 / 61.8	1.00 / 0.00
28	*Cassinia laevis - ...*	7	280.0 / 300.6	446.4 / 135.7	0.00 / 0.00
29	*Eucalyptus macrorhyncha*	1	490.0 / 0.0	600.0 / 0.0	0.00 / 0.00
30	*Eucalyptus odorata*	15	335.3 / 125.0	460.0 / 68.0	1.00 / 0.00
31	*Eucalyptus largiflorens*	1	20.0 / 0.0	250.0 / 0.0	0.00 / 0.00
32	*Dodonaea lobulata*	1	580.0 / 0.0	300.0 / 0.0	0.19 / 0.10
33	*Eucalyptus camaldulensis*	14	217.1 / 195.2	596.4 / 109.1	0.00 / 0.00
34	*Muehlenbeckia ...*	3	13.3 / 5.7	291.6 / 14.4	0.00 / 0.00
35	*Eucalyptus microcarpa*	1	110.0 / 0.0	500.0 / 0.0	0.00 / 0.00
36	*Halosarcia halocnemoides*	16	49.3 / 123.2	348.4 / 47.8	0.00 / 0.00
37	*Atriplex cinerea*	1	0.0 / 0.0	450.0 / 0.0	0.00 / 0.00
38	*Avicennia marina*	3	123.3 / 213.6	358.3 / 76.3	0.00 / 0.00

COMPLEX		TIDAL FLOODING (P)	SOIL DEPTH (cm)	SOIL TEXTURE (scalar)	SOIL pH
1	*Eucalyptus baxteri - ...*	0.00 / 0.00	86.1 / 30.1	9.0 / 1.0	5.02 / 0.57
2	*Banksia ornata - ...*	0.00 / 0.00	87.8 / 23.8	9.0 / 1.0	5.41 / 0.56
3	*Xanthorrhoea caespitosa*	0.00 / 0.00	87.5 / 25.0	8.5 / 1.0	6.93 / 1.23
4	*Juncus pallidus*	0.00 / 0.00	70.0 / 42.4	9.0 / 0.0	5.60 / 0.07
5	*Eucalyptus obliqua - ...*	0.00 / 0.00	60.3 / 41.6	2.0 / 1.5	4.86 / 0.36
6	*Eucalyptus cneorifolia*	0.00 / 0.00	55.0 / 27.6	6.0 / 3.3	5.61 / 0.86
7	*Leucopogon parviflorus - ...*	0.00 / 0.00	72.7 / 38.2	8.0 / 1.5	7.73 / 0.87
8	*Acacia pycnantha*	0.00 / 0.00	15.0 / 5.0	6.0 / 0.5	5.76 / 0.32
9	*Melaleuca lanceolata - ...*	0.00 / 0.00	72.6 / 40.4	8.0 / 0.8	8.14 / 0.47
10	*Eucalyptus diversifolia*	0.00 / 0.00	15.2 / 19.5	7.0 / 0.1	7.36 / 0.67
11	*Eucalyptus incrassata - ...*	0.00 / 0.00	61.7 / 39.2	8.0 / 1.5	6.69 / 0.90
12	*Eucalyptus dumosa*	0.00 / 0.00	36.6 / 39.8	6.0 / 2.3	7.52 / 0.81
13	*Gahnia trifida/filum*	0.00 / 0.00	65.7 / 43.1	2.0 / 1.5	8.41 / 0.47
14	*Melaleuca halmaturorum*	0.00 / 0.00	85.8 / 34.7	2.0 / 1.0	8.35 / 0.86
15	*Melaleuca brevifolia*	0.00 / 0.00	50.4 / 40.4	4.0 / 3.5	7.92 / 0.82
16	*Juncus kraussii*	0.00 / 0.00	100.0 / 0.0	8.0 / 0.0	8.30 / 0.00
17	*Eucalyptus oleosa - ...*	0.00 / 0.00	42.5 / 35.8	6.0 / 1.0	8.35 / 0.44
18	*Eucalyptus socialis*	0.00 / 0.00	41.7 / 37.6	7.0 / 2.0	7.92 / 0.60
19	*Callitris preissii*	0.00 / 0.00	38.7 / 39.6	5.0 / 3.0	7.60 / 0.95
20	*Maireana pyramidata*	0.00 / 0.00	63.3 / 32.1	6.0 / 0.5	8.41 / 0.51
21	*Casuarina cristata*	0.00 / 0.00	50.8 / 40.5	6.0 / 2.5	8.33 / 0.15
22	*Acacia papyrocarpa*	0.00 / 0.00	20.0 / 0.0	5.0 / 0.0	8.30 / 0.00
23	*"Complex 23"*	0.00 / 0.00	6.6 / 2.8	3.0 / 0.0	8.08 / 0.07
24	*Eucalyptus porosa*	0.00 / 0.00	24.6 / 23.4	5.0 / 3.5	7.59 / 0.74
25	*Callitris columellaris*	0.00 / 0.00	100.0 / 0.0	4.0 / 0.0	8.47 / 0.53
26	*Eucalyptus leucoxylon*	0.00 / 0.00	51.3 / 39.7	4.0 / 2.5	6.38 / 1.08
27	*Allocasuarina verticillata*	0.00 / 0.00	51.8 / 40.8	4.0 / 3.0	6.23 / 0.70
28	*Cassinia laevis - ...*	0.00 / 0.00	52.8 / 44.5	4.0 / 4.0	7.69 / 1.22
29	*Eucalyptus macrorhyncha*	0.00 / 0.00	15.0 / 0.0	7.0 / 0.0	5.50 / 0.00
30	*Eucalyptus odorata*	0.00 / 0.00	58.6 / 40.8	5.0 / 3.0	6.78 / 1.37
31	*Eucalyptus largiflorens*	0.00 / 0.00	100.0 / 0.0	2.0 / 0.0	7.30 / 0.00
32	*Dodonaea lobulata*	0.00 / 0.00	10.0 / 0.0	6.0 / 0.0	7.60 / 0.00
33	*Eucalyptus camaldulensis*	0.00 / 0.00	55.7 / 40.8	5.5 / 3.0	6.06 / 1.08
34	*Muehlenbeckia ...*	0.00 / 0.00	100.0 / 0.0	2.0 / 0.0	7.06 / 0.83
35	*Eucalyptus microcarpa*	0.00 / 0.00	100.0 / 0.0	1.0 / 0.0	7.90 / 0.00
36	*Halosarcia halocnemoides*	0.13 / 0.08	75.0 / 39.0	3.0 / 2.5	8.20 / 0.79
37	*Atriplex cinerea*	0.00 / 0.00	100.0 / 0.0	9.0 / 0.0	8.65 / 0.00
38	*Avicennia marina*	1.00 / 0.00	75.0 / 43.3	6.0 / 2.5	7.70 / 1.21

COMPLEX		SOIL T.S.S. (-log[KCl]equiv.)	SOIL CARBONATES (P)	SHEET CALCRETE (P)	CALCRETE NODULES (P)
1	*Eucalyptus baxteri - ...*	4.25 / 0.27	0.02 / 0.02	0.09 / 0.04	0.00 / 0.00
2	*Banksia ornata - ...*	4.27 / 0.19	0.02 / 0.02	0.00 / 0.00	0.00 / 0.00
3	*Xanthorrhoea caespitosa*	3.96 / 0.25	0.25 / 0.22	0.00 / 0.00	0.00 / 0.00
4	*Juncus pallidus*	4.29 / 0.12	0.00 / 0.00	0.00 / 0.00	0.00 / 0.00
5	*Eucalyptus obliqua - ...*	4.11 / 0.43	0.00 / 0.00	0.00 / 0.00	0.00 / 0.00
6	*Eucalyptus cneorifolia*	4.04 / 0.93	0.00 / 0.00	0.00 / 0.00	0.00 / 0.00
7	*Leucopogon parviflorus - ...*	3.48 / 0.29	0.82 / 0.12	0.36 / 0.15	0.00 / 0.00
8	*Acacia pycnantha*	3.54 / 0.30	0.33 / 0.27	0.67 / 0.27	0.00 / 0.00
9	*Melaleuca lanceolata - ...*	2.64 / 0.78	0.86 / 0.08	0.29 / 0.10	0.00 / 0.00
10	*Eucalyptus diversifolia*	3.50 / 0.36	0.44 / 0.07	0.96 / 0.03	0.00 / 0.00
11	*Eucalyptus incrassata - ...*	3.75 / 0.55	0.11 / 0.03	0.03 / 0.03	0.01 / 0.01
12	*Eucalyptus dumosa*	3.17 / 0.57	0.33 / 0.08	0.45 / 0.09	0.03 / 0.03
13	*Gahnia trifida/filum*	2.44 / 0.71	0.86 / 0.13	0.29 / 0.17	0.00 / 0.00
14	*Melaleuca halmaturorum*	1.80 / 0.37	0.50 / 0.20	0.17 / 0.15	0.00 / 0.00
15	*Melaleuca brevifolia*	2.77 / 0.78	0.45 / 0.15	0.18 / 0.12	0.00 / 0.00
16	*Juncus kraussii*	2.69 / 0.00	1.00 / 0.00	0.00 / 0.00	0.00 / 0.00
17	*Eucalyptus oleosa - ...*	2.65 / 0.62	0.83 / 0.03	0.13 / 0.03	0.45 / 0.04
18	*Eucalyptus socialis*	3.25 / 0.64	0.35 / 0.07	0.19 / 0.06	0.38 / 0.07
19	*Callitris preissii*	3.21 / 0.61	0.63 / 0.17	0.38 / 0.17	0.13 / 0.12
20	*Maireana pyramidata*	2.91 / 0.52	1.00 / 0.00	0.00 / 0.00	0.67 / 0.27
21	*Casuarina cristata*	2.40 / 0.96	0.83 / 0.15	0.17 / 0.15	0.17 / 0.15
22	*Acacia papyrocarpa*	3.78 / 0.00	1.00 / 0.00	0.00 / 0.00	1.00 / 0.00
23	*"Complex 23"*	3.37 / 0.07	1.00 / 0.00	0.33 / 0.27	0.33 / 0.27
24	*Eucalyptus porosa*	3.29 / 0.69	0.60 / 0.13	0.67 / 0.12	0.07 / 0.07
25	*Callitris columellaris*	2.10 / 0.35	0.50 / 0.35	0.00 / 0.00	0.00 / 0.00
26	*Eucalyptus leucoxylon*	3.35 / 0.62	0.10 / 0.07	0.05 / 0.05	0.00 / 0.00
27	*Allocasuarina verticillata*	3.76 / 0.62	0.13 / 0.12	0.00 / 0.00	0.00 / 0.00
28	*Cassinia laevis - ...*	3.05 / 1.30	0.57 / 0.19	0.00 / 0.00	0.14 / 0.13
29	*Eucalyptus macrorhyncha*	1.71 / 0.00	1.00 / 0.00	0.00 / 0.00	0.00 / 0.00
30	*Eucalyptus odorata*	2.95 / 0.87	0.15 / 0.10	0.00 / 0.00	0.00 / 0.00
31	*Eucalyptus largiflorens*	1.48 / 0.00	0.00 / 0.00	0.00 / 0.00	0.00 / 0.00
32	*Dodonaea lobulata*	3.94 / 0.00	1.00 / 0.00	0.00 / 0.00	0.00 / 0.00
33	*Eucalyptus camaldulensis*	3.66 / 0.52	0.07 / 0.07	0.07 / 0.07	0.00 / 0.00
34	*Muehlenbeckia ...*	2.32 / 0.03	0.00 / 0.00	0.00 / 0.00	0.00 / 0.00
35	*Eucalyptus microcarpa*	3.08 / 0.00	1.00 / 0.00	0.00 / 0.00	0.00 / 0.00
36	*Halosarcia halocnemoides*	1.21 / 0.79	0.81 / 0.10	0.00 / 0.00	0.06 / 0.06
37	*Atriplex cinerea*	1.57 / 0.00	1.00 / 0.00	0.00 / 0.00	0.00 / 0.00
38	*Avicennia marina*	1.95 / 1.70	0.67 / 0.27	0.00 / 0.00	0.00 / 0.00

	COMPLEX	GRANITE/ SANDSTONE (P)		SILTSTONE/ MUDSTONE (P)	
1	*Eucalyptus baxteri - ...*	0.00	0.00	0.00	0.00
2	*Banksia ornata - ...*	0.00	0.00	0.00	0.00
3	*Xanthorrhoea caespitosa*	0.00	0.00	0.00	0.00
4	*Juncus pallidus*	0.00	0.00	0.00	0.00
5	*Eucalyptus obliqua - ...*	0.06	0.06	0.13	0.08
6	*Eucalyptus cneorifolia*	0.00	0.00	0.00	0.00
7	*Leucopogon parviflorus - ...*	0.00	0.00	0.00	0.00
8	*Acacia pycnantha*	0.00	0.00	0.00	0.00
9	*Melaleuca lanceolata - ...*	0.00	0.00	0.00	0.00
10	*Eucalyptus diversifolia*	0.00	0.00	0.00	0.00
11	*Eucalyptus incrassata - ...*	0.07	0.02	0.01	0.01
12	*Eucalyptus dumosa*	0.09	0.05	0.00	0.00
13	*Gahnia trifida/filum*	0.00	0.00	0.00	0.00
14	*Melaleuca halmaturorum*	0.00	0.00	0.00	0.00
15	*Melaleuca brevifolia*	0.00	0.00	0.00	0.00
16	*Juncus kraussii*	0.00	0.00	0.00	0.00
17	*Eucalyptus oleosa - ...*	0.00	0.00	0.01	0.01
18	*Eucalyptus socialis*	0.02	0.02	0.00	0.00
19	*Callitris preissii*	0.00	0.00	0.00	0.00
20	*Maireana pyramidata*	0.00	0.00	0.00	0.00
21	*Casuarina cristata*	0.00	0.00	0.00	0.00
22	*Acacia papyrocarpa*	0.00	0.00	0.00	0.00
23	*"Complex 23"*	0.00	0.00	0.00	0.00
24	*Eucalyptus porosa*	0.13	0.09	0.00	0.00
25	*Callitris columellaris*	0.00	0.00	0.00	0.00
26	*Eucalyptus leucoxylon*	0.10	0.07	0.20	0.09
27	*Allocasuarina verticillata*	0.25	0.15	0.13	0.12
28	*Cassinia laevis - ...*	0.29	0.17	0.14	0.13
29	*Eucalyptus macrorhyncha*	1.00	0.00	0.00	0.00
30	*Eucalyptus odorata*	0.46	0.14	0.00	0.00
31	*Eucalyptus largiflorens*	0.00	0.00	0.00	0.00
32	*Dodonaea lobulata*	0.00	0.00	1.00	0.00
33	*Eucalyptus camaldulensis*	0.07	0.07	0.00	0.00
34	*Muehlenbeckia ...*	0.00	0.00	0.00	0.00
35	*Eucalyptus microcarpa*	0.00	0.00	0.00	0.00
36	*Halosarcia halocnemoides*	0.00	0.00	0.06	0.06
37	*Atriplex cinerea*	0.00	0.00	0.00	0.00
38	*Avicennia marina*	0.00	0.00	0.00	0.00

Table 6.2. Composition of the complexes defined by the full classification in terms of complexes (and parts thereof) from the seven regional analyses. Constituents not typical of the regional complexes from which they come, and which are probably outliers or intermediate forms, are indicated by asterisks in the region column.

FULL CLASSIFICATION NO.	COMPLEX NAME	NO. TYPES	NO. SITES	REGIONAL CONSTITUENTS REGION	COMPLEX NAME	NO. TYPES (/ OF TOTAL)	NO. SITES (/ OF TOTAL)
1	*Eucalyptus baxteri - Pteridium esculentum*	7	44	SE	*E. baxteri - P. esculentum*	8 / 8	42 / 42
				SL*	*E. obliqua - X. semiplana*	1 / 9	2 / 22
2	*Banksia ornata - Allocasuarina pusilla*	8	63	SE	*B. ornata - A. pusilla*	3 / 5	48 / 52
				KI	*E. baxteri - E. remota*	3 / 3	12 / 12
				SL*	*E. obliqua - X. semiplana*	2 / 9	2 / 22
3	*Xanthorrhoea caespitosa*	3	4	SE*	*E. diversifolia*	3 / 7	4 / 22
4	*Juncus pallidus*	1	2	SE	*J. pallidus*	1 / 1	2 / 2
5	*Eucalyptus obliqua - E. fasciculosa*	4	16	SL	*E. obliqua - X. semiplana*	4 / 9	16 / 22
6	*Eucalyptus cneorifolia*	4	9	KI	*E. cneorifolia*	3 / 3	8 / 8
				SL*	*E. obliqua - X. semiplana*	1 / 9	1 / 22
7	*Leucopogon parviflorus - Olearia axillaris*	4	11	SE	*L. parviflorus*	2 / 3	8 / 11
				EP	*O. axillaris*	3 / 8	3 / 15
8	*Acacia pycnantha*	1	3	SE	*L. parviflorus*	2 / 3	3 / 11
9	*Melaleuca lanceolata - Olearia axillaris*	8	21	YP	*M. lanceolata - E. diversifolia*	4 / 5	4 / 8
				YP*	*O. axillaris*	1 / 1	3 / 4
				EP	*O. axillaris*	5 / 8	11 / 15
				EP*	*E. oleosa- E. gracilis*	1 / 13	3 / 77

FULL CLASSIFICATION NO.	COMPLEX NAME	NO. TYPES	NO. SITES	REGIONAL CONSTITUENTS REGION	COMPLEX NAME	NO. TYPES (/ OF TOTAL)	NO. SITES (/ OF TOTAL)
10	*Eucalyptus diversifolia*	11	50	SE	*E. diversifolia*	4 / 7	18 / 22
				KI	*E.diversifolia*	2 / 2	4 / 4
				YP	*M. lanceolata - E. diversifolia*	1 / 5	3 / 8
				EP	*E. diversifolia*	5 / 5	25 / 25
				EP*	*E. porosa*	1 / 2	1 / 9
11	*Eucalyptus incrassata -*	25	137	SE*	*B. ornata - A. pusilla*	1 / 5	3 / 52
	E. foecunda			SE	*E. incrassata*	3 / 5	7 / 9
				SE*	*M. brevifolia*	1 / 2	1 / 9
				MU	*E. incrassata*	6 / 6	33 / 39
				SL	*M. uncinata*	3 / 3	5 / 5
				NL*	*E. macrorhyncha*	1 / 2	1 / 2
				YP	*E. incrassata - M. uncinata*	3 / 3	8 / 8
				EP	*E. incrassata - E. socialis - ...*	17 / 22	78 / 102
				EP*	*O. axillaris*	1 / 8	1 / 15
12	*Eucalyptus dumosa*	8	33	SE	*E. incrassata*	2 / 5	2 / 9
				SE	*E. dumosa*	1 / 1	1 / 1
				MU	*E. socialis - E. dumosa*	1 / 4	5 / 12
				YP	*E. gracilis - E. dumosa*	1 / 2	1 / 4
				EP	*E. incrassata - E. socialis - ...*	4 / 22	23 / 102
				EP*	*E. oleosa - E. gracilis*	1 / 13	1 / 77
13	*Gahnia trifida / filum*	2	7	SE	*G. trifida / filum*	2 / 2	5 / 5
				YP	*G. trifida / filum*	1 / 2	2 / 3

FULL CLASSIFICATION NO.	COMPLEX NAME	NO. TYPES	NO. SITES	REGIONAL CONSTITUENTS REGION	COMPLEX NAME	NO. TYPES (/ OF TOTAL)	NO. SITES (/ OF TOTAL)
14	*Melaleuca halmaturorum*	1	6	SE	*M. halmaturorum*	1 / 1	1 / 1
				YP*	*G, trifida / filum*	1 / 2	1 / 3
				EP	*M. halmaturorum - M. brevifoli*	2 / 2	4 / 6
15	*Melaleuca brevifolia*	3	11	SE	*M. brevifolia*	2 / 2	8 / 9
				SE*	*B. ornata - A. pusilla*	1 / 5	1 / 52
				EP	*M. halmaturorum - M. brevifoli*	1 / 2	2 / 6
16	*Juncus kraussii*	1	1	EP	*J. kraussii*	1 / 1	1 / 1
17	*Eucalyptus oleosa - E. gracilis*	21	150	MU	*E. oleosa - E. gracilis*	8 / 12	46 / 70
				MU	*E. dumosa - E. socialis*	2 / 4	4 / 12
				SL	*E. gracilis - E. oleosa*	3 / 3	10 / 10
				NL	*E. socialis - E. gracilis - ...*	4 / 10	13 / 28
				YP	*E. gracilis - E. dumosa*	1 / 2	1 / 4
				YP*	*Nitraria billardieri*	1 / 2	1 / 2
				EP	*E. oleosa - E. gracilis*	13 / 13	75 / 77
18	*Eucalyptus socialis*	8	48	MU	*E. oleosa - E. gracilis*	4 / 12	17 / 70
				MU	*E. socialis - E. dumosa*	1 / 4	3 / 12
				MU	*E. incrassata*	1 / 6	6 / 39
				SL	*E. socialis*	2 / 2	8 / 8
				NL	*E. socialis - E. gracilis - ...*	4 / 10	11 / 28
				EP	*E. oleosa - E. gracilis*	1 / 13	1 / 77
				EP	*E. incrassata - E. socialis - ...*	1 / 22	1 / 102

FULL CLASSIFICATION NO.	COMPLEX NAME	NO. TYPES	NO. SITES	REGIONAL CONSTITUENTS REGION	COMPLEX NAME	NO. TYPES (/ OF TOTAL)	NO. SITES (/ OF TOTAL)
19	*Callitris preissii*	4	8	MU	*C. preissii*	1 / 1	1 / 1
				SL	*C. preissii*	3 / 3	5 / 5
				YP	*E. gracilis - E. dumosa*	1 / 2	1 / 4
				YP*	*E. axillaris*	1 / 2	1 / 4
20	*Maireana pyramidata*	1	3	MU*	*E. oleosa - E. gracilis*	1 / 12	1 / 70
				NL	*M. pyramidata*	1 / 1	2 / 2
21	*Casuarina cristata*	3	6	MU*	*E. oleosa - E. gracilis*	1 / 12	1 / 70
				NL	*C. cristata - M. sedifolia*	2 / 3	3 / 4
				EP	*C. cristata*	1 / 1	2 / 2
22	*Acacia papyrocarpa*	1	1	NL	*C. cristata - M. sedifolia*	1 / 3	1 / 4
23	*"Complex 23"*	3	3	MU	*M. sedifolia - C. nemophila*	3 / 3	3 / 3
24	*Eucalyptus porosa*	2	15	NL	*E. porosa*	1 / 1	4 / 4
				YP	*E. porosa*	1 / 1	2 / 2
				YP*	*M. lanceolata - E. diversifolia*	1 / 5	1 / 8
				EP	*E. porosa*	2 / 2	8 / 9
25	*Callitris columellaris*	1	2	NL	*C. colummelaris*	1 / 1	2 / 2
26	*Eucalyptus leucoxylon*	4	20	SE	*E. leucoxylon*	2 / 2	7 / 7
				SL	*E. leucoxylon*	2 / 2	8 / 8
				NL	*E. leucoxylon*	1 / 1	5 / 5

FULL CLASSIFICATION NO.	COMPLEX NAME	NO. TYPES	NO. SITES	REGIONAL CONSTITUENTS REGION	COMPLEX NAME	NO. TYPES (/ OF TOTAL)	NO. SITES (/ OF TOTAL)
27	*Allocasuarina verticillata*	4	8	SL	*"Complex C"*	2 / 2	3 / 3
				SL*	*E. odorata*	1 / 2	2 / 12
				NL*	*E. cladocalyx*	1 / 4	2 / 7
				EP	*A. verticillata*	1 / 1	1 / 1
28	*Cassinia laevis - Xanthorrhoea quadrangulata*	5	7	SL*	*E. obliqua - X. semiplana*	1 / 9	1 / 22
				NL	*E. cladocalyx*	3 / 4	5 / 7
				NL	*X. quadrangulata*	1 / 1	1 / 1
29	*Eucalyptus macrorhyncha*	1	1	NL	*E. macrorhyncha*	1 / 2	1 / 2
30	*Eucalyptus odorata*	2	15	SL	*E. odorata*	1 / 2	10 / 12
				NL	*E. odorata*	1 / 1	4 / 4
				EP*	*E. incrassata - E. socialis - ...*	1 / 22	1 / 102
31	*Eucalyptus largiflorens*	1	1	MU	*E. largiflorens*	1 / 1	1 / 1
32	*Dodonaea lobulata*	1	1	NL	*Cassia artemisioides*	1 / 1	1 / 1
33	*Eucalyptus camaldulensis*	3	14	SE	*E. camaldulensis*	1 / 1	7 / 7
				SL	*E. camaldulensis*	2 / 2	4 / 4
				NL	*E. camaldulensis*	1 / 1	2 / 2
				EP	*M. decussata*	1 / 1	1 / 1
34	*Muehlenbeckia cunninghamii*	2	3	MU	*E. camaldulensis*	2 / 2	3 / 3
35	*Eucalyptus microcarpa*	1	1	SE	*E. microcarpa*	1 / 1	1 / 1

FULL CLASSIFICATION NO.	COMPLEX NAME	NO. TYPES	NO. SITES	REGIONAL CONSTITUENTS REGION	COMPLEX NAME	NO. TYPES (/ OF TOTAL)	NO. SITES (/ OF TOTAL)
36	*Halosarcia halocnemoides*	3	16	MU	*H. halocnemoides*	1 / 1	3 / 3
				SL	*H. halocnemoides*	1 / 1	4 / 4
				NL	*H. halocnemoides*	3 / 3	8 / 8
				YP	*H. halocnemoides*	1 / 1	1 / 1
37	*Atriplex cinerea*	1	1	YP	*Nitraria billardieri*	1 / 1	1 / 1
38	*Avicennia marina*	1	3	SL	*A. marina*	1 / 1	1 / 1
				NL	*A. marina*	1 / 1	1 / 1
				YP	*A. marina*	1 / 1	1 / 1

Table 6.3. Summary of the environmental variables included in the multiple discriminant analysis catenation of all 38 complexes of the full classification. The significance of variables is tested by Wilks' Lambda. The contribution to complex separation effected by the main discriminant functions is listed at the foot of the table. Significance level: ***, P < 0.001.

STEP ENTERED	VARIABLE	WILKS' LAMBDA	P
1	Annual Flooding	0.22974	***
2	Tidal Flooding	0.05385	***
3	Rainfall (log)	0.01421	***
4	pH Horizon 1	0.00659	***
5	Altitude	0.00387	***
6	T.S.S. Horizon 1	0.00244	***
7	Sheet Calcrete	0.00162	***
8	Distance from Coast	0.00116	***
9	Texture Horizon 1	0.00085	***
10	Calcrete Nodules	0.00041	***
11	Longitude	0.00032	***
12	Carbonates Horizon 1	0.00027	***
13	Granite	0.00023	***
14	Sandstone	0.00013	***
15	Shale	0.00010	***
16	Depth Horizon 1	0.00007	***

FUNCTION	VARIANCE EXPLAINED (%)	CUMULATIVE VARIANCE (%)
1	27.98	27.98
2	22.49	50.46
3	17.58	68.05
4	6.85	74.89
5 - 16	25.11	100.00

Table 6.4. Summary of the environmental variables included in the multiple discriminant analysis catenation of the reduced set of 30 complexes from the full classification (wetland and saline complexes excluded). The significance of variables is tested by Wilks' Lambda. The contribution to complex separation effected by the main discriminant functions is listed at the foot of the table. Significance level: ***, $P < 0.001$.

STEP ENTERED	VARIABLE	WILKS' LAMBDA	P
1	Rainfall (log)	0.27240	***
2	pH Horizon 1	0.13464	***
3	Texture Horizon 1	0.08333	***
4	Sheet Calcrete	0.05563	***
5	Distance from Coast	0.04156	***
6	Altitude	0.03119	***
7	T.S.S. Horizon 1	0.02464	***
8	Calcrete Nodules	0.02000	***
9	Longitude	0.01598	***
10	Carbonates Horizon 1	0.01337	***
11	Sandstone / Granite	0.01183	***
12	Depth Horizon 1	0.00883	***
13	Annual Flooding	0.00785	***

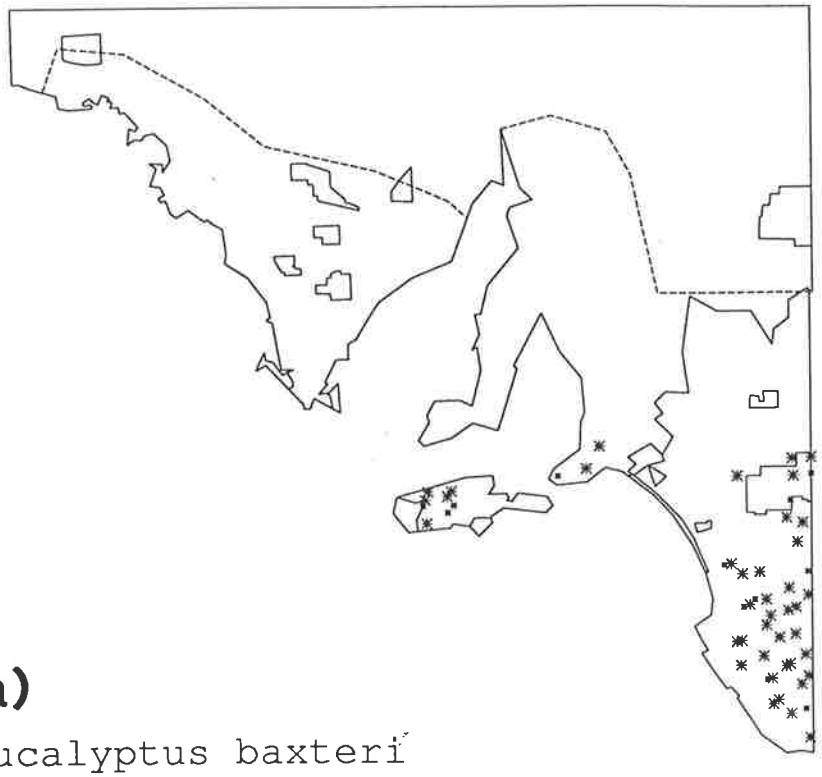
FUNCTION	VARIANCE EXPLAINED (%)	CUMULATIVE VARIANCE (%)
1	54.20	54.20
2	12.56	66.76
3	9.41	76.17
4	7.33	83.50
5 - 13	16.50	100.00

Chapter 7.
DIRECT GRADIENT ANALYSIS: RESPONSE MODELS OF PREDOMINANT SPECIES

Figures 7.1 – 7.9

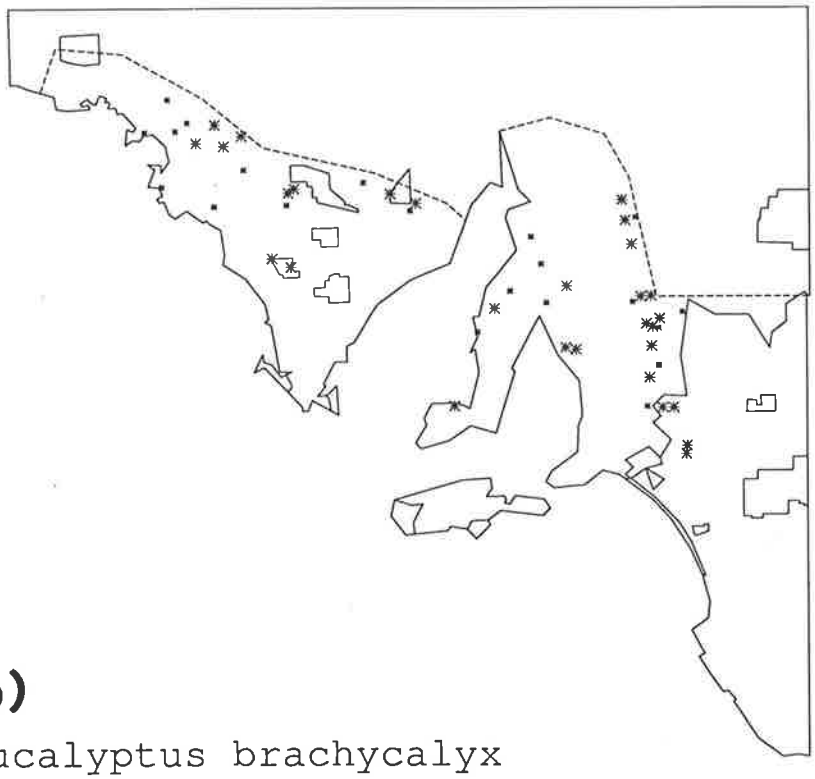
Tables 7.1 – 7.24.

Figure 7.1. Distribution maps for the twenty species selected for environmental response modelling. Large symbols indicate cover score ≥ 2 at a site; small symbols indicate cover score $= 1$. The maps also show the locations of the larger N.P.W.S reserves in southern South Australia.



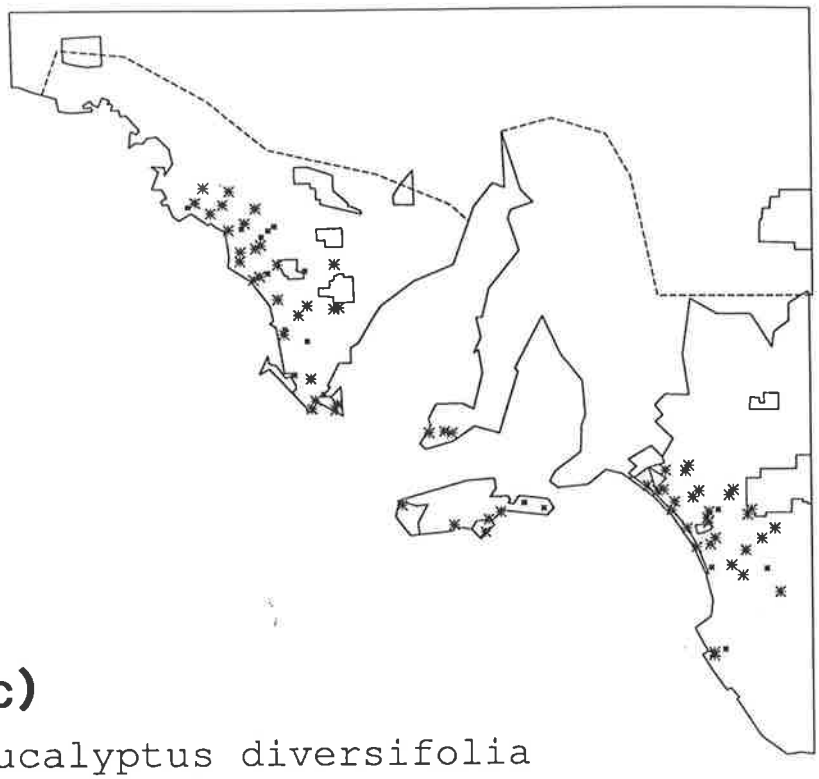
(a)

Eucalyptus baxteri



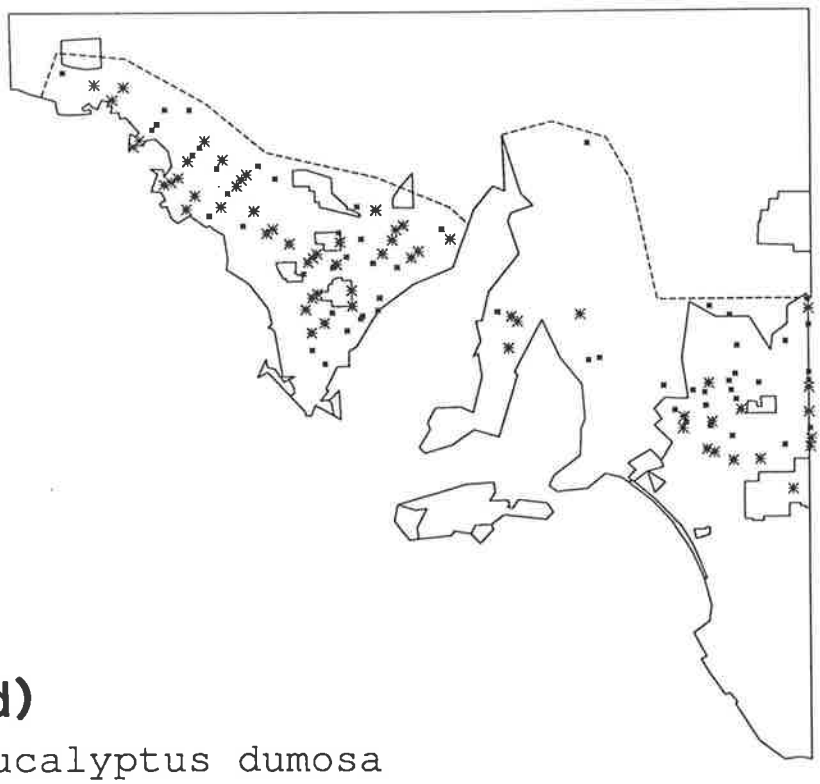
(b)

Eucalyptus brachycalyx



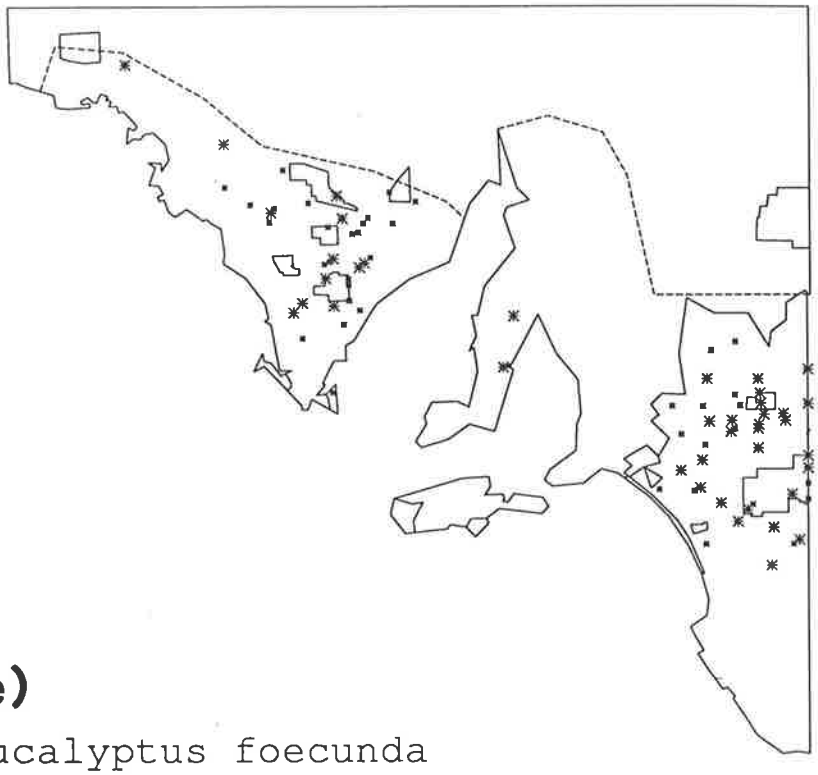
(c)

Eucalyptus diversifolia



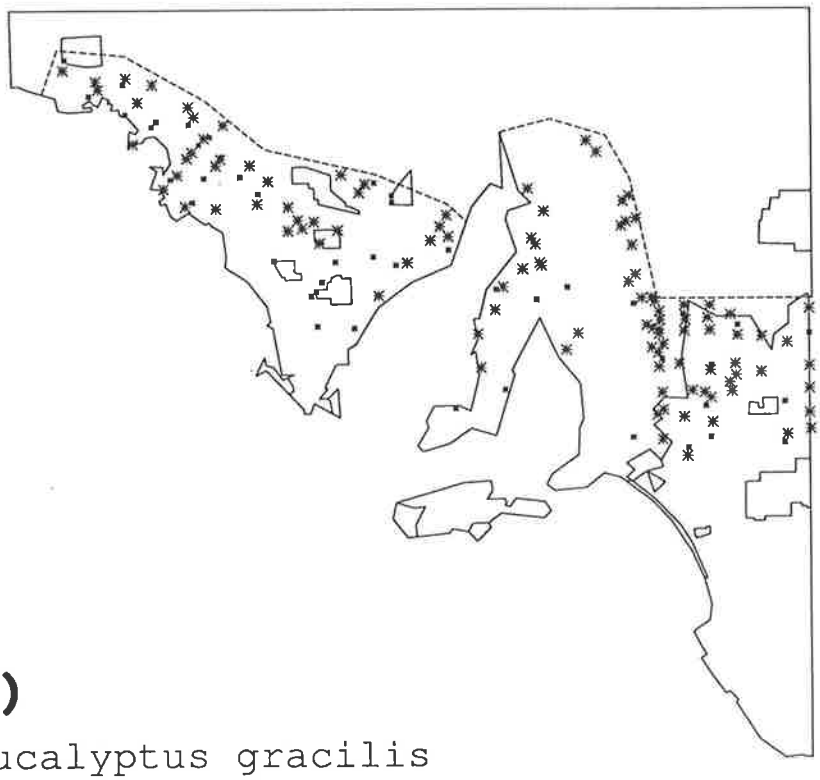
(d)

Eucalyptus dumosa



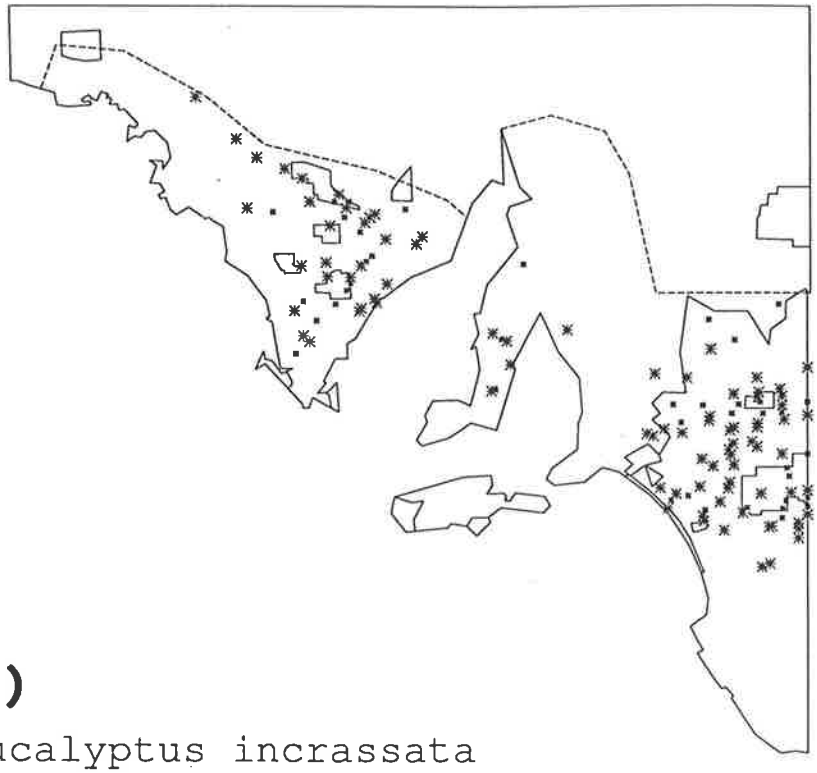
(e)

Eucalyptus foecunda



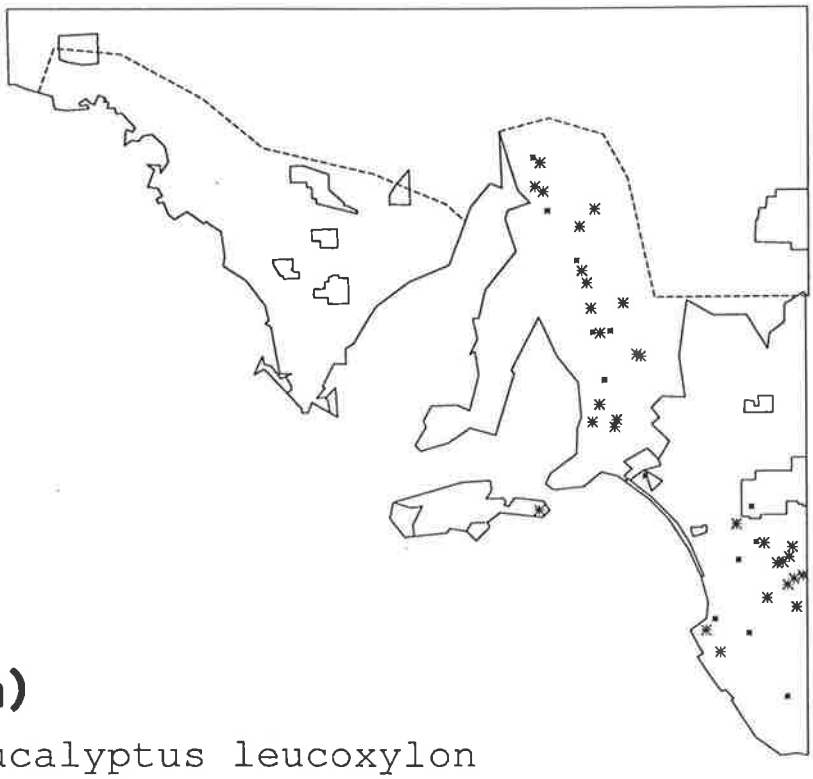
(f)

Eucalyptus gracilis



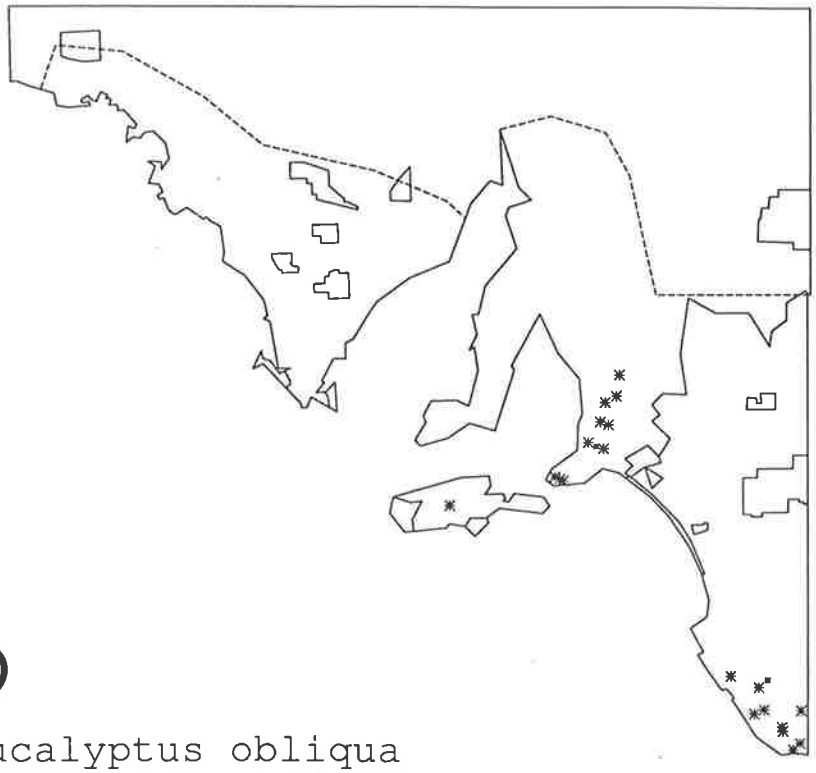
(g)

Eucalyptus incrassata



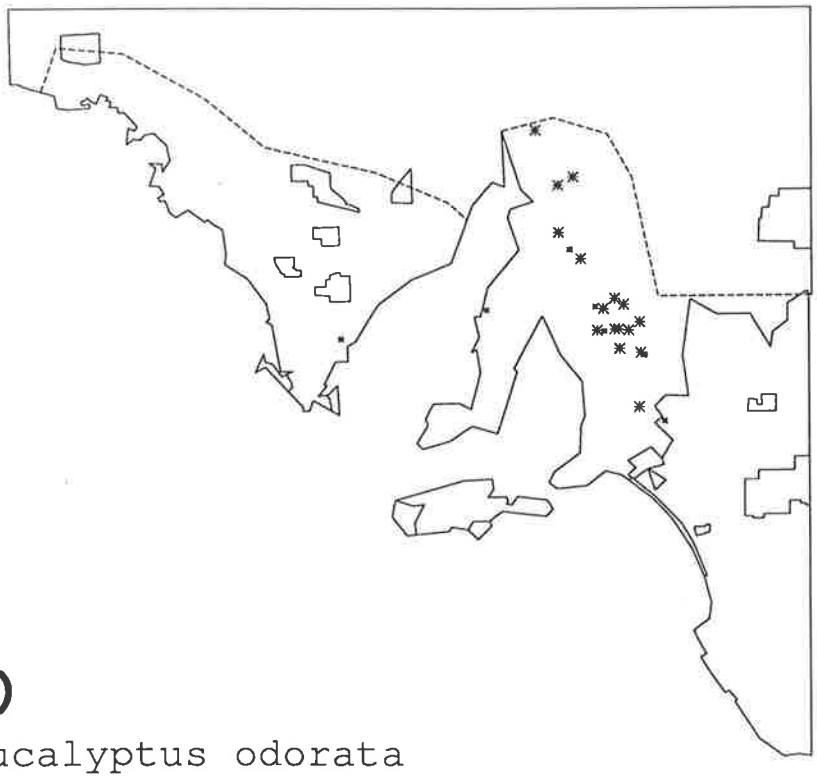
(h)

Eucalyptus leucoxylon



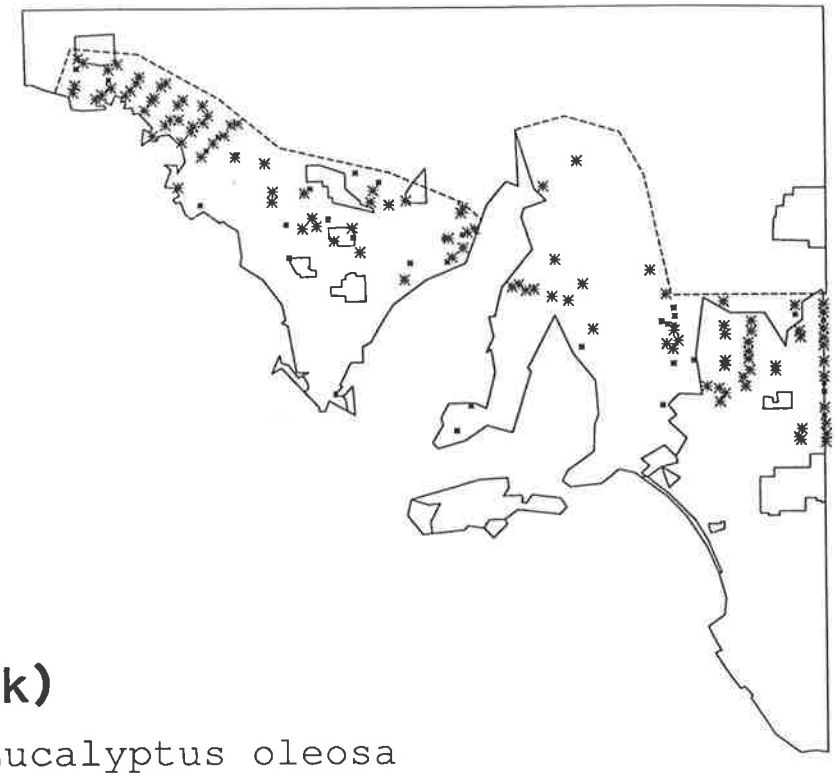
(i)

Eucalyptus obliqua



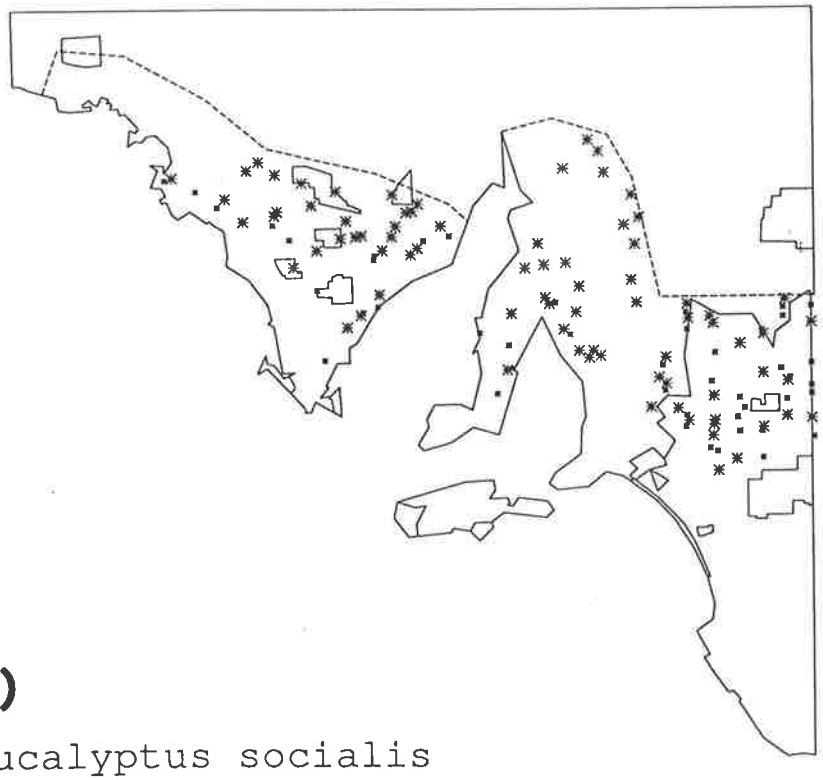
(j)

Eucalyptus odorata



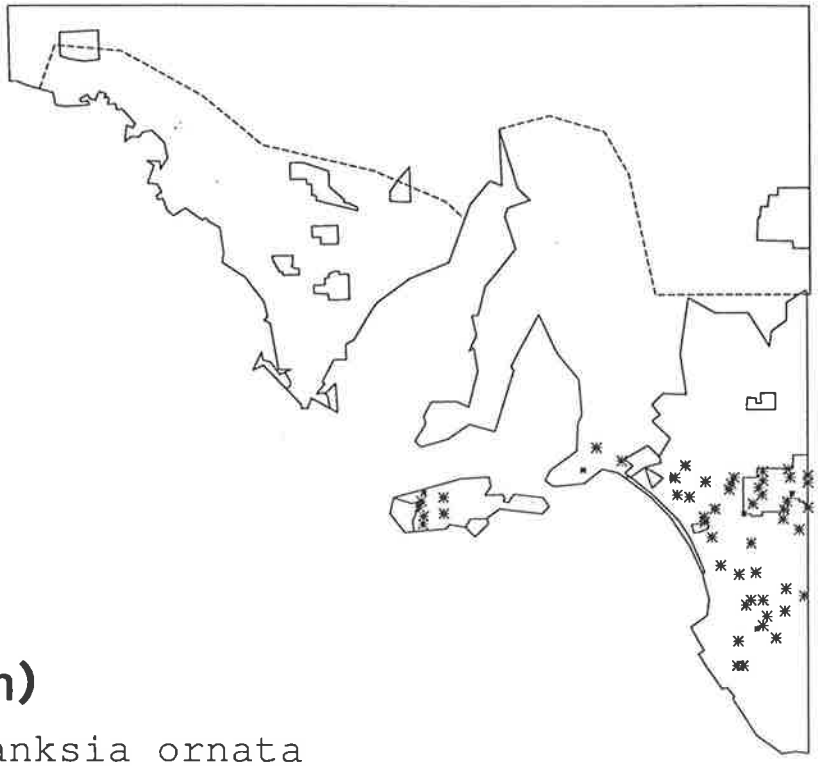
(k)

Eucalyptus oleosa



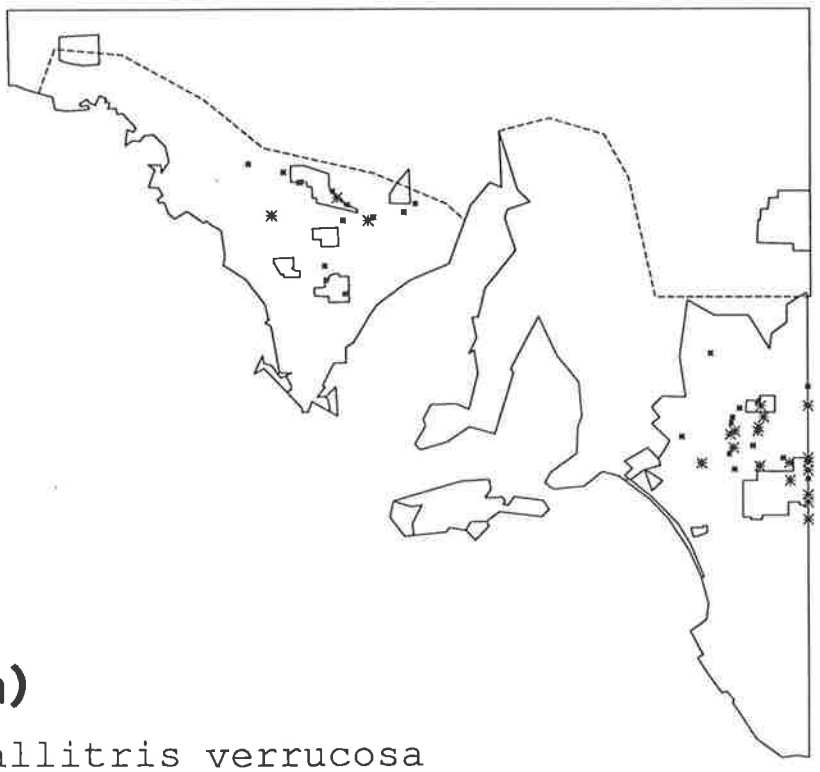
(l)

Eucalyptus socialis



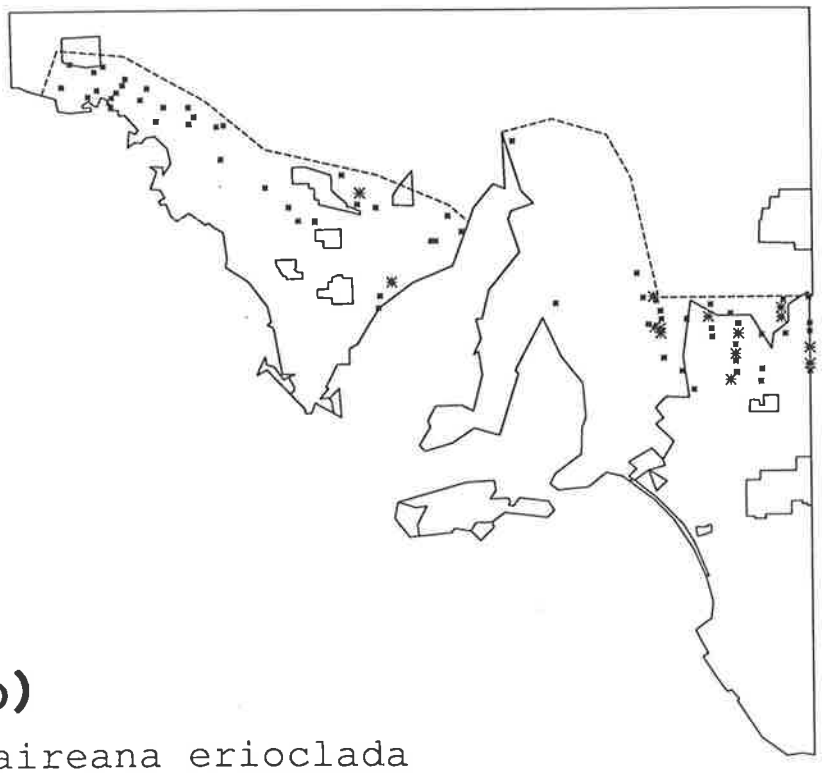
(m)

Banksia ornata



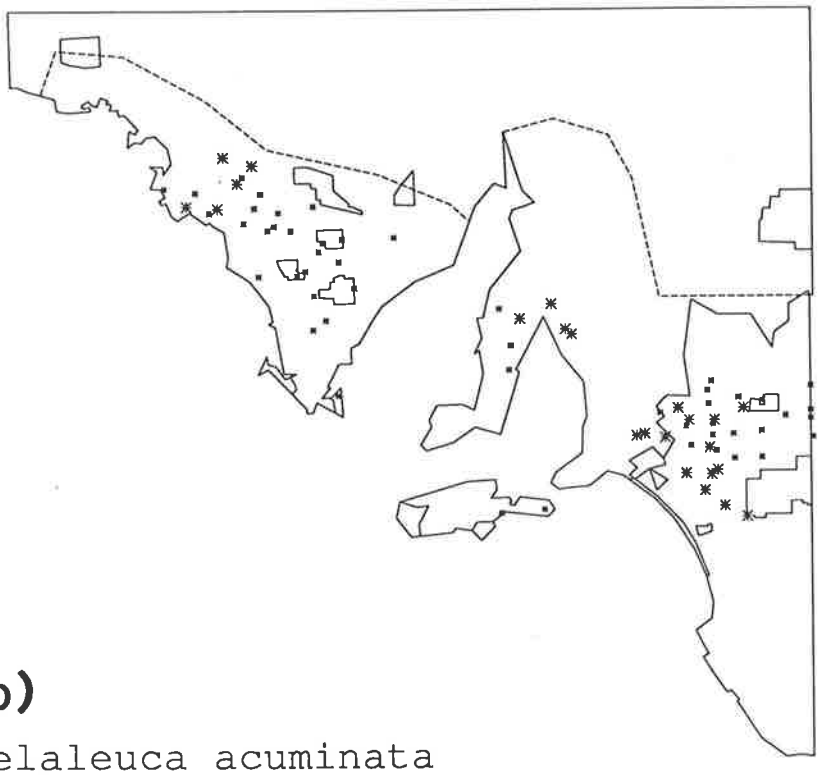
(n)

Callitris verrucosa



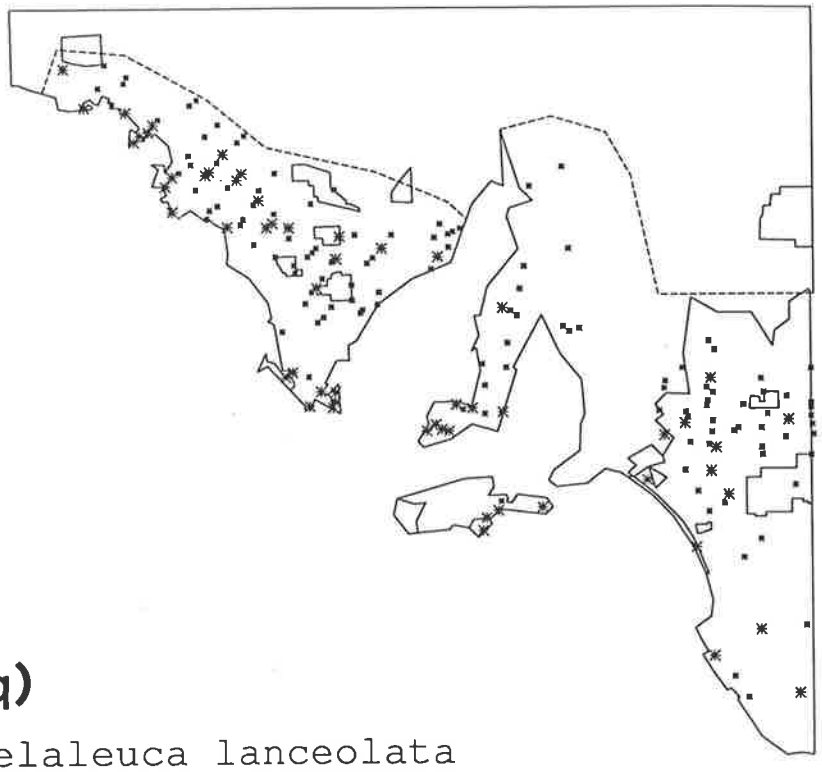
(o)

Maireana erioclada



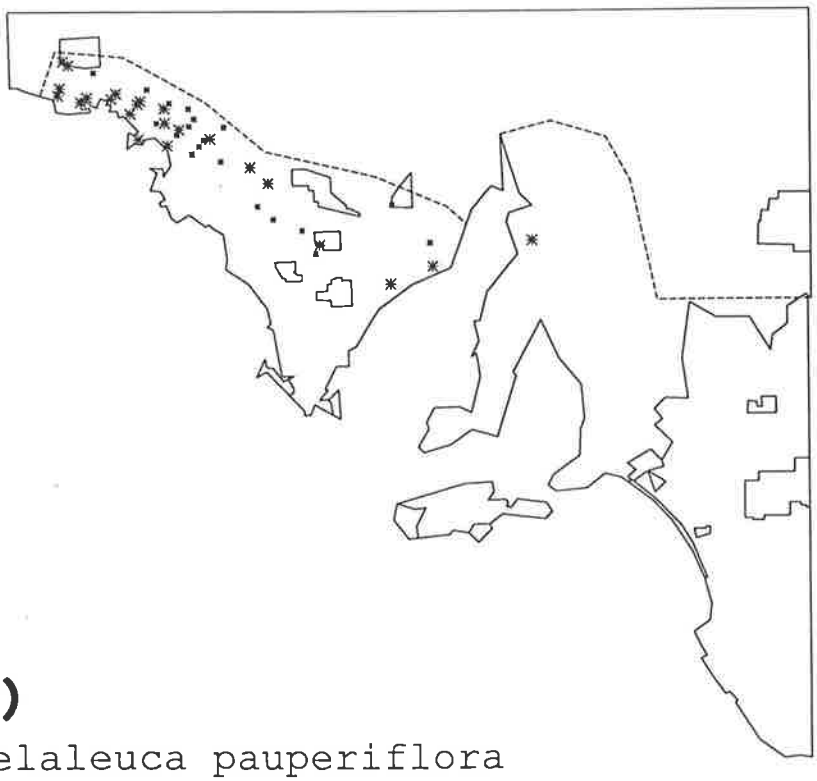
(p)

Melaleuca acuminata



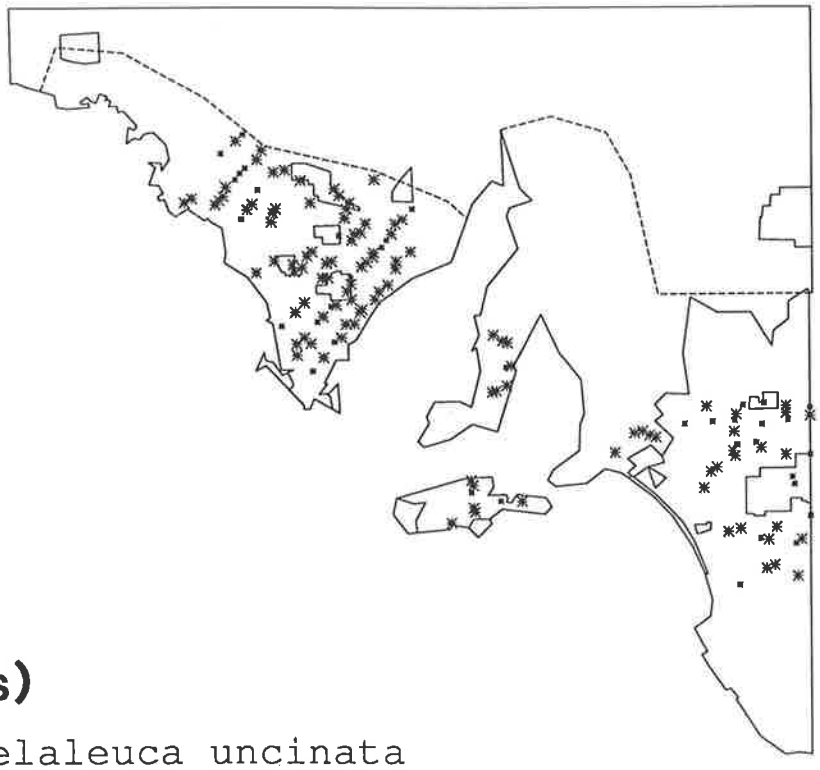
(q)

Melaleuca lanceolata



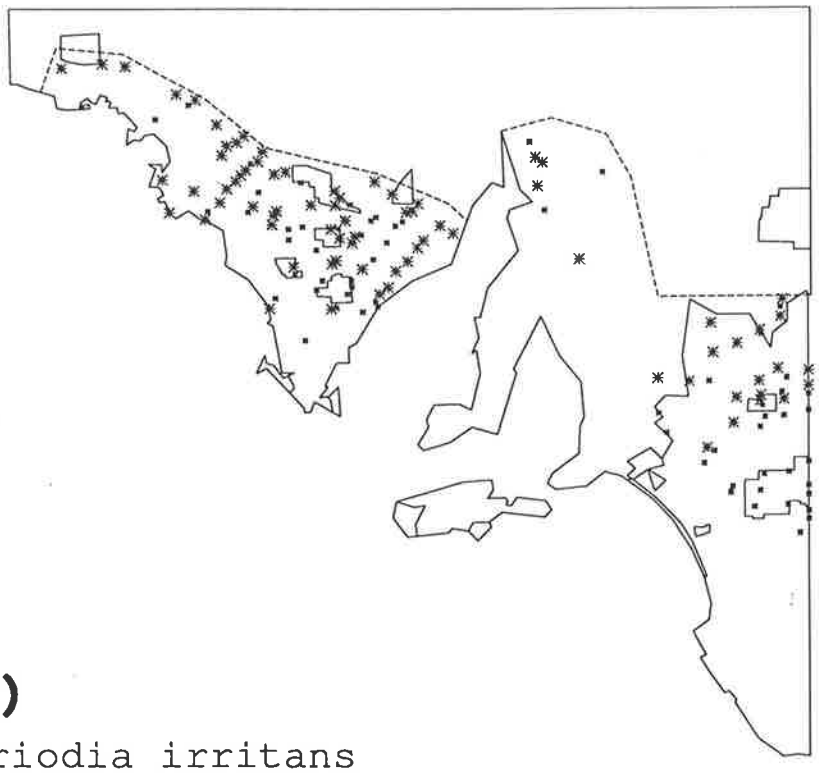
(r)

Melaleuca pauperiflora



(s)

Melaleuca uncinata



(t)

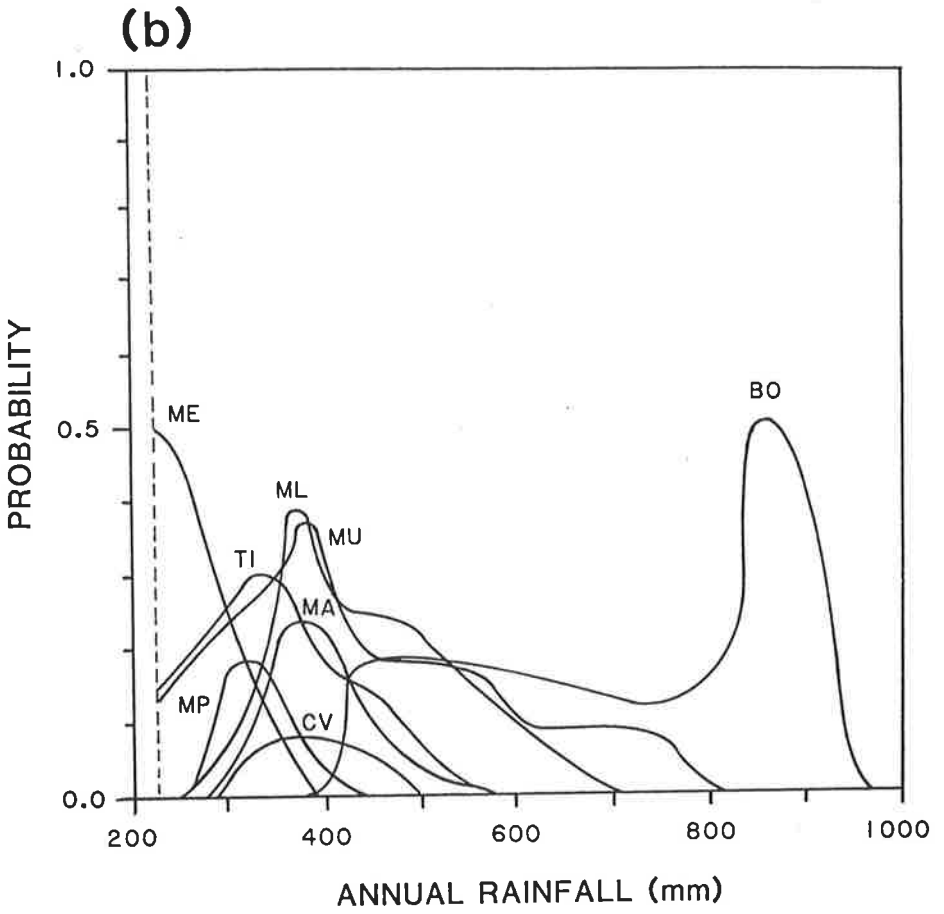
Triodia irritans

Figure 7.2. Responses of species to the mean annual rainfall: (a) *Eucalyptus* species; (b) shrub species. These curves are observations derived from the raw data; they do *not* show modelled responses. Relative frequency (probability of occurrence) was determined for rainfall classes 25 mm in breadth and then smoothed using a moving averages function across five consecutive classes.

Legend:

(a)
EBR, *Eucalyptus brachycalyx*; EBX, *E. baxteri*; EDM, *E. dumosa*; EDV, *E. diversifolia*; EF, *E. foecunda*; EG, *E. gracilis*; EI, *E. incrassata*; EL, *E. leucoxylon*; EOB, *E. obliqua*; EOD, *E. odorata*; EOL, *E. oleosa*; ES, *E. socialis*.

(b)
BO, *Banksia ornata*; CV, *Callitris verrucosa*; MA, *Melaleuca acuminata*; ME, *Maireana erioclada*; ML, *Melaleuca lanceolata*; MP, *Melaleuca pauperiflora*; MU, *Melaleuca uncinata*; TI, *Triodia irritans*.


(b)
1.0
0.5
0.0
PROBABILITY
ME
ML
MU
TI
MA
MP
CV
BO
200
400
600
800
1000
ANNUAL RAINFALL (mm)

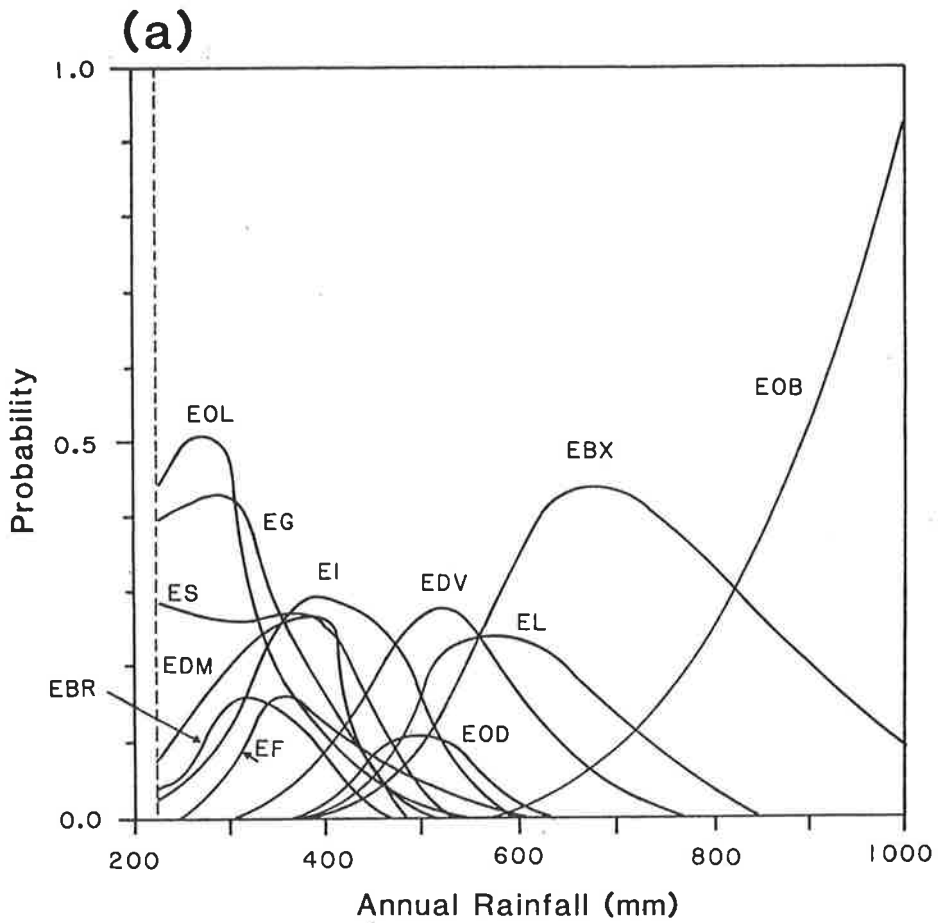

(a)
1.0
0.5
0.0
Probability
EOL
EG
EI
ES
EDM
EBR
EF
EDV
EL
EBX
EOB
EOD
200
400
600
800
1000
Annual Rainfall (mm)

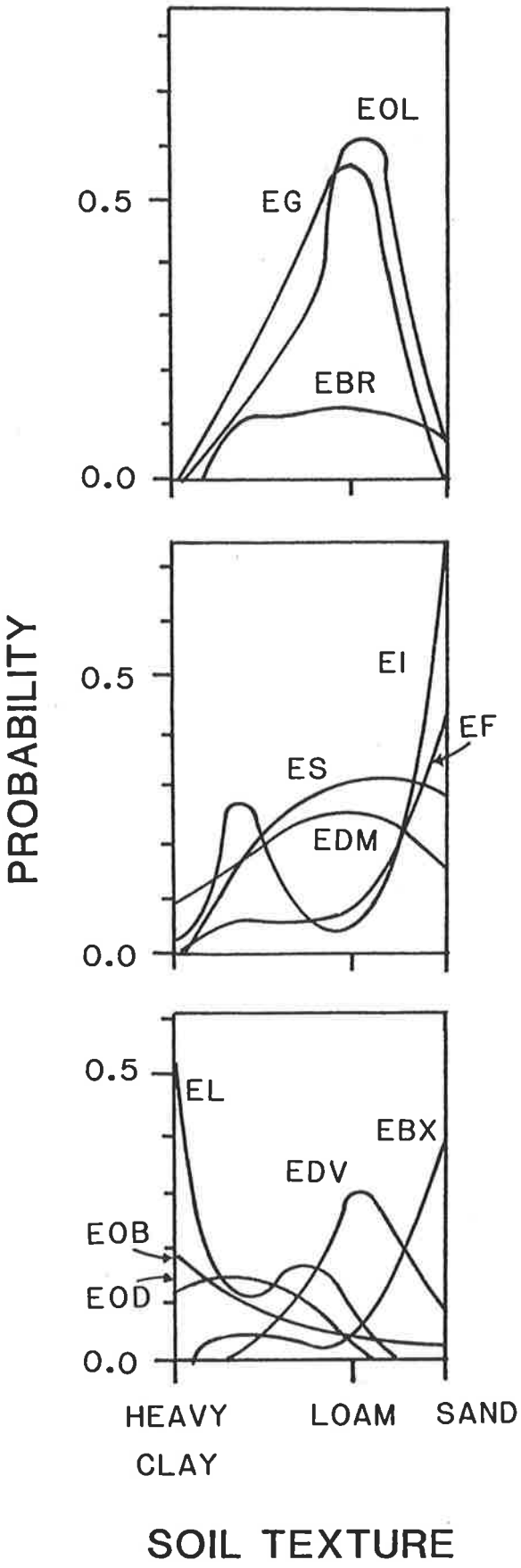
Figure 7.3. Responses of species to the soil texture: (a) *Eucalyptus* species; (b) shrub species. These curves are observations derived from the raw data; they do *not* show modelled responses. Relative frequency (probability of occurrence) was determined for the nine soil texture classes and then smoothed using a moving averages function across three consecutive classes.

Legend:

(a)
EBR, *Eucalyptus brachycalyx*; EBX, *E. baxteri*; EDM, *E. dumosa*; EDV, *E. diversifolia*; EF, *E. foecunda*; EG, *E. gracilis*; EI, *E. incrassata*; EL, *E. leucoxylon*; EOB, *E. obliqua*; EOD, *E. odorata*; EOL, *E. oleosa*; ES, *E. socialis.*

(b)
BO, *Banksia ornata*; CV, *Callitris verrucosa*; MA, *Melaleuca acuminata*; ME, *Maireana erioclada*; ML, *Melaleuca lanceolata*; MP, *Melaleuca pauperiflora*; MU, *Melaleuca uncinata*; TI, *Triodia irritans.*

(a)


EOL
EG
EBR
0.5
0.0
EI
EF
ES
EDM
0.5
0.0
EL
EBX
EDV
EOB
EOD
0.5
0.0
PROBABILITY
HEAVY CLAY
LOAM
SAND
SOIL TEXTURE

(b)

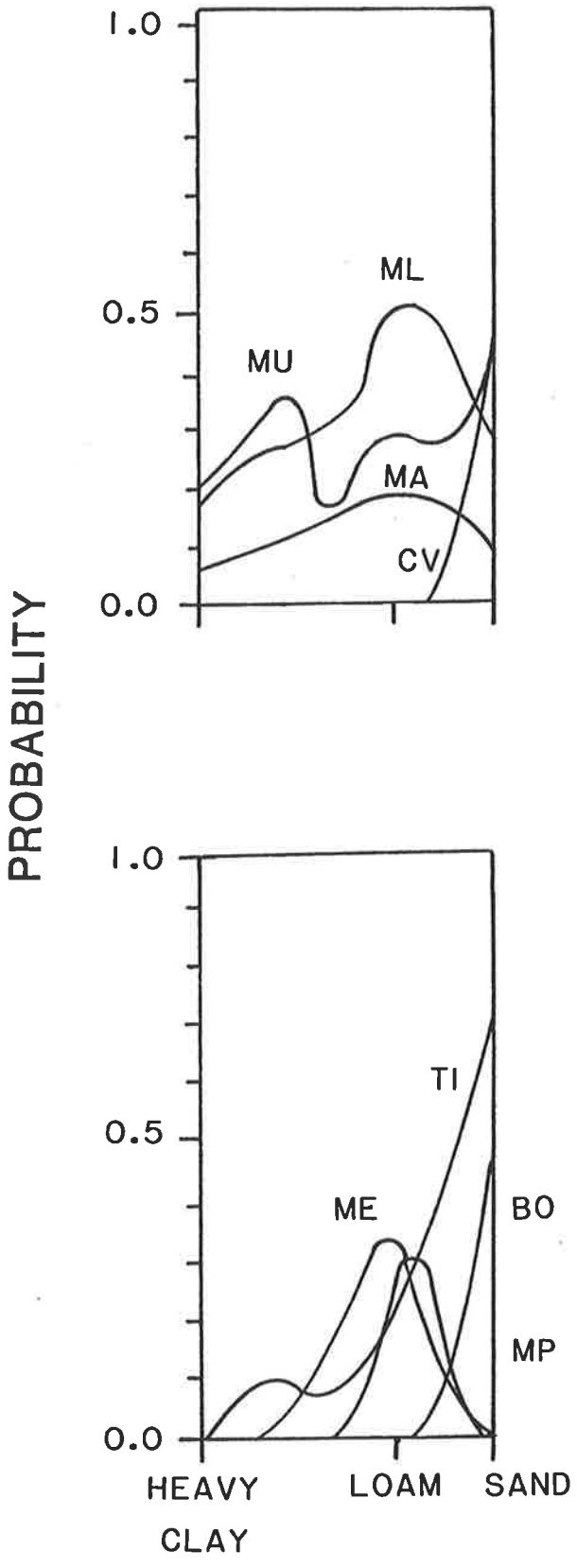
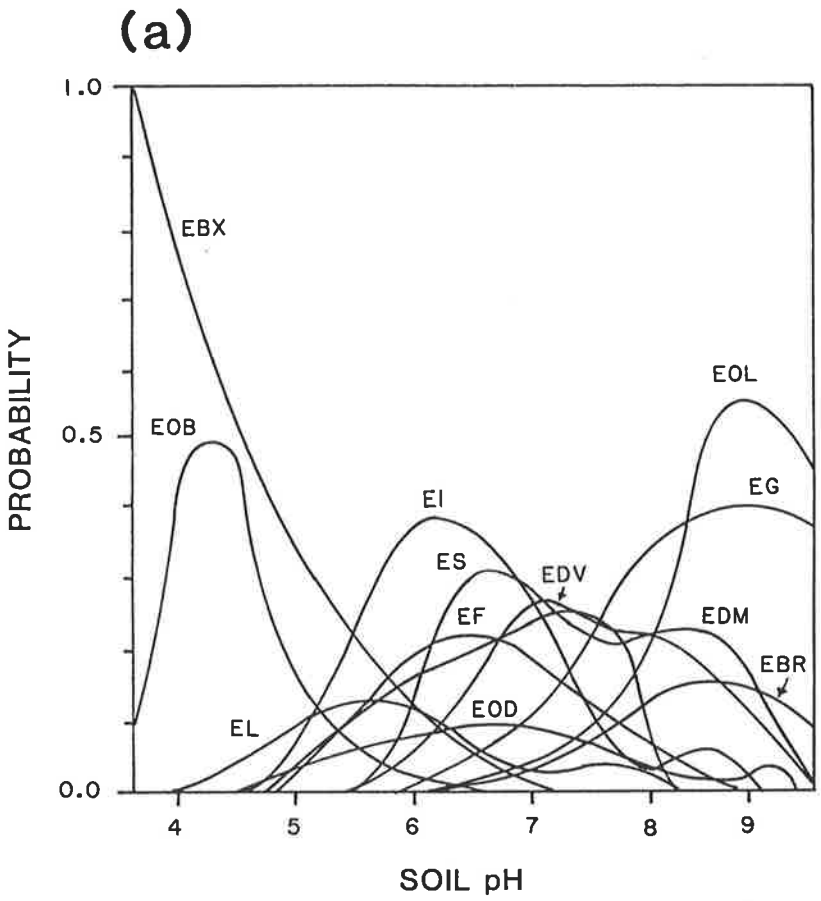

1.0
0.5
0.0
ML
MU
MA
CV
1.0
0.5
0.0
TI
ME
BO
MP
HEAVY CLAY
LOAM
SAND
PROBABILITY
SOIL TEXTURE

Figure 7.4. Responses of species to the soil pH: (a) *Eucalyptus* species; (b) shrub species. These curves are observations derived from the raw data; they do *not* show modelled responses. Relative frequency (probability of occurrence) was determined for soil pH classes 0.2 units in breadth and then smoothed using a moving averages function across five consecutive classes.

Legend:

(a)
EBR, *Eucalyptus brachycalyx*; EBX, *E. baxteri*; EDM, *E. dumosa*; EDV, *E. diversifolia*; EF, *E. foecunda*; EG, *E. gracilis*; EI, *E. incrassata*; EL, *E. leucoxylon*; EOB, *E. obliqua*; EOD, *E. odorata*; EOL, *E. oleosa*; ES, *E. socialis*.

(b)
BO, *Banksia ornata*; CV, *Callitris verrucosa*; MA, *Melaleuca acuminata*; ME, *Maireana erioclada*; ML, *Melaleuca lanceolata*; MP, *Melaleuca pauperiflora*; MU, *Melaleuca uncinata*; TI, *Triodia irritans*.


(a)
1.0
0.5
0.0
PROBABILITY
EBX
EOB
EL
EI
ES
EF
EDV
EOD
EOL
EG
EDM
EBR
4
5
6
7
8
9
SOIL pH

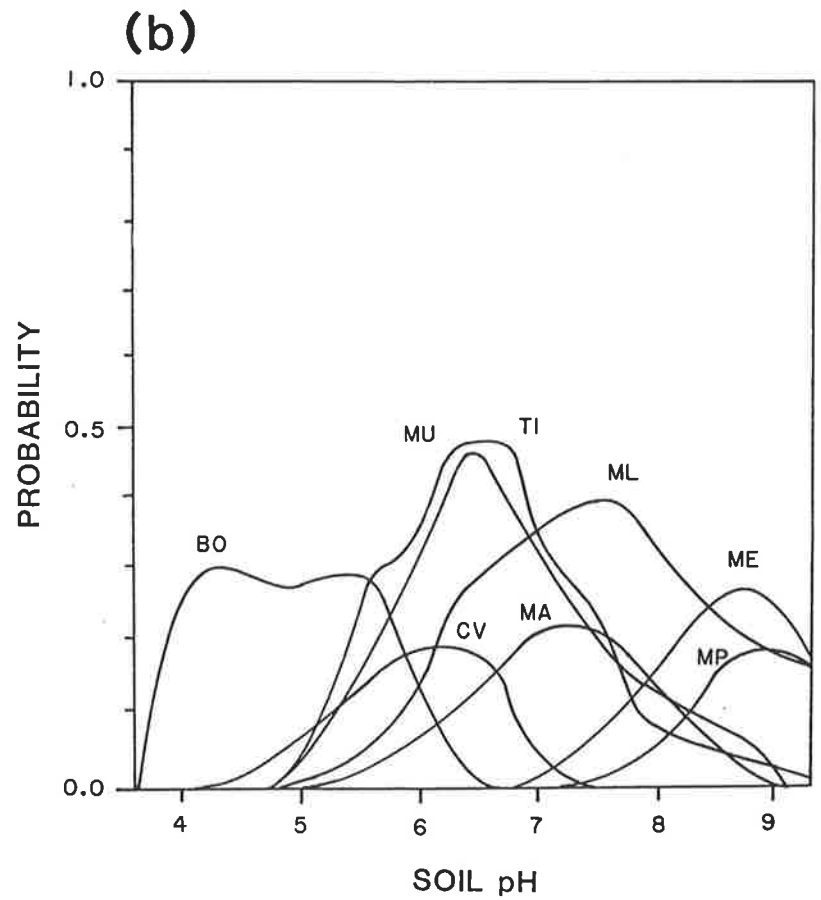
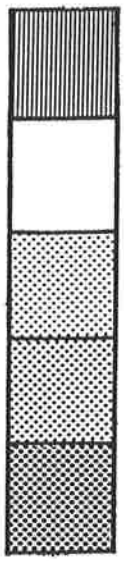

(b)
1.0
0.5
0.0
PROBABILITY
BO
MU
TI
ML
ME
CV
MA
MP
4
5
6
7
8
9
SOIL pH

Figure 7.5. Predicted response surfaces of the probability of occurrence of the *Eucalyptus* species in relation to annual rainfall, soil texture (horizon 1) and soil pH (horizon 1). Responses are based on the models in Tables 7.2 to 7.13 inclusive. All other environmental variables in models are fixed to their modal values for each species individually. Envelopes contain all combinations of rainfall, soil texture and soil pH observed in the field, with the pH 5 envelope enclosing all observations in the range pH 4.0–5.9, pH 7 the range pH 6.0–7.9 and pH9 the range 8.0–9.9.

Legend:



Response envelope (combinations not found at any site)

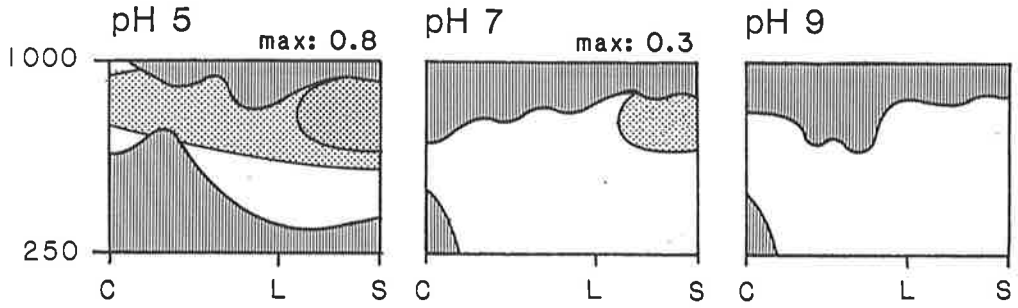
$P < 0.1$

$0.1 \leqslant P < 0.5$

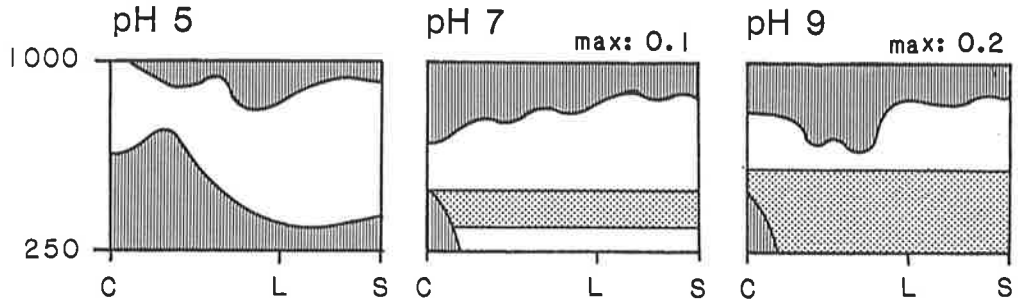
$0.5 \leqslant P < 0.9$

$P \geqslant 0.9$

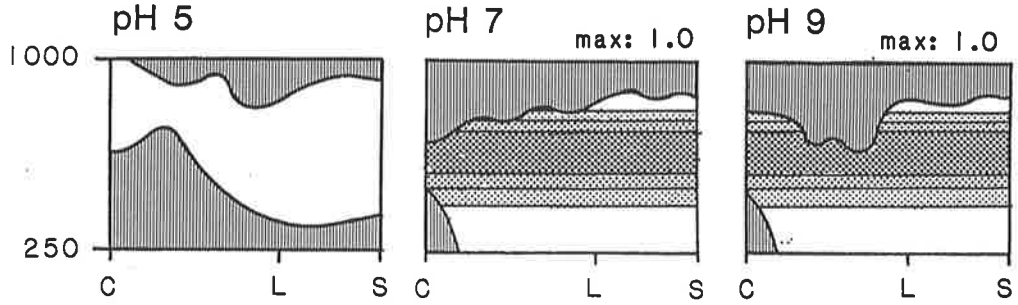
(a) E. baxteri



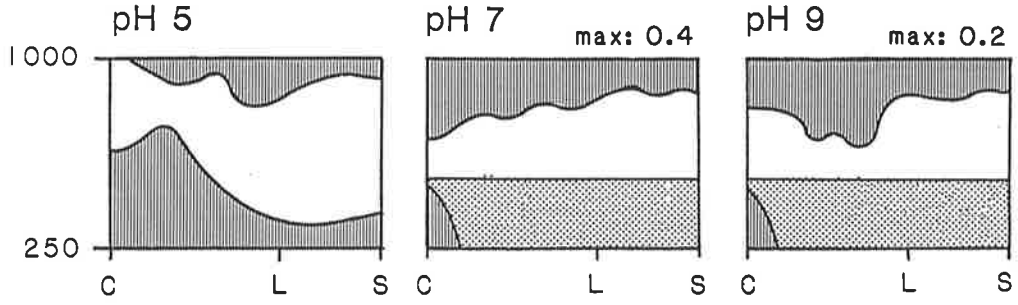
(b) E. brachycalyx (texture not in model)



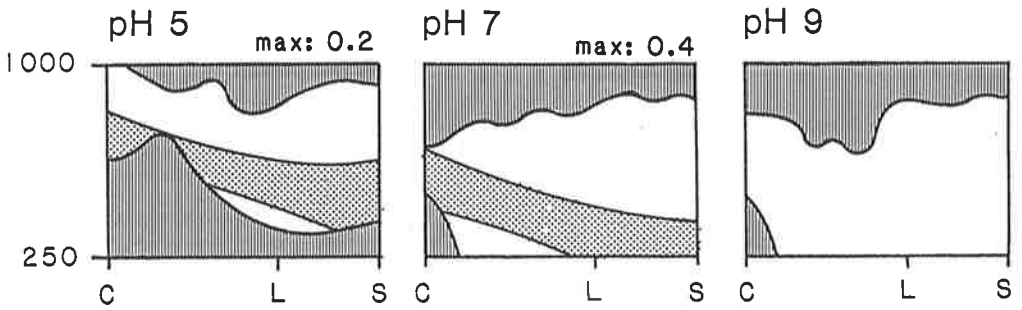
(c) E. diversifolia (texture, pH not in model)



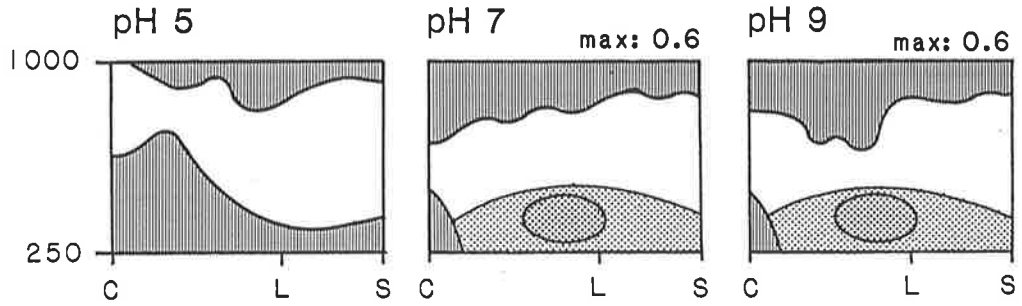
(d) E. dumosa (texture not in model)



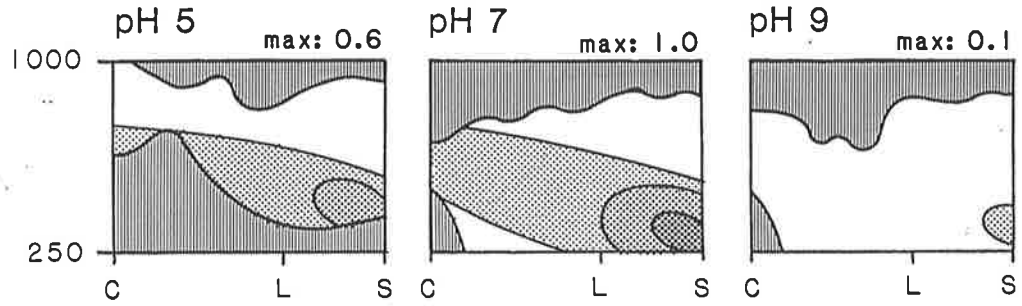
(e) E. foecunda



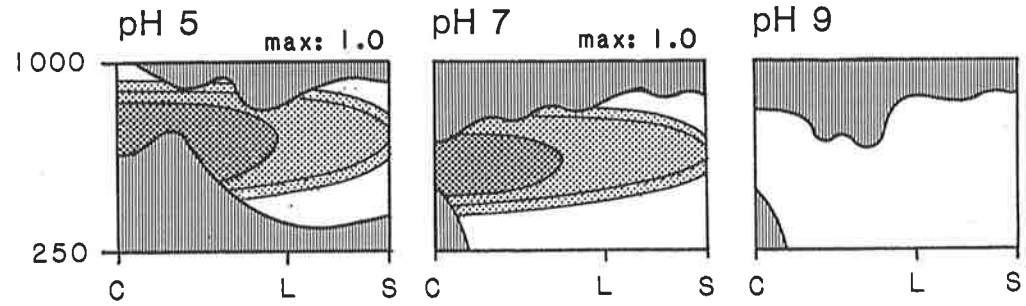
(f) E. gracilis (pH not in model)



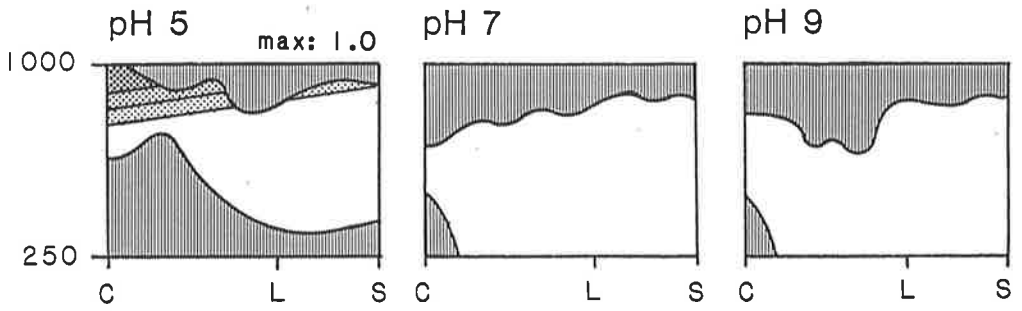
(g) E. incrassata



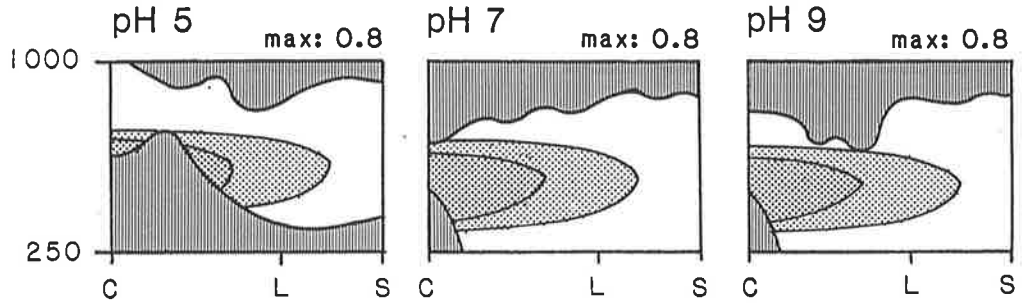
(h) E. leucoxylon (pH not in model)



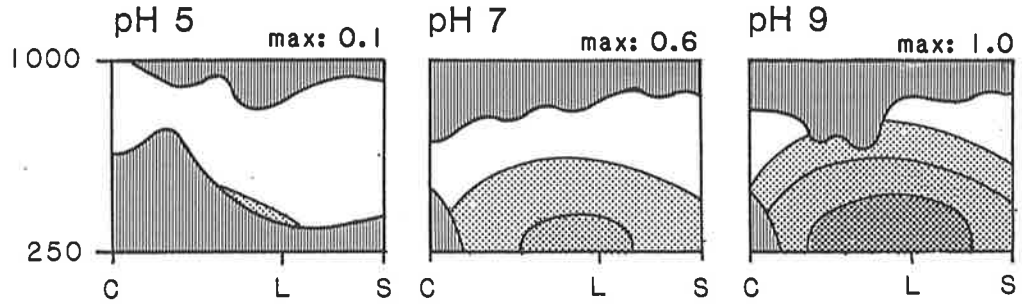
(i) E. obliqua



(j) E. odorata (pH not in model)



(k) E. oleosa



(l) E. socialis

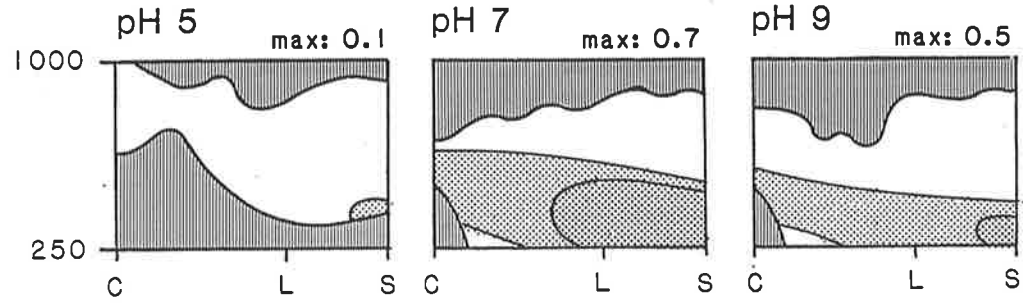
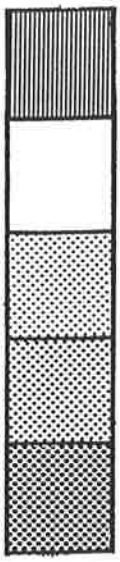


Figure 7.6. Predicted response surfaces of the probability of occurrence of the species in relation to annual rainfall, soil texture (horizon 1) and soil pH (horizon 1). Responses are based on the models in Tables 7.14 to 7.21 inclusive. All other environmental variables in models are fixed to their modal values for each species individually. Envelopes contain all combinations of rainfall, soil texture and soil pH observed in the field, with the pH 5 envelope enclosing all observations in the range pH 4.0–5.9, pH 7 the range pH 6.0–7.9 and pH9 the range 8.0–9.9.

Legend:



Response envelope (combinations not found at any site)

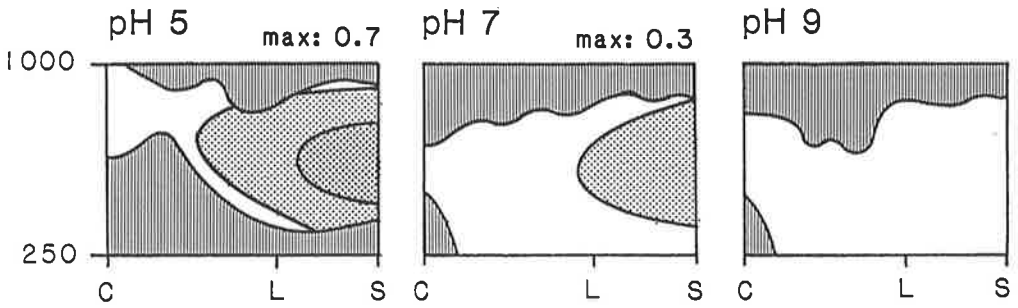
$P < 0.1$

$0.1 \leqslant P < 0.5$

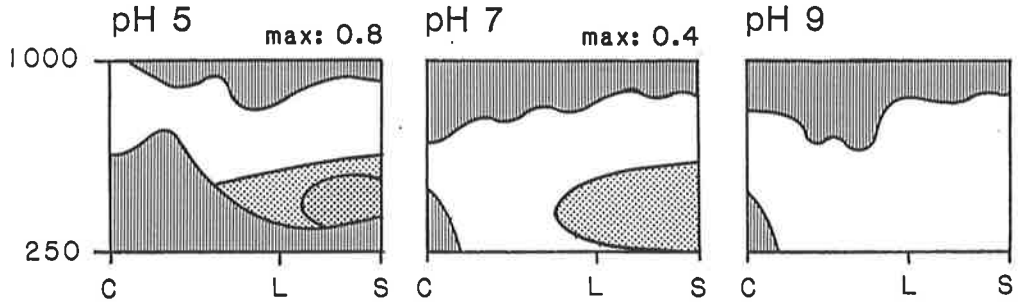
$0.5 \leqslant P < 0.9$

$P \geqslant 0.9$

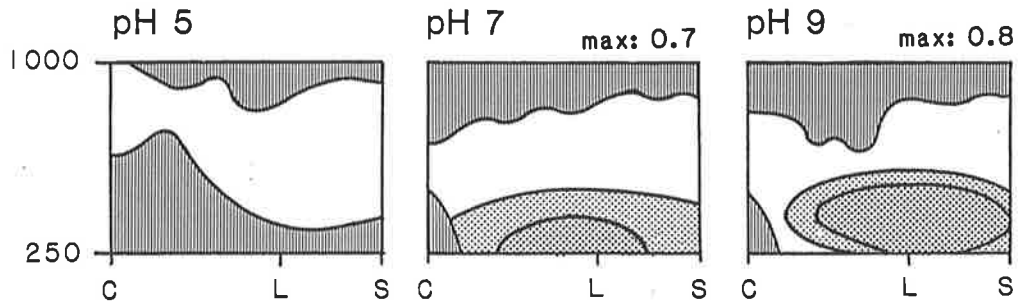
(a) Banksia ornata



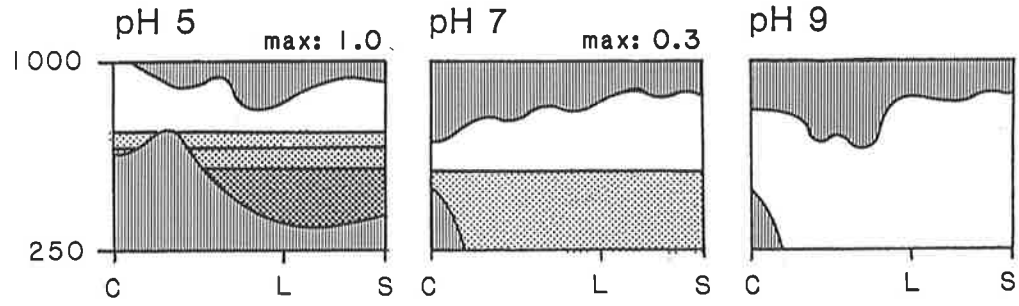
(b) Callitris verrucosa



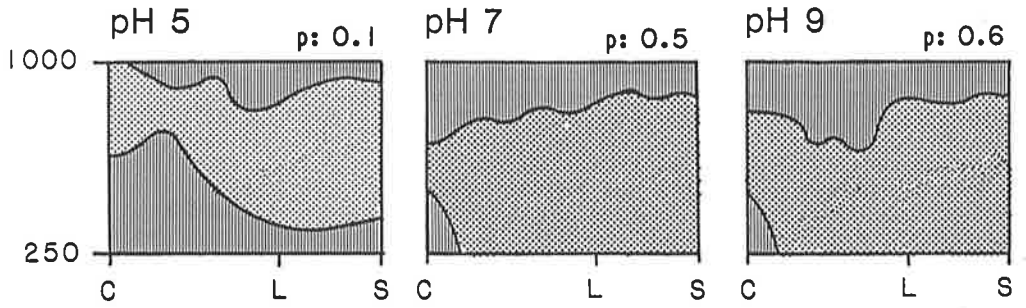
(c) Maireana erioclada



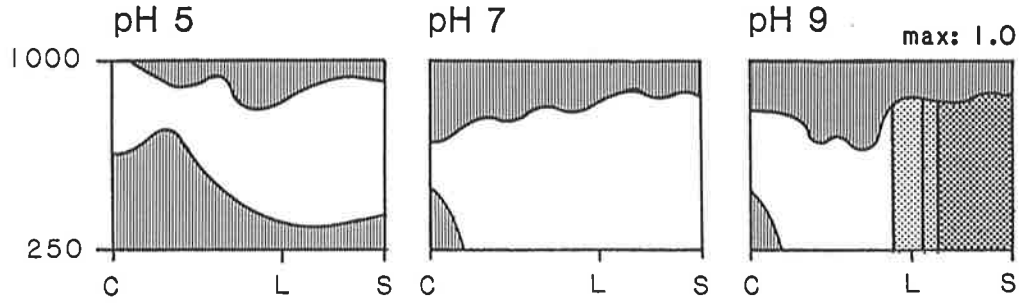
(d) Melaleuca acuminata (texture not in model)



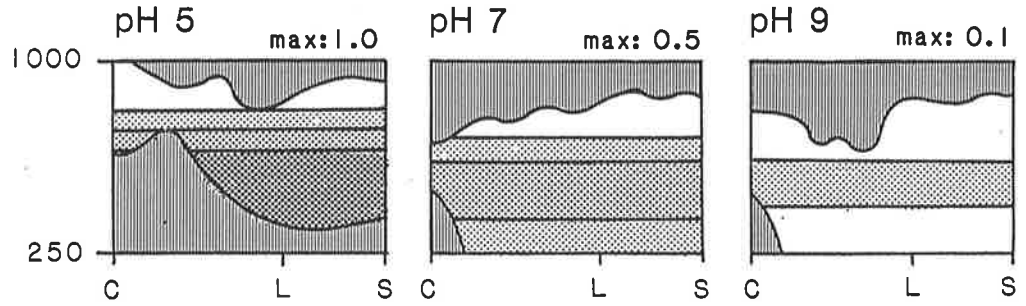
(e) Melaleuca lanceolata (rainfall, texture not in model)



(f) Melaleuca pauperiflora (rainfall, pH not in model)



(g) Melaleuca uncinata (texture not in model)



(h) Triodia irritans (pH not in model)

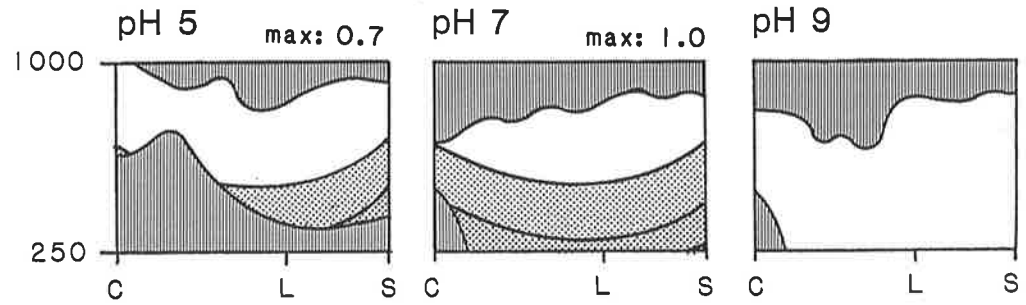
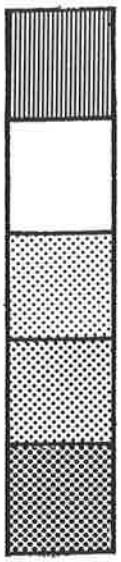


Figure 7.7. A comparison of the predicted response surfaces of the probability of occurrence of the *Melaleuca uncinata* species in relation to annual rainfall, soil texture (horizon 1) and soil pH (horizon 1): (a) over the whole study area; (b) in the Murray Mallee; and (c) on Eyre Peninsula.

Legend:



Response envelope (combinations not found at any site)

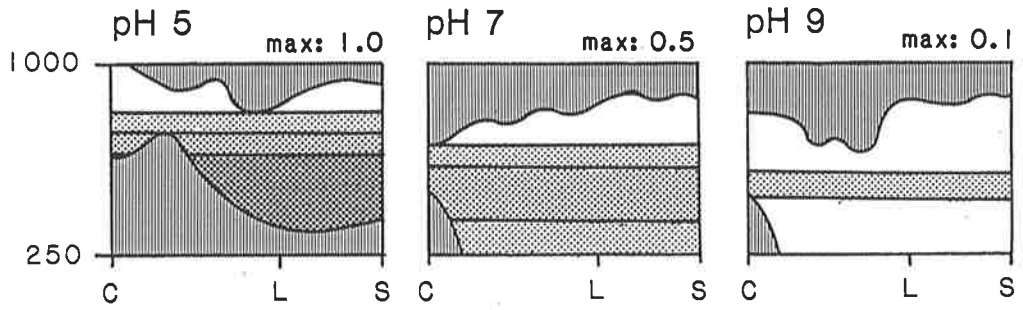
$P < 0.1$

$0.1 \leqslant P < 0.5$

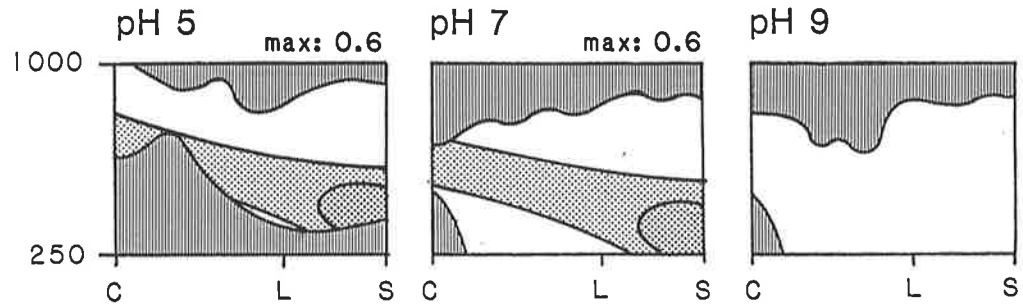
$0.5 \leqslant P < 0.9$

$P \geqslant 0.9$

(a) Overall



(b) Murray Mallee Only (pH not in model)



(c) Eyre Peninsula Only (texture not in model)

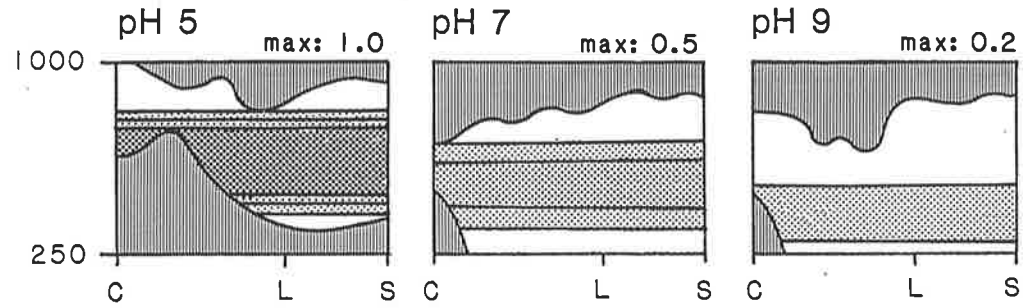
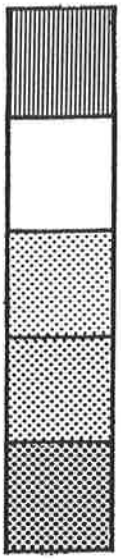


Figure 7.8. A comparison of the predicted response surfaces of the probability of occurrence of the *Triodia irritans* species in relation to annual rainfall, soil texture (horizon 1) and soil pH (horizon 1): (a) over the whole study area; (b) in the Murray Mallee; and (c) on Eyre Peninsula.

Legend:



Response envelope (combinations not found at any site)

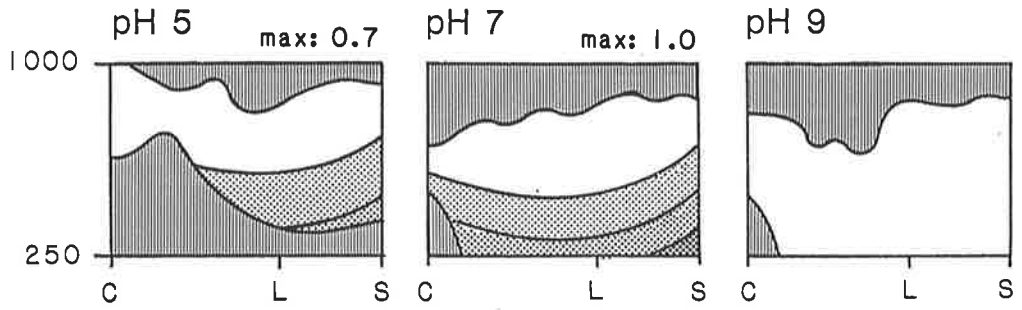
$P < 0.1$

$0.1 \leqslant P < 0.5$

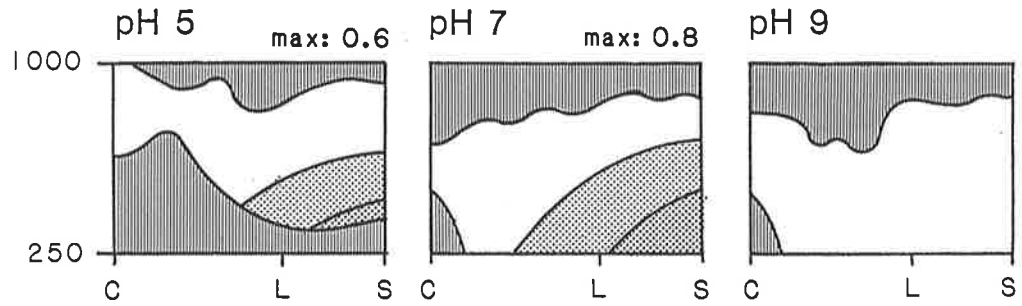
$0.5 \leqslant P < 0.9$

$P \geqslant 0.9$

(a) Overall (pH not in model)



(b) Murray Mallee Only (pH not in model)



(c) Eyre Peninsula Only (pH not in model)

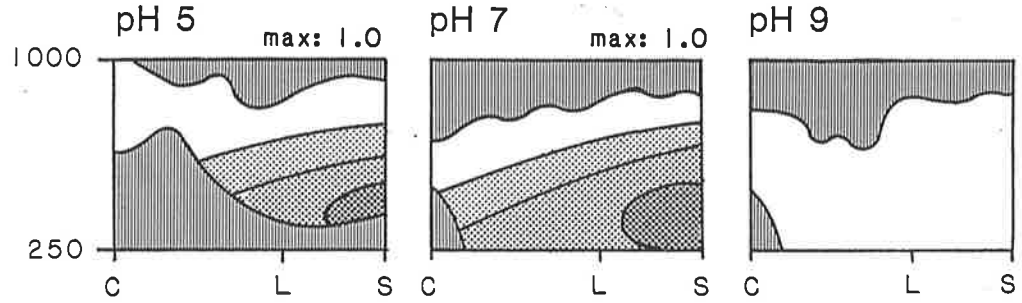


Figure 7.9. A generalised model of rainfall – soil texture responses of some important species of southern South Australia. Lines represent the chief diagonals of the modelled or inferred interactions, and thus the optimal (most likely) combination of the factors. Species of savannah woodlands and limestone substrata are excluded (see text for reasons).

Legend:

BO, *Banksia ornata*; EBX, *Eucalyptus baxteri*; EF, *E. foecunda*; EI, *E. incrassata*; EOL, *E. oleosa*; ES, *E. socialis*; MS, *Maireana sedifolia*; MU, *Melaleuca uncinata* (Murray Mallee region only); TI, *Triodia irritans*; XC, *Xanthorrhoea caespitosa*.

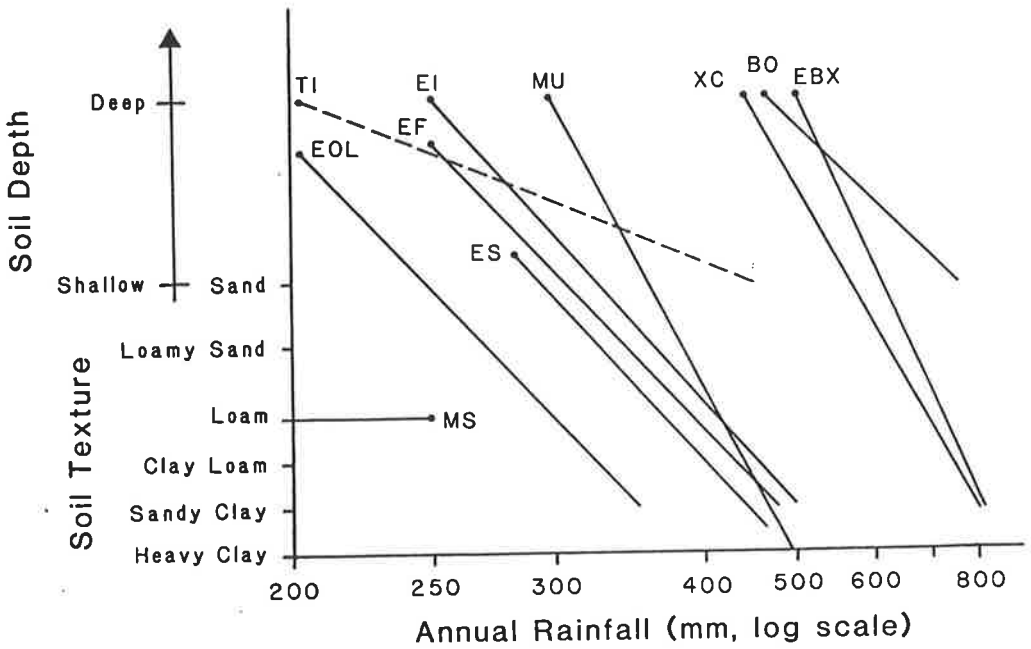


Table 7.1. Summary of species selected for environmental response modelling: frequency of occurrence and typical vegetation complex(es). *Eucalyptus* species marked with an asterisk are usually of mallee growth form.

Species	Frequency		Vegetation Complex(es)
	Occurrence	Dominance	
Eucalyptus baxteri	53	41	*E. baxteri - Pteridium Banksia ornata - Allocasuarina pusilla*
*E. brachycalyx**	50	30	*E. oleosa - E. gracilis*
*E. diversifolia**	81	64	*E. diversifolia*
*E. dumosa**	120	62	*E. dumosa*
*E. foecunda**	83	41	*E. incrassata - E. foecunda*
*E. gracilis**	152	108	*E. oleosa - E. gracilis*
*E. incrassata**	129	88	*E. incrassata - E. foecunda*
E. leucoxylon ssp. leucoxylon	43	30	*E. leucoxylon*
E. obliqua ssp. obliqua	22	20	*E. baxteri - Pteridium, E. obliqua - E. fasciculosa*
E. odorata	23	16	*E. odorata*
*E. oleosa**	146	112	*E. oleosa - E. gracilis*
*E. socialis**	131	83	*E. socialis, E. dumosa, E. incrassata - E. foecunda*
Banksia ornata	56	50	*Banksia ornata - Allocasuarina pusilla*
Callitris preissii ssp. verrucosa	46	21	*E. incrassata - E. foecunda*
Maireana erioclada	77	14	*E. oleosa - E. gracilis, (E. socialis)*
Melaleuca acuminata	73	23	*E. diversifolia, E. incrassata - E. foecunda, (E. dumosa)*
M. lanceolata	180	57	numerous
M. pauperiflora	42	23	*E. oleosa - E. gracilis*
M. uncinata	146	108	*E. incrassata - E. foecunda, E. socialis, E. dumosa*
Triodia irritans	141	77	*E. incrassata - E. foecunda, E. dumosa, E. socialis*

Table 7.2. Summary table of the logistic regression model for *Eucalyptus baxteri* (presence/absence). Omitted variables and interactions are not significant at the 5 % level of probability and have been removed by the stepwise regression procedure.

	Coefficient*	Approximate X^2 to Remove	d.f.	P
Main Factors				
Altitude	-0.00041	19.59	2	***
Altitude^2	-0.00011	21.47	1	***
Rainfall	0.06118	20.33	2	***
Rainfall^2	-0.00005	15.23	1	***
Depth Horizon 1	0.02194	9.6	1	**
Texture^2 Horizon 1	0.04296	19.49	1	***
pH Horizon 1	-6.30000	7.46	1	**
pH^2 Horizon 1	0.43452	5.43	1	*
Interactions				
Altitude x Rainfall	0.00006	4.98	1	*
Constant	-4.07810	0.26	1	n.s.

Deviance of Null Model** = 382.22
Deviance of Final Model = 156.40
Deviance Explained (r^2) = 0.59

* Coefficients are for the linear predictor. Probability of occurrence in the logistic regression model is calculated by the following link function:

$$P = \frac{e^Y}{1 + e^Y}$$

where Y is the linear predictor (Dodson 1983, p.76).

** Deviance of the null model

$$= 2(N_0 ln \frac{N_0 + N_1}{N_0} + N_1 ln \frac{N_0 + N_1}{N_1})$$

where N_0 is the number of absences and N_1 is the number of occurrences.

Table 7.3. Logistic regression model for *Eucalyptus brachycalyx* (presence/absence).

	Coefficient	Approximate X^2 to Remove	d.f.	P
Main Factors				
Altitude	0.00273	5.71	1	**
Rainfall	0.06819	12.7	1	***
Rainfall^2	-0.00010	14.2	1	***
pH Horizon 1	5.23210	6.05	1	**
pH^2 Horizon 1	-0.28283	4.69	1	**
Interactions				
None	-	-	-	-
Constant	-37.02300	13.77	1	***

Deviance of Null Model = 367.95
Deviance of Final Model = 290.01
Deviance Explained (r^2) = 0.21

Table 7.4. Logistic regression model for *Eucalyptus diversifolia* (presence/absence).

		Coefficient	Approximate X^2 to Remove	d.f.	P
Main Factors					
Altitude		-0.00005	18.16	1	***
Rainfall		0.11286	75.07	1	***
Rainfall^2		-0.00010	67.92	1	***
T.S.S. Horizon 1		1.67760	29.11	1	***
Texture Horizon 2		0.32305	8.06	1	**
Longitude		-0.00515	24.71	1	***
Sheet Calcrete	[1]	0.92935	58.94	2	***
	[2]	0.91228			
Interactions					
None		-	-	-	-
Constant		-29.39500	87.26	1	***

Deviance of Null Model = 514.38
Deviance of Final Model = 244.40
Deviance Explained (r^2) = 0.52

Table 7.5. Logistic regression model for *Eucalyptus dumosa* (presence/absence).

		Coefficient	Approximate X^2 to Remove	d.f.	P
Main Factors					
Altitude		0.01232	11.43	1	***
Altitude^2		-0.00003	13.8	1	***
Rainfall		0.07105	34.59	3	***
Rainfall^2		-0.00011	26.81	1	***
Depth^2 Horizon 1		-0.00007	6.72	1	***
pH Horizon 1		6.59580	11.24	1	***
pH^2 Horizon 1		-0.43821	10.63	1	***
Sheet Calcrete	[1]	-2.42220	12.6	4	**
	[2]	3.65990			
Interactions					
Rainfall x Calcrete	[1]	0.00430	6.74	2	**
	[2]	-0.00809			
Constant		-37.86800	21.64	1	***

Deviance of Null Model = 660.89
Deviance of Final Model = 485.70
Deviance Explained (r^2) = 0.25

Table 7.6. Logistic regression model for *Eucalyptus foecunda* (presence/absence).

	Coefficient	Approximate X^2 to Remove	d.f.	P
Main Factors				
Altitude	0.01890	9.58	1	***
Altitude^2	-0.00006	13.22	1	***
Rainfall	0.09121	22.86	2	***
Rainfall^2	-0.00009	24.43	1	***
Texture Horizon 1	1.40600	15.68	2	***
pH Horizon 1	8.12620	17.51	1	***
pH^2 Horizon 1	-0.61874	19.82	1	***
Interactions				
Rainfall x Texture	-0.00284	6.95	1	***
Constant	-51.93600	45.37	1	***

Deviance of Null Model = 522.79
Deviance of Final Model = 365.47
Deviance Explained (r^2) = 0.30

Table 7.7. Logistic regression model for *Eucalyptus gracilis* (presence/absence).

		Coefficient	Approximate X^2 to Remove	d.f.	P
Main Factors					
Rainfall		0.08187	15.83	1	***
Rainfall^2		-0.00013	22.1	1	***
Depth Horizon 1		0.01956	10.13	2	***
Texture Horizon 1		1.46990	11.75	2	***
Texture^2 Horizon 1		-0.11102	10.25	1	***
Carbonates Horizon 1	[1]	0.25709	13.85	2	***
	[2]	0.35136			
Nodular Calcrete	[1]	-0.28878	11.23	2	***
	[2]	0.71990			
Interactions					
Depth x Texture		-0.00433	5.5	1	**
Constant		-17.04900	17.42	1	***

Deviance of Null Model = 757.92
Deviance of Final Model = 467.89
Deviance Explained (r^2) = 0.38

Table 7.8. Logistic regression model for *Eucalyptus incrassata* (presence/absence).

	Coefficient	Approximate X^2 to Remove	d.f.	P
Main Factors				
Altitude	0.01969	12.16	1	***
Altitude^2	-0.00007	17.36	1	***
Rainfall	0.12596	55.93	3	***
Rainfall^2	-0.00012	52.66	1	***
Depth Horizon 1	0.14768	18.1	2	***
Depth^2 Horizon 1	-0.00061	7.34	1	***
Texture Horizon 1	1.54770	29.7	2	***
pH Horizon 1	8.54170	20.33	1	***
pH^2 Horizon 1	-0.65010	23.2	1	***
Longitude	0.00272	13.93	1	***
Interactions				
Rainfall x Depth	-0.00016	10.79	1	***
Rainfall x Texture	-0.00293	8.66	1	***
Constant	-67.77300	79.4	1	***

Deviance of Null Model = 690.07
Deviance of Final Model = 371.78
Deviance Explained (r^2) = 0.46

Table 7.9. Logistic regression model for *Eucalyptus leucoxylon* (presence/absence).

		Coefficient	Approximate X^2 to Remove	d.f.	P
Main Factors					
Altitude		0.00322	6.72	1	***
Rainfall		0.05649	36.35	1	***
Rainfall^2		-0.00005	32.22	1	***
Depth Horizon 1		-0.00952	4.03	1	**
Texture Horizon 1		-0.26053	13.14	1	***
Longitude		0.00615	17.27	1	***
Siltstone/Mudstone	[1]	6.49670	11.68	2	***
	[2]	-3.00530			
Interactions					
None		-	-	-	-
Constant		-21.15500	0	1	n.s

Deviance of Null Model = 329.82
Deviance of Final Model = 213.51
Deviance Explained (r^2) = 0.35

Table 7.10. Logistic regression model for *Eucalyptus obliqua* (presence/absence).

	Coefficient	Approximate X^2 to Remove	d.f.	P
Main Factors				
Rainfall	0.02762	70.49	1	***
Texture Horizon 1	-1.16650	8.53	2	**
T.S.S. Horizon 1	2.05860	8.62	2	**
Longitude	0.01019	11.13	1	***
Interactions				
Texture x T.S.S.	0.15570	0.13	1	n.s.
Constant	-40.94700	33.37	1	***

Deviance of Null Model = 198.86
Deviance of Final Model = 59.94
Deviance Explained (r^2) = 0.70

Table 7.11. Logistic regression model for *Eucalyptus odorata* (presence/absence).

	Coefficient	Approximate X^2 to Remove	d.f.	P
Main Factors				
Altitude	-0.01744	42.8	2	***
Altitude^2	-0.00006	27.92	1	***
Rainfall	0.12874	36.19	2	***
Rainfall^2	-0.00019	37.39	1	***
Texture Horizon 1	-0.05131	13.13	1	***
Interactions				
Rainfall x Altitude	-0.00015	12.94	1	***
Constant	-26.27800	22.16	1	***

Deviance of Null Model = 205.83
Deviance of Final Model = 97.47
Deviance Explained (r^2) = 0.53

Table 7.12. Logistic regression model for *Eucalyptus oleosa* (presence/absence).

	Coefficient	Approximate X^2 to Remove	d.f.	P
Main Factors				
Altitude	0.01776	13.85	1	***
Altitude^2	-0.00005	20.13	1	***
Rainfall^2	-0.00002	48.37	1	***
Depth^2 Horizon 1	-0.00008	5.5	1	**
Texture Horizon 1	1.89710	15.76	1	***
Texture^2 Horizon 1	-0.15451	14.51	1	***
pH^2 Horizon 1	0.08161	20.76	1	***
T.S.S. Horizon 1	-0.50429	4.15	1	**
Interactions				
None	-	-	-	-
Constant	-8.20990	14.34	1	***

Deviance of Null Model = 741.11
Deviance of Final Model = 382.43
Deviance Explained (r^2) = 0.48

Table 7.13. Logistic regression model for *Eucalyptus socialis* (presence/absence).

	Coefficient	Approximate X^2 to Remove	d.f.	P
Main Factors				
Altitude	0.01014	11.69	1	***
Altitude^2	-0.00002	6.74	1	***
Rainfall	0.11239	35.41	2	***
Rainfall^2	-0.00014	38.14	1	***
Texture Horizon 1	1.23350	19.67	2	***
pH Horizon 1	7.64060	20.98	1	***
pH^2 Horizon 1	-0.50060	19.27	1	***
Longitude	0.00331	36.11	1	***
Interactions				
Rainfall x Texture	-0.00280	9.68	1	***
Constant	-58.26000	65.14	1	***

Deviance of Null Model = 696.35
Deviance of Final Model = 501.11
Deviance Explained (r^2) = 0.26

Table 7.14. Logistic regression model for *Banksia ornata* (presence/absence).

	Coefficient	Approximate X^2 to Remove	d.f.	P
Main Factors				
Rainfall	0.06733	27.94	2	***
Rainfall^2	-0.00004	21.84	1	***
Depth Horizon 1	0.32080	20.61	2	***
Depth^2 Horizon 1	-0.00142	8.54	1	***
Texture Horizon 1	0.66646	29.75	1	***
pH Horizon 1	-0.95381	19.43	1	***
Interactions				
Rainfall x Depth	-0.00021	11.35	1	***
Constant	-31.11800	26.75	1	***

Deviance of Null Model = 398.94
Deviance of Final Model = 191.91
Deviance Explained (r^2) = 0.52

Table 7.15. Logistic regression model for *Callitris verrucosa* (presence/absence).

	Coefficient	Approximate X^2 to Remove	d.f.	P
Main Factors				
Altitude	0.04997	18.12	1	***
Altitude^2	-0.00014	16.63	1	***
Rainfall	0.16683	13	1	***
Rainfall^2	-0.00025	17.13	1	***
Texture Horizon 1	0.62859	9.17	1	***
pH^2 Horizon 1	-0.07439	11.11	1	***
Longitude	0.00343	8.35	1	***
Interactions				
None	-	-	-	-
Constant	-38.51600	16.83	1	***

Deviance of Null Model = 346.44
Deviance of Final Model = 158.88
Deviance Explained (r^2) = 0.54

Table 7.16. Logistic regression model for *Maireana erioclada* (presence/absence).

	Coefficient	Approximate X^2 to Remove	d.f.	P
Main Factors				
Altitude	0.01385	5.89	1	**
Altitude^2	-0.00004	8.03	1	***
Rainfall	-0.07408	16.1	2	***
Rainfall^2	-0.00033	11.89	1	***
Depth Horizon 1	-0.01261	6.29	1	**
Texture Horizon 1	2.41270	8.83	1	***
Texture^2 Horizon 1	-0.18956	8.22	1	***
pH Horizon 1	-7.70840	27.16	2	***
Interactions				
Rainfall x pH	0.03021	12.79	1	***
Constant	32.63600	3.11	1	n.s.

Deviance of Null Model = 497.22
Deviance of Final Model = 246.44
Deviance Explained (r^2) = 0.50

Table 7.17. Logistic regression model for *Melaleuca acuminata* (presence/absence).

		Coefficient	Approximate X^2 to Remove	d.f.	P
Main Factors					
Altitude^2		-0.00002	8.2	1	***
Rainfall		0.04051	46.71	2	***
Rainfall^2		-0.00014	31.03	1	***
Carbonates Horizon 1	[1]	0.03965	11.85	2	***
	[2]	-0.75995			
pH Horizon 1		-3.85830	21.93	4	***
Longitude		-0.00201	6.67	1	***
Sheet Calcrete	[1]	9.24110	37.99	4	***
	[2]	-0.11072			
Interactions					
Rainfall^2 x Calcrete	[1]	0.00876	9.82	1	***
	[2]	-1.29440	7.85	2	***
Constant		5.30270	0.23	1	n.s.

Deviance of Null Model = 479.59
Deviance of Final Model = 329.98
Deviance Explained (r^2) = 0.31

Table 7.18. Logistic regression model for *Melaleuca lanceolata* (presence/absence).

		Coefficient	Approximate X^2 to Remove	d.f.	P
Main Factors					
Altitude^2		-0.00001	8.4	1	***
pH Horizon 1		4.05010	10.21	1	***
pH^2 Horizon 1		-0.24027	7.07	1	***
T.S.S. Horizon 1		0.52918	7.85	1	***
Longitude		-0.00170	12.37	1	***
Sheet Calcrete	[1]	0.34818	43.33	2	***
	[2]	0.56143			
Interactions					
None		-	-	-	-
Constant		-16.68000	14.52	1	***

Deviance of Null Model = 828.81
Deviance of Final Model = 643.24
Deviance Explained (r^2) = 0.22

Table 7.19. Logistic regression model for *Melaleuca pauperiflora* (presence/absence).

		Coefficient	Approximate X^2 to Remove	d.f.	P
Main Factors					
Texture Horizon 1		13.09400	35.38	4	***
Texture^2 Horizon 1		-1.05860	22.26	1	***
T.S.S. Horizon 1		-10.84000	24.55	2	***
Longitude		-0.01063	56.71	1	***
Calcrete Nodules	[1]	-15.94300	36.39	4	***
	[2]	3.31650			
Interactions					
Texture x T.S.S.		1.31030	6.27	1	**
Texture x Calcrete	[1]	2.20940	10.83	2	***
	[2]	-0.20194			
Constant		-25.23400	5.23	1	**

Deviance of Null Model = 324.18
Deviance of Final Model = 100.66
Deviance Explained (r^2) = 0.70

Table 7.20. Logistic regression model for *Melaleuca uncinata* (presence/absence).

		Coefficient	Approximate X^2 to Remove	d.f.	P
Main Factors					
Altitude		0.02104	23.9	1	***
Altitude^2		-0.00006	29.48	1	***
Rainfall		0.05956	36.12	1	***
Rainfall^2		-0.00007	46.46	1	***
Carbonates Horizon 1	[1]	0.29390	53.35	4	***
	[2]	8.07680			
pH Horizon 1		-1.40630	14.72	3	***
Texture Horizon 2		-0.22694	10.23	1	***
Longitude		-0.00430	50.75	1	***
Interactions					
Carbonates x pH	[1]	-0.09587	10.34	2	***
	[2]	-1.11500			
Constant		1.42050	0.11	1	n.s.

Deviance of Null Model = 741.11
Deviance of Final Model = 468.23
Deviance Explained (r^2) = 0.37

Table 7.21. Logistic regression model for *Triodia irritans* (presence/absence).

	Coefficient	Approximate X^2 to Remove	d.f.	P
Main Factors				
Rainfall^2	-0.00002	127.81	1	***
Texture Horizon 1	-1.47220	15.06	1	***
Texture^2 Horizon 1	0.13772	21.12	1	***
T.S.S. Horizon 1	1.54830	64.22	1	***
Longitude	-0.00379	41.2	1	***
Interactions				
None	-	-	-	-
Constant	3.69980	7.07	1	***

Deviance of Null Model = 726.63
Deviance of Final Model = 473.85
Deviance Explained (r^2) = 0.34

Table 7.22. Summary of the significance of environmental variables in the species response models. Environmental variables are coded as in Table 3.8, except for substrata: G1, sheet calcrete; G2, nodular calcrete; G3, granite/sandstone; G4, siltstone/mudstone. Probability levels: 2, $P < 0.01$; 3, $P < 0.001$.

Species	r^2*	L**		A	R	D1	T1	C1	P1	S1	T2	G1	G2	G3	G4	Interactions		
Eucalyptus baxteri	0.59			3	3	2	3		2							R x A	+ve	1
E. brachycalyx	0.21			1	3				1									
E. diversifolia	0.52			3	3					3	2	3						
E. dumosa	0.25			3	3	2			3			1				R x G1	-ve	1
E. foecunda	0.30			3	3		3		3							R x T1	-ve	2
E. gracilis	0.38				3	2	2	2					2			D1 x T1	-ve	1
E. incrassata	0.46	3	+ve	3	3	3	3		3							R x D1	-ve	2
																R x T1	-ve	2
E. leucoxylon	0.35	3	+ve	2	3	1	3								2			
E. obliqua	0.70	3	+ve		3		1			1								
E. odorata	0.53			3	3		3									R x A	+ve	3
E. oleosa	0.48			3	3	1	3		3	1								
E. socialis	0.26	3	+ve	3	3		3		3							R x T1	-ve	2
Banksia ornata	0.52				3	3	3		3							R x D1	-ve	3
Callistris verrucosa	0.54	2	+ve	3	3		2		3									
Maireana erioclada	0.50			2	3	1	2		3							R x P1	+ve	3
Melaleuca acuminata	0.31	2	+ve	2	3			2	3			3				R x P1	+ve	2
																P1 x G1	-ve	1
M. lanceolata	0.22	3	-ve	2					2	2		3						
M. pauperiflora	0.70	3	-ve				3			3			3			T1 x S1	+ve	1
																T1 x G2	+ve	2
M. uncinata	0.37	3	-ve	3	3			3	2		2					C1 x P1	-ve	2
Triodia irritans	0.34	3	-ve		3		3			3								
No. Significant at Level 2 or 3		10		14	18	5	13	3	12	4	2	3	2		1			

* All regressions are significant at the $P < 0.001$ level.

**Direction of influence (+ve means higher probability to east)

Table 7.23. Logistic regression models for *Melaleuca uncinata*: (a) in the Murray Mallee and Southeast regions; and (b) on Eyre Peninsula.

(a)

	Coefficient	Approximate X^2 to Remove	d.f.	P
Main Factors				
Altitude	0.01658	5.51	1	**
Rainfall	0.19680	37.68	2	***
Rainfall^2	-0.00017	21.25	1	***
Texture Horizon 1	3.64700	24.34	2	***
T.S.S. Horizon 1	-1.27370	6.56	1	**
Texture Horizon 2	-0.30394	8.29	1	***
Interactions				
Rainfall x Texture	-0.00746	24.07	1	***
Constant	-53.50700	45.85	1	***

Deviance of Null Model = 226.91
Deviance of Final Model = 145.37
Deviance Explained (r^2) = 0.36

(b)

		Coefficient	Approximate X^2 to Remove	d.f.	P
Main Factors					
Rainfall		0.18833	23.9	2	***
Rainfall^2		-0.00014	23.06	1	***
Carbonates Horizon 1	[1]	-0.37001	19.29	2	***
	[2]	-1.01970			
pH Horizon 1		2.85830	14.07	2	***
Interactions					
Carbonates x pH		-0.01003	6.33	1	**
Constant		-44.11100	11.2	1	***

Deviance of Null Model = 313.42
Deviance of Final Model = 184.54
Deviance Explained (r^2) = 0.41

Table 7.24. Logistic regression models for *Triodia irritans*: (a) in the Murray Mallee and Southeast regions; and (b) on Eyre Peninsula.

(a)

	Coefficient	Approximate X^2 to Remove	d.f.	P
Main Factors				
Rainfall	-0.01759	43.73	1	***
Texture Horizon 1	0.69626	6.84	1	***
T.S.S. Horizon 1	2.16950	11.3	1	***
Interactions				
None	-	-	-	-
Constant	-8.68140	32.42	1	***

Deviance of Null Model = 252.32
Deviance of Final Model = 146.51
Deviance Explained (r^2) = 0.42

(b)

	Coefficient	Approximate X^2 to Remove	d.f.	P
Main Factors				
Rainfall	0.11646	13.43	2	***
Rainfall^2	-0.00010	5.46	1	**
Texture Horizon 1	0.02235	6.26	1	**
T.S.S. Horizon 1	7.06770	46.94	2	***
Interactions				
Rainfall x T.S.S.	-0.01637	7.83	1	***
Constant	-33.87000	18.74	1	***

Deviance of Null Model = 314.52
Deviance of Final Model = 220.65
Deviance Explained (r^2) = 0.30

Chapter 8.
IMPLICATIONS OF THE STUDY FOR ENVIRONMENTAL MANAGEMENT AND CONSERVATION.

Figures 8.1 – 8.4.

Tables 8.1 – 8.5.

Figure 8.1. Histogram of estimated remnant areas of native perennial species. Data taken from Table 8.1. Note the strong skew to the right. The arrow indicates the median of the distribution.

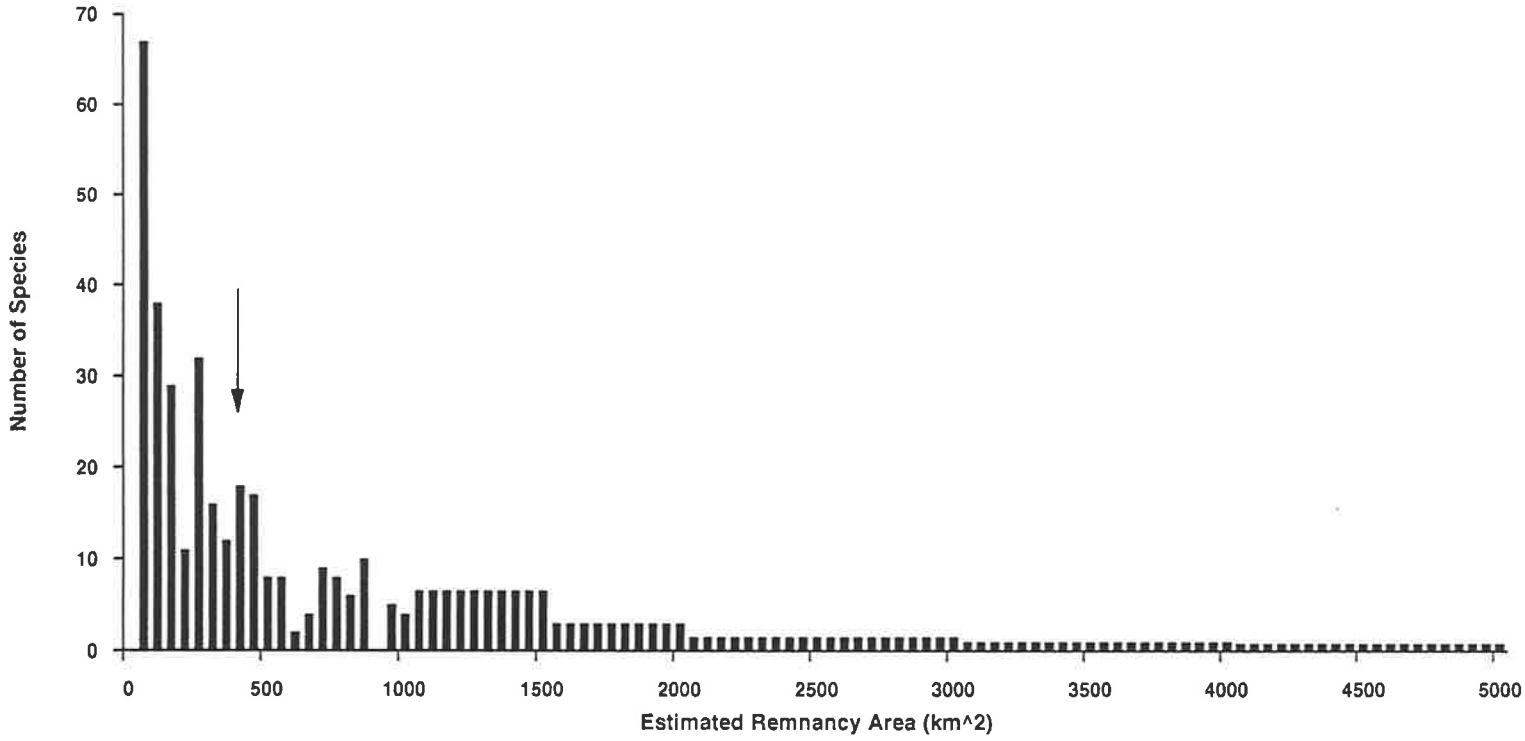


Figure 8.2. The relationship between total native perennial species diversity at sites and the number of rare species present. "Rare species" were those recorded at fewer than 8 sites overall (the median frequency of species occurrence). Note that, because of right-skewed distributions relative to both axes, many data points in the lower left of the plot represent more than one site superimposed (up to 25).

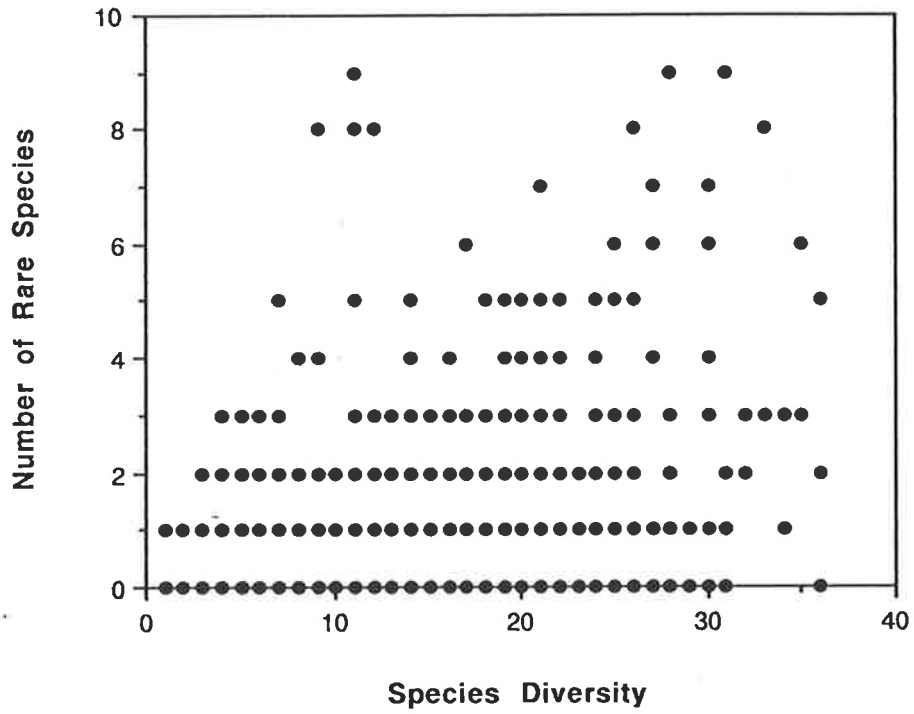


Figure 8.3. Overplot of relative remnancy index on the partial ordination of the six sclerophyllous woodland and heathland complexes (as in Figure 6.7).

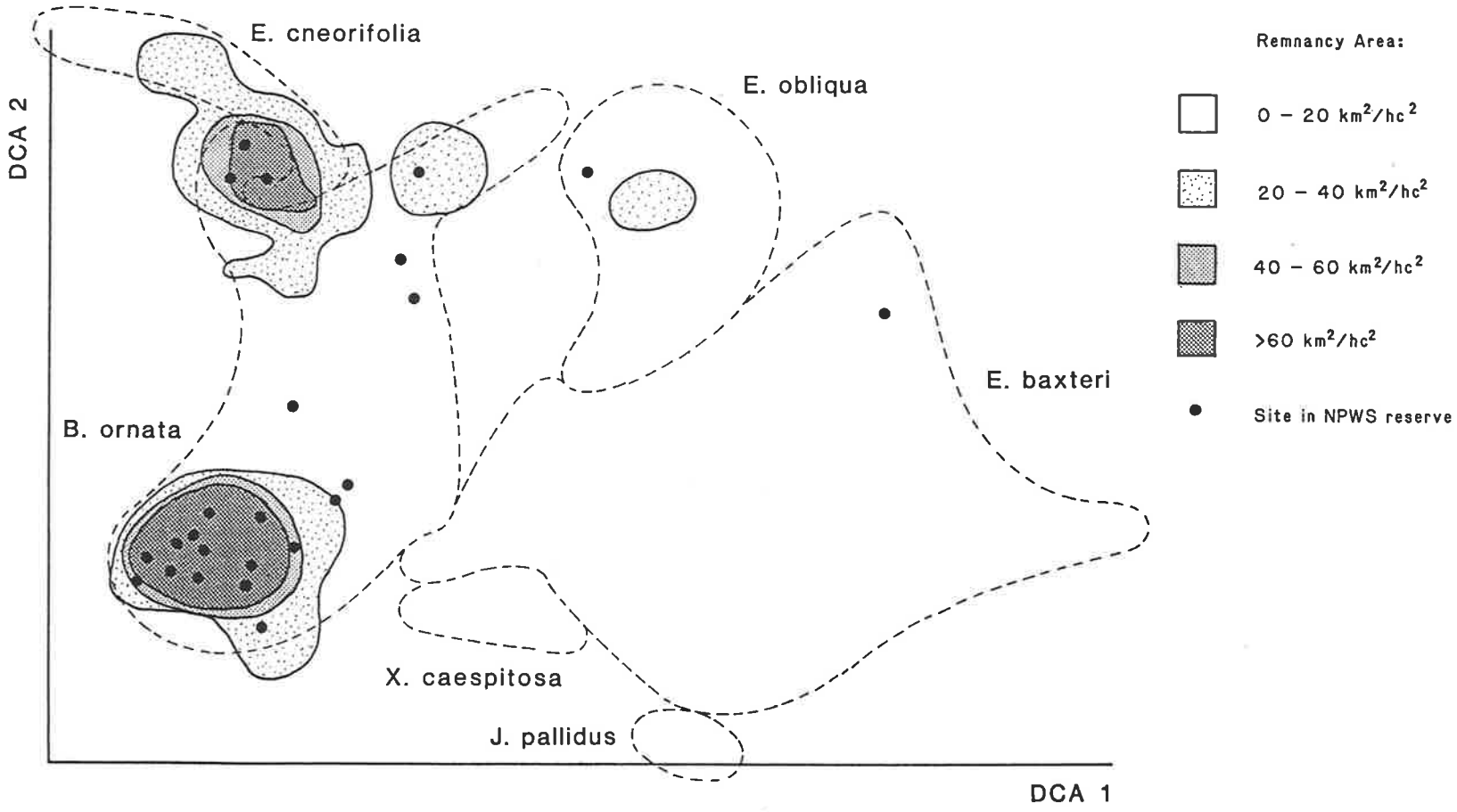


Figure 8.4. Overplot of relative remnancy index on the partial ordination of the five mallee complexes (as in Figure 6.11).

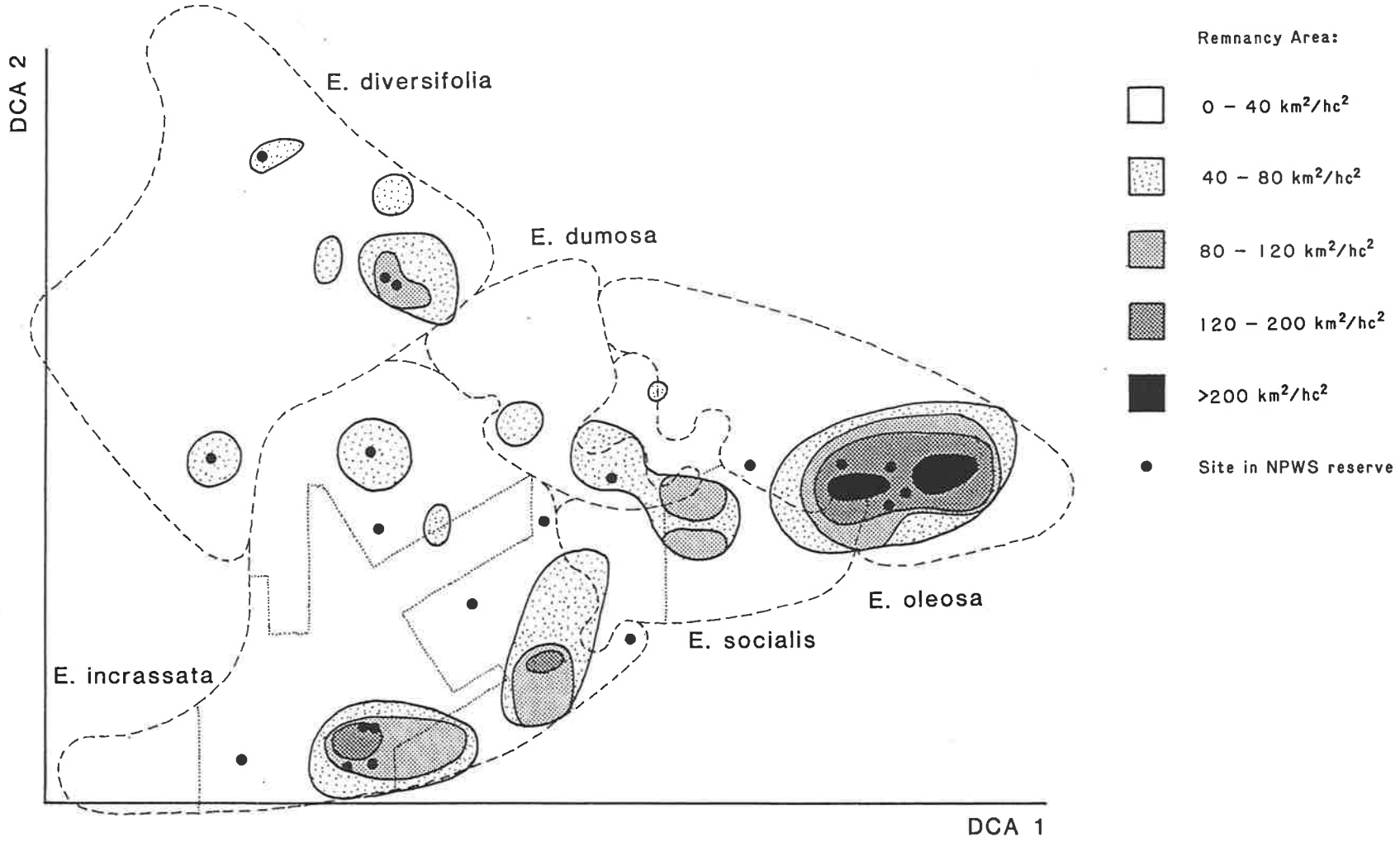


Table 8.1. Estimated species remnancy areas. Species listed are all perennial, and either have their distributions centred in the seven regions comprising the study area (according to Jessop & Toelken 1986) or have an estimated remnancy area greater than 1000 km^2 in the present survey. Species rarely encountered during this survey, but known to occur more commonly in the arid areas to the north of the survey area, have been omitted.

The conservation status of species is given according to each of Leigh *et al.* (1981), Briggs & Leigh (1988) and Lang & Kraehenbuehl (1987). Codes for Leigh *et al.* (1981) and Briggs & Leigh (1988) are: 1, known only at type locality; 2, distribution range $\leq$ 100 km^2; 3, range $>$ 100 km^2; X, presumed extinct; E, endangered (highest risk category); V, vulnerable; R, rare; K, status uncertain; C, recorded in conservation reserves. Lang & Kraehenbuehl (1987) use the same definitions for categories X, E, V, R and K.

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL	PUBLISHED RATINGS:		
Rank	NAME	AREA (km^2):	32000.0	24000.0	5000.0	16000.0	19000.0	7000.0	48000.0	151000.0	Leigh et al. [1981]	Briggs & Leigh [1988]	Lang & Kraehenbuehl [1987]
1	*Triodia irritans*		1485.2	1449.8	0.0	6.6	666.4	0.0	6967.0	10575.0	-	-	-
2	*Hibbertia riparia*		4124.8	974.4	897.4	242.8	162.2	307.6	3756.4	10465.6	-	-	-
3	*Melaleuca lanceolata*		536.2	870.4	129.4	13.6	61.0	558.6	7740.6	9909.8	-	-	-
4	*Lepidosperma laterale*		4479.8	917.8	1080.4	151.0	54.6	446.6	2769.6	9899.8	-	-	-
5	*Eucalyptus gracilis*		0.0	1965.2	0.0	247.2	1352.0	64.6	4316.0	7945.0	-	-	-
6	*Melaleuca uncinata*		644.0	565.2	775.2	66.6	0.0	41.6	5456.8	7549.4	-	-	-
7	*Eucalyptus oleosa*		0.0	1288.8	0.0	174.8	205.6	148.8	5614.4	7432.4	-	-	-
8	*Dianella laevis/revoluta*		1112.6	598.2	89.4	213.0	684.0	500.8	4130.4	7328.4	-	-	-
9	*Eucalyptus incrassata*		2406.2	1474.8	0.0	19.0	1.2	27.6	2556.8	6485.6	-	-	-
10	*Enchylaena tomentosa*		19.6	1417.2	0.0	131.0	1792.0	12.2	2918.0	6290.0	-	-	-
11	*Sclerolaena diacantha*		0.0	1599.2	0.0	61.4	1454.6	6.8	2745.0	5867.0	-	-	-
12	*Calytrix tetragona*		3124.8	518.4	758.0	145.8	395.2	407.8	483.0	5833.0	-	-	-
13	*Leptospermum coriaceum*		2227.2	1059.6	0.0	24.0	0.0	7.2	2452.6	5770.6	-	-	-
14	*Astroloma conostephioides*		2576.0	400.0	876.8	269.8	454.2	7.2	1163.4	5747.4	-	-	-
15	*Eucalyptus socialis*		16.4	1542.6	0.0	31.4	909.2	34.4	3102.8	5636.8	-	-	-
16	*Eucalyptus diversifolia*		1221.4	0.0	374.2	0.0	0.0	298.6	3338.2	5232.4	-	-	-
17	*Cassytha glabella*		1539.2	11.8	1037.8	140.8	0.0	316.2	2094.4	5140.2	-	-	-
18	*Eucalyptus dumosa*		200.0	610.4	0.0	4.8	64.4	17.2	4132.6	5029.4	-	-	-
19	*Schoenus deformis*		3876.2	0.8	225.8	32.4	0.0	37.0	646.6	4818.8	-	-	-
20	*Hakea muelleriana*		2643.2	400.0	888.0	28.2	0.0	9.0	835.8	4804.2	-	-	-
21	*Baeckea crassifolia*		2022.2	413.4	208.8	0.0	0.0	31.0	2127.0	4802.4	-	-	-
22	*Hibbertia sericea*		2816.0	0.0	1228.8	344.8	169.2	0.0	119.6	4678.4	-	-	-
23	*Maireana erioclada/pentatropis*		0.0	1284.0	0.0	184.2	339.6	0.0	2519.8	4327.6	-	-	-
24	*Gahnia lanigera*		310.0	236.6	110.2	33.4	1.4	330.6	3263.2	4285.4	-	-	-
25	*Geijera linearifolia*		0.0	812.8	0.0	27.8	223.4	16.6	3139.4	4220.0	-	-	-

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL	PUBLISHED RATINGS:		
Rank NAME	AREA (km^2):	32000.0	24000.0	5000.0	16000.0	19000.0	7000.0	48000.0	151000.0	Leigh et al. [1981]	Briggs & Leigh [1988]	Lang & Kraehenbuehl [1987]
26	*Eucalyptus foecunda*	1164.0	889.0	0.0	0.0	0.0	19.8	2141.4	4214.2	-	-	-
27	*Lepidosperma carphoides*	3670.2	8.6	127.2	90.2	0.0	0.0	285.0	4181.2	-	-	-
28	*Eutaxia microphylla*	436.8	0.0	17.0	32.6	118.4	55.6	3471.6	4132.0	-	-	-
29	*Acacia spinescens*	844.6	108.6	217.0	66.6	0.0	219.0	2626.8	4082.6	-	-	-
30	*Westringia rigida*	0.0	208.0	0.0	122.8	132.6	6.6	3559.2	4029.2	-	-	-
31	*Allocasuarina muelleriana*	2104.6	44.6	902.8	11.2	0.0	25.0	911.0	3999.2	-	-	-
32	*Correa reflexa*	2908.4	0.0	294.0	42.4	1.4	25.6	712.4	3984.2	-	-	-
33	*Acrotriche patula*	0.0	5.8	4.6	0.0	59.4	490.8	3352.8	3913.4	-	-	-
34	*Dodonaea bursariifolia*	200.0	47.2	58.6	0.0	0.0	1.8	3520.2	3827.8	-	-	-
35	*Baeckea behrii*	2847.0	335.0	0.0	5.2	0.0	0.0	627.8	3815.0	-	-	-
36	*Banksia ornata*	3088.8	0.0	676.0	45.2	0.0	0.0	0.0	3810.0	-	-	-
37	*Eremophila crassifolia*	0.0	443.6	0.0	0.0	0.0	0.0	3333.2	3776.8	-	-	-
38	*Olearia muelleri*	0.0	140.8	0.0	1.0	360.6	0.0	3104.6	3607.0	-	-	-
39	*Phyllota pleurandroides*	2728.0	0.0	859.0	0.0	0.0	0.0	0.0	3587.0	-	-	-
40	*Cassytha melantha*	0.0	46.8	30.8	0.8	194.8	0.0	3310.0	3583.2	-	-	-
41	*Acacia calamifolia*	107.4	74.6	4.6	24.2	285.8	296.0	2735.4	3528.0	-	-	-
42	*Leptospermum myrsinoides*	2926.8	0.0	212.4	363.0	0.0	0.0	0.0	3502.2	-	-	-
43	*Cryptandra leucophracta*	2406.6	600.0	17.0	0.0	0.0	16.0	444.4	3484.0	-	-	-
44	*Zygophyllum apiculatum*	0.0	1464.8	0.0	129.4	362.8	0.0	1477.6	3434.6	-	-	-
45	*Santalum murrayanum*	15.8	274.2	0.0	26.6	0.0	0.0	3087.0	3403.6	-	-	-
46	*Callitris preissii ssp. verrucosa*	953.0	810.0	0.0	0.0	0.0	0.0	1608.4	3371.4	-	-	-
47	*Clematis microphylla*	540.4	61.0	0.0	79.8	244.6	408.2	2028.4	3362.4	-	-	-
48	*Adenanthos terminalis*	2348.8	0.0	863.6	21.2	0.0	0.0	112.4	3346.0	-	-	-
49	*Lomandra collina*	1340.2	307.4	0.0	2.2	0.0	113.4	1447.8	3211.0	-	-	-
50	*Lomandra leucocephala*	711.6	681.8	0.0	0.0	0.0	0.0	1791.8	3185.2	-	-	-

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL	PUBLISHED RATINGS:		
Rank NAME	AREA (km^2):	32000.0	24000.0	5000.0	16000.0	19000.0	7000.0	48000.0	151000.0	Leigh et al. [1981]	Briggs & Leigh [1988]	Lang & Kraehenbuehl [1987]
51	*Hypolaena fastigiata*	2901.2	0.0	212.4	61.0	0.0	0.0	0.0	3174.6	-	-	-
52	*Melaleuca acuminata*	198.4	556.6	89.4	40.6	0.0	18.4	2228.0	3131.4	-	-	-
53	*Rhagodia crassifolia*	0.0	192.4	0.0	8.8	119.6	41.4	2765.4	3127.6	-	-	-
54	*Astroloma humifusum*	1782.4	0.0	540.8	218.6	127.2	8.0	338.0	3015.0	-	-	-
55	*Pittosporum phylliraeoides*	22.2	313.8	0.0	16.0	265.4	175.0	2202.4	2994.8	-	-	-
56	*Zygophyllum aurantiacum*	0.0	770.2	0.0	184.2	397.0	1.8	1640.8	2994.0	-	-	-
57	*Lepidobolus drapetocoleus*	2964.2	0.0	0.0	21.2	0.0	0.0	0.0	2985.4	-	-	-
58	*Xanthorrhoea australis*	2897.6	0.0	0.0	0.0	0.0	0.0	0.0	2897.6	-	-	-
59	*Spyridium subochreatum*	2302.2	30.0	0.0	5.2	0.0	0.0	515.6	2853.0	-	-	-
60	*Daviesia brevifolia*	2096.4	0.0	722.6	21.2	0.0	0.0	0.0	2840.2	-	-	-
61	*Eremophila scoparia*	0.0	382.6	0.0	0.0	53.0	0.0	2324.6	2760.2	-	-	-
62	*Eucalyptus brachycalyx*	0.0	276.6	0.0	237.8	575.4	50.0	1599.6	2739.4	-	-	-
63	*Exocarpus aphyllus*	0.0	333.4	0.0	4.0	555.0	72.8	1773.8	2739.0	-	-	-
64	*Beyeria lechenaultii*	43.0	175.0	63.2	0.0	58.0	300.4	2036.0	2675.6	-	-	-
65	*Banksia marginata*	1275.6	0.0	1123.4	247.6	0.0	0.0	0.0	2646.6	-	-	-
66	*Calytrix involucrata*	0.0	0.0	0.0	0.0	0.0	17.0	2556.8	2573.8	-	-	-
67	*Exocarpus sparteus*	596.8	4.8	0.0	27.8	44.2	68.6	1800.2	2542.4	-	-	-
68	*Phyllota remota*	357.4	832.0	0.0	21.2	0.0	7.2	1205.6	2423.4	3R	-	U
69	*Melaleuca pauperiflora*	0.0	0.0	0.0	0.0	52.0	0.0	2369.8	2421.8	-	-	-
70	*Eremophila weldii*	0.0	0.0	0.0	0.0	0.0	0.0	2333.2	2333.2	-	-	-
71	*Allocasuarina pusilla*	2095.4	200.0	0.0	21.2	0.0	0.0	0.0	2316.6	-	-	-
72	*Cryptandra tomentosa*	1824.4	394.2	0.0	21.2	0.0	23.0	35.0	2297.8	-	-	-
73	*Phebalium bullatum*	100.0	430.0	0.0	13.4	0.0	0.0	1709.0	2252.4	-	-	-
74	*Dillwynia hispida*	1867.4	0.0	55.6	100.6	0.0	8.0	157.8	2189.4	-	-	-
75	*Dillwynia uncinata*	0.0	600.0	722.6	0.0	0.0	7.2	839.6	2169.4	-	-	-

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL	PUBLISHED RATINGS:		
Rank NAME	AREA (km^2):	32000.0	24000.0	5000.0	16000.0	19000.0	7000.0	48000.0	151000.0	Leigh et al. [1981]	Briggs & Leigh [1988]	Lang & Kraehenbuehl [1987]
76	*Billardiera cymosa*	1049.4	369.2	17.0	68.4	0.0	0.0	652.2	2156.2	-	-	-
77	*Melaleuca eleuthrostachya*	0.0	0.0	0.0	0.0	0.0	0.0	2083.2	2083.2	-	-	-
78	*Eucalyptus baxteri*	1393.8	0.0	633.6	50.2	0.0	0.0	0.0	2077.6	-	-	-
79	*Allocasuarina verticillata*	126.2	0.0	0.0	213.0	446.0	190.8	1085.4	2061.4	-	-	-
80	*Lomandra effusa*	286.8	115.8	0.0	31.8	0.0	205.4	1413.0	2052.8	-	-	-
81	*Pimelea flava*	136.0	4.2	0.0	0.0	0.0	580.4	1323.4	2044.0	-	-	-
82	*Xanthorrhoea semiplana ssp. semiplana*	0.0	0.0	1433.6	514.6	0.0	0.0	76.0	2024.2	-	-	-
83	*Lasiopetalum behrii*	409.0	50.8	0.0	0.0	53.0	17.8	1478.8	2009.4	-	-	-
84	*Boronia coerulescens*	1458.4	82.8	0.0	0.0	0.0	0.0	419.0	1960.2	-	-	-
85	*Dodonaea hexandra*	0.0	141.4	0.0	26.8	1.4	18.6	1748.2	1936.4	-	-	-
86	*Exocarpus syrticola*	0.0	0.0	0.0	0.0	1.2	316.4	1606.4	1924.0	-	-	-
87	*Schoenus subaphyllus*	0.0	824.2	0.0	0.0	0.0	0.0	1028.2	1852.4	-	-	-
88	*Bursaria spinosa*	277.2	0.0	0.0	267.6	662.4	351.0	271.0	1829.2	-	-	-
89	*Acacia sclerophylla*	0.0	183.8	0.0	0.0	0.0	0.0	1642.8	1826.6	-	-	-
90	*Petrophile multisecta*	0.0	0.0	1821.6	0.0	0.0	0.0	0.0	1821.6	2RC	-	-
91	*Glischrocaryon aureum/behrii*	343.6	37.8	319.2	0.0	0.0	8.0	1100.6	1809.2	-	-	-
92	*Cassia nemophila var. coriacea*	0.0	617.2	0.0	0.0	316.4	0.0	867.2	1800.8	-	-	-
93	*Threlkeldia diffusa*	0.0	4.8	0.0	0.0	216.4	183.8	1387.2	1792.2	-	-	-
94	*Callitris preissii ssp. preissii*	564.2	29.8	0.0	71.6	118.0	1.8	999.8	1785.2	-	-	-
95	*Halgania cyanea*	34.6	703.8	0.0	0.0	0.0	7.8	1027.6	1773.8	-	-	-
96	*Leucopogon parviflorus*	443.0	0.0	58.6	0.0	0.0	134.0	1116.6	1752.2	-	-	-
97	*Podolepis capillaris*	0.0	373.8	0.0	0.0	0.0	0.0	1371.6	1745.4	-	-	-
98	*Rhagodia preissii*	0.0	154.2	0.0	18.6	7.2	3.6	1512.0	1695.6	-	-	-
99	*Scaevola spinescens*	0.0	234.0	0.0	0.0	162.2	1.8	1293.0	1691.0	-	-	-

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL	PUBLISHED RATINGS:		
Rank NAME	AREA (km^2):	32000.0	24000.0	5000.0	16000.0	19000.0	7000.0	48000.0	151000.0	Leigh et al. [1981]	Briggs & Leigh [1988]	Lang & Kraehenbuehl [1987]
100 *Brachyloma ericoides*		1056.4	623.2	0.0	5.4	0.0	0.0	0.0	1685.0	-	-	-
101 *Isopogon ceratophyllus*		599.0	0.0	885.8	193.0	0.0	0.0	0.0	1677.8	-	-	-
102 *Leucopogon cordifolius*		165.0	0.0	0.0	0.0	0.0	7.2	1503.0	1675.2	-	-	-
103 *Hakea rostrata*		141.8	0.0	1409.2	124.2	0.0	0.0	0.0	1675.2	-	-	-
104 *Acrotriche cordata*		360.8	0.0	94.0	0.0	0.0	308.4	899.8	1663.0	-	-	-
105 *Hibbertia virgata*		416.8	455.6	489.4	26.6	0.0	0.0	250.6	1639.0	-	-	-
106 *Atriplex vesicaria*		0.0	59.8	0.0	52.4	377.4	0.0	1129.4	1619.0	-	-	-
107 *Gahnia deusta*		18.8	0.0	58.6	53.2	0.0	95.8	1384.0	1610.4	-	-	-
108 *Thryptomene micrantha*		0.0	0.0	0.0	0.0	0.0	0.0	1604.4	1604.4	-	-	-
109 *Acacia rigens*		0.0	19.8	0.0	2.2	0.0	0.0	1562.4	1584.4	-	-	-
110 *Cassytha pubescens*		508.6	42.6	0.0	136.8	127.2	0.0	765.2	1580.4	-	-	-
111 *Allocasuarina striata*		0.0	0.0	1573.2	0.0	0.0	0.0	0.0	1573.2	-	-	-
112 *Dampiera rosmarinifolia*		135.4	200.0	0.0	13.4	0.0	8.0	1208.4	1565.2	-	-	-
113 *Maireana brevifolia*		0.0	582.0	0.0	59.6	869.0	0.0	6.4	1517.0	-	-	-
114 *Carpobrotus rossii*		86.6	110.0	0.0	5.4	1.2	77.6	1213.6	1494.4	-	-	-
115 *Templetonia retusa*		0.0	0.0	4.6	0.0	53.0	406.0	1023.8	1487.4	-	-	-
116 *Baeckea ericaea*		1370.4	0.0	102.2	0.0	0.0	0.0	0.0	1472.6	-	-	-
117 *Eremophila glabra*		0.0	165.4	0.0	0.0	162.2	1.8	1137.8	1467.2	-	-	-
118 *Hakea francissiana*		0.0	0.0	0.0	0.0	0.0	0.0	1444.8	1444.8	-	-	-
119 *Lasiopetalum discolor*		0.0	0.0	40.0	0.0	0.0	214.8	1168.2	1423.0	-	-	-
120 *Hakea cycloptera*		0.0	0.0	0.0	0.0	0.0	0.0	1411.2	1411.2	-	-	-
121 *Maireana sedifolia*		0.0	610.8	0.0	0.0	761.4	0.0	0.0	1372.2	-	-	-
122 *Atriplex acutibractea*		0.0	564.2	0.0	8.8	579.4	0.0	207.2	1359.6	-	-	-
123 *Eucalyptus porosa*		0.0	0.0	0.0	1.0	210.6	55.8	1084.8	1352.2	-	-	-
124 *Spyridium phylicoides*		218.2	0.0	58.6	0.0	0.0	199.0	864.4	1340.2	-	-	-

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL	PUBLISHED RATINGS:		
Rank NAME	AREA (km^2):	32000.0	24000.0	5000.0	16000.0	19000.0	7000.0	48000.0	151000.0	Leigh et al. [1981]	Briggs & Leigh [1988]	Lang & Kraehenbuehl [1987]
125 *Lepidosperma viscidum*		510.2	82.8	668.6	46.8	0.0	8.0	10.0	1326.4	-	-	-
126 *Eucalyptus yumbarrana*		0.0	0.0	0.0	0.0	0.0	0.0	1322.6	1322.6	-	-	-
127 *Gonocarpus tetragynus*		303.2	0.0	132.2	290.2	344.2	191.2	54.6	1315.6	-	-	-
128 *Calytrix alpestris*		1293.4	0.0	0.0	11.2	0.0	0.0	0.0	1304.6	-	-	-
129 *Lomandra juncea*		340.0	723.4	200.0	27.6	0.0	0.0	3.8	1294.8	-	-	-
130 *Alectryon oleifolius*		0.0	574.2	0.0	4.0	584.8	0.0	122.4	1285.4	-	-	-
131 *Leucopogon rufus*		739.6	0.0	540.6	0.0	0.0	0.0	0.0	1280.2	-	-	-
132 *Grevillea ilicifolia*		549.2	200.0	47.8	0.0	0.0	15.8	465.8	1278.6	-	-	-
133 *Rhagodia spinescens ssp. deltaphylla*		0.0	385.0	0.0	0.0	514.4	0.0	374.2	1273.6	-	-	-
134 *Grevillea hueglii*		0.0	23.4	0.0	0.0	128.4	1.8	1109.2	1262.8	-	-	-
135 *Lasiopetalum baueri*		210.2	4.2	58.6	0.0	0.0	7.8	976.6	1257.4	-	-	-
136 *Rhagodia parabolica*		0.0	73.2	0.0	3.6	671.8	6.6	493.8	1249.0	-	-	-
137 *Comesperma calymega/ polygaloides*		651.2	0.0	596.4	0.0	0.0	0.0	0.0	1247.6	-	-	-
138 *Olearia axillaris*		292.0	0.0	0.0	11.2	0.0	69.4	866.6	1239.2	-	-	-
139 *Eucalyptus cosmophylla*		0.0	0.0	1174.6	60.6	0.0	0.0	0.0	1235.2	-	-	-
140 *Rhagodia ulicina*		0.0	406.0	0.0	122.8	299.2	0.0	400.0	1228.0	-	-	-
141 *Acacia myrtifolia*		150.6	0.0	800.8	81.0	0.0	0.0	187.2	1219.6	-	-	-
142 *Maireana apressa*		0.0	315.4	0.0	52.4	1.0	0.0	843.8	1212.6	-	-	-
143 *Acacia merrallii*		0.0	0.0	0.0	0.0	0.0	0.0	1201.6	1201.6	-	-	-
144 *Prostanthera serpyllifolia*		0.0	9.0	200.0	0.0	0.0	0.0	991.0	1200.0	-	-	-
145 *Acacia wilhelmiana*		0.0	0.0	0.0	0.0	4.8	0.0	1188.6	1193.4	-	-	-
146 *Acacia nyssophylla*		0.0	564.6	0.0	122.8	0.0	3.6	471.2	1162.2	-	-	-
147 *Eucalyptus leucoxylon*		405.2	0.0	58.6	158.2	528.6	0.0	0.0	1150.6	-	-	-

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL	PUBLISHED RATINGS:		
Rank NAME	AREA (km^2):	32000.0	24000.0	5000.0	16000.0	19000.0	7000.0	48000.0	151000.0	Leigh et al. [1981]	Briggs & Leigh [1988]	Lang & Kraehenbuehl [1987]
	var. leucoxylon											
148	*Lepidosperma semiteres*	18.8	0.0	753.4	359.2	0.0	0.0	15.8	1147.2	-	-	-
149	*Correa pulchella*	0.0	0.0	0.0	0.0	0.0	298.6	848.0	1146.6	-	-	-
150	*Conospermum patens*	611.2	0.0	322.6	0.0	0.0	0.0	200.0	1133.8	-	-	-
151	*Grevillea pterosperma*	100.0	230.0	0.0	0.0	0.0	0.0	795.0	1125.0	-	-	-
152	*Acacia longifolia var. sophorae*	535.6	0.0	0.0	0.0	0.0	60.2	528.4	1124.2	-	-	-
153	*Goodenia ovata/varia*	17.8	0.0	9.2	0.0	58.0	107.4	925.2	1117.6	-	-	-
154	*Bertya mitchellii*	300.0	511.4	0.0	13.4	0.0	0.0	291.8	1116.6	-	-	-
155	*Atriplex stipitata*	0.0	831.2	0.0	125.0	101.0	0.0	51.4	1108.6	-	-	-
156	*Persoonia juniperina*	1048.8	0.0	0.0	21.2	0.0	0.0	12.0	1082.0	-	-	-
157	*Boronia filifolia*	57.0	0.0	1024.8	0.0	0.0	0.0	0.0	1081.8	3RC	-	-
158	*Choretrum glomeratum*	241.6	0.0	340.4	0.0	0.0	6.0	475.0	1063.0	-	-	-
159	*Acacia ligulata*	46.8	172.6	0.0	1.2	0.0	112.6	722.8	1056.0	-	-	-
160	*Olearia ramulosa*	70.2	0.0	58.6	232.6	0.0	4.6	682.2	1048.2	-	-	-
161	*Pultenaea densifolia*	285.0	482.8	0.0	0.0	0.0	0.0	279.4	1047.2	3K	-	U
162	*Myoporum platycarpum*	0.0	388.4	0.0	0.0	66.4	1.8	567.2	1023.8	-	-	-
163	*Zygophyllum ovatum*	0.0	820.8	0.0	26.6	0.0	0.0	171.4	1018.8	-	-	-
164	*Alyxia buxifolia*	0.0	0.0	0.0	4.0	0.0	170.2	843.6	1017.8	-	-	-
165	*Acacia pycnantha*	436.6	0.0	0.0	372.0	124.0	11.8	72.6	1017.0	-	-	-
166	*Tetratheca halmaturina*	0.0	0.0	1016.4	0.0	0.0	0.0	0.0	1016.4	-	-	-
167	*Thryptomene ericaea*	0.0	0.0	200.0	0.0	0.0	0.0	812.0	1012.0	-	-	-
168	*Pomaderris oraria*	35.4	4.2	0.0	0.0	0.0	214.8	747.4	1001.8	-	-	-
169	*Grammosolen truncatus*	0.0	0.0	0.0	0.0	0.0	0.0	987.4	987.4	-	3R	-
170	*Micrantheum demissum*	0.0	0.0	982.6	0.0	0.0	0.0	0.0	982.6	3RC	-	-
171	*Acrotriche affinis*	482.6	7.8	416.4	0.0	0.0	0.0	65.0	971.8	-	-	-

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL	PUBLISHED RATINGS:		
Rank NAME	AREA (km^2):	32000.0	24000.0	5000.0	16000.0	19000.0	7000.0	48000.0	151000.0	Leigh et al. [1981]	Briggs & Leigh [1988]	Lang & Kraehenbuehl [1987]
172 *Eucalyptus fasciculosa*		464.6	0.0	200.0	305.8	0.0	0.0	0.0	970.4	-	-	-
173 *Helichrysum catadromum*		0.0	0.0	0.0	0.0	0.0	8.0	934.8	942.8	-	-	-
174 *Pomaderris obcordata*		115.4	0.0	40.0	13.4	0.0	214.8	554.2	937.8	-	-	-
175 *Olearia magniflora*		0.0	197.6	0.0	0.0	0.0	0.0	738.2	935.8	-	-	-
176 *Dodonaea stenozyga*		0.0	0.0	0.0	0.0	0.0	0.0	926.2	926.2	-	-	-
177 *Kunzea pomifera*		912.0	0.0	0.0	10.8	0.0	0.0	0.0	922.8	-	-	-
178 *Pultenaea tenuifolia*		310.2	200.0	0.0	0.0	0.0	0.0	334.8	845.0	-	-	-
179 *Cryptandra propinqua*		0.0	112.8	0.0	0.0	0.0	0.0	728.2	841.0	-	-	-
180 *Calytrix sp.A*		0.0	0.0	827.6	5.4	0.0	0.0	0.0	833.0	-	-	-
181 *Zygophyllum glaucum*		0.0	101.2	0.0	0.0	1.0	0.0	726.2	828.4	-	-	-
182 *Muehlenbeckia gunnii*		139.4	0.0	0.0	0.0	163.4	59.2	463.6	825.6	-	-	-
183 *Disphyma crassifolium*		0.0	101.2	0.0	39.4	353.8	0.0	331.0	825.4	-	-	-
184 *Olearia lepidophylla*		1.8	207.8	0.0	0.0	0.0	0.0	605.8	815.4	-	-	-
185 *Callitris canescens*		0.0	27.4	0.0	0.0	0.0	107.4	679.8	814.6	-	-	-
186 *Platylobium obtusangulum*		0.0	0.0	497.2	316.6	0.0	0.0	0.0	813.8	-	-	-
187 *Olearia floribunda*		0.0	0.0	4.6	0.0	180.0	0.0	627.8	812.4	-	-	-
188 *Lomandra dura*		0.0	0.0	0.0	99.4	688.2	0.0	0.0	787.6	-	-	-
189 *Helichrysum bilobum*		0.0	0.0	0.0	4.4	0.0	0.0	781.6	786.0	-	-	-
190 *Dampiera marifolia*		772.8	0.0	0.0	0.0	0.0	0.0	0.0	772.8	-	-	-
191 *Olearia decurrens*		0.0	0.0	0.0	4.4	100.8	0.0	662.6	767.8	-	-	-
192 *Leucopogon concurvus*		0.0	0.0	710.8	42.8	0.0	0.0	0.0	753.6	-	-	-
193 *Verticordia wilhelmii*		0.0	0.0	0.0	0.0	0.0	7.2	743.2	750.4	3VC	-	-
194 *Rhagodia candolleana*		0.0	0.0	0.0	0.0	0.0	180.8	564.2	745.0	-	-	-
195 *Microcybe multiflora ssp. multiflora*		0.0	0.0	0.0	0.0	0.0	0.0	744.2	744.2	-	-	-

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL	PUBLISHED RATINGS:		
Rank NAME	AREA (km^2):	32000.0	24000.0	5000.0	16000.0	19000.0	7000.0	48000.0	151000.0	Leigh et al. [1981]	Briggs & Leigh [1988]	Lang & Kraehenbuehl [1987]
196 *Acacia continua*		0.0	0.0	0.0	48.4	434.8	0.0	260.2	743.4	-	-	-
197 *Acacia anceps*		0.0	0.0	0.0	0.0	0.0	107.4	633.0	740.4	-	-	-
198 *Acrotriche serrulata*		373.8	0.0	0.0	274.2	0.0	83.8	0.0	731.8	-	-	-
199 *Isolepis nodosa*		430.6	0.0	0.0	5.0	0.0	21.0	263.2	719.8	-	-	-
200 *Goodenia primulacea*		414.2	0.0	89.4	66.0	8.4	107.4	0.0	685.4	-	-	-
201 *Melaleuca gibbosa*		41.0	0.0	638.4	0.0	0.0	0.0	0.0	679.4	-	-	-
202 *Comesperma scoparium*		0.0	0.0	0.0	0.0	0.0	0.0	673.0	673.0	-	-	-
203 *Eriostemon pungens*		418.2	0.0	0.0	0.0	0.0	0.0	248.4	666.6	-	-	-
204 *Acacia paradoxa*		60.0	0.0	225.6	256.2	7.0	52.8	59.6	661.2	-	-	-
205 *Stackhousia monogyna*		190.2	0.0	72.6	31.4	265.0	0.0	101.2	660.4	-	-	-
206 *Eucalyptus flocktoniae*		0.0	0.0	0.0	0.0	0.0	0.0	657.6	657.6	-	-	U
207 *Gahnia trifida/filum*		338.6	0.0	0.0	0.0	0.0	100.6	216.6	655.8	-	-	-
208 *Boronia inornata*		0.0	0.0	0.0	0.0	0.0	0.0	648.2	648.2	-	-	-
209 *Pimelea octophylla*		477.2	0.0	136.4	21.2	0.0	8.0	0.0	642.8	-	-	-
210 *Pteridium esculentum*		542.4	0.0	0.0	97.4	0.0	0.0	0.0	639.8	-	-	-
211 *Daviesia asperula ssp. asperula*		0.0	0.0	639.0	0.0	0.0	0.0	0.0	639.0	-	-	-
212 *Melaleuca brevifolia*		310.0	0.0	17.0	0.0	143.6	0.0	154.6	625.2	-	-	-
213 *Styphelia exarrhena*		507.0	0.0	106.6	0.0	0.0	0.0	0.0	613.6	-	-	-
214 *Acacia rupicola*		0.0	0.0	58.6	45.8	0.0	214.8	292.4	611.6	-	-	-
215 *Prostanthera aspalathoides*		0.0	311.4	0.0	0.0	0.0	0.0	291.8	603.2	-	-	-
216 *Pultenaea prostrata*		373.6	0.0	0.0	0.0	0.0	0.0	227.4	601.0	-	-	-
217 *Goodenia affinis*		84.8	4.2	0.0	14.6	244.8	22.4	200.6	571.4	-	-	-
218 *Eucalyptus calycogona*		0.0	113.6	0.0	21.2	0.0	0.0	430.2	565.0	-	-	-
219 *Dodonaea humilis*		32.8	0.0	40.0	0.0	0.0	191.2	297.6	561.6	-	-	-
220 *Gompholobium ecostatum*		0.0	0.0	553.4	0.0	0.0	0.0	0.0	553.4	-	-	-

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL	PUBLISHED RATINGS:		
Rank NAME	AREA (km^2):	32000.0	24000.0	5000.0	16000.0	19000.0	7000.0	48000.0	151000.0	Leigh et al. [1981]	Briggs & Leigh [1988]	Lang & Kraehenbuehl [1987]
221 *Leucopogon costatus*		221.4	0.0	327.2	0.0	0.0	0.0	0.0	548.6	-	-	-
222 *Melaleuca halmaturorum*		179.0	0.0	0.0	0.0	0.0	52.8	309.8	541.6	-	-	-
223 *Eucalyptus rugosa*		11.4	44.4	94.0	0.0	0.0	0.0	391.4	541.2	-	-	-
224 *Xanthorrhoea quadrangulata*		94.6	0.0	0.0	48.8	396.6	0.0	0.0	540.0	-	-	-
225 *Carpobrotus aequilaterus*		22.0	63.2	0.0	10.4	0.0	0.0	424.6	520.2	-	-	-
226 *Pultenaea canaliculata*		0.0	0.0	502.2	11.2	0.0	0.0	0.0	513.4	-	-	-
227 *Melaleuca decussata*		0.0	0.0	58.6	0.0	0.0	0.0	454.6	513.2	-	-	-
228 *Darwinia micropetala*		178.8	0.0	322.6	0.0	0.0	0.0	0.0	501.4	3RC	-	-
229 *Caustis pentandra*		71.2	0.0	424.8	0.0	0.0	0.0	0.0	496.0	-	-	U
230 *Xanthorrhoea semiplana ssp. tateana*		0.0	0.0	344.4	0.0	0.0	0.0	129.8	474.2	-	-	-
231 *Olearia ciliata*		55.0	0.0	9.2	21.2	0.0	0.0	388.0	473.4	-	-	-
232 *Schoenus racemosus*		0.0	0.0	0.0	0.0	0.0	0.0	470.0	470.0	3RC	-	-
233 *Daviesia benthamii*		0.0	0.0	0.0	0.0	0.0	0.0	464.0	464.0	3RC	-	K
234 *Acacia notabilis*		0.0	0.0	0.0	2.2	52.0	1.8	407.2	463.2	-	-	-
235 *Leucopogon woodsii*		157.0	0.0	0.0	0.0	0.0	0.0	300.0	457.0	1E	-	-
236 *Callistemon rugulosus*		89.8	0.0	102.2	0.0	0.0	0.0	259.6	451.6	-	-	-
237 *Pimelea stricta*		49.4	0.0	58.6	95.2	215.2	0.0	31.0	449.4	-	-	-
238 *Pimelea glauca*		135.6	0.0	0.0	15.6	0.0	117.2	181.0	449.4	-	-	-
239 *Gonocarpus mezianus*		15.6	0.0	200.0	75.2	0.0	18.8	138.2	447.8	-	-	-
240 *Hakea vittata*		406.4	0.0	35.4	5.2	0.0	0.0	0.0	447.0	-	-	-
241 *Daviesia ulicifolia*		0.0	0.0	200.0	143.8	0.0	0.0	100.0	443.8	-	-	-
242 *Muehlenbeckia adpressa*		275.2	0.0	0.0	30.6	0.0	60.2	66.8	432.8	-	-	-
243 *Dodonaea baueri*		0.0	0.0	0.0	0.0	58.0	9.4	363.8	431.2	-	-	-
244 *Nitraria billardieri*		0.0	46.4	0.0	0.0	167.0	71.2	145.4	430.0	-	-	-

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL	PUBLISHED RATINGS:		
Rank NAME	AREA (km^2):	32000.0	24000.0	5000.0	16000.0	19000.0	7000.0	48000.0	151000.0	Leigh et al. [1981]	Briggs & Leigh [1988]	Lang & Kraehenbuehl [1987]
245 *Eucalyptus obliqua var. obliqua*		128.2	0.0	25.6	276.2	0.0	0.0	0.0	430.0	-	-	-
246 *Lasiopetalum schulzenii*		62.4	0.0	258.6	0.0	0.0	107.4	0.0	428.4	-	-	-
247 *Eucalyptus camaldulensis*		132.6	64.0	0.0	73.6	56.4	0.0	100.0	426.6	-	-	-
248 *Halosarcia halocnemoides*		0.0	87.0	0.0	12.8	289.2	21.0	16.2	426.2	-	-	-
249 *Cassinia uncata*		0.0	0.0	0.0	0.0	0.0	0.0	410.0	410.0	-	-	-
250 *Leptospermum sp.nov. aff. juniperinum*		165.6	0.0	238.0	0.0	0.0	0.0	0.0	403.6	-	-	-
251 *Dodonaea viscosa var. viscosa*		251.4	0.0	0.0	109.4	42.8	0.0	0.0	403.6	-	-	-
252 *Spyridium bifidum var. integrifolium*		0.0	0.0	400.0	0.0	0.0	0.0	0.0	400.0	-	-	K
253 *Logania nuda*		0.0	0.0	0.0	0.0	0.0	0.0	400.0	400.0	-	-	-
254 *Grevillea pauciflora*		0.0	0.0	0.0	0.0	0.0	0.0	397.8	397.8	-	-	U
255 *Prostanthera spinosa*		0.0	0.0	349.2	0.0	0.0	0.0	48.2	397.4	-	-	-
256 *Acacia acinacea*		36.8	0.0	4.6	0.0	0.0	112.0	243.8	397.2	-	-	-
257 *Boronia edwardsii*		0.0	0.0	396.2	0.0	0.0	0.0	0.0	396.2	3RC	3RCa	U
258 *Adriana klotzchii*		128.8	0.0	0.0	0.0	0.0	66.6	200.0	395.4	-	-	-
259 *Exocarpus cupressiformis*		85.6	0.0	0.0	305.8	0.0	0.0	0.0	391.4	-	-	-
260 *Gonocarpus elatum*		0.0	0.0	0.0	64.2	286.4	0.0	39.4	390.0	-	-	-
261 *Pultenaea largiflorens*		0.0	0.0	0.0	104.8	279.2	0.0	0.0	384.0	-	-	-
262 *Daviesia genistafolia*		0.0	0.0	0.0	4.4	0.0	0.0	375.0	379.4	-	-	-
263 *Maireana suaedifolia*		0.0	0.0	0.0	0.0	0.0	0.0	373.0	373.0	-	-	V
264 *Hybanthus floribundus*		14.6	119.2	0.0	28.2	0.0	7.2	200.0	369.2	-	-	-
265 *Viola hederacea*		143.0	0.0	225.6	0.0	0.0	0.0	0.0	368.6	-	-	-
266 *Eucalyptus cladocalyx*		0.0	0.0	0.0	0.0	279.2	0.0	84.8	364.0	-	-	-
267 *Hibbertia prostrata*		135.0	0.0	0.0	0.0	224.8	0.0	0.0	359.8	-	-	-

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL	PUBLISHED RATINGS:		
Rank	NAME	AREA (km^2):	32000.0	24000.0	5000.0	16000.0	19000.0	7000.0	48000.0	151000.0	Leigh et al. [1981]	Briggs & Leigh [1988]	Lang & Kraehenbuehl [1987]
268	*Lepidosperma gladiatum*		99.2	0.0	0.0	0.0	0.0	60.2	200.0	359.4	-	-	-
269	*Acrotriche depressa*		0.0	0.0	200.0	155.6	0.0	0.0	0.0	355.6	-	-	-
270	*Lomandra micrantha*		309.2	0.0	0.0	13.4	0.0	0.0	32.4	355.0	-	-	-
271	*Eucalyptus conglobata*		83.4	0.0	0.0	21.2	0.0	0.0	246.0	350.6	-	-	-
272	*Lomandra fibrata*		0.0	0.0	0.0	2.8	346.2	0.0	0.0	349.0	2RC	-	-
273	*Eucalyptus cneorifolia*		0.0	0.0	345.0	0.0	0.0	0.0	0.0	345.0	2RC	-	-
274	*Hibbertia exutiaces*		0.0	0.0	0.0	207.6	127.2	0.0	0.0	334.8	-	-	-
275	*Olearia passerinoides*		0.0	0.0	0.0	0.0	0.0	0.0	320.8	320.8	3RC	-	K
276	*Pultenaea daphnoides*		0.0	0.0	200.0	113.0	0.0	0.0	0.0	313.0	-	-	-
277	*Dillwynia sericea*		311.2	0.0	0.0	0.0	0.0	0.0	0.0	311.2	-	-	-
278	*Eucalyptus odorata*		0.0	25.0	0.0	69.2	203.0	1.8	11.4	310.4	-	-	-
279	*Baeckea ramosissima*		0.0	0.0	310.2	0.0	0.0	0.0	0.0	310.2	-	-	-
280	*Pultenaea acerosa*		24.2	0.0	94.0	0.0	0.0	0.0	191.2	309.4	3RC	-	-
281	*Logania ovata*		0.0	0.0	298.6	0.0	0.0	8.0	0.0	306.6	-	-	-
282	*Eucalyptus remota*		0.0	0.0	302.2	0.0	0.0	0.0	0.0	302.2	2VC	-	-
283	*Scaevola linearis*		0.0	0.0	302.2	0.0	0.0	0.0	0.0	302.2	-	-	-
284	*Acacia leiophylla*		0.0	0.0	0.0	0.0	0.0	0.0	297.0	297.0	-	-	-
285	*Cheilanthes austrotenuifolia*		0.0	0.0	0.0	57.4	124.2	0.0	111.8	293.4	-	-	-
286	*Leucopogon virgatus*		194.4	0.0	0.0	97.8	0.0	0.0	0.0	292.2	-	-	-
287	*Eucalyptus cyanophylla*		0.0	289.8	0.0	0.0	0.0	0.0	0.0	289.8	-	-	-
288	*Leptocarpus brownii*		211.2	0.0	0.0	0.0	0.0	0.0	73.8	285.0	-	-	-
289	*Daviesia pectinata*		0.0	0.0	0.0	0.0	0.0	0.0	283.4	283.4	3RC	3RC-	V
290	*Acacia melanoxylon*		277.2	0.0	0.0	0.0	0.0	0.0	0.0	277.2	-	-	-
291	*Sclerostegia arbuscula*		0.0	0.0	0.0	39.4	215.4	21.0	0.0	275.8	-	-	-
292	*Allocasuarina paradoxa*		274.6	0.0	0.0	0.0	0.0	0.0	0.0	274.6	-	-	-

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL	PUBLISHED RATINGS:		
Rank NAME	AREA (km^2):	32000.0	24000.0	5000.0	16000.0	19000.0	7000.0	48000.0	151000.0	Leigh et al. [1981]	Briggs & Leigh [1988]	Lang & Kraehenbuehl [1987]
293 *Lissanthe strigosa*		0.0	0.0	200.0	0.0	0.0	0.0	73.4	273.4	-	-	-
294 *Hibbertia aspera*		0.0	0.0	35.4	0.0	0.0	107.4	129.8	272.6	-	-	-
295 *Acacia brachybotrya*		0.0	25.0	0.0	0.0	0.0	0.0	244.6	269.6	-	-	-
296 *Baumea juncea*		194.6	0.0	0.0	0.0	0.0	0.0	72.4	267.0	-	-	-
297 *Acacia wattsiana*		0.0	0.0	0.0	0.0	260.6	0.0	0.0	260.6	-	-	-
298 *Acacia microcarpa*		200.0	12.8	0.0	0.0	0.0	0.0	44.2	257.0	-	-	-
299 *Kennedia prostrata*		251.2	0.0	0.0	2.2	0.0	0.0	0.0	253.4	-	-	-
300 *Thomasia petalocalyx*		206.0	0.0	17.0	26.6	0.0	0.0	0.0	249.6	-	-	-
301 *Comesperma volubile*		0.0	0.0	58.6	0.0	58.0	0.0	129.6	246.2	-	-	-
302 *Epacris impressa*		164.0	0.0	0.0	81.4	0.0	0.0	0.0	245.4	-	-	-
303 *Prostanthera calycina?*		0.0	0.0	0.0	0.0	0.0	0.0	244.4	244.4	2K	2VCi	V
304 *Logania linifolia*		240.4	0.0	0.0	0.0	0.0	0.0	0.0	240.4	-	-	-
305 *Tetratheca pilosa*		0.0	0.0	0.0	235.8	0.0	0.0	0.0	235.8	-	-	-
306 *Tetratheca insularis*		0.0	0.0	234.2	0.0	0.0	0.0	0.0	234.2	3RC	-	U
307 *Spyridium bifidum var. bifidum*		0.0	0.0	0.0	0.0	0.0	0.0	233.4	233.4	-	-	-
308 *Microcybe pauciflora*		0.0	7.0	0.0	0.0	0.0	0.0	224.6	231.6	-	-	-
309 *Acrotriche halmaturina*		0.0	0.0	230.8	0.0	0.0	0.0	0.0	230.8	2EC	2RCa	R
310 *Acacia acanthoclada*		0.0	30.0	0.0	0.0	0.0	0.0	200.0	230.0	-	-	U
311 *Spyridium vexilliferum*		44.8	0.0	136.4	21.2	0.0	0.0	27.0	229.4	-	-	-
312 *Stylidium graminifolium*		200.0	0.0	0.0	28.2	0.0	0.0	0.0	228.2	-	-	-
313 *Suaeda australis*		0.0	0.0	0.0	0.0	162.2	64.4	0.0	226.6	-	-	-
314 *Atriplex paludosa*		0.0	4.8	0.0	12.8	207.4	0.0	0.0	225.0	-	-	-
315 *Lomandra nana*		222.8	0.0	0.0	0.0	0.0	0.0	0.0	222.8	-	-	-
316 *Melaleuca wilsonii*		31.4	0.0	0.0	0.0	0.0	191.2	0.0	222.6	-	-	R
317 *Leucopogon clelandii*		216.4	0.0	0.0	5.4	0.0	0.0	0.0	221.8	-	-	-

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL	PUBLISHED RATINGS:		
Rank NAME	AREA (km^2):	32000.0	24000.0	5000.0	16000.0	19000.0	7000.0	48000.0	151000.0	Leigh et al. [1981]	Briggs & Leigh [1988]	Lang & Kraehenbuehl [1987]
318 *Leptocarpus tenax*		62.4	0.0	0.0	0.0	0.0	41.4	117.8	221.6	-	-	-
319 *Bossiaea prostrata*		58.6	0.0	0.0	0.0	162.2	0.0	0.0	220.8	-	-	-
320 *Daviesia asperula ssp. obliqua*		0.0	0.0	0.0	0.0	0.0	0.0	219.4	219.4	-	-	U
321 *Lepidosperma canescens*		0.0	0.0	218.6	0.0	0.0	0.0	0.0	218.6	-	-	-
322 *Brachyloma daphnoides*		216.4	0.8	0.0	0.0	0.0	0.0	0.0	217.2	-	-	-
323 *Spyridium eriocephalum*		0.0	0.0	0.0	0.0	0.0	0.0	213.0	213.0	-	-	-
324 *Adenanthos macropodiana*		0.0	0.0	212.4	0.0	0.0	0.0	0.0	212.4	-	-	-
325 *Grevillea ilicifolia var. lobata*		11.2	200.0	0.0	0.0	0.0	0.0	0.0	211.2	-	-	-
326 *Prostanthera behriana*		0.0	0.0	0.0	48.4	162.2	0.0	0.0	210.6	-	-	-
327 *Leptomeria aphylla*		0.0	0.0	204.6	0.0	0.0	0.0	0.0	204.6	-	-	-
328 *Cheiranthera alternifolia*		73.8	0.0	0.0	28.2	0.0	0.0	100.0	202.0	-	-	-
329 *Olearia teretifolia*		0.0	0.0	200.0	0.0	0.0	0.0	0.0	200.0	-	-	U
330 *Billardiera uniflora*		0.0	0.0	200.0	0.0	0.0	0.0	0.0	200.0	-	-	-
331 *Hibbertia acicularis*		0.0	0.0	200.0	0.0	0.0	0.0	0.0	200.0	-	-	V
332 *Logania crassifolia*		0.0	0.0	4.6	0.0	0.0	0.0	194.4	199.0	-	-	-
333 *Pultenaea hispidula*		32.4	0.0	0.0	0.0	162.2	0.0	0.0	194.6	-	-	-
334 *Grevillea lavandulacea*		103.2	25.0	0.0	65.6	0.0	0.0	0.0	193.8	-	-	-
335 *Schoenus tesquorum*		0.0	0.0	0.0	0.0	175.0	0.0	0.0	175.0	-	-	-
336 *Polygonum prostratum*		160.8	0.0	0.0	0.0	0.0	6.8	0.0	167.6	-	-	-
337 *Hakea ulicina*		0.0	0.0	0.0	166.8	0.0	0.0	0.0	166.8	-	-	-
338 *Zygophyllum billardieri (stricto)*		0.0	0.0	0.0	0.0	0.0	0.0	166.6	166.6	-	-	-
339 *Maireana oppositifolia*		0.0	3.6	0.0	39.4	2.4	21.0	100.0	166.4	-	-	-
340 *Acacia gracilifolia*		0.0	0.0	0.0	0.0	162.2	0.0	0.0	162.2	-	3RCa	R
341 *Billardiera versicolor*		0.0	0.0	0.0	0.0	162.2	0.0	0.0	162.2	-	-	-
342 *Trymalium wayi*		0.0	0.0	58.6	2.2	96.0	0.0	0.0	156.8	-	-	R

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL	PUBLISHED RATINGS:		
Rank	NAME	AREA (km^2):	32000.0	24000.0	5000.0	16000.0	19000.0	7000.0	48000.0	151000.0	Leigh et al. [1981]	Briggs & Leigh [1988]	Lang & Kraehenbuehl [1987]
343	*Sphaerolobium vimineum*		149.6	0.0	0.0	0.0	0.0	0.0	0.0	149.6	-	-	R
344	*Hakea rugosa*		98.6	0.0	0.0	2.2	0.0	0.0	44.6	145.4	-	-	-
345	*Eucalyptus goniocalyx*		0.0	0.0	0.0	145.2	0.0	0.0	0.0	145.2	-	-	-
346	*Acacia verticillata*		144.6	0.0	0.0	0.0	0.0	0.0	0.0	144.6	-	-	-
347	*Sarcocornia blackiana quinqueflora*		56.8	3.6	0.0	0.0	1.2	0.0	77.0	138.6	-	-	-
348	*Laxmannia sessiflora*		132.2	0.0	0.0	0.0	0.0	0.0	0.0	132.2	-	-	-
349	*Tetratheca ciliata*		118.8	0.0	0.0	11.2	0.0	0.0	0.0	130.0	-	-	-
350	*Eucalyptus lansdowneana ssp. albopurpurea*		0.0	0.0	0.0	0.0	0.0	0.0	129.8	129.8	2V	2V	R
351	*Spyridium parvifolium*		0.0	0.0	0.0	76.6	7.0	0.0	45.0	128.6	-	-	-
352	*Samolus repens*		0.0	50.0	0.0	0.0	0.0	0.0	73.8	123.8	-	-	-
353	*Euphrasia collina*		0.0	2.6	0.0	0.0	0.0	0.0	119.6	122.2	-	-	-
354	*Indigofera australis*		24.2	0.0	0.0	0.0	95.8	0.0	0.0	120.0	-	-	-
355	*Eucalyptus viminalis ssp. cygnetensis*		116.2	0.0	0.0	0.0	0.0	0.0	0.0	116.2	-	-	-
356	*Correa decumbens*		0.0	0.0	0.0	0.0	0.0	0.0	115.8	115.8	3RC	3RCa	R
357	*Pultenaea trifida*		0.0	0.0	110.2	0.0	0.0	0.0	0.0	110.2	2VC	2RCa	R
358	*Acacia farinosa*		20.0	0.0	89.4	0.0	0.0	0.0	0.0	109.4	-	-	-
359	*Goodia lotifolia*		0.0	0.0	0.0	0.0	0.0	0.0	109.2	109.2	-	-	-
360	*Templetonia sulcata*		0.0	0.0	0.0	0.0	0.0	0.0	107.6	107.6	-	-	U
361	*Eremophila gibbifolia*		0.0	0.0	0.0	0.0	0.0	0.0	107.4	107.4	-	-	R
362	*Patersonia fragilis*		0.0	0.0	106.8	0.0	0.0	0.0	0.0	106.8	-	-	U
363	*Prostanthera chlorantha*		0.0	0.0	106.6	0.0	0.0	0.0	0.0	106.6	-	-	R
364	*Leptomeria preissiana*		0.0	0.0	0.0	0.0	0.0	0.0	106.4	106.4	-	-	R

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL	PUBLISHED RATINGS:		
Rank NAME	AREA (km^2):	32000.0	24000.0	5000.0	16000.0	19000.0	7000.0	48000.0	151000.0	Leigh et al. [1981]	Briggs & Leigh [1988]	Lang & Kraehenbuehl [1987]
365 *Templetonia battii*		0.0	0.0	0.0	0.0	0.0	0.0	106.4	106.4	-	-	K
366 *Hardenbergia violacea*		0.0	0.0	0.0	0.0	0.0	0.0	106.4	106.4	-	-	-
367 *Leucopogon ericoides*		102.0	0.0	0.0	0.0	0.0	0.0	0.0	102.0	-	-	-
368 *Eucalyptus microcarpa*		23.4	0.0	0.0	76.6	0.0	0.0	0.0	100.0	-	-	-
369 *Lotus australis*		0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	-	-	-
370 *Calocephalus brownii*		0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	-	-	-
371 *Gyrostemon ramulosus*		0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	-	-	-
372 *Hakea nodosa*		90.4	0.0	0.0	0.0	0.0	0.0	0.0	90.4	-	-	-
373 *Grevillea muricata*		0.0	0.0	89.4	0.0	0.0	0.0	0.0	89.4	-	-	V
374 *Pultenaea elachista*		0.0	0.0	0.0	0.0	0.0	0.0	86.8	86.8	-	-	R
375 *Juncus pallidus*		80.8	0.0	0.0	5.0	0.0	0.0	0.0	85.8	-	-	-
376 *Limonium binervosum/ companyonis*		0.0	0.0	0.0	0.0	0.0	27.4	50.0	77.4	-	-	-
377 *Glycine clandestina*		0.0	0.0	0.0	0.0	74.2	0.0	0.0	74.2	-	-	-
378 *Juncus kraussii*		0.0	0.0	0.0	0.0	0.0	0.0	73.8	73.8	-	-	-
379 *Juncus aridicola*		0.0	35.4	0.0	0.0	38.0	0.0	0.0	73.4	-	-	-
380 *Pachycornia triandra*		0.0	70.0	0.0	0.0	0.0	0.0	0.0	70.0	-	-	-
381 *Billardiera sericophora*		0.0	0.0	0.0	0.0	0.0	0.0	69.0	69.0	-	-	-
382 *Phebalium brachyphyllum*		16.4	0.0	0.0	0.0	0.0	0.0	52.4	68.8	3VC	3RC-	R
383 *Schoenus apogon?*		68.6	0.0	0.0	0.0	0.0	0.0	0.0	68.6	-	-	-
384 *Spyridium thymifolium*		0.0	0.0	0.0	67.4	0.0	0.0	0.0	67.4	-	-	-
385 *Chorizandra enodis*		65.6	0.0	0.0	0.0	0.0	0.0	0.0	65.6	-	-	-
386 *Pultenaea teretifolia*		0.0	0.0	0.0	0.0	0.0	0.0	64.6	64.6	-	-	-
387 *Daviesia leptophylla*		0.0	0.0	0.0	64.6	0.0	0.0	0.0	64.6	-	-	-
388 *Gunniopsis spp.*		0.0	0.0	0.0	0.0	0.0	64.4	0.0	64.4	-	-	-

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL	PUBLISHED RATINGS:		
Rank	NAME	AREA (km^2):	32000.0	24000.0	5000.0	16000.0	19000.0	7000.0	48000.0	151000.0	Leigh et al. [1981]	Briggs & Leigh [1988]	Lang & Kraehenbuehl [1987]
389	*Atriplex cinerea*		0.0	0.0	0.0	0.0	0.0	64.4	0.0	64.4	-	-	-
390	*Pultenaea involucrata*		0.0	0.0	0.0	64.0	0.0	0.0	0.0	64.0	3RC	-	-
391	*Avicennia maritima*		0.0	0.0	0.0	12.8	41.4	9.6	0.0	63.8	-	-	-
392	*Acrotriche fasciculiflora*		0.0	0.0	25.6	37.8	0.0	0.0	0.0	63.4	2RC	-	U
393	*Eucalyptus largiflorens*		0.0	50.0	0.0	11.6	0.0	0.0	0.0	61.6	-	-	-
394	*Cyperus gymnocaulis*		0.0	41.4	0.0	0.0	18.4	0.0	0.0	59.8	-	-	-
395	*Acacia oxycedrus*		58.8	0.0	0.0	0.0	0.0	0.0	0.0	58.8	-	-	-
396	*Pultenaea vestita*		0.0	0.0	58.6	0.0	0.0	0.0	0.0	58.6	-	-	U
397	*Westringia eremicola*		0.0	0.0	58.6	0.0	0.0	0.0	0.0	58.6	-	-	-
398	*Olearia lanuginosa*		0.0	0.0	0.0	0.0	0.0	0.0	58.2	58.2	-	-	U
399	*Acacia hakeoides*		0.0	0.0	0.0	1.0	0.0	0.0	54.8	55.8	-	-	-
400	*Pratia platycalyx*		0.0	55.4	0.0	0.0	0.0	0.0	0.0	55.4	-	-	-
401	*Lepidosperma longitudinale*		54.4	0.0	0.0	0.0	0.0	0.0	0.0	54.4	-	-	-
402	*Leptospermum lanigerum*		53.8	0.0	0.0	0.0	0.0	0.0	0.0	53.8	-	-	-
403	*Logania sp.B*		0.0	0.0	0.0	0.0	53.0	0.0	0.0	53.0	-	-	K
404	*Billardiera scandens*		0.0	0.0	52.4	0.0	0.0	0.0	0.0	52.4	-	-	-
405	*Scaevola aemula*		10.0	0.0	0.0	35.4	7.0	0.0	0.0	52.4	-	-	-
406	*Podolepis rugata*		0.0	52.2	0.0	0.0	0.0	0.0	0.0	52.2	-	-	-
407	*Billardiera bignoniaceus*		0.0	0.0	0.0	50.4	0.0	0.0	0.0	50.4	-	-	-
408	*Scaevola albida*		43.0	0.0	0.0	7.2	0.0	0.0	0.0	50.2	-	-	-
409	*Eremophila divaricata*		0.0	50.0	0.0	0.0	0.0	0.0	0.0	50.0	-	-	U
410	*Grevillea aspera*		0.0	0.0	0.0	0.0	0.0	0.0	49.6	49.6	-	-	-
411	*Callitris rhomboidea*		0.0	0.0	0.0	48.4	0.0	0.0	0.0	48.4	-	-	U
412	*Logania vaginalis*		0.0	0.0	0.0	44.4	0.0	0.0	0.0	44.4	-	-	-
413	*Swainsona swainsonoides*		43.6	0.0	0.0	0.0	0.0	0.0	0.0	43.6	-	-	-

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL	PUBLISHED RATINGS:		
Rank NAME	AREA (km^2):	32000.0	24000.0	5000.0	16000.0	19000.0	7000.0	48000.0	151000.0	Leigh et al. [1981]	Briggs & Leigh [1988]	Lang & Kraehenbuehl [1987]
414	*Luzula densiflora*	0.0	0.0	0.0	0.0	42.8	0.0	0.0	42.8	-	-	-
415	*Acacia imbricata*	0.0	0.0	0.0	0.0	0.0	0.0	42.8	42.8	-	2V	V
416	*Stackhousia aspericocca*	0.0	0.0	0.0	0.0	42.8	0.0	0.0	42.8	-	-	-
417	*Acacia gillii*	0.0	0.0	0.0	0.0	0.0	0.0	42.0	42.0	2V	2VCi	-
418	*Pultenaea trinervis*	0.0	0.0	0.0	0.0	0.0	0.0	40.2	40.2	3VC	-	-
419	*Dichondra repens*	0.0	0.0	0.0	0.0	38.0	0.0	0.0	38.0	-	-	-
420	*Epaltes australis*	0.0	35.4	0.0	0.0	0.0	0.0	0.0	35.4	-	-	-
421	*Mimulus repens*	0.0	35.4	0.0	0.0	0.0	0.0	0.0	35.4	-	-	-
422	*Atriplex suberecta*	0.0	35.4	0.0	0.0	0.0	0.0	0.0	35.4	-	-	-
423	*Cyperus exaltatus*	0.0	35.4	0.0	0.0	0.0	0.0	0.0	35.4	-	-	-
424	*Acacia salicina*	0.0	35.4	0.0	0.0	0.0	0.0	0.0	35.4	-	-	-
425	*Spyridium halmaturinum var. halmaturinum*	0.0	0.0	35.4	0.0	0.0	0.0	0.0	35.4	2RC	2RCi	-
426	*Villarsia reniformis*	34.4	0.0	0.0	0.0	0.0	0.0	0.0	34.4	1X	-	K
427	*Lomandra longifolia*	33.2	0.0	0.0	0.0	0.0	0.0	0.0	33.2	-	-	-
428	*Acacia mearnsii*	33.0	0.0	0.0	0.0	0.0	0.0	0.0	33.0	-	-	-
429	*Pomaderris flabellaris*	0.0	0.0	0.0	0.0	0.0	0.0	32.6	32.6	2V	-	U
430	*Eucalyptus leucoxylon var. petiolaris*	0.0	0.0	0.0	0.0	0.0	0.0	31.4	31.4	-	-	-
431	*Eucalyptus ovata*	30.8	0.0	0.0	0.0	0.0	0.0	0.0	30.8	-	-	U
432	*Juncus procerus*	30.4	0.0	0.0	0.0	0.0	0.0	0.0	30.4	-	-	-
433	*Pimelea curviflora*	0.0	25.0	0.0	0.0	0.0	0.0	0.0	25.0	-	-	-
434	*Allocasuarina leuhmannii*	23.6	0.0	0.0	0.0	0.0	0.0	0.0	23.6	-	-	-
435	*Pultenaea stricta*	23.2	0.0	0.0	0.0	0.0	0.0	0.0	23.2	-	-	K
436	*Pultenaea pedunculata*	3.6	0.0	0.0	0.0	0.0	0.0	19.4	23.0	-	-	-

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL	PUBLISHED RATINGS:		
Rank	NAME	AREA (km^2):	32000.0	24000.0	5000.0	16000.0	19000.0	7000.0	48000.0	151000.0	Leigh et al. [1981]	Briggs & Leigh [1988]	Lang & Kraehenbuehl [1987]
437	*Luzula meridionalis?*		22.2	0.0	0.0	0.0	0.0	0.0	0.0	22.2	-	-	-
438	*Bossiaea cinerea*		19.6	0.0	0.0	0.0	0.0	0.0	0.0	19.6	-	-	R
439	*Pultenaea trichophylla*		0.0	0.0	0.0	0.0	0.0	0.0	19.4	19.4	2V	2E	E
440	*Eucalyptus leucoxylon var. megalocarpa*		17.2	0.0	0.0	0.0	0.0	0.0	0.0	17.2	-	-	-
441	*Phyllanthus australis*		0.0	0.0	17.0	0.0	0.0	0.0	0.0	17.0	-	-	-
442	*Gyrostemon australasicus*		16.4	0.0	0.0	0.0	0.0	0.0	0.0	16.4	-	-	-
443	*Pimelea linifolia*		15.8	0.0	0.0	0.0	0.0	0.0	0.0	15.8	-	-	-
444	*Olearia adenolasia*		0.0	0.0	0.0	0.0	0.0	0.0	15.4	15.4	-	-	V
445	*Styphelia adscendens*		15.2	0.0	0.0	0.0	0.0	0.0	0.0	15.2	-	-	R
446	*Eucalyptus obliqua var. megacarpa*		15.2	0.0	0.0	0.0	0.0	0.0	0.0	15.2	-	-	R
	Microcybe multiflora var. baccharoides		0.0	0.0	0.0	0.0	0.0	0.0	14.6	14.6	-	-	-
448	*Lomandra multiflora ssp. multiflora*		14.2	0.0	0.0	0.0	0.0	0.0	0.0	14.2	-	-	-
449	*Hakea repullulans*		13.8	0.0	0.0	0.0	0.0	0.0	0.0	13.8	-	-	U
450	*Pimelea phylicoides*		0.0	0.0	0.0	0.0	0.0	0.0	13.2	13.2	-	-	-
451	*Dillwynia glaberrima*		12.2	0.0	0.0	0.0	0.0	0.0	0.0	12.2	-	-	-
452	*Olearia calcarea*		0.0	0.0	0.0	0.0	0.0	0.0	12.0	12.0	-	-	U
453	*Carex tereticaulis*		0.0	0.0	0.0	0.0	0.0	0.0	12.0	12.0	-	-	-
454	*Correa schlechtendalii*		0.0	12.0	0.0	0.0	0.0	0.0	0.0	12.0	-	-	-
455	*Pimelea curviflora*		0.0	0.0	0.0	0.0	0.0	11.6	0.0	11.6	-	-	K
456	*Acacia pravifolia?*		11.2	0.0	0.0	0.0	0.0	0.0	0.0	11.2	-	-	-
457	*Logania recurva*		0.0	0.0	0.0	10.4	0.0	0.0	0.0	10.4	3RC	3RC-	U

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL	PUBLISHED RATINGS:		
Rank NAME	AREA (km^2):	32000.0	24000.0	5000.0	16000.0	19000.0	7000.0	48000.0	151000.0	Leigh et al. [1981]	Briggs & Leigh [1988]	Lang & Kraehenbuehl [1987]
458	*Acacia argyrophylla*	0.0	0.0	0.0	2.2	5.2	0.0	0.0	7.4	-	-	-
459	*Eucalyptus macrorhyncha*	0.0	0.0	0.0	0.0	7.0	0.0	0.0	7.0	-	-	R
460	*Boronia nana*	6.6	0.0	0.0	0.0	0.0	0.0	0.0	6.6	-	-	-
461	*Halorrhagis acutangula*	0.0	0.0	0.0	0.0	0.0	6.4	0.0	6.4	-	-	-
462	*Phragmites australis*	0.0	6.0	0.0	0.0	0.0	0.0	0.0	6.0	-	-	-
463	*Polygonum lapathifolium*	0.0	6.0	0.0	0.0	0.0	0.0	0.0	6.0	-	-	K
464	*Triglochin procerum*	0.0	6.0	0.0	0.0	0.0	0.0	0.0	6.0	-	-	-
465	*Lycopus australis*	0.0	6.0	0.0	0.0	0.0	0.0	0.0	6.0	-	-	-
466	*Schoenoplectus litoralis*	0.0	6.0	0.0	0.0	0.0	0.0	0.0	6.0	-	-	-
467	*Typha domingensis*	0.0	6.0	0.0	0.0	0.0	0.0	0.0	6.0	-	-	-
468	*Juncus subsecundus*	0.0	0.0	0.0	5.8	0.0	0.0	0.0	5.8	-	-	-
469	*Acacia retinoides var. uncifolia*	0.0	0.0	0.0	5.0	0.0	0.0	0.0	5.0	-	-	-
470	*Platysace heterophylla*	0.0	0.0	0.0	0.0	0.0	0.0	3.0	3.0	-	-	-
471	*Cakile maritima*	0.0	0.0	0.0	0.0	0.0	2.8	0.0	2.8	-	-	-
472	*Eremophila behriana*	0.0	0.0	0.0	0.0	0.0	0.0	2.6	2.6	-	-	-
473	*Myoporum parvifolium*	0.0	0.0	0.0	0.0	0.0	1.8	0.0	1.8	-	-	-
474	*Grevillea biternata*	0.0	0.0	0.0	0.0	0.0	0.0	1.6	1.6	-	-	R
475	*Acacia dodonaeifolia*	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.8	3RC	-	U
476	*Spyridium nitidum*	0.0	0.6	0.0	0.0	0.0	0.0	0.0	0.6	-	-	-

Table 8.2. A comparison of the conservation status of species as assessed by this survey and two previous publications. Only perennial species with distributions centred in southern South Australia are included. Codes for Leigh *et al.* (1981) and Lang & Kraehenbuehl (1988) are as in Table 8.1, with the addition of: N, not at risk in South Australia. Blanks indicate that a rating was not determined due to the absence of the species from the data set.

SPECIES	LEIGH et al. [1987]	LANG & KRAEHENBUEHL [1987]		THIS STUDY	
	RATING	RATING	IN C.P.'s	AREA [km^2]	RANK
Acacia dodonaeifolia	3RC	U	5	0.8	475
Acacia enterocarpa	3V	V	1	-	-
Acacia gillii	2V	N	2	42	417
Acacia glandulicarpa	3V	E	-	-	-
Acacia gracilifolia	3VC	R	2	-	-
Acacia imbricata	2V	V	-	-	-
Acacia iteaphylla	3RC	-	2	86	-
Acacia menzelii	2E	K	-	-	-
Acacia pinguifolia	3E	E	-	-	-
Acacia rhetinocarpa	3VC	V	3	-	-
Acacia rhigiophylla	3V	R	1	-	-
Acacia rivalis	3RC	-	-	-	-
Acacia wattsiana	2RC	N	2	-	-
Acrotriche fasciculiflora	2RC	U	5	63	392
Acrotriche halmaturina	2EC	R	3	230	309
Anthocercis angustifolia	3RC	R	2	-	-
Atriplex spongivalvis	1K	-	-	-	-
Bertya rotundifolia	2RC	N	1	-	-
Beyeria subtecta	2E	V	-	-	-
Boronia edwardsii	3RC	U	2	396	257
Boronia filifolia	3RC	N	-	1081	157
Calytrix sp.B	2RC	R	1	-	-
Cheiranthera volubilis	2E	R	4	-	-
Correa calycina	2VC	U	5	-	-
Correa decumbens	3RC	U	5	116	356
Cryptandra hispidula	2RC	R	3	-	-
Cryptandra waterhousii	2RC	-	-	-	-
Darwinia homoranthoides	2V	U	1	-	-
Darwinia micropetala	3RC	N	1	501	228
Daviesia benthamii	3RC	-	3	-	-
Daviesia pectinata	3RC	V	1	283	289
Eucalyptus cneorifolia	2RC	N	3	345	273
Eucalyptus lansdowneana	2V	N	5	130	350
Eucalyptus remota	2VC	N	1	302	282
Euphrasia muelleri	3X	X	-	-	-
Gahnia hystrix	2RC	U	2	-	-
Grevillea muricata	2V	V	-	-	-
Grevillea parallelinervis	2V	U	-	-	-
Grevillea parviflora	2RC	N	-	-	-
Grevillea quinquenervis	2VC	R	3	-	-
Haloragis eichleri	3VC	R	6	-	-
Haloragis eyreana	2E	E	-	-	-
Hibbertia paeninsularis	2E	E	3	-	-
Hydrocotyle comocarpa	2EC	K	1	-	-

SPECIES	LEIGH et al. [1987]	LANG & KRAEHENBUEHL [1987]		THIS STUDY	
	RATING	RATING	IN C.P.'s	AREA [km^2]	RANK
Hydrocotyle crassiuscula	2VC	K	1	-	-
Leucopogon woodsii	1E	-	-	457	235
Logania insularis	2E	V	1	-	-
Logania recurva	3RC	U	5	10	457
Lomandra fibrata	2RC	N	-	349	272
Micrantheum demissum	3RC	N	-	-	-
Petrophile multisecta	2RC	N	2	1821	90
Phebalium brachyphyllum	3VC	R	3	68	382
Phebalium hillebrandii	2EC	R	3	-	-
Phebalium lowanense	3VC	R	1	-	-
Phyllota remota	3R	U	3	2423	68
Pimelea macrostegia	2RC	R	3	-	-
Pomaderris flabellaris	2V	U	1	32	429
Pomaderris halmaturina	2V	V	-	-	-
Prostanthera calycina	2K	V	1	244	303
Prostanthera eurybioides	2E	E	1	-	-
Pseudanthus micranthus	2E	V	1	-	-
Psoralea parva	3E	E	-	-	-
Ptilotus beckeranus	3E	E	3	-	-
Pultenaea acerosa	3RC	N	4	309	280
Pultenaea densifolia	3K	U	8	1047	161
Pultenaea involucrata	3RC	N	-	64	390
Pultenaea quadricolor	2VC	-	-	-	-
Pultenaea trichophylla	2V	E	-	19	439
Pultenaea trifida	2VC	R	1	110	357
Pultenaea trinervis	3VC	N	8	40	418
Pultenaea viscidula	3RC	U	1	-	-
Sarcozona bicarinata	3V	-	-	-	-
Schoenus discifer	3VC	R	2	-	-
Schoenus racemosus	3RC	R	1	470	232
Scleroleana aellenii	1E	-	-	-	-
Spyridium coactilifolium	2V	V	1	-	-
Spyridium halmaturinum	2RC	N	3	35	425
Spyridium leucopogon	2V	K	2	-	-
Spyridium spathulatum	3RC	U	6	-	-
Stackhousia annua	2E	V	2	-	-
Tetratheca insularis	3RC	U	2	234	306
Urocarpus muricatus	2V	-	-	-	-
Veronica parkalliana	1X	R	2	-	-
Verticordia wilhelmii	3VC	N	-	750	193
Villarsia reniformis	1X	-	-	34	426

Table 8.3. A comparison of estimated remnancy areas with conservation status rankings from Lang & Kraehenbuehl (1987): (a) a summary of the numbers of species in each conservation rank in the temperate and semi-arid districts of South Australia, according to Lang & Kraehenbuehl; (b) a breakdown of ranked species found during the survey by classes of estimated remnancy area.

(a)

Lang & Kraehenbuehl (1987) Ranks				
E	**V**	**R**	**U**	**Total in S.A.**
90	95	173	100	c.2000 (est.)

(b)

Remnant Area Class (km^2)	Lang & Kraehenbuehl (1987) Ranks				Total Recorded by Survey
	E	**V**	**R**	**U**	
1 - 50	1	2	5	8	70
51 - 100	-	1	2	3	40
101 - 150	-	-	7	2	29
151 - 200	-	1	2	1	16
201 - 250	-	1	2	3	27
251 - 300	-	1	-	-	16
301 - 350	-	-	-	-	12
351 - 400	-	1	-	2	20
401 - 450	-	-	-	1	15
451 - 500	-	-	-	-	8
501 - 600	-	-	-	-	12
601 - 700	-	-	-	1	18
701 - 800	-	-	-	-	12
801 - 900	-	-	-	-	10
901 - 1000	-	-	-	-	9
> 1000	-	-	-	2	162
Total:	**1**	**7**	**18**	**23**	**476**

Table 8.4. Estimated remnancy areas for vegetation complexes and types as defined in the classification in Figure 6.1. Complexes are listed by abbreviated name and types are listed by number only. Remnancy is partitioned according to representation in conservation parks and disturbance.

Complex and Types	Total Area [km^2]	Total No. Sites	NPWS Reserves Area [km^2]	NPWS Reserves No. Sites	Undisturbed Other Area [km^2]	Undisturbed Other No. Sites	Disturbed Area [km^2]	Disturbed No. Sites
1. E. baxteri -	586.8	44	50.2	3	490.4	35	46.2	6
1. 1	62.4	6	15.6	1	40.0	4	6.8	1
1. 2	20.0	3	0.0	0	17.8	2	2.2	1
1. 3	164.0	9	0.0	0	158.8	8	5.2	1
1. 4	118.8	8	0.0	0	108.8	7	10.0	1
1. 5	166.0	13	0.0	0	150.6	12	15.4	1
1. 6	15.8	1	15.8	1	0.0	0	0.0	0
1. 7	39.8	4	18.8	1	14.4	2	6.6	1
2. B. ornata -	4803.8	62	3612.6	25	1061.4	34	129.8	3
2. 1	37.2	4	4.4	1	6.6	1	26.2	2
2. 2	2903.2	35	2338.6	15	461.0	19	103.6	1
2. 3	501.0	9	236.0	2	265.0	7	0.0	0
2. 4	21.2	1	21.2	1	0.0	0	0.0	0
2. 5	5.4	1	0.0	0	5.4	1	0.0	0
2. 6	400.0	2	400.0	2	0.0	0	0.0	0
2. 7	624.8	5	412.4	3	212.4	2	0.0	0
2. 8	311.0	5	200.0	1	111.0	4	0.0	0
3. X. caespitosa	32.2	4	0.0	0	29.0	3	3.2	1
3. 1	9.4	1	0.0	0	9.4	1	0.0	0
3. 2	3.2	1	0.0	0	0.0	0	3.2	1
3. 3	19.6	2	0.0	0	19.6	2	0.0	0

Complex and Types	Total Area [km^2]	Total No. Sites	NPWS Reserves Area [km^2]	NPWS Reserves No. Sites	Undisturbed Other Area [km^2]	Undisturbed Other No. Sites	Disturbed Area [km^2]	Disturbed No. Sites
4. J. pallidus	18.0	2	0.0	0	11.0	1	7.0	1
5. E. obliqua -	424.6	16	48.2	2	376.4	14	0.0	0
5. 1	282.2	10	42.8	1	239.4	9	0.0	0
5. 2	83.6	4	5.4	1	78.2	3	0.0	0
5. 3	30.6	1	0.0	0	30.6	1	0.0	0
5. 4	28.2	1	0.0	0	28.2	1	0.0	0
6. E. cneorifolia	786.4	9	11.2	1	775.2	8	0.0	0
6. 1	430.2	4	0.0	0	430.2	4	0.0	0
6. 2	11.2	1	11.2	1	0.0	0	0.0	0
6. 3	314.2	3	0.0	0	314.2	3	0.0	0
6. 4	30.8	1	0.0	0	30.8	1	0.0	0
7. L. parviflorus -	596.6	11	279.8	3	159.8	4	157.0	4
7. 1	193.2	6	79.8	2	70.4	3	43.0	1
7. 2	219.6	3	200.0	1	0.0	0	19.6	2
7. 3	89.4	1	0.0	0	89.4	1	0.0	0
7. 4	94.4	1	0.0	0	0.0	0	94.4	1
8. A pycnantha	32.0	3	0.0	0	0.0	0	32.0	3

Complex and Types	Total Area [km^2]	Total No. Sites	NPWS Reserves Area [km^2]	NPWS Reserves No. Sites	Undisturbed Other Area [km^2]	Undisturbed Other No. Sites	Disturbed Area [km^2]	Disturbed No. Sites
9. M. lanceolata -	949.4	21	320.2	5	623.4	15	5.8	1
9. 1	260.8	3	202.6	2	58.2	1	0.0	0
9. 2	21.0	1	0.0	0	21.0	1	0.0	0
9. 3	5.8	1	0.0	0	0.0	0	5.8	1
9. 4	183.6	4	0.0	0	183.6	4	0.0	0
9. 5	197.4	5	28.4	1	169.0	4	0.0	0
9. 6	171.6	4	89.2	2	82.4	2	0.0	0
9. 7	9.2	2	0.0	0	9.2	2	0.0	0
9. 8	100.0	1	0.0	0	100.0	1	0.0	0
10. E. diversifolia	3821.8	50	1043.2	8	2401.0	32	377.6	10
10. 1	286.0	8	0.0	0	286.0	8	0.0	0
10. 2	189.4	5	0.0	0	181.6	4	7.8	1
10. 3	635.4	9	0.0	0	415.6	4	219.8	5
10. 4	54.8	2	0.0	0	0.0	0	54.8	2
10. 5	285.0	3	200.0	1	39.8	1	45.2	1
10. 6	40.0	3	4.6	1	35.4	2	0.0	0
10. 7	191.2	1	191.2	1	0.0	0	0.0	0
10. 8	58.6	1	0.0	0	58.6	1	0.0	0
10. 9	997.4	8	511.8	4	485.6	4	0.0	0
10.10	623.0	5	135.6	1	437.4	3	50.0	1
10.11	461.0	5	0.0	0	461.0	5	0.0	0

Complex and Types	Total Area [km^2]	Total No. Sites	NPWS Reserves Area [km^2]	NPWS Reserves No. Sites	Undisturbed Other Area [km^2]	Undisturbed Other No. Sites	Disturbed Area [km^2]	Disturbed No. Sites
11. E. incrassata -	7253.0	137	2225.6	21	4543.8	92	483.6	24
11. 1	182.2	16	0.0	0	128.2	9	54.0	7
11. 2	9.2	2	0.0	0	5.6	1	3.6	1
11. 3	275.8	5	100.6	1	7.2	3	168.0	1
11. 4	39.0	2	0.0	0	39.0	2	0.0	0
11. 5	65.4	1	65.4	1	0.0	0	0.0	0
11. 6	94.2	7	7.8	1	79.4	5	7.0	1
11. 7	650.2	6	600.0	4	42.4	1	7.8	1
11. 8	494.2	4	111.4	1	382.8	3	0.0	0
11. 9	1170.8	17	607.8	6	563.0	11	0.0	0
11.10	56.2	6	0.0	0	7.6	3	48.6	3
11.11	129.6	6	0.0	0	126.4	5	3.2	1
11.12	1.2	1	0.0	0	1.2	1	0.0	0
11.13	1015.2	16	210.6	2	804.6	14	0.0	0
11.14	250.6	2	0.0	0	250.6	2	0.0	0
11.15	481.4	5	72.2	1	409.2	4	0.0	0
11.16	974.8	5	200.0	1	774.8	4	0.0	0
11.17	253.8	5	49.8	2	204.0	3	0.0	0
11.18	34.6	3	0.0	0	16.4	1	18.2	2
11.19	334.4	7	0.0	0	314.4	4	20.0	3
11.20	465.2	7	200.0	1	248.4	5	16.8	1
11.21	26.8	2	0.0	0	26.8	2	0.0	0
11.22	146.8	2	0.0	0	52.4	1	94.4	1
11.23	18.8	5	0.0	0	18.8	5	0.0	0
11.24	21.2	2	0.0	0	8.0	1	13.2	1

Complex and Types	Total Area [km^2]	Total No. Sites	NPWS Reserves Area [km^2]	NPWS Reserves No. Sites	Undisturbed Other Area [km^2]	Undisturbed Other No. Sites	Disturbed Area [km^2]	Disturbed No. Sites
11.25	61.4	3	0.0	0	32.6	2	28.8	1
12. E. dumosa -	1535.8	33	759.2	5	634.0	15	142.6	13
12. 1	200.0	1	200.0	1	0.0	0	0.0	0
12. 2	103.8	3	0.0	0	54.8	1	49.0	2
12. 3	257.4	6	200.0	1	44.8	3	12.6	2
12. 4	490.8	10	245.0	2	240.2	6	5.6	2
12. 5	124.6	6	0.0	0	81.2	2	43.4	4
12. 6	331.4	5	114.2	1	213.0	3	4.2	1
12. 7	16.4	1	0.0	0	0.0	0	16.4	1
12. 8	11.4	1	0.0	0	0.0	0	11.4	1
13. G. trifida...	156.6	7	0.0	0	62.8	2	93.8	5
13. 1	32.4	1	0.0	0	0.0	0	32.4	1
13. 2	124.2	6	0.0	0	62.8	2	61.4	4
14. M. halmaturorum	202.2	6	0.0	0	202.2	6	0.0	0
15. M. brevifolia	389.4	11	13.2	1	350.0	8	26.2	2
15. 1	380.0	9	13.2	1	345.0	7	21.8	1
15. 2	4.4	1	0.0	0	0.0	0	4.4	1
15. 3	5.0	1	0.0	0	5.0	1	0.0	0

Complex and Types	Total Area [km^2]	Total No. Sites	NPWS Reserves Area [km^2]	NPWS Reserves No. Sites	Undisturbed Other Area [km^2]	Undisturbed Other No. Sites	Disturbed Area [km^2]	Disturbed No. Sites
16. J. kraussii	73.8	1	0.0	0	73.8	1	0.0	0
17. E. oleosa -	7529.2	150	931.6	7	5547.4	98	1050.2	45
17. 1	981.6	46	0.0	0	615.8	23	365.8	23
17. 2	358.0	6	187.2	1	161.6	3	9.2	2
17. 3	1505.0	27	122.4	1	1341.0	24	41.6	2
17. 4	1049.8	14	106.4	1	845.8	11	97.6	2
17. 5	1016.4	12	0.0	0	1016.0	11	0.4	1
17. 6	42.2	1	0.0	0	42.2	1	0.0	0
17. 7	83.0	4	52.0	1	6.4	2	24.6	1
17. 8	2.2	2	0.0	0	2.2	2	0.0	0
17. 9	191.4	1	0.0	0	191.4	1	0.0	0
17.10	463.6	3	463.6	3	0.0	0	0.0	0
17.11	8.2	2	0.0	0	0.0	0	8.2	2
17.12	802.4	14	0.0	0	570.0	9	232.4	5
17.13	6.8	1	0.0	0	6.8	1	0.0	0
17.14	234.4	5	0.0	0	225.4	3	9.0	2
17.15	204.4	2	0.0	0	204.4	2	0.0	0
17.16	110.6	4	0.0	0	69.0	3	41.6	1
17.17	191.4	1	0.0	0	191.4	1	0.0	0
17.18	96.0	2	0.0	0	0.0	0	96.0	2
17.19	117.2	1	0.0	0	0.0	0	117.2	1
17.20	6.6	1	0.0	0	0.0	0	6.6	1
17.21	58.0	1	0.0	0	58.0	1	0.0	0

Complex and Types	Total Area [km^2]	Total No. Sites	NPWS Reserves Area [km^2]	NPWS Reserves No. Sites	Undisturbed Other Area [km^2]	Undisturbed Other No. Sites	Disturbed Area [km^2]	Disturbed No. Sites
18. E. socialis	1793.0	48	0.0	0	1495.2	32	297.8	16
18. 1	97.6	13	0.0	0	69.4	8	28.2	5
18. 2	59.4	2	0.0	0	0.0	0	59.4	2
18. 3	437.8	4	0.0	0	277.2	2	160.6	2
18. 4	518.8	14	0.0	0	470.0	8	48.8	6
18. 5	5.4	1	0.0	0	5.4	1	0.0	0
18. 6	351.6	7	0.0	0	350.8	6	0.8	1
18. 7	179.8	6	0.0	0	179.8	6	0.0	0
18. 8	142.6	1	0.0	0	142.6	1	0.0	0
19. C. preissii	42.4	8	0.0	0	37.6	5	4.8	3
19. 1	26.8	2	0.0	0	25.0	1	1.8	1
19. 2	11.8	2	0.0	0	11.8	2	0.0	0
19. 3	2.0	2	0.0	0	0.8	1	1.2	1
19. 4	1.8	2	0.0	0	0.0	1	1.8	1
20. M pyramidata	308.0	3	0.0	0	108.0	2	200.0	1
21. C. cristata	511.2	6	0.0	0	471.4	5	39.8	1
21. 1	149.6	3	0.0	0	149.6	3	0.0	0
21. 2	321.8	2	0.0	0	321.8	2	0.0	0
21. 3	39.8	1	0.0	0	0.0	0	39.8	1

Complex and Types	Total Area [km^2]	Total No. Sites	NPWS Reserves Area [km^2]	NPWS Reserves No. Sites	Undisturbed Other Area [km^2]	Undisturbed Other No. Sites	Disturbed Area [km^2]	Disturbed No. Sites
22. A. papyrocarpa	200.0	1	0.0	0	0.0	0	200.0	1
23. Complex 23	330.2	3	28.6	1	301.6	2	0.0	0
23. 1	28.6	1	28.6	1	0.0	0	0.0	0
23. 2	150.8	1	0.0	0	150.8	1	0.0	0
23. 3	150.8	1	0.0	0	150.8	1	0.0	0
24. E. porosa	748.2	15	0.0	0	369.8	5	378.4	10
24. 1	470.4	10	0.0	0	197.8	3	272.6	7
24. 2	277.8	5	0.0	0	172.0	2	105.8	3
25. C. columellaris	8.8	2	0.0	0	0.0	0	8.8	2
26. E. leucoxylon	340.2	20	0.0	0	233.4	6	106.8	14
26. 1	6.8	1	0.0	0	0.0	0	6.8	1
26. 2	114.0	16	0.0	0	14.0	3	100.0	13
26. 3	175.0	1	0.0	0	175.0	1	0.0	0
26. 4	44.4	2	0.0	0	44.4	2	0.0	0
27. A. verticillata	25.6	8	0.0	0	22.6	6	3.0	2
27. 1	7.6	2	0.0	0	7.6	2	0.0	0
27. 2	7.2	1	0.0	0	7.2	1	0.0	0

Complex and Types	Total Area [km^2]	Total No. Sites	NPWS Reserves Area [km^2]	NPWS Reserves No. Sites	Undisturbed Other Area [km^2]	Undisturbed Other No. Sites	Disturbed Area [km^2]	Disturbed No. Sites
27. 3	7.8	3	0.0	0	7.8	3	0.0	0
27. 4	3.0	2	0.0	0	0.0	0	3.0	2
28. Cassinia laevis -	611.0	7	0.0	0	611.0	7	0.0	0
28. 1	44.4	1	0.0	0	44.4	1	0.0	0
28. 2	42.8	1	0.0	0	42.8	1	0.0	0
28. 3	279.2	3	0.0	0	279.2	3	0.0	0
28. 4	53.0	1	0.0	0	53.0	1	0.0	0
28. 5	191.6	1	0.0	0	191.6	1	0.0	0
29. E. macrorhyncha	7.0	1	7.0	1	0.0	0	0.0	0
30. E. odorata	264.8	15	0.0	0	48.0	8	216.8	7
30. 1	253.4	14	0.0	0	36.6	7	216.8	7
30. 2	11.4	1	0.0	0	11.4	1	0.0	0
31. E. largiflorens	50.0	1	0.0	0	50.0	1	0.0	0
32. D. lobulata	190.0	1	0.0	0	190.0	1	0.0	0
33. E. camaldulensis	271.4	14	16.8	1	100.0	1	154.6	12
33. 1	154.6	12	0.0	0	0.0	0	154.6	12
33. 2	16.8	1	16.8	1	0.0	0	0.0	0

Complex and Types	Total Area [km^2]	Total No. Sites	NPWS Reserves Area [km^2]	NPWS Reserves No. Sites	Undisturbed Other Area [km^2]	Undisturbed Other No. Sites	Disturbed Area [km^2]	Disturbed No. Sites
33. 3	100.0	1	0.0	0	100.0	1	0.0	0
34. M. cunninghamii	64.0	3	0.0	0	64.0	3	0.0	0
34. 1	58.0	2	0.0	0	58.0	2	0.0	0
34. 2	6.0	1	0.0	0	6.0	1	0.0	0
35. E. microcarpa	0.6	1	0.0	0	0.6	1	0.0	0
36. H. halocnemoides	428.2	16	0.0	0	427.6	15	0.6	1
36. 1	130.8	9	0.0	0	130.2	8	0.6	1
36. 2	254.8	5	0.0	0	254.8	5	0.0	0
36. 3	42.6	2	0.0	0	42.6	2	0.0	0
37. A. cinerea	64.4	1	0.0	0	64.4	1	0.0	0
38. A. marina	63.8	3	9.6	1	54.2	2	0.0	0
TOTAL	**35514.4**	**744**	**9357.0**	**85**	**21991.0**	**471**	**4166.4**	**188**

TOTAL REMNANCY = 23.52%

Table 8.5. A comparison of estimated remnancy areas of vegetation complexes and types with the conservation priorities of Davies (1982). Floristic types are the nearest equivalent recorded in the present survey. Associations marked with a dash (-) were not encountered here; those marked with question marks (???) do not have equivalents in the new classification and are of dubious status.

DAVIES (1982) RATING DESCRIPTION	THIS STUDY EQUIVALENT	NO. SITES	AREA [km^2]	STATUS
PRIORITY 1				
Eucalyptus behriana-E.odorata-E.dumosa open-scrub	-			
E. cneorifolia - E. rugosa - E. dumosa open-scrub	-			
Lomandra effusa - L. dura tussock grassland	-			
PRIORITY 2				
E. cneorifolia open-scrub	*6.3 E. cneorifolia - M. uncinata*	3	314.2	NC
	6.4 E. cneorifolia	1	30.8	NC
PRIORITY 3				
Danthonia spp. - Themeda [australis] tussock grassland	-			
PRIORITY 4				
E. rubida open-forest	-			
E. odorata - E. porosa low woodland	*30.1 E. odorata*	12	241.8 [32.2]	NC
Banksia marginata low woodland	*3.1 X. caespitosa - Kunzea - Banksia*	1	9.4	NC
E. flocktoniae - E. dumosa open-scrub	*12.3 E. dumosa - E. flocktoniae - M. uncinata*	6	103.8 [54.8]	NC
PRIORITY 5				
E. microcarpa woodland	*36. E. microcarpa*	1	0.6	NC
Hakea rostrata - Casuarina paludosa - ... open-heath	*2.1 E. fasciculosa - A. pusilla*	4	37.2 [11.0]	C
PRIORITY 6				
E. porosa low woodland	*24. E. porosa*	15	748.2 [369.2]	NC
Callitris preissii low woodland	*19.1 Callitris preissii - Lomandra effusa*	2	26.8 [25.0]	NC
	19.3 Callitris preissii	2	2.0 [0.8]	NC
PRIORITY 7				
Casuarina luehmannii low woodland	-			
E. ovata low woodland (savannah)	-			

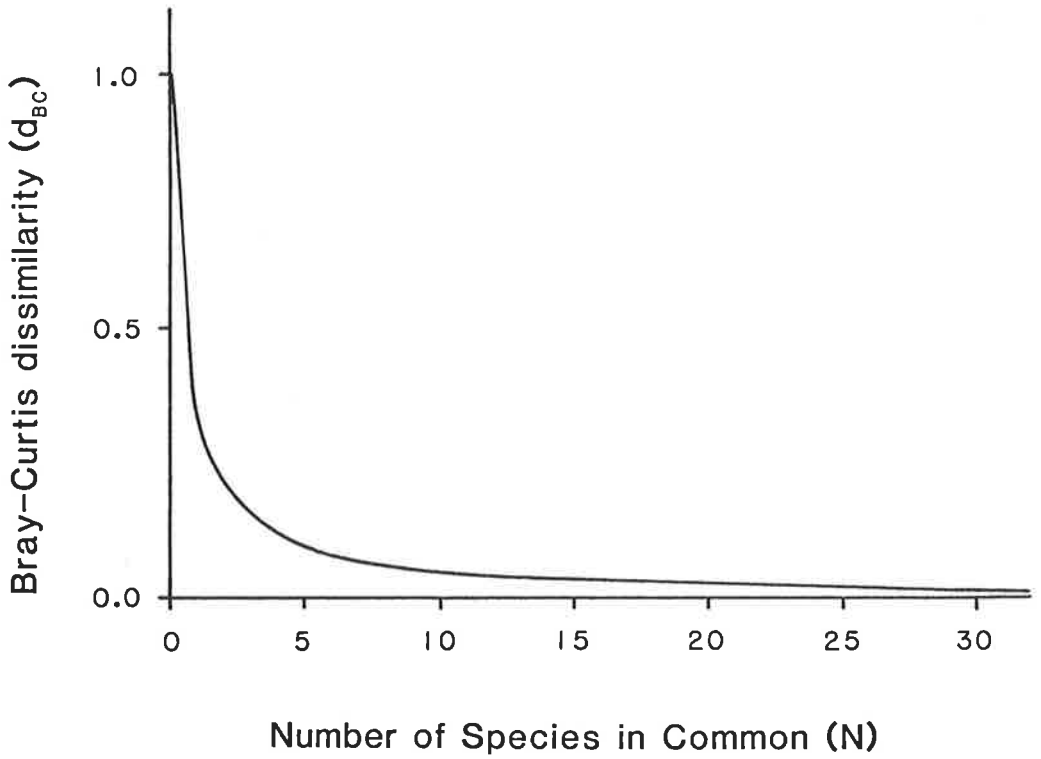
DAVIES (1982) RATING DESCRIPTION	THIS STUDY EQUIVALENT	NO. SITES	AREA [km^2]	STATUS
PRIORITY 8				
Leptospermum [juniperinum] - ... closed-heath	*13.1 L. pubescens*	1	32.4 [0.0]	NC
Potamogeton pectinatus - ... closed herbland	-			
PRIORITY 9				
E. ovata low open-forest (sclerophyll)	*1.7 E. viminalis - E. ovata - ...*	4	39.8 [33.2]	NC
PRIORITY 10				
E. macrorhyncha low open-forest	*29. E. macrorhyncha*	1	7.0	C
E. odorata - E. leucoxylon - ... low woodland	???			
PRIORITY 11				
E. gonocalyx - E. obliqua open-forest	*5.2 E. fasciculosa - X. semiplana*	4	83.6	C
E. oleosa/socialis-E. gracilis-E. dumosa low open-forest	???			
Melaleuca lanceolata low woodland	-			
E. dumosa ssp. conglobata low woodland	-			
E. cosmophylla _ M. uncinata open-scrub	*6.1 E. cosmophylla - M. uncinata*	4	430.0	NC
E. dumosa ssp. dumosa open-scrub	-			
Beyeria lechenaultii - Eutaxia low shrubland	-			
PRIORITY 12				
E. diversifolia low open-forest	???			

Chapter 9.
CONCLUDING DISCUSSION.

Figure 9.1.

Figure 9.1. The effect of species diversity (α diversity) on the measurement of an incremental change in floristic composition.

In this hypothetical example, Bray-Curtis dissimilarity metric is used to compare two sites for which presence/absence data are available. The number of species shared by the sites is varied from 0 to 30 species, while the sites consistently differ by the presence/absence of only one species, this being the minimum possible change in site contents. The calculation demonstrates the sensitivity of dissimilarity metrics to low species diversity when trying to measure an incremental shift in floristic composition along a habitat gradient or a stochastic change in composition, such as species loss by stock grazing, fire or other disturbance. The relationship is hyperbolic: $d_{BC} = 1/(2N+1)$.



Appendix 1.
SITE LOCATIONS.

Sites are listed by region. Each site is designated by its transect (numbered southeast to northwest, from the State border with Victoria to northwest Eyre Peninsula) followed by its sequential number from the coast (at the south or west end of the transect). Locations are given in Universal Map Grid coordinates of eastings and northings within coded zones, as used by the National Mapping Division, Canberra. Although this coordinate system requires six digits for an easting and seven digits for a northing, thereby giving location to the nearest $\pm$ 0.5 m, locations for the sites are given only to three and four significant digits respectively i.e. accuracy is to the nearest $\pm$ 500 m.

SITE	UMG ZONE	EASTING	NORTHING
SE REGION			
1.01	54HVC	482000	5792000
1.02	54HVC	489000	5798000
1.03	54HVD	494000	5802000
2.01	54HVD	454000	5800000
2.02	54HVC	460000	5798000
2.03	54HVD	471000	5810000
2.04	54HVD	470000	5814000
2.05	54HVD	475000	5825000
2.06	54HVD	481000	5826000
2.07	54HVD	490000	5830000
2.08	54HVD	495000	5837000
3.01	54HVD	433000	5831000
3.02	54HVD	443000	5827000
3.03	54HVD	453000	5831000
3.04	54HVD	457000	5835000
3.05	54HVD	462000	5839000
3.06	54HVD	474000	5837000
3.07	54HVD	477000	5845000
3.08	54HVD	486000	5854000
3.09	54HVD	492000	5857000
3.10	54HVD	493000	5862000
4.01	54HVD	424000	5840000
4.02	54HVD	432000	5843000
4.03	54HVD	483000	5847000
4.04	54HVD	447000	5853000
4.05	54HVD	451000	5859000
4.06	54HVD	456000	5860000
4.07	54HVD	465000	5869000
4.08	54HVD	470000	5872000
4.09	54HVD	474000	5874000
4.10	54HVD	484000	5879000
4.11	54HVD	490000	5883000
4.12	54HVD	495000	5892000
5.01	54HVD	412000	5863000
5.02	54HVD	419000	5864000
5.03	54HVD	425000	5873000
5.04	54HVD	431000	5873000
5.05	54HVD	439000	5878000
5.06	54HVD	448000	5882000
5.07	54HVD	451000	5885000
5.08	54HVD	457000	5890000
5.09	54HVE	464000	5900000
5.10	54HVD	470000	5897000
5.11	54HVE	480000	5903000
5.12	54HVE	485000	5905000
5.13	54HVE	490000	5913000
6.01	54HUD	399000	5884000
6.02	54HUD	399000	5887000
6.03	54HVD	410000	5890000
6.04	54HVD	421000	5896000
6.05	54HVD	426000	5897000

SITE	UMG ZONE	EASTING	NORTHING
6.06	54HVE	433000	5905000
6.07	54HVE	439000	5908000
6.08	54HVE	445000	5909000
6.09	54HVE	451000	5912000
6.10	54HVE	455000	5921000
6.11	54HVE	472000	5922000
6.12	54HVE	473000	5926000
6.13	54HVE	481000	5929000
6.14	54HVE	486000	5934000
6.15	54HVE	493000	5941000
7.01	54HUE	382000	5910000
7.02	54HUE	396000	5911000
7.03	54HUE	398000	5916000
7.04	54HVE	405000	5922000
7.05	54HVE	413000	5921000
7.06	54HVE	415000	5927000
7.07	54HVE	428000	5930000
7.08	54HVE	434000	5932000
7.09	54HVE	439000	5937000
7.10	54HVE	451000	5937000
7.11	54HVE	457000	5943000
7.12	54HVE	465000	5946000
7.13	54HVE	474000	5948000
7.14	54HVE	478000	5955000
7.15	54HVE	484000	5961000
7.16	54HVE	493000	5964000
7.17	54HVE	493000	5967000
8.01	54HVE	402000	5945000
8.02	54HVE	407000	5949000
8.03	54HVE	419000	5949000
8.04	54HVE	425000	5953000
8.05	54HVE	427000	5962000
8.06	54HVE	441000	5961000
8.07	54HVE	444000	5964000
8.08	54HVE	452000	5969000
8.09	54HVE	460000	5972000
8.10	54HVE	467000	5977000
8.11	54HVE	473000	5978000
8.12	54HVE	479000	5983000
8.13	54HVE	482000	5993000
8.14	54HVE	488000	5997000
8.15	54HVF	488000	6006000
8.16	54HVF	488000	6012000
8.17	54HVF	497000	6020000
8.18	54HVF	497000	6028000
8.19	54HVF	497000	6037000
8.20	54HVF	497000	6044000
8.21	54HVF	497000	6053000
8.22	54HVF	497000	6060000
8.23	54HVF	497000	6068000
8.24	54HVF	497000	6076000
8.25	54HVF	497000	6080000
9.01	54HUE	392000	5966000

SITE	UMG ZONE	EASTING	NORTHING
9.02	54HUE	397000	5970000
9.03	54HVE	409000	5971000
9.04	54HVE	416000	5972000
9.05	54HVE	424000	5974000
9.06	54HVE	429000	5980000
9.07	54HVE	431000	5987000
9.08	54HVE	440000	5993000
9.09	54HVE	446000	5998000
9.10	54HVE	454000	5997000
9.11	54HVF	459000	6008000
9.12	54HVF	462000	6009000
9.13	54HVF	472000	6017000
9.14	54HVF	473000	6026000
9.15	54HVF	476000	6034000
9.16	54HVF	481000	6042000
9.17	54HVF	481000	6051000
9.18	54HVF	479000	6058000
9.19	54HVF	477000	6066000
9.20	54HVF	478000	6075000
10.01	54HUE	382000	5990000
10.02	54HUE	391000	5982000
10.03	54HUE	396000	5993000
10.04	54HVE	401000	5999000
10.05	54HVF	411000	6003000
10.06	54HVF	414000	6005000
10.07	54HVF	426000	6008000
10.08	54HVF	427000	6015000
10.09	54HVF	433000	6022000
10.10	54HVF	437000	6027000
10.11	54HVF	442000	6032000
10.12	54HVF	451000	6041000
10.13	54HVF	448000	6048000
10.14	54HVF	452000	6055000
10.15	54HVF	452000	6064000
10.16	54HVF	449000	6072000
11.01	54HUF	373000	6009000
11.02	54HUF	394000	6014000
11.03	54HUF	393000	6019000
11.04	54HUF	395000	6025000
11.05	54HVF	404000	6027000
11.06	54HVF	410000	6033000
11.07	54HVF	414000	6041000
11.08	54HVF	418000	6046000
11.09	54HVF	420000	6052000
11.10	54HVF	423000	6058000
11.11	54HVF	424000	6069000
12.01	54HUF	358000	6027000
12.02	54HUF	361000	6035000
12.03	54HUF	366000	6041000
12.04	54HUF	378000	6039000
12.05	54HUF	384000	6045000
12.06	54HUF	390000	6048000
12.07	54HUF	394000	6054000

SITE	UMG ZONE	EASTING	NORTHING
12.08	54HUF	397000	6064000
12.09	54HVF	403000	6068000
13.01	54HUF	344000	6046000
13.02	54HUF	350000	6047000
13.03	54HUF	361000	6058000
13.04	54HUF	364000	6058000
13.05	54HUF	371000	6065000
13.06	54HUF	374000	6070000
14.01	54HUF	334000	6051000
14.02	54HUF	334000	6056000
14.03	54HUF	336000	6063000
14.04	54HUF	352000	6066000
MU REGION			
8.26	54HVF	498000	6092000
8.27	54HVG	499000	6100000
8.28	54HVG	498000	6110000
8.29	54HVG	497000	6118000
8.30	54HVG	497000	6126000
8.31	54HVG	497000	6131000
8.32	54HVG	497000	6142000
8.33	54HVG	497000	6150000
8.34	54HVG	497000	6157000
8.35	54HVG	497000	6165000
8.36	54HVG	497000	6172000
8.37	54HVG	497000	6180000
8.38	54HVG	497000	6188000
8.39	54HVG	497000	6195000
8.40	54HVH	497000	6204000
8.41	54HVH	497000	6212000
8.42	54HVH	497000	6220000
8.43	54HVH	497000	6228000
8.44	54HVH	496000	6237000
9.21	54HVF	472000	6080000
9.22	54HVF	473000	6094000
9.23	54HVF	471000	6097000
9.24	54HVG	474000	6105000
9.25	54HVG	474000	6114000
9.26	54HVG	472000	6121000
9.27	54HVG	472000	6128000
9.28	54HVG	472000	6137000
9.29	54HVG	470000	6144000
9.30	54HVG	473000	6155000
9.31	54HVG	475000	6158000
9.32	54HVG	466000	6167000
9.35	54HVG	474000	6196000
9.36	54HVH	473000	6202000
9.37	54HVH	471000	6211000
9.38	54HVH	469000	6218000
9.39	54HVH	469000	6227000
9.40	54HVH	471000	6235000
10.17	54HVF	448000	6080000

SITE	UMG ZONE	EASTING	NORTHING
10.18	54HVF	447000	6087000
10.19	54HVF	442000	6092000
10.20	54HVG	447000	6106000
10.21	54HVG	448000	6110000
10.22	54HVG	453000	6120000
10.23	54HVG	450000	6131000
10.24	54HVG	448000	6136000
10.25	54HVG	449000	6141000
10.26	54HVG	447000	6155000
10.27	54HVG	448000	6163000
10.28	54HVG	448000	6167000
10.31	54HVG	448000	6197000
10.32	54HVH	449000	6201000
10.33	54HVH	448000	6205000
10.34	54HVH	445000	6216000
11.12	54HVF	421000	6079000
11.13	54HVF	419000	6084000
11.14	54HVF	423000	6090000
11.15	54HVG	420000	6103000
11.16	54HVG	424000	6106000
11.17	54HVG	421000	6114000
11.18	54HVG	422000	6120000
11.19	54HVG	429000	6129000
11.20	54HVG	424000	6139000
11.21	54HVG	419000	6148000
11.22	54HVG	417000	6157000
11.23	54HVG	423000	6164000
11.24	54HVG	422000	6175000
11.25	54HVG	422000	6182000
11.26	54HVG	422000	6191000
11.27	54HVG	425000	6192000
11.28	54HVH	425000	6202000
11.29	54HVH	425000	6212000
11.30	54HVH	418000	6222000
12.10	54HUF	392000	6075000
12.11	54HVF	402000	6087000
12.12	54HUF	395000	6090000
12.13	54HUG	398000	6102000
12.14	54HUG	399000	6113000
12.15	54HVG	400000	6117000
12.16	54HUG	393000	6128000
12.17	54HUG	394000	6133000
12.18	54HUG	399000	6141000
12.19	54HUG	393000	6146000
12.20	54HUG	397000	6155000
12.21	54HUG	398000	6168000
12.22	54HUG	399000	6173000
12.23	54HVG	401000	6183000
12.24	54HUG	395000	6192000
12.25	54HUG	399000	6199000
12.26	54HUH	398000	6207000
12.27	54HUH	399000	6212000
12.28	54HUH	396000	6219000

SITE	UMG ZONE	EASTING	NORTHING
12.29	54HUH	398000	6231000
13.07	54HUF	377000	6076000
13.08	54HUF	375000	6084000
13.09	54HUF	376000	6092000
13.10	54HUG	372000	6101000
13.11	54HUG	371000	6111000
13.12	54HUG	374000	6117000
13.13	54HUG	372000	6122000
13.14	54HUG	363000	6129000
13.15	54HUG	373000	6142000
13.16	54HUG	381000	6148000
13.17	54HUG	377000	6155000
13.18	54HUG	369000	6166000
13.19	54HUG	368000	6174000
13.21	54HUG	373000	6192000
13.22	54HUG	372000	6197000
13.23	54HUH	373000	6206000
13.24	54HUH	374000	6217000
13.25	54HUH	372000	6223000
13.26	54HUH	373000	6231000
14.05	54HUG	354000	6105000
14.06	54HUG	352000	6116000
14.07	54HUG	352000	6129000
14.08	54HUG	351000	6138000
14.09	54HUG	351000	6146000
14.10	54HUG	352000	6153000
14.11	54HUG	345000	6159000
14.12	54HUG	348000	6171000
14.13	54HUG	351000	6179000
14.14	54HUG	347000	6185000
14.15	54HUG	352000	6193000
14.16	54HUH	348000	6203000
14.17	54HUH	348000	6208000
14.18	54HUH	349000	6217000
14.19	54HUH	348000	6225000
14.20	54HUH	344000	6235000
KI REGION			
15.01	53HPA	646000	6038000
15.02	53HPA	643000	6032000
15.03	53HPA	646000	6022000
16.01	53HPA	673000	6047000
16.02	53HPA	670000	6039000
16.03	53HPA	668000	6033000
16.04	53HPA	672000	6024000
16.05	53HPA	671000	6016000
17.01	53HPA	696000	6047000
17.02	53HPA	692000	6042000
17.03	53HPA	698000	6033000
17.04	53HPA	692000	6026000
17.05	53HPA	696000	6017000
18.01	53HQA	717000	6058000

SITE	UMG ZONE	EASTING	NORTHING
18.02	53HQA	719000	6053000
18.03	53HQA	717000	6046000
18.04	53HQA	719000	6031000
18.05	53HQA	720000	6027000
18.06	53HQA	731000	6021000
18.07	53HQA	727000	6009000
19.01	53HQA	746000	6037000
19.02	53HQA	743000	6028000
20.01	53HQA	767000	6036000
20.02	54HTF	231000	6030000
SL REGION			
21.01	54HTF	246000	6059000
21.02	54HTF	251000	6057000
21.03	54HTF	254000	6055000
22.01	54HTF	258000	6074000
22.02	54HTF	267000	6073000
22.03	54HTF	274000	6070000
22.04	54HTF	274000	6066000
22.05	54HTF	279000	6059000
23.01	54HTF	269000	6092000
23.02	54HTF	279000	6092000
23.03	54HTF	287000	6088000
23.04	54HTF	294000	6086000
23.05	54HUF	303000	6083000
23.06	54HUF	312000	6082000
23.07	54HUF	312000	6075000
24.01	54HTG	280000	6119000
24.02	54HTG	284000	6117000
24.03	54HTG	290000	6113000
24.04	54HTG	298000	6110000
24.05	54HUG	306000	6112000
24.06	54HUG	308000	6119000
24.07	54HUG	322000	6102000
24.08	54HUG	330000	6104000
24.09	54HUG	337000	6100000
24.10	54HUF	343000	6098000
24.11	54HUG	351000	6100000
25.01	54HTG	275000	6144000
25.03	54HTG	291000	6134000
25.04	54HTG	295000	6132000
25.05	54HUG	306000	6138000
25.06	54HUG	313000	6135000
25.07	54HUG	320000	6135000
25.08	54HUG	327000	6130000
25.09	54HUG	337000	6130000
25.10	54HUG	346000	6124000
26.01	54HTG	267000	6160000
26.04	54HTG	296000	6158000
26.05	54HUG	302000	6160000
26.06	54HUG	309000	6159000
26.07	54HUG	318000	6159000

SITE	UMG ZONE	EASTING	NORTHING
26.08	54HUG	324000	6153000
26.09	54HUG	331000	6158000
26.10	54HUG	339000	6159000
27.01	54HTG	248000	6184000
27.02	54HTG	257000	6188000
27.03	54HTG	267000	6186000
27.04	54HTG	277000	6179000
27.05	54HTG	281000	6186000
27.06	54HTG	288000	6181000
27.07	54HUG	302000	6185000
27.08	54HUG	307000	6187000
27.09	54HUG	317000	6185000
27.10	54HUG	328000	6183000
27.11	54HUG	332000	6181000
27.12	54HUG	341000	6190000
28.02	54HTH	252000	6207000
28.03	54HTH	258000	6202000
28.04	54HTH	268000	6205000
28.05	54HTG	275000	6199000
28.06	54HTH	285000	6205000
28.07	54HTH	292000	6204000
28.08	54HUH	302000	6206000
28.09	54HUH	306000	6206000
28.10	54HUH	316000	6205000
28.11	54HUH	327000	6213000
28.12	54HUH	336000	6212000
28.13	54HUH	342000	6209000
29.01	54HTH	238000	6232000
29.02	54HTH	244000	6233000
29.03	54HTH	254000	6229000
29.04	54HTH	264000	6224000
29.05	54HTH	269000	6224000
29.06	54HTH	278000	6225000
29.07	54HTH	283000	6228000
29.08	54HTH	291000	6226000
29.09	54HUH	302000	6236000
29.10	54HUH	311000	6230000
29.11	54HUH	315000	6233000
29.12	54HUH	323000	6233000
29.13	54HUH	331000	6238000
29.14	54HUH	341000	6239000
NL REGION			
30.01	53HQC	750000	6248000
30.02	53HQC	757000	6250000
30.03	53HQC	764000	6244000
30.04	53HQC	772000	6245000
30.05	54HTH	228000	6237000
30.06	54HTH	234000	6238000
30.07	54HTH	240000	6244000
30.08	54HTH	248000	6244000
30.09	54HTH	258000	6249000

SITE	UMG ZONE	EASTING	NORTHING
30.10	54HTH	267000	6249000
30.11	54HTH	277000	6245000
30.12	54HTH	279000	6253000
30.17	54HUH	318000	6255000
30.18	54HUH	325000	6262000
31.01	53HQC	761000	6271000
31.02	53HQC	768000	6275000
31.03	53HQC	777000	6267000
31.04	54HTH	231000	6273000
31.05	54HTH	233000	6270000
31.07	54HTH	254000	6272000
31.08	54HTH	258000	6284000
31.09	54HTH	269000	6275000
31.10	54HTH	274000	6265000
31.16	54HUH	322000	6290000
31.17	54HUH	329000	6290000
32.01	53HQC	778000	6292000
32.02	54HTH	223000	6297000
32.03	54HTH	227000	6291000
32.05	54HTJ	247000	6301000
32.08	54HTJ	272000	6308000
32.10	54HTJ	285000	6303000
32.13	54HUJ	311000	6309000
32.14	54HUJ	316000	6313000
32.15	54HUJ	326000	6316000
33.01	53HQD	765000	6316000
33.02	53HQD	769000	6315000
33.03	53HQD	776000	6323000
33.04	54HTJ	226000	6325000
33.05	54HTJ	235000	6323000
33.06	54HTJ	240000	6323000
33.07	54HTJ	248000	6331000
33.12	54HTJ	287000	6325000
33.15	54HUJ	313000	6333000
33.16	54HUJ	319000	6338000
34.01	54HTJ	220000	6345000
34.02	54HTJ	228000	6347000
34.03	54HTJ	236000	6342000
34.04	54HTJ	247000	6347000
34.05	54HTJ	252000	6364000
34.06	54HTJ	262000	6355000
34.08	54HTJ	279000	6357000
34.09	54HTJ	281000	6363000
34.10	54HTJ	292000	6360000
34.11	54HTJ	297000	6360000
34.12	54HUJ	308000	6368000
35.01	53HQD	772000	6368000
35.02	53HQD	777000	6369000
35.03	54HTJ	226000	6375000
35.04	54HTJ	233000	6370000
35.05	54HTJ	239000	6379000
35.07	54HTJ	253000	6369000
35.08	54HTJ	261000	6385000

SITE	UMG ZONE	EASTING	NORTHING
35.09	54HTJ	267000	6384000
35.10	54HTJ	277000	6392000
35.11	54HTJ	287000	6381000
35.12	54HTJ	295000	6381000
36.01	53HQD	769000	6392000
36.02	53HQD	774000	6394000
36.03	54HTJ	220000	6390000
36.04	54HTK	225000	6401000
36.06	54HTK	242000	6400000
YP REGION			
41.01	53HPB	675000	6108000
41.02	53HPB	684000	6114000
41.03	53HPB	690000	6109000
41.04	53HPB	697000	6107000
41.05	53HQB	703000	6107000
42.01	53HPB	689000	6134000
42.02	53HPB	698000	6132000
42.03	53HQB	705000	6133000
42.04	53HQB	712000	6128000
42.05	53HQB	721000	6129000
42.06	53HQB	724000	6125000
42.07	53HQB	733000	6123000
42.08	53HQB	744000	6122000
42.09	53HQB	751000	6124000
43.01	53HQB	726000	6148000
43.02	53HQB	734000	6151000
43.03	53HQB	741000	6144000
43.04	53HQB	745000	6145000
43.05	53HQB	756000	6150000
44.01	53HQB	732000	6172000
44.04	53HQB	756000	6168000
44.05	53HQB	761000	6169000
45.01	53HQC	730000	6205000
45.03	53HQC	744000	6200000
45.04	53HQB	753000	6194000
45.05	53HQB	758000	6192000
45.06	53HQB	771000	6190000
46.01	53HQC	738000	6226000
46.02	53HQC	748000	6228000
46.03	53HQC	754000	6226000
46.04	53HQC	762000	6223000
46.05	53HQC	768000	6218000
46.07	54HTH	229000	6218000
EP REGION			
51.01	53HNB	584000	6134000
51.02	53HNB	586000	6140000
51.03	53HNB	587000	6149000
51.04	53HPC	673000	6259000
51.05	53HPC	679000	6263000

SITE	UMG ZONE	EASTING	NORTHING
51.06	53HPC	685000	6267000
51.07	53HPC	687000	6275000
51.08	53HPC	692000	6279000
51.09	53HQC	703000	6288000
51.10	53HQD	703000	6301000
51.11	53HQD	708000	6303000
51.12	53HQD	715000	6306000
52.01	53HNB	561000	6136000
52.02	53HNB	565000	6144000
52.03	53HNB	573000	6150000
52.04	53HNB	561000	6165000
52.05	53HNB	566000	6170000
52.06	53HNB	572000	6176000
52.07	53HNB	577000	6183000
52.08	53HNB	580000	6189000
52.09	53HNB	588000	6198000
52.10	53HNC	595000	6202000
52.11	53HPC	604000	6205000
52.12	53HPC	600000	6215000
52.13	53HPC	608000	6215000
52.14	53HPC	614000	6226000
52.15	53HPC	616000	6229000
52.16	53HPC	631000	6234000
52.17	53HPC	629000	6238000
52.18	53HPC	633000	6246000
52.19	53HPC	642000	6252000
52.20	53HPC	645000	6259000
52.21	53HPC	650000	6268000
52.22	53HPC	651000	6275000
52.23	53HPC	662000	6277000
52.24	53HPC	665000	6284000
52.25	53HPC	672000	6290000
52.26	53HPC	678000	6297000
52.27	53HPC	685000	6298000
52.28	53HPC	689000	6298000
52.29	53HPD	695000	6311000
52.30	53HQD	702000	6322000
52.31	53HQD	704000	6327000
53.01	53HNB	538000	6165000
53.02	53HNB	545000	6170000
53.03	53HNB	546000	6181000
53.04	53HNB	551000	6186000
53.05	53HNB	551000	6197000
53.06	53HNB	565000	6197000
53.07	53HNC	559000	6203000
53.08	53HNC	565000	6214000
53.09	53HNC	572000	6218000
53.10	53HNC	578000	6223000
53.11	53HNC	586000	6233000
53.12	53HNC	591000	6234000
53.13	53HPC	606000	6239000
53.14	53HPC	602000	6247000
53.15	53HPC	606000	6254000

SITE	UMG ZONE	EASTING	NORTHING
53.16	53HPC	606000	6260000
53.17	53HPC	617000	6271000
53.18	53HPC	622000	6275000
53.19	53HPC	628000	6280000
53.20	53HPC	629000	6284000
53.21	53HPC	637000	6289000
53.22	53HPC	642000	6296000
53.23	53HPD	647000	6302000
53.24	53HPD	651000	6312000
53.25	53HPD	658000	6316000
53.26	53HPD	662000	6325000
53.27	53HPD	668000	6326000
53.28	53HPD	674000	6333000
54.01	53HNC	536000	6210000
54.02	53HNC	537000	6215000
54.03	53HNC	546000	6222000
54.04	53HNC	551000	6228000
54.05	53HNC	556000	6234000
54.06	53HNC	560000	6237000
54.07	53HNC	567000	6248000
54.08	53HNC	572000	6252000
54.09	53HNC	578000	6261000
54.10	53HNC	584000	6261000
54.11	53HNC	583000	6275000
54.12	53HNC	588000	6277000
54.13	53HNC	592000	6280000
54.14	53HPC	602000	6287000
54.15	53HPC	608000	6297000
54.16	53HPD	611000	6303000
54.17	53HPD	617000	6304000
54.18	53HPD	622000	6313000
54.19	53HPD	627000	6318000
54.20	53HPD	632000	6321000
54.21	53HPD	632000	6332000
54.22	53HPD	649000	6336000
54.23	53HPD	649000	6343000
55.01	53HNC	525000	6235000
55.02	53HNC	531000	6245000
55.03	53HNC	538000	6245000
55.06	53HNC	551000	6268000
55.07	53HNC	559000	6272000
55.08	53HNC	564000	6283000
55.09	53HNC	569000	6287000
55.10	53HNC	573000	6291000
55.11	53HNC	577000	6299000
55.12	53HND	596000	6302000
55.13	53HND	588000	6311000
55.14	53HND	595000	6311000
55.15	53HPD	602000	6319000
55.16	53HPD	604000	6328000
55.17	53HPD	607000	6334000
55.18	53HPD	614000	6336000
55.19	53HPD	617000	6347000

SITE	UMG ZONE	EASTING	NORTHING
55.20	53HPD	623000	6355000
55.21	53HPD	632000	6356000
56.01	53HNC	508000	6265000
56.02	53HNC	514000	6268000
56.03	53HNC	522000	6271000
56.04	53HNC	532000	6279000
56.05	53HNC	532000	6284000
56.06	53HNC	529000	6293000
56.07	53HNC	539000	6299000
56.08	53HND	546000	6302000
56.09	53HND	546000	6312000
56.10	53HND	560000	6314000
56.11	53HND	556000	6322000
56.12	53HND	572000	6320000
56.13	53HND	569000	6335000
56.14	53HND	593000	6334000
56.15	53HND	597000	6341000
56.16	53HND	593000	6348000
56.17	53HND	596000	6358000
56.18	53HPD	600000	6365000
57.01	53HMC	491000	6278000
57.02	53HMC	495000	6284000
57.03	53HMC	496000	6293000
57.04	53HNC	511000	6296000
57.05	53HNC	516000	6299000
57.06	53HND	517000	6307000
57.07	53HND	524000	6313000
57.08	53HND	530000	6317000
57.09	53HND	532000	6326000
57.10	53HND	535000	6330000
57.11	53HND	547000	6335000
57.12	53HND	549000	6347000
57.13	53HND	555000	6351000
57.14	53HND	560000	6357000
57.15	53HND	562000	6358000
58.01	53HMD	482000	6312000
58.02	53HMD	485000	6315000
58.03	53HMD	498000	6316000
58.04	53HND	501000	6321000
58.05	53HND	507000	6330000
58.06	53HND	512000	6335000
58.07	53HND	517000	6339000
58.08	53HND	518000	6349000
58.09	53HND	525000	6355000
58.10	53HND	528000	6361000
58.11	53HND	534000	6366000
58.12	53HND	545000	6368000
58.13	53HNC	550000	6275000
59.01	53HMD	465000	6324000
59.02	53HMD	468000	6332000
59.03	53HMD	476000	6336000
59.04	53HMD	480000	6340000
59.05	53HMD	484000	6344000

SITE	UMG ZONE	EASTING	NORTHING
59.06	53HMD	487000	6353000
59.07	53HMD	496000	6360000
59.08	53HND	501000	6366000
59.09	53HND	506000	6371000
59.10	53HND	511000	6377000
59.11	53HND	518000	6379000
59.12	53HND	523000	6388000
60.01	53HMD	431000	6332000
60.02	53HMD	440000	6335000
60.03	53HMD	446000	6339000
60.04	53HMD	453000	6343000
60.05	53HMD	455000	6352000
60.06	53HMD	461000	6357000
60.07	53HMD	465000	6366000
60.08	53HMD	469000	6369000
60.09	53HMD	477000	6378000
60.10	53HMD	482000	6384000
60.11	53HMD	483000	6386000
60.12	53HMD	488000	6395000
60.13	53HMD	498000	6398000
60.14	53HNE	505000	6404000
61.01	53HMD	425000	6357000
61.02	53HMD	425000	6364000
61.03	53HMD	432000	6366000
61.04	53HMD	439000	6370000
61.05	53HMD	451000	6377000
61.06	53HMD	449000	6386000
61.07	53HMD	454000	6392000
61.08	53HMD	461000	6399000
61.09	53HME	466000	6405000
61.10	53HME	472000	6406000
61.11	53HME	479000	6416000
61.12	53HME	486000	6417000
62.01	53HME	426000	6402000
62.02	53HME	430000	6401000
62.03	53HME	440000	6411000
62.04	53HME	442000	6416000
62.05	53HME	452000	6419000
62.06	53HME	457000	6426000
62.07	53HME	452000	6436000
62.08	53HME	459000	6441000
63.01	53HLE	396000	6402000
63.02	53HME	402000	6408000
63.03	53HME	410000	6411000
63.04	53HME	415000	6418000
63.05	53HME	420000	6423000
63.06	53HME	428000	6423000
63.07	53HME	428000	6437000
63.08	53HME	433000	6442000
63.09	53HME	441000	6447000
64.01	53HLE	389000	6431000
64.02	53HLE	395000	6433000
64.03	53HME	402000	6442000

SITE	UMG ZONE	EASTING	NORTHING
64.04	53HME	405000	6445000
64.05	53HME	412000	6456000
64.06	53HME	417000	6459000
65.01	53HLE	376000	6439000
65.02	53HLE	377000	6448000
65.03	53HLE	382000	6453000
65.04	53HLE	388000	6460000
65.05	53HLE	391000	6466000
65.06	53HLE	392000	6476000
66.01	53HLE	349000	6437000
66.02	53HLE	348000	6446000
66.03	53HLE	354000	6450000
66.04	53HLE	363000	6456000
66.05	53HLE	361000	6464000
66.06	53HLE	361000	6474000
66.07	53HLE	370000	6479000
67.01	53HLE	322000	6446000
67.02	53HLE	326000	6453000
67.03	53HLE	328000	6460000
67.04	53HLE	332000	6486000
67.05	53HLE	330000	6476000
67.06	53HLE	337000	6482000

Appendix 2.
SPECIES LIST.

Nomenclature follows Jessop & Toelken (1986) with minor modifications as specified in Section 3.8.2. The list is annotated with the number of sites with which the species were recorded in each region, and in the data set overall. Species of native perennials as used in the classification and ordination analyses are listed first, followed by other native species and introduced (non-native) species.

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL
	NO. SITES:	169	132	24	81	72	37	239	754
NATIVE PERENNIALS									
Acacia acanthoclada		0	1	0	0	0	0	1	2
Acacia acinacea		2	0	1	0	0	3	6	12
Acacia anceps		0	0	0	0	0	1	8	9
Acacia argyrophylla		0	0	0	1	1	0	0	2
Acacia brachybotrya		0	1	0	0	0	0	4	5
Acacia calamifolia		1	3	1	4	3	4	28	44
Acacia colletioides		0	4	0	0	0	0	1	5
Acacia continua		0	0	0	1	5	0	8	14
Acacia dodonaeifolia		0	0	0	0	0	0	1	1
Acacia farinosa		3	0	2	0	0	0	0	5
Acacia gillii		0	0	0	0	0	0	2	2
Acacia gracilifolia		0	0	0	0	1	0	0	1
Acacia hakeoides		0	0	0	1	0	0	1	2
Acacia imbricata		0	0	0	0	0	0	3	3
Acacia iteaphylla		0	0	0	0	0	0	1	1
Acacia leiophylla		0	0	0	0	0	0	2	2
Acacia ligulata		2	5	0	2	0	5	7	21
Acacia longifolia		25	0	0	0	0	1	4	30
Acacia mearnsii		3	0	0	0	0	0	0	3
Acacia melanoxylon		22	0	0	0	0	0	0	22
Acacia merrallii		0	0	0	0	0	0	17	17
Acacia microcarpa		1	3	0	0	0	0	2	6
Acacia myrtifolia		12	0	8	4	0	0	2	26
Acacia notabilis		0	0	0	3	1	1	7	12
Acacia nyssophylla		0	5	0	1	0	2	5	13
Acacia oswaldii		0	0	0	0	5	2	7	14
Acacia oxycedrus		4	0	0	0	0	0	0	4
Acacia papyrocarpa		0	0	0	0	1	0	0	1
Acacia pravifolia?		1	0	0	0	0	0	0	1
Acacia pycnantha		29	0	0	22	3	2	4	60
Acacia retinodes var. uncifolia		0	0	0	1	0	0	0	1
Acacia rigens		0	2	0	1	0	0	12	15
Acacia rotundifolia		0	0	0	0	0	0	0	0
Acacia rupicola		0	0	1	3	0	2	8	14
Acacia salicina		0	1	0	0	0	0	0	1
Acacia sclerophylla		0	5	0	0	0	0	27	32
Acacia spinescens		24	3	2	5	0	7	42	83
Acacia verticillata		8	0	0	0	0	0	0	8
Acacia wattsiana		0	0	0	0	3	0	0	3
Acacia wilhelmiana		0	0	0	0	1	0	14	15
Acrotriche affinis		10	1	5	0	0	0	2	18
Acrotriche cordata		8	0	3	0	0	5	12	28

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL
Acrotriche depressa		0	0	1	4	0	0	0	5
Acrotriche fasciculiflora		0	0	1	1	0	0	0	2
Acrotriche halmaturina		0	0	2	0	0	0	0	2
Acrotriche patula		0	1	1	0	2	11	35	50
Acrotriche serrulata		13	0	0	11	0	1	0	25
Adenanthos macropodiana		0	0	2	0	0	0	0	2
Adenanthos terminalis		27	0	7	1	0	0	2	37
Adriana klotzschii		7	0	0	0	0	2	1	10
Allocasuarina luehmannii		4	0	0	0	0	0	0	4
Allocasuarina muelleriana		31	5	8	1	0	4	14	63
Allocasuarina paradoxa		8	0	0	0	0	0	0	8
Allocasuarina pusilla		26	1	0	1	0	0	0	28
Allocasuarina striata		0	0	13	0	0	0	0	13
Allocasuarina verticillata		10	0	0	14	8	6	13	51
Alyxia buxifolia		0	0	0	2	0	7	12	21
Astroloma conostephioides		47	2	8	10	4	1	25	97
Astroloma humifusum		56	0	4	10	2	1	10	83
Atriplex acutibractea		0	16	0	2	10	0	6	34
Atriplex cinerea		0	0	0	0	0	1	0	1
Atriplex lindleyi		0	2	0	0	3	0	0	5
Atriplex paludosa		0	1	0	1	3	0	0	5
Atriplex rhagodioides		0	1	0	0	0	0	0	1
Atriplex semibaccata		0	2	0	0	0	0	1	3
Atriplex spongiosa		0	0	0	0	1	0	0	1
Atriplex stipitata		0	13	0	3	2	0	3	21
Atriplex suberecta		0	1	0	0	0	0	0	1
Atriplex vesicaria		0	3	0	2	6	0	17	28
Avicennia marina		0	0	0	1	1	1	0	3
Baeckea behrii		35	9	0	1	0	0	15	60
Baeckea crassifolia		19	5	2	0	0	5	37	68
Baeckea ericaea		14	0	1	0	0	0	0	15
Baeckea ramosissima		0	0	2	0	0	0	0	2
Banksia marginata		57	0	10	10	0	0	0	77
Banksia ornata		46	0	7	3	0	0	0	56
Baumea juncea		7	0	0	0	0	0	3	10
Bertya mitchellii		2	3	0	1	0	0	2	8
Beyeria lechenaultii		1	8	2	1	1	4	23	40
Billardiera bignoniacea		0	0	0	3	0	0	0	3
Billardiera cymosa		37	8	1	4	0	0	6	56
Billardiera scandens		0	0	3	0	0	0	0	3
Billardiera sericophora		0	0	0	0	0	0	2	2
Billardiera uniflora		0	0	1	0	0	0	0	1
Billardiera versicolor		0	0	0	0	1	0	0	1
Boronia coerulescens		18	1	0	0	0	0	4	23
Boronia edwardsii		0	0	5	0	0	0	0	5
Boronia filifolia		2	0	7	0	0	0	0	9

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL
Boronia inornata		0	0	0	0	0	0	9	9
Boronia nana		1	0	0	0	0	0	0	1
Bossiaea cinerea		1	0	0	0	0	0	0	1
Bossiaea prostrata		7	0	0	0	1	0	0	8
Brachyloma ciliata		0	0	0	0	0	0	0	0
Brachyloma daphnoides		6	1	0	0	0	0	0	7
Brachyloma ericoides		20	9	0	1	0	0	0	30
Bursaria spinosa		12	0	0	17	10	12	4	55
Calandrinia eremaea		0	0	0	1	0	0	0	1
Callistemon rugulosus		4	0	1	0	0	0	5	10
Callitris canescens		0	2	0	0	0	1	8	11
Callitris columellaris		0	0	0	2	6	0	0	8
Callitris preissii		6	2	0	9	3	1	12	33
Callitris rhomboidea		0	0	0	1	0	0	0	1
Callitris verrucosa		11	19	0	0	0	0	16	46
Calocephalus brownii		0	0	0	0	0	0	1	1
Calytrix alpestris		18	0	0	1	0	0	0	19
Calytrix involucrata		0	0	0	0	0	3	32	35
Calytrix sp.A		0	0	11	1	0	0	0	12
Calytrix tetragona		51	4	7	6	3	5	6	82
Carex tereticaulis		0	0	0	0	0	0	1	1
Carpobrotus rossii		3	3	0	1	1	3	20	31
Cassia artemisioides		0	0	0	0	1	0	0	1
Cassia nemophila var. coriacea		0	8	0	0	3	0	12	23
Cassia nemophila var. nemophila		0	4	0	5	4	0	8	21
Cassinia laevis		0	0	0	1	6	0	2	9
Cassinia uncata		0	0	0	0	0	0	3	3
Cassytha glabella		29	2	8	6	0	7	31	83
Cassytha melantha		0	4	1	2	3	0	38	48
Cassytha pubescens		14	3	0	5	2	0	12	36
Casuarina cristata		0	2	0	0	3	0	3	8
Caustis pentandra		3	0	4	0	0	0	0	7
Cheilanthes austrotenuifolia		0	0	0	3	4	0	3	10
Cheiranthera alternifolia		5	0	0	1	0	0	1	7
Chenopodium desertorum ssp. desertorum		0	9	0	0	2	0	3	14
Chenopodium desertorum ssp. rectum		0	7	0	8	3	0	3	21
Choretrum glomeratum		3	0	6	0	0	1	3	13
Chorizandra enodis		5	0	0	0	0	0	0	5
Clematis microphylla		28	7	0	7	2	9	21	74
Codonocarpus cotinifolius		0	1	0	0	0	0	1	2
Comesperma calymega/polygaloides		15	0	5	0	0	0	0	20
Comesperma scoparium		0	0	0	0	0	0	8	8
Comesperma volubile		0	0	1	0	1	0	2	4
Conospermum patens		7	0	3	0	0	0	1	11
Convolvulus erubescens		0	0	0	0	1	0	0	1

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL
Correa decumbens		0	0	0	0	0	0	2	2
Correa pulchella		0	0	0	0	0	3	6	9
Correa reflexa		42	0	4	2	1	5	13	67
Correa schlechtendalii		0	2	0	0	0	0	0	2
Cratystylis conocephala		0	2	0	0	0	0	12	14
Cryptandra amara		0	2	0	0	1	0	6	9
Cryptandra leucophracta		20	3	1	0	0	2	4	30
Cryptandra propinqua		0	2	0	0	0	0	7	9
Cryptandra tomentosa		18	3	0	1	0	4	3	29
Cyperus exaltatus		0	1	0	0	0	0	0	1
Cyperus gymnocaulos		0	2	0	0	1	0	0	3
Dampiera dysantha		0	0	0	0	0	0	0	0
Dampiera marifolia		7	0	0	0	0	0	0	7
Dampiera rosmarinifolia		10	1	0	1	0	1	24	37
Darwinia micropetala		6	0	3	0	0	0	0	9
Daviesia asperula ssp. asperula		0	0	7	0	0	0	0	7
Daviesia asperula ssp. obliqua		0	0	0	0	0	0	2	2
Daviesia benthamii		0	0	0	0	0	0	4	4
Daviesia brevifolia		28	0	5	1	0	0	0	34
Daviesia genistifolia		0	0	0	1	0	0	2	3
Daviesia leptophylla		0	0	0	4	0	0	0	4
Daviesia pectinata		0	0	0	0	0	0	4	4
Daviesia ulicifolia		0	0	1	6	0	0	1	8
Dianella revoluta/laevis		47	16	2	16	12	11	65	169
Dichondra repens		0	0	0	0	1	0	0	1
Dillwynia glaberrima		1	0	0	0	0	0	0	1
Dillwynia hispida		38	0	1	4	0	1	1	45
Dillwynia sericea		7	0	0	0	0	0	0	7
Dillwynia uncinata		0	3	5	0	0	1	9	18
Disphyma crassifolium		0	5	0	3	8	0	8	24
Dissocarpus paradoxus		0	1	0	0	5	0	0	6
Dodonaea baueri		0	0	0	0	1	3	7	11
Dodonaea bursariifolia		1	5	1	1	0	1	39	48
Dodonaea hexandra		0	5	0	2	1	4	30	42
Dodonaea humilis		2	0	3	0	0	2	3	10
Dodonaea lobulata		0	0	0	0	2	0	0	2
Dodonaea stenozyga		0	0	0	0	0	0	10	10
Dodonaea viscosa ssp. angustissima		0	6	0	0	3	0	1	10
Dodonaea viscosa ssp. viscosa/spatulata		18	0	0	4	1	0	0	23
Einadia nutans		0	12	0	2	2	0	0	16
Enchylaena tomentosa		2	47	0	18	29	4	54	154
Epacris impressa		12	0	0	3	0	0	0	15
Epaltes australis		0	1	0	0	0	0	0	1
Eremophila alternifolia		0	0	0	0	1	0	0	1
Eremophila behriana		0	0	0	0	0	0	1	1
Eremophila crassifolia		0	7	0	0	0	0	30	37

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL
Eremophila deserti		0	0	0	1	0	0	2	3
Eremophila divaricata		0	1	0	0	0	0	0	1
Eremophila gibbifolia		0	0	0	0	0	0	3	3
Eremophila glabra		0	3	0	0	1	1	14	19
Eremophila longifolia		0	0	0	0	1	0	0	1
Eremophila scoparia		0	6	0	0	1	0	23	30
Eremophila weldii		0	0	0	0	0	0	30	30
Eriochiton sclerolaenoides		0	5	0	1	2	0	1	9
Eriostemon pungens		4	0	0	0	0	0	5	9
Eucalyptus baxteri		42	0	8	3	0	0	0	53
Eucalyptus brachycalyx		0	8	0	11	8	3	20	50
Eucalyptus calycogona		0	10	0	1	0	0	11	22
Eucalyptus camaldulensis		15	3	0	4	2	0	1	25
Eucalyptus cladocalyx		0	0	0	0	3	0	5	8
Eucalyptus cneorifolia		0	0	4	0	0	0	0	4
Eucalyptus concinna		0	0	0	0	0	0	3	3
Eucalyptus conglobata		5	0	0	1	0	0	2	8
Eucalyptus cosmophylla		0	0	9	3	0	0	0	12
Eucalyptus cyanophylla		0	11	0	0	0	0	0	11
Eucalyptus diversifolia		33	0	7	0	0	3	38	81
Eucalyptus dumosa/calcareana		1	37	0	3	2	4	71	118
Eucalyptus fasciculosa		27	0	1	18	0	0	0	46
Eucalyptus flocktoniae		0	0	0	0	0	0	13	13
Eucalyptus foecunda		18	25	0	0	0	3	36	82
Eucalyptus goniocalyx		0	0	0	3	0	0	0	3
Eucalyptus gracilis		0	49	0	11	21	5	66	152
Eucalyptus incrassata		36	40	0	3	1	6	43	129
Eucalyptus lansdowneana ssp. albopurpurea		0	0	0	0	0	0	1	1
Eucalyptus largiflorens		0	1	0	0	0	0	0	1
Eucalyptus leucoxylon ssp. leucoxylon		20	0	1	12	10	0	0	43
Eucalyptus leucoxylon ssp. megalocarpa		1	0	0	0	0	0	0	1
Eucalyptus leucoxylon ssp. petiolaris		0	0	0	0	0	0	2	2
Eucalyptus macrorhyncha		0	0	0	0	1	0	0	1
Eucalyptus microcarpa		3	0	0	2	0	0	0	5
Eucalyptus obliqua var. megacarpa		1	0	0	0	0	0	0	1
Eucalyptus obliqua var. obliqua		10	0	1	11	0	0	0	22
Eucalyptus odorata		0	1	0	16	6	1	1	25
Eucalyptus oleosa		0	49	0	8	10	2	77	146
Eucalyptus ovata		2	0	0	0	0	0	0	2
Eucalyptus porosa		0	0	0	1	5	4	14	24
Eucalyptus remota		0	0	2	0	0	0	0	2
Eucalyptus rugosa		1	3	3	0	0	0	5	12
Eucalyptus socialis		1	50	0	11	15	6	43	126
Eucalyptus viminalis var. cygnetensis		14	0	0	0	0	0	0	14
Eucalyptus yalatensis		0	0	0	0	0	0	1	1

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL
Eucalyptus yumbarrana		0	0	0	0	0	0	8	8
Euphrasia collina		0	1	0	0	0	0	2	3
Eutaxia microphylla		12	0	1	2	3	2	40	60
Exocarpos aphyllus		0	5	0	1	9	5	25	45
Exocarpos cupressiformis		6	0	0	11	0	0	0	17
Exocarpos sparteus		8	1	0	2	2	4	17	34
Exocarpos syrticola		0	0	0	0	1	4	24	29
Frankenia pauciflora		0	1	0	1	5	0	6	13
Gahnia deusta		1	0	1	4	0	3	18	27
Gahnia lanigera		8	6	1	3	1	9	38	66
Gahnia trifida/filum		12	0	0	0	0	3	5	20
Geijera linearifolia		0	10	0	2	8	4	48	72
Glischrocaryon behrii/aureum		10	2	3	0	0	1	11	27
Glycine clandestina		0	0	0	0	1	0	0	1
Gompholobium ecostatum		0	0	5	0	0	0	0	5
Gonocarpus elatus		0	0	0	4	5	0	1	10
Gonocarpus mezianus		1	0	1	3	0	3	9	17
Gonocarpus tetragynus		25	0	2	10	3	2	1	43
Goodenia affinis		5	1	0	2	4	4	4	20
Goodenia geniculata		19	0	2	2	2	1	0	26
Goodenia ovata/varia		1	0	2	0	1	1	8	13
Goodenia pinnatifida		0	0	0	0	2	0	0	2
Goodia lotifolia		0	0	0	0	0	0	1	1
Grammosolen truncatus		0	0	0	0	0	0	5	5
Grevillea aspera		0	0	0	0	0	0	2	2
Grevillea biternata		0	0	0	0	0	0	1	1
Grevillea huegelii		0	1	0	0	4	1	8	14
Grevillea ilicifolia		6	1	2	0	0	3	6	18
Grevillea ilicifolia var. lobata		2	1	0	0	0	0	0	3
Grevillea lavandulacea		2	1	0	3	0	0	0	6
Grevillea muricata		0	0	2	0	0	0	0	2
Grevillea pauciflora		0	0	0	0	0	0	3	3
Grevillea pterosperma		1	2	0	0	0	0	7	10
Gunniopsis spp.		0	0	0	0	0	1	0	1
Gyrostemon australasicus		1	0	0	0	0	0	0	1
Gyrostemon ramulosus		0	0	0	0	0	0	1	1
Hakea cycloptera		0	0	0	0	0	0	25	25
Hakea francisiana		0	0	0	0	0	0	10	10
Hakea muelleriana		39	2	7	1	0	2	15	66
Hakea nodosa		2	0	0	0	0	0	0	2
Hakea repullulans		1	0	0	0	0	0	0	1
Hakea rostrata		9	0	14	6	0	0	0	29
Hakea rugosa		5	0	0	1	0	0	3	9
Hakea ulicina		0	0	0	5	0	0	0	5
Hakea vittata		9	0	2	1	0	0	0	12
Halgania andromedifolia		0	3	0	0	0	0	6	9

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL
Halgania cyanea		3	7	0	0	0	1	11	22
Haloragis acutangula		0	0	0	0	0	1	0	1
Halosarcia halocnemoides		0	6	0	2	6	1	1	16
Halosarcia indica		0	0	0	0	1	0	0	1
Hardenbergia violacea		0	0	0	0	0	0	1	1
Helichrysum bilobum		0	0	0	2	0	0	6	8
Helichrysum catadromum		0	0	0	0	0	1	11	12
Heterodendrum oleifolium		0	11	0	1	7	0	1	20
Hibbertia acicularis		0	0	1	0	0	0	0	1
Hibbertia aspera		0	0	2	0	0	1	1	4
Hibbertia exutiaces		0	0	0	10	2	0	0	12
Hibbertia prostrata		13	0	0	0	3	0	0	16
Hibbertia riparia		68	13	10	14	1	5	45	156
Hibbertia sericea		68	0	10	12	2	0	2	94
Hibbertia virgata		9	7	5	2	0	0	2	25
Hybanthus floribundus		1	2	0	1	0	1	1	6
Hypolaena fastigiata		50	0	2	3	0	0	0	55
Indigofera australis		2	0	0	0	2	0	0	4
Isolepis nodosa		19	0	0	1	0	1	3	24
Isopogon ceratophyllus		31	0	10	9	0	0	0	50
Juncus aridicola		0	1	0	0	1	0	0	2
Juncus kraussii		0	0	0	0	0	0	1	1
Juncus pallidus		5	0	0	1	0	0	0	6
Juncus procerus		3	0	0	0	0	0	0	3
Juncus sp.		1	0	0	0	0	0	0	1
Juncus subsecundus		0	0	0	1	0	0	0	1
Kennedia prostrata		14	0	0	1	0	0	0	15
Kunzea pomifera		31	0	0	2	0	0	0	33
Lasiopetalum baueri		12	1	1	0	0	2	15	31
Lasiopetalum behrii		5	3	0	0	1	3	28	40
Lasiopetalum discolor		0	0	3	0	0	2	9	14
Lasiopetalum schulzenii		2	0	2	0	0	1	0	5
Lawrencia squamata		0	2	0	0	2	0	1	5
Laxmannia sessiflora		3	0	0	0	0	0	0	3
Lepidium leptopetalum		0	2	0	0	0	0	0	2
Lepidobolus drapetocoleus		31	0	0	1	0	0	0	32
Lepidosperma canescens		0	0	4	0	0	0	0	4
Lepidosperma carphoides		64	2	2	5	0	0	8	81
Lepidosperma gladiatum		3	0	0	0	0	1	1	5
Lepidosperma laterale		82	13	9	10	4	11	45	174
Lepidosperma longitudinale		6	0	0	0	0	0	0	6
Lepidosperma semiteres		1	0	6	15	0	0	2	24
Lepidosperma viscidum		8	1	7	3	0	1	1	21
Leptocarpus brownii		9	0	0	0	0	0	1	10
Leptocarpus tenax		4	0	0	0	0	1	2	7
Leptomeria aphylla		0	0	2	0	0	0	0	2

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL
Leptomeria preissiana		0	0	0	0	0	0	1	1
Leptospermum coriaceum		24	20	0	3	0	1	26	74
Leptospermum lanigerum		2	0	0	0	0	0	0	2
Leptospermum myrsinoides		50	0	2	14	0	0	0	66
Leptospermum sp.nov. aff. juniperinum		14	0	3	0	0	0	0	17
Leucopogon clelandii		2	0	0	1	0	0	0	3
Leucopogon concurvus		0	0	7	1	0	0	0	8
Leucopogon cordifolius		3	0	0	0	0	1	13	17
Leucopogon costatus		5	0	3	0	0	0	0	8
Leucopogon ericoides		8	0	0	0	0	0	0	8
Leucopogon parviflorus		20	0	1	0	0	3	8	32
Leucopogon rufus		6	0	6	0	0	0	0	12
Leucopogon virgatus		15	0	0	3	0	0	0	18
Leucopogon woodsii		3	0	0	0	0	0	2	5
Lissanthe strigosa		0	0	1	0	0	0	4	5
Logania crassifolia		0	0	1	0	0	0	2	3
Logania linifolia		3	0	0	0	0	0	0	3
Logania nuda		0	0	0	0	0	0	2	2
Logania ovata		0	0	5	0	0	1	0	6
Logania recurva		0	0	0	1	0	0	0	1
Logania sp.B		0	0	0	1	1	0	0	2
Lomandra dura		0	0	0	7	8	0	0	15
Lomandra effusa		4	5	0	4	0	6	18	37
Lomandra fibrata		0	0	0	1	6	0	0	7
Lomandra glauca ssp. collina		17	5	0	1	0	2	19	44
Lomandra glauca ssp. nana		3	0	0	0	0	0	0	3
Lomandra juncea		10	7	1	3	0	0	2	23
Lomandra leucocephala		9	7	0	0	0	0	18	34
Lomandra longifolia		3	0	0	0	0	0	0	3
Lomandra micrantha		8	0	0	1	0	0	3	12
Lomandra multiflora ssp. multiflora		1	0	0	0	0	0	0	1
Lotus australis		0	0	0	0	0	0	1	1
Luzula densiflora		0	0	0	0	1	0	0	1
Luzula meridionalis?		2	0	0	0	0	0	0	2
Lycium australe		0	2	0	1	2	0	1	6
Lycopus australis		0	1	0	0	0	0	0	1
Maireana apressa		0	8	0	2	1	0	11	22
Maireana brevifolia		0	19	0	5	11	0	2	37
Maireana erioclada/pentatropis		0	34	0	5	0	0	36	75
Maireana oppositifolia		0	1	0	3	2	1	1	8
Maireana pyramidata		0	3	0	0	5	0	0	8
Maireana sedifolia		0	6	0	0	5	0	0	11
Maireana suaedifolia		0	0	0	0	0	0	3	3
Maireana trichoptera		0	0	0	1	1	0	0	2
Maireana turbinata		0	1	0	0	3	0	0	4
Marsilea drummondii		0	0	0	0	1	0	0	1

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL
Melaleuca acuminata		6	24	2	7	0	4	30	73
Melaleuca brevifolia		13	0	1	0	2	0	3	19
Melaleuca decussata		0	0	1	0	0	0	5	6
Melaleuca eleutherostachya		0	0	0	0	0	0	14	14
Melaleuca gibbosa		1	0	6	0	0	0	0	7
Melaleuca halmaturorum		7	0	0	0	0	1	7	15
Melaleuca lanceolata		18	36	5	5	5	16	95	180
Melaleuca pauperiflora		0	0	0	0	1	0	41	42
Melaleuca uncinata		18	20	8	5	0	8	87	146
Melaleuca wilsonii		3	0	0	0	0	2	0	5
Micrantheum demissum		0	0	9	0	0	0	0	9
Microcybe multiflora ssp. baccharoides		0	0	0	0	0	0	1	1
Microcybe multiflora ssp. multiflora		0	0	0	0	0	0	9	9
Microcybe pauciflora		0	1	0	0	0	0	2	3
Mimulus repens		0	1	0	0	0	0	0	1
Monotoca scoparia		0	0	0	0	0	0	0	0
Muehlenbeckia adpressa		14	0	0	1	0	1	2	18
Muehlenbeckia cunninghamii		1	4	0	0	0	0	0	5
Muehlenbeckia gunnii		5	0	0	0	2	5	9	21
Myoporum insulare		0	0	0	0	1	2	0	3
Myoporum parvifolium		0	0	0	0	0	1	0	1
Myoporum platycarpum		0	12	0	0	2	1	5	20
Nitraria billardierei		0	3	0	0	2	2	3	10
Olearia adenolasia		0	0	0	0	0	0	1	1
Olearia axillaris		12	0	0	1	0	3	13	29
Olearia calcarea		0	0	0	0	0	0	1	1
Olearia ciliata		3	0	2	1	0	0	4	10
Olearia decurrens		0	0	0	1	2	0	7	10
Olearia floribunda		0	0	1	0	1	0	4	6
Olearia lanuginosa		0	0	0	0	0	0	1	1
Olearia lepidophylla		1	2	0	0	0	0	4	7
Olearia magniflora		0	3	0	0	0	0	8	11
Olearia muelleri		0	7	0	2	5	0	36	50
Olearia passerinoides		0	0	0	0	0	0	4	4
Olearia picridifolia		0	0	0	0	0	0	0	0
Olearia pimeleoides		0	1	0	1	4	0	2	8
Olearia ramulosa		3	0	1	11	0	2	11	28
Olearia teretifolia		0	0	1	0	0	0	0	1
Osteocarpum saluginosum		0	1	0	0	0	0	0	1
Pachycornia triandra		0	2	0	0	0	0	0	2
Patersonia fragilis		0	0	2	0	0	0	0	2
Persoonia juniperina		8	0	0	1	0	0	1	10
Petrophile multisecta		0	0	17	0	0	0	0	17
Phebalium brachyphyllum		1	0	0	0	0	0	1	2
Phebalium bullatum		1	3	0	1	0	0	22	27
Phragmites australis		0	1	0	0	0	0	0	1

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL
Phyllanthus australis		0	0	1	0	0	0	0	1
Phyllota pleurandroides		34	0	7	0	0	0	0	41
Phyllota remota		4	8	0	1	0	1	11	25
Pimelea curviflora		0	1	0	0	0	1	0	2
Pimelea flava		4	1	0	0	0	12	20	37
Pimelea glauca		8	0	0	1	0	3	3	15
Pimelea linifolia		1	0	0	0	0	0	0	1
Pimelea microcephala		0	2	0	0	2	0	3	7
Pimelea octophylla		6	0	2	1	0	1	0	10
Pimelea phylicoides		0	0	0	0	0	0	1	1
Pimelea stricta		1	0	1	4	2	0	3	11
Pittosporum phylliraeoides		1	7	0	6	9	9	38	70
Platylobium obtusangulum		0	0	6	13	0	0	0	19
Platysace heterophylla		0	0	0	0	0	0	1	1
Podolepis capillaris		0	9	0	0	0	0	16	25
Podolepis rugata		0	2	0	0	0	0	0	2
Polygonum lapathifolium		0	1	0	0	0	0	0	1
Polygonum prostratum		7	0	0	0	0	1	0	8
Pomaderris flabellaris		0	0	0	0	0	0	2	2
Pomaderris obcordata		4	0	3	1	0	2	5	15
Pomaderris oraria		3	1	0	0	0	2	6	12
Pomax umbellata		0	0	0	0	1	0	0	1
Pratia platycalyx		0	2	0	0	0	0	0	2
Prostanthera aspalathoides		0	2	0	0	0	0	4	6
Prostanthera behriana		0	0	0	1	1	0	0	2
Prostanthera calycina?		0	0	0	0	0	0	3	3
Prostanthera chlorantha		0	0	1	0	0	0	0	1
Prostanthera serpyllifolia		0	1	1	0	0	0	8	10
Prostanthera spinosa		0	0	4	0	0	0	2	6
Prostanthera striatiflora		0	0	0	0	1	0	0	1
Pteridium esculentum		40	0	0	6	0	0	0	46
Ptilotus obovatus		0	0	0	0	2	0	1	3
Ptilotus seminudus		0	0	0	0	1	0	0	1
Ptilotus spathulatus		0	6	0	0	4	0	3	13
Pultenaea acerosa		2	0	3	0	0	0	1	6
Pultenaea canaliculata		0	0	3	1	0	0	0	4
Pultenaea daphnoides		0	0	1	4	0	0	0	5
Pultenaea densifolia		3	3	0	0	0	0	3	9
Pultenaea elachista		0	0	0	0	0	0	2	2
Pultenaea hispidula		1	0	0	0	0	0	0	1
Pultenaea involucrata		0	0	0	2	0	0	0	2
Pultenaea largiflorens		0	0	0	3	3	0	0	6
Pultenaea pedunculata		1	0	0	0	0	0	1	2
Pultenaea prostrata		9	0	0	0	0	0	3	12
Pultenaea stricta		2	0	0	0	0	0	0	2
Pultenaea tenuifolia		10	1	0	0	0	0	6	17

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL
Pultenaea teretifolia		0	0	0	0	0	0	2	2
Pultenaea trichophylla		0	0	0	0	0	0	1	1
Pultenaea trifida		0	0	1	0	0	0	0	1
Pultenaea trinervis		0	0	0	0	0	0	2	2
Pultenaea vestita		0	0	1	0	0	0	0	1
Rhagodia candolleana		0	0	0	0	0	4	10	14
Rhagodia crassifolia		0	7	0	2	2	1	42	54
Rhagodia parabolica		0	6	0	2	19	2	7	36
Rhagodia preissii		0	8	0	7	3	2	27	47
Rhagodia spinescens var. deltaphylla		0	10	0	0	4	0	6	20
Rhagodia spinescens var. spinescens		0	6	0	0	1	0	0	7
Rhagodia ulicina		0	5	0	1	2	0	2	10
Rutidosis helichrysoides		0	1	0	0	0	0	1	2
Samolus repens		0	1	0	0	0	0	1	2
Santalum acuminatum		0	2	0	3	2	1	15	23
Santalum murrayanum		1	4	0	2	0	0	38	45
Sarcocornia blackiana/quinqueflora		2	1	0	0	1	0	2	6
Scaevola aemula		1	0	0	2	1	0	0	4
Scaevola albida		1	0	0	1	0	0	0	2
Scaevola angustata		0	0	1	0	0	0	2	3
Scaevola humilis		0	0	0	0	0	0	1	1
Scaevola linearis		0	0	2	0	0	0	0	2
Scaevola spinescens		0	3	0	0	1	1	14	19
Schoenoplectus litoralis		0	1	0	0	0	0	0	1
Schoenus apogon?		4	0	0	0	0	0	0	4
Schoenus deformis		61	1	3	2	0	6	13	86
Schoenus racemosus		0	0	0	0	0	0	9	9
Schoenus subaphyllus		0	6	0	0	0	0	12	18
Schoenus tesquorum		0	0	0	0	1	0	0	1
Sclerochlamys brachyptera		0	2	0	0	3	0	0	5
Sclerolaena deserticola		0	0	0	0	1	0	0	1
Sclerolaena diacantha		0	56	0	8	20	1	39	124
Sclerolaena muricata		0	1	0	0	0	0	0	1
Sclerolaena parviflora		0	5	0	0	0	0	3	8
Sclerolaena tricuspis		0	1	0	0	1	0	0	2
Sclerolaena uniflora		0	6	0	0	2	0	0	8
Sclerostegia arbuscula		0	0	0	2	3	1	0	6
Selliera radicans		0	0	0	0	0	0	0	0
Senecio anethifolius		0	0	0	0	2	0	0	2
Sida calyxhymenia		0	0	0	0	2	0	0	2
Sida corrugata		0	2	0	0	2	0	0	4
Solanum simile		0	0	0	0	0	0	0	0
Sphaerolobium vimineum		2	0	0	0	0	0	0	2
Spyridium bifidum var. bifidum		0	0	0	0	0	0	4	4
Spyridium bifidum var. integrifolium		0	0	2	0	0	0	0	2
Spyridium eriocephalum		0	0	0	0	0	0	3	3

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL
Spyridium halmaturinum var. halmaturinur		0	0	2	0	0	0	0	2
Spyridium nitidum		0	1	0	0	0	0	0	1
Spyridium parvifolium		0	0	0	2	1	0	1	4
Spyridium phylicoides		3	0	1	0	0	4	10	18
Spyridium subochreatum		22	1	0	1	0	0	5	29
Spyridium thymifolium		0	0	0	3	0	0	0	3
Spyridium vexilliferum		1	0	2	1	0	0	1	5
Stackhousia aspericocca		0	0	0	0	1	0	0	1
Stackhousia monogyna		4	0	2	4	4	0	3	17
Stylidium graminifolium		1	0	0	1	0	0	0	2
Styphelia adscendens		2	0	0	0	0	0	0	2
Styphelia exarrhena		8	0	1	0	0	0	0	9
Suaeda australis		0	0	0	0	1	1	0	2
Swainsona swainsonioides		2	0	0	0	0	0	0	2
Templetonia battii		0	0	0	0	0	0	1	1
Templetonia egena		0	0	0	0	2	0	2	4
Templetonia retusa		0	0	1	0	1	4	10	16
Templetonia sulcata		0	0	0	0	0	0	2	2
Tetraria capillaris		0	0	0	0	0	0	0	0
Tetratheca ciliata		9	0	0	1	0	0	0	10
Tetratheca halmaturina		0	0	10	0	0	0	0	10
Tetratheca insularis		0	0	2	0	0	0	0	2
Tetratheca pilosa		0	0	0	8	0	0	0	8
Themeda triandra		0	0	0	0	0	0	0	0
Thomasia petalocalyx		14	0	1	2	0	0	0	17
Threlkeldia diffusa		0	1	0	0	3	7	34	45
Thryptomene ericaea		0	0	1	0	0	0	10	11
Thryptomene micrantha		0	0	0	0	0	0	17	17
Triglochin procerum		0	1	0	0	0	0	0	1
Triodia irritans		13	32	0	1	7	0	88	141
Trymalium wayi		0	0	1	1	3	0	0	5
Typha domingensis		0	1	0	0	0	0	0	1
Velleia arguta		0	0	0	0	1	0	0	1
Velleia connata		0	0	0	0	0	0	1	1
Velleia paradoxa		0	0	0	0	1	0	0	1
Verticordia wilhelmii		0	0	0	0	0	1	10	11
Villarsia reniformis		3	0	0	0	0	0	0	3
Viola hederacea		13	0	2	0	0	0	0	15
Westringia eremicola		0	0	1	0	0	0	0	1
Westringia rigida		0	9	0	1	4	1	44	59
Wilsonia backhousei		0	0	0	0	0	0	0	0
Xanthorrhoea caespitosa/australis		83	0	0	0	0	0	0	83
Xanthorrhoea quadrangulata		6	0	0	3	3	0	0	12
Xanthorrhoea semiplana ssp. semiplana		0	0	14	20	0	0	5	39
Xanthorrhoea semiplana ssp. tateana		0	0	3	0	0	0	1	4
Xanthosia dissecta		0	0	0	0	0	0	0	0

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL
Xanthosia pusilla		0	0	0	0	0	0	0	0
Zygophyllum apiculatum		0	41	0	2	7	0	16	66
Zygophyllum aurantiacum		0	16	0	5	7	1	24	53
Zygophyllum billardieri (sensu eremaeo)		0	0	0	1	1	0	0	2
Zygophyllum billardieri (sensu stricto)		0	0	0	0	0	0	3	3
Zygophyllum glaucum		0	3	0	0	1	0	12	16
NATIVE ANNUALS, BIENNIALS, MISTLETOES, etc.									
#Acacia paradoxa		3	0	2	17	1	1	3	27
#Acaena agnipila		0	0	0	5	4	0	3	12
#Actinoble uliginosum		0	5	0	0	0	0	0	5
#Alternanthera nodiflora		0	1	0	0	0	0	0	1
#Amyema melaleucae		2	0	0	0	0	1	6	9
#Amyema preissii		0	0	0	0	0	0	0	0
#Amyema quandang		0	0	0	0	1	0	0	1
#Angianthus tomentosus		0	3	0	0	0	0	1	4
#Arthropodium strictum		6	0	0	6	10	0	0	22
#Brachycome ciliaris		0	0	0	3	3	0	0	6
#Brachycome lineariloba		0	11	0	1	0	0	1	13
#Bulbine bulbosus		3	0	0	6	5	0	0	14
#Burchardia umbellata		8	0	0	4	0	0	1	13
#Caesia vittata		0	0	0	4	1	1	4	10
#Centipeda cunninghamii		0	1	0	0	0	0	0	1
#Chamaescilla corymbosa		0	0	1	4	0	1	0	6
#Craspedia globosa		0	0	0	0	1	0	0	1
#Craspedia uniflora		6	0	0	0	2	0	0	8
#Crassula colorata		0	19	0	4	4	0	18	45
#Danthonia spp.		0	31	0	3	8	1	25	68
#Drosera auriculata/peltata		13	0	2	1	2	0	1	19
#Drosera glanduligera		3	0	0	1	0	0	0	4
#Drosera macrantha		8	0	0	1	0	8	7	24
#Drosera pygmaea		0	0	0	0	0	0	0	0
#Drosera whittakeri		8	1	0	3	0	0	0	12
#Euphorbia drummondii		0	1	0	0	2	0	0	3
#Helichrysum apiculatum		0	0	0	3	0	0	1	4
#Helichrysum baxteri		0	0	0	1	0	0	0	1
#Helichrysum leucopsideum		0	0	0	0	0	3	0	3
#Helichrysum obtusifolium		7	0	0	0	0	0	0	7
#Helichrysum semipapposum		0	0	0	0	2	0	2	4
#Helipterum floribundum		0	0	0	0	2	0	0	2
#Helipterum jessenii		0	0	0	1	0	0	0	1
#Helipterum stipitatum?		0	1	0	0	0	0	0	1
#Hydrocotyle laxiflora		0	0	0	2	3	0	0	5
#Ixodia achillaeoides ssp. achillaeoides		0	0	1	0	0	0	0	1
#Ixodia achillaeoides ssp. alata		1	0	0	3	0	0	0	4

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL
#*Lagenifera huegelii*		0	0	0	0	1	0	0	1
#*Leptorhynchus squamatus*		0	0	0	0	2	0	0	2
#*Leptorhynchus tetrachaetus*		0	0	0	0	1	0	0	1
#*Lobelia gibbosa*		0	1	0	3	0	0	0	4
#*Lysiana exocarpi*		0	1	0	0	0	0	0	1
#*Microseris lanceolata*		0	0	0	0	3	0	0	3
#*Millotia tenuifolia*		0	0	0	2	0	0	0	2
#*Nicotiana glauca*		0	0	0	0	0	1	0	1
#*Opercularia turpis*		2	0	0	2	0	3	5	12
#*Oxalis corniculata*		7	1	0	10	4	0	3	25
#*Pelargonium rodneyanum*		0	0	0	1	2	4	0	7
#*Plantago turrifera*		0	2	0	0	0	0	0	2
#*Pseudognaphalium luteo-album*		0	1	0	0	0	0	0	1
#*Salsola kali*		0	19	0	0	2	0	1	22
#*Sclerolaena obliquicuspis*		0	22	0	2	11	0	10	45
#*Sclerolaena patenticuspis*		0	0	0	1	2	0	0	3
#*Senecio lautus*		1	26	0	0	2	3	8	40
#*Senecio quadridentatus*		0	0	0	0	2	0	0	2
#*Solanum nigrum*		0	1	0	0	0	0	0	1
#*Stipa spp.*		0	55	1	22	39	13	58	188
#*Stylidium calcaratum*		0	0	0	1	0	0	0	1
#*Tetragonia tetragonioides*		0	0	0	0	1	0	0	1
#*Teucrium sessiliflorum*		0	0	0	1	0	0	0	1
#*Thysanotus juncifolius*		1	0	4	0	0	0	2	7
#*Thysanotus patersonii*		0	1	1	2	1	1	4	10
#*Tricoryne elatior*		6	3	0	3	0	0	3	15
#*Urticularia dichotoma*		1	0	0	0	0	0	0	1
#*Veronica hillebrandii*		0	0	2	0	0	0	0	2
#*Veronica plebeia*		0	0	1	1	0	0	0	2
#*Vittadinia dissecta/gracilis*		0	14	0	3	7	0	6	30
#*Wahlenbergia gracilenta*		3	0	0	0	0	0	0	3
#*Wahlenbergia luteola*		0	0	0	2	0	0	0	2
#*Wahlenbergia stricta*		0	0	0	0	4	0	0	4
#*Wurmbea dioica*		0	0	1	0	0	3	0	4
#*Zygophyllum ovatum*		0	10	0	1	0	0	2	13
INTRODUCED SPECIES									
**Acacia baileyana*		1	0	0	0	0	0	1	2
**Ammophila arenaria*		0	0	0	0	0	1	1	2
**Anagallis arvensis*		0	0	0	1	3	1	0	5
**Asclepias rotundifolia*		2	0	0	1	0	0	0	3
**Asphodelus fistulosus*		3	0	0	0	2	3	1	9
**Aster subulatus*		0	2	0	0	0	0	0	2
**Cakile maritima*		0	0	0	0	0	1	0	1
**Cannabis sativa*		0	1	0	0	0	0	0	1

SPECIES	REGION:	SE	MU	KI	SL	NL	YP	EP	TOTAL
**Carpobrotus aequilaterus*		3	4	0	2	0	0	5	14
**Carrichtera annua*		0	5	0	2	6	0	5	18
**Centaurea lanatus*		0	2	0	0	0	0	0	2
**Centaurea melitensis?*		0	1	0	0	0	0	0	1
**Chrysanthemoides monilifera*		0	0	0	3	0	0	1	4
**Diplotaxis tenuifolia*		0	24	0	3	19	1	2	49
**Echium plantagineum*		1	0	0	0	1	0	0	2
**Emex australis*		0	0	0	0	1	0	0	1
**Genista monspessulana*		0	0	0	1	1	0	0	2
**Heliotropium curassavicum*		0	1	0	0	0	0	0	1
**Heliotropium supinum*		0	1	0	0	0	0	0	1
**Homeria flaccida*		0	0	0	0	1	0	0	1
**Hydrocotyle bonariensis*		0	1	0	0	0	0	0	1
**Lavandula stoechas*		0	0	0	0	1	0	0	1
**Lepidium africanum*		0	1	0	0	0	1	0	2
**Limonium binervosum/companyonis*		0	0	0	0	0	2	1	3
**Lycium ferrocissimum*		4	5	0	4	11	10	3	37
**Marrubium vulgare*		0	0	0	1	3	1	0	5
**Mesembryanthemum crystallinum*		0	12	0	0	0	0	3	15
**Mesembryanthemum nodiflorum*		0	0	0	0	6	0	1	7
**Myrsiphyllum asparagoides*		22	3	0	4	0	5	9	43
**Oenothera stricta*		1	0	0	0	0	0	0	1
**Olea europaea*		1	0	0	2	0	0	0	3
**Oxalis pes-caprae*		0	0	0	0	2	2	0	4
**Paspalum distichum*		0	3	0	0	0	0	0	3
**Pinus radiata*		5	0	0	0	1	0	0	6
**Psilocaulon tenue*		0	3	0	0	0	0	0	3
**Ranunculus muricatus*		0	0	0	0	1	0	0	1
**Schinus areira*		0	0	0	0	0	0	0	0
**Schismus barbatus*		0	5	0	1	1	0	0	7
**Senecio pterophorus*		2	0	0	2	0	0	5	9
**Ulex europaeus*		0	0	0	2	0	0	0	2
**Xanthium californicum*		0	1	0	0	0	0	0	1

Appendix 3.
CHARACTERISATION OF THE COMPLEXES DEFINED BY THE FULL VEGETATION CLASSIFICATION.

The complexes defined by the classification dendrogram in Figure 6.1 are informally described in terms of species composition, habitat and distribution. Characteristic species were identified using phytosociological data table rearrangement in the manner of the Zurich – Montpellier school (NTP option TWAY; Belbin *et al.* 1984). Habitat description (geology, soils and climate) is based on non-statistical examination of the environmental data, and on general field notes and observations.

1. EUCALYPTUS BAXTERI – PTERIDIUM ESCULENTUM COMPLEX (44 sites; 7 types)

Structural Formation: Woodland or open forest

Characteristic Species: *P. esculentum* and/or *Leptospermum* sp. nov. aff. *juniperinum*

Other Common Species: *E. baxteri, E. camaldulensis, E. fasciculosa, E. obliqua, E. ovata* and/or *E. viminalis* ssp. *cygnetensis* (overstorey, variable from type to type); *Acacia melanoxylon, Astroloma conostephioides, Banksia ornata, Xanthorrhoea australis, X. quadrangulata* (understorey).

Distribution: Southeast (southern third); Southern Mt Lofty Ranges (Inman Valley district).

Habitat: Well-drained, acidic, siliceous sands; or, less often, sand over clay around swamps which are waterlogged for a few weeks per year; rainfall > 600 mm p.a.

Notes: Unified by the dominance of *P. esculentum* in the understorey; overstorey variable in floristic composition, but structurally uniform.

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2. BANKSIA ORNATA – ALLOCASUARINA PUSILLA COMPLEX (62 sites; 8 types)

Structural Formation: Heathland, or open mallee scrub or woodland (to 4 m).

Characteristic Species: *A. pusilla, B. ornata, Leptospermum myrsinoides, Phyllota pleurandroides.*

Other Common Species: *Eucalyptus baxteri, E. remota* (overstorey); *A. muelleriana, Astroloma conostephioides, Correa reflexa, Eucalyptus baxteri, Hypolaena fastigiata, Lepidobolus drapetocoleus, Xanthorrhoea caespitosa* (understorey).

Distribution: Southeast (northern two-thirds); Kangaroo Island (western half); Southern Mt Lofty Ranges (Fleurieu Peninsula).

Habitat: Siliceous sands, or sands over alkaline sandy clays; sometimes yellow, strongly podsolised, heavy clays, then usually with laterite; rainfall 400–600 mm p.a.

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3. XANTHORRHOEA CAESPITOSA COMPLEX (4 sites; 3 types)

Structural Formation: Heathland, or low open woodland (to 4 m).

Characteristic Species: *X. caespitosa* (understorey).

Other Common Species: *Allocasuarina verticillata, Banksia marginata* (overstorey); *Acacia pycnantha, Kunzea pomifera, Lepidosperma laterale, Lomandra effusa* (understorey).

Distribution: Southeast (Narrung and Meningie districts in the northwest corner).

Habitat: Low-lying plains of siliceous sands; shallow sandy soils over Bridgewater calcrete; rainfall 400-450 mm p.a.

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4. JUNCUS PALLIDUS COMPLEX (2 sites; 1 type)

Structural Formation: Wet heathland.

Characteristic Species: *J. pallidus*

Other Common Species: *Allocasuarina muelleriana, Banksia marginata, Gahnia trifida/filum, Xanthorrhoea australis*; scattered trees of *Eucalyptus ovata* or *E. viminalis* ssp. *cygnetensis.*

Distribution: Southeast (Mt Burr and Callendale districts only).
Habitat: Low-lying, seasonally water-logged areas of siliceous sand over podsolic clays; rainfall 700 mm p.a.

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5. EUCALYPTUS OBLIQUA – E. FASCICULOSA COMPLEX (16 sites; 4 types)
Structural Formation: Sclerophyllous woodland or open forest (to 10 m).
Characteristic Species: *Astroloma conostephioides, Lepidosperma semiteres, Leptospermum myrsinoides, X. semiplana* (understorey).
Other Common Species: *E. baxteri, E. fasciculosa, E. goniocalyx* and/or *E. obliqua* (overstorey); *Hibbertia riparia, Platylobium obtusangulum, Pteridium esculentum, Tetratheca pilosa* (understorey).
Distribution: Southern Mt Lofty Ranges (highest rainfall districts).
Habitat: Strongly podsolised soils: yellow duplex clays and siliceous sands; rainfall 700–1100 mm p.a.

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6. EUCALYPTUS CNEORIFOLIA COMPLEX (9 sites; 4 types)
Structural Formation: Mallee scrub.
Characteristic Species: *E. cneorifolia* or *E. cosmophylla* (overstorey); *Allocasuarina muelleriana, A. striata* and *Melaleuca uncinata* (understorey).
Other Common Species: *Astroloma conostephioides, Correa reflexa, Hibbertia riparia, Petrophile multisecta , Xanthorrhoea semiplana.*
Distribution: Kangaroo Island (eastern half); Southern Mt Lofty Ranges (one site on Fleurieu Peninsula).
Habitat: Loams and clay loams; sands with gravelly laterite; rainfall 500–700 mm p.a.
Notes: *E. cosmophylla – A. muelleriana* Type lies floristically (see Figure 4.9), environmentally and geographically between the E. CNEORIFOLIA and B. ORNATA – A. PUSILLA complexes.

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7. LEUCOPOGON PARVIFLORUS – OLEARIA AXILLARIS COMPLEX (11 sites; 4 types)
Structural Formation: Low scrub or heathland (to 3 m).
Characteristic Species: *Acacia longifolia, Clematis microphylla, Isolepis nodosus, L. parviflorus, Olearia axillaris.*
Other Common Species: *Carpobrotus rossii, Lepidospermum gladiatum, Muehlenbeckia adpressa, Pimelea flava.*
Distribution: Southeast; Eyre Peninsula.
Habitat: Calcareous coastal sands of the Semaphore Formation.

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8. ACACIA PYCNANTHA COMPLEX (3 sites; 1 type)
Structural Formation: Low woodland (to 5 m).
Characteristic Species: *Acacia pycnantha* (overstorey); understorey of pasture grasses and weeds.
Other Common Species: *Eucalyptus leucoxylon, E. odorata* (overstorey).
Distribution: Southeast (Robe – Millicent district).
Habitat: On rendzina soils over Bridgewater calcrete; rainfall 650–750 mm p.a.

9. MELALEUCA LANCEOLATA – OLEARIA AXILLARIS COMPLEX (21 sites; 5 types)

Structural Formation: Shrubland (0.25 to 3 m).

Characteristic Species: *Carpobrotus rossii, Melaleuca lanceolata, Olearia axillaris* and/or *Rhagodia candolleana.*

Other Common Species: *Acacia anceps, Atriplex paludosa, Beyeria lechenaultii, Callitris preissii, Isolepis nodosus, Muehlenbeckia gunnii, Templetonia retusa, Threlkeldia diffusa.*

Distribution: Yorke and Eyre Peninsulas (coastal strip).

Habitat: Semaphore Formation unconsolidated calcareous sands, often superimposed over Bridgewater calcrete on coastal clifftops, and exposed to sea winds and saltspray.

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10. EUCALYPTUS DIVERSIFOLIA COMPLEX (50 sites; 11 types)

Structural Formation: Low mallee scrub (to 4 m).

Characteristic Species: *E. diversifolia* (overstorey).

Other Common Species: *E. conglobata, E. rugosa* (overstorey); *Acrotriche cordata, A. patula, Dodonaea hexandra, Gahnia deusta, G. lanigera, Lasiopetalum baueri, L. behrii, L. discolor, Melaleuca lanceolata, Pomaderris obcordata, Xanthorrhoea caespitosa* (understorey).

Distribution: Southeast; Kangaroo Island; Yorke Peninsula; Eyre Peninsula.

Habitat: Consolidated limestone of the Bridgewater formation, usually in subcoastal areas; rainfall 400–600 mm.

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11. EUCALYPTUS INCRASSATA – E. FOECUNDA COMPLEX (137 sites; 25 types)

Structural Formation: Mallee scrub (to 5 m).

Characteristic Species: *E. foecunda, E. incrassata* and/or *E. socialis* (overstorey); *Melaleuca uncinata* and/or *Triodia irritans* (understorey).

Other Common Species: *E. dumosa, E. flocktoniae, E. yumbarrana* (overstorey); *Acacia spinescens, Calytrix involucrata, Correa reflexa, Dodonaea bursariifolia, E. cladocalyx, E. yumbarrana, Glischrocaryon behrii/aureum, Leptospermum coriaceum, Leucopogon cordifolius, Lomandra leucocephala, M. acuminata, M. eleutherostachya, M. lanceolata, Podolepis capillaris, Santalum murrayanum.*

Distribution: Southeast (northern third); Murray Mallee; Southern and Northern Mt Lofty Ranges (uncommon); Yorke Peninsula (northern half); Eyre Peninsula.

Habitat: Deep acidic to weakly alkaline, siliceous sands, especially in dunefields; also, in the southern areas, on acidic to weakly alkaline, red or orange clays, sandy clays or sand over clay, sometimes with nodular laterite; also on terra rossa soils over Bridgewater / Bakara calcrete, particularly the more inland areas; rainfall 225–500 mm p.a.; on heavier textured soils at high rainfall.

Notes: There are three subcomplexes determined by understorey composition: (a) *M. uncinata*; (b) *Triodia irritans*; and (c) *M. uncinata* with calciphilic subshrubs.

12. EUCALYPTUS DUMOSA COMPLEX (33 sites; 8 types)

Structural Formation: Mallee scrub (to 5 m).
Characteristic Species: *E. dumosa* (overstorey).
Other Common Species: *E. calycogona, E. rugosa, E. socialis* (overstorey); *Lasiopetalum behrii, Melaleuca lanceolata, M. uncinata, Triodia irritans* (understorey).
Distribution: Southeast (northern extremes); Murray Mallee (south and southwest); Eyre Peninsula (central and west parts).
Habitat: On terra rossa soil over Bakara calcrete or weakly alkaline red-brown clay-loams; rainfall 350–500 mm p.a.

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13. GAHNIA TRIFIDA/FILUM COMPLEX (7 sites; 2 types)

Structural Formation: Tussock grassland (to 1.5 m).
Characteristic Species: *G. trifida* and/or *G. filum.*
Other Common Species: None.
Distribution: Southeast (southern half); Yorke Peninsula (southern half).
Habitat: Seasonally-inundated interdune corridors or depressions on chernozem soils; rainfall 450–700 mm p.a.
Notes: Includes a single site dominated by *Leptospermum pubescens.*

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14. MELALEUCA HALMATURORUM COMPLEX (6 sites; 1 type)

Structural Formation: Tall scrub (to 5 m).
Characteristic Species: *M. halmaturorum* (overstorey).
Other Common Species: *M. brevifolia, Sarcocornia* spp., *Tetraria capillaris, Wilsonia backhousei* (understorey).
Distribution: Southeast (western half); Eyre Peninsula (southern parts).
Habitat: Very saline, grey, heavy clays in seasonally-inundated interdune corridors or depressions; rainfall 450–600 mm p.a.

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15. MELALEUCA BREVIFOLIA COMPLEX (11 sites; 3 types)

Structural Formation: Heathland (to 1.5 m).
Characteristic Species: *M. brevifolia.*
Other Common Species: *Baumea juncea, Darwinia micropetala, Gahnia trifida/filum, Leptocarpos brownii.*
Distribution: Southeast (northwest quadrant); Eyre Peninsula (southern parts).
Habitat: Grey, saline, heavy clays in seasonally-inundated interdune corridors or depressions; rainfall 450–600 mm p.a.

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16. JUNCUS KRAUSSII COMPLEX (1 site; 1 type)

Structural Formation: Tall sedgeland (to 2 m).
Characteristic Species: *J. kraussii.*
Other Common Species: *Leptocarpos brownii, Samolus repens.*
Distribution: Eyre Peninsula (Baird Bay).
Habitat: Tidal flats protected from wave action; pale grey, shelly clay; rainfall

350–400 mm p.a.

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17. EUCALYPTUS OLEOSA – E. GRACILIS COMPLEX (150 sites; 21 types)

Structural Formation: Mallee scrub or low woodland (to 8 m).

Characteristic Species: *E. oleosa* and/or *E. gracilis* (overstorey).

Other Common Species: *E. brachycalyx, E. dumosa* (overstorey); *Acacia merrallii, Enchylaena tomentosa, Eremophila weldii, Exocarpos aphyllus, Geijera linearifolia, Maireana erioclada, Melaleuca pauperiflora, Olearia muelleri, Sclerolaena diacantha* (understorey).

Distribution: Murray Mallee; Southern and Northern Mt Lofty Ranges (mainly off the ranges); Yorke Peninsula (northern half); Eyre Peninsula (except southern extremes).

Habitat: Woorinen Formation soils with calcrete nodules; less often on hard-setting red-brown clay-loams, low dunes of calcareous sand, calcareous sand over Bakara calcrete or low dunes of siliceous sand; rainfall < 400 mm p.a.

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18. EUCALYPTUS SOCIALIS COMPLEX (48 sites; 8 types)

Structural Formation: Mallee scrub (to 5 m).

Characteristic Species: *E. socialis* (overstorey).

Other Common Species: *E. brachycalyx, E. dumosa, E. gracilis, E. rugosa* (overstorey); *Maireana erioclada, Melaleuca acuminata, M. lanceolata, Olearia muelleri, Podolepis capillaris, Rhagodia parabolica, Triodia irritans, Zygophyllum ovatum* (understorey, which is often sparse).

Distribution: Murray Mallee; Southern Mt Lofty Ranges (northwest quadrant); Northern Mt Lofty Ranges (drier parts of ranges); Eyre Peninsula.

Habitat: On alkaline red-earth clay-loams, terra rossa soils over Bakara calcrete, slightly alkaline siliceous sand dunes; rarely on Woorinen Formation soil with nodular calcrete; rainfall 225–400 mm p.a.; on heavier textured soil at high rainfall and deep sands at low rainfall.

Notes: There are three subcomplexes: (a) with *M. uncinata* understorey; (b) with *T. irritans* understorey (including *E. cyanophylla* types); and (c) with chenopod understorey (*E. gracilis* then often present).

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19. CALLITRIS PREISSII COMPLEX (8 sites; 4 types)

Structural Formation: Open savannah woodland (to 10 m), rarely mallee scrub.

Characteristic Species: *C. preissii*

Other Common Species: *Acacia brachybotrya, Alyxia buxifolia, Eucalyptus dumosa, E. gracilis, E. odorata, Gahnia lanigera, Lomandra effusa.*

Distribution: Murray Mallee (southwest quadrant); Southern Mt Lofty Ranges (off the ranges); Yorke Peninsula.

Habitat: On rendzina soils over Bakara calcrete; red-earth clay-loams and weakly alkaline siliceous sand dunes; rainfall 300–400 mm p.a.; on heavier textured soils at high rainfall.

20. MAIREANA PYRAMIDATA COMPLEX (3 sites; 1 type)

Structural Formation: Chenopod shrubland (to 1 m).
Characteristic Species: *M. pyramidata.*
Other Common Species: *Atriplex inflata, Sclerolaena obliquicuspis.*
Distribution: Murray Mallee (extreme northeast); Northern Mt Lofty Ranges (northern half, off the ranges).
Habitat: In low-lying areas on Loveday soils or deep grey-brown clay-loams lacking calcrete nodules; rainfall < 250 mm p.a.

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21. CASUARINA CRISTATA COMPLEX (6 sites; 3 types)

Structural Formation: Chenopod shrubland or low open woodland (to 5 m).
Characteristic Species: *C. cristata* (overstorey).
Other Common Species: *Enchylaena tomentosa, Exocarpos aphyllus, Geijera linearifolia, Maireana sedifolia, Rhagodia spinescens, Scaevola spinescens, Sclerolaena obliquicuspis* (understorey).
Distribution: Murray Mallee; Northern Mt Lofty Ranges; Eyre Peninsula (northern extremes of each).
Habitat: In low-lying areas on alkaline clay-loams; in run-off areas on Loveday soils or deep grey-brown clay-loams lacking calcrete nodules; rainfall < 300 mm p.a.; on heavier textured soils at high rainfall.

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22. ACACIA PAPYROCARPA COMPLEX (1 site; 1 type)

Structural Formation: Low open woodland (to 4 m).
Characteristic Species: *A. papyrocarpa* (overstorey); *Maireana sedifolia* (understorey).
Other Common Species: *Atriplex vesicaria, M. turbinata, Sclerolaena obliquicuspis.*
Distribution: Northern Mt Lofty Ranges (northwest extreme).
Habitat: On Woorinen Formation soil with calcrete nodules; rainfall 225 mm p.a.

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23. "COMPLEX 23" (3 sites; 3 types)

Structural Formation: Shrubland (to 3 m).
Characteristic Species: *Atriplex stipitata* and/or *M. sedifolia* and/or *Cassia nemophila*; *Eucalyptus* spp. are absent or very sparse.
Other Common Species: *Acacia nyssophila, Dodonaea viscosa, Pittosporum phylliraeoides, Sclerolaena obliquicuspis.*
Distribution: Murray Mallee (northwest quadrant).
Habitat: Woorinen Formation soils with calcrete nodules and Bakara calcrete; rainfall 250–300 mm p.a.
Notes: This is a collection of three single-site, arid shrubland types whose affinity seems entirely due to the lack of mallee overstorey. It is of dubious status.

24. EUCALYPTUS POROSA COMPLEX (15 sites; 2 types)

Structural Formation: Low woodland (to 4 m).
Characteristic Species: *E. porosa* (overstorey).
Other Common Species: *Enchylaena tomentosa, Sida corrugata* (understorey), largely invaded by pasture grasses and weeds.
Distribution: Northern Mt Lofty Ranges (northeast quadrant); Yorke Peninsula; Eyre Peninsula (west half).
Habitat: On rendzina soils over Bridgewater calcrete or on skeletal soils on outcropping sandstone or siltstone; rainfall 300–450 mm p.a.

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25. CALLITRIS COLUMELLARIS COMPLEX (2 sites; 1 type)

Structural Formation: Low woodland (to 5 m).
Characteristic Species: *C. columellaris* (overstorey); *Stipa* spp. (understorey); many pasture grasses and weeds.
Distribution: Northern Mt Lofty Ranges (northeast quadrant).
Habitat: Deep red-brown clay-laoms.

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26. EUCALYPTUS LEUCOXYLON COMPLEX (20 sites; 4 types)

Structural Formation: Open savannah woodland.
Characteristic Species: *E. leucoxylon* (overstorey).
Other Common Species: Understorey of exotic pasture grasses and weeds.
Distribution: Southeast; Southern and Northern Mt Lofty Ranges.
Habitat: Grey-brown or red-brown mottled clays and clay-loams; skeletal soils on outcropping sandstone and siltstone; rainfall 400–800 mm p.a.; on heavier textured soils at high rainfall and skeletal soils at low rainfall.

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28. CASSINIA LAEVIS – XANTHORRHOEA QUADRANGULATA COMPLEX (7 sites; 5 types)

Structural Formation: Sclerophyll woodland (to 10 m) or tall shrubland (to 4 m).
Characteristic Species: *E. cladocalyx* and/or *Allocasuarina verticillata* (overstorey); *Cassinia laevis, Lepidosperma laterale, Triodia irritans* (understorey).
Other Common Species: *E. leucoxylon* (overstorey); *Bursaria spinosa, Dianella revoluta, Lomandra fibrata, Pultenaea largiflorens* (understorey).
Distribution: Northern Mt Lofty Ranges (southern Flinders Ranges).
Habitat: Skeletal or podsolic clay-loams over sandstone, siltstone or siltstone scree of high/steep ridges; rainfall 500–700 mm p.a.

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29. EUCALYPTUS MACRORHYNCHA COMPLEX (1 site; 1 type)

Structural Formation: Sclerophyll/savannah woodland or forest (to 15 m).
Characteristic Species: *E. macrorhyncha* (overstorey).
Other Common Species: *Acacia continua, Cheilanthes austrotenuifolia, Dianella laevis, Gonocarpus elatum, Hibbertia sericea* (understorey).
Distribution: Northern Mt Lofty Ranges (Spring Gully C.P. near Clare).
Habitat: Skeletal sandy-loam on hillsides of outcropping arcose (feldspar-rich

sandstone); rainfall 650 mm p.a.

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30. EUCALYPTUS ODORATA COMPLEX (15 sites; 2 types)

Structural Formation: Open woodland (to 8 m).

Characteristic Species: *E. odorata* (overstorey); understorey of pasture grasses and weeds.

Distribution: Southern and Northern Mt Lofty Ranges; Eyre Peninsula (southeast part).

Habitat: On deep red clay-loams (red-brown earths) and skeletal soils on outcropping sandstone; rainfall 350–550 mm.

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31. EUCALYPTUS LARGIFLORENS COMPLEX (1 site; 1 type)

Structural Formation: Open woodland (to 15 m).

Characteristic Species: *E. largiflorens*

Other Common Species: *Atriplex rhagodioides, Eremophila divaricata,, Muehlenbeckia cunninghamii, Pachycornia triandra, Sclerolaena tricuspis.*

Distribution: Murray Mallee (along Murray River, Renmark and Loxton districts).

Habitat: Mottled grey, heavy clays, high above mean river level and distant from the banks; rainfall 250 mm p.a.

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32. DODONAEA LOBULATA COMPLEX (1 site; 1 type)

Structural Formation: Low shrubland (to 1 m).

Characteristic Species: *C. artemisioides, Dodonaea lobulata*

Other Common Species: *Acacia continua, Eremophila longifolia, Prostanthera striatiflora, Ptilotus obovatus*

Distribution: Northern Mt Lofty Ranges (extreme northeast).

Habitat: Skeletal soils over sandstone; on ridgetops; rainfall < 300 mm p.a.

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33. EUCALYPTUS CAMALDULENSIS COMPLEX (14 sites; 3 types)

Structural Formation: Open savannah woodland

Characteristic Species: *E. camaldulensis* (overstorey).

Other Common Species: Understorey usually of exotic pasture grasses and weeds.

Distribution: Southeast (eastern half); Southern and Northern Mt Lofty Ranges; Eyre Peninsula.

Habitat: On chernozems, podsolised red-brown to yellow (heavy) clays, heavy, mottled grey clays around waterholes, and alluvial sands and clays along creeklines; rainfall 250–900 mm p.a.; on the heavier textured soils at high rainfall and confined to creeklines at low rainfall.

34. MUEHLENBECKIA CUNNINGHAMII COMPLEX (3 sites; 2 types)

Structural Formation: Open woodland (to 20 m).

Characteristic Species: *Cyperus gymnocaulis, Muehlenbeckia cunninghamii* (understorey).

Other Common Species: *E. camaldulensis* (overstorey); *Phragmites australis, Schoenoplectus litoralis, Typha domingensis* (understorey).

Distribution: Murray Mallee (along the Murray River).

Habitat: Mottled grey heavy clays, close to mean river level or permanently inundated; rainfall inconsequential.

Notes: Types are distinguished by floristic composition of understorey and flooding frequency. *M. cunninghamii – E. camaldulensis* Type is flooded for only a few weeks in most years, while the *T. domingensis – S. litoralis* Types is almost permanently inundated.

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35. EUCALYPTUS MICROCARPA COMPLEX (1 site; 1 type)

Structural Formation: Open savannah woodland.

Characteristic Species: *E. microcarpa* (overstorey).

Other Common Species: Understorey of exotic pasture grasses and weeds.

Distribution: Southeast (northeast quadrant).

Habitat: Grey clay-loam at 500 mm p.a. rainfall.

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36. HALOSARCIA HALOCNEMOIDES COMPLEX (16 sites; 3 types)

Structural Formation: Low succulent Shrubs (to 50 cm).

Characteristic Species: *H. halocnemoides* and/or *Sclerostegia arbuscula*

Other Common Species: *Disphyma crassifolium, Maireana oppositifolia, Nitraria billardieri.*

Distribution: Murray Mallee (along Murray River); Southern and Northern Mt Lofty Ranges (coastal areas); Yorke Peninsula (inland salinas).

Habitat: Highly saline, heavy grey clays in seasonally-inundated depressions or supratidal flats; rainfall inconsequential.

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37. ATRIPLEX CINEREA COMPLEX (1 site; 1 type)

Structural Formation: Typically a shrubland (to 1.5 m).

Characteristic Species: *A. cinerea.*

Other Common Species: *Nitraria billardieri, Threlkeldia diffusa.*

Distribution: Yorke Peninsula (north coast of the "foot").

Habitat: Frontal dunes and beach sands of the Semaphore Formation.

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38. AVICENNIA MARINA COMPLEX (3 sites; 1 type)

Structural Formation: Closed scrub (to 4 m).

Characteristic Species: *A. marina.*

Distribution: Southern and Northern Mt Lofty Ranges; Yorke Peninsula.

Habitats: Tidal flats.

Appendix 4.
PLATES ILLUSTRATING A SELECTION OF VEGETATION COMPLEXES.

Plate 1. EUCALYPTUS BAXTERI – PTERIDIUM ESCULENTUM COMPLEX. In the Inman Valley near Victor Harbor, Southern Mt Lofty Ranges region. The overstorey is *E. baxteri* to 5 m. The understorey is *P. esculentum* and *Xanthorrhoea semiplana.*

Plate 2. JUNCUS PALLIDUS COMPLEX. South of Lucindale, Southeast region. In this example, the overstorey is *Eucalyptus viminalis* ssp. *cygnetensis* and the understorey is *J. pallidus* and pasture grasses. The site was grazed.

Plate 3. BANKSIA ORNATA – ALLOCASUARINA PUSILLA COMPLEX. In the southwest of Ngarkat C.P., northern Southeast region. A low heathland to 1 m, dominated by *B. ornata* (pale green), *A. pusilla* (males brown; females pale blue-grey) and *Hakea muelleriana* (khaki).

Plate 4. LEUCOPOGON PARVIFLORUS – OLEARIA AXILLARIS COMPLEX. Talia Caves, central – western Eyre Peninsula. Coastal heath (< 1 m) dominated by *O. axillaris*, *Maireana oppositifolia* and *Calocephalus brownii*.

Plate 5. EUCALYPTUS CNEORIFOLIA COMPLEX. Northwest of American River, Kangaroo Island. The overstorey is pure *E. cneorifolia* to 8 m. There is a natural, complete absence of understorey species, but a thick layer of leaf litter and foliose lichen is present.

Plate 6. MELALEUCA LANCEOLATA – OLEARIA AXILLARIS COMPLEX.
Southwest of Ceduna, far-western Eyre Peninsula. A low heath of *M. lanceolata, Triodia irritans* and *Beyeria lechenaultii* on the Plateau atop the limestone coastal cliffs.

Plate 7. EUCALYPTUS INCRASSATA – E. FOECUNDA COMPLEX, SUBCOMPLEX A. South of Mt Shaugh C.P., northwestern Southeast region. The mallees are *E. incrassata* and *E. foecunda* to 5 m high, with an understorey of *Baeckea behrii* (most dense) and *Callitris verrucosa* (the partly obscured, dark green shrub).

Plate 8. EUCALYPTUS DIVERSIFOLIA COMPLEX. Northeast of Meningie, northwestern Southeast region. The mallees are *E. diversifolia* (to 2 m; in the foreground) and *E. foecunda* (to 3 m; in the background). The understorey includes *Melaleuca lanceolata, Lasiopetalum behrii*, and the tussock sedges *Gahnia deusta* and *G. lanigera.*

Plate 9. EUCALYPTUS INCRASSATA – E. FOECUNDA COMPLEX, SUBCOMPLEX B. Southeast of Waikerie, northern half of the Murray Mallee region. The mallees are *E. incrassata, E. socialis* and *E. dumosa* (to 3 m). The understorey is almost entirely *Triodia irritans.*

Plate 10. JUNCUS KRAUSSII COMPLEX. Baird Bay, western Eyre Peninsula. Effectively a monoculture fen on tidal flats of gravelly sand.

Plate 11. EUCALYPTUS DUMOSA COMPLEX. West of Karoonda, southern Murray Mallee. The mallees are *E. rugosa* and *E. dumosa* (to 4 m). The understorey contains scattered shrubs of *Melaleuca acuminata*, but is otherwise characterised by a deep leaf litter and crustose lichen covering the soil surface.

Plate 12. GAHNIA TRIFIDA/FILUM COMPLEX. East of Kingston, southwestern Southeast region. *G. trifida/filum* is the large tussock sedge in the foreground (to 2 m). The shrubs in the background are *Melaleuca halmaturorum*. The ground cover is pasture grass, especially *Hordeum* sp. The site is grazed.

Plate 13. MELALEUCA BREVIFOLIA COMPLEX. Tilley Swamp, central-western Southeast region. The shrubs are *M. brevifolia* (1.5 m tall). The sedge in the foreground is *Gahnia trifida/filum.* There is a short, dense ground cover of ephemeral herbs.

Plate 14. EUCALYPTUS OLEOSA – E. GRACILIS COMPLEX. Near Brownlow on the eastern flanks of the Mt Lofty Ranges, Southern Mt Lofty Ranges region. The overstorey is *E. brachycalyx* and *E. gracilis* to 7 m. The understorey contains *Maireana appressa* (grey-blue), *M. erioclada* (blue-green) and *Zygophyllum aurantiacum* (yellow-green).

Plate 15. EUCALYPTUS OLEOSA – E. GRACILIS COMPLEX. Near Penong, far-western Eyre Peninsula. The mallees are *E. oleosa*. The understorey contains large, dark shrubs of *Melaleuca pauperiflora*, *Cratystylis conocephala* (the larger grey shrub), *Atriplex vesicaria* (the smaller grey shrub) and *Eremophila scoparia* (in the left foreground).

Plate 16. EUCALYPTUS SOCIALIS COMPLEX, SUBCOMPLEX B. Southwestern Lake Gillies C.P., Eyre Peninsula. The mallees are *E. socialis* (to 4 m) and the understorey is predominantly *Triodia irritans*.

Plate 17. CASUARINA CRISTATA COMPLEX. North of Waikerie, just beyond the northern limits of the Murray Mallee region. The overstorey is *C. cristata* to 5 m; the understorey is largely *Maireana sedifolia* and *Atriplex vesicaria*.

Plate 18. EUCALYPTUS POROSA COMPLEX. Near Inkster, western Eyre Peninsula. The overstorey is *E. porosa* to 5 m. The understorey contains *Beyeria lechenaultii* (the bright green shrub), some *Melaleuca lanceolata* (in the distance), and dense swards of the grasses *Stipa* and *Danthonia* and the sedge *Gahnia lanigera*.

Plate 19. EUCALYPTUS ODORATA COMPLEX. Northwest of Saddleworth, Southern Mt Lofty Ranges region. Trees of *E. odorata* reach 10 m at this site. The understorey contains the sedge *Lepidosperma laterale?* and pasture grass. The locality is grazed.

Plate 20. EUCALYPTUS LEUCOXYLON COMPLEX. Western Flat near Bordertown, northwestern Southeast region. This is an unusually undisturbed example of this complex. The overstorey of *E. leucoxylon* trees to 15 m shows signs of regeneration. In addition there is a dense natural understorey of the sedge *Chorizandra enodis*. There are also scattered shrubs of *Acacia paradoxa* (to the left, middle distance).

Plate 21. CASSINIA LAEVIS – XANTHORRHOEA QUADRANGULATA COMPLEX.
The western slopes of Mt Brown, southern Flinders Ranges. This type locality is dominated by the two species after which this complex is named. The site is steep (slope > 30°), and the soil shallow and skeletal.

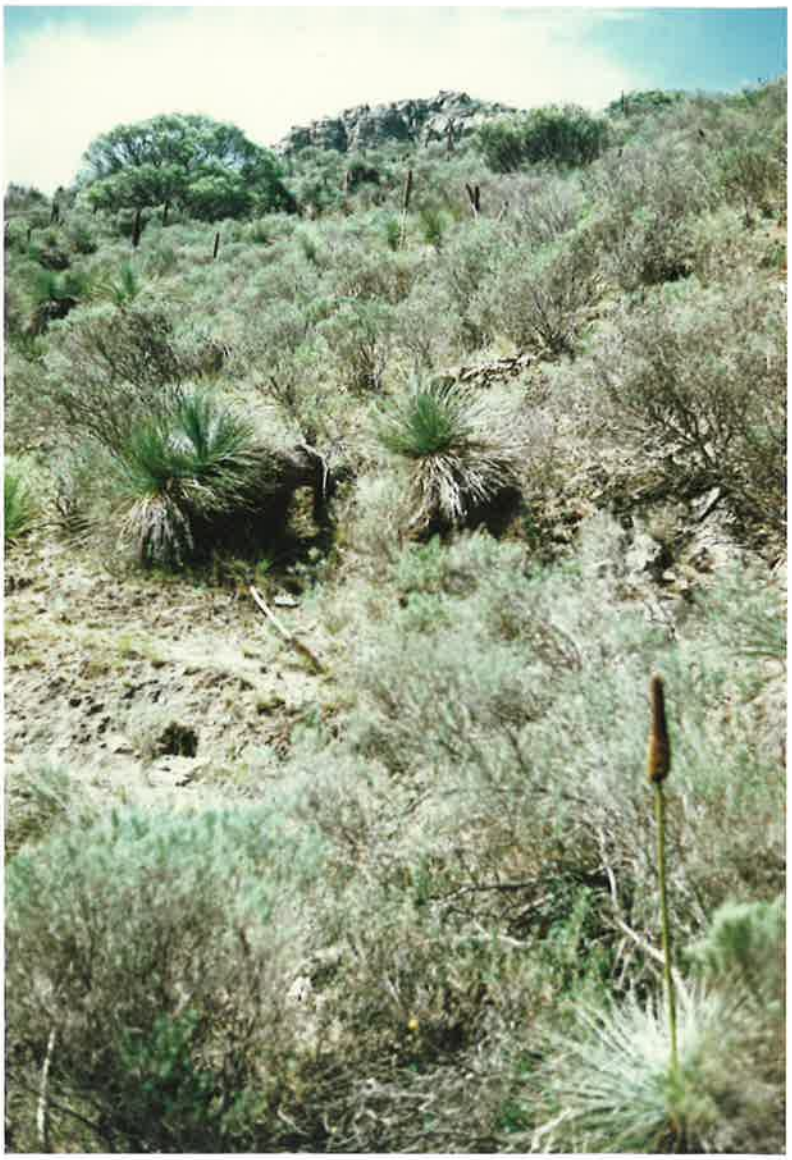

Plate 22. EUCALYPTUS MACRORHYNCHA COMPLEX. Spring Gully C.P., near Clare, Northern Mt Lofty Ranges region. The overstorey is solely *E. macrorhyncha.* The understorey is intermediate between a shrubby sclerophyll form and a grassy savannah form. The legume *Pultenaea largiflorens* is flowering in the foreground of the photo, amongst unnamed grasses. There are grasstrees (*Xanthorrhoea quadrangulata*) in the distance.

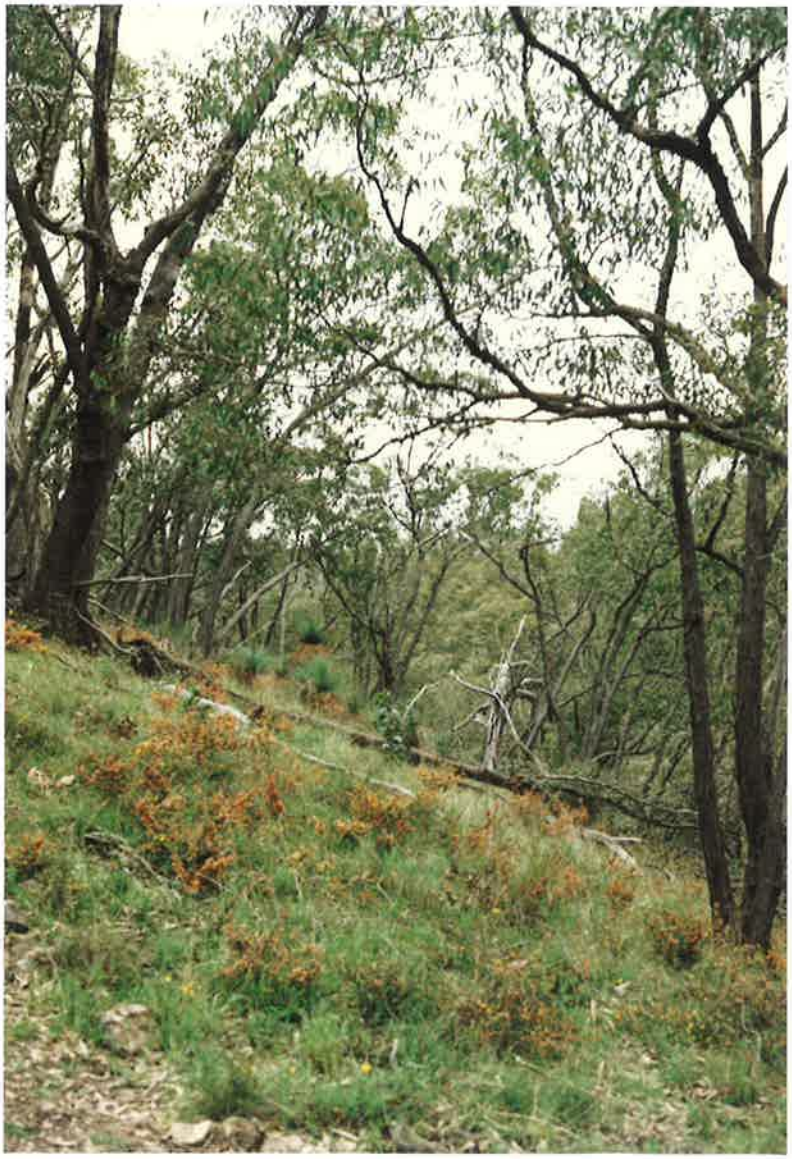

Plate 23. EUCALYPTUS CAMALDULENSIS COMPLEX. Near Mundulla, northwestern Southeast region. These *E. camaldulensis* (to 20 m) fringe a seasonally – inundated depression of deep clay-loam. The understorey is pasture.

Plate 24. EUCALYPTUS MICROCARPA COMPLEX. Custon, near Bordertown, northwestern Southeast region. The overstorey consists of *E. microcarpa* (to 15 m) and *Allocasuarina verticillata* (in the left middle distance). The understorey contains swarths of the sedge *Lepdisoperma laterale?* and a variety of pasture grasses.

Appendix 5.
PHYTOSOCIOLOGICAL SUMMARY TABLE OF THE COMPLEXES IN THE FULL VEGETATION CLASSIFICATION.

This appendix is a large, fold-out table housed in a pocket inside the back cover of this volume.

The table shows the constancy and mean cover score of the 168 species most characteristic of the 38 complexes. Constancy is given as the percentage of sites in the complex in which the species occurs. Mean cover score follows the semi-quantitative scale in Table 3.3 and is calculated over only those sites at which the species was present. The characteristic species were selected by two criteria: (i) constancy greater than 25 % in at least one complex which contained two or more sites; and/or (ii) a mean cover score of 2 or greater in at least one complex containing one site only. The species are ordered such that their highest constancies follow the rank order of complexes, thereby creating a leading diagonal across the table. Complex numbering is as in Figure 6.1 and Appendix 3.