Supplementary notes on the flora of the Fitzgerald River National Park, Western Australia. - 1. Additional and unnamed taxa, and taxa with a high conservation value

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Abstract

Newbey, K.R. Supplementary notes on the flora of the Fitzgerald River National Park, Western Australia - 1. Additional and unnamed taxa, and taxa with a high conservation value. Kingia 1(2): 195-216 (1990). One species of fern ally and 91 species, 1 subspecies and 4 varieties of flowering plants are listed, as well as 95 unnamed taxa, considered here to be species.

Two hundred and forty-six of the taxa recorded for the Park have a high conservation value: considered to be rare (176), endemic (62), more or less confined to the Park (48) and outliers (43). Families with the highest numbers in these categories were Myrtaceae (45), Epacridaceae (27) and Proteaceae (22).

Four plant communities have high numbers of taxa with high conservation values: *Eucalyptus tetragona - E. buprestium - Banksia baxteri - B. attenuata* high open-shrubland on sandplains (Et), Proteaceae - Myrtaceae mixed closed-heath on quartzite and phyllitic schist (PM), *Eucalyptus uncinata - E. redunca - E. incrassata - E. tetragona* high shrubland on upper slopes of broad valleys (Eu) and *Eucalyptus occidentalis - E.* spp. woodland along rivers (Ys).

Only 14 of the 176 taxa considered to be rare have been gazetted as rare flora by the Western Australian Government. The flora of extensive areas of the Park is still unknown and requires surveys.

Introduction

The Fitzgerald River National Park (Park) is situated along the south coast of Western Australia, between Bremer Bay and Hopetoun (Figure 1). The Park has an area of 244,677 ha and extends up to 55 km inland. The climate, geology, landforms, soils and vegetation have been summarized by Aplin and Newbey (1990b). The only documentation of the flora is by the same authors (1990a). A two-year biological survey of the Park was commenced in July, 1985, and this paper updates the flora data to that date.

The aims of this paper are to:

(a) list additional taxa recorded since the flora list was compiled by Aplin and Newbey (1990a);

(b) present a list of unnamed taxa and;

(c) present a list of taxa (named and unnamed) which have a high conservation value.

* Deceased July 23, 1988

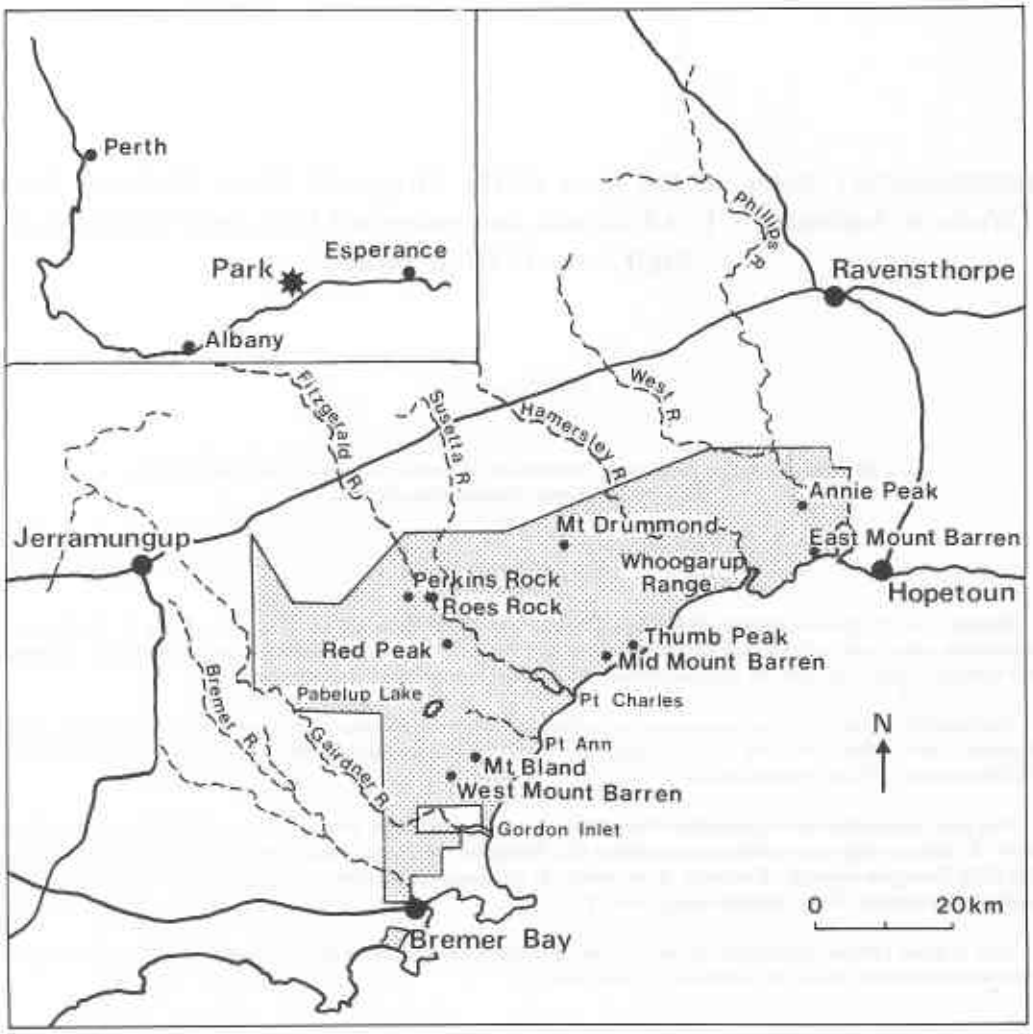

Figure 1. Map showing location of Fitzgerald River National Park.

Methods

The above data were recorded during field work (Newbey 1979, 1981, 1985, unpublished data; Aplin and Newbey 1990a,b). The distribution, frequency and abundance of taxa is based on the author's extensive field knowledge of the Western Australian flora (Newbey 1979, unpublished data; Newbey and Hnatiuk 1984, 1985, Burgman and Newbey 1990), and specimens housed in the Western Australian Herbarium (PERTH).

The conservation status of taxa is based on Marchant and Keighery (1979) and Leigh *et al.* (1981). For the purpose of this paper, rare and outlier are defined below:

Rare: Few populations recorded in the field, whether small or large, or with a restricted or a wide distribution. For instance, *Lawrencia diffusa* occurs from at least Ongerup to near Balladonia, but the known populations are small and several tens of kilometres apart.

Outlier: (a) At least 100 km from the area of general distribution or (b) in a widely different soil or climatic zone, or small populations between two areas of major distribution (e.g. *Hakea suaveolens* occurs mainly in the vicinity of Albany and Esperance. Two small populations are also known at Bremer Bay and in the Park.).

Government of Western Australia (1988) have listed gazetted rare flora of Western Australia.

Results and Discussion

Additional named taxa

Since the original flora list was compiled (Aplin and Newbey 1990a), one species of fern ally and an additional 91 species, 1 subspecies and 4 varieties of flowering plants have been recorded for the Park (Appendix 1). Ten of the species and one of the varieties are naturalised aliens.

Unnamed taxa

Unnamed taxa were not listed by Aplin and Newbey (1990a). Ninety-five unnamed taxa have been recorded and 24 of these are believed to be endemic to the Park (Appendix 2). The genera with the most unnamed taxa are *Leucopogon* (13), *Acacia* (8) and *Schoenus* (8). For statistical purposes, all unnamed taxa are considered as species.

Comparison of Park and State floras

Altogether, the recorded vascular flora of the park now consists of one species of fern ally, 7 species of ferns, and 1286 species, 16 subspecies and 43 varieties of flowering plants (Table 1). Green (1985) provides data on the Western Australian flora but does not list subspecies or varieties. Botanists with extensive knowledge of the State's flora estimate that approximately 1000 known taxa are at present unnamed. When compared to the State's flora, the Park has a much lower percentage of ferns than flowering plants. The percentage of introduced species is low and this reflects the low level of disturbance of the Park.

Table 1. Numbers of families, genera and species in the Park compared with Western Australia

Category	WA	Park	%
Ferns and fern allies			
Families	20	5	25
Genera	38	7	18
Species	75	8	11
Introduced	3	0	0
Unnamed	?	0	0
Flowering Plants			
Families	191	84	43
Genera	1367	343	25
Species	7879	1286	18
Subspecies	-	16	-
Varieties	-	43	-
Introduced	835	41	5
Unnamed	ca 1000	95	10

Conservation value

Based on the lists of Marchant and Keighery (1979) and Leigh *et al.* (1981), and the assessment of this report, a total of 296 species, 4 subspecies and 8 varieties have an important conservation value, or have been poorly collected in the Park (Appendix 3). Marchant and Keighery based their list on the number of specimens in PERTH (less than 5 collections of a taxon), or if the distribution was less than 160 km across. Their list was correct to January 1979 but additional collections and field work indicated that 44 of the taxa should no longer be considered to have a high conservation value. Leigh *et al.* (1981) based their list mainly on herbarium material and contributions by specialists. Twenty-two of the species which they recorded and which occur in the Park are no longer considered to have an important conservation value. As a result of the above deletions, 246 of the Park's taxa are now considered to have a high conservation value (Table 2).

Table 2. Number of Park taxa with a high conservation value

	More or less confined (A)	Endemic (E)	Outlier (O)	Rare (R and G)	Total
More or less confined (A)	19	-	-	-	19
Endemic (E)	0	11	-	-	11
Outlier (O)	0	0	40	-	40
Rare (R and G)	29	51	3	93	176
Total	48	62	43	93	246

The Park has 62 endemic taxa, and another 48 taxa more or less confined to the Park (Table 2). One hundred and seventy-six taxa are considered to be rare. The families with the greatest number of species with a high conservation value are Myrtaceae (45), Epacridaceae (27) and Proteaceae (22); while the following genera have the most species; *Leucopogon* (21), *Melaleuca* (11) and *Eucalyptus* (9) (Appendix 3). Only 14 of these species are gazetted rare flora (Government of Western Australia 1988, Appendix 3).

Two hundred and nine of the 246 taxa with a high conservation value occur in only one of the vegetation types found in the Park (Table 3). The highest numbers being Et (49), PM (45), Eu (29) and Ys (28). Fifty-three endemics are restricted to a single vegetation type. PM contains about half of these (26), followed by Et (7) and DH and Eu each with 6. PM (13) has the highest number of the 48 taxa more or less confined to the Park, followed by Eu (12), Et (11) and DH (10). A total of thirty-two endemics have been recorded in PM; the main families present being Myrtaceae (10) and Proteaceae (6).

Table 3. Total number of taxa in each vegetation type which have a high conservation value, and are either endemic to or more or less confined to the Park. (Numbers in brackets indicate the number of those taxa which are to be found in more than one vegetation type)

Vegetation type*	% Park area	Number of taxa					
		With a high conservation value		Endemic to the Park		More or less confined to the Park	
Ys	2	33	(5)	1	(0)	6	(3)
Ep	2	8	(3)	0		2	(2)
Ag	1	2	(1)	0		1	(1)
Ea	2	4	(2)	1	(0)	1	(1)
DH	2	24	(7)	6	(0)	10	(5)
Eg	7	22	(3)	3	(0)	6	(1)
Eu	21	40	(11)	7	(1)	12	(5)
Et	46	55	(6)	7	(0)	11	(3)
PM	7	58	(13)	32	(6)	13	(7)
LM	8	12	(7)	9	(6)	1	(1)
PL	1	6	(1)	1	(1)	0	
S	2	5	(1)	0		0	

* See Appendix 3 for explanation of symbols.

Conclusions

The Park has a significant number of taxa with a high conservation value (246 or 18% of the Park flora). This number includes 62 endemics and 48 with at least 75% of their distribution within the Park. The four most important vegetation communities are Et, PM, Eu and Ys. Et occupies almost half of the area of the Park (Table 3) and a high number of important taxa is expected. However, the PM and Ys communities have significant numbers in relation to their areas. These four communities will require special attention when drafting management plans for the Park.

This study assessed 176 taxa as being rare. Only 14 of these have been gazetted as rare flora (Government of Western Australia 1988). The remainder require urgent assessment. Some important limitations are present in the methods of assessing conservation values used by Marchant and Keighery (1979), Leigh *et al.* (1981) and Government of Western Australia (1988). None of their methods assessed unnamed taxa, and the first two did not consider subspecies or varieties.

Most field work has been close to existing tracks, leaving extensive areas of the Park unrecorded, and it is likely that many more plant taxa have yet to be recorded. It is probable that a large proportion will have a high conservation value.

Acknowledgements

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Appendix 1. Additional named plant taxa of the Fitzgerald River National Park

Families are listed in systematic order. Nomenclature follows Green (1985). Genera and species are in alphabetical order within families.

Key to symbols.

*	=	Naturalised alien
Life form		
ST	=	Small trees (5-15 m)
MT	=	Medium trees (15-30 m)
DT	=	Dwarf trees (less than 5 m)
TS	=	Tall shrubs (over 2 m)
MA	=	Mallees
DS	=	Dwarf woody shrubs (less than 0.5 m)
SS	=	Small woody shrubs (0.5-1 m)
MS	=	Medium woody shrubs (1-1.5 m)
LS	=	Large shrubs (1.5-2 m)
HP	=	Herbaceous shrubs
CL	=	Climbers
MP	=	Mat plants
RP	=	Rosetted perennials
PG	=	Perennial grasses
SC	=	Colonial sedges
SI	=	Tufted sedges
SL	=	Sedge-like plants
AB	=	Terrestrial geophytes
HY	=	Hydrophytes
AS	=	Other annuals
AG	=	Annual grasses
PC	=	Parasitic climbers
Topog.	=	Topography
1	=	Peaks and ridges of Proterozoic quartzite and phyllitic schist
2	=	Plains
3	=	Gorges
4	=	Major drainage lines and larger swamps
5	=	Coastal dunes
Endem.	=	Endemism (These classifications are based on the smallest phytogeographical unit in which the taxa occurs)
WA	=	Endemic to Western Australia
SW	=	Endemic to South-West Botanical Province (Beard 1980)
ER	=	Endemic to Eyre Botanical District (Beard 1980)
PK	=	Endemic to Park
EA	=	Range of distribution extends into eastern Australia (mainly Jessop 1984).

Family and species	Life form	Distribution	
		Topog.	Endem.
Isoetaceae			
Isoetes drummondii	HY	. . . 4 .	SW
Poaceae			
Aristida contorta	PG	. . . 4 .	EA
* *Poa bulbosa*	AB	 5	
Stipa variabilis	PG	. . . 4 .	EA

Appendix 1 (continued). Additional named plant taxa of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
Cyperaceae			
Eleocharis acuta	SC	. . . 4 .	EA
Mesomelaena graciliceps	SI	. 2 . . .	SW
Schoenus nitens	SC	. . . 4 .	EA
Schoenus obtusifolius	SI	. 2 . . .	ER
Schoenus pleiostemoneus	SI	. 2 . . .	ER
Schoenus subfascicularis	SI	. 2 . . .	ER
Schoenus submicrostachyus	SI	. 2 . . .	SW
Restionaceae			
Loxocarya myrioclada	SI	. 2 . . .	SW
Restio confertospicatus	SI	. 2 . . .	ER
Centrolepidaceae			
Centrolepis humillima	AS	. . . 4 .	EA
Hydatellaceae			
Hydatella australis	HY	. . . 4 .	SW
Juncaceae			
* *Juncus capitatus*	AS	. . . 4 .	
Anthericaceae			
Thysanotus brachiatus	AB	1	ER
Thysanotus gageoides	AB	. 2 . . .	ER
Thysanotus sparteus	AB	. 2 . . .	SW
Thysanotus triandrus	AB	. 2 . . .	SW
Colchicaceae			
Wurmbea cernua	AB	. . . 4 .	ER
Haemodoraceae			
Conostylis deplexa	SL	. 2 . . .	ER
Orchidaceae			
Caladenia doutchae	AB	. 2 . . .	SW
Caladenia graminifolia	AB	 5	ER
Pterostylis rogersii	AB	. 2 . . .	SW
Spiculaea ciliata	AB	. 2 . . .	SW
Casuarinaceae			
Allocasuarina corniculata	LS	. 2 . . .	WA
Proteaceae			
Conospermum stoechadis	SS	. 2 . . .	SW
Grevillea acerosa	DS	. 2 . . .	ER
Hakea brachyptera	DS	. 2 . . .	SW
Chenopodiaceae			
Halosarcia halocnemoides subsp. *halocnemoides*	DS	. . . 4 .	EA
Amaranthaceae			
Ptilotus drummondii	HP	. . . 4 .	WA

Appendix 1 (continued). Additional named plant taxa of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
Gyrostemonaceae			
Gyrostemon sessilis	SS	.2...	PK
Aizoaceae			
Carpobrotus modestus	MP	...4.	EA
Portulacaceae			
Calandrinia eremaea	AS	...4.	EA
Lauraceae			
Cassytha micrantha	PC	.2...	ER
Droseraceae			
Drosera parvula	RP	.2...	SW
Crassulaceae			
Crassula colorata var. *acuminata*	AS	...4.	EA
Crassula decumbens var. *decumbens*	AS	...4.	EA
* *Crassula natans* var. *minus*	HY	...4.	
Crassula sieberiana subsp. *tetramera*	AS	...4.	EA
Mimosaceae			
Acacia acuminata	DT	...4.	WA
Acacia curvata	DS	..3..	ER
Acacia pulchella var. *subsessilis*	DS	...4.	SW
Papilionaceae			
Bossiaea concinna	DS	.2...	SW
Gompholobium aristatum	DS	.2...	ER
Jacksonia aphylla	DS	.2...	SW
Oxylobium tricuspidatum	MP	...4.	SW
* *Trifolium arvense*	AS	...4.	
Polygalaceae			
Comesperma nudiusculum	DS	.2...	ER
Comesperma polygaloides	DS	.2...	EA
Comesperma scoparium	SS	.2...	EA
Rhamnaceae			
Spyridium complicatum	DS	.2.4.	SW
Sterculiaceae			
Lasiopetalum microcardium	DS	.2...	ER
Thomasia grandiflora	DS	.2...	SW
Myrtaceae			
Baeckea pachyphylla	DS	...4.	SW
Calothamnus affinis	SS	.2...	SW
Calothamnus lateralis	SS	.2...	SW
Calytrix depressa	DS	.2...	SW
Calytrix tetragona	SS	...4.	EA
Calytrix variabilis	DS	.2...	SW
Hypocalymma strictum var. *strictum*	DS	.2...	SW
Melaleuca conferta	DS	.2...	SW

Appendix 1 (continued). Additional named plant taxa of the Fitzgerald River National Park

Family and species	Life form	Distribution	
		Topog.	Endem.
Melaleuca erucaeformis	SS	. 2 . . .	ER
Melaleuca pentagona var. *subulifolia*	MS	. . 3 . .	ER
Melaleuca viminea	TS	. . . 4 .	SW
Verticordia pennigera	DS	. 2 . . .	SW
Verticordia serrata	DS	. 2 . . .	SW
Haloragaceae			
Haloragis hamata	DS	. 2 . . .	ER
Apiaceae			
Hydrocotyle scutellifera	AS	. . . 4 .	SW
Epacridaceae			
Astroloma pallidum	DS	. 2 . . .	SW
Leucopogon brevicuspis	DS	. . 3 . .	SW
Leucopogon cucullatus	DS	. 2 . . .	SW
Leucopogon striatus	DS	. 2 . . .	ER
Gentianaceae			
* *Centaurium erythraea*	AS	. . . 4 .	
Solanaceae			
Solanum symonii	HP	. . . 4 .	EA
Myoporaceae			
Eremophila serpens	MP	. . . 4 .	ER
Goodeniaceae			
Dampiera tenuicaulis var. *tenuicaulis*	DS	. 2 . . .	SW
Stylidiaceae			
Stylidium dichotomum	RP	. 2 . . .	SW
Stylidium hirsutum	RP	. 2 . . .	SW
Stylidium macranthum	RP	1	ER
Stylidium perpusillum	AS	. . . 4 .	EA
Stylidium pseudohirsutum	RP	. 2 . . .	ER
Asteraceae			
* *Arctotheca calendula*	AS	. . . 4 .	
Brachycome pusilla	AS	. . . 4 .	WA
* *Carduus pycnocephalus*	AS	. . . 4 .	
Centipeda minima	AS	. . . 4 .	EA
* *Cirsium arvense*	AS	. . . 4 .	
Helichrysum leucopsideum	AS	. 2 . . .	EA
Helipterum pygmaeum	AS	. 2 . . .	EA
* *Hypochaeris glabra*	AS	. . . 4 .	
Olearia brachyphylla	DS	. 2 . . .	PK
Podolepis tepperi	AS	. . . 4 .	EA
Quinetia urvillei	AS	. . . 4 .	EA
Siloxerus pygmaeus	AS	. . . 4 .	SW
* *Sonchus oleraceus*	AS	. . . 4 5	
* *Vellereophyton dealbatum*	AS	. . . 4 .	

Appendix 2. Unnamed plant taxa

KRN and ASG (A.S. George) voucher specimens have been lodged in PERTH. For explanation of symbols see Appendix 1

Family and species	Life form	Distribution	
		Topog.	Endem.
Poaceae			
Genus indet. sp. (KRN 4047)	PG	. 2 . 4 .	ER
Cyperaceae			
Lepidosperma sp. (KRN 3735)	SI	1	PK
Lepidosperma sp. (KRN 4197)	SI	. . . 4 .	ER
Lepidosperma sp. (KRN 4664)	SC	 5	ER
Lepidosperma sp. (KRN 5232)	SC	. 2 3 4 .	SW
Lepidosperma sp. (KRN 4735)	SI	. 2 . . .	SW
Mesomelaena sp. (KRN 3994)	SI	. 2 . . .	ER
Schoenus sp. (KRN 3574)	SI	. 2 . . .	SW
Schoenus sp. (KRN 3906)	SI	. 2 . . .	ER
Schoenus sp. (KRN 3953)	SI	. 2 . . .	SW
Schoenus sp. (KRN 4022)	SI	. 2 . . .	ER
Schoenus sp. (KRN 4138)	SI	. 2 . . .	ER
Schoenus sp. (KRN 4154)	SI	. 2 . . .	ER
Schoenus sp. (KRN 4474)	SI	. . . 4 .	ER
Schoenus sp. (KRN 8012)	SI	. 2 . . .	ER
Tetraria sp. (KRN 4732)	SI	. 2 . . .	SW
Orchidaceae			
Pterostylis sp. (KRN 9598)	AB	1	PK
Proteaceae			
Grevillea sp. (KRN 4846)	DS	1	PK
Hakea sp. (KRN 5960)	MS	. 2 . . .	SW
Hakea sp. (KRN 8265)	TS	. 2 . . .	ER
Synaphea sp. (KRN 3761)	DS	. 2 . . .	ER
Santalaceae			
Genus indet. sp. (KRN 4981)	MS	. 2 . . .	ER
Olacaceae			
Olax sp. (KRN 4288)	DS	. 2 . . .	ER
Mimosaceae			
Acacia sp. (KRN 1295)	SS	. 2 3 . .	ER
Acacia sp. (KRN 1296)	SS	. . . 4 .	ER
Acacia sp. (KRN 2472)	LS	. . 3 . .	ER
Acacia sp. (KRN 2726)	MS	1	PK
Acacia sp. (KRN 2730)	DS	1 2 . . .	SW
Acacia sp. (KRN 3484)	SS	. 2 . 4 .	ER
Acacia sp. (KRN 4287)	DS	. 2 . . .	ER
Acacia sp. (KRN 5422)	MS	. 2 . . .	ER
Papilionaceae			
Aotus aff. *procumbens* (KRN 2476)	MP	. 2 . . .	SW
Daviesia aff. *trigonophylla* (KRN 312)	MS	. 2 . . .	ER
Daviesia sp. (KRN 1480)	DS	. 2 3 4 .	ER
Daviesia sp. (KRN 5122)	DS	1	ER
Daviesia sp. (KRN 6008)	MS	. . 3 . .	SW
Jacksonia sp. (KRN 3967)	DS	. 2 . . .	SW
Oxylobium sp. (KRN 4035)	TS	. . 3 . .	ER

Appendix 2 (continued). Unnamed plant taxa

Family and species	Life form	Distribution	
		Topog.	Endem.
Pultenaea sp. (KRN 3974)	SS	. 2. . .	PK
Genus indet. sp. (KRN 10941)	MS	1. . . .	PK
Tremandraceae			
Tetratheca sp. (KRN 4505)	DS	. . . 4 .	ER
Rhamnaceae			
Cryptandra sp. (KRN 6824)	DS	. 2. . .	SW
Pomaderris sp. (KRN 2405)	SS	. 2. . .	ER
Pomaderris sp. (KRN 2688)	MS	. 2. . .	ER
Spyridium sp. (KRN 4346)	DS	. 2. . .	ER
Spyridium sp. (KRN 4374)	MS	1. . . .	ER
Spyridium sp. (KRN 4642)	DS	. . . 4 .	ER
Spyridium sp. (KRN 4964)	DS	. 2. . .	ER
Spyridium sp. (KRN 5007)	SS	. 2. . .	ER
Trymalium sp. (KRN 6811)	MS	. 2. . .	ER
Dilleniaceae			
Hibbertia sp. (KRN 1678)		1. . . .	SW
Hibbertia sp. (KRN 3896)		. 2. . .	ER
Thymelaeaceae			
Pimelea sp. (KRN 70)	SS	. . . 4 5	ER
Pimelea sp. (KRN 1339)	DS	. 2. . .	ER
Myrtaceae			
Astartea sp. (KRN 10844)	SS	. 2. . .	PK
Baeckea sp. (KRN 6542)	SS	. 2. . .	SW
Chamelaucium sp. (KRN 2650)	MS	. 2. . .	PK
Darwinia sp. (KRN 2426)	DS	. 2. . .	ER
Darwinia sp. (KRN 4847)	DS	1. . . .	PK
Eucalyptus sp. (KRN 10911)	MA	. . . 4 .	ER
Leptospermum sp. (KRN 1730)	TS	1. . . .	PK
Melaleuca sp. (KRN 717)	TS	. . 3. .	SW
Melaleuca sp. (KRN 2764)	TS	. . 3. .	SW
Melaleuca sp. (KRN 2768)	MS	. . 3. .	ER
Melaleuca sp. (KRN 2890)	SS	1. . . .	ER
Melaleuca sp. (KRN 3874)	SS	. . 3. .	PK
Melaleuca sp. (KRN 4913)	SS	. 2. . .	PK
Melaleuca sp. (KRN 5179)	SS	. 2. . .	ER
Melaleuca sp. (KRN 10856)	SS	. 2. . .	ER
Verticordia sp. (KRN 2763)	DS	. . 3. .	PK
Verticordia sp. (KRN 9739)	SS	. . 3. .	PK
Genus indet. sp. (KRN 4906)	SS	. . 3. .	PK
Apiaceae			
Platysace sp. (KRN 4852)	DS	1. . . .	PK
Epacridaceae			
Leucopogon sp. (KRN 2677)	DS	. . 3. .	ER
Leucopogon sp. (KRN 3754)	DS	12. . .	ER
Leucopogon sp. (KRN 4038)	DS	1. . . .	PK
Leucopogon sp. (KRN 4082)	DS	1. . . .	ER
Leucopogon sp. (KRN 4140)	DS	. 2. . .	ER

Appendix 2 (continued). Unnamed plant taxa

Family and species	Life form	Distribution	
		Topog.	Endem.
Leucopogon sp. (KRN 4144)	DS	. 2. . .	ER
Leucopogon sp. (KRN 4246)	DS	. 2. . .	ER
Leucopogon sp. (KRN 4389)	DS	. . 3. .	PK
Leucopogon sp. (KRN 4670)	DS	. 2. . .	ER
Leucopogon sp. (KRN 4899)	DS	. . 3. .	PK
Leucopogon sp. (KRN 9445)	DS	. 2. . .	PK
Leucopogon sp. (KRN 9446)	DS	. 2. . .	PK
Leucopogon sp. (KRN 9608)	DS	. 2. . .	ER
Monotoca sp. (KRN 3191)	DS	1. . . .	PK
Styphelia sp. (KRN 8266)	DS	. 2. . .	ER
Goodeniaceae			
Dampiera aff. *trigona* (KRN 11261)	DS	. . 3. .	ER
Dampiera sp. (KRN 2697)	DS	1. . . .	ER
Goodenia sp. (KRN 1726)	MP	. . . 4.	ER
Scaevola aff. *phlebopetala* (ASG 7117)	DS	1. . . .	ER
Scaevola sp. (KRN 4561)	MP	. . . 4.	PK
Asteraceae			
Craspedia sp. (KRN 928)	AS	. . . 4.	WA
Olearia sp. (KRN 10843)	DS	 5	PK

Appendix 3. Taxa with important conservation values or rarely collected

Families are listed in systematic order. Nomenclature follows Green(1985). Genera and species are in alphabetical order within families.

Key to abbreviations and codes.

Conservation value:

New.	=	Newbey (this paper)
A	=	More or less confined to the Park (75% of known distribution)
E	=	Endemic to the Park
G	=	Gazetted rare flora (Government of Western Australia 1988)
O	=	Outlier
R	=	Rare
Mar.	=	Marchant and Keighery (1979)
A	=	No specimens in PERTH
B	=	Rare
C	=	Type specimen only
D	=	< 5 collections in PERTH
E	=	Collections < 100 km apart
F	=	Collections < 160 km apart
Lei.	=	Leigh *et al.* (1981)
2	=	Collections < 100 km apart
3	=	Collections > 100 km apart but in small populations
X	=	Presumed extinct
E	=	Endangered, at risk of disappearing
V	=	Vulnerable, not presently endangered
R	=	Rare, not presently endangered
K	=	Poorly known, probably X, E, V or R
C	=	Represented in a national park or proclaimed reserve

Vegetation type: (See Aplin and Newbey 1990b)

Ys	=	*Eucalyptus occidentalis* - *E.* spp. woodland
Ep	=	*E. platypus* - *E. gardneri* low closed-forest
Ag	=	*Agonis flexuosa* closed-scrub
Ea	=	*E. angulosa* - *E. platypus* var. *heterophylla* - *Melaleuca nesophila* closed-scrub
DH	=	*Dryandra* spp. - *Hakea* spp. - *Allocasuarina* spp. open-scrub
Eg	=	*E. gardneri* - *E. conglobata* - *E. nutans* open-scrub
Eu	=	*E. uncinata* - *E. redunca* - *E. incrassata* - *E. tetragona* high shrubland
Et	=	*E. tetragona* - *E. buprestium* - *Banksia baxteri* - *B. attenuata* high open-shrubland
PM	=	Proteaceae - Myrtaceae mixed closed-heath
LM	=	Leguminosae - Myrtaceae mixed closed-heath
PL	=	Proteaceae - Leguminosae - Myrtaceae mixed open-heath
S	=	Sedgelands and Swamp Complexes

Frequency and cover/abundance: (subjectively assessed)

A	=	1 or 2 populations	1	=	1 or 2 plants
B	=	Few populations	2	=	Few plants
C	=	Scattered populations	3	=	Few plants to 1% canopy cover
D	=	Frequent populations	4	=	1-5% canopy cover
E	=	Common populations	5	=	6-30% canopy cover
*	=	Estuary margin or salt flat	6	=	31-70% canopy cover

Note: No ecological data are available for *Caladenia nana*, *Pterostylis* sp., *Kunzea spicata*, *Melaleuca elachophylla*, *Verticordia helichrysantha*, *Leucopogon minutiflorus* var. *ulicinus*, *Leucopogon unilateralis*, or *Scaevola* aff. *phlebopetala*.

Appendix 3 (continued). Taxa with important conservation values or rarely collected

Family and Species	Conservation value			Frequency and cover/abundance in each vegetation type											
	New.	Mar.	Lei.	Ys	Ep	Ag	Ea	DH	Eg	Eu	Et	PM	LM	PL	S
Adiantaceae															
Cheilanthes distans	O	.	.	..	..	..	..	..	..	..	..	..	..	A1	..
Aspleniaceae															
Asplenium aethiopicum	O	.	.	..	..	..	..	..	..	..	..	A1	..	..	..
Alismataceae															
Damasonium minus	R	D	.	A2	..	..	..	..	..	..	..	..	..	..	..
Poaceae															
Stipa pycnostachya	R	.	.	..	..	..	..	..	..	..	..	..	..	..	*B2
Genus indet. (KRN 4047)	R	.	.	..	..	..	..	..	..	..	..	..	..	..	A2
Cyperaceae															
Baumea juncea	.	D	.	..	..	..	..	..	..	..	..	..	..	..	A4
Gahnia australis	A	.	.	..	..	..	..	..	B4	..	..	..	..	..	..
Gahnia decomposita	.	D	.	B3	..	..	..	..	..	..	..	..	..	..	..
Gahnia deusta	.	D	.	..	..	..	..	..	..	..	C4	..	..	..	..
Gahnia drummondii	R	D	.	..	..	..	..	..	..	..	..	..	..	A3	..
Lepidosperma carphoides	.	D	.	..	..	A2	A1	..	..	..	D4	..	..	..	..
Lepidosperma leptophyllum	.	D	3KC	B4	..	..	..	..	..	..	..	..	..	..	A3
Lepidosperma leptostachyum	.	D	.	..	C3	..	..	B2	..	..	..	..	..	..	..
Lepidosperma pubisquameum	.	D	.	..	..	..	..	..	..	..	A2	..	..	..	..
Lepidosperma ustulatum	R	.	.	..	..	..	..	..	..	..	B1	..	..	..	..
Lepidosperma sp. (KRN 3735)	E	.	.	..	..	..	..	..	..	..	..	C4	..	..	..
Schoenus armeria	.	D	.	..	..	..	..	..	..	..	B2	..	..	..	..
Schoenus humilis	.	D	.	B2	..	..	..	..	..	..	..	..	..	..	..
Schoenus obtusifolius	.	.	3KC	..	..	..	..	..	..	..	B2	..	..	..	..
Schoenus subbarbatus	.	D	.	..	..	..	..	..	..	..	C2	..	..	..	..
Schoenus sp. (KRN 3953)	AR	.	.	..	..	..	..	..	..	A2	C2	..	..	..	..
Schoenus sp. (KRN 4138)	R	.	.	..	..	..	..	..	..	..	B1	..	..	..	..
Scirpus maritimus	O	.	.	..	..	..	..	..	..	..	..	..	..	..	A2
Tetraria sp. (KRN 4732)	R	.	.	..	..	..	B1	..	..	A2	..	..	..	..	..
Restionaceae															
Anarthria polyphylla	.	F	.	..	..	..	..	..	..	..	B3	..	..	..	..
Harperia lateriflora	.	D	.	..	..	..	..	..	..	..	D4	..	..	..	..
Loxocarya myrioclada	.	A	.	..	..	..	..	..	..	B2	..	..	..	..	..
Restio megalotheca	O	.	.	A2	..	..	..	..	..	..	..	..	..	..	..
Hydatellaceae															
Hydatella australis	R	A	.	A2	..	..	..	..	..	..	..	..	..	..	..
Philydraceae															
Philydrella pygmaea	O	.	.	..	..	..	..	..	..	..	..	..	A2	..	..
Colchicaceae															
Burchardia umbellata	O	.	.	..	..	..	..	..	..	..	A1	..	..	..	..
Anthericaceae															
Stawellia gymnocephala	R	.	.	..	..	..	..	..	..	..	A2	..	..	..	..
Thysanotus gageoides	R	D	3EC	..	..	..	..	..	..	..	A1	..	..	..	..
Thysanotus parviflorus	R	C	2VC	..	..	..	..	..	..	..	..	A2	..	..	..

Appendix 3 (continued). Taxa with important conservation values or rarely collected

Family and Species	Conservation value			Frequency and cover/abundance in each vegetation type										
	New.	Mar.	Lei.	Ys	Ep	Ag	Ea	DH	Eg	Eu	Et	PM	LM	PL	S
Xanthorrhoeaceae															
Xanthorrhoea platyphylla	.	D	.	..	..	..	..	..	..	..	E3	..	..	..	..
Haemodoraceae															
Conostylis deplexa	R	.	.	..	..	..	..	..	..	..	A1	..	..	..	..
Conostylis vaginata	.	F	.	..	..	..	..	..	..	..	D3	..	..	..	..
Orchidaceae															
Caladenia aphylla	O	.	.	..	..	..	..	..	..	..	A2	..	..	..	..
Caladenia ericksonae	O	.	3V	A1	..	..	..	..	..	..	..	..	..	..	..
Caladenia nana	O	.	.	..	..	..	..	..	..	..	..	..	..	..	..
Paracaleana nigrita	O	.	.	..	..	..	..	..	..	..	..	A2	..	..	..
Pterostylis plumosa	R	.	.	..	..	..	..	..	..	A1	..	..	..	..	..
Pterostylis sp. (KRN 9598)	E	.	.	..	..	..	..	..	..	..	..	..	..	..	..
Thelymitra campanulata	.	.	3RC	..	..	..	..	..	..	..	C2	..	..	..	..
Thelymitra variegata	R	.	.	..	..	..	..	..	..	..	A1	..	..	..	..
Casuarinaceae															
Allocasuarina acuaria	R	.	.	..	..	..	..	..	..	..	A4	..	..	..	..
Allocasuarina corniculata	O	.	.	..	..	..	..	A2	..	..	..	..	..	..	..
Allocasuarina scleroclada	R	.	.	..	..	..	..	C3	..	..	..	..	..	..	..
Proteaceae															
Adenanthos cacomorphus	ER	D	2V	..	..	..	..	..	..	..	A3	..	..	..	..
Adenanthos dobagii	EGR	.	.	..	..	..	..	..	..	..	A2	..	..	..	..
Adenanthos ellipticus	EGR	B	2RC	..	..	..	..	..	..	..	..	B4	..	..	..
Adenanthos flavidiflorus	A	E	.	..	..	..	..	..	..	..	B2	..	..	..	..
Adenanthos glabrescens subsp. *exasperata*	AR	.	.	..	..	..	..	..	A1	..	..	..	..	..	..
Adenanthos labillardierei	ER	E	2RC	..	..	..	..	..	..	..	..	B4	..	..	..
Adenanthos oreophilus	O	.	.	..	..	..	..	..	..	..	A2	..	..	..	..
Adenanthos venosus	E	D	2RC	..	..	..	..	..	..	..	..	E4	..	..	..
Banksia dryandroides	.	F	.	..	..	..	..	..	..	..	B2	..	..	..	..
Banksia lemanniana	A	E	.	..	..	..	..	D4	..	..	..	..	..	..	..
Banksia oreophila	O	.	.	..	..	..	..	..	..	..	..	D4	..	..	..
Conospermum petiolare	O	.	.	..	..	..	..	..	..	..	A2	..	..	..	..
Dryandra foliosissima	R	.	.	..	..	..	..	..	..	..	A2	..	..	..	..
Dryandra plumosa	.	F	.	..	..	..	..	..	..	..	B3	..	..	..	..
Dryandra pteridifolia	.	.	3RC	..	..	..	..	..	..	..	C3	..	..	..	..
Dryandra quercifolia	.	E	2RC	..	..	..	..	..	..	..	..	E5	..	..	..
Grevillea fistulosa	ER	.	2RC	..	..	..	..	..	..	..	..	B2	..	..	..
Grevillea infundibularis	EGR	.	2RC	..	..	..	..	..	..	..	..	B2	..	..	..
Grevillea sp. (KRN 4846)	ER	.	.	..	..	..	A1	..	..	..	..	..	..	..	..
Hakea baxteri	.	.	3R	..	..	..	..	..	..	..	B3	..	..	..	..
Hakea cucullata	.	F	.	..	..	..	..	..	..	..	D4	A3	..	..	..
Hakea florida	O	.	.	A3	..	..	..	..	..	..	..	..	..	..	..
Hakea hookeriana	E	E	2RC	..	..	..	..	..	..	..	..	C4	..	..	..
Hakea obtusa	A	E	2RC	..	..	..	..	D4	..	..	..	C3	..	..	..
Hakea suaveolens	O	.	.	..	..	..	..	..	..	..	..	A2	..	..	..
Hakea victoria	A	E	2RC	..	..	..	..	..	..	..	C4	C4	..	..	..
Hakea sp. (KRN 8265)	AR	.	.	..	..	..	..	..	..	..	A2	..	..	..	..
Isopogon longifolius	.	.	3RC	..	..	..	..	..	..	..	C2	..	..	..	..
Isopogon polycephalus	.	F	.	..	..	..	..	B2	..	B2	..	..	..	..	..
Persoonia dillwynioides	R	A	2RC	..	..	..	..	A1	..	..	..	..	..	..	..
Synaphea favosa	.	.	3K	..	..	..	..	..	..	..	D3	..	..	..	..

Appendix 3 (continued). Taxa with important conservation values or rarely collected

Family and Species	Conservation value			Frequency and cover/abundance in each vegetation type										
	New.	Mar.	Lei.	Ys	Ep	Ag	Ea	DH	Eg	Eu	Et	PM	LM	PL	S
Santalaceae															
Genus indet. (KRN 4981)	R	.	.	..	..	..	..	..	A1	..	..	..	..	..	..
Olacaceae															
Olax sp. (KRN 4288)	AR	.	.	..	..	..	..	..	..	..	B1	..	..	..	..
Chenopodiaceae															
Halosarcia undulata	O	.	.	A4*	..	..	..	..	..	..	..	..	..	..	..
Sclerostegia arbuscula	O	.	.	A4*	..	..	..	..	..	..	..	..	..	..	..
Amaranthaceae															
Ptilotus drummondii var. *elongatus*	ER	.	.	..	..	..	..	..	..	A1	..	..	..	..	..
Ptilotus stirlingii var. *laxus*	R	.	.	..	..	..	A1	..	..	..	..	..	..	..	..
Gyrostemonaceae															
Gyrostemon sessilis	ER	.	.	..	..	..	..	..	..	..	A2	..	..	..	..
Aizoaceae															
Carpobrotus modestus	.	D	.	B3	..	..	..	..	..	..	..	..	..	..	..
Carpobrotus rossii	.	D	.	B3	..	..	..	..	..	..	..	..	..	..	..
Carpobrotus virescens	.	D	.	..	..	..	C3	..	..	..	..	..	..	..	..
Macarthuria apetala	O	.	.	..	..	..	..	..	..	..	A1	..	..	..	..
Portulacaceae															
Calandrinia eremaea	O	.	.	B2	..	..	..	..	..	..	..	..	..	..	..
Calandrinia corrigioloides	O	.	.	A1	..	..	..	..	..	..	..	..	..	..	..
Lauraceae															
Cassytha glabella	.	A	.	B1	..	B2	A2	B1	..	B1	C1	B1	..	B1	..
Cassytha melantha	.	D	.	B1	..	..	..	..	B2	..	..	..	..	..	..
Cassytha micrantha	R	A	2K	..	..	..	..	..	..	..	B1	..	..	..	..
Cassytha racemosa	.	.	3KC	A1	..	B1	B1	..	..	..	B1	B1	B1	..	..
Brassicaceae															
Lepidium rotundum	.	D	.	B1	..	..	..	..	A1	..	..	..	..	..	..
Droseraceae															
Drosera bulbosa	O	.	.	..	..	..	..	..	..	..	A1	..	..	..	..
Drosera stolonifera subsp. *compacta*	R	.	.	..	..	..	..	..	..	..	B1	..	..	..	..
Crassulaceae															
Crassula exserta	.	D	.	E3	B2	B2	B2	..	..	C2	..	..	..	..	B1
Crassula pedicellosa	.	D	.	B2	..	..	..	..	..	..	..	..	..	..	..
Pittosporaceae															
Billardiera villosa	AR	.	.	..	..	..	..	..	B1	..	..	..	..	..	..
Mimosaceae															
Acacia acellerata	A	.	.	B2	..	..	..	..	..	B2	..	..	..	..	..
Acacia argutifolia	EGR	D	2RC	..	..	..	..	..	..	..	..	..	B2	..	..
Acacia cedroides	E	.	.	..	..	..	..	..	..	..	..	..	D4	B3	..

Appendix 3 (continued). Taxa with important conservation values or rarely collected

Family and Species	Conservation value			Frequency and cover/abundance in each vegetation type											
	New.	Mar.	Lei.	Ys	Ep	Ag	Ea	DH	Eg	Eu	Et	PM	LM	PL	S
Acacia dermatophylla	R	.	.	..	..	..	..	..	..	B1	..	..	..	..	..
Acacia empelioclada	AR	F	.	B1	..	..	..	..	..	B2	..	..	..	..	..
Acacia glaucoptera	.	F	3RC	C3	D2	..	..	B2	C3	B2	..	..	..	..	..
Acacia heteroclita	R	.	.	..	..	..	..	..	..	A2	..	..	..	..	..
Acacia ingrata	R	.	.	..	..	..	..	..	B2	..	..	..	..	..	..
Acacia laricina	R	.	.	..	..	..	..	..	..	B2	B2	..	..	..	..
Acacia moirii subsp. *dasycarpa*	ER	.	.	..	..	..	..	..	..	..	..	B2	B2	..	..
Acacia phlebopetala var. *phlebopetala*	AR	.	.	..	..	..	..	..	..	A2	..	..	..	..	..
Acacia phlebopetala var. *pubescens*	ER	.	.	..	..	..	..	..	..	A2	..	..	..	..	..
Acacia simulans	EGR	D	2RC	..	..	..	..	A2	..	..	..	..	..	..	..
Acacia tetanophylla	R	.	.	..	..	..	..	..	..	B2	..	..	..	..	..
Acacia sp. (KRN 2726)	ER	.	.	..	..	..	..	..	..	..	..	B3	..	..	..
Papilionaceae															
Chorizema trigonum	.	F	.	..	..	..	..	..	..	B2	..	B2	B2	..	..
Chorizema uncinatum	R	F	.	..	..	..	..	..	..	..	B2	..	..	..	..
Daviesia abnormis	R	E	.	..	..	..	..	..	..	..	C2	..	..	..	..
Daviesia anceps	.	.	2RC	..	..	..	..	..	C4	..	..	..	..	..	..
Daviesia striata	A	.	2RC	..	..	..	..	..	C4	..	..	..	..	..	..
Daviesia aff. *trigonophylla*	.	.	2RC	..	..	..	..	..	..	B2	B2	..	..	..	..
Daviesia sp. (KRN 5122)	AR	.	.	..	..	..	..	..	..	..	..	A2	..	..	..
Eutaxia cuneata	.	F	3RC	..	..	..	..	..	..	B2	B2	..	..	B2	..
Gastrolobium stenophyllum	AR	.	.	B2	..	..	..	..	..	..	..	..	..	..	..
Glycine clandestina var. *clandestina*	O	.	.	..	..	..	..	..	A1	..	..	..	..	..	..
Jacksonia compressa	E	.	.	..	..	..	..	..	..	..	..	C3	B3	..	..
Oxylobium carinatum	R	.	.	..	..	..	..	..	..	..	B1	..	..	..	..
Oxylobium coriaceum	.	F	.	..	..	..	..	..	C2	..	..	..	..	..	..
Oxylobium microphyllum	.	F	.	..	..	..	..	..	C2	C2	..	..	..	..	..
Oxylobium racemosum	.	.	2RC	..	..	..	..	..	..	B3	B2	..	..	..	..
Pultenaea adunca	.	F	.	..	..	..	..	..	..	..	C2	..	..	..	..
Pultenaea calycina	AR	E	2RC	..	..	..	..	..	..	B2	..	..	..	..	..
Pultenaea spinulosa	OR	D	3RC	..	..	..	..	..	A2	..	..	..	..	..	..
Pultenaea verruculosa var. *pilosa*	AR	.	.	..	..	..	..	..	..	A2	..	..	..	..	..
Pultenaea sp. (KRN 3974)	ER	.	.	..	..	..	..	..	..	..	A1	..	..	..	..
Sphaerolobium nudiflorum	R	.	.	..	..	..	..	..	..	..	B2	..	..	..	..
Templetonia neglecta	R	.	.	..	..	..	..	..	..	A1	..	..	..	..	..
Genus indet. (KRN 10941)	ER	.	.	..	..	..	..	..	..	..	..	A1	..	..	..
Rutaceae															
Boronia clavata	R	F	2R	A3	..	..	..	..	..	..	..	..	..	..	..
Boronia octandra	R	.	.	..	..	..	..	..	..	A2	A1	..	..	..	..
Boronia oxyantha var. *brevicalyx*	A	.	.	..	..	..	..	C2	..	..	..	..	..	..	..
Boronia oxyantha var. *oxyantha*	AR	.	3RC	..	..	..	..	B1	..	..	..	..	..	..	..
Boronia penicillata	R	D	.	..	..	..	..	..	..	..	A1	..	..	..	..
Eriostemon cymbiformis	ER	D	2RC	..	..	..	..	..	..	..	A1	..	..	..	..
Rhadinothamnus euphemiae	OR	D	.	..	..	..	..	..	..	..	..	A2	..	..	..

Appendix 3 (continued). Taxa with important conservation values or rarely collected

Family and Species	Conservation value			Frequency and cover/abundance in each vegetation type											
	New.	Mar.	Lei.	Ys	Ep	Ag	Ea	DH	Eg	Eu	Et	PM	LM	PL	S
Tremandraceae															
Platytheca galioides	O	.	.	..	..	..	..	..	..	..	..	A2	..	..	..
Platytheca juniperina	A	.	.	..	..	..	..	..	..	..	..	A2	..	..	..
Tetratheca sp. (KRN 4505)	R	.	.	..	..	..	..	..	..	..	..	..	..	A1	..
Polygalaceae															
Comesperma lanceolatum	R	A	2X	..	..	..	..	..	..	..	B1	..	..	..	..
Euphorbiaceae															
Amperea conferta	O	D	.	..	..	..	..	..	..	..	..	A1	..	..	..
Beyeria latifolia	R	D	2RC	..	..	..	..	..	..	..	..	..	B2	..	..
Calycopeplus marginatus	E	E	2RC	..	..	..	..	B3	..	..	..	..	..	..	..
Ricinocarpos trichophorus	GR	D	2RC	..	..	..	..	..	A2	..	..	..	..	..	..
Sapindaceae															
Dodonaea trifida	R	D	3RC	..	..	..	..	..	..	A2	..	..	..	..	..
Rhamnaceae															
Cryptandra leucopogon	.	.	2K	..	..	..	..	..	..	..	B2	..	..	..	..
Pomaderris oraria	R	D	.	..	..	..	..	..	B1	B1	..	..	..	..	..
Pomaderris racemosa	R	D	.	A1	..	..	..	..	..	..	..	..	..	..	..
Siegfriedia darwinioides	R	B	.	..	A3	..	..	..	..	..	..	..	..	..	..
Spyridium oligocephalum	.	D	.	A1	..	..	..	..	A1	B2	..	..	..	..	..
Spyridium sp. (KRN 4346)	R	.	.	..	..	..	..	..	..	..	A2	..	..	..	..
Spyridium sp. (KRN 4642)	R	.	.	A1	..	..	..	..	..	..	..	..	..	..	..
Spyridium sp. (KRN 5007)	R	.	.	..	..	..	..	..	..	A3	..	..	..	..	..
Trymalium sp. (KRN 6811)	R	.	.	..	..	..	..	..	..	A2	..	..	..	..	..
Malvaceae															
Lawrencia diffusa	R	D	2RC	..	..	..	..	..	A2	..	..	..	..	..	..
Lawrencia glomerata	O	.	.	A2*	..	..	..	..	..	..	..	..	..	..	..
Sterculiaceae															
Lasiopetalum compactum	R	.	.	..	B1	..	..	C2	..	..	..	..	..	..	..
Lasiopetalum indutum	A	.	.	..	..	..	..	..	..	..	C2	..	..	..	..
Lasiopetalum microcardium	R	F	.	..	..	..	..	..	A3	..	..	..	..	..	..
Lasiopetalum monticolum	R	.	.	..	..	..	..	..	..	..	..	B1	..	..	..
Lasiopetalum parviflorum	AR	.	.	A2	..	..	..	..	..	A3	..	..	..	..	A1
Lasiopetalum quinquenervium	A	.	.	..	..	..	..	..	..	B2	..	..	..	..	..
Lasiopetalum rosmarinifolium var. *latifolium*	R	.	.	..	..	..	..	A2	..	..	..	..	..	..	..
Rulingia platycalyx	R	F	.	..	A2	..	..	..	..	..	..	..	..	..	..
Thomasia microphylla	R	.	.	..	..	..	..	..	..	B1	..	..	..	..	..
Thomasia pygmaea	AR	.	.	..	..	..	..	..	..	..	A1	..	..	..	..
Thomasia stelligera	R	E	.	..	..	..	..	..	..	..	A1	..	..	..	..
Frankeniaceae															
Frankenia tetrapetala	.	.	3RC	C3*	..	..	..	..	..	..	..	..	..	..	..
Thymelaeaceae															
Pimelea physodes	A	B	2RC	..	..	..	..	..	..	..	C2	B1	..	..	..
Pimelea sp. (KRN 1339)	R	.	.	..	..	..	..	..	..	..	A1	..	..	..	..

Appendix 3 (continued). Taxa with important conservation values or rarely collected

Family and Species	Conservation value			Frequency and cover/abundance in each vegetation type											
	New.	Mar.	Lei.	Ys	Ep	Ag	Ea	DH	Eg	Eu	Et	PM	LM	PL	S
Myrtaceae															
Agonis undulata	ER	.	.	..	..	..	..	..	..	..	..	B3	..	..	..
Astartea sp. (KRN 10844)	ER	.	.	..	..	..	..	..	..	..	A3	..	..	..	..
Baeckea ovalifolia	E	.	.	..	..	..	..	..	..	..	..	C2	C2	..	..
Baeckea oxycoccoides	R	.	.	..	..	..	..	..	..	..	..	B3	..	..	..
Calothamnus macrocarpus	ER	.	.	..	..	..	..	..	..	..	..	B2	..	..	..
Calothamnus pinifolius	A	E	2VC	..	..	..	..	..	B2	..	..	D4	..	..	..
Calothamnus validus	ER	E	2VC	..	..	..	..	..	..	..	..	B1	..	..	..
Calytrix depressa	O	.	.	..	..	..	..	..	..	..	B4	..	..	..	..
Calytrix simplex	AR	.	.	..	..	..	..	..	..	..	..	A1	..	..	..
Chamelaucium brevifolium	O	.	.	..	..	..	..	..	..	..	B2	..	..	..	..
Chamelaucium sp. (KRN 2650)	ER	.	.	..	..	..	..	..	..	..	A2	..	..	..	..
Darwinia sp. (KRN 4847)	ER	.	.	..	..	..	..	..	..	..	..	..	A2	..	..
Eucalyptus acies	AR	F	2RC	..	..	..	..	..	..	..	..	B3	..	..	..
Eucalyptus albida	O	.	.	..	..	..	..	..	..	..	A3	..	..	..	..
Eucalyptus burdettiana	EGR	B	2VC	..	..	..	..	..	..	..	..	A3	..	..	..
Eucalyptus buprestium	.	F	.	..	..	..	..	..	..	..	C4	..	..	..	..
Eucalyptus conferruminata	R	.	.	..	..	..	..	..	..	..	..	B4	..	..	..
Eucalyptus coronata	EGR	B	2RC	..	..	..	..	..	..	..	..	B4	..	..	..
Eucalyptus gardneri	.	.	3RC	B1	D5	..	..	C2	E5	C2	..	..	..	..	..
Eucalyptus macrandra	R	.	2RC	C3	..	..	..	..	..	..	..	..	..	..	..
Eucalyptus megacornuta	R	B	2V	..	..	..	..	..	..	..	..	A3	..	..	..
Eucalyptus newbeyi	R	.	.	..	A4	..	..	..	..	..	..	..	..	..	..
Eucalyptus nutans	.	.	2RC	..	B1	..	..	B1	E4	..	..	A3	..	..	..
Eucalyptus sepulcralis	E	B	2RC	..	..	..	..	..	..	..	..	D5	..	..	..
Eucalyptus xanthonema	.	.	2V	C1	..	..	..	..	B1	C1	..	..	..	..	..
Kunzea eriocalyx	AR	D	2KC	..	C2	..	..	B1	..	..	..	..	..	..	..
Kunzea jucunda	R	F	.	..	..	..	..	..	..	C3	B3	..	..	..	..
Kunzea spicata	R	.	2K	..	..	..	..	..	..	..	..	..	..	..	..
Kunzea vestita	O	.	.	..	..	..	..	..	..	..	..	A4	..	..	..
Leptospermum sp. (KRN 1730)	ER	.	.	..	..	..	..	..	..	..	..	A5	..	..	..
Melaleuca apodocephala	R	D	3K	..	..	..	..	..	..	B2	..	..	..	..	..
Melaleuca citrina	E	E	2RC	..	..	..	..	..	..	..	..	E4	..	..	..
Melaleuca coccinea	O	E	3V	..	..	..	..	..	..	..	..	..	..	A2	..
Melaleuca elachophylla	ER	C	1K	..	..	..	..	..	..	..	..	..	..	..	..
Melaleuca nesophila	A	E	3RC	..	..	C4	C4	..	..	..	..	..	C4	..	..
Melaleuca sclerophylla	.	.	2V	..	..	..	..	..	..	C3	D4	..	..	C3	..
Melaleuca sparsiflora	R	D	2K	..	..	..	..	..	..	A3	..	..	..	..	..
Melaleuca sp. (KRN 717)	R	.	.	A1	..	..	..	B2	..	..	..	..	..	..	..
Melaleuca sp. (KRN 2768)	ER	.	.	..	..	..	..	B4	..	..	..	..	..	..	..
Melaleuca sp. (KRN 3874)	ER	.	.	..	..	..	..	..	A2	..	..	..	..	..	..
Melaleuca sp. (KRN 4913)	ER	.	.	..	..	..	..	..	..	A5	..	..	..	..	..
Melaleuca sp. (KRN 10856)	A	.	.	..	..	..	..	..	..	B4	..	..	..	..	..
Regelia velutina	E	B	2RC	..	..	..	..	..	..	..	..	D4	..	..	..
Verticordia fastigiata	A	E	2RC	..	..	..	..	C3	..	..	..	..	..	..	..
Verticordia helichrysantha	GR	D	2RC	..	..	..	..	..	..	..	..	..	..	..	..
Verticordia oxylepis	A	F	.	..	..	..	..	C3	..	..	..	..	..	..	..
Verticordia serrata	O	.	.	..	..	..	..	..	..	A3	..	..	..	..	..
Verticordia sp. (KRN 2763)	ER	.	.	..	..	..	..	B4	..	..	..	..	..	..	..
Verticordia sp. (KRN 9739)	ER	.	.	..	..	..	..	A2	..	..	..	..	..	..	..
Genus indet. (KRN 4906)	ER	.	.	..	..	..	..	A2	..	..	..	..	..	..	..
Haloragaceae															
Gonocarpus trichostachyus	R	.	3K	..	..	..	..	..	..	B3	..	..	..	..	..

Appendix 3 (continued). Taxa with important conservation values or rarely collected

Family and Species	Conservation value			Frequency and cover/abundance in each vegetation type											
	New.	Mar.	Lei.	Ys	Ep	Ag	Ea	DH	Eg	Eu	Et	PM	LM	PL	S
Apiaceae															
Hydrocotyle medicaginoides	.	D	.	D3	..	..	..	..	..	..	..	..	..	..	..
Hydrocotyle rugulosa	.	D	.	C2	..	..	..	..	..	..	..	..	..	C2	..
Platysace compressa	.	E	.	..	..	D3	D3	..	..	..	..	..	D3	..	..
Platysace deflexa	.	.	2RK	..	..	..	..	..	..	C3	C3	..	..	..	..
Platysace sp. (KRN 4852)	ER	.	.	..	..	..	..	..	..	..	..	A1	..	..	..
Xanthosia hederifolia	R	D	3K	..	..	..	..	..	..	..	A2	..	..	..	..
Epacridaceae															
Acrotriche plurilocularis	R	.	.	..	A2	..	..	..	..	..	..	..	..	..	..
Andersonia micrantha	R	.	.	..	..	..	..	..	..	..	A2	..	..	..	..
Conostephium drummondii	.	D	.	..	..	..	..	..	..	..	C3	..	..	..	..
Leucopogon bossiaea	R	D	3K	..	..	..	..	..	..	B2	..	..	..	..	..
Leucopogon brevicuspis	R	.	3K	..	..	..	..	A1	..	..	..	..	..	..	..
Leucopogon corynocarpus	.	F	.	..	..	..	..	..	..	..	B2	..	..	..	..
Leucopogon durus	R	D	2RC	..	..	..	..	..	A3	..	..	..	..	..	..
Leucopogon elatior	AR	.	.	..	..	..	..	..	A2	..	..	..	..	..	..
Leucopogon insularis	R	.	.	..	..	..	..	..	..	A1	..	..	..	..	..
Leucopogon minutiflorus var. *ulicinus*	R	.	.	..	..	..	..	..	..	..	..	..	..	..	..
Leucopogon opponens	AR	D	2K	..	..	..	..	..	..	B3	..	..	..	..	..
Leucopogon oxycedrus	R	.	.	..	..	..	..	..	..	..	A1	..	..	..	..
Leucopogon rubicundus	A	.	.	..	C3	..	..	B2	..	..	..	..	..	..	..
Leucopogon unilateralis	O	.	.	..	..	..	..	..	..	..	..	..	..	..	..
Leucopogon woodsii	AR	D	.	..	..	..	..	..	..	..	..	A1	..	..	..
Leucopogon sp. (KRN 2677)	R	.	.	..	..	..	..	B2	..	..	..	..	..	..	..
Leucopogon sp. (KRN 3754)	AR	.	.	..	..	..	..	..	..	A2	..	B2	..	..	..
Leucopogon sp. (KRN 4038)	ER	.	.	..	..	..	..	..	..	..	..	..	B2	..	..
Leucopogon sp. (KRN 4144)	R	.	.	..	..	..	..	..	..	..	A2	..	..	..	..
Leucopogon sp. (KRN 4246)	AR	.	.	..	..	..	..	..	..	..	A3	..	..	..	..
Leucopogon sp. (KRN 4389)	ER	.	.	..	..	..	..	..	A2	..	..	..	..	..	..
Leucopogon sp. (KRN 4670)	AR	.	.	..	..	..	..	..	..	B3	..	..	..	..	..
Leucopogon sp. (KRN 4899)	ER	.	.	..	..	..	..	..	A4	..	..	..	..	..	..
Leucopogon sp. (KRN 9445)	ER	.	.	..	..	..	..	..	..	A3	..	..	..	..	..
Leucopogon sp. (KRN 9446)	ER	.	.	..	..	..	..	..	..	A3	..	..	..	..	..
Monotoca sp. (KRN 3191)	ER	.	.	..	..	..	..	..	..	..	..	A4	..	..	..
Styphelia melaleucoides var. *ovata*	AR	.	.	..	..	..	..	A2	..	..	..	A2	..	..	..
Styphelia pulchella	R	.	.	..	..	..	..	..	A3	..	..	..	..	..	..
Styphelia sp. (KRN 8266)	AR	.	.	..	..	..	..	..	..	..	A1	..	..	..	..
Loganiaceae															
Logania callosa	R	.	.	..	..	..	..	..	..	..	A1	..	..	..	..
Convolvulaceae															
Wilsonia rotundifolia	R	.	.	A4	..	..	..	..	..	..	..	..	..	..	..
Boraginaceae															
Heliotropium undulatum	O	.	.	A1	..	..	..	..	..	..	..	..	..	..	..
Chloanthaceae															
Pityrodia exserta var. *exserta*	ER	.	.	..	..	..	..	..	..	..	..	A2	..	..	..
Lamiaceae															
Microcorys longiflora	ER	E	2RC	..	..	..	..	..	..	A2	..	A2	..	..	..

Appendix 3 (continued). Taxa with important conservation values or rarely collected

Family and Species	Conservation value			Frequency and cover/abundance in each vegetation type											
	New.	Mar.	Lei.	Ys	Ep	Ag	Ea	DH	Eg	Eu	Et	PM	LM	PL	S
Prostanthera serpyllifolia subsp. *microphylla*	.	D	.	..	..	..	..	..	B2	B2	..	..	..	..	..
Teucrium sessiliflorum	O	.	.	..	A3	..	..	..	..	..	..	..	..	..	..
Solanaceae															
Anthocercis fasciculata	ER	D	2RC	..	..	..	..	..	..	..	..	C2	C2	..	..
Lentibulariaceae															
Utricularia violacea	O	.	.	..	..	..	..	..	..	..	..	..	..	A2	..
Myoporaceae															
Eremophila denticulata	GR	D	2KC	A2	..	..	..	..	..	..	..	..	..	..	..
Eremophila phillipsii	O	E	2K	A1	..	..	..	..	..	..	..	..	..	..	..
Eremophila serpens	GOR	.	2E	A2	..	..	..	..	A3	..	..	..	..	..	..
Myoporum beckeri	R	E	2RC	..	..	..	..	..	A3	..	..	..	..	..	..
Myoporum salsoloides	GR	D	3K	A2	..	..	..	..	..	..	..	..	..	..	..
Rubiaceae															
Opercularia apiciflora	R	.	.	B1	..	..	..	..	..	..	..	..	..	..	..
Opercularia liberiflora	AR	D	.	A1	..	..	..	..	..	..	..	..	..	..	..
Goodeniaceae															
Coopernookia georgei	ER	D	2RC	..	..	..	..	..	..	..	..	A3	..	..	..
Dampiera sp. (KRN 2697)	AR	D	.	..	..	..	..	..	..	..	..	C2	..	..	..
Dampiera diversifolia	R	D	3RC	B4	..	..	..	..	..	..	..	..	..	..	..
Dampiera loranthifolia	A	.	.	..	..	..	..	B1	..	..	..	C2	..	..	..
Dampiera aff. *trigona*	.	.	3K	..	..	..	..	C3	..	C3	..	..	..	..	..
Goodenia stenophylla	ER	.	.	..	..	..	..	..	..	..	..	A1	..	..	..
Goodenia sp. (KRN 1726)	AR	.	.	A2	..	..	..	..	..	..	..	..	..	..	..
Lechenaultia acutiloba	R	E	2RC	A4	..	..	..	..	..	..	..	..	..	..	..
Lechenaultia superba	EGR	B	2RC	..	..	..	..	..	..	..	..	A3	..	..	..
Scaevola myrtifolia	R	.	.	A1	..	..	..	..	..	..	..	..	..	..	..
Scaevola aff. *phlebopetala*	O	.	.	..	..	..	..	..	..	..	..	..	..	..	..
Scaevola sp. (KRN 4561)	ER	.	.	A2	..	..	..	..	..	..	..	..	..	..	..
Stylidiaceae															
Levenhookia pauciflora	.	D	.	..	..	..	..	..	..	B1	B1	..	..	..	..
Stylidium albomontis	ER	B	2RC	..	..	..	..	..	..	..	..	C2	..	..	..
Stylidium assimile	R	.	.	..	..	..	..	..	..	A2	..	..	..	..	..
Stylidium carnosum	O	.	.	..	..	..	..	..	..	..	A1	..	..	..	..
Stylidium corymbosum	R	.	2RC	..	..	..	..	..	..	..	..	..	..	..	A4
Stylidium galioides	EGR	B	2RC	..	..	..	..	..	..	..	..	C3	C2	..	..
Stylidium macranthum	.	D	.	..	..	..	..	..	..	..	..	A1	..	..	..
Stylidium pseudohirsutum	AR	D	.	..	..	..	..	..	..	..	A2	..	..	..	..
Asteraceae															
Gnephosis tenuissima	R	D	3K	A3	..	..	..	..	..	..	..	..	..	..	..
Olearia brachyphylla	ER	.	.	..	..	..	..	..	..	A2	..	..	..	..	..
Olearia sp. (KRN 10843)	ER	.	.	..	..	..	..	..	..	..	..	A1	..	..	..
Ozothamnus tephrodes	O	.	.	..	..	..	..	..	A3	..	..	..	..	..	..
Senecio squarrosus	R	D	.	..	..	A1	..	..	..	..	..	..	..	..	..