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Vascular flora of Scott National Park, Camping Reserve 12951 and Gingilup Swamps Nature Reserve, Western Australia

NEIL GIBSON, G.J. KEIGHERY AND M.N. LYONS

CALMScience Division, Department of Conservation and Land Management, PO Box 51 Wanneroo, Western Australia 6065

ABSTRACT

Lists of vascular flora of Scott National Park (↑25373), the adjoining camping reserve (↑12951) and Gingilup Swamps Nature Reserve (↑30626) from the Scott Plain on the south coast of Western Australia are provided. Eight-hundred-and-seventeen taxa were recorded from Scott National Park and the adjoining camping reserve: this is comparable in biodiversity terms with the published flora of Lesueur National Park and the 13 Byenup–Lake Muir reserves. The list includes three species gazetted as Declared Rare Flora and 45 species listed on CALM's priority flora list. There is an urgent need to change the tenure and vesting of the camping reserve (↑12951) to protect the threatened Scott Plains ironstone community and to conserve six priority taxa not recorded from Scott National Park. The preliminary list for Gingilup Swamps Nature Reserve comprises 211 species with 11 of these species on the priority flora list; further work could be expected to substantially increase these numbers. All three reserves cover areas which are highly prospective for mineral sands.

INTRODUCTION

The Scott Coastal Plain extends about 90 km from the Hardy Inlet to near Point D'Entrecasteaux and is bordered in the west by the Leeuwin-Naturaliste Ridge, to the north by the Blackwood Plateau and to the east by Darling Plateau. It consists primarily of a series of late Pleistocene to Holocene dune sequences and alluvial soils associated with the Blackwood and Scott Rivers (Baddock 1995). On the western side of the plain there has been extensive development of a ferruginous sandstone which has formed by the precipitation of iron from groundwater (Baddock 1995). A specific vegetation community with a large number of endemic taxa are found where these ironstones outcrop (Gibson *et al.* 2000). The area is subject to a moderate mediterranean climate with annual rainfall in the order of 1000–1200 mm (Beard 1982).

Much of the western side of the plain has been cleared for agriculture, this area was previously dominated by eucalypt or *Banksia* woodlands on the uplands and a complex mosaic of wetlands on the flats. Scott National Park (↑25373, 3272.9 ha) and Gingilup Swamps Nature Reserve (↑30626, 4326.0 ha) comprise the largest remaining remnants on the western side of the plain (Fig. 1). Robinson and Keighery (1997) have mapped the vegetation of Scott National Park and the adjacent camping reserve (↑12951, 103.9 ha) and list 734 taxa as occurring in these reserves. Recent work by Lyons *et al.* (2000) on determining conservation status of species occurring in the Warren Bioregion (Thackway and Creswell 1995) has resulted in re-compilation of this list and generation of a preliminary list for Gingilup Swamps Nature Reserve.

Four other CALM reserves occur on the western side of the Scott Coastal Plain (↑42942, 3.8 ha; ↑42377, 50.2 ha; ↑15185, 9.8 ha; ↑14779, 103.6 ha), none of these reserves has been surveyed in detail and all are much smaller than Scott National Park and Gingilup Swamps Nature Reserve. Reserve 42377 comprises the water course to the east of Brennan's Ford (adjacent to Scott River National Park) and is noteworthy as being the only conservation reserve in which *Lambertia orbifolia* ssp. Scott Plains (L.W. Sage 684) has been recorded.

All of the Scott Plain is highly prospective for mineral sands with the first major mine having been developed north of Scott National Park. The aim of this paper is to provide details of the floristic values of the two largest reserves on the plain and the camping reserve adjoining Scott National Park.

METHODS

Data on species distribution for three reserves were extracted from the database developed by Lyons *et al.* (2000) with additions from Robinson and Keighery (1997). The database of Lyons *et al.* (2000) was compiled from survey data and records held in Western Australian Herbarium as detailed in that publication. In all, over 2500 records were used to compile the flora lists, of these 36 per cent were derived from collections held in the Western Australian Herbarium and 64 per cent from field survey. Many of the herbarium collections were voucher specimens for the field surveys. Nomenclature generally follows Paczkowska and Chapman (2000).

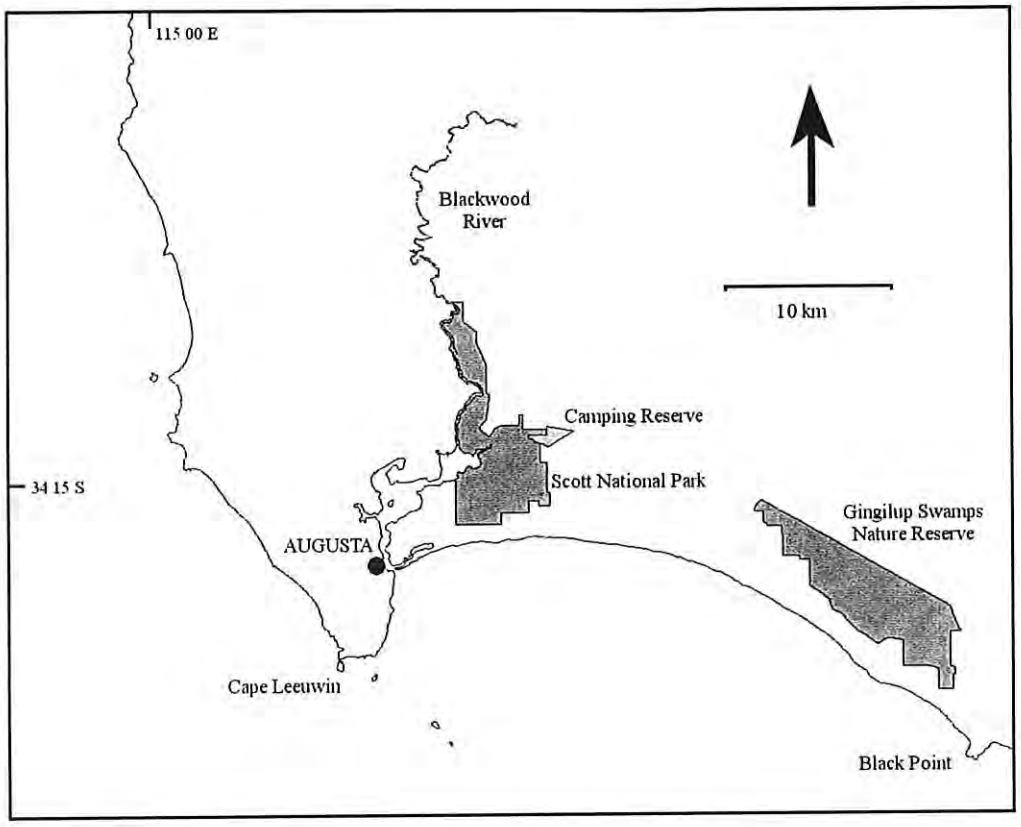

Figure 1. Location of Scott National Park, Camping Reserve (12951), and Gingilup Swamps Nature Reserve.

RESULTS

Scott National Park and Reserve 12951

Eight-hundred-and-seventeen vascular plant taxa (744 native and 73 weeds) were recorded from the Scott National Park and the adjacent camping reserve (Appendix 1). This represents an 11 per cent increase over that reported by Robinson and Keighery (1997); their list was compiled largely from fieldwork undertaken in 1990 and 1991. The largest families were Orchidaceae (58 native, 1 weed), Papilionaceae (51 native, 8 weeds), Proteaceae (54 native), Myrtaceae (49 native, 1 weed), Cyperaceae (46 native, 3 weed), Asteraceae (31 native, 14 weeds) and Restionaceae (42 native). The largest genera were *Stylidium* (28 taxa), *Leucopogon* (22 taxa), *Acacia* (18 taxa), *Schoenus* (15 taxa), *Caladenia* (14 taxa), and *Drosera* (14 taxa). The overall composition is little changed from that reported by Robinson and Keighery (1997) and is typical of the high rainfall zone of south-west Western Australia (Hopper 1979). Members of the Asteraceae and Poaceae (14 taxa) were the most common weeds.

Separate lists for both Scott National Park and the camping reserve are given in Appendix 1. Seven-hundred-and-eighty-seven taxa were recorded in Scott National Park while 178 were listed from the camping reserve. Of these 30 were not recorded in Scott National Park. The Department of Conservation and Land Management lists plant species that are under immediate threat of extinction under provisions of the Wildlife Conservation Act as Declared Rare Flora. Other species of conservation concern are informally listed as priority flora (Atkins 1999). Three species of Declared Rare Flora and 45 taxa on the priority flora list were recorded from the reserves (Table 1). The three species of Declared Rare Flora and 28 priority taxa were restricted to Scott National Park, a further 11 occurred in both reserves and 6 priority taxa were found only in the camping reserve.

The Scott Plain ironstone community is considered a threatened ecological community (English and Blyth 1999). Gibson *et al.* (2000) identify 20 taxa that are largely confined to the ironstone areas of the Swan and Scott Coastal Plains. Six of the taxa have their major distribution centered on the Scott Plain ironstones and another three co-occur on the ironstones of both the Swan and Scott Coastal Plains. Six of these nine taxa are recorded from Scott National Park and the adjacent camping reserve (Table 1). Very little ironstone habitat occurs in Scott River National Park. In contrast, *c.* 30 ha of this habitat occurs in the camping reserve (Robinson and Keighery 1997). The type location for *Chordifex isomorphus* (whose western populations are restricted to the ironstones) occurs in the camping reserve (Meney *et al.* 1996) and no populations of this taxon have been recorded from Scott National Park.

TABLE 1

Threatened and priority flora recorded in Scott National Park and the adjacent camping reserve.

(Conservation codes: R, Declared Rare Flora; Priority 1 - plants known from one or few populations which are under threat; Priority 2 - plants known from one or few populations which are not under threat; Priority 3 - plants known from several populations and not believed to be under immediate threat; Priority 4 - plants that are well known and while rare are not currently threatened but require monitoring - Atkins 1999). Species associated with shallow soils on ironstone indicated in bold.

TAXON	CAMPING RESERVE	SCOTT NATIONAL PARK	CONSERVATION CODE
Boronia exilis		+	R
Dryandra nivea* ssp. *uliginosa		**+**	**R**
Grevillea brachystylis ssp. *australis*		+	R
Philydrella pygmaea ssp. *minima*		+	1
Schoenus indutus		+	1
Thysanotus formosus		+	1
Alexgeorgea ganopoda		+	2
Amperea protensa		+	2
Caladenia abbreviata ms		+	2
Conospermum quadripetalum		+	2
Hybanthus volubilis		+	2
Leptomeria furtiva		+	2
Schoenus loliaceus		+	2
Acacia horridula		+	3
Chordifex gracilior		+	3
Conospermum paniculatum		+	3
Cyathochaeta stipoides		+	3
Gonocarpus pusillus		+	3
Jansonia formosa		+	3
Lepyrodia heleocharoides		+	3
Meeboldina thysanantha ms		+	3
Sphenotoma parviflorum		+	3
Sporadanthus rivularis ms		+	3
Xanthosia eichleri		+	3
Anthotium junciforme		+	4
Aotus carinata		+	4
Astartea sp. Scott River (D.Backshall 88233)		+	4
Melaleuca basicephala		+	4
Microtis media ssp. *quadrata*		+	4
Tyrbastes glaucescens		+	4
Verticordia lehmannii		+	4
Grevillea manglesioides* ssp. *ferricola	**+**	**+**	**1**
***Calothamnus* sp. Scott River (R.D.Royce 84)**	**+**	**+**	**2**
Hakea tuberculata	**+**	**+**	**2**
Blennospora sp. Ruabon (B.J.Keighery & N.Gibson 20)	+	+	3
Boronia anceps	+	+	3
Grevillea papillosa	+	+	3
Isopogon formosus ssp. *dasylepis*	+	+	3
Loxocarya magna	**+**	**+**	**3**
Stylidium leeuwinense	+	+	3
Stylidium mimeticum	+	+	3
Hypocalymma sp. Scott River (A.S.George 11773)	+	+	4
Haloragis tenuifolia	+		1
Thomasia triloba	+		1
Chordifex isomorphus	**+**		**2**
Spyridium spadiceum	+		2
Adenanthos detmoldii	+		4
Thysanotus glaucus	+		4

Of the three ironstone taxa not recorded in Scott National Park or the camping reserve, *Lambertia orbifolia* ssp. Scott Plains (L.W. Sage 684) occurs on ironstone outcrops along Scott River in reserve ↑42942 to the east of Scott National Park, and in the narrow strip of vacant Crown land that follows the river within the boundary of the National Park. One of the remaining taxa is restricted to a single population in Gingilup Swamps Nature Reserve (*Melaleuca incana* ssp. Gingilup (N.Gibson and M.Lyons 593)), and the largest population of the other ironstone taxon (*Darwinia ferricola*) as well as the largest population of *Lambertia orbifolia* ssp. Scott Plains (L.W. Sage 684) occurs in an ironstone remnant on private property to the north of Scott National Park.

Scott National Park is the only secure conservation reserve in which *Leptomeria furtiva* has been recorded. The other known population of this species occurs in Ambergate Reserve south of Busselton which is vested in the Shire of Busselton and managed by the Busselton Naturalists' Club.

Gingilup Swamps Nature Reserve

A total of 211 taxa (201 natives and 10 weeds) have been recorded from very limited survey of Gingilup Swamps Nature Reserve (Appendix 2). The largest families were Myrtaceae (29 native taxa), Cyperaceae (22 native, 1 weed), Restionaceae (22 native), Proteaceae (13 native), Stylidiaceae (12 taxa) and Epacridaceae (10 native). The largest genera were *Stylidium* (12 taxa), *Melaleuca* (10 taxa), and *Drosera, Leucopogon* and *Schoenus* (all with 7 taxa), reflecting the concentration of survey to date on the wet flats.

Eleven species of priority flora are known from Gingilup Swamps Nature Reserve, including the only known population of the ironstone endemic *Melaleuca incana* ssp. Gingilup (N.Gibson and M.Lyons 593) (Table 2). The ironstone community is restricted to a small area on the northern boundary of the reserve. The extensive wet flats that occur in the northern and eastern parts of the reserve support very large populations of the priority taxa *Tyrbastes glaucescens, Melaleuca basicephala,* and *Jansonia formosa.*

DISCUSSION

Ten taxa appear to be endemic to the Scott Coastal Plain, seven of which occur within the boundary of Scott National Park and the camping reserve (*Adenanthos detmoldii, Aotus carinatus, Astartea sp.* Scott River (D.Backshall 88233), *Grevillea brachystylis* ssp. *australis, Grevillea manglesioides* ssp. *ferricola, Hypocalymma* sp. Scott River (A.S.George 11773), and *Philydrella pygmaea* ssp. *minima*). A further two species occur on or near ironstone habitat to the north of Scott National Park (*Darwinia ferricola* ms and *Synaphea nexosa*), and *Melaleuca incana* ssp. Gingilup (N.Gibson and M.Lyons 593) is only known from a single population in Gingilup Swamps Nature Reserve. *Chordifex isomorphus* was at one stage considered to be a Scott endemic but is now known to occur on similar ironstone habitat on the southern end of the Swan Coastal Plain and along the south coast well to the east.

The swamps of Scott National Park and Gingilup Swamps Nature Reserve are floristically distinct from those of the eastern Scott Plain and from the extensive swamps east of Point D'Entrecasteaux (Gibson and Lyons, unpublished data). The swamps in both reserves consist of complex mosaics of different floristic units (Robinson and Keighery 1997).

The Scott National Park and the camping reserve conserve the largest area (*c.* 30 ha) of the threatened Scott Plains ironstone community on public lands on the Scott Plains (Robinson and Keighery 1997; Gibson *et al.* 2000) This community has been recognized as a threatened

TABLE 2

Threatened and priority flora recorded in Gingilup Swamps Nature Reserve.

(Conservation codes: Priority 2 - plants known from one or few populations which are not under threat; Priority 3 - plants known from several populations and not believed to be under immediate threat; Priority 4 - plants that are well known and while rare are not currently threatened but require monitoring - Atkins 1999). Species associated with shallow soils on ironstone indicated in bold.

TAXON	CONSERVATION CODE
Hakea tuberculata	**2**
***Melaleuca incana* ssp. Gingilup (N.Gibson & M.Lyons 593)**	**2**
Andersonia amabile ms	3
Grevillea papillosa	3
Jansonia formosa	3
Stylidium leeuwinense	3
Stylidium mimeticum	3
Adenanthos detmoldii	4
Astartea sp.Scott River (D.Backshall 88233)	4
Melaleuca basicephala	4
Tyrbastes glaucescens	4

ecological community (English and Blyth 1999). There is an urgent need to change the tenure and vesting of the camping reserve to protect this community and conserve the priority taxa not recorded from Scott National Park. The immediate riparian zone of Scott River which bisects the Scott National Park is vacant Crown land, and is presently being managed as part of the conservation reserve, but is an anomalous vesting.

Scott National Park and the adjacent camping reserve are clearly of major conservation significance. The combined flora list of 817 is comparable with the published flora of Lesueur National Park (821 taxa–Griffin *et al.* 1990) and with the published lists for the 13 Byenup – Muir wetland reserves (976 taxa–Gibson and Keighery 2000). The diversity of the flora of Scott National Park resides in the complex wetland systems. Scott National Park and the camping reserve are only *c.* 25 per cent of the size of Mt Lesueur National Park and 17 per cent of the size of the Byenup–Muir Reserves. This is in a setting where much of the western half of the Scott Plain has been cleared for agriculture and all areas are highly prospective for mineral sands.

Very little work has been undertaken to date on documenting the flora and vegetation of Gingilup Swamps Nature Reserve. The area of the reserve is *c.*1000 ha larger than Scott National Park and the adjoining camping reserve. It has a similar complexity of vegetation types (a mosaic of wetlands on the flats and *Agonis*-eucalypt woodlands on the uplands) and could be expected to conserve a similar number of species to that found in Scott National Park and the camping reserve. There is an urgent need for a detailed survey of the flora values of the reserve to be undertaken, as the area is prospective for mineral sands.

The most significant patch of remnant vegetation on the western Scott Coastal Plain outside the conservation reserve network is the large remnant block (*c.* 100 ha) of ironstone community on the eastern half of Sussex location 4264. This block contains the largest known population of *Darwinia ferricola* ms, and large populations of *Adenanthos detmoldii, Calothamnus* sp. Scott River (Royce 84), *Chordifex isomorphus, Dryandra nivea* ssp. *uliginosa, Grevillea manglesioides* ssp. *ferricola, Hakea tuberculata, Lambertia orbifolia* ssp. Scott Plains (L.W. Sage 684) and *Loxocarya magna*. This area is currently being managed for conservation purposes by the mining company BHP: efforts should also be made to acquire this block as a conservation reserve.

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REFERENCES

Atkins, K. (1999). Declared Rare and Priority Flora list – 1999. Unpublished Report, Department of Conservation and Land Management, Perth, Western Australia.

Baddock, L.J. (1995). *Geology and Hydrology of the Scott Coastal Plain, Perth Basin.* Geological Survey of Western Australia Record 1995/7.

Beard, J.S. (1982). Biogeography of the kwongan. In *Kwongan – Plant life of the sandplain: Biology of a south-west Australian shrubland ecosystem* (J.S. Pate and J.S. Beard, eds) University of Western Australia Press, Nedlands.

English, V. and Blyth, J. (1999). Development and application of procedures to identify and conserve threatened ecological communities in the South-west Botanical Province of Western Australia. *Pacific Conservation Biology* **5**, 124–138.

Gibson, N. and Keighery, G.J. (2000). Flora and vegetation of the Byenup-Muir reserve system, south-west Western Australia. *CALMScience* **3**, 323–402.

Gibson, N., Keighery, G.J. and Keighery, B.J. (2000). Threatened plant communities of Western Australia, 1. The ironstone communities of the Swan and Scott Coastal Plains. *Journal of the Royal Society of Western Australia* **83**, 1–12.

Griffin, E.A., Hopper, S.D. and Hopkins, A.J.M. (1990). *Flora*. In: Nature Conservation, Landscape and Recreational Values of the Lesueur area. (A.A. Burbidge, S.D. Hopper and S. van Leeuwen, eds) Environmental Protection Authority *Bulletin* **424**, 39–69.

Hopper, S.D. (1979). Biogeographical aspects of speciation in the south west Australian flora. *Annual review of Ecology and Systematics* **10**, 399–422.

Lyons, M.N., Keighery, G.J., Gibson, N., and Wardell-Johnson, G. (2000). The vascular flora of the Warren Bioregion, south-west Western Australia: Composition, reservation status and endemism. *CALMScience* **3**, 181–250.

Meney, K.A., Pate, J.S. and Dixon, K.W. (1996). New species of Restionaceae from Western Australia. *Telopea* **6**, 649–666.

Paczkowska, G. and Chapman, A.R. (2000). *The Western Australian Flora: A descriptive catalogue.* Wildflower Society of Western Australia Inc., Department of Conservation and Land Management, and Botanic Gardens & Parks Authority, Perth.

Robinson, C. and Keighery, G.J. (1997). Vegetation and flora of Scott and adjacent recreation reserves. *Western Australian Naturalist* **21**, 213–233.

Thackway, R. and Creswell, I.D. (eds) (1995). *An Interim Biogeographic Regionalisation for Australia: A Framework for setting priorities in the National Reserves System Cooperative Program.* Australian Nature Conservation Agency, Canberra.

APPENDIX 1

Flora list for Scott National Park and camping reserve ↑12951.

(* indicates introduced taxa, Conservation codes: R, Declared Rare Flora; Priority 1 - plants known from one or few populations which are under threat; Priority 2 - plants known from one or few populations which are not under threat; Priority 3 - plants known from several populations and not believed to be under immediate threat; Priority 4 - plants that are well known and while rare are not currently threatened but require monitoring - Atkins 1999).

FAMILY	TAXON	SCOTT NP	↑12951	CONSERVATION CODE
Amaranthaceae	*Alternanthera nodiflora*	+		
Anthericaceae	*Agrostocrinum scabrum*	+		
	Caesia aff. *micrantha* (GJK 11607)		+	
	Caesia micrantha	+	+	
	Caesia occidentalis	+		
	Chamaescilla corymbosa var. *corymbosa*	+		
	Hodgsoniola junciformis	+	+	
	Johnsonia acaulis	+		
	Johnsonia lupulina	+		
	Laxmannia sessiliflora ssp. *australis*	+		
	Sowerbaea laxiflora	+	+	
	Thysanotus arenarius	+		
	Thysanotus dichotomus	+		
	Thysanotus formosus	+		1
	Thysanotus glaucus		+	4
	Thysanotus gracilis	+		
	Thysanotus manglesianus	+		
	Thysanotus multiflorus	+	+	
	Thysanotus patersonii	+		
	Thysanotus tenellus	+	+	
	Thysanotus triandrus	+		
	Tricoryne elatior	+		
	Tricoryne humilis	+		
Apiaceae	*Actinotus glomeratus*	+		
	Actinotus laxus ms	+	+	
	Actinotus omnifertilis	+		
	Apium annuum	+		
	Apium prostratum var. *prostratum*	+		
	Centella asiatica	+		
	Daucus glochidiatus	+		
	Eryngium pinnatifidum	+	+	
	Homalosciadium homalocarpum	+	+	
	Hydrocotyle alata	+	+	
	Hydrocotyle blepharocarpa	+		
	Hydrocotyle callicarpa	+		
	Hydrocotyle diantha	+		
	Hydrocotyle pilifera	+		
	Hydrocotyle plebeya	+		
	Pentapeltis peltigera	+		
	Platysace compressa	+		
	Platysace filiformis	+		
	Platysace pendula	+		
	Platysace tenuissima	+		
	Schoenolaena juncea	+		
	Trachymene pilosa	+		
	Xanthosia candida	+		
	Xanthosia eichleri	+		3
	Xanthosia tasmanica	+		
	Xanthosia pusilla	+		
Asphodelaceae	*Bulbine semibarbata*	+		
Asteraceae	*Angianthus preissianus*	+		
	* *Arctotheca calendula*	+		
	* *Aster subulatus*	+		
	Asteridea pulverulenta	+		
	Blennospora sp. Ruabon (B.J.Keighery & N.Gibson 20)	+	+	3

	*	*Carduus pycnocephalus*	+	
		Centipeda cunninghamii	+	
	*	*Cirsium vulgare*	+	
	*	*Conyza albida*	+	
	*	*Conyza bonariensis*	+	
		Cotula coronopifolia	+	
		Craspedia variabilis	+	
		Euchiton sphaericus	+	
		Hyalosperma cotula	+	+
		Hyalosperma demissum	+	
		Hyalosperma pusillum	+	
		Hyalosperma simplex ssp. *simplex*	+	
	*	*Hypochaeris glabra*	+	+
		Ixiolaena viscosa	+	
		Lagenophora huegelii	+	
	*	*Leontodon saxatilis*	+	
		Leptorhynchos scaber	+	+
		Olearia axillaris	+	
		Olearia elaeophila	+	
		Olearia paucidentata	+	
		Ozothamnus cordatus	+	
		Pithocarpa pulchella var. *melanostigma*	+	
		Podolepis gracilis	+	+
		Podotheca angustifolia	+	
	*	*Pseudognaphalium luteoalbum*	+	
		Pterochaeta paniculata	+	
		Quinetia urvillei	+	
		Rhodanthe citrina	+	
	*	*Senecio elegans*	+	
		Senecio glomeratus	+	
		Senecio hispidulus var. *hispidulus*	+	
		Senecio lautus	+	
		Siloxerus humifusus	+	+
	*	*Sonchus asper*	+	
		Sonchus hydrophilus		
	*	*Sonchus oleraceus*	+	
		Trichocline sp. (GJK 6382)		+
	*	*Ursinia anthemoides*	+	
	*	*Vellereophyton dealbatum*	+	+
		Waitzia suaveolens	+	
Brassicaceae	*	*Heliophila pusilla*	+	
		Stenopetalum robustum	+	
Campanulaceae	*	*Wahlenbergia capensis*	+	
		Wahlenbergia gracilenta	+	
		Wahlenbergia multicaulis	+	
Caryophyllaceae	*	*Cerastium glomeratum*	+	
	*	*Corrigiola litoralis*	+	
	*	*Petrorhagia velutina*	+	
	*	*Silene gallica*	+	
Casuarinaceae		*Allocasuarina fraseriana*	+	
Centrolepidaceae		*Aphelia brizula*	+	
		Aphelia cyperoides	+	+
		Aphelia drummondii	+	
		Aphelia nutans		+
		Centrolepis aristata	+	+
		Centrolepis drummondiana	+	
		Centrolepis glabra		+
		Centrolepis inconspicua	+	
		Centrolepis mutica	+	+
Chenopodiaceae	*	*Atriplex prostrata*		+
	*	*Chenopodium multifidum*		+
	*	*Chenopodium murale*	+	
		Halosarcia indica ssp. *bidens*	+	
		Rhagodia baccata	+	
		Sarcocornia quinqueflora ssp. *quinqueflora*	+	
		Suaeda australis	+	

Appendix 1 (continued)

Colchicaceae	*Burchardia congesta*	+		
	Burchardia multiflora	+	+	
Crassulaceae	*Crassula closiana*	+		
	Crassula colorata	+		
	* *Crassula decumbens*	+		
	Crassula exserta	+		
	* *Crassula natans*	+		
	Crassula peduncularis	+		
Cyperaceae	*Baumea articulata*	+		
	Baumea juncea	+		
	Baumea riparia	+		
	Baumea vaginalis	+		
	Bolboschoenus caldwellii	+		
	Chorizandra cymbaria	+	+	
	Chorizandra enodis	+		
	Cyathochaeta avenacea	+		
	Cyathochaeta clandestina	+		
	Cyathochaeta stipoides	+		3
	* *Cyperus tenellus*	+	+	
	Evandra aristata	+	+	
	Gahnia trifida	+		
	Gymnoschoenus anceps	+		
	Isolepis cyperoides	+	+	
	* *Isolepis marginata*	+	+	
	Isolepis nodosa	+		
	* *Isolepis prolifera*	+		
	Isolepis setiformis	+		
	Isolepis stellata	+		
	Lepidosperma carphoides	+		
	Lepidosperma effusum	+		
	Lepidosperma gladiatum	+		
	Lepidosperma longitudinale	+	+	
	Lepidosperma pubisquameum	+		
	Lepidosperma squamatum	+	+	
	Lepidosperma tetraquetrum	+		
	Mesomelaena graciliceps	+	+	
	Mesomelaena stygia	+		
	Mesomelaena tetragona	+	+	
	Schoenus asperocarpus	+		
	Schoenus bifidus	+		
	Schoenus cruentus	+		
	Schoenus curvifolius	+		
	Schoenus discifer	+		
	Schoenus efoliatus	+	+	
	Schoenus elegans	+		
	Schoenus indutus	+		1
	Schoenus loliaceus	+		2
	Schoenus maschalinus		+	
	Schoenus nitens	+		
	Schoenus odontocarpus	+	+	
	Schoenus sp. (C.J. Robinson 402)	+		
	Schoenus subflavus	+		
	Schoenus sublateralis	+		
	Tetraria capillaris	+		
	Tetraria octandra	+		
	Tricostularia neesii var. *elatior*	+		
	Tricostularia neesii var. *neesii*	+		
Dasypogonaceae	*Acanthocarpus preissii*	+		
	Baxteria australis	+	+	
	Dasypogon bromeliifolius	+	+	
	Dasypogon hookeri	+		
	Kingia australis	+		
	Lomandra caespitosa	+		
	Lomandra integra	+		
	Lomandra nigricans	+		
	Lomandra odora	+		

	Lomandra pauciflora	+		
	Lomandra preissii	+		
	Lomandra purpurea	+		
	Lomandra sericea	+		
	Lomandra sonderi	+		
Dennstaedtiaceae	*Pteridium esculentum*	+		
Dilleniaceae	*Hibbertia amplexicaulis*	+		
	Hibbertia cuneiformis	+		
	Hibbertia cunninghamii	+		
	Hibbertia ferruginea	+		
	Hibbertia furfuracea	+		
	Hibbertia glomerosa	+		
	Hibbertia hypericoides	+		
	Hibbertia inconspicua	+		
	Hibbertia pulchra	+		
	Hibbertia racemosa	+		
	Hibbertia sp.rigid bracts (J.R.Wheeler 3220)	+		
	Hibbertia stellaris	+	+	
Droseraceae	*Drosera bulbosa*	+		
	Drosera enodes	+		
	Drosera erythrorhiza	+		
	Drosera gigantea ssp. *geniculata*	+		
	Drosera glanduligera	+	+	
	Drosera huegelii	+		
	Drosera macrantha ssp. *macrantha*	+	+	
	Drosera menziesii ssp. *menziesii*	+	+	
	Drosera myriantha	+		
	Drosera neesii ssp. *neesii*	+	+	
	Drosera nitidula ssp. *omissa*	+	+	
	Drosera pallida	+	+	
	Drosera platypoda	+		
	Drosera pulchella	+		
Epacridaceae	*Andersonia caerulea*	+	+	
	Andersonia involucrata	+		
	Andersonia micrantha	+		
	Andersonia sprengelioides	+		
	Astroloma ciliatum	+		
	Astroloma pallidum	+		
	Leucopogon alternifolius	+	+	
	Leucopogon australis	+		
	Leucopogon capitellatus	+		
	Leucopogon carinatus	+	+	
	Leucopogon conostephioides	+		
	Leucopogon cordatus	+	+	
	Leucopogon distans ssp. *contractus* ms	+		
	Leucopogon gilbertii	+		
	Leucopogon glabellus	+		
	Leucopogon hirsutus	+		
	Leucopogon oxycedrus	+		
	Leucopogon parviflorus	+		
	Leucopogon pendulus	+	+	
	Leucopogon racemulosus	+		
	Leucopogon reflexus	+		
	Leucopogon revolutus	+		
	Leucopogon sp.Windy Harbour (A.Strid 21460)	+	+	
	Leucopogon squarrosus	+		
	Leucopogon striatus	+		
	Leucopogon tenuicaulis ms	+	+	
	Leucopogon unilateralis	+		
	Leucopogon verticillatus	+		
	Lysinema ciliatum	+	+	
	Lysinema conspicuum	+	+	
	Needhamiella pumilio	+	+	
	Sphenotoma capitatum	+		
	Sphenotoma gracile	+	+	
	Sphenotoma parviflorum	+		3

Appendix 1 (continued)

Eremosynaceae		*Eremosyne pectinata*	+		
Euphorbiaceae		*Amperea ericoides*	+		
		Amperea protensa	+		2
		Amperea volubilis	+		
		Calycopeplus oligandrus	+		
		Monotaxis grandiflora	+		
		Monotaxis occidentalis	+		
		Phyllanthus calycinus	+		
		Poranthera ericoides	+		
		Poranthera huegelii	+		
		Poranthera microphylla	+		
Gentianaceae	*	*Centaurium erythraea*	+		
		Centaurium spicatum	+		
	*	*Cicendia filiformis*	+	+	
		Sebaea ovata	+		
Geraniaceae		*Pelargonium littorale*	+		
Goodeniaceae		*Anthotium junciforme*	+		4
		Dampiera alata	+		
		Dampiera hederacea	+		
		Dampiera leptoclada	+		
		Dampiera linearis	+	+	
		Dampiera sacculata	+		
		Dampiera trigona	+		
		Diaspasis filifolia	+	+	
		Goodenia eatoniana	+		
		Goodenia micrantha	+		
		Goodenia pulchella	+		
		Goodenia pusilla	+		
		Lechenaultia biloba	+	+	
		Lechenaultia expansa	+	+	
		Scaevola calliptera	+		
		Scaevola globulifera	+		
		Scaevola nitida	+		
		Scaevola striata var. *striata*	+		
		Velleia macrophylla	+		
		Velleia trinervis	+	+	
Haemodoraceae		*Anigozanthos flavidus*	+		
		Anigozanthos manglesii ssp. *manglesii*	+		
		Anigozanthos viridis ssp. *viridis*	+		
		Conostylis aculeata ssp. *aculeata*	+		
		Conostylis laxiflora	+		
		Conostylis setigera ssp. *setigera*	+		
		Haemodorum laxum	+		
		Haemodorum simplex	+	+	
		Haemodorum sparsiflorum	+		
		Haemodorum spicatum	+		
		Phlebocarya ciliata	+	+	
		Tribonanthes australis	+	+	
		Tribonanthes violacea	+		
Haloragaceae		*Gonocarpus benthamii*	+		
		Gonocarpus hexandrus		+	
		Gonocarpus paniculatus	+		
		Gonocarpus pusillus	+		3
		Haloragis brownii	+		
		Haloragis tenuifolia		+	1
Hydatellaceae		*Trithuria bibracteata*		+	
		Trithuria submersa	+		
Hydrocharitaceae		*Ottelia ovalifolia*	+		
Hypoxidaceae		*Hypoxis occidentalis* var. *quadriloba*	+		
Iridaceae		*Orthrosanthus laxus* var. *laxus*	+		
		Patersonia juncea	+	+	
		Patersonia occidentalis	+	+	
		Patersonia sp. Swamp form (N.Gibson & M.Lyons 544)	+		
		Patersonia umbrosa var. *xanthina*	+		
	*	*Romulea rosea*	+		

Juncaceae	*Juncus amabilis*	+		
	* *Juncus articulatus*	+	+	
	* *Juncus bufonius*	+		
	* *Juncus capitatus*	+		
	Juncus gregiflorus	+		
	Juncus holoschoenus	+		
	Juncus kraussii	+		
	* *Juncus microcephalus*	+		
	Juncus pallidus	+		
	Juncus pauciflorus	+		
	Juncus planifolius	+		
	Juncus subsecundus	+		
	Luzula meridionalis	+		
Juncaginaceae	*Triglochin calcitrapum*	+		
	Triglochin centrocarpum		+	
	Triglochin huegelii	+		
	Triglochin striatum	+		
	Triglochin trichophorum	+		
Lamiaceae	Genus sp. Nillup (R.D. Royce 98)	+		
	Hemiandra pungens	+	+	
	Hemigenia humilis	+		
	* *Mentha pulegium*	+		
	* *Stachys arvensis*	+		
Lauraceae	*Cassytha flava*	+		
	Cassytha glabella	+	+	
	Cassytha micrantha	+		
	Cassytha racemosa forma *pilosa*	+		
	Cassytha racemosa forma *racemosa*	+		
Lentibulariaceae	*Utricularia inaequalis*	+		
	Utricularia menziesii	+		
	Utricularia multifida	+	+	
	Utricularia simplex	+		
Lindsaeaceae	*Lindsaea linearis*	+		
Lobeliaceae	*Grammatotheca bergiana*	+		
	Isotoma hypocrateriformis	+		
	Lobelia alata	+		
	Lobelia gibbosa	+		
	Lobelia rhombifolia	+		
	Lobelia rhytidosperma	+		
	Lobelia tenuior	+		
	* *Monopsis debilis*	+	+	
Loganiaceae	*Logania campanulata*	+		
	Logania serpyllifolia ssp. *angustifolia*	+		
	Logania vaginalis	+		
	Phyllangium paradoxum	+	+	
Loranthaceae	*Nuytsia floribunda*	+		
Lycopodiaceae	*Phylloglossum drummondii*	+		
Malvaceae	*Sida hookeriana*	+		
Menyanthaceae	*Villarsia albiflora*	+		
	Villarsia lasiosperma	+		
	Villarsia latifolia	+		
	Villarsia parnassifolia	+	+	
	Villarsia violifolia	+		
Mimosaceae	*Acacia alata*	+		
	Acacia browniana var. *browniana*	+	+	
	Acacia cochlearis	+		
	Acacia cyclops	+		
	Acacia divergens	+		
	Acacia extensa	+		
	Acacia hastulata	+	+	
	Acacia horridula	+		3
	Acacia huegelii	+		
	Acacia lateriticola	+		
	Acacia littorea	+		
	Acacia myrtifolia	+	+	
	Acacia pulchella var. *pulchella*	+		
	Acacia scalpelliformis	+		
	Acacia stenoptera	+		
	Acacia tetragonocarpa	+		

Appendix 1 (continued)

	Acacia uliginosa	+		
	Acacia urophylla	+		
Myoporaceae	*Myoporum oppositifolium*	+		
Myrtaceae	*Actinodium cunninghamii*	+		
	Agonis flexuosa	+		
	Agonis floribunda	+		
	Agonis juniperina	+		
	Agonis linearifolia	+		
	Agonis parviceps	+		
	Agonis sp. Lake Jasper (B.Hammersley 567)	+		
	Astartea aff. *fascicularis* weeping (GJK 14586)	+		
	Astartea sp. Scott River (D.Backshall 88233)	+		4
	Astartea sp. Wing tips (M.E.Trudgen 12044)	+	+	
	Beaufortia sparsa	+	+	
	Calothamnus lateralis	+	+	
	Calothamnus lehmannii	+		
	Calothamnus schaueri	+		
	Calothamnus sp. Scott River (R.D.Royce 84)	+	+	2
	Calytrix flavescens	+		
	Calytrix leschenaultii	+		
	Darwinia oederoides	+		
	Eucalyptus calophylla	+		
	Eucalyptus diversicolor	+		
	Eucalyptus marginata ssp. *marginata*	+		
	Eucalyptus megacarpa	+		
	Eucalyptus patens	+		
	Eucalyptus rudis	+		
	Homalospermum firmum	+	+	
	Hypocalymma angustifolium	+		
	Hypocalymma ericifolium	+		
	Hypocalymma sp. Scott River (A.S.George 11773)	+	+	4
	Hypocalymma strictum	+		
	Kunzea ericifolia	+		
	Kunzea recurva	+	+	
	Kunzea recurva x *spathulata*	+		
	Kunzea rostrata		+	
	Kunzea spathulata	+		
*	*Leptospermum laevigatum*	+		
	Melaleuca acerosa	+		
	Melaleuca basicephala	+		4
	Melaleuca cuticularis	+		
	Melaleuca incana ssp. *incana*	+	+	
	Melaleuca lateritia	+		
	Melaleuca pauciflora	+		
	Melaleuca preissiana	+		
	Melaleuca rhaphiophylla	+	+	
	Melaleuca spathulata		+	
	Melaleuca thymoides	+	+	
	Pericalymma crassipes	+		
	Pericalymma ellipticum var. *ellipticum*	+		
	Pericalymma spongiocaule	+		
	Verticordia lehmannii	+		4
	Verticordia plumosa var. *brachyphylla*	+		
Onagraceae	*Epilobium billardierianum*	+		
Ophioglossaceae	*Ophioglossum lusitanicum*	+		
Orchidaceae	*Caladenia abbreviata* ms	+		2
	Caladenia brownii ms	+		
	Caladenia cairnsiana	+		
	Caladenia ensata	+		
	Caladenia flava	+		
	Caladenia gardneri ms	+		

		Caladenia georgei ms	+		
		Caladenia infundibularis	+		
		Caladenia latifolia	+		
		Caladenia longicauda	+		
		Caladenia longiclavata	+		
		Caladenia marginata	+	+	
		Caladenia nana	+		
		Caladenia reptans ssp. *reptans* ms	+		
		Cryptostylis ovata	+		
		Cyanicula gemmata ms	+		
		Cyanicula sericea ms	+		
		Diuris laevis	+		
		Diuris longifolia	+	+	
		Drakaea glyptodon	+	+	
		Drakaea thynniphila		+	
		Elythranthera brunonis	+	+	
		Elythranthera emarginata	+		
		Epiblema grandiflorum var. *grandiflorum*	+		
		Eriochilus dilatatus	+	+	
		Eriochilus scaber	+		
		Leporella fimbriata	+		
		Leptoceras menziesii	+		
		Lyperanthus serratus	+		
		Microtis aff. *alba*	+		
		Microtis alba	+	+	
		Microtis atrata	+		
		Microtis media ssp. *media*	+		
		Microtis media ssp. quadrata	+		4
		Millotia myosotidifolia	+		
	*	*Monadenia bracteata*	+		
		Praecoxanthus aphyllus ms	+		
		Prasophyllum aff. *parvifolium*	+		
		Prasophyllum brownii	+		
		Prasophyllum calcicola ms	+		
		Prasophyllum elatum	+		
		Prasophyllum gracile	+		
		Prasophyllum hians	+		
		Prasophyllum macrostachyum	+		
		Prasophyllum parvifolium	+		
		Prasophyllum regium		+	
		Pterostylis aff. *nana*	+		
		Pterostylis barbata	+		
		Pterostylis vittata	+		
		Pyrorchis forrestii	+	+	
		Pyrorchis nigricans	+		
		Thelymitra aff. *holmsii*	+		
		Thelymitra aff. *macrophylla*	+		
		Thelymitra aff. *pauciflora*	+		
		Thelymitra cornicina	+		
		Thelymitra crinita	+		
		Thelymitra flexuosa	+	+	
		Thelymitra fuscolutea	+		
		Thelymitra mucida	+		
Orobanchaceae	*	*Orobanche minor*	+		
Papilionaceae		*Aotus carinata*	+		4
		Aotus intermedia	+		
		Aotus sp. Scott River (K.F.Kenneally 2371)	+		
		Bossiaea linophylla	+		
		Bossiaea ornata	+		
		Bossiaea praetermissa	+	+	
		Bossiaea rufa	+		
		Callistachys lanceolata	+		
		Chorizema diversifolium	+		
		Chorizema ilicifolium	+		
		Chorizema spathulatum	+		
		Daviesia cordata	+		
		Daviesia decurrens	+	+	
		Daviesia flexuosa	+		
		Daviesia inflata	+		

Appendix 1 (continued)

		Euchilopsis linearis	+	+	
		Eutaxia epacridoides	+		
		Eutaxia obovata	+		
		Eutaxia virgata	+		
		Gastrolobium forrestii	+		
		Gompholobium capitatum	+		
		Gompholobium confertum	+		
		Gompholobium knightianum	+		
		Gompholobium marginatum	+		
		Gompholobium ovatum	+		
		Gompholobium polymorphum	+		
		Gompholobium preissii	+		
		Gompholobium scabrum	+		
		Gompholobium tomentosum	+		
		Hardenbergia comptoniana	+		
		Hovea chorizemifolia	+		
		Hovea elliptica	+		
		Hovea pungens	+		
		Hovea stricta	+		
		Hovea trisperma	+		
		Isotropis cuneifolia	+		
		Jacksonia furcellata	+		
		Jacksonia horrida	+	+	
		Jansonia formosa	+		3
		Kennedia carinata	+		
		Kennedia coccinea	+		
		Latrobea diosmifolia	+	+	
	*	*Lotus angustissimus*	+		
	*	*Lotus suaveolens*		+	
	*	*Lotus uliginosus*	+		
	*	*Medicago polymorpha*	+		
		Mirbelia dilatata	+		
	*	*Ornithopus compressus*	+		
		Oxylobium lineare	+		
		Pultenaea reticulata	+		
		Sphaerolobium grandiflorum	+		
		Sphaerolobium medium	+		
		Sphaerolobium nudiflorum	+		
		Sphaerolobium racemulosum	+		
		Sphaerolobium vimineum	+	+	
	*	*Trifolium campestre* var. *campestre*	+		
	*	*Trifolium glomeratum*	+		
	*	*Trifolium subterraneum*	+		
		Viminaria juncea	+		
Philydraceae		*Philydrella pygmaea*	+	+	
		Philydrella pygmaea ssp. *minima*	+		1
Phormiaceae		*Stypandra glauca*	+		
Pittosporaceae		*Billardiera variifolia*	+		
		Cheiranthera preissiana	+		
Poaceae		*Agrostis avenacea*	+		
	*	*Aira caryophyllea*	+		
		Amphipogon debilis	+		
		Amphipogon laguroides	+	+	
		Amphipogon turbinatus	+	+	
	*	*Anthoxanthum odoratum*	+		
		Austrodanthonia acerosa	+		
		Austrodanthonia pilosa	+		
		Austrodanthonia setacea	+	+	
		Austrostipa compressa	+	+	
		Austrostipa flavescens	+		
		Austrostipa semibarbata	+		
	*	*Avellinia michelii*	+		
	*	*Avena barbata*	+		
	*	*Briza maxima*	+		
	*	*Briza minor*	+	+	
	*	*Bromus diandrus*	+		

	*	*Cynodon dactylon*	+		
	*	*Dactylis glomerata*	+		
		Deyeuxia quadriseta	+		
		Dichelachne crinita	+		
		Diplopogon setaceus	+		
	*	*Ehrharta longiflora*	+		
	*	*Hainardia cylindrica*	+		
		Hemarthria uncinata		+	
	*	*Holcus lanatus*	+		
	*	*Lolium rigidum*		+	
		Microlaena stipoides var. *stipoides*	+		
		Neurachne alopecuroidea	+		
		Poa drummondiana	+		
		Poa poiformis		+	
		Poa porphyroclados	+		
		Poa serpentum	+		
	*	*Polypogon monspeliensis*	+		
		Polypogon tenellus	+		
		Sporobolus virginicus	+		
		Tetrarrhena laevis	+		
Podocarpaceae		*Podocarpus drouynianus*	+		
Polygalaceae		*Comesperma calymega*	+		
		Comesperma ciliatum	+		
		Comesperma confertum	+		
		Comesperma flavum	+		
		Comesperma nudiusculum	+		
		Comesperma virgatum	+		
Polygonaceae	*	*Acetosella vulgaris*	+		
		Muehlenbeckia adpressa	+		
	*	*Rumex conglomeratus*	+		
	*	*Rumex crispus*	+		
Portulacaceae		*Calandrinia corrigioloides*	+		
Primulaceae	*	*Anagallis arvensis*	+		
		Samolus junceus	+		
		Samolus repens	+		
	*	*Samolus valerandi*	+		
Proteaceae		*Acidonia microcarpa*		+	
		Adenanthos barbiger ssp. *intermedius* ms	+		
		Adenanthos detmoldii		+	4
		Adenanthos meisneri	+		
		Adenanthos obovatus	+	+	
		Banksia attenuata	+		
		Banksia grandis	+		
		Banksia ilicifolia	+		
		Banksia littoralis	+		
		Banksia meisneri ssp. *ascendens*	+		
		Banksia occidentalis ssp. *occidentalis*	+		
		Conospermum caeruleum ssp. *debile*	+	+	
		Conospermum capitatum ssp. *capitatum*	+		
		Conospermum flexuosum ssp. *laevigatum*	+		
		Conospermum paniculatum	+		3
		Conospermum quadripetalum	+		2
		Dryandra nivea ssp. *uliginosa*	+		R
		Dryandra sessilis	+		
		Grevillea brachystylis ssp. *australis*	+		R
		Grevillea diversifolia	+		
		Grevillea manglesioides	+	+	
		Grevillea papillosa	+	+	3
		Grevillea quercifolia	+		
		Grevillea manglesioides ssp. ferricola	+	+	1
		Hakea amplexicaulis	+		
		Hakea ceratophylla	+		
		Hakea falcata	+		
		Hakea linearis	+	+	
		Hakea lissocarpha	+		
		Hakea oleifolia	+	+	
		Hakea prostrata	+		
		Hakea ruscifolia	+	+	
		Hakea sulcata	+	+	

Appendix 1 (continued)

	Hakea tuberculata	+	+	2
	Hakea varia	+		
	Isopogon axillaris	+		
	Isopogon formosus ssp. *dasylepis*	+	+	3
	Persoonia elliptica	+		
	Persoonia graminea	+		
	Persoonia longifolia	+		
	Persoonia teretifolia	+		
	Petrophile acicularis	+		
	Petrophile diversifolia	+		
	Petrophile linearis	+		
	Petrophile media	+		
	Petrophile serruriae	+		
	Petrophile squamata	+	+	
	Stirlingia seselifolia	+		
	Stirlingia simplex	+		
	Synaphea favosa	+		
	Synaphea floribunda	+		
	Synaphea gracillima		+	
	Synaphea petiolaris	+		
	Xylomelum occidentale	+		
Ranunculaceae	*Clematis pubescens*	+		
	Ranunculus colonorum	+		
Restionaceae	*Alexgeorgea ganopoda*	+		2
	Anarthria gracilis	+	+	
	Anarthria prolifera	+	+	
	Anarthria scabra	+		
	Chaetanthus leptocarpoides	+		
	Chaetanthus tenellus	+		
	Chordifex amblycoleus	+		
	Chordifex gracilior	+		3
	Chordifex isomorphus		+	2
	Cytogonidium leptocarpoides	+	+	
	Desmocladus castaneus ms	+	+	
	Desmocladus fasciculatus	+	+	
	Desmocladus flexuosus	+		
	Empodisma gracillimum	+		
	Hypolaena caespitosa ms	+	+	
	Hypolaena exsulca	+	+	
	Hypolaena fastigiata		+	
	Hypolaena pubescens	+	+	
	Hypolaena viridis ms	+		
	Leptocarpus diffusus	+		
	Leptocarpus tenax	+		
	Lepyrodia heleocharoides	+		3
	Lepyrodia hermaphrodita		+	
	Lepyrodia porterae ms	+	+	
	Loxocarya cinerea	+		
	Loxocarya magna	+	+	3
	Lyginia barbata	+	+	
	Meeboldina coangustata	+		
	Meeboldina crebriculmis ms	+		
	Meeboldina denmarkica	+		
	Meeboldina roycei ms	+		
	Meeboldina scariosa	+		
	Meeboldina tephrina ms	+		
	Meeboldina thysanantha ms	+		3
	Melanostachya ustulata	+	+	
	Platychorda applanata	+		
	Sporadanthus rivularis ms	+		3
	Sporadanthus strictus	+	+	
	Taraxis grossa	+		
	Tremulina cracens ms	+		
	Tremulina tremula	+	+	
	Tyrbastes glaucescens	+		4

Rhamnaceae		*Spyridium globulosum*	+		
		Spyridium spadiceum		+	2
		Trymalium floribundum	+		
		Trymalium ledifolium var. *rosmarinifolium*	+		
Rosaceae	*	*Rubus discolor*	+		
Rubiaceae		*Opercularia apiciflora*	+		
		Opercularia echinocephala	+		
		Opercularia hispidula	+		
		Opercularia vaginata	+	+	
		Opercularia volubilis	+		
Ruppiaceae		*Ruppia polycarpa*	+		
Rutaceae		*Boronia anceps*	+	+	3
		Boronia crenulata ssp. *crenulata*	+		
		Boronia crenulata ssp. *pubescens*		+	
		Boronia denticulata	+		
		Boronia exilis	+		R
		Boronia fastigiata ssp. *tenuior*	+	+	
		Boronia juncea ssp. *micrantha*	+		
		Boronia juncea ssp. *minima*	+		
		Boronia megastigma	+		
		Boronia molloyae	+		
		Boronia spathulata	+	+	
		Chorilaena quercifolia	+		
		Philotheca spicata	+	+	
		Rhadinothamnus anceps	+		
Santalaceae		*Leptomeria furtiva*	+		2
		Leptomeria pauciflora	+		
		Leptomeria scrobiculata	+		
		Leptomeria squarrulosa	+		
Sapindaceae		*Dodonaea viscosa* ssp. *angustissima*	+		
Scrophulariaceae	*	*Bartsia trixago*	+		
		Glossostigma drummondii	+		
		Gratiola pubescens	+		
	*	*Parentucellia latifolia*	+		
	*	*Parentucellia viscosa*		+	
		Veronica calycina	+		
Selaginellaceae		*Selaginella gracillima*	+		
Solanaceae		*Anthocercis littorea*	+		
	*	*Solanum nigrum*	+		
Stackhousiaceae		*Stackhousia monogyna*	+		
		Tripterococcus brachylobus ms	+		
		Tripterococcus brunonis	+		
Sterculiaceae		*Rulingia corylifolia*	+		
		Thomasia pauciflora	+		
		Thomasia triloba		+	1
Stylidiaceae		*Levenhookia dubia*	+	+	
		Levenhookia pauciflora	+		
		Levenhookia preissii	+		
		Levenhookia pusilla	+		
		Stylidium adnatum	+		
		Stylidium aff. *bulbiferum* (C.J. Robinson 450)	+		
		Stylidium amoenum	+	+	
		Stylidium brunonianum	+		
		Stylidium bulbiferum	+	+	
		Stylidium calcaratum	+		
		Stylidium crassifolium	+		
		Stylidium diversifolium	+		
		Stylidium ecorne	+	+	
		Stylidium falcatum	+		
		Stylidium fasciculatum	+		
		Stylidium glaucum ssp. *angustifolium*	+	+	
		Stylidium guttatum	+		
		Stylidium inundatum	+	+	
		Stylidium junceum	+	+	
		Stylidium leeuwinense	+	+	3
		Stylidium lineatum	+		

Appendix 1 (continued)

	Stylidium luteum ssp. *glaucifolium*	+	+	
	Stylidium mimeticum	+	+	3
	Stylidium perpusillum	+	+	
	Stylidium piliferum	+		
	Stylidium pulchellum	+	+	
	Stylidium repens	+		
	Stylidium scandens	+	+	
	Stylidium schoenoides	+		
	Stylidium spathulatum	+		
	Stylidium squamosotuberosum	+		
	Stylidium violaceum	+		
Thymelaeaceae	*Pimelea angustifolia*	+	+	
	Pimelea ferruginea	+		
	Pimelea hispida	+		
	Pimelea lanata	+		
	Pimelea longiflora ssp. *longiflora*	+	+	
	Pimelea preissii	+		
	Pimelea rosea ssp. *rosea*	+	+	
Tremandraceae	*Platytheca galioides*	+		
	Tetratheca setigera	+		
	Tremandra diffusa	+		
	Tremandra stelligera	+		
Typhaceae	*Typha domingensis*	+		
Violaceae	*Hybanthus volubilis*	+		2
Xanthorrhoeaceae	*Xanthorrhoea brunonis*	+		
	Xanthorrhoea gracilis	+		
	Xanthorrhoea preissii	+	+	
Xyridaceae	*Xyris gracillima*	+		
	Xyris lacera	+		
	Xyris lanata	+		
	Xyris laxiflora	+		
	Xyris roycei	+		
Zamiaceae	*Macrozamia riedlei*	+		
Zannichelliaceae	*Lepilaena cylindrocarpa*	+		

APPENDIX 2

Flora list for Gingilup Swamps Nature Reserve.

(* indicates introduced taxa, Conservation codes: Priority 2 - plants known from one or few populations which are not under threat; Priority 3 - plants known from several populations and not believed to be under immediate threat; Priority 4 - plants that are well known and while rare are not currently threatened but require monitoring - Atkins 1999).

FAMILY	TAXON	CONSERVATION CODE
Anthericaceae	*Agrostocrinum scabrum*	
	Hodgsoniola junciformis	
	Thysanotus gracilis	
	Thysanotus multiflorus	
	Tricoryne humilis	
Apiaceae	*Hydrocotyle alata*	
	Schoenolaena juncea	
Aspleniaceae	*Asplenium flabellifolium*	
Asteraceae	* *Conyza albida*	
	Craspedia variabilis	
	Hyalosperma pusillum	
	* *Hypochaeris glabra*	
	Podolepis gracilis	
	Siloxerus humifusus	
Centrolepidaceae	*Aphelia cyperoides*	
	Centrolepis aristata	
	Centrolepis drummondiana	
Colchicaceae	*Burchardia multiflora*	
Cyperaceae	*Baumea juncea*	
	Baumea vaginalis	
	Chorizandra cymbaria	
	Cyathochaeta avenacea	
	* *Cyperus tenellus*	
	Evandra aristata	
	Gymnoschoenus anceps	
	Isolepis cyperoides	
	Lepidosperma longitudinale	
	Lepidosperma pubisquameum	
	Lepidosperma squamatum	
	Mesomelaena graciliceps	
	Mesomelaena tetragona	
	Schoenus curvifolius	
	Schoenus efoliatus	
	Schoenus odontocarpus	
	Schoenus sublateralis	
	Schoenus sublaxus	
	Schoenus tenellus	
	Schoenus variicellae	
	Tetraria capillaris	
	Tricostularia neesii var. *elatior*	
	Tricostularia neesii var. *neesii*	
Dasypogonaceae	*Baxteria australis*	
	Dasypogon bromeliifolius	
	Lomandra collina	
Dilleniaceae	*Hibbertia amplexicaulis*	
	Hibbertia furfuracea	
	Hibbertia racemosa	
	Hibbertia stellaris	
Droseraceae	*Drosera enodes*	
	Drosera glanduligera	
	Drosera menziesii ssp. *menziesii*	
	Drosera myriantha	
	Drosera pallida	
	Drosera platypoda	
	Drosera pulchella	

Appendix 2 (continued)

Epacridaceae		*Andersonia amabile* ms	3
		Andersonia caerulea	
		Leucopogon alternifolius	
		Leucopogon australis	
		Leucopogon cordatus	
		Leucopogon gracilis	
		Leucopogon pendulus	
		Leucopogon racemulosus	
		Leucopogon sp. Windy Harbour (A.Strid 21460)	
		Sphenotoma capitatum	
Euphorbiaceae		*Amperea volubilis*	
		Monotaxis grandiflora	
Gentianaceae	*	*Centaurium erythraea*	
Goodeniaceae		*Dampiera linearis*	
		Dampiera trigona	
		Diaspasis filifolia	
		Goodenia pulchella ssp. coastal plain A (M.Hislop 634) ms	
		Lechenaultia expansa	
		Velleia trinervis	
Haemodoraceae		*Anigozanthos flavidus*	
		Conostylis aculeata ssp. *aculeata*	
		Phlebocarya ciliata	
		Tribonanthes australis	
Iridaceae		*Patersonia occidentalis*	
		Patersonia umbrosa	
Juncaceae	*	*Juncus bufonius*	
	*	*Juncus capitatus*	
		Juncus planifolius	
Lauraceae		*Cassytha glabella*	
		Cassytha racemosa	
Lobeliaceae		*Isotoma hypocrateriformis*	
		Johnsonia lupulina	
		Lobelia alata	
		Lobelia heterophylla	
Loganiaceae		*Logania vaginalis*	
		Phyllangium paradoxum	
Lycopodiaceae		*Lycopodiella serpentina*	
Mimosaceae		*Acacia hastulata*	
		Acacia myrtifolia	
		Acacia pulchella	
Myrtaceae		*Agonis flexuosa* var. *flexuosa*	
		Agonis floribunda	
		Agonis juniperina	
		Agonis linearifolia	
		Agonis parviceps	
		Agonis sp.Lake Jasper(B.Hammersley 567)	
		Astartea sp. Wing tips (M.E.Trudgen 12044)	
		Astartea sp. Gingilup (N.Gibson & M.Lyons 119)	
		Astartea sp. Scott River (D.Backshall 88233)	4
		Beaufortia sparsa	
		Calothamnus lateralis	
		Eucalyptus marginata	
		Hypocalymma cordifolium ssp. *minus* ms	
		Hypocalymma ericifolium	
		Kunzea ericifolia	
		Kunzea recurva	
		Kunzea recurva x *sulphurea*	
		Melaleuca basicephala	4
		Melaleuca cuticularis	
		Melaleuca incana ssp. Gingilup (N.Gibson & M.Lyons 593)	2
		Melaleuca incana ssp. *incana*	
		Melaleuca lateritia	
		Melaleuca pauciflora	
		Melaleuca preissiana	

	Melaleuca rhaphiophylla	
	Melaleuca thymoides	
	Melaleuca uncinata	
	Pericalymma crassipes	
	Pericalymma ellipticum	
Orchidaceae	*Microtis* aff. *alba*	
	Microtis brownii	
	Pterostylis aff. *nana*	
	Thelymitra aff. *holmsii*	
	Thelymitra crinita	
	Thelymitra flexuosa	
Papilionaceae	*Aotus intermedia*	
	Eutaxia obovata	
	Gompholobium capitatum	
	Jansonia formosa	3
	Latrobea diosmifolia	
	* *Ornithopus pinnatus*	
	Sphaerolobium gracile	
	* *Trifolium dubium*	
	Viminaria juncea	
Philydraceae	*Philydrella pygmaea*	
Phormiaceae	*Dianella revoluta*	
Poaceae	* *Aira caryophyllea*	
	Amphipogon debilis	
	Amphipogon turbinatus	
	* *Briza minor*	
	Dichelachne crinita	
	Poa poiformis	
Polygalaceae	*Comesperma calymega*	
	Comesperma confertum	
Proteaceae	*Adenanthos detmoldii*	4
	Adenanthos obovatus	
	Banksia attenuata	
	Banksia littoralis	
	Banksia occidentalis ssp. *occidentalis*	
	Conospermum capitatum	
	Grevillea papillosa	3
	Hakea ceratophylla	
	Hakea linearis	
	Hakea sulcata	
	Hakea tuberculata	2
	Hakea varia	
	Petrophile squamata	
Restionaceae	*Anarthria gracilis*	
	Anarthria prolifera	
	Chaetanthus leptocarpoides	
	Chordifex amblycoleus	
	Desmocladus fasciculatus	
	Hypolaena exsulca	
	Hypolaena pubescens	
	Leptocarpus diffusus	
	Lepyrodia drummondiana	
	Lepyrodia hermaphrodita	
	Loxocarya cinerea	
	Lyginia barbata	
	Meeboldina denmarkica	
	Meeboldina roycei ms	
	Meeboldina scariosa	
	Meeboldina tephrina ms	
	Platychorda applanata	
	Sporadanthus strictus	
	Stenotalis ramosissima	
	Taraxis grossa	
	Tremulina tremula	
	Tyrbastes glaucescens	4
Rutaceae	*Boronia juncea* ssp. *minima*	
	Boronia megastigma	
	Phebalium anceps	
	Philotheca spicata	

Appendix 2 (continued)

Santalaceae	*Leptomeria scrobiculata*	
	Leptomeria squarrulosa	
Sterculiaceae	*Thomasia pauciflora*	
Stylidiaceae	*Stylidium caespitosum*	
	Stylidium calcaratum	
	Stylidium crassifolium	
	Stylidium glaucum ssp. *angustifolium*	
	Stylidium imbricatum	
	Stylidium inundatum	
	Stylidium junceum	
	Stylidium leeuwinense	3
	Stylidium luteum	
	Stylidium mimeticum	3
	Stylidium repens	
	Stylidium scandens	
Thymelaeaceae	*Pimelea hispida*	
	Pimelea lanata	
	Pimelea longiflora ssp. *longiflora*	
	Pimelea rosea	
Tremandraceae	*Tetratheca setigera*	
	Tremandra stelligera	
Xanthorrhoeaceae	*Xanthorrhoea preissii*	