

**Flora and Vegetation of Dardanup Forest Block**

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**Abstract**

Dardanup Forest Block is the only vegetated conservation area known to encompass the Darling and Whicher Scarp and associated foothills. Three principal plant communities are present in the area: Jarrah Woodland, Marri-Jarrah-Mountain Marri woodland and Banksia woodland. Three regional floristic community types are represented in the block, type 1a: *Eucalyptus haematoxylon-E. marginata* woodlands of the Whicher Foothills, type 21b: Southern Banksia woodlands and Jarrah forest of the Western Edge of the Darling Plateau. Types 1a and 21 b are at or near their northern limits in Dardanup Block. These are some of the largest known occurrences of these poorly reserved community types. The block contains a vascular flora of 481 taxa; 443 are natives and 38 weeds. Seven of these taxa are non-flowering plants, 177 are monocotyledons (162 natives and 15 weeds) and 297 are dicotyledons (274 natives and 23 weeds). One declared rare taxa, 3 priority taxa and 4 taxa deserving of listing (*Chamelaucium erythrochlora*, *Acacia semitrullata*, *Lambertia multiflora* var *darlingensis*, *Pultenea radiata*, *Logania* sp. nov., *Lomandra* sp. nov., *Nemcia cordata* and *Xanthorrhoea acanthostachya*) are found on the block. Two (*Logania* sp nov and *Lomandra* sp nov) of these taxa were discovered during the survey and are only known from this block.

**INTRODUCTION**

Dardanup Forest Block, part of State forest 27, is located on the conjunction of the Whicher and Darling Scarp, approximately 5 kilometres east of Dardanup along Ironstone Road (Map 1). The block was designated in the Forest's Department Working Plan No. 87 as the Dardanup Management Priority Area for the conservation of flora, fauna and landscape.

The System Six study (Dept. Conserv. Environ., 1983) endorsed this designation and suggested that Reserve 2029 be added to the MPA. This document suggesting that the MPA "conserves a range of vegetation associated with the northern extension of the Blackwood Plateau (Donnybrook Sunklands). Some of these vegetation associations are unique. Open - forest of Jarrah and Marri and woodland of Banksia and Paperbark are dominant, with some Yarri, Bullich and Swamp Banksia occurring in moister areas. The MPA also contains the only extensive stands of Mountain Gum in System Six."

There was little botanical data available on this area despite potential land use conflicts being present. This block was studied as part of the Swan Coastal Plain survey, since the lower section of the

block contains the foothills of the Darling Scarp. A more complete study was undertaken in 1996. The results are presented here.

#### SURVEY METHOD

Survey work in Dardanup Forest Block was performed over three flowering seasons from 1993 to 1996 in conjunction with regional survey work on the Swan Coastal Plain (Gibson et al. 1994).

Twelve sites were located in the block (Map 2) to sample the range of plant communities identified using aerial photographs and field interpretation. Four are permanently located 100 m<sup>2</sup> sites used in the regional floristic study of the Swan Coastal Plain (Gibson et al. 1994). Groups of conservation volunteers established a further eight sites in 1996. All sites were sampled on at least two occasions.

Opportunistic plant collections, that is collections made outside the sites, were made during vehicle and foot traverse at various times of the year, during 1996.

#### GEOMORPHOLOGY AND SOILS

Dardanup forest block is located on the Darling fault and spans the broad geomorphic units, the Darling Scarp, Whicher Scarp, their foothills, and a section of the Swan Coastal plain.

The soils comprise lateritic uplands and spurs of the western margin of the Darling plateau and escarpment, with small areas of outcropping Quartzite. Below these areas are colluvial sands and loams at the far west is a small area of Yoganup formation (Anon., 1981) of the Swan Coastal Plain.

Dardanup is the only area of the forest/conservation estate which spans the Darling Scarp, Whicher Scarp and the Swan Coastal Plain where they join, south east of Bunbury.

#### VEGETATION

The vegetation map (Map 2) shows the distribution of the principal plant communities based on the vegetation descriptions of the 12 sites.

Essentially the plant communities can classed as woodlands.

##### Banksia/Jarrahd woodlands (Map 2:bW)

*Banksia attenuata* dominates the lowest slopes, however, there are often scattered Jarrah trees throughout this area which increase in density towards the base of the scarp. Other low trees are *Banksia grandis*, *Xylomelon occidentale* and *Persoonia longifolia* over a dense understorey of shrubs, herbs and sedges. The characteristic shrubs are *Xanthorrhoea preissii*, *Stirlingia latifolia*, *Bossiaea eriocarpa*, *Jacksonia sparsa*, *Daviesia physodes*, *Hibbertia hypericoides* and the herbs *Patersonia umbrosa* var *xanthina*, *Phlebocarya ciliata*, *Dasypogon bromeliifolius*. Two sedges *Hypolaena exsulca* and *Lyginia barbata* dominate the sedge layer.

##### Jarrahd woodland (map 2: jW)

Jarrahd woodland to forest mixed with varying amounts of Marri is characteristic of lateritic soils. These trees have a dense

understorey of shrubs such as *Xanthorrhoea preissii*, *Hibbertia hypericoides*, *Acacia latericola*, *Xanthorrhoea gracilis*, *Hakea amplexicaulis*, *Hibbertia amplexicaulis*, *Dryandra lindleyana*, *Lechenaultia biloba*, *Bossiaea eriocarpa*, *Isopogon sphaerocephalus* and *Eriostemon spicatus*, and the herbs *Patersonia umbrosa* var *xanthina*, *Trichocline spathulata*, *Lagenifera huegelii*, *Patersonia babianoides* on the lower slopes Marri mixed becomes dominant

#### Mountain Marri low woodland (Map 2: MmLW)

Mountain marri woodland to low forest with varying amounts of Jarrah and Marri (Which can become dominant in deeper colluvial soils) and scattered trees of *Banksia grandis* and *Persoonia longifolia* over a dense understory of shrubs such as *Xanthorrhoea preissii*, *Hibbertia hypericoides*, *Adenanthes barbigera*, *Kennedia coccinea*, *Xanthorrhoea gracilis*, *Bossiaea ornata*, *Dryandra lindleyana*, *Isopogon sphaerocephalus*, *Eriostemon spicatus*, *Hakea lissocarpa*, *Hibbertia commutata* and the herbs *Patersonia juncea*, *P. umbrosa* var *xanthina*, *Patersonia babianoides*, *Lagenifera huegelii*, *Lomandra sericea* and *Johnsonia lupulina*. *Tetraria octandra* and *Loxocarya fasiculata* dominate the sedge layer.

A very distinctive form of this community occurs on outcropping quartzite ridges along the Darling Scarp. Here *Eucalyptus marginata* and *E. haematoxylon* open low woodland occurs over tall heath of *Xanthorrhoea acanthostachya*, *Nemcia cordata*, *Lambertia multiflora* var *darlingensis*, *Dryandra armata*, *Hakea cyclocarpa* and *Hibbertia hypericoides* over herbs of *Lomandra* aff. *nutans* and *Patersonia limbata*. It is likely with further studies along the southern Darling Scarp this may prove to be a separate floristic community, that is rare and restricted.

#### **Floristic Community Types**

Twelve floristic sites were established

The regional floristic survey of the Swan Coastal Plain identified floristic community types, 1a (*Eucalyptus haematoxylon* - *E. marginata* woodlands on Whicher Foothills and type, 21b (Southern Banksia woodlands). The first is at it's northern limit and the second very near. Both occurrences in Dardanup block of these vulnerable and poorly reserved communities are large and significant for their conservation.

The Jarrah woodlands of the western edge of the Darling Plateau form a new group, but placement of this and the quartzite ridges await completion of the Darling Scarp survey.

#### **FLORA**

Dardanup Forest Block contains a vascular flora of 481 taxa (Table 1). Of these 443 are natives and 38 weeds. Seven of these are non flowering vascular plants, 177 are monocotyledons (162 natives and 15 weeds) and 297 are dicotyledons (274 natives and 23 weeds).

The Papillionaceae (35 natives, 5 weeds), Proteaceae (32 natives), Myrtaceae (26 natives), Cyperaceae (23 natives, 1 weed), Asteraceae (21 natives, 7 weeds), Anthericaceae (20 natives), Poaceae (13 natives, 6 weeds), Dasypogonaceae (17 species), Haemodoraceae (17

natives, Mimosaceae (16 natives) and Styliadiaceae (16 natives). The largest genera are *Acacia* (16 species), *Lomandra* (14 species), *Drosera* (14 species), *Styliodium* (13 species) and *Caladenia* (11 species).

#### **SIGNIFICANT FLORA**

One species of declared rare flora (Atkins, 1996), *Chamelaucium erythrochlora* is recorded at the northern limit of its' range from Dardanup Block. Three priority taxa (*Acacia semitrullata*, *Lambertia multiflora* var *darlingensis* and *Pultenea radiata*) are also recorded from Dardanup Block.

#### **Significant flora of particular interest**

##### *Thysanotus pseudojunceus* (Anthericaceae)

A rhizomatous herb, found from Albany to Alexandra Bridge in low *Eucalyptus marginata* woodland. The population in Dardanup Block is disjunct from Nannup and the northern limit of the species' range.

##### *Actinostrobus acuminatus* (Cupressaceae)

A prostrate conifer from an underground stem which occurs from Three Springs to Boyanup. Rarely recorded south of Perth there are three known populations, one at Pinjarra, one in Dardanup and one near Boyanup (in a sand mining lease). The largest and only secure population is in Dardanup Block.

##### *Lomandra aff nutans* (GK 15,307) (Dasypogonaceae)

There are 14 species of *Lomandra* recorded from the block, one of the highest diversity of co-occurring and closely allopatric species known for this genus, normally 3-5 species are found in a block. One of these is a new species allied to *Lomandra nutans*, a species ranging from the Stirling Ranges to York. This species was discovered during the Swan Coastal Plain survey and is currently only known from this block. It should be added to CALM's priority flora list.

##### *Patersonia limbata* (Iridaceae)

A tufted rhizomatous herb found from Cape Arid to the Stirling Ranges with disjunct scattered populations north-west of this area. Five species of *Patersonia* are recorded from the block, also a very high number for this genus.

##### *Logania* sp nov (GJK 15,234) (Loganiaceae)

This undescribed species of *Logania* is currently only known from Dardanup block where it is found in the Jarrah woodland on colluvial surfaces. It should be added to CALM's priority flora list.

##### *Acacia mooreana* (Mimosaceae)

A low shrub to 60 cm tall, occurs from Boyanup to Karridale. The population in Dardanup Block is at the northern limit of the species range.

##### *Acacia semitrullata* (Mimosaceae)

A low shrub to 60 cm tall, occurs from Yarloop to Donnybrook and Yallingup on sandy soils.

##### *Calothamnus schaueri* (Myrtaceae)

A low spreading shrub found between Pingelly and the Stirling Range. The species is present as a series of disjunct populations in the forest and is rarely recorded this far west.

*Chamelaucium erythrocyclora* (Myrtaceae)

A declared rare species, largely confined to the Blackwood plateau and Whicher Scarp with one population on the Swan Coastal Plain near Busselton. The population in Dardanup Block is the northern most.

*Nemcia cordata* ms (Papillionaceae)

This newly recognised species was previously only recorded from the Yoongarrillup area. The Dardanup population is currently the only known extant population. It should be added to Calm's priority flora list.

*Pultenea radiata* (Papillionaceae)

Largely confined to the western edge of the Blackwood Plateau along the Whicher Scarp, at the northern limit of the species range.

*Lambertia multiflora* var *darlingensis* (Proteaceae)

A tall shrub, occurring in scattered populations along the Darling scarp from Gingin to Busselton area. The population in Dardanup block is the southernmost extant (there are old records from the base of the Whicher Range) and disjunct from Pinjarra.

*Xanthorrhoea acanthostachya* (Xanthorrhoeaceae)

A species confined to the Darling Scarp. Previously recorded from Walyunga National Park to Harvey, it is at the southern margin of its range.

#### Acknowledgments

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#### REFERENCES

Anon. (1981) Bunbury - Burekup Sheet 2035 111 and part Sheet 1935, Urban geology Series. Department of Minerals and Energy, Perth.

Atkins, K.J. 21/10/1996 Declared Rare and Priority List for Western Australia. Department of Conservation and Land Management, W.A.

Churchward, H.M. and McArthur, W.M. 1980 Landforms and Soils of the Darling System. In "Atlas of Natural Resources, Darling System, Western Australia." Department of Conservation and Environment, Western Australia.

Department of Conservation and Environment (1983) Conservation reserves for Western Australia. The Darling System - System Six. parts 1 and 2. report13.

Gibson, N.G., Keighery, B.J., Keighery, G.J., Burbidge, A.H. and Lyons, M.N. (1994) A Floristic Survey of the Swan Coastal Plain. Report for the Australian Heritage Commission prepared by the Department of Conservation and land management and the Conservation Council of Western Australia (Inc.).

Heddle, E.M., Loneragan, O.W. and Havel, J.J. (1980) Vegetation of the Darling System. In: atlas of natural resources, Darling System, Western Australia. Department of Conservation and Environment, Western Australia,

Smith, F.G. (1973) Vegetation Map of Collie. Western Australian Department of Agriculture, Perth.

**Table one Dardanup Forest Block Flora List**

(Habitat Code: D - Disturbed, B - Banksia , SW - Swamps or creeklines, JA - Jarrah, JH - Jarrah, Haematoxylon)

Nat Taxon Name	Q	D	B	SW	JA	JH
<b>Adiantaceae</b>						
Cheilanthes austrotenuifolia					+	+
<b>AMARANTHACEAE</b>						
Ptilotus manglesii						+
<b>Amaryllidaceae</b>						
* Amaryllis belladonna					+	
<b>Anthericaceae</b>						
Agrostocrinum scabrum					+	+
Arthropodium capillipes					+	
Borya sphaerocephala						
Caesia micrantha					+	+
Caesia occidentalis					+	
Chamaescilla corymbosa var. corymbosa				+	+	+
Johnsonia acaulis					+	
Johnsonia lupulina					+	+
Laxmannia sessiliflora subsp. australis					+	+
Sowerbaea laxiflora				+	+	+
Thysanotus arbuscular					+	
Thysanotus arenarius					+	
Thysanotus manglesianus					+	
Thysanotus multiflorus					+	
Thysanotus patersonii					+	+
Thysanotus pseudojunceus					+	+
Thysanotus sparteus					+	+
Thysanotus thyrsoides					+	+
Tricoryne elatior					+	+
Tricoryne humilis					+	
Tricoryne tenella					+	
<b>Apiaceae</b>						
Actinotus glomeratus				+	+	+
Daucus glochidiatus				+	+	+
Homalosciadium homalocarpum				+		
Hydrocotyle alata				+	+	
Hydrocotyle callicarpa						+
Hydrocotyle pilifera var glabrata				+		
Pentapeltis peltigera					+	+
Platysace compressa					+	+
Platysace tenuissima					+	
Schoenolaena juncea					+	
Trachymene pliosaa				+	+	
Xanthosia atkinsoniana					+	+
Xanthosia candida					+	
Xanthosia ciliata					+	+
Xanthosia huegelii					+	
<b>Araceae</b>						
* Arum italicum						+

*	Zantedeschia aethiopica		+      +
	Asteraceae		
*	Arctotheca calendula	+      +	
*	Conyza albida	+      +	
	Cotula cotuloides	+      +	
	Craspedia variabilis	+      +	
	Gnaphalium gymnocephalum	+      +	
	Hyalosperma cotula	+      +	
	Hyalosperma pusillum	+      +	
*	Hypochaeris glabra	+      +      +	+      +
	Ixiolaena viscosa	+      +	+      +
	Lagenifera huegelii	+      +	+      +
	Millotia tenuifolia	+      +	+      +
	Olearia paucidentata	+      +	
	Pithocarpa corymbulosa	+      +	
	Podolepis gracilis	+      +	
	Podotheca angustifolia	+      +	
*	Pseudognaphalium luteo-album	+      +	
	Pterocheata paniculata	+      +	+      +
	Quinetia urvillei	+      +	+      +
	Senecio hispidulus	+      +	
	Senecio minimus var. minimus	+      +	
	Senecio quadridentatus	+      +	
	Siloxerus humifusus	+      +	
*	Sonchus asper	+      +	
*	Sonchus oleraceus	+      +	
	Trichocline spathulata	+      +	
*	Vellereophyton dealbatum	+      +	
	Waitzia nitida	+      +	
	Campanulaceae		
*	Wahlenbergia capensis	+      +	
	Wahlenbergia preissii	+      +	
	Caryophyllaceae		
*	Petrorhagia velutina	+      +	
	Caesalpiniaceae		
	Labichea punctata	+      +	
	Casuarinaceae		
	Allocasuarina fraseriana	+      +	
	Allocasuarina humilis	+      +	
	Allocasuarina thuyoides	+      +	
	Centrolepidaceae		
	Aphelia cyperoides	+      +	+      +
	Aphelia drummondii	+      +	
	Centrolepis aristata	+      +	+      +
	Centrolepis drummondiana	+      +	
	Clusiaceae		
	Hypericum gramineum	+      +	
	Colchicaceae		
	Burchardia congesta	+      +	
	Burchardia multiflora	+      +	

<b>Crassulaceae</b>					
<i>Crassula colorata</i> var. <i>colorata</i>	+	+	+	+	+
<i>Crassula colorata</i> var. <i>tuberculata</i>		+			
<i>Crassula pedicellosa</i>		+			
<i>Crassula sieberiana</i> subsp. <i>tetramera</i>			+		
<b>Cupressaceae</b>					
<i>Actinostrobus acuminatus</i>		+			
<b>Cuscutaceae</b>					
* <i>Cuscuta epithymum</i>			+		
<b>Cyperaceae</b>					
<i>Baumea juncea</i>		+			
<i>Baumea laxa</i>		+			
<i>Cyathochaeta avenacea</i>	+		+		
* <i>Cyperus tenellus</i>		+			
<i>Isolepis congrua</i>		+			
<i>Isolepis cyperoides</i>					+
<i>Isolepis marginata</i>	+	+	+	+	
<i>Isolepis nodosa</i>		+			
<i>Isolepis oldfieldiana</i>	+	+			
<i>Isolepis setiformis</i>		+			
<i>Isolepis stellata</i>		+			
<i>Lepidosperma angustatum</i>		+			+
<i>Lepidosperma longitudinale</i>			+	+	
<i>Lepidosperma tenue</i>		+		+	
<i>Lepidosperma squamatum</i>		+		+	
<i>Mesomelaena graciliceps</i>		+		+	
<i>Mesomelaena tetragona</i>		+			
<i>Schoenus brevisetis</i>				+	+
<i>Schoenus curvifolius</i>	+				
<i>Schoenus efoliatus</i>	+	+	+	+	
<i>Schoenus subbulbosus</i>	+		+		
<i>Tetraria capillaris</i>				+	+
<i>Tetraria octandra</i>	+		+		
<i>Tricostularia neesii</i>	+		+	+	
<b>Dasypogonaceae</b>					
<i>Calectasia cyanea</i>		+			
<i>Dasypogon bromeliifolius</i>	+		+		
<i>Kingia australis</i>	+		+	+	
<i>Lomandra brittanii</i>					+
<i>Lomandra caespitosa</i>		+		+	
<i>Lomandra drummondii</i>					+
<i>Lomandra hermaphrodita</i>		+			+
<i>Lomandra micrantha</i>				+	
<i>Lomandra nigricans</i>	+	+			+
<i>Lomandra aff. nutans</i>	+				
<i>Lomandra pauciflora</i>			+		+
<i>Lomandra preissii</i>		+	+	+	
<i>Lomandra purpurea</i>					+
<i>Lomandra sericea</i>					+
<i>Lomandra sonderi</i>					+
<i>Lomandra spartea</i>	+				
<i>Lomandra suaveolens</i>		+			
<b>Dennstaedtiaceae</b>					
<i>Pteridium esculentum</i>				+	

Dilleniaceae			
<i>Hibbertia acerosa</i>	+		
<i>Hibbertia amplexicaulis</i>		+	+
<i>Hibbertia commutata</i>		+	
<i>Hibbertia huegelii</i>	+		
<i>Hibbertia hypericoides</i>	+		
<i>Hibbertia lasiopus</i>		+	
<i>Hibbertia racemosa</i>	+		
<i>Hibbertia rhadinopoda</i>	+	+	+
<i>Hibbertia serrata</i>			+
<i>Hibbertia vaginata</i>	+		
Droseraceae			
<i>Drosera barbigera</i>		+	+
<i>Drosera erythrorhiza</i>	+	+	
<i>Drosera gigantea</i>		+	
<i>Drosera glanduligera</i>	+	+	+
<i>Drosera leucoblasta</i>		+	
<i>Drosera macrantha</i>		+	
<i>Draosera marchantii</i>			+
<i>Drosera menziesii</i> subsp. <i>menziesii</i>	+		
<i>Drosera paleacea</i> ssp. <i>paleacea</i>		+	
<i>Drosera pallida</i>			+
<i>Drosera platystigma</i>	+		
<i>Drosera pulchella</i>		+	
<i>Drosera stolonifera</i>	+		
<i>Drosera subhirtella</i> subsp. <i>subhirtella</i>	+		+
Epacridaceae			
<i>Andersonia caerulea</i>	+		
<i>Andersonia heterophylla</i>	+		
<i>Andersonia micrantha</i>		+	
<i>Astroloma ciliatum</i>		+	
<i>Astroloma pallidum</i>	+	+	
<i>Conostephium pendulum</i>	+		
<i>Leucopogon australis</i>	+		
<i>Leucopogon capitellatus</i>		+	
<i>Leucopogon conostephioides</i>	+		
<i>Leucopogon glabellus</i>	+		
<i>Leucopogon gracillimus</i>	+		
<i>Leucopogon pendulus</i>		+	+
<i>Leucopogon propinquus</i>			+
<i>Leucopogon verticillatus</i>		+	+
<i>Lysinema ciliatum</i>	+		
<i>Sphenotoma capitatum</i>	+	+	+
<i>Styphelia tenuiflora</i>	+	+	
Euphorbiaceae			
<i>Monotaxis occidentalis</i>		+	
<i>Phyllanthus calycinus</i>		+	
<i>Poranthera microphylla</i>	+	+	+
<i>Stachystemon vermicillaris</i>		+	
Fumariaceae			
* <i>Fumaria capreolata</i>		+	
* <i>Fumaria muralis</i>		+	
Gentianaceae			

* <i>Centaurium erythraea</i>	+    +
<i>Sebaea ovata</i>	+
 Geraniaceae	
<i>Geranium solanderi</i>	+
 Goodeniaceae	
<i>Dampiera alata</i>	+
<i>Dampiera linearis</i>	+    +    +
<i>Goodenia caerulea</i>	+
<i>Goodenia eatoniae</i>	+    +
<i>Lechenaultia biloba</i>	+    +    +
<i>Lechenaultia expansa</i>	+
<i>Scaevola calliptera</i>	+
<i>Scaevola glanduligera</i>	+
<i>Velleia trinervis</i>	+    +
 Haemodoraceae	
<i>Anigozanthos flavidus</i>	+
<i>Anigozanthos humilis</i>	+
<i>Anigozanthos manglesii</i>	+    +
<i>Anigozanthos humilis x manglesii</i>	+
<i>Anigozanthos viridis</i>	+
<i>Conostylis aurea</i>	+
<i>Conostylis aculeata</i>	+
<i>Conostylis laxiflora</i>	+
<i>Conostylis setigera</i>	+
<i>Haemodorum laxum</i>	+
<i>Haemodorum simplex</i>	+
<i>Haemodorum sparsiflorum</i>	+
<i>Haemodorum spicatum</i>	+    +
<i>Phelbocarya ciliatum</i>	+
<i>Phelbocarya filifolia</i>	+
<i>Tribonanthes australis</i>	+
<i>Tribonanthes brachypetala</i>	+
 Haloragaceae	
<i>Haloragis brownii</i>	+
 Hydatellaceae	
<i>Trithuria bibracteata</i>	+
 Hypoxidaceae	
<i>Hypoxis glabella var. glabella</i>	+    +
<i>Hypoxis occidentalis</i>	+
 Iridaceae	
<i>Orthrosanthus laxus var. laxus</i>	+    +
<i>Patersonia babianoides</i>	+    +
<i>Patersonia juncea</i>	+    +
<i>Patersonia limbata</i>	+
<i>Patersonia occidentalis</i>	+
<i>Patersonia umbrosa var. xanthina</i>	+    +
* <i>Romulea rosea</i>	+    +    +    +
 Juncaceae	
* <i>Juncus bufonius</i>	+
* <i>Juncus capitatus</i>	+    +
<i>Juncus holoschoenus</i>	+

<i>Luzula meridionalis</i>	+
<b>Lamiaceae</b>	
<i>Hemiandra pungens</i> var. <i>pungens</i>	+
<i>Hemigenia incana</i>	+
<b>Lauraceae</b>	
<i>Cassytha micrantha</i>	+
<i>Cassytha pomiformis</i>	+
<i>Cassytha racemosa</i>	+ + +
<b>Lentibulariaceae</b>	
<i>Polypompholyx multifida</i>	+
<i>Polypompholyx tenella</i>	+
<b>Lindsaeaceae</b>	
<i>Lindsaea linearis</i>	+ +
<b>Lobeliaceae</b>	
<i>Isotoma hypocrateriformis</i>	+ + +
<i>Lobelia rhombifolia</i>	+
<i>Lobelia tenuior</i>	+ + +
* <i>Monopsis simplex</i>	+
<b>Loganiaceae</b>	
<i>Logania campanulata</i>	+ +
<i>Logania serpyllifolia</i> subsp. <i>serpyllifolia</i>	+ +
<i>Logania</i> sp nov	+ +
<i>Phyllangium paradoxum</i>	+ + +
<b>Loranthaceae</b>	
<i>Nuytsia floribunda</i>	+ +
<b>Menyanthaceae</b>	
<i>Villarsia albiflora</i>	+
<i>Villarsia parnassifolia</i>	+
<b>Mimosaceae</b>	
<i>Acacia applanata</i>	+
<i>Acacia extensa</i>	+
<i>Acacia flagelliformis</i>	+
<i>Acacia huegelii</i>	+ +
<i>Acacia luteola</i>	+
<i>Acacia latericola</i>	+ +
<i>Acacia mooreana</i>	+
<i>Acacia nervosa</i>	+ +
<i>Acacia obovata</i>	+
<i>Acacia pulchella</i>	+ + +
<i>Acacia saligna</i>	+
<i>Acacia stenoptera</i>	+ + +
<i>Acacia teretifolia</i>	+
<i>Acacia urophylla</i>	+
<i>Acacia varia</i> var <i>varia</i>	+
<i>Acacia willdenowiana</i>	+
<b>Myrtaceae</b>	
<i>Agonis flexuosa</i>	+
<i>Agonis grandiflora</i>	+ + +
<i>Agonis linearifolia</i>	+

<i>Astartea fascicularis</i>		+ +
<i>Baeckea camphorosmae</i>		+ +
<i>Calothamnus sanguineus</i>		+ + +
<i>Calothamnus schaueri</i>		+ +
<i>Calytrix flavescens</i>		+ +
<i>Calytrix leschenaultii</i>		+ +
<i>Chamelaucium erythrochlora</i>	+	+ +
<i>Darwinia oederoides</i>		+ +
<i>Eremaea pauciflora</i>		+ +
<i>Eucalyptus calophylla</i>		+ +
<i>Eucalyptus haematoxylon</i>	+	+ +
<i>Eucalyptus marginata</i>	+	+ + +
<i>Eucalyptus rufa</i>		+ +
<i>Hypocalymma angustifolium</i>		+ + +
<i>Hypocalymma robustum</i>		+ +
<i>Kunzea ericifolia</i>		+ +
<i>Kunzea recurva</i>		+ + +
<i>Melaleuca incana</i>		+ +
<i>Melaleuca preissiana</i>		+ +
<i>Melaleuca scabra</i>	+	+ + +
<i>Melaleuca thymoides</i>		+ +
<i>Pericalymma ellipticum</i>		+ +
<i>Verticordia densiflora</i>		+ +
 <b>Oleaceae</b>		
<i>Olax benthamiana</i>		+ +
 <b>Onagraceae</b>		
<i>Epilobium billardierianum subsp. cinereum</i>		+ +
<i>Epilobium hirtigerum</i>		+ +
 <b>Orchidaceae</b>		
<i>Caladenia attingens ssp. attingens</i>	+	+ +
<i>Caladenia cairnsiana</i>		+ +
<i>Caladenia flava</i>	+	+ + + +
<i>Caladenia gemmata</i>		+ + + +
<i>Caladenia latifolia</i>		+ +
<i>Caladenia longicauda</i>		+ +
<i>Caladenia menziesii</i>		+ +
<i>Caladenia nana subsp. nana</i>		+ +
<i>Caladenia reptans</i>		+ + +
<i>Caladenia sericea</i>		+ + +
<i>Caladenia speciosa</i>		+ +
<i>Cryptostylis ovata</i>		+ +
<i>Cyrtostylis huegelii</i>		+ +
<i>Diuris corymbosa</i>	+	+ +
<i>Drakaea glyptodon</i>		+ +
<i>Elythranthera brunonis</i>		+ +
<i>Elythranthera emarginata</i>		+ +
<i>Eriochilus dilatatus</i>		+ +
<i>Eriochilus scaber subsp. scaber</i>		+ + +
<i>Leporella fimbriata</i>		+ + +
<i>Lyperanthus nigricans</i>		+ + +
<i>Lyperanthus serratus</i>	+	+ + +
<i>Microtis media</i>	+	+ + +
* <i>Monadenia bracteata</i>		+ + + +
<i>Paracaleana nigrita</i>		+ +
<i>Praecoxanthus aphyllus</i>		+ +
<i>Prasophyllum elatum</i>		+ +

<i>Prasophyllum parvifolium</i>			+		
<i>Pterostylis aff. nana</i>	+	+	+	+	+
<i>Pterostylis barbata</i>				+	+
<i>Pterostylis recurva</i>			+	+	
<i>Pterostylis vittata</i>			+	+	+
<i>Thelymitra crinita</i>	+	+	+	+	+
<i>Thelymitra flexuosa</i>			+		
<i>Thelymitra fuscolutea</i>	+	+	+		
<i>Thelymitra pauciflora</i>	+	+	+	+	

Orobanchaceae

* <i>Orobanche minor</i>			+	+	
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Papilionaceae

<i>Aotus procumbens</i>			+		
<i>Bossiaea eriocarpa</i>			+		
<i>Bossiaea aff. eriocarpa</i>	+			+	+
<i>Bossiaea linophylla</i>				+	+
<i>Bossiaea ornata</i>					+
<i>Chorizema diversifolium</i>			+		
<i>Chorizema rhombeum</i>				+	
<i>Daviesa angulata</i>			+		
<i>Daviesia cordata</i>				+	
<i>Daviesia divaricata</i>				+	
<i>Daviesia physodes</i>				+	
<i>Daviesia preissii</i>			+		
<i>Gastrolobium spinosum</i>				+	
<i>Gompholobium capitatum</i>				+	
<i>Gompholobium confertum</i>			+		
<i>Gompholobium knightianum</i>	+	+	+	+	
<i>Gompholobium marginatum</i>			+	+	
<i>Gompholobium polymorphum</i>				+	
<i>Gompholobium preissii</i>	+		+	+	+
<i>Gompholobium shuttleworthii</i>				+	
<i>Hardenbergia comptoniana</i>			+		
<i>Hovea chorizemifolia</i>				+	+
<i>Hovea trisperma ssp. trisperma</i>			+		
<i>Hovea trisperma ssp. grandiflora</i>	+		+	+	
<i>Isotropis cuneifolia</i>			+	+	
<i>Jacksonia furcellata</i>			+		
<i>Jacksonia sparsa</i>			+		
<i>Kennedia coccinea</i>				+	+
<i>Kennedia prostrata</i>			+	+	+
<i>Latrobea tenella</i>					+
* <i>Lotus angustissimus</i>			+	+	
* <i>Lotus suaveolens</i>			+		
<i>Nemcia cordata</i>			+		
* <i>Ornithopus compressus</i>			+	+	
* <i>Ornithopus pinnatus</i>			+		
<i>Pultenaea radiata</i>	+				
<i>Pultenaea reticulata</i>				+	+
<i>Sphaerolobium medium</i>	+	+	+		
* <i>Trifolium campestre</i>			+		
<i>Viminaria juncea</i>					+

Philydraceae

<i>Philydrella pygmaea</i>			+		
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Phormiaceae

<i>Dianella revoluta</i> var. <i>revoluta</i>	+	+	+
<b>Pittosporaceae</b>			
<i>Billardiera candida</i>	+		+
<i>Billardiera variifolia</i>		+	+
<i>Poronaya fraseri</i>	+		
<b>Poaceae</b>			
<i>Agrostis avenacea</i>			+
* <i>Aira cupaniana</i>	+	+	+
<i>Amphipogon amphipogonoides</i>		+	+
<i>Amphipogon turbinatus</i>		+	+
* <i>Briza maxima</i>	+	+	+
* <i>Briza minor</i>		+	+
<i>Danthonia occidentalis</i>	+	+	
<i>Danthonia setacea</i>			+
<i>Deyeuxia quadriseta</i>		+	+
<i>Dichelachne crinita</i>		+	
* <i>Lolium rigidum</i>	+		+
<i>Microlaena stipoides</i>		+	
<i>Neurachne alopecuroidea</i>			+
* <i>Poa annua</i>	+	+	
<i>Poa drummondiana</i>		+	
<i>Stipa compressa</i>		+	
<i>Stipa semibarbata</i>	+	+	+
<i>Tetrarrhena laevis</i>			+
* <i>Vulpia myuros</i>	+	+	
<b>Podocarpaceae</b>			
<i>Podocarpus drouyianus</i>			+
<b>Polygalaceae</b>			
<i>Comesperma calymega</i>		+	
<i>Comesperma volubile</i>			+
<i>Comesperma virgatum</i>			+
<b>Polygonaceae</b>			
* <i>Rumex acetosella</i>		+	
<b>Primulaceae</b>			
* <i>Anagallis arvensis</i> var. <i>arvensis</i>		+	
* <i>Anagallis arvensis</i> var. <i>caerulea</i>		+	+
<b>Proteaceae</b>			
<i>Adenanthes barbigerus</i>			+
<i>Adenanthes meisneri</i>		+	
<i>Adenanthes obovatus</i>			+
<i>Banksia attenuata</i>		+	
<i>Banksia grandis</i>		+	+
<i>Banksia littoralis</i>			+
<i>Conospermum capitatum</i>		+	
<i>Dryandra armata</i>			+
<i>Dryandra bipinnatifida</i>			+
<i>Dryandra lindleyana</i>		+	+
<i>Grevillea brevicuspis</i>			+
<i>Grevillea bipinnatifida</i>			+
<i>Grevillea pilulifera</i>			+
<i>Grevillea quercifolia</i>	+		+
<i>Grevillea pulchella</i> ssp. <i>ascendens</i>	+		+

<i>Hakea amplexicaulis</i>		+
<i>Hakea ceratophylla</i>	+	
<i>Hakea cyclocarpa</i>	+	
<i>Hakea lissocarpa</i>		+
<i>Hakea prostrata</i>		+
<i>Hakea ruscifolia</i>	+	
<i>Hakea stenocarpa</i>	+	+
<i>Isopogon sphaerocephalus</i>		+
<i>Persoonia elliptica</i>	+	
<i>Persoonia longifolia</i>	+	+
<i>Persoonia saccata</i>	+	
<i>Petrophile linearis</i>	+	
<i>Petrophile striata</i>	+	+
<i>Stirlingia latifolia</i>		+
<i>Synaphea hians</i>		+
<i>Synaphea petiolaris</i>		+
<i>Xylomelon occidentale</i>		+
 <b>Ranunculaceae</b>		
<i>Clematis pubescens</i>		+
 <b>Restionaceae</b>		
<i>Anarthria laevis</i>		+
<i>Anarthria prolifera</i>	+	+
<i>Anarthria scabra</i>	+	+
<i>Hypolaena exsulca</i>	+	+
<i>Leptocarpus co-angustatus</i>		+
<i>Lepyrodia macra</i>	+	
<i>Lepyrodia muirii</i>		+
<i>Loxocarya cinerea</i>		+
<i>Loxocarya fasciculata</i>		+
<i>Loxocarya flexuosa</i>		+
<i>Loxocarya pubescens</i>		+
<i>Lyginia barbata</i>	+	
<i>Restio leptocarpoides</i>		+
 <b>Rubiaceae</b>		
* <i>Galium murale</i>		+
<i>Opercularia apiciflora</i>		+
<i>Opercularia hispidula</i>	+	+
<i>Opercularia vaginata</i>	+	+
 <b>Rutaceae</b>		
<i>Boronia dichotoma</i>		+
<i>Boronia ramosa</i> subsp. <i>anethifolia</i>		+
<i>Boronia spathulata</i>		+
<i>Eriostemon nodiflorus</i>		+
<i>Eriostemon spicatus</i>	+	+
 <b>Santalaceae</b>		
<i>Leptomeria cunninghamii</i>	+	+
 <b>Scrophulariaceae</b>		
* <i>Parentucellia viscosa</i>		+
 <b>Selaginellaceae</b>		
<i>Selaginella gracillima</i>		+
 <b>Solanaceae</b>		

* <i>Solanum nigrum</i>	+
<b>Stackhousiaceae</b>	
<i>Stackhousia pubescens</i>	+    +
<i>Tripterococcus brunonis</i>	+    +    +
<b>Sterculiaceae</b>	
<i>Thomasia grandiflora</i>	+
<b>Styliidiaceae</b>	
<i>Levenhookia dubia</i>	+    +    +    +
<i>Levenhookia pusilla</i>	+    +
<i>Levenhookia stipitata</i>	+
<i>Styliidium adnatum</i>	+
<i>Styliidium amoenum</i>	+
<i>Styliidium brunonianum</i>	+    +
<i>Styliidium calcaratum</i>	+    +
<i>Styliidium carnosum</i>	+
<i>Styliidium crassifolium</i>	+
<i>Styliidium junceum</i>	+
<i>Styliidium luteum</i>	+
<i>Styliidium mimeticum</i>	+
<i>Styliidium petiolare</i>	+
<i>Styliidium piliferum</i>	+    +
<i>Styliidium repens</i> var. <i>repens</i>	+
<i>Styliidium striatum</i>	+
<b>Thymelaeaceae</b>	
<i>Pimelea preissii</i>	+
<i>Pimelea rosea</i>	+
<i>Pimelea sulphurea</i>	+    +
<b>Tremandraceae</b>	
<i>Tetratheca hirsuta</i>	+
<b>Violaceae</b>	
<i>Hybanthus floribundus</i> subsp. <i>floribundus</i>	+
<b>Xanthorrhoeaceae</b>	
<i>Xanthorrhoea acanthostachya</i>	+
<i>Xanthorrhoea gracilis</i>	+    +
<i>Xanthorrhoea platyphylla</i>	+    +