

Wudjari Country (Esperance) Bush Blitz

Flora

27 March - 5 April 2023

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Nomenclature and taxonomy used in this report is consistent with:

The Australian National Species List

Florabase

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Abstract

The Wudjari Country (Esperance) Bush Blitz was held from 27 March to 5 April 2023 on the southern coast, Esperance Plains region of Western Australia. Twelve (12) areas were selected within Cape Le Grand National Park, Cape Arid National Park, and adjacent reserves and natural areas. Habitats included granite outcrops, coastal dune areas and salt marshes, mallee woodland and proteaceous scrubland. During the eight days of survey, 186 botanical voucher collections and five observations were gathered comprising 165 unique vascular plant taxa and two fungal species. Five conservation listed taxa were recorded, along with seven exotic taxa. Most specimens, while not new records for the areas surveyed, filled a collection geographical gap for the region and for the time of year. Several taxa showed atypical flowering for the time of year, which may be indicative of phenological changes due to environmental conditions of the area. Three teachers and one BHP staff member were introduced to flora collecting. As part of the outreach component of the Bush Blitz, the team participated in a successful community day held in Esperance and met with the volunteers from the Esperance Regional Herbarium.

1. Introduction

The Wudjari Country (Esperance) Bush Blitz expedition was held in the Esperance Plains region of Western Australia.

The specific land units that the expedition included were:

- Cape Le Grand National Park, managed by Department of Biodiversity, Conservation and Attractions, Parks and Wildlife.
- Cape Arid National Park, managed by Department of Biodiversity, Conservation and Attractions, Parks and Wildlife.
- and nature reserves and unincorporated lands surrounding the National Parks. These areas have been reasonably well surveyed for flora (approx. 19,500 vouchered specimens (AVH 2023, Figure 1)), with collections predominantly being made during the months of September to November. Vouchered collections during the months of March and April, however, form less than 7% of all collections for the region, and only 50 collections have been lodged in Australian herbaria from this time of year in the past 10 years.

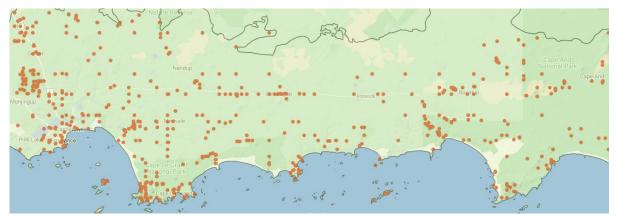


Figure 1: Records of botanical collections gathered from the Bush Blitz region made during the months of March-April. Source: Australasian Virtual Herbarium (AVH 2023).

2. Methods

2.1 Site selection

Sites were selected based on low intensity of previous surveys (as documented by vouchered collections at the Western Australian Herbarium), availability/accessibility to fresh water, accessibility by car, permission to enter and collect in an area, and observation by Bush Blitz teams visiting locations during the expedition. Twelve areas surveyed were conducted by traversing regions by car and selecting areas for collecting vouchers based on changes in vegetation type (Figure 2, 3).



Figure 2. Renee Gugiatti documenting a voucher specimen in Cape Arid National Park proteaceous scrub.

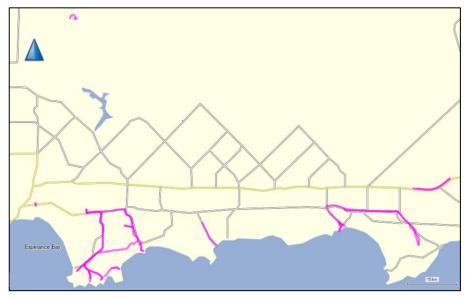


Figure 3. Map of the Bush Blitz region indicating areas surveyed by car and on foot (magenta highlights).

Date	Location	Description	Survey type
27 th March 2023	Cape Le Grand National Park; Lucky Bay Road and Rossiter Bay.	Seasonal swamps, coastal dunes.	Hand collection
28 th March 2023	Cape Le Grand National Park; Dunn Rocks Road and maintenance trail near Dunn Rocks.	Mallee woodland; seasonal swamps.	Hand collection
29 th March 2023	Cape Arid National Park; maintenance track parallel with Merivale Road.	Plain, deep sand heathlands, open mallee woodland, proteaceous scrub.	Hand collection/observation
30 th March 2023	Cape Arid National Park; Fisheries Road to Israelite Bay.	Plain, deep sand heathlands, open mallee woodland, proteaceous scrub.	Hand collection/observation
31st March 2023	Mount Ridley, Wave Rock (SSS1).	Granite outcrop with mallee woodland	Standard survey methods
1 st April 2023	Cape Le Grand National Park; south end Little Hellfire Bay, along Coastal Walk Trail (SSS2).	Coastal dune adjacent to granite outcrop.	Standard survey methods
3 rd April 2023	Cape Le Grand National Park; maintenance trail parallel to northern boundary.	Plain, open mallee woodland, proteaceous scrub.	Hand collection/observation
	Cape Le Grand National Park; Thistle Cove, Frenchman Peak.	Granite outcrop with mallee woodland	
4 th April 2023	Cape Arid National Park; Thomas River Road	Plain, deep sand heathlands, open mallee woodland, proteaceous scrub.	Hand collection
	Duke of Orleans Bay; Orleans Bay Road	Coastal dune	
5 th April 2023	Nature Reserve, Merivale Road- Cape Le Grand Road	Granite outcrop adjacent to agricultural land	Hand collection
	Mullet Lake Nature Reserve, trail off Hicks Road-Merivale Road, 2.2 km S Merivale Road	Salt marsh and adjacent sand- dune rise.	

2.2 Survey techniques

All flowering or fruiting taxa at each site were collected as a voucher specimen using standard herbarium collecting techniques (see https://www.dbca.wa.gov.au/sites/default/files/2023-05/how_to_collect_herbarium_specimens.pdf) and lodged in the Western Australian Herbarium (PERTH). Duplicate specimens, where available, have been lodged at the Australian National Herbarium (CANB). Along with a research-grade herbarium specimen, collection metadata and images of each collection and habitat were captured, and tissue for molecular analysis was gathered where possible (see Section 3.6).

2.2.1 Methods used at standard survey sites

A 20 m x 20 m quadrat was established at each standard survey site (SSS) in a representative area not impacted by other survey activities. All recorded taxa were collected as vouchers and lodged with the Western Australian Herbarium.

2.3 Identifying the collections

Many identifications were supported by or based on comparisons with existing specimens in the research collection at the Western Australian Herbarium (PERTH) and guided by species distribution data available through The Australasian Virtual Herbarium (https://avh.chah.org.au).

In addition, the following references were used:

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3. Results and Discussion

Appendix 1 lists all flora taxa recorded during the Bush Blitz. Collections made during this Bush Blitz will result in 186 specimens being added to public collections and 191 records of 165 unique vascular plant taxa and two fungal species being added to publicly accessible biodiversity databases.

3.1 Un-named or not formalised taxa

Four (4) collections were made of un-named or currently undescribed and unpublished taxa (Table 2). These taxa have been collected previously but require further taxonomic research and publication.

Table 2. Putatively un-named or not formalised taxa			
Taxon	Comment		
Hibbertia racemosa (Endl.) Gilg	Part of a species complex and possible new taxon with smaller stamen numbers, currently being studied.		
Leucopogon carinatus R.Br. sens. lat.	A part of a species complex currently being studied.		
Leucopogon sp. Coujinup (MA Burgman 1085)	Not formally named, common taxon in the southwest Botanical province.		
Merulopsis cf. miniata (Wakef.) Ginns	Microscopic and molecular analysis needed.		
Olearia sp. Eremicola (Diels & Pritzel s.n. PERTH 00449628)	Not formally named.		

3.2 Putative new species (new to science)

No putative new species were found during this Bush Blitz.

3.3 Exotic and pest species

In general, sites surveyed were free from exotic and pest species with the exception of heavily human impacted-areas (e.g. roadsides). Seven (7) exotic species were recorded (Table 4).

Table 4. Exotic and pest species recorded					
Exotic/pest species	Location sighted/observed	Indication of abundance	Comments		
Asparagus asparagoides (L.) Druce	Cape Arid National Park, north-west boundary	One seen in area	Monitor and remove populations.		
Centaurium tenuiflorum (Hoffmanns. & Link) Fritsch	Cape Le Grand National Park, near Dunn Rocks	Several individuals noted in area	Widespread annual, noted mostly along road verges.		
Erigeron bonariensis L.	Cape Le Grand National Park, western boundary	Common	Widespread annual, noted mostly along road verges.		
Euphorbia paralias L.	Cape Le Grand National Park & Duke of Orleans Bay	Common	Observed on coastal dunes.		
Pinus sp.	Cape Le Grand National Park, western boundary	Commonly cultivated	Encroaching on park.		
Solanum americanum Mill.	Nature Reserve, Merivale Road-Cape Le Grand Road	Several individuals seen in area	Adjacent to agricultural property.		
Symphyotrichum squaumatum (Spreng.) G.L.Nesom	Eastern edge of Cape Le Grand	Locally frequent	Road verge.		

3.4 Threatened species

While no threatened species were recorded, five (5) Western Australian Conservation-Listed taxa were reported during the Wudjari Country (Esperance) Bush Blitz (Table 5).

Table 5. Threatened species					
Species	Listing status and level (EBPC, State/Territory)	Location sighted/observed	Indication of abundance		
Astartea eobalta Rye	WA – Priority 2	Cape Le Grand National Park, 2.5 km west Rossiter Bay	Small population		
Eucalyptus ligulata Brooker subsp. ligulata	WA – Priority 4	Cape Arid National Park, Thomas River region	Small population		
Goodenia quadrilocularis R.Br.	WA – Priority 3	SSS2 – Cape Le Grand National Park, Little Hellfire Bay	Small population		
Lasiopetalum maxwellii F.Muell.	WA – Priority 2	SSS2 – Cape Le Grand National Park, Little Hellfire Bay	Common in area		
Styphelia rotundifolia (R.Br.) Spreng.	WA – Priority 3	Mt Ridley	One individual noted during survey		

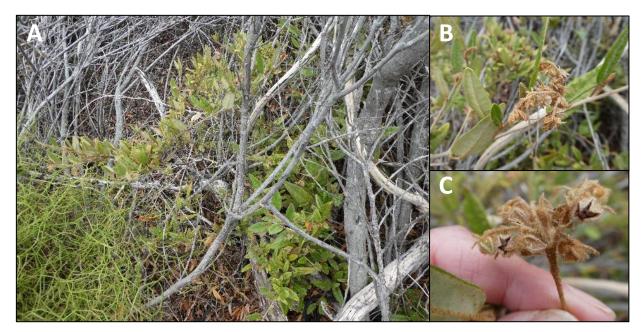


Figure 4: Lasiopetalum maxwellii in standard survey site 2 (Cape Le Grand National Park, Little Hellfire Bay). A. Habit, B. Inflorescence, post flowering. C. Developed fruit.

Astartea eoblata. Priority 2. An erect shrub, restricted to peaty grey sand in seasonally damp areas, this species is known from eleven populations, mostly in the Cape Le Grand and Cape Arid National Parks.

Eucalyptus ligulata subsp. *ligulata*. Priority 4. This is a small open mallee, with most populations restricted to granite outcrops in the Cape Le Grand and Cape Arid National Parks.

Goodenia quadriolocularis. Priority 2. This erect robust perennial herb or shrub is commonly restricted to coastal sands and granite outcrops in the Cape Le Grand and Cape Arid National Park. With a total of 27 currently known collections, this is a new population discovered in Cape Le Grand National Park at Little Hellfire Bay (standard survey site 2).

Lasiopetalum maxwellii. Priority 2. This species is a sprawling open shrub, mostly restricted to granite outcrops in the Cape Le Grand National Park, and here documented in Little Hellfire Bay (standard survey site 2) (Figure 4).

Styphelia rotundifolia. Priority 3. Is an erect shrub, distribution ranges from Esperance to Cape Arid, often associated with granite outcrops such as Mt Ridley (standard survey site 1).

3.5 Range extensions

Twenty (20) taxa were recorded during the Bush Blitz as range extensions (>10km) or new records for the region (Table 6). Exact locality information is documented in Appendix 2.

Table 6. Range extensions or significant infill in distribution records for species						
Species	Location sighted/observed	Distance from nearest known record (km)	Comments			
Cassytha micrantha Meisn.	Cape Le Grand National Park; Lucky Bay Road, approx. 2.5 km west of Rossiter Bay	Approx. 7.5 km north-east	Second record for Park.			

Centaurium tenuiflorum (Hoffmanns. & Link) Fritsch	Cape Le Grand National Park; Dunn Rocks area	10 km east	New record for eastern end of Park.
Cheilanthes sieberi subsp. sieberi Kunze	Mt Ridley		New record for area.
Chenopodium glaucum L.	Cape Le Grand National Park; Rossiter Bay		First record for Park.
Daviesia lancifolia Turcz.	Cape Le Grand National Park; Dunn Rocks area	10 km east	Second record for Park.
Erigeron bonariensis L.	Cape Le Grand National Park; north western-most corner		Not previously recorded from Park; observed commonly along roadsides.
Eucalyptus occidentalis Endl.	Mt Ridley		New record for area.
Euphorbia paralias L.	Duke of Orleans Bay, adjacent to Cape Le Grand National Park	40 km east	Not previously recorded from area; observed along coast.
Goodenia viscida R.Br.	Cape Arid National Park; maintenance track parallel with Merivale Road	80 km range extension east	Photographic record, insufficient material for vouchering.
Grevillea anethifolia R.Br.	Mount Ridley		New record for area.
Hakea laurina R.Br.	Mount Ridley		New record for area.
Halagoris digyna Labill.	Cape Le Grand National Park; Dunn Rocks area		First record for Park.
Hibbertia racemosa (Endl.) Gilg	Mt Ridley		New record for area.
Laxmannia ramosa subsp. deflexa Keighery	Nature reserve north and adjacent to Cape Le Grand National Park		New record for area, not recorded from Park.
Merulopsis cf. miniata (Wakef.) Ginns	Firebreak, 3 km ESE of entrance to Cape Le Grand		New generic and species record for WA if this taxon.
Microcorys glabra var. glabra (Bartl.) Benth.	Cape Arid National Park; maintenance track parallel with Merivale Road	10 km range extension east	
Rhagodia baccata subsp. baccata (Labill.) Moq.	Duke of Orleans Bay	10 km east	Not previously recorded from area, and first collection for eastern end of Park.
Solanum americanum Mill.	Merivale, Nature Reserve, Merivale Roadd-Cape Le Grand Road	135 km north- east, 180 km west	Not previously recorded from area.
Styphelia rotundifolia (R.Br.) Spreng.	Mount Ridley	20 km range extension north	WA - Priority 3 listed taxon.
Thomasia angustifolia Steud.	Mount Ridley		New record for area.

3.6 Genetic information

Samples of leaf tissues were taken from all vouchered collections. Fresh tissue (30–100 mg) was placed in an acid-free tea bag within silica gel for dehydration. Tissues have been lodged with the Western Australian Herbarium, linked to voucher specimens, and available for analysis upon request.

4. Information on species lists

A complete flora species list, consisting of the 165 vascular plant taxa, comprising 42 families, recorded during the Wudjari Country (Esperance) Bush Blitz is provided in Appendix 1. A further two species of fungi were documented. Due to the timing of the survey (prior to the typical flowering season September to November), many taxa were lacking good reproductive material, and annual taxa were not present at the sites. The timing of the expedition also resulted in limited collections of fungi.

5. Information for land managers

The incursion of cultivated pines along the eastern boundary of Cape Le Grand National Park is of concern, along with the observation and documentation of *Erigeron* sp. along roadways but not yet invading into intact bushland, should be of concern to land managers, particularly with the potential for disturbance (e.g. road management, fire). Management of roads and road verges for weeds is highly recommended to avoid incursion of exotic species into the National Parks.

The proliferation of exotic *Euphorbia paralias* along the coastline of the National Parks and surrounding areas is of concern. The widespread naturalisation of this species originally from southern Europe, north Africa and western Asia makes it a weed of potential national significance. Spread by both short (exploding mature fruit) and long (buoyant seeds) distance dispersal, it impacts coastal dune ecosystems, but can be managed by physical means and foliar herbicides (Heyligers 2002).

Bridal Creeper (*Asparagus asparagoides*) is a declared pest in Western Australia (WAOL 2023) and should be monitored and removed given documented presence in Cape Arid National Park.

Phytophthora dieback is well documented in region, and while already managed through road closures and education is noticeable and clearly affecting biodiversity within the parks.

6. Other significant findings

One specimen of what is believed to be *Halgania lavandulacea* with galls was collected from Cape Arid National Park, and similar morphology was observed in other areas of the park. This finding may be of interest to an entomologist!

7. Conclusions

The Wudjari Country (Esperance) Bush Blitz expedition has significantly added to botanical collections from the region at a time not typically collected and resulted in multiple range extensions, as well as new records for conservation listed taxa and weeds. The majority of collections have provided records to fill gaps within the already existing range of taxa.

Several taxa were noted to be atypically flowering at the time of the survey, including *Callitris* preissii, *Clematis* pubescens, *Gahnia* ancistrophylla, *Hibbertia* andrewsiana, *Isopogon*

polycephalus, Senecio pinnatifolius var. maritimus, and Thysanotus dichotomus. We would recommend that further surveys and collections be made in the area at times to better assess the effects of climate and environmental impacts on the floral phenology of the region.

As part of the outreach component of the Bush Blitz, the team provided three Western Australian teachers and one BHP staff member with an introduction to research-quality flora collecting and participated in a successful community day held in Esperance (Figure 5). The team also met with the volunteers from the Esperance Regional Herbarium to discuss collection management and collecting best practices.



Figure 5. Sharing botanical knowledge with the Esperance community.

Acknowledgements

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Appendix 1. List	of flora and funga recorded during the Wudjari Country (E	sperance) Bush Blitz				
Family	Species	Common name	Putative new species	Threatened (EPBC Act)	Threatened (State Act)	Exotic/ pest
FLORA						
Apiaceae	Platysace compressa (Labill.) C.Norman	Tapeworm Plant	NO	NO	NO	NO
Apiaceae	Platysace trachymenioides F.Muell.	n/a	NO	NO	NO	NO
Asparagaceae	Asparagus asparagoides (L.) Druce	Bridal Creeper	NO	NO	NO	YES
Asparagaceae	Laxmannia ramosa subsp. deflexa Keighery	Branching Lily	NO	NO	NO	NO
Asparagaceae	Lomandra effusa (Lindl.) Ewart	Scented Matrush	NO	NO	NO	NO
Asparagaceae	Thysanotus dichotomus (Labill.) R.Br.	Branching Fringe Lily	NO	NO	NO	NO
Asteraceae	Brachyscome ciliaris (Labill.) Less.	n/a	NO	NO	NO	NO
Asteraceae	Erigeron bonariensis L.	n/a	NO	NO	NO	YES
Asteraceae	Olearia axillaris (DC.) Benth.	Coastal Daisybush	NO	NO	NO	NO
Asteraceae	Olearia sp. Eremicola (Diels & Pritzel s.n. PERTH 00449628)	n/a	NO	NO	NO	NO
Asteraceae	Senecio pinnatifolius var. maritimus (Ali) I.Thomps.	Coastal Groundsel	NO	NO	NO	NO
Asteraceae	Symphyotrichum squamatum (Spreng.) G.L.Nesom	Bushy Starwort	NO	NO	NO	YES
Boraginaceae	Halgania cf. lavandulacea	n/a	NO	NO	NO	NO
Campanulaceae	Lobelia anceps L.f.	Angled Lobelia	NO	NO	NO	NO
Campanulaceae	Lobelia heterophylla Labill.	Wing-seeded Lobelia	NO	NO	NO	NO
Casuarinaceae	Allocasuarina huegeliana (Miq.) L.A.S.Johnson	Rock Sheoak	NO	NO	NO	NO
Casuarinaceae	Allocasuarina trichodon (Miq.) L.A.S.Johnson	n/a	NO	NO	NO	NO
Chenopodiaceae	Chenopodium glaucum L.	Glaucous Goosefoot	NO	NO	NO	NO
Chenopodiaceae	Rhagodia baccata (Labill.) Moq. subsp. baccata	Berry Saltbush	NO	NO	NO	NO
Chenopodiaceae	Rhagodia cf. baccata	n/a	NO	NO	NO	NO
Chenopodiaceae	Suaeda australis (R.Br.) Moq.	Seablite	NO	NO	NO	NO
Cupressaceae	Callitris preissii Miq.	Rottnest Island Pine	NO	NO	NO	NO
Cupressaceae	Callitris roei (Endl.) F.Muell.	Roe's Cypress Pine	NO	NO	NO	NO
Cyperaceae	Ficinia nodosa (Rottb.) Goetgh., Muasya & D.A.Simpson	Knotted Club Rush	NO	NO	NO	NO
Cyperaceae	Gahnia ancistrophylla Benth.	Hooked-leaf Saw Sedge	NO	NO	NO	NO
Cyperaceae	Lepidosperma carphoides Benth.	Black Rapier Sedge	NO	NO	NO	NO
Cyperaceae	Lepidosperma drummondii Benth.	n/a	NO	NO	NO	NO
Cyperaceae	Lepidosperma gladiatum Labill.	Coast Sword-sedge	NO	NO	NO	NO
Dilleniaceae	Hibbertia andrewsiana Diels	n/a	NO	NO	NO	NO
Dilleniaceae	Hibbertia psilocarpa J.R.Wheeler	n/a	NO	NO	NO	NO

Family	Species	Common name	Putative new species	Threatened (EPBC Act)	Threatened (State Act)	Exotic/ pest
Dilleniaceae	Hibbertia racemosa (Endl.) Gilg	Stalked Guinea Flower	NO	NO	NO	NO
Droseraceae	Drosera australis (N.G Marchant & Lowrei) Lowrei & Conran	n/a	NO	NO	NO	NO
Droseraceae	Drosera pulchella Lehm.	Pretty Sundew	NO	NO	NO	NO
Ericaceae	Andersonia caerulea R.Br.	Foxtails	NO	NO	NO	NO
Ericaceae	Leucopogon carinatus R.Br.	n/a	NO	NO	NO	NO
Ericaceae	Leucopogon oppositifolius Sond.	n/a	NO	NO	NO	NO
Ericaceae	Leucopogon sp. Coujinup (M.A. Burgman 1085)	n/a	NO	NO	NO	NO
Ericaceae	Lysinema ciliatum R.Br.	n/a	NO	NO	NO	NO
Ericaceae	Styphelia breviflora (F.Muell.) F.Muell.	n/a	NO	NO	NO	NO
Ericaceae	Styphelia epacridis (DC.) F.Muell.	n/a	NO	NO	NO	NO
Ericaceae	Styphelia rotundifolia (R.Br.) Spreng.	n/a	NO	NO	WA - Priority 3	NO
Ericaceae	Styphelia tecta (R.Br.) Spreng.	n/a	NO	NO	NO	NO
Ericaceae	Styphelia woodsii (F.Muell.) F.Muell.	n/a	NO	NO	NO	NO
Euphorbiaceae	Euphorbia paralias L.	Sea Spurge	NO	NO	NO	YES
Euphorbiaceae	Ricinocarpos megalocarpus Halford & R.J.F.Hend.	n/a	NO	NO	NO	NO
Fabaceae	Acacia cyclops G.Don	Coastal Wattle	NO	NO	NO	NO
Fabaceae	Acacia myrtifolia (Sm.) Willd.	n/a	NO	NO	NO	NO
Fabaceae	Acacia nigricans (Labill.) R.Br.	n/a	NO	NO	NO	NO
Fabaceae	Acacia subcaerulea Lindl.	n/a	NO	NO	NO	NO
Fabaceae	Bossiaea dentata (R.Br.) Benth.	n/a	NO	NO	NO	NO
Fabaceae	Chorizema aciculare (DC.) C.A.Gardner subsp. aciculare	Needle-leaved Chorizema	NO	NO	NO	NO
Fabaceae	Daviesia apiculata Crisp	n/a	NO	NO	NO	NO
Fabaceae	Daviesia lancifolia Turcz.	n/a	NO	NO	NO	NO
Fabaceae	Eutaxia myrtifolia (Sm.) R.Br.	n/a	NO	NO	NO	NO
Fabaceae	Gastrolobium bilobum R.Br.	Heart Leaf Poison	NO	NO	NO	NO
Fabaceae	Gompholobium confertum (DC.) Crisp	n/a	NO	NO	NO	NO
Fabaceae	Jacksonia capitata Benth.	n/a	NO	NO	NO	NO
Fabaceae	Jacksonia spinosa (Labill.) R.Br. ex Sm.	n/a	NO	NO	NO	NO
Fabaceae	Jacksonia viscosa Chapill	n/a	NO	NO	NO	NO
Fabaceae	Labichea lanceolata subsp. brevifolia (Meisn.) J.H.Ross	Tall Labichea	NO	NO	NO	NO
Gentianaceae	Centaurium tenuiflorum (Hoffmanns. & Link) Fritsch	n/a	NO	NO	NO	YES
Geraniaceae	Pelargonium australe Willd.	Wild Geranium	NO	NO	NO	NO
Goodeniaceae	Anthotium humile R.Br.	Dwarf Anthotium	NO	NO	NO	NO

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Goodeniaceae	Dampiera parvifolia R.Br.	Many-bracted Dampiera	NO	NO	NO	NO
Goodeniaceae	Goodenia concinna Benth.	Elegant Goodenia	NO	NO	NO	NO
Goodeniaceae	Goodenia pterigosperma R.Br.	n/a	NO	NO	NO	NO
Goodeniaceae	Goodenia quadrilocularis R.Br.	n/a	NO	NO	WA - Priority 2	NO
Goodeniaceae	Goodenia scapigera R.Br.	White Goodenia	NO	NO	NO	NO
Goodeniaceae	Goodenia trinervis (Labill.) K.A.Sheph.	n/a	NO	NO	NO	NO
Goodeniaceae	Goodenia viscida R.Br.	Viscid Goodenia	NO	NO	NO	NO
Goodeniaceae	Scaevola myrtifolia (de Vriese) K.Krause	n/a	NO	NO	NO	NO
Haloragaceae	Haloragis digyna Labill.	n/a	NO	NO	NO	NO
Haloragaceae	Glischrocaryon angustifolium (Nees) M.L.Moody & Les	n/a	NO	NO	NO	NO
Lamiaceae	Microcorys barbata R.Br.	n/a	NO	NO	NO	NO
Lamiaceae	Microcorys glabra (Bartl.) Benth. var. glabra	n/a	NO	NO	NO	NO
Lamiaceae	Microcorys subcanescens Benth.	n/a	NO	NO	NO	NO
Lauraceae	Cassytha micrantha Meisn.	n/a	NO	NO	NO	NO
Lauraceae	Cassytha racemosa Nees	Dodder Laurel	NO	NO	NO	NO
Lauraceae	Cassytha racemosa forma pilosa (Benth.) J.Z.Weber	Dodder Laurel	NO	NO	NO	NO
Lindsaeaceae	Lindsaea linearis Sw.	Screw Fern	NO	NO	NO	NO
Loganiaceae	Logania micrantha Benth.	n/a	NO	NO	NO	NO
Loranthaceae	Nuytsia floribunda (Labill.) R.Br. ex G.Don	Christmas Tree	NO	NO	NO	NO
Malvaceae	Thomasia angustifolia Steud.	Narrow Leaved Thomasia	NO	NO	NO	NO
Malvaceae	Lasiopetalum maxwellii F.Muell.	n/a	NO	NO	WA - Priority 2	NO
Myrtaceae	Astartea eobalta Rye	n/a	NO	NO	WA - Priority 2	NO
Myrtaceae	Astartea fascicularis (Labill.) D.C.	Recherche Astartea	NO	NO	NO	NO
Myrtaceae	Beaufortia empetrifolia (Rchb.) Schauer	South Coast Beaufortia	NO	NO	NO	NO
Myrtaceae	Calothamnus gracilis R.Br.	n/a	NO	NO	NO	NO
Myrtaceae	Calothamnus quadrifidus R.Br. subsp. quadrifidus	One-sided Bottlebrush	NO	NO	NO	NO
Myrtaceae	Chamelaucium axillare Benth.	Esperance Waxflower	NO	NO	NO	NO
Myrtaceae	Chamelaucium ciliatum Desf.	n/a	NO	NO	NO	NO
Myrtaceae	Cyathostemon ambiguus (F.Muell) Rye & Trudgen	n/a	NO	NO	NO	NO
Myrtaceae	Darwinia diosmoides (DC.) Benth.	n/a	NO	NO	NO	NO
Myrtaceae	Eucalyptus cornuta Labill.	Yate	NO	NO	NO	NO
Myrtaceae	Eucalyptus extrica D.Nicolle	n/a	NO	NO	NO	NO
Myrtaceae	Eucalyptus ligulata Brooker subsp. ligulata	Lucky Bay Mallee	NO	NO	WA - Priority 4	NO

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Myrtaceae	Eucalyptus litorea Brooker & Hopper	Saline Mallee	NO	NO	NO	NO
Myrtaceae	Eucalyptus micranthera Benth.	Coolibah	NO	NO	NO	NO
Myrtaceae	Eucalyptus occidentalis Endl.	Flat-topped Yate	NO	NO	NO	ОИ
Myrtaceae	Eucalyptus uncinata Turcz.	Hook-leaved Mallee	NO	NO	NO	NO
Myrtaceae	Eucalyptus varia Brooker & Hopper subsp. varia	n/a	NO	NO	NO	ОИ
Myrtaceae	Hypocalymma asperum Schauer	n/a	NO	NO	NO	NO
Myrtaceae	Kunzea baxteri (Klotzsch) Schauer	Baxter's Kunzea	NO	NO	NO	NO
Myrtaceae	Leptospermum sericeum Labill.	Silver Teatree	NO	NO	NO	NO
Myrtaceae	Melaleuca brevifolia Turcz.	n/a	NO	NO	NO	NO
Myrtaceae	Melaleuca cuticularis Labill.	Saltwater Paperbark	NO	NO	NO	NO
Myrtaceae	Melaleuca globifera R.Br.	n/a	NO	NO	NO	NO
Myrtaceae	Melaleuca pulchella R.Br.	Claw Flower	NO	NO	NO	NO
Myrtaceae	Melaleuca subfalcata Turcz.	n/a	NO	NO	NO	NO
Myrtaceae	Melaleuca undulata Benth.	Hidden Honey-myrtle	NO	NO	NO	NO
Myrtaceae	Micromyrtus elobata (F.Muell.) Benth. subsp. elobata	n/a	NO	NO	NO	NO
Myrtaceae	Taxandria callistachys J.R.Wheeler & N.G.Marchant	n/a	NO	NO	NO	NO
Myrtaceae	Verticordia minutiflora F.Muell.	n/a	NO	NO	NO	NO
Myrtaceae	Verticordia sieberi Schauer	n/a	NO	NO	NO	NO
Myrtaceae	Verticordia sieberi Diesing ex Schauer var. sieberi	n/a	NO	NO	NO	NO
Olacaceae	Olax phyllanthi (Labill.) R.Br.	n/a	NO	NO	NO	NO
Pinaceae	Pinus sp.	n/a	NO	NO	NO	YES
Pittosporaceae	Billardiera coriacea Benth.	n/a	NO	NO	NO	NO
Pittosporaceae	Billardiera fusiformis Labill.	Australian Bluebell	NO	NO	NO	NO
Pittosporaceae	Marianthus bicolor (Putt.) F.Muell.	Painted Marianthus	NO	NO	NO	NO
Polygalaceae	Comesperma virgatum Labill.	Milkwort	NO	NO	NO	NO
Proteaceae	Adenanthos cuneatus Labill.	Coastal Jugflower	NO	NO	NO	NO
Proteaceae	Adenanthos dobsonii F.Muell.	n/a	NO	NO	NO	NO
Proteaceae	Adenanthos sericeus subsp. sphalma E.C.Nelson	Woolly Bush	NO	NO	NO	NO
Proteaceae	Banksia armata (R.Br.) A.R.Mast & K.R.Thiele var. armata	Prickly Dryandra	NO	NO	NO	NO
Proteaceae	Banksia media R.Br.	Southern Plains Banksia	NO	NO	NO	NO
Proteaceae	Banksia obovata A.R.Mast & K.R.Thiele	Wedge-leaved Dryandra	NO	NO	NO	NO
Proteaceae	Banksia occidentalis R.Br.	Red Swamp Banksia	NO	NO	NO	NO
Proteaceae	Banksia pulchella R.Br.	Teasel Banksia	NO	NO	NO	NO

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Proteaceae	Banksia speciosa R.Br.	Showy Banksia	NO	NO	NO	NO
Proteaceae	Conospermum distichum R.Br.	n/a	NO	NO	NO	NO
Proteaceae	Conospermum teretifolium R.Br.	Spider Smokebush	NO	NO	NO	NO
Proteaceae	Franklandia fucifolia R.Br.	Lanoline Bush	NO	NO	NO	NO
Proteaceae	Grevillea anethifolia R.Br.	n/a	NO	NO	NO	NO
Proteaceae	Grevillea concinna R.Br.	Red Combs	NO	NO	NO	NO
Proteaceae	Grevillea concinna subsp. concinna R.Br.	Red Combs	NO	NO	NO	NO
Proteaceae	Grevillea nudiflora Meisn.	n/a	NO	NO	NO	NO
Proteaceae	Grevillea oligantha F.Muell.	n/a	NO	NO	NO	NO
Proteaceae	Grevillea pauciflora subsp. psilophylla McGill.	Few-flowered Grevillea	NO	NO	NO	NO
Proteaceae	Grevillea plurijuga F.Muell. subsp. plurijuga	n/a	NO	NO	NO	NO
Proteaceae	Hakea clavata Labill.	Coastal Hakea	NO	NO	NO	NO
Proteaceae	Hakea drupacea (C.F.Gaertn.) Roem. & Schult.	n/a	NO	NO	NO	NO
Proteaceae	Hakea laurina R.Br.	Pincushion Hakea	NO	NO	NO	NO
Proteaceae	Hakea pandanicarpa R.Br. subsp. pandanicarpa	n/a	NO	NO	NO	NO
Proteaceae	Hakea ruscifolia Labill.	Candle Hakea	NO	NO	NO	NO
Proteaceae	Isopogon formosus R.Br. subsp. formosus	Rose Coneflower	NO	NO	NO	NO
Proteaceae	Isopogon polycephalus R.Br.	Clustered Coneflower	NO	NO	NO	NO
Proteaceae	Lambertia inermis R.Br.	Chittick	NO	NO	NO	NO
Proteaceae	Lambertia inermis R.Br. var. inermis	Chittick	NO	NO	NO	NO
Proteaceae	Petrophile teretifolia R.Br.	n/a	NO	NO	NO	NO
Pteridaceae	Cheilanthes sieberi Kunze subsp. Sieberi	n/a	NO	NO	NO	NO
Ranunculaceae	Clematis pubescens Endl.	Common Clematis	NO	NO	NO	NO
Restionaceae	Desmocladus flexuosus (R.Br.) B.G.Briggs & L.A.S.Johnson	n/a	NO	NO	NO	NO
Rhamnaceae	Pomaderris myrtilloides Fenzl	n/a	NO	NO	NO	NO
Rubiaceae	Opercularia hispidula Endl.	Hispid Stinkweed	NO	NO	NO	NO
Rutaceae	Boronia albiflora Benth.	n/a	NO	NO	NO	NO
Rutaceae	Boronia denticulata Sm. subsp. denticulata	n/a	NO	NO	NO	NO
Santalaceae	Exocarpos sparteus R.Br.	Broom Ballart	NO	NO	NO	NO
Sapindaceae	Dodonaea ceratocarpa Endl.	n/a	NO	NO	NO	NO
Solanaceae	Anthocercis viscosa R.Br. subsp. viscosa	Sticky Tailflower	NO	NO	NO	NO
Solanaceae	Solanum americanum Mill.	Glossy Nightshade	NO	NO	NO	YES
Stylidiaceae	Stylidium adnatum R.Br.	Common Beaked Triggerplant	NO	NO	NO	NO

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Stylidiaceae	Stylidium repens R.Br.	Matted Triggerplant	NO	NO	NO	NO
Thymelaeaceae	Pimelea ferruginea Labill.	n/a	NO	NO	NO	NO
FUNGA						
Irpicaceae	Meruliopsis cf. miniata	n/a	NO	NO	NO	NO
Strophariaceae	Deconica coprophila (Bull.) P.Karst.	Dung-loving Psilocybe	NO	NO	NO	NO