

Flora Survey Report

Mining lease M63/602

East of Quallilup Lake, Dalyup



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1 Introduction

This report presents the results of a flora survey commissioned by Triple M Transport (WA) Pty Ltd of Myrup, Western Australia and conducted by the Esperance Wildflower Society Inc of Esperance. Triple M Transport currently operates a quarry for the extraction of limestone for agricultural purposes within mining lease M63/602. Ongoing sustainability of this operation will require expansion into other parts of the mining lease where suitable deposits of limestone occur. This survey was commissioned to document the flora of the area concerned, and to determine whether any declared rare or priority species or threatened or priority ecological communities were present.

1.1 Location

The survey site is located approximately 35 km west of Esperance close to the coast. Quallilup Lake lies 500 m to the north-west, with the Southern Ocean 350 m to the south-east. It is approximately triangular in shape, and lies to the west and south west of the existing quarry (Fig.1). It occupies an area of approximately 26 HA between latitudes 33°49'06" and 33°49'26" S, and longitudes 121°31'31" and 121°31'40" E.



Figure 1: Location of survey site to the East of Quallilup Lake. Site is outlines in red on lower map. Source: top – Natmap Raster 2005; bottom: Google Earth Pro 2017.

1.2 Climate and Geology

The area experiences a Mediterranean climate with cool wet winters and dry warm summers. Median annual rainfall for Esperance is 570 mm, with July being the wettest month. Most rain falls in the period May to October each year (Fig. 2). Summer maximum temperatures average from 25 to 28°C, with average minima of 13 to 16°C. Occasional extremes of temperature may exceed 45°C (Massenbauer 2007). Unseasonal summer rainfall events are occasionally recorded, and may give rise to flooding (Table 1).

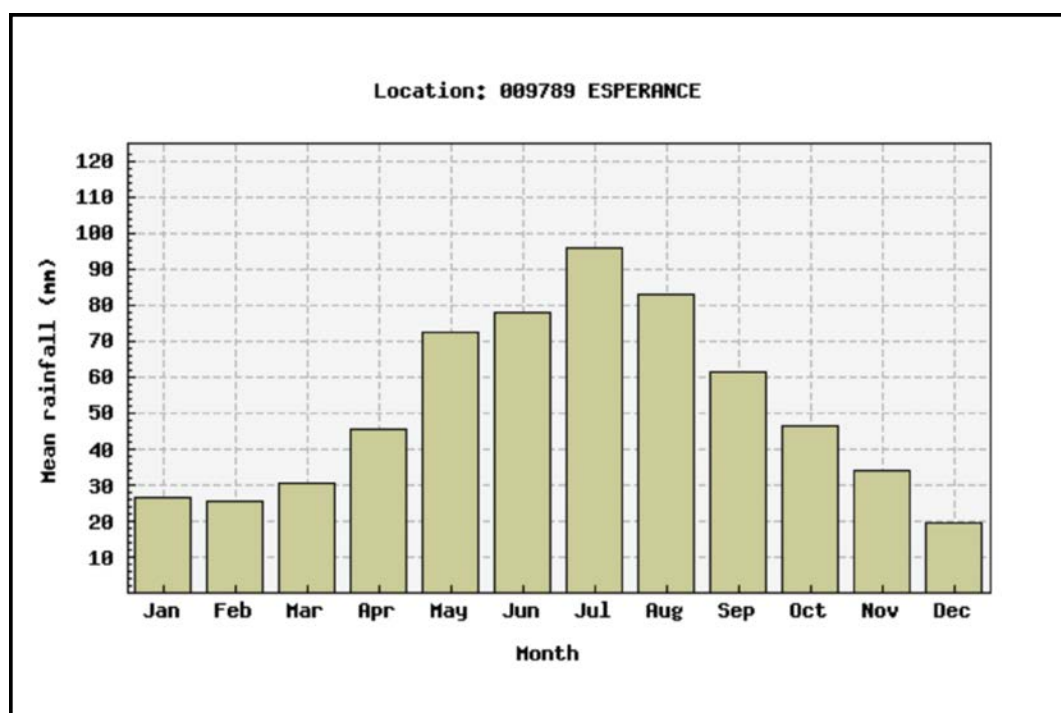


Figure 2: Mean monthly rainfall recorded at Esperance. From Bureau of Meteorology (2018)

Table 1: Weather extremes experienced in the survey area 2007 – 2017. Temperature data for Esperance; rainfall data for Dalyup. From Bureau of Meteorology (2018)

Date	Maximum temp (°C)	Date	Minimum temp (°C)	Date	Rainfall (mm)
26 Jan 2009	44.5	12 Aug 2008	3.3	5 Jan 2007	123.2
14 Dec 2009	44.0	8 Jul 2013	3.6	Total Jan 2007	157.6
29 Dec 2009	44.9	4 Jun 2014	3.3		
6 Jan 2010	46.9	2 June 2016	3.7	8 Feb 2017	90.4
1 Jan 2013	45.4	30 June 2017	3.6	Total Feb 2017	220.0
17 Dec 2013	45.3				

The nearby Quallilup Lake forms the southern extremity of the system of streams and lakes that comprise the Dalyup River catchment system (Waters and Rivers Commission 2002). The area is situated on an extensive coastal plain where quaternary surficial sediments form a veneer over Archaean, Proterozoic and Tertiary rocks. Surface sediments consist of extensive aeolian dune systems that overlie calcareous shelly limestones (Johnson and Baddock 1998). Areas of limestone are exposed in parts of the survey area and nearby.

1.3 Disturbance

Apart from several unformed tracks which traverse the survey area, nearby mining and recreational activities have not significantly affected the site. However the area was significantly impacted by an intense fire originating from a lightning strike in January 2016, which burnt 13,500 HA of coastal heath to the west of Esperance (Shumack and Hesse 2017). This fire destroyed virtually all above-ground biomass leaving only dead ‘skeletons’ of some of the larger shrubs. At the time of the survey (21 months post fire) the site was in a post-fire successional stage, with substantial regeneration from resprouting and seed germination evident.

2 Preliminary review

2.1 Threatened and priority plant species

Under the provisions of section 23F of the *Wildlife Conservation Act (1950)* the Minister for the Environment may declare species of flora to be in need of protection if they are in danger of extinction, rare, or otherwise in need of special protection. A species may also be declared to be presumed extinct. There are currently six categories under which such declarations are made (Table 2).

Table 2: Criteria for conservation categories for flora under the *Wildlife Conservation Act*.

Code	Category	Criteria
T	Threatened flora	Taxa which have been adequately searched for and are deemed to be rare, in danger of extinction, or in need of special protection.
X	Presumed extinct flora	Taxa which have been adequately searched for and there is no reasonable doubt that the last individual has died.
1	Poorly-known flora	Taxa known from less than five collections or sight records, all on lands not managed for conservation.
2	Poorly-known flora	Taxa known from one or a few collections or sight records, some of which are on lands not under imminent threat of habitat destruction, such as national parks and nature reserves; or taxa known from one or more localities which appear to be under threat from known threatening processes.
3	Poorly-known flora	Taxa known from collections or sight records from several localities with large population size or significant remaining areas of apparently suitable habitat not under imminent threat; or taxa well known from several localities which are subject to threat from known threatening processes.
4	Rare, near threatened and other taxa in need of monitoring	Taxa that have been adequately surveyed and not currently threatened, but could be if current circumstances change; or taxa that are close to be regarded as vulnerable; or taxa that have been removed from the list of threatened species during the past 5 years.

In order to prepare for the survey, an initial site visit was made, and a review of available information regarding threatened and priority plant species likely to be encountered was conducted.

The NatureMap database was used to identify priority species known to occur within the general area. Three separate searches were undertaken:

- A strip 20 km long and 4.5 km wide to the west, encompassing all intact coastal vegetation in that direction (Appendix A);
- A strip 20 km long and 10 km wide to the east, also encompassing all intact coastal vegetation in that direction (Appendix B);
- All locations within a 40 km radius (Appendix C).

Reports of surveys conducted in the same general area by the Esperance Wildflower Society in May 2000 (Esperance Wildflower Society 2000) (Appendix D) and March 2009 (Esperance Wildflower Society 2009) (Appendix E) were also reviewed.

Two priority species were returned from the search of the western strip (*Banksia prolata* subsp. *callicola* and *Eucalyptus preissiana* subsp. *lobata*). No priority species were returned from the search of the eastern strip, and none were reported in the 2000 survey. The 2009 survey reported the occurrence of the priority 3 species *Leucopogon rotundifolius* from a location just to the south of the survey site. The 40 km radius search returned 58 priority species. Original descriptions (where available) and the Florabase database (Western Australian Herbarium 1998-) were consulted for each species to ascertain details of the occurrence and habitat preference of each of these species to assess whether they were likely to occur within the survey area. Forty-four species were indicated as being restricted to locations further inland or to soil types other than sand or limestone. The remaining 14 species had been collected from coastal sites or on limestone substrates and were therefore considered to potentially be present at the survey site (Table 3).

Table 3: Priority plant species by family and conservation category identified as possibly occurring within the survey area near Quallilup Lake

Family/Species	P	Family/Species	P
Hemerocallidaceae		Malvaceae	
<i>Caesia viscida</i>	2	<i>Thomasia quercifolia</i>	4
Poaceae		Myrtaceae	
<i>Austrostipa mundula</i>	3	<i>Eucalyptus famelica</i>	3
		<i>E. litorea</i>	2
Ericaceae		<i>E. preissiana</i> subsp. <i>lobata</i>	4
<i>Leucopogon blepharcephalus</i>	4	<i>E. semiglobosa</i>	3
<i>L. corymbiformis</i>	2	<i>E. x missilis</i>	4
<i>L. rotundifolius</i>	3		
		Polygalaceae	
Goodeniaceae		<i>Comesperma calcicola</i>	3
<i>Dampiera sericantha</i>	3		
		Proteaceae	
		<i>Banksia prolata</i> subsp. <i>callicola</i>	4

2.2 Priority and Threatened Ecological Communities

Section 181 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cwlth) makes provision for the listing of threatened ecological communities. Listed communities are categorised as critically endangered, endangered or vulnerable. A search of the EPBC database was conducted to determine whether any listed threatened ecological communities were likely to occur within the survey area. One community, *Proteaceae dominated kwongan shrublands of the southeast*

coastal floristic province of Western Australia was listed as endangered and reported as likely to occur within the survey area (Appendix F). This community is described as shrubland, heath, or mallee heath in which plant species from the family Proteaceae make up a large component of the flora, including plants from the genera *Adenanthos*, *Banksia*, *Grevillea*, *Hakea*, *Isopogon* and *Lambertia* (Appendix G).

The Department of Biodiversity, Conservation and Attractions (WA) also maintains a system for listing ecological communities as Threatened or Priority communities. There are four categories of Threatened Ecological Communities (TECs), and five categories of Priority Ecological Communities (PECs) (Table 4).

Table 4: DBCA categories and criteria for Threatened and Priority Ecological Communities in Western Australia.

Code	Category	Criteria
THREATENED ECOLOGICAL COMMUNITIES		
PD	Presumed totally destroyed	An ecological community that has been adequately searched for but for which no representative communities have been located.
CR	Critically endangered	An ecological community that has been adequately surveyed and found to have been subject to a major contraction in area and/or that was originally of limited distribution and is facing severe modification or destruction throughout its range in the immediate future, or is already severely degraded throughout its range but capable of being substantially restored or rehabilitated.
EN	Endangered	An ecological community that has been adequately surveyed and found to have been subject to a major contraction in area and/or was originally of limited distribution and is in danger of significant modification throughout its range or severe modification or destruction over most of its range in the near future.
VU	Vulnerable	An ecological community that has been adequately surveyed and is found to be declining and/or has declined in distribution and/or condition and whose ultimate security has not yet been assured and/or a community that is still widespread but is believed likely to move into a category of higher threat in the near future if threatening processes continue or begin operating throughout its range.
PRIORITY ECOLOGICAL COMMUNITIES		
P1	Poorly known ecological communities	Ecological communities that are known from very few occurrences with a very restricted distribution (generally ≤ 5 occurrences or a total area of ≤ 100 ha).
P2		Communities that are known from few occurrences with a restricted distribution (generally ≤ 10 occurrences or a total area of ≤ 200 ha). At least some occurrences are not believed to be under immediate threat (within approximately 10 years) of destruction or degradation.
P3		Communities known from a few widespread occurrences, which are either large or with significant remaining areas of habitat in which other occurrences may occur, much of it not under imminent threat (within approximately 10 years), or; communities made up of large, and/or widespread occurrences, that may or may not be represented in the reserve system, but are under threat of modification across much of their range
P4		Ecological communities that are adequately known, rare but not threatened or meet criteria for Near Threatened, or that have been recently removed from the threatened list.
P5		Ecological communities that are not threatened but are subject to a specific conservation program, the cessation of which would result in the community becoming threatened within five years.

The Minister for Environment has endorsed 69 communities as Threatened Ecological Communities (Appendix H), of which three are noted to occur within the Esperance Sandplain IBRA region (DBCA 2016) (Table 5). Items 29 and 102 relate to specific geographic features remote from the survey site. While the saline Quallilup Lake is close to the site, it is not a playa lake and TEC 74 was therefore not considered likely to be present.

Table 5: Threatened Ecological Communities of the Esperance Sandplain IBRA

ID	Category	Community
29.	CR	Montane thicket of eastern Stirling Range
74.	VU	Herblands and Bunch Grasslands on gypsum lunette dunes alongside saline playa lakes
102.	VU	Thumb Peak, Mid mount Barren, Woolburnup Hill (Central Barren Ranges) <i>Eucalyptus acies</i> mallee heath

A further 42 communities in the South Coast region are regarded by the Department of Biodiversity Conservation and Attractions as either rare but not currently threatened, or insufficiently known to be fully assessed, and are listed as Priority Ecological Communities (DBCA 2017) (Appendix I). Four of these communities could reasonably be expected to occur in coastal and near-coastal areas such as the survey area (Table 6).

Table 6: Priority Ecological Communities of the South Coast region assessed as likely to occur in the vicinity of the survey area.

ID	Priority	Community
24	P2	Tallerack (<i>Eucalyptus pleurocarpa</i>) mallee-heath on seasonally inundated soils
33	P3	Swamp Yate (<i>Eucalyptus occidentalis</i>) woodlands in seasonally inundated clay basins
39	P4	<i>Taxandria spathulata</i> Heath
40	P3	Proteaceae Dominated Kwongkan Shrublands of the Southeast Coastal Floristic Province

2.3 Reconnaissance site visit

An initial visit to the site was made to gain familiarity with the vegetation types present and to assist in planning for the subsequent survey. It was noted that vegetation was re-establishing well following the January 2016 fire, with shrubs on dune crests and slopes having attained heights of up to 2 metres.

It was immediately apparent that the survey site contained two quite different and distinctive vegetation associations with a sharp demarcation between them. Where the substrate consisted of exposed limestone with pockets of shallow grey sand, the vegetation consisted of low shrubs and sedges to around 30 cm in height. In areas where the limestone was overlain by deep sand, the vegetation was dominated by tall shrubs including *Solanum symonii* and *Anthocercis littoria* with a ground layer of low forbs and shrubs (Fig. 3).



Figure 3: Vegetation on survey site showing change in vegetation structure occurring with the transition from exposed limestone substrate in the foreground to deep sand in mid field.

3 Methods

3.1 Survey team

The survey was coordinated by EWS president and botanist Ken Mills. While the composition of the team varied between visits, it always included members with many years of local experience in the location and identification of plant species, including in coastal environments.

3.2 Sampling strategy

An initial assessment of the range of species present was made by establishing a 100 m² quadrat at a randomly chosen point in an area of exposed limestone (Fig. 4). The quadrat was searched thoroughly to locate all species present.

Once the assessment of species richness within the quadrat was completed, it was clear that a number of species not found within the quadrat were growing nearby. Furthermore, some of the additional species were distributed at low density, and there was a high likelihood that they would not be detected in a quadrat-based survey.

The principal objectives of the survey were to document the plant species present and to determine whether any threatened or priority species or ecological communities were present. There was no requirement for measurement of density or diversity indices or longitudinal observations of changes in vegetation structure and composition, which are the main purposes for which quadrats are essential. The two vegetation communities present were clearly distinct in both structure and floristic composition, so collecting data for analysis of vegetation types using multivariate ordination methods was not necessary.

It was therefore determined that the most efficient and effective strategy to sample all species present would be to use transects traversing both vegetation types. Three 10 m wide transects designated T1, T2 and T3 were surveyed and all species present were recorded. T1 commenced from a point close to the initial quadrat and crossed the transition zone onto the nearby sand dunes. T2 traversed the exposed limestone substrate along its longest dimension. T3 initially traversed a swale between dunes and then proceeded across dune slopes to the crest of a large dune (Table 7, Figure 5). This method enabled an area of 6,300 square metres to be thoroughly searched, equivalent to 63 100 square metre

quadrats. The initial quadrat and the three transects were surveyed on 29 September 2017, and again on 13 November 2017.

In addition ‘random walks’ were undertaken across the site, and the boundary between vegetation types was walked and mapped using GPS coordinates. Species not recorded from the transects but located during these activities were recorded.

Each species encountered was allocated an abundance score of ‘rare’ (5 or less individuals encountered), ‘uncommon’ (individuals sparsely distributed or in few groups), ‘common’ (numerous individuals present throughout vegetation type), or ‘abundant’ (dominant species present throughout).



Figure 4: Site of initial quadrat.

Table 7: Quadrat and transect locations and sizes

Survey unit	Start point	End point	Size
Q1	33°49'17.6" S, 121°31'35.1" E		10 m x 10 m
T1	33°49'17.5" S, 121°31'19.9" E	33°49'19.9" S, 121°31'28.1" E	170 m
T2	33°49'17.7" S, 121°31'35.0" E	33°49'23.5" S, 121°31'38.3" E	200 m
T3	33°49'14.6" S, 121°31'34.4" E	33°49'16.7" S, 121°31'25.3" E	260 m

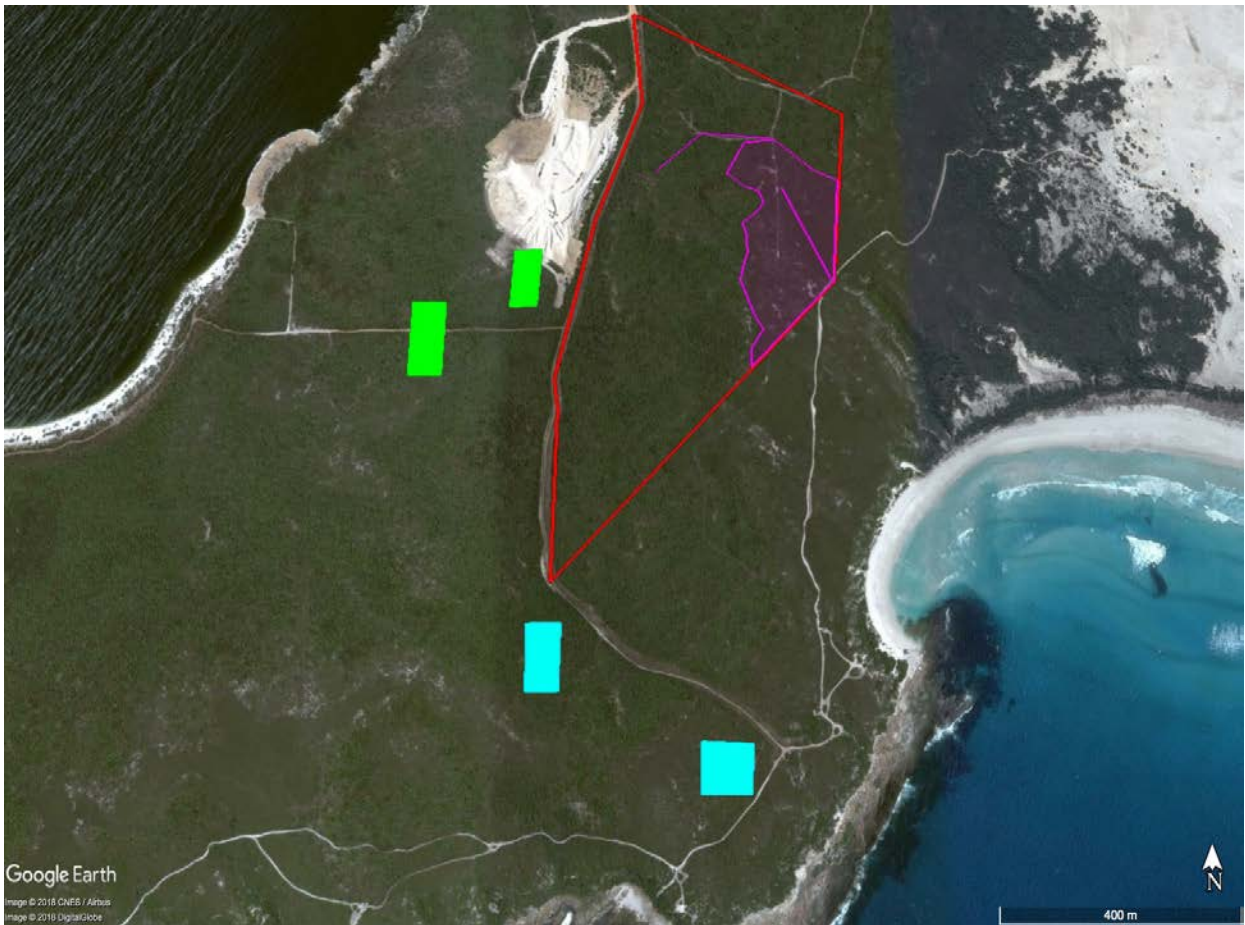


Figure 5: Location of previous surveys, initial quadrat and three transects at Quallilup survey site. Pink shaded area indicates the extent of the exposed limestone substrate. Areas of prior surveys shown as green (2000) and blue (2009).

3.3 *Vegetation description terminology*

Unless otherwise indicated, vegetation associations are described using a structural and floristic classification based on the method of Specht (1970). This system utilises a nomenclature based on life form and foliage cover, with dominant species added as descriptors (Table 8).

4 Results

4.1 *Vegetation associations*

Two distinct vegetation types occurred within the survey area. The surface substrate is clearly a major determinant of vegetation structure and composition. The vegetation type alters dramatically where sand dunes give way to exposed limestone, the transition occurring in just a few metres in many places (Fig. 3).

On the areas of exposed limestone, the vegetation was predominantly *Pultenaea heterochila* open heath or low shrubland, with various members of the Fabaceae, Ericaceae, Rhamnaceae, Malvaceae, and Rhamnaceae families commonly present. Vegetation on deep sands consisted of *Anthocercis littorea* open scrub to tall shrubland with members of the Solanaceae and Euphorbiaceae families prominent.

Table 8: Structural classification system for Australian vegetation. From Specht (1970)

Life form of tallest stratum	Foliage cover of tallest stratum (%)			
	Dense (70-100)	Medium (30-70)	Sparse (10-30)	Very sparse (<10)
Tall trees (>30m)	Tall closed forest	Tall open forest	Tall woodland	
Medium trees (10-30m)	Closed forest	Open forest	Woodland	Open woodland
Low trees (5-10m)	Low closed forest	Low open forest	Low woodland	Low open woodland
Tall shrubs (2-8m)	Closed scrub	Open scrub	Tall shrubland	Tall open shrubland
Low-medium shrubs (0-2m)	Closed heath	Open heath	Low shrubland	Low open shrubland
Herbs	Closed herbland	Herbland	Open herbland	
Grasses	Closed grassland	Grassland	Open grassland	
Tussock grasses	Closed tussock grassland	Tussock grassland	Open tussock grassland	
Hummock grasses			Hummock grassland	Open hummock grassland
Forbs	Closed herbfield	Herbfield	Open herbfield	
Helophytes	Closed sedgeland	Sedgeland	Open sedgeland	
Ferns	Closed Fernland	Fernland	Open fernland	
Thallophytes	Closed mossland	Mossland	Open mossland	

4.1.1 *Pultenaea heterochila* open heath on limestone

The dominant species on the exposed limestone was *Pultenaea heterochila*, which was common wherever limestone was present at the soil surface. (Fig. 6A). Other species contributing significantly to the structure of the open heath included *Acrotriche cordata*, *Acacia cochlearis*, *Pimelea ferruginea*, and *Scaevola cuneiformis*.

The vegetation density was lowest in the northern part of the limestone area, where small sedges of the genera *Schoenus* and *Gahnia* were common in soil pockets between rock patches (Fig. 6B). Further to the south, spaces between shrubs tended to be covered by a vigorous growth of *Kennedia prostrata* (Fig. 6C). Clumps of the spear grasses *Austrostipa flavescens* and *A. mundula* were scattered throughout the area (Fig 6D).

Other species of interest observed in the low heath vegetation included an atypical form of *Chorizema ilicifolium* that lacks the pungent leaf lobes normally found in that species (Fig. 7A), and *Pultenaea tenuifolia*, an uncommon inhabitant of coastal limestone (Fig. 7B). Dead skeletons and new seedlings of *Melaleuca pentagona* were evident in many parts, indicating that this species must have been a dominant element of the vegetation prior to the fire.

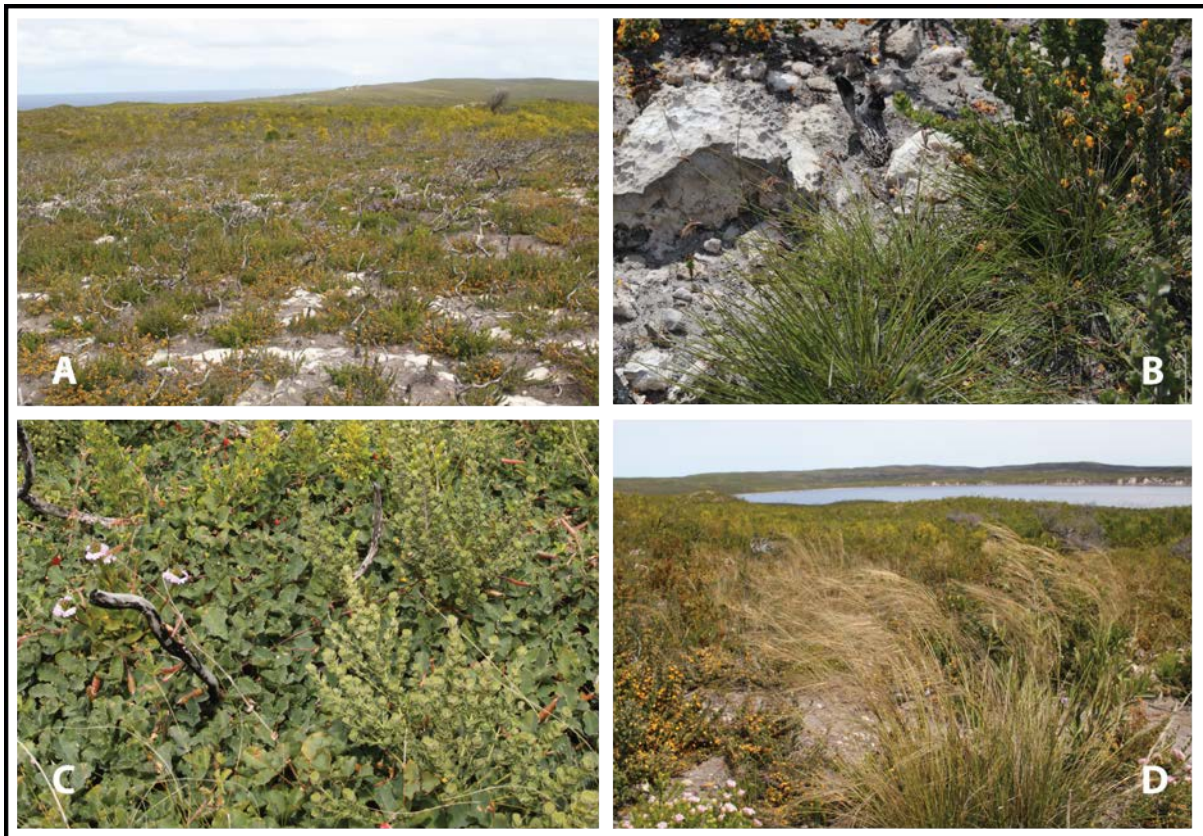


Figure 6: Vegetation on limestone. A – limestone substrate dominated by *Pultenaea heterochila*; B – *Gahnia aristata* and *Schoenus lanatus* alongside *P. heterochila*; C – *Kennedia prostrata* forming complete ground cover; D – *Austrostipa flavescens* clump.



Figure 7: Uncommon plants on limestone. A: *Chorizema illicifolium*; B: *Pultenaea tenuifolia*

4.1.2 *Anthocercis littorea* open scrub on deep sand

Vegetation on the deep sands was typically *Anthocercis littorea* open scrub, with *Solanum symonii* and *Adriana quadripartita* codominant in places (Fig. 8A). Gaps between these species were sometimes occupied by sedgelands of *Lepidosperma squamatum* (Fig. 8B) and *L. gladiatum* (Fig. 8C) or open herbfields of *Opercularia spermacoea* (Fig 8D), especially at the base of dunes and on dune slopes.

Other species that were common within the open scrub included *Spyridium globulosum*, *Gahnia aristata*, *Desmocladius flexuosus*, *Acacia cochlearis*, and *A. cyclops*. At the northern end of the site, the grass *Poa poiiformis* was a common component of the sub-shrub layer. Occasional clumps of the speargrass *Austrostipa acrociliata* occurred on the dune slopes.

4.2 Species present

A total of 77 species from 36 families were recorded during the course of the survey, 8 of which were weed species (Tables 9, 10). The family with the greatest number of species found was Fabaceae (10 species), followed by Asteraceae (8 species), and Poaceae (7 species). Five species were recorded for both Goodeniaceae and Cyperaceae. Three or fewer species were recorded for the remaining 31 families. The only family for which more than one weed species was recorded was Asteraceae. All weed species were either rare or uncommon within the survey area.



Figure 8. Vegetation on deep sand. A: *Anthocercis littorea* and *Adriana quadripartita* open scrub on deep sand; B: *Lepidosperma squamatum* sedgeland; C: *L. gladiatum* sedgeland; D: *Opercularia spermacocea* herbland.

Table 9. Weed species identified at the survey site by family and abundance

Family	Species	Abundance
Poaceae	<i>Chloris gayana</i>	Rare
Asteraceae	<i>Hypochaeris radicata</i>	Uncommon
	<i>Sonchus oleraceus</i>	Uncommon
Brassicaceae	<i>Diplotaxis muralis</i>	Uncommon
Fabaceae	<i>Trifolium hirtum</i>	Rare
Orobanchaceae	<i>Orobanche minor</i>	Rare
Primulaceae	<i>Lysimachia arvensis</i>	Rare
Solanaceae	<i>Solanum nigricans</i>	Uncommon

Table 10. Plant species by family, vegetation type and relative abundance. L = *Pultenaea heterochila* open heath on limestone, S = *Anthocercis littorea* open scrub on sand. A=abundant C=common U=uncommon R=rare *=naturalised weed

Family	Taxon	Relative abundance		Family	Taxon	Relative abundance	
		L	S			L	S
Asparagaceae	<i>Lomandra collina</i>		R	Goodeniaceae	<i>Goodenia affinis</i>	C	
	<i>Thysanotus nudicaulis</i>	U			<i>G. concinna</i>	U	
	<i>Thysanotus patersonii</i>		R		<i>Scaevola crassifolia</i>		U
Cyperaceae	<i>Gahnia aristata</i>	C	C		<i>S. cuneiformis</i>	C	
	<i>Lepidosperma squamatum</i>	U	C		<i>Velleia trinervis</i>	C	
	<i>L. gladiatum</i>		U	Geraniaceae	<i>Pelargonium littorale</i>	U	U
	<i>Schoenus lanatus</i>	C			Haloragaceae	<i>Haloragis digyna</i>	U
	<i>Tetraria</i> sp. Mt Madden	C	U	Lamiaceae		<i>Westringia dampieri</i>	
Hemerocallidaceae	<i>Dianella brevicaulis</i>		R		Lauraceae	<i>Cassytha racemosa</i>	
	Poaceae	<i>Austrostipa acrocliata</i>		U		Loranthaceae	<i>Nuytsia floribunda</i>
<i>A. flavescens</i>		C		Linaceae	<i>Linum marginale</i>		R
<i>A. mundula</i>		U			Loganiaceae	<i>Logania fasciculata</i>	
<i>A. echinata</i>		R		<i>L. vaginalis</i>			R
<i>*Chloris gayana</i>		R		Malvaceae	<i>Lasiopetalum discolor</i>	C	C
<i>Poa poiiformis</i> var. <i>poiiformis</i>			C		<i>Thomasia cognata</i>		R
<i>Rytidosperma acerosum</i>		U		Myrtaceae	<i>Calytrix tetragona</i>	R	
Restionaceae	<i>Desmocladus flexuosus</i>	C	C		<i>Melaleuca pentagona</i>	U	R
	Araliaceae	<i>Trachymene pilosa</i>		U	Olacaceae	<i>Olax phyllanthi</i>	U
Asteraceae		<i>Argentipallium tephrodes</i>		U		Orobanchaceae	<i>*Orobanche minor</i>
	<i>Brachyscome ciliaris</i>	U		Phyllanthaceae	<i>Phyllanthus calycinus</i>		
	<i>*Hypochaeris radicata</i>		U		Polygalaceae	<i>Comesperma confertum</i>	U
	<i>Olearia axillaris</i>		U	Polygonaceae		<i>Muehlenbeckia adpressa</i>	
	<i>Podotheca angustifolia</i>		U		Primulaceae	<i>*Lysimachia arvensis</i>	R
	<i>Rhodanthe citrina</i>		U	Ranunculaceae		<i>Clematis linearifolia</i>	
	<i>Senecio pinnatifolius</i>		U		<i>C. pubescens</i>	U	C
	<i>var. maritimus</i>		U	Rhamnaceae	<i>Pomaderris myrtilloides</i>	C	
	<i>*Sonchus oleraceus</i>		U		<i>Spyridium globulosum</i>		C
Brassicaceae	<i>*Diplotaxis muralis</i>	U		Rubiaceae	<i>Opercularia vaginata</i>		U
	Crassulaceae	<i>Crassula alata</i>			R	<i>O. spermacoea</i>	
Ericaceae		<i>Acrotriche cordata</i>	C	C	Rutaceae	<i>Rhadinothamnus rudis</i>	R
	<i>Leucopogon parviflorus</i>		U	<i>subsp. rudis</i>			
Euphorbiaceae	<i>Adriana quadripartita</i>	U	A	Solanaceae	<i>Anthocercis littorea</i>		A
	Fabaceae	<i>Acacia cochlearis</i>	C		C	<i>*Solanum nigricans</i>	
<i>A. cyclops</i>		C	C		<i>S. symonii</i>	U	A
<i>A. saligna</i>		U	U	Thymeleaceae	<i>Pimelea ferruginea</i>	C	U
<i>A. subcaerulea</i>			R		Zygophyllaceae	<i>Zygophyllum</i>	
<i>Chorizema ilicifolia</i>		R		<i>billardiarei</i>			
<i>Kennedia prostrata</i>		C	C				
<i>Pultenaea heterochila</i>	A	C					
	<i>P. tenuifolia</i>	R					
	<i>Templetonia retusa</i>	U	U				
	<i>*Trifolium hirtum</i>		R				
Gentianaceae	<i>Schenkia australis</i>		R				

As a consequence of the presence of more uncommon and rare species, overall species richness was greater for the *Anthocercis littorea* open scrub, with 53 native species found compared to 37 for the *Pultenaea heterochila* open heath (Table 11). Twenty-one species occurred in both communities, with 15 restricted to limestone and 31 to sand.

Table 11. Number of species found by vegetation type and abundance. A=abundant C=common U=uncommon R=rare.

Vegetation type	Native species	Weed species	Abundance (Native species)			
			A	C	U	R
Open heath	37	4	1	15	16	5
Open scrub	53	4	3	14	23	13

The only priority species located was *Austrostipa mundula*, currently listed as P3. This species occurs in scattered clumps across the limestone substrate, often in association with *A. flavescens*. A voucher specimen has been lodged with the WA Herbarium (Table 12).

A further species of *Austrostipa* was found and collected within the transition zone between the two vegetation types. This species is much larger than *A. muldula*, with prominent dense spreading inflorescences (Fig. 9). The exceptionally long awns and spiny leaves of this species appeared to be consistent with *A. echinata* – a species of coastal south-eastern South Australia which had not previously been recorded in Western Australia. A voucher specimen was lodged with the WA Herbarium, and its identity has been confirmed to be *A. echinata*.



Figure 9. *Austrostipa echinata*

Table 12. Voucher specimens lodged with WA Herbarium

Collection No.	Species
K.R. Mills 790	<i>Austrostipa flavescens</i>
K.R. Mills 796	<i>Austrostipa echinata</i>
K.R. Mills 792	<i>Austrostipa acrociliata</i>
K.R. Mills 789	<i>Austrostipa mundula</i>
K.R. Mills 786	<i>Austrostipa mundula</i>
K.R. Mills 795	<i>Chorizema ilicifolia</i>
K.R. Mills 858	<i>Gahnia aristata</i>
K.R. Mills 864	<i>Opercularia spermacoea</i>
K.R. Mills 794	<i>Pultenaea tenuifolia</i>
K.R. Mills 791	<i>Schoenus lanatus</i>
K.R. Mills 869	<i>Tetragia</i> sp. Mt Madden
K.R. Mills 793	<i>Senecio pinnatifolius</i> var. <i>maritimus</i>

5 Discussion

5.1 Fire effects

An extensive area along the coastal strip to the west of Esperance, including the survey area, was burnt by an intensive fire in January 2016. The fire destroyed virtually all above-ground vegetative material (Fig. 10A), with a few burnt branches of larger shrubs the only remaining indication of their pre-fire occurrence (Fig. 10B).

Studies of post fire regeneration of coastal heath in eastern Australia have shown that species richness tends to increase for around 5 years following fire, after which time it decreases (Keith and Bradstock 1994; Penman *et al.* 2009; Posamentier *et al.* 1981). Factors accounting for the subsequent temporal decline in species numbers include shrub canopy closure, increased competition, and senescence of post-fire ephemerals.

An indication of the likely future trajectory of vegetation assemblages on both substrates is provided by photographs of the area taken prior to the fire. On the limestone substrate, the vegetation was predominantly a *Melaleuca pentagona* closed heath interspersed with bare patches of limestone (Fig. 10C). *Pultenaea heterochila* was still present but is no longer the dominant species. Where gaps occurred in the *M. pentagona* canopy, patches of closed to open mixed heath of other species occurred.

On the sand dunes, there was an open to closed *Acacia* scrub (Fig. 10D). The three species that currently dominate this area, *Anthocercis littorea*, *Solanum symonii* and *Adriana quadripartita*, were either absent or uncommon, confirming their status as short lived post-fire opportunists. As a result of the high density of the dominant shrubs, conditions for ground-level sub-shrubs and herbs were unfavourable so both the species richness and diversity would have been significantly lower than at present.

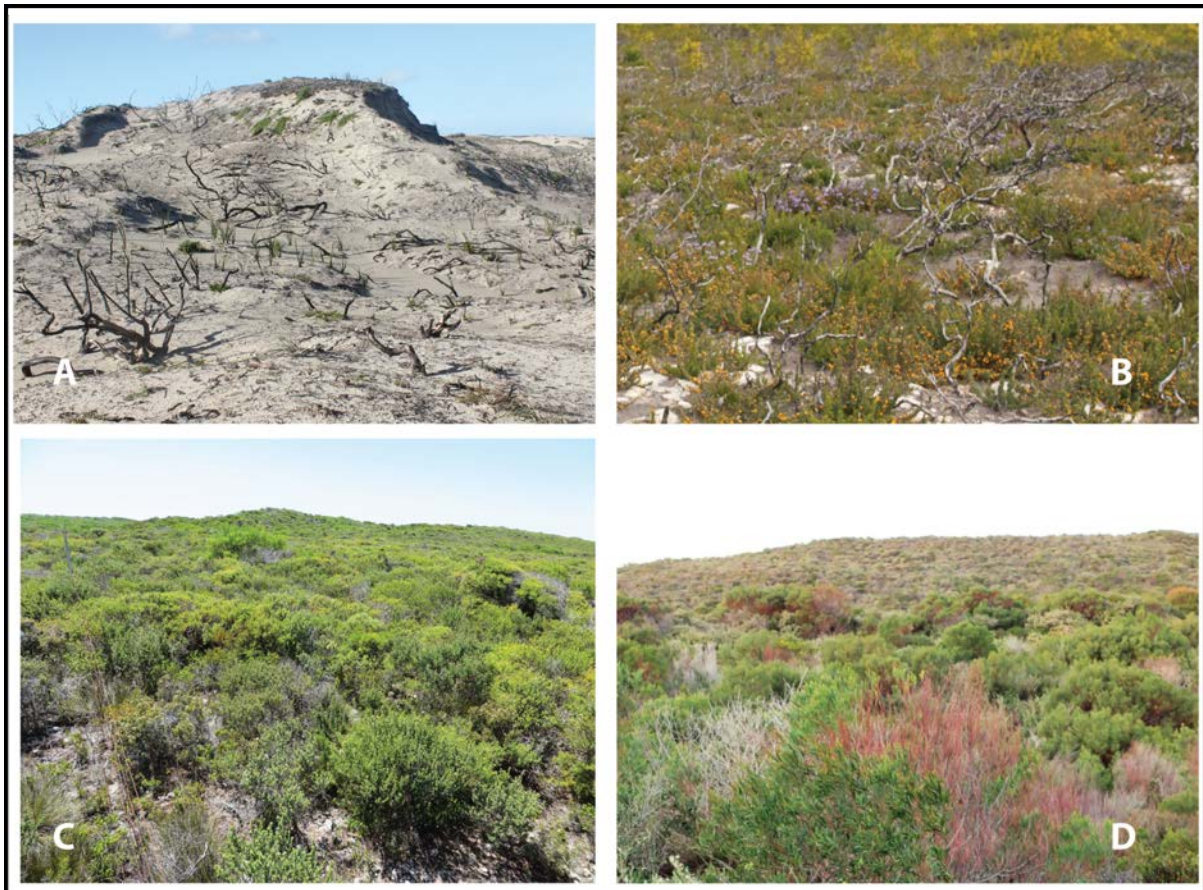


Figure 10. Post fire succession. A: Dunes to the east of survey site in June 2016, 5 months post fire; B: burnt ‘skeletons’ of *Melaleuca pentagona* on limestone; C: pre-fire mixed open heath in foreground with *Melaleuca pentagona* closed heath in the background and exposed limestone evident; D: pre-fire closed *Acacia* scrub on sand dunes;

5.2 Family level diversity

While the survey identified species from 36 different plant families, there were several notable omissions. No representatives of either Proteaceae or Orchidaceae were located. A previous survey in the same general area in 2000 recorded *Grevillea oligantha* and *Hakea nitida* (Esperance Wildflower Society 2000), although the precise location of these observations was not recorded. No Orchidaceae species were reported in the prior survey. Similar dune habitat near Esperance contains orchids of the genera *Pterostylis* and *Cyrtostylis*. It is possible that orchids may become established within the survey area in future years.

As was the case with the previous survey, the current survey failed to locate any eucalypts. One large burnt truck on the crest of a sand dune on transect 1 may have been a species of *Eucalyptus*, however the absence of resprouting or seedlings renders this uncertain.

5.3 Vegetation condition

Vegetation throughout the survey site was in excellent condition with no signs of disease. Despite the opportunity for weed incursion provided by the bare ground following the fire, weeds were scarce (Table 9), and were generally found close to access tracks, particularly the beach access track on the south east boundary of the site.

5.4 Priority plant species

The only priority species found in the course of the survey was the P3 grass *Austrostipa mundula*, which was sparsely scattered across the limestone substrate where an estimated that 100 plants were present. In order to determine whether this species occurred outside the survey area, a brief search was conducted along the beach access track. A more concentrated population was located 400 metres to the south east, where it was estimated that 100 plants were present within an area 50 metres square. A voucher from this population has been lodged with the WA Herbarium (Table 12).

None of the remaining 13 species listed in Table 3 were located:

- *Caesia viscida* is been associated with *Banksia speciosa* woodland (Keighery 1990), a formation not occurring in the survey area;
- *Leucopogon corymbiformis* is known only from Cape Arid National Park and Helms Arboretum (20 K N of Esperance), and is also associated with *B. speciosa* (Hislop 2014);
- Most records of *L. rotundifolius* appear to be associated with granite (Western Australian Herbarium 1998-), although the species was reported nearby in the 2009 survey (Esperance Wildflower Society 2009).
- *Dampiera sericantha* is often associated with *B. speciosa* and is a known post-fire responder (Western Australian Herbarium 1998-). It familiar to members of the survey team and would be highly likely to be detected if present;
- The single record of *Thomasia quercifolia* in the region is from sand dunes near Esperance in 1971. If present, the distinctive foliage of this species would attract the attention of the survey team;
- As noted above, no species of *Eucalyptus* were present;
- *Comesperma calcicola* is known from calcareous and semi-saline clay loams in mallee woodlands and Chenopod shrubland (Keighery 2002). It was therefore unlikely to be present in the survey area;
- *Banksia prolata* subsp. *calcicola* occurs in similar limestone habitats in the vicinity of the survey site (Western Australian Herbarium 1998-). It is a distinctive species well known to the survey team and would certainly have been detected if present.

One of the grass specimens collected during the survey and lodged with the WA Herbarium has been determined to be *Austrostipa echinata*. This is the first record for this species in Western Australia, it having previously been recorded only from south eastern South Australia (Figure 10). This species will be added to the Census of Western Australian Plants and is expected to be classified as either priority 1 or 2 (M. Hislop pers. comm.).



Figure 11. Previously recorded distribution of *Austrostipa echinata*. Source: (AVH 2018)

5.5 Vegetation types and Priority Ecological Communities

The distribution of vegetation types of the Esperance region was mapped by J.S. Beard as part of a comprehensive statewide project. The survey area is located within a coastal strip designated as ‘coastal dune scrub’, with typical species stated to be *Eucalyptus angulosa* and *Acacia cyclops*. This vegetation type is also referred to as the Fanny’s Cove System (Beard 1975). The vegetation of this complex is noted to be highly variable, and subject to degradation by fire. The typical composition is stated to be a low scrub dominated by *Scaevola crassifolia* near the ocean, behind which tall thickets of *Eucalyptus angulosa* with an understory of *Melaleuca pentagona* occur. Further inland the dune community includes tall thickets of *Acacia*, *Melaleuca* and *Banksia speciosa* (Beard 1975).

The survey area fits within the Beard’s near-ocean element, although *Pultenaea heterochila* rather than *Scaevola crassifolia* is dominant (the latter species occurs but was found to be uncommon). *Melaleuca pentagona* will become a dominant element as the post-fire succession progresses. No species of *Eucalyptus* or *Banksia* occur in the survey area. As the Fanny Cove system is traversed northward from the study site, the first eucalypt is encountered after 3 km, where *Eucalyptus goniantha* subsp. *notactites*, is an emergent mallee within *Acacia* scrub of generally similar composition to that at the survey site. Two km further north the *Acacia* scrub gives way to *Banksia speciosa* low woodland with an extensive shrub layer that includes a number of proteaceous species including *Grevillea oligantha* and *Adenanthos cuneatus*. In nearby low lying areas a *Eucalyptus occidentalis* open forest with a complex shrub understory occurs. These communities fall within the scope of the endangered/P3 Proteaceae Dominated Kwongkan Shrublands and the P3 Swamp Yate woodlands respectively.

Shepherd *et al.* (2002) have estimated the original pre-European extent of the Fanny Cove System (Beard association 42) to be 370,000 HA, of which 357,000 HA (96.5%) remains intact, with 46.8% protected within reserves. The elements of this system that occur on the survey site are common and widespread along the coastal strip at least as far east as Esperance.

None of the characteristic species of the four Priority Ecological Communities listed in Tables 5 and 6 are present on the survey site. *Banksia speciosa* woodland occurs 5 km to the north, where it is considered likely to meet the definition of ‘Proteaceae Dominated Kwongkan Shrublands of the Southeast Coastal Floristic Province’. *Eucalyptus occidentalis* woodlands occur at a similar distance.

6 Summary

This survey examined the structural and floristic composition of part of mining lease M63/602, a potential site for future limestone extraction operations. Two distinct vegetation types were present. On areas of exposed limestone, the vegetation was predominantly *Pultenaea heterochila* open heath or low shrubland dominated by members of the Fabaceae, Ericaceae, Rhamnaceae, Malvaceae, and Rhamnaceae families. Vegetation on deep sands consisted of *Anthocercis littorea* open scrub to tall shrubland currently dominated by members of the Solanaceae and Euphorbiaceae, but which is on a successional trajectory to *Acacia* closed or open scrub.

A total of 77 species from 36 families were recorded during the course of the survey, 8 of which were weed species. Species richness was greater for the *Anthocercis littorea* open scrub community on deep sands than for the *Pultenaea heterochila* open heath associated with limestone. One priority 3 species, *Austrostipa mundula*, was restricted to areas of exposed limestone, and was also found to occur on similar substrates outside the survey area.

Austrostipa echinata, a species not previously recorded in Western Australia, was located in the transition zone between the two vegetation associations. It is anticipated that it will be listed as a priority 1 or 2 species in the future. This species was not positively identified until a voucher specimen was lodged with the WA Herbarium. By the time the identification was confirmed, *Austrostipa* species on the site had senesced to a stage where identification was no longer possible, making any assessment of the extent of this species’ occurrence impossible until spring 2018.

No threatened or priority ecological communities occur within the area covered by the survey. Two listed communities, Proteaceae Dominated Kwongan Shrublands and Swamp Yate Woodlands occur 5 km to the north.

The area is currently recovering from an intense bushfire that swept through the area in January 2016. The present vegetation structure will change as regenerating plants mature and foliage cover increases, and the number of species present is likely to decline as post-fire ephemerals senesce and inter-species competition increases.

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President
Esperance Wildflower Society
21 January 2018

NatureMap Species Report

Created By Guest user on 26/09/2017

Current Names Only Yes
Core Datasets Only Yes
Method 'By Rectangle'
Extent 121° 18' 00" E, 121° 32' 00" E, 33° 54' 00" S, 33° 48' 20" S
Group By Conservation Status

Conservation Status	Species	Records
Non-conservation taxon	51	58
Priority 4	3	4
Protected under international agreement	2	2
Rare or likely to become extinct	3	3
TOTAL	59	67

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
Rare or likely to become extinct				
1.	24734 <i>Calyptrorhynchus latirostris</i> (Carnaby's Cockatoo (short-billed black-cockatoo), Carnaby's Cockatoo)		T	
2.	24320 <i>Cereopsis novaehollandiae</i> subsp. <i>grisea</i> (Recherche Cape Barren Goose, Cape Barren Goose)		T	
3.	24210 <i>Neophoca cinerea</i> (Australian Sea-lion)		T	
Protected under international agreement				
4.	24780 <i>Calidris alba</i> (Sanderling)		IA	
5.	24788 <i>Calidris ruficollis</i> (Red-necked Stint)		IA	
Priority 4				
6.	32145 <i>Banksia prolata</i> subsp. <i>calcicola</i>		P4	
7.	15068 <i>Eucalyptus preissiana</i> subsp. <i>lobata</i>		P4	
8.	48135 <i>Thinornis rubricollis</i> (Hooded Plover, Hooded Dotterel)		P4	
Non-conservation taxon				
9.	3262 <i>Acacia cochlearis</i> (Rigid Wattle)			
10.	3353 <i>Acacia gonophylla</i>			
11.	24562 <i>Anthochaera lunulata</i> (Western Little Wattlebird)			
12.	24285 <i>Aquila audax</i> (Wedge-tailed Eagle)			
13.	93 <i>Callitris drummondii</i> (Drummond's Cypress Pine)			
14.	24377 <i>Charadrius ruficapillus</i> (Red-capped Plover)			
15.	3758 <i>Chorizema ilicifolium</i> (Holly Flame Pea)			
16.	24980 <i>Christinus marmoratus</i> (Marbled Gecko)			
17.	<i>Chroicocephalus novaehollandiae</i>			
18.	25596 <i>Cracticus torquatus</i> (Grey Butcherbird)			
19.	5600 <i>Eucalyptus globata</i> (Port Lincoln Mallee)			
20.	18085 <i>Eucalyptus utilis</i>			
21.	25622 <i>Falco cenchroides</i> (Australian Kestrel, Nankeen Kestrel)			
22.	25627 <i>Haematopus fuliginosus</i> (Sooty Oystercatcher)			
23.	24293 <i>Haliaeetus leucogaster</i> (White-bellied Sea-Eagle)			
24.	6171 <i>Haloragis digyna</i>			
25.	24491 <i>Hirundo neoxena</i> (Welcome Swallow)			
26.	25638 <i>Larus pacificus</i> (Pacific Gull)			
27.	<i>Lepidosperma</i> sp.			
28.	945 <i>Lepidosperma squamatum</i>			
29.	25153 <i>Lerista microtis</i> subsp. <i>intermedia</i>			
30.	29538 <i>Lissanthe pleurandroides</i>			
31.	1224 <i>Lomandra collina</i> (Pale Mat Rush)			
32.	24549 <i>Malurus leucopterus</i> subsp. <i>leuconotus</i> (White-winged Fairy-wren)			
33.	24583 <i>Manorina flavigula</i> (Yellow-throated Miner)			
34.	5881 <i>Melaleuca brevifolia</i>			
35.	5900 <i>Melaleuca cuticularis</i> (Saltwater Paperbark)			
36.	15993 <i>Melaleuca pentagona</i> var. <i>pentagona</i>			
37.	48008 <i>Morus serrator</i> (Australasian Gannet)			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
38.	4492 <i>Nematolepis phebalioides</i>			
39.	24739 <i>Neophema petrophila</i> (Rock Parrot)			
40.	7346 <i>Opercularia echinocephala</i> (Bristly Headed Stink Weed)			
41.	17114 <i>Paraserianthes lophantha</i> subsp. <i>lophantha</i>			
42.	25681 <i>Pardalotus punctatus</i> (Spotted Pardalote)			
43.	25697 <i>Phalacrocorax carbo</i> (Great Cormorant)			
44.	24596 <i>Phylidonyris novaehollandiae</i> (New Holland Honeyeater)			
45.	6007 <i>Phymatocarpus maxwellii</i>			
46.	8182 <i>Podotheca angustifolia</i> (Sticky Longheads)			
47.	24681 <i>Poliocephalus poliocephalus</i> (Hoary-headed Grebe)			
48.	107 <i>Posidonia kirkmanii</i>			
49.	1680 <i>Prasophyllum parvifolium</i> (Autumn Leek Orchid)			
50.	18544 <i>Rhadinothamnus rudis</i> subsp. <i>rudis</i>			
51.	25614 <i>Rhipidura leucophrys</i> (Willie Wagtail)			
52.	25534 <i>Sericornis frontalis</i> (White-browed Scrubwren)			
53.	25597 <i>Strepera versicolor</i> (Grey Currawong)			
54.	7678 <i>Stylidium adnatum</i> (Common Beaked Triggerplant)			
55.	7775 <i>Stylidium pilosum</i> (Silky Triggerplant)			
56.	7794 <i>Stylidium rupestre</i> (Rock Triggerplant)			
57.	<i>Thalasseus bergii</i>			
58.	6280 <i>Trachymene pilosa</i> (Native Parsnip)			
59.	25765 <i>Zosterops lateralis</i> (Grey-breasted White-eye, Silvereeye)			

Conservation Codes

T - Rare or likely to become extinct
X - Presumed extinct
IA - Protected under international agreement
S - Other specially protected fauna
1 - Priority 1
2 - Priority 2
3 - Priority 3
4 - Priority 4
5 - Priority 5

¹ For NatureMap's purposes, species flagged as endemic are those whose records are wholly contained within the search area. Note that only those records complying with the search criterion are included in the calculation. For example, if you limit records to those from a specific datasource, only records from that datasource are used to determine if a species is restricted to the query area.

Appendix B: Eastern Rectangle NatureMap Species Report

Created By Guest user on 26/09/2017

Current Names Only Yes
Core Datasets Only Yes
Method 'By Rectangle'
Extent 121° 32' 00" E, 121° 44' 30" E, 33° 54' 00" S, 33° 48' 20" S
Group By Conservation Status

Conservation Status	Species	Records
Non-conservation taxon	50	70
Protected under international agreement	1	1
Rare or likely to become extinct	1	2
TOTAL	52	73

Name ID	Species Name	Naturalised	Conservation Code	Endemic To Query Area
Rare or likely to become extinct				
1.	25335 <i>Caretta caretta</i> (Loggerhead Turtle)		T	
Protected under international agreement				
2.	41324 <i>Ardea modesta</i> (great egret, white egret)		IA	
Non-conservation taxon				
3.	3525 <i>Acacia rostellifera</i> (Summer-scented Wattle)			
4.	24260 <i>Acanthiza apicalis</i> (Broad-tailed Thornbill, Inland Thornbill)			
5.	24261 <i>Acanthiza chrysorrhoa</i> (Yellow-rumped Thornbill)			
6.	24560 <i>Acanthorhynchus superciliosus</i> (Western Spinebill)			
7.	24312 <i>Anas gracilis</i> (Grey Teal)			
8.	24316 <i>Anas superciliosa</i> (Pacific Black Duck)			
9.	24562 <i>Anthochaera lunulata</i> (Western Little Wattlebird)			
10.	24353 <i>Artamus cyanopterus</i> (Dusky Woodswallow)			
11.	24319 <i>Biziura lobata</i> (Musk Duck)			
12.	3716 <i>Bossiaea preissii</i>			
13.	3758 <i>Chorizema ilicifolium</i> (Holly Flame Pea)			
14.	<i>Chroicocephalus novaehollandiae</i>			
15.	24288 <i>Circus approximans</i> (Swamp Harrier)			
16.	25592 <i>Corvus coronoides</i> (Australian Raven)			
17.	25596 <i>Cracticus torquatus</i> (Grey Butcherbird)			
18.	24322 <i>Cygnus atratus</i> (Black Swan)			
19.	<i>Egretta novaehollandiae</i>			
20.	5675 <i>Eucalyptus incrassata</i> (Lerp Mallee)			
21.	25627 <i>Haematopus fuliginosus</i> (Sooty Oystercatcher)			
22.	24491 <i>Hirundo neoxena</i> (Welcome Swallow)			
23.	25638 <i>Larus pacificus</i> (Pacific Gull)			
24.	25661 <i>Lichmera indistincta</i> (Brown Honeyeater)			
25.	1224 <i>Lomandra collina</i> (Pale Mat Rush)			
26.	6456 <i>Lysinema ciliatum</i> (Curry Flower)			
27.	5971 <i>Melaleuca striata</i>			
28.	<i>Microcarbo melanoleucos</i>			
29.	24739 <i>Neophema petrophila</i> (Rock Parrot)			
30.	34841 <i>Oxymyrrhine gracilis</i>			
31.	25697 <i>Phalacrocorax carbo</i> (Great Cormorant)			
32.	24667 <i>Phalacrocorax sulcirostris</i> (Little Black Cormorant)			
33.	24596 <i>Phylidonyris novaehollandiae</i> (New Holland Honeyeater)			
34.	25704 <i>Podiceps cristatus</i> (Great Crested Grebe)			
35.	24681 <i>Polocephalus polocephalus</i> (Hoary-headed Grebe)			
36.	27173 <i>Polysiphonia decipiens</i>			
37.	24771 <i>Porzana tabuensis</i> (Spotless Crane)			
38.	17650 <i>Prasophyllum odoratissimum</i>			
39.	28286 <i>Pultenaea heterochila</i>			
40.	4186 <i>Pultenaea tenuifolia</i>			
41.	48096 <i>Rhipidura albiscapa</i> (Grey Fantail)			
42.	25614 <i>Rhipidura leucophrys</i> (Willie Wagtail)			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
43.	25534 <i>Sericornis frontalis</i> (White-browed Scrubwren)			
44.	4828 <i>Spyridium globulosum</i> (Basket Bush)			
45.	9070 <i>Stackhousia pubescens</i> (Downy Stackhousia)			
46.	7758 <i>Stylidium macranthum</i> (Crab Claws)			
47.	24331 <i>Tadorna tadornoides</i> (Australian Shelduck, Mountain Duck)			
48.	<i>Thalasseus bergii</i>			
49.	5075 <i>Thomasia angustifolia</i> (Narrow Leaved Thomasia)			
50.	25549 <i>Todiramphus sanctus</i> (Sacred Kingfisher)			
51.	14718 <i>Verticordia sieberi</i> var. <i>sieberi</i>			
52.	25765 <i>Zosterops lateralis</i> (Grey-breasted White-eye, Silvereeye)			

Conservation Codes

T - Rare or likely to become extinct
 X - Presumed extinct
 IA - Protected under international agreement
 S - Other specially protected fauna
 1 - Priority 1
 2 - Priority 2
 3 - Priority 3
 4 - Priority 4
 5 - Priority 5

¹ For NatureMap's purposes, species flagged as endemic are those whose records are wholly contained within the search area. Note that only those records complying with the search criterion are included in the calculation. For example, if you limit records to those from a specific datasource, only records from that datasource are used to determine if a species is restricted to the query area.

NatureMap Species Report

Created By Guest user on 26/09/2017

Current Names Only Yes
Core Datasets Only Yes
Method 'By Circle'
Centre 121° 32' 00" E, 33° 50' 25" S
Buffer 40km
Group By Conservation Status

Conservation Status	Species	Records
Non-conservation taxon	2045	11915
Other specially protected fauna	2	9
Priority 1	9	14
Priority 2	15	52
Priority 3	25	92
Priority 4	13	191
Protected under international agreement	14	290
Rare or likely to become extinct	21	189
TOTAL	2144	12752

Name ID	Species Name	Naturalised	Conservation Code	Endemic To Query Area
Rare or likely to become extinct				
1.	12102 <i>Anigozanthos bicolor subsp. minor</i>		T	
2.	24783 <i>Calidris canutus subsp. rogersi</i> (Red Knot (north-eastern Siberia))		T	
3.	24784 <i>Calidris ferruginea</i> (Curlew Sandpiper)		T	
4.	24790 <i>Calidris tenuirostris</i> (Great Knot)		T	
5.	24734 <i>Calyptorhynchus latirostris</i> (Carnaby's Cockatoo (short-billed black-cockatoo), Carnaby's Cockatoo)		T	
6.	48400 <i>Calyptorhynchus sp.</i> (white-tailed black cockatoo)		T	
7.	25335 <i>Caretta caretta</i> (Loggerhead Turtle)		T	
8.	25551 <i>Cereopsis novaehollandiae</i> (Cape Barren Goose)		T	
9.	24320 <i>Cereopsis novaehollandiae subsp. grisea</i> (Recherche Cape Barren Goose, Cape Barren Goose)		T	
10.	1439 <i>Conostylis lepidospermoides</i> (Sedge Conostylis)		T	
11.	24092 <i>Dasyurus geoffroii</i> (Chuditch, Western Quoll)		T	
12.	25346 <i>Dermochelys coriacea</i> (Leatherback Turtle)		T	
13.	25618 <i>Diomedea exulans</i> (Wandering Albatross)		T	
14.	24043 <i>Eubalaena australis</i> (Southern Right Whale)		T	
15.	13647 <i>Lambertia echinata subsp. echinata</i>		T	
16.	24557 <i>Leipoa ocellata</i> (Malleefowl)		T	
17.	24210 <i>Neophoca cinerea</i> (Australian Sea-lion)		T	
18.	24712 <i>Puffinus carneipes</i> (flesh-footed shearwater, fleshy-footed shearwater)		T	
19.	24530 <i>Sterna nereis subsp. nereis</i> (Fairy Tern)		T	
20.	34007 <i>Thalassarche chlororhynchos</i> (Atlantic Yellow-nosed Albatross)		T	
21.	34113 <i>Westralunio carteri</i> (Carter's Freshwater Mussel)		T	
Protected under international agreement				
22.	41323 <i>Actitis hypoleucos</i> (Common Sandpiper)		IA	
23.	25554 <i>Apus pacificus</i> (Fork-tailed Swift, Pacific Swift)		IA	
24.	25558 <i>Ardea ibis</i> (Cattle Egret)		IA	
25.	41324 <i>Ardea modesta</i> (great egret, white egret)		IA	
26.	25736 <i>Arenaria interpres</i> (Ruddy Turnstone)		IA	
27.	24779 <i>Calidris acuminata</i> (Sharp-tailed Sandpiper)		IA	
28.	24780 <i>Calidris alba</i> (Sanderling)		IA	
29.	24788 <i>Calidris ruficollis</i> (Red-necked Stint)		IA	
30.	30932 <i>Limosa lapponica</i> (Bar-tailed Godwit)		IA	
31.	24598 <i>Merops ornatus</i> (Rainbow Bee-eater)		IA	
32.	24843 <i>Plegadis falcinellus</i> (Glossy Ibis)		IA	
33.	24383 <i>Pluvialis squatarola</i> (Grey Plover)		IA	
34.	24806 <i>Tringa glareola</i> (Wood Sandpiper)		IA	
35.	24808 <i>Tringa nebularia</i> (Common Greenshank, greenshank)		IA	

Other specially protected fauna

	Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
36.	24208	<i>Arctocephalus forsteri</i> (New Zealand fur-seal, long-nosed fur-seal)		S	
37.	25624	<i>Falco peregrinus</i> (Peregrine Falcon)		S	
Priority 1					
38.	6342	<i>Coleanthera coelophylla</i>		P1	
39.	43962	<i>Cyathostemon</i> sp. <i>Esperance</i> (A. Fairall 2431)		P1	
40.	20451	<i>Darwinia</i> sp. <i>Gibson</i> (R.D. Royce 3569)		P1	
41.	13023	<i>Eucalyptus misella</i>		P1	
42.	34030	<i>Geotria australis</i> (Pouched Lamprey)		P1	
43.	19429	<i>Hibbertia carinata</i>		P1	
44.	33097	<i>Lepidosperma</i> sp. <i>Hopetoun Road</i> (S. Kern et al. LCH 16552)		P1	
45.	41769	<i>Leucopogon</i> sp. <i>Lake Magenta</i> (K.R. Newbey 3387)		P1	
46.	16273	<i>Schoenus</i> sp. <i>Grey Rhizome</i> (K.L. Wilson 2922)		P1	
Priority 2					
47.	14503	<i>Astroloma</i> sp. <i>Grass Patch</i> (A.J.G. Wilson 110)		P2	
48.	12166	<i>Caesia viscida</i>		P2	
49.	14663	<i>Comesperma griffinii</i>		P2	
50.	17750	<i>Darwinia</i> sp. <i>Mt Ragged</i> (S. Barrett 663)		P2	
51.	12696	<i>Eucalyptus litorea</i>		P2	
52.	20162	<i>Fabronia hampeana</i>		P2	
53.	20036	<i>Hibbertia turleyana</i>		P2	
54.	44222	<i>Leucopogon corymbiformis</i>		P2	
55.	7347	<i>Opercularia hirsuta</i> (Silky-haired Stinkweed)		P2	
56.	23499	<i>Paracaleana parvula</i>		P2	
57.	1545	<i>Patersonia inaequalis</i> (Unequal Bract Patersonia)		P2	
58.	14795	<i>Spyridium mucronatum</i> subsp. <i>multiflorum</i>		P2	
59.	31873	<i>Tecticornia indefessa</i>		P2	
60.	1323	<i>Thysanotus brachiatus</i>		P2	
61.	13160	<i>Velleia exigua</i>		P2	
Priority 3					
62.	14621	<i>Acacia glaucissima</i>		P3	
63.	25242	<i>Acanthopis antarcticus</i> (Southern Death Adder)		P3	
64.	42787	<i>Astartea reticulata</i>		P3	
65.	35317	<i>Austrostipa mundula</i>		P3	
66.	17922	<i>Brachyloma mogin</i>		P3	
67.	13121	<i>Centrolepis cephaloformis</i> subsp. <i>murrayi</i>		P3	
68.	14664	<i>Comesperma calcicola</i>		P3	
69.	40924	<i>Commersonia rotundifolia</i> (Round-leaved Rulingia)		P3	
70.	6346	<i>Conostephium marchantiorum</i>		P3	
71.	7474	<i>Dampiera sericantha</i>		P3	
72.	7485	<i>Dampiera triloba</i>		P3	
73.	12817	<i>Daviesia pauciflora</i>		P3	
74.	16043	<i>Eucalyptus famelica</i>		P3	
75.	13022	<i>Eucalyptus foliosa</i>		P3	
76.	13014	<i>Eucalyptus semiglobosa</i>		P3	
77.	6163	<i>Gonocarpus pycnostachyus</i>		P3	
78.	13773	<i>Hopkinsia adscendens</i>		P3	
79.	2220	<i>Isopogon alpicornis</i> (Elkhorn Coneflower)		P3	
80.	38222	<i>Kunzea salina</i>		P3	
81.	3026	<i>Lepidium fasciculatum</i> (Bundled Peppergrass)		P3	
82.	6442	<i>Leucopogon rotundifolius</i>		P3	
83.	15693	<i>Melaleuca dempta</i>		P3	
84.	2275	<i>Persoonia scabra</i>		P3	
85.	6804	<i>Pityrodia chrysocalyx</i>		P3	
86.	5095	<i>Thomasia pygmaea</i> (Tiny Thomasia)		P3	
Priority 4					
87.	32145	<i>Banksia prolata</i> subsp. <i>calcicola</i>		P4	
88.	13517	<i>Eucalyptus dolichorhyncha</i>		P4	
89.	15068	<i>Eucalyptus preissiana</i> subsp. <i>lobata</i>		P4	
90.	19661	<i>Eucalyptus x missilis</i>		P4	
91.	1961	<i>Grevillea baxteri</i> (Cape Arid Grevillea)		P4	
92.	24153	<i>Isodon obesulus</i> subsp. <i>fusciventer</i> (Quenda, Southern Brown Bandicoot)		P4	
93.	4035	<i>Kennedia becxiana</i> (Cape Arid Kennedia)		P4	
94.	6361	<i>Leucopogon blepharolepis</i>		P4	
95.	24133	<i>Macropus irma</i> (Western Brush Wallaby)		P4	
96.	24328	<i>Oxyura australis</i> (Blue-billed Duck)		P4	
97.	25260	<i>Pseudonaja affinis</i> subsp. <i>tanneri</i> (Pygmy Dugite, Recherche Dugite)		P4	Y
98.	48135	<i>Thinornis rubricollis</i> (Hooded Plover, Hooded Dotterel)		P4	
99.	5096	<i>Thomasia quercifolia</i> (Oak Leaved Thomasia)		P4	

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
Non-conservation taxon				
100.	14608 <i>Acacia aemula</i> subsp. <i>aemula</i>			
101.	3238 <i>Acacia bidentata</i>			
102.	3239 <i>Acacia biflora</i>			
103.	3244 <i>Acacia brachyclada</i>			
104.	3257 <i>Acacia chrysocephala</i>			
105.	3262 <i>Acacia cochlearis</i> (Rigid Wattle)			
106.	3276 <i>Acacia crassuloides</i>			
107.	3277 <i>Acacia crispula</i>			
108.	12672 <i>Acacia cupularis</i>			
109.	3278 <i>Acacia curvata</i>			
110.	3282 <i>Acacia cyclops</i> (Coastal Wattle)			
111.	3289 <i>Acacia delphina</i>			
112.	3296 <i>Acacia dermatophylla</i>			
113.	16123 <i>Acacia evenulosa</i>			
114.	3349 <i>Acacia glaucoptera</i> (Flat Wattle)			
115.	3353 <i>Acacia gonophylla</i>			
116.	3384 <i>Acacia ingrata</i>			
117.	3408 <i>Acacia lasiocalyx</i> (Silver Wattle, Wilyurwur)			
118.	11519 <i>Acacia lasiocarpa</i> var. <i>bracteolata</i>			
119.	15476 <i>Acacia latipes</i> subsp. <i>latipes</i>			
120.	3436 <i>Acacia maxwellii</i>			
121.	16134 <i>Acacia mutabilis</i> subsp. <i>mutabilis</i>			
122.	3453 <i>Acacia myrtifolia</i>			
123.	3457 <i>Acacia nigricans</i>			
124.	16138 <i>Acacia pachyphylla</i>			
125.	16139 <i>Acacia pinguiculosa</i> subsp. <i>teretifolia</i>			
126.	16141 <i>Acacia pravifolia</i>			
127.	3496 <i>Acacia preissiana</i>			
128.	3498 <i>Acacia pritzeliana</i>			
129.	3502 <i>Acacia pulchella</i> (Prickly Moses)			
130.	15482 <i>Acacia pulchella</i> var. <i>goadbyi</i>			
131.	15483 <i>Acacia pulchella</i> var. <i>pulchella</i>			
132.	3504 <i>Acacia pycnantha</i> (Golden Wattle)	Y		
133.	3525 <i>Acacia rostellifera</i> (Summer-scented Wattle)			
134.	3527 <i>Acacia saligna</i> (Orange Wattle, Kudjong)			
135.	30033 <i>Acacia saligna</i> subsp. <i>lindleyi</i>			
136.	30034 <i>Acacia saligna</i> subsp. <i>pruinescens</i>			
137.	30032 <i>Acacia saligna</i> subsp. <i>saligna</i>			
138.	3564 <i>Acacia subcaerulea</i>			
139.	13505 <i>Acacia sulcata</i> var. <i>planoconvexa</i>			
140.	3582 <i>Acacia triptycha</i>			
141.	15715 <i>Acacia varia</i> var. <i>parviflora</i>			
142.	46473 <i>Acacia verriculum</i>			
143.	3184 <i>Acaena echinata</i> (Sheep's Burr)			
144.	24559 <i>Acanthagenys rufogularis</i> (Spiny-cheeked Honeyeater)			
145.	<i>Acanthaluteres vittiger</i>			
146.	24260 <i>Acanthiza apicalis</i> (Broad-tailed Thornbill, Inland Thornbill)			
147.	24261 <i>Acanthiza chrysorrhoa</i> (Yellow-rumped Thornbill)			
148.	24265 <i>Acanthiza uropygialis</i> (Chestnut-rumped Thornbill)			
149.	<i>Acanthopagrus butcheri</i>			
150.	26440 <i>Acanthopora dendroides</i>			
151.	24560 <i>Acanthorhynchus superciliosus</i> (Western Spinebill)			
152.	<i>Acariformes</i> sp.			
153.	<i>Acarina</i> sp.			
154.	25535 <i>Accipiter cirrocephalus</i> (Collared Sparrowhawk)			
155.	25536 <i>Accipiter fasciatus</i> (Brown Goshawk)			
156.	<i>Acerella falcipes</i>			
157.	7812 <i>Achillea millefolium</i> (Yarrow, Milfoil)	Y		
158.	42368 <i>Acritoscincus trilineatus</i> (Western Three-lined Skink)			
159.	25755 <i>Acrocephalus australis</i> (Australian Reed Warbler)			
160.	6295 <i>Acrotiche cordata</i> (Coast Ground Berry)			
161.	7817 <i>Actinobole uliginosum</i> (Flannel Cudweed)			
162.	1773 <i>Adenanthos cuneatus</i> (Coastal Jugflower)			
163.	1778 <i>Adenanthos dobsonii</i>			
164.	4582 <i>Adriana quadripartita</i> (Bitter Bush)			
165.	<i>Adversaeschna brevistyla</i>			
166.	<i>Aedes</i> (Och.) sp. 1 (nr. <i>nigrithorax</i>) (SAP)			
167.	<i>Aedes campitorhynchus</i>			
168.	<i>Aedes</i> sp.			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
169.	25544 <i>Aegotheles cristatus</i> (Australian Owlet-nightjar)			
170.	20331 <i>Aeonium arboreum</i>	Y		
171.	<i>Agaricus</i> sp.			
172.	<i>Agave similis</i>			Y
173.	<i>Agave tenuipes</i>			
174.	<i>Agauopsis calidictyota</i>			Y
175.	<i>Agauopsis miliaris</i>			
176.	20330 <i>Agonis baxteri</i>			
177.	<i>Agraptocorixa eurynome</i>			
178.	<i>Agraptocorixa</i> sp.			
179.	23501 <i>Agrostocrinum scabrum</i> subsp. <i>scabrum</i>			
180.	184 <i>Aira caryophyllea</i> (Silvery Hairgrass)	Y		
181.	185 <i>Aira cupaniana</i> (Silvery Hairgrass)	Y		
182.	<i>Alboa worooba</i>			
183.	<i>Aldrichetta forsteri</i>			
184.	1730 <i>Allocasuarina helmsii</i>			
185.	1731 <i>Allocasuarina huegeliana</i> (Rock Sheoak, Kwool)			
186.	1732 <i>Allocasuarina humilis</i> (Dwarf Sheoak)			
187.	13907 <i>Allocasuarina lehmanniana</i> subsp. <i>ecarinata</i>			
188.	1739 <i>Allocasuarina thuyoides</i> (Horned Sheoak)			
189.	<i>Allomycteris pilatus</i>			
190.	4905 <i>Alyogyne hakeifolia</i>			
191.	43023 <i>Alyogyne</i> sp. Hutt River (B.J. Lepschi & T.R. Lally 2310)			
192.	42981 <i>Alyogyne</i> sp. Southern Coast (A.S. George 289)			
193.	38754 <i>Amanita conicobulbosa</i>			
194.	35909 <i>Amansia pinnatifida</i>			
195.	2655 <i>Amaranthus albus</i> (Tumbleweed)	Y		
196.	37280 <i>Amaranthus muricatus</i>	Y		Y
197.	2669 <i>Amaranthus retroflexus</i> (Redroot Amaranth)	Y		
198.	<i>Ammotretis elongatus</i>			
199.	<i>Ammotretis rostratus</i>			
200.	126 <i>Amphibolis antarctica</i> (Sea Nymph)			
201.	127 <i>Amphibolis griffithii</i>			
202.	13380 <i>Amphibromus nervosus</i>			
203.	195 <i>Amphipogon avenaceus</i>			
204.	200 <i>Amphipogon turbinatus</i>			
205.	25647 <i>Amytornis striatus</i> (Striated Grasswren)			
206.	<i>Aname mainae</i>			
207.	<i>Aname tepperi</i>			
208.	1058 <i>Anarthria gracilis</i>			
209.	1059 <i>Anarthria humilis</i>			
210.	1060 <i>Anarthria laevis</i>			
211.	1061 <i>Anarthria polyphylla</i>			
212.	1062 <i>Anarthria prolifera</i>			
213.	1063 <i>Anarthria scabra</i>			
214.	24310 <i>Anas castanea</i> (Chestnut Teal)			
215.	24312 <i>Anas gracilis</i> (Grey Teal)			
216.	24313 <i>Anas platyrhynchos</i> (Mallard)			
217.	24315 <i>Anas rhynchotis</i> (Australasian Shoveler)			
218.	24316 <i>Anas superciliosa</i> (Pacific Black Duck)			
219.	6316 <i>Andersonia macranthera</i>			
220.	6318 <i>Andersonia parvifolia</i>			
221.	29108 <i>Andersonia</i> sp. Kulin (J.M. Powell 2588)			
222.	6321 <i>Andersonia sprengelioides</i>			
223.	40903 <i>Androcalva aphrix</i>			
224.	40901 <i>Androcalva crispa</i> (Crisped Leaf Commersonia)			
225.	7833 <i>Angianthus preissianus</i>			
226.	47414 <i>Anhinga novaehollandiae</i> (Australasian Darter)			
227.	1415 <i>Anigozanthos rufus</i> (Red Kangaroo Paw)			
228.	<i>Anisops baylii</i>			
229.	<i>Anisops hyperion</i>			
230.	<i>Anisops</i> sp.			
231.	<i>Anisops thienemanni</i>			
232.	6949 <i>Anthocercis littorea</i> (Yellow Tailflower)			
233.	11555 <i>Anthocercis viscosa</i> subsp. <i>caudata</i>			
234.	24561 <i>Anthochaera carunculata</i> (Red Wattlebird)			
235.	24562 <i>Anthochaera lunulata</i> (Western Little Wattlebird)			
236.	7411 <i>Anthotium humile</i> (Dwarf Anthotium)			
237.	38758 <i>Anthrachophyllum archeri</i>			
238.	24599 <i>Anthus australis</i> subsp. <i>australis</i> (Australian Pipit)			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
239.	26471 <i>Antithamnion armatum</i>			
240.	26475 <i>Antithamnion hanovioides</i>			
241.	19627 <i>Aotus sp. Esperance (P.G. Wilson 7904)</i>			
242.	1116 <i>Aphelia brizula</i>			
243.	43548 <i>Aphelia sp. Albany (B.G. Briggs 596)</i>			
244.	6210 <i>Apium annuum</i>			
245.	6211 <i>Apium prostratum (Sea Celery)</i>			
246.	<i>Apocyclops dengizicus</i>			
247.	24991 <i>Aprasia repens (Sand-plain Worm-lizard)</i>			
248.	24994 <i>Aprasia striolata (Lined Worm-lizard)</i>			
249.	24285 <i>Aquila audax (Wedge-tailed Eagle)</i>			
250.	<i>Aracana aurita</i>			
251.	<i>Aracana ornata</i>			
252.	<i>Araneus cyphoxis</i>			
253.	<i>Araneus necopinus</i>			
254.	<i>Araneus rechnerchensis</i>			
255.	<i>Araneus senicaudatus</i>			
256.	<i>Arcella discoides</i>			
257.	<i>Arcella hemisphaerica</i>			
258.	7838 <i>Arctotheca calendula (Cape Weed, African Marigold)</i>	Y		
259.	24340 <i>Ardea novaehollandiae (White-faced Heron)</i>			
260.	24341 <i>Ardea pacifica (White-necked Heron)</i>			
261.	24610 <i>Ardeotis australis (Australian Bustard)</i>			
262.	26484 <i>Areschougia ligulata</i>			
263.	13327 <i>Argentipallium niveum</i>			
264.	13329 <i>Argentipallium tephrodes</i>			
265.	<i>Argiope trifasciata</i>			
266.	207 <i>Aristida contorta (Bunched Kerosene Grass)</i>			
267.	<i>Arkys walckenaeri</i>			
268.	<i>Arrenurus (Truncaturus) sp. (SAP)</i>			
269.	<i>Arripiis georgiana</i>			
270.	25566 <i>Artamus cinereus (Black-faced Woodswallow)</i>			
271.	24353 <i>Artamus cyanopterus (Dusky Woodswallow)</i>			
272.	<i>Arteria cingulipes</i>			
273.	<i>Artoriopsis eccentrica</i>			
274.	<i>Artoriopsis exposita</i>			
275.	26485 <i>Asparagopsis armata</i>			
276.	8779 <i>Asparagus asparagoides (Bridal Creeper)</i>	Y		
277.	<i>Aspasmogaster occidentalis</i>			
278.	1364 <i>Asphodelus fistulosus (Onion Weed)</i>	Y		
279.	<i>Asplanchna brightwelli</i>			
280.	20077 <i>Astartea aspera (Rough-stemmed Astartea)</i>			
281.	42760 <i>Astartea aspera subsp. riparia</i>			
282.	20347 <i>Astartea astarteoides</i>			
283.	7850 <i>Asteridea nivea</i>			
284.	6323 <i>Astroloma ciliatum (Candle Cranberry)</i>			
285.	6324 <i>Astroloma compactum</i>			
286.	6326 <i>Astroloma epacridis</i>			
287.	6333 <i>Astroloma microphyllum</i>			
288.	6335 <i>Astroloma prostratum (Cranberry Heath)</i>			
289.	41742 <i>Astroloma sp. Narrogin (R.D. Royce 8158)</i>			
290.	6338 <i>Astroloma tectum</i>			
291.	20725 <i>Astus tetragonus</i>			
292.	<i>Asymbolus vincenti</i>			
293.	<i>Atherinosoma elongata</i>			
294.	<i>Atherinosoma wallacei</i>			
295.	2457 <i>Atriplex exilifolia</i>			
296.	2471 <i>Atriplex prostrata (Hastate Orache)</i>	Y		
297.	2475 <i>Atriplex semibaccata (Berry Saltbush)</i>			
298.	<i>Aulopus purpurissatus</i>			
299.	38762 <i>Auriscalpium barbatum</i>			
300.	<i>Austracantha minax</i>			
301.	<i>Australocypris insularis</i>			
302.	<i>Australomedusa ?baylii (SAP)</i>			
303.	<i>Austrochiltonia sp.</i>			Y
304.	<i>Austrochiltonia subtenuis</i>			
305.	<i>Austrolestes annulosus</i>			
306.	<i>Austrolestes io</i>			
307.	42106 <i>Austroparmelina conlabrosa</i>			
308.	17231 <i>Austrostipa acrociliata</i>			

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309.	17236 <i>Austrostipa drummondii</i>			
310.	17240 <i>Austrostipa flavescens</i>			
311.	17241 <i>Austrostipa hemipogon</i>			
312.	17242 <i>Austrostipa juncifolia</i>			
313.	17244 <i>Austrostipa macalpinei</i>			
314.	17245 <i>Austrostipa mollis</i>			
315.	17255 <i>Austrostipa trichophylla</i>			
316.	17257 <i>Austrostipa variabilis</i>			
317.	231 <i>Avellinia michelii</i>	Y		
318.	233 <i>Avena barbata</i> (Bearded Oat)	Y		
319.	234 <i>Avena fatua</i> (Wild Oat)	Y		
320.	24318 <i>Aythya australis</i> (Hardhead)			
321.	5352 <i>Baeckea latens</i>			
322.	20674 <i>Baeckea</i> sp. <i>Esperance</i> (A.G. Guinness AG 2435)			
323.	5373 <i>Baeckea uncinella</i>			
324.	32681 <i>Banksia armata</i> (Prickly Dryandra)			
325.	32683 <i>Banksia armata</i> var. <i>ignicida</i>			
326.	1802 <i>Banksia baueri</i> (Woolly Banksia)			
327.	1805 <i>Banksia blechnifolia</i>			
328.	1811 <i>Banksia coccinea</i> (Scarlet Banksia)			
329.	1832 <i>Banksia media</i> (Southern Plains Banksia)			
330.	32203 <i>Banksia nivea</i> subsp. <i>nivea</i>			
331.	1836 <i>Banksia nutans</i> (Nodding Banksia)			
332.	11360 <i>Banksia nutans</i> var. <i>nutans</i> (Nodding Banksia)			
333.	32198 <i>Banksia obovata</i> (Wedge-leaved Dryandra)			
334.	32197 <i>Banksia obtusa</i> (Shining Honey-pot)			
335.	1837 <i>Banksia occidentalis</i> (Red Swamp Banksia)			
336.	1839 <i>Banksia petiolaris</i>			
337.	1840 <i>Banksia pilostylis</i>			
338.	32143 <i>Banksia prolata</i>			
339.	1843 <i>Banksia pulchella</i> (Teasel Banksia)			
340.	1845 <i>Banksia repens</i> (Creeping Banksia)			
341.	1850 <i>Banksia speciosa</i> (Showy Banksia)			
342.	32035 <i>Banksia tenuis</i>			
343.	1856 <i>Banksia violacea</i> (Violet Banksia)			
344.	32315 <i>Barbula calycina</i>			
345.	32320 <i>Barbula subcalycina</i>			
346.	<i>Barnardius zonarius</i>			
347.	32321 <i>Bartramia breutelii</i>			
348.	38765 <i>Battarrea stevenii</i>			
349.	741 <i>Baumea articulata</i> (Jointed Rush)			
350.	743 <i>Baumea juncea</i> (Bare Twigrush)			
351.	745 <i>Baumea preissii</i>			
352.	<i>Bdelloidea med-large</i> contracted of RJS (SAP)			
353.	<i>Bdelloidea small</i> contracted of RJS (SAP)			
354.	<i>Bdelloidea</i> sp.			
355.	5383 <i>Beaufortia empetrifolia</i> (South Coast Beaufortia)			
356.	5388 <i>Beaufortia micrantha</i> (Little Bottlebrush, Small-leaved Beaufortia)			
357.	5391 <i>Beaufortia schaueri</i> (Pink Beaufortia, Pink Bottlebrush)			
358.	<i>Bennelongia barangaroo</i>			
359.	<i>Berosus australiae</i>			
360.	<i>Berosus discolor</i>			
361.	<i>Berosus macumbensis</i>			
362.	<i>Berosus munitipennis</i>			
363.	<i>Berosus</i> sp.			
364.	34297 <i>Beyeria sulcata</i> var. <i>gracilis</i>			
365.	<i>Bezzia</i> sp.			
366.	<i>Bezzia</i> sp. (not 1 or 2)			
367.	<i>Bidessini</i> sp.			
368.	3154 <i>Billardiera coriacea</i>			
369.	25798 <i>Billardiera fusiformis</i> (Australian Bluebell)			
370.	25796 <i>Billardiera heterophylla</i> (Australian Bluebell)			
371.	3160 <i>Billardiera lehmanniana</i> (Kurup)			
372.	25779 <i>Billardiera venusta</i>			
373.	<i>Bivalvia</i> sp.			
374.	24319 <i>Biziura lobata</i> (Musk Duck)			
375.	7856 <i>Blennospora drummondii</i>			
376.	<i>Boeckella triarticulata</i>			
377.	38848 <i>Bolbitius titubans</i>			
378.	749 <i>Bolboschoenus caldwellii</i> (Marsh Club-rush)			

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379.	<i>Boletus</i> sp.			
380.	4403 <i>Boronia alata</i> (Winged Boronia)			
381.	4404 <i>Boronia albiflora</i>			
382.	16627 <i>Boronia baeckeacea</i> subsp. <i>baeckeacea</i>			
383.	4409 <i>Boronia coerulescens</i>			
384.	4411 <i>Boronia crassifolia</i>			
385.	4424 <i>Boronia inconspicua</i>			
386.	4425 <i>Boronia inornata</i> (Desert Boronia)			
387.	15965 <i>Boronia inornata</i> subsp. <i>inornata</i>			
388.	11381 <i>Boronia ramosa</i> subsp. <i>anethifolia</i>			
389.	16639 <i>Boronia scabra</i> subsp. <i>scabra</i>			
390.	4441 <i>Boronia spathulata</i> (Boronia)			
391.	4446 <i>Boronia tetrandra</i> (Yellow Boronia)			
392.	30234 <i>Bossiaea barbarae</i>			
393.	3707 <i>Bossiaea dentata</i>			
394.	3716 <i>Bossiaea preissii</i>			
395.	3718 <i>Bossiaea rufa</i>			
396.	26518 <i>Botryocladia sonderi</i>			
397.	<i>Brachaluteres jacksonianus</i>			
398.	<i>Brachionus angularis</i>			
399.	<i>Brachionus plicatilis</i> s.l.			
400.	<i>Brachionus</i> sp.			
401.	<i>Brachionus urceolaris</i> s.l.			
402.	30139 <i>Brachyloma geissoloma</i> subsp. <i>geissoloma</i>			
403.	7871 <i>Brachyscome ciliaris</i>			
404.	7874 <i>Brachyscome eyrensis</i>			
405.	<i>Bradyagaue exilis</i>			Y
406.	11187 <i>Brassica barrelieri</i> subsp. <i>oxyrrhina</i> (Smooth-stem Turnip)	Y		
407.	2999 <i>Brassica rapa</i>	Y		
408.	3000 <i>Brassica tournefortii</i> (Mediterranean Turnip)	Y		
409.	2995 <i>Brassica x napus</i>	Y		
410.	<i>Breda jovialis</i>			
411.	<i>Brentidae</i> sp.			
412.	244 <i>Briza maxima</i> (Blowfly Grass)	Y		
413.	245 <i>Briza minor</i> (Shivery Grass)	Y		
414.	248 <i>Bromus catharticus</i> (Prairie Grass)	Y		
415.	249 <i>Bromus diandrus</i> (Great Brome)	Y		
416.	250 <i>Bromus hordeaceus</i> (Soft Brome)	Y		
417.	253 <i>Bromus rubens</i> (Red Brome)	Y		
418.	27597 <i>Buellia disciformis</i>			
419.	<i>Caboncypris kondininensis</i>			
420.	25598 <i>Cacomantis flabelliformis</i> (Fan-tailed Cuckoo)			
421.	24427 <i>Cacomantis flabelliformis</i> subsp. <i>flabelliformis</i> (Fan-tailed Cuckoo)			
422.	42307 <i>Cacomantis pallidus</i> (Pallid Cuckoo)			
423.	1277 <i>Caesia occidentalis</i>			
424.	<i>Caesioyperca rasor</i>			
425.	3001 <i>Cakile edentula</i> (American Sea Rocket)	Y		
426.	3002 <i>Cakile maritima</i> (Sea Rocket)	Y		
427.	13853 <i>Caladenia arrecta</i>			
428.	1580 <i>Caladenia cairnsiana</i> (Zebra Orchid)			
429.	15343 <i>Caladenia decora</i>			
430.	15348 <i>Caladenia flava</i> subsp. <i>flava</i>			
431.	1594 <i>Caladenia graminifolia</i>			
432.	15353 <i>Caladenia heberleana</i>			
433.	18023 <i>Caladenia horistes</i>			
434.	1599 <i>Caladenia latifolia</i> (Pink Fairy Orchid)			
435.	15362 <i>Caladenia longicauda</i> subsp. <i>crassa</i>			
436.	15363 <i>Caladenia longicauda</i> subsp. <i>eminens</i>			
437.	13860 <i>Caladenia longicauda</i> subsp. <i>rigidula</i>			
438.	1605 <i>Caladenia marginata</i> (White Fairy Orchid)			
439.	15374 <i>Caladenia pachychila</i>			
440.	<i>Caladenia</i> sp.			
441.	1589 <i>Caladenia x ericksoniae</i>			
442.	19869 <i>Caladenia x idiaestes</i>			
443.	24269 <i>Calamanthus campestris</i> (Rufous Fieldwren)			
444.	<i>Calamoecia clitelata</i>			
445.	<i>Calamoecia</i> sp. 342 (ampulla variant) (CB)			
446.	2845 <i>Calandrinia brevipedata</i> (Short-stalked Purslane)			
447.	2846 <i>Calandrinia calyptrata</i> (Pink Purslane)			
448.	2848 <i>Calandrinia corrigioloides</i> (Strap Purslane)			

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449.	2853 <i>Calandrinia eremaea</i> (Twining Purslane)			
450.	40827 <i>Calandrinia tholiformis</i>			
451.	<i>Calanoida</i> sp.			
452.	10861 <i>Callistachys lanceolata</i> (Wonnich)			
453.	5395 <i>Callistemon phoeniceus</i> (Lesser Bottlebrush, Dubarda)			
454.	93 <i>Callitris drummondii</i> (Drummond's Cypress Pine)			
455.	96 <i>Callitris preissii</i> (Rottnest Island Pine, Maro)			
456.	97 <i>Callitris roei</i> (Roe's Cypress Pine)			
457.	26538 <i>Callophyllis rangiferina</i>			
458.	<i>Caloplaca</i> sp.			
459.	5407 <i>Calothamnus gibbosus</i>			
460.	5409 <i>Calothamnus gracilis</i>			
461.	35816 <i>Calothamnus quadrifidus</i> subsp. <i>quadrifidus</i>			
462.	5449 <i>Calytrix decandra</i> (Pink Starflower)			
463.	5450 <i>Calytrix depressa</i>			
464.	5465 <i>Calytrix leschenaultii</i>			
465.	19884 <i>Calytrix</i> sp. <i>Esperance</i> (M.A. Burgman 4268A)			
466.	5483 <i>Calytrix tetragona</i> (Common Fringe-myrtle)			
467.	3003 <i>Camelina sativa</i> (False Flax)	Y		
468.	32461 <i>Campylopus bicolor</i> var. <i>bicolor</i>			
469.	32338 <i>Campylopus introflexus</i>	Y		
470.	<i>Candonocypris novaezelandiae</i>			
471.	24039 <i>Canis lupus</i> subsp. <i>dingo</i> (Dingo)	Y		
472.	<i>Capitella</i> sp.			
473.	24253 <i>Capra hircus</i> (Goat)	Y		
474.	<i>Capropygia unistriata</i>			
475.	<i>Carabidae</i> sp.			
476.	<i>Carcharhinus brachyurus</i>			
477.	43241 <i>Carex thecata</i>			
478.	2796 <i>Carpobrotus modestus</i> (Inland Pigface)			
479.	2798 <i>Carpobrotus virescens</i> (Coastal Pigface, Kolboko, Bain)			
480.	26547 <i>Carpopeltis phyllophora</i>			
481.	3008 <i>Carrichtera annua</i> (Ward's Weed)	Y		
482.	2951 <i>Cassytha flava</i> (Dodder Laurel)			
483.	2952 <i>Cassytha glabella</i> (Tangled Dodder Laurel)			
484.	11211 <i>Cassytha glabella</i> forma <i>dispar</i>			
485.	2953 <i>Cassytha melantha</i> (Large Dodder-laurel)			
486.	2957 <i>Cassytha racemosa</i> (Dodder Laurel)			
487.	11242 <i>Cassytha racemosa</i> forma <i>pilosa</i>			
488.	<i>Cassytha</i> sp.			
489.	13685 <i>Catapodium rigidum</i> (Rigid Fescue)	Y		
490.	26563 <i>Caulerpa flexilis</i>			
491.	26570 <i>Caulerpa obscura</i>			
492.	26573 <i>Caulerpa racemosa</i>			
493.	26583 <i>Caulerpa vesiculifera</i>			
494.	26586 <i>Caulocystis uvifera</i>			
495.	760 <i>Caustis dioica</i>			
496.	<i>Ceinidae</i> sp.			
497.	7915 <i>Centaurea calcitrapa</i> (Star Thistle)	Y		
498.	6539 <i>Centaureum erythraea</i> (Common Centaury)	Y		
499.	6214 <i>Centella asiatica</i>			
500.	35322 <i>Centranthus ruber</i> subsp. <i>ruber</i>	Y		
501.	1121 <i>Centrolepis aristata</i> (Pointed Centrolepis)			
502.	13122 <i>Centrolepis cephaliformis</i> subsp. <i>cephaloformis</i>			
503.	1125 <i>Centrolepis drummondiana</i>			
504.	1130 <i>Centrolepis humillima</i> (Dwarf Centrolepis)			
505.	1134 <i>Centrolepis polygyna</i> (Wiry Centrolepis)			
506.	1135 <i>Centrolepis strigosa</i> (Hairy Centrolepis)			
507.	13125 <i>Centrolepis strigosa</i> subsp. <i>strigosa</i>			
508.	<i>Centropyxis aculeata</i>			
509.	<i>Centropyxis cassis</i>			Y
510.	<i>Centropyxis</i> sp. <i>b</i> (SAP)			Y
511.	26599 <i>Ceramium puberulum</i>			
512.	2889 <i>Cerastium glomeratum</i> (Mouse Ear Chickweed)	Y		
513.	32462 <i>Ceratodon purpureus</i> subsp. <i>convolutus</i>			
514.	<i>Ceratopogonidae</i> sp.			
515.	<i>Ceratopogonidae</i> sp. <i>A</i> (SAP)			
516.	24086 <i>Cercartetus concinnus</i> (Western Pygmy-possum, Mundarda)			
517.	<i>Cercophonius granulatus</i>			
518.	<i>Ceriodaphnia</i> n. sp. <i>c</i> (Berner sp.#1) (SAP)			

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519.	26607 <i>Chaetomorpha aerea</i>			
520.	1280 <i>Chamaescilla corymbosa</i> (Blue Squill)			
521.	11878 <i>Chamaescilla corymbosa</i> var. <i>paradoxa</i>			
522.	1281 <i>Chamaescilla spiralis</i>			
523.	5489 <i>Chamelaucium axillare</i> (Esperance Waxflower)			
524.	5491 <i>Chamelaucium ciliatum</i>			
525.	5495 <i>Chamelaucium megalopetalum</i> (Large Waxflower)			
526.	24377 <i>Charadrius ruficapillus</i> (Red-capped Plover)			
527.	1513 <i>Chasmanthe floribunda</i> (African Cornflag)	Y		
528.	31 <i>Cheilanthes austrotenuifolia</i>			
529.	12818 <i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>			
530.	3168 <i>Cheiranthra filifolia</i>			
531.	<i>Chelidonicichthys kumu</i>			
532.	24321 <i>Chenonetta jubata</i> (Australian Wood Duck, Wood Duck)			
533.	2490 <i>Chenopodium glaucum</i> (Glaucous Goosefoot)	Y		
534.	2494 <i>Chenopodium murale</i> (Nettle-leaf Goosefoot)	Y		
535.	47909 <i>Cheramoeca leucosterna</i> (White-backed Swallow)			
536.	<i>Chironomidae</i> sp.			
537.	<i>Chironominae</i> sp.			
538.	<i>Chironomus</i> aff. <i>alternans</i> (V24) (CB)			
539.	<i>Chironomus</i> sp.			
540.	<i>Chironomus tepperi</i>			
541.	272 <i>Chloris virgata</i> (Feathertop Rhodes Grass)	Y		
542.	7925 <i>Chondrilla juncea</i> (Skeleton Weed)	Y		
543.	17689 <i>Chordifex laxus</i>			
544.	17834 <i>Chordifex sphacelatus</i>			
545.	763 <i>Chorizandra enodis</i> (Black Bristlerush)			
546.	13112 <i>Chorizema aciculare</i> subsp. <i>aciculare</i>			
547.	3758 <i>Chorizema illicifolium</i> (Holly Flame Pea)			
548.	3759 <i>Chorizema nervosum</i>			
549.	13108 <i>Chorizema obtusifolium</i>			
550.	3763 <i>Chorizema uncinatum</i>			
551.	24980 <i>Christinus marmoratus</i> (Marbled Gecko)			
552.	<i>Chroicocephalus novaehollandiae</i>			
553.	7933 <i>Chthonocephalus pseudevax</i> (Woolly Groundheads)			
554.	6543 <i>Cicendia filiformis</i> (Slender Cicendia)	Y		
555.	24288 <i>Circus approximans</i> (Swamp Harrier)			
556.	24289 <i>Circus assimilis</i> (Spotted Harrier)			
557.	7937 <i>Cirsium vulgare</i> (Spear Thistle, Scotch Thistle)	Y		
558.	27663 <i>Cladia aggregata</i>			
559.	48177 <i>Cladia muelleri</i>			
560.	28208 <i>Cladonia cervicornis</i> subsp. <i>verticillata</i>			
561.	<i>Cladopelma curtilvalva</i>			
562.	24774 <i>Cladorhynchus leucocephalus</i> (Banded Stilt)			
563.	<i>Cladotanytarsus</i> sp. A (SAP)			
564.	10804 <i>Clematis linearifolia</i>			
565.	2929 <i>Clematis pubescens</i> (Common Clematis)			
566.	<i>Clynotis albobarbatus</i>			
567.	26672 <i>Codium galeatum</i>			
568.	26676 <i>Codium lucasii</i>			
569.	26678 <i>Codium muelleri</i>			
570.	26686 <i>Coelarthrum opuntia</i>			
571.	26690 <i>Coeloclonium verticillatum</i>			
572.	6343 <i>Coleanthera myrtoides</i>			
573.	25675 <i>Colluricincla harmonica</i> (Grey Shrike-thrush)			
574.	<i>Coltricia cinnamomea</i>			
575.	24399 <i>Columba livia</i> (Domestic Pigeon)	Y		
576.	4550 <i>Comesperma calymega</i> (Blue-spike Milkwort)			
577.	4551 <i>Comesperma ciliatum</i>			
578.	4552 <i>Comesperma confertum</i>			
579.	4553 <i>Comesperma drummondii</i> (Drummond's Milkwort)			
580.	4554 <i>Comesperma flavum</i>			
581.	4555 <i>Comesperma integerrimum</i>			
582.	4563 <i>Comesperma spinosum</i> (Spiny Milkwort)			
583.	4564 <i>Comesperma virgatum</i> (Milkwort)			
584.	4566 <i>Comesperma volubile</i> (Love Creeper)			
585.	40923 <i>Commersonia craurophylla</i> (Brittle Leaved Rulingia)			
586.	40864 <i>Commersonia cygnorum</i>			
587.	1868 <i>Conospermum distichum</i>			
588.	16349 <i>Conospermum leianthum</i> subsp. <i>leianthum</i>			

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589.	16350 <i>Conospermum leianthum subsp. orientale</i>			
590.	15611 <i>Conospermum stoechadis subsp. stoechadis (Common Smokebush)</i>			
591.	1883 <i>Conospermum teretifolium (Spider Smokebush)</i>			
592.	6350 <i>Conostephium roei</i>			
593.	1424 <i>Conostylis bealiana</i>			
594.	1426 <i>Conostylis breviscapa</i>			
595.	1445 <i>Conostylis phathyrantha</i>			
596.	11923 <i>Conostylis seorsiflora subsp. seorsiflora</i>			
597.	1453 <i>Conostylis serrulata</i>			
598.	1460 <i>Conostylis vaginata (Sheath Conostylis)</i>			
599.	5500 <i>Conothamnus aureus</i>			
600.	<i>Contusus brevicaudus</i>			
601.	6614 <i>Convolvulus remotus</i>			
602.	7939 <i>Conyza bonariensis (Flaxleaf Fleabane)</i>	Y		
603.	<i>Conyza sp.</i>			
604.	20074 <i>Conyza sumatrensis</i>	Y		
605.	7418 <i>Cooperookia polygalacea</i>			
606.	7419 <i>Cooperookia strophiolata</i>			
607.	<i>Coprinus comatus</i>			
608.	25568 <i>Coracina novaehollandiae (Black-faced Cuckoo-shrike)</i>			
609.	<i>Corixidae sp.</i>			
610.	<i>Cormocephalus michaelseni</i>			
611.	25592 <i>Corvus coronoides (Australian Raven)</i>			
612.	24417 <i>Corvus coronoides subsp. perplexus (Australian Raven)</i>			
613.	1624 <i>Corybas despectans</i>			
614.	12012 <i>Corynotheca micrantha var. panda</i>			
615.	7943 <i>Cotula australis (Common Cotula)</i>			
616.	7944 <i>Cotula bipinnata (Ferny Cotula)</i>	Y		
617.	7945 <i>Cotula coronopifolia (Waterbuttons)</i>	Y		
618.	7946 <i>Cotula cotuloides (Smooth Cotula)</i>			
619.	24671 <i>Coturnix pectoralis (Stubble Quail)</i>			
620.	25701 <i>Coturnix ypsilophora (Brown Quail)</i>			
621.	<i>Coxiella glabra</i>			
622.	<i>Coxiella sp.</i>			
623.	<i>Coxiella sp. 3 (ABP)</i>			Y
624.	<i>Coxiella striatula</i>			
625.	24420 <i>Cracticus nigrogularis (Pied Butcherbird)</i>			
626.	25595 <i>Cracticus tibicen (Australian Magpie)</i>			
627.	24422 <i>Cracticus tibicen subsp. dorsalis (White-backed Magpie)</i>			
628.	25596 <i>Cracticus torquatus (Grey Butcherbird)</i>			
629.	3136 <i>Crassula alata</i>	Y		
630.	17701 <i>Crassula closiana</i>			
631.	3137 <i>Crassula colorata (Dense Stonecrop)</i>			
632.	3139 <i>Crassula exserta</i>			
633.	3142 <i>Crassula natans</i>	Y		
634.	15706 <i>Crassula natans var. minus</i>	Y		
635.	24918 <i>Crenadactylus ocellatus subsp. ocellatus (Clawless Gecko)</i>			
636.	25398 <i>Crinia georgiana (Quacking Frog)</i>			
637.	25399 <i>Crinia glauerti (Clicking Frog)</i>			
638.	25401 <i>Crinia pseudinsignifera (Bleating Froglet)</i>			
639.	25402 <i>Crinia subinsignifera (South Coast Froglet)</i>			
640.	16188 <i>Cryptandra minutifolia subsp. brevistyla</i>			
641.	9076 <i>Cryptandra myriantha</i>			
642.	4809 <i>Cryptandra pungens</i>			
643.	16194 <i>Cryptandra recurva</i>			
644.	30888 <i>Cryptoblepharus pulcher subsp. clarus</i>			
645.	<i>Cryptochironomus griseidorsum</i>			
646.	42385 <i>Ctenophorus chapmani (Eastern Heath Dragon)</i>			
647.	24883 <i>Ctenophorus ornatus (Ornate Crevice-Dragon)</i>			
648.	25031 <i>Ctenotus catenifer</i>			
649.	25040 <i>Ctenotus gemmula (Jewelled South-west Ctenotus (Swan Coastal Plain pop P3), skink)</i>			
650.	25047 <i>Ctenotus impar</i>			
651.	25049 <i>Ctenotus labillardieri</i>			
652.	25074 <i>Ctenotus schomburgkii</i>			
653.	7372 <i>Cucumis myriocarpus (Prickly Paddy Melon)</i>	Y		
654.	<i>Culicidae sp.</i>			
655.	<i>Culicoides sp.</i>			
656.	20717 <i>Cyanicula aperta</i>			
657.	15114 <i>Cyanicula gemmata</i>			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
658.	769 <i>Cyathochaeta clandestina</i>			
659.	17618 <i>Cyathochaeta equitans</i>			
660.	42220 <i>Cyathostemon ambiguus</i>			
661.	20422 <i>Cyathostemon tenuifolius</i>			
662.	40661 <i>Cycnogeton lineare</i>			
663.	24322 <i>Cygnus atratus (Black Swan)</i>			
664.	6680 <i>Cynoglossum australe (Australian Hound's-tongue)</i>			
665.	783 <i>Cyperus congestus (Dense Flat-sedge)</i>	Y		
666.	801 <i>Cyperus laevigatus</i>	Y		
667.	815 <i>Cyperus tenellus (Tiny Flatsedge)</i>	Y		
668.	<i>Cyprinotus cingalensis (ex edwardi)</i>			
669.	2779 <i>Cypselocarpus haloragoides</i>			
670.	10964 <i>Cyrtostylis robusta</i>			
671.	26717 <i>Cystophora brownii</i>			
672.	26729 <i>Cystophora subfarinata</i>			
673.	18632 <i>Dampiera angulata subsp. angulata</i>			
674.	7439 <i>Dampiera fasciculata (Bundled-leaf Dampiera)</i>			
675.	7451 <i>Dampiera lavandulacea</i>			
676.	7461 <i>Dampiera parvifolia (Many-bracted Dampiera)</i>			
677.	7471 <i>Dampiera sacculata (Pouched Dampiera)</i>			
678.	<i>Daphnia australis</i>			
679.	<i>Daphnia carinata</i>			
680.	<i>Daphnia queenslandensis</i>			
681.	<i>Daphnia sp.</i>			
682.	<i>Daphnia truncata</i>			
683.	<i>Daphnia wardi</i>			
684.	5510 <i>Darwinia diosmoides</i>			
685.	35618 <i>Darwinia sp. Karonie (K. Newbey 8503)</i>			
686.	35638 <i>Darwinia sp. Lake Cobham (K. Newbey 3262)</i>			
687.	18574 <i>Darwinia sp. Ravensthorpe (G.J. Keighery 8030)</i>			
688.	5533 <i>Darwinia vestita (Pom-pom Darwinia)</i>			
689.	26734 <i>Dasya clavigera</i>			
690.	26738 <i>Dasya elongata</i>			
691.	26739 <i>Dasya extensa</i>			
692.	<i>Dasyhelea sp.</i>			
693.	6218 <i>Daucus glochidiatus (Australian Carrot)</i>			
694.	8977 <i>Daviesia aphylla</i>			
695.	16736 <i>Daviesia apiculata</i>			
696.	16577 <i>Daviesia articulata</i>			
697.	3796 <i>Daviesia benthamii</i>			
698.	15507 <i>Daviesia incrassata subsp. reversifolia</i>			
699.	3818 <i>Daviesia lancifolia</i>			
700.	14892 <i>Daviesia major</i>			
701.	3823 <i>Daviesia nematophylla</i>			
702.	3844 <i>Daviesia teretifolia</i>			
703.	26757 <i>Delisea pulchra</i>			
704.	24995 <i>Delma australis</i>			
705.	25766 <i>Delma fraseri (Fraser's Legless Lizard)</i>			
706.	24052 <i>Delphinus delphis (Common Dolphin)</i>			
707.	<i>Dermatopsis sp.</i>			
708.	<i>Dero digitata</i>			
709.	17663 <i>Desmocladius asper</i>			
710.	15831 <i>Desmocladius castaneus</i>			
711.	16595 <i>Desmocladius flexuosus</i>			
712.	46362 <i>Desmocladius lateriflorus</i>			
713.	299 <i>Deyeuxia quadrisetata (Reed Bentgrass)</i>			
714.	<i>Diacypripis compacta</i>			
715.	<i>Diacypripis sp.</i>			
716.	<i>Diacypripis sp. 581 (n. sp.) (SAP)</i>			Y
717.	<i>Diacypripis spinosa</i>			
718.	16326 <i>Dianella brevicaulis</i>			
719.	1259 <i>Dianella revoluta (Blueberry Lily)</i>			
720.	11313 <i>Dianella revoluta var. revoluta</i>			
721.	<i>Dicrotendipes conjunctus</i>			
722.	<i>Dicrotendipes sp.</i>			
723.	26761 <i>Dictyomenia harveyana</i>			
724.	26762 <i>Dictyomenia sonderi</i>			
725.	26765 <i>Dictyopteris gracilis</i>			
726.	26766 <i>Dictyopteris muelleri</i>			
727.	26778 <i>Dictyota furcellata</i>			

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728.	35218 <i>Dictyota nigricans</i>			
729.	35216 <i>Dictyota paniculata</i>			
730.	35223 <i>Dictyota polyclada</i>			
731.	32346 <i>Didymodon torquatus</i>			
732.	38260 <i>Dielsiodoxa oligarrhenoides</i>			
733.	3864 <i>Dillwynia divaricata</i>			
734.	3866 <i>Dillwynia uncinata (Silky Parrot Pea)</i>			
735.	<i>Diodon sp.</i>			
736.	41403 <i>Diplodactylus calcicolus (South Coast Gecko)</i>			
737.	3012 <i>Diplotaxis tenuifolia (Sand Rocket)</i>	Y		
738.	27726 <i>Diplotomma alboatrum</i>			
739.	3867 <i>Dipogon lignosus (Dolichos Pea)</i>	Y		
740.	<i>Diptera sp.</i>			
741.	19649 <i>Disa bracteata</i>	Y		
742.	7054 <i>Dischisma arenarium</i>	Y		
743.	11681 <i>Disphyma crassifolium subsp. clavellatum</i>			
744.	327 <i>Distichlis distichophylla</i>			Y
745.	7961 <i>Dittrichia graveolens (Stinkwort)</i>	Y		
746.	12942 <i>Diuris concinna</i>			
747.	12941 <i>Diuris conspicillata</i>			Y
748.	42231 <i>Diuris decremента</i>			
749.	33159 <i>Diuris immaculata</i>			Y
750.	12937 <i>Diuris pulchella</i>			
751.	1638 <i>Diuris setacea (Bristly Donkey Orchid)</i>			
752.	4756 <i>Dodonaea caespitosa</i>			
753.	4757 <i>Dodonaea ceratocarpa</i>			
754.	4758 <i>Dodonaea concinna</i>			
755.	<i>Dolichopodidae sp.</i>			
756.	<i>Dolichopodidae sp. B (SAP)</i>			
757.	26795 <i>Doxodasya bolbochaete</i>			
758.	26796 <i>Doxodasya lanuginosa</i>			
759.	1640 <i>Drakaea glyptodon (King-in-his-carriage)</i>			
760.	24470 <i>Dromaius novaehollandiae (Emu)</i>			
761.	3098 <i>Drosera glanduligera (Pimpernel Sundew)</i>			
762.	3102 <i>Drosera huegelii (Bold Sundew)</i>			
763.	3105 <i>Drosera leucoblasta (Wheel Sundew)</i>			
764.	14298 <i>Drosera macrantha subsp. macrantha</i>			
765.	3109 <i>Drosera menziesii (Pink Rainbow)</i>			
766.	13216 <i>Drosera menziesii subsp. penicillaris</i>			
767.	3113 <i>Drosera neesii (Jewel Rainbow)</i>			
768.	11768 <i>Drosera neesii subsp. neesii</i>			
769.	3114 <i>Drosera nitidula (Shining Sundew)</i>			
770.	13190 <i>Drosera occidentalis subsp. australis</i>			
771.	13187 <i>Drosera paleacea subsp. trichocaulis</i>			
772.	3128 <i>Drosera ramellosa (Branched Sundew)</i>			
773.	13227 <i>Drosera sargentii</i>			
774.	3130 <i>Drosera scorpioides (Shaggy Sundew)</i>			
775.	3135 <i>Drosera zonaria (Painted Sundew)</i>			
776.	24650 <i>Drymodes brunneopygia (Southern Scrub-robin)</i>			
777.	25300 <i>Drysdalia mastersii (Master's Snake)</i>			
778.	33501 <i>Dysphania cristata (Crested Goosefoot)</i>			
779.	33480 <i>Dysphania pumilio (Clammy Goosefoot)</i>			
780.	<i>Dytiscidae sp.</i>			
781.	32351 <i>Eccremidium pulchellum</i>			
782.	26803 <i>Echinothamnion hystrix</i>			
783.	25251 <i>Echiopsis curta (Bardick)</i>			
784.	26805 <i>Ecklonia radiata</i>			
785.	<i>Ecnomus pansus/turgidus</i>			
786.	25096 <i>Egernia kingii (King's Skink)</i>			
787.	25100 <i>Egernia napoleonis</i>			
788.	<i>Egretta garzetta</i>			
789.	<i>Egretta novaehollandiae</i>			
790.	347 <i>Ehrharta calycina (Perennial Veldt Grass)</i>	Y		
791.	349 <i>Ehrharta longiflora (Annual Veldt Grass)</i>	Y		
792.	<i>Ehrharta sp.</i>			
793.	<i>Elanus axillaris</i>			
794.	25250 <i>Elapognathus coronatus (Crowned Snake)</i>			
795.	831 <i>Eleocharis sphacelata (Tall Spikerush, Djabren)</i>			
796.	47937 <i>Elseyornis melanops (Black-fronted Dotterel)</i>			
797.	1643 <i>Elythranthera brunonis (Purple Enamel Orchid)</i>			

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798.	1644 <i>Elythranthera emarginata</i> (Pink Enamel Orchid)			
799.	<i>Empididae</i> sp.			
800.	2511 <i>Enchylaena tomentosa</i> (Barrier Saltbush)			
801.	<i>Enchytraeidae</i> sp.			
802.	<i>Engraulis australis</i>			
803.	<i>Enochrus</i> sp.			
804.	<i>Enoplosus armatus</i>			
805.	<i>Eodelena lapidicola</i>			
806.	<i>Eolophus roseicapillus</i>			
807.	<i>Ephydriidae</i> sp.			
808.	<i>Ephydriidae</i> sp. 3 (SAP)			
809.	<i>Ephydriidae</i> sp. 6 (SAP)			
810.	1645 <i>Epiblema grandiflorum</i> (Babe-in-a-cradle)			
811.	11570 <i>Epilobium billardioreanum</i> subsp. <i>billardioreanum</i> (Smooth Willow Herb)			
812.	6133 <i>Epilobium hirtigerum</i> (Hairy Willow Herb)			
813.	26618 <i>Epiphloea bullosa</i>			
814.	24567 <i>Epthianura albifrons</i> (White-fronted Chat)			
815.	374 <i>Eragrostis cilianensis</i> (Stinkgrass)	Y		
816.	376 <i>Eragrostis curvula</i> (African Lovegrass)	Y		
817.	7180 <i>Eremophila alternifolia</i> (Poverty Bush)			
818.	7226 <i>Eremophila ionantha</i> (Violet-flowered Eremophila)			
819.	7231 <i>Eremophila lehmanniana</i>			
820.	7264 <i>Eremophila saligna</i> (Willowy Eremophila)			
821.	14633 <i>Eremophila subfloccosa</i> subsp. <i>glandulosa</i>			
822.	45244 <i>Eriomyrtus serpyllifolia</i>			
823.	1646 <i>Eriochilus dilatatus</i> (White Bunny Orchid)			
824.	15410 <i>Eriochilus dilatatus</i> subsp. <i>dilatatus</i>			
825.	15413 <i>Eriochilus dilatatus</i> subsp. <i>undulatus</i>			
826.	13866 <i>Eriochilus pulchellus</i>			
827.	15415 <i>Eriochilus scaber</i> subsp. <i>scaber</i>			
828.	4336 <i>Erodium moschatum</i> (Musky Crowfoot)	Y		
829.	24379 <i>Erythronys cinctus</i> (Red-kneed Dotterel)			
830.	<i>Eubalichthys mosaicus</i>			
831.	5550 <i>Eucalyptus angulosa</i> (Ridge-fruited Mallee, Kwararl)			
832.	5551 <i>Eucalyptus angustissima</i> (Narrow-leaved Mallee)			
833.	19508 <i>Eucalyptus calycogona</i> subsp. <i>calycogona</i>			
834.	5600 <i>Eucalyptus conglobata</i> (Port Lincoln Mallee)			
835.	20292 <i>Eucalyptus conglobata</i> subsp. <i>conglobata</i>			
836.	5605 <i>Eucalyptus cornuta</i> (Yate, Yeid)			
837.	5611 <i>Eucalyptus cylindriflora</i> (White Mallee)			
838.	12870 <i>Eucalyptus densa</i>			
839.	12869 <i>Eucalyptus densa</i> subsp. <i>densa</i>			
840.	5622 <i>Eucalyptus dielsii</i> (Cap-fruited Mallee)			
841.	5624 <i>Eucalyptus discreta</i>			
842.	42064 <i>Eucalyptus ecostata</i>			
843.	5637 <i>Eucalyptus eremophila</i> (Tall Sand Mallee)			
844.	15667 <i>Eucalyptus eremophila</i> subsp. <i>eremophila</i> (Sand Mallee)			
845.	12377 <i>Eucalyptus extensa</i>			
846.	5643 <i>Eucalyptus falcata</i> (Silver Mallet, Dulyumuk)			
847.	5648 <i>Eucalyptus flocktoniae</i> (Merrit, Merid)			
848.	5652 <i>Eucalyptus forrestiana</i> (Fuchsia Gum)			
849.	14277 <i>Eucalyptus fraseri</i> subsp. <i>fraseri</i>			
850.	18216 <i>Eucalyptus globulus</i>	Y		
851.	5659 <i>Eucalyptus gomphocephala</i> (Tuart, Duart)			
852.	5661 <i>Eucalyptus goniantha</i> (Jerdacuttup Mallee)			
853.	5669 <i>Eucalyptus halophila</i>			
854.	5675 <i>Eucalyptus incrassata</i> (Lerp Mallee)			
855.	13535 <i>Eucalyptus indurata</i> (Ironbark)			
856.	14299 <i>Eucalyptus kessellii</i>			
857.	13065 <i>Eucalyptus kessellii</i> subsp. <i>eugnota</i>			
858.	5695 <i>Eucalyptus leptocalyx</i> (Hopetoun Mallee)			
859.	19811 <i>Eucalyptus leptocalyx</i> subsp. <i>leptocalyx</i>			
860.	5704 <i>Eucalyptus macrandra</i> (Long-flowered Marlock, Dwed)			
861.	5713 <i>Eucalyptus micranthera</i> (Alexander River Mallee)			
862.	5723 <i>Eucalyptus occidentalis</i> (Flat-topped Yate, Moidj)			
863.	12695 <i>Eucalyptus perangusta</i>			
864.	12891 <i>Eucalyptus phaenophylla</i> subsp. <i>interjacens</i>			
865.	12892 <i>Eucalyptus phaenophylla</i> subsp. <i>phaenophylla</i>			
866.	19666 <i>Eucalyptus phenax</i> subsp. <i>phenax</i>			
867.	5745 <i>Eucalyptus pileata</i> (Capped Mallee)			

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868.	15742 <i>Eucalyptus platypus</i> subsp. <i>congregata</i>			
869.	18551 <i>Eucalyptus platypus</i> subsp. <i>platypus</i>			
870.	16180 <i>Eucalyptus pleurocarpa</i>			
871.	13525 <i>Eucalyptus quadrans</i>			
872.	12694 <i>Eucalyptus rigens</i> (Saltlake Mallee)			
873.	5767 <i>Eucalyptus salubris</i> (Gimlet)			
874.	10834 <i>Eucalyptus scyphocalyx</i> (Goblet Mallee)			
875.	<i>Eucalyptus</i> sp.			
876.	29671 <i>Eucalyptus</i> sp. Fraser Range (D. Nicolle 2157)			
877.	41523 <i>Eucalyptus</i> sp. Southern Wheatbelt (D. Nicolle & M. French DN 5507)			
878.	5775 <i>Eucalyptus spathulata</i> (Swamp Mallet)			
879.	14189 <i>Eucalyptus sporadica</i>			
880.	13030 <i>Eucalyptus suggrandis</i> subsp. <i>suggrandis</i>			
881.	5788 <i>Eucalyptus tetraptera</i> (Four-winged Mallee)			
882.	12889 <i>Eucalyptus tumida</i>			
883.	5796 <i>Eucalyptus uncinata</i> (Hook-leaved Mallee)			
884.	18085 <i>Eucalyptus utilis</i>			
885.	15808 <i>Eucalyptus valens</i>			
886.	12864 <i>Eucalyptus varia</i>			
887.	12862 <i>Eucalyptus varia</i> subsp. <i>salsuginosa</i>			
888.	12863 <i>Eucalyptus varia</i> subsp. <i>varia</i>			
889.	8587 <i>Eucalyptus x erythrandra</i>			
890.	5802 <i>Eucalyptus yilgarnensis</i> (Yorrell)			
891.	19088 <i>Euchiton collinus</i>			
892.	15137 <i>Euchiton sphaericus</i>			
893.	<i>Euchlanis dilatata</i>			
894.	<i>Eucyclops australiensis</i>			
895.	25744 <i>Eudyptes chrysocome</i> (Rockhopper Penguin)			
896.	24816 <i>Eudyptes pachyrhynchus</i> (Fiordland Penguin)			
897.	24817 <i>Eudyptes sclateri</i> (Erect-crested Penguin)			Y
898.	4636 <i>Euphorbia paralias</i> (Sea Spurge)	Y		
899.	4643 <i>Euphorbia segetalis</i> (Shortstemmed Carnation Weed)	Y		Y
900.	<i>Euphorbia</i> sp.			
901.	4648 <i>Euphorbia terracina</i> (Geraldton Carnation Weed)	Y		
902.	11271 <i>Euphrasia collina</i> subsp. <i>tetragona</i>			
903.	26830 <i>Euptilota articulata</i>			
904.	3873 <i>Eutaxia cuneata</i>			
905.	37860 <i>Eutaxia empetrifolia</i>			
906.	37740 <i>Eutaxia inuncta</i>			
907.	20214 <i>Eutaxia myrtifolia</i>			
908.	37820 <i>Eutaxia neurocalyx</i> subsp. <i>papillosa</i>			
909.	3879 <i>Eutaxia parvifolia</i>			
910.	10977 <i>Exocarpos aphyllus</i> (Leafless Ballart)			
911.	10765 <i>Exocarpos sparteus</i> (Broom Ballart, Djuk)			
912.	<i>Eylais</i> sp.			
913.	25621 <i>Falco berigora</i> (Brown Falcon)			
914.	25622 <i>Falco cenchroides</i> (Australian Kestrel, Nankeen Kestrel)			
915.	25623 <i>Falco longipennis</i> (Australian Hobby)			
916.	8850 <i>Fallopia convolvulus</i>	Y		
917.	<i>Ferrissia petterdi</i>			
918.	20216 <i>Ficinia nodosa</i> (Knotted Club Rush)			
919.	<i>Filinia longiseta</i>			
920.	27748 <i>Flavoparmelia rutidota</i>			
921.	27750 <i>Flavoparmelia secalonica</i>			
922.	5209 <i>Frankenia pauciflora</i> (Seaheath)			
923.	5213 <i>Frankenia tetrapetala</i> (Four Petaled Frankenia)			
924.	1944 <i>Franklandia fucifolia</i> (Lanoline Bush)			
925.	25727 <i>Fulica atra</i> (Eurasian Coot)			
926.	24761 <i>Fulica atra</i> subsp. <i>australis</i> (Eurasian Coot)			
927.	<i>Fusarium avenaceum</i>			
928.	899 <i>Gahnia ancistrophylla</i> (Hooked-leaf Saw Sedge)			
929.	901 <i>Gahnia australis</i>			
930.	16249 <i>Gahnia</i> sp. Headland (G.J. Keighery 8501)			
931.	43205 <i>Gahnia</i> sp. South West (K.L. Wilson & K. Frank K LW 9266)			
932.	907 <i>Gahnia trifida</i> (Coast Saw-sedge)			
933.	<i>Galaxias maculatus</i>			
934.	39404 <i>Galaxias truttaceus</i> (Trout Minnow)			
935.	17348 <i>Galium aparine</i> (Goosegrass)	Y		
936.	7323 <i>Galium murale</i> (Small Goosegrass)	Y		
937.	25730 <i>Gallirallus philippensis</i> (Buff-banded Rail)			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
938.	19702 <i>Gastrolobium discolor</i>			
939.	11044 <i>Gastrolobium heterophyllum</i>			
940.	20453 <i>Gastrolobium latifolium</i>			
941.	19725 <i>Gastrolobium musaceum</i>			
942.	10981 <i>Gastrolobium parviflorum</i>			
943.	20487 <i>Gastrolobium punctatum</i>			
944.	10877 <i>Gastrolobium racemosum</i>			
945.	3924 <i>Gastrolobium spinosum</i> (Prickly Poison)			
946.	10819 <i>Gastrolobium tetragonophyllum</i>			
947.	42314 <i>Gavicalis virescens</i> (Singing Honeyeater)			
948.	16311 <i>Gazania linearis</i>	Y		
949.	<i>Gea theridioides</i>			
950.	<i>Geastrum</i> sp.			
951.	26850 <i>Gelinaria ulvoidea</i>			
952.	32380 <i>Gemmabryum pachythecum</i>			
953.	<i>Geogarypus taylori</i>			
954.	4341 <i>Geranium solanderi</i> (Native Geranium)			
955.	25530 <i>Gerygone fusca</i> (Western Gerygone)			
956.	<i>Gianius</i> sp. WA9 (SAP)			Y
957.	26852 <i>Gibsmithia womersleyi</i>			
958.	<i>Gladioferens imparipes</i>			
959.	1518 <i>Gladiolus angustus</i> (Long Tubed Painted Lady)	Y		
960.	26858 <i>Glaphyrymenia pustulosa</i>			
961.	33620 <i>Glischrocaryon angustifolium</i>			
962.	6143 <i>Glischrocaryon aureum</i> (Common Popflower)			
963.	6145 <i>Glischrocaryon roei</i>			
964.	26860 <i>Gloiocladia halymenioides</i>			
965.	47962 <i>Glyciphila melanops</i> (Tawny-crowned Honeyeater)			
966.	<i>Glyptophysa</i> cf. <i>gibbosa</i> (SAP)			
967.	7983 <i>Gnaphalium indutum</i> (Tiny Cudweed)			
968.	7991 <i>Gnephosis drummondii</i>			
969.	8003 <i>Gnephosis tridens</i>			
970.	6587 <i>Gomphocarpus fruticosus</i> (Narrowleaf Cottonbush)	Y		
971.	3946 <i>Gompholobium baxteri</i>			
972.	3948 <i>Gompholobium capitatum</i>			
973.	10909 <i>Gompholobium confertum</i>			
974.	3950 <i>Gompholobium knightianum</i>			
975.	3951 <i>Gompholobium marginatum</i>			
976.	3954 <i>Gompholobium polymorphum</i>			
977.	11083 <i>Gompholobium scabrum</i>			
978.	3957 <i>Gompholobium tomentosum</i> (Hairy Yellow Pea)			
979.	3959 <i>Gompholobium viscidulum</i>			
980.	6159 <i>Gonocarpus nodulosus</i>			
981.	6165 <i>Gonocarpus scordioides</i>			
982.	<i>Gonorynchus greyi</i>			
983.	7488 <i>Goodenia affinis</i> (Silver Goodenia)			
984.	7499 <i>Goodenia concinna</i> (Elegant Goodenia)			
985.	7503 <i>Goodenia decursiva</i>			
986.	7517 <i>Goodenia incana</i> (Hoary Goodenia)			
987.	12551 <i>Goodenia micrantha</i>			
988.	7537 <i>Goodenia pterigosperma</i>			
989.	19051 <i>Goodenia scapigera</i> subsp. <i>scapigera</i>			
990.	7562 <i>Goodenia viscida</i> (Viscid Goodenia)			
991.	17787 <i>Goodia medicaginea</i>			
992.	24443 <i>Grallina cyanoleuca</i> (Magpie-lark)			
993.	24056 <i>Grampus griseus</i> (Risso's Dolphin)			
994.	14282 <i>Gratiola pubescens</i>			
995.	14405 <i>Grevillea coccinea</i> subsp. <i>coccinea</i>			
996.	13463 <i>Grevillea concinna</i> subsp. <i>lemanniana</i>			
997.	1991 <i>Grevillea disjuncta</i>			
998.	2018 <i>Grevillea huegelii</i>			
999.	2050 <i>Grevillea nudiflora</i>			
1000.	2053 <i>Grevillea oligantha</i>			
1001.	2061 <i>Grevillea pectinata</i> (Comb-leaved Grevillea)			
1002.	19491 <i>Grevillea plurijuga</i> subsp. <i>superba</i>			
1003.	32386 <i>Grimmia laevigata</i>			
1004.	5011 <i>Guichenotia ledifolia</i>			
1005.	5013 <i>Guichenotia micrantha</i> (Small Flowered Guichenotia)			
1006.	2804 <i>Gunniopsis glabra</i>			
1007.	<i>Gymnapistes marmoratus</i>			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
1008.	<i>Gymnometriccnemus</i> sp. B (=V45=sp. A&2=ortho sp. O)			
1009.	<i>Gymnometriccnemus</i> spp. (not V44 or V45)			
1010.	38789 <i>Gymnopilus junonius</i>			
1011.	2787 <i>Gyrostemon sheathii</i>			
1012.	25627 <i>Haematopus fuliginosus</i> (Sooty Oystercatcher)			
1013.	24485 <i>Haematopus fuliginosus</i> subsp. <i>fuliginosus</i> (Sooty Oystercatcher)			
1014.	24487 <i>Haematopus longirostris</i> (Pied Oystercatcher)			
1015.	1468 <i>Haemodorum laxum</i>			
1016.	1475 <i>Haemodorum spicatum</i> (Mardja)			
1017.	2126 <i>Hakea adnata</i>			
1018.	2139 <i>Hakea cinerea</i> (Ashy Hakea)			
1019.	2141 <i>Hakea clavata</i> (Coastal Hakea)			
1020.	2142 <i>Hakea commutata</i>			
1021.	2145 <i>Hakea corymbosa</i> (Cauliflower Hakea)			
1022.	11924 <i>Hakea cygna</i> subsp. <i>cygna</i> (Swan Fruit Hakea)			
1023.	12226 <i>Hakea denticulata</i>			
1024.	12227 <i>Hakea drupacea</i>			
1025.	2160 <i>Hakea ferruginea</i>			
1026.	2171 <i>Hakea laurina</i> (Pincushion Hakea, Kodjet)			
1027.	2175 <i>Hakea lissocarpha</i> (Honey Bush)			
1028.	2187 <i>Hakea nitida</i> (Frog Hakea)			
1029.	2188 <i>Hakea obliqua</i> (Needles and Corks)			
1030.	13335 <i>Hakea obliqua</i> subsp. <i>obliqua</i>			
1031.	2193 <i>Hakea pandanycarpa</i>			
1032.	16910 <i>Hakea pandanycarpa</i> subsp. <i>pandanycarpa</i>			
1033.	2197 <i>Hakea prostrata</i> (Harsh Hakea)			
1034.	2203 <i>Hakea ruscifolia</i> (Candle Hakea)			
1035.	2212 <i>Hakea sulcata</i> (Furrowed Hakea)			
1036.	2214 <i>Hakea trifurcata</i> (Two-leaf Hakea)			
1037.	2216 <i>Hakea varia</i> (Variable-leaved Hakea)			
1038.	2218 <i>Hakea victoria</i> (Royal Hakea, Dalyongurd)			
1039.	31013 <i>Halgania anagalloides</i> var. <i>Southern</i> (A.E. Orchard 1609)			
1040.	6684 <i>Halgania andromedifolia</i>			
1041.	6691 <i>Halgania integerrima</i>			
1042.	24293 <i>Haliaeetus leucogaster</i> (White-bellied Sea-Eagle)			
1043.	24295 <i>Haliastur sphenurus</i> (Whistling Kite)			
1044.	<i>Haliplus fuscatus</i>			
1045.	<i>Haloniscus searlei</i>			
1046.	161 <i>Halophila australis</i>			
1047.	26900 <i>Haloplegma preissii</i>			
1048.	6171 <i>Haloragis digyna</i>			
1049.	37641 <i>Halymenia floresii</i> subsp. <i>harveyana</i>			
1050.	<i>Harpacticoida</i> sp			
1051.	<i>Hebrus axillaris</i>			
1052.	<i>Helcogramma decurrens</i>			
1053.	25408 <i>Heleioporus albopunctatus</i> (Western Spotted Frog)			
1054.	25410 <i>Heleioporus eyrei</i> (Moaning Frog)			
1055.	25412 <i>Heleioporus psammophilus</i> (Sand Frog)			
1056.	8008 <i>Helianthus annuus</i> (Sunflower, Common Sunflower)	Y		
1057.	3016 <i>Heliophila pusilla</i>	Y		
1058.	6707 <i>Heliotropium curassavicum</i> (Smooth Heliotrope)			
1059.	6710 <i>Heliotropium europaeum</i> (Common Heliotrope)	Y		
1060.	<i>Hellyethira litua</i>			
1061.	<i>Helochares tenuistriatus</i>			
1062.	439 <i>Hemarthria uncinata</i> (Matgrass)			
1063.	11451 <i>Hemarthria uncinata</i> var. <i>uncinata</i>			
1064.	2689 <i>Hemichroa pentandra</i> (Trailing Jointweed)			
1065.	<i>Hemicordulia tau</i>			
1066.	25474 <i>Hemiergis initialis</i>			
1067.	25115 <i>Hemiergis initialis</i> subsp. <i>initialis</i>			
1068.	25475 <i>Hemiergis peronii</i>			
1069.	25117 <i>Hemiergis peronii</i> subsp. <i>peronii</i>			
1070.	6872 <i>Hemigenia teretiuscula</i>			
1071.	26915 <i>Hennedya crispa</i>			
1072.	<i>Heteroclinus</i> sp.			
1073.	27777 <i>Heterodermia obscurata</i>			
1074.	26936 <i>Heterosiphonia muelleri</i>			
1075.	26938 <i>Heterosiphonia wrangelioides</i>			
1076.	<i>Hexarthra fennica</i>			
1077.	<i>Hexarthra</i> sp.			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
1078.	5108 <i>Hibbertia acerosa</i> (Needle Leaved Guinea Flower)			
1079.	5110 <i>Hibbertia andrewsiana</i>			
1080.	5117 <i>Hibbertia cuneiformis</i> (Cutleaf Hibbertia)			
1081.	5122 <i>Hibbertia eatoniae</i>			
1082.	5131 <i>Hibbertia gracilipes</i>			
1083.	20059 <i>Hibbertia hemignosta</i>			
1084.	20049 <i>Hibbertia hibbertioides</i> var. <i>meridionalis</i>			
1085.	5143 <i>Hibbertia lineata</i>			
1086.	20417 <i>Hibbertia oligantha</i>			
1087.	20349 <i>Hibbertia psilocarpa</i>			
1088.	5160 <i>Hibbertia pungens</i>			
1089.	5162 <i>Hibbertia racemosa</i> (Stalked Guinea Flower)			
1090.	5166 <i>Hibbertia rupicola</i>			
1091.	<i>Hibbertia</i> sp.			
1092.	5173 <i>Hibbertia subvaginata</i>			
1093.	19433 <i>Hibbertia ulicifolia</i>			
1094.	47965 <i>Hieraaetus morphnoides</i> (Little Eagle)			
1095.	25734 <i>Himantopus himantopus</i> (Black-winged Stilt)			
1096.	24491 <i>Hirundo neoxena</i> (Welcome Swallow)			
1097.	<i>Hogna crispipes</i>			
1098.	<i>Holasteron esperance</i>			Y
1099.	449 <i>Hordeum leporinum</i> (Barley Grass)	Y		
1100.	450 <i>Hordeum marinum</i>	Y		
1101.	<i>Horioctenoides bidentatus</i>			Y
1102.	26947 <i>Hormosira banksii</i>			
1103.	18137 <i>Hornungia procumbens</i>	Y		
1104.	3966 <i>Hovea pungens</i> (Devil's Pins, Puyenak)			
1105.	3968 <i>Hovea trisperma</i> (Common Hovea)			
1106.	12742 <i>Hyalosperma demissum</i>			
1107.	5220 <i>Hybanthus epacroides</i> (Spiny Hybanthus)			
1108.	11975 <i>Hybanthus floribundus</i> subsp. <i>adpressus</i>			
1109.	<i>Hyderodes crassus</i>			
1110.	<i>Hydra</i> sp.			
1111.	<i>Hydraenidae</i> sp.			
1112.	<i>Hydrobiidae</i> sp.			
1113.	26949 <i>Hydroclathrus clathratus</i>			
1114.	6223 <i>Hydrocotyle alata</i>			
1115.	6226 <i>Hydrocotyle callicarpa</i> (Small Pennywort)			
1116.	6234 <i>Hydrocotyle medicaginoides</i> (Trefoil Pennywort)			
1117.	<i>Hydrophilidae</i> sp.			
1118.	<i>Hydroprogne caspia</i>			
1119.	<i>Hydryphantus meridianus</i>			
1120.	26962 <i>Hymenocladia dactyloides</i>			
1121.	26965 <i>Hymenocladia usnea</i>			
1122.	452 <i>Hyparrhenia hirta</i> (Tambookie Grass)	Y		
1123.	<i>Hyphydrus elegans</i>			
1124.	26971 <i>Hypnea ramentacea</i>			
1125.	26973 <i>Hypnea valentiae</i>			
1126.	5827 <i>Hypocalymma strictum</i>			
1127.	8086 <i>Hypochoeris glabra</i> (Smooth Catsear)	Y		
1128.	9352 <i>Hypochoeris radicata</i> (Flat Weed, Cats-ear)	Y		
1129.	1070 <i>Hypolaena exsulca</i>			
1130.	1071 <i>Hypolaena fastigiata</i>			
1131.	17844 <i>Hypolaena humilis</i>			
1132.	<i>Hyporhamphus melanochir</i>			
1133.	<i>Ilyocryptus</i> cf. <i>timmsi</i> (SAP)			Y
1134.	<i>Ilyodromus</i> sp.			
1135.	<i>Intruda signata</i>			
1136.	<i>Ischnura heterosticta heterosticta</i>			
1137.	910 <i>Isolepis cernua</i> (Nodding Club-rush)			
1138.	911 <i>Isolepis congrua</i>			
1139.	912 <i>Isolepis cyperoides</i>			
1140.	917 <i>Isolepis marginata</i> (Coarse Club-rush)			
1141.	<i>Isopeda leishmanni</i>			
1142.	<i>Isopedella saundersi</i>			
1143.	16880 <i>Isopogon formosus</i> subsp. <i>formosus</i>			
1144.	2234 <i>Isopogon polycephalus</i> (Clustered Coneflower)			
1145.	2240 <i>Isopogon trilobus</i> (Barrel Coneflower)			
1146.	7399 <i>Isotoma scapigera</i> (Long-scaped Isotome)			
1147.	3992 <i>Isotropis cuneifolia</i> (Granny Bonnets)			

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1148.	3993 <i>Isotropis drummondii</i> (Lamb Poison)			
1149.	45301 <i>Jackelixia ligulata</i>			
1150.	3997 <i>Jacksonia alata</i>			
1151.	4002 <i>Jacksonia capitata</i>			
1152.	4005 <i>Jacksonia condensata</i>			
1153.	4012 <i>Jacksonia furcellata</i> (Grey Stinkwood)			
1154.	4028 <i>Jacksonia spinosa</i>			
1155.	14741 <i>Jacksonia venosa</i>			
1156.	14777 <i>Jacksonia viscosa</i>			
1157.	1295 <i>Johnsonia acaulis</i>			
1158.	1175 <i>Juncus acutus</i> (Spiny Rush)	Y		
1159.	20454 <i>Juncus acutus</i> subsp. <i>acutus</i>	Y		
1160.	1178 <i>Juncus bufonius</i> (Toad Rush)	Y		
1161.	1179 <i>Juncus caespiticius</i> (Grassy Rush)			
1162.	1180 <i>Juncus capitatus</i> (Capitate Rush)	Y		
1163.	11922 <i>Juncus kraussii</i> subsp. <i>australiensis</i>			
1164.	1188 <i>Juncus pallidus</i> (Pale Rush)			
1165.	1194 <i>Juncus radula</i>			
1166.	<i>Kathetostoma laeve</i>			
1167.	4037 <i>Kennedia coccinea</i> (Coral Vine)			
1168.	37961 <i>Kennedia coccinea</i> subsp. <i>esotera</i>			
1169.	4042 <i>Kennedia nigricans</i> (Black Kennedia)			
1170.	4044 <i>Kennedia prostrata</i> (Scarlet Runner)			
1171.	<i>Keratella australis</i>			
1172.	<i>Keratella</i> cf. <i>quadrata</i> (SAP)			
1173.	<i>Kiefferulus interinctus</i>			
1174.	<i>Kiefferulus martini</i>			
1175.	24070 <i>Kogia breviceps</i> (Pygmy Sperm Whale)			
1176.	26995 <i>Kuetzingia canaliculata</i>			
1177.	5836 <i>Kunzea micromera</i>			
1178.	5839 <i>Kunzea preissiana</i>			
1179.	11528 <i>Labichea lanceolata</i> subsp. <i>brevifolia</i>			
1180.	11289 <i>Labichea lanceolata</i> subsp. <i>lanceolata</i>			
1181.	38802 <i>Laccocephalum tumulosum</i>			
1182.	20019 <i>Lachnagrostis filiformis</i>			
1183.	18585 <i>Lagenophora huegellii</i>			
1184.	467 <i>Lagurus ovatus</i> (Hare's Tail Grass)	Y		
1185.	2248 <i>Lambertia inermis</i> (Chittick, Djidiok)			
1186.	16870 <i>Lambertia inermis</i> var. <i>drummondii</i>			
1187.	16871 <i>Lambertia inermis</i> var. <i>inermis</i>			
1188.	<i>Lampona cylindrata</i>			
1189.	<i>Lancetes</i> sp.			
1190.	24510 <i>Larus dominicanus</i> (Kelp Gull)			
1191.	24511 <i>Larus novaehollandiae</i> subsp. <i>novaehollandiae</i> (Silver Gull)			
1192.	25638 <i>Larus pacificus</i> (Pacific Gull)			
1193.	5027 <i>Lasiopetalum compactum</i>			
1194.	5030 <i>Lasiopetalum discolor</i>			
1195.	5035 <i>Lasiopetalum indutum</i>			
1196.	5047 <i>Lasiopetalum rosmarinifolium</i>			
1197.	33476 <i>Lasiopetalum</i> sp. <i>Kukerin</i> (C.A. Gardner 13646)			
1198.	35642 <i>Lasiopetalum</i> sp. <i>Mt Ragged</i> (T.E.H. Aplin 4349)			
1199.	26997 <i>Laurencia arbuscula</i>			
1200.	27001 <i>Laurencia filiformis</i>			
1201.	27002 <i>Laurencia forsteri</i>			
1202.	27005 <i>Laurencia majuscula</i>			
1203.	4954 <i>Lawrencia diffusa</i>			
1204.	4955 <i>Lawrencia glomerata</i>			
1205.	4958 <i>Lawrencia spicata</i>			
1206.	4959 <i>Lawrencia squamata</i>			
1207.	1301 <i>Laxmannia brachyphylla</i> (Stilted Paper-lily)			
1208.	1304 <i>Laxmannia minor</i>			
1209.	1305 <i>Laxmannia omnifertilis</i>			
1210.	1306 <i>Laxmannia paleacea</i>			
1211.	1307 <i>Laxmannia ramosa</i> (Branching Lily)			
1212.	12029 <i>Laxmannia ramosa</i> subsp. <i>deflexa</i>			
1213.	11464 <i>Laxmannia sessiliflora</i> subsp. <i>australis</i>			
1214.	1309 <i>Laxmannia squarrosa</i>			
1215.	<i>Lecane</i> (M) sp. A (ESP023)			Y
1216.	<i>Lecane</i> [M] sp.			
1217.	<i>Lecane bulla</i>			

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1218.	<i>Lecane ludwigii</i>			
1219.	<i>Lecane luna</i>			
1220.	7575 <i>Lechenaultia formosa</i> (Red Leschenaultia)			
1221.	7590 <i>Lechenaultia tubiflora</i> (Heath Leschenaultia)			
1222.	<i>Lecidea</i> sp.			
1223.	1051 <i>Lemna disperma</i> (Duckweed)			
1224.	35864 <i>Lenormandia muelleri</i>			
1225.	27013 <i>Lenormandia spectabilis</i>			
1226.	8099 <i>Leontodon saxatilis</i> (Hairy Hawkbit)	Y		
1227.	<i>Lepadella discoidea</i>			Y
1228.	<i>Lepadella patella</i>			
1229.	3018 <i>Lepidium africanum</i> (Rubble Peppercross)	Y		
1230.	3021 <i>Lepidium bonariense</i> (Peppercross)	Y		
1231.	3044 <i>Lepidium rotundum</i> (Veined Peppercross)			
1232.	<i>Lepidoblennius marmoratus</i>			
1233.	1073 <i>Lepidobolus chaetocephalus</i> (Bristle-headed Chaff Rush)			
1234.	1075 <i>Lepidobolus preissianus</i>			
1235.	<i>Lepidoptera (non-pyralid) sp. 3</i> (SAP)			
1236.	<i>Lepidoptera (non-pyralid) sp. 9</i> (SAP) (nr Pilbara sp. 3)			
1237.	929 <i>Lepidosperma carphoides</i> (Black Rapier Sedge)			
1238.	933 <i>Lepidosperma gladiatum</i> (Coast Sword-sedge, Kerbin)			
1239.	939 <i>Lepidosperma pruinosum</i>			
1240.	941 <i>Lepidosperma resinosum</i>			
1241.	41647 <i>Lepidosperma sanguinolentum</i>			
1242.	<i>Lepidosperma</i> sp.			
1243.	945 <i>Lepidosperma squamatum</i>			
1244.	946 <i>Lepidosperma striatum</i>			
1245.	947 <i>Lepidosperma tenue</i>			
1246.	949 <i>Lepidosperma tuberculatum</i>			
1247.	120 <i>Lepilaena cylindrocarpa</i>			
1248.	121 <i>Lepilaena preissii</i> (Slender Water Mat)			
1249.	1653 <i>Leporella fimbriata</i> (Hare Orchid)			
1250.	46381 <i>Leptocarpus crebriculmis</i>			
1251.	15418 <i>Leptoceras menziesii</i>			
1252.	<i>Leptoceridae</i> sp.			
1253.	<i>Leptocythere lacustris</i>			
1254.	<i>Leptoichthys fistularius</i>			
1255.	2347 <i>Leptomeria lehmannii</i>			
1256.	2349 <i>Leptomeria pachyclada</i>			
1257.	2350 <i>Leptomeria pauciflora</i> (Sparse-flowered Currant Bush)			
1258.	5847 <i>Leptospermum erubescens</i> (Roadside Teatree)			
1259.	5849 <i>Leptospermum incanum</i>			
1260.	5850 <i>Leptospermum laevigatum</i> (Coast Teatree)	Y		
1261.	5851 <i>Leptospermum maxwellii</i>			
1262.	5853 <i>Leptospermum oligandrum</i>			
1263.	5856 <i>Leptospermum sericeum</i> (Silver Teatree)			
1264.	5857 <i>Leptospermum spinescens</i>			
1265.	12692 <i>Leptospermum subtenuae</i>			
1266.	1088 <i>Lepyrodia macra</i> (Large Scale Rush)			
1267.	25131 <i>Lerista distinguenda</i>			
1268.	25153 <i>Lerista microtis</i> subsp. <i>intermedia</i>			
1269.	<i>Lestidae</i> sp.			
1270.	46454 <i>Leucoagaricus leucothites</i>			
1271.	16449 <i>Leucophyta brownii</i>			
1272.	6358 <i>Leucopogon assimilis</i>			
1273.	6364 <i>Leucopogon brevicuspis</i>			
1274.	6368 <i>Leucopogon carinatus</i>			
1275.	6373 <i>Leucopogon concinnus</i>			
1276.	6374 <i>Leucopogon conostephioides</i>			
1277.	6380 <i>Leucopogon crassifolius</i>			
1278.	6383 <i>Leucopogon cuneifolius</i>			
1279.	6391 <i>Leucopogon fimbriatus</i>			
1280.	6417 <i>Leucopogon obovatus</i>			
1281.	40940 <i>Leucopogon obovatus</i> subsp. <i>obovatus</i>			
1282.	6419 <i>Leucopogon obtusatus</i>			
1283.	6427 <i>Leucopogon parviflorus</i> (Coast Beard-heath)			
1284.	14637 <i>Leucopogon</i> sp. <i>Coujinup</i> (M.A. Burgman 1085)			
1285.	14205 <i>Leucopogon</i> sp. <i>Mount Heywood</i> (M.A. Burgman 1211)			
1286.	34163 <i>Leucopogon</i> sp. <i>Newdegate</i> (M. Hislop 3585)			
1287.	6450 <i>Leucopogon tamminensis</i>			

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1288.	6455 <i>Leucopogon woodsii</i> (Nodding Beard-heath)			
1289.	7670 <i>Levenhookia dubia</i> (Hairy Stylewort)			
1290.	7673 <i>Levenhookia pauciflora</i> (Deceptive Stylewort)			
1291.	7676 <i>Levenhookia pusilla</i> (Midget Stylewort)			
1292.	<i>Leydigia cf. leydigii</i> (SAP)			
1293.	27023 <i>Liagora harveyana</i>			
1294.	24573 <i>Lichenostomus cratitius</i> (Purple-gaped Honeyeater)			
1295.	25659 <i>Lichenostomus leucotis</i> (White-eared Honeyeater)			
1296.	25661 <i>Lichmera indistincta</i> (Brown Honeyeater)			
1297.	<i>Limnesia dentifera</i>			
1298.	<i>Limnochares australica</i>			
1299.	25415 <i>Limnodynastes dorsalis</i> (Western Banjo Frog)			
1300.	<i>Limnophyes vestitus</i> (V41)			
1301.	4362 <i>Linum marginale</i> (Wild Flax)			
1302.	29538 <i>Lissanthe pleurandroides</i>			
1303.	20647 <i>Lissanthe rubicunda</i>			
1304.	25378 <i>Litoria adelaidensis</i> (Slender Tree Frog)			
1305.	25383 <i>Litoria cyclorhyncha</i> (Spotted-thighed Frog)			
1306.	9289 <i>Lobelia anceps</i> (Angled Lobelia)			
1307.	7402 <i>Lobelia gibbosa</i> (Tall Lobelia)			
1308.	7403 <i>Lobelia heterophylla</i> (Wing-seeded Lobelia)			
1309.	7405 <i>Lobelia rarifolia</i>			
1310.	27044 <i>Lobospira bicuspidata</i>			
1311.	3048 <i>Lobularia maritima</i> (Sweet Alyssum)	Y		
1312.	6504 <i>Logania buxifolia</i>			
1313.	6507 <i>Logania fasciculata</i>			
1314.	6509 <i>Logania micrantha</i>			
1315.	13129 <i>Logania peryana</i>			
1316.	6513 <i>Logania stenophylla</i>			
1317.	6515 <i>Logania vaginalis</i> (White Spray)			
1318.	<i>Lohmannella pinggi</i>			
1319.	8682 <i>Lolium loliaceum</i> (Stiff Ryegrass)	Y		
1320.	478 <i>Lolium rigidum</i> (Wimmera Ryegrass)	Y		
1321.	11384 <i>Lolium temulentum forma temulentum</i>	Y		
1322.	1224 <i>Lomandra collina</i> (Pale Mat Rush)			
1323.	1227 <i>Lomandra hastilis</i>			
1324.	14543 <i>Lomandra micrantha subsp. teretifolia</i>			
1325.	1233 <i>Lomandra mucronata</i>			
1326.	1234 <i>Lomandra nigricans</i>			
1327.	1241 <i>Lomandra rigida</i> (Stiff Mat Rush)			
1328.	<i>Lophoictinia isura</i>			
1329.	<i>Lotella rhacinus</i>			
1330.	6968 <i>Lycium ferocissimum</i> (African Boxthorn)	Y		
1331.	<i>Lycosa leuckartii</i>			
1332.	1097 <i>Lyginia barbata</i>			
1333.	18049 <i>Lyginia imberbis</i>			
1334.	1656 <i>Lyperanthus serratus</i> (Rattle Beak Orchid)			
1335.	36375 <i>Lysimachia arvensis</i> (Pimpernel)	Y		
1336.	6456 <i>Lysinema ciliatum</i> (Curry Flower)			
1337.	34736 <i>Lysinema pentapetalum</i>			
1338.	5281 <i>Lythrum hyssopifolia</i> (Lesser Loosestrife)	Y		
1339.	2838 <i>Macarthuria apetala</i>			
1340.	24132 <i>Macropus fuliginosus</i> (Western Grey Kangaroo)			
1341.	27053 <i>Macrothamnion pellucidum</i>			
1342.	<i>Macrothrix breviseta</i>			
1343.	14366 <i>Macrozamia dyeri</i>			
1344.	2542 <i>Maireana erioclada</i>			
1345.	2553 <i>Maireana oppositifolia</i>			
1346.	<i>Makaira sp.</i>			Y
1347.	24326 <i>Malacorhynchus membranaceus</i> (Pink-eared Duck)			
1348.	24549 <i>Malurus leucopterus subsp. leuconotus</i> (White-winged Fairy-wren)			
1349.	24551 <i>Malurus pulcherrimus</i> (Blue-breasted Fairy-wren)			
1350.	25654 <i>Malurus splendens</i> (Splendid Fairy-wren)			
1351.	36480 <i>Malva arborea</i> (Tree Mallow)	Y		
1352.	<i>Manayunkia n. sp.</i>			
1353.	24583 <i>Manorina flavigula</i> (Yellow-throated Miner)			
1354.	<i>Maratus chrysomelas</i>			
1355.	19421 <i>Marianthus bicolor</i> (Painted Marianthus)			
1356.	4076 <i>Medicago lupulina</i> (Black Medic)	Y		
1357.	4079 <i>Medicago polymorpha</i> (Burr Medic)	Y		

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1358.	4080 <i>Medicago sativa</i> (Alfalfa)	Y		
1359.	4083 <i>Medicago truncatula</i> (Barrel Medic)	Y		
1360.	25758 <i>Megalurus gramineus</i> (Little Grassbird)			
1361.	<i>Megaporus howitti</i>			
1362.	<i>Megaporus solidus</i>			
1363.	<i>Megaporus</i> sp.			
1364.	15063 <i>Melaleuca acuminata</i> subsp. <i>acuminata</i>			
1365.	5881 <i>Melaleuca brevifolia</i>			
1366.	5885 <i>Melaleuca calycina</i>			
1367.	17982 <i>Melaleuca carrii</i>			
1368.	5896 <i>Melaleuca cordata</i>			
1369.	5898 <i>Melaleuca cucullata</i>			
1370.	5900 <i>Melaleuca cuticularis</i> (Saltwater Paperbark)			
1371.	5909 <i>Melaleuca elliptica</i> (Granite Bottlebrush, Ngow)			
1372.	15749 <i>Melaleuca eurystoma</i>			
1373.	15603 <i>Melaleuca fulgens</i> subsp. <i>fulgens</i>			
1374.	5913 <i>Melaleuca glaberrima</i>			
1375.	18166 <i>Melaleuca halophila</i>			
1376.	19486 <i>Melaleuca hamata</i>			
1377.	5918 <i>Melaleuca haplantha</i>			
1378.	18274 <i>Melaleuca hnatiukii</i>			
1379.	13272 <i>Melaleuca incana</i> subsp. <i>tenella</i>			
1380.	5922 <i>Melaleuca lanceolata</i> (Rottnest Teatree, Moonah)			
1381.	5948 <i>Melaleuca pentagona</i>			
1382.	11686 <i>Melaleuca pentagona</i> var. <i>latifolia</i>			
1383.	15993 <i>Melaleuca pentagona</i> var. <i>pentagona</i>			
1384.	19609 <i>Melaleuca plumea</i>			
1385.	19092 <i>Melaleuca podiocarpa</i>			
1386.	5955 <i>Melaleuca pulchella</i> (Claw Flower)			
1387.	5960 <i>Melaleuca rigidifolia</i>			
1388.	5961 <i>Melaleuca scabra</i> (Rough Honey-myrtle, Wurru Bush)			
1389.	18165 <i>Melaleuca societatis</i>			
1390.	5971 <i>Melaleuca striata</i>			
1391.	5973 <i>Melaleuca suberosa</i> (Corky Honey-myrtle)			
1392.	5974 <i>Melaleuca subfalcata</i>			
1393.	19399 <i>Melaleuca thapsina</i>			
1394.	5980 <i>Melaleuca thymoides</i>			
1395.	5981 <i>Melaleuca thyoides</i>			
1396.	5982 <i>Melaleuca torquata</i>			
1397.	18126 <i>Melaleuca tuberculata</i> var. <i>macrophylla</i>			
1398.	18232 <i>Melaleuca tuberculata</i> var. <i>tuberculata</i>			
1399.	5985 <i>Melaleuca undulata</i> (Hidden Honey-myrtle)			
1400.	4084 <i>Melilotus albus</i>	Y		
1401.	4085 <i>Melilotus indicus</i>	Y		
1402.	25663 <i>Melithreptus brevirostris</i> (Brown-headed Honeyeater)			
1403.	24587 <i>Melithreptus chloropsis</i> (Western White-naped Honeyeater)			
1404.	25184 <i>Menetia greyii</i>			
1405.	<i>Meridiecylops baylyi</i>			
1406.	2813 <i>Mesembryanthemum crystallinum</i> (Iceplant)	Y		
1407.	<i>Mesochra baylyi</i>			
1408.	<i>Mesochra</i> nr <i>flava</i>			
1409.	<i>Mesocyclops brooksi</i>			
1410.	956 <i>Mesomelaena stygia</i>			
1411.	11473 <i>Mesomelaena stygia</i> subsp. <i>stygia</i>			
1412.	957 <i>Mesomelaena tetragona</i> (Semaphore Sedge)			
1413.	<i>Mesostigmata</i> sp.			
1414.	27069 <i>Metagoniolithon stelliferum</i>			
1415.	27070 <i>Metamastophora flabellata</i>			
1416.	<i>Microcarbo melanoleucos</i>			
1417.	6887 <i>Microcorys barbata</i>			
1418.	6893 <i>Microcorys glabra</i>			
1419.	6902 <i>Microcorys subcanescens</i>			
1420.	18046 <i>Microcybe multiflora</i> subsp. <i>multiflora</i>			
1421.	34200 <i>Microcybe pauciflora</i> subsp. <i>Grass Patch</i> (A. Strid 21921)			
1422.	13785 <i>Microcybe pauciflora</i> subsp. <i>pauciflora</i>			
1423.	5993 <i>Micromyrtus elobata</i>			
1424.	20543 <i>Micromyrtus elobata</i> subsp. <i>elobata</i>			
1425.	5998 <i>Micromyrtus imbricata</i>			
1426.	<i>Miconecta robusta</i>			
1427.	34158 <i>Microtis alboboviridis</i>			

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1428.	1658 <i>Microtis atrata</i> (Swamp Mignonette Orchid)			
1429.	8814 <i>Microtis brownii</i>			
1430.	33741 <i>Microtis eremicola</i>			
1431.	10954 <i>Microtis media</i> (Tall Mignonette Orchid)			
1432.	15419 <i>Microtis media</i> subsp. <i>media</i>			
1433.	1660 <i>Microtis orbicularis</i> (Dark Mignonette Orchid)			
1434.	8106 <i>Millotia tenuifolia</i> (Soft Millotia)			
1435.	14344 <i>Millotia tenuifolia</i> var. <i>tenuifolia</i> (Soft Millotia)			
1436.	4090 <i>Mirbelia dilatata</i> (Holly-leaved Mirbelia)			
1437.	4096 <i>Mirbelia ovata</i>			
1438.	24213 <i>Mirounga leonina</i> (Southern Elephant Seal)			
1439.	<i>Missulena granulosa</i>			
1440.	<i>Missulena hoggi</i>			
1441.	<i>Miturga severa</i>			
1442.	<i>Molycris quadricauda</i>			
1443.	29418 <i>Monoculus monstrosus</i>	Y		
1444.	4667 <i>Monotaxis paxii</i>			
1445.	19179 <i>Moraea flaccida</i> (One-leaf Cape Tulip)	Y		
1446.	25188 <i>Morethia adelaidensis</i>			
1447.	25192 <i>Morethia obscura</i>			
1448.	48008 <i>Morus serrator</i> (Australasian Gannet)			
1449.	2412 <i>Muehlenbeckia adpressa</i> (Climbing Lignum)			
1450.	<i>Mugil cephalus</i>			
1451.	<i>Muraenichthys breviceps</i>			
1452.	24223 <i>Mus musculus</i> (House Mouse)	Y		
1453.	<i>Muscidae</i> sp.			
1454.	<i>Muscidae</i> sp. A (SAP)			
1455.	<i>Myandra bicincta</i>			
1456.	27077 <i>Mychodea aciculare</i>			
1457.	27079 <i>Mychodea carnosae</i>			
1458.	27080 <i>Mychodea disticha</i>			
1459.	25610 <i>Myiagra inquieta</i> (Restless Flycatcher)			
1460.	7291 <i>Myoporum insulare</i> (Blueberry Tree, boobialla)			
1461.	18259 <i>Myoporum platycarpum</i> subsp. <i>platycarpum</i>			
1462.	7295 <i>Myoporum tetrandrum</i> (Boobialla)			
1463.	27092 <i>Myriodesma tuberosum</i>			
1464.	<i>Mytilocypris ambigua</i>			
1465.	<i>Mytilocypris mytiloides</i>			
1466.	<i>Mytilocypris</i> sp.			
1467.	<i>Naididae</i> (ex <i>Tubificidae</i>)			
1468.	<i>Necterosoma penicillatus</i>			
1469.	<i>Necterosoma</i> sp.			
1470.	6464 <i>Needhamiella pumilio</i>			
1471.	<i>Nemadactylus valenciennesi</i>			
1472.	<i>Nematoda</i> sp.			
1473.	4492 <i>Nematolepis phebaloides</i>			
1474.	25421 <i>Neobatrachus albipes</i> (White-footed Trilling Frog)			
1475.	25425 <i>Neobatrachus kunapalari</i> (Kunapalari Frog)			
1476.	25426 <i>Neobatrachus pelobatoides</i> (Humming Frog)			
1477.	24738 <i>Neophema elegans</i> (Elegant Parrot)			
1478.	24739 <i>Neophema petrophila</i> (Rock Parrot)			
1479.	<i>Nephila edulis</i>			
1480.	492 <i>Neurachne alopecuroidea</i> (Foxtail Mulga Grass)			
1481.	<i>Newnhamia fenestrata</i>			
1482.	<i>Nicodamus mainae</i>			
1483.	6978 <i>Nicotiana rotundifolia</i> (Round-leaved Tobacco)			
1484.	<i>Nilobezzia</i> sp.			
1485.	<i>Nilobezzia</i> sp. 1 (SAP)			
1486.	<i>Nilobezzia</i> sp. 2 (SAP)			
1487.	<i>Nitocra</i> sp. 5 (nr <i>reducta</i>) (SAP)			
1488.	4366 <i>Nitriaria billardierei</i> (Nitre Bush)			
1489.	<i>No invertebrates</i>			
1490.	<i>Nomindra flavipes</i>			
1491.	<i>Norfolkia incisa</i>			Y
1492.	<i>Notalina spira</i>			
1493.	25252 <i>Notechis scutatus</i> (Tiger Snake)			
1494.	27105 <i>Nothia anomala</i>			
1495.	<i>Notonectidae</i> sp.			
1496.	<i>Novakiella trituberculosa</i>			
1497.	<i>Nunciella aspera</i>			

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1498.	2401 <i>Nuytsia floribunda</i> (Christmas Tree, Mudja)			
1499.	25564 <i>Nycticorax caledonicus</i> (Rufous Night Heron)			
1500.	24194 <i>Nyctophilus geoffroyi</i> (Lesser Long-eared Bat)			
1501.	<i>Ochthebius</i> sp.			
1502.	24407 <i>Ocyphaps lophotes</i> (Crested Pigeon)			
1503.	<i>Oecetis</i> sp.			
1504.	<i>Oecobius navus</i>			
1505.	6138 <i>Oenothera drummondii</i> (Beach Evening Primrose)	Y		
1506.	14292 <i>Oenothera stricta</i> subsp. <i>stricta</i>	Y		
1507.	2365 <i>Olax benthamiana</i>			
1508.	2366 <i>Olax phyllanthi</i>			
1509.	8127 <i>Olearia axillaris</i> (Coastal Daisybush)			
1510.	8131 <i>Olearia ciliata</i> (Fringed Daisy Bush)			
1511.	8137 <i>Olearia imbricata</i> (Imbricate Daisy Bush)			
1512.	8145 <i>Olearia pimeleoides</i> (Pimelea Daisybush, Burrobunga)			
1513.	44401 <i>Olearia</i> sp. <i>Eremicola</i> (Diels & Pritzel s.n. PERTH 00449628)			
1514.	6465 <i>Oligarrhena micrantha</i>			
1515.	<i>Oligochaeta</i> sp.			
1516.	38816 <i>Omphalotus nidiformis</i>			
1517.	20661 <i>Oncosiphon suffruticosum</i> (Calomba Daisy)	Y		
1518.	<i>Oniscidae</i> sp.			
1519.	<i>Onychocampptus bengalensis</i>			
1520.	7346 <i>Opercularia echinocephala</i> (Bristly Headed Stink Weed)			
1521.	7348 <i>Opercularia hispidula</i> (Hispid Stinkweed)			
1522.	18256 <i>Opercularia spermacocea</i>			
1523.	18255 <i>Opercularia vaginata</i> (Dog Weed)			
1524.	46217 <i>Orianthera callosa</i>			
1525.	46255 <i>Orianthera campanulata</i>			
1526.	46316 <i>Orianthera serpyllifolia</i> subsp. <i>angustifolia</i>			
1527.	<i>Oribatida</i> sp.			
1528.	<i>Oribatida</i> sp. 1 (PLP)			Y
1529.	<i>Oribatida</i> sp. 2(PLP)			Y
1530.	36181 <i>Ornduffia parnassifolia</i>			
1531.	4113 <i>Ornithopus compressus</i> (Yellow Serradella)	Y		
1532.	4115 <i>Ornithopus sativus</i> (French Serradella)	Y		
1533.	7122 <i>Orobanche minor</i> (Lesser Broomrape)	Y		
1534.	<i>Orthetrum caledonicum</i>			
1535.	<i>Orthoclaadiinae</i> sp.			
1536.	<i>Orthoclaadiinae</i> sp. G (SAP)			
1537.	<i>Orthoclaadiinae</i> sp. I (SAP)			
1538.	<i>Orthoclaadiinae</i> sp. J (SAP)			
1539.	<i>Orthoclaadiinae</i> sp. P (SAP)			
1540.	27107 <i>Osmundaria prolifera</i>			
1541.	<i>Ostracoda</i> (unident.)			
1542.	34016 <i>Ovis aries</i> (Sheep)			
1543.	4349 <i>Oxalis corniculata</i> (Yellow Wood Sorrel)	Y		
1544.	30375 <i>Oxalis exilis</i>			
1545.	4355 <i>Oxalis perennans</i>			
1546.	34841 <i>Oxymyrrhine gracilis</i>			
1547.	12645 <i>Ozothamnus lepidophyllus</i>			
1548.	25680 <i>Pachycephala rufiventris</i> (Rufous Whistler)			
1549.	<i>Pagrus auratus</i>			
1550.	<i>Palaemonidae</i> sp.			
1551.	<i>Pandion cristatus</i>			
1552.	502 <i>Panicum capillare</i> (Witchgrass)	Y		
1553.	2964 <i>Papaver hybridum</i> (Rough Poppy)	Y		
1554.	23504 <i>Paracaleana disjuncta</i>			
1555.	1667 <i>Paracaleana nigrita</i> (Flying Duck Orchid)			
1556.	<i>Paracyclops ?chiltoni</i> (SAP)			
1557.	<i>Paralimnophyes pullulus</i> (V42)			
1558.	<i>Paramelitidae</i> sp.			
1559.	<i>Paramerina levidensis</i>			
1560.	516 <i>Parapholis incurva</i> (Coast Barbgrass)	Y		
1561.	<i>Paraplesiops meleagris</i>			
1562.	<i>Parartemia longicaudata</i>			
1563.	<i>Parartemia</i> sp.			
1564.	17114 <i>Paraserianthes lophantha</i> subsp. <i>lophantha</i>			
1565.	25255 <i>Parasuta nigriceps</i>			
1566.	25681 <i>Pardalotus punctatus</i> (Spotted Pardalote)			
1567.	25682 <i>Pardalotus striatus</i> (Striated Pardalote)			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
1568.	1762 <i>Parietaria debilis</i> (Pelitory)			
1569.	24642 <i>Passer montanus</i> (Eurasian Tree Sparrow)	Y		
1570.	1546 <i>Patersonia juncea</i> (Rush Leaved Patersonia)			
1571.	19670 <i>Patersonia lanata</i> forma <i>calvata</i>			
1572.	19669 <i>Patersonia lanata</i> forma <i>lanata</i>			
1573.	1549 <i>Patersonia maxwellii</i>			
1574.	1550 <i>Patersonia occidentalis</i> (Purple Flag, Koma)			
1575.	30472 <i>Patersonia occidentalis</i> var. <i>occidentalis</i>			
1576.	1552 <i>Patersonia rudis</i> (Hairy Flag)			
1577.	4343 <i>Pelargonium capitatum</i> (Rose Pelargonium)	Y		
1578.	4345 <i>Pelargonium havlasae</i>			
1579.	4346 <i>Pelargonium littorale</i>			
1580.	24648 <i>Pelecanus conspicillatus</i> (Australian Pelican)			
1581.	<i>Pelsartia humeralis</i>			
1582.	<i>Pempheris klunzingeri</i>			
1583.	<i>Pempheris multiradiata</i>			
1584.	40423 <i>Pentameris airoides</i> (False Hairgrass)	Y		
1585.	40424 <i>Pentameris airoides</i> subsp. <i>airoides</i>	Y		
1586.	11052 <i>Persicaria prostrata</i>			
1587.	10965 <i>Persoonia flexifolia</i>			Y
1588.	<i>Pescecylops</i> sp. 434 (<i>arnaudi</i> sensu Sars) (CB)			
1589.	<i>Pescecylops</i> sp. 442=462=465=CB2 (<i>salinarum</i> in Morton)			
1590.	48060 <i>Petrochelidon ariel</i> (Fairy Martin)			
1591.	48061 <i>Petrochelidon nigricans</i> (Tree Martin)			
1592.	48066 <i>Petroica boodang</i> (Scarlet Robin)			
1593.	2296 <i>Petrophile fastigiata</i>			
1594.	2308 <i>Petrophile seminuda</i>			
1595.	2311 <i>Petrophile squamata</i>			
1596.	20053 <i>Petrophile squamata</i> subsp. <i>northern</i> (J. Monks 40)			
1597.	2313 <i>Petrophile teretifolia</i>			
1598.	<i>Peziza austrogeaster</i>			
1599.	25697 <i>Phalacrocorax carbo</i> (Great Cormorant)			
1600.	24665 <i>Phalacrocorax fuscescens</i> (Black-faced Cormorant)			
1601.	25698 <i>Phalacrocorax melanoleucos</i> (Little Pied Cormorant)			
1602.	24667 <i>Phalacrocorax sulcirostris</i> (Little Black Cormorant)			
1603.	25699 <i>Phalacrocorax varius</i> (Pied Cormorant)			
1604.	551 <i>Phalaris minor</i> (Lesser Canary Grass)	Y		
1605.	24409 <i>Phaps chalcoptera</i> (Common Bronzewing)			
1606.	25587 <i>Phaps elegans</i> (Brush Bronzewing)			
1607.	4501 <i>Phebalium lepidotum</i>			
1608.	20460 <i>Pheladenia deformis</i>			
1609.	18536 <i>Philothea fitzgeraldii</i>			
1610.	18532 <i>Philothea nodiflora</i> subsp. <i>lasiocalyx</i>			
1611.	1173 <i>Philydrella pygmaea</i> (Butterfly Flowers)			
1612.	555 <i>Phragmites australis</i> (Common Reed)	Y		
1613.	<i>Phycodurus eques</i> subsp. <i>glauerti</i>			Y
1614.	48071 <i>Phylidonyris niger</i> (White-cheeked Honeyeater)			
1615.	24596 <i>Phylidonyris novaehollandiae</i> (New Holland Honeyeater)			
1616.	16825 <i>Phyllangium divergens</i>			
1617.	4675 <i>Phyllanthus calycinus</i> (False Boronia)			
1618.	4685 <i>Phyllanthus scaber</i>			
1619.	4 <i>Phylloglossum drummondii</i> (Pigmy Clubmoss)			
1620.	<i>Phyllophryne scorteia</i>			
1621.	<i>Phyllopteryx taeniolatus</i>			
1622.	48287 <i>Phyllotricha varians</i>			
1623.	48286 <i>Phyllotricha verruculosa</i>			
1624.	6007 <i>Phymatocarpus maxwellii</i>			
1625.	<i>Phyrganoporus candidus</i>			
1626.	<i>Physa acuta</i>			
1627.	<i>Physcia</i> sp.			
1628.	<i>Phytophthora cinnamomi</i>			
1629.	<i>Pictilabrus</i> sp.			
1630.	5231 <i>Pimelea angustifolia</i> (Narrow-leaved Pimelea)			
1631.	5232 <i>Pimelea argentea</i> (Silvery Leaved Pimelea)			
1632.	5234 <i>Pimelea brachyphylla</i>			
1633.	11282 <i>Pimelea brevifolia</i> subsp. <i>brevifolia</i>			
1634.	5239 <i>Pimelea clavata</i>			
1635.	5240 <i>Pimelea cracens</i>			
1636.	5241 <i>Pimelea drummondii</i>			
1637.	5242 <i>Pimelea erecta</i>			

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1638.	5243 <i>Pimelea ferruginea</i>			
1639.	11402 <i>Pimelea imbricata</i> var. <i>piligera</i>			
1640.	5267 <i>Pimelea subvillifera</i>			
1641.	<i>Placobdelloides</i> sp.			
1642.	7299 <i>Plantago debilis</i>			
1643.	7301 <i>Plantago exilis</i>			
1644.	7302 <i>Plantago hispida</i>			
1645.	24841 <i>Platalea flavipes</i> (Yellow-billed Spoonbill)			
1646.	24842 <i>Platalea regia</i> (Royal Spoonbill)			
1647.	<i>Platycephalus bassensis</i> ?			
1648.	<i>Platycephalus speculator</i>			
1649.	25720 <i>Platycercus icterotis</i> (Western Rosella)			
1650.	24747 <i>Platycercus spurius</i> (Red-capped Parrot)			
1651.	<i>Platycypris baueri</i>			
1652.	6249 <i>Platysace compressa</i> (Tapeworm Plant)			
1653.	6250 <i>Platysace deflexa</i>			
1654.	6252 <i>Platysace effusa</i>			
1655.	27150 <i>Platysiphonia victoriae</i>			
1656.	27152 <i>Platythalia quercifolia</i>			
1657.	38824 <i>Pleurotus australis</i>			
1658.	<i>Pleuroxus inermis</i>			
1659.	<i>Pleuroxus jugosus</i>			
1660.	<i>Pleuroxus</i> sp.			
1661.	27154 <i>Plocamium angustum</i>			
1662.	27156 <i>Plocamium mertensii</i>			
1663.	27157 <i>Plocamium preissianum</i>			
1664.	<i>Plurispina chauliodis</i>			
1665.	24381 <i>Pluvialis dominica</i> (American Golden Plover)			
1666.	577 <i>Poa poliformis</i> (Coastal Poa)			
1667.	578 <i>Poa porphyroclados</i>			
1668.	25703 <i>Podargus strigoides</i> (Tawny Frogmouth)			
1669.	25704 <i>Podiceps cristatus</i> (Great Crested Grebe)			
1670.	8180 <i>Podolepis rugata</i> (Pleated Podolepis)			
1671.	8182 <i>Podotheca angustifolia</i> (Sticky Longheads)			
1672.	24907 <i>Pogona minor</i> subsp. <i>minor</i> (Dwarf Bearded Dragon)			
1673.	8187 <i>Pogonolepis muelleriana</i>			
1674.	24681 <i>Poliocephalus poliocephalus</i> (Hoary-headed Grebe)			
1675.	2905 <i>Polycarpon tetraphyllum</i> (Fourleaf Allseed)	Y		
1676.	27164 <i>Polycerea zostericola</i>			
1677.	2419 <i>Polygonum aviculare</i> (Wireweed)	Y		
1678.	<i>Polypedium nubifer</i>			
1679.	582 <i>Polypogon monspeliensis</i> (Annual Beardgrass)	Y		
1680.	27173 <i>Polysiphonia decipiens</i>			
1681.	27177 <i>Polysiphonia mollis</i>			Y
1682.	14547 <i>Pomaderris brevifolia</i>			
1683.	4818 <i>Pomaderris myrtilloides</i>			
1684.	16191 <i>Pomaderris rotundifolia</i>			
1685.	<i>Pomatiopsidae</i> sp.			
1686.	24683 <i>Pomatostomus superciliosus</i> (White-browed Babbler)			
1687.	4691 <i>Poranthera microphylla</i> (Small Poranthera)			
1688.	25731 <i>Porphyrio porphyrio</i> (Purple Swamphen)			
1689.	24767 <i>Porphyrio porphyrio</i> subsp. <i>bellus</i> (Purple Swamphen)			
1690.	24769 <i>Porzana fluminea</i> (Australian Spotted Crane)			
1691.	24771 <i>Porzana tabuensis</i> (Spotless Crane)			
1692.	122 <i>Posidonia angustifolia</i>			
1693.	123 <i>Posidonia australis</i> (Fibreball Weed)			
1694.	106 <i>Posidonia denhartogii</i>			
1695.	107 <i>Posidonia kirkmanii</i>			
1696.	124 <i>Posidonia ostenfeldii</i>			
1697.	108 <i>Posidonia robertsoniae</i>			
1698.	125 <i>Posidonia sinuosa</i>			
1699.	15424 <i>Praecoxanthus aphyllus</i>			
1700.	15425 <i>Prasophyllum calcicola</i>			
1701.	1671 <i>Prasophyllum elatum</i> (Tall Leek Orchid)			
1702.	1674 <i>Prasophyllum giganteum</i> (Bronze Leek Orchid)			
1703.	16688 <i>Prasophyllum gracile</i>			
1704.	1677 <i>Prasophyllum macrostachyum</i> (Laughing Leek Orchid)			
1705.	11125 <i>Prasophyllum macrotys</i>			
1706.	17650 <i>Prasophyllum odoratissimum</i>			
1707.	1680 <i>Prasophyllum parvifolium</i> (Autumn Leek Orchid)			

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1708.	10853 <i>Prasophyllum plumiforme</i>			
1709.	1682 <i>Prasophyllum sargentii</i>			
1710.	<i>Pristina aequiseta</i>			
1711.	<i>Pristina jenkiniae</i>			
1712.	<i>Procladius paludicola</i>			
1713.	<i>Procladius villosimanus</i>			
1714.	6911 <i>Prostanthera baxteri</i>			
1715.	6916 <i>Prostanthera grylloana</i>			
1716.	11304 <i>Prostanthera serpyllifolia</i> subsp. <i>microphylla</i>			
1717.	<i>Protogarypinus giganteus</i>			
1718.	<i>Pseudocaranx dentex</i>			
1719.	<i>Pseudocaranx georgianus</i>			
1720.	8189 <i>Pseudognaphalium luteoalbum</i> (<i>Jersey Cudweed</i>)			
1721.	<i>Pseudogobius olorum</i>			
1722.	<i>Pseudohydryphantes</i> sp.			Y
1723.	<i>Pseudolabrus parilus</i>			
1724.	25259 <i>Pseudonaja affinis</i> subsp. <i>affinis</i> (<i>Dugite</i>)			
1725.	25263 <i>Pseudonaja modesta</i> (<i>Ringed Brown Snake</i>)			
1726.	25433 <i>Pseudophryne guentheri</i> (<i>Crawling Toadlet</i>)			
1727.	<i>Pseudophycis breviuscula</i>			
1728.	<i>Psychodidae</i> sp.			
1729.	13255 <i>Pterochaeta paniculata</i>			
1730.	1687 <i>Pterostylis dilatata</i>			
1731.	1689 <i>Pterostylis mutica</i> (<i>Midget Greenhood</i>)			
1732.	1693 <i>Pterostylis recurva</i> (<i>Jug Orchid</i>)			
1733.	1694 <i>Pterostylis rogersii</i> (<i>Curled-tongue Shell Orchid</i>)			
1734.	10998 <i>Pterostylis turfosa</i> (<i>Bird Orchid</i>)			
1735.	1698 <i>Pterostylis vittata</i> (<i>Banded Greenhood</i>)			
1736.	27204 <i>Ptilocladia vestita</i>			
1737.	2733 <i>Ptilotus humilis</i>			
1738.	40840 <i>Ptilotus stirlingii</i> subsp. <i>australis</i>			
1739.	592 <i>Puccinellia stricta</i> (<i>Marsh Grass</i>)			
1740.	24711 <i>Puffinus assimilis</i> subsp. <i>assimilis</i> (<i>Little Shearwater</i>)			
1741.	4172 <i>Pultenaea ericifolia</i>			
1742.	28286 <i>Pultenaea heterochila</i>			
1743.	20785 <i>Pultenaea indira</i> subsp. <i>indira</i>			
1744.	20790 <i>Pultenaea purpurea</i>			
1745.	4184 <i>Pultenaea spinulosa</i>			
1746.	4186 <i>Pultenaea tenuifolia</i>			
1747.	4187 <i>Pultenaea verruculosa</i>			
1748.	42344 <i>Purnella albifrons</i> (<i>White-fronted Honeyeater</i>)			
1749.	<i>Purpurecephalus spurius</i>			
1750.	25008 <i>Pygopus lepidopodus</i> (<i>Common Scaly Foot</i>)			
1751.	<i>Pyralidae</i> sp.			
1752.	16367 <i>Pyrorchis nigricans</i> (<i>Red beaks, Elephants ears</i>)			
1753.	8195 <i>Quinetia urvillei</i>			
1754.	28224 <i>Ramalina inflata</i> subsp. <i>australis</i>			
1755.	28034 <i>Ramboldia crassithallina</i>			
1756.	3061 <i>Raphanus raphanistrum</i> (<i>Wild Radish</i>)	Y		
1757.	3063 <i>Rapistrum rugosum</i> (<i>Turnip Weed</i>)	Y		
1758.	24243 <i>Rattus fuscipes</i> (<i>Western Bush Rat</i>)			
1759.	24245 <i>Rattus rattus</i> (<i>Black Rat</i>)	Y		
1760.	24776 <i>Recurvirostra novaehollandiae</i> (<i>Red-necked Avocet</i>)			
1761.	<i>Reticypris ?pinguis</i> (SAP)			
1762.	<i>Reticypris</i> sp. 557 (n. sp.) (SAP)			
1763.	<i>Reticypris walbu</i>			
1764.	27211 <i>Rhabdonia coccinea</i>			
1765.	18544 <i>Rhadinothamnus rudis</i> subsp. <i>rudis</i>			
1766.	2578 <i>Rhagodia baccata</i> (<i>Berry Saltbush</i>)			
1767.	11341 <i>Rhagodia baccata</i> subsp. <i>baccata</i>			
1768.	2584 <i>Rhagodia preissii</i>			
1769.	11254 <i>Rhagodia preissii</i> subsp. <i>preissii</i>			
1770.	30818 <i>Rhinoplocephalus bicolor</i> (<i>Square-nosed Snake</i>)			
1771.	48096 <i>Rhipidura albiscapa</i> (<i>Grey Fantail</i>)			
1772.	25614 <i>Rhipidura leucophrys</i> (<i>Willie Wagtail</i>)			
1773.	<i>Rhizopogon luteolus</i>			
1774.	13300 <i>Rhodanthe citrina</i>			
1775.	27221 <i>Rhodopeltis borealis</i>			
1776.	<i>Rhombognathus delicatulus</i>			
1777.	<i>Rhombognathus tener</i>			Y

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1778.	<i>Rhombognathus vulgaris</i>			
1779.	31911 <i>Ricinocarpus megalocarpus</i>			
1780.	11096 <i>Rinzia dimorphandra</i> (Esperance Rinzia)			
1781.	48269 <i>Rinzia icosandra</i> (Recherche Mainland Rinzia)			
1782.	1556 <i>Romulea rosea</i> (Guildford Grass)	Y		
1783.	10970 <i>Rostraria cristata</i>	Y		
1784.	11151 <i>Rostraria pumila</i>	Y		
1785.	32426 <i>Rosulabryum campylothecium</i>			
1786.	32429 <i>Rosulabryum torquescens</i>			
1787.	20496 <i>Rubus laudatus</i>	Y		
1788.	2430 <i>Rumex brownii</i> (Swamp Dock)	Y		
1789.	2433 <i>Rumex crispus</i> (Curled Dock)	Y		
1790.	46434 <i>Rumex hypogaeus</i>	Y		
1791.	115 <i>Ruppia megacarpa</i>			
1792.	117 <i>Ruppia tuberosa</i>			
1793.	40431 <i>Rytidosperma acerosum</i>			
1794.	40425 <i>Rytidosperma caespitosum</i>			
1795.	<i>Salmo trutta</i>			
1796.	6928 <i>Salvia reflexa</i> (Mintweed)	Y		
1797.	6483 <i>Samolus junceus</i>			
1798.	6484 <i>Samolus repens</i> (Creeping Brookweed)			
1799.	2591 <i>Sarcocornia blackiana</i>			
1800.	2593 <i>Sarcocornia quinqueflora</i> (Beaded Samphire)			
1801.	14281 <i>Sarcocornia quinqueflora</i> subsp. <i>quinqueflora</i> (Bearded Glasswort)			
1802.	2817 <i>Sarcozona praecox</i> (Sarcozona)			
1803.	48288 <i>Sargassopsis heteromorphum</i>			
1804.	27239 <i>Sargassum fallax</i>			
1805.	36370 <i>Sargassum kendrickii</i>			Y
1806.	27249 <i>Sargassum linearifolium</i>			
1807.	29956 <i>Sargassum paradoxum</i>			
1808.	29957 <i>Sargassum vestitum</i>			
1809.	<i>Sarscyridopsis aculeata</i>			
1810.	27264 <i>Scaberia agardhii</i>			
1811.	7606 <i>Scaevola crassifolia</i> (Thick-leaved Fan-flower)			
1812.	7607 <i>Scaevola cuneiformis</i> (Wedge-leaved Scaevola)			
1813.	7614 <i>Scaevola globulifera</i>			
1814.	13151 <i>Scaevola thesioides</i> subsp. <i>filifolia</i>			
1815.	<i>Scatopsidae</i> sp.			
1816.	41660 <i>Schenkia australis</i>			
1817.	<i>Schizophyllum commune</i>			
1818.	976 <i>Schoenus breviculmis</i>			
1819.	978 <i>Schoenus brevisetis</i>			
1820.	979 <i>Schoenus caespititius</i>			
1821.	984 <i>Schoenus curvifolius</i>			
1822.	992 <i>Schoenus grandiflorus</i> (Large Flowered Bogrush)			
1823.	994 <i>Schoenus humilis</i>			
1824.	996 <i>Schoenus laevigatus</i>			
1825.	1002 <i>Schoenus nanus</i> (Tiny Bog Rush)			
1826.	1004 <i>Schoenus nitens</i> (Shiny Bog-rush)			
1827.	1005 <i>Schoenus obtusifolius</i>			
1828.	1006 <i>Schoenus odontocarpus</i>			
1829.	1009 <i>Schoenus pleiostemoneus</i>			
1830.	17614 <i>Schoenus plumosus</i>			
1831.	14626 <i>Schoenus</i> sp. A1 Boorabbin (K.L. Wilson 2581)			
1832.	1016 <i>Schoenus subbarbatus</i> (Bearded Bog-rush)			
1833.	1018 <i>Schoenus subfascicularis</i>			
1834.	1019 <i>Schoenus subflavus</i> (Yellow Bog-rush)			
1835.	16251 <i>Schoenus subflavus</i> subsp. <i>long leaves</i> (K.L. Wilson 2865)			
1836.	1022 <i>Schoenus submicrostachyus</i>			
1837.	<i>Sciomyzidae</i> sp.			
1838.	<i>Scobinichthys granulatus</i>			
1839.	<i>Scolopendra laeta</i>			
1840.	<i>Scomber australasicus</i>			
1841.	<i>Scomberomorus semifasciatus</i>			
1842.	27273 <i>Scytothalia dorycarpa</i>			
1843.	6544 <i>Sebaea ovata</i> (Yellow Sebaea)			
1844.	32433 <i>Sematophyllum homomallum</i>			
1845.	8207 <i>Senecio glossanthus</i> (Slender Groundsel)			
1846.	8216 <i>Senecio picridioides</i>			
1847.	25882 <i>Senecio pinnatifolius</i> var. <i>maritimus</i> (Coastal Groundsel)			

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1848.	25883 <i>Senecio pinnatifolius</i> var. <i>pinnatifolius</i>			
1849.	8217 <i>Senecio quadridentatus</i>			
1850.	25889 <i>Senecio spanomerus</i>			
1851.	17645 <i>Senna artemisioides</i>			
1852.	25534 <i>Sericornis frontalis</i> (White-browed Scrubwren)			
1853.	24279 <i>Sericornis frontalis</i> subsp. <i>maculatus</i> (White-browed Scrubwren)			
1854.	46824 <i>Seringia velutina</i> (Velvet firebush)			
1855.	<i>Seriola hippos</i>			
1856.	7362 <i>Sherardia arvensis</i> (Field Madder)	Y		
1857.	4823 <i>Siegfriedia darwinioides</i>			
1858.	<i>Sigara</i> sp.			
1859.	<i>Sillago bassensis</i>			
1860.	<i>Sillago schomburgkii</i>			
1861.	8224 <i>Siloxerus filifolius</i>			
1862.	8225 <i>Siloxerus humifusus</i> (Procumbent Siloxerus)			
1863.	14583 <i>Siloxerus multiflorus</i>			
1864.	<i>Simocephalus elizabethae</i>			
1865.	<i>Siphonognathus argyrophanes</i>			
1866.	<i>Siphonognathus radiatus</i>			
1867.	3072 <i>Sisymbrium orientale</i> (Indian Hedge Mustard)	Y		
1868.	30948 <i>Smicronis brevirostris</i> (Weebill)			
1869.	24108 <i>Sminthopsis crassicaudata</i> (Fat-tailed Dunnart)			
1870.	7017 <i>Solanum laciniatum</i> (Kangaroo Apple)	Y		
1871.	7022 <i>Solanum nigrum</i> (Black Berry Nightshade)	Y		
1872.	7033 <i>Solanum rostratum</i> (Buffalo Burr)	Y		
1873.	7037 <i>Solanum symonii</i>			
1874.	45036 <i>Solidago chilensis</i>	Y		
1875.	8230 <i>Sonchus asper</i> (Rough Sowthistle)	Y		
1876.	9367 <i>Sonchus hydrophilus</i> (Native Sowthistle)			
1877.	8231 <i>Sonchus oleraceus</i> (Common Sowthistle)	Y		
1878.	614 <i>Sorghastrum nutans</i>	Y		Y
1879.	617 <i>Sorghum halepense</i> (Johnson Grass)	Y		
1880.	1560 <i>Sparaxis pillansii</i> (Harlequin Flower)	Y		
1881.	8900 <i>Spergularia marina</i>			
1882.	2915 <i>Spergularia rubra</i> (Sand Spurry)	Y		
1883.	4201 <i>Sphaerolobium daviesioides</i> (Prickly Globe-pea)			
1884.	17551 <i>Sphaerolobium drummondii</i>			
1885.	4205 <i>Sphaerolobium linophyllum</i>			
1886.	4206 <i>Sphaerolobium macranthum</i>			
1887.	624 <i>Spinifex hirsutus</i> (Hairy Spinifex)			
1888.	635 <i>Sporobolus virginicus</i> (Marine Couch)			
1889.	27305 <i>Sporochnus radiformis</i>			
1890.	27309 <i>Spyridia dasyoides</i>			
1891.	27310 <i>Spyridia filamentosa</i>			
1892.	4825 <i>Spyridium cordatum</i>			
1893.	4828 <i>Spyridium globulosum</i> (Basket Bush)			
1894.	4830 <i>Spyridium microcephalum</i> (Small-headed Spyridium)			
1895.	14243 <i>Spyridium minutum</i>			
1896.	15140 <i>Spyridium polycephalum</i>			
1897.	31916 <i>Spyridium</i> sp. <i>Jerdacuttup</i> (A. Williams 332)			
1898.	20537 <i>Stachystemon virgatus</i>			
1899.	4733 <i>Stackhousia monogyna</i>			
1900.	4734 <i>Stackhousia muricata</i>			
1901.	9070 <i>Stackhousia pubescens</i> (Downy Stackhousia)			
1902.	43662 <i>Stackhousia</i> sp. <i>Thick sepals</i> (A.E. Orchard 1547)			
1903.	24645 <i>Stagonopleura oculata</i> (Red-eared Firetail)			
1904.	<i>Staphylinidae</i> sp.			
1905.	1315 <i>Stawellia gymnocephala</i>			
1906.	<i>Steatoda grossa</i>			
1907.	2918 <i>Stellaria media</i> (Chickweed)	Y		
1908.	15065 <i>Stenanthemum notiale</i> subsp. <i>notiale</i>			
1909.	48116 <i>Stercorarius antarcticus</i> (Brown Skua)			
1910.	25643 <i>Sterna hybrida</i> (Whiskered Tern)			
1911.	<i>Sternopriscus multimaculatus</i>			
1912.	24329 <i>Stictonetta naevosa</i> (Freckled Duck)			
1913.	25655 <i>Stipiturus malachurus</i> (Southern Emu-wren)			
1914.	24554 <i>Stipiturus malachurus</i> subsp. <i>westernensis</i> (Southern Emu-wren)			
1915.	16375 <i>Stirlingia anethifolia</i>			
1916.	2317 <i>Stirlingia simplex</i>			
1917.	<i>Storena fungina</i>			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
1918.	<i>Stratiomyidae</i> sp.			
1919.	25597 <i>Strepera versicolor</i> (Grey Currawong)			
1920.	25590 <i>Streptopelia senegalensis</i> (Laughing Turtle-Dove)	Y		
1921.	25518 <i>Strophurus spinigerus</i>			
1922.	24943 <i>Strophurus spinigerus</i> subsp. <i>inornatus</i>			
1923.	27318 <i>Struvea plumosa</i>			
1924.	7678 <i>Stylidium adnatum</i> (Common Beaked Triggerplant)			
1925.	7682 <i>Stylidium albomontis</i>			
1926.	7687 <i>Stylidium assimile</i> (Bronze-leaved Triggerplant)			
1927.	7692 <i>Stylidium breviscapum</i> (Boomerang Triggerplant)			
1928.	12057 <i>Stylidium corymbosum</i> var. <i>corymbosum</i>			
1929.	7708 <i>Stylidium crassifolium</i> (Thick-leaved Triggerplant)			
1930.	7712 <i>Stylidium despectum</i> (Dwarf Triggerplant)			
1931.	7713 <i>Stylidium dichotomum</i> (Pins-and-needles)			
1932.	7741 <i>Stylidium insensitivum</i> (Insensitive Trigger Plant)			
1933.	7758 <i>Stylidium macranthum</i> (Crab Claws)			
1934.	7772 <i>Stylidium perpusillum</i> (Tiny Triggerplant)			
1935.	7774 <i>Stylidium piliferum</i> (Common Butterfly Triggerplant)			
1936.	7775 <i>Stylidium pilosum</i> (Silky Triggerplant)			
1937.	7777 <i>Stylidium preissii</i> (Lizard Triggerplant)			
1938.	7785 <i>Stylidium repens</i> (Matted Triggerplant)			
1939.	7794 <i>Stylidium rupestre</i> (Rock Triggerplant)			
1940.	7798 <i>Stylidium schoenoides</i> (Cow Kicks)			
1941.	<i>Stylidium</i> sp.			
1942.	20599 <i>Stylidium turleyae</i>			
1943.	1260 <i>Stypandra glauca</i> (Blind Grass)			
1944.	6473 <i>Styphelia intertexta</i>			
1945.	2639 <i>Suaeda australis</i> (Seablite)			
1946.	2640 <i>Suaeda baccifera</i>	Y		
1947.	<i>Symphitoneuria wheeleri</i>			
1948.	25902 <i>Symphytichum squamatum</i> (Bushy Starwort)	Y		
1949.	16761 <i>Synaphea interioris</i>			
1950.	16860 <i>Synaphea media</i>			
1951.	12911 <i>Synaphea obtusata</i>			
1952.	16772 <i>Synaphea oligantha</i>			
1953.	16864 <i>Synaphea petiolaris</i> subsp. <i>petiolaris</i>			
1954.	2329 <i>Synaphea spinulosa</i>			
1955.	15534 <i>Synaphea spinulosa</i> subsp. <i>major</i>			
1956.	<i>Synsphyronus callus</i>			
1957.	<i>Synsphyronus mimulus</i>			
1958.	32437 <i>Syntrichia antarctica</i>			
1959.	<i>Tabanidae</i> sp.			
1960.	25705 <i>Tachybaptus novaehollandiae</i> (Australasian Grebe, Black-throated Grebe)			
1961.	24682 <i>Tachybaptus novaehollandiae</i> subsp. <i>novaehollandiae</i> (Australasian Grebe, Black-throated Grebe)			
1962.	24331 <i>Tadorna tadornoides</i> (Australian Shelduck, Mountain Duck)			
1963.	<i>Tanypodinae</i> sp.			
1964.	<i>Tanytarsus barbitarsis</i>			
1965.	<i>Tanytarsus fuscithorax/semibarbitarsus</i>			
1966.	<i>Tanytarsus nr bispinosus</i> (SAP)			
1967.	<i>Tardigrada</i> sp.			
1968.	24167 <i>Tarsipes rostratus</i> (Honey Possum, Noolbenger)			
1969.	<i>Tasmanicosa leuckartii</i>			
1970.	<i>Tasmanocoenis tillyardi</i>			
1971.	20102 <i>Taxandria callistachys</i>			
1972.	20134 <i>Taxandria marginata</i>			
1973.	20103 <i>Taxandria spathulata</i>			
1974.	31552 <i>Tecticornia arbuscula</i>			
1975.	33236 <i>Tecticornia halocnemoides</i> (Shrubby Samphire)			
1976.	33319 <i>Tecticornia indica</i> subsp. <i>bidens</i>			
1977.	31718 <i>Tecticornia lepidosperma</i>			
1978.	31675 <i>Tecticornia lylei</i>			
1979.	33297 <i>Tecticornia pergranulata</i> subsp. <i>pergranulata</i> (Blackseed Samphire)			
1980.	31716 <i>Tecticornia syncarpa</i>			
1981.	28065 <i>Teloschistes chrysophthalmus</i>			
1982.	28066 <i>Teloschistes sieberianus</i>			
1983.	4255 <i>Templetonia neglecta</i>			
1984.	4256 <i>Templetonia retusa</i> (Cockies Tongues)			
1985.	35842 <i>Templetonia rossii</i>			
1986.	4258 <i>Templetonia sulcata</i> (Centipede Bush)			

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1987.	<i>Testudinella patina</i>			
1988.	<i>Tetragnatha nitens</i>			
1989.	<i>Tetragnatha valida</i>			
1990.	2823 <i>Tetragonia implexicoma</i> (Bower Spinach)			
1991.	46437 <i>Tetrapora preissiana</i>			
1992.	36443 <i>Tetrapora verrucosa</i>			
1993.	1034 <i>Tetrasia capillaris</i> (Hair Sedge)			
1994.	<i>Thalasseus bergii</i>			
1995.	28069 <i>Thelotrema lepadinum</i>			
1996.	1701 <i>Thelymitra antennifera</i> (Vanilla Orchid)			
1997.	10856 <i>Thelymitra benthamiana</i> (Leopard Orchid)			
1998.	1705 <i>Thelymitra crinita</i> (Blue Lady Orchid)			
1999.	11143 <i>Thelymitra graminea</i>			
2000.	20732 <i>Thelymitra petrophila</i>			
2001.	<i>Thelymitra</i> sp.			
2002.	20735 <i>Thelymitra speciosa</i>			
2003.	1716 <i>Thelymitra tigrina</i> (Tiger Orchid)			
2004.	1718 <i>Thelymitra villosa</i> (Custard Orchid)			
2005.	20731 <i>Thelymitra vulgaris</i>			
2006.	20728 <i>Thelymitra xanthotricha</i>			
2007.	673 <i>Themeda triandra</i>			
2008.	5075 <i>Thomasia angustifolia</i> (Narrow Leaved Thomasia)			
2009.	5077 <i>Thomasia cognata</i>			
2010.	5080 <i>Thomasia foliosa</i>			
2011.	5088 <i>Thomasia microphylla</i>			
2012.	5093 <i>Thomasia petalocalyx</i> (Paper Flower)			
2013.	5094 <i>Thomasia purpurea</i>			
2014.	5105 <i>Thomasia triphylla</i>			
2015.	2644 <i>Threlkeldia diffusa</i> (Coast Bonefruit)			
2016.	<i>Threpterus maculosus</i>			
2017.	24845 <i>Threskiornis spinicollis</i> (Straw-necked Ibis)			
2018.	19698 <i>Thryptomene australis</i> subsp. <i>australis</i>			
2019.	6065 <i>Thryptomene saxicola</i> (Rock Thryptomene)			
2020.	27330 <i>Thuretia australasica</i>			
2021.	27331 <i>Thuretia quercifolia</i>			
2022.	1328 <i>Thysanotus dichotomus</i> (Branching Fringe Lily)			
2023.	1338 <i>Thysanotus manglesianus</i> (Fringed Lily)			
2024.	1341 <i>Thysanotus nudicaulis</i>			
2025.	1343 <i>Thysanotus patersonii</i>			
2026.	1351 <i>Thysanotus sparteus</i>			
2027.	1358 <i>Thysanotus triandrus</i>			
2028.	25203 <i>Tiliqua occipitalis</i> (Western Bluetongue)			
2029.	25207 <i>Tiliqua rugosa</i> subsp. <i>rugosa</i>			
2030.	45838 <i>Tilletia ehrhartae</i>			
2031.	<i>Tipulidae</i> sp.			
2032.	<i>Tipulidae</i> type A (SAP)			
2033.	<i>Tipulidae</i> type F (SAP)			
2034.	<i>Tipulidae</i> type I (SAP)			
2035.	25549 <i>Todiramphus sanctus</i> (Sacred Kingfisher)			
2036.	24309 <i>Todiramphus sanctus</i> subsp. <i>sanctus</i> (Sacred Kingfisher)			
2037.	<i>Torquigener pleurogramma</i>			
2038.	1368 <i>Trachyandra divaricata</i>	Y		
2039.	6279 <i>Trachymene ornata</i> (Spongefruit)			
2040.	6280 <i>Trachymene pilosa</i> (Native Parsnip)			
2041.	11112 <i>Tribolium uniolae</i>	Y		
2042.	1485 <i>Tribonanthes violacea</i>			
2043.	48141 <i>Tribonyx ventralis</i> (Black-tailed Native-hen)			
2044.	32449 <i>Trichostomum brachydontium</i>			
2045.	32450 <i>Trichostomum eckelianum</i>			
2046.	1361 <i>Tricoryne elatior</i> (Yellow Autumn Lily)			
2047.	41648 <i>Tricostularia aphylla</i>			
2048.	1037 <i>Tricostularia compressa</i>			
2049.	4289 <i>Trifolium angustifolium</i> (Narrowleaf Clover)	Y		
2050.	17542 <i>Trifolium arvense</i> var. <i>arvense</i>	Y		
2051.	4292 <i>Trifolium campestre</i> (Hop Clover)	Y		
2052.	4296 <i>Trifolium fragiferum</i> (Strawberry Clover)	Y		
2053.	17788 <i>Trifolium pratense</i> var. <i>sativum</i>	Y		
2054.	4312 <i>Trifolium striatum</i> (Knotted Clover)	Y		
2055.	33276 <i>Triglochin isingiana</i>			
2056.	146 <i>Triglochin minutissima</i>			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
2057.	147 <i>Triglochin mucronata</i>			
2058.	151 <i>Triglochin striata</i>			
2059.	152 <i>Triglochin trichophora</i>			
2060.	<i>Triplectides australis</i>			
2061.	4737 <i>Tripterococcus brunonis</i> (Winged Stackhousia)			
2062.	32451 <i>Triquetrella papillata</i>			
2063.	<i>Trombidioidea</i> sp.			
2064.	15141 <i>Trymalium elachophyllum</i>			
2065.	13479 <i>Trymalium ledifolium</i> var. <i>rosmarinifolium</i>			
2066.	15757 <i>Trymalium spatulatum</i>			
2067.	<i>Turbellaria</i> sp.			
2068.	48147 <i>Turnix varius</i> (Painted Button-quail)			
2069.	30954 <i>Tursiops aduncus</i> (Indo-Pacific Bottlenose Dolphin)			
2070.	24069 <i>Tursiops truncatus</i> (Bottlenose Dolphin)			
2071.	98 <i>Typha domingensis</i> (Bulrush, Djandjid)			
2072.	35260 <i>Ulva compressa</i>			
2073.	24983 <i>Underwoodisaurus milii</i> (Barking Gecko)			
2074.	<i>Upeneichthys lineatus</i>			
2075.	<i>Urodacus novaehollandiae</i>			
2076.	<i>Uromycladium tepperianum</i>			
2077.	8255 <i>Ursinia anthemoides</i> (Ursinia)	Y		
2078.	1766 <i>Urtica incisa</i> (Scrub Nettle)			
2079.	28086 <i>Usnea dasaea</i>			
2080.	28087 <i>Usnea inermis</i>			
2081.	45909 <i>Ustilago tritici</i>			
2082.	7145 <i>Utricularia menziesii</i> (Redcoats)			
2083.	7148 <i>Utricularia multifida</i>			
2084.	7153 <i>Utricularia tenella</i>			
2085.	25577 <i>Vanellus miles</i> (Masked Lapwing)			
2086.	24385 <i>Vanellus miles</i> subsp. <i>novaehollandiae</i> (Masked Lapwing)			
2087.	24386 <i>Vanellus tricolor</i> (Banded Lapwing)			
2088.	25225 <i>Varanus rosenbergi</i> (Heath Monitor)			
2089.	7665 <i>Velleia trinervis</i>			
2090.	<i>Venatrix arenaris</i>			
2091.	<i>Venatrix pullastra</i>			
2092.	<i>Venatrix tinfos</i>			
2093.	<i>Verrucaria</i> sp.			
2094.	12388 <i>Verticordia acerosa</i> var. <i>preissii</i>			
2095.	6072 <i>Verticordia brownii</i>			
2096.	6073 <i>Verticordia chrysantha</i>			
2097.	6076 <i>Verticordia densiflora</i> (Compacted Featherflower)			
2098.	12411 <i>Verticordia densiflora</i> var. <i>cespitosa</i>			
2099.	15432 <i>Verticordia densiflora</i> var. <i>densiflora</i>			
2100.	6077 <i>Verticordia drummondii</i> (Drummond's Featherflower)			
2101.	6079 <i>Verticordia fastigiata</i> (Mouse Featherflower)			
2102.	6090 <i>Verticordia humilis</i>			
2103.	12432 <i>Verticordia inclusa</i>			
2104.	6096 <i>Verticordia minutiflora</i>			
2105.	12450 <i>Verticordia plumosa</i> var. <i>grandiflora</i>			
2106.	12451 <i>Verticordia plumosa</i> var. <i>incrassata</i>			
2107.	14718 <i>Verticordia sieberi</i> var. <i>sieberi</i>			
2108.	12470 <i>Verticordia vicinella</i>			
2109.	24206 <i>Vespadelus regulus</i> (Southern Forest Bat)			
2110.	11474 <i>Vicia sativa</i> subsp. <i>nigra</i>	Y		
2111.	27360 <i>Vidalia spiralis</i>			
2112.	4325 <i>Viminaria juncea</i> (Swishbush, Koweda)			
2113.	<i>Vincentia punctata</i>			
2114.	8266 <i>Vittadinia gracilis</i>			
2115.	722 <i>Vulpia bromoides</i> (Squirrel Tail Fescue)	Y		
2116.	11137 <i>Vulpia fasciculata</i>	Y		
2117.	11018 <i>Vulpia muralis</i>	Y		
2118.	12052 <i>Vulpia myuros</i> forma <i>megalura</i>	Y		
2119.	33101 <i>Vulpia myuros</i> forma <i>myuros</i>	Y		
2120.	<i>Vulpia</i> sp.			
2121.	7384 <i>Wahlenbergia capensis</i> (Cape Bluebell)	Y		
2122.	7389 <i>Wahlenbergia preissii</i>			
2123.	7393 <i>Wahlenbergia tumidiflora</i>			
2124.	18108 <i>Watsonia meriana</i> var. <i>bulbillifera</i>	Y		
2125.	27362 <i>Webervanbossea splachnoides</i>			
2126.	6939 <i>Westringia dampieri</i>			

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
2127.	9247 <i>Westringia rigida</i> (Stiff Westringia)			
2128.	6658 <i>Wilsonia backhousei</i> (Narrow-leaf Wilsonia)			
2129.	6659 <i>Wilsonia humilis</i> (Silky Wilsonia)			
2130.	6660 <i>Wilsonia rotundifolia</i> (Round-leaf Wilsonia)			
2131.	27364 <i>Wollastoniella myriophylloides</i>			
2132.	27369 <i>Wrangelia velutina</i>			
2133.	1389 <i>Wurmbea cernua</i>			
2134.	1394 <i>Wurmbea dioica</i> (Early Nancy)			
2135.	<i>Xanthagrion erythroneurum</i>			
2136.	29970 <i>Xanthoparmelia conranensis</i>			
2137.	1255 <i>Xanthorrhoea platyphylla</i>			
2138.	<i>Xanthorrhoea</i> sp.			
2139.	6289 <i>Xanthosia huegelii</i>			
2140.	16992 <i>Yucca aloifolia</i>	Y		
2141.	<i>Zeus faber</i>			
2142.	27372 <i>Zonaria spiralis</i>			
2143.	25765 <i>Zosterops lateralis</i> (Grey-breasted White-eye, Silvereye)			
2144.	4387 <i>Zygophyllum billardierei</i> (Coast Twinleaf)			

Conservation Codes

T - Rare or likely to become extinct
 X - Presumed extinct
 IA - Protected under international agreement
 S - Other specially protected fauna
 1 - Priority 1
 2 - Priority 2
 3 - Priority 3
 4 - Priority 4
 5 - Priority 5

¹ For NatureMap's purposes, species flagged as endemic are those whose records are wholly contained within the search area. Note that only those records complying with the search criterion are included in the calculation. For example, if you limit records to those from a specific datasource, only records from that datasource are used to determine if a species is restricted to the query area.

Quallilup Lake

Vegetation Survey Report



Esperance Wildflower Society Inc.
PO Box 1138
ESPERANCE WA 6450

MEMORANDUM

TO: Chip Murray
FROM: Esperance Wildflower Society (Inc.)
DATE: May 3, 2000
SUBJECT: Vegetation survey

This report has been prepared in response to your request for a botanical survey of an area near Quallilup Lake intended for the purposes of mining lime sand.

The report addresses the associated criteria:

- 1 Geographic location.
- 2 Site ground data.
- 3 Vegetation structure and cover.
- 4 Vegetation condition.
- 5 Species present.

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Introduction

This report is in response to a verbal request from Chip Murray to undertake a botanical survey of an area approximating 14ha, near the south eastern edge of Quallilup Lake which is south/south west of Dalyup and 35 km west of Esperance.

Five sections of descriptive information are provided on recording sheets. (see Appendices)

- There are two sections on sheet one, the first details the location of the site and includes a mud map with roads or distinguishing landmarks, a GPS reading and the topographic position.
- The second section contains site data relating to ground aspects and soil conditions. A photographic record was made in the form of video footage. (owner)
- Another two sections on the second recording sheet describe the vegetation structure and percentage cover as well as the dominant species, and the condition of vegetation.
- A complete species list of the various plant life forms found at the main survey site is recorded on the third sheet.
- Different plant species found on an adjacent rise to the south west of the main survey site are listed on a separate recording sheet.

Method

A series of five 20m x 20m quadrats was used at the main site, commencing from the lower slope on the northern end to just over the ridge. A narrow belt along the ridge was viewed to look for additional plant species not encountered in the quadrats.

Visual observation at the second site was for the purposes of plant identification only and the recording of different species.

The recording method was based on '*Bushland Plant Survey*', a Wildflower Society of WA (Inc.) Publication.

Vegetation

At the first site, the plant species identified were found to be relatively common and dominant in each quadrat, from the lower slope on the northern aspect up to the southern aspect of the ridge. Different variations of plant associations occurred with lower plant height on the lower slope and taller vegetation along the ridge. Further variations of plant communities were found in the fifth quadrat and some different species along the ridge.

Similar plant associations were found at the second site. However, some entirely different plant species were also discovered. The vegetation at this site was observed generally as Dense Low Heath on the southern and northern aspects, with Very Open Herbs on the eastern perimeter.

Muir's¹ classification of vegetation was used for the description of each quadrat at Site 1 as follows:

- 1) Dense Low Heath >1.0m, over Open Low Sedges, over Very Open Mosses.
- 2) Open Low Scrub 1.5-2.0m, over Low Heath >1.0m, over Very Open Low Sedges, over Very Open Mosses.
- 3) Open Scrub exceeding 2.0m, over Open Low Scrub 1.0-2.0m, over Low Heath > 1.0m, over Very Open Herbs, over Open Low Sedges and Very Open Mosses.
- 4) Open Scrub exceeding 2m, over Open Low Scrub 1.0-2.0m, over Low Heath > 1.0m, over Very Open Herbs, over Open Low Sedges and Very Open Mosses.
- 5) Open Scrub exceeding 2m, over Heath 1.0-2.0m, over Dwarf scrub >1.0m, over Very Open Herbs, over Open Low Sedges and Very Open Mosses.

Flora

A total of 41 species from 26 plant families are listed on the third recording sheet. An inventory of the plant families is also included in the Appendices.

There are no recorded Declared Rare Flora or Priority species known at the site (Coyne 2000). None were observed whilst undertaking recording activities in the areas surveyed.

Only two introduced weed species, in the plant family Poaceae, were detected – the grasses, Sweet Vernal Grass and Perennial Veldt Grass.

It was difficult to determine purely by observations made during the survey, for any dead plants of which the cause could be likely attributed to dieback (*Phytophthora sp.*). This was due to the lack of suitable susceptible indicator species. No soil samples were taken for testing by the Esperance Wildflower Society. Inquiries at the Esperance Department of Conservation and Land Management offices revealed no further information.

Summary

Our observations and recordings in the field of the vast number of flowering and seed bearing plants, and the extent of natural regeneration, suggests to us that the majority of the vegetation and the overall site is in very good to excellent condition. The lack of weed invasion and general stable nature of the site supports this.

Future Monitoring and Evaluation

At the request of Mr Chip Murray, the Esperance Wildflower Society has agreed to undertake a series of site visits over the life of the proposed project for the purposes of monitoring and evaluating regeneration of the site. Suitable timeframes will be determined sometime after the commencement of the project and all necessary criteria will be conformed to as required by the relevant authorities.

NONE

Acknowledgments

The Esperance CALM Regional Herbarium resources, in conjunction with the WA Herbarium, were used for identification purposes.

Notes

- 1 Muir, B. G., 1977: *Records of the Western Australian Museum, Supplement No. 3.*

References

- Blackall, W. E., & Grieve, B.J., *How to Know Western Australian Wildflowers*, Part IIIB, UWA Press, Western Australia, 1981.
- Coyne, L. 2000. Wildlife Officer, Department of Conservation and Land Management. Esperance Western Australia.
- Grieve, B. J., *How to Know Western Australian Wildflowers*, Part II Second Edition, UWA Press, Western Australia, 1998.
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- Meney, Kathy, & Pate, John, *Australian Rushes*, UWA Press, Western Australia, 1999.

FLORA INVENTORY - 26 Plant families - 41 Plant species

Poaceae

**Anthoxanthum odoratum*

**Ehrharta calycina*

Cyperaceae

Gahnia sp

Lepidosperma squamatum

Restionaceae

Desmocladius flexuosus

Dasygongonaceae

Lomandra micrantha subsp *teretifolia*

Phormiaceae

Dianella revoluta subsp *brevicaulis*

Iridaceae

Patersonia sp

Proteaceae

Grevillea pauciflora *oligantha*

Hakea nitida

Chenopodiaceae

Rhagodia preissii

Ranunculaceae

Clematis linearifolia

Clematis pubescens

Lauraceae

Cassytha racemosa

Pittosporaceae

Sollya heterophylla

Mimosaceae

Acacia cochlearis

Acacia cyclops

Acacia rostellifera

Papilionaceae

Pultenaea obcordata

Templetonia retusa

Rutaceae

Rhadinothamnus rudis

Polygalaceae

Comesperma virgatum

Euphorbiaceae

Phyllanthus calycinus

Rhamnaceae

Pomaderris myrtilloides

Spyridium globulosum

Sterculiaceae

Lasiopetalum discolor

Dilleniaceae

Hibbertia racemosa

Thymelaceae

Pimelea ferruginea

Myrtaceae

Melaleuca pentagona *subsp.*

Melaleuca pulchella

Epacridaceae

Leucopogon obovatus

Leucopogon parviflorus

Leucopogon sp

Leucopogon sp

Loganiaceae

Logania fasciculata

Goodeniaceae

Goodenia filiformis

Goodenia tripartita

Stylidiaceae

Stylidium pilosum

Asteraceae

Brachyscome ciliaris

Olearia axillaris

Senecio lautus subsp *maritimus*

* = Introduced species

Appendix E

Quallilup Vegetation Report



Prepared for N D Murray

By

Esperance Wildflower Society (Inc)

March 2009



□ Site 1

△ Site 2

Vegetation Report for proposed second Quallilup site

TO: Chip Murray

FROM: Esperance Wildflower Society (Inc)

DATE: March 2009

SUBJECT: Vegetation Report at location indicated on aerial photo provided.

This report has been prepared in response to your request for a flora list of an area shown on the aerial photo provided, for the purpose of mining lime sand.

The first site visit was made with you in October 2008, traversing a broad area within the designated polygon, when many species were flowering. A comprehensive list was compiled to accompany the photos taken at that time, on the understanding that we could not proceed with the report until 2009.

A follow up site visit in April 2009 was conducted to finalise the specific site data at two focal points within the polygon of the defined survey area.

The flora descriptions refer to:-

- Site 1 - elevated areas of shallow soil over rocky limestone near the coast.
- Site 2 - low lying areas of shrub mallee and heath on sandy soil further inland.

See Appendix A: Recording sheets of each site.

Appendix B: The Plant Inventory lists 98 species within 39 plant families from an extended area surrounding the 2 studied sites. NB: Weed species are indicated thus *

Several healthy plants of a Priority 3 taxon *Leucopogon rotundifolius* were detected in the survey site of elevated coastal heath, recorded a Site 1.

The vegetation on the exposed elevated coastal section is mostly intact, due to wind pruning and shallow soil, whereas the more sheltered areas lower down support many of the same species in taller shrub forms and with an understorey of small herbaceous plants and orchids.

The general condition of the area is very good apart from the lower site immediately adjacent to the track, which has a previous history of disturbance in places and subsequently there is some weed presence. The 8 weed species are recorded in site 2.

There is a population of a serious environmental weed *Gomphocarpus fruticosus* (Narrow-leaf Cotton Bush) and a single plant of the introduced species *Melaleuca armillaris* (Bracelet Honey Myrtle) along the track north of the existing mine site.

Narrow-leaf Cotton Bush is a Declared Plant species requiring the landholder to carefully remove and destroy all fruiting bodies in situ then remove all the plants. The area should be monitored for several years as small plants will continue to regenerate from seeds dispersed in recent years.

An associate from Esperance Bird Observers Group was present when we visited the area in April and provided the enclosed Appendix C, listing 12 bird species present on the day.

Status	Family	Name	Common name	Elevated site	Lower site
	CUPRESSACEAE	<i>Callitris drummondii</i>	DRUMMOND'S CYPRESS PINE		✓
		<i>Callitris roei</i>	ROE'S CYPRESS PINE	✓	
	POACEAE	<i>Austrodanthonia sp caespitosa ?</i>		✓	✓
		<i>Austrostipa sp</i>	SPEAR GRASS		✓
*		<i>Briza minor</i>	SHIVERY GRASS		✓
*		<i>Lagurus ovatus</i>	HARE'S TAIL GRASS		✓
		<i>Poa poiformis</i>	COASTAL POA		✓
	CYPERACEAE	<i>Gahnia sp</i>		✓	
		<i>Ficinia nodosa</i>	KNOTTED CLUB RUSH	✓	✓
		<i>Lepidosperma gladiatum</i>	COAST SWORD SEDGE	✓	✓
		<i>Lepidosperma sp fine</i>			✓
		<i>Lepidosperma drummondii</i>			✓
		<i>Lepidosperma squamatum</i>		✓	
	RESTIONACEAE	<i>Desmocladius flexuosus</i>		✓	✓
	DASYPOGONACEAE	<i>Lomandra micrantha subsp teretifolia</i>		✓	✓
		<i>Lomandra nigricans</i>		✓	
	PHORMIACEAE	<i>Dianella brevicaulis</i>		✓	✓
	ANTHERICACEAE	<i>Thysanotus patersonii</i>	FRINGE LILY		
		<i>Tricoryne elatior</i>	YELLOW AUTUMN LILY		✓
	IRIDACEAE	<i>Orthrosanthos sp</i>			✓
		<i>Patersonia occidentalis</i>	PURPLE FLAG	✓	✓
		<i>Tl</i>			
	ORCHIDACEAE	<i>Caladenia sp</i>			✓
		<i>Cyrtostylis robusta</i>	MOSQUITO ORCHID		✓
*		<i>Disa bracteata</i>	SOUTH AFRICAN ORCHID		✓
		<i>Eriochilus dilatatus</i>	BUNNY ORCHID	✓	✓
		<i>Microtis media</i>	COMMON MIGNONETTE ORCHID		✓
		<i>Prasophyllum sp</i>	LEEK ORCHID		✓

	DICOTYLEDONS				
Status	Family	Name	Common name	Elevated site	Lower site
	APIACACAE	<i>Trachymene pilosa</i>	NATIVE PARSNIP		✓
	* ASTERACEAE	<i>Arctotheca calendula</i>	CAPE WEED		✓
		<i>Brachyscome ciliaris</i>	VARIABLE DAISY	✓	✓
		<i>Brachyscome iberidifolia</i>	SWAN RIVER DAISY		✓
	*	<i>Centaurea melitensis</i>	MALTESE COCKSPUR		✓
	*	<i>Cirsium vulgare</i>	SPEAR THISTLE		✓
		<i>Olearia axillaris</i>	COAST DAISY BUSH	✓	✓
		<i>Podolepis rugata</i>	PLEATED PODOLEPIS	✓	✓
		<i>Senecio pinnatifolius</i>	GROUNDSEL	✓	
		<i>Waitzia nitida</i>			✓
	CHENOPODIACEAE	<i>Rhagodia preissii</i>		✓	✓
	DILLENIACEAE	<i>Hibbertia cuneiformis</i>	CUT LEAF GUINEA FLOWER		✓
		<i>Hibbertia racemosa</i>	STALKED GUINEA FLOWER		✓
	EPACRIDACEAE	<i>Leucopogon obovatus</i>		✓	✓
		<i>Leucopogon parviflorus</i>	COAST BEARD HEATH	✓	✓
		<i>Leucopogon pleurandroides</i>		✓	
P3		<i>Leucopogon rotundifolius</i>		✓	
	EUPHORBIACEAE	<i>Adriana quadripartita</i>	BITTER BUSH	✓	✓
		<i>Phyllanthus calycinus</i>	FALSE BORONIA	✓	✓
	GERANIACEAE	<i>Pelargonium littorale</i>			✓
	GOODENIACEAE	<i>Goodenia concinna</i>	ELEGANT GOODENIA	✓	
		<i>Goodenia tripartita</i>		✓	
		<i>Scaevola crassifolia</i>	THICK-LEAVED FANFLOWER	✓	
		<i>Velleia trinervis</i>		✓	
	HALORAGACEAE	<i>Haloragis digyna</i>			✓
	LAMIACEAE	<i>Westringia dampieri</i>		✓	

Status	Family	Name	Common name	Elevated site	Lower site
	LAURACEAE	<i>Cassytha racemosa</i>	DODDER LAUREL	✓	
	LINACEAE	<i>Linum marginale</i>	WILD FLAX		✓
	LOGANIACEAE	<i>Logania fasciculata</i>		✓	✓
	MIMOSACEAE	<i>Acacia cochlearis</i>	RIGID WATTLE	✓	
		<i>Acacia cyllops</i>	COASTAL WATTLE	✓	✓
		<i>Acacia nigricans</i>		✓	✓
		<i>Acacia rostellifera</i>		✓	✓
		<i>Acacia saligna</i>	ORANGE WATTLE	✓	✓
	MYRTACEAE	<i>Calothamnus quadrifidus</i>	ONE-SIDED BOTTLEBRUSH	✓	
		<i>Darwinia vestita</i>	POM POM DARWINIA		✓
		<i>Eucalyptus angulosa</i>	RIDGE-FRUITED MALLEE	✓	✓
		<i>Melaleuca brevifolia</i>			✓
		<i>Melaleuca lanceolata</i>	ROTTNEST TEATREE	✓	
		<i>Melaleuca pentagona</i> subsp <i>latifolia</i>		✓	✓
		<i>Melaleuca pulchella</i>	CLAW HONEY-MYRTLE	✓	✓
	PAPILIONACEAE	<i>Gompholobium</i> sp			✓
		<i>Pultenaea quaerita</i>		✓	✓
		<i>Pultenaea tenuifolia</i>			✓
		<i>Templetonia retusa</i>	COCKIES TONGUE	✓	✓
	PITTOSPORACEAE	<i>Billardiera heterophylla</i>	AUSTRALIAN BLUEBELL	✓	✓
	POLYGALACEAE	<i>Comesperma virgatum</i>	MILK WORT		✓
	POLYGONACEAE	<i>Muehlenbeckia adpressa</i>	CLIMBING LIGNUM		✓
	* PRIMULACEAE	<i>Anagalis arvensis</i>	PIMPERNEL		✓
	PROTEACEAE	<i>Banksia speciosa</i>	SHOWY BANKSIA	✓	
		<i>Grevillea oligantha</i>		✓	
		<i>Hakea nitida</i>	FROG HAKEA	✓	✓
		<i>Hakea prostrata</i>	HARSH HAKEA	✓	

Status	Family	Name	Common name	Elevated site	Lower site
	RANUNCULACEAE	<i>Clematis linearifolia</i>	SLENDER CLEMATIS	✓	✓
		<i>Clematis pubescens</i>	OLD MANS BEARD	✓	✓
	RHAMNACEAE	<i>Pomaderris myrtilloides</i>		✓	✓
		<i>Spyridium globulosum</i>	BASKET BUSH	✓	✓
	RUTACEAE	<i>Nematolepis phebalioides</i>		✓	
		<i>Rhadinothamnus rudis subsp rudis</i>		✓	✓
	SCROPHULARIACEAE	<i>Euphrasia collina subsp tetragona</i>	PURPLE EYE-BRIGHT	✓	✓
	SOLANACEAE	<i>Anthocercis littorea</i>	YELLOW TAILFLOWER	✓	✓
*		<i>Solanum nigrum</i>	BLACKBERRY NIGHTSHADE		✓
		<i>Solanum symonii</i>		✓	✓
	STERCULIACEAE	<i>Guichenotia ledifolia</i>			✓
		<i>Lasiopetalum discolor</i>		✓	✓
		<i>Lasiopetalum quinquenervium</i>		✓	✓
		<i>Thomasia sp</i>		✓	✓
	STYLIDIACEAE	<i>Stylidium pilosum</i>	SILKY TRIGGER PLANT	✓	
	THYMELAEACEAE	<i>Pimelea ferruginea</i>		✓	✓
	ZYGOPHYLLACEAE	<i>Zygophyllum billardierei</i>	COAST TWINLEAF		✓



EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about [Environment Assessments](#) and the EPBC Act including significance guidelines, forms and application process details.

Report created: 05/02/18 15:36:49

[Summary](#)

[Details](#)

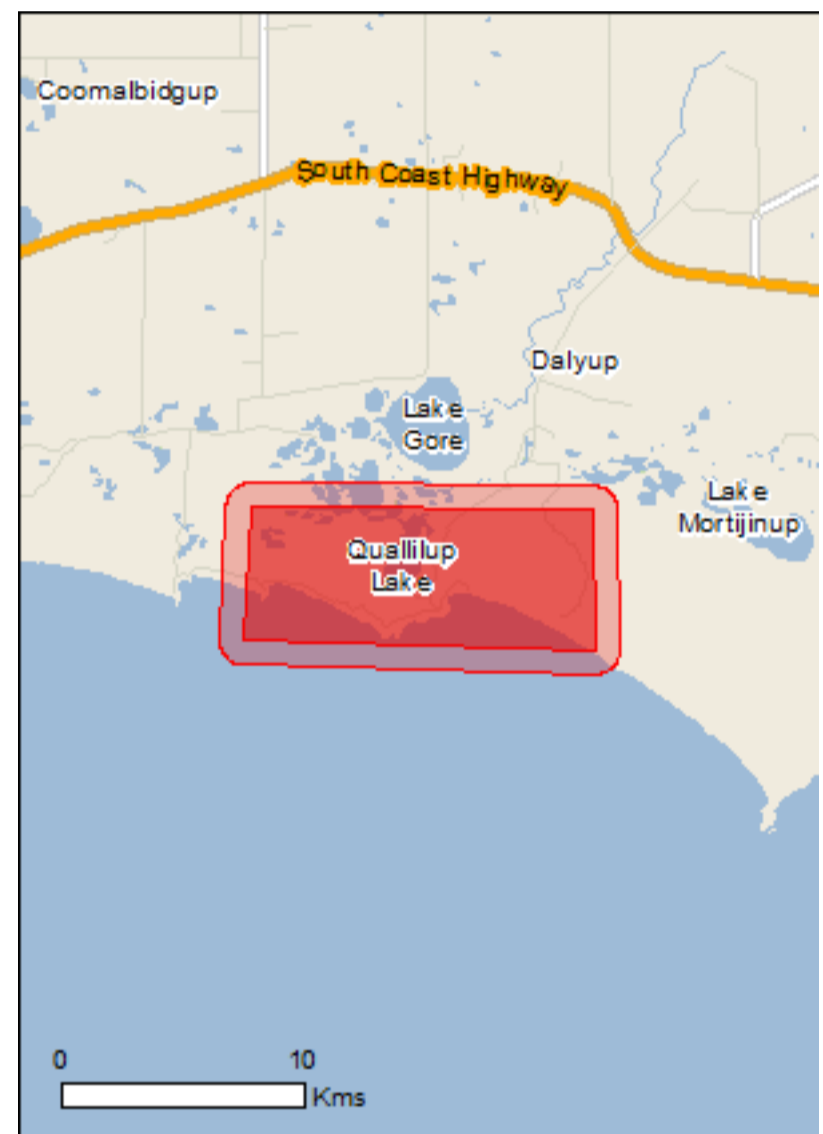
[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

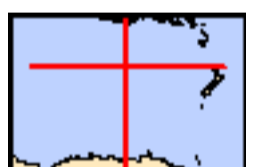
[Acknowledgements](#)



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[Coordinates](#)

[Buffer: 1.0Km](#)



Summary

Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the [Administrative Guidelines on Significance](#).

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	1
Listed Threatened Species:	39
Listed Migratory Species:	33

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at <http://www.environment.gov.au/heritage>

A [permit](#) may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Land:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	66
Whales and Other Cetaceans:	12
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Commonwealth Reserves Marine:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have nominated.

State and Territory Reserves:	3
Regional Forest Agreements:	None
Invasive Species:	12
Nationally Important Wetlands:	1
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar)	[Resource Information]
Name Lake gore	Proximity Within Ramsar site

Listed Threatened Ecological Communities	[Resource Information]
For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.	

Name	Status	Type of Presence
Proteaceae Dominated Kwongkan Shrublands of the Southeast Coastal Floristic Province of Western Australia	Endangered	Community likely to occur within area

Listed Threatened Species	[Resource Information]
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Name	Status	Type of Presence
Birds		

Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat may occur within area
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Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat likely to occur within area
--	------------	--

Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
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Calyptorhynchus latirostris Carnaby's Cockatoo, Short-billed Black-Cockatoo [59523]	Endangered	Species or species habitat likely to occur within area
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Cereopsis novaehollandiae grisea Cape Barren Goose (south-western), Recherche Cape Barren Goose [25978]	Vulnerable	Species or species habitat likely to occur within area
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Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
---	------------	--

Diomedea dabbenena Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area
---	------------	--

Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
---	------------	--

Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
---	------------	--

Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
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Name	Status	Type of Presence
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat likely to occur within area
Limosa lapponica baueri Bar-tailed Godwit (baueri), Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat likely to occur within area
Limosa lapponica menzbieri Northern Siberian Bar-tailed Godwit, Bar-tailed Godwit (menzbieri) [86432]	Critically Endangered	Species or species habitat may occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat may occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
Sternula nereis nereis Australian Fairy Tern [82950]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Foraging, feeding or related behaviour may occur within area
Thalassarche cauta cauta Shy Albatross, Tasmanian Shy Albatross [82345]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche cauta steadi White-capped Albatross [82344]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
Mammals		
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat may occur within area
Dasyurus geoffroii Chuditch, Western Quoll [330]	Vulnerable	Species or species habitat may occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area

Name	Status	Type of Presence
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Species or species habitat likely to occur within area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Phascogale calura Red-tailed Phascogale, Red-tailed Wambenger, Kenngoor [316]	Vulnerable	Species or species habitat may occur within area
Plants		
Anigozanthos bicolor subsp. minor Little Kangaroo Paw, Two-coloured Kangaroo Paw, Small Two-colour Kangaroo Paw [21241]	Endangered	Species or species habitat likely to occur within area
Kennedia glabrata Northcliffe Kennedia [16452]	Vulnerable	Species or species habitat likely to occur within area
Reptiles		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding likely to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
Sharks		
Carcharias taurus (west coast population) Grey Nurse Shark (west coast population) [68752]	Vulnerable	Species or species habitat likely to occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Listed Migratory Species		[Resource Information]
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
Migratory Marine Birds		
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardenna carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Breeding known to occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Hydroprogne caspia Caspian Tern [808]		Foraging, feeding or related behaviour known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area

Name	Threatened	Type of Presence
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Onychoprion anaethetus Bridled Tern [82845]		Foraging, feeding or related behaviour likely to occur within area
Thalassarche cauta Tasmanian Shy Albatross [89224]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
Migratory Marine Species		
Balaena glacialis australis Southern Right Whale [75529]	Endangered*	Breeding known to occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat may occur within area
Caperea marginata Pygmy Right Whale [39]		Species or species habitat may occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding likely to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat may occur within area
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat likely to occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Species or species habitat likely to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Migratory Terrestrial Species		
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area
Migratory Wetlands Species		

Name	Threatened	Type of Presence
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat likely to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat likely to occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area
Pandion haliaetus Osprey [952]		Species or species habitat likely to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

Other Matters Protected by the EPBC Act

Listed Marine Species [\[Resource Information \]](#)

* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.

Name	Threatened	Type of Presence
Birds		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardea alba Great Egret, White Egret [59541]		Species or species habitat likely to occur within area
Ardea ibis Cattle Egret [59542]		Species or species habitat may occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat likely to occur within area

Name	Threatened	Type of Presence
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat known to occur within area
Catharacta skua Great Skua [59472]		Species or species habitat may occur within area
Cereopsis novaehollandiae grisea Cape Barren Goose (south-western), Recherche Cape Barren Goose [25978]	Vulnerable	Species or species habitat likely to occur within area
Diomedea antipodensis Antipodean Albatross [64458]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea dabbenena Tristan Albatross [66471]	Endangered	Species or species habitat may occur within area
Diomedea epomophora Southern Royal Albatross [89221]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea exulans Wandering Albatross [89223]	Vulnerable	Foraging, feeding or related behaviour likely to occur within area
Diomedea sanfordi Northern Royal Albatross [64456]	Endangered	Foraging, feeding or related behaviour likely to occur within area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area
Halobaena caerulea Blue Petrel [1059]	Vulnerable	Species or species habitat may occur within area
Larus pacificus Pacific Gull [811]		Foraging, feeding or related behaviour known to occur within area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat likely to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Macronectes halli Northern Giant Petrel [1061]	Vulnerable	Species or species habitat may occur within area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat may occur within area

Name	Threatened	Type of Presence
Pachyptila turtur Fairy Prion [1066]		Species or species habitat may occur within area
Pandion haliaetus Osprey [952]		Species or species habitat likely to occur within area
Phalacrocorax fuscescens Black-faced Cormorant [59660]		Foraging, feeding or related behaviour likely to occur within area
Pterodroma mollis Soft-plumaged Petrel [1036]	Vulnerable	Species or species habitat may occur within area
Puffinus assimilis Little Shearwater [59363]		Foraging, feeding or related behaviour known to occur within area
Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [1043]		Breeding known to occur within area
Sterna anaethetus Bridled Tern [814]		Foraging, feeding or related behaviour likely to occur within area
Sterna caspia Caspian Tern [59467]		Foraging, feeding or related behaviour known to occur within area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Foraging, feeding or related behaviour may occur within area
Thalassarche cauta Tasmanian Shy Albatross [89224]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area
Thalassarche steadi White-capped Albatross [64462]	Vulnerable*	Foraging, feeding or related behaviour likely to occur within area
Thinornis rubricollis Hooded Plover [59510]		Species or species habitat likely to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area
Fish		
Acentronura australe Southern Pygmy Pipehorse [66185]		Species or species habitat may occur within area
Campichthys galei Gale's Pipefish [66191]		Species or species habitat may occur within area
Heraldia nocturna Upside-down Pipefish, Eastern Upside-down Pipefish, Eastern Upside-down Pipefish [66227]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
Hippocampus breviceps Short-head Seahorse, Short-snouted Seahorse [66235]		Species or species habitat may occur within area
Histiogamphelus cristatus Rhino Pipefish, Macleay's Crested Pipefish, Ring-back Pipefish [66243]		Species or species habitat may occur within area
Leptoichthys fistularius Brushtail Pipefish [66248]		Species or species habitat may occur within area
Lissocampus caudalis Australian Smooth Pipefish, Smooth Pipefish [66249]		Species or species habitat may occur within area
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area
Maroubra perserrata Sawtooth Pipefish [66252]		Species or species habitat may occur within area
Nannocampus subosseus Bonyhead Pipefish, Bony-headed Pipefish [66264]		Species or species habitat may occur within area
Notiocampus ruber Red Pipefish [66265]		Species or species habitat may occur within area
Phycodurus eques Leafy Seadragon [66267]		Species or species habitat may occur within area
Phyllopteryx taeniolatus Common Seadragon, Weedy Seadragon [66268]		Species or species habitat may occur within area
Pugnaso curtirostris Pugnose Pipefish, Pug-nosed Pipefish [66269]		Species or species habitat may occur within area
Solegnathus lettiensis Gunther's Pipehorse, Indonesian Pipefish [66273]		Species or species habitat may occur within area
Stigmatopora argus Spotted Pipefish, Gulf Pipefish, Peacock Pipefish [66276]		Species or species habitat may occur within area
Stigmatopora nigra Widebody Pipefish, Wide-bodied Pipefish, Black Pipefish [66277]		Species or species habitat may occur within area
Stigmatopora olivacea a pipefish [74966]		Species or species habitat may occur within area
Urocampus carinirostris Hairy Pipefish [66282]		Species or species habitat may occur within area
Vanacampus margaritifer Mother-of-pearl Pipefish [66283]		Species or species habitat may occur within area
Vanacampus phillipi Port Phillip Pipefish [66284]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
Vanacampus poecilolaemus Longsnout Pipefish, Australian Long-snout Pipefish, Long-snouted Pipefish [66285]		Species or species habitat may occur within area
Mammals		
Arctocephalus forsteri Long-nosed Fur-seal, New Zealand Fur-seal [20]		Species or species habitat likely to occur within area
Neophoca cinerea Australian Sea-lion, Australian Sea Lion [22]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
Reptiles		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding likely to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
Whales and other Cetaceans		[Resource Information]
Name	Status	Type of Presence
Mammals		
Balaenoptera acutorostrata Minke Whale [33]		Species or species habitat may occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat may occur within area
Caperea marginata Pygmy Right Whale [39]		Species or species habitat may occur within area
Delphinus delphis Common Dophin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Breeding known to occur within area
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
Lagenorhynchus obscurus Dusky Dolphin [43]		Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Species or species habitat likely to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species

Name	Status	Type of Presence
		habitat may occur within area

Extra Information

State and Territory Reserves [\[Resource Information \]](#)

Name	State
Recherche Archipelago	WA
Unnamed WA26885	WA
Unnamed WA50792	WA

Invasive Species [\[Resource Information \]](#)

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resources Audit, 2001.

Name	Status	Type of Presence
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Birds

Anas platyrhynchos Mallard [974]		Species or species habitat likely to occur within area
Columba livia Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Streptopelia senegalensis Laughing Turtle-dove, Laughing Dove [781]		Species or species habitat likely to occur within area
Sturnus vulgaris Common Starling [389]		Species or species habitat likely to occur within area

Mammals

Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Feral deer Feral deer species in Australia [85733]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area

Name	Status	Type of Presence
Sus scrofa Pig [6]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area

Plants		
Asparagus asparagoides Bridal Creeper, Bridal Veil Creeper, Smilax, Florist's Smilax, Smilax Asparagus [22473]		Species or species habitat likely to occur within area

Nationally Important Wetlands	[Resource Information]
Name	State
Lake Gore System	WA

Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World and National Heritage properties, Wetlands of International and National Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other information sources.

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species distributions have been derived through a variety of methods. Where distributions are well known and if time permits, maps are derived using either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc) together with point locations and described habitat; or environmental modelling (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where very little information is available for species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc). In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More reliable distribution mapping methods are used to update these distributions as time permits.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

The following groups have been mapped, but may not cover the complete distribution of the species:

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

Such breeding sites may be important for the protection of the Commonwealth Marine environment.

Coordinates

-33.799064 121.455546,-33.79992 121.582233,-33.79992 121.582233,-33.842704 121.582919,-33.839852 121.453143,-33.799064 121.455546

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

- [-Office of Environment and Heritage, New South Wales](#)
- [-Department of Environment and Primary Industries, Victoria](#)
- [-Department of Primary Industries, Parks, Water and Environment, Tasmania](#)
- [-Department of Environment, Water and Natural Resources, South Australia](#)
- [-Department of Land and Resource Management, Northern Territory](#)
- [-Department of Environmental and Heritage Protection, Queensland](#)
- [-Department of Parks and Wildlife, Western Australia](#)
- [-Environment and Planning Directorate, ACT](#)
- [-Birdlife Australia](#)
- [-Australian Bird and Bat Banding Scheme](#)
- [-Australian National Wildlife Collection](#)
- [-Natural history museums of Australia](#)
- [-Museum Victoria](#)
- [-Australian Museum](#)
- [-South Australian Museum](#)
- [-Queensland Museum](#)
- [-Online Zoological Collections of Australian Museums](#)
- [-Queensland Herbarium](#)
- [-National Herbarium of NSW](#)
- [-Royal Botanic Gardens and National Herbarium of Victoria](#)
- [-Tasmanian Herbarium](#)
- [-State Herbarium of South Australia](#)
- [-Northern Territory Herbarium](#)
- [-Western Australian Herbarium](#)
- [-Australian National Herbarium, Canberra](#)
- [-University of New England](#)
- [-Ocean Biogeographic Information System](#)
- [-Australian Government, Department of Defence Forestry Corporation, NSW](#)
- [-Geoscience Australia](#)
- [-CSIRO](#)
- [-Australian Tropical Herbarium, Cairns](#)
- [-eBird Australia](#)
- [-Australian Government – Australian Antarctic Data Centre](#)
- [-Museum and Art Gallery of the Northern Territory](#)
- [-Australian Government National Environmental Science Program](#)
- [-Australian Institute of Marine Science](#)
- [-Reef Life Survey Australia](#)
- [-American Museum of Natural History](#)
- [-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania](#)
- [-Tasmanian Museum and Art Gallery, Hobart, Tasmania](#)
- [-Other groups and individuals](#)

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the [Contact Us](#) page.

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Proteaceae Dominated Kwongkan Shrubland: a nationally-protected ecological community

This guide is intended to help the public understand what the Proteaceae Dominated Kwongkan Shrubland ecological community is, why it is nationally protected, what the listing aims to achieve, and what the listing means for people in the region.

In summary:

- The Proteaceae Dominated Kwongkan Shrubland ecological community is now listed as endangered and protected under Australia's national environment law, the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).
- The ecological community is found within the south coast region of Western Australia, and is dominated by flowering shrub species from the Proteaceae family (e.g. Banksias, Grevilleas, Hakeas).
- The national Threatened Species Scientific Committee found that the ecological community has undergone a severe reduction in integrity, and has a fragmented geographic distribution that means it is under a severe level of threat over the near future.
- The intent of the listing is to prevent its decline and to provide support to on-ground efforts that ensure its long-term survival and recovery. The Threatened Species Scientific Committee's **conservation advice** outlines a range of priority research and management actions that provide guidance on how to manage, restore and protect the ecological community.
- The listing promotes a co-ordinated, ecosystem-scale approach to threat abatement in the region and supports existing national protection of many threatened species that are found within the ecological community.
- Listing under the EPBC Act means that an activity that is likely to have a significant impact on the ecological community will need to be referred for an environmental impact assessment and approval.
- Routine property maintenance and land management practices carried out in line with laws and guidelines covering native vegetation are typically unlikely to require referral under national environment law. This includes most farming activities.
- The national environment law is triggered by activities that are likely to have a significant adverse impact on a listed ecological community; activities such as large new developments, works or infrastructures. For example, activities that involve permanently clearing large areas of intact and high-quality native vegetation.

Background

Australia's national environmental law, the EPBC Act, protects what are known as Matters of National Environmental Significance. The Act is only triggered if a particular activity is likely to have a significant impact on any of these matters.

Threatened species and ecological communities are Matters of National Environmental Significance. The EPBC Act defines an ecological community as an assemblage of native species that inhabits a particular area in nature. They often correspond with types of native vegetation, such as a certain kind of woodland or forest or shrubland.

The native plants and animals within an ecological community have different roles and relationships that, together, contribute to the healthy functioning of the environment. Protecting native communities also protects ecosystem services such as good quality air and water; healthy soils; natural prevention or control of erosion and salinity; shelter for stock; and carbon storage. These all contribute to better productivity of our land and water, which benefits people and society.

Human settlements and infrastructures where an ecological community formerly occurred do not form part of the natural environment and are therefore not part of the ecological community. This also applies to sites that have been replaced by crops and exotic pastures, or where the ecological community exists in a highly-degraded or unnatural state.



Kwongkan shrublands near Hopetoun (Department of the Environment)



Banksia speciosa (showy banksia), a key species in some parts of the ecological community (Department of the Environment)

What is the Proteaceae Dominated Kwongkan Shrubland ecological community?

The full name of the ecological community is the *Proteaceae dominated kwongkan shrublands of the southeast coastal floristic province of Western Australia*. Kwongkan (also known as kwongan) is a type of heathland found on the coastal plains of Western Australia. The name is derived from language of the Nyungar/Noongar people.

The key features of the ecological community are:

- The ecological community is mainly found within the Esperance Sandplains and Mallee bioregions with some patches occurring in the adjoining bioregions of south-west Western Australia (see Figure 1). Local government areas across this region are Albany City, Cranbrook Shire, Dundas Shire, Esperance Shire, Gnowangerup Shire, Jerramungup Shire, Kent Shire, Lake Grace Shire, Plantagenet Shire and Ravensthorpe Shire.
- The ecological community is typical of vegetation within some of the reserves across the region, such as Stirling Range National Park, Fitzgerald River National Park and Cape Le Grand National Park.
- The ecological community typically occurs on sandplains, occupying lower and upper slopes and ridges, as well as uplands across its range, where rainfall ranges from approximately 400 to 800 millimetres a year. It typically occurs on:
 - duplex soils and deep to shallow soils on the sandplains
 - sandy soils to clay loam, gravelly loam and loam on quartzite (e.g. The Barrens, Stirlings and Russell Range)
 - greenstone ranges (e.g. Ravensthorpe Range).

- Structurally, the ecological community may be described as proteaceous kwongan shrubland and heath, or mallee heath.
- Typically for this ecological community, plants from the family Proteaceae make up a large component of the flora, including plants from the genera *Adenanthos*, *Banksia*, *Grevillea*, *Hakea*, *Isopogon* and *Lambertia*. The actual Proteaceae species present in the ecological community is variable across its range.
- Widespread and characteristic species within the ecological community include:
 - *Banksia alliiacea*
 - *B. armata* (prickly dryandra)
 - *B. cirsioides*
 - *B. media* (southern plains banksia)
 - *B. nutans* (nodding banksia)
 - *B. obovata* (wedge-leaved dryandra)
 - *B. sessilis* (parrot bush)
 - *B. speciosa* (showy banksia)
 - *B. tenuis*
 - *Hakea cucullata* (hood-leaved or scallop hakea)
 - *H. corymbosa* (cauliflower hakea)
 - *H. denticulata*
 - *H. drupacea*
 - *H. ferruginea*
 - *H. obliqua* (needles and corks)
 - *H. pandanicaarpa*
 - *H. victoria* (royal hakea)
 - *Lambertia inermis*
 - *Beaufortia empetrifolia* (Myrtaceae)
 - *Xanthorrhoea platyphylla* (Xanthorrhoeaceae)
 - *Melaleuca striata* (Myrtaceae).
- Mallee eucalypt trees may be present at varying densities, but providing the vegetation is dominated by Proteaceae species, it is still classified as the ecological community.

The ecological community provides habitat for 45 plant and 15 animal species that are listed as nationally threatened, including:

- critically endangered plant species, such as: *Daviesia glossosema* (maroon-flowered daviesia), *Gastrolobium luteifolium* (yellow-leaved gastrolobium) and *Scaevola macrophylla* (large-flowered scaevola)
- threatened animals include the dibbler, heath mouse, Carnaby's black cockatoo, western bristlebird, western ground parrot, and western whipbird.

Why is the Proteaceae Dominated Kwongan Shrubland ecological community important?

The region where the ecological community occurs has been identified as a global hotspot of biodiversity and is home to many unique plant species. The ecological community also provides habitat for a range of native birds, mammals, reptiles and other animals. Fifty-four plant and eighteen animal species that are listed as threatened, either nationally or in Western Australia, are known to occur in this ecological community.

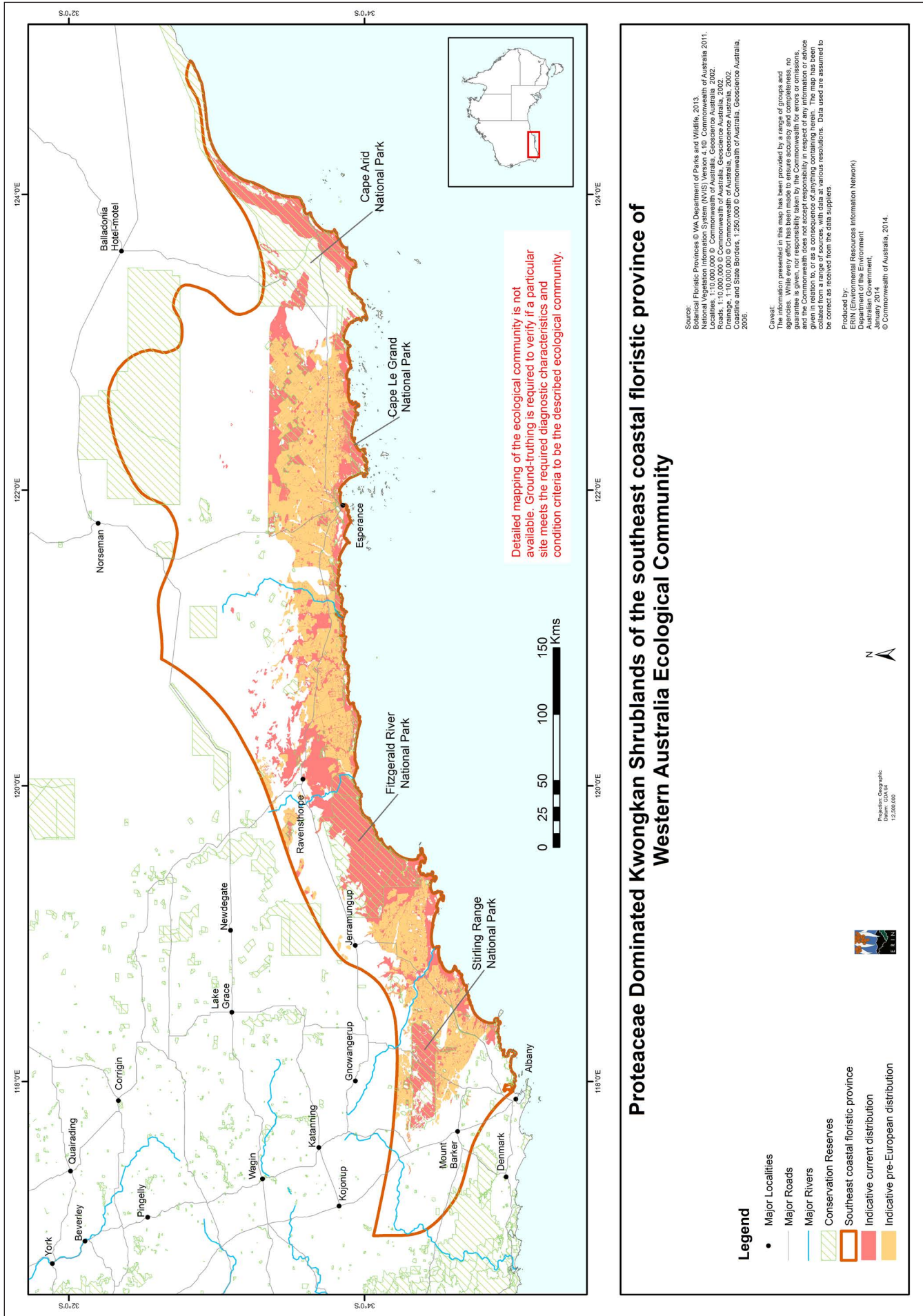
The country of the Nyungar/Noongar and Ngadju Aboriginal people, and their sub-groups or dialectal groups, cover the region where the ecological community occurs. These groups have a strong cultural connection to the ecological community and surrounding environment. The ecological community provides an important resource for Aboriginal people in the form of bush foods, medicines and materials for tools and other significant items. Many patches contain important sites such as ceremonial areas and law grounds.

A large portion of the ecological community has already been lost and remaining areas are vulnerable to the impacts of threats such as dieback due to *Phytophthora cinnamomi*, changing fire regimes, land clearing, invasive species, and climate change. Some of these threats are also affecting areas of the ecological community that occur in reserves. In many areas it now mostly exists as small and fragmented patches. Protection will contribute to a region that is better able to cope with environmental fluctuations and changes.



Fitzgerald River National Park and surrounding lands (Department of the Environment)

Figure 1: Location of the Proteaceae Dominated Kwongan Shrubland Ecological community, showing indicative current and pre-European distribution.





Degraded roadside, showing loss of the ecological community on the left (Department of the Environment)



Loss of dominant tall structure due to dieback of *Banksia speciosa* (showy banksia), Cape Le Grand National Park (Department of the Environment)

Why does it need national protection?

In January 2014, the Australian Government Minister for the Environment listed the Proteaceae Dominated Kwongan Shrubland ecological community after considering the advice of the Threatened Species Scientific Committee.

During a rigorous assessment, the scientific evidence supported as it met the eligibility criteria for listing as endangered under national environment law.

Across its range the ecological community has been grouped on a biological basis, bringing together vegetation across the region of similar structure that is dominated by proteaceous species. This forms a nationally unique ecological community that has common threats and management practices. Whilst the ecological community is likely to be present in several shires, it is all included within the South Coast Natural Resource Management (NRM) region, which allows for a co-ordinated NRM approach.

The ecological community is intolerant of frequent disturbance due to land modification and clearance. A reduction in the integrity of the ecological community is evident from observations of dieback due to plant pathogens, effects of altered fire regimes, weed invasion, fragmentation and the subsequent decline or changes to flora and fauna within the ecological community. A reduction in community integrity results in changes to both the species composition and ecological processes that maintain the ecological community. If these changes are ongoing, some native species may persist, but it could lead to the eventual loss of a naturally functioning ecological community overall.

The overall aim of listing is to prevent its decline and to provide support to on-ground efforts that ensure its long-term survival. The **conservation advice** outlines a range of priority research and management actions that provide guidance on how to manage, restore and protect the ecological community.

What are the benefits of listing an ecological community as nationally threatened?

There are a number of benefits to listing ecological communities under Australia's national environment law:

- Listing an ecological community can help to protect the landscapes that provide connectivity, corridors and refuge essential to protect and improve the ecological function, health and biodiversity of the region. It can protect habitat critical for refuge and recruitment for threatened species and for other species that are under pressure in the region. In turn, this helps foster the ecosystem services associated with an ecological community.
- Listing threatened ecological communities helps protect them from future significant human impacts that may cause further decline. The aim of the national environment law is to ensure the matters of national environmental significance are given due consideration, along with broader economic, social and other issues in the planning of any large projects. Where possible, significant adverse impacts to the environment should be avoided, or the impacts mitigated, reduced or offset, when unavoidable.

- National listing encourages agencies and community/Landcare groups to access environmental funding opportunities for conservation and recovery works. The Australian Government has a variety of funding programs to encourage land managers to continue to conserve biodiversity and ecosystem services on their properties.
- A **conservation advice**, published at the time of listing, provides guidance and options for environmental decision-making, including rehabilitation and conservation initiatives in the region.
- In the case of the Proteaceae Dominated Kwongkan Shrubland ecological community, the listing will:
 - provide landscape-scale protection that complements existing national protection for threatened species that are found within the ecological community (e.g. the Fitzgerald Biosphere Recovery Plan)
 - protect the environmental values, including the ecosystem functions and services associated with the ecological community, which contributes to the long-term productivity of the landscape
 - provide a range of environmental amenity benefits that support tourism and recreation activities.



Regeneration following fire, Fitzgerald River National Park (Department of the Environment)

What does the listing mean for landholders?

The national environment law is triggered if an action is likely to have a significant impact on the Proteaceae Dominated Kwongkan Shrubland ecological community. If a proposed action is likely to have such an impact, it would require:

- referral (determining if the action may have a significant impact on the ecological community)
- assessment (the scope of the assessment depends on the complexity of the proposed action and impacts)
- a decision on approval from the Minister (who considers the environmental, social and economic factors involved).

Social and economic matters may be taken into account for individual projects that may have a significant impact on the ecological community, through the EPBC Act approvals process. Strict timeframes apply to assessments to ensure decisions are made as quickly as possible.

The normal activities of individual landholders and residents will typically not be affected by a listing. Routine property maintenance, land management and other established practices are unlikely to have a significant impact and so do not typically require referral under national environment law, particularly if carried out in line with other national and state laws covering native vegetation.

For instance, the following actions are unlikely to trigger national environment law:

- ongoing grazing, horticultural or cropping activities
- maintaining existing fences, roads, internal access tracks and firebreaks
- maintaining existing farm gardens and orchards
- maintaining existing farm dams or water storages
- maintaining existing pumps and clearing drainage lines
- replacing and maintaining sheds, yards and other farm buildings
- controlling weeds and spraying for pests on individual properties
- small scale extraction of gypsum and lime for on farm use, as well as small scale gravel extraction for road works.

In all these cases impacts on important patches of the ecological community (e.g. high quality, important corridor for wildlife) should be avoided.

One of the major concerns with some activities is the spread of *Phytophthora* dieback, which has the potential for broader detrimental impacts to the ecological community. Activities in the region should therefore continue to be carried out with appropriate hygiene measures in place to prevent the introduction and spread of dieback (e.g. by cleaning boots, vehicles and machinery).

Whether or not an action is likely to have a significant impact depends upon the sensitivity, value and quality of the environment which is impacted, and upon the intensity, duration, magnitude and geographic extent of the impacts. The major activity that is likely to have a significant impact on the ecological community is permanently clearing large or otherwise important areas of intact or high-quality native vegetation. This might include, for example, major mining, residential, commercial or other industrial development, developing wind farms, building new roads or widening existing roads, or converting large areas into new pastures or cropping fields. To help reduce the significance of actions, the EPBC Act promotes the avoidance and mitigation of impacts from the early planning stage, wherever that is possible.

Have activities previously been referred under the EPBC Act for this area?

Within the area of the Proteaceae Dominated Kwongkan Shrubland ecological community some developments and activities have previously been referred for consideration under the EPBC Act due to possible impacts on threatened species that are already nationally protected. No activity has been rejected outright, although some were approved with conditions to take better account of significant environmental impacts.

Where can I get further information?

- The listing process: www.environment.gov.au/topics/threatened-species-ecological-communities
- The EPBC referral and approval process: www.environment.gov.au/topics/environment-protection
- Australian Government natural resource management initiatives: www.nrm.gov.au/
- The Department's Community Information Unit: by phone on **1800 803 772** (freecall), or email at ciu@environment.gov.au
- The EPBC liaison officer with the National Farmers Federation: by email at environment@nff.org.au



Kwongkan shrublands at East Mount Barren, Fitzgerald River National Park (Department of the Environment)

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The views and opinions expressed in this publication are those of the authors and do not necessarily reflect those of the Australian Government or the Minister for the Environment.

Appendix H

List of Threatened Ecological Communities (TECs) endorsed by the Western Australian Minister for Environment

Species & Communities Branch (Correct as at 6 October 2016)

Community identifier	Community name	General Location (IBRA Regions)	Category of Threat and criteria met under WA criteria	#Category under Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act)
<u>1. SCP20a</u>	<i>Banksia attenuata</i> woodland over species rich dense shrublands (a component of the Banksia woodlands of the Swan Coastal Plain EPBC listed TEC)	Swan Coastal Plain	EN B) iii)	EN
<u>2. TOOLIBIN</u>	Perched wetlands of the Wheatbelt region with extensive stands of living Swamp Sheoak (<i>Casuarina obesa</i>) and Paperbark (<i>Melaleuca strobophylla</i>) across the lake floor.	Avon Wheatbelt	CR A) i); CR A) 11); CR C)	EN
<u>3. SCP10b</u>	Shrublands on southern Swan Coastal Plain Ironstones (Busselton area)	Swan Coastal Plain	CR B) ii)	EN
<u>4. SCP19</u>	Sedgeland in Holocene dune swales of the southern Swan Coastal Plain	Swan Coastal Plain	CR B) ii)	EN
<u>5. Clifton-microbialite</u>	Stromatolite like freshwater microbialite community of coastal brackish lakes	Swan Coastal Plain	CR B) i), CR B) ii)	CR
<u>6. Richmond-microbial</u>	Stromatolite like microbialite community of coastal freshwater lakes	Swan Coastal Plain	CR B) i), CR B) ii)	EN
<u>7. Mound Springs SCP</u>	Communities of Tumulus Springs (Organic Mound Springs, Swan Coastal Plain)	Swan Coastal Plain	CR A) i), CR A) ii), CR B) i), CR B) ii)	EN
<u>8. SCP20c</u>	Shrublands and woodlands of the eastern side of the Swan Coastal Plain	Swan Coastal Plain	CR B) ii)	EN
<u>10. NTHIRON</u>	Perth to Gingin Ironstone Association	Swan Coastal Plain	CR A) ii), CR B) ii), CR C)	EN
<u>11. MUCHEA LIMESTONE</u>	Shrublands and woodlands on Muchea Limestone	Swan Coastal Plain	EN B) ii)	EN
<u>12. Augusta-microbial</u>	Rimstone Pools and Cave Structures Formed by Microbial Activity on Marine Shorelines	Warren	EN B) ii)	
<u>13. SCP30a</u>	<i>Callitris preissii</i> (or <i>Melaleuca lanceolata</i>) forests and woodlands, Swan Coastal Plain	Swan Coastal Plain	VU B)	
<u>14. SCP18</u>	Shrublands on calcareous silts of the Swan Coastal Plain	Swan Coastal Plain	VU B)	
<u>15. SCP02</u>	Southern wet shrublands, Swan Coastal Plain	Swan Coastal Plain	EN B) ii)	
<u>16. SCP3a</u>	<i>Corymbia calophylla</i> - <i>Kingia australis</i> woodlands on heavy soils, Swan Coastal Plain	Swan Coastal Plain	CR B) ii)	EN
<u>17. SCP3c</u>	<i>Corymbia calophylla</i> - <i>Xanthorrhoea preissii</i> woodlands and shrublands, Swan Coastal Plain	Swan Coastal Plain	CR B) ii)	EN
<u>18. Thetis-microbialite</u>	Stromatolite community of stratified hypersaline coastal lakes (Lake Thetis)	Geraldton Sandplain	VU B)	
<u>19. SCOTT IRONSTONE</u>	Scott River Ironstone Association	Warren	EN B) i), EN B) ii)	EN
<u>20. SCP20b</u>	<i>Banksia attenuata</i> and/or <i>Eucalyptus marginata</i> woodlands of the eastern side of the Swan Coastal Plain (a component of the Banksia woodlands of the Swan Coastal Plain EPBC listed TEC)	Swan Coastal Plain	EN B) i), EN B) ii)	EN
<u>21. SCP15</u>	Forests and woodlands of deep seasonal wetlands of the Swan Coastal Plain	Swan Coastal Plain	VU C)	

Community identifier	Community name	General Location (IBRA Regions)	Category of Threat and criteria met under WA criteria	#Category under Commonwealth Environment Protection and Biodiversity Conservation Act 1999
<u>22. SCP1b</u>	<i>Corymbia calophylla</i> woodlands on heavy soils of the southern Swan Coastal Plain	Swan Coastal Plain	VU B)	
<u>23. SCP3b</u>	<i>Corymbia calophylla</i> - <i>Eucalyptus marginata</i> woodlands on sandy clay soils of the southern Swan Coastal Plain	Swan Coastal Plain	VU B)	
<u>24. CAVES SCP01</u>	Aquatic Root Mat Community Number 1 of Caves of the Swan Coastal Plain	Swan Coastal Plain	CR B) i), CR B) ii)	EN
<u>25. CAVES LEEUWIN01</u>	Aquatic Root Mat Community Number 1 of Caves of the Leeuwin Naturaliste Ridge	Warren	CR B) i), CR B) ii)	EN
<u>26. CAVES LEEUWIN02</u>	Aquatic Root Mat Community Number 2 of Caves of the Leeuwin Naturaliste Ridge	Warren	CR B) i), CR B) ii)	EN
<u>27. CAVES LEEUWIN03</u>	Aquatic Root Mat Community Number 3 of Caves of the Leeuwin Naturaliste Ridge	Warren	CR B) i), CR B) ii)	EN
<u>28. CAVES LEEUWIN04</u>	Aquatic Root Mat Community Number 4 of Caves of the Leeuwin Naturaliste Ridge	Warren	CR B) i), CR B) ii)	EN
<u>29. MONTANE</u>	Montane Thicket of the eastern Stirling Range (some areas are also a component of the Proteaceae Dominated Kwongan Shrublands of the southeast coastal floristic province of Western Australia Endangered EPBC listed TEC)	Esperance Sandplain	CR B) ii)	EN
<u>30. MEELUP GRANITES</u>	<i>Calothamnus graniticus</i> heaths on south west coastal granites	Warren/Jarrah Forest	VU B)	
<u>32. SCP07</u>	Herb rich saline shrublands in clay pans (a component of the Claypans of the Swan Coastal Plain EPBC listed TEC)	Swan Coastal Plain	VU B)	CR
<u>33. SCP08</u>	Herb rich shrublands in clay pans (a component of the Claypans of the Swan Coastal Plain EPBC listed TEC)	Swan Coastal Plain	VU B)	CR
<u>34. SCP09</u>	Dense shrublands on clay flats (a component of the Claypans of the Swan Coastal Plain EPBC listed TEC)	Swan Coastal Plain	VU B)	CR
<u>35. SCP10a</u>	Shrublands on dry clay flats (a component of the Claypans of the Swan Coastal Plain EPBC listed TEC)	Swan Coastal Plain	EN B) ii)	CR
<u>38. Morilla swamp</u>	Perched fresh-water wetlands of the northern Wheatbelt dominated by extensive stands of living <i>Eucalyptus camaldulensis</i> (River Red Gum) across the lake floor.	Avon Wheatbelt	PD B)	
<u>39. Camerons</u>	Camerons Cave Troglotic Community	Carnarvon Basin	CR B) i), CR B) ii)	
<u>40. Bryde</u>	Unwooded freshwater wetlands of the southern Wheatbelt of Western Australia, dominated by <i>Duma horrida</i> subsp. <i>abdita</i> and <i>Tecticornia verrucosa</i> across the lake floor	Avon Wheatbelt	CR B) i), CR B) ii)	
<u>41. Bundera</u>	Cape Range Remipede Community	Carnarvon Basin	CR B) ii)	
<u>42. Greenough River Flats</u>	<i>Acacia rostellifera</i> low forest with scattered <i>Eucalyptus camaldulensis</i> on Greenough Alluvial Flats.	Geraldton Sandplain	CR C)	
<u>44. Roebuck Bay mudflats</u>	Species-rich faunal community of the intertidal mudflats of Roebuck Bay	Kimberley	VU B)	
<u>46. Themeda Grasslands</u>	Themeda grasslands on cracking clays (Hamersley Station, Pilbara). Grassland plains dominated by the perennial Themeda (kangaroo grass) and many annual herbs and grasses.	Pilbara	VU A)	
<u>49. Bentonite Lakes</u>	Herbaceous plant assemblages on Bentonite Lakes	Avon Wheatbelt	EN B) iii)	

Community identifier	Community name	General Location (IBRA Regions)	Category of Threat and criteria met under WA criteria	#Category under Commonwealth Environment Protection and Biodiversity Conservation Act 1999
<u>55. Coomberdale chert hills</u>	Heath dominated by one or more of <i>Regelia megacephala</i> , <i>Kunzea praestans</i> and <i>Allocasuarina campestris</i> on ridges and slopes of the chert hills of the Coomberdale floristic region.	Avon Wheatbelt	EN B) ii)	
<u>56. Billeranga System</u>	Plant assemblages of the Billeranga System (Beard 1976): <i>Melaleuca filifolia</i> – <i>Allocasuarina campestris</i> thicket on clay sands over laterite on slopes and ridges; open mallee over mixed scrub on yellow sand over gravel on western slopes; <i>Eucalyptus loxophleba</i> woodland over sandy clay loam or rocky clay on lower slopes and creeklines; and mixed scrub or scrub dominated by <i>Dodonaea inaequifolia</i> over red/brown loamy soils on the slopes and ridges. (Some woodland areas are components of the Eucalypt woodlands of the WA Wheatbelt EPBC listed TEC).	Avon Wheatbelt	VU A), VU B)	CR (some component woodlands)
<u>59. Koolanooka System</u>	Plant assemblages of the Koolanooka System (Beard 1976): <i>Allocasuarina campestris</i> scrub over red loam on hill slopes; Shrubs and emergent mallees on shallow loam red over massive ironstone on steep rocky slopes; <i>Eucalyptus ebbanoensis</i> subsp. <i>ebbanoensis</i> mallee and <i>Acacia</i> sp. scrub with scattered <i>Allocasuarina huegeliana</i> over red loam and ironstone on the upper slopes and summits; <i>Eucalyptus loxophleba</i> woodland over scrub on the footslopes; and mixed <i>Acacia</i> sp. scrub on granite. (Some woodland areas are components of the Eucalypt woodlands of the WA Wheatbelt EPBC listed TEC).	Avon Wheatbelt	VU A), VU B)	CR (some component woodlands)
<u>60. Moonagin System</u>	Plant assemblages of the Moonagin System (Beard 1976): <i>Acacia</i> scrub on red soil on hills; <i>Acacia</i> scrub with scattered <i>Eucalyptus loxophleba</i> and <i>Eucalyptus oleosa</i> on red loam flats on the foothills. (Some woodland areas are components of the Eucalypt woodlands of the WA Wheatbelt EPBC listed TEC).	Avon Wheatbelt	VU A), VU B)	CR (some component woodlands)
<u>62. Limestone ridges (SCP 26a)</u>	<i>Melaleuca huegelii</i> - <i>Melaleuca systema</i> shrublands on limestone ridges (Gibson <i>et al.</i> 1994 type 26a)	Swan Coastal Plain	EN B) iii)	
<u>63. Irwin River Clay Flats</u>	Clay flats assemblages of the Irwin River: Sedgeland and grasslands with patches of <i>Eucalyptus loxophleba</i> and scattered <i>E. camaldulensis</i> over <i>Acacia acuminata</i> and <i>A. rostellifera</i> shrubland on brown sand/loam over clay flats of the Irwin River.	Avon Wheatbelt	PD A), PD B)	
<u>67. Monsoon thickets</u>	Monsoon (vine) thickets on coastal sand dunes of Dampier Peninsula	West Kimberley, Dampierland Bioregion	VU C)	EN
<u>70. Mt Lindesay</u>	Mt Lindesay – Little Lindesay Vegetation Complex	Frankland District, Warren Region	EN B) ii)	
<u>71. Russell Range</u>	Russell Range mixed thicket complexes (a component of the Proteaceae Dominated Kwongan Shrublands of the southeast coastal floristic province of Western Australia EPBC listed TEC)	South Coast, Esperance Plains Bioregion	VU B), VU C)	EN
<u>72. Ferricrete</u>	Ferricrete floristic community (Rocky Springs type)	Geraldton Sandplain	VU B)	
<u>74. Herblands and Bunch Grasslands</u>	Herblands and Bunch Grasslands on gypsum lunette dunes alongside saline playa lakes.	Esperance Sandplain	VU B)	

Community identifier	Community name	General Location (IBRA Regions)	Category of Threat and criteria met under WA criteria	#Category under Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i>
<u>75. Inering System</u>	Plant assemblages of the Inering System (Beard 1976). <i>Allocasuarina campestris</i> scrub over chert and granite; <i>Allocasuarina campestris</i> thicket with scattered <i>Acacia acuminata</i> and <i>Allocasuarina huegeliana</i> over brown sandy loam over stony and lateritic summits and slopes; <i>Acacia</i> sp. mixed low woodland on red/brown sandy loam over granite on summits and slopes; <i>Melaleuca cardiophylla</i> thicket with scattered <i>Eucalyptus loxophleba</i> and <i>Eucalyptus salmonophloia</i> over granite on the lower slopes and foothills; and <i>Eucalyptus loxophleba</i> woodland over clay loam on the foothills. (Some woodland areas are components of the Eucalypt woodlands of the WA Wheatbelt EPBC listed TEC).	Avon Wheatbelt	VU A)	CR (some component woodlands)
<u>76. Lesueur-Coomallo Floristic Community D1</u>	Lesueur-Coomallo Floristic Community D1	Geraldton Sandplain	CR B) i) CR B) ii)	
<u>77. Lesueur-Coomallo Floristic Community A1.2</u>	Lesueur-Coomallo Floristic Community A1.2	Geraldton Sandplain	EN B) ii)	
<u>78. Ethel Gorge</u>	Ethel Gorge aquifer stygobiont community	Pilbara	EN B) ii)	
<u>80. Theda Soak</u>	Assemblages of Theda Soak rainforest swamp	North Kimberley	VU A), VU B)	
<u>81. Walcott Inlet</u>	Assemblages of Walcott Inlet rainforest swamps	North Kimberley	VU B)	
<u>82. Roe River</u>	Assemblages of Roe River rainforest swamp	North Kimberley	VU B)	
<u>84. Dragon Tree Soak</u>	Assemblages of Dragon Tree Soak organic mound spring	Kimberley Region, Great Sandy Desert Bioregion	EN B) i)	
<u>85. Bunda Bunda</u>	Assemblages of Bunda Bunda organic mound spring	West Kimberley, Dampierland Bioregion	VU A), VU B)	
<u>86. Big Springs</u>	Assemblages of Big Springs organic mound springs	West Kimberley, Dampierland Bioregion	VU A), VU B)	
<u>89. North Kimberley mounds</u>	Organic mound spring sedgeland community of the North Kimberley Bioregion	North Kimberley	VU A), VU B)	
<u>92. Black Spring</u>	Black Spring organic mound spring community	North Kimberley	EN B) i), EN B) ii)	
<u>95. Mandora Mounds</u>	Assemblages of the organic springs and mound springs of the Mandora Marsh area	West Kimberley, Dampierland and Greats Sandy Desert Bioregions	EN B) iii)	
<u>96. Broomehill</u>	Plant assemblages of the Broomehill System	Avon Wheatbelt	PD A)	
<u>97. Mound Springs (Three Springs area)</u>	Assemblages of the organic mound springs of the Three Springs area	Avon Wheatbelt	EN B) i), EN B) ii)	
<u>99. Depot Springs</u>	Depot Springs stygofauna community	Goldfields Region, Murchison Bioregion	VU B)	

Community identifier	Community name	General Location (IBRA Regions)	Category of Threat and criteria met under WA criteria	#Category under Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i>
102. <i>Eucalyptus acies mallee</i> heath	Thumb Peak, Mid mount Barren, Woolburnup Hill (Central Barren Ranges) <i>Eucalyptus acies</i> mallee heath (a component of the Proteaceae Dominated Kwongkan Shrublands of the southeast coastal floristic province of Western Australia EPBC listed TEC).	Esperance Sandplain	VU B)	EN (part)

Total = 69 TECs in Western Australia that are endorsed by the Minister for Environment (31 of these, or components of them, are also listed under the EPBC Act).

#The key diagnostic characteristics, condition and size thresholds in the Approved Conservation Advices should be applied to determine if particular occurrences/areas align with EPBC listed TECs.

TECs: Critically Endangered: 21; Endangered: 17; Vulnerable: 28; Presumed Destroyed: 3

Appendix I

PRIORITY ECOLOGICAL COMMUNITIES FOR WESTERN AUSTRALIA VERSION 27			
Species and Communities Branch, Department of Biodiversity, Conservation and Attractions			
30 June 2017			
<p>Possible threatened ecological communities that do not meet survey criteria or that are not adequately defined are added to the priority ecological community list under priorities 1, 2 and 3. These three categories are ranked in order of priority for survey and/or definition of the community, and evaluation of conservation status, so that consideration can be given to their declaration as threatened ecological communities. Ecological communities that are adequately known, and are rare but not threatened or meet criteria for near threatened, or that have been recently removed from the threatened list, are placed in priority 4. These ecological communities require regular monitoring. Conservation dependent ecological communities are placed in priority 5.</p> <p>Note:</p> <p>i) Nothing in this table may be construed as a nomination for listing under the Commonwealth <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act)</p> <p>ii) The inclusion in this table of a community type does not necessarily imply any status as a threatened ecological community, however some communities are listed as threatened ecological communities (TECs) under the EPBC Act (see column D).</p> <p>iii) The key diagnostic characteristics, condition and size thresholds in the Approved Conservation Advices should be applied to determine if particular areas align with EPBC listed TECs.</p> <p>iii) Regions eg Pilbara are based on Department of Biodiversity, Conservation and Attractions regional boundaries.</p> <p>iv) For definitions of categories (Priority 1 etc.) refer to document entitled 'Definitions and Categories'.</p>			
	Community name	Category (WA)	Category EPBC Act
PILBARA			
1	<p>West Angelas Cracking-Clays</p> <p>Open tussock grasslands of <i>Astrebla pectinata</i>, <i>A. elymoides</i>, <i>Aristida latifolia</i>, in combination with <i>Astrebla squarrosa</i> and low scattered shrubs of <i>Sida fibulifera</i>, on basalt derived cracking-clay loam depressions and flowlines.</p> <p>Threats: disturbance footprints increasing from mine, future infrastructure development, possible weed invasion and changes in fire regime.</p>	Priority 1	
2	<p>Weeli Wolli Spring community</p> <p>Weeli Wolli Spring's riparian woodland and forest associations are unusual as a consequence of the composition of the understorey. The sedge and herbfield communities that fringe many of the pools and associated water bodies along the main channels of Weeli Wolli Creek have not been recorded from any other wetland site in the Pilbara. The spring and creekline are also noted for their relatively high diversity of stygofauna and this is probably attributed to the large-scale calcrete and alluvial aquifer system associated with the creek. The valley of Weeli Wolli Spring also supports a very rich microbat assemblage including a threatened species.</p> <p>Threats: dewatering and re-watering altering patterns of inundation, weed invasion</p>	Priority 1	
3	<p>Burrup Peninsula rock pool communities</p> <p>Calcareous tufa deposits. Interesting aquatic snails.</p> <p>Threats: recreational impacts, and potential development; possibly NOX and SOX emissions, weed invasion including <i>Passiflora foetida</i> (stinking passion flower) .</p>	Priority 1	
4	<p>Burrup Peninsula rock pile communities</p> <p>Pockets of vegetation in rock piles, rock pockets and outcrops. Comprise a mixture of Pilbara and Kimberley species, communities are different from those of the Hamersley and Chichester Ranges. Short-range endemic land snails.</p> <p>Threats: industrial development dust emissions. Weed invasion including buffel grass, <i>Passiflora foetida</i>.</p>	Priority 1	
5	<p>Roebourne Plains coastal grasslands with gilgai microrelief on deep cracking clays (Roebourne Plains gilgai grasslands)</p> <p>The Roebourne Plains coastal grasslands with gilgai micro-relief occur on deep cracking clays that are self mulching and emerge on depositional surfaces. The Roebourne Plains gilgai grasslands occur on microrelief of deep cracking clays, surrounded by clay plains/flats and sandy coastal and alluvial plains. The gilgai depressions supports ephemeral and perennial tussock grasslands dominated by <i>Sorghum</i> sp. and <i>Eragrostis xerophila</i> (Roebourne Plains grass) along with other native species including <i>Astrebla pectinata</i> (barley mitchell grass), <i>Eriachne benthamii</i> (swamp wanderie grass), <i>Chrysopogon fallax</i> (golden beard grass) and <i>Panicum decompositum</i> (native millet). Restricted to the Karratha area, this community differs from the surrounding clay flats of the Horseflat land system which are dominated by <i>Eragrostis xerophila</i> and other perennial tussock grass species (<i>Eragrostis</i> mostly).</p> <p>Threats: grazing, clearing for mining and infrastructure and urban development, weed invasion, basic raw material extraction.</p>	Priority 1	

23	<p>Plant assemblages of the Wongan Hills System (some woodlands are a component of the Eucalypt woodlands of the WA Wheatbelt EPBC listed TEC)</p> <p>Mallee over <i>Petrophile shuttleworthiana/Allocasuarina campestris</i> thicket on shallow gravely soils over ironstone on summit and slopes; Shrub mallee on slopes of lateritic hills; Mallee over <i>Allocasuarina campestris</i> thicket on the slopes of the laterite plateaus; Mallee over <i>Melaleuca</i> thicket on red brown loam over gravel on slopes below the plateau; Mallee over <i>Melaleuca coronicarpa</i> heath on shallow red soil on scarp slopes; <i>A. campestris/Calothamnus asper</i> thicket over red-brown clay/ironstone/greenstone on scree slopes; and in lower areas: <i>Eucalyptus longicornis/ E. salubris</i> woodland, <i>E. salmonophloia</i> and <i>E. loxophleba</i> woodlands; <i>Acacia acuminata</i> low forest; <i>E. ebbanoensis</i> mallee over scrub; and open mallee of <i>E. drummondii</i>.</p>	Priority 4(i)	Critically Endangered TEC (part)
SOUTH COAST			
1	<p>Stromatolite-like microbialite community of a Coastal Hypersaline Lake (Pink Lake)</p> <p>Microbial, invertebrate and plant assemblages of natural saline seeps. Well-laminated stromatolites consisting of alternations of egg-shell-like layers of inorganic aragonite precipitate and calcified microbial layers dominated by coccoid cyanobacteria and photosynthetic bacteria. These structures probably record seasonal alternations of the growth of a benthic microbial community and aragonite precipitation.</p>	Priority 1	
2	<p>Allocasuarina globosa assemblages on greenstone rock (Esperance District)</p> <p>Assemblage only known from near Norseman and in the Bremer Range (see below). Threats: mining and exploration</p>	Priority 1	
3	<p>Bremer Range vegetation complexes</p> <p>Mt Day, Round Top Hill, Honman Ridge.</p> <p><i>Eucalyptus rhomboidea</i> ms and <i>E. eremophila</i> woodland on the side slopes of low ridges; <i>E. flocktoniae</i> woodland (with <i>E. salubris</i>, <i>E. salmonophloia</i>, <i>E. dundasii</i> and <i>E. tenuis</i>) on broad flat ridges and side slopes; <i>E. flocktoniae</i> and/or <i>E. longicornis</i> woodland on saline soils on ridges and flats adjacent to large salt lake systems; <i>E. longicornis</i> and/or <i>E. salmonophloia</i> or, <i>E. georgei</i> subsp <i>georgei</i> or, <i>E. dundasii</i> woodland, on low areas; <i>E. livida</i> woodland on lateritic tops or <i>Allocasuarina</i> thickets on greenstone ridges of lateritic breakaways; <i>Acacia duriuscula</i>, <i>Allocasuarina globosa</i>, <i>E. georgei</i> subsp. <i>georgei</i> and <i>E. oleosa</i> thickets on greenstone ridges with skeletal soils. Proposed Nature Reserve.</p> <p>Threats: exploration and mining</p>	Priority 1	
4	<p>Fraser Range vegetation complex</p> <p>Plant assemblages of the Fraser Range Vegetation Complex: <i>Allocasuarina huegeliana</i> and <i>Pittosporum phylliraeoides</i> open woodland over <i>Beyeria lechenaultia</i> and <i>Dodonaea microzyga</i> Scrub and <i>Aristida contorta</i> bunch grasses (granite complex), on the slopes and summits of hills; <i>Acacia acuminata</i> Tall Shrubland dominated by <i>Melaleuca uncinata</i> and <i>Triodia scariosa</i> on uplands with shallow loamy sands; <i>Eucalyptus</i> aff. <i>uncinata</i> (KRN 7854) over <i>Senna artemisioides</i> subsp. <i>helmsii</i>, <i>Cryptandra miliaris</i>, <i>Dodonaea boroniifolia</i>, <i>D. stenozyga</i> and <i>Triodia scariosa</i> (<i>Eucalyptus effusa</i> Mallee) on colluvial flats with loamy clay sands, and; <i>E. oleosa</i>, <i>E. transcontinentalis</i>, <i>E. flocktoniae</i> Woodland on flats.</p>	Priority 1	
5	<p>Plant assemblages of the Southern Hills Vegetation Complex</p> <p>Complex of woodland (<i>Eucalyptus oleosa</i>, <i>E. transcontinentalis</i>, <i>E. flocktoniae</i>) on flats with open stony ridges carrying mainly mallee and spinifex (<i>Eucalyptus effusa</i> mallee: <i>Eucalyptus rigidula</i> over <i>Cassia helmsii</i>, <i>Cryptandra miliaris</i>, <i>Dodonaea boroniifolia</i>, <i>D. stenozyga</i> and <i>Triodia scariosa</i>). Includes patches of grassland, wattle thicket and mallee.</p>	Priority 1	
6	<p>Green Range granite hill heath and woodland community</p> <p>Heath and woodland dominated by <i>Acacia heteroclita</i>, <i>Anthocercis viscosa</i>, <i>Thryptomene saxicola</i>, <i>Darwinia citriodora</i>, <i>Prostanthera verticillata</i>, <i>Platysace compressa</i>, <i>Gastrolobium bilobum</i>, <i>Hakea oleifolia</i>, <i>Leucopogon verticillaris</i>, <i>Agonis flexuosa</i>, <i>Eucalyptus cornuta</i>, and <i>Acacia drummondii</i> ssp. <i>elegans</i> on red clay-loam over granite.</p>	Priority 1	
7	<p>Wet ironstone heath community (Albany District) (a component of the Proteaceae Dominated Kwongan Shrublands of the Southeast Coastal Floristic Province of Western Australia EPBC Listed TEC)</p> <p>The habitat for the community is winter-wet ironstone in valley floors. The heath community is dominated by <i>Kunzea recurva</i>, <i>K. preissiana</i>, <i>K. micrantha</i>, <i>Hakea lasiocarpa</i>, <i>H. tuberculata</i>, <i>H. oldfieldii</i>, <i>H. cucullata</i>, <i>H. sulcata</i>, <i>Petrophile squamata</i>, <i>Dryandra tenuifolia</i> ssp. <i>tenuifolia</i>, <i>Adenanthos apiculatus</i>, <i>Melaleuca suberosa</i>, <i>M. violacea</i>, <i>Gastrolobium spinosum</i>. North Porongurup.</p>	Priority 1	Endangered TEC

8	<p>Porongurup Range Karri Forest</p> <p>Occurs on granite, red clay-loam on the mid-upper slopes of the Porongurup Range. Dominants include <i>Eucalyptus diversicolor</i>, <i>Corymbia calophylla</i>, <i>Trymalium floribundum</i>, <i>Hydrocotyle ?hirta</i>, <i>Tetrarrhena laevis</i>, <i>Clematis pubescens</i>, <i>Lepidosperma effusum</i> and <i>Pteridium esculentum</i>. Other associated species include; <i>Apium prostratum</i> subsp. <i>phillipii</i> (DRF), <i>Ranunculus colonorum</i>, <i>Adiantum aethiopicum</i>, <i>Asplenium flabellifolium</i>, <i>A. aethiopicum</i> (P4), <i>Veronica plebeia</i>, <i>Poa porphyroclados</i> and <i>Oxalis corniculata</i>.</p>	Priority 1	
9	<p>Cheynes 1 Tree Mallee (a component of the Proteaceae Dominated Kwongkan Shrublands of the Southeast Coastal Floristic Province of Western Australia EPBC Listed TEC)</p> <p><i>Eucalyptus acies</i>, <i>E. lehmanii</i>, <i>E. goniantha</i> Tree Mallee Tall Open Shrubland and Open Sedgeland on loam on steep slopes of spongelite breakaway. Common shrub species include <i>Gastrolobium bilobum</i>, <i>Rhadinothamnus rudis</i>, <i>Melaleuca blaeriifolia</i>, <i>Hakea elliptica</i>, <i>Spyridium majoranifolium</i> and <i>Agonis theiformis</i>. Common sedges include <i>Desmocladus flexuosus</i> and <i>Tetraria capillaris</i>. Priority taxa other than <i>E. acies</i> (P4) and <i>E. goniantha</i> (P4) include <i>Dryandra serra</i> (P4, at the eastern limit of its range) and <i>Calothamnus robustus</i> (P3).</p>	Priority 1	Endangered TEC (part)
10	<p>Cheynes 2 Open Tree Mallee (a component of the Proteaceae Dominated Kwongkan Shrublands of the Southeast Coastal Floristic Province of Western Australia EPBC Listed TEC)</p> <p><i>Eucalyptus acies</i> (P4), <i>E. doratoxylon</i> Tree Mallee over Mixed Tall Open Shrubland, Open Shrubland and Open Sedgeland on loam on gentle to moderate slopes and crests of spongelite outcropping. Common tall shrub species include <i>Allocasuarina trichodon</i>, <i>Hakea cucullata</i> and <i>H. lasiantha</i>; however the tall shrub stratum may be absent. Common shrubs include <i>Calothamnus robustus</i> (P3), <i>Beaufortia empetrifolia</i>, <i>Dryandra mucronulata</i>, <i>Melaleuca striata</i> and <i>Taxandria spathulata</i>. Common sedges include <i>Mesomelaena stygia</i>, <i>M. tetragona</i>, <i>Cyathochaeta avenacea</i>, <i>Anarthria scabra</i> and <i>Chordifex leucoblepharus</i>.</p>	Priority 1	Endangered TEC (part)
11	<p>Melaleuca sp. Kundip (now <i>M. sophisma</i>) Heath</p> <p>Very open mallee over <i>Melaleuca sophisma</i> (Collection number GF Craig 6020) dense heath.</p> <p>Open mallee over dense shrub heath (1.0-1.5) dominated by <i>Melaleuca sophisma</i> on pale grey loamy sand with quartz rubble, occupies hill slopes. Associated species include <i>Melaleuca sophisma</i> (GF Craig 6020) (P1) (dominant), <i>M. haplantha</i>, <i>M. stramentosa</i> (P1), <i>M. rigidifolia</i>, <i>M. bracteosa</i>, <i>Melaleuca</i> sp. Gorse, <i>Pultenaea</i> sp. Kundip (GF Craig 6008) (P1), <i>Eucalyptus cernua</i>, <i>E. phaenophylla</i>, <i>E. pileata</i>, <i>Dodonaea trifida</i> (P3), <i>Acacia durabilis</i> (P3), <i>Leucopogon infuscatus</i> and <i>Hibbertia psilocarpa</i> ms. On its eastern boundary, the community abuts <i>Eucalyptus astringens</i> open low woodland and in this area there is an intergrade community.</p>	Priority 1	
12	<p>Montane mallee of the Stirling Ranges (a component of the Proteaceae Dominated Kwongkan Shrublands of the Southeast Coastal Floristic Province of Western Australia EPBC Listed TEC)</p> <p>Thicket, mallee-thicket and heath community on mid to upper slopes of Stirling Range mountains and hills east of Red Gum Pass.</p>	Priority 1	Endangered TEC (part)
13	<p>Coyanarup Wetland Suite</p> <p>Microscale paluslopes associated with seepage and creeks in the area between Coyanarup Peak and Bluff Knoll in the Stirling Ranges.</p>	Priority 1	
14	<p><i>Eucalyptus purpurata</i> woodlands (Bandalup Hill)</p> <p><i>Eucalyptus purpurata</i> woodlands on magnesite soils of the ridge-tops and upper slopes of Bandalup Hill</p>	Priority 1	
15	<p><i>Banksia coccinea</i> Shrubland/<i>Eucalyptus staeri</i>/Sheoak Open Woodland ('Community type 14a')</p> <p>Found on deep white/light grey sand on the lower slopes and valleys, usually occurring just upslope of seasonally wet drainage lines. The community is floristically very diverse and structurally quite variable. Typically <i>Allocasuarina fraseriana</i>, <i>Eucalyptus staeri</i>, <i>Banksia attenuata</i> and <i>Banksia ilicifolia</i> are present as emergents or as low open woodland above a <i>Banksia coccinea</i> tall open scrub, mixed open/closed heath, mixed low open heath, mixed sedgeland and open herbland. <i>Jacksonia spinosa</i> often forms a distinct stratum above the heathland, dominant heath species are <i>Melaleuca thymoides</i>, <i>Adenanthos cuneatus</i>, <i>Leucopogon rubricaulis</i>, <i>Phyllota barbata</i>, <i>Hypocalymma strictum</i> and <i>Leucopogon glabellus</i>. Common sedges and herbs include <i>Anarthria scabra</i>, <i>Lyginia barbata</i>, <i>Schoenus caespitius</i>, <i>Anarthria prolifera</i>, <i>Anarthria gracilis</i> and <i>Cyathochaeta equitans</i>. The community is highly susceptible to <i>Phytophthora</i> dieback with infestations resulting in greatly reduced floristic and structural diversity. Appears to be restricted to the Albany region.</p>	Priority 1	Endangered TEC (part)

16	<p><i>Banksia laevigata</i> – <i>Banksia lemnniana</i> proteaceous thicket (a component of the Proteaceae Dominated Kwongkan Shrublands of the Southeast Coastal Floristic Province of Western Australia EPBC Listed TEC)</p> <p>This community occurs on laterised ridges and breakaways. Associated species generally include <i>Eucalyptus pleurocarpa</i>, <i>Adenanthos oreophilus</i>, <i>Leptospermum maxwellii</i>, <i>Beaufortia orbifolia</i>, <i>Taxandria spathulata</i> and <i>Stylidium albomontis</i>.</p>	Priority 1	Endangered TEC (part)
17	<p><i>Eucalyptus megacornuta</i> mallet woodland</p> <p>Associated species include the shrubs <i>Hovea acanthoclada</i>, <i>Lasiopetalum compactum</i>, <i>Melaleuca thapsina</i>. This community typically grows on rock piles and breakaways of laterised banded ironstone and pyrite formations. A vegetation study noted that <i>E. megacornuta</i> is almost confined to the Ravensthorpe Range and was considered rare (less than 1,000 plants known in conservation reserves, or few populations).</p>	Priority 1	
18	<p>Microbial mantles of Nullarbor caves (especially Weebubbe Cave)</p> <p>Significant microbial communities in underwater sections of caves.</p> <p>Threats: uncontrolled access</p>	Priority 1	
19	<p>Mosaic of Albany Blackbutt (<i>Eucalyptus staeri</i>) mallee-heath found on lateritic ridges and Chittick (<i>Lambertia inermis</i> subsp. <i>inermis</i>) scrub-heath on seasonally-waterlogged laterite (a component of the Proteaceae Dominated Kwongkan Shrublands of the Southeast Coastal Floristic Province of Western Australia EPBC Listed TEC)</p> <p>Regionally very restricted and very poorly reserved.</p> <p>Threats: dieback</p>	Priority 1	Endangered TEC (part)
20	<p><i>Banksia littoralis</i> woodland / <i>Melaleuca incana</i> Shrubland (South Coast Region)</p> <p>Threats: fragmentation, dieback disease, hydrological change, too frequent fire, weed invasion</p>	Priority 1	
21	<p><i>Banksia occidentalis</i>/<i>Kunzea clavata</i> Shrubland (South Coast Region)</p> <p>Threats: dieback disease, too frequent fire, weed invasion</p>	Priority 1	
22	<p><i>Astartea scoparia</i> Swamp Thicket (South Coast Region)</p> <p>Threats: fragmentation, too frequent fire, hydrological change, weed invasion, dieback disease</p>	Priority 1	
23	<p>Coastal <i>Melaleuca incana</i> / <i>Taxandria juniperina</i> Shrubland/ Closed Forest</p> <p>Threats: fragmentation, too frequent fire, hydrological change, weed invasion, dieback disease</p>	Priority 1	
24	<p>Tallerack (<i>Eucalyptus pleurocarpa</i>) mallee-heath on seasonally inundated soils (a component of the Proteaceae Dominated Kwongkan Shrublands of the Southeast Coastal Floristic Province of Western Australia EPBC Listed TEC)</p> <p>May have been common prior to clearing for agriculture, and the remaining occurrences of this vegetation are of high conservation significance.</p>	Priority 2	Endangered TEC (part)
25	<p><i>Melaleuca striata</i> /<i>Banksia</i> spp. Coastal Heath (a component of the Proteaceae Dominated Kwongkan Shrublands of the Southeast Coastal Floristic Province of Western Australia EPBC Listed TEC)</p> <p>Community occurs on light grey deep sand on coastal slopes and valleys. <i>Melaleuca striata</i>, <i>Banksia attenuata</i> and <i>Banksia coccinea</i> dominate the closed to open heath/low heath with exposure to salt laden winds restricting the growth of the latter two species. This unit is typically dense being a closed to open heath/low heath over a dense sedgeland dominated by <i>Anarthria scabra</i>. Other common species include <i>Isopogon cuneatus</i>, <i>Adenanthos cuneatus</i>, <i>Astroloma baxteri</i>, <i>Hypocalymma strictum</i>, <i>Petrophile rigida</i>, <i>Melaleuca thymoides</i>, <i>Lyginia barbata</i> and <i>Hypolaena exsulca</i>. The community is restricted to an area in Gull Rock National Park east of Albany.</p> <p>Threats: All known occurrences are affected by <i>Phytophthora</i> dieback and/or aerial canker. Also vulnerable to inappropriate fire regimes as the community contains serotinous obligate seeders.</p>	Priority 1	Endangered TEC (part)
26	<p><i>Melaleuca spathulata</i>/<i>Melaleuca viminea</i> Swamp Heath</p> <p>Seasonally wet heath dominated by <i>Melaleuca spathulata</i> and <i>Melaleuca viminea</i> in the upper stratum over an open sedgeland characterised by <i>Meeboldina roycei</i>; occurs on brown to orange brown loam overlying clay in winter-wet sumplands.</p> <p>Threats: As a wetland community may be considered vulnerable to inappropriate fire regimes i.e. intense fire while the dominant species <i>Melaleuca viminea</i> is a serotinous obligate seeder and vulnerable to too frequent fire.</p>	Priority 1	

27	<p><i>Banksia coccinea</i> Shrubland / <i>Melaleuca striata</i> / <i>Leucopogon flavescens</i> Heath (a component of the Proteaceae Dominated Kwongkan Shrublands of the Southeast Coastal Floristic Province of Western Australia EPBC Listed TEC)</p> <p>Community occurs on light grey or grey deep sand on lower slopes and valleys. Structurally this unit is a diverse heathland over a diverse sedgeland dominated by <i>Anarthria scabra</i> and a very open herbland dominated by <i>Dasyogon bromeliifolius</i>. Emergent trees (<i>Allocasuarina fraseriana</i>, <i>E. marginata</i>) may be present along with the shrub <i>Taxandria angustifolia</i>. The community is restricted to an area in the Angove-Two-Peoples Bay - Bettys Beach area east of Albany.</p> <p>Threats: dieback disease caused by <i>Phytophthora</i> spp., inappropriate fire regimes.</p>	Priority 1	Endangered TEC (part)
28	<p><i>Allocasuarina campestris</i> / <i>Callitris preissii</i> Tall Shrubland on Siltstone</p> <p><i>Callitris preissii</i> occurs with <i>Allocasuarina campestris</i> as dominants in a tall shrubland to shrubland over low open shrubland and very open herbland. Canopy cover is variable in density, depending on the amount of surface rock. Shrub species in the open low heath to low open shrubland stratum are variable and common species include: <i>Leucopogon</i> sp. Coujinup, <i>Kunzea recurva</i>, <i>Calytrix tetragona</i>, <i>Calothamnus quadrifidus</i>, <i>Taxandria spathulata</i>, <i>Chamelaucium ciliatum</i>, <i>Leucopogon</i> spp., <i>Verticordia endlicheriana</i>, <i>Astartea glomerulosa</i>, <i>Beaufortia cyrtodonta</i>, <i>Melaleuca spathulata</i>, <i>Acrotriche parviflora</i> and <i>Hakea marginata</i>. Habitat is uplands, on skeletal loam soils associated with siltstone rock outcropping or rock close to the soil surface, with or without laterite intrusions.</p> <p>Threats: Vulnerable to altered fire regimes, grazing pressure and weeds.</p>	Priority 1	
29	<p><i>Regelia velutina</i> / <i>Melaleuca lutea</i> shrubland of the Fitzgerald River National Park</p> <p>A shrubland dominated by members of the Myrtaceae occurring on areas of exposed quartzite bedrock with shallow loamy sand soils on mountain ridges, large quartzite hillocks and a wave cut bench.</p> <p>Threats: Climate change/ drought, <i>Phytophthora</i> dieback, altered fire regimes.</p>	Priority 2	
30	<p>Albany Blackbutt (<i>Eucalyptus staeri</i>) mallee-heath on deep sand (a component of the Proteaceae Dominated Kwongkan Shrublands of the Southeast Coastal Floristic Province of Western Australia EPBC Listed TEC)</p> <p>The structure of the vegetation is mallee heath. <i>Eucalyptus staeri</i> to about 4-5 m in height is the most common mallee within a tall open shrub layer consistently dominated by <i>Agonis theiformis</i> and <i>Banksia baxteri</i>. <i>Banksia attenuata</i>, <i>Banksia coccinea</i>, <i>Hakea pandanicarpa</i> subsp. <i>crassifolia</i> and <i>Lambertia inermis</i> are also dominant in some occurrences. <i>Banksia attenuata</i> dominates this assemblage at occurrences with the deepest sand. <i>Hakea baxteri</i> and <i>Nuytsia floribunda</i> are other common species in the tall shrub layer. <i>Banksia baxteri</i> in the tall shrubs layer is a conspicuous indicator species of this unit. Requires further survey to confirm distribution.</p> <p>Threats: appears to have been very extensive and common throughout the region but has been comprehensively cleared and degraded (mainly through grazing).</p>	Priority 2	Endangered TEC (part)
31	<p>Subterranean faunal ecosystems of Nullarbor caves (known from Nurina Cave, Olwolgjin Cave, Burnabbie Cave, N327, N1327)</p> <p>The caves contain communities of invertebrates, other fauna and sensitive habitats including tree roots. Caves included in this community contain at least four troglobitic taxa.</p> <p>Threats: uncontrolled access</p>	Priority 3(i)	
32	<p>*<i>Posidonia australis</i> complex seagrass meadows</p> <p>The community consists of the assemblage of plants, animals and micro-organisms associated with seagrass meadows dominated by species from the <i>Posidonia australis</i> complex. It occurs as continuous to patchy monospecific and multispecies seagrass meadows dominated by species from the <i>Posidonia australis</i> complex - <i>P. angustifolia</i>, <i>P. australis</i> and <i>P. sinuosa</i>. It is the climax community of a successional process that occurs over decades to centuries. The community is distributed in temperate Australian waters between Shark Bay (25°S) on the west coast, across southern Australia to Wallis Lake (32°S) on the east coast, around Bass Strait islands and along the north coast of Tasmania.</p> <p>Threats: decline in water quality, coastal infrastructure development and damage caused by vessels and moorings. Climate change is anticipated to significantly impact on seagrasses over time due to their particular sensitivity to changes in factors such as temperature, salinity, water clarity, pH and sea level.</p>	Priority 3(i)	
33	<p>Swamp Yate (<i>Eucalyptus occidentalis</i>) woodlands in seasonally inundated clay basins (South Coast)</p> <p>Yate woodlands with intact understorey and fringing vegetation are poorly conserved in the region.</p>	Priority 3(iii)	

34	<p>*Subtropical and Temperate Coastal Saltmarsh</p> <p>Consists of the assemblage of plants, animals and micro-organisms associated with saltmarsh in coastal regions of sub-tropical and temperate Australia (south of 23° S latitude). The habitat is coastal areas under tidal influence. In southern latitudes saltmarsh are the dominant habitat in the intertidal zone and often occur in association with estuaries. It is typically restricted to the upper intertidal environment, generally between the elevation of the mean high tide, and the mean spring tide. The community consists mainly of salt-tolerant vegetation (halophytes) including: grasses, herbs, reeds, sedges and shrubs. Succulent herbs and grasses generally dominate and vegetation is generally <0.5m tall with the exception of some reeds and sedges. Many species of non-vascular plants are also found in saltmarsh, including epiphytic algae, diatoms and cyanobacterial mats. Saltmarsh consists of many vascular plant species but is dominated by relatively few families. There is also typically a high degree of endemism at the species level. The two most widely represented coastal saltmarsh plant families are the Chenopodiaceae and Poaceae. Four structural saltmarsh forms are currently recognised based on dominance of a particular vegetation type:</p> <ul style="list-style-type: none"> • dominance by succulent shrubs (e.g. <i>Tecticornia</i>) • dominance by grasses (e.g. <i>Sporobolus virginicus</i>) • dominance by sedges and grasses (e.g. <i>Juncus kraussii</i>, <i>Gahnia trifida</i>) • dominance by herbs (e.g. low-growing creeping plants such as <i>Wilsonia backhousei</i>, <i>Samolus repens</i>, <i>Schoenus nitenis</i>). 	Priority 3(iii)	Vulnerable TEC
35	<p>*Ironcap Hills vegetation complexes (Mt Holland, Middle, North and South Ironcap Hills, Digger Rock and Hatter Hill) (banded ironstone formation)</p> <p>Threats: mining</p>	Priority 3(iii)	
36	<p>Heath on Komatiite of the Ravensthorpe area</p> <p>Dense heath on alkaline red clay over komatiite (ultra-mafic rock) and associated carbonates. Note: very open tree mallee over heath B in Hale Bopp orebody area. Dominant species: <i>Beyeria cockertonii</i> (DRF), <i>Acacia ophiolithica</i>, <i>Hakea verrucosa</i>, <i>Grevillea fastigiata</i>, <i>Melaleuca ulicoides</i>, <i>Allocasuarina hystricosa</i> (P3), <i>Verticordia oxylepis</i>, <i>Grevillea oligantha</i>, <i>Hybanthus floribundus</i>, <i>Pomaderris brevifolia</i> ssp. <i>brevifolia</i>, <i>Pultenaea wudjariensis</i> (P1), <i>Melaleuca pomphostoma</i>, <i>Nematolepis phebaloides</i>, <i>Philothea gardneri</i> subsp. <i>gardneri</i>, <i>Gyrostemon sessilis</i>, <i>Colethamnus quadrifidus</i>, <i>Calytrix tetragona</i>, <i>Halgania anagalloides</i>, <i>Coleanthera myrtooides</i>. <i>Beyeria cockertonii</i>, <i>Pultenaea wudjariensis</i>, <i>Grevillea fastigiata</i> and <i>Gyrostemon sessilis</i> are narrow range endemics.</p>	Priority 3(iii)	
37	<p>Moodini Land System</p> <p>Level to gently undulating plains of residual sand and calcrete near the edge of the Bunda Plateau supporting eucalypt or myall woodlands.</p> <p>Threats: over grazing</p>	Priority 3(iii)	
38	<p>*Granite outcrop pools with endemic aquatic fauna</p> <p>Freshwater pools formed on granite outcrops that may persist for several months and house a variety of aquatic invertebrates, some of which are endemic to south-west WA. Some examples include cladocerans, ostracods, copepods, rotifers, oligochaetes and molluscs.</p>	Priority 3(i)	
39	<p><i>Taxandria spathulata</i> Heath (a component of the Proteaceae Dominated Kwongkan Shrublands of the Southeast Coastal Floristic Province of Western Australia EPBC Listed TEC)</p> <p>Community is an open heath dominated by <i>Taxandria spathulata</i>, with a sedgeland that includes <i>Schoenus</i> sp. Cape Riche Cushion and <i>Mesomelaena stygia</i> on clay loam overlying spongolite plains.</p> <p>Threats: The community is vulnerable to inappropriate fire regimes with <i>Taxandria spathulata</i> being a serotinous obligate seeder.</p>	Priority 4(i)	Endangered TEC (part)
40	<p>*Proteaceae Dominated Kwongkan Shrublands of the Southeast Coastal Floristic Province of Western Australia</p> <p>Consists of predominantly obligate seeding proteaceous shrubland and heath (kwongkan) and mallee heath on sandplain, duplex sand/clay and gravels overlying Eocene sediments, quartzite, schist, Yilgarn and Albany Fraser granite and greenstone ranges. Its flora is characterised by high species diversity and a high degree of endemism, particularly in the Stirling Range, Fitzgerald River National Park, Ravensthorpe Range and Russell Ranges. Due to the high levels of endemism, there are few species that exist across the entire range of the dense, obligate seeding Proteaceae dominated shrublands and kwongkan of the Esperance Sandplains, however particular species have been identified as common dominant species in each of its eco districts.</p> <p>Threats: past threats have principally been fragmentation from land clearing, current threats are plant disease <i>Phytophthora cinnamomi</i>, increased fire frequencies, invasive weeds and feral animals.</p>	Priority 3(iii)	Endangered TEC
41	<p>Woodline Hills vegetation complexes (<i>Baeckea</i> sp. <i>Barbalin</i> previously known as <i>B. recurva</i>) shrubland</p> <p>Ridge communities unique but unless a mine is proposed are currently not threatened.</p>	Priority 4(i)	

42	Stirling Range Upland Yate community Low woodland of <i>Eucalyptus cornuta</i> over a sparse shrub layer of <i>Gastrolobium velutinum</i> , <i>Chamelaucium pauciflorum</i> and <i>Thomasia foliosa</i> over open herbs of <i>Tetrarrhena laevis</i> , <i>Poa porphyroclados</i> , <i>Billardiera heterophylla</i> , <i>Clematis pubescens</i> , <i>Senecio</i> sp., <i>Hydrocotyle hirta</i> , <i>Cheilanthes austrotenuifolia</i> and <i>Asplenium flabellifolium</i> .	Priority 4(ii)	
*Community type occurs in more than one region Total 391 (community types and sub-types)			