# GHD

#### Memorandum

#### 26 March 2021

То	Western Power		
Copy to			
From	GHD Pty Ltd	Job no.	12544616
Subject	Assessment of environmental impacts and rec	commendations	3

#### 1 Introduction

#### 1.1 Background

Western Power requires a Native Vegetation Clearing permit (NVCP) to construct a distribution cable connection from Western Power's existing power pole on Rosedale street, to a customers property (Brad and Claire McLean) at 3350 Rosedale Street in Chidlow (the Site). The Site area is located within the Shire of Mundaring, approximately 37 km north east of Perth Central Business District as shown in Figure 1.

The Site footprint, represents the area within which clearing or disturbance of native vegetation will occur. The total footprint (shown as the "Access to Work Area" in Figure 1) to be impacted is 69 m² (less than 0.007 ha). Approximately 3.5 m² (less than 0.0004 ha) will be impacted directly through excavation and 16 m² (0.0016 ha) will be disturbed by the parking of a drill rig. These two area are represented on Figure 1 as "Clearing Required for Construction". It should be noted this area is not completely covered in native vegetation and includes existing cleared areas. The remaining 49.5 m² (0.005 ha) of the Site footprint may be impacted by the movement of people (Figure 1). Clearing will occur along Rosedale Street at the base of Pole No. S383338 (Figure 3) to enable undergorund distribution of the line using horizontal drilling. Further disturbance will occur in a cleared area on the residents property (Figure 4). Permanent infrastructure will comprise underground cables. Works are anticipated to take approximately two days to complete.

The distribution line will be installed via horizontal drilling. The launching (entry) pit is located within Lot 4407 and receival (exit) pit is located in the road reserve. Horizontal drilling will occur at a minimum depth of 0.75 m. The diameter of poly-pipe to be installed is 63 mm. It is not expected that the proposed underground works will impact native vegetation with the exception of minor disturbance to root systems.

GHD has undertaken a high-level review of environmental values to determine whether the project is likely to be at variance to any of the ten clearing principles under the *Environmental Protection Act* 1986 (EP Act).

#### 1.2 Memorandum purpose and scope

The purpose of memorandum is to provide:

- Consideration of whether the project is likely to be at variance to any of the ten clearing principles as outlined in Schedule 5 of the EP Act and Environmental Protection (Clearing of Native Vegetation) Regulations 2004
- · Assessment of the potential impacts to flora and vegetation that may result from the project
- Recommendations for minimising the potential impacts of the project.

#### 2 Land tenure

Table 1 provides the land tenure details for the Site footprint within which clearing of native vegetation will occur.

Table 1 Land tenure details

Lot number	Parcel ID	Street address	Land type	Land manager
4407	P160706	3350 Rosedale St, Chidlow 6556	Private	
N/A	P Road	Rosedale Street	Road	Shire of Mundaring

#### 3 Desktop assessment

A high level desktop environmental assessment, using pubically available spatial datasets (largely sourced from the Government of Western Australia (GoWA), and government managed datasets, was undertaken of the Site footprint, the results are provided in Table 2. Figure 2 presents Threatened and Priority flora and fauna Department of Biodiversity, Conservation and Attractions (DBCA) records within a 5 km radius of the Site footprint.

Table 2 Desktop Environmental Assessment

Aspect	Infromation source	Presence/relevane to the Project	Potential trigger for State/Commonwealth approvals
Environmentally Sensitive Areas (ESAs) – Clearing Regulations	Department of Water and Environmental Regulation (DWER) Clearing regulations – ESAs (DWER- 046)	No	No
Native Vegetation Extent WA	Department of Primary Industries and Regional Development (DPIRD) Native Vegetation Extent (DPIRD- 005)	Yes – native vegetation intersects the project.	No – the Site footprint is 69 m² with minimal native vegetation present within the project footprint.

Aspect	Infromation source	Presence/relevane to the Project	Potential trigger for State/Commonwealth approvals
Public Drinking Water Source Areas (PDWSA)	DWER Public Drinking Water Source Areas (DWER-033)	No	No – Mundaring Weir (Metropolitan) Catchment Area – Surface Water is located approximately 3 kilometres (km) south/southeast of the project.
Geomorphic Wetlands/ RAMSAR Wetlands	DBCA Geomorphic Wetlands, Swan Coastal Plain (DBCA- 019)	No	No – the closest wetlands (Multiple Use) are located approximately 19 km west of the project.
	Directory of Important Wetlands in Australia - Western Australia (DBCA-045)		
Soil Landscape Land Quality	DPIRD Soil landscape land quality - Land Instability Risk (DPIRD-042)	Yes	No - The Site footprint is in an area where <3% of map unit has a moderate to high hazard of land instability.
Aboriginal Heritage Places	Department of Planning, Lands and Heritage (DPLH) Aboriginal Heritage Places (DPLH-001)	No	No – the nearest registed heritage site (Middle Creek (ID 16009)) is located approximately 3.3 km southeast of the Site.
Threatened and Priority Flora WA	DBCA Threatened and Priority Flora (DBCA-036)	No	No – the closest threatened/ priority flora is threatened/ Priority 3 flora species 2 km southwest of the Site.
Threatened and Priority Fauna WA	DBCA Threatened and Priority Fauna (DBCA-037)	No	No – the closest fauna record is a threatened/endangered bird species approximately 650 m southeast of the Site.
Threatened Ecological Communities (TEC)	DBCA Threatened Ecological Communities (DBCA-038)	No	No – the closest TEC is approximately 12.5 km southwest of the Site.

Aspect	Infromation source	Presence/relevane to the Project	Potential trigger for State/Commonwealth approvals
Prottected Matters SearchTool (PMST)	Federal Department of Agriculture, Water and the Environment (DAWE) Environment Protection and Biodvisersity Conservation Act 1999 (EPBC Act)	Unlikely	No potential triggers for Commonwealth referral has been identified – see Attachment 1 for PMST Report.  The following Matter of National Environmental Significance (MNES) may occur in, or may relate to, a 5 km radial buffer around the Site:  One National Heritage Place located approximately 600 m south-east of the Site  18 Threatened Species  9 Migratory species Given the project footprint is 69 m², with only 19.5m² of clearing proposed, the project is unlikely to cause
			a significant impact on MNES.
Naturemap (State)	-	Yes – NVCP required for clearing of native vegetation	No potential trigger for State referral was identified – see Attachment 2 for Naturemap Report.
			A Naturemap search was conducted around the project with a 5 km buffer. The results identified:.
			<ul> <li>5,259 records of 168 animalia species were identified</li> </ul>
			<ul> <li>51 records of 16 fungi species were identified</li> </ul>
			<ul> <li>346 records of 235 plantae species were identified</li> </ul>
			No records of     Threatened or Priority     flora or fauna within     the project.
			Given the Site footprint is 69m², with only 19.5m² of clearing proposed, the project is unlikely to significantly impact environmental factors.

Aspect	Infromation source	Presence/relevane to the Project	Potential trigger for State/Commonwealth approvals
Dieback	Dieback Information Delivery and Management System (DIDMS)	Possible	No Dieback is reported within the Site, however it is reported approximately 500m NE of the Site, Dieback may be prevalent in the area. Suitable hygiene procedures should be followed.
Acid Sulfate Soils	Australian Soil Resource Information System (ASRIS) – Acid Sulfate Soils Map	Unlikely	C4 – Extremely Low Probability
Contaminated Sites	DWER Contaminated Sites Database	Unlikely	No recorded Contaminated Sites within 5km

#### 4 Assessment against the ten clearing principles

In Western Australia, the Department of Water and Environmental Regulation (DWER) regulates native vegetation clearing under Part V of the EP Act, unless the proposal is formally assessed by the Environment Protection Authority (EPA) or a clearing permit exemption applies. The clearing of native vegetation in Western Australia requires a permit under Part V of the EP Act. Due to the small Site footprint and no identified potentially significant impacts to the environment, the project does not trigger the need for formal assessment by the EPA and no exemption applies.

An assessment of the Site area against the ten clearing principles outlined in Schedule 5 of the EP Act was undertaken with reference to DWER guidelines *A guide to the assessment of applications to clear native vegetation under Part V Division 2 of the EP Act* (DER 2014).

The assessment of the Site area against the ten clearing principles concluded the proposed clearing is not at variance with any of the principles.

Given the very limited extent of proposed clearing (19.5 m², 0.002 ha), the location of clearing in relation to other existing disturbances (e.g. roads and completely disturbed land), and proposed mitigation measures (Section 5), the potential impacts of the clearing is not considered environmentally significant.

The project is considered 'not at variance' or 'unlikely to be at variance' to the ten clearing principles given the location of the project footprint in relation to existing disturbance/infrastructure, the extent of proposed clearing (19.5 m²), and the surrounding environmental setting.

#### 5 Avoidance and mitigation measures

Western Power are committed to implementing the following avoidance measures:

- Horizontal drilling to install the underground distribution line to minimise clearing of native vegetation (see blue area in Figure 1). Clearing for horizontal drilling will be limited to a 1 m x 2 m pit at launching location (within the customer property) and a 1.5 m x 1 m pit at receival location (roadside).
- Use of existing cleared areas (tracks, roads) where practicable, to access the site and undertake works.

Western Power are committed to implementing the following mitigation measures:

- · Clearing areas will be clearly demarcated on site prior to the commencement of clearing
- Implementation of weeds hygiene protocol during construction, including cleaning of vehicles, heavy equipment, tools and footwear prior to entry and exit from vegetated areas
- Limit vehicle speeds within the project footprint to minimise the risk of fauna strike.

#### 6 Conclusion

The total Site footprint is 69 m<sup>2</sup>, within which very little native vegetation is present which could be impacted by project works. The project is considered 'not at variance' or 'unlikely to be at variance' with any of the ten principles.

The project is considered unlikely to significantly impact the environment given the location of the project footprint in relation to existing disturbance/infrastructure and the small extent of proposed clearing required.

#### 7 References

Department of Agriculture, Water and the Environment (DAWE) 2021, *Environmental Protection and Biodiversity Conservation Act 1999 Protected Matters Search Tool Results*, retrieved February 2021 from http://www.environment.gov.au/epbc/pmst/index.html.

Department of Biodiversity, Conservation and Attractions (DBCA) 2007–, *NatureMap*: Mapping Western Australia's Biodiversity, retrieved February 2021, from <a href="https://naturemap.dpaw.wa.gov.au/default.aspx">https://naturemap.dpaw.wa.gov.au/default.aspx</a>

Department of Environment Regulation (DER) 2014, A guide to the assessment of applications to clear native vegetation under Part V Division 2 of the EP Act, Government of Western Australia, December 2014.

Government of Western Australia (GoWA) 2021, Data WA, retrieved February 2021, from <a href="https://data.wa.gov.au/">https://data.wa.gov.au/</a>

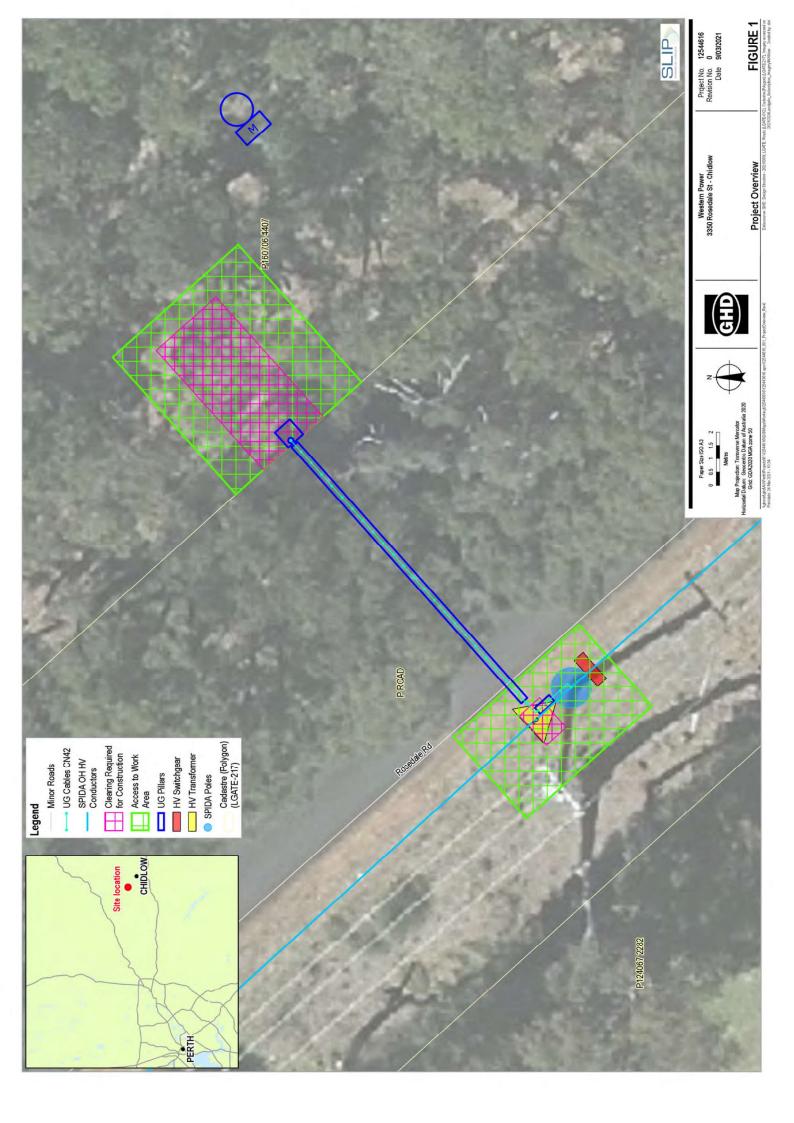
Attachment 1 – PMST Search Results
Attachment 2 – Naturemap Search Results

Figure 1 - Project Location

Figure 2 – Threatened Ecological Communities & Priority Flora & Fauna

Figure 3 – Area to be cleared at the base of Pole No. S383338

Figure 4 – Area to be disturbed on clients property



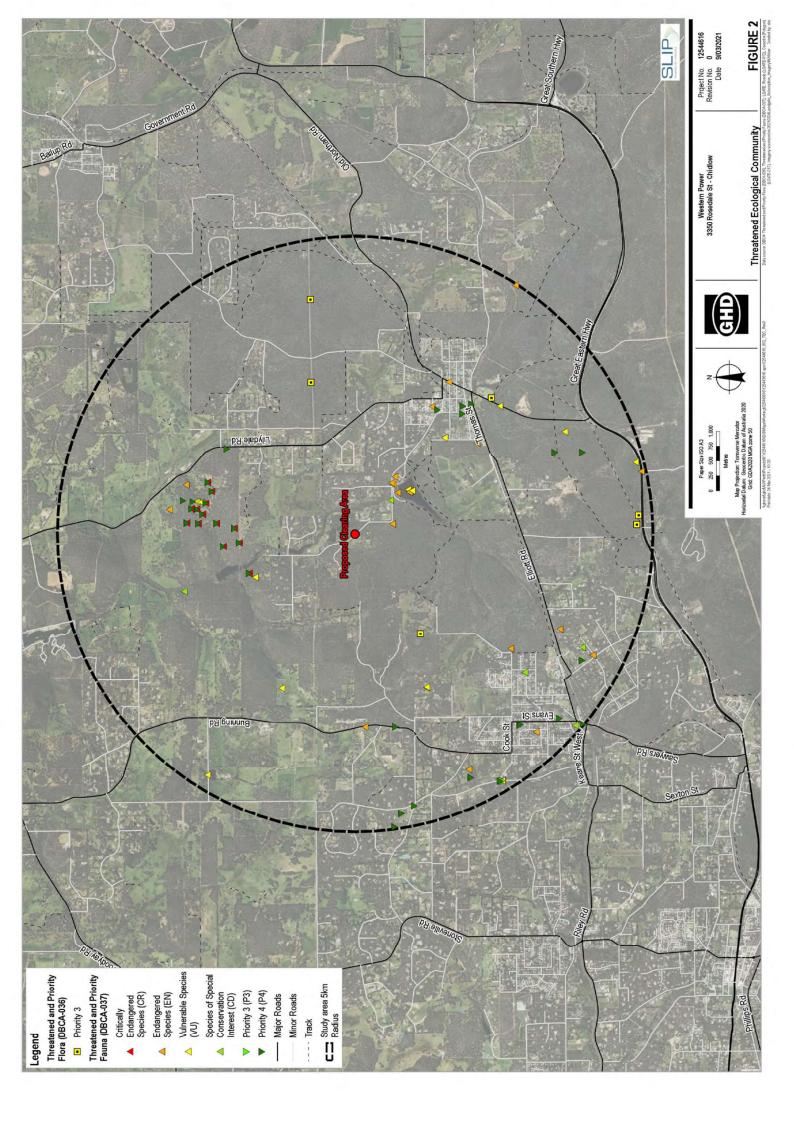
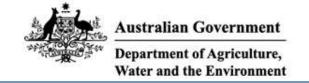




Figure 3 – Area to be cleared at the base of Pole No. S383338



Figure 4 – Area to be disturbed on Clients Property



# **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 <u>Environment Assessments</u> and the EPBC Act including significance guidelines, forms and application process details.

Report created: 26/02/21 18:05:31

**Summary** 

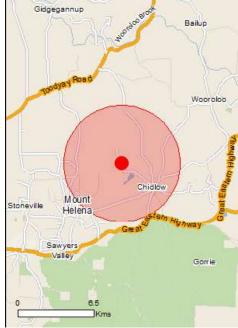
**Details** 

Matters of NES
Other Matters Protected by the EPBC Act

Caveat

<u>Acknowledgements</u>

**Extra Information** 



This map may contain data which are ©Commonwealth of Australia (Geoscience Australia), ©PSMA 2015

Coordinates
Buffer: 5.0Km



#### 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 <u>Administrative Guidelines on Significance</u>.

World Heritage Properties:	None
National Heritage Places:	1
Wetlands of International Importance:	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	18
Listed Migratory Species:	9

#### 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 <u>permit</u> 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:	14
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	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:	2
Regional Forest Agreements:	1
Invasive Species:	28
Nationally Important Wetlands:	None
Key Ecological Features (Marine)	None

# Details

# Matters of National Environmental Significance

National Heritage Properties		[ Resource Information ]
Name	State	Status
Historic		
Goldfields Water Supply Scheme, Western Australia	WA	Listed place

Name Birds Calidris ferruqinea Curlew Sandpiper [856] Critically Endangered Species or species habitat may occur within area  Calyptorhynchus banksii. naso Forest Red-tailed Black-Cockatoo, Karrak [67034] Vulnerable Species or species habitat known to occur within area  Calyptorhynchus baudinii Baudin's Cockatoo, Long-billed Black-Cockatoo [769] Endangered Roosting known to occur within area  Calyptorhynchus latirostris Carnaby's Cockatoo, Short-billed Black-Cockatoo Endangered Species or species habitat known to occur within area  Leipoa ocellata Malleefowl [934] Vulnerable Species or species habitat known to occur within area  Leipoa ocellata Malleefowl [934] 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  Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847] Endangered Species or species habitat likely to occur within area  Mammals Bettongia penicillata ogilbyi Woylie [66844] Endangered Species or species habitat known to occur within area  Dasyurus geoffroii Chuditch, Western Quoll [330] Vulnerable Species or species habitat known to occur within area  Settonix brachyurus Quokka [229] Vulnerable Species or species habitat known to occur within area  Other  Westralunio carteri Carter's Freshwater Mussel, Freshwater Mussel Vulnerable Species or species habitat may occur within area	Listed Threatened Species		[ Resource Information ]
Caliptorhynchus banksii naso Forest Red-tailed Black-Cockatoo, Karrak [67034] Vulnerable Species or species habitat may occur within area  Calyptorhynchus banksii naso Forest Red-tailed Black-Cockatoo, Karrak [67034] Vulnerable Species or species habitat known to occur within area  Calyptorhynchus baudinii Baudin's Cockatoo, Long-billed Black-Cockatoo [769] Endangered Roosting known to occur within area  Calyptorhynchus latirostris Camaby's Cockatoo, Short-billed Black-Cockatoo Endangered Species or species habitat known to occur within area  Leipoa ocellata Malleefowl [934] 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  Rostratula australis Australian Painted Snipe [77037] Endangered Species or species habitat likely to occur within area  Mammals Bettongia penicillata ogilbyi Woylie [66844] Endangered Species or species habitat known to occur within area  Dasyurus geoffroii Chuditch, Western Quoll [330] Vulnerable Species or species habitat known to occur within area  Setonix brachyurus Quokka [229] Vulnerable Species or species habitat known to occur within area  Other  Westralunio carteri Carter's Freshwater Mussel, Freshwater Mussel Vulnerable Species or species habitat may occur within area	Name	Status	Type of Presence
Curlew Sandpiper [856] Critically Endangered Species or species habitat may occur within area  Calyptorhynchus banksii naso Forest Red-tailed Black-Cockatoo, Karrak [67034] Vulnerable Species or species habitat known to occur within area  Calyptorhynchus baudinii Baudin's Cockatoo, Long-billed Black-Cockatoo [769] Endangered Roosting known to occur within area  Calyptorhynchus latirostris  Carnaby's Cockatoo, Short-billed Black-Cockatoo [892] Endangered Species or species habitat known to occur within area  Leipoa ocellata  Malleefowl [934] 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  Rostratula australis  Australian Painted Snipe [77037] Endangered Species or species habitat may occur within area  Mammals  Bettongia penicillata ogilbyi  Woylie [66844] Endangered Species or species habitat known to occur within area  Dasyurus geoffroii  Chuditch, Western Quoll [330] Vulnerable Species or species habitat known to occur within area  Setonix brachyurus  Quokka [229] Vulnerable Species or species habitat known to occur within area  Other  Westralunio carteri  Carter's Freshwater Mussel, Freshwater Mussel Vulnerable Species or species habitat may occur within area	Birds		
Calyptorhynchus banksii naso Forest Red-tailed Black-Cockatoo, Karrak [67034] Vulnerable Species or species habitat known to occur within area  Calyptorhynchus baudinii Baudin's Cockatoo, Long-billed Black-Cockatoo [769] Bendangered Calyptorhynchus latirostris Carnaby's Cockatoo, Short-billed Black-Cockatoo [89523] Carnaby's Cockatoo, Short-billed Black-Cockatoo [89523] Leipoa ocellata Malleefowl [934] Wulnerable 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  Rostratula australis Australian Painted Snipe [77037] Bendangered Species or species habitat may occur within area  Mammals Bettongia penicillata ogilbyi Woylie [66844] Species or species habitat known to occur within area  Dasyurus geoffroii Chuditch, Western Quoll [330] Vulnerable Species or species habitat known to occur within area  Setonix brachyurus Quokka [229] Vulnerable Species or species habitat known to occur within area  Other  Westralunio carteri Carter's Freshwater Mussel, Freshwater Mussel Vulnerable Species or species habitat may occur within area	Calidris ferruginea		
Forest Red-tailed Black-Cockatoo, Karrak [67034] Vulnerable Species or species habitat known to occur within area  Calyptorhynchus baudinii Baudin's Cockatoo, Long-billed Black-Cockatoo [769] Endangered Roosting known to occur within area  Calyptorhynchus latirostris Carnaby's Cockatoo, Short-billed Black-Cockatoo Endangered Species or species habitat known to occur within area  Leipoa ocellata  Malleefowl [934] 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  Rostratula australis Australian Painted Snipe [77037] Endangered Species or species habitat likely to occur within area  Mammals  Bettongia penicillata ogilbyi  Woylie [66844] Endangered Species or species habitat known to occur within area  Dasyurus geoffroii  Chuditch, Western Quoll [330] Vulnerable Species or species habitat known to occur within area  Setonix brachyurus  Quokka [229] Vulnerable Species or species habitat known to occur within area  Other  Westralunio carteri  Carter's Freshwater Mussel, Freshwater Mussel Vulnerable Species or species habitat may occur within area	Curlew Sandpiper [856]	Critically Endangered	
Calyptorhynchus baudinii Baudin's Cockatoo, Long-billed Black-Cockatoo [769] Endangered Roosting known to occur within area  Calyptorhynchus latirostris Carnaby's Cockatoo, Short-billed Black-Cockatoo [59523] Endangered Species or species habitat known to occur within area  Leipoa ocellata Malleefowl [934] 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  Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847] Critically Endangered Species or species habitat may occur within area  Rostratula australis Australian Painted Snipe [77037] Endangered Species or species habitat likely to occur within area  Mammals  Bettongia penicillata ogilbyi  Woylie [66844] Endangered Species or species habitat known to occur within area  Dasyurus geoffroii  Chuditch, Western Quoll [330] Vulnerable Species or species habitat known to occur within area  Setonix brachyurus  Quokka [229] Vulnerable Species or species habitat known to occur within area  Other  Westralunio carteri  Carter's Freshwater Mussel, Freshwater Mussel Vulnerable Species or species habitat may occur within area	Calyptorhynchus banksii naso		
Baudin's Cockatoo, Long-billed Black-Cockatoo [769] Endangered Roosting known to occur within area  Calyptorhynchus latirostris Carnaby's Cockatoo, Short-billed Black-Cockatoo [59523] Leipoa ocellata Malleefowl [934] Malleefowl [934] Mumenius madagascariensis Eastern Curlew, Far Eastern Curlew [847] Critically Endangered 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  Rostratula australis Australian Painted Snipe [77037] Endangered Species or species habitat likely to occur within area  Mammals  Bettongia penicillata ogilbyi Woylie [66844] Endangered Species or species habitat known to occur within area  Dasyurus geoffroii Chuditch, Western Quoll [330] Vulnerable Species or species habitat known to occur within area  Setonix brachyurus Quokka [229] Vulnerable Species or species habitat known to occur within area  Other  Westralunio carteri Carter's Freshwater Mussel, Freshwater Mussel Vulnerable Species or species habitat may occur within area	Forest Red-tailed Black-Cockatoo, Karrak [67034]	Vulnerable	
Calyptorhynchus latirostris Carnaby's Cockatoo, Short-billed Black-Cockatoo [59523] Carnaby's Cockatoo, Short-billed Black-Cockatoo [59523] Leipoa ocellata Malleefowl [934] Malleefowl [934] Malleefowl [934] Malleefowl [934]  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  Rostratula australis Australian Painted Snipe [77037] Endangered Species or species habitat likely to occur within area  Mammals Bettongia penicillata ogilbyl Woylie [66844] Endangered Species or species habitat known to occur within area  Dasyurus geoffroii Chuditch, Western Quoll [330] Vulnerable Species or species habitat known to occur within area  Setonix brachyurus Quokka [229] Vulnerable Species or species habitat known to occur within area  Other Westralunio carteri Carter's Freshwater Mussel, Freshwater Mussel Vulnerable Species or species habitat may occur within area	Calyptorhynchus baudinii		
Carnaby's Cockatoo, Short-billed Black-Cockatoo [59523]  Leipoa ocellata Malleefowl [934]  Malleefowl [934]  Mulnerable  Species or species habitat known to occur within area  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  Rostratula australis  Australian Painted Snipe [77037]  Endangered  Species or species habitat ikely to occur within area  Mammals  Bettongia penicillata ogilbyi  Woylie [66844]  Endangered  Species or species habitat known to occur within area  Dasyurus geoffroii  Chuditch, Western Quoll [330]  Vulnerable  Species or species habitat known to occur within area  Setonix brachyurus  Quokka [229]  Vulnerable  Species or species habitat known to occur within area  Other  Westralunio carteri  Carter's Freshwater Mussel, Freshwater Mussel  Vulnerable  Species or species habitat may occur within area	Baudin's Cockatoo, Long-billed Black-Cockatoo [769]	Endangered	
Leipoa ocellata Malleefowl [934] Malleefowl [934] Malleefowl [934] Mulnerable Malleefowl [934] Mulnerable 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  Rostratula australis Australian Painted Snipe [77037] Endangered Species or species habitat likely to occur within area  Mammals Bettongia penicillata ogilbyi Woylie [66844] Endangered Species or species habitat known to occur within area  Dasyurus geoffroii Chuditch, Western Quoll [330] Vulnerable Species or species habitat known to occur within area  Setonix brachyurus Quokka [229] Vulnerable Species or species habitat known to occur within area  Other  Westralunio carteri Carter's Freshwater Mussel, Freshwater Mussel Vulnerable Species or species habitat may occur within area		Forder state of	Consider an america habitat
Malleefowl [934]  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  Rostratula australis  Australian Painted Snipe [77037]  Endangered  Species or species habitat likely to occur within area  Mammals  Bettongia penicillata ogilbyi  Woylie [66844]  Endangered  Species or species habitat known to occur within area  Dasyurus geoffroii  Chuditch, Western Quoll [330]  Vulnerable  Species or species habitat known to occur within area  Setonix brachyurus  Quokka [229]  Vulnerable  Species or species habitat known to occur within area  Other  Westralunio carteri  Carter's Freshwater Mussel, Freshwater Mussel  [86266]	[59523]	Endangered	
Numenius madagascariensis  Eastern Curlew, Far Eastern Curlew [847]  Critically Endangered  Species or species habitat may occur within area  Rostratula australis  Australian Painted Snipe [77037]  Endangered  Species or species habitat likely to occur within area  Mammals  Bettongia penicillata ogilbyi  Woylie [66844]  Endangered  Species or species habitat known to occur within area  Dasyurus geoffroii  Chuditch, Western Quoll [330]  Vulnerable  Species or species habitat known to occur within area  Setonix brachyurus  Quokka [229]  Vulnerable  Species or species habitat known to occur within area  Other  Westralunio carteri  Carter's Freshwater Mussel, Freshwater Mussel  [86266]	Leipoa ocellata		
Eastern Curlew, Far Eastern Curlew [847]  Critically Endangered  Species or species habitat may occur within area  Rostratula australis Australian Painted Snipe [77037]  Endangered  Species or species habitat likely to occur within area  Mammals  Bettongia penicillata ogilbyi  Woylie [66844]  Endangered  Species or species habitat known to occur within area  Dasyurus geoffroii  Chuditch, Western Quoll [330]  Vulnerable  Species or species habitat known to occur within area  Setonix brachyurus  Quokka [229]  Vulnerable  Species or species habitat known to occur within area  Other  Westralunio carteri  Carter's Freshwater Mussel, Freshwater Mussel [86266]  Vulnerable  Species or species habitat may occur within area	Malleefowl [934]	Vulnerable	
Rostratula australis Australian Painted Snipe [77037] Endangered Species or species habitat likely to occur within area  Mammals Bettongia penicillata ogilbyi Woylie [66844] Endangered Species or species habitat known to occur within area  Dasyurus geoffroii Chuditch, Western Quoll [330] Vulnerable Species or species habitat known to occur within area  Setonix brachyurus Quokka [229] Vulnerable Species or species habitat known to occur within area  Other  Westralunio carteri Carter's Freshwater Mussel, Freshwater Mussel [86266] Vulnerable Species or species habitat may occur within area	Numenius madagascariensis		
Australian Painted Snipe [77037]  Endangered  Species or species habitat likely to occur within area  Mammals  Bettongia penicillata ogilbyi  Woylie [66844]  Endangered  Species or species habitat known to occur within area  Dasyurus geoffroii  Chuditch, Western Quoll [330]  Vulnerable  Species or species habitat known to occur within area  Setonix brachyurus  Quokka [229]  Vulnerable  Species or species habitat known to occur within area  Other  Westralunio carteri  Carter's Freshwater Mussel, Freshwater Mussel  [86266]  Vulnerable  Species or species habitat known to occur within area	Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	
Australian Painted Snipe [77037]  Endangered  Species or species habitat likely to occur within area  Mammals  Bettongia penicillata ogilbyi  Woylie [66844]  Endangered  Species or species habitat known to occur within area  Dasyurus geoffroii  Chuditch, Western Quoll [330]  Vulnerable  Species or species habitat known to occur within area  Setonix brachyurus  Quokka [229]  Vulnerable  Species or species habitat known to occur within area  Other  Westralunio carteri  Carter's Freshwater Mussel, Freshwater Mussel  [86266]  Vulnerable  Species or species habitat known to occur within area	Rostratula australis		
Bettongia penicillata ogilbyi Woylie [66844] Endangered Species or species habitat known to occur within area  Dasyurus geoffroii Chuditch, Western Quoll [330] Vulnerable Species or species habitat known to occur within area  Setonix brachyurus Quokka [229] Vulnerable Species or species habitat known to occur within area  Other  Westralunio carteri Carter's Freshwater Mussel, Freshwater Mussel [86266] Vulnerable Species or species habitat may occur within area	Australian Painted Snipe [77037]	Endangered	
Woylie [66844]  Endangered  Species or species habitat known to occur within area  Dasyurus geoffroii  Chuditch, Western Quoll [330]  Vulnerable  Species or species habitat known to occur within area  Setonix brachyurus  Quokka [229]  Vulnerable  Species or species habitat known to occur within area  Other  Westralunio carteri  Carter's Freshwater Mussel, Freshwater Mussel [86266]  Vulnerable  Species or species habitat may occur within area	Mammals		
Dasyurus geoffroii Chuditch, Western Quoll [330] Vulnerable Species or species habitat known to occur within area  Setonix brachyurus Quokka [229] Vulnerable Species or species habitat known to occur within area  Other Westralunio carteri Carter's Freshwater Mussel, Freshwater Mussel [86266] Vulnerable Species or species habitat may occur within area	Bettongia penicillata ogilbyi		
Chuditch, Western Quoll [330]  Vulnerable  Species or species habitat known to occur within area  Setonix brachyurus  Quokka [229]  Vulnerable  Species or species habitat known to occur within area  Other  Westralunio carteri  Carter's Freshwater Mussel, Freshwater Mussel  [86266]  Vulnerable  Species or species habitat may occur within area	Woylie [66844]	Endangered	
Setonix brachyurus Quokka [229]  Vulnerable  Species or species habitat known to occur within area  Other  Westralunio carteri Carter's Freshwater Mussel, Freshwater Mussel [86266]  Vulnerable  Species or species habitat may occur within area	<u>Dasyurus geoffroii</u>		
Quokka [229] Vulnerable Species or species habitat known to occur within area  Other  Westralunio carteri  Carter's Freshwater Mussel, Freshwater Mussel Vulnerable Species or species habitat may occur within area	Chuditch, Western Quoll [330]	Vulnerable	
Quokka [229] Vulnerable Species or species habitat known to occur within area  Other  Westralunio carteri  Carter's Freshwater Mussel, Freshwater Mussel Vulnerable Species or species habitat may occur within area	Setonix brachyurus		
Westralunio carteri Carter's Freshwater Mussel, Freshwater Mussel Vulnerable Species or species habitat [86266] may occur within area	Quokka [229]	Vulnerable	
Carter's Freshwater Mussel, Freshwater Mussel  [86266]  Species or species habitat may occur within area	Other		
[86266] may occur within area	Westralunio carteri		
Plants	Carter's Freshwater Mussel, Freshwater Mussel [86266]	Vulnerable	
	Plants		

Name	Status	Type of Presence
Acacia aphylla Leafless Rock Wattle [13553]	Vulnerable	Species or species habitat likely to occur within area
Anthocercis gracilis Slender Tailflower [11103]	Vulnerable	Species or species habitat may occur within area
<u>Diplolaena andrewsii</u> [6601]	Endangered	Species or species habitat may occur within area
Diuris micrantha  Dwarf Bee-orchid [55082]	Vulnerable	Species or species habitat likely to occur within area
<u>Diuris purdiei</u> Purdie's Donkey-orchid [12950]	Endangered	Species or species habitat may occur within area
Thelymitra dedmaniarum Cinnamon Sun Orchid [65105]	Endangered	Species or species habitat may occur within area
Thelymitra stellata Star Sun-orchid [7060]	Endangered	Species or species habitat likely to occur within area
Listed Migratory Species		[ Resource Information ]
* Species is listed under a different scientific name on	the EPBC Act - Threatened	
Name	Threatened	Type of Presence
Migratory Marine Birds Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Migratory Terrestrial Species		
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area
Migratory Wetlands Species		
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat may occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat may occur within area
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
Calidris melanotos Pectoral Sandpiper [858]		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
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  * Species is listed under a different scientific name on	the EPBC Act - Threatened	[ Resource Information ] Species list.
Name	Threatened	Type of Presence
Birds	Throaterioa	1700 011 10001100
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat may 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 may occur within area
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area
<u>Calidris melanotos</u>		
Pectoral Sandpiper [858]		Species or species habitat may occur within area
Haliaeetus leucogaster		
White-bellied Sea-Eagle [943]		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
Pandion haliaetus		
Osprey [952]		Species or species habitat likely to occur within area
Rostratula benghalensis (sensu lato) Painted Snipe [889]	Endangered*	Species or species habitat
	<b>3</b>	likely to occur within area
Tringa nebularia		
Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area

#### **Extra Information**

State and Territory Reserves	[Resource Information]
Name	State
Karakamia	WA
Leschenaultia	WA
Regional Forest Agreements	[Resource Information]
Note that all areas with completed RFAs have been included.	
Name	State
South West WA RFA	Western Australia
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 Resouces Audit, 2001.

Name	Status	Type of Presence
Birds		
Anas platyrhynchos		
Mallard [974]		Species or species habitat likely to occur within area
Carduelis carduelis		
European Goldfinch [403]		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
Passer domesticus		
House Sparrow [405]		Species or species habitat likely to occur within area
Passer montanus		
Eurasian Tree Sparrow [406]		Species or species habitat likely to occur within area
Streptopelia chinensis		
Spotted Turtle-Dove [780]		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		

Name	Status	Type of Presence
Bos taurus		
Domestic Cattle [16]		Species or species habitat likely to occur within area
Canis lupus familiaris		
Domestic Dog [82654]		Species or species habitat likely to occur within area
Capra hircus		
Goat [2]		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
Funambulus pennantii		
Northern Palm Squirrel, Five-striped Palm Squirrel [129]		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
Rattus rattus		
Black Rat, Ship Rat [84]		Species or species habitat likely to occur within area
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
Chrysanthemoides monilifera		
Bitou Bush, Boneseed [18983]		Species or species habitat may occur within area
Chrysanthemoides monilifera subsp. monilifera		
Boneseed [16905]		Species or species habitat likely to occur within area
Genista sp. X Genista monspessulana		
Broom [67538]		Species or species habitat may occur within area
Lantana camara		
Lantana, Common Lantana, Kamara Lantana, Largeleaf Lantana, Pink Flowered Lantana, Red Flowered Lantana, Red-Flowered Sage, White Sage, Wild Sage [10892]	}	Species or species habitat likely to occur within area
Lycium ferocissimum		
African Boxthorn, Boxthorn [19235]		Species or species habitat likely to occur within area
Pinus radiata		
Radiata Pine Monterey Pine, Insignis Pine, Wilding Pine [20780]		Species or species habitat may occur within

Name	Status	Type of Presence
Rubus fruticosus aggregate		area
Blackberry, European Blackberry [68406]		Species or species habitat likely to occur within area
Salvinia molesta		
Salvinia, Giant Salvinia, Aquarium Watermoss, Kariba Weed [13665]		Species or species habitat likely to occur within area

#### 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

-31.8448 116.24416

#### 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.

© Commonwealth of Australia



# **NatureMap Species Report**

## Created By Guest user on 26/02/2021

Current Names Only Yes
Core Datasets Only Yes

Method 'By Circle'

Centre 116° 14' 39" E,31° 50' 41" S

Buffer 5km Group By Kingdom

Kingdom	Species	Records
Animalia Fungi Plantae	168 16 235	5259 51 346
TOTAL	419	5656

Name ID Species Name

		Alta
Animalia		
1.	24559 Acanthagenys rufogularis (Spiny-cheeked Honeyeater)	
_		

Naturalised

Conservation Code <sup>1</sup>Endemic To Query

, ummana			
1.	24559 Acanthagenys rufogularis (Spiny-cheeked Honeyeater)		
2.	24260 Acanthiza apicalis (Broad-tailed Thornbill, Inland Thornbill)		
3.	24261 Acanthiza chrysorrhoa (Yellow-rumped Thornbill)		
4.	24262 Acanthiza inornata (Western Thornbill)		
5.	25242 Acanthophis antarcticus (Southern Death Adder)		P3
6.	24560 Acanthorhynchus superciliosus (Western Spinebill)		
7.	25535 Accipiter cirrocephalus (Collared Sparrowhawk)		
8.	25536 Accipiter fasciatus (Brown Goshawk)		
9.	42368 Acritoscincus trilineatus (Western Three-lined Skink)		
10.	25755 Acrocephalus australis (Australian Reed Warbler)		
11.	25544 Aegotheles cristatus (Australian Owlet-nightjar)		
12.	24301 Aegotheles cristatus subsp. cristatus (Australian Owlet-nightjar)		
13.	Aname mainae		
14.	24312 Anas gracilis (Grey Teal)		
15.	24316 Anas superciliosa (Pacific Black Duck)		
16.	47414 Anhinga novaehollandiae (Australasian Darter)		
17.	25449 Antechinus flavipes (Yellow-footed Antechinus)		
18.	24088 Antechinus flavipes subsp. leucogaster (Yellow-footed Antechinus, Mardo)		
19.	24561 Anthochaera carunculata (Red Wattlebird)		
20.	24562 Anthochaera lunulata (Western Little Wattlebird)		
21.	24990 Aprasia pulchella (Granite Worm-lizard)		
22.	24991 Aprasia repens (Sand-plain Worm-lizard)		
23.	24285 Aquila audax (Wedge-tailed Eagle)		
24.	41324 Ardea modesta (great egret, white egret)		
25.	25566 Artamus cinereus (Black-faced Woodswallow)		
26.	24353 Artamus cyanopterus (Dusky Woodswallow)		
27.	Barnardius zonarius		
28.	25452 Bettongia penicillata (Woylie, Brush-tailed Bettong)		Т
29.	24162 Bettongia penicillata subsp. ogilbyi (Woylie, Brush-tailed Bettong)		Т
30.	24319 Biziura lobata (Musk Duck)		
31.	25716 Cacatua sanguinea (Little Corella)		
32.	24729 Cacatua tenuirostris (Eastern Long-billed Corella)	Υ	
33.	25598 Cacomantis flabelliformis (Fan-tailed Cuckoo)		
34.	42307 Cacomantis pallidus (Pallid Cuckoo)		
35.	25717 Calyptorhynchus banksii (Red-tailed Black-Cockatoo)		
36.	24731 Calyptorhynchus banksii subsp. naso (Forest Red-tailed Black Cockatoo)		Т
37.	24733 Calyptorhynchus baudinii (Baudin's Cockatoo, White-tailed Long-billed Black Cockatoo)		Т
38.	24734 Calyptorhynchus latirostris (Carnaby's Cockatoo, White-tailed Short-billed Black Cockatoo)		Т
39.	48400 Calyptorhynchus sp. (white-tailed black cockatoo)		Т
40.	24186 Chalinolobus gouldii (Gould's Wattled Bat)		
41.	24321 Chenonetta jubata (Australian Wood Duck, Wood Duck)		







	Name ID	Species Name	Natura	lised Conservation Code	<sup>1</sup> Endemic To Q Area
42.	24980	Christinus marmoratus (Marbled Gecko)			
43.	24288	Circus approximans (Swamp Harrier)			
44.	25675	Colluricincla harmonica (Grey Shrike-thrush)			
45.	24399	Columba livia (Domestic Pigeon)	Υ		
46.	25568	Coracina novaehollandiae (Black-faced Cuckoo-shrike)			
47.	25592	Corvus coronoides (Australian Raven)			
48.	24420	Cracticus nigrogularis (Pied Butcherbird)			
49.	25595	Cracticus tibicen (Australian Magpie)			
50.		Cracticus torquatus (Grey Butcherbird)			
51.		Crenadactylus ocellatus (Clawless Gecko)			
52.		Crinia georgiana (Quacking Frog)			
53.		Crinia pseudinsignifera (Bleating Froglet)			
54.		Cryptoblepharus buchananii			
55.		Ctenotus labillardieri			
	23049				
56.	0.4000	Cyclosa trilobata			
57.		Cygnus atratus (Black Swan)			
58.		Dacelo novaeguineae (Laughing Kookaburra)	Υ		
59.		Daphoenositta chrysoptera (Varied Sittella)			
60.	24092	Dasyurus geoffroii (Chuditch, Western Quoll)		Т	
61.	25607	Dicaeum hirundinaceum (Mistletoebird)			
62.	24929	Diplodactylus granariensis subsp. granariensis			
63.	25096	Egernia kingii (King's Skink)			
64.	25100	Egernia napoleonis			
65.		Egretta novaehollandiae			
66.		Elanus axillaris			
67.	47937	Elseyornis melanops (Black-fronted Dotterel)			
68.		Eolophus roseicapillus			
69.	24652	Eopsaltria georgiana (White-breasted Robin)			
70.		Eremiascincus richardsonii (Broad-banded Sand Swimmer)			
71.		Falco berigora (Brown Falcon)			
72.		Falco cenchroides (Australian Kestrel, Nankeen Kestrel)			
73.		Falco longipennis (Australian Hobby)			
74.		Felis catus (Cat)	Y		
75.	25727	Fulica atra (Eurasian Coot)			
76.	25729	Gallinula tenebrosa (Dusky Moorhen)			
77.	25730	Gallirallus philippensis (Buff-banded Rail)			
78.	24959	Gehyra variegata			
79.	25530	Gerygone fusca (Western Gerygone)			
80.	24443	Grallina cyanoleuca (Magpie-lark)			
81.	25408	Heleioporus albopunctatus (Western Spotted Frog)			
82.	25409	Heleioporus barycragus (Hooting Frog)			
83.	25410	Heleioporus eyrei (Moaning Frog)			
84.		Heleioporus inornatus (Whooping Frog)			
85.		Heleioporus psammophilus (Sand Frog)			
86.		Hemiergis initialis			
87.		Hemiergis initialis subsp. brookeri			
88.		Hieraaetus morphnoides (Little Eagle)			
89.		Hirundo neoxena (Welcome Swallow)			
90.		Hydromys chrysogaster (Water-rat, Rakali)		P4	
91.	48588	Isoodon fusciventer (Quenda, southwestern brown bandicoot)		P4	
92.		Isopedella cana			
93.	25131	Lerista distinguenda			
94.	25005	Lialis burtonis			
95.	25661	Lichmera indistincta (Brown Honeyeater)			
96.		Limnodynastes dorsalis (Western Banjo Frog)			
97.		Litoria moorei (Motorbike Frog)			
98.		Lophoictinia isura			
99.	24132	Macropus fuliginosus (Western Grey Kangaroo)			
100.		Macrotis lagotis (Bilby, Dalgyte, Ninu)		Т	
101.		Malurus elegans (Red-winged Fairy-wren)		r	
101.		Malurus splendens (Splendid Fairy-wren)			
103.		Manorina flavigula (Yellow-throated Miner)			
104.		Melithreptus brevirostris (Brown-headed Honeyeater)			
105.		Melopsittacus undulatus (Budgerigar)			
106.		Menetia greyii			
107.	24598	Merops ornatus (Rainbow Bee-eater)			
108.		Microcarbo melanoleucos			
109.	25693	Microeca fascinans (Jacky Winter)			
440		Missulena granulosa			
110.		···· 9· ···· 9·			







	Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Q Area
112.		Morelia spilota subsp. imbricata (Carpet Python)			
113.		Morethia obscura	V		
114.		Mus musculus (House Mouse)	Y	т	
115. 116.		Myrmecobius fasciatus (Numbat, Walpurti) Notamacropus eugenii subsp. derbianus (Tammar Wallaby, Tammar)		T P4	
117.		Notamacropus eugenii subsp. derbianus (Tammai Wallaby, Tammai)  Notamacropus irma (Western Brush Wallaby)		P4	
117.		Nymphicus hollandicus (Cockatiel)		F4	
119.		Pachycephala rufiventris (Rufous Whistler)			
120.		Parasuta gouldii			
121.		Pardalotus punctatus (Spotted Pardalote)			
122.		Pardalotus striatus (Striated Pardalote)			
123.		Perca fluviatilis			
124.	48061	Petrochelidon nigricans (Tree Martin)			
125.		Petroica boodang (Scarlet Robin)			
126.		Petroica goodenovii (Red-capped Robin)			
127.		Phalacrocorax carbo (Great Cormorant)			
128.	24667	Phalacrocorax sulcirostris (Little Black Cormorant)			
129.		Phaps chalcoptera (Common Bronzewing)			
130.	48070	Phascogale tapoatafa subsp. wambenger (South-western Brush-tailed Phascogale, Wambenger)		S	
131.	48071	Phylidonyris niger (White-cheeked Honeyeater)			
132.		Phylidonyris novaehollandiae (New Holland Honeyeater)			
133.	24841	Platalea flavipes (Yellow-billed Spoonbill)			
134.	25720	Platycercus icterotis (Western Rosella)			
135.	25703	Podargus strigoides (Tawny Frogmouth)			
136.	25510	Pogona minor (Dwarf Bearded Dragon)			
137.	24681	Poliocephalus poliocephalus (Hoary-headed Grebe)			
138.	25731	Porphyrio porphyrio (Purple Swamphen)			
139.	24166	Pseudocheirus occidentalis (Western Ringtail Possum, ngwayir)		Т	
140.	25259	Pseudonaja affinis subsp. affinis (Dugite)			
141.	42416	Pseudonaja mengdeni (Western Brown Snake)			
142.	25263	Pseudonaja modesta (Ringed Brown Snake)			
143.	25433	Pseudophryne guentheri (Crawling Toadlet)			
144.		Purpureicephalus spurius			
145.		Rhipidura albiscapa (Grey Fantail)			
146.		Rhipidura leucophrys (Willie Wagtail)			
147.		Sericornis frontalis (White-browed Scrubwren)			
148.		Setonix brachyurus (Quokka)		Т	
149.		Smicrornis brevirostris (Weebill)			
150.		Sminthopsis dolichura (Little long-tailed Dunnart)			
151.		Sminthopsis griseoventer (Grey-bellied Dunnart)			
152.		Strepera versicolor (Grey Currawong)			
153.		Streptopelia senegalensis (Laughing Turtle-Dove)	Y		
154.		Tachybaptus novaehollandiae (Australasian Grebe, Black-throated Grebe)			
155.		Tachyglossus aculeatus (Short-beaked Echidna)			
156.		Tadorna tadornoides (Australian Shelduck, Mountain Duck)			
157.		Threskiornis spinicollis (Straw-necked Ibis)			
158.		Tiliqua rugosa subsp. aspera			
159.		Triphoglacous hapmatodus (Painhaw Larikeet)			
160.		Trichoglossus haematodus (Rainbow Lorikeet)			
161.		Trichosurus vulpecula (Common Brushtail Possum)  Trichosurus vulpecula subsp. vulpecula (Common Brushtail Possum)			
162. 163.		Underwoodisaurus milii (Barking Gecko)			
163. 164.	24983	Underwoodisaurus milii (Barking Gecко) Urodacus novaehollandiae			
165.	25219	Varanus gouldii (Bungarra or Sand Monitor)			
166.		Varanus tristis (Racehorse Monitor)			
167.		Westralunio carteri (Carter's Freshwater Mussel)		Т	
168.		Zosterops lateralis (Grey-breasted White-eye, Silvereye)		'	
ngi					
169.	48636	Amanita djarilmari			
170.		Austrogautieria manjimupana			
171.		Boletellus obscurecoccineus			
172.	38874	Cortinarius globuliformis			
173.	44754	Funneliformis caledonium			
174.		Hysterangium affine			
175.	44926	lleodictyon gracile			
176.	47233	Mesophellia angustispora			
		Phytophthora cinnamomi			
177.					
		Russula balpinea Russula boranupensis			



	Name ID	Species Name	Naturalise	d Conservation Code	<sup>1</sup> Endemic To Qu Area
180.		Russula costatispora			
181.		Russula pisiglarea			
182. 183.		Russula sessilis Stereum hirsutum			
184.	30040	Uromycladium tepperianum			
		ототусканат террепанат			
antae					
185.		Acacia aphylla (Leafless Rock Wattle)		Т	
186.		Acacia barbinervis subsp. barbinervis			
187.		Acacia drummondii subsp. drummondii			
188.		Acadia extensa (Wiry Wattle)			
189. 190.		Acadia nervosa (Rib Wattle)			
190.		Acacia pulchella var. pulchella Acacia restiacea			
191.		Acacia saligna subsp. lindleyi			
193.		Adenanthos barbiger			
194.		Adenanthos cygnorum subsp. chamaephyton		P3	
195.		Agrostocrinum hirsutum		10	
196.		Aira cupaniana (Silvery Hairgrass)	Υ		
197.		Allocasuarina humilis (Dwarf Sheoak)			
198.		Alternanthera denticulata (Lesser Joyweed)			
199.		Amphipogon debilis			
200.		Anigozanthos humilis subsp. humilis			
201.		Arctotheca calendula (Cape Weed, African Marigold)	Υ		
202.		Astartea affinis (West-coast Astartea)			
203.	6334	Astroloma pallidum (Kick Bush)			
204.	17240	Austrostipa flavescens			
205.	36441	Babingtonia camphorosmae (Camphor Myrtle)			
206.	32678	Banksia bipinnatifida subsp. bipinnatifida			
207.	32577	Banksia dallanneyi subsp. dallanneyi var. mellicula			
208.	1819	Banksia grandis (Bull Banksia, Pulgarla)			
209.	32080	Banksia sessilis var. sessilis			
210.	32045	Banksia squarrosa subsp. squarrosa			
211.	32315	Barbula calycina			
212.	741	Baumea articulata (Jointed Rush)			
213.	743	Baumea juncea (Bare Twigrush)			
214.	25788	Billardiera fraseri (Elegant Pronaya)			
215.		Blennospora drummondii			
216.		Boronia ovata			
217.		Boronia ramosa subsp. ramosa			
218.		Bossiaea angustifolia			
219.		Bossiaea ornata (Broad Leaved Brown Pea)			
220.		Bossiaea pulchella			
221. 222.		Brachyscome iberidifolia Briza minor (Shivery Grass)	V		
223.		Burchardia congesta	Y		
224.		Caladenia flava subsp. flava			
225.		Caladenia reptans subsp. reptans			
226.		Caladenia xantha			
227.		Calothamnus sanguineus (Silky-leaved Blood flower, Pindak)			
228.	3720	Calytrix sp.			
229.	32338	Campylopus introflexus	Υ		
230.		Cassytha glabella forma casuarinae			
231.		Ceratodon purpureus subsp. convolutus			
232.		Chamaescilla corymbosa var. corymbosa			
233.		Cheiranthera preissiana			
234.		Chorizandra enodis (Black Bristlerush)			
235.		Comesperma calymega (Blue-spike Milkwort)			
236.		Comesperma virgatum (Milkwort)			
237.		Conostylis caricina subsp. caricina			
238.	1453	Conostylis serrulata			
239.	11597	Conostylis setigera subsp. setigera			
240.	17104	Corymbia calophylla (Marri)			
241.	13354	Craspedia variabilis			
242.	13826	Cyanicula ixioides subsp. ixioides		P4	
243.	768	Cyathochaeta avenacea			
244.	283	Cynodon dactylon (Couch)	Υ		
245	783	Cyperus congestus (Dense Flat-sedge)	Υ		
245.	7/20	Dampiera alata (Winged-stem Dampiera)			
246.					
	7454	Dampiera linearis (Common Dampiera) Datura ferox (Fierce Thomapple)			



	Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Q Area
249.	107/17	Daviesia decurrens subsp. decurrens	Υ		
249. 250.		Daviesia preissii			
251.		Desmocladus fasciculatus			
252.		Dianella revoluta var. divaricata			
253.		Dichelachne crinita (Longhair Plumegrass)			
254.		Dichopogon capillipes			
255.		Diuris corymbosa			
256.		Drosera gigantea (Giant Sundew)			
257.		Drosera glanduligera (Pimpernel Sundew)			
258.		Drosera magna			
259.		Drosera pallida (Pale Rainbow)			
260.		Drosera stolonifera (Leafy Sundew)			
261.		Ericomyrtus serpyllifolia			
262.		Eryngium pinnatifidum (Blue Devils)			
263.		Eucalyptus marginata (Jarrah, Djara)			
264.		Eucalyptus marginata subsp. marginata (Jarrah)			
265.		Euphorbia dendroides	Υ		
266.	4648	Euphorbia terracina (Geraldton Carnation Weed)	Υ		
267.		Funaria hygrometrica			
268.		Gastrolobium dilatatum			
269.	3905	Gastrolobium hookeri			
270.	19733	Gastrolobium retusum			
271.	3933	Gastrolobium villosum (Crinkle-leaved Poison)			
272.		Glischrocaryon angustifolium			
273.		Gompholobium marginatum			
274.		Gompholobium polymorphum			
275.		Gompholobium preissii			
276.	29362	Goodenia coerulea			
277.	14421	Grevillea synapheae subsp. synapheae			
278.		Haemodorum discolor			
279.	1468	Haemodorum laxum			
280.	2175	Hakea lissocarpha (Honey Bush)			
281.	2197	Hakea prostrata (Harsh Hakea)			
282.	2216	Hakea varia (Variable-leaved Hakea)			
283.	439	Hemarthria uncinata (Matgrass)			
284.	6838	Hemiandra linearis (Speckled Snakebush)			
285.	1526	Hesperantha falcata	Υ		
286.	5109	Hibbertia amplexicaulis			
287.	5114	Hibbertia commutata			
288.	20051	Hibbertia diamesogenos			
289.	5134	Hibbertia huegelii			
290.	45534	Hibbertia hypericoides subsp. hypericoides			
291.	5139	Hibbertia lasiopus (Large Hibbertia)			
292.	444	Holcus lanatus (Yorkshire Fog)	Υ		
293.	3964	Hovea chorizemifolia (Holly-leaved Hovea)			
294.	12741	Hyalosperma cotula			
295.	6226	Hydrocotyle callicarpa (Small Pennywort)			
296.	5817	Hypocalymma angustifolium (White Myrtle, Kudjid)			
297.	8086	Hypochaeris glabra (Smooth Catsear)	Υ		
298.	912	Isolepis cyperoides			
299.	917	Isolepis marginata (Coarse Club-rush)			
300.	7396	Isotoma hypocrateriformis (Woodbridge Poison)			
301.	4012	Jacksonia furcellata (Grey Stinkwood)			
302.	4025	Jacksonia restioides			
303.	4036	Kennedia carinata			
304.	4037	Kennedia coccinea (Coral Vine)			
305.	12008	Kickxia elatine subsp. crinita	Υ		
306.	11289	Labichea lanceolata subsp. lanceolata			
307.	3669	Labichea punctata (Lance-leaved Cassia)			
308.	18585	Lagenophora huegelii			
309.	11815	Laxmannia grandiflora subsp. grandiflora			
310.	7568	Lechenaultia biloba (Blue Leschenaultia)			
311.	936	Lepidosperma leptostachyum			
312.	937	Lepidosperma longitudinale (Pithy Sword-sedge)			
313.	940	Lepidosperma pubisquameum			
314.	944	Lepidosperma scabrum			
315.		Lepidosperma sp.			
316.	1078	Leptocarpus coangustatus			
		Leptocarpus decipiens			







	Name ID	Species Name	Natura	lised Conservation Code	<sup>1</sup> Endemic To Qu Area
318.	6367	Leucopogon capitellatus			
319.	6436	Leucopogon propinquus			
320.	6439	Leucopogon pulchellus (Beard-heath)			
321.		Leucopogon strictus			
322.		Levenhookia pusilla (Midget Stylewort)			
323.		Levenhookia stipitata (Common Stylewort)			
324.		Lobelia anceps (Angled Lobelia)			
325.		Lobelia gibbosa (Tall Lobelia)			
326.		Lobelia rhombifolia (Tufted Lobelia)			
327.		Lomandra caespitosa (Tufted Mat Rush)			
328.	1228	Lomandra hermaphrodita			
329.	14542	Lomandra micrantha subsp. micrantha			
330.	1236	Lomandra odora (Tiered Matrush)			
331.	1240	Lomandra purpurea (Purple Mat Rush)			
332.	1245	Lomandra spartea			
333.	8564	Lotus subbiflorus	Υ		
334.		Lysimachia arvensis (Pimpernel)	Y		
335.		Macrozamia fraseri	'		
				<b>D</b> 0	
336.		Meionectes tenuifolia		P3	
337.		Melaleuca aspalathoides			
338.	13280	Melaleuca viminea subsp. viminea			
339.	957	Mesomelaena tetragona (Semaphore Sedge)			
340.	19585	Monotaxis grandiflora var. grandiflora			
341.	6199	Myriophyllum tillaeoides			
342.		Neurachne alopecuroidea (Foxtail Mulga Grass)			
343.		Olearia paucidentata (Autumn Scrub Daisy)			
344.		Opercularia echinocephala (Bristly Headed Stink Weed)			
345.		Ornduffia albiflora			
346.		Paspalum dilatatum	Y		
347.	1542	Patersonia babianoides			
348.	1551	Patersonia pygmaea (Pygmy Patersonia)			
349.	14433	Patersonia rudis subsp. rudis			
350.	6245	Pentapeltis peltigera			
351.	2262	Persoonia elliptica (Spreading Snottygobble)			
352.		Petrophile striata			
353.		Philotheca spicata (Pepper and Salt)			
354.					
		Philydrella drummondii			
355.		Phyllanthus calycinus (False Boronia)			
356.		Pimelea ciliata subsp. ciliata			
357.	7303	Plantago lanceolata (Ribwort Plantain)	Y		
358.	6253	Platysace filiformis			
359.	8184	Podotheca gnaphalioides (Golden Long-heads)			
360.	4691	Poranthera microphylla (Small Poranthera)			
361.	110	Potamogeton drummondii			
362.		Pterochaeta paniculata			
363.		Ptilotus manglesii (Pom Poms, Mulamula)			
364.		Ptychostomum angustifolium  Ptyrambia pigripana (Rad backs, Elaphanta cara)			
365.		Pyrorchis nigricans (Red beaks, Elephants ears)			
366.		Rhodanthe corymbosa			
367.		Rytidosperma caespitosum			
368.	7368	Scabiosa atropurpurea (Purple Pincushion)	Υ		
369.	7602	Scaevola calliptera			
370.	7619	Scaevola lanceolata (Long-leaved Scaevola)			
371.		Schoenolaena juncea			
372.		Schoenus bifidus			
373.		Senecio multicaulis subsp. multicaulis			
		·	.,		
374.		Sourchus oleraceus (Common Sowthistle)	Υ		
375.		Sowerbaea laxiflora (Purple Tassels)			
376.		Sphaerolobium medium			
377.		Stackhousia pubescens (Downy Stackhousia)			
378.	7684	Stylidium amoenum (Lovely Triggerplant)			
379.	30278	Stylidium androsaceum			
380.	7702	Stylidium ciliatum (Golden Triggerplant)			
381.		Stylidium hispidum (White Butterfly Triggerplant)			
382.		Stylidium obtusatum (Pinafore Triggerplant)			
383.		Stylidium pubigerum (Yellow Butterfly Triggerplant)			
384.		Stylidium roseoalatum (Pink-wing Triggerplant)			
	25806	Stylidium scariosum			
385.					
385. 386. 387.		Stylidium tenue subsp. tenue (Little Fountain Triggerplant)			







	Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
388.	1260	Stypandra glauca (Blind Grass)			
389.	6476	Styphelia tenuiflora (Common Pinheath)			
390.	12914	Synaphea decorticans			
391.	2323	Synaphea gracillima			
392.	1036	Tetraria octandra			
393.	35579	Tetraria sp. Jarrah Forest (R. Davis 7391)			
394.	48342	Tetratheca hirsuta subsp. hirsuta			
395.	4540	Tetratheca pilifera		P3	
396.	1705	Thelymitra crinita (Blue Lady Orchid)			
397.	11143	Thelymitra graminea			
398.	1328	Thysanotus dichotomus (Branching Fringe Lily)			
399.	1339	Thysanotus multiflorus (Many-flowered Fringe Lily)			
400.	1351	Thysanotus sparteus			
401.	1354	Thysanotus tenellus			
402.	1357	Thysanotus thyrsoideus			
403.	6280	Trachymene pilosa (Native Parsnip)			
404.	1483	Tribonanthes longipetala (Branching Tiurndin)			
405.	8251	Trichocline spathulata (Native Gerbera)			
406.	1361	Tricoryne elatior (Yellow Autumn Lily)			
407.	7665	Velleia trinervis			
408.	8257	Vellereophyton dealbatum (White Cudweed)	Υ		
409.	15618	Verticordia plumosa var. plumosa			
410.	4325	Viminaria juncea (Swishbush, Koweda)			
411.	722	Vulpia bromoides (Squirrel Tail Fescue)	Υ		
412.	7389	Wahlenbergia preissii			
413.	1253	Xanthorrhoea gracilis (Graceful Grass Tree, Mimidi)			
414.	1256	Xanthorrhoea preissii (Grass tree, Palga)			
415.	6283	Xanthosia atkinsoniana			
416.	6284	Xanthosia candida			
417.	6289	Xanthosia huegelii			
418.	6293	Xanthosia singuliflora			
419.	44861	Xerochrysum macranthum			

Conservation Codes

T - Rare or likely to become extinct
X - Presumed extinct
IA - Protected under international agreement
S - Other specially protected fauna
1 - Priority
2 - Priority
3 - Priority
4 - Priority
5 - Priority
5 - Priority
6 - Priority
7 - Priority
7 - Priority
8 - Priority
9 - Priority
9





<sup>&</sup>lt;sup>1</sup> For NatureMap's purposes, species flagged as endemic are those whose records are wholely 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.