



**Karratha and Boodarie**

# **Biological Surveys**

Prepared for  
**Horizon Power**

December 2021

● people ● planet ● professional

Document Reference	Revision	Prepared by	Reviewed by	Admin Review	Submitted to Client	
					Copies	Date
4647AA_Rev0	Internal Draft	BD, LC, LG, PW	BE, SW	LI	-	-
4647AA_Rev1	Client Draft	BD, LC, LG, PW	BE, SW	LI	1 x Electronic	28/10/2021
4647AA_Rev2	Client Final	BD	NW	LI	1 x Electronic	03/12/2021

## Disclaimer

This report is issued in accordance with, and is subject to, the terms of the contract between the Client and 360 Environmental Pty Ltd, including, without limitation, the agreed scope of the report. To the extent permitted by law, 360 Environmental Pty Ltd shall not be liable in contract, tort (including, without limitation, negligence) or otherwise for any use of, or reliance on, parts of this report without taking into account the report in its entirety and all previous and subsequent reports. 360 Environmental Pty Ltd considers the contents of this report to be current as at the date it was produced. This report, including each opinion, conclusion, and recommendation it contains, should be considered in the context of the report as a whole. The opinions, conclusions and recommendations in this report are limited by its agreed scope. More extensive, or different, investigation, sampling and testing may have produced different results and therefore different opinions, conclusions, and recommendations. Subject to the terms of the contract between the Client and 360 Environmental Pty Ltd, copying, reproducing, disclosing, or disseminating parts of this report is prohibited (except to the extent required by law) unless the report is produced in its entirety including this cover page, without the prior written consent of 360 Environmental Pty Ltd.

© Copyright 2021 360 Environmental Pty Ltd ACN 109 499 041

# Executive Summary

Horizon Power commissioned 360 Environmental Pty Ltd (360 Environmental) to undertake a reconnaissance flora and vegetation survey and basic vertebrate fauna habitat assessment at two sites in the Pilbara. The Karratha Survey Area covers approximately 147 hectares and is located near a Horizon Power Station on Stovehill Road, Karratha. The Boodarie Survey Area covers approximately 175 hectares and is located near Port Hedland Power Station on the Great Northern Highway, Port Hedland.

The purpose of the assessment was to identify key biological values within the Survey Areas to inform decisions regarding the specific lease areas for proposed construction sites within each Survey Area. This report presents the results of the survey undertaken, it undertakes an assessment against the Ten Clearing Principles and the Matters of National Environmental Significance.

## Flora and Vegetation

### Karratha

The flora desktop assessment identified 43 conservation significant taxa occurring within 100 km of the Karratha Survey Area. A pre-survey likelihood of occurrence assessment was undertaken and determined no taxa as having a high likelihood of occurrence, 20 taxa as having a medium likelihood of occurrence and 23 taxa as having a low likelihood of occurrence.

The reconnaissance flora and vegetation survey at Karratha recorded the floristic composition and vegetation types using relevés, mapping notes and opportunistic observations. A total of 168 taxa were recorded from 97 genera across 38 families.

No Threatened flora species pursuant to the *Environment Protection and Biodiversity Conservation Act 1999* and/or gazetted as Threatened Flora pursuant to the *Biodiversity and Conservation Act 2016* were recorded during the survey. No Priority flora listed by the Department of Biodiversity, Conservation and Attractions (DBCA) were recorded.

Six introduced flora taxa were recorded in the Karratha Survey Area. None are listed as a Weed of National Significance by the Department of Energy and Environment or a Declared Pest by the State Department of Primary Industries and Regional Development.

Five vegetation types were described and mapped within the Karratha Survey Area. Vegetation was representative of existing broad scale vegetation and soil and land system mapping for the area. No Threatened Ecological Communities were identified within the Survey Area; however, two vegetation types were considered analogous to a Priority Ecological Community (PEC) identified within the region.

The Priority 3 “Horseflat Land System of the Roebourne Plains” ecological community was identified by a DBCA database search as occurring within the central and eastern portions of the Survey Area. Vegetation types D1 and P2 were considered analogous to this PEC as they were characterised by red clay soils and cracking clay plains that supported tussock grasslands dominated by *Eragrostis xerophila*. Some of the areas mapped as D1 and P2 were not previously

identified by the DBCA database search as being representative of the PEC, and therefore would represent an extension of the PEC distribution.

Vegetation condition within the Karratha Survey Area ranged from Poor to Very Good with the majority considered to be in Very Good condition. Evidence of disturbance across the Survey Areas included vehicle tracks, weeds, and litter.

### **Boodarie**

The flora desktop assessment identified 28 conservation significant taxa occurring within 100 km of the Boodarie Survey Area. A pre-survey likelihood of occurrence assessment was undertaken and determined one taxon as having a high likelihood of occurrence, five taxa as having a medium likelihood of occurrence and 22 taxa as having a low likelihood of occurrence.

The reconnaissance flora and vegetation survey at Boodarie recorded the floristic composition and vegetation types using relevés, mapping notes and opportunistic observations. A total of 82 taxa were recorded from 53 genera across 27 families.

No Threatened flora species pursuant to the *Environment Protection and Biodiversity Conservation Act 1999* and/or gazetted as Threatened Flora pursuant to the *Biodiversity and Conservation Act 2016* were recorded during the survey. No Priority flora listed by DBCA were recorded. One species of interest (*Abutilon* aff. sp. *Diocum* (A.A. Mitchell PRP 1618)) was recorded from two locations in the Boodarie Survey Area.

Two introduced flora taxa were recorded in the Boodarie Survey Area. None are listed as a Weed of National Significance by the Department of Energy and Environment or a Declared Pest by the State Department of Primary Industries and Regional Development.

One vegetation type was described and mapped within the Boodarie Survey Area. Vegetation was representative of existing broad scale vegetation and soil and land system mapping for the area and was not considered to represent any known Threatened or Priority Ecological Communities.

Vegetation condition within the Boodarie Survey Area ranged from Very Good to Excellent with the majority considered to be in Excellent condition. Evidence of disturbance across the Survey Areas included vehicle tracks, weeds, and litter. The entire Boodarie Survey Area was also burnt in March 2020, which affected the ability to map mature vegetation.

### **Vertebrate Fauna**

#### **Karratha**

The fauna desktop assessment identified 69 conservation significant taxa occurring within 50 km of the Karratha Survey Area comprising:

- 56 bird taxa
- Eight mammal taxa
- Five reptile taxa
- No amphibian taxa.

An assessment of the likelihood of occurrence within the Karratha Survey Area was undertaken and identified that of the potential conservation significant fauna, four taxa had a high likelihood of occurrence:

- Lined Soil-crevice Skink (*Notoscincus butleri*) – Priority 4
- Northern Quoll (*Dasyurus hallucatus*) – Endangered
- Oriental Pratincole (*Glareola maldivarum*) – Migratory, Marine
- Short-tailed Mouse (*Leggadina lakedownensis*) – Priority 4.

Seven conservation significant fauna taxa had a medium likelihood of occurrence, and 58 had a low likelihood of occurrence.

Fauna habitat mapping was based on fauna habitat assessments and field observations. Three fauna habitats were mapped within the Karratha Survey Area:

- Stony Plains
- Minor Drainage
- Rocky Hills.

A total of six fauna taxa from five families were recorded, comprising three bird taxa from three families, one mammal taxon from one family and two reptile taxa from one family.

No conservation significant or introduced fauna taxa were recorded during the survey.

### **Boodarie**

The fauna desktop assessment identified 62 conservation significant taxa occurring within 50 km of the Karratha Survey Area comprising:

- 52 bird taxa
- Eight mammal taxa
- Two reptile taxa
- No amphibian taxa.

An assessment of the likelihood of occurrence within the Boodarie Survey Area was undertaken and identified that of the potential conservation significant fauna, seven taxa had a high likelihood of occurrence:

- Barn Swallow (*Hirundo rustica*) – Migratory, Marine
- Bilby, Dalgyte (*Macrotis lagotis*) – Vulnerable
- Brush-tailed Mulgara, Ampurta (*Dasycercus blythi*) – Priority 4
- Grey Falcon (*Falco hypoleucos*) – Vulnerable
- Northern Quoll (*Dasyurus hallucatus*) – Endangered
- Oriental Pratincole (*Glareola maldivarum*) – Migratory, Marine
- Peregrine Falcon (*Falco peregrinus*) – Other Specially Protected Fauna.

Four conservation significant fauna taxa had a medium likelihood of occurrence, and 51 had a low likelihood of occurrence.

Fauna habitat mapping was based on fauna habitat assessments and field observations. One fauna habitat was mapped within the Boodarie Survey Area, which comprises Sandy Plains.

A total of five fauna taxa from five families were recorded, comprising three bird taxa from three families, one mammal taxon from one family, and one reptile taxon from one family.

The Nankeen Kestrel (*Falco cenchroides*), which is listed as Marine under the EPBC Act, was sighted within the Survey area. No introduced fauna taxa were recorded during the fauna survey.

## Abbreviations

Abbreviations used through the report are described below in Table 1.

**Table 1: Abbreviations**

Abbreviation	Description
360 Environmental	360 Environmental Pty Ltd
BAM Act	Biosecurity and Agriculture Management Act 2007
BC Act	Biodiversity Conservation Act 2016
Boodarie Survey Area	The Boodarie Survey Area covers approximately 175 ha and is located near Port Hedland Power Station on the Great Northern Highway, Port Hedland.
°C	Degree Celsius
CR	Critically Endangered
DAWE	Department of Agriculture, Water, and the Environment
DBCA	Department of Biodiversity, Conservation and Attractions
DP	Declared Pest
DWER	Department of Water and Environmental Regulation
E	Endangered
EP Act	Environmental Protection Act 1986
EPA	Environmental Protection Authority
EPBC Act	Environment Protection Biodiversity and Conservation Act 1999
ESA	Environmentally Sensitive Area
GIS	Geographic Information System
ha	Hectare
Karratha Survey Area	The Karratha Survey Area covers approximately 147 ha and is located near a Horizon Power Station on Stovehill Road, Karratha.
IBRA	Interim Biogeographic Regionalisation for Australia
IBSA	Index of Biodiversity Surveys for Assessments
km	Kilometres
m	Metres
mm	Millimetres
MA	Marine
MI	Migratory
MNES	Matters of National Environmental Significance
NVIS	National Vegetation Information System
OS	Other Specially Protected Fauna
P	Priority
PEC	Priority Ecological Community
PMST	Protected Matters Search Tool
Study Area	The database search area (varied according to each parameter)

Abbreviation	Description
T	Threatened
TEC	Threatened Ecological Community
TPFL	Threatened and Priority Flora
VU	Vulnerable
WA	Western Australia
WAH	Western Australian Herbarium
WAM	Western Australian Museum
WoNS	Weeds of National Significance



## Table of Contents

<b>1</b>	<b>Introduction</b> .....	<b>1</b>
1.1	The Project.....	1
1.2	Objectives and Scope.....	1
<b>2</b>	<b>Background</b> .....	<b>2</b>
2.1	Protection of Flora, Vegetation and Fauna.....	2
2.2	Existing Environment.....	3
<b>3</b>	<b>Methods</b> .....	<b>9</b>
3.1	Desktop Assessment.....	9
3.2	Field Surveys.....	11
3.3	Flora and Vegetation.....	11
3.4	Vertebrate Fauna.....	13
<b>4</b>	<b>Results</b> .....	<b>15</b>
4.1	Limitations.....	15
4.2	Flora and Vegetation.....	17
4.3	Vertebrate Fauna.....	27
<b>5</b>	<b>Discussion</b> .....	<b>33</b>
5.1	Flora and Vegetation.....	33
5.2	Vertebrate Fauna.....	36
<b>6</b>	<b>Assessment against the Ten Clearing Principles</b> .....	<b>44</b>
<b>7</b>	<b>Assessment against Matters of National Environmental Significance</b> .....	<b>56</b>
7.1	Listed Threatened Ecological Communities and Flora Taxa.....	56
7.2	Listed Migratory Taxa.....	59
7.3	Wetlands of International Importance.....	62
7.4	Commonwealth Marine Environment.....	62
7.5	World Heritage Properties.....	62
7.6	Assessment Conclusion.....	62
<b>8</b>	<b>Potential Impact on Flora, Vegetation and Fauna</b> .....	<b>63</b>
8.1	Flora and Vegetation.....	63
8.2	Fauna.....	63
<b>9</b>	<b>Conclusion</b> .....	<b>64</b>
<b>10</b>	<b>References</b> .....	<b>65</b>
<b>11</b>	<b>Report Disclaimer</b> .....	<b>69</b>

## List of Tables

<b>Table 1: Abbreviations</b> .....	<b>v</b>
<b>Table 2: Land Systems within the Survey Area</b> .....	<b>5</b>
<b>Table 3: Water Courses in the Vicinity of the Survey Areas</b> .....	<b>5</b>
<b>Table 4: Broad Vegetation Types within the State, Regional and Local Representation (Government of Western Australia, 2019)</b> .....	<b>6</b>
<b>Table 5: Conservation Areas in the Vicinity of the Survey Areas</b> .....	<b>8</b>

<b>Table 6: Database Searches of the Survey Area.....</b>	<b>10</b>
<b>Table 7: Likelihood of Occurrence Criteria.....</b>	<b>11</b>
<b>Table 8: Limitations and Constraints Associated with the Survey .....</b>	<b>15</b>
<b>Table 9: PECs identified during the Karratha Survey Area Desktop Assessment .....</b>	<b>18</b>
<b>Table 10: Introduced Flora Species within the Survey Areas.....</b>	<b>20</b>
<b>Table 11: Vegetation Types Occurring within the Survey Areas.....</b>	<b>22</b>
<b>Table 12: Fauna Habitat Type Descriptions with the Survey Areas.....</b>	<b>29</b>
<b>Table 13: Overview of Vertebrate Fauna Species Recorded (Karratha) .....</b>	<b>32</b>
<b>Table 14: Overview of Vertebrate Fauna Species Recorded (Boodarie) .....</b>	<b>32</b>
<b>Table 15: Assessment of the Ten Clearing Principles .....</b>	<b>44</b>

## List of Graphs

<b>Graph 1: Long term and Monthly Total Rainfall, Maximum and Minimum temperatures for Karratha Aero WA (4083) for the 12 months prior to the June 2021 survey (Bureau of Meteorology, 2021). .....</b>	<b>3</b>
<b>Graph 2: Long term and Monthly Total Rainfall, Maximum and Minimum temperatures for Port Hedland Airport (4032) for the 12 months prior to the June 2021 survey (Bureau of Meteorology, 2021). .....</b>	<b>4</b>

## List of Figures (out of text)

<b>Figure 1: Karratha Survey Area</b>
<b>Figure 2: Boodarie Survey Area</b>
<b>Figure 3: Karratha Soil Land System and Hydrography</b>
<b>Figure 4: Boodarie Soil Land System and Hydrography</b>
<b>Figure 5: Karratha Broad Vegetation Types</b>
<b>Figure 6: Boodarie Broad Vegetation Types</b>
<b>Figure 7: Karratha Conservation and Environmentally Sensitive Areas</b>
<b>Figure 8: Boodarie Conservation and Environmentally Sensitive Areas</b>
<b>Figure 9: Karratha Survey Effort</b>
<b>Figure 10: Boodarie Survey Effort</b>
<b>Figure 11: Karratha DBCA Threatened and Priority Flora and Communities</b>
<b>Figure 12: Boodarie DBCA Threatened and Priority Flora and Communities</b>
<b>Figure 13: Karratha Vegetation Types and Introduced Flora</b>
<b>Figure 14: Boodarie Vegetation Types and Introduced Flora</b>
<b>Figure 15: Karratha Vegetation Condition</b>
<b>Figure 16: Boodarie Vegetation Condition</b>
<b>Figure 17: Karratha DBCA Threatened and Priority Fauna Locations</b>
<b>Figure 18: Boodarie DBCA Threatened and Priority Fauna Locations</b>
<b>Figure 19: Karratha Fauna Habitat</b>
<b>Figure 20: Boodarie Fauna Habitat</b>

## List of Appendices

<b>Appendix A Literature Review</b>
<b>Appendix B Database Searches</b>
<b>Appendix C Flora Likelihood of Occurrence Assessment</b>
<b>Appendix D Inventory of Vascular Flora</b>

**Appendix E Flora Site Sheets**

**Appendix F Fauna Likelihood of Occurance Assessment**

**Appendix G Fauna Habitat Assessments**

# 1 Introduction

## 1.1 The Project

Horizon Power commissioned 360 Environmental Pty Ltd (360 Environmental) to undertake a reconnaissance flora and vegetation survey and basic vertebrate fauna habitat assessment at two sites in the Pilbara.

The Karratha Survey Area (Figure 1) covers approximately 147 ha and is located near a Horizon Power Station on Stovehill Road, Karratha.

The Boodarie Survey Area (Figure 2) covers approximately 175 ha and is located near Port Hedland Power Station on the Great Northern Highway, Port Hedland.

The purpose of the assessment was to identify key biological values to inform decisions regarding the specific lease areas for proposed construction sites within each Survey Area.

## 1.2 Objectives and Scope

The purpose of the survey was to delineate key flora and fauna values within the Survey Areas and identify potential environmental sensitivities that may impact the project.

The scope of works included:

- Complete a field biological survey (comprising a reconnaissance flora and vegetation survey and targeted searching for conservation significant flora, and basic terrestrial vertebrate fauna survey) of the Karratha and Boodarie Survey Areas pursuant to the requirements of a native vegetation clearing permit application
- Provide a report detailing the findings of the biological survey
- Include an assessment against the Ten Clearing Principles
- Include relevant maps and shapefiles that could be used to support a native vegetation clearing permit application
- Supply a geospatial data package prepared in accordance with Index of Biodiversity Surveys for Assessments (IBSA) requirements
- Include recommendations for any approvals requirements that would be required to clear within the Survey Areas.

This report presents the results of the field survey undertaken to support the above objectives.

## 2 Background

### 2.1 Protection of Flora, Vegetation and Fauna

Western Australian flora and fauna is protected formally and informally by legislative and non-legislative measures:

Legislative measures:

- *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)
- *WA Biodiversity Conservation Act 2016* (BC Act)
- *WA Environmental Protection Act 1986* (EP Act)
- *WA Biosecurity and Agriculture Management Act 2007* (BAM Act).

Non-legislative measures:

- WA Department of Biodiversity Conservation and Attractions (DBCA) Priority lists for fauna, flora, and ecological communities
- Weeds of National Significance (WoNS)
- Recognition of locally significant populations by DBCA.

These protection mechanisms are supported by guidance documents published by the Environmental Protection Authority (EPA) and Department of Agriculture, Water, and the Environment (DAWE):

- Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (Environmental Protection Authority, 2016b)
- Technical Guidance – Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment (Environmental Protection Authority, 2020)
- Matters of National Environmental Significance Significant impact guidelines 1.1 Environment Protection and Biodiversity Conservation Act 1999 (Department of the Environment, 2013a)
- Survey Guidelines for Australia’s Threatened Mammals (Department of Sustainability Environment Population and Communities, 1999)
- Survey Guidelines for Australia’s Threatened Reptiles (Department of Sustainability Environment Water Population and Communities, 2011)
- Survey Guidelines for Australia’s Threatened Birds Under the Environment Protection And Biodiversity Conservation Act 1999 (Department of the Environment Water Heritage and the Arts, 2010).

## 2.2 Existing Environment

### 2.2.1 Climate

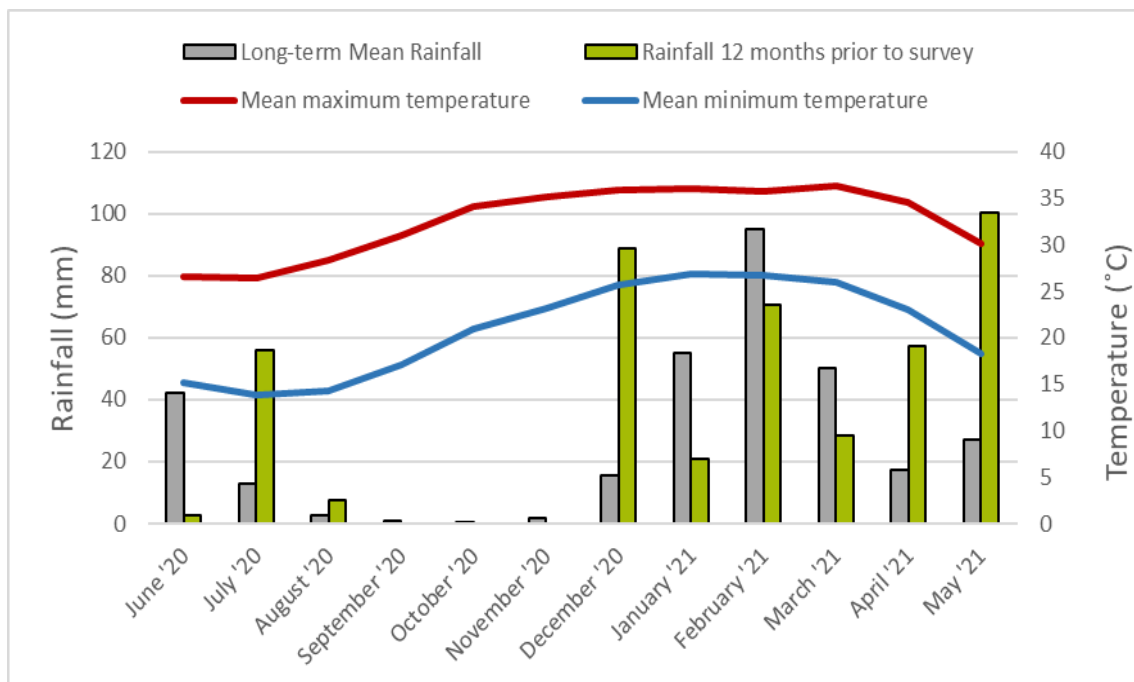
Climate statistics were calculated utilising data from the most current climate normal, which is defined as a 30 year interval (Bureau of Meteorology, 2007). A climate normal is a period long enough to include year-to-year variations while avoiding the influence of longer-term changes in climate (Bureau of Meteorology, 2007).

#### 2.2.1.1 Karratha Survey Area

The closest long-term Bureau of Meteorology weather station with a complete dataset is Karratha Aero WA Weather Station (Station 4083), located approximately 8 km northwest of the Karratha Survey Area.

The long-term mean minimum temperature for Karratha Aero WA ranges from 13.9°C (July) to 26.9°C (January) (1991 to 2020) and the long-term mean maximum temperature ranges from 26.4°C (July) to 36.0°C (January) (Graph 1) (Bureau of Meteorology, 2021).

The Karratha Aero WA weather station recorded 432.6 mm of rainfall in the 12 months prior to the survey (June 2020 to May 2021), which is 108.0 mm above the long-term average of 324.6 mm (Bureau of Meteorology, 2021). In the three months prior to the survey (March to May 2021), 186.0 mm of rainfall was recorded, which is 91.4 mm above the long-term average of 94.6 mm for the same time period (Bureau of Meteorology, 2021).



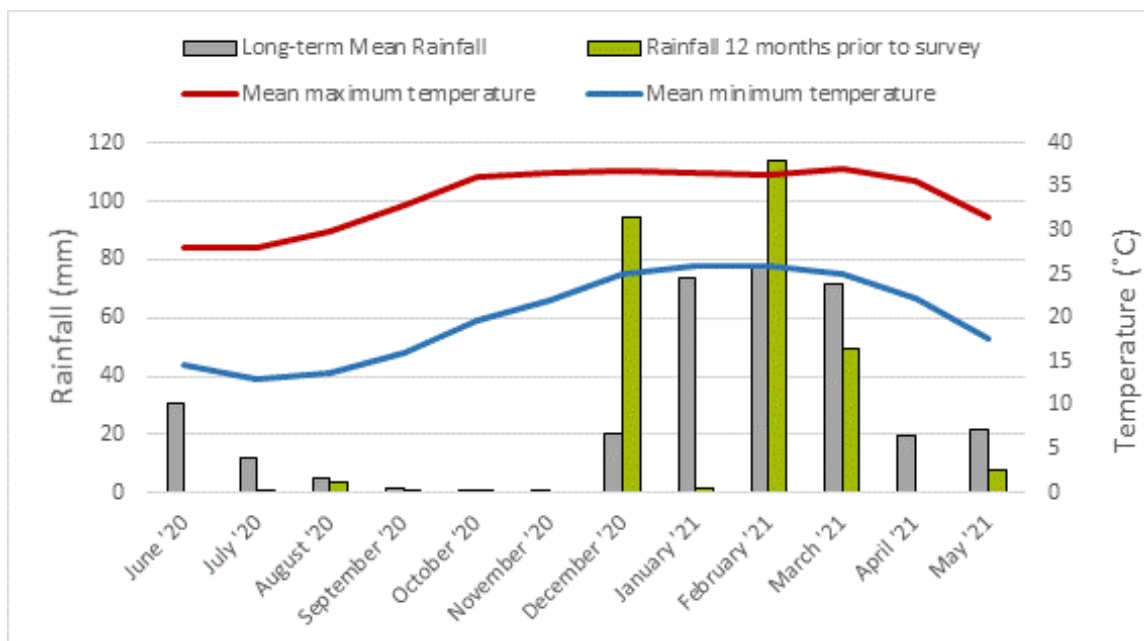
**Graph 1: Long term and Monthly Total Rainfall, Maximum and Minimum temperatures for Karratha Aero WA (4083) for the 12 months prior to the June 2021 survey (Bureau of Meteorology, 2021).**

### 2.2.1.2 Boodarie Survey Area

The closest long-term Bureau of Meteorology weather station with a complete dataset is Port Hedland Airport Weather Station (Station 4032), located approximately 11 km northeast of the Boodarie Survey Area.

The long-term mean minimum temperature for Port Hedland Airport ranges from 13.1°C (July) to 26.0°C (January) (1991 to 2020) and the long-term mean maximum temperature ranges from 28.0°C (June and July) to 36.8°C (December) (Graph 2) (Bureau of Meteorology, 2021).

The Port Hedland Airport weather station recorded 270.8 mm of rainfall in the 12 months prior to the survey (June 2020 to May 2021), which is 65.8 mm below the long-term average of 336.6 mm (Bureau of Meteorology, 2021). In the three months prior to the survey (March to May 2021), 57.0 mm of rainfall was recorded, which is 56.1 mm below the long-term average of 113.1 mm for the same time period (Bureau of Meteorology, 2021).



**Graph 2: Long term and Monthly Total Rainfall, Maximum and Minimum temperatures for Port Hedland Airport (4032) for the 12 months prior to the June 2021 survey (Bureau of Meteorology, 2021).**

### 2.2.2 Interim Biogeographic Regionalisation of Australia

The Interim Biogeographic Regionalisation of Australia (IBRA) divides Australia into 89 bioregions based on major biological, geographical, and geological attributes. These bioregions are subdivided into 419 subregions as part of a refinement of the IBRA framework (Department of the Environment and Energy, 2016). Both the Survey Areas occur within the Pilbara bioregion and the Roebourne (PIL04) subregion.

The Roebourne subregion (PIL04) is characterised by alluvial and older colluvial coastal and sub-coastal plains with a grass savannah of mixed bunch and hummock grasses, and dwarf shrub steppe. The subregion is represented by shrub steppe of *Acacia stellaticeps* or *A. pyrifolia* and *A. inaequilatera*. Uplands are dominated by *Triodia* hummock grasslands. Ephemeral drainage

lines support *Eucalyptus victrix* or *Corymbia hamersleyana* woodlands. Samphire, *Sporobolus* and mangal occur on marine alluvial flats and river deltas (Kendrick & Stanley, 2001).

### 2.2.3 Soil Landscapes and Land Systems

Soil landscapes and land system mapping of Western Australia describes broad soil and landscape characteristics from regional to local scales, ranging from 1:20,000 to 1:250,000 (Department of Agriculture and Food WA, 2012). The Survey Areas occur within three land systems (Table 2, Figure 3, Figure 4).

**Table 2: Land Systems within the Survey Area**

Survey Area	Land System		Description (Department of Agriculture and Food WA, 2012)
	Name	Code	
Karratha	Horseflat System	281Hf	Gilgaied clay plains supporting Roebourne Plains grass grasslands and minor grassy snakewood shrublands.
	Ruth System	281Rt	Hills and ridges of volcanic and other rocks supporting shrubby hard spinifex and occasionally soft spinifex grasslands.
Boodarie	Uaroo System	281Ua	Broad sandy plains, pebbly plains and drainage tracts supporting hard and soft spinifex hummock grasslands with scattered acacia shrubs.

### 2.2.4 Hydrography

The Karratha and Boodarie Survey Areas do not intersect any major watercourses or water bodies that are mapped by State Government GIS databases (Department of Water and Environmental Regulation, 2018) (Figure 3, Figure 4). One minor drainage line crosses the Karratha Survey Area, however this was not recognised by State Government GIS databases. The closest watercourses to the Survey Areas are presented in Table 3.

**Table 3: Water Courses in the Vicinity of the Survey Areas**

Water Course	Description
<b>Karratha Survey Area</b>	
Significant Stream – Nickol River	A significant stream that flows north into the Indian Ocean. The Nickol River is located approximately 10.0 km east of the Karratha Survey Area.
Minor River – Maitland River	A minor river that flows in a north-westerly direction into the Indian Ocean. The Maitland River is located approximately 20.5 km south of the Karratha Survey Area.
Major Tributary – Unnamed	A major tributary that flows in an east-westerly direction before joining the Maitland River. It is located approximately 12.5 km south of the Karratha Survey Area.



Water Course	Description
<b>Boodarie Survey Area</b>	
Major Tributary – Southwest Creek	A waterbody flowing in a northerly direction into the Taylor Inlet. The South West Creek is located approximately 2.0 km east of the Boodarie Survey Area.
Major Tributary – Unnamed	A tributary flowing in a northerly direction into the Taylor Inlet. The tributary is located approximately 4.0 km east of the Boodarie Survey Area.
Minor River – Turner River	A minor river flowing in a northerly direction before discharging into the Indian Ocean west of Downes Island. The Turner River is located approximately 6.5 km west of the Survey Area.
Estuarine Inlet – Taylor Inlet	An estuarine inlet located approximately 10.0 km north of the Boodarie Survey Area.

### 2.2.5 Broad Vegetation Types

Mapping of pre-European vegetation in Western Australia was completed on a broad scale (1:1,000,000) by Beard (1976). These vegetation types were later refined by Shepherd et al. (2002) resulting in 819 vegetation types.

Three broad vegetation system associations are mapped over the Survey Areas (Figure 5, Figure 6). Representation of the system associations at a local, regional, and state level is shown in Table 4.

- **Abydos Plain – Roebourne 157:** Hummock grassland (*Triodia* spp.)
- **Abydos Plain – Roebourne 589:** Short bunch-grass savanna / Grass-steppe
- **Abydos Plain 647:** Hummock grassland with scattered shrubs or mallee (*Triodia* spp., *Acacia* spp., *Grevillea* spp., *Eucalyptus* spp.).

**Table 4: Broad Vegetation Types within the State, Regional and Local Representation (Government of Western Australia, 2019)**

Survey Area	System and Vegetation Association	Pre-European Extent (ha)	Current Extent (ha)	Remaining (%)	Current Extent Managed in DBCA Lands (%)
<b>Representation across Western Australia</b>					
Karratha	Abydos Plain – Roebourne 157	502,728.6	499,311.8	99.3	18.2
Karratha, Boodarie	Abydos Plain – Roebourne 589	807,698.6	802,713.4	99.4	1.9
Boodarie	Abydos Plain 647	195,860.9	191,711.4	97.9	N/A

Survey Area	System and Vegetation Association	Pre-European Extent (ha)	Current Extent (ha)	Remaining (%)	Current Extent Managed in DBCA Lands (%)
<b>Representation across the Pilbara Bioregion</b>					
Karratha	Abydos Plain – Roebourne 157	199,832.2	198,409.2	99.3	5.8
Karratha, Boodarie	Abydos Plain – Roebourne 589	728,768.2	724,695.8	99.4	2.1
Boodarie	Abydos Plain 647	195,860.0	191,710.9	97.9	N/A
<b>Representation across the Roebourne (PIL04) Subregion</b>					
Karratha	Abydos Plain – Roebourne 157	14,972.1	14,451.5	96.5	1.6
Karratha, Boodarie	Abydos Plain – Roebourne 589	675,391.8	671,327.5	99.4	2.1
Boodarie	Abydos Plain 647	188,901.3	184,774.7	97.8	N/A
<b>Representation across the City of Karratha</b>					
Karratha	Abydos Plain – Roebourne 157	73,039.7	71,600.8	98.0	0.3
Karratha	Abydos Plain – Roebourne 589	312,813.6	310,512.3	99.3	0.8
<b>Representation across the Town of Port Hedland</b>					
Boodarie	Abydos Plain – Roebourne 589	338,269.1	335,921.2	99.3	N/A
Boodarie	Abydos Plain 647	180,908.5	176,759.0	97.7	N/A

### 2.2.6 Environmentally Sensitive Areas

Environmentally Sensitive Areas (ESAs) are declared by the Department of Water and Environmental Regulation (DWER) to prevent the degradation of important environmental values such as Threatened flora, Threatened Ecological Communities (TECs) or significant wetlands.

The Karratha Survey Area does not occur within a mapped ESA (Figure 7). The nearest ESA is the Murujuga National Park associated with the Dampier Archipelago, located approximately 22.5 km north of the Karratha Survey Area (Department of Water and Environmental Regulation, 2021).

The Boodarie Survey Area does not occur within a mapped ESA (Figure 8). The nearest ESAs are:

- Spoil Bank Recreation Reserve, located approximately 16.7 km north of the Boodarie Survey Area
- Coastal tidal flats located approximately 22.3 km northeast of the Boodarie Survey Area.

### 2.2.7 Conservation Areas

The Karratha and Boodarie Survey Areas are not identified within a conservation area (Figure 7, Figure 8). The nearest conservation areas are listed in Table 5 (Department of Biodiversity Conservation and Attractions, 2021a).

**Table 5: Conservation Areas in the Vicinity of the Survey Areas**

Name	Location and vesting
<b>Karratha Survey Area</b>	
Arboretum (R 38287)	Located approximately 3.4 km east of the Karratha Survey Area, vested under the Executive Director Department Of CALM
Murujuga National Park (2803/672 and 2803/673)	Located approximately 12.4 km north of the Karratha Survey Area
Unnamed reserve (R 36909)	Located approximately 22.4 km northwest of the Karratha Survey Area and vested under the Conservation Commission Of WA. It includes West and East Lewis Island, and it is part of the Dampier Archipelago Reserve.
Unnamed reserve (R 36913)	Located approximately 40.4 km west of the Karratha Survey Area and vested under the Conservation Commission Of WA. It is part of the Dampier Archipelago Reserve.
Unnamed reserve (R 36915)	Located approximately 27.1 km north of the Karratha Survey Area and vested under the Conservation Commission Of WA. It is part of the Dampier Archipelago Reserve.
<b>Boodarie Survey Area</b>	
North Turtle Island Nature Reserve (R 34578)	Located approximately 71.0 km northeast of the Boodarie Survey Area and vested under the Conservation Commission Of WA.

## 3 Methods

The biological surveys were undertaken in accordance with relevant EPA and DAWE guidelines (see section 2.1).

### 3.1 Desktop Assessment

#### 3.1.1 Literature Review

Background information on the Survey Areas and surrounds was compiled prior to the field survey (see Section 2). Historical vegetation mapping (Beard, 1976; Shepherd et al., 2002), land systems mapping (Department of Agriculture and Food WA, 2012), and the IBRA classification system (Kendrick & Stanley, 2001) were consulted to provide broad contextual knowledge of the vegetation units and habitat likely to be encountered within the Survey Areas.

The literature review also considered a selection of biological reports detailing assessments undertaken in the region that were publicly available.

Karratha Survey Area:

- 124-KRT-DMP 132kV Line Upgrade Project Flora and Fauna Survey (GHD, 2019)
- Burrup Peninsula Interconnector Pipeline Flora and Fauna Survey (Astron, 2018)
- Terrestrial Vertebrate Fauna Survey for Anketell Point Rail Alignment and Port Projects (Phoenix Environmental Sciences, 2010).

Boodarie Survey Area:

- Flora and Fauna Survey Port Hedland International Airport - Highway Precinct 2 (Emerge Associates, 2019)
- Flora and vegetation reconnaissance survey of Spoilbank Marina Project Area (Strategen JBS&G, 2020)
- Port Hedland Regional Fauna Assessment (ENV Australia Pty Ltd, 2011)
- Report for Proposed Boodarie Industrial Area - Flora and Fauna Assessment (GHD, 2010)
- Roy Hill Port Facility Power Line Port Hedland Ecological Assessment (GHD, 2016).

#### 3.1.2 Database Searches

Database searches were undertaken to compile a list of potential flora and fauna and identify potential conservation significant flora, fauna, and ecological communities within or surrounding the Survey Areas (Table 6). In addition, an EPBC Protected Matters Search (PMST) was undertaken to identify the potential for Matters of National Environmental Significance (MNES) to occur within or surrounding the Survey Areas (Department of Agriculture Water and the Environment, 2020).

The search area for each parameter was varied to reflect distances recommended by DBCA.

**Table 6: Database Searches of the Survey Area**

Database Name	Date Received	Search Target	Search Area
Threatened and Priority Ecological Communities database search (Department of Biodiversity Conservation and Attractions, 2021c)	17 June 2021	TECs and PECs	50 km buffer around each Survey Area
Threatened and Priority Flora (TPFL) database search (Department of Biodiversity Conservation and Attractions, 2021e)	17 June 2021	Threatened and Priority Flora	100 km buffer around each Survey Area
Western Australian Herbarium flora database search (Department of Biodiversity Conservation and Attractions, 2021f)			
DBCA Threatened and Priority Fauna database search (Department of Biodiversity Conservation and Attractions, 2021d)	28 June 2021	Threatened and Priority Fauna	15 km buffer around each Survey Area
NatureMap (Department of Biodiversity Conservation and Attractions, 2021b)	23 June 2021	Threatened and Priority flora and fauna, and inventory of potential flora and fauna	40 km buffer around each Survey Area
Protected Matters Search Tool (Department of Agriculture Water and the Environment, 2021a)	23 June 2021	Commonwealth listed Threatened flora and fauna and TECs	50 km buffer around each Survey Area

### 3.1.3 Likelihood of Occurrence

Conservation significant flora and fauna taxa identified from the desktop assessment were assessed to determine the likelihood of their occurrence within the Survey Areas, both prior to and post field survey. The assessment was completed based on the likelihood of occurrence criteria presented in Table 7.

Only taxa either recorded within the Survey Areas or considered as having a high or medium likelihood of occurrence are discussed in detail (Sections 5.1.3 and 5.2.2). Taxa classified as having a low likelihood of occurrence were not discussed unless a justification for this classification was considered appropriate.

For fauna, species listed as Marine under the EPBC Act were not included as conservation significant as the Marine listing only applies within Commonwealth marine areas.

**Table 7: Likelihood of Occurrence Criteria**

Rank	Criteria
Previously Recorded	The species has been previously recorded in the Survey Area
High (Likely to occur)	<ul style="list-style-type: none"> <li>• There are existing records of the species in close proximity to the Survey Area (within 5 km), and for fauna has been recorded in the Survey Area in the last 15 years</li> <li>• The species is strongly linked to a specific habitat, which is present in the Survey Area; or</li> <li>• The species has more general habitat preferences, and suitable habitat is present.</li> </ul>
Medium (May occur)	<ul style="list-style-type: none"> <li>• There are existing records of the species from the locality (within 15 km), however: <ul style="list-style-type: none"> <li>○ The species is strongly linked to a specific habitat, of which only a small amount is present in the Survey Area; or</li> <li>○ The species has more general habitat preferences, but only some suitable habitat is present.</li> </ul> </li> <li>• There is suitable habitat in the Survey Area, but the species is recorded infrequently in the locality.</li> </ul>
Low (Unlikely to occur)	<ul style="list-style-type: none"> <li>• The species is linked to a specific habitat, which is absent from the Survey Area; or</li> <li>• Suitable habitat is present, however there are no existing records of the species from the locality despite reasonable previous search effort in suitable habitat; or</li> <li>• There is some suitable habitat in the Survey Area, however the species is very infrequently recorded in the locality.</li> </ul>

## 3.2 Field Surveys

The biological survey was undertaken between the 25 - 28 June 2021. Survey effort is presented in Figure 9 and Figure 10.

The flora, vegetation and fauna survey was undertaken by Principal Botanist Ben Eckermann and Ecologist Lachlan Crossley. The field team has over 15 years of combined experience conducting surveys of similar scope throughout Western Australia.

## 3.3 Flora and Vegetation

### 3.3.1 Establishment of Flora Sites

The Survey Areas were assessed using relevés to gather information to characterise and delineate vegetation and compile an inventory of vascular flora. At least one flora site was sampled in each vegetation type observed within the Survey Areas.

Flora site location was recorded using a handheld Garmin GPS unit at the central point of circular relevés. At each flora site, the following was recorded using a Fulcrum mobile data collection device:

- Site code
- Date and personnel
- Landform and soil description

- Relevant site descriptors including, slope, aspect, litter cover, bare ground cover and fire history
- Inventory of vascular flora including the approximate maximum height and percentage foliar cover for each taxon recorded
- Vegetation description in accordance with the National Vegetation Information System (NVIS), Level 6 'sub-association', whereby the dominant growth form, height, cover, and species (up to five species) for the three traditional strata (upper, mid, and ground) are described
- Vegetation condition in accordance with the Eremaean and Northern Botanical Provinces vegetation condition scale (Environmental Protection Authority, 2016a), and evidence of disturbance (for example clearing, rubbish, feral animals, weed incursion and evidence of feral animals and dieback) where present
- Photograph of the vegetation occurring within the site.

A total of five flora relevés were established within the Karratha Survey Area. An additional eight mapping notes were completed to aid vegetation mapping delineation.

A total of four flora relevés were established within the Boodarie Survey Area. An additional four mapping notes were completed to aid vegetation mapping delineation.

### 3.3.2 Opportunistic Flora

Additional flora taxa observed opportunistically around flora sites or while traversing on foot within the Survey Areas were also recorded.

### 3.3.3 Targeted Searching

Prior to the survey conservation significant flora with the likelihood or potential to occur within the Survey Areas was compiled (see section 3.1). Field personnel familiarised themselves with photographs, reference samples and descriptions of these taxa before conducting the survey.

The entire Survey Areas were not systematically searched. Rather, targeted searching focused on habitat suitable for Threatened flora and P1 and P2 flora.

Personnel also actively searched for conservation significant flora species in and around flora sites, while traversing on foot within the Survey Areas and in known locations or preferred habitat encountered in the Survey Areas.

### 3.3.4 Taxonomy and Nomenclature

Where field identification of plant taxa was not possible, specimens were collected for identification using resources of the Western Australian Herbarium (WAH). Identification of flora collections was completed by experienced Botanist Ben Eckermann.

The finalised species list was checked against FloraBase (Western Australian Herbarium, 2021) to determine the conservation status and known distribution of each taxon. Introduced species were compared against the current BAM Act Declared Plants (DP) list and the WoNS list to determine their control status (Department of Agriculture Water and the Environment, 2021b; Department of Primary Industries and Regional Development, 2021).

### 3.3.5 Vegetation Unit and Condition Mapping

Broad vegetation and condition mapping was conducted in the field, with boundaries delineated over aerial photography, at a scale of 1:12,500. Broad vegetation units were refined based on taxonomic identification of flora collections, and mapping notes taken during the field survey. Vegetation condition mapping was refined based on site data and mapping notes. Finalised polygons were digitised and produced as electronic mapping data using GIS software.

## 3.4 Vertebrate Fauna

### 3.4.1 Fauna Habitat Assessment

Fauna habitat assessments were undertaken throughout the Survey Areas to identify fauna habitat values. The following information, which has been adapted from the habitat attributes listed in the Technical Guidance (Environmental Protection Authority, 2020), was collected at each habitat assessment site using Fulcrum, a mobile data collection app:

- Site photo
- Landform
- Soil type and colour
- Rock types, surface stone cover and size classes
- Microhabitat features including leaf litter, logs, burrows, rocky outcrops, rock crevices, hollows, water sources
- Habitat quality, fire history and evidence of disturbance
- General description of vegetation structure.

Fauna habitat mapping boundaries were delineated over aerial photography at a scale of 1:5,000 based on field observations, fauna habitat assessment data and vegetation mapping. Polygons were digitised and produced as electronic mapping data using GIS software.

### 3.4.2 Opportunistic Fauna Records

Throughout the field survey opportunistic observations of fauna species (including feral species) were recorded. Where possible, data collected included:

- Family, genus, species, and common name
- Conservation status
- Introduced status
- Abundance / population size
- Western Australian Museum lodgement number (if applicable)
- Sampling type
- Sampling point number



- Habitat description:
  - Brief description if species is not conservation significant
  - A full detailed description if species is conservation significant.
- Coordinates in GDA94 or GDA2020, easting and northings
- Photograph (if possible)
- Notes (any additional information, if necessary)
- Brief location.

In addition to the direct observation of fauna species, secondary evidence such as tracks, diggings and scats was noted. All fauna observations were recorded using a mobile device with GPS capability.

#### 3.4.3 Identification and Taxonomy

Terrestrial vertebrate fauna taxa were identified in the field.

Where there was doubt on a species name (through subsequent name changes or taxonomic reviews), an effort was made to determine the current scientific name for each taxon. Taxonomy and nomenclature in this report follows the WA Museum checklist 2020 (Western Australian Museum, 2021) where relevant.

## 4 Results

### 4.1 Limitations

Limitations and constraints of the flora, vegetation and fauna survey are detailed below in Table 8.

**Table 8: Limitations and Constraints Associated with the Survey**

Variable	Degree of Limitation	Potential Constraints on Survey Outcomes
<b>Survey Scope</b>	Not a limitation	The reconnaissance flora and vegetation and basic vertebrate fauna surveys were undertaken in accordance with (Environmental Protection Authority, 2016b, 2020) and were considered appropriate to support approvals applications.
<b>Availability of Data</b>	Not a limitation	All data required to complete the scope of works including regional and local contextual information was available.
<b>Site Access</b>	Not a limitation	The Survey Areas were traversed on foot.
<b>Survey Intensity and Resources</b>	Not a limitation	<p>Five flora sites relevés were sampled across the Karratha Survey Area. An additional eight mapping notes were undertaken to aid vegetation mapping and delineation.</p> <p>Four flora sites relevés were sampled across the Boodarie Survey Area. An additional four mapping notes were undertaken to aid vegetation mapping and delineation.</p> <p>Sufficient time was allocated to the flora and vegetation survey. The survey effort was considered adequate to assess the flora and vegetation values of the Survey Areas and provide information required to support approvals applications.</p> <p>Five fauna habitat assessments were sampled, and fauna taxa were recorded opportunistically across the Karratha Survey Area.</p> <p>Four fauna habitat assessments were sampled, and fauna taxa were recorded opportunistically across the Boodarie Survey Area.</p> <p>Sufficient time was allocated to the fauna survey.</p>
<b>Experience</b>	Not a limitation	<p>The flora and vegetation survey was undertaken by Principal Botanist Ben Eckermann and Ecologist Lachlan Crossley. Ben has 15 years' experience conducting surveys of similar scope throughout Western Australia. Lachlan has worked as an environmental consultant for three years and has completed flora, vegetation, and fauna surveys state-wide.</p> <p>Identification of flora collections was completed by experienced Botanist Ben Eckermann at the WAH. Relevant WAH specialists were consulted for difficult specimens, and any specimens with novel characteristics were submitted to the WAH for formal identification (accession 9049). Identifications were undertaken by WAH taxonomist Rob Davis.</p> <p>The fauna survey was undertaken by Ecologist Lachlan Crossley. Identification confirmation was provided by Dr Michael Lohr (Principal Zoologist) and Evan Webb (Senior Zoologist) who have nine and five years of experience respectively conducting fauna surveys.</p>

Variable	Degree of Limitation	Potential Constraints on Survey Outcomes
<b>Timing, weather, season</b>	<p>Not a limitation for flora</p> <p>Partial limitation for fauna (amphibians and reptiles)</p>	<p><b>Flora</b></p> <p>The recommended primary survey period for the region as per the EPA Technical Guidance, occurs 6 – 8 weeks post wet season (March – June). The survey was undertaken in June, within the optimal survey period for the region.</p> <p><b>Fauna</b></p> <p>According to the EPA Technical Guidance, mammals do not have a preferred time of year for optimal observation.</p> <p>Amphibians and birds are most likely observed after significant rain events. The surveys were conducted in winter (June), but not immediately after significant rainfall.</p> <p>For reptiles, the guidance suggests September to April for optimum observation. Therefore, the surveys were not conducted at the optimal time for all fauna species.</p> <p>Fauna taxa was observed throughout the day, but maximum temperatures were between 25-35°C. If the survey had been completed later in the year, higher temperatures may have increased reptile activity and yielded a higher number of observations.</p>
<b>Life Forms Sampled</b>	<p>Not a limitation</p>	<p>The Survey Areas were traversed on foot and representative sites of all remnant vegetation was sampled. All flora taxa encountered within the Survey Areas were recorded.</p> <p>A total of 168 vascular flora taxa were recorded within the Karratha Survey Area, comprising 96.4% native flora taxa and 3.6% introduced flora taxa. Of the 168 flora taxa recorded, two specimens (1.2%), could not be identified to species level because they were sterile at the time of the survey. This was not considered a constraint as it represented a very small portion of the flora sampled.</p> <p>A total of 82 vascular flora taxa were recorded within the Boodarie Survey Area, comprising 97.6% native flora taxa and 2.4% introduced flora taxa. Of the 82 flora taxa recorded, two specimens (2.4%), could not be identified to species level because they were sterile at the time of the survey. This was not considered a constraint as it represented a very small portion of the flora sampled</p> <p>None of the unknown flora taxa collected were analogous to Threatened or Priority flora taxa identified by the database searches, nor were they representative of flora of other significance.</p> <p>A total of six vertebrate fauna taxa were recorded within the Karratha Survey Area, comprising six confirmed native taxa and no introduced taxa.</p> <p>A total of five vertebrate fauna taxa were recorded within the Boodarie Survey Area, comprising four confirmed native taxa and no introduced taxa.</p>

Variable	Degree of Limitation	Potential Constraints on Survey Outcomes
		All fauna taxa recorded were able to be identified by direct or indirect observation with a high level of scientific confidence to species or genus level ( <i>Osphranter</i> sp.) and were not considered Threatened or Priority Fauna.
<b>Mapping Reliability</b>	Not a limitation for the Karratha Survey Area Minor limitation for the Boodarie Survey Area	Vegetation types were described and mapped based on relevé data and additional mapping notes taken during the field survey. High resolution aerial mapping current at the time of the survey was used to differentiate all vegetation greater than 1 ha in size. The Boodarie Survey Area was completely burnt in March 2020, which affected the ability to map mature vegetation. Fauna habitat mapping was based on fauna habitat assessments and largely on vegetation mapping. There were no constraints on mapping reliability.
<b>Disturbances (fire, flood etc.)</b>	Minor limitation	No disturbances occurred during any of the surveys. Areas of disturbance associated with vehicle tracks, weeds and litter were recorded but were not a constraint on the results of the survey. The western portion of the Karratha Survey Area was burnt in October 2016, and the entire Boodarie Survey Area was burnt in March 2020.
<b>Completeness</b>	Not a limitation	The survey was considered complete for a reconnaissance flora and vegetation survey, all vegetation types were surveyed and delineated within the Survey Areas and a minimum of one relevé was surveyed for each vegetation type. The survey was considered complete for a basic vertebrate fauna survey and a minimum of one habitat assessment was surveyed for each fauna habitat.

## 4.2 Flora and Vegetation

### 4.2.1 Literature Review

The key findings of the flora and vegetation reports reviewed are summarised in Appendix A.

### 4.2.2 Database Searches

#### 4.2.2.1 Karratha Survey Area

Database searches identified 43 conservation significant flora taxa occurring within 100 km of the Karratha Survey Area (Figure 11, Appendix B), comprising:

- No Threatened taxa
- Four Priority 1 taxa
- Seven Priority 2 taxa
- Twenty-nine Priority 3 taxa
- Three Priority 4 taxa.

No State or Commonwealth listed TECs were identified within the Karratha Survey Area by the database searches. A total of seven State listed PECs occur within 50 km of the Survey Area (Department of Biodiversity Conservation and Attractions, 2021c) (Table 9, Figure 11). The Horseflat Land System of the Roebourne Plains (Priority 3) overlaps the central and eastern portions of the Karratha Survey Area.

**Table 9: PECs identified during the Karratha Survey Area Desktop Assessment**

Name	State TEC / DBCA PEC	Location in relation to Survey Area
Burrup Peninsula rock pile communities	Priority 1	16.2 km north of the Karratha Survey Area
Burrup Peninsula rock pool communities	Priority 1	14.3 km north of the Karratha Survey Area
Four plant assemblages of the Wona Land System (previously 'Cracking clays of the Chichester and Mungarooona Range')	Priority 1	43.7 km south of the Karratha Survey Area
Roebourne Plains coastal grasslands with gilgai microrelief on deep cracking clays (Roebourne Plains gilgai grasslands)	Priority 1	1.5 km south of the Karratha Survey Area
Stony Chenopod association of the Roebourne Plains area	Priority 1	30.3 km east of the Karratha Survey Area
Coastal dune tussock grassland dominated by <i>Whiteochloa airoides</i>	Priority 3	5.0 km northeast of the Karratha Survey Area
Horseflat Land System of the Roebourne Plains	Priority 3	Overlapping with the Karratha Survey Area

#### 4.2.2.2 Boodarie Survey Area

Database searches identified 28 conservation significant flora taxa occurring within 100 km of the Boodarie Survey Area (Figure 12, Appendix B), comprising:

- One Threatened taxon
- Four Priority 1 taxa
- Two Priority 2 taxa
- Eighteen Priority 3 taxa
- Three Priority 4 taxa.

No State or Commonwealth listed TECs were identified within 50 km of the Boodarie Survey Area by the database searches. The Eighty Mile Land System (Priority 3) occurs 40.5 km northeast of the Boodarie Survey Area (Department of Biodiversity Conservation and Attractions, 2021c) (Figure 12).

#### 4.2.3 Likelihood of Occurrence

The likelihood of occurrence assessment is provided in Appendix C.

#### 4.2.3.1 Karratha Survey Area

The pre-survey likelihood of occurrence assessment identified that of the 43 conservation significant flora taxa identified by the desktop assessment:

- None had previously been recorded within the Survey Area
- None were considered to have a high likelihood of occurrence
- Twenty were considered to have a medium likelihood of occurrence
- Twenty-three were considered to have a low likelihood of occurrence.

The post-survey likelihood of occurrence assessment identified that the 43 conservation significant flora taxa were considered to have a low likelihood of occurrence.

#### 4.2.3.2 Boodarie Survey Area

The pre-survey likelihood of occurrence assessment identified that of the 28 conservation significant flora taxa identified by the desktop assessment:

- None had previously been recorded within the Survey Area
- One was considered to have a high likelihood of occurrence
- Five were considered to have a medium likelihood of occurrence
- Twenty-two were considered to have a low likelihood of occurrence.

The post-survey likelihood of occurrence assessment identified that of the 28 conservation significant flora taxa identified by the desktop assessment:

- One (*Abutilon* sp. Pritzelianum (S. van Leeuwen 5095) P3) was considered to have a medium likelihood of occurrence
- The remaining 27 taxa were considered to have a low likelihood of occurrence.

#### 4.2.4 Flora Composition

A total of 168 taxa from 97 genera across 38 families were recorded within the Karratha Survey Area (Appendix D). The dominant families were Fabaceae and Poaceae (32 taxa each). The most dominant genera were *Acacia* (12 taxa) and *Ptilotus* (10 taxa).

A total of 82 taxa from 53 genera across 27 families were recorded within the Boodarie Survey Area (Appendix D). The dominant families were Poaceae (17 taxa), Malvaceae (15 taxa) and Fabaceae (10 taxa). The most dominant genera were *Acacia* (six taxa) and *Ptilotus* (five taxa).

#### 4.2.5 Flora of Conservation Significance

##### 4.2.5.1 Threatened or Priority Flora

No Threatened flora taxa pursuant to the EPBC Act 1999 and/or gazetted as Threatened pursuant to the BC Act 2016 were recorded during the survey.

No Priority taxa as listed by DBCA were recorded within the Survey Areas.

#### 4.2.5.2 Flora of Other Conservation Significance

Flora may be considered of other conservation significance if it represents a range extension, novel taxon, species that play a keystone role in a community, has relic status, is locally endemic, or represents the extent of a species range.

One taxon, *Acacia marramamba*, recorded from the Karratha Survey Area may be considered flora of other conservation significance as it represents a range extension. *Acacia marramamba* was recorded on a gentle dolerite footslope (KAR02) and potentially represents the most northern record of the species. The nearest known population is approximately 192 km south of the Karratha Survey Area.

One taxon, *Abutilon* sp. aff. *Dioicum* (A.A. Mitchell PRP 1618), recorded from the Boodarie Survey Area was considered a species of interest. A total of thirteen individuals were recorded from two locations in the southern portion of the Survey Area. A specimen was submitted for further identification at WAH and was determined to be matching specimens within *Abutilon* sp. *Dioicum* (A.A. Mitchell PRP 1618) (R. Davis pers. comm. August 16 2021). Further work is required to determine the treatment of this taxon and whether it will have conservation significance.

#### 4.2.6 Introduced Flora

A total of six introduced species were recorded within the Karratha Survey Area, representing 3.6% of the total taxa recorded (Table 10, Figure 13). None are listed as Declared Pests under the BAM Act (Department of Primary Industries and Regional Development, 2021) or WoNS (Department of Agriculture Water and the Environment, 2021b).

Two introduced species were recorded within the Boodarie Survey Area, representing 2.4% of the total taxa recorded (Table 10, Figure 14). None are listed as Declared Pests under the BAM Act (Department of Primary Industries and Regional Development, 2021) or WoNS (Department of Agriculture Water and the Environment, 2021b).

**Table 10: Introduced Flora Species within the Survey Areas**

Survey Area	Species	Common Name	Status under BAM Act	WoNS
Karratha	* <i>Aerva javanica</i>	Kapok	Permitted - s11	No
Karratha, Boodarie	* <i>Cenchrus ciliaris</i>	Buffel Grass	Permitted - s11	No
Karratha, Boodarie	* <i>Cenchrus setiger</i>	Birdwood Grass	Permitted - s11	No
Karratha	* <i>Malvastrum americanum</i>	Spiked Malvastrum	Permitted - s11	No
Karratha	* <i>Passiflora foetida</i> var. <i>hispida</i>	Stinking Passion Flower	Permitted - s11	No
Karratha	* <i>Portulaca pilosa</i>	Djanggara	Permitted - s11	No

#### 4.2.7 Unconfirmed Flora

##### 4.2.7.1 Karratha Survey Area

Two specimens (1.2% of the taxa recorded) could not be identified to species level because the taxa were sterile at the time of the survey. Both have been assigned a confirmed genus, *Sida* sp. and *Streptoglossa* sp., and may represent duplicates of taxa that were confirmed within the Survey Area.

None of the unconfirmed flora taxa were considered analogous to Priority flora taxa identified by the database searches.

##### 4.2.7.2 Boodarie Survey Area

Two specimens (2.4% of the taxa recorded) could not be identified to species level because the taxa were sterile at the time of the survey. One species, *Sida* sp., has been assigned a confirmed genus. The other unconfirmed species was assigned a family, Convolvulaceae sp.

The unconfirmed flora taxa may represent duplicates of taxa that were confirmed within the Survey Area.

None of the unconfirmed flora taxa were considered analogous to Priority flora taxa identified by the database searches.

#### 4.2.8 Vegetation Types

Five vegetation types were described and mapped within the Karratha Survey Area (Table 11, Figure 13).

One vegetation type was described and mapped within the Boodarie Survey Area (Table 11, Figure 14).

Detailed site sheets for each quadrat are provided in Appendix E.

#### 4.2.9 Vegetation Condition

Vegetation condition within the Karratha Survey Area predominantly ranged from Poor to Very Good (Figure 15), comprising:

- Poor (0.4 ha / 0.3%)
- Good (26.8 ha / 18.2%)
- Very Good (119.7 ha / 81.5%).


Vegetation condition within the Boodarie Survey Area predominantly ranged from Very Good to Excellent (Figure 16), comprising:



- Very Good (0.1 ha / <1.0%)
- Excellent (175.0 ha / ~100%).



Evidence of disturbance in the Survey Areas included weeds, vehicle tracks and litter.




**Table 11: Vegetation Types Occurring within the Survey Areas**

Vegetation Unit and Description*	Total Area, Proportion of the Survey Area	Sites	Vegetation Condition	Photograph
<b>Karratha Survey Area</b>				
<b>D1:</b> <i>Eriachne benthamii</i> , * <i>Cenchrus ciliaris</i> , * <i>Cenchrus setiger</i> , <i>Chrysopogon fallax</i> and <i>Eragrostis xerophila</i> low closed tussock grassland over <i>Rhynchosia minima</i> and <i>Alysicarpus muelleri</i> low sparse herbland.	1.0 ha 0.7%	KAR04	Good	

Vegetation Unit and Description*	Total Area, Proportion of the Survey Area	Sites	Vegetation Condition	Photograph
<b>H1:</b> <i>Acacia inaequilatera</i> and <i>Acacia bivenosa</i> tall sparse shrubland over <i>Diplopeltis eriocarpa</i> , <i>Indigofera monophylla</i> and <i>Abutilon lepidum</i> low sparse shrubland over <i>Triodia epactia</i> and <i>Triodia wiseana</i> low hummock grassland over * <i>Cenchrus ciliaris</i> low sparse tussock grassland	78.1 ha 53.2%	KAR02	Good	
<b>H2:</b> <i>Diplopeltis eriocarpa</i> low sparse shrubland over <i>Triodia wiseana</i> low hummock grassland	45.2 ha 30.7%	KAR03	Very Good	

Vegetation Unit and Description*	Total Area, Proportion of the Survey Area	Sites	Vegetation Condition	Photograph
<p><b>P1:</b> <i>Acacia xiphophylla</i> mid sparse shrubland over <i>Triodia epactia</i> and <i>Triodia wiseana</i> low sparse hummock grassland over *<i>Cenchrus ciliaris</i>, <i>Aristida contorta</i>, <i>Cynodon prostratus</i> and <i>Eriachne pulchella</i> subsp. <i>dominii</i> low open tussock grassland</p>	<p>9.5 ha 6.5%</p>	<p>KAR01</p>	<p>Poor</p>	
<p><b>P2:</b> <i>Eragrostis xerophila</i>, <i>Iseilema dolichotrichum</i> and <i>Fimbristylis dichotoma</i> low tussock grassland over <i>Ptilotus gomphrenoides</i>, <i>Sida fibulifera</i>, <i>Lotus cruentus</i> and <i>Rhynchosia minima</i> low sparse herbland</p>	<p>13.1 ha 8.9%</p>	<p>KAR05</p>	<p>Very Good</p>	

Vegetation Unit and Description*	Total Area, Proportion of the Survey Area	Sites	Vegetation Condition	Photograph
<b>Boodarie Survey Area</b>				
<b>P1:</b> <i>Acacia stellaticeps</i> ( <i>Acacia tumida</i> var. <i>pilbarensis</i> , <i>Senna notabilis</i> and <i>Indigofera monophylla</i> ) low open shrubland over <i>Triodia epactia</i> (and <i>Triodia lanigera</i> ) low open hummock grassland over <i>Aristida holathera</i> var. <i>holathera</i> (and <i>Chrysopogon fallax</i> ) low sparse tussock grassland	175.1 ha 100%	BOR01 BOR02 BOR03 BOR04	Very Good to Excellent	

\*Brackets indicate species that may or may not be present, but were observed as dominant at some of the sites that make up the vegetation type

#### 4.2.10 Vegetation of Conservation Significance

##### Threatened and Priority Ecological Communities

No vegetation considered representative of any TECs was recorded within the Karratha Survey Area.

The Priority 3 “Horseflat Land System of the Roebourne Plains” ecological community has been mapped by DBCA over the central and eastern portions of the Karratha Survey Area (Figure 11). The boundary within the Karratha Survey Area appears to represent a 2 km buffer applied to an area of the PEC to the southeast. The Horseflat Land System has been defined as “extensive, weakly gilgaied clay plains dominated by tussock grasslands on mostly alluvial non-gilgaied, red clay loams or heavy clay loams” (Department of Biodiversity Conservation and Attractions, 2020). This PEC supports perennial tussock grasses such as *Eragrostis xerophila* and other *Eragrostis* spp., *Eriachne* spp. and *Dichanthium* spp., as well as annual grasses, including *Sorghum* spp. and *Astrebela* spp. (Department of Biodiversity Conservation and Attractions, 2020). Vegetation types D1 and P2 were considered analogous to this description, as they were characterised by *Eragrostis xerophila* and *Eriachne benthamii* tussock grasslands (D1 and P2), the presence of *Dichanthium sericeum* subsp. *humilius* tussock grasses and red clay soils (D1) or cracking clay plains (P2). Vegetation type P1 did not support tussock grasslands and therefore was not considered analogous to the PEC.

No vegetation considered representative of any TECs or PECs was recorded within the Boodarie Survey Area.

##### Vegetation of Other Conservation Significance

Vegetation may be of significance for a range of reasons, other than a listing as a TEC or a PEC, including (Environmental Protection Authority, 2016a):

- Vegetation extent being below a threshold level
- Scarcity
- Unusual species
- Novel combinations of species
- A role as a refuge
- A role as a key habitat for threatened species or large populations representing a significant proportion of the local to regional total population of a species
- Being representative of the range of a unit (particularly a good local and/or regional example of a unit in ‘prime’ habitat, at the extremes of range, recently discovered range extensions, or isolated outliers of the main range); and/or
- A restricted distribution.

One vegetation type (H1) in the Karratha Survey Area is considered locally significant as it supports a range extension, *Acacia marramamba*, that has not previously been recorded in the local area.

One of the five vegetation types (D1) identified in the Karratha Survey Area could be considered locally restricted in distribution as it represents less than 1.0% of the Karratha Survey Area; however, it extends to the north and to the south of the Karratha Survey Area, therefore it is not considered to be locally restricted.

Vegetation type P1 of the Boodarie Survey Area is considered of conservation significance as it supports a taxon of conservation interest, *Abutilon* sp. aff. *Dioicum* (A.A. Mitchell PRP 1618), which was recorded at two locations in the Survey Area.

## 4.3 Vertebrate Fauna

### 4.3.1 Literature Review

The key findings of the literature review are summarised in Appendix A.

### 4.3.2 Database Searches

The results of the DBCA Threatened and Priority Fauna database search are mapped in Figure 17 and Figure 18. Database searches are displayed in their entirety in Appendix B.

Species listed as Marine only under the EPBC Act, as well as marine dependent species have been excluded from the likelihood of occurrence list as there is no marine habitat present within the Survey Areas.

#### 4.3.2.1 Karratha Survey Area

Database searches identified 69 conservation significant terrestrial vertebrate fauna species potentially occurring within the Karratha Survey Area, comprising:

- 56 bird species
- Eight mammal species
- Five reptile species
- No amphibian species.

#### 4.3.2.2 Boodarie Survey Area

Database searches identified 62 conservation significant terrestrial vertebrate fauna species potentially occurring within the Boodarie Survey Area, comprising:

- 52 bird species
- Eight mammal species
- Two reptile species
- No amphibian species.

### 4.3.3 Conservation Significant Fauna Likelihood of Occurrence

#### Karratha

The likelihood of occurrence assessment within the Survey Area for conservation significant fauna species identified by the databases searches found that:

- Four species had a high likelihood of occurrence
- Seven species had a medium likelihood of occurrence
- 58 species had a low likelihood of occurrence.

The results of the likelihood of occurrence assessment are presented in Appendix F.

#### Boodarie

The likelihood of occurrence assessment within the Survey Area for conservation significant fauna species identified by the databases searches found that:

- Seven species had a high likelihood of occurrence
- Four species had a medium likelihood of occurrence
- 51 species had a low likelihood of occurrence.

The results of the likelihood of occurrence assessment are presented in Appendix F.

### 4.3.4 Fauna Habitat

#### Karratha

Three broad fauna habitats (Stony Plains, Minor Drainage and Rocky Hills) were identified and mapped within the Karratha Survey Area (Table 12, Figure 19). Minor Drainage habitat was of Good quality throughout the Survey Area. Stony Plains habitat quality ranged from Poor to Very Good. Rocky Hills habitat quality was deemed to be Very Good throughout the Survey Area. Minor vehicle track disturbances were present within the Survey Area; however, they did not impact quality of fauna habitat.

A description, extent within the Karratha Survey Area and a representative photo is provided for each fauna habitat in Table 12. Small discrepancies in fauna habitat extents (i.e., not adding up to the exact area extent of the Survey Area) are due to rounding. Site sheets for each habitat assessment are shown in Appendix G and locations shown in Figure 9.

#### Boodarie



One broad fauna habitat, Sandy Plains, was identified and mapped within the Boodarie Survey Area (Table 12, Figure 20). The Sandy Plains habitat was of Very Good to Excellent quality across the Boodarie Survey Area. Disturbance caused by minor vehicle track and litter were observed within the Boodarie Survey Area impacting the habitat quality.


A description, extent within the Survey Area and a representative photo is provided for each fauna habitat in Table 12. Small discrepancies in fauna habitat extents (i.e., not adding up to the exact area extent of the Survey Area) are due to rounding. Site sheets for each habitat assessment are shown in Appendix G and locations shown in Figure 10.

**Table 12: Fauna Habitat Type Descriptions with the Survey Areas**

Fauna Habitat	Total Area, Proportion of the Survey Area	Sites	Habitat Description	Representative Photo
<b>Karratha Survey Area</b>				
Minor Drainage	1.0 ha 0.7%	HA_KAR04	<p>The habitat is represented by low closed tussock grassland over low sparse herbland. Grasses and shrubs provide shelter, refuge and nesting opportunities for small fauna taxa including birds, mammals, and reptiles. Moisture in some areas may also make this habitat type suitable for amphibians.</p>	



Fauna Habitat	Total Area, Proportion of the Survey Area	Sites	Habitat Description	Representative Photo
Rocky Hills	45.2 ha 30.7%	HA_KAR03	The habitat is characterised by low sparse shrubland over low hummock grassland with dolerite ranging in size from small pebbles to large rocks. <i>Triodia</i> hummocks provide an important source of shelter, refuge and nesting opportunities for small fauna taxa including birds, mammals, and reptiles.	
Stony Plains	100.7 ha 68.6%	HA_KAR01 HA_KAR02 HA_KAR05	Mid sparse shrubland over low sparse hummock grassland and low open tussock grassland. Hummocks and tussocks provide shelter and nesting for various reptiles, birds, and mammals. The sandy soils are suitable for burrowing.	

Fauna Habitat	Total Area, Proportion of the Survey Area	Sites	Habitat Description	Representative Photo
<b>Boodarie Survey Area</b>				
Sandy Plains	175.1 ha 100.0%	HA_BOR01 HA_BOR02 HA_BOR03 HA_BOR04	The habitat is represented by low open shrubland over low open hummock grassland and low sparse tussock grassland. Hummocks and tussocks provide habitat for birds, reptiles, and mammals. The soil is suitable for burrowing.	

#### 4.3.5 Fauna Records

##### 4.3.5.1 Karratha Sightings

The terrestrial vertebrate fauna survey recorded a total of six fauna taxa from five families. No direct sightings of fauna taxa of conservation significance, or secondary evidence of these, such as tracks, scats, nest, diggings, burrows were recorded within or directly surrounding the Karratha Survey Area.

The inventory of fauna recorded is summarised in Table 13.

**Table 13: Overview of Vertebrate Fauna Species Recorded (Karratha)**

Family	Scientific Name	Common Name	Recording Method
Agamidae	<i>Ctenophorus isolepis</i>	Central Military Dragon	Observed
	<i>Ctenophorus caudicinctus</i>	Ring-Tailed Dragon	Observed
Artamidae	<i>Artamus cinereus</i>	Black-Faced Woodswallow	Observed
Macropodidae	<i>Osphranter rufus</i>	Red Kangaroo	Observed, scats, tracks
Otididae	<i>Ardeotis australis</i>	Australian Bustard	Tracks
Psittaculidae	<i>Melopsittacus undulatus</i>	Budgerigar	Observed

##### 4.3.5.2 Boodarie Sightings and Tracks

The terrestrial vertebrate fauna survey recorded a total of five fauna taxa from five families. One taxon, *Osphranter* sp., could not be identified to species level as only tracks were observed within the Survey Area.

One species listed as Marine under the EPBC Act was sighted within the Boodarie Survey area, this was the Nankeen Kestrel (*Falco cenchroides*).

The inventory of fauna recorded is summarised in Table 14.

**Table 14: Overview of Vertebrate Fauna Species Recorded (Boodarie)**

Family	Scientific Name	Common Name	Recording Method	Conservation Status
Agamidae	<i>Ctenophorus isolepis</i>	Central Military Dragon	Observed	-
Estrildidae	<i>Taeniopygia guttata</i>	Zebra Finch	Observed	-
Falconidae	<i>Falco cenchroides</i>	Nankeen Kestrel	Observed	MA (EPBC)
Macropodidae	<i>Osphranter</i> sp.	-	Tracks	-
Psittaculidae	<i>Melopsittacus undulatus</i>	Budgerigar	Observed	-

## 5 Discussion

### 5.1 Flora and Vegetation

#### 5.1.1 Flora Composition

The suite of flora taxa recorded during the survey is considered typical for the Roebourne subregion (PIL04) and aligns with the database search results obtained.

#### 5.1.2 Survey Adequacy

The flora and vegetation survey effort were in accordance with the scope of works, and appropriate for a detailed flora and vegetation survey in the Pilbara. At least one flora site was sampled within each vegetation type within the Survey Areas. The inventory of vascular flora, and records of conservation significant flora and weed species was compiled using site data and opportunistic observations made while traversing between sites. The entire Survey Areas were not systematically searched, and therefore additional flora taxa, and records of conservation significant flora and weed species may be recorded with additional survey effort.

#### 5.1.3 Flora of Conservation Significance

Additional Priority flora species and abundance could be recorded following significant rainfall and with additional survey effort.

##### 5.1.3.1 Karratha Survey Area

No Threatened flora species pursuant to the EPBC Act 1999 and/or gazetted as Threatened Flora pursuant to the BC Act 2016 were identified by the database searches or recorded within the Survey Areas.

No Priority flora taxa were recorded during the survey. No Priority flora taxa identified in the pre-survey likelihood of occurrence assessment were considered to have a high likelihood of occurrence.

Two specimens encountered and/or collected during the field survey were sterile and could not be confidently identified. None of these were analogous to Priority flora taxa identified by the database searches.

##### 5.1.3.2 Boodarie Survey Area

No Threatened flora species pursuant to the EPBC Act 1999 and/or gazetted as Threatened Flora pursuant to the BC Act 2016 were recorded within the Survey Areas. One Threatened Flora taxon, *Quoya zonalis* (EN), was identified by the database searches and was considered as having a low likelihood of occurrence within the Boodarie Survey Area.

No Priority flora taxa were recorded during the survey. One Priority taxon, *Abutilon* sp. Pritzelianum (S. van Leeuwen 5095) (P3), that was identified in the pre-survey likelihood of occurrence assessment as having a high likelihood of occurrence was not recorded in the Boodarie Survey Area but was noted as occurring on roadsides in the locality. A description of this taxon is provided below.

*Abutilon* sp. Pritzelianum (S. van Leeuwen 5095) (P3) is a large, diffuse perennial shrub to 3 m tall, with whitish, appressed, stellate hairs covering all vegetative parts to a greater or lesser degree. The shrub has ovate-obovate leaves and smallish yellow flowers. The fruits are segmented with many mericarps. *Abutilon* sp. Pritzelianum (S. van Leeuwen 5095) (P3) flowers between June and November. The species occurs on red sand or clay, often in open scrubby vegetation (Western Australian Herbarium, 2021). The WAH has 47 specimens lodged, with records distributed in the Carnarvon, Murchison and Pilbara regions (Western Australian Herbarium, 2021).

Following the survey, *Abutilon* sp. Pritzelianum (S. van Leeuwen 5095) (P3) was considered to have a medium likelihood of occurrence, due to its preferred habitat being present within the Boodarie Survey Area.

Two taxa encountered and/or collected during the field survey were sterile and could not be confidently identified. None of these were considered analogous to Priority flora taxa identified by the database searches.

#### 5.1.3.3 Flora of Other Conservation Significance

One taxon recorded from the Karratha Survey Area represents a potential range extension.

One taxon recorded from the Boodarie Survey Area, *Abutilon* sp. aff. *Dioicum* (A.A. Mitchell PRP 1618), was considered a species of interest and further work is required to determine the treatment of this taxon and whether it will have conservation significance.

#### 5.1.4 Introduced Flora

Six weed species were recorded in the Karratha Survey Area. Two introduced species were recorded within the Boodarie Survey Area. The weed taxa recorded are not listed as WoNS or DPs, they have a legal status of Permitted – s11, and do not have an assigned control category.

Weed species abundance was greatest along tracks, in drainage channels and on surrounding plains.

The Survey Areas were not systematically grid searched, therefore additional weed species and abundance could be recorded with greater survey effort.

#### 5.1.5 Vegetation Types

Mapping reliability ranged from very high, in areas where flora sites and mapping notes were completed within intact vegetation, to moderate in areas that were not traversed.

Three broad landforms, hills, drainage, and plains were recorded within the Karratha Survey Area. One broad landform, plains, was recorded within the Boodarie Survey Area.

The vegetation types described in the Survey Areas were correlated with the Beard (1976) and Shepherd et al. (2002) broad vegetation systems associations by examining similarities in vegetation descriptions. The vegetation types are broadly representatives of the Abydos Plain – Roebourne 157 (hummock grassland), Abydos Plain – Roebourne 589 (grass savannah, grass-steppe) and Abydos Plain 647 (hummock grassland with scattered shrubs).

#### 5.1.5.1 Karratha Survey Area

##### **Drainage (D1)**

A drainage line runs in a north-south direction in the western section of the Karratha Survey Area, with red brown soft clay soil. This broad landform was characterised by closed tussock grassland of *Eriachne benthamii*, *\*Cenchrus ciliaris*, *\*Cenchrus setiger*, *Chrysopogon fallax* and *Eragrostis xerophila*.

##### **Hills (H1, H2)**

Most of the Survey Area comprised rocky dolerite hills and slopes, with red brown loamy sand. Hill tops and steeper slopes of the landform were characterised by low sparse *Diplopeltis eriocarpa* shrubland over *Triodia wiseana* hummock grassland. Gentler slopes of the landform were characterised by *Triodia epactia* and *Triodia wiseana* hummock grasslands, with a sparse mid storey of *Acacia* species.

##### **Plains (P1, P2)**

Plains were concentrated in the western section of the Survey Area, surrounding a drainage line. The plains had ironstone and quartz rocks with brown-red clay loam sand. Vegetation type P1 was characterised by mid sparse shrubland of *Acacia xiphophylla* over sparse hummock grassland of *Triodia epactia* and *Triodia wiseana*. Cracking clay plains surrounding the drainage line comprise Vegetation type P2, which lacked *Acacia* and *Triodia* species, and was represented by low tussock grassland of *Eragrostis xerophila*, *Iseilema dolichotrichum* and *Fimbristylis dichotoma* over low sparse herbland of *Ptilotus gomphrenoides*, *Sida fibulifera*, *Lotus cruentus*.

#### 5.1.5.2 Boodarie Survey Area

##### **Plains (P1)**

The Boodarie Survey Area comprised plains of orange loamy sand. The vegetation was characterised by low open shrubland of *Acacia* species, dominated by *Acacia stellaticeps*, over *Triodia* open hummock grassland, dominated by *Triodia epactia*, over sparse tussock grassland of *Aristida holathera* var. *holathera*.

#### 5.1.6 Vegetation of Conservation Significance

##### 5.1.6.1 Karratha Survey Area

No vegetation representative of any TECs was recorded in the Karratha Survey Area.

Two vegetation types within the Survey Area were considered analogous to the Priority 3 “Horseflat Land System of the Roebourne Plains” ecological community. This PEC was identified during the desktop assessment as occurring within the central and eastern portions of the Survey Area, however its boundary appears to represent a 2 km buffer applied to an area of the PEC to the southeast. The known PEC distribution would be increased if vegetation types D1 and P2 were confirmed as being representative of the PEC by DBCA. It was noted that areas of these vegetation types continued outside of the Survey Area to the west and north. Further advice can be sought from the Communities branch of the DBCA to confirm the presence and extent of this PEC within the Survey Area.

The two system associations mapped over the Survey Area are well represented at the State, regional and sub-regional levels and have over 96% of the pre-European extent remaining.

One vegetation type (H1) in the Survey Area could be considered locally significant as it supports a significant range extension, however this vegetation type appeared well represented on aerial imagery in the local surrounds beyond the Survey Area. Similarly, one vegetation type (D1) may be considered significant because of restricted distribution within the Survey Area, however this vegetation type also appeared well represented beyond the Survey Area.

#### 5.1.6.2 Boodarie Survey Area

No vegetation types in the Boodarie Survey Area were considered representative of any TECs or PECs. Vegetation type P1, which encompasses the entire Survey Area, could be considered of other conservation significance as it supports a population of *Abutilon* sp. aff. *Dioicum* (A.A. Mitchell PRP 1618). The vegetation type extends beyond the Survey Area to the north, east and south, therefore it is not considered locally restricted.

The two system associations mapped over the Survey Area are well represented at the State, regional and sub-regional levels and have over 97% of the pre-European extent remaining.

## 5.2 Vertebrate Fauna

### 5.2.1 Fauna Habitat

The fauna habitats that occur within the Survey Areas provide a range of values to fauna as refuge, foraging and breeding habitat. All fauna habitats identified in the Karratha and Boodarie Survey Areas during the field survey are common throughout both the surrounding remnant vegetation areas and the overall bioregion and subregion. The habitats identified in the Survey Areas are typical of the Pilbara bioregion and consistent with habitats identified by previous studies in the region (Astron, 2018; Emerge Associates, 2019; ENV Australia Pty Ltd, 2011; GHD, 2010, 2016, 2019; Phoenix Environmental Sciences, 2010; Strategen JBS&G, 2020). At least one fauna habitat assessment was conducted within each habitat type.

### 5.2.2 Conservation Significant Fauna

#### 5.2.2.1 Karratha Survey Area High Likelihood of Occurrence

#### **Lined Soil-crevice Skink (*Notoscincus butleri*) – Priority 4**

The Lined Soil-crevice Skink has a restricted distribution to near coastal areas in the Dampier region of the Pilbara and has been recorded associated with spinifex-dominated areas near creek and river margins (Wilson & Swan, 2017).

The Lined Soil-crevice Skink was not detected during the field survey, however, there are multiple records from 2004 of the species within the Karratha Survey Area. The records are located in the Stony Plains habitat on the eastern edge of the Survey Area. Given the known distribution and location of records, it is likely that this species utilises the Stony Plains and Minor Drainage habitats within the Karratha Survey Area.

### **Northern Quoll (*Dasyurus hallucatus*) – Endangered**

The Northern Quoll is a medium-sized carnivorous, nocturnal marsupial that favours rocky areas, taking refuge in rock crevices and using gullies and drainage lines. They have a relatively large home-range size of up to 150 ha for males and 35 ha for females, and males can move up to 1.85 km between den sites in one night (Department of the Environment, 2016; Oakwood, 2000). Northern Quolls reproduce once a year, averaging seven young per litter (Department of the Environment, 2016). They have a short life span, with the females typically only surviving one or two years while the males die off annually following intense physical exertion during the breeding season (Department of the Environment, 2016). The species can be locally common, but its former range has retracted considerably (Van Dyck & Strahan, 2008).

The Northern Quoll was not detected during the field survey, however, there are multiple recent records of the species near the Karratha Survey Area, including records from 2012 2.8 km north-northeast of the Karratha Survey Area. A basic fauna survey is unlikely to detect the species through observation as the species is a nocturnal predator, however, the lack of detection does not rule out the potential for their presence within the Karratha Survey Area. The Minor Drainage and Rocky Hills habitats may be used by the species, particularly areas with steep rock faces containing small caves and overhangs (Department of the Environment, 2016).

### **Oriental Pratincole (*Glareola maldivarum*) – Migratory, Marine**

The Oriental Pratincole typically prefers plains, shallow wet and dry edges of open bare wetlands and tidal mudflats and beaches for habitat (Pizzey & Knight, 2013). However, as this species breeds in Pakistan, India and parts of south-east Asia, the Karratha Survey Area would most likely be used for foraging only (Pizzey & Knight, 2013).

The Oriental Pratincole was not recorded during the survey, but database searches show several recent records of this species 4 km from the Karratha Survey Area, suggesting that it is highly likely to occur in the Survey Area. The Stony Plains habitat may be used by the species.

### **Short-tailed Mouse (*Leggadina lakedownensis*) – Priority 4**

The Short-tailed Mouse has a broad distribution across much of northern Australia and occurs in a range of habitat types, including spinifex and Acacia on seasonally inundated sandy-clay soils. Burrows usually occur in sandy soils and cracking clays where Short-tailed Mice shelter during the day (Van Dyck & Strahan, 2008). Little is known of its biology and in the Pilbara it is generally rare, with scattered populations occurring on stony hummock grasslands. (Van Dyck & Strahan, 2008).

The Short-tailed Mouse was not detected during the field survey. Database searches returned Short-tailed Mouse records 10.5 km south and 11 km west from 2011 and 2006, respectively. Due to the scattered nature of populations, the lack of detection during a basic fauna survey does not rule out the potential for their presence on Stony Plains and Minor Drainage habitats within the Karratha Survey Area.



### 5.2.2.2 Karratha Survey Area Medium Likelihood of Occurrence

#### **Barn Swallow (*Hirundo rustica*) – Migratory, Marine**

The Barn Swallow is only a casual visitor primarily to coastal areas from the Gascoyne north, although the species may appear as a vagrant in inland areas on an irregular basis (Johnstone & Storr, 1998). After breeding in the temperate and subtropical regions of North America, Europe, northern Africa and Asia, it migrates to the southern hemisphere where it spends the boreal winter (Johnstone & Storr, 1998). It is typically observed in the vicinity of urban water bodies and coastal wetlands.

The Barn Swallow was not detected during the survey. They have been recorded approximately 15 km west of the Karratha Survey Area at salt evaporation ponds and may use the Stony Plains habitat within the Karratha Survey Area for foraging.

#### **Ghost Bat (*Macroderma gigas*) – Vulnerable**

The Ghost Bat is patchily distributed in small colonies in northern Australia, including the Pilbara and Kimberley in WA, the Top End in the Northern Territory and northeast Queensland. The taxon requires undisturbed roost caves or mineshafts, usually complex systems with several openings (Van Dyck & Strahan, 2008). The taxon eats large insects, geckoes, frogs, small birds, mammals including other bats. The kills are made on the ground or in the air and then taken to a feeding perch, which is usually a rocky overhang or small cave (Van Dyck & Strahan, 2008).

The Ghost Bat was not detected during the survey. They have been recorded approximately 30 km east of the Karratha Survey Area in the Roebourne area. No deep, complex caves required for maternity roosts or shallow caves and overhangs for day roosting were identified within the Karratha Survey Area. All habitats within the Karratha Survey Area may be used for hunting.

#### **Pacific Swift (*Apus pacificus*) – Migratory, Marine**

The Pacific Swift (also called Fork-tailed Swift) is a non-breeding visitor to all states and territories of Australia and is found throughout WA with a preference for coastal areas (Higgins, 1999). The Pacific Swift is almost exclusively aerial, flying from less than 1 m to at least 300 m above ground and probably much higher. The Pacific Swift occupies a large airspace range over varied habitats, ranging from rainforests to semi-deserts (Morcombe, 2003).

The Pacific Swift was not detected during the survey. They have been recorded 2.7 km north of the Karratha Survey Area. Although the taxon has the potential to occur in the airspace above the Karratha Survey Area, it will not be reliant on the habitats within the Karratha Survey Area.

#### **Peregrine Falcon (*Falco peregrinus*) – Other specially protected fauna**

The Peregrine Falcon is an uncommon but wide-ranging bird across Australia (Barrett et al., 2003). It occurs mainly along rivers and ranges as well as wooded watercourses and lakes. It nests primarily on cliffs, granite outcrops and quarries, although is also known to occupy existing raptor and corvid stick nests (P Menkhorst et al., 2017). The diet of the Peregrine Falcon has been well studied and primarily includes flocking species such as parrots, pigeons and on the east coast, European Starlings (Olsen & Fuentes, 2008).

The Peregrine Falcon typically nests on cliff ledges or in refurbished nests built by other raptors or corvids (Pizzey & Knight, 2013) and is therefore unlikely to use the Karratha Survey Area for breeding, but may use all habitats for hunting. The Peregrine Falcon was not detected during the survey. They have been recorded approximately 15 km west of the Karratha Survey Area at salt evaporation ponds.

#### **Western Pebble-mound Mouse (*Pseudomys chapmani*) – Priority 4**

The Western Pebble-mound Mouse is endemic to the Pilbara, where it builds pebble mounds from small stones. Pebble mounds are restricted to suitable-class stones and are usually found on gentle slopes and spurs that are often vegetated by hard spinifex (Ford & Johnson, 2007; Van Dyck & Strahan, 2008). Active mounds are characterised by the conical shape of the mound with clear, distinct entrance holes (Anstee, 1996). Pebble mounds constructed by the Western Pebble-mound Mouse are found throughout the Pilbara, however studies have shown that not all mounds in an area are occupied by a Pebble-mound Mouse at any one time (Anstee, 1996).

The Western Pebble-mound Mouse was not detected during the survey. They have been recorded 5 km northeast of the Karratha Survey Area. The taxon may inhabit Stony Plains and Rocky Hills habitats within the Karratha Survey Area, as pebbles of a suitable size for mound building were present in some areas.

#### **Waterbirds and Shorebirds**

Two waterbirds and shorebirds were identified as having a medium likelihood of occurring within the Karratha Survey Area, the Glossy Ibis (*Plegadis falcinellus*) (Migratory, Marine) and the Oriental Plover (*Charadrius veredus*) (Migratory, Marine). Waterbirds and shorebirds rely primarily on habitats that become seasonally inundated, such as the tidal flats, claypans and major drainage lines, rivers, and creeks, however they are highly mobile and able to move between such habitats. The regional populations are unlikely to be dependent on habitats within the Karratha Survey Area as these habitats occur more widely in the region outside the Karratha Survey Area.

##### **5.2.2.3 Boodarie Survey Area High Likelihood of Occurrence**

#### **Barn Swallow (*Hirundo rustica*) – Migratory, Marine**

The Barn Swallow is only a casual visitor primarily to coastal areas from the Gascoyne north, although the species may appear as a vagrant in inland areas on an irregular basis (Johnstone & Storr, 1998). After breeding in the temperate and subtropical regions of North America, Europe, northern Africa and Asia, it migrates to the southern hemisphere where it spends the boreal winter (Johnstone & Storr, 1998). It is typically observed in the vicinity of urban water bodies and coastal wetlands.

The Barn Swallow was not detected during the survey. They have been recorded 5 km north of the Boodarie Survey Area at salt evaporation ponds and may use the Sandy Plains habitat within the Boodarie Survey Area for foraging.

**Bilby (*Macrotis lagotis*) – Vulnerable**

The Bilby is a solitary and nocturnal type of bandicoot, characterised by its distinct rabbit like ears and long face with a pointed snout (Department of Biodiversity Conservation and Attractions, 2017). The range of the Bilby has declined northwards, with wild subpopulations now restricted predominantly to the Tanami Desert in the Northern Territory and the Gibson, Little Sandy and Great Sandy Deserts as well as parts of the Pilbara in Western Australia (Department of Biodiversity Conservation and Attractions, 2017; Southgate, 1990). The Bilby is described as occupying a wide range of vegetation types, including open tussock grassland on upland hills, mulga woodland/shrubland growing on ridges and rises and spinifex growing on sandplains and dunes, drainage systems, salt lake systems, and other alluvial areas (Department of Biodiversity Conservation and Attractions, 2017; Pavey, 2006).

The desktop assessment identified numerous nearby records of the Bilby, with the most recent recorded in 2018, 2.3 km northeast of the Boodarie Survey Area. The soils within the Boodarie Survey Area are thin and shallow, and not well suited to the deep, complex burrows the species uses for daytime shelter (Peter Menkhorst & Knight, 2004). Therefore, the species is unlikely to rely on habitats within the Boodarie Survey Area for burrowing but may use the Sandy Plains habitat for foraging.

**Brush-tailed Mulgara, *Ampurta (Dasycercus blythi)* – Priority 4**

The Brush-tailed Mulgara is distributed widely across inland Australia with a population that fluctuates somewhat in response to seasonal conditions (Woinarski et al., 2014). Brush-tailed Mulgara habitat is bound broadly by the Tanami Desert in the north, the Simpson Desert in the east, the Great Victoria Desert in the south and the Carnarvon, Murchison and Pilbara IBRA regions in the west (Woinarski et al., 2014). It is associated with hummock spinifex grasslands, but also uses other vegetation types (often sandplains, grasslands, and woodlands) when mixed with or adjacent to hummock grasslands. It is mainly nocturnal and shelters during the day in burrow systems. The Brush-tailed Mulgara burrows typically contain between two and nine entrances, tunnels are mostly on a single level and to a depth of about 300 mm (Thompson, G, Thompson, 2007). The diet of the Brush-tailed Mulgara comprises a broad range of invertebrates and small vertebrates (Woinarski et al., 2014).

The Brush-tailed Mulgara was not recorded during the survey, but database searches show multiple records of this species from 2012 in the area north of the Boodarie Survey Area (records lie between 300 m and 2.4 km north of the Survey Area), suggesting that it is highly likely to occur in the Survey Area. The Sandy Plain habitat is likely to be used by the species.

**Grey Falcon (*Falco hypoleucos*) – Vulnerable**

The Grey Falcon is an elusive and endemic bird of the arid interior (Schoenjahn et al., 2019). It is distributed sparsely over Australia's arid and semi-arid zones and is absent from Cape York Peninsula, south of the Great Dividing Range in Victoria, and south of 26°S in Western Australia (BirdLife International, 2016; Johnstone & Storr, 1998). The Grey Falcon is restricted largely to areas of the highest annual average temperatures where there is average annual rainfall of less than 500 mm. It favours lightly timbered and untimbered lowland plains that are crossed by tree-lined watercourses, but frequents other habitats, including grassland and sand dune habitats (BirdLife International, 2016; Johnstone & Storr, 1998).

The Grey Falcon typically uses refurbished nests built by other raptors or corvids in eucalypt-lined drainage lines and waterholes (Pizzey & Knight, 2013) and is therefore unlikely to use the Boodarie Survey Area for breeding, but may use all habitats for hunting. The regional population is unlikely to be dependent on habitats within the Boodarie Survey Area as these habitats occur more widely in the region outside the Boodarie Survey Area. The Grey Falcon was not detected during the survey. They have been recorded 13.5 km northwest of the Boodarie Survey Area.

**Northern Quoll (*Dasyurus hallucatus*) – Endangered**

The Northern Quoll is a medium-sized carnivorous, nocturnal marsupial that favours rocky areas, taking refuge in rock crevices and using gullies and drainage lines. They have a relatively large home-range size of up to 150 ha for males and 35 ha for females, and males can move up to 1.85 km between den sites in one night (Department of the Environment, 2016; Oakwood, 2000). Northern Quolls reproduce once a year, averaging seven young per litter (Department of the Environment, 2016). They have a short life span, with the females typically only surviving one or two years while the males die off annually following intense physical exertion during the breeding season (Department of the Environment, 2016). The species can be locally common, but its former range has retracted considerably (Van Dyck & Strahan, 2008).

The Northern Quoll was not detected during the field survey, however, there are multiple recent records of the species near the Boodarie Survey Area, including records from 2014 approximately 6 km northeast of the Survey Area. A basic survey is unlikely to detect the species through observation as the species is a nocturnal predator, however, the lack of detection does not rule out the potential for their presence within the Boodarie Survey Area. The Sandy Plain habitat may be used for foraging and dispersal by the species (Department of the Environment, 2016).

**Oriental Pratincole (*Glareola maldivarum*) – Migratory, Marine**

The Oriental Pratincole typically prefers plains, shallow wet and dry edges of open bare wetlands and tidal mudflats and beaches for habitat. However, as this species breeds in Pakistan, India and parts of south-east Asia, the Boodarie Survey Area would most likely be used for foraging only (Pizzey & Knight, 2013).

The Oriental Pratincole was not recorded during the survey, but database searches show several recent records of this species approximately 1 km from the Boodarie Survey Area suggesting that it is highly likely to occur in the Survey Area. The Sandy Plains habitat may be used by the species.

### **Peregrine Falcon (*Falco peregrinus*) – Other specially protected fauna**

The Peregrine Falcon is an uncommon but wide-ranging bird across Australia (Barrett et al., 2003). It occurs mainly along rivers and ranges as well as wooded watercourses and lakes. It nests primarily on cliffs, granite outcrops and quarries, although is also known to occupy existing raptor and corvid stick nests (P Menkhorst et al., 2017). The diet of the Peregrine Falcon has been well studied and primarily includes flocking species such as parrots, pigeons and on the east coast, European Starlings (Olsen & Fuentes, 2008).

The Peregrine Falcon typically nests on cliff ledges or in refurbished nests built by other raptors or corvids (Pizzey & Knight, 2013) and is therefore unlikely to use the Boodarie Survey Area for breeding, but may use all habitats for hunting. The Peregrine Falcon was not detected during the survey. They have been recorded approximately 4.5 km southeast of the Boodarie Survey Area.

#### **5.2.2.4 Boodarie Survey Area Medium Likelihood of Occurrence**

### **Ghost Bat (*Macroderma gigas*) – Vulnerable**

The Ghost Bat is patchily distributed in small colonies in northern Australia, including the Pilbara and Kimberley in WA, the Top End in the Northern Territory and northeast Queensland. The taxon requires undisturbed roost caves or mineshafts, usually complex systems with several openings (Van Dyck & Strahan, 2008). The taxon eats large insects, geckoes, frogs, small birds, mammals including other bats. The kills are made on the ground or in the air and then taken to a feeding perch, which is usually a rocky overhang or small cave (Van Dyck & Strahan, 2008).

The Ghost Bat was not detected during the survey. They have been recorded approximately 27 km of the Boodarie Survey Area. No deep, complex caves required for maternity roosts or shallow caves and overhangs for day roosting were identified within the Boodarie Survey Area. All habitats within the Boodarie Survey Area may be used for hunting.

### **Pacific Swift (*Apus pacificus*) – Migrator, Marine**

The Pacific Swift (also called Fork-tailed Swift) is a non-breeding visitor to all states and territories of Australia and is found throughout WA with a preference for coastal areas (Higgins, 1999). The Pacific Swift is almost exclusively aerial, flying from less than 1 m to at least 300 m above ground and probably much higher.

The Pacific Swift was not detected during the survey. Although the taxon has the potential to occur in the airspace above the Boodarie Survey Area, it will not be reliant on the habitats within the Boodarie Survey Area.

### **Pilbara Leaf-nosed Bat (*Rhinonictis aurantia Pilbara form*) – Vulnerable**

The Pilbara Leaf-nosed Bat was originally considered to be the same species as the Orange Leaf-nosed Bat, which occurs in the Kimberley, Northern Territory, and northwest Queensland, however it is now considered to be a separate form based on morphology. Formal reclassification has been difficult due to the small Pilbara population size (Van Dyck & Strahan, 2008). During the dry season the taxon roosts in deep, warm humid caves or mines and forages nearby; in the wet season the taxon is more widespread and may not require caves for roosting (Peter Menkhorst & Knight, 2004).

The Pilbara Leaf-nosed Bat was not detected during the survey. They have been recorded approximately 35 km south of the Boodarie Survey Area. No deep, complex caves with a suitable microclimate required for maternity roosts or shallow caves and overhangs for day roosting were identified within the Boodarie Survey Area. All habitats within the Boodarie Survey Area may be used for hunting.

#### **Waterbirds and Shorebirds**

One shorebird was identified as having a medium likelihood of occurring within the Boodarie Survey Area, the Oriental Plover (*Charadrius veredus*) (Migratory, Marine). Waterbirds and shorebirds rely primarily on habitats that become seasonally inundated, such as the tidal flats, claypans and major drainage lines, rivers, and creeks, however they are highly mobile and able to move between such habitats. The regional population is unlikely to be dependent on habitats within the Boodarie Survey Area as these habitats occur more widely in the region outside the Boodarie Survey Area.

## 6 Assessment against the Ten Clearing Principles

The proposed clearing activities have been assessed against the Ten Clearing Principles as defined in the Department of Environment Regulations' (2014) Guide to Assessment: Clearing of Native Vegetation under the *Environmental Protection Act 1986*, taking into account the current extent and condition of the native vegetation within the Survey Area (Table 15).

**Table 15: Assessment of the Ten Clearing Principles**

Principle	Assessment
<p><b>Principle (a) – Native vegetation should not be cleared if it comprises a high level of biological diversity</b></p>	<p>Horizon Power commissioned 360 Environmental to undertake a reconnaissance flora and vegetation survey at two sites in the Pilbara. The purpose of the assessment was to identify key biological values within the Survey Areas to inform decisions regarding the proposed construction sites.</p> <p><b>Karratha</b></p> <p>A flora desktop assessment inclusive of NatureMap, Protected Matters Search Tool (PMST) and Department of Biodiversity, Conservation and Attraction (DBCA) database searches, and a review of relevant literature was undertaken to identify conservation significant flora taxa that have been recorded within 100 km (database searches and literature review) of the Survey Area. A total of 43 conservation significant flora were identified within 100 km of the Karratha Survey Area, including four Priority 1 taxa, seven Priority 2 taxa, 29 Priority 3 taxa and three Priority 4 taxa. No Threatened flora taxa were identified by the desktop assessment as occurring in the vicinity of the Karratha Survey Area.</p> <p>The pre-survey likelihood of occurrence assessment identified no conservation significant flora taxa as having a high likelihood of occurrence, 20 taxa as having a medium likelihood of occurrence, and 23 as having a low likelihood of occurrence.</p> <p>No Threatened flora taxa pursuant to the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and/or gazetted as Threatened flora pursuant to the Biodiversity Conservation Act 2016 (BC Act) were recorded during the flora and vegetation survey. No DBCA listed Priority flora taxa were recorded within the Survey Area.</p> <p>Two flora specimens collected from the Karratha Survey Area could not be identified to taxa level. However, neither of these are considered likely to represent flora of conservation significance due to lack of features analogous to conservation significant flora considered likely to occur in the area.</p> <p>The Karratha Survey Area occurs across two broad vegetation associations, Abydos Plain – Roebourne 157 and Abydos Plain – Roebourne 589. The EPA's Guidance Statement No. 33 has identified a threshold</p>

Principle	Assessment
	<p>of the retention of 30% of pre-European extent of each community and advises that ecological communities with levels below 30% should be fully retained (Environmental Protection Authority, 2008). All broad vegetation units within the Survey Areas well above the 30% threshold, with over 96% of the pre-European extent of each remaining at the state, bioregion, subregion, and local government authority levels (Government of Western Australia, 2019).</p> <p>No Threatened Ecological Communities (TECs) were identified within 50 km of the Survey Area by the database searches. Seven DBCA listed PECs were identified within 50 km of the Karratha Survey Area by the database searches. One of these, the Horseflat Land System of the Roebourne Plains (Priority 3), overlaps with the Karratha Survey Area.</p> <p>The Karratha Survey Area comprises five vegetation types. No vegetation considered representative of any TECs was recorded within the Karratha Survey Area. Two vegetation types (D1 and P2) were considered analogous to the Priority 3 Horseflat Land System of the Roebourne Plains ecological community.</p> <p>Vegetation condition within the Karratha Survey Area ranged from Poor to Very Good, comprising (rounded to one decimal place):</p> <ul style="list-style-type: none"> <li>• Poor: 0.4 ha, 0.3%</li> <li>• Good: 26.8 ha, 18.2%</li> <li>• Very Good: 119.7 ha, 81.5%</li> </ul> <p><b>Assessed Outcome:</b> The suite of flora taxa, vegetation and habitat recorded during the survey is considered typical for the area, and widespread beyond the Karratha Survey Area. No Threatened flora or ecological communities were recorded within the Survey Area. Two vegetation types were considered analogous to a PEC. No Priority flora taxa were recorded. The proposed clearing may be at variance with this principle.</p> <p><b>Boodarie</b></p> <p>A flora desktop assessment inclusive of NatureMap, Protected Matters Search Tool (PMST) and Department of Biodiversity, Conservation and Attraction (DBCA) database searches, and a review of relevant literature was undertaken to identify conservation significant flora taxa that have been recorded within 100 km (database searches and literature review) of the Survey Area. A total of 28 conservation</p>



Principle	Assessment
	<p>significant flora were identified within 100 km of the Boodarie Survey Area, including one Threatened taxon, four Priority 1 taxa, two Priority 2 taxa, 18 Priority 3 taxa and three Priority 4 taxa.</p> <p>The pre-survey likelihood of occurrence assessment identified one conservation significant flora taxon as having a high likelihood of occurrence, five taxa as having a medium likelihood of occurrence, and 22 as having a low likelihood of occurrence.</p> <p>No Threatened flora taxa pursuant to the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) and/or gazetted as Threatened Flora pursuant to the Biodiversity Conservation Act 2016 (BC Act) were recorded during the flora and vegetation survey. No DBCA listed Priority flora taxa were recorded within the Survey Area.</p> <p>Two specimens collected from the Boodarie Survey Area could not be identified to taxa level. However, neither of these are considered likely to represent flora of conservation significance due to lack of features analogous to conservation significant flora considered likely to occur in the area.</p> <p>The Boodarie Survey Area occurs across two broad vegetation associations, Abydos Plain – Roebourne 589 and Abydos Plain 647. The EPA’s Guidance Statement No. 33 has identified a threshold of the retention of 30% of pre-European extent of each community and advises that ecological communities with levels below 30% should be fully retained (Environmental Protection Authority, 2008). All broad vegetation units within the Survey Areas well above the 30% threshold, with over 97% of the pre-European extent of each remaining at the state, bioregion, subregion, and local government authority levels (Government of Western Australia, 2019).</p> <p>One DBCA listed PEC, the Eighty Mile Land System (Priority 3), was identified within 50 km of the Boodarie Survey Area by the database searches, which does not overlap with the Survey Area.</p> <p>The Boodarie Survey Area contains one vegetation type. None of the vegetation types recorded during the survey are representative of any State or Commonwealth TECs or PECs.</p> <p>Vegetation condition within the Boodarie Survey Area ranged from Very Good to Excellent, comprising (rounded to one decimal place):</p> <ul style="list-style-type: none"> <li>• Very Good: 0.1 ha, &lt;1.0%</li> <li>• Excellent: 175.0 ha, ~100%</li> </ul> <p>Assessed Outcome: The suite of flora taxa, vegetation and habitat recorded during the survey is considered typical for the area, and widespread beyond the Boodarie Survey Area. No Threatened flora or ecological communities were recorded within the Survey Area. No Priority flora taxa or ecological</p>

Principle	Assessment
	<p>communities were recorded. The proposed clearing is not considered to be at variance with this principle.</p>
<p>Principle (b) – Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a significant habitat for fauna indigenous to Western Australia</p>	<p><b>Karratha</b></p> <p>Horizon Power commissioned 360 Environmental to undertake a basic vertebrate fauna survey across the Karratha Survey Area as part of a biological assessment in June 2021.</p> <p>A fauna desktop assessment with a 15-50 km search buffer around the Karratha Survey Area identified 69 conservation significant fauna taxa. The post survey likelihood of occurrence assessment determined that four conservation significant fauna taxa were considered to have a high likelihood of occurrence, seven were considered to have a medium likelihood of occurrence and the remaining taxa were considered to have a low likelihood of occurrence.</p> <p>Six fauna taxa from five families were recorded during the field survey, comprising three bird taxa, one mammal taxa and two reptile taxa. Three fauna habitat types were identified during the survey. These included: Stony plains, Minor Drainage and Rocky Hills.</p> <p>No fauna taxa of conservation significance were recorded within the Karratha Survey Area.</p> <p>The four taxa considered to have a high likelihood of occurrence were:</p> <ul style="list-style-type: none"> <li>• Lined Soil-crevice Skink (<i>Notoscincus butleri</i>) – Priority 4</li> <li>• Northern Quoll (<i>Dasyurus hallucatus</i>) – Endangered</li> <li>• Oriental Pratincole (<i>Glareola maldivarum</i>) – Migratory, Marine</li> <li>• Short-tailed Mouse (<i>Leggadina lakedownensis</i>) – Priority 4.</li> </ul> <p>The seven taxa considered to have a medium likelihood of occurrence were:</p> <ul style="list-style-type: none"> <li>• Barn Swallow (<i>Hirundo rustica</i>) – Migratory, Marine</li> <li>• Ghost Bat (<i>Macroderma gigas</i>) – Vulnerable</li> <li>• Glossy Ibis (<i>Plegadis falcinellus</i>) – Migratory, Marine</li> <li>• Oriental Plover (<i>Charadrius veredus</i>) – Migratory, Marine</li> <li>• Pacific Swift (<i>Apus pacificus</i>) – Migratory, Marine</li> <li>• Peregrine Falcon (<i>Falco peregrinus</i>) – Other specially protected fauna</li> <li>• Western Pebble-mound Mouse (<i>Pseudomys chapmani</i>) – Priority 4.</li> </ul>

Principle	Assessment
	<p>The Lined Soil-crevice Skink (<i>Notoscincus butleri</i>) has previously been recorded from the Karratha Survey Area. Given the known distribution and location of records, it is likely that this species utilises the stony plains and minor drainage habitats within the Karratha Survey Area.</p> <p><b>Assessed Outcome:</b> None of these taxa are considered dependent on any of the terrestrial habitat types identified within the Karratha Survey Area. Disturbance within the Karratha Survey Area is unlikely to significantly impact any of the taxa listed due to the abundance of similar, and better quality, habitat surrounding the Karratha Survey Area. The proposed clearing is considered unlikely to be at variance with this principle.</p> <p><b>Boodarie</b></p> <p>Horizon Power commissioned 360 Environmental to undertake a basic vertebrate fauna survey across the Boodarie Survey Area as part of a biological assessment in June 2021.</p> <p>A fauna desktop assessment with a 15-50 km search buffer around the Boodarie Survey Area identified 62 conservation significant fauna taxa. The post survey likelihood of occurrence assessment determined that seven conservation significant fauna taxa were considered to have a high likelihood of occurrence, four were considered to have a medium likelihood of occurrence and the remaining taxa were considered to have a low likelihood of occurrence.</p> <p>Five fauna taxa from five families were recorded during the field survey, comprising three bird taxa, one mammal taxa and one reptile taxa. One fauna habitat type, Sandy Plain, was identified during the survey.</p> <p>A single conservation significant taxon, the Nankeen Kestrel (<i>Falco cenchroides</i>) – Marine, was recorded within the Boodarie Survey Area.</p> <p>The seven taxa considered to have a high likelihood of occurrence were:</p> <ul style="list-style-type: none"> <li>• Barn Swallow (<i>Hirundo rustica</i>) – Migratory, Marine</li> <li>• Bilby, Dalgyte (<i>Macrotis lagotis</i>) – Vulnerable</li> <li>• Brush-tailed Mulgara, Ampurta (<i>Dasyercus blythi</i>) – Priority 4</li> <li>• Grey Falcon (<i>Falco hypoleucos</i>) – Vulnerable</li> <li>• Northern Quoll (<i>Dasyurus hallucatus</i>) – Endangered</li> <li>• Oriental Pratincole (<i>Glareola maldivarum</i>) – Migratory, Marine</li> <li>• Peregrine Falcon (<i>Falco peregrinus</i>) – Other Specially Protected Fauna.</li> </ul>

Principle	Assessment
	<p>The four taxa considered to have a medium likelihood of occurrence were:</p> <ul style="list-style-type: none"> <li>• Ghost Bat (<i>Macroderma gigas</i>) – Vulnerable</li> <li>• Oriental Plover (<i>Charadrius veredus</i>) – Migratory, Marine</li> <li>• Pacific Swift (<i>Apus pacificus</i>) – Migrator, Marine</li> <li>• Pilbara Leaf-nosed Bat (<i>Rhinonictoris aurantia</i> Pilbara form) – Vulnerable.</li> </ul> <p>None of these taxa are considered dependent on any of the terrestrial habitat types identified within the Boodarie Survey Area. Disturbance within the Boodarie Survey Area is unlikely to significantly impact any of the taxa listed due to the abundance of similar, and better quality, habitat surrounding the Boodarie Survey Area.</p> <p><b>Assessed Outcome:</b> One fauna taxon of conservation significance was recorded within the Boodarie Survey Area; however, it is not considered dependent on the habitat present. The proposed clearing is considered unlikely to be at variance with this principle.</p>
<p>Principle (c) – Native vegetation should not be cleared if it includes, or is necessary for the continued existence of rare flora</p>	<p><b>Karratha</b></p> <p>No Threatened flora taxa pursuant to the EPBC Act and/or gazetted as Threatened pursuant to the BC Act were identified by database searches or recorded during the survey. The habitat within the Karratha Survey Area is unlikely to support any of the Threatened flora taxa that occur in the Pilbara region of Western Australia.</p> <p><b>Assessed Outcome:</b> Given that no Threatened flora were expected to occur, or recorded, within the Karratha Survey Area, the proposed clearing is not considered to be at variance with this principle.</p> <p><b>Boodarie</b></p> <p>One Threatened flora taxon pursuant to the EPBC Act and/or gazetted as Threatened pursuant to the BC Act, <i>Quoya zonalis</i> (T, EN), was identified by database searches, however this was not recorded during the survey. This taxon was considered to have a low likelihood of occurrence within the Boodarie Survey Area. The habitat within the Boodarie Survey Area is unlikely to support any of the Threatened flora taxa that occur in the Pilbara region of Western Australia.</p> <p><b>Assessed Outcome:</b> Given that no Threatened flora were expected to occur, or recorded, within the Boodarie Survey Area, the proposed clearing is not considered to be at variance with this principle.</p>

Principle	Assessment
<p>Principle (d) – Native vegetation should not be cleared if it comprises the whole or a part of or is necessary for the maintenance of a Threatened Ecological Community (TEC).</p>	<p><b>Karratha</b></p> <p>The database search did not identify any TECs and/or their buffers within 50 km of the Karratha Survey Area. Furthermore, none of the vegetation recorded during the survey was considered analogous to any TECs.</p> <p><b>Assessed Outcome:</b> No TECs have been recorded within the Karratha Survey Area. The proposed clearing is not considered to be at variance with this principle.</p> <p><b>Boodarie</b></p> <p>The database search did not identify any TECs and/or their buffers within 50 km of the Boodarie Survey Area. Furthermore, none of the vegetation recorded during the survey was considered analogous to any TECs.</p> <p><b>Assessed Outcome:</b> No TECs have been recorded within the Boodarie Survey Area. The proposed clearing is not considered to be at variance with this principle.</p>
<p>Principle (e) – Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared</p>	<p><b>Karratha</b></p> <p>The Survey Area occurs across two broad vegetation system associations, Abydos Plain – Roebourne 157 and Abydos Plain – Roebourne 589 (Beard, 1976; Shepherd et al., 2002). Although differences exist with the terminology used in the descriptions as they are based on different methods of categorising and characterising vegetation types, and the different spatial scale of the analysis (i.e. region vs. local scale), the vegetation types within the Karratha Survey Area are considered to be broadly representative of Abydos Plain – Roebourne 157 and Abydos Plain – Roebourne 589.</p> <p>The EPA’s Guidance Statement No. 33 has identified a threshold of the retention of 30% of pre-European extent of each community, and advises that ecological communities with levels below 30% should be fully retained (Environmental Protection Authority, 2008). All broad vegetation systems associations mapped within the Karratha Survey Area remain well above the 30% threshold, each having over 96% of the pre-European extent remaining (Government of Western Australia, 2019).</p> <p><b>Assessed Outcome:</b> The broad vegetation system associations mapped across the Karratha Survey Area are well above the EPA’s 30% retention threshold. The proposed clearing is not considered to be at variance with this principle.</p>

Principle	Assessment
	<p><b>Boodarie</b></p> <p>The Survey Area occurs across two broad vegetation system associations, Abydos Plain – Roebourne 589 and Abydos Plain 647 (Beard, 1976; Shepherd et al., 2002). Although differences exist with the terminology used in the descriptions as they are based on different methods of categorising and characterising vegetation types, and the different spatial scale of the analysis (i.e. region vs. local scale), the vegetation types within the Boodarie Survey Area are considered to be broadly representative of Abydos Plain – Roebourne 589 and Abydos Plain 647.</p> <p>The EPA’s Guidance Statement No. 33 has identified a threshold of the retention of 30% of pre-European extent of each community, and advises that ecological communities with levels below 30% should be fully retained (Environmental Protection Authority, 2008). All broad vegetation systems associations mapped within the Boodarie Survey Area remain well above the 30% threshold, each having over 97% of the pre-European extent remaining (Government of Western Australia, 2019).</p> <p><b>Assessed Outcome:</b> The broad vegetation system associations mapped across the Boodarie Survey Area are well above the EPA’s 30% retention threshold. The proposed clearing is not considered to be at variance with this principle.</p>
<p>Principle (f) – Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland</p>	<p><b>Karratha</b></p> <p>The Karratha Survey Area does not intersect any major watercourses or water bodies that are mapped by the State Government GIS database (Department of Water and Environmental Regulation, 2018). The closest watercourse, Nickol River, is a significant stream flowing north into the Indian Ocean, located 10.0 km east of the Karratha Survey Area. Vegetation type D1 occurs within a minor drainage line that is not formally recognised by the State Government GIS database; however, the vegetation is considered to be representative of riparian vegetation.</p> <p><b>Assessed Outcome:</b> Vegetation type D1 within the Karratha Survey Area is considered representative of riparian vegetation as it occurs within a minor drainage line. Horizon Power has surveyed an area of land greater than the required to allow for design flexibility based on findings from the environment and heritage surveys. It is recommended that Horizon Power avoid clearing of the vegetation associated with the minor drainage line; however, should the final design require the clearing in this area, then the proposed clearing may be at variance with this principle. It is noted that Section 49 c of the Energy Operators (Powers) Act 1979 (Minister for Energy, 1979) allows Horizon Power to make or alter, streams or watercourses drainage to establish, maintain, utilise, and operate, any supply system.</p>

Principle	Assessment
	<p><b>Boodarie</b></p> <p>The Boodarie Survey Area does not intersect any major watercourses or water bodies that are mapped by State Government GIS databases (Department of Water and Environmental Regulation, 2018). The closest watercourse, Southwest Creek, is a waterbody flowing north into the Taylor Inlet, located 2.0 km east of the Boodarie Survey Area.</p> <p><b>Assessed Outcome:</b> The vegetation within the Boodarie Survey Area is not considered to be associated with a watercourse or wetland, or to be representative of riparian vegetation. Therefore, the proposed clearing is not considered to be at variance with this principle.</p>
<p>Principle (g) – Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation</p>	<p>The Department of Water and Environmental Regulation (DWER) has defined land degradation as including the following (DER, 2014):</p> <ul style="list-style-type: none"> <li>• The clearing of vegetation</li> <li>• Decline in vegetation condition</li> <li>• Soil erosion and soil acidity (caused by wind and water erosion due to vegetation clearing)</li> <li>• Salinity or</li> <li>• Waterlogging/flooding.</li> </ul> <p><b>Karratha</b></p> <p>Vegetation condition within the Karratha Survey Area ranged from Poor to Very Good comprising (rounded to one decimal place):</p> <ul style="list-style-type: none"> <li>• Poor (0.4 ha / 0.3%)</li> <li>• Good (26.8 ha / 18.2%)</li> <li>• Very Good (119.7 ha / 81.5%).</li> </ul> <p><b>Assessed Outcome:</b> During construction, management measures will be put in place to prevent soil erosion from wind and water. As an operational and maintenance requirement (prevention of dust deposition on the solar panels), the final solar farm footprint will not include areas of bare earth. Soil coverings may include a combination of reinstated native vegetation, gravels and/or hardstand (bitumen). Furthermore, the design of the site will include stormwater management. These management</p>

Principle	Assessment
	<p>measures will reduce land degradation, however if not implemented, clearing may result in appreciable land degradation. Therefore, clearing may be at variance with this principle.</p> <p><b>Boodarie</b> Vegetation condition within the Boodarie Survey Area ranged from Very Good to Excellent, comprising (rounded to one decimal place):</p> <ul style="list-style-type: none"> <li>• Very Good (0.1 ha / &lt;1.0%)</li> <li>• Excellent (175.0 ha / ~100%).</li> </ul> <p><b>Assessed Outcome:</b> During construction, management measures will be put in place to prevent soil erosion from wind and water. As an operational and maintenance requirement (prevention of dust deposition on the solar panels), the final solar farm footprint will not include areas of bare earth. Soil coverings may include a combination of reinstated native vegetation, gravels and/or hardstand (bitumen). Furthermore, the design of the site will include stormwater management. These management measures will reduce land degradation, however if not implemented, clearing may result in appreciable land degradation. Therefore, clearing may be at variance with this principle.</p>
<p>Principle (h) – Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area</p>	<p><b>Karratha</b> There are no Environmentally Sensitive Areas (ESAs) mapped within the Karratha Survey Area. The nearest ESA is associated with the Dampier Archipelago, which is located 22.5 km north of the Survey Area (Department of Water and Environmental Regulation, 2021).</p> <p>The Karratha Survey Area does not intersect any Conservation Areas (Department of Biodiversity Conservation and Attractions, 2021a). The nearest Conservation Area is the Karratha Arboretum vested under the Executive Director Department Of CALM, which is located 3.4 km east of the Karratha Survey Area.</p> <p><b>Assessed Outcome:</b> The Karratha Survey Area does not occur within, adjacent to or near a conservation area. The proposed clearing is not considered to be at variance with this principle</p>



Principle	Assessment
	<p><b>Boodarie</b></p> <p>There are no ESAs mapped within the Boodarie Survey Area. The nearest ESA is associated with Spoil Bank Recreation Reserve, which is located 16.7 km north of the Boodarie Survey Area (Department of Water and Environmental Regulation, 2021).</p> <p>The Boodarie Survey Area does not intersect any Conservation Areas (Department of Biodiversity Conservation and Attractions, 2021a). The nearest Conservation Area is North Turtle Island Nature Reserve (R 34578) vested under the Conservation Commission of WA, which is located 71 km northeast of the Boodarie Survey Area.</p> <p>Assessed Outcome: The Boodarie Survey Area does not occur within, adjacent to or near a conservation area. The proposed clearing is not considered to be at variance with this principle.</p>
<p>Principle (i) – Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water</p>	<p><b>Karratha</b></p> <p>The long-term annual average rainfall is 324.6 mm (1991 to 2021) (Bureau of Meteorology, 2021).</p> <p>The Karratha Survey Area does not intersect any major watercourses or water bodies mapped by the State Government GIS database (Department of Water and Environmental Regulation, 2018). A minor drainage line is present in the western portion of the Survey Area.</p> <p>The proposed clearing is adjacent to an existing road; therefore, it is not expected to cause deterioration in the quality of surface or underground water.</p> <p><b>Assessed Outcome:</b> A drainage line is present within the Karratha Survey Area. Horizon Power has surveyed an area of land greater than the required to allow for design flexibility based on findings from the environment and heritage surveys. It is recommended that Horizon Power avoid clearing of the vegetation associated with the minor drainage line; however, should the final design require the clearing of this native vegetation, then appropriate management of surface and potential underground water flows is required. If appropriate management actions are implemented, the proposed clearing is unlikely to be at variance with this principle.</p> <p><b>Boodarie</b></p> <p>The long-term annual average rainfall is 336.6 mm (1991 to 2021) (Bureau of Meteorology, 2021).</p> <p>The Boodarie Survey Area does not intersect any major watercourses or water bodies (Department of Water and Environmental Regulation, 2018).</p>

Principle	Assessment
	<p>The proposed clearing is adjacent to an existing road; therefore, it is not expected to cause deterioration in the quality of surface or underground water.</p> <p><b>Assessed Outcome:</b> Given the absence of any significant waterbodies across the Boodarie Survey Area, if clearing of native vegetation can be minimised, it is unlikely to significantly impact the quality of surface or groundwater. The area proposed to be cleared is unlikely to result in sedimentation, increased nutrients, or changes to salinity. Therefore, the proposed clearing is unlikely to be at variance with this principle.</p>
<p>Principle (j) – Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding</p>	<p><b>Karratha</b></p> <p>The Karratha Survey Area does not intersect any major watercourses or water bodies mapped by the State Government GIS database (Department of Water and Environmental Regulation, 2018). One minor drainage line occurs within the Survey Area, which is not mapped by the State Government GIS database.</p> <p>The proposed clearing within the Karratha Survey Area could cause, or exacerbate, the incidence of flooding in the local area.</p> <p><b>Assessed Outcome:</b> If appropriate management actions are implemented the proposed clearing is unlikely to be at variance with this principle.</p> <p><b>Boodarie</b></p> <p>The Boodarie Survey Area does not intersect any major watercourses or water bodies (Department of Water and Environmental Regulation, 2018).</p> <p>The proposed clearing within the Boodarie Survey Area is unlikely to cause, or exacerbate, the incidence of flooding in the local area.</p> <p><b>Assessed Outcome:</b> If appropriate management actions are implemented the proposed clearing is unlikely to be at variance with this principle.</p>

## 7 Assessment against Matters of National Environmental Significance

The results obtained from the biological survey have provided information to assess if significant impact is 'likely' and whether a 'referral' action is recommended.

Based on the Significant Impact Criteria from the Department of Agriculture, Water and Environment *Matters of National Environmental Significance – Significant impact Guidelines 1.1* (Department of the Environment, 2013b), the following needs to be considered. This assessment assumes the clearing footprint can be flexible and designed to minimise impact.

### 7.1 Listed Threatened Ecological Communities and Flora Taxa

#### 7.1.1 Threatened Ecological Communities

No Commonwealth or State listed TECs were identified within 50 km of the Survey Areas by the database searches.

#### 7.1.2 Threatened Flora

##### 7.1.2.1 Karratha Survey Area

No Threatened flora taxa pursuant to the EPBC Act were identified within 100 km of the Karratha Survey Area by the database searches. No Threatened flora taxa pursuant to the EPBC Act were recorded within the Survey Area.

##### 7.1.2.2 Boodarie Survey Area

One Threatened flora taxon pursuant to the EPBC Act, *Quoya zonalis* (EN), was identified as occurring within 100 km of the Boodarie Survey Area. This taxon was considered as having a low likelihood of occurrence within the Boodarie Survey Area. No Threatened flora taxa pursuant to the EPBC Act were recorded within the Survey Area.

#### 7.1.3 Threatened Fauna

##### 7.1.3.1 Karratha Survey Area

No Threatened fauna taxa pursuant to the EPBC Act were recorded within the Karratha Survey Area.

One Threatened fauna taxon pursuant to the EPBC Act was considered as having a high likelihood of occurrence within the Survey Area, and one taxon was considered as having a medium likelihood of occurrence.

#### **Northern Quoll (*Dasyurus hallucatus*) – Endangered – High Likelihood of Occurrence**

The Northern Quoll is a medium-sized carnivorous, nocturnal marsupial that favours rocky areas, taking refuge in rock crevices and using gullies and drainage lines. They have a relatively large home-range size of up to 150 ha for males and 35 ha for females, and males can move up to 1.85 km between den sites in one night (Department of the Environment, 2016; Oakwood, 2000). Northern Quolls reproduce once a year, averaging seven young per litter (Department of the Environment, 2016). They have a short life span, with the females typically only surviving one or two years while the males die off annually following intense physical exertion during the

breeding season (Department of the Environment, 2016). The species can be locally common, but its former range has retracted considerably (Van Dyck & Strahan, 2008).

The Northern Quoll was not detected during the field survey, however, there are multiple recent records of the species near the Karratha Survey Area, including records from 2012 2.8 km north-northeast of the Karratha Survey Area. A basic fauna survey is unlikely to detect the species through observation as the species is a nocturnal predator, however, the lack of detection does not rule out the potential for their presence within the Karratha Survey Area. The Minor Drainage and Rocky Hills habitats may be used by the species, particularly areas with steep rock faces containing small caves and overhangs (Department of the Environment, 2016).

#### **Ghost Bat (*Macroderma gigas*) – Vulnerable – Medium Likelihood of Occurrence**

The Ghost Bat is patchily distributed in small colonies in northern Australia, including the Pilbara and Kimberley in WA, the Top End in the Northern Territory and northeast Queensland. The taxon requires undisturbed roost caves or mineshafts, usually complex systems with several openings (Van Dyck & Strahan, 2008). The taxon eats large insects, geckoes, frogs, small birds, mammals including other bats. The kills are made on the ground or in the air and then taken to a feeding perch, which is usually a rocky overhang or small cave (Van Dyck & Strahan, 2008).

The Ghost Bat was not detected during the survey. They have been recorded approximately 30 km east of the Karratha Survey Area in the Roebourne area. No deep, complex caves required for maternity roosts or shallow caves and overhangs for day roosting were identified within the Karratha Survey Area. All habitats within the Karratha Survey Area may be used for hunting.

##### **7.1.3.2 Boodarie Survey Area**

A Nankeen Kestrel (*Falco cenchroides*) listed as Marine under the EPBC Act was recorded within the Boodarie Survey Area, however, fauna taxa listed as Marine only do not constitute Matters of National Environmental Significance (Department of the Environment, 2013b). As such, this taxon is not discussed further.

No other Threatened fauna taxa were recorded within the Boodarie Survey Area.

Three Threatened fauna taxa pursuant to the EPBC Act were considered as having a high likelihood of occurrence within the Survey Area, and two taxa were considered as having a medium likelihood of occurrence.

#### **Bilby (*Macrotis lagotis*) – Vulnerable – High Likelihood of Occurrence**

The Bilby is a solitary and nocturnal type of bandicoot, characterised by its distinct rabbit like ears and long face with a pointed snout (Department of Biodiversity Conservation and Attractions, 2017). The range of the Bilby has declined northwards, with wild subpopulations now restricted predominantly to the Tanami Desert in the Northern Territory and the Gibson, Little Sandy and Great Sandy Deserts as well as parts of the Pilbara in Western Australia (Department of Biodiversity Conservation and Attractions, 2017; Southgate, 1990). The Bilby is described as occupying a wide range of vegetation types, including open tussock grassland on upland hills, mulga woodland/shrubland growing on ridges and rises and spinifex growing on sandplains and dunes, drainage systems, salt lake systems, and other alluvial areas (Department of Biodiversity Conservation and Attractions, 2017; Pavey, 2006).

The desktop assessment identified numerous nearby records of the Bilby, with the most recent recorded in 2018, 2.3 km northeast of the Boodarie Survey Area. The soils within the Boodarie Survey Area are thin and shallow, and not well suited to the deep, complex burrows the species uses for daytime shelter (Peter Menkhorst & Knight, 2004). Therefore, the species is unlikely to rely on habitats within the Boodarie Survey Area for burrowing but may use the Sandy Plains habitat for foraging.

#### **Grey Falcon (*Falco hypoleucos*) – Vulnerable – High Likelihood of Occurrence**

The Grey Falcon is an elusive and endemic bird of the arid interior (Schoenjahn et al., 2019). It distributed sparsely over Australia's arid and semi-arid zones and is absent from Cape York Peninsula, south of the Great Dividing Range in Victoria, and south of 26°S in Western Australia (BirdLife International, 2016; Johnstone & Storr, 1998). The Grey Falcon is restricted largely to areas of the highest annual average temperatures where there is average annual rainfall of less than 500 mm. It favours lightly timbered and untimbered lowland plains that are crossed by tree lined watercourses, but frequents other habitats, including grassland and sand dune habitats (BirdLife International, 2016; Johnstone & Storr, 1998).

The Grey Falcon typically uses refurbished nests built by other raptors or corvids in eucalypt lined drainage lines and waterholes (Pizzey & Knight, 2013) and is therefore unlikely to use the Boodarie Survey Area for breeding, but may use all habitats for hunting. The regional population is unlikely to be dependent on habitats within the Boodarie Survey Area as these habitats occur more widely in the region outside the Boodarie Survey Area. The Grey Falcon was not detected during the survey. They have been recorded 13.5 km northwest of the Boodarie Survey Area.

#### **Northern Quoll (*Dasyurus hallucatus*) – Endangered – High Likelihood of Occurrence**

The Northern Quoll is a medium-sized carnivorous, nocturnal marsupial that favours rocky areas, taking refuge in rock crevices and using gullies and drainage lines. They have a relatively large home-range size of up to 150 ha for males and 35 ha for females, and males can move up to 1.85 km between den sites in one night (Department of the Environment, 2016; Oakwood, 2000). Northern Quolls reproduce once a year, averaging seven young per litter (Department of the Environment, 2016). They have a short life span, with the females typically only surviving one or two years while the males die off annually following intense physical exertion during the breeding season (Department of the Environment, 2016). The species can be locally common, but its former range has retracted considerably (Van Dyck & Strahan, 2008).

The Northern Quoll was not detected during the field survey, however, there are multiple recent records of the species near the Boodarie Survey Area, including records from 2014 approximately 6 km northeast of the Survey Area. A basic survey is unlikely to detect the species through observation as the species is a nocturnal predator, however, the lack of detection does not rule out the potential for their presence within the Boodarie Survey Area. The Sandy Plain habitat may be used for foraging and dispersal by the species (Department of the Environment, 2016).

### **Ghost Bat (*Macroderma gigas*) – Vulnerable – Medium Likelihood of Occurrence**

The Ghost Bat is patchily distributed in small colonies in northern Australia, including the Pilbara and Kimberley in WA, the Top End in the Northern Territory and northeast Queensland. The taxon requires undisturbed roost caves or mineshafts, usually complex systems with several openings (Van Dyck & Strahan, 2008). The taxon eats large insects, geckoes, frogs, small birds, mammals including other bats. The kills are made on the ground or in the air and then taken to a feeding perch, which is usually a rocky overhang or small cave (Van Dyck & Strahan, 2008).

The Ghost Bat was not detected during the survey. They have been recorded approximately 27 km of the Boodarie Survey Area. No deep, complex caves required for maternity roosts or shallow caves and overhangs for day roosting were identified within the Boodarie Survey Area. All habitats within the Boodarie Survey Area may be used for hunting.

### **Pilbara Leaf-nosed Bat (*Rhinonicteris aurantia Pilbara form*) – Vulnerable – Medium Likelihood of Occurrence**

The Pilbara Leaf-nosed Bat was originally considered to be the same species as the Orange Leaf-nosed Bat, which occurs in the Kimberley, Northern Territory, and northwest Queensland, however, it is now considered to be a separate form based on morphology. Formal reclassification has been difficult due to the small Pilbara population size (Van Dyck & Strahan, 2008). During the dry season the taxon roosts in deep, warm humid caves or mines and forages nearby; in the wet season the taxon is more widespread and may not require caves for roosting (Peter Menkhorst & Knight, 2004).

The Pilbara Leaf-nosed Bat was not detected during the survey. They have been recorded approximately 35 km south of the Boodarie Survey Area. No deep, complex caves with a suitable microclimate required for maternity roosts or shallow caves and overhangs for day roosting were identified within the Boodarie Survey Area. All habitats within the Boodarie Survey Area may be used for hunting.

## **7.2 Listed Migratory Taxa**

Migratory shorebirds utilise nearby coastal areas, beaches, and tidal flats, however, no migratory birds were recorded during the survey within the Karratha and Boodarie Survey Areas and are considered unlikely to be dependent on the habitat within either of the Survey Areas.

### **7.2.1 Karratha Survey Area**

One migratory taxon was considered as having a high likelihood of occurrence within the Karratha Survey Area, and four migratory taxa were considered as having a medium likelihood of occurrence.

### **Oriental Pratincole (*Glareola maldivarum*) – Migratory, Marine – High Likelihood of Occurrence**

The Oriental Pratincole typically prefers plains, shallow wet and dry edges of open bare wetlands and tidal mudflats and beaches for habitat (Pizzey & Knight, 2013). However, as this species breeds in Pakistan, India and parts of south-east Asia, the Karratha Survey Area would most likely be used for foraging only (Pizzey & Knight, 2013).

The Oriental Pratincole was not recorded during the survey, but database searches show several recent records of this species 4 km from the Karratha Survey Area, suggesting that it is highly likely to occur in the Survey Area. The Stony Plains habitat may be used by the species.

#### **Barn Swallow (*Hirundo rustica*) – Migratory, Marine – Medium Likelihood of Occurrence**

The Barn Swallow is only a casual visitor primarily to coastal areas from the Gascoyne north, although the species may appear as a vagrant in inland areas on an irregular basis (Johnstone & Storr, 1998). After breeding in the temperate and subtropical regions of North America, Europe, northern Africa and Asia, it migrates to the southern hemisphere where it spends the boreal winter (Johnstone & Storr, 1998). It is typically observed in the vicinity of urban water bodies and coastal wetlands.

The Barn Swallow was not detected during the survey. They have been recorded approximately 15 km west of the Karratha Survey Area at salt evaporation ponds and may use the Stony Plains habitat within the Karratha Survey Area for foraging.

#### **Pacific Swift (*Apus pacificus*) – Migratory, Marine – Medium Likelihood of Occurrence**

The Pacific Swift (also called Fork-tailed Swift) is a non-breeding visitor to all states and territories of Australia and is found throughout WA with a preference for coastal areas (Higgins, 1999). The Pacific Swift is almost exclusively aerial, flying from less than 1 m to at least 300 m above ground and probably much higher. The Pacific Swift occupies a large airspace range over varied habitats, ranging from rainforests to semi-deserts (Morcombe, 2003).

The Pacific Swift was not detected during the survey. They have been recorded 2.7 km north of the Karratha Survey Area. Although the taxon has the potential to occur in the airspace above the Karratha Survey Area, it will not be reliant on the habitats within the Karratha Survey Area.

#### **Waterbirds and Shorebirds**

Two waterbirds and shorebirds were identified as having a medium likelihood of occurring within the Karratha Survey Area, the Glossy Ibis (*Plegadis falcinellus*) (Migratory, Marine) and the Oriental Plover (*Charadrius veredus*) (Migratory, Marine). Waterbirds and shorebirds rely primarily on habitats that become seasonally inundated, such as the tidal flats, claypans and major drainage lines, rivers, and creeks, however they are highly mobile and able to move between such habitats. The regional populations are unlikely to be dependent on habitats within the Karratha Survey Area as these habitats occur more widely in the region outside the Karratha Survey Area.

#### **7.2.2 Boodarie Survey Area**

Two migratory taxa were considered as having a high likelihood of occurrence within the Boodarie Survey Area, and two migratory taxa were considered as having a medium likelihood of occurrence.

**Barn Swallow (*Hirundo rustica*) – Migratory, Marine – High Likelihood of Occurrence**

The Barn Swallow is only a casual visitor primarily to coastal areas from the Gascoyne north, although the species may appear as a vagrant in inland areas on an irregular basis (Johnstone & Storr, 1998). After breeding in the temperate and subtropical regions of North America, Europe, northern Africa and Asia, it migrates to the southern hemisphere where it spends the boreal winter (Johnstone & Storr, 1998). It is typically observed in the vicinity of urban water bodies and coastal wetlands.

The Barn Swallow was not detected during the survey. They have been recorded 5 km north of the Boodarie Survey Area at salt evaporation ponds and may use the Sandy Plains habitat within the Boodarie Survey Area for foraging.

**Oriental Pratincole (*Glareola maldivarum*) – Migratory, Marine – High Likelihood of Occurrence**

The Oriental Pratincole typically prefers plains, shallow wet and dry edges of open bare wetlands and tidal mudflats and beaches for habitat. However, as this species breeds in Pakistan, India and parts of south-east Asia, the Boodarie Survey Area would most likely be used for foraging only (Pizzey & Knight, 2013).

The Oriental Pratincole was not recorded during the survey, but database searches show several recent records of this species approximately 1 km from the Boodarie Survey Area suggesting that it is highly likely to occur in the Survey Area. The Sandy Plains habitat may be used by the species.

**Pacific Swift (*Apus pacificus*) – Migrator, Marine – Medium Likelihood of Occurrence**

The Pacific Swift (also called Fork-tailed Swift) is a non-breeding visitor to all states and territories of Australia and is found throughout WA with a preference for coastal areas (Higgins, 1999). The Pacific Swift is almost exclusively aerial, flying from less than 1 m to at least 300 m above ground and probably much higher.

The Pacific Swift was not detected during the survey. Although the taxon has the potential to occur in the airspace above the Boodarie Survey Area, it will not be reliant on the habitats within the Boodarie Survey Area.

**Waterbirds and Shorebirds**

One shorebird was identified as having a medium likelihood of occurring within the Boodarie Survey Area, the Oriental Plover (*Charadrius veredus*) (Migratory, Marine). Waterbirds and shorebirds rely primarily on habitats that become seasonally inundated, such as the tidal flats, claypans and major drainage lines, rivers, and creeks, however they are highly mobile and able to move between such habitats. The regional population of Oriental Plover is unlikely to be dependent on habitats within the Boodarie Survey Area as these habitats occur more widely in the region outside the Boodarie Survey Area.



### **7.3 Wetlands of International Importance**

No Wetlands of International Importance are present within the Survey Area.

### **7.4 Commonwealth Marine Environment**

There is no marine environment present within the Survey Area.

### **7.5 World Heritage Properties**

There are no world heritage properties present within the Survey Area.

### **7.6 Assessment Conclusion**

The assessment of significance is dependent on the size and location of the clearing footprint, and on the condition of the vegetation to be cleared. Given the proposed clearing is likely to be undertaken adjacent to historically cleared and/or disturbed areas, and is likely to be relatively small in size, it is considered unlikely to result in any significant impacts warranting referral to DAWE.

## 8 Potential Impact on Flora, Vegetation and Fauna

### 8.1 Flora and Vegetation

No Threatened flora taxa pursuant to the EPBC Act were recorded during the survey.

No vegetation representative of any Commonwealth listed TECs was recorded within the Survey Areas.

The potential impacts of vegetation clearing within the Survey Areas are:

- Direct impacts of removal of flora taxa and vegetation
- Indirect impacts including construction rubbish drift and dust on remaining vegetation during construction
- Introduction or spread of weeds or disease into the surrounding vegetation
- Indirect impacts of altered hydrological regimes.

### 8.2 Fauna

No Threatened fauna taxa pursuant to the EPBC Act were recorded within the Karratha Survey Area.

A Nankeen Kestrel (*Falco cenchroides*) listed as Marine under the EPBC Act was recorded within the Boodarie Survey Area, however, this taxon does not constitute a Matter of National Environmental Significance. No other Threatened fauna taxa were recorded within the Boodarie Survey Area.

The potential impacts of vegetation clearing on fauna within the Survey Areas are:

- Indirect impacts of removal of fauna habitat
- Death or injury to fauna during clearing.

## 9 Conclusion

### Flora and Vegetation

- No Threatened flora species pursuant to the EPBC Act 1999 and/or gazetted as Threatened Flora pursuant to the BC Act 2016 were recorded during the survey.
- No Priority species as listed by DBCA were recorded within the Survey Areas.
- One species of interest (*Abutilon* sp. aff. *Diodicum* (A.A. Mitchell PRP 1618)) was recorded at two locations within the Boodarie Survey Area.
- Six introduced species were recorded during the survey. None of these are listed as Declared Pests under the BAM Act or WoNS.
- Five vegetation types were mapped within the Karratha Survey Area. One vegetation type was mapped within the Boodarie Survey Area.
- No TECs were recorded within the Karratha Survey Area. Two vegetation types in Karratha were considered analogous to the Priority 3 “Horseflat Land System of the Roebourne Plains” ecological community.
- No TECs or PECs were recorded within the Boodarie Survey Area.

### Vertebrate Fauna

- Three fauna habitats were mapped within the Karratha Survey Area: Stony Plains, Minor Drainage, and Rocky Hills, of which Rocky Hills represents the most value to conservation significant fauna and overall fauna assemblages
- One fauna habitat was mapped within the Boodarie Survey Area: Sandy Plains
- No fauna taxa of conservation significance were recorded within the Karratha Survey Area
- One taxon listed as Marine under the EPBC Act, the Nankeen Kestrel (*Falco cenchroides*), was sighted within the Boodarie Survey Area
- No introduced fauna taxa were recorded during the survey.

## 10 References

- Anstee, S. (1996). Use of External Mound Structures as Indicators of the Presence of the Pebble-Mound Mouse. *Wildlife Research*, 23(4), 429–434.
- Astron. (2018). *Burrup Peninsula Interconnector Pipeline Flora and Fauna Survey*.
- Barrett, G., Silcocks, A., Barry, S., Cunningham, R., & Poulter, R. (2003). *The new atlas of Australian birds*. Royal Australasian Ornithologists Union.
- Beard, J. S. (1976). *Vegetation survey of Western Australia. Western Australia 1: 1 000 000 vegetation series. Design and cartography by Dept. of Geography, University of W.A.*
- BirdLife International. (2016). *Falco hypoleucos. The IUCN Red List of Threatened Species 2016*. <https://www.iucnredlist.org/species/22696479/93566768#text-fields>
- Bureau of Meteorology. (2007). *About Climate Statistics*. <http://www.bom.gov.au/climate/cdo/about/about-stats.shtml>
- Bureau of Meteorology. (2021). *Monthly climate data statistics*. [www.bom.gov.au/climate/data](http://www.bom.gov.au/climate/data)
- Department of Agriculture and Food WA. (2012). *Soil-landscape systems of Western Australia (GIS dataset)*.
- Department of Agriculture Water and the Environment. (2020). *Protected Matters Search Tool*. <http://www.environment.gov.au/webgis-framework/apps/pmst/pmst.jsf>
- Department of Agriculture Water and the Environment. (2021a). *Protected Matters Search Tool*. <http://www.environment.gov.au/webgis-framework/apps/pmst/pmst.jsf>
- Department of Agriculture Water and the Environment. (2021b). *Weeds of National Significance*. <https://weeds.org.au/>
- Department of Biodiversity Conservation and Attractions. (2017). *Fauna Profile - Bilby Macrotis lagotis*. [https://www.dpaw.wa.gov.au/images/documents/plants-animals/animals/animal\\_profiles/bilby\\_fauna\\_profile.pdf](https://www.dpaw.wa.gov.au/images/documents/plants-animals/animals/animal_profiles/bilby_fauna_profile.pdf)
- Department of Biodiversity Conservation and Attractions. (2020). *Priority Ecological Communities for Western Australia Version 30*. [https://www.dpaw.wa.gov.au/images/documents/plants-animals/threatened-species/Listings/Priority ecological communities list \\_Jan 2019.pdf](https://www.dpaw.wa.gov.au/images/documents/plants-animals/threatened-species/Listings/Priority ecological communities list _Jan 2019.pdf)
- Department of Biodiversity Conservation and Attractions. (2021a). *DBCA - Legislated Lands and Waters (DBCA-011) GIS Dataset*.
- Department of Biodiversity Conservation and Attractions. (2021b). *NatureMap*. <https://naturemap.dpaw.wa.gov.au/>
- Department of Biodiversity Conservation and Attractions. (2021c). *Threatened and Priority Ecological Communities database request (custom search)*.
- Department of Biodiversity Conservation and Attractions. (2021d). *Threatened and Priority Fauna database request (custom search)*.

Department of Biodiversity Conservation and Attractions. (2021e). *Threatened and Priority Flora List (TPFL) database request (custom search)*.

Department of Biodiversity Conservation and Attractions. (2021f). *Western Australia Herbarium Flora Database (custom search)*.

Department of Environment Regulation. (2014). *A guide to the assessment of applications to clear native vegetation*. [https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2\\_assessment\\_native\\_veg.pdf](https://www.der.wa.gov.au/images/documents/your-environment/native-vegetation/Guidelines/Guide2_assessment_native_veg.pdf)

Department of Primary Industries and Regional Development. (2021). *Declared plants*. <https://www.agric.wa.gov.au/organisms>

Department of Sustainability Environment Population and Communities. (1999). *Survey Guidelines for Australia's Threatened Mammals*.

<http://www.environment.gov.au/system/files/resources/b1c6b237-12d9-4071-a26e-ee816caa2b39/files/survey-guidelines-mammals.pdf>

Department of Sustainability Environment Water Population and Communities. (2011). *Survey guidelines for Australia's threatened reptiles: Guidelines for detecting reptiles listed as threatened under the EPBC Act*. <http://www.environment.gov.au/resource/survey-guidelines-australias-threatened-reptiles-guidelines-detecting-reptiles-listed>

Department of the Environment. (2013a). *Matters of National Environmental Significance: Significant impact guidelines 1.1*.

[http://www.environment.gov.au/system/files/resources/42f84df4-720b-4dcf-b262-48679a3aba58/files/nes-guidelines\\_1.pdf](http://www.environment.gov.au/system/files/resources/42f84df4-720b-4dcf-b262-48679a3aba58/files/nes-guidelines_1.pdf)

Department of the Environment. (2013b). *Matters of National Significance - Significant impact guidelines 1.1*. [http://www.environment.gov.au/system/files/resources/42f84df4-720b-4dcf-b262-48679a3aba58/files/nes-guidelines\\_1.pdf](http://www.environment.gov.au/system/files/resources/42f84df4-720b-4dcf-b262-48679a3aba58/files/nes-guidelines_1.pdf)

Department of the Environment. (2016). *EPBC Act Referral Guidelines for the endangered northern quoll *Dasyurus hallucatus*. EPBC Act Policy Statement*.

Department of the Environment Water Heritage and the Arts. (2010). *Survey guidelines for Australia's threatened birds: Guidelines for detecting birds listed as threatened under the EPBC Act*. <http://www.environment.gov.au/system/files/resources/107052eb-2041-45b9-9296-b5f514493ae0/files/survey-guidelines-birds-april-2017.pdf>

Department of Water and Environmental Regulation. (2018). *Hydrography Linear (Hierarchy) GIS Dataset*.

Department of Water and Environmental Regulation. (2021). *Clearing Regulations - Environmentally Sensitive Areas GIS Dataset*.

Emerge Associates. (2019). *Flora and Fauna Survey Port Hedland International Airport - Highway Precinct 2*.

ENV Australia Pty Ltd. (2011). *Port Hedland Regional Fauna Assessment*.

Environmental Protection Authority. (2008). *Guidance Statement No. 33 Environmental Guidance for Planning and Development*.

- Environmental Protection Authority. (2016a). *Environmental Factor Guideline: Flora and Vegetation*. [http://www.epa.wa.gov.au/sites/default/files/Policies\\_and\\_Guidance/Guideline-Flora-Vegetation-131216\\_4.pdf](http://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/Guideline-Flora-Vegetation-131216_4.pdf)
- Environmental Protection Authority. (2016b). *Technical Guidance - Flora and Vegetation surveys for Environmental Impact Assessment*.  
[http://www.epa.wa.gov.au/sites/default/files/Policies\\_and\\_Guidance/EPA Technical Guidance - Flora and Vegetation survey\\_Dec13.pdf](http://www.epa.wa.gov.au/sites/default/files/Policies_and_Guidance/EPA_Technical_Guidance_-_Flora_and_Vegetation_survey_Dec13.pdf)
- Environmental Protection Authority. (2020). *Technical Guidance - Terrestrial vertebrate fauna surveys for environmental impact assessment*. <https://www.epa.wa.gov.au/policies-guidance/technical-guidance-terrestrial-vertebrate-fauna-surveys-environmental-impact>
- Ford, F., & Johnson, C. (2007). Eroding abodes and vanished bridges: historical biogeography of the substrate specialist pebble-mound mice (*Pseudomys*). *Journal of Biogeography*, 34(3), 514–523.
- GHD. (2010). *Report for Proposed Boodarie Industrial Area - Flora and Fauna Assessment*.
- GHD. (2016). *Roy Hill Port Facility Power Line Port Hedland Ecological Assessment*.
- GHD. (2019). *124-KRT-DMP 132kV Line Upgrade Project Flora and Fauna Survey*.
- Government of Western Australia. (2019). *2018 Statewide Vegetation Statistics - Full Report*. <https://catalogue.data.wa.gov.au/dataset/dbca-statewide-vegetation-statistics/resource/b7bd60c2-bff6-4637-b213-ae4706412c7>
- Higgins, P. J. (1999). Handbook of Australian, New Zealand and Antarctic Birds. Volume Four - Parrots to Dollarbird. In *Handbook of Australian, New Zealand & Antarctic Birds*.
- Johnstone, R. E., & Storr, G. M. (1998). *Handbook of Western Australian birds* (D. Louise (ed.)). Western Australian Museum.
- Kendrick, P., & Stanley, F. (2001). *Pilbara 4 (PIL4 - Roebourne)*.
- Menkhorst, P, Rogers, D., Clarke, R., Davies, J., Marsack, P., & Franklin, K. (2017). *The Australian bird guide*. CSIRO Publishing.
- Menkhorst, Peter, & Knight, F. (2004). *A Field Guide to the Mammals of Australia* (D. Meagher (ed.)). Oxford University Press.
- Minister for Energy. (1979). *Energy Operators (Powers) Act 1979*.  
[https://www.legislation.wa.gov.au/legislation/prod/filestore.nsf/FileURL/mrdoc\\_42682.htm/\\$FILE/Energy Operators \(Powers\) Act 1979 - %5B06-b0-01%5D.html?OpenElement](https://www.legislation.wa.gov.au/legislation/prod/filestore.nsf/FileURL/mrdoc_42682.htm/$FILE/Energy%20Operators%20(Powers)%20Act%201979-%5B06-b0-01%5D.html?OpenElement)
- Morcombe, M. (2003). *Field Guide to Australian Birds*. Steve Parish Publishing Pty Ltd.
- Oakwood, M. (2000). Reproduction and demography of the northern quoll, *Dasyurus hallucatus*, in the lowland savanna of northern Australia. *Australian Journal of Zoology*.  
<https://doi.org/10.1071/ZO00028>
- Olsen, J., & Fuentes, E. (2008). Dietary shifts based upon prey availability in Peregrine Falcons and Australian Hobbies breeding near Canberra, Australia. *Journal of Raptor Research*, 42, 125–137.

- Pavey, C. (2006). *National Recovery Plan for the Greater Bilby Macrotis lagotis* (p. 60). Northern Territory Department of Natural Resources, Environment and the Arts.
- Phoenix Environmental Sciences. (2010). *Terrestrial Vertebrate Fauna Survey for Anketell Point Rail Alignment and Port Projects*.
- Pizzey, & Knight. (2013). *Birds of Australia, Digital Edition*. Gibbon Multimedia.
- Schoenjahn, J., Pavey, C. R., & Walter, G. H. (2019). Ecology of the Grey Falcon *Falco hypoleucos*—current and required knowledge. In *Emu*.  
<https://doi.org/10.1080/01584197.2019.1654393>
- Shepherd, D. P., Beeston, G. R., & Hopkins, A. J. M. (2002). *Native Vegetation in Western Australia Technical Report 249*.
- Southgate, R. . (1990). Distribution and abundance of the greater bilby, *Macrotis lagotis* Reid (Marsupialia: Peramelidae). In J. . Seebeck, P. . Brown, R. . Wallis, & C. . Kemper (Eds.), *Bandicoots and bilbies* (pp. 293–302). Surrey Beatty and Sons, Sydney.
- Strategen JBS&G. (2020). *Flora and vegetation reconnaissance survey of Spoilbank Marina Project Area*.
- Thompson, G, Thompson, S. (2007). Shape and spatial distribution of mulgara (*Dasyercus cristicauda*) burrows, with comments on their presence in a burnt habitat and a translocation protocol. *Journal of the Royal Society of Western Australia, 90*, 195–202.
- Van Dyck, S., & Strahan, R. (2008). *The mammals of Australia* (3rd ed.). New Holland Publishers.
- Western Australian Herbarium. (2021). *FloraBase - The Western Australian Flora*.  
<https://florabase.dpaw.wa.gov.au>
- Western Australian Museum. (2019). *Checklist of the Terrestrial Vertebrate Fauna of Western Australia | Western Australian Museum*.  
<http://museum.wa.gov.au/research/departments/terrestrial-zoology/checklist-terrestrial-vertebrate-fauna-western-australia>
- Wilson, S., & Swan, G. (2017). A complete guide to reptiles of Australia. In *Reptiles of Australia* (5th ed.). New Holland Publishers.
- Woinarski, J., Burbidge, A., & Harrison, P. (2014). *The action plan for Australian mammals 2012*. CSIRO Publishing.

## 11 Report Disclaimer

This report is produced strictly in accordance with the scope of services set out in the contract or otherwise agreed in accordance with the contract. 360 Environmental makes no representations or warranties in relation to the nature and quality of soil and water other than the visual observation and analytical data in this report.

In the preparation of this report, 360 Environmental has relied upon documents, information, data, and analyses ('client's information') provided by the client and other individuals and entities. In most cases where client's information has been relied upon, such reliance has been indicated in this report. Unless expressly set out in this report, 360 Environmental has not verified that the client's information is accurate, exhaustive, or current and the validity and accuracy of any aspect of the report including, or based upon, any part of the client's information is contingent upon the accuracy, exhaustiveness, and currency of the client's information. 360 Environmental shall not be liable to the client or any other person in connection with any invalid or inaccurate aspect of this report where that invalidity or inaccuracy arose because the client's information was not accurate, exhaustive, and current or arose because of any information or condition that was concealed, withheld, misrepresented, or otherwise not fully disclosed or available to 360 Environmental.

Aspects of this report, including the opinions, conclusions, and recommendations it contains, are based on the results of the investigation, sampling and testing set out in the contract and otherwise in accordance with normal practices and standards. The investigation, sampling and testing are designed to produce results that represent a reasonable interpretation of the general conditions of the site that is the subject of this report. However, due to the characteristics of the site, including natural variations in site conditions, the results of the investigation, sampling and testing may not accurately represent the actual state of the whole site at all points.

It is important to recognise that site conditions, including the extent and concentration of contaminants, can change with time. This is particularly relevant if this report, including the data, opinions, conclusions, and recommendations it contains, are to be used a considerable time after it was prepared. In these circumstances, further investigation of the site may be necessary.

Subject to the terms of the contract between the Client and 360 Environmental Pty Ltd, copying, reproducing, disclosing, or disseminating parts of this report is prohibited (except to the extent required by law) unless the report is produced in its entirety including this page, without the prior written consent of 360 Environmental Pty Ltd.

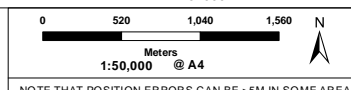


# Figures



COPYRIGHT: THIS DOCUMENT IS AND SHALL REMAIN THE PROPERTY OF 360 ENVIRONMENTAL. THIS DOCUMENT MAY ONLY BE USED FOR THE PURPOSE FOR WHICH IT WAS COMMISSIONED AND IN ACCORDANCE WITH THE TERMS OF ENGAGEMENT FOR WHICH IT WAS COMMISSIONED AND IN ACCORDANCE WITH THE TERMS OF ENGAGEMENT FOR WHICH IT WAS COMMISSIONED. 360 ENVIRONMENTAL DOES NOT HOLD ANY RESPONSIBILITY FOR THE MISUSE OF THIS DOCUMENT.

- Legend**
- Karratha Survey Area
  - State Roads
  - Local Roads



NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS



**360 environmental**  
 a 10 Bermondsey St, West Leederville, 6007 WA  
 t (08) 9388 8360  
 f (08) 9381 2360  
 w www.360environmental.com.au

<b>PROJECT ID</b> 4647	<b>DATE</b> 28/06/2021
---------------------------	---------------------------

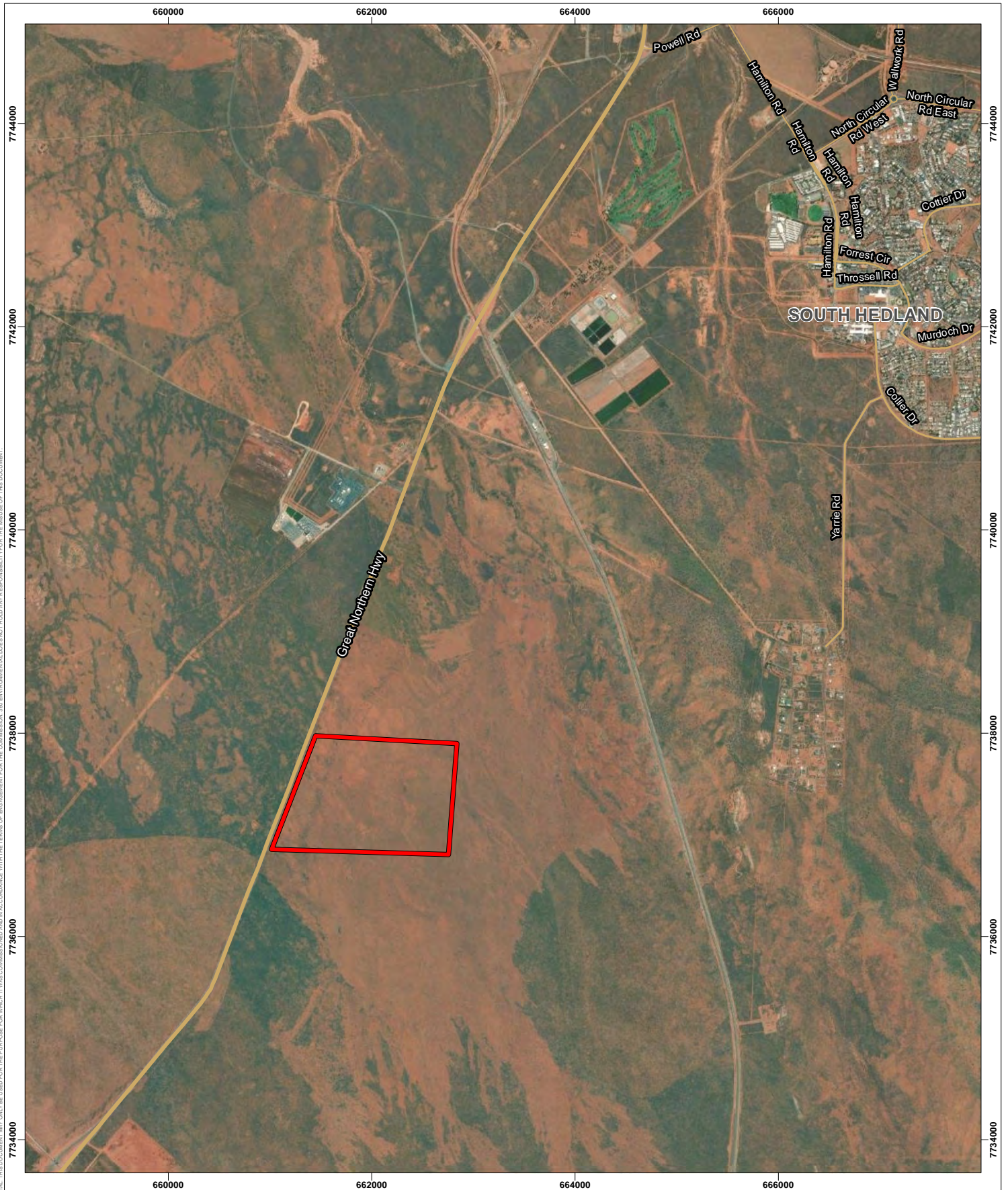
**HORIZONTAL DATUM AND PROJECTION**  
 GDA 1994 MGA Zone 50

CREATED	CHECKED	APPROVED	REVISION
LF	BD	MS	0

**Horizon Power**  
 Karratha and Boodarie  
 Karratha Boodarie Biological Surveys

**Figure 1**  
 Karratha Survey Area

Presented by **SLIP ENABLER**  
 - LOCALITY MAP SOURCED FROM LANDGATE 2020  
 - OTHER DATA SOURCED LANDGATE 2020  
 - AERIAL PHOTOGRAPHY SOURCED LANDGATE 2020  
 © Western Australian Land Information Authority 2020



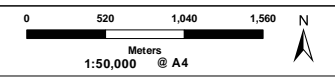
COPYRIGHT: THIS DOCUMENT IS AND SHALL REMAIN THE PROPERTY OF 360 ENVIRONMENTAL. THIS DOCUMENT MAY ONLY BE USED FOR THE PURPOSE FOR WHICH IT WAS COMMISSIONED AND IN ACCORDANCE WITH THE TERMS OF ENGAGEMENT FOR THE COMMISSION. 360 ENVIRONMENTAL DOES NOT HOLD ANY RESPONSIBILITY FOR THE MISUSE OF THIS DOCUMENT.

### Legend

- State Roads
- Local Roads
- Boodarie Survey

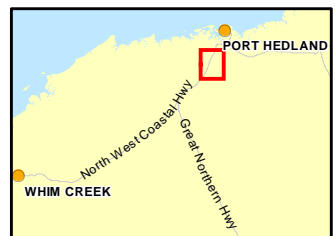
Presented by **SLIP ENABLER**

- LOCALITY MAP SOURCED FROM LANDGATE 2020  
 - OTHER DATA SOURCED LANDGATE 2020  
 - AERIAL PHOTOGRAPHY SOURCED LANDGATE 2020  
 © Western Australian Land Information Authority 2020



- NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS

#### LOCALITY MAP



**360**  
 environmental  
 a 10 Berrondsey St, West Leederville, 6007 WA  
 t (08) 9388 8360  
 f (08) 9381 2360  
 w www.360environmental.com.au

<b>PROJECT ID</b> 4647	<b>DATE</b> 28/06/2021
---------------------------	---------------------------

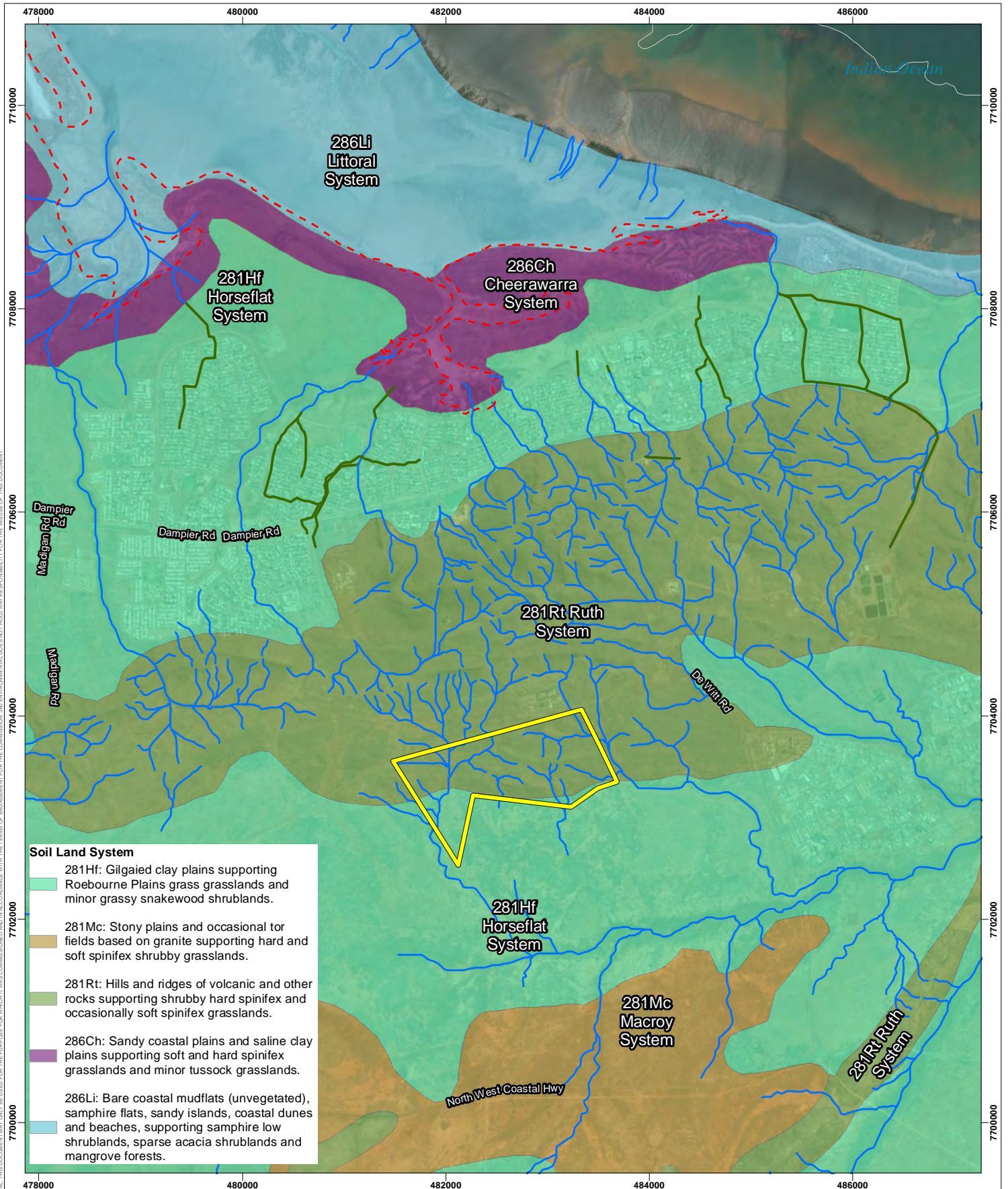
**HORIZONTAL DATUM AND PROJECTION**  
 GDA 1994 MGA Zone 50

CREATED	CHECKED	APPROVED	REVISION
LF	BD	MS	0

Horizon Power  
 Karratha and Boodarie

**Karratha Boodarie Biological Surveys**

**Figure 2**  
**Boodarie Survey Area**



**Soil Land System**

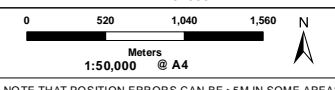
- 281Hf: Gilgaied clay plains supporting Roebourne Plains grass grasslands and minor grassy snakewood shrublands.
- 281Mc: Stony plains and occasional tor fields based on granite supporting hard and soft spinifex shrubby grasslands.
- 281Rt: Hills and ridges of volcanic and other rocks supporting shrubby hard spinifex and occasionally soft spinifex grasslands.
- 286Ch: Sandy coastal plains and saline clay plains supporting soft and hard spinifex grasslands and minor tussock grasslands.
- 286Li: Bare coastal mudflats (unvegetated), samphire flats, sandy islands, coastal dunes and beaches, supporting samphire low shrublands, sparse acacia shrublands and mangrove forests.

**Legend**

- Karratha Survey Area
- Hydrography**
- Watercourse - minor
- Drain - major
- Area Subject to Inundation
- Tidal Flat

Powered by  
**SLIP ENABLER**

- LOCALITY MAP SOURCED FROM LANDGATE 2020  
- OTHER DATA SOURCED LANDGATE 2020  
- AERIAL PHOTOGRAPHY SOURCED LANDGATE 2020  
(© Western Australian Land Information Authority 2020)



-NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS-



**360**  
environmental  
a 10 Bermondsley St, West Leederville, 6007 WA  
t (08) 9388 8360  
f (08) 9381 2360  
w www.360environmental.com.au

PROJECT ID 4647 DATE 17/08/2021

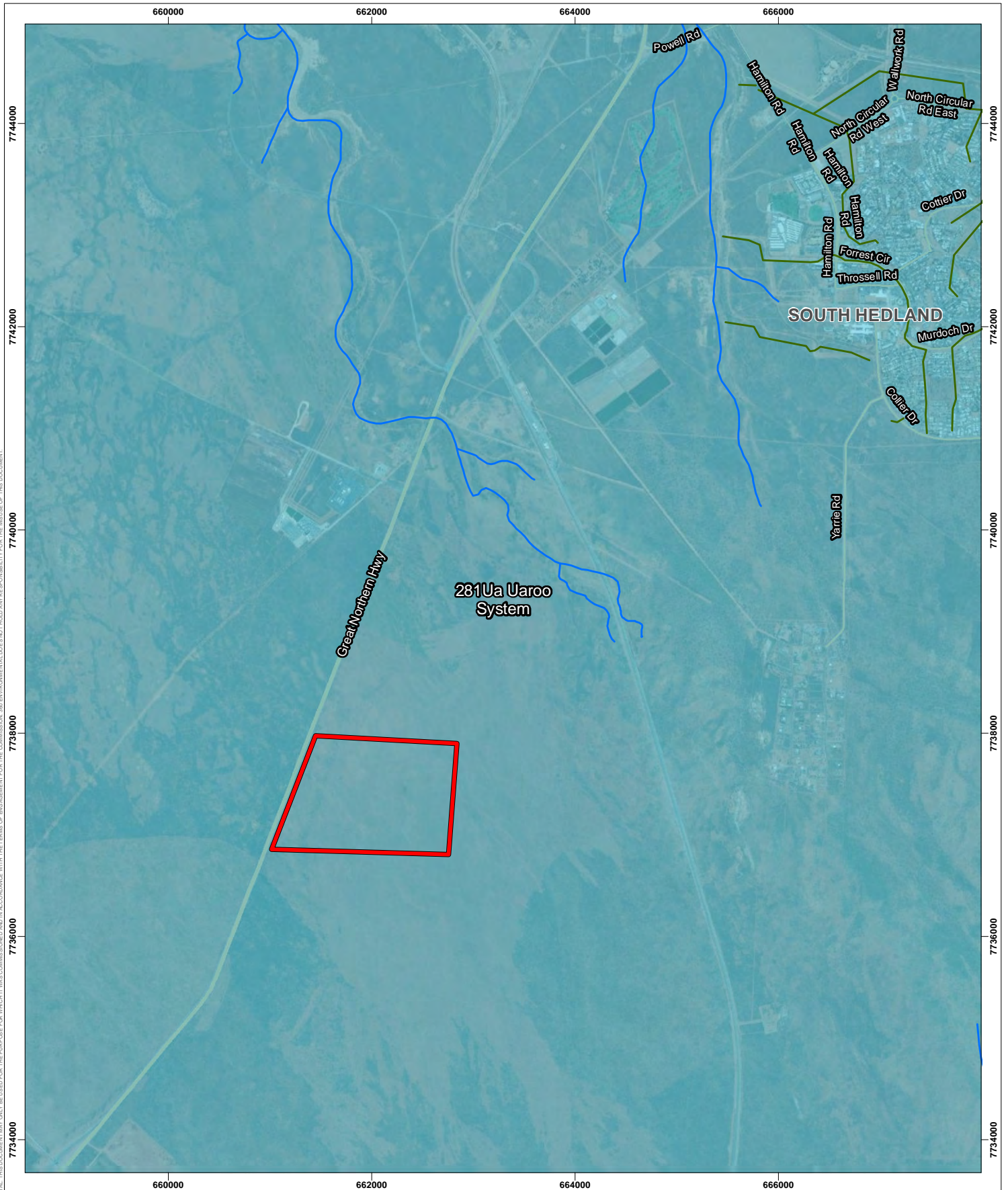
HORIZONTAL DATUM AND PROJECTION  
GDA 1994 MGA Zone 50

CREATED	CHECKED	APPROVED	REVISION
LF	BD	MS	0

Horizon Power  
Karratha and Boodarie  
Karratha Boodarie Biological Surveys

**Figure 3** Karratha  
Soil Land System and Hydrography

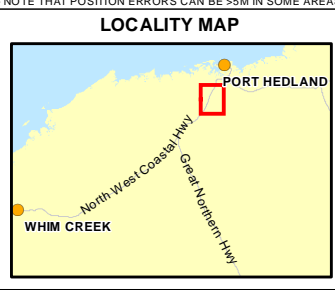
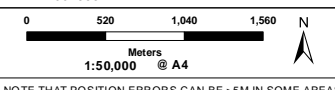
COPYRIGHT: THIS DOCUMENT IS AND SHALL REMAIN THE PROPERTY OF 360 ENVIRONMENTAL. THIS DOCUMENT MAY ONLY BE USED FOR THE PURPOSE FOR WHICH IT WAS COMMISSIONED AND IN ACCORDANCE WITH THE TERMS OF ENGAGEMENT FOR THE COMMISSION. 360 ENVIRONMENTAL DOES NOT HOLD ANY RESPONSIBILITY FOR THE USE OF THIS DOCUMENT.



- Legend**
- Boodarie Survey Area
  - Hydrography**
  - Watercourse - minor
  - Drain - minor
  - Soil Land System**
  - 281Ua: Broad sandy plains, pebbly plains and drainage tracts supporting hard and soft spinifex hummock grasslands with scattered acacia shrubs.

**SLIP ENABLER**

- LOCALITY MAP SOURCED FROM LANDGATE 2020  
 - OTHER DATA SOURCED LANDGATE 2020  
 - AERIAL PHOTOGRAPHY SOURCED LANDGATE 2020  
 © Western Australian Land Information Authority 2020



**360 environmental**  
 a 10 Bermondsey St, West Leederville, 6007 WA  
 t (08) 9388 8360  
 f (08) 9381 2360  
 w www.360environmental.com.au

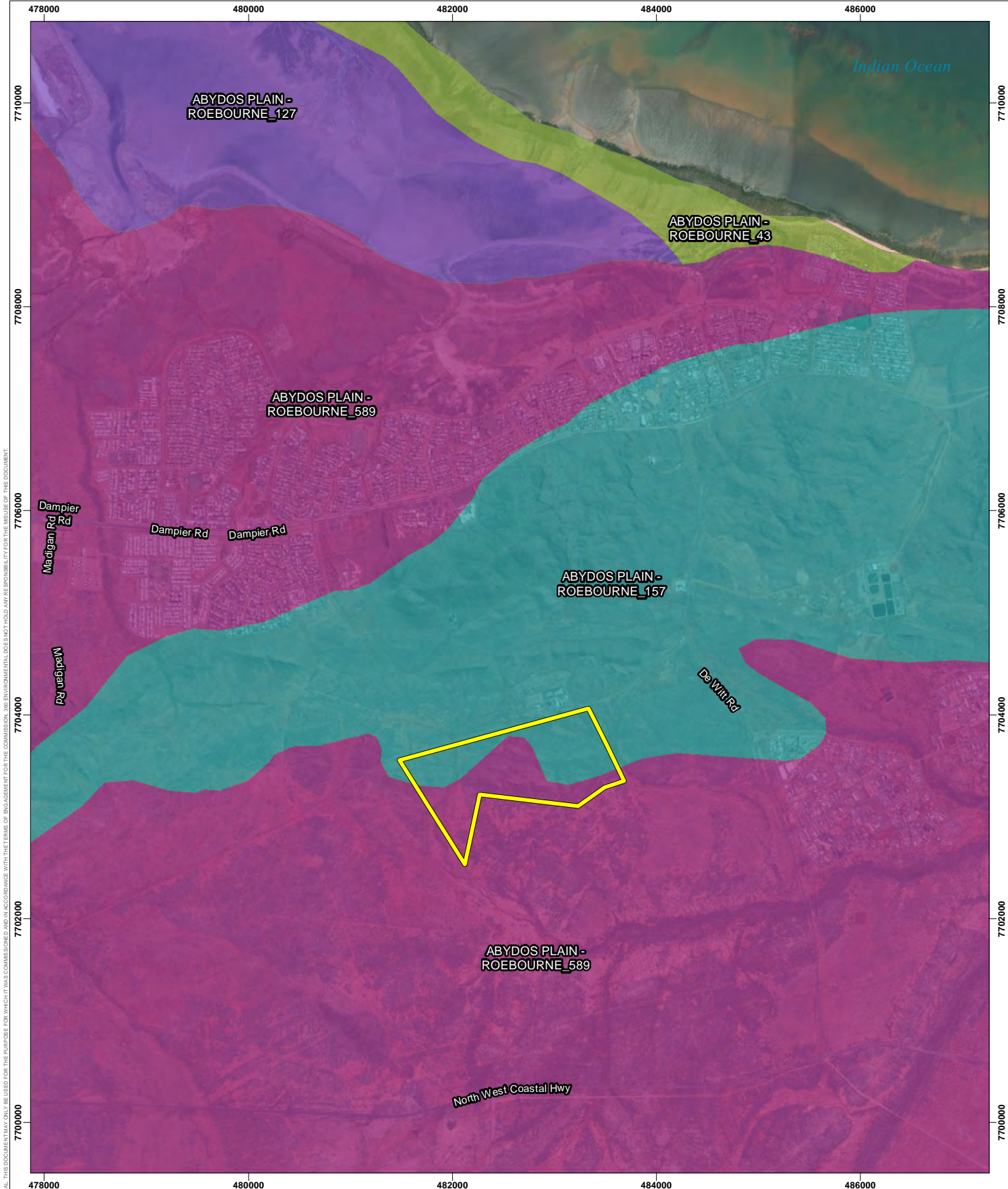
<b>PROJECT ID</b>		<b>DATE</b>	
4647		17/08/2021	
<b>HORIZONTAL DATUM AND PROJECTION</b>			
GDA 1994 MGA Zone 50			
<b>CREATED</b>	<b>CHECKED</b>	<b>APPROVED</b>	<b>REVISION</b>
LF	BD	MS	0

**Horizon Power**  
 Karratha and Boodarie

**Karratha Boodarie Biological Surveys**

**Figure 4 Boodarie Soil Land System and Hydrography**

COPYRIGHT: THIS DOCUMENT IS AND SHALL REMAIN THE PROPERTY OF 360 ENVIRONMENTAL. THIS DOCUMENT MAY ONLY BE USED FOR THE PURPOSE FOR WHICH IT WAS COMMISSIONED AND IN ACCORDANCE WITH THE TERMS OF ENGAGEMENT FOR WHICH IT WAS COMMISSIONED. 360 ENVIRONMENTAL DOES NOT HOLD ANY RESPONSIBILITY FOR THE MISUSE OF THIS DOCUMENT.



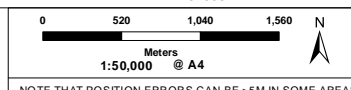
COPYRIGHT: THIS DOCUMENT IS AND SHALL REMAIN THE PROPERTY OF 360 ENVIRONMENTAL. THIS DOCUMENT MAY ONLY BE USED FOR THE PURPOSES FOR WHICH IT WAS COMMISSIONED AND IN ACCORDANCE WITH THE TERMS OF ENGAGEMENT FOR WHICH IT WAS COMMISSIONED. 360 ENVIRONMENTAL DOES NOT HOLD ANY RESPONSIBILITY FOR THE MISUSE OF THIS DOCUMENT.

### Legend

- Karratha Survey Area
- Broad Vegetation Types**
- ABYDOS PLAIN - ROEBOURNE\_127: Tidal mud flat
- ABYDOS PLAIN - ROEBOURNE\_157: Grass-steppe
- ABYDOS PLAIN - ROEBOURNE\_43: Mangroves
- ABYDOS PLAIN - ROEBOURNE\_589: Short bunch-grass savanna / Grass-steppe

Powered by  
**SLIP ENABLER**

- LOCALITY MAP SOURCED FROM LANDGATE 2020  
- OTHER DATA SOURCED LANDGATE 2020  
- AERIAL PHOTOGRAPHY SOURCED LANDGATE 2020  
(© Western Australian Land Information Authority 2020)



- NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS



**360**  
environmental  
a 10 Bermondsey St, West Leederville, 6007 WA  
t (08) 9388 8360  
f (08) 9381 2360  
w www.360environmental.com.au

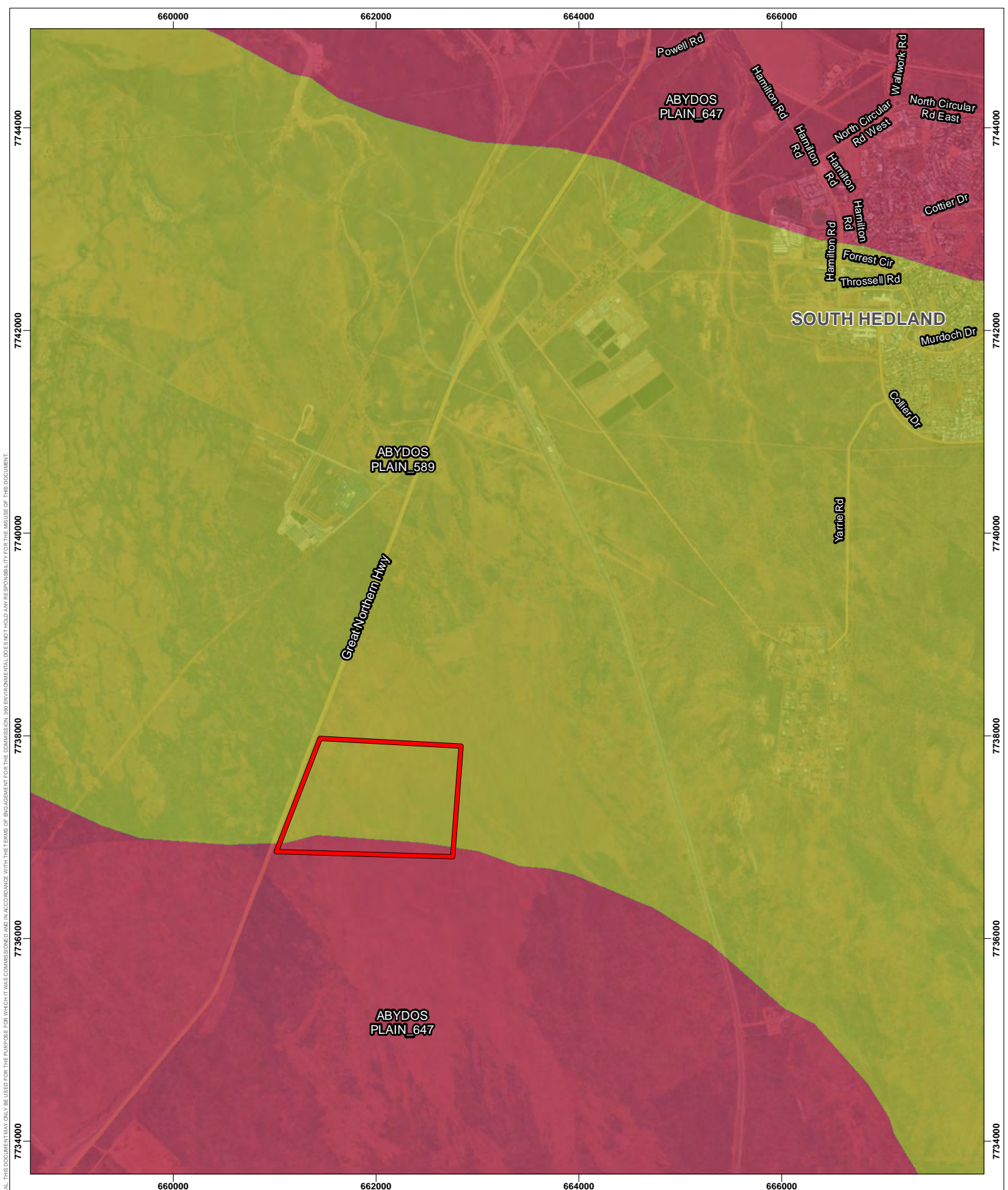
<b>PROJECT ID</b> 4647	<b>DATE</b> 17/08/2021
---------------------------	---------------------------

**HORIZONTAL DATUM AND PROJECTION**  
GDA 1994 MGA Zone 50

CREATED	CHECKED	APPROVED	REVISION
LF	BD	MS	0

**Horizon Power**  
Karratha and Boodarie  
**Karratha Boodarie Biological Surveys**

**Figure 5** Karratha  
Broad Vegetation Types

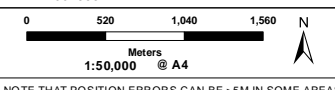


COPYRIGHT: THIS DOCUMENT IS AND SHALL REMAIN THE PROPERTY OF 360 ENVIRONMENTAL. THIS DOCUMENT MAY ONLY BE USED FOR THE PURPOSE FOR WHICH IT WAS COMMISSIONED AND IN ACCORDANCE WITH THE TERMS OF ENGAGEMENT FOR THE COMMISSION. 360 ENVIRONMENTAL DOES NOT HOLD ANY RESPONSIBILITY FOR THE MISUSE OF THIS DOCUMENT.

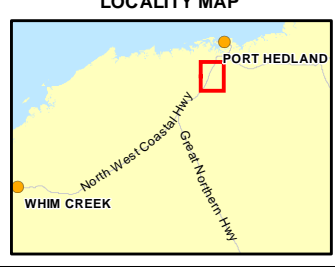
### Legend


- Boodarie Survey Area
- Broad Vegetation Types**
- ABYDOS PLAIN\_589: Short bunch-grass savanna / Grass-steppe
- ABYDOS PLAIN\_647: Shrub-steppe

  
 - LOCALITY MAP SOURCED FROM LANDGATE 2020  
 - OTHER DATA SOURCED LANDGATE 2020  
 - AERIAL PHOTOGRAPHY SOURCED LANDGATE 2020  
 © Western Australian Land Information Authority 2020



- NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS




 a 10 Bernonsey St, West Leederville, 6007 WA  
 t (08) 9388 8360  
 f (08) 9381 2360  
 w www.360environmental.com.au

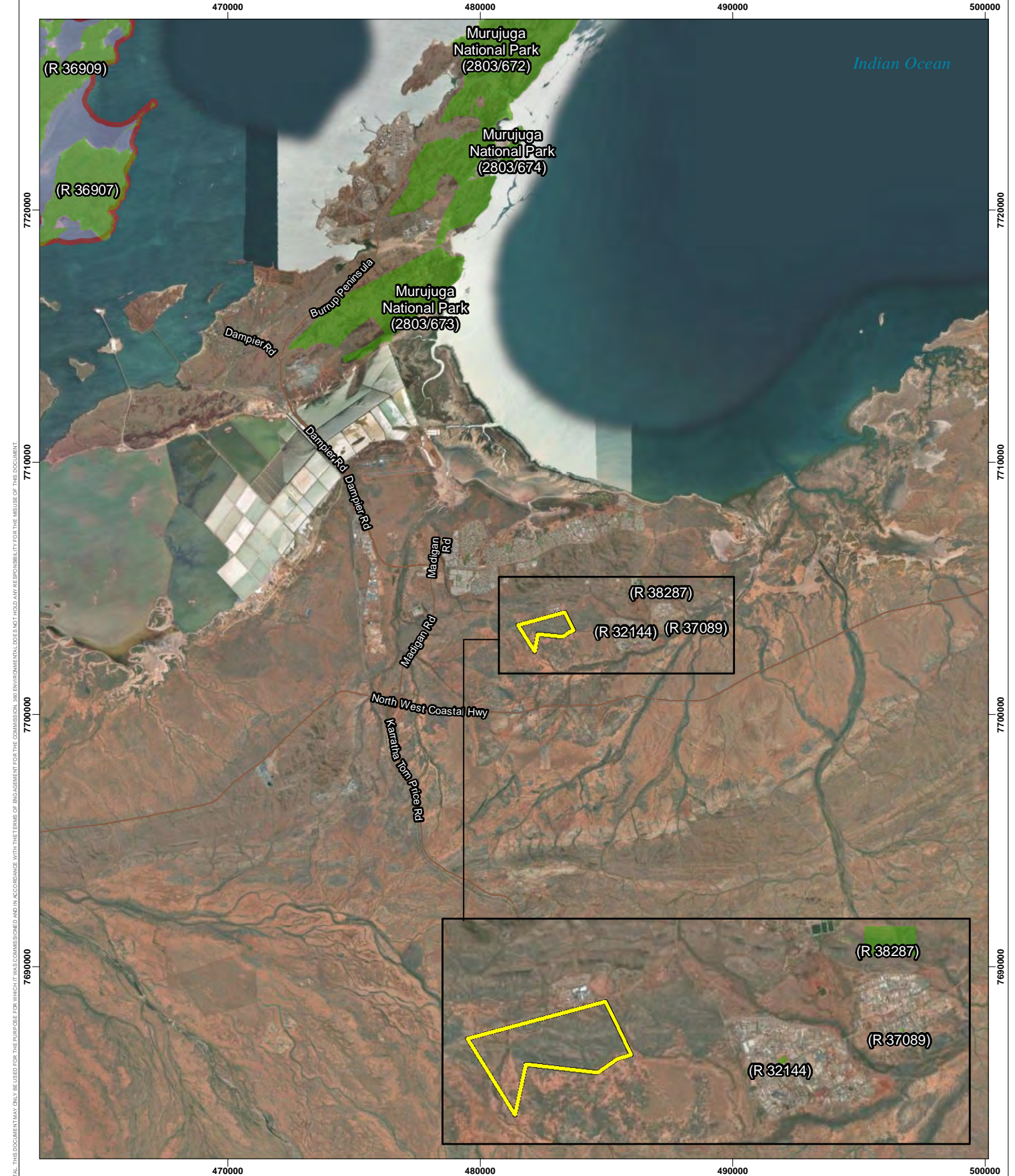
<b>PROJECT ID</b> 4647	<b>DATE</b> 17/08/2021
---------------------------	---------------------------

**HORIZONTAL DATUM AND PROJECTION**  
GDA 1994 MGA Zone 50

CREATED	CHECKED	APPROVED	REVISION
LF	BD	MS	0

**Horizon Power**  
 Karratha and Boodarie  
  
**Karratha Boodarie Biological Surveys**

**Figure 6 Boodarie Broad Vegetation Types**



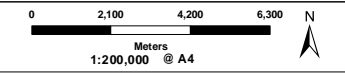
COPYRIGHT: THIS DOCUMENT IS AND SHALL REMAIN THE PROPERTY OF 360 ENVIRONMENTAL. THIS DOCUMENT MAY ONLY BE USED FOR THE PURPOSE FOR WHICH IT WAS COMMISSIONED AND IN ACCORDANCE WITH THE TERMS OF ENGAGEMENT FOR WHICH IT WAS COMMISSIONED. 360 ENVIRONMENTAL DOES NOT HOLD ANY RESPONSIBILITY FOR THE MISUSE OF THIS DOCUMENT.

### Legend

- Karratha Survey Area
- Environmentally Sensitive Areas
- DBCA Managed Land

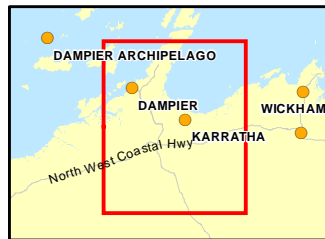
Powered by  
**SLIP ENABLER**

- LOCALITY MAP SOURCED FROM LANDGATE 2020  
 - OTHER DATA SOURCED LANDGATE 2020  
 - AERIAL PHOTOGRAPHY SOURCED LANDGATE 2020  
 © Western Australian Land Information Authority 2020



-NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS-

#### LOCALITY MAP



**360**  
 environmental  
 a 10 Berrondsey St, West Leederville, 6007 WA  
 t (08) 9388 8360  
 f (08) 9381 2360  
 w www.360environmental.com.au

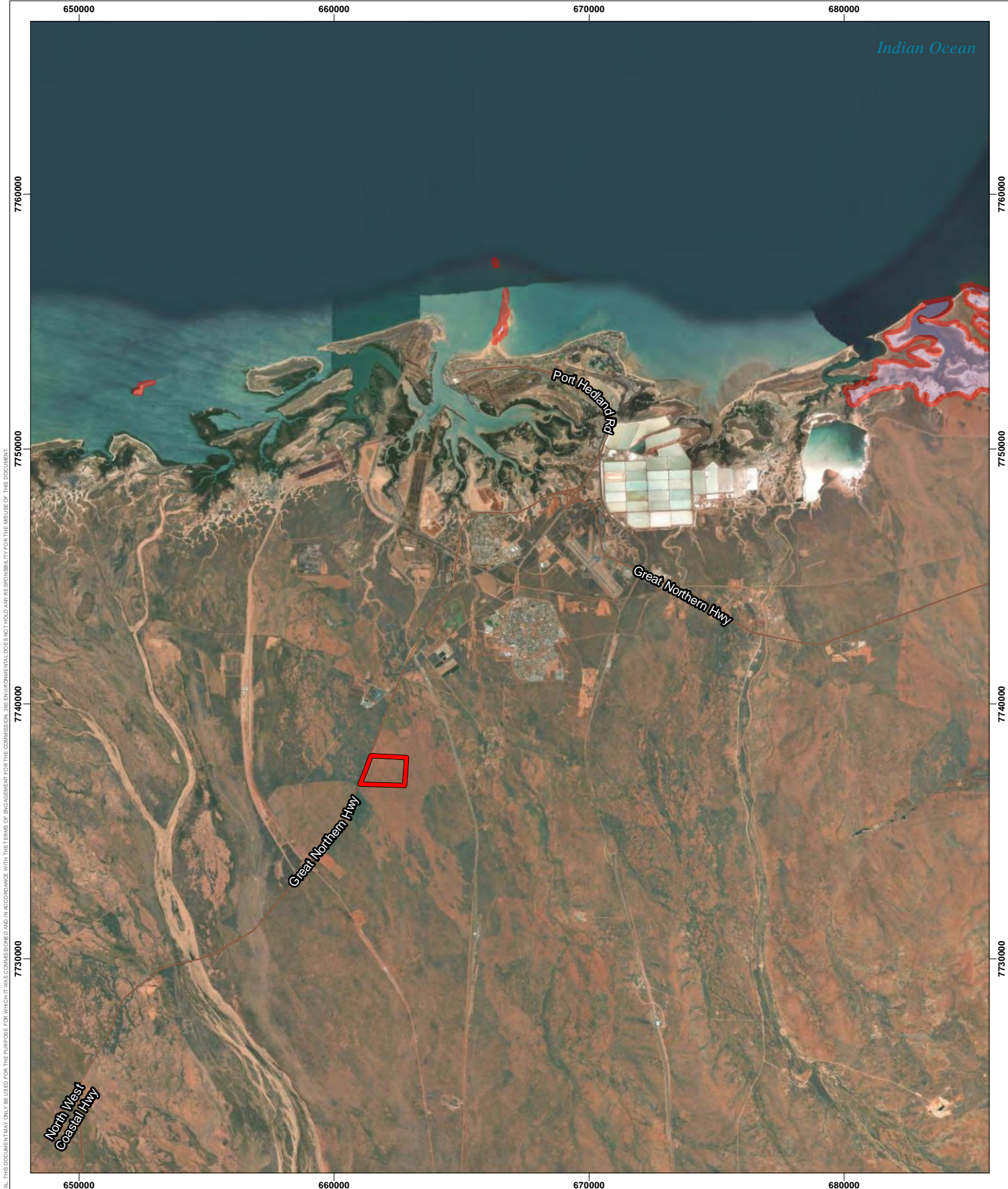
<b>PROJECT ID</b> 4647	<b>DATE</b> 26/10/2021
---------------------------	---------------------------

HORIZONTAL DATUM AND PROJECTION			
GDA 1994 MGA Zone 50			
CREATED	CHECKED	APPROVED	REVISION
LF	BD	MS	0

Horizon Power  
 Karratha and Boodarie  
 Karratha Boodarie Biological Surveys

### Figure 7 Karratha Conservation and Environmentally Sensitive Areas





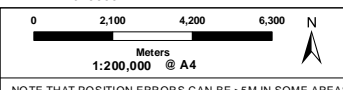
COPYRIGHT: THIS DOCUMENT IS AND SHALL REMAIN THE PROPERTY OF 360 ENVIRONMENTAL. THIS DOCUMENT MAY ONLY BE USED FOR THE PURPOSE FOR WHICH IT WAS COMMISSIONED AND IN ACCORDANCE WITH THE TERMS OF ENGAGEMENT. 360 ENVIRONMENTAL DOES NOT HOLD ANY RESPONSIBILITY FOR THE MISUSE OF THIS DOCUMENT.

**Legend**

- Boodarie Survey Area
- Environmentally Sensitive Areas
- DBCA Managed Land

Presented by  
**SLIP ENABLER**

- LOCALITY MAP SOURCED FROM LANDGATE 2020  
- OTHER DATA SOURCED LANDGATE 2020  
- AERIAL PHOTOGRAPHY SOURCED LANDGATE 2020  
(© Western Australian Land Information Authority 2020)



- NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS



**360**  
environmental  
a 10 Bermondsey St, West Leederville, 6007 WA  
t (08) 9388 8360  
f (08) 9381 2360  
w www.360environmental.com.au

<b>PROJECT ID</b> 4647	<b>DATE</b> 17/08/2021
---------------------------	---------------------------

**HORIZONTAL DATUM AND PROJECTION**  
GDA 1994 MGA Zone 50

CREATED	CHECKED	APPROVED	REVISION
LF	BD	MS	0

**Horizon Power**  
Karratha and Boodarie

**Karratha Boodarie Biological Surveys**

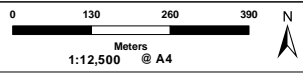
**Figure 8 Boodarie Conservation and Environmentally Sensitive Areas**



**Legend**

- Karratha Survey Area
- GPS Tracks
- ▲ Releve
- ▲ Habitat Assessment

Presented by  
**SLIP ENABLER**  
 - LOCALITY MAP SOURCED FROM LANDGATE 2020  
 - OTHER DATA SOURCED LANDGATE 2020  
 - AERIAL PHOTOGRAPHY SOURCED LANDGATE 2020  
 © Western Australian Land Information Authority 2020



- NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS -

**LOCALITY MAP**



**360** environmental  
 a 10 Bermondsey St, West Leederville, 6007 WA  
 t (08) 9388 8360  
 f (08) 9381 2360  
 w www.360environmental.com.au

<b>PROJECT ID</b> 4647	<b>DATE</b> 20/08/2021
---------------------------	---------------------------

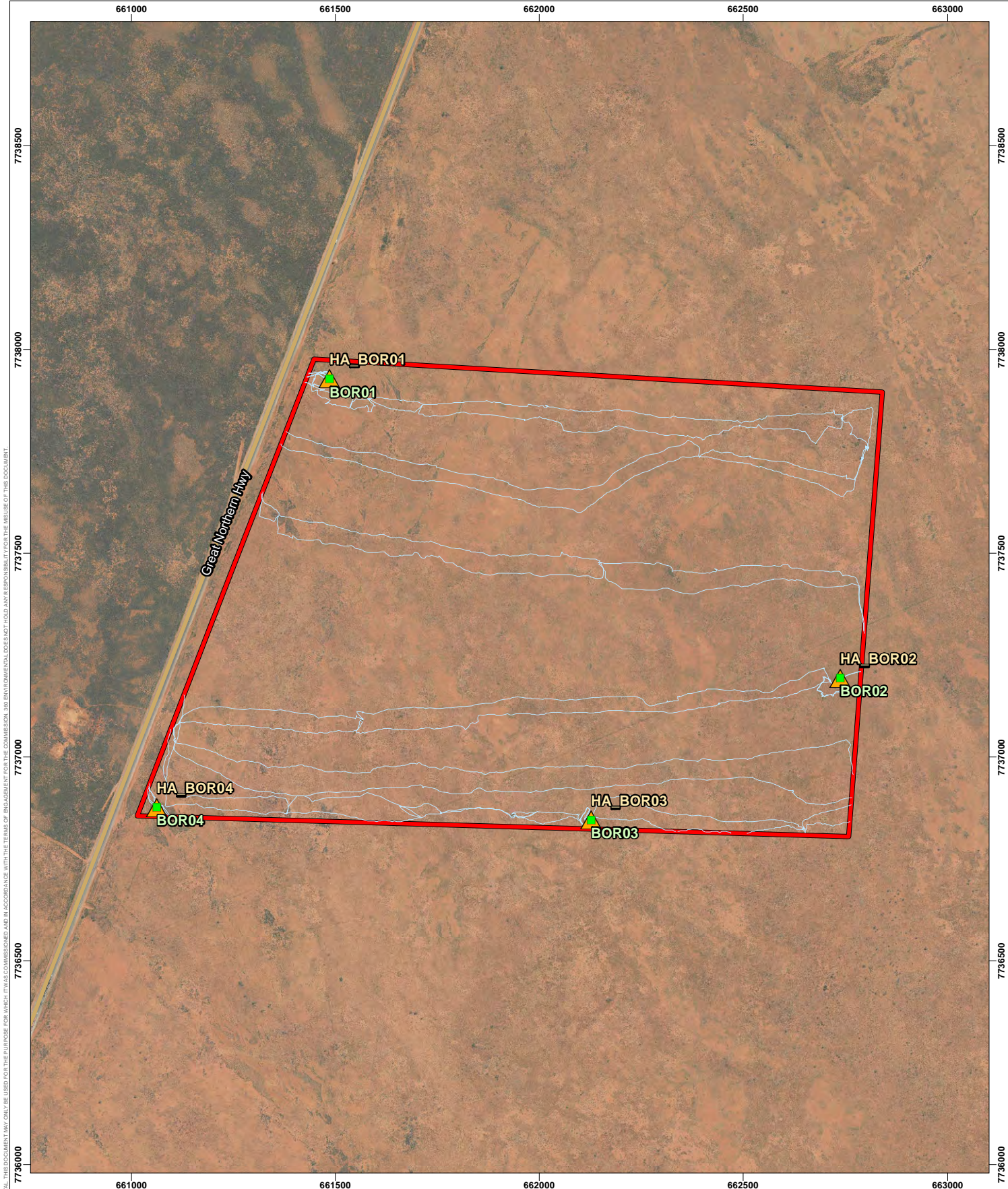
**HORIZONTAL DATUM AND PROJECTION**  
 GDA 1994 MGA Zone 50

CREATED	CHECKED	APPROVED	REVISION
LF	BD	MS	0

**Horizon Power**  
 Karratha and Boodarie  
 Karratha Boodarie Biological Surveys

**Figure 9** Karratha Survey Effort

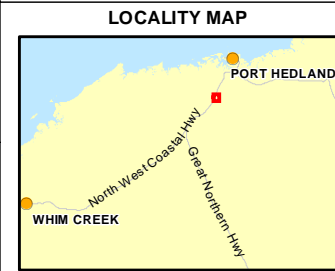
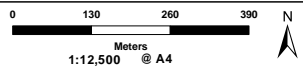
COPYRIGHT: THIS DOCUMENT IS AND SHALL REMAIN THE PROPERTY OF 360 ENVIRONMENTAL. THIS DOCUMENT MAY ONLY BE USED FOR THE PURPOSE FOR WHICH IT WAS COMMISSIONED AND IN ACCORDANCE WITH THE TERMS OF ENGAGEMENT FOR THE COMMISSION. 360 ENVIRONMENTAL DOES NOT HOLD ANY RESPONSIBILITY FOR THE MISUSE OF THIS DOCUMENT.



COPYRIGHT: THIS DOCUMENT IS AND SHALL REMAIN THE PROPERTY OF 360 ENVIRONMENTAL. THIS DOCUMENT MAY ONLY BE USED FOR THE PURPOSE FOR WHICH IT WAS COMMISSIONED AND IN ACCORDANCE WITH THE TERMS OF ENGAGEMENT FOR THE COMMISSION. 360 ENVIRONMENTAL DOES NOT HOLD ANY RESPONSIBILITY FOR THE MISUSE OF THIS DOCUMENT.

### Legend

- Boodarie Survey Area
- GPS Tracks
- Releve
- Habitat Assessment



**360**  
environmental  
a 10 Berrondsey St, West Leederville, 6007 WA  
t (08) 9388 8360  
f (08) 9381 2360  
w www.360environmental.com.au

<b>PROJECT ID</b> 4647	<b>DATE</b> 20/08/2021
---------------------------	---------------------------

**HORIZONTAL DATUM AND PROJECTION**  
GDA 1994 MGA Zone 50

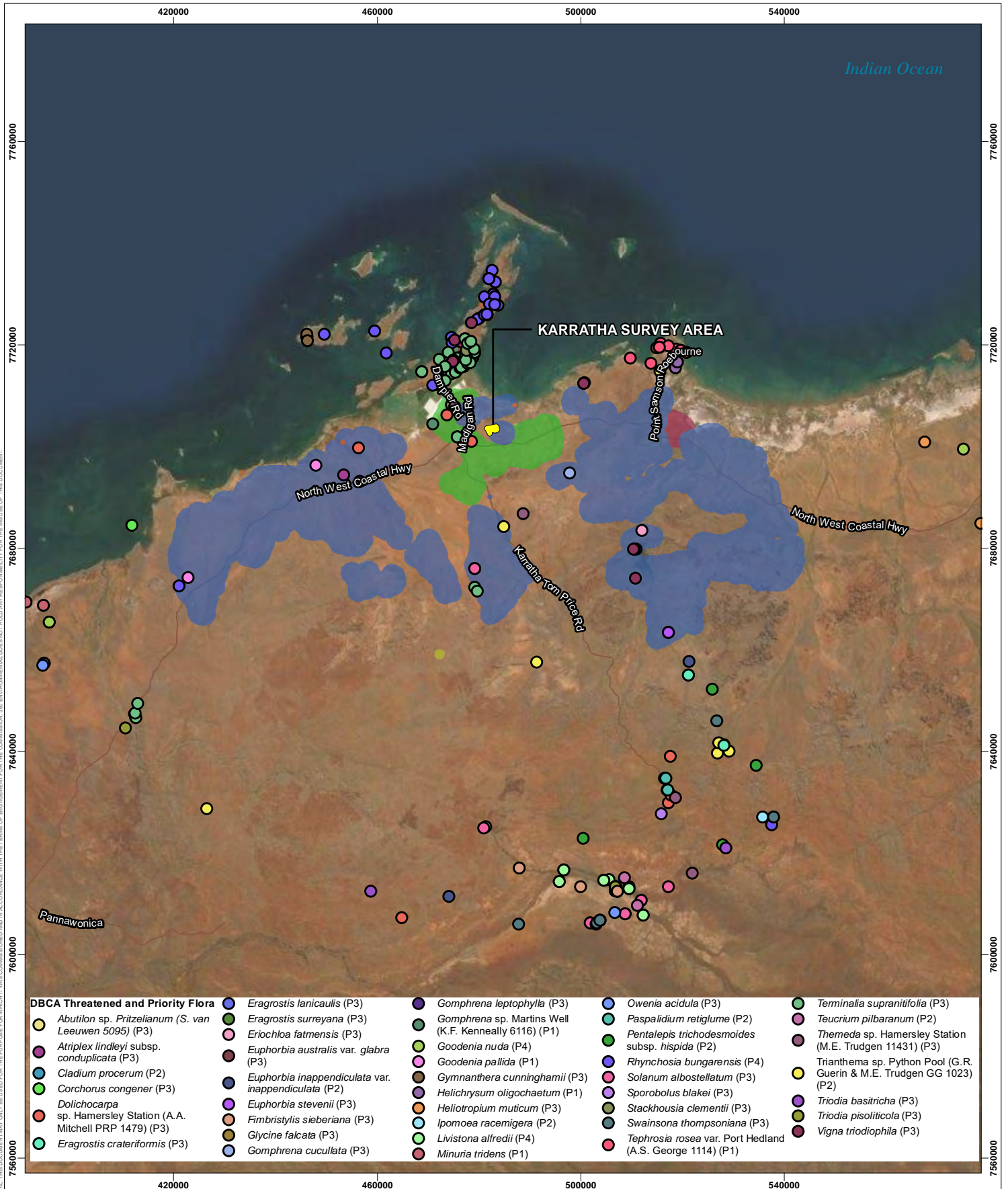
CREATED	CHECKED	APPROVED	REVISION
LF	BD	MS	0

**Horizon Power**  
Karratha and Boodarie

**Karratha Boodarie Biological Surveys**

**Figure 10** Boodarie Survey Effort

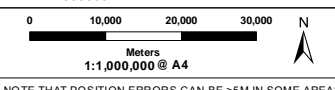
Presented by **SLIP ENABLER**  
- LOCALITY MAP SOURCED FROM LANDGATE 2020  
- OTHER DATA SOURCED LANDGATE 2020  
- AERIAL PHOTOGRAPHY SOURCED LANDGATE 2020  
(© Western Australian Land Information Authority 2020)



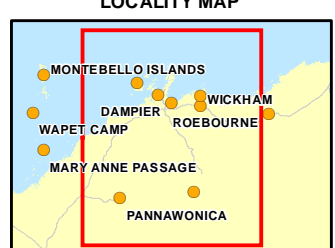
### Legend

- Karratha Survey Area
- DBCA Threatened and Priority Communities**
- Burrup Peninsula rock pile communities (P1)
- Burrup Peninsula rock pool communities (P1)
- Coastal dune tussock grassland dominated by *Whiteochloa airoides* (P3)
- Four plant assemblages of the Wona Land System (previously 'Cracking clays of the Chichester and Mungarooona Range') (P1)
- Horseflat Land System of the Roebourne Plains (P3)
- Roebourne Plains coastal grasslands with gilgai microrelief on deep cracking clays (Roebourne Plains gilgai grasslands) (P1)
- Stony Chenopod association of the Roebourne Plains area (P1)

- |   |   |   |   |
|---|---|---|---|
| <span style="color: blue;">●</span> <i>Eragrostis lanicaulis</i> (P3)   | <span style="color: purple;">●</span> <i>Gomphrena leptophylla</i> (P3)                                 | <span style="color: blue;">●</span> <i>Owenia acidula</i> (P3)  | <span style="color: green;">●</span> <i>Terminalia supranitifolia</i> (P3)  |
| <span style="color: green;">●</span> <i>Abutilon</i> sp. <i>Pritzelianum</i> (S. van Leeuwen 5095) (P3)       | <span style="color: green;">●</span> <i>Eragrostis surreyana</i> (P3)                                   | <span style="color: green;">●</span> <i>Gomphrena</i> sp. Martins Well (K.F. Kenneally 6116) (P1)             | <span style="color: purple;">●</span> <i>Teucrium pilbaranum</i> (P2)   |
| <span style="color: purple;">●</span> <i>Atriplex lindleyi</i> subsp. <i>conduplicata</i> (P3)                | <span style="color: pink;">●</span> <i>Eriochloa fatmensis</i> (P3)                                     | <span style="color: green;">●</span> <i>Goodenia nuda</i> (P4)  | <span style="color: purple;">●</span> <i>Themeda</i> sp. Hamersley Station (M.E. Trudgen 11431) (P3)              |
| <span style="color: blue;">●</span> <i>Cladium procerum</i> (P2)  | <span style="color: purple;">●</span> <i>Euphorbia australis</i> var. <i>glabra</i> (P3)                | <span style="color: pink;">●</span> <i>Goodenia pallida</i> (P1)  | <span style="color: yellow;">●</span> <i>Trianthema</i> sp. Python Pool (G.R. Guerin & M.E. Trudgen GG 1023) (P2) |
| <span style="color: green;">●</span> <i>Corchorus congener</i> (P3)   | <span style="color: purple;">●</span> <i>Euphorbia inappendiculata</i> var. <i>inappendiculata</i> (P2) | <span style="color: purple;">●</span> <i>Gymnanthera cunninghamii</i> (P3)                                    | <span style="color: purple;">●</span> <i>Triodia basitricha</i> (P3)  |
| <span style="color: purple;">●</span> <i>Dolichocarpa</i> sp. Hamersley Station (A.A. Mitchell PRP 1479) (P3) | <span style="color: purple;">●</span> <i>Euphorbia stevenii</i> (P3)                                    | <span style="color: purple;">●</span> <i>Helichrysum oligochaetum</i> (P1)                                    | <span style="color: green;">●</span> <i>Triodia pisoliticola</i> (P3)   |
| <span style="color: green;">●</span> <i>Eragrostis crateriformis</i> (P3)                                     | <span style="color: purple;">●</span> <i>Fimbristylis sieberiana</i> (P3)                               | <span style="color: purple;">●</span> <i>Heliotropium muticum</i> (P3)  | <span style="color: purple;">●</span> <i>Vigna triodiophila</i> (P3)  |
|   | <span style="color: purple;">●</span> <i>Glycine falcata</i> (P3)                                       | <span style="color: purple;">●</span> <i>Ipomoea racemigera</i> (P2)  |   |
|   | <span style="color: blue;">●</span> <i>Gomphrena cucullata</i> (P3)                                     | <span style="color: purple;">●</span> <i>Livistona alfredii</i> (P4)  |   |
|   |   | <span style="color: purple;">●</span> <i>Minuria tridens</i> (P1)   |   |
|   |   | <span style="color: purple;">●</span> <i>Paspalidium retiglume</i> (P2)                                       |   |
|   |   | <span style="color: purple;">●</span> <i>Pentalepis trichodesmoides</i> subsp. <i>hispidula</i> (P2)          |   |
|   |   | <span style="color: purple;">●</span> <i>Rhynchosia bungarensis</i> (P4)                                      |   |
|   |   | <span style="color: purple;">●</span> <i>Solanum albobellatum</i> (P3)  |   |
|   |   | <span style="color: purple;">●</span> <i>Sporobolus blakei</i> (P3)   |   |
|   |   | <span style="color: purple;">●</span> <i>Stackhousia clementii</i> (P3)                                       |   |
|   |   | <span style="color: purple;">●</span> <i>Swainsona thompsoniana</i> (P3)                                      |   |
|   |   | <span style="color: purple;">●</span> <i>Tephrosia rosea</i> var. <i>Port Hedland</i> (A.S. George 1114) (P1) |   |



-NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS-



**360 environmental**  
 a 10 Bermondsey St, West Leederville, 6007 WA  
 t (08) 9388 8360  
 f (08) 9381 2360  
 w www.360environmental.com.au

PROJECT ID 4647	DATE 30/08/2021
--------------------	--------------------

**HORIZONTAL DATUM AND PROJECTION**  
 GDA 1994 MGA Zone 50

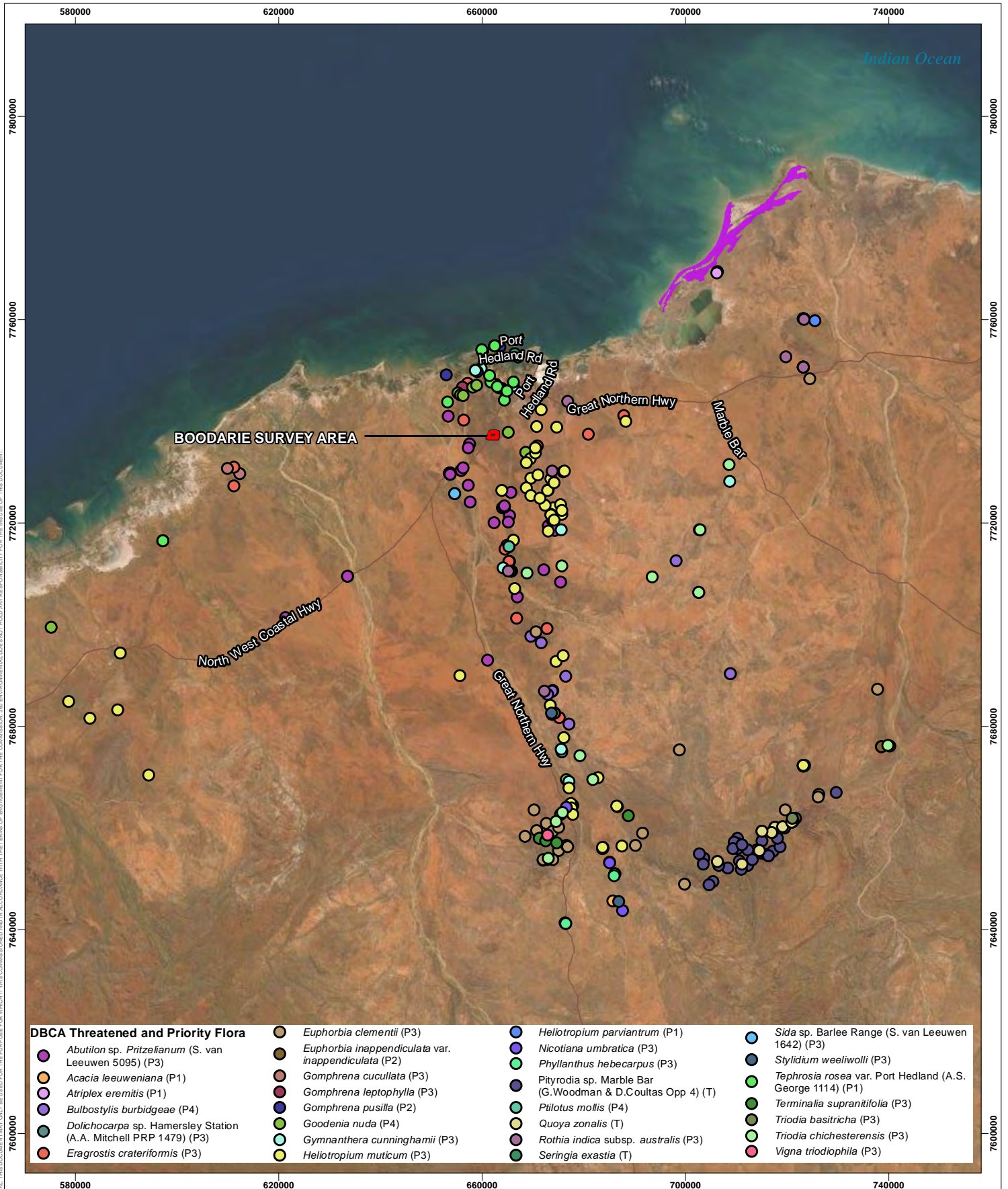
CREATED	CHECKED	APPROVED	REVISION
LF	BD	MS	0

**Horizon Power**  
 Karratha and Boodarie

**Karratha Boodarie Biological Surveys**

**Figure 11** Karratha DBCA Threatened and Priority Flora and Communities

COPYRIGHT: THIS DOCUMENT IS THE PROPERTY OF 360 ENVIRONMENTAL. THIS DOCUMENT MAY ONLY BE USED FOR THE PURPOSE FOR WHICH IT WAS COMMISSIONED AND IN ACCORDANCE WITH THE TERMS OF ENGAGEMENT. 360 ENVIRONMENTAL DOES NOT HOLD ANY RESPONSIBILITY FOR THE MISUSE OF THIS DOCUMENT.

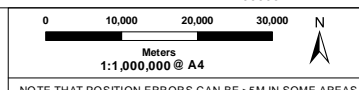


COPYRIGHT: THIS DOCUMENT IS AND SHALL REMAIN THE PROPERTY OF 360 ENVIRONMENTAL. THIS DOCUMENT MAY ONLY BE USED FOR THE PURPOSES FOR WHICH IT WAS COMMISSIONED AND IN ACCORDANCE WITH THE TERMS OF ENGAGEMENT. 360 ENVIRONMENTAL DOES NOT HOLD ANY RESPONSIBILITY FOR THE MISUSE OF THIS DOCUMENT.

DBCA Threatened and Priority Flora			
	<i>Abutilon</i> sp. <i>Pritzelianum</i> (S. van Leeuwen 5095) (P3)		<i>Heliotropium parviantrum</i> (P1)
	<i>Acacia leeuweniana</i> (P1)		<i>Nicotiana umbratica</i> (P3)
	<i>Atriplex eremitis</i> (P1)		<i>Phyllanthus hebecarpus</i> (P3)
	<i>Bulbostylis burbridgeae</i> (P4)		<i>Pityrodia</i> sp. Marble Bar (G. Woodman & D. Coultas Opp 4) (T)
	<i>Dolichocarpa</i> sp. Hamersley Station (A.A. Mitchell PRP 1479) (P3)		<i>Ptilotus mollis</i> (P4)
	<i>Eragrostis crateriformis</i> (P3)		<i>Quoya zonalis</i> (T)
	<i>Euphorbia clementii</i> (P3)		<i>Rothia indica</i> subsp. <i>australis</i> (P3)
	<i>Euphorbia inappendiculata</i> var. <i>inappendiculata</i> (P2)		<i>Sida</i> sp. Barlee Range (S. van Leeuwen 1642) (P3)
	<i>Gomphrena cucullata</i> (P3)		<i>Stylidium weeliwoolli</i> (P3)
	<i>Gomphrena leptophylla</i> (P3)		<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114) (P1)
	<i>Gomphrena pusilla</i> (P2)		<i>Terminalia supranitifolia</i> (P3)
	<i>Goodenia nuda</i> (P4)		<i>Triodia basitricha</i> (P3)
	<i>Gymnanthera cunninghamii</i> (P3)		<i>Triodia chichesterensis</i> (P3)
	<i>Heliotropium muticum</i> (P3)		<i>Vigna triodiophila</i> (P3)

### Legend

- Boodarie Survey Area
- DBCA Threatened and Priority Communities**
- Eighty Mile Land System (P3)



NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS



**360 environmental**  
 a 10 Bermondsley St., West Leederville, 6007 WA  
 t (08) 9388 8360  
 f (08) 9381 2360  
 w www.360environmental.com.au

PROJECT ID 4647	DATE 30/08/2021
--------------------	--------------------

HORIZONTAL DATUM AND PROJECTION  
GDA 1994 MGA Zone 50

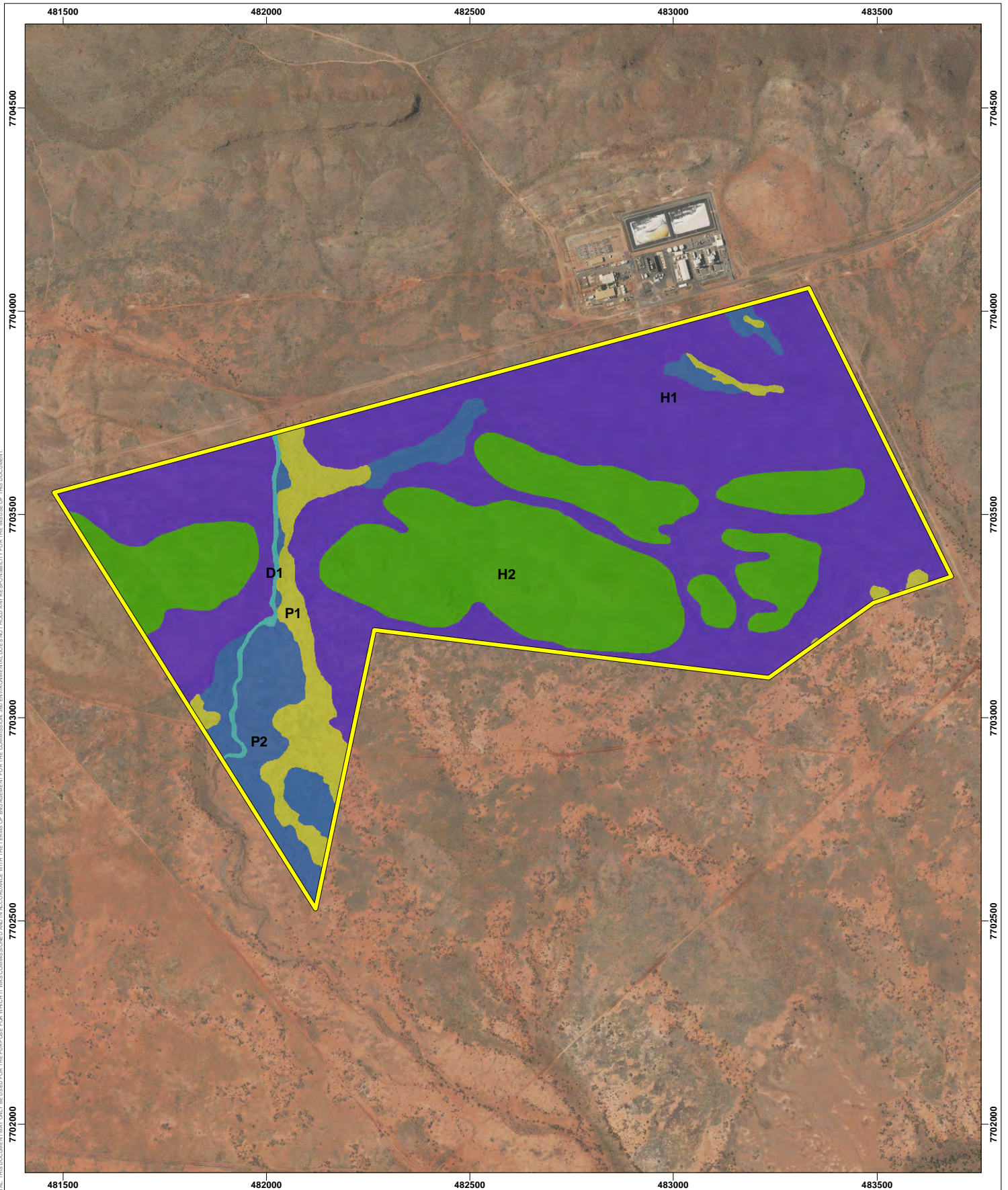
CREATED	CHECKED	APPROVED	REVISION
LF	BD	MS	0

Horizon Power  
Karratha and Boodarie

Karratha Boodarie Biological Surveys

**Figure 12** Boodarie DBCA Threatened and Priority Flora and Communities

SLIP ENABLER  
 - LOCALITY MAP SOURCED FROM LANDGATE 2020  
 - OTHER DATA SOURCED LANDGATE 2020  
 - AERIAL PHOTOGRAPHY SOURCED LANDGATE 2020  
 © Western Australian Land Information Authority 2020



COPYRIGHT: THIS DOCUMENT IS AND SHALL REMAIN THE PROPERTY OF 360 ENVIRONMENTAL. THIS DOCUMENT MAY ONLY BE USED FOR THE PURPOSE FOR WHICH IT WAS COMMISSIONED AND IN ACCORDANCE WITH THE TERMS OF ENGAGEMENT. 360 ENVIRONMENTAL DOES NOT HOLD ANY RESPONSIBILITY FOR THE MISUSE OF THIS DOCUMENT.

### Legend

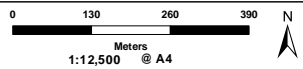
Karratha Survey Area

#### Vegetation Types

- D1
- H1
- H2
- P1
- P2

Powered by **SLIP ENABLER**

- LOCALITY MAP SOURCED FROM LANDGATE 2020  
 - OTHER DATA SOURCED LANDGATE 2020  
 - AERIAL PHOTOGRAPHY SOURCED LANDGATE 2020  
 © Western Australian Land Information Authority 2020



- NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS

#### LOCALITY MAP



**360**  
 environmental  
 a 10 Bermondsdy St, West Leederville, 6007 WA  
 t (08) 9388 8360  
 f (08) 9381 2360  
 w www.360environmental.com.au

PROJECT ID: 4647      DATE: 26/10/2021

HORIZONTAL DATUM AND PROJECTION: GDA 1994 MGA Zone 50

CREATED	CHECKED	APPROVED	REVISION
LF	BD	MS	0

Horizon Power  
 Karratha and Boodarie  
 Karratha Boodarie Biological Surveys

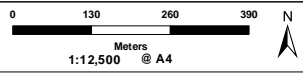
**Figure 13** Karratha Vegetation Types



COPYRIGHT: THIS DOCUMENT IS AND SHALL REMAIN THE PROPERTY OF 360 ENVIRONMENTAL. THIS DOCUMENT MAY ONLY BE USED FOR THE PURPOSE FOR WHICH IT WAS COMMISSIONED AND IN ACCORDANCE WITH THE TERMS OF ENGAGEMENT FOR THE COMMISSION. 360 ENVIRONMENTAL DOES NOT HOLD ANY RESPONSIBILITY FOR THE MISUSE OF THIS DOCUMENT.

### Legend

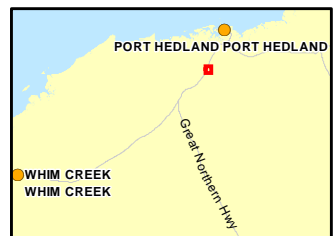
- Boodarie Survey Area
- Vegetation Types**
- P1



**360**  
 environmental  
 a 10 Bernonsey St, West Leederville, 6007 WA  
 t (08) 9388 8360  
 f (08) 9381 2360  
 w www.360environmental.com.au

- NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS

#### LOCALITY MAP



<b>PROJECT ID</b> 4647	<b>DATE</b> 26/10/2021
---------------------------	---------------------------

**HORIZONTAL DATUM AND PROJECTION**  
GDA 1994 MGA Zone 50

CREATED	CHECKED	APPROVED	REVISION
LF	BD	MS	0

Horizon Power  
 Karratha and Boodarie  
 Karratha Boodarie Biological Surveys

**Figure 14** Boodarie Vegetation Types

Presented by **SLIP ENABLER**

- LOCALITY MAP SOURCED FROM LANDGATE 2020  
 - OTHER DATA SOURCED LANDGATE 2020  
 - AERIAL PHOTOGRAPHY SOURCED LANDGATE 2020  
 © Western Australian Land Information Authority 2020



COPYRIGHT: THIS DOCUMENT IS AND SHALL REMAIN THE PROPERTY OF 360 ENVIRONMENTAL. THIS DOCUMENT MAY ONLY BE USED FOR THE PURPOSE FOR WHICH IT WAS COMMISSIONED AND IN ACCORDANCE WITH THE TERMS OF ENGAGEMENT FOR WHICH IT WAS COMMISSIONED. 360 ENVIRONMENTAL DOES NOT HOLD ANY RESPONSIBILITY FOR THE MISUSE OF THIS DOCUMENT.

### Legend

Karratha Survey Area

#### Introduced Flora

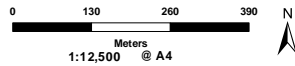
- \**Aerva javanica*
- \**Cenchrus ciliaris*
- \**Cenchrus setiger*
- \**Malvastrum americanum*
- \**Passiflora foetida var. hispida*
- \**Portulaca pilosa*

#### Vegetation Condition

- Very Good
- Good
- Poor

Powered by **SLIP ENABLER**

- LOCALITY MAP SOURCED FROM LANDGATE 2020
- OTHER DATA SOURCED LANDGATE 2020
- AERIAL PHOTOGRAPHY SOURCED LANDGATE 2020
- (© Western Australian Land Information Authority 2020)



- NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS

#### LOCALITY MAP



**360**  
environmental  
a 10 Bermondsley St, West Leederville, 6007 WA  
t (08) 9388 8360  
f (08) 9381 2360  
w www.360environmental.com.au

PROJECT ID: 4647  
DATE: 26/10/2021

HORIZONTAL DATUM AND PROJECTION: GDA 1994 MGA Zone 50

CREATED	CHECKED	APPROVED	REVISION
LF	BD	MS	0

Horizon Power  
Karratha and Boodarie  
Karratha Boodarie Biological Surveys

**Figure 15** Karratha Vegetation Condition





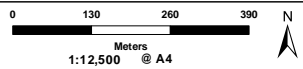
COPYRIGHT: THIS DOCUMENT IS AND SHALL REMAIN THE PROPERTY OF 360 ENVIRONMENTAL. THIS DOCUMENT MAY ONLY BE USED FOR THE PURPOSE FOR WHICH IT WAS COMMISSIONED AND IN ACCORDANCE WITH THE TERMS OF ENGAGEMENT. 360 ENVIRONMENTAL DOES NOT HOLD ANY RESPONSIBILITY FOR THE MISUSE OF THIS DOCUMENT.

### Legend

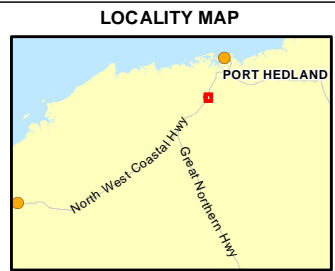
- Boodarie Survey Area
- Vegetation Condition**
- Excellent
- Very Good
- Introduced Flora**
- \**Cenchrus ciliaris*
- \**Cenchrus setiger*

Presented by  
**SLIP ENABLER**

- LOCALITY MAP SOURCED FROM LANDGATE 2020  
- OTHER DATA SOURCED LANDGATE 2020  
- AERIAL PHOTOGRAPHY SOURCED LANDGATE 2020  
© Western Australian Land Information Authority 2020



- NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS



**360**  
environmental  
a 10 Bermondsey St, West Leederville, 6007 WA  
t (08) 9388 8360  
f (08) 9381 2360  
w www.360environmental.com.au

<b>PROJECT ID</b> 4647	<b>DATE</b> 26/10/2021
---------------------------	---------------------------

**HORIZONTAL DATUM AND PROJECTION**  
GDA 1994 MGA Zone 50

<b>CREATED</b> LF	<b>CHECKED</b> BD	<b>APPROVED</b> MS	<b>REVISION</b> 0
----------------------	----------------------	-----------------------	----------------------

**Horizon Power**  
Karratha and Boodarie

**Karratha Boodarie Biological Surveys**

**Figure 16 Boodarie  
Vegetation Condition**

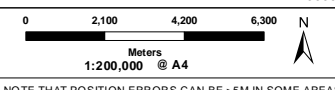


**DBCAs Threatened and Priority Fauna Locations**

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| ● Airie Island Ctenotus, Northwestern coastal Ctenotus (P3) | ● Crested tern (MI)                     | ● Common greenshank, greenshank (MI)      | ● Grey-tailed tattler (P4)                | ● Northern short-tailed mouse, Lakeland Downs mouse, kerakenga (P4) | ● Sanderling (MI)                                 |
| ● Bar-tailed godwit (MI)                                    | ● Curlew Sandpiper (CR)                 | ● Gull-billed tern (MI)                   | ● Lesser Sand Plover (EN)                 | ● Oriental Plover (MI)  | ● Sharp-tailed sandpiper (MI)                     |
| ● Barn swallow (MI)   | ● Eastern curlew (CR)                   | ● Lesser frigatebird (MI)                 | ● Lined soil-crevice skink (Dampier) (P4) | ● Oriental pratincole (MI)  | ● Terek sandpiper (MI)                            |
| ● Black-tailed godwit (MI)                                  | ● Fork-tailed Swift, Pacific Swift (MI) | ● Little curlew, little whimbrel (MI)     | ● Little tern (MI)                        | ● Osprey, eastern osprey (MI)                                       | ● Western pebble-mound mouse, ngadji (P4)         |
| ● Broad-billed sandpiper (MI)                               | ● Fork-tailed swift (MI)                | ● Long-toed Stint (MI)                    | ● Long-toed Stint (MI)                    | ● Pacific golden plover (MI)  | ● Whimbrel (MI)                                   |
| ● Caspian Tern (MI)   | ● Glossy ibis (MI)                      | ● Marsh sandpiper, little greenshank (MI) | ● Marsh sandpiper, little greenshank (MI) | ● Peregrine falcon (OS)   | ● White-winged black tern, white-winged tern (MI) |
| ● Common Sandpiper (MI)                                     | ● Great knot (CR)                       | ● Northern quoll (EN)                     | ● Northern quoll (EN)                     | ● Pilbara olive python (VU)   | ● Wilson's storm-petrel (MI)                      |
|   | ● Grey plover (MI)                      |   |   | ● Red knot (EN)   | ● Wood sandpiper (MI)                             |
|   |   |   |   | ● Red-necked stint (MI)   |   |
|   |   |   |   | ● Ruddy turnstone (MI)  |   |

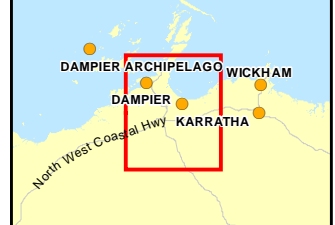
**Legend**

- Karratha Survey Area



NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS

**LOCALITY MAP**



**360 environmental**  
 a 10 Bernondesty St, West Leederville, 6007 WA  
 t (08) 9388 8360  
 f (08) 9381 2360  
 w www.360environmental.com.au

<b>PROJECT ID</b> 4647	<b>DATE</b> 30/08/2021
---------------------------	---------------------------

**HORIZONTAL DATUM AND PROJECTION**  
GDA 1994 MGA Zone 50

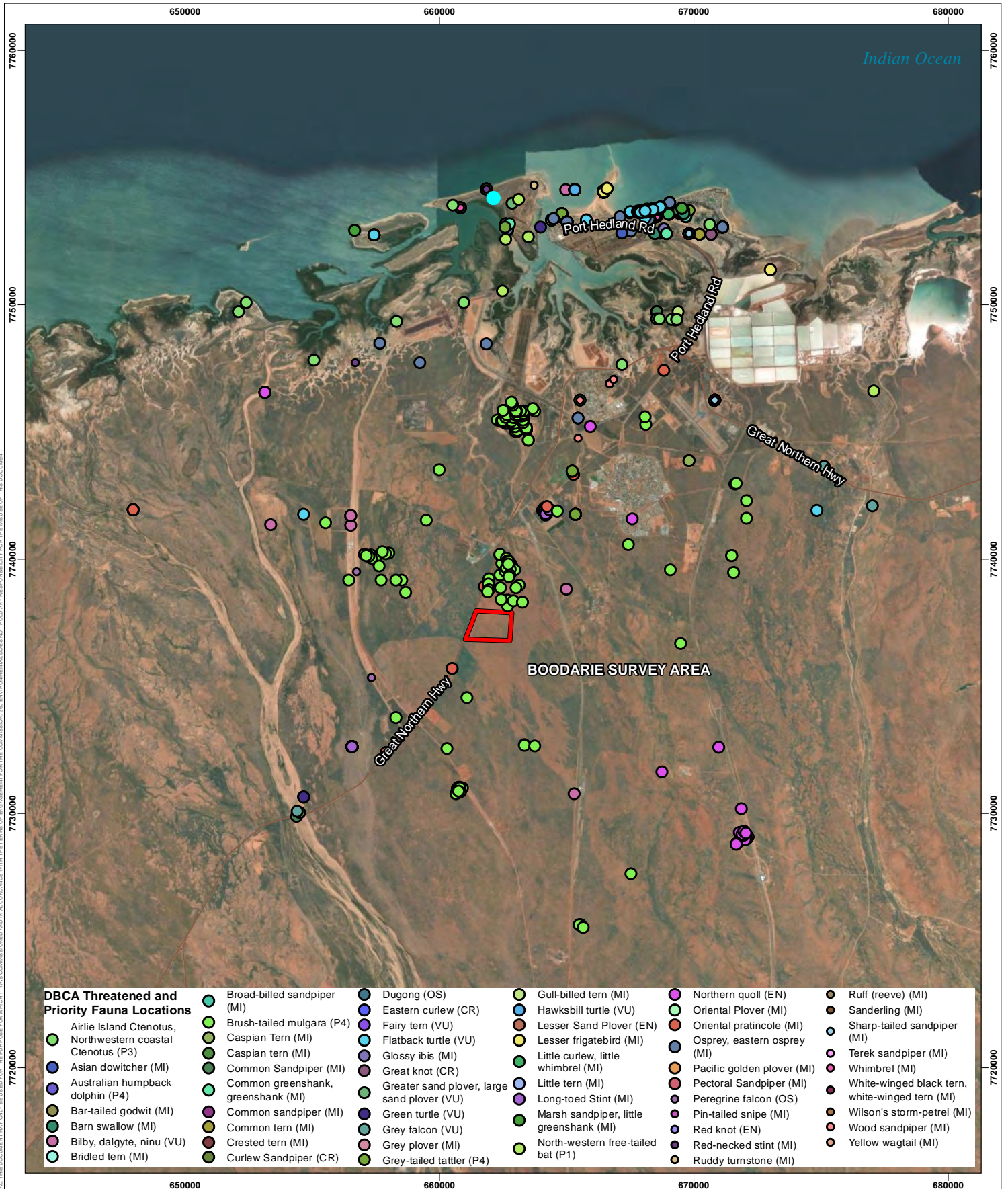
CREATED	CHECKED	APPROVED	REVISION
LF	BD	MS	0

**Horizon Power**  
Karratha and Boodarie

**Karratha Boodarie Biological Surveys**

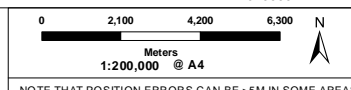
**Figure 17** Karratha DBCA Threatened and Priority Fauna Locations

COPYRIGHT: THIS DOCUMENT IS AND SHALL REMAIN THE PROPERTY OF 360 ENVIRONMENTAL. THIS DOCUMENT MAY BE USED FOR THE PURPOSES FOR WHICH IT WAS COMMISSIONED AND IN ACCORDANCE WITH THE TERMS OF ENGAGEMENT FOR THE COMMISSION. 360 ENVIRONMENTAL DOES NOT HOLD ANY RESPONSIBILITY FOR THE MISUSE OF THIS DOCUMENT.

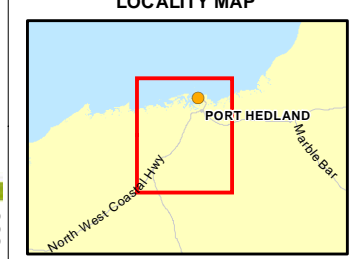


DBCA Threatened and Priority Fauna Locations	
Airlie Island Ctenodus, Northwestern coastal Ctenodus (P3)	Broad-billed sandpiper (MI)
Asian dowitcher (MI)	Brush-tailed mulgara (P4)
Australian humpback dolphin (P4)	Caspian Tern (MI)
Bar-tailed godwit (MI)	Caspian tern (MI)
Barn swallow (MI)	Common Sandpiper (MI)
Bibby, dalgtye, ninu (VU)	Common greenshank, greenshank (MI)
Bridled tern (MI)	Common tern (MI)
Gull-billed tern (MI)	Crested tern (MI)
Hawksbill turtle (VU)	Curlew Sandpiper (CR)
Lesser Sand Plover (EN)	Dugong (OS)
Lesser frigatebird (MI)	Eastern curlew (CR)
Little curlew, little whimbrel (MI)	Fairy tern (VU)
Little tern (MI)	Flatback turtle (VU)
Long-toed Stint (MI)	Glossy ibis (MI)
Marsh sandpiper, little greenshank (MI)	Great knot (CR)
North-western free-tailed bat (P1)	Greater sand plover, large sand plover (VU)
Northern quoll (EN)	Green turtle (VU)
Oriental Plover (MI)	Grey falcon (VU)
Oriental pratincole (MI)	Grey plover (MI)
Osprey, eastern osprey (MI)	Grey-tailed tattler (P4)
Pacific golden plover (MI)	Gull-billed tern (MI)
Pectoral Sandpiper (MI)	Hawk-billed turtle (VU)
Peregrine falcon (OS)	Lesser Sand Plover (EN)
Pin-tailed snipe (MI)	Lesser frigatebird (MI)
Red knot (EN)	Little curlew, little whimbrel (MI)
Red-necked stint (MI)	Little tern (MI)
Ruddy turnstone (MI)	Long-toed Stint (MI)
Ruff (reeve) (MI)	Marsh sandpiper, little greenshank (MI)
Sanderling (MI)	North-western free-tailed bat (P1)
Sharp-tailed sandpiper (MI)	Northern quoll (EN)
Terek sandpiper (MI)	Oriental Plover (MI)
Whimbrel (MI)	Oriental pratincole (MI)
White-winged black tern, white-winged tern (MI)	Osprey, eastern osprey (MI)
Wilson's storm-petrel (MI)	Pacific golden plover (MI)
Wood sandpiper (MI)	Pectoral Sandpiper (MI)
Yellow wagtail (MI)	Peregrine falcon (OS)

**Legend**  
 Boodarie Survey Area



-NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS-



**360 environmental**  
 a 10 Bernondesty St, West Leederville, 6007 WA  
 t (08) 9388 8360  
 f (08) 9381 2360  
 w www.360environmental.com.au

PROJECT ID: 4647  
 DATE: 30/08/2021

HORIZONTAL DATUM AND PROJECTION  
 GDA 1994 MGA Zone 50

CREATED	CHECKED	APPROVED	REVISION
LF	BD	MS	0

Horizon Power  
 Karratha and Boodarie

Karratha Boodarie Biological Surveys

**Figure 18** Boodarie DBCA Threatened and Priority Fauna Locations

COPYRIGHT: THIS DOCUMENT IS AND SHALL REMAIN THE PROPERTY OF 360 ENVIRONMENTAL. THIS DOCUMENT MAY ONLY BE USED FOR THE PURPOSE FOR WHICH IT WAS COMMISSIONED AND IN ACCORDANCE WITH THE TERMS OF ENGAGEMENT FOR THE COMMISSION. 360 ENVIRONMENTAL DOES NOT HOLD ANY RESPONSIBILITY FOR THE MISUSE OF THIS DOCUMENT.

Presented by **SLIP ENABLER**  
 -LOCALITY MAP SOURCED FROM LANDGATE 2020  
 -OTHER DATA SOURCED LANDGATE 2020  
 -AERIAL PHOTOGRAPHY SOURCED LANDGATE 2020  
 © Western Australian Land Information Authority 2020



**Legend**

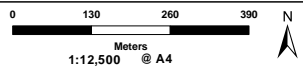
Karratha Survey Area

**Fauna Habitat**

- Minor Drainage
- Rocky Hills
- Stony Plains

Powered by **SLIP ENABLER**

- LOCALITY MAP SOURCED FROM LANDGATE 2020  
 - OTHER DATA SOURCED LANDGATE 2020  
 - AERIAL PHOTOGRAPHY SOURCED LANDGATE 2020  
 © Western Australian Land Information Authority 2020



- NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS

**LOCALITY MAP**



**360** environmental  
 a 10 Bermondsey St, West Leederville, 6007 WA  
 t (08) 9388 8360  
 f (08) 9381 2360  
 w www.360environmental.com.au

**PROJECT ID** 4647      **DATE** 20/08/2021

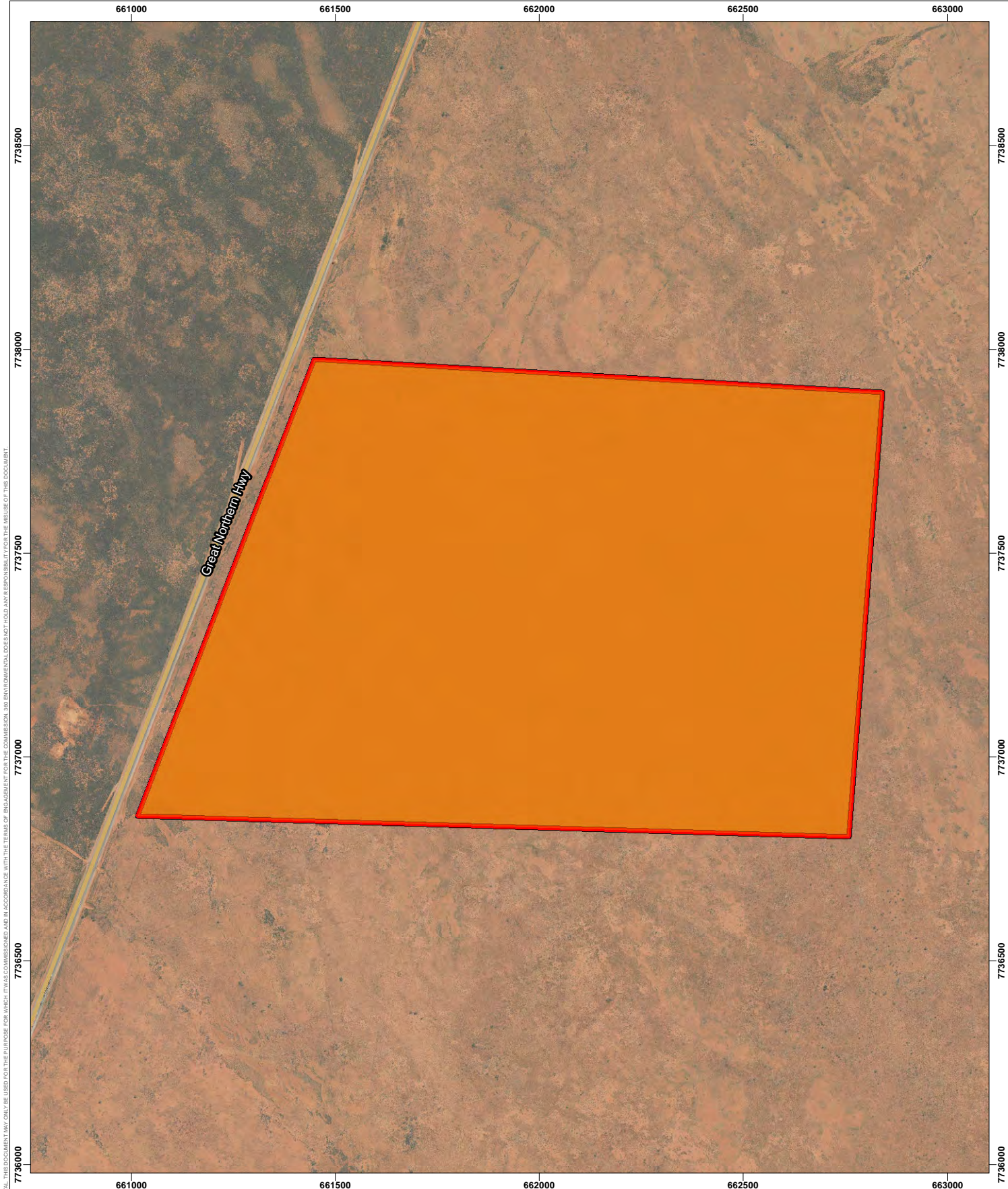
**HORIZONTAL DATUM AND PROJECTION**  
 GDA 1994 MGA Zone 50

CREATED	CHECKED	APPROVED	REVISION
LF	BD	MS	0

**Horizon Power**  
 Karratha and Boodarie  
 Karratha Boodarie Biological Surveys

**Figure 19** Karratha  
 Fauna Habitat

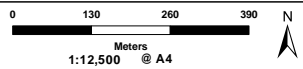
COPYRIGHT: THIS DOCUMENT IS AND SHALL REMAIN THE PROPERTY OF 360 ENVIRONMENTAL. THIS DOCUMENT MAY ONLY BE USED FOR THE PURPOSE FOR WHICH IT WAS COMMISSIONED AND IN ACCORDANCE WITH THE TERMS OF ENGAGEMENT FOR THE COMMISSION. 360 ENVIRONMENTAL DOES NOT HOLD ANY RESPONSIBILITY FOR THE MISUSE OF THIS DOCUMENT.



COPYRIGHT: THIS DOCUMENT IS AND SHALL REMAIN THE PROPERTY OF 360 ENVIRONMENTAL. THIS DOCUMENT MAY ONLY BE USED FOR THE PURPOSE FOR WHICH IT WAS COMMISSIONED AND IN ACCORDANCE WITH THE TERMS OF ENGAGEMENT FOR THE COMMISSION. 360 ENVIRONMENTAL DOES NOT HOLD ANY RESPONSIBILITY FOR THE MISUSE OF THIS DOCUMENT.

**Legend**

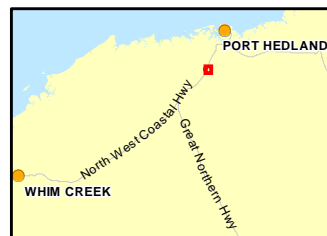
- Boodarie Survey Area
- Fauna Habitat**
- Sandy Plains



**360**  
environmental  
a 10 Bermondsey St, West Leederville, 6007 WA  
t (08) 9388 8360  
f (08) 9381 2360  
w www.360environmental.com.au

- NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS

**LOCALITY MAP**



<b>PROJECT ID</b> 4647	<b>DATE</b> 20/08/2021
---------------------------	---------------------------

**HORIZONTAL DATUM AND PROJECTION**  
GDA 1994 MGA Zone 50

CREATED	CHECKED	APPROVED	REVISION
LF	BD	MS	0

**Horizon Power**  
Karratha and Boodarie

**Karratha Boodarie Biological Surveys**

**Figure 20** Boodarie  
Fauna Habitat

Presented by **SLIP ENABLER**

- LOCALITY MAP SOURCED FROM LANDGATE 2020  
- OTHER DATA SOURCED LANDGATE 2020  
- AERIAL PHOTOGRAPHY SOURCED LANDGATE 2020  
(© Western Australian Land Information Authority 2020)

# Appendices

# Appendix A Literature Review

## Appendix: Karratha Flora Literature Review

Report	Project Area	Survey Timing	Survey Effort	Conservation Significant Ecological Communities	Conservation Significant Flora	Introduced Flora
124-KRT-DMP 132kV Line Upgrade Project Flora and Fauna Survey (GHD, 2019)	Less than 1km north of the Karratha Survey Area	June 2019	Detailed flora and vegetation survey: • 15 quadrats	No TECs. Two PECs: • Burrup Peninsula rock pile communities (Priority 1) • Horseflat land system of the Roebourne Plains (Priority 3)	• <i>Rhynchosia bungarensis</i> (Priority 4)	• * <i>Aerva javanica</i> • * <i>Cenchrus ciliaris</i> • * <i>Vachellia farnesiana</i>
Burrup Peninsula Interconnector Pipeline Flora and Fauna Survey (Astron, 2018)	17.5 km north of the Karratha Survey Area	June 2018	• 10 relevés	None recorded.	• <i>Terminalia supranitifolia</i> (Priority 3) • <i>Rhynchosia bungarensis</i> (Priority 4)	• * <i>Aerva javanica</i> • * <i>Cenchrus ciliaris</i>

Conservation significant flora or vegetation	(GHD, 2019)	(Astron, 2018)
	<1km from the Karratha Survey Area	17.5 km north of the Karratha Survey Area
<b>P2</b>		
<i>Trianthema</i> sp. Python Pool (G.R. Guerin & M.E. Trudgen GG 1023)	★	
<b>P3</b>		
<i>Corchorus congener</i>	★	
<i>Eragrostis surreyana</i>	★	★
<i>Gymnanthera cunninghamii</i>	★	★
<i>Oldenlandia</i> sp. Hamersley Station (A.A. Mitchell PRP 1479)	★	★



Conservation significant flora or vegetation	(GHD, 2019)	(Astron, 2018)
	<1km from the Karratha Survey Area	17.5 km north of the Karratha Survey Area
<i>Schoenus punctatus</i>	★	★
<i>Stackhousia clementii</i>	★	★
<i>Terminalia supranitifolia</i>	★	✓
<i>Themeda</i> sp. Hamersley Station (M.E. Trudgen 11431)	★	★
<i>Vigna triodiophila</i>	★	★
<b>P4</b>		
<i>Rhynchosia bungarensis</i>	✓	✓
<b>Threatened and Priority Ecological Communities</b>		
Burrup Peninsula rock pile communities (Priority 1)	✓	★
Burrup Peninsula rock pool communities (Priority 1)		★
Roebourne Plains coastal grasslands with gilgai microrelief on deep cracking clays (Priority 1)	★	
Coastal dune native tussock grassland dominated by <i>Whiteochloa airoides</i> (Priority 3)	★	
Horseflat land system of the Roebourne Plains (Priority 3)	✓	

✓ Denotes species was found during survey

★ Denotes species was identified by database searches during desktop assessment, which typically include an additional buffer around the Project Area, but were not found during survey

## Appendix: Karratha Fauna Literature Review

Report	Project Area	Survey Timing	Survey Effort	Conservation Significant Fauna	Fauna Habitats
124-KRT-DMP 132kV Line Upgrade Project Flora and Fauna Survey (GHD, 2019)	Less than 1km north of the Karratha Survey Area	June 2019	Level 1 Fauna Survey	None recorded.	<ul style="list-style-type: none"> <li>Rocky plains and low rises</li> <li>Minor drainage lines</li> <li>Rock piles</li> <li>Saline flats</li> <li>Sandy loam plains</li> <li>Gilgai grassland</li> </ul>
Burrup Peninsula Interconnector Pipeline Flora and Fauna Survey (Astron, 2018)	17.5 km north of the Karratha Survey Area	June 2018	Level 1 Fauna Survey	None recorded.	<ul style="list-style-type: none"> <li>Grassland</li> <li>Open woodland/shrubland</li> <li>Eucalypt woodland</li> </ul>
Terrestrial Vertebrate Fauna Survey for Anketell Point Rail Alignment and Port Projects (Phoenix Environmental Sciences, 2010)	19 km east of the Karratha Survey Area	June 2009 March 2010	Level 2 Fauna Survey: <ul style="list-style-type: none"> <li>Systematic trapping</li> <li>Census of bird species</li> <li>Recording of bat echolocation calls</li> <li>Spotlighting for nocturnal species</li> <li>Opportunistic searches for reptiles and other species</li> </ul>	<ul style="list-style-type: none"> <li><i>Chelonia mydas</i> (EN)</li> <li><i>Lerista neviniae</i> (P1)</li> <li><i>Pseudomys chapmani</i> (P4)</li> <li><i>Numenius madagascariensis</i> (P4)</li> <li><i>Notoscincus butleri</i> (P4)</li> </ul>	<ul style="list-style-type: none"> <li>Beach</li> <li>Coastal dunes</li> <li>Drainage line</li> <li>Hill slope</li> <li>Mangroves</li> <li>Mudflats and samphire</li> <li>Plains</li> <li>Rocky outcrops</li> </ul>

## Appendix: Boodarie Flora Literature Review

Report	Project Area	Survey Timing	Survey Effort	Conservation Significant Ecological Communities	Conservation Significant Flora	Introduced Flora
Flora and Fauna Survey Port Hedland International Airport - Highway Precinct 2 (Emerge Associates, 2019)	10.8 km northeast of the Boodarie Survey Area	November 2018	<ul style="list-style-type: none"> <li>• Five quadrats</li> </ul>	None recorded.	None recorded.	<ul style="list-style-type: none"> <li>• <i>*Calotropis procera</i> (Declared Pest)</li> </ul>
Flora and vegetation reconnaissance survey of Spoilbank Marina Project Area (Strategen JBS&G, 2020)	16.2 km north of the Boodarie Survey Area	February 2020	Reconnaissance survey: <ul style="list-style-type: none"> <li>• Six relevés</li> </ul>	None recorded.	None recorded.	<ul style="list-style-type: none"> <li>• <i>*Aerva javanica</i></li> <li>• <i>*Agave sp.</i></li> <li>• <i>*Arecaceae sp. 1</i></li> <li>• <i>*Arecaceae sp. 2</i></li> <li>• <i>*Calotropis procera</i> (Declared Pest)</li> <li>• <i>*Cenchrus ciliaris</i></li> <li>• <i>*?Jatropha gossypifolia</i></li> <li>• <i>Spathodea campanulata</i></li> <li>• <i>Stylosanthes hamata</i></li> <li>• <i>Tamarix aphylla</i></li> <li>• <i>Trianthema portulacastrum</i></li> </ul>
Report for Proposed Boodarie Industrial Area - Flora and Fauna Assessment (GHD, 2010)	Less than 1 km west of the Boodarie Survey Area	June 2009	<ul style="list-style-type: none"> <li>• 14 quadrats</li> </ul>	None recorded.	None recorded.	<ul style="list-style-type: none"> <li>• <i>*Aerva javanica</i></li> <li>• <i>*Cenchrus ciliaris</i></li> <li>• <i>*Chloris barbata</i></li> </ul>
Roy Hill Port Facility Power Line Port Hedland Ecological Assessment (GHD, 2016)	8.8 km north of the Boodarie Survey Area	June 2016	Reconnaissance survey	None recorded.	None recorded.	<ul style="list-style-type: none"> <li>• <i>*Aerva javanica</i></li> <li>• <i>*Cenchrus ciliaris</i></li> <li>• <i>Eucalyptus camaldulensis</i></li> </ul>

Conservation significant flora or vegetation	(Emerge Associates, 2019)	(Stratagen JBS&G, 2020)	(GHD, 2010)	(GHD, 2016)
	10.8 km northeast of the Boodarie Survey Area	16.2 km north of the Boodarie Survey Area	<1 km west of the Boodarie Survey Area	8.8 km north of the Boodarie Survey Area
<b>P1</b>				
<i>Atriplex eremitis</i>	★			
<i>Heliotropium parviantrum</i>	★			
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)	★	★	★	★
<i>Uvedalia clementii</i>	★			
<b>P2</b>				
<i>Gomphrena pusilla</i>	★	★	★	★
<b>P3</b>				
<i>Abulilon</i> sp. Pritzelianum (S. van Leeuwen 5095)	★	★		
<i>Bonamia oblongifolia</i>		★		
<i>Eragrostis crateriformis</i>	★	★		
<i>Euphorbia clementii</i>	★		★	
<i>Gomphrena leptophylla</i>	★	★		★
<i>Gymnanthera cunninghamii</i>	★	★	★	★
<i>Heliotropium muticum</i>	★	★	★	
<i>Rhagodia</i> sp. Hamersley (M. Trudgen 17794)				★
<i>Rothia indica</i> subsp. <i>australis</i>	★	★		
<i>Tephrosia andrewii</i>			★	

Conservation significant flora or vegetation	(Emerge Associates, 2019)	(Stratagen JBS&G, 2020)	(GHD, 2010)	(GHD, 2016)
	10.8 km northeast of the Boodarie Survey Area	16.2 km north of the Boodarie Survey Area	<1 km west of the Boodarie Survey Area	8.8 km north of the Boodarie Survey Area
<b>P4</b>				
<i>Bulbostylis burbidgeae</i>	★	★	★	★
<i>Goodenia nuda</i>	★	★		★
<i>Ptilotus mollis</i>	★			
<b>Threatened and Priority Ecological Communities</b>				
Eighty Mile Land System (Priority 3)	★			

✓ Denotes species was found during survey

★ Denotes species was identified by database searches during desktop assessment, which typically include an additional buffer around the Project Area, but were not found during survey

## Appendix: Boodarie Fauna Literature Review

Report	Project Area	Survey Timing	Survey Effort	Conservation Significant Fauna	Fauna Habitats
Flora and Fauna Survey Port Hedland International Airport - Highway Precinct 2 (Emerge Associates, 2019)	10.8 km northeast of the Boodarie Survey Area	November 2018	Level 1 Fauna Survey	None recorded.	<ul style="list-style-type: none"> <li>Mixed tussock and hummock grasslands</li> <li>Low shrublands</li> </ul>
Port Hedland Regional Fauna Assessment (ENV Australia Pty Ltd, 2011)	Overlapping with the Boodarie Survey Area	July 2011	Level 2 Fauna Survey	<ul style="list-style-type: none"> <li><i>Actitis hypoleucos</i> (MI, MA)</li> <li><i>Arenaria interpres</i> (MI, MA)</li> <li><i>Aspidites ramsayi</i> (P1)</li> <li><i>Calidris canutus</i> (EN, MI, MA)</li> <li><i>Calidris ferruginea</i> (CR, MI, MA)</li> <li><i>Calidris ruficollis</i> (MI, MA)</li> <li><i>Calidris tenuirostris</i> (CR, MI, MA)</li> <li><i>Charadrius leschenaultii</i> (VU, MI, MA)</li> <li><i>Charadrius mongolus</i> (EN, MI, MA)</li> <li><i>Charadrius veredus</i> (MI, MA)</li> <li><i>Dasyurus hallucatus</i> (EN)</li> <li><i>Fregata ariel</i> (MI, MA)</li> <li><i>Hydroprogne caspia</i> (MI, MA)</li> <li><i>Limosa lapponica</i> (MI, MA)</li> <li><i>Numenius madagascariensis</i> (CR, MI, MA)</li> <li><i>Numenius minutus</i> (MI, MA)</li> <li><i>Numenius phaeopus</i> (MI, MA)</li> <li><i>Pandion haliaetus cristatus</i> (MI)</li> <li><i>Pluvialis squatarola</i> (MI, MA)</li> <li><i>Pseudomys chapmani</i> (P4)</li> <li><i>Sternula albifrons</i> (MI, MA)</li> <li><i>Sternula nereis nereis</i> (VU)</li> <li><i>Tringa brevipes</i> (P4, MI)</li> <li><i>Tringa glareola</i> (MI, MA)</li> <li><i>Tringa nebularia</i> (MI, MA)</li> </ul>	<ul style="list-style-type: none"> <li>Beach/Dunal</li> <li>Tidal flats</li> <li>Mangroves</li> <li>Riverine</li> <li>Sandplain</li> </ul>

Report	Project Area	Survey Timing	Survey Effort	Conservation Significant Fauna	Fauna Habitats
				<ul style="list-style-type: none"> <li>• <i>Tringa stagnatilis</i> (MI, MA)</li> <li>• <i>Xenus cinereus</i> (MI, MA)</li> </ul>	
Report for Proposed Boodarie Industrial Area - Flora and Fauna Assessment (GHD, 2010)	Less than 1 km west of the Boodarie Survey Area	June 2009	Opportunistic survey	<ul style="list-style-type: none"> <li>• <i>Dasyercus cristicauda</i> (P4)</li> </ul>	<ul style="list-style-type: none"> <li>• Low open heath over tussock grasslands on sand plains</li> <li>• Ephemeral wetland</li> <li>• Samphire flats</li> <li>• Scattered trees over open shrubland on low rises</li> </ul>
Roy Hill Port Facility Power Line Port Hedland Ecological Assessment (GHD, 2016)	8.8 km north of the Boodarie Survey Area	June 2016	Level 1 Fauna Survey	None recorded.	<ul style="list-style-type: none"> <li>• Low <i>Acacia stellaticeps</i> and <i>Triodia</i> shrubland</li> <li>• <i>Tecticornia</i> low open shrubland with bare areas</li> <li>• <i>Avicennia marina</i> tall shrubland</li> </ul>

## **Appendix B**

# **Database Searches**





Taxon	Cons. Code	Plant Desc	Site	Vegetation	Frequency	Notes	Locality	Date
<i>Abutilon</i> sp. <i>Pritzelianum</i> (S. van Leeuwen 5095)	3	Shrub branching from base to 1 m+.	Red stony loam.	<i>Acacia inaequilatera</i> , <i>Sida</i> sp., <i>A. coriacea</i> , <i>Hibiscus leptocladus</i> .	not common only seen this location.		Rear Roebourne Oval	08/1982
<i>Atropis lindleyi</i> subsp. <i>conduplicata</i>	3	Open straggly rotund shrub, growing up to 0.2 m tall.	Margin of crabhole plain.	Sparse tussock grassland of <i>Eragrostis xerophila</i> .	common locally.		Ca 10 km WNW from Karratha Homestead, on main road reserve of Coastal Highway adjacent to circular regeneration pond Karratha Station	7/11/1996
<i>Cladium procerum</i>	2	Large clumping sedge with spreading culms to 2 m high, inflorescences nodding.	Flood zone of creek.	With <i>Cyperus</i> and <i>Typha</i> and Date Palms.	Common.		Homestead walk at Millstream.	28/05/2008
<i>Cladium procerum</i>	2	Large sedge, 2 m tall, dense tussock.	Water's edge of creek from Crystal Pool.				Millstream	26/09/1969
<i>Cladium procerum</i>	2	2 m high.	Next running water.				Western Millstream Outlet	15/12/1974
<i>Corchorus congener</i>	3		Rocky ironstone headland. Bare 40%.	Open <i>Acacia bivenosa</i> and <i>Grevillea pyramidalis</i> (2-10) shrubland over <i>Triodia wiseana</i> (30-70) hummock grassland.			Potter Island, Great Sandy Islands Nature Reserve	10/06/2016
<i>Dolichocarpa</i> sp. Hamersley Station (A.A. Mitchell PRP 1479)	3	Flowers in lower nodes including lowest axils, spreading rather than upright erect.	Bedrock rise with thin proximal colluvium. Very gently inclined slope, aspect 145 degrees. Abundant coarse fragments to maximum size of 200 mm. No bedrock exposed. Brown clay, average depth 45.8 cm.	Low Scattered Shrubs of <i>Vachellia farnesiana</i> & <i>Sida</i> sp. over Scattered Tussock Grass of <i>Sorghum ? plumosa</i> , <i>Themeda ? triandra</i> & <i>Eriachne</i> sp. over Closed Bunch Grassland of <i>Sorghum ? plumosa</i> , <i>Dichanthium sericeum</i> subsp. <i>humulus</i> & <i>Sporobolus australis</i>			Site: OYE14, N side of road, 4.3 km W of Panamonica - Cape Lambert railway crossing on Panamonica - Millstream Road, 36.5 km E of Panamonica, 26.7 km NW of Mt Evrie, 34 km E of Panamonica, Yallean Station, Pilbara IBRA	15/06/2006
<i>Dolichocarpa</i> sp. Hamersley Station (A.A. Mitchell PRP 1479)	3	Upright shrub 8 cm high and 9 cm wide. Small blue flowers with four petals star-shaped.	Drainage swale/plain. Red loam/ironstone.	Grasses surrounded by spinifex grassland.	common.		3.9 km S of Hamersley Iron Railway crossing on Roebourne-Wittenoom Road Millstream National Park	14/07/2002
<i>Dolichocarpa</i> sp. Hamersley Station (A.A. Mitchell PRP 1479)	3		Coarse fragments common to maximum size of 60 mm. No bedrock exposed. Brown clay, average depth 51 cm.	Low Scattered Shrubs over Tussock Grassland over Open Bunch Grassland over Very Open Herbs.			Site: DRW14, 6.4 km S of White Peak, 8.2 km N of Mt Regal, 8.7 km SSE of Dampier, Karratha Station, Pilbara IBRA	21/08/2005
<i>Dolichocarpa</i> sp. Hamersley Station (A.A. Mitchell PRP 1479)	3		Alluvial silt and clay in floodplain. Zero slope. Very few coarse fragments to maximum size of 20 mm. No bedrock exposed. Brown clay loam, average depth 33.6 cm.	Tussock Grassland of <i>Eriachne</i> sp. over Very Open Herbs.			Site: DRW16, 17.1 km ENE of Yerwarraon Hill, 17.5 km WNW of Mt Regal, 18.8 km SW of Dampier, Karratha Station, Pilbara IBRA	21/08/2005
<i>Dolichocarpa</i> sp. Hamersley Station (A.A. Mitchell PRP 1479)	3		Floodplain; calcareous debris on edge of terrace. Zero slope. Coarse fragments common to maximum size of 200 mm. Very slight bedrock outcrop. Red brown silty clay loam, average depth 41.4 cm.	High Shrubland of <i>Acacia xiphophylla</i> , <i>Acacia inaequilatera</i> & <i>Carissa lanceolata</i> over Low Open Shrubland of <i>Ptilotus obovatus</i> over Scattered Hummock Grass over Tussock Grassland of <i>Eriachne</i> sp. over Open Bunch Grassland of <i>Chrysopogon</i> sp. over Scattered S			Site: PW07, E side of road, 11.1 km W of junction with main Millstream Chichester National Park entry road on Millstream - Ποὸνὸς Panamonica Road, 14.6 km NNE of Mt Flora, 72.9 km E of Panamonica, Pilbara IBRA	19/04/2004
<i>Dolichocarpa</i> sp. Hamersley Station (A.A. Mitchell PRP 1479)	3	Flowering from lower nodes.	Floodplain silt and clay. Zero slope. Few coarse fragments to maximum size of 20 mm. No bedrock exposed. Purple brown clay loam, average depth 84.4 cm.	<i>Dichanthium sericeum</i> over Open Bunch Grassland of Herbs of <i>Streptoglossa</i> spp. <i>Heliotropium</i> sp. & <i>Ptilotus exaltatus</i> .			Site: DRC13, 5.7 km NE of Mt Regal, 13.4 km SSE of White Peak, 8.1 km SW of Karratha, Pilbara IBRA	11/09/2004
<i>Dolichocarpa</i> sp. Hamersley Station (A.A. Mitchell PRP 1479)	3	Annual herb.	Gentle slope to the north. Soil: Small area of pebbly/cobbly, red-brown cracking clay.	<i>Streptoglossa bubakii</i> open herbland. <i>Streptoglossa bubakii</i> 20-35 cm 15%. Lower half of site had <i>Rhynchosia</i> sp. Chichester (MET 15,225) 25 cm = 20% cover. A small patch nearby of <i>Neptunia dimorphantha</i> > 25% cover. Associated annuals: <i>Indigastrium parviflor</i>			Site number: 461. 5.5 km west-south-west of Mount Herbert, Millstream-Chichester National Park, Fortescue Botanical District	22/05/1997
<i>Dolichocarpa</i> sp. Hamersley Station (A.A. Mitchell PRP 1479)	3	Annual herb. Leaves dull mid-green. Fruit pale brown.	Broad poorly defined flow lines between two rises. Soil: Pale brown deeply cracking clay (varies to orange-brown).	<i>Rhynchosia</i> sp. Barrowana Hill (MET 15,623) and <i>Sida fibulifera</i> low shrubland over <i>Stemodia kingi</i> very open herbland. <i>Stemodia kingi</i> 15-35 cm < 1 10%; <i>Rhynchosia</i> sp. Barrowana Hill (MET 15,623) 20 cm < 1-15%; <i>Sida fibulifera</i> 20-30 cm 5-15%. Had a thin (			Site number: 407. 11.25 km south-south-west of Mount Herbert, Millstream-Chichester National Park, Fortescue Botanical District	20/05/1997
<i>Dolichocarpa</i> sp. Hamersley Station (A.A. Mitchell PRP 1479)	3	Prostrate herb, leaves spreading to erect, mid-green.	Almost flat area on top of the plateau. Soil: Very cobbly, some boulders. Red-brown cracking clay with orange-brown surface.	<i>Rhynchosia</i> sp. Chichester (MET 15,225) low open heath over <i>Streptoglossa bubakii</i> very open herbland over <i>Triodia wiseana</i> scattered hummock grassland. <i>Rhynchosia</i> sp. Chichester (MET 15,225) 10-20 cm 30-35%; <i>Streptoglossa bubakii</i> 30 cm = 5%; <i>Triodia wiseana</i>			Site number: 276 (Permanent quadrat = MET 3). 7.3 km west-north-west of Mount Richthofen, Millstream-Chichester National Park, Fortescue Botanical District	15/05/1997
<i>Eragrostis crateriformis</i>	3	Annual grass.	Low rise and gentle slopes. Soil: Red-brown gravelly, pebbly loam, with gravel/pebble surface.	<i>Triodia wiseana</i> hummock grassland. <i>Triodia wiseana</i> 20-30 cm 25-35%. There were few <i>Acacia arida</i> along the flowline. The <i>Eucalyptus vitrix</i> occurred in the lower area only. Associated annuals: <i>Eriachne pulchella</i> ssp. <i>dominii</i> . <i>Cleome viscosa</i> , <i>Sporobolus aus</i>			Site number: 565. 7.4 km south-east of Mount Sabine, Millstream-Chichester National Park, Fortescue Botanical District	26/05/1997
<i>Eragrostis crateriformis</i>	3	Annual grass, erect, culms reddish, spikelets pale green.	Damp, loam, east facing creek-bank, about 1 m high (part of the bank of the west branch of Narrina Creek). Soil: Dark brown, clayey loam.	Scattered shrubs of <i>Flueggea virosa</i> ssp. <i>melanthesoides</i> and <i>Acacia trachycarpa</i> over <i>Cenchrus ciliaris</i> , <i>Cenchrus setigerus</i> , <i>Triodia pungens</i> mixed tussock, hummock grassland. <i>Flueggea virosa</i> ssp. <i>melanthesoides</i> < 1%; <i>Acacia trachycarpa</i> < 1%; <i>Triodia purge</i>			Site number: 18. 2.2 km east-north-east of Black Hill Pool, Millstream-Chichester National Park, Fortescue Botanical District	10/04/1997
<i>Eragrostis laniculis</i>	3						Near Point Simpson [Samson]	03/1921
<i>Eragrostis laniculis</i>	3						Near Point Simpson [Samson]	03/1921
<i>Eragrostis surreyana</i>	3	Grass 1-2 cm high.	Open flat wetland area occurs in a slight basin on a plateau. Plateau is broad with rounded boulders and large areas of flat rock outcrop. Wetland is open, flat with boulders, and areas with flat rock. Grey alluvial, grey boulders and flat rocks, grey pb.	<i>Cyperus vaginatus</i> , <i>Schoenus falcatus</i> , <i>Fimbristylis rara</i> , <i>Schoenoplectus littoralis</i> , <i>Eragrostis</i> sp. Mt Montague, sandplains - tussock grassland with <i>Stemodia grossa</i> , <i>Pluchea rubelliflora</i> , <i>Stylidium fluminense</i> , <i>Pepilidium</i> sp. E herbland. Associated species:		Part of creek was relatively wide (2-3 m) and deep (50-60 cm). The creek then disappears below ground further along to the E. Quadrant within wet areas, 20-30 m wide.	Site B233, Burrup Peninsula 5 km NE of North West Shelf Gasworks, Pilbara Bioregion	27/06/2000
<i>Eragrostis surreyana</i>	3	Tufted annual.	Damp sleepage apt top of rocky gorge. Stony soil of red-brown sandy-clay.	With <i>Stylidium fluminense</i> .	occasional.		Wetland above waterfall, Burrup Peninsula. (Trudgen & Associates Burrup Vegetation Survey Site B233)	27/05/2009
<i>Eragrostis surreyana</i>	3	Clumped herb to 2 cm high x 7 cm wide.	Edge of perched rockpool above waterfall, at top of rockpile. Wet, deep brown, gravelly, clay sand between rocks.	<i>Triodia angusta</i> dominated community with <i>Eucalyptus vitrix</i> , scattered <i>Acacia ampliceps</i> , <i>A. coriacea</i> and <i>Brachycton acuminatus</i> over <i>Rhynchosia minima</i> , <i>Themeda ? triandra</i> , <i>Paspalidium tabulatum</i> , <i>Trachymene oleracea</i> and herbland including <i>Pluchea rubelli</i>			Waterhole above waterfall: Burrup Peninsula	27/05/2009
<i>Eriachne fatmensis</i>	3			Scattered Shrubs of <i>Vachellia farnesiana</i> over Open Tussock Grassland of <i>Chrysopogon fallax</i> over Open Bunch Grassland of <i>Eriachne</i> sp. over Scattered Sedges over Herbs of <i>Ptilotus exaltatus</i> , <i>Salsola</i> sp. & <i>Flaveria trinervia</i> .			Bamba Pool, Harding River	16/09/1981
<i>Euphorbia australis</i> var. <i>glabra</i>	3		Floodplain silt and clay. Zero slope. Coarse fragments common to maximum size of 200 mm. No bedrock exposed. Red brown silty clay loam, average depth 65.6 cm.				Site: PW17, 13.4 km N of Mt Flora, 25.1 km NW of Mt Ulrik, 71.1 km E of Panamonica, Pilbara IBRA	16/08/2004
<i>Euphorbia inappendiculata</i> var. <i>inappendiculata</i>	2	Prostrate annual.	On open plain in heavy soil.				10 km W Fortescue River bridge, Panamonica railway	17/05/1991
<i>Euphorbia inappendiculata</i> var. <i>inappendiculata</i>	2	Prostrate annual herb. Cyathia tiny with extremely small (red) lobes. Leaves mid-dark green above, pale-light green below. Stems light green, brownish above. On cracking clay patch.	Gentle slope. Soil: Orange-brown sandy loam. Cracking in places. Pebbly at the upper edge.	Hummock grassland of <i>Triodia wiseana</i> with low open shrubland of <i>Acacia arida</i> and <i>Acacia pyrifolia</i> (slender form). <i>Triodia wiseana</i> 30-60 cm 50%-60%; <i>Acacia arida</i> 1-1.6 m = 3%; <i>Acacia pyrifolia</i> (slender form) 1%. Had a patch with <i>Acacia bivenosa</i> > 5% cover.			Site number: 89. 5.9 km east-south-east of Mount Sabine, Fortescue Botanical District	16/04/1997
<i>Euphorbia stevenii</i>	3	Perennial herb 50 cm tall with annual stems (8) in a cluster from below the ground. Lower stems light green with dull red speckling. Upper stems light green. Leaves dark green above, mid-green below. Cyathia lobes dull yellowish-green, stalked. Ovary ses	Very gentle slope. Soil: Very large cracking clay patch (brown).	<i>Sida fibulifera</i> and <i>Crotalaria benthamiana</i> low open shrubland over scattered herbland of <i>Euphorbia</i> sp. Harding (MET 15,683). <i>Sida fibulifera</i> 10-20 cm < 1-20%; <i>Euphorbia</i> sp. Harding (MET 15,683) 115) 40-50 cm < 1%; <i>Crotalaria benthamiana</i> (5) 10-20 cm < 1%			Site number: 601. 3.2 km north-north-east of Mount Sabine, Hamersley Ranges, Fortescue Botanical District	27/05/1997
<i>Euphorbia stevenii</i>	3	Perennial herb 50 cm tall with annual stems (8) in a cluster from below the ground. Lower stems light green with dull red speckling. Upper stems light green. Leaves dark green above, mid-green below. Cyathia lobes dull yellowish-green, stalked. Ovary ses	Very gentle slope. Soil: Very large cracking clay patch (brown).	<i>Sida fibulifera</i> and <i>Crotalaria benthamiana</i> low open shrubland over scattered herbland of <i>Euphorbia</i> sp. Harding (MET 15,683). <i>Sida fibulifera</i> 10-20 cm < 1-20%; <i>Euphorbia</i> sp. Harding (MET 15,683) 115) 40-50 cm < 1%; <i>Crotalaria benthamiana</i> (5) 10-20 cm < 1%			Site number: 601. 3.2 km north-north-east of Mount Sabine, Hamersley Ranges, Fortescue Botanical District	27/05/1997
<i>Fimbristylis sieberiana</i>	3	A leafed sedge, 45 cm, spikelets in groups with short bracts.	Soft mud at edge of pool.				Ganya and Dogger Gorge	24/03/1976
<i>Fimbristylis sieberiana</i>	3	Rhizomatous perennial.	On flats in flood zone away from creek.				Palm Pool - Millstream - Fortescue River	22/05/1976
<i>Fimbristylis sieberiana</i>	3	Grassy sedge 50 cm high.	Clay flat. Red-brown silty loamy clay.	<i>Cladium procerum</i> and open areas.	Forming monospecific patches.		Homestead walk at Millstream.	28/05/2008
<i>Glycine falcata</i>	3			With <i>Themeda</i> sp. Hamersley Station to 1.3 m, PFC 35% over grasses and herbs.			Mount McLeod, Pilbara, MMW Site 3, WPT 4	17/05/2011
<i>Gomphrena cucullata</i>	3	Herb 10 cm high x 10 cm wide.	Plain. 0-10% quartz rocks. Red sand.	<i>Triodia angusta</i> Hummock grassland. With <i>Triodia epactia</i> , <i>Cenchrus ciliaris</i> , <i>Sclerolaena costata</i> , <i>Chrysopogon fallax</i> , <i>Evolvulus alsinoides</i> var. <i>villosicalyx</i> , <i>Fimbristylis dichotoma</i> , <i>Sida fibulifera</i> , <i>Indigofera colutea</i> .			Karratha - ca 16.5 km SE	16/07/2012
<i>Gomphrena cucullata</i>	3	Prostrate, compact herb 20 cm high x 55 cm wide. Wiry red stems, young stems slightly hairy. Revolute, linear leaves, acute 10-47 mm long x 1 mm wide. Flowers white-pink, orange stamens, corolla 4 mm long. Flower head cylindrical, 20 mm long x 7 mm wide	Floodplain. Red loam. Cyclonic rain March 2004.	Grassland.	2-5 plants.	Percentage of population flowering 100%.	North West Coastal Highway, 35 km S of Karratha	11/07/2004
<i>Gomphrena leptophylla</i>	3	Prostrate, compact herb 20 cm high x 60 cm wide. Stem leaves acute, mucronate, rebolute linear leaves 10-30 mm long x 1-2 mm wide. Flowers green, yellow stamens. Axillary corolla 5 mm long. Cylindrical flower head 20 mm long x 7 mm wide. Bracts incurved.	Floodplain. Red loam. Cyclonic rain March 2004.	Grassland.	one only.	Percentage of population flowering 100%.	North West Coastal Highway, 35 km S of Karratha	11/07/2004
<i>Gomphrena</i> sp. Martins Well (K.F. Kenneally 6116)	1		Tidal stream zone of saline drainage area into salt crystalliser ponds; area slopes gently into drainage area (NE facing).	<i>Myoporum montanum</i> scattered shrubs over <i>Tecticornia indica</i> subsp. <i>lelostachya</i> , <i>Neobassia astrocarpa</i> , ( <i>Scaevola spinescens</i> , <i>Frankenia ambita</i> ) low shrubland over <i>Eragrostis falcata</i> scattered tussock grassland. Associated Species: <i>Myoporum montanum</i> , <i>Scaevol</i>			Site: DAMF06. 10.9 km S of Dampier, 12.9 km WSW of Karratha and 90.5 km NE of Mardie Homestead	13/07/2006
<i>Goodenia nuda</i>	4	Erect herb 0.3 m high x 0.2 m wide. Flowers yellow.	Plain. Dry, red sand.	<i>Mesquite</i> scrub.	2-5 plants over 1 sq m.	Total weed cover up to 25% of site.	By side of management track on Mardie Station	31/07/2002
<i>Goodenia nuda</i>	4	Low herb, bright green, leaves flat. Flowering and fruiting.	Mixed alluvial plain with sandy brown loam.	<i>Corymbia hamersleyana</i> low woodland; over <i>Acacia arida</i> and <i>Acacia stellaticeps</i> mid sparse shrubland; over <i>Triodia epactia</i> hummock grassland and <i>Bonania erecta</i> sparse herbs.	2 - 5 plants seen.		C. 12 km NW of Whim Creek	7/07/2014
<i>Goodenia pallida</i>	1	Corolla very pale purple.	Red soil.	Annual grassland. <i>Acacia scrub</i> -steppe.			127 miles from Onslow on Roebourne road,	11/08/1970
<i>Gymnanthera cunninghamii</i>	3	Shrub 4 - 5 ft branched from ground; milky sap.					West Lewis Island, Dampier Archipelago	13/06/1962
<i>Gymnanthera cunninghamii</i>	3						Enderby's Island, Dampier Archipelago	02/1918
<i>Gymnanthera cunninghamii</i>	3						Enderby's Island, Dampier Archipelago	02/1818
<i>Gymnanthera cunninghamii</i>	3	Erect, multistemmed shrub 1 m tall, leaves pendulous, Salix-like.	Growing in beach sand at base of dolerite hills.				Enderby Island, W end, near Rocky Headland	13/05/1982
<i>Gymnanthera cunninghamii</i>	3	Single stemmed bush to 2 m tall. Stem very pliable, bronze colour, glabrous. Leaves opposite, margins undulating, glossy, lime green above, dull beneath. Petioles 2-2.5 cm long. Milky sap.	Sandplain at the base of rocky slope, red sandy soil.	With <i>Triodia</i> sp., and <i>Myoporum acuminatum</i> .	frequent.		Enderby Island, S side, Fortescue Botanical District	2/09/1987
<i>Helichrysum oligochaetum</i>	1						Port Walcott	//
<i>Helichrysum oligochaetum</i>	1						Port Walcott, ca 10 km N of Roebourne	//
<i>Heliotropium muticum</i>	3	Perennial shrub, 15 cm high.	Flat. Red/brown sand/clay. No sign of fire.	<i>Triodia pungens</i> , <i>Acacia inaequilatera</i> , <i>Chrysopogon fallax</i> , <i>Corchorus walcottii</i> , <i>Indigofera monophylla</i> , <i>Solanum lasiophyllum</i> .	2-5 plants.	Condition: good.	92 km E of Karratha	11/05/2011
<i>Heliotropium muticum</i>	3	A grey-green scabrous herb or spreading shrub, c. 30 m tall. Leaves are small and ovate, flowers white with very short but stiff, spiny hairs.	Plain with brown loam over calcrete.	<i>Corymbia hamersleyana</i> and <i>Grevillea pyramidalis</i> subsp. <i>leucadendron</i> woodland over <i>Triodia angusta</i> and <i>Triodia wiseana</i> hummock grassland.	single plant seen.		C. 14 km SW of Whim Creek	13/07/2014
<i>Ipomoea racemigera</i>	2	Scrambling twining herb with white flowers, growing up to 0.5 m tall.	Flat bedded creekline in a basalt upland.	<i>Eriachne tussock</i> grassland.		Abundance: common.	Ca 55 km NW of Coolawanyah Homestead on Roebourne road	1/04/1995
<i>Listivona affredii</i>	4	4 m tall palm tree in fruit.	Riverine overflow bed of rock and stones.	In Open Tall Forest of <i>Corymbia terminalis</i> , <i>Eucalyptus coolabah</i> and <i>Melaleuca argentea</i> over Scrub of <i>Acacia</i> sp. over Open Tall Grass of <i>Enneapogon</i> sp. and Hummock Grass of <i>Triodia</i> sp.	sparse along river banks.		Below lookout overlooking Crossing Pool, Fortescue River, Millstream-Chichester National Park,	18/11/1998
<i>Listivona affredii</i>	4	Tree to 10 m, grey green fan-like foliage, trunks blackened from fire.	Gentle, brown loam. Riverine.	<i>Palm</i> and <i>Melaleuca</i> thickets.		Trees not in flower but some remains of fruiting material, seeds thick at base of older trees.	Millstream-Chichester National Park, South banks of Fortescue River, 300 m towards Livistona Pool	20/06/2003
<i>Listivona affredii</i>	4	3 m tall palm tree in fruit.	Common along creek.	In Open Tall Woodland of <i>Corymbia terminalis</i> , <i>Eucalyptus camaldulensis</i> and <i>Melaleuca argentea</i> over Open Scrub of <i>Acacia bivenosa</i> over Mid-Dense Hummock of <i>Triodia</i> sp.	common along creek.		Palm Valley, Millstream - Chichester National Park,	18/11/1998
<i>Listivona affredii</i>	4	3 m tall palm tree in fruit.	Common along creek.	In Open Tall Woodland of <i>Corymbia terminalis</i> , <i>Eucalyptus camaldulensis</i> and <i>Melaleuca argentea</i> over Open Scrub of <i>Acacia bivenosa</i> over Mid-Dense Hummock of <i>Triodia</i> sp.	common along creek.		Palm Valley, Millstream - Chichester National Park,	18/11/1998
<i>Listivona affredii</i>	4	Seedling.	Dry bed of river.				Millstream (Homestead) - Chichester River	08/1974
<i>Listivona affredii</i>	4						Millstream (Homestead)	24/09/1969
<i>Listivona affredii</i>	4					Found with Collectors collection but not labelled.	[Near Millstream (Homestead)], Fortescue River, Fortescue District	13/08/1974
<i>Listivona affredii</i>	4						Near Millstream (Homestead)], Fortescue River, Fortescue District	13/08/1974
<i>Listivona affredii</i>	4						Longreach, Millstream (Homestead)], Fortescue River	21/08/1932
<i>Listivona affredii</i>	4						Millstream (Homestead)], Fortescue River	3/03/1962
<i>Listivona affredii</i>	4					Found with Collectors collection but not labelled.	[Near Millstream (Homestead)], Fortescue River, Fortescue District	13/08/1974
<i>Listivona affredii</i>	4	3 m tall palm tree in fruit.	River bed of stony red loam.	Tall Forest of <i>Eucalyptus coolabah</i> and <i>E. camaldulensis</i> over Low Woodland A of <i>Acacia ampliceps</i> over Tall Grass.	common.		Millstream/Yarraloola Road crossing the Fortescue River,	19/11/1998
<i>Listivona affredii</i>	4	Tall erect palm, grey trunk. Large fan-shaped, palmately divided leaves forming dense crown. Boie of trunk expanded. Petioles with few spines or O. Seeds globular.	Riverine deltas and floodplains.	With <i>Caigrats</i> , <i>Euc. camaldulensis</i> .		Endemic to Pilbara.	Millstream Pools, Millstream-Chichester National Park	28/07/1990
<i>Listivona affredii</i>	4	4 m tall palm tree.	Riverine overflow bed of rock and stones.	In Open Tall Woodland of <i>Corymbia terminalis</i> , <i>Eucalyptus coolabah</i> and <i>E. camaldulensis</i> over Open Scrub of <i>Acacia monticola</i> .	group of 4 only.		400 m E of Robe River Rion rail bridge, Fortescue River,	18/11/1998
<i>Listivona affredii</i>	4	3 m tall palm tree in fruit.	River bank of stony red soft clay.	In Dense Tall Forest of <i>Eucalyptus camaldulensis</i> and <i>melaueca argentea</i> over Thicket of <i>Acacia bivenosa</i> and <i>A. maitlandii</i> over Mid-Dense Hummock Grass of <i>Triodia</i> sp.	common along river banks.		200 m W of the concrete river crossing, Fortescue River, Millstream-Chichester National Park,	18/11/1998

Taxon	Cons_Code	Plant_Desc	Site	Vegetation	Frequency	Notes	Locality	Date
<i>Livingstonia affredii</i>	4	Female. Tree adjacent to Rodd 2847, in garden at Millstream and about the same size. Leaves slightly larger, inflorescences female with young developing fruits Spadix branches and branchlets a uniform deep dull pink, young fruits very shiny deep purplish				Spirit No. 1374.	Millstream Station, Fortescue River	20/10/1974
<i>Livingstonia affredii</i>	4	Female. Tree adjacent to Rodd 2847, in garden at Millstream and about the same size. Leaves slightly larger, inflorescences female with young developing fruits Spadix branches and branchlets a uniform deep dull pink, young fruits very shiny deep purplish				Spirit No. 1374.	Millstream Station, Fortescue River	20/10/1974
<i>Livingstonia affredii</i>	4	3 m tall palm tree in fruit.	River bank of stony red soft clay.	In Dense Tall Forest of Eucalyptus camaldulensis and Melaleuca argentea over Thicket of Acacia bivenosa and A. maitlandii over Mid Dense Hummock Grass of Triodia sp.	common along river banks.		200 m W of the concrete river crossing, Fortescue River, Millstream Chichester National Park.	18/11/1998
<i>Livingstonia affredii</i>	4	4 m tall palm tree in fruit.	Riverine overflow bed of rock and stones.	In Open Tall Forest of Corymbia terminalis, Eucalyptus coolabah and Melaleuca argentea over Scrub of Acacia sp. over Open Tall Grass of Enneopogon sp. and Hummock Grass of Triodia sp.	sparse along river banks.		Below lookout overlooking Crossing Pool, Fortescue River, Millstream Chichester National Park.	18/11/1998
<i>Livingstonia affredii</i>	4	3 m tall palm tree in fruit.	River bed of stony red loam.	Tall Forest of Eucalyptus coolabah and E. camaldulensis over Low Woodland A of Acacia amplifera over Tall Grass.	common.		Millstream/Yarraloola Road crossing the Fortescue River.	19/11/1998
<i>Livingstonia affredii</i>	4	5 m tall palm tree in fruit.	Riverine overflow bed of rocky red gravel.	In Open Tall Forest of Corymbia terminalis over Scrub of Acacia monticola over Open Tall Grass of Enneopogon sp. and Hummock Grass of Triodia sp.	sparse along river banks.		Below lookout overlooking Crossing Pool, Fortescue River, Millstream Chichester National Park.	18/11/1998
<i>Livingstonia affredii</i>	4	5 m tall palm tree in fruit.	Riverine overflow bed of rocky red gravel.	In Open Tall Forest of Corymbia terminalis over Scrub of Acacia monticola over Open Tall Grass of Enneopogon sp. and Hummock Grass of Triodia sp.	sparse along river banks.		Below lookout overlooking Crossing Pool, Fortescue River, Millstream Chichester National Park.	18/11/1998
<i>Livingstonia affredii</i>	4	Male. Petiole pale, slightly yellowish green more or less smooth and shiny. Almost flat above and smoothly (?) shaped - convex below; leaves pale grey-green faintly striate but with no venation apparent or surface. This plant appearing male with small fl				In garden, Millstream Station presumably part of natural vegetation. Spirit No. 1373.	Millstream Station	20/10/1974
<i>Livingstonia affredii</i>	4	Male. Petiole pale, slightly yellowish green more or less smooth and shiny. Almost flat above and smoothly (?) shaped - convex below; leaves pale grey-green faintly striate but with no venation apparent or surface. This plant appearing male with small fl				In garden, Millstream Station presumably part of natural vegetation. Spirit No. 1373.	Millstream Station	20/10/1974
<i>Livingstonia affredii</i>	4	Male. Petiole pale, slightly yellowish green more or less smooth and shiny. Almost flat above and smoothly (?) shaped - convex below; leaves pale grey-green faintly striate but with no venation apparent or surface. This plant appearing male with small fl				In garden, Millstream Station presumably part of natural vegetation. Spirit No. 1373.	Millstream Station	20/10/1974
<i>Livingstonia affredii</i>	4	Male. Petiole pale, slightly yellowish green more or less smooth and shiny. Almost flat above and smoothly (?) shaped - convex below; leaves pale grey-green faintly striate but with no venation apparent or surface. This plant appearing male with small fl				In garden, Millstream Station presumably part of natural vegetation. Spirit No. 1373.	Millstream Station	20/10/1974
<i>Livingstonia affredii</i>	4	Male. Petiole pale, slightly yellowish green more or less smooth and shiny. Almost flat above and smoothly (?) shaped - convex below; leaves pale grey-green faintly striate but with no venation apparent or surface. This plant appearing male with small fl				In garden, Millstream Station presumably part of natural vegetation. Spirit No. 1373.	Millstream Station	20/10/1974
<i>Livingstonia affredii</i>	4	Male. Petiole pale, slightly yellowish green more or less smooth and shiny. Almost flat above and smoothly (?) shaped - convex below; leaves pale grey-green faintly striate but with no venation apparent or surface. This plant appearing male with small fl				In garden, Millstream Station presumably part of natural vegetation. Spirit No. 1373.	Millstream Station	20/10/1974
<i>Minuria tridens</i>	1	Low erect shrub to 50 cm tall. Leaves linear-lanceolate with 1-5 teeth, light greyish green. Flower heads 1 cm wide with white ray florets and yellow disc florets.	Lower slopes of a coastal dune, adjacent to saline mudflats.	Triodia epactia dominant grassland with Cenchrus ciliaris and Aerva javanica present. Associated species include Amaranthus undulatus, Tecticornia indica subsp. bidenis, Swainsona pterostylis, Euphorbia tannensis, Solanum lasiophyllum and Trianthema cusate		6 mature plants, all flowering.	6 km E of Powdar Creek inlet and 97 km WSW of Karratha	28/03/2020
<i>Minuria tridens</i>	1	Low erect shrub to 60 cm tall. Leaves linear-lanceolate with 1-5 teeth, light greyish green. Flower heads 1 cm wide with white ray florets and yellow disc florets.	Lower slopes of a coastal dune, adjacent to saline mudflats.	Triodia epactia dominant grassland with Cenchrus ciliaris and Aerva javanica present. Associated species include Amaranthus undulatus, Tecticornia indica subsp. bidenis, Pluchea longseta, Myoporum montanum, Sporobolus virginicus and Scaevola spinescens		7 mature plants flowering, 15 seedlings. Wild pepper tree.	2 km E of Powdar Creek inlet and 99 km WSW of Karratha	28/03/2020
<i>Owenia acicula</i>	3						Mardi Station	//
<i>Owenia acicula</i>	3						Mardi Station	10/12/1949
<i>Owenia acicula</i>	3						Mardi Station	10/12/1949
<i>Owenia acicula</i>	3						Mardi Station	10/12/1949
<i>Owenia acicula</i>	3	Erect tree to 8 m; bark brown, branches red-brown, pendulous. Viscid. Leaves pararpinnate, alternate at ends of branches. Leaflets elliptic. Root suckers form dense stands.	Floodplain, silt covering cracking clay soil.	With Santalum lanceolatum.		M.C. 109.	Millstream Creek crossing Panawonica road. 1:50 000 map. Millstream 067081	23/09/1990
<i>Owenia acicula</i>	3	Small tree 10 ft. Leaves pseudopinnate.	Near creek.	Shrub steppe.			Mardi Station	19/08/1966
<i>Owenia acicula</i>	3						Mardi	5/03/1953
<i>Paspalidium retigilume</i>	2	Annual tussock grass	Soil: Cobbley red-brown cracking clay.	Neptunia dimorphantha, Sida fibulifera and Rhynchosia sp. Barowanna Hill (MET 15,623) low open heath over Streptoglossa bubakii very open herbland. Sida fibulifera 20 cm 5-10% (20); Rhynchosia sp. Barowanna Hill (MET 15,623); Streptoglossa bubakii 30 cm			Site number: 4268. 9.5 km south-south-west of Mount Herbert, Millstream-Chichester National Park, Fortescue Botanical District	21/05/1997
<i>Paspalidium retigilume</i>	2	Annual tussock grass. 0.5 m tall x 1.5 m wide with long stems extending from the base, or just above. Phyllodes, green-yellow lanceolate, tomentose, 8 x 0.9 cm, 3 prominent veins. Flowers yellow with 5 petals. Bracts present.	Large patch about 100 m x 20 m. Soil: Orange-brown cracking clay, not as cobbly as sites 404A and 404C.	Sida fibulifera low shrubland over Streptoglossa bubakii open herbland. Streptoglossa bubakii (5)-35 cm < 5-20%; Sida fibulifera 30 cm < 10-20% (varies). The Isellema aff. fragile was common. The Isellema vaginiflorum was not common. The Desmodium muelle			Site number: 404D. 10.5 km south-south-west of Mount Herbert, Millstream-Chichester National Park, Fortescue Botanical District	20/05/1997
<i>Pentalepis trichodesmoides</i> subsp. <i>hispidia</i>	2	0.5 m tall x 1.5 m wide with long stems extending from the base, or just above. Phyllodes, green-yellow lanceolate, tomentose, 8 x 0.9 cm, 3 prominent veins. Flowers yellow with 5 petals. Bracts present.	Banks of creeks and edges of basalt screes.				45 km peg, NW Gas Pipeline	8/10/1992
<i>Pentalepis trichodesmoides</i> subsp. <i>hispidia</i>	2	0.5 m multi-branched upright shrub.	Slight rise. Stony brown clayey - sand.	Triodia grassland.	occasional.		40 km S of Pyramid Homestead	20/08/1989
<i>Pentalepis trichodesmoides</i> subsp. <i>hispidia</i>	2	Compact shrub, 1.3 m high x 2 m wide. Flowers yellow.					Ca 3 km ESE of Python Pool	3/09/2013
<i>Pentalepis trichodesmoides</i> subsp. <i>hispidia</i>	2	Shrub 80 cm tall with numerous stems. Leaves mid-green, brittle. Ray florets yellow, disc florets almost transparent.	Cobble slope above site 59. Some outcrop. Soil: Red-brown gravelly loam amongst cobbles.	Cullen lachnostachys, Corchorus sp. Millstream (A.S. George 3488) low open shrubland over Triodia wiseana open hummock grassland with scattered Euphorbia wheeleri. Cullen lachnostachys 0.5-0.8 m 1-2% (to 3%+); Corchorus sp. Millstream (A.S. George 3488)		At top edge of site 60 at lower edge of scree of boulders (thin strip here of Moonia and Pilotus sp., Melhania sp., Paspalidium tabulatum).	Site number: 60. 10.5 km west-south-west of High Table Hill, Millstream-Chichester National Park, Fortescue Botanical District	13/04/1997
<i>Pentalepis trichodesmoides</i> subsp. <i>hispidia</i>	2	Many stemmed shrub to 2 m. Yellow daisy-like flower. Leaves lanceolate, 3 veins parallel, acute, scabrid. Sessile in pairs. Plant rough.	Slopes of low hills in open spinifex plains.				N Portland River Crossing, Millstream - Chichester National Park 1:50,000 map Python Pool 042228	26/09/1990
<i>Rhynchosia bungarensis</i>	4	Creepers.	Steeply sloping rock pile (boulder scree) on valley side, E facing. Orange brown loam between cobbles (vegetated patch). Medium grained volcanic. Fire >10 years.	Terminalia canescens high open shrubland (low open woodland) over Acacia coriacea subsp. coriacea. Fleggia virosa subsp. melanthesoides high open s shrubland over Scaevola spinescens (narrow form), Rhagodia eremaea scattered shrubs over Triodia epactia			900 m SSW of the point near the centre of the NW of the Burrup Peninsula, Pilbara Bioregion, Site 8082	27/06/2000
<i>Rhynchosia bungarensis</i>	4	20 (cm) high.	Rocky slope of E-facing hill with exposed rockpiles towards the top. Skeletal red-orange loamy sand. Large outcropping rocks and boulders with smaller gravel and pebbles. No sign of recent fire.	Acacia arida, Pilotus incanus open shrubland over Triodia epactia hummock grassland. Associated Species: Acacia arida, Pilotus incanus, Solanum horridum, Trichodesma zeylanicum subsp. zeylanicum, Triodia epactia.	Buffel grass present.	0.77 km WSW from the intersection of Cinders Road and Dampier Road, 3.54 km SSE of Dampier and 13.41 km NW of Karratha	30/11/2010	
<i>Rhynchosia bungarensis</i>	4		Perched wetland with rock pools above waterfall at top of rockpile formation. Deep, brown, gravelly, wet, clayey sand.	Triodia angusta with Eucalyptus vitrix and scattered Acacia amplifera, A. coriacea and Brachychiton acuminatus, over herbland of Pluchea rubelliflora, Fimbristylis.	occasional.		Waterhole above waterfall, Burrup Peninsula	27/05/2009
<i>Rhynchosia bungarensis</i>	4		Narrow passage through granophyre rock piles.	Ehretia saligna over kapok, buffel grass, Rhynchosia minima, Corchorus walcottii, Indigofera linifolia with Eucalyptus vitrix present near drainage line.			Deep Gorge, Burrup Peninsula, N of Karratha	26/05/2009
<i>Rhynchosia bungarensis</i>	4	Ca 15 cm tall x ca 2 m wide. Viscid. In full flower and with well developed and dehiscent fruits.	Dry creekbed. Small dolerite and granophyre fragments. Red-brown clayey sand.	Eucalyptus vitrix, Sesbania cannagina, Rhagodia eremaea, Corchorus.	frequent.		Burrup Peninsula, dry creekbed crossing near waterfall area	27/05/2009
<i>Rhynchosia bungarensis</i>	4	Viscid plant in early flower.	Gently sloping plateau at crest of rockpile. Shallow soil between red granophyre/dolerite rocks.	Triodia wiseana hummock grassland with Triumfetta propinqua, Tephrosia supina, Indigofera monophylla, Vigna sp. rockpiles (R. Butcher et al. RB 1400), Rhynchosia minima, Brachychiton acuminatus.	occasional.		3.75 km along Burrup Road from Karratha - Dampier Road; ca 500 m in from road on top of rockpile	29/05/2009
<i>Rhynchosia bungarensis</i>	4	Flowers yellow, scrambling over rocks.	Rocks in watercourse.				West Lewis Island, Dampier Archipelago	14/06/1962
<i>Rhynchosia bungarensis</i>	4	Flowers yellow, red striped.	In sandy soil.				Dolphin Island, Dampier Archipelago	5/06/1962
<i>Rhynchosia bungarensis</i>	4	Twining, very sticky dark green spreading creeper. Hovely very sticky glandular tomentum on leaves and stems. Leaflets suborbicular broad oval 5-15 mm x 5-10 mm inflorescence on erect raceme. Flowers 5-7 mm long, sticky, yellow with deep red stripes rad	Rocky outcrop atop rocky slopes.				One Shack Bay, East Lewis Island	9/11/1987
<i>Rhynchosia bungarensis</i>	4	Soft shrub 0.3 m tall with resinous hairs.	At base of dolerite hill.				NE end of Enderby Island, Dampier Archipelago	19/07/1980
<i>Rhynchosia bungarensis</i>	4	Creepers, green, sticky 20-40 cm tall.	Steeply sloping rock pile (boulder scree) on valley side, E facing. Orange brown loam between cobbles (vegetated patch). Medium grained volcanic. Fire >10 years.	Terminalia canescens high open shrubland (low open woodland) over Acacia coriacea subsp. coriacea. Fleggia virosa subsp. melanthesoides high open s shrubland over Scaevola spinescens (narrow form), Rhagodia eremaea scattered shrubs over Triodia epactia			900 m SSW of the point near the centre of the NW of the Burrup Peninsula, Pilbara Bioregion, Site 8082	27/06/2000
<i>Rhynchosia bungarensis</i>	4		High rock pile, medium sized rocks (not vertical, not plates, more rounded chunks) westward facing. None on rock pile itself, but small pockets beneath of skeletal red-brown sandy soil. Red brown fine grained.	Brachychiton acuminatus, Terminalia canescens low open woodland over Pittosporum phylliraoides var. phylliraoides, Acacia coriacea subsp. coriacea open shrubland over Triodia epactia (Burrup form) scattered grasses. Condition excellent - no weeds. Assoc		Sample is 50 m along top of rock pile ca 70 m down to base.	Site D013, 3.65 km NNE along the coast from the southern tip of Dolphin Island, Dampier Archipelago, Pilbara Bioregion	29/05/2000
<i>Rhynchosia bungarensis</i>	4	Creepers.	Steeply sloping rock pile (boulder scree) on valley side, E facing. Orange brown loam between cobbles (vegetated patch). Medium grained volcanic. Fire >10 years.	Terminalia canescens high open shrubland (low open woodland) over Acacia coriacea subsp. coriacea. Fleggia virosa subsp. melanthesoides high open s shrubland over Scaevola spinescens (narrow form), Rhagodia eremaea scattered shrubs over Triodia epactia			900 m SSW of the point near the centre of the NW of the Burrup Peninsula, Pilbara Bioregion, Site 8082	27/06/2000
<i>Rhynchosia bungarensis</i>	4	Creepers.	Steeply sloping rock pile (boulder scree) on valley side, E facing. Orange brown loam between cobbles (vegetated patch). Medium grained volcanic. Fire >10 years.	Terminalia canescens high open shrubland (low open woodland) over Acacia coriacea subsp. coriacea. Fleggia virosa subsp. melanthesoides high open s shrubland over Scaevola spinescens (narrow form), Rhagodia eremaea scattered shrubs over Triodia epactia			900 m SSW of the point near the centre of the NW of the Burrup Peninsula, Pilbara Bioregion, Site 8082	27/06/2000
<i>Rhynchosia bungarensis</i>	4	Creepers, green, sticky 50 cm tall.	Narrow, fairly flat bottomed valley between a ridge with rock piles (to the W) and a large cliff and boulder scree slope. Low in landscape - upper end of tidal zone nearby. Brown loamy fine sand, cobbly pebbly in places.	Eucalyptus vitrix low woodland to low open woodland (Patchy) over Triodia angusta (Burrup form), Triodia epactia (Burrup form) hummock grassland. Associated species: Cyperus bifax, Cyperus vaginatus, Diplotera armata, Eriachne tenuiculis, Euphorbia co			1.3 km ENE of the SW tip of Dolphin Island and 300 m from the west coast, Site D088, Dampier Archipelago, Pilbara Bioregion	29/05/2000
<i>Rhynchosia bungarensis</i>	4	Creepers, green, sticky 50 cm tall.	Narrow, fairly flat bottomed valley between a ridge with rock piles (to the W) and a large cliff and boulder scree slope. Low in landscape - upper end of tidal zone nearby. Brown loamy fine sand, cobbly pebbly in places.	Eucalyptus vitrix low woodland to low open woodland (Patchy) over Triodia angusta (Burrup form), Triodia epactia (Burrup form) hummock grassland. Associated species: Cyperus bifax, Cyperus vaginatus, Diplotera armata, Eriachne tenuiculis, Euphorbia co			1.9 km ENE of the SW tip of Dolphin Island and 300 m from the west coast, Site D088, Dampier Archipelago, Pilbara Bioregion	29/05/2000
<i>Rhynchosia bungarensis</i>	4	Creepers. Viscid, creeping.	Winding gully from base of rockpile, S to N then along valley floor E to W. Red brown alluvial soi, appears very deep, very scattered stone. Scattered cobbles and small rock, grey, weathering.	Corymbia hamersleyana, Brachychiton acuminatus, Ehretia saligna var. saligna low open forest over Acacia coriacea subsp. coriacea, Dichrostachys spicata, Acacia bivenosa, A. elachantha open heath over Triodia angusta (Burrup form), Triodia epactia (Burrup form)			Site B235. 600 m E of the inner corner of Withnell Bay, Pilbara Bioregion	26/06/2000
<i>Rhynchosia bungarensis</i>	4	Creepers. Just above base 20 cm tall.	Moderately steep to very steep boulder scree of rockpile. Red-brown clay loam. >95% of plot is bare of vegetation.	Brachychiton acuminatus scattered low trees over Dichrostachys spicata, Ipomoea costata, Pittosporum phylliraoides var. phylliraoides scattered tall shrubs over Rhagodia eremaea scattered shrubs over Cymbopogon ambiguus scattered tussock grasses with R			2.6 km NE of the inner end of King Bay, Burrup Peninsula, Site B028, Pilbara Bioregion	22/05/2000
<i>Rhynchosia bungarensis</i>	4	Creepers 60 cm tall.	Moderate slope with 2 m tall outcrop. Good humus layer, dark chocolate brown clayey loam. Bare patches few. Coarse gravel - cobbles, 90% surface. Cobbles >70%. Fire < 1990?	Indigofera monophylla (Burrup form), Tephrosia rosea var. clementii, Triumfetta appendiculata (Burrup form) low open heath over Triodia epactia (Burrup form, Triodia angusta (Burrup form) hummock grassland to closed hummock grassland. Condition: very good			Site B076, NW part of the Burrup Peninsula, 600 m NE of the N corner of Conzinc Bay	27/05/2000
<i>Rhynchosia bungarensis</i>	4	Creepers, 20-60 cm tall.	Isolated rock pile, near the crest. Fine brown sand, fine grained grey volcanic rock.	Terminalia supranatifolia scattered tall shrubs over Acacia coriacea subsp. coriacea high open shrubland over Scaevola spinescens (narrow form), Dichrostachys spicata scattered shrubs over Aerva javanica low open shrubland and patches of Triodia epactia		Only the grey fine grained rock pile sampled. Site ended to avoid paler rock. Condition: Good to very good (reduced by presence of Aerva). Fire: >10 years.	Site B064, Burrup Peninsula, Pilbara Bioregion, west coast, adjacent to Holden Beach, between Dampier Port and NW Shelf Gas Works	26/05/2000
<i>Rhynchosia bungarensis</i>	4	Creepers 20 cm tall.	Moderate to steep boulders slope, pockets of vegetation. Reddish brown loam with aggregates at base.	Brachychiton acuminatus, Terminalia canescens, Ficus platypoda var. A. Terminalia supranatifolia high open shrubland to low open woodland over Acacia coriacea subsp. coriacea, Ipomoea costata scattered tall shrubs over Triodia epactia (Burrup form) scatt			Site B074, N of Conzinc Bay and 11.2 km ESE of the NW tip of the Burrup Peninsula, Pilbara Bioregion	27/05/2000



Taxon	Cons. Code	Plant Desc.	Site	Vegetation	Frequency	Notes	Locality	Date
<i>Terminalia supranitfolia</i>	3	Low spreading tree to 3 m. Tangled, sometime deciduous. Leaves (especially young ones) and green parts of flowers silvery silky fine pubescence. Abundant lemon melaleuca type flowering spikes. Bark grey, weathered and cracked.	White sand at base of shattered volcanic rock hills near beachfront.	<i>Ipomoea costata</i> , <i>Brachycthon ?anceolate</i> and <i>Ficus virens</i> .		Plants appear very old specimens here. Found only on this island.	Base hills right hand side Dampier Island, near right hand side of Dampier Salt Ltd lease.	/12/1986
<i>Terminalia supranitfolia</i>	3	Perennial tree/shrub. 3 m high x 1-2 m wide. White flowers.	Breakaway. Dry red brown rocky soil. Collection site: rangeland.	<i>Ficus brachypoda</i> scattered low trees over <i>Grevillea wickhamii</i> , <i>Rhagodia eremaea</i> scattered tall shrubs over <i>Triodia wiseana</i> very open hummock grassland.	one only.		2.6 km N-E of Fortescue Roadhouse	15/07/2010
<i>Terminalia supranitfolia</i>	3	Tree.	Breakaway - hillside. Red brown loam.	<i>Terminalia supranitfolia</i> scattered low trees over <i>Grevillea wickhamii</i> scattered tall shrubs over <i>Triodia wiseana</i> hummock grassland.	2-5 plants.	Astron No. FO-OPP-19a	3.5 km NE of Fortescue Roadhouse on North West Coastal Highway	15/07/2010
<i>Terminalia supranitfolia</i>	3		Breakaway - hillside. Red brown sandy loam.	Pasture. <i>Terminalia supranitfolia</i> scattered low trees over <i>Triodia wiseana</i> hummock grassland.	2-5 plants.		3.5 km NE of Fortescue Roadhouse on North West Coastal Highway	15/10/2010
<i>Terminalia supranitfolia</i>	3		Base of rockpile.				Site 1, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	22/11/1998
<i>Terminalia supranitfolia</i>	3		Rocky plateau.				Site 12, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	12/11/1998
<i>Terminalia supranitfolia</i>	3		Top of rock outcrop.				Site 13, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	15/11/1998
<i>Terminalia supranitfolia</i>	3	Shrub or small tree with flaky bark.	Rock pile.				Near Dampier	21/07/2004
<i>Terminalia supranitfolia</i>	3	Shrub 1.5 m tall, spreading. Leaves pale green. Flowers yellow-green.	Rockpiles.			Abundance: common.	King Bay - Withnell Bay Road, peninsula between Dampier and Dolphin Island.	6/12/1978
<i>Terminalia supranitfolia</i>	3		Top of rock outcrop.				Burrup Peninsula, Pistol Ranges, 5 of Hearson Cove Road	15/11/1998
<i>Terminalia supranitfolia</i>	3		Rocky plateau.				Burrup Peninsula, Pistol Ranges, 5 of Hearson Cove Road	12/11/1998
<i>Terminalia supranitfolia</i>	3		Base of rockpile.				Burrup Peninsula, Pistol Ranges, 5 of Hearson Cove Road	2/11/1998
<i>Terminalia supranitfolia</i>	3		Rocky slope.				Site 11, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	10/11/1998
<i>Terminalia supranitfolia</i>	3		Top of rock outcrop.				Site 20, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	26/11/1998
<i>Terminalia supranitfolia</i>	3		Top of rock outcrop.				Site 21, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	26/11/1998
<i>Terminalia supranitfolia</i>	3	Small spreading tree 2.5 m.	In shelter of Boulders above [HWM]. Calcium soil.	Associated vegetation: <i>Myamorphum</i> sp., and <i>Rhagodia</i> sp.			Hearson's Cove beach	11/03/1983
<i>Terminalia supranitfolia</i>	3	Small spreading tree 2.5 m.	In shelter of Boulders above [HWM].	Associated vegetation: <i>Myamorphum</i> sp., and <i>Rhagodia</i> sp.			Hearson's Cove beach	11/03/1983
<i>Terminalia supranitfolia</i>	3	A compact spreading small tree to 6 m x 8 m	In rock piles.				Burrup Peninsula	10/02/1982
<i>Terminalia supranitfolia</i>	3	Small tree 7 feet high, 10 feet across.	At base of basalt ridge.				Near Burrow Pits 8	
<i>Terminalia supranitfolia</i>	3		Rock outcrop terrace, some soil.	<i>Spinifex</i> /shrubs				12/1971
<i>Terminalia supranitfolia</i>	3		Small rocky terrace on large rock outcrop				Site 18, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	24/11/1998
<i>Terminalia supranitfolia</i>	3		Top of rock outcrop.				Site 6, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	5/11/1998
<i>Terminalia supranitfolia</i>	3		Rocky slope.				Site 19, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	24/11/1998
<i>Terminalia supranitfolia</i>	3		Top of rock outcrop on plateau.	<i>Spinifex</i> /shrub.			Site 17, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	22/11/1998
<i>Terminalia supranitfolia</i>	3		Base of rockpile.				Site 16, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	22/11/1998
<i>Terminalia supranitfolia</i>	3		Mid-slope of rock outcrop.				Site 5, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	28/11/1998
<i>Terminalia supranitfolia</i>	3		Rocky plateau.				Site 2, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	2/11/1998
<i>Terminalia supranitfolia</i>	3		Mid-slope of rock outcrop.				Site 3, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	3/11/1998
<i>Terminalia supranitfolia</i>	3		Rocky plateau.				Site 22, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	28/11/1998
<i>Terminalia supranitfolia</i>	3		Steep rock outcrop slope.				Site 4, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	3/11/1998
<i>Terminalia supranitfolia</i>	3						Site 10, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	10/11/1998
<i>Terminalia supranitfolia</i>	3	Stunted canopy tree, very gnarled twisted trunk, intricate branches, grey in colour. Leaves glossy, silvery silky tomentum. Flowers lemon, fruits not winged. Leaves lemon-green colour.	Found at base of rocky hillsides or in this case rocky outcrop at rear of beach.	Associated with <i>Ipomoea costata</i> , <i>Ficus virens</i> , <i>Brachycthon lacuminatum</i> , [???] <i>maritima</i> .		Abundance: uncommon.	Rear of beach, Hearson Cove	/05/1983
<i>Terminalia supranitfolia</i>	3		Steep rock outcrop slope.				Site 7, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	8/11/1998
<i>Terminalia supranitfolia</i>	3		Base of rockpile.				Site 9, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	9/11/1998
<i>Terminalia supranitfolia</i>	3		Steep rock outcrop slope.				Site 15, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	20/11/1998
<i>Terminalia supranitfolia</i>	3		Steep rock outcrop slope.				Site 14, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	20/11/1998
<i>Terminalia supranitfolia</i>	3		Top of rock outcrop.				Site 8, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	18/11/1998
<i>Terminalia supranitfolia</i>	3		Shrubby tree to 1.8 m high, spreading. Leaves medium green, fruit yellowish green.	Rocky hill slope overlooking a river bed with a deep waterhole.		Abundance: only one in area.	Above Munni Munni Creek, about 5 km due S of Cherrata Homestead (aban.) Yarraloola.	6/07/1986
<i>Terminalia supranitfolia</i>	3	Spreading tree, 3 m high x 5 m wide. Yellow flowers.	Semi disturbed ground, rocky outcrops. UCL. Red rocky soil.	Low shrubland with <i>Brachycthon acuminatus</i> , <i>Ipomoea costata</i> and <i>Cenchrus ciliaris</i> .	1 plant only.		Dampier Port	7/02/2003
<i>Teucrium pilbaranum</i>	2	Upright, perennial herb growing up to 0.1 m tall.	Crabholed drainage floor on margin of calcrete table.	Open woodland of <i>Eucalyptus victrix</i> , with a tussock grass understory of <i>Eriacine benthamii</i> .	abundant.		Howletts Well, about 11 km SE of Visitors Centre, Millstream National Park	7/09/1996
<i>Teucrium pilbaranum</i>	2	Perennial herb with a woody rootstock and annual shoots. Corolla white, stamens and style white. Stamens and style exerted.	On river floor, next to a permanent pool. Red clay-loam.	<i>Livistona alfredii</i> , <i>Eucalyptus camaldulensis</i> woodland over scattered herb.			Close to the middle of the N side of Crossing Pool, Millstream	27/01/1976
<i>Themeda</i> sp. Hammersley Station [M.E. Trudgen 11431]	3	100 cm high. Reproductive method: seeds. Green.	Red loam/clay. Low disturbance. Fire history: greater than 5 years. Mining lease.	<i>Corymbia</i> and <i>Acacia</i> over <i>Cenchrus</i> . With <i>Acacia pyrifolia</i> , <i>A. bivenosa</i> , <i>Cenchrus ciliaris</i> , <i>Corymbia hamersleyana</i> , <i>Hybanthus aurantiacus</i> , <i>Triodia epactia</i> , <i>Triumfetta clementii</i> .	2-5 plants.		Pilbara: Scholls Lease, ca 25 km S of Karratha	3/04/2007
<i>Themeda</i> sp. Hammersley Station [M.E. Trudgen 11431]	3		Broad ironstone drainage line.	<i>Eucalyptus victrix</i> low open woodland over mixed tussock grassland. Associated species: <i>Melaleuca glomerata</i> , <i>Acacia tumida</i> , <i>Stemodia grossa</i> , <i>Cyperus vaginatus</i> , <i>Cenchrus ciliaris</i> , <i>Echinochloa colona</i> .			83.54 km NW of Mt Sheila, 73.95 km S of the intersection of North West Coastal Highway and Karratha Road	15/04/2010
<i>Themeda</i> sp. Hammersley Station [M.E. Trudgen 11431]	3	Grass.	Grass plain.			Common	Millstream Station	17/06/1946
<i>Themeda</i> sp. Hammersley Station [M.E. Trudgen 11431]	3	1.9m tall upright grass bases not buried in ground	Drainage focus in cracking clay plain	<i>Fragrostis xerophila</i> grassland			10km W of Karratha on road to Dampier: opp & Mile Railway sheds on E side of road	30/08/1992
<i>Themeda</i> sp. Hammersley Station [M.E. Trudgen 11431]	3	Perennial tussock grass. Leaves pale aqua. Culms pale yellow.	Gently sloping flowline to creekline between low rises. Bed not well defined. Pebbly orange-brown gravelly sandy loam, some cobbles and boulders. Some outcrop.	Scattered low trees of <i>Corymbia hamersleyana</i> over <i>Acacia tumida</i> open scrub over <i>Tephrosia rosea</i> var. <i>clementii</i> low open shrubland over <i>Triodia wiseana</i> and <i>Themeda triandra</i> hummock grassland.	not common.		9.25 km SSW of Mount Herbet, Millstream-Chichester National Park, Fortescue Botanical District	21/05/1997
<i>Themeda</i> sp. Hammersley Station [M.E. Trudgen 11431]	3	Perennial tussock grass. Leaves very pale aqua, tightly folded narrow V shapes. Culms pale yellow.	Edges of flat topped hill. Orange-brown gravelly loam with angular gravel surface (bright orange-brown) with outcrop. Parts burnt c. 4-5 years ago.				11.5 km SSW of Mount Herbet, Millstream-Chichester National Park, Fortescue Botanical District	20/05/1997
<i>Trianthema</i> sp. Python Pool [G.R. Guerin & M.E. Trudgen GG 1023]	2	Prostrate annual 3 cm high x 30 cm wide. Flowers pink.	Plain. Brown clayey-sand.	Open scrub.	locally frequent.		Millstream National Park	4/09/2013
<i>Trianthema</i> sp. Python Pool [G.R. Guerin & M.E. Trudgen GG 1023]	2	Annual, prostrate and open herb: 0.02 m high and 0.20 m wide. Pink flower.	Flood plain. Rangeland. Brown dry rocky soil.	Bare areas.	over 50 plants.	Population structure: adult with seeds. 100% flowering and 50% fruiting.	21 km from NW Coastal Highway along railway line track at junction with road from Roebourne, Karratha	27/07/2004
<i>Trianthema</i> sp. Python Pool [G.R. Guerin & M.E. Trudgen GG 1023]	2	Small spreading herb to 10 cm high. Stems reddish brown, flowers white with pale mauve anthers, ovary and tips to petals. Leaves dull, medium green, tinged red underneath.	Low undulating hills. No recent sign of fire.	<i>Acacia inaequilatera</i> scattered tall shrubs over <i>Triodia wiseana</i> hummock grassland.			22 km SE of Fortescue Roadhouse, 22 km N of Pannawonica and 94 km SW of Karratha	26/06/2015
<i>Trianthema</i> sp. Python Pool [G.R. Guerin & M.E. Trudgen GG 1023]	2	Annual herb, erect to quite spreading. Stems light brown. Leaves a dull light green. Petals mauve, paler at centre. Stamens 10. Top of ovary almost white.	Rocky soil on flat plain.		common.		Beside a station track to a waterhole on the Maitland River (Cliff Springs), 5 km due ENE Zebra Hill, 5 km due W Maitland River	11/03/1987
<i>Trianthema</i> sp. Python Pool [G.R. Guerin & M.E. Trudgen GG 1023]	2	Prostrate to near prostrate annual herb. Stem pale green below, tan to light red above. Tegals pink-mauve above, light green below with a narrow pale pink edge. Filaments white, untied near base, 10, spreading almost horizontally, erect at first. Ovary p	Area of mosaic of bare areas with herbs and <i>Triodia angusta</i> hummock grassland which extends both sides of the tract. Soil: Red-brown loam with some fine gravel. Water (a few cm) lies in places.	<i>Triodia longiceps</i> , <i>Triodia pungens</i> hummock grassland. <i>Triodia longiceps</i> 5-15%; <i>Triodia pungens</i> = 5%. Associated annuals: <i>Gomphrena cunninghamii</i> , <i>Ptilotus murrayi</i> var. <i>murrayi</i> , <i>Trianthema</i> aff. <i>kimberleyi</i> (MET 15,060), <i>Polycarpa corymbosa</i> , <i>Indigastrium pa</i>			Site number: 11. 5.7 km north-west of Mount Montague, Millstream-Chichester National Park, Fortescue Botanical District	9/04/1997
<i>Trianthema</i> sp. Python Pool [G.R. Guerin & M.E. Trudgen GG 1023]	2	Narrow plain between a creek and a large ridge. On brown clay loam between gravel to cobbles with pebble to cobble surface.		<i>Triodia longiceps</i> scattered hummocks over <i>Trianthema</i> sp. associated with <i>Ptilotus murrayi</i> , <i>Brachyachne prostrata</i> , <i>Dactyloctenium radulans</i> and <i>Trianthema triquetra</i> .	a dense population of several dozen individuals in a limited area.		3.9 km north east of Snake Creek turn-off on Roebourne-Wittenoom Road.	27/05/2008
<i>Triodia basitricha</i>	3	Soft hummock grass to 0.3 m tall hummock and 0.7 m tall seed heads.	Stepped ironstone slope near margins to calcrete.	Hummock grassland.	common.		Ca 40 km W of Millstream homestead and ca 1 km down track to Robe railway line	31/03/1994
<i>Triodia basitricha</i>	3	Perennial hummock grass.	Flat topped hill. Soil: Terracotta coloured gravelly loam with gravelly surface.	<i>Acacia hilliana</i> low open shrubland over <i>Plectrachne</i> sp. (MET 10,114) open hummock grassland. <i>Plectrachne</i> sp. (MET 10,114) 15-25 cm 20-25%; <i>Acacia hilliana</i> 50 cm < 1- < 5%. Burnt about 5 years ago. Some patches of <i>Acacia monticola</i> along the shoulder and o			Site number: 489. 26.2 km west-north-west of Erallinya Pool, Hammersley Range, Fortescue Botanical District	24/05/1997
<i>Triodia pisaliticola</i>	3	Perennial grass. Yellow flowers.	Hilltop plateau. Skeletal with pavement. Collection site: rangeland.	<i>Ehretia saligna</i> var. <i>saligna</i> scattered tall shrubs over <i>Acacia arida</i> open shrubland over <i>Triodia wiseana</i> ( <i>Triodia</i> sp. Robe River) open hummock grassland.	6-20 plants.		300 m S of Fortescue Roadhouse. 100 km from Karratha	15/07/2010
<i>Vigna triadophila</i>	3	Herb. Slender vine entwined in <i>Triodia epactia</i> and rocks. Vine with thickened root - probably perennial but dying back to rootstock in dry. Flowers yellow.	Base of high rockpile ridge. Skeletal brown/red soil. Sits in pockets between rocks and stones.	<i>Triodia epactia</i> hummock grassland with <i>Paspallidium tabulatum</i> and scattered low trees <i>Terminalia supranitfolia</i> , <i>Ipomoea costata</i> at base of rockpile.	21-50.	Population structure: adult. Occurs over an area 25m x 10m.	Burrup Road between MOF Road and NorthWest Shelf, opposite Pluto Site ca 500 m from Withnell Bay Road, E side Burrup - Burrup Peninsula	30/01/1975
<i>Vigna triadophila</i>	3	Vine 30 cm high.	S facing slope and crest of a low spur that trends E-W. Brown (slightly orange) loam amongst pebbles and cobbles. Cobbles to small boulders, surface to 50% cover. Fire 5 to >10 years.	<i>Acacia inaequilatera</i> , <i>A. bivenosa</i> scattered tall shrubs over <i>Indigifera monophylla</i> (Burrup form) low shrubland over <i>Triodia epactia</i> (Burrup form) hummock grassland with <i>Rhynchosia cf. minima</i> open lanes. Condition: very good to excellent.			Site 8024, E of Burrup road at bend before North West Shelf gas plant	21/05/2000
<i>Vigna triadophila</i>	3		W facing terrace between rock piles on plateau 250 m from the coast. Skeletal red brown silty loam, low rockwall to E side and deeper colluvial sandy soil and shale to rock drop at W side. Rocks and boulders, fine grained rhynchocite. There are small outc	<i>Acacia bivenosa</i> , <i>Grevillea pyramidalis</i> subsp. <i>pyramidalis</i> high open shrubland over <i>Indigifera monophylla</i> (Burrup form) low open shrubland over <i>Triodia epactia</i> (Burrup form) hummock grassland. Condition excellent. <i>Acacia orthocarpa</i> , <i>Boerhavia gardneri</i> , <i>Cy</i>			Site 8025, Burrup Peninsula, ca 250 m inland from the East coast of Withnell Bay	22/05/2000
<i>Vigna triadophila</i>	3	Spreading, slender vine.	Rockpiles (including <i>Riodia</i> pockets) on a NW facing slope, medium sized blocky boulders.	<i>Ipomoea costata</i> , <i>Dichrostachys spicata</i> , <i>Eremophila longifolia</i> open shrubland over <i>Scaevola spinescens</i> (narrow form), <i>Rhagodia eremaea</i> low open shrubland over <i>Triodia angusta</i> , <i>Aristida nitidula</i> very open hummock grassland. Associated species: <i>Commicarpus</i>			Site HD188, Harding Dam area, rockpiles SW of the dam, ca 500 m from carpark	4/06/2000
<i>Vigna triadophila</i>	3	Slightly twining woody herb, growing through <i>Triodia</i> hummocks and well concealed, flowers held above grass clumps. Leaflets showing higher variation in shape than seen in RB 1400 population; some leaflets with sub-acute apices. In early flower; very young	Gently sloping plateau at crest of rockpile. Shallow red soil between red rocks.	Sparse <i>Brachycthon acuminatus</i> and <i>Acacia</i> sp. over low shrubland with <i>Triumfetta griseopilula</i> , <i>Tephrosia supina</i> , <i>Rhynchosia minima</i> , <i>Indigifera</i> , and <i>Triodia wiseana</i> hummock grassland.	occasional.		3.75 km along Burrup Road from Karratha - Dampier Road, towards top of rockpile ca 500 m in from road	29/05/2009
<i>Vigna triadophila</i>	3	Trailing woody herb. Often growing through <i>Triodia</i> clumps. Leaflets ovate, lateral leaflets asymmetrical and without lobing near their base. Standard yellow and with prominent callusities; wings yellow; keel pale yellow-green.	Growing between rocks in rockpile habitat, shallow red-brown clayey sand between granophyre rocks. Rockpile rising from broad plain. Burned 6-9 months previously.	Open shrubland with <i>Triodia</i> , <i>Themeda</i> , <i>Indigifera</i> , <i>Rhynchosia minima</i> .	occasional, ca 20 plants seen.		8.2 km along Cleaverville track from North West Coastal Highway, N of Karratha; Pilbara Biological Survey site BR 11	26/05/2009
<i>Vigna triadophila</i>	3	Liane. Festoons some plants in dense growths 0.75-2 m high.	Steep S facing boulder scree (rockpile) with some outcrop. Bright light brown (orange brown) loam, rocky grey, volcanic, medium grained.	<i>Brachycthon acuminatus</i> scattered low trees over <i>Flueggea virosa</i> subsp. <i>melanthesoides</i> scattered tall shrubs to tall open shrubland over <i>Dichrostachys spicata</i> scattered shrubs to open shrubland over <i>Cymbopogon ambiguus</i> , <i>Themeda</i> sp. Burrup (884), <i>Eriacine</i>			Site 8018, Burrup Peninsula, Pilbara Bioregion, 400 m SE of Burrup	21/05/2000
<i>Vigna triadophila</i>	3	Slightly twining woody herb, growing through <i>Triodia</i> hummocks and well concealed, flowers held above grass clumps. Calyx very pale green with slight red speckling along upper surface; upper lobes more or less fully fused; upper lip with rounded apex; low	Strongly undulating rockpile topography. Steep slope above Harding Dam. Gritty red sand between large rocks.	Very open <i>Acacia</i> shrubs over <i>Ipomoea costata</i> , <i>Eremophila longifolia</i> and <i>Triodia</i> hummock grassland.	occasional.		Base of rockpile ca 200 m SE of workshop shed, off access track to Harding Dam. Access track is ca 650 m E of Cooya - Pooya Road, S of Roebourne	28/05/2009
<i>Vigna triadophila</i>	3	Annual, climbing herb. Vine spread 1m through <i>Triodia angusta</i> flowers yellow. Shiny bright green scrambler over rocks. Many stems arising from base. Leaves bright shiny green glabrous. Stems entangled. Spreading 0.5 m tall. All stems slender. Flowering stems slender held upright. 3 pale lemon flowers.	Colluvial red-brown soil with outcrop on lower hillslope.	<i>Triodia angusta</i> hummock grassland with <i>Cassytha capillaris</i> .	one only.	Population structure: adult.	On Pluto Lease, adjacent to and W side of Haul Road - Pluto (Burrup Industrial Area) Burrup Peninsula	31/03/2011
<i>Vigna triadophila</i>	3		Between rocks on hill slope.				Below lookout steps at side of car park at top of dam site, Harding River Dam	3/07/1986
<i>Vigna triadophila</i>	3	Liane 20 cm high.	Gentle slope above rock pile of boulder scree. Soil very sparse between boulders. Boulders to 50 cm diameter. Fire > 10 years.	<i>Grevillea pyramidalis</i> subsp. <i>pyramidalis</i> , <i>Ipomoea costata</i> scattered shrubs to open shrubland over <i>Triodia epactia</i> (Burrup form) hummock grassland with <i>Tephrosia aff. supina</i> (MET 12357) open herbland and <i>Rhynchosia</i> sp. Burrup (82-1C) open lanes. Condition			1.7 km SE of the centre of King Bay, Burrup Peninsula, Pilbara Bioregion, Site 8016	21/05/2000
<i>Vigna triadophila</i>	3	Vine.	Very, very gently sloping upper hill slope, on top of a flat topped hill. Facing SW high and exposed to strong winds. No protection from surrounding rockpiles. Very fine red loam with dense stony mantle. Small stones, 5-15 cm diameter. Very exposed slope	<i>Ipomoea costata</i> scattered shrubs over <i>Triodia wiseana</i> hummock grassland with <i>Vigna</i> sp. Harding Dam (HD188-12) very open lanes. Condition excellent, no weeds. <i>Cochorus aff. sidoides</i> (HD179-5), <i>Dichanthium sericeum</i> subsp. <i>humilis</i> , <i>Dyphania rhadinostachy</i>			Tabletop Mountain, 44 km SE of Karratha, one third of the way SE along SW facing side from the NW, Site HD189	4/06/2000
<i>Vigna triadophila</i>	3		Rock; proximal colluvium. Moderately inclined slope, aspect 150 degrees. Many coarse fragments to maximum size of 600 mm. Slight bedrock outcrop. Brown loam, average depth 15.4 cm.	Scattered Tall Shrubs of <i>Acacia inaequilatera</i> & <i>Acacia pyrifolia</i> over Open Shrubland of <i>Acacia coriacea</i> subsp. <i>Pendens</i> & <i>Acacia pyrifolia</i> over Low Open Shrubland of <i>Acacia bivenosa</i> , <i>Triumfetta</i> sp. & <i>Acacia coriacea</i> subsp. <i>Pendens</i> over Hummock Grassland o			Site: DRC11, West side of road, Cleaverville Road, 8.2 km N of North West Coastal Highway, 6.5 km WSW of Mt Anketel, 17.3 km ENE of Karratha, Mt Welcome Station, Pilbara IBRA	23/08/2005
<i>Vigna triadophila</i>	3		Rock; proximal colluvium. Moderately inclined slope, aspect 150 degrees. Many coarse fragments to maximum size of 600 mm. Slight bedrock outcrop. Brown loam, average depth 15.4 cm.	Scattered Tall Shrubs of <i>Acacia inaequilatera</i> & <i>Acacia pyrifolia</i> over Open Shrubland of <i>Acacia coriacea</i> subsp. <i>Pendens</i> & <i>Acacia pyrifolia</i> over Low Open Shrubland of <i>Acacia bivenosa</i> , <i>Triumfetta</i> sp. & <i>Acacia coriacea</i> subsp. <i>Pendens</i> over Hummock Grassland o			Site: DRC11, West side of road, Cleaverville Road, 8.2 km N of North West Coastal Highway, 6.5 km WSW of Mt Anketel, 17.3 km ENE of Karratha, Mt Welcome Station, Pilbara IBRA	10/09/2004
<i>Vigna triadophila</i>	3		Rock; proximal colluvium. Moderately inclined slope, aspect 150 degrees. Many coarse fragments to maximum size of 600 mm. Slight bedrock outcrop. Brown loam, average depth 15.4 cm.	Scattered Tall Shrubs of <i>Acacia inaequilatera</i> & <i>Acacia pyrifolia</i> over Open Shrubland of <i>Acacia coriacea</i> subsp. <i>Pendens</i> & <i>Acacia pyrifolia</i> over Low Open Shrubland of <i>Acacia bivenosa</i> , <i>Triumfetta</i> sp. & <i>Acacia coriacea</i> subsp. <i>Pendens</i> over Hummock Grassland o			Site: DRC11, West side of road, Cleaverville Road, 8.2 km N of North West Coastal Highway, 6.5 km WSW of Mt Anketel, 17.3 km ENE of Karratha, Mt Welcome Station, Pilbara IBRA	14/05/2004

Threatened and Priority Ecological Communities Database Search

COM_ID	COM_NAME	STATE_CATG	COMM_CAT
Burrup Peninsula rock pile communities	Burrup Peninsula rock pile communities	Priority 1	
Burrup Peninsula rock pool communities	Burrup Peninsula rock pool communities	Priority 1	
Coastal dune native tussock grassland	Coastal dune tussock grassland dominated by <i>Whiteochloa airoides</i>	Priority 3	
Horseflat Land System	Horseflat Land System of the Roebourne Plains	Priority 3	
Horseflat land system of the Roebourne Plains	Horseflat land system of the Roebourne Plains	Priority 3	
Roebourne chenopod association	Stony Chenopod association of the Roebourne Plains area	Priority 1	
Roebourne Plains gilgai grasslands	Roebourne Plains coastal grasslands with gilgai microrelief on deep cracking clays (Roebourne Plains gilgai grasslands)	Priority 1	
Wona Land System	Four plant assemblages of the Wona Land System (previously ÔÇÿCracking clays of the Chichester and Mungaroona RangeÔÇÿ)	Priority 1	

Conservation Significant Fauna DBCA Database Search

SCI_NAME	COM_NAME	CLASS	WA_LISTING	WA_status	EPBCstatus
Actitis hypoleucos	Common Sandpiper	BIRD	Specially Protected - migratory	MI	MI
Apus pacificus	Fork-tailed Swift, Pacific Swift	BIRD	Specially Protected - migratory	MI	MI
Arenaria interpres	Ruddy turnstone	BIRD	Specially Protected - migratory	MI	MI
Calidris acuminata	Sharp-tailed sandpiper	BIRD	Specially Protected - migratory	MI	MI
Calidris alba	Sanderling	BIRD	Specially Protected - migratory	MI	MI
Calidris canutus	Red knot	BIRD	Threatened - Endangered	EN	EN
Calidris ferruginea	curlew sandpiper	BIRD	Threatened - Critically endangered	CR	CR
Calidris ruficollis	Red-necked stint	BIRD	Specially Protected - migratory	MI	MI
Calidris subminuta	Long-toed Stint	BIRD	Specially Protected - migratory	MI	MI
Calidris tenuirostris	Great knot	BIRD	Threatened - Critically endangered	CR	CR
Charadrius leschenaultii	Greater sand plover, large sand plover	BIRD	Threatened - Vulnerable	VU	MI
Charadrius mongolus	Lesser Sand Plover	BIRD	Threatened - Endangered	EN	EN
Charadrius veredus	oriental plover	BIRD	Specially Protected - migratory	MI	MI
Chlidonias leucopterus	White-winged black tern, white-winged tern	BIRD	Specially Protected - migratory	MI	MI
Ctenotus angusticeps	Airlie Island Ctenotus, Northwestern coastal Ctenotus	REPTILE	Priority	P3	VU
Dasyurus hallucatus	northern quoll	MAMMAL	Threatened - Endangered	EN	EN
Falco peregrinus	Peregrine falcon	BIRD	Specially Protected - other specially protected	OS	
Fregata ariel	Lesser frigatebird	BIRD	Specially Protected - migratory	MI	MI
Gelochelidon nilotica	Gull-billed tern	BIRD	Specially Protected - migratory	MI	MI
Glareola maldivarum	Oriental pratincole	BIRD	Specially Protected - migratory	MI	MI
Hirundo rustica	Barn swallow	BIRD	Specially Protected - migratory	MI	MI
Hydroprogne caspia	Caspian Tern	BIRD	Specially Protected - migratory	MI	MI
Leggadina lakedownensis	Northern short-tailed mouse, Lakeland Downs mouse, kerakenga	MAMMAL	Priority	P4	
Liasis olivaceus barroni	Pilbara olive python	REPTILE	Threatened - Vulnerable	VU	VU
Limicola falcinellus	Broad-billed sandpiper	BIRD	Specially Protected - migratory	MI	MI
Limosa lapponica	Bar-tailed godwit	BIRD	Specially Protected - migratory	MI	MI
Limosa limosa	Black-tailed godwit	BIRD	Specially Protected - migratory	MI	MI
Notoscincus butleri	Lined soil-crevice skink (Dampier)	REPTILE	Priority	P4	
Numenius madagascariensis	eastern curlew	BIRD	Threatened - Critically endangered	CR	CR
Numenius minutus	Little curlew, little whimbrel	BIRD	Specially Protected - migratory	MI	MI
Numenius phaeopus	Whimbrel	BIRD	Specially Protected - migratory	MI	MI
Oceanites oceanicus	Wilson's storm-petrel	BIRD	Specially Protected - migratory	MI	MI
Pandion cristatus	Osprey, eastern osprey	BIRD	Specially Protected - migratory	MI	MI
Plegadis falcinellus	Glossy ibis	BIRD	Specially Protected - migratory	MI	MI
Pluvialis fulva	Pacific golden plover	BIRD	Specially Protected - migratory	MI	MI
Pluvialis squatarola	Grey plover	BIRD	Specially Protected - migratory	MI	MI
Pseudomys chapmani	western pebble-mound mouse, ngadji	MAMMAL	Priority	P4	
Sternula albifrons	Little tern	BIRD	Specially Protected - migratory	MI	MI
Thalasseus bergii	Crested tern	BIRD	Specially Protected - migratory	MI	MI
Tringa brevipes	Grey-tailed tattler	BIRD	Priority	P4	MI
Tringa glareola	Wood sandpiper	BIRD	Specially Protected - migratory	MI	MI
Tringa nebularia	Common greenshank, greenshank	BIRD	Specially Protected - migratory	MI	MI
Tringa stagnatilis	Marsh sandpiper, little greenshank	BIRD	Specially Protected - migratory	MI	MI
Xenus cinereus	Terek sandpiper	BIRD	Specially Protected - migratory	MI	MI

# NatureMap Species Report

Created By Guest user on 23/06/2021

**Kingdom** Plantae  
**Current Names Only** Yes  
**Core Datasets Only** Yes  
**Method** 'By Circle'  
**Centre** 116° 49' 16" E, 20° 45' 54" S  
**Buffer** 40km  
**Group By** Conservation Status

Conservation Status	Species	Records
Non-conservation taxon	892	8517
Priority 1	4	12
Priority 2	2	3
Priority 3	17	118
Priority 4	1	66
<b>TOTAL</b>	<b>916</b>	<b>8716</b>

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
<b>Priority 1</b>				
1.	43021 <i>Abutilon</i> sp. <i>Pritzelianum</i> (S. van Leeuwen 5095)		P1	
2.	12570 <i>Goodenia pallida</i>		P1	
3.	8030 <i>Helichrysum oligochaetum</i>		P1	
4.	41920 <i>Tephrosia rosea</i> var. <i>Port Hedland</i> (A.S. George 1114)		P1	
<b>Priority 2</b>				
5.	42843 <i>Euphorbia australis</i> var. <i>glabra</i>		P2	
6.	33278 <i>Trianthema</i> sp. <i>Python Pool</i> (G.R. Guerin & M.E. Trudgen GG 1023)		P2	
<b>Priority 3</b>				
7.	17520 <i>Atriplex lindleyi</i> subsp. <i>conduplicata</i>		P3	
8.	18411 <i>Corchorus congener</i>		P3	
9.	38505 <i>Eragrostis surreyana</i>		P3	
10.	35179 <i>Eriochloa fatmensis</i>		P3	
11.	3940 <i>Glycine falcata</i>		P3	
12.	18360 <i>Gomphrena cucullata</i>		P3	
13.	17894 <i>Gomphrena leptophylla</i>		P3	
14.	12832 <i>Gymnanthera cunninghamii</i>		P3	
15.	6980 <i>Nicotiana umbratica</i>		P3	
16.	19640 <i>Oldenlandia</i> sp. <i>Hamersley Station</i> (A.A. Mitchell PRP 1479)		P3	
17.	1010 <i>Schoenus punctatus</i>		P3	
18.	41820 <i>Solanum albobestellatum</i>		P3	
19.	4729 <i>Stackhousia clementii</i>		P3	
20.	4736 <i>Stackhousia umbellata</i>		P3	
21.	5313 <i>Terminalia supranitifolia</i>		P3	
22.	17820 <i>Themeda</i> sp. <i>Hamersley Station</i> (M.E. Trudgen 11431)		P3	
23.	46577 <i>Vigna triodiophila</i>		P3	
<b>Priority 4</b>				
24.	20862 <i>Rhynchosia bungarensis</i>		P4	
<b>Non-conservation taxon</b>				
25.	4886 <i>Abutilon amplum</i>			
26.	9080 <i>Abutilon cunninghamii</i>			
27.	4891 <i>Abutilon fraseri</i> ( <i>Lantern Bush</i> )			
28.	18120 <i>Abutilon fraseri</i> subsp. <i>fraseri</i>			
29.	4894 <i>Abutilon indicum</i> ( <i>Indian Lantern Flower</i> )			
30.	11325 <i>Abutilon indicum</i> var. <i>australiense</i>			
31.	4895 <i>Abutilon lepidum</i>			
32.	4898 <i>Abutilon macrum</i>			
33.	4899 <i>Abutilon malvifolium</i> ( <i>Bastard Marshmallow</i> )			
34.	4901 <i>Abutilon otocarpum</i> ( <i>Desert Chinese Lantern</i> )			
35.	4902 <i>Abutilon oxycarpum</i> ( <i>Flannel Weed</i> )			



Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
36.	43020 <i>Abutilon oxycarpum</i> subsp. <i>Prostrate</i> (A.A. Mitchell PRP 1266)			
37.	<i>Acacia Airlie Island</i> (V. Long VL 163)			
38.	3209 <i>Acacia ampliceps</i>			
39.	44580 <i>Acacia ampliceps</i> x <i>bivenosa</i>			
40.	44586 <i>Acacia ampliceps</i> x <i>sclerosperma</i> subsp. <i>sclerosperma</i>			
41.	3214 <i>Acacia ancistrocarpa</i> ( <i>Fitzroy Wattle</i> )			
42.	3223 <i>Acacia arida</i>			
43.	3241 <i>Acacia bivenosa</i>			
44.	44588 <i>Acacia bivenosa</i> x <i>sclerosperma</i> subsp. <i>sclerosperma</i>			
45.	13403 <i>Acacia colei</i>			
46.	17013 <i>Acacia colei</i> var. <i>colei</i>			
47.	3270 <i>Acacia coriacea</i> ( <i>Wirewood</i> )			
48.	13500 <i>Acacia coriacea</i> subsp. <i>coriacea</i>			
49.	13502 <i>Acacia coriacea</i> subsp. <i>pendens</i>			
50.	16174 <i>Acacia elachantha</i>			
51.	12673 <i>Acacia glaucocaesia</i>			
52.	3356 <i>Acacia gregorii</i> ( <i>Gregory's Wattle</i> )			
53.	3372 <i>Acacia holosericea</i> ( <i>Candelbra Wattle, Liringgin</i> )			
54.	3377 <i>Acacia inaequilatera</i> ( <i>Baderi</i> )			
55.	3419 <i>Acacia ligulata</i> ( <i>Umbrella Bush, Watarka</i> )			
56.	3434 <i>Acacia maitlandii</i> ( <i>Maitland's Wattle</i> )			
57.	3471 <i>Acacia orthocarpa</i> ( <i>Needleleaf Wattle</i> )			
58.	3506 <i>Acacia pyrifolia</i> ( <i>Ranji Bush, Kandji</i> )			
59.	29016 <i>Acacia pyrifolia</i> var. <i>morrisonii</i>			
60.	29015 <i>Acacia pyrifolia</i> var. <i>pyrifolia</i>			
61.	15215 <i>Acacia retivenea</i> subsp. <i>clandestina</i>			
62.	15203 <i>Acacia sabulosa</i>			
63.	13078 <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i>			
64.	29135 <i>Acacia sericophylla</i>			
65.	29102 <i>Acacia</i> sp. <i>Airlie Island</i> (V. Long VL 163)			
66.	3551 <i>Acacia sphaerostachya</i>			
67.	19456 <i>Acacia stellaticeps</i>			
68.	13070 <i>Acacia synchronicia</i>			
69.	3573 <i>Acacia tenuissima</i>			
70.	3579 <i>Acacia trachycarpa</i> ( <i>Minni Ritchi, Balgali</i> )			
71.	29992 <i>Acacia trachycarpa</i> x <i>tumida</i> var. <i>pilbarensis</i>			
72.	3585 <i>Acacia tumida</i> ( <i>Pindan Wattle, Walgali</i> )			
73.	20319 <i>Acacia tumida</i> var. <i>pilbarensis</i>			
74.	3606 <i>Acacia xiphophylla</i>			
75.	26440 <i>Acanthophora dendroides</i>			
76.	26441 <i>Acanthophora spicifera</i>			
77.	48409 <i>Acetabularia caliculus</i>			
78.	2645 <i>Achyranthes aspera</i> ( <i>Chaff Flower</i> )			
79.	172 <i>Acrachne racemosa</i>			
80.	4583 <i>Adriana tomentosa</i>			
81.	17422 <i>Adriana tomentosa</i> var. <i>tomentosa</i>			
82.	6486 <i>Aegialitis annulata</i> ( <i>Club Mangrove</i> )			
83.	6478 <i>Aegiceras corniculatum</i> ( <i>River Mangrove</i> )			
84.	2646 <i>Aerva javanica</i> ( <i>Kapok Bush</i> )	Y		
85.	3680 <i>Aeschynomene indica</i> ( <i>Budda Pea</i> )			
86.	26450 <i>Aglaothamnion cordatum</i>			
87.	3609 <i>Albizia lebeck</i>			
88.	4739 <i>Alectryon oleifolius</i>			
89.	11487 <i>Alectryon oleifolius</i> subsp. <i>oleifolius</i>			
90.	2647 <i>Alternanthera angustifolia</i>			
91.	2651 <i>Alternanthera nana</i> ( <i>Hairy Joyweed</i> )			
92.	2652 <i>Alternanthera nodiflora</i> ( <i>Common Joyweed</i> )			
93.	17147 <i>Alysicarpus muelleri</i>			
94.	2660 <i>Amaranthus cuspidifolius</i>			
95.	2666 <i>Amaranthus mitchellii</i> ( <i>Boggabri Weed</i> )			
96.	20018 <i>Amaranthus undulatus</i>			
97.	2671 <i>Amaranthus viridis</i> ( <i>Green Amaranth</i> )	Y		
98.	5276 <i>Ammannia auriculata</i>			
99.	5277 <i>Ammannia baccifera</i>			
100.	5278 <i>Ammannia multiflora</i>			
101.	26461 <i>Amphiroa foliacea</i>			
102.	26462 <i>Amphiroa fragilissima</i>			
103.	2381 <i>Amyema miraculosa</i>			
104.	2383 <i>Amyema preissii</i> ( <i>Wireleaf Mistletoe</i> )			
105.	11874 <i>Amyema sanguinea</i> var. <i>sanguinea</i>			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
106.	35872 <i>Anadyomene plicata</i>			
107.	7827 <i>Angianthus cunninghamii</i> (Coast Angianthus)			
108.	7832 <i>Angianthus milnei</i> (Cone-spike Angianthus)			
109.	17797 <i>Argemone ochroleuca</i> subsp. <i>ochroleuca</i>	Y		
110.	204 <i>Aristida burbridgeae</i>			
111.	207 <i>Aristida contorta</i> (Bunched Kerosene Grass)			
112.	210 <i>Aristida holathera</i>			
113.	12063 <i>Aristida holathera</i> var. <i>holathera</i>			
114.	215 <i>Aristida latifolia</i> (Feathertop Wiregrass)			
115.	217 <i>Aristida nitidula</i> (Flat-awned Threawn)			
116.	226 <i>Arundo donax</i> (Giant Reed)	Y		
117.	6580 <i>Asclepias curassavica</i> (Redhead Cottonbush)	Y		
118.	26486 <i>Asparagopsis taxiformis</i>			
119.	36140 <i>Asteromenia exanimans</i>			
120.	229 <i>Astrelba pectinata</i> (Barley Mitchell Grass)			
121.	4740 <i>Atalaya hemiglauca</i> (Whitewood)			
122.	2450 <i>Atriplex amnicola</i> (Swamp Saltbush)			
123.	2451 <i>Atriplex bunburyana</i> (Silver Saltbush)			
124.	2453 <i>Atriplex codonocarpa</i> (Flat-topped Saltbush)			
125.	2463 <i>Atriplex isatidea</i> (Coast Saltbush)			
126.	2466 <i>Atriplex lindleyi</i>			
127.	2476 <i>Atriplex semilunaris</i> (Annual Saltbush)			
128.	6828 <i>Avicennia marina</i> (White Mangrove)			
129.	14555 <i>Avicennia marina</i> subsp. <i>marina</i>			
130.	48138 <i>Avrainvillea carteri</i>			
131.	36362 <i>Avrainvillea erecta</i>			
132.	26498 <i>Avrainvillea obscura</i>			
133.	<i>Baccharis</i> sp			Y
134.	6830 <i>Basilicum polystachyon</i>			
135.	5183 <i>Bergia ammannioides</i>			
136.	11912 <i>Bergia perennis</i> subsp. <i>perennis</i>			
137.	5186 <i>Bergia trimera</i>			
138.	48503 <i>Betaphycus speciosus</i>			
139.	7854 <i>Bidens bipinnata</i> (Bipinnate Beggartick)	Y		
140.	7866 <i>Blumea tenella</i>			
141.	26507 <i>Boerghesia forbesii</i>			
142.	2769 <i>Boerhavia burbridgeana</i>			
143.	2770 <i>Boerhavia coccinea</i> (Tar Vine, Wituka)			
144.	8357 <i>Boerhavia diffusa</i>			
145.	2772 <i>Boerhavia gardneri</i>			
146.	2773 <i>Boerhavia paludosa</i>			
147.	2774 <i>Boerhavia repleta</i>			
148.	2775 <i>Boerhavia schomburgkiana</i>			
149.	<i>Boerhavia</i> sp.			
150.	11167 <i>Bonamia erecta</i>			
151.	6605 <i>Bonamia linearis</i>			
152.	6606 <i>Bonamia media</i>			
153.	6608 <i>Bonamia pannosa</i>			
154.	44782 <i>Bonamia pilbarensis</i>			
155.	6609 <i>Bonamia rosea</i> (Feltly Bellflower)			
156.	26508 <i>Boodlea composita</i>			
157.	26509 <i>Bornetella oligospora</i>			
158.	26510 <i>Bornetella sphaerica</i>			
159.	26516 <i>Botryocladia leptopoda</i>			
160.	12716 <i>Brachychiton acuminatus</i>			
161.	<i>Brachychiton australe</i>			Y
162.	2995 <i>Brassica x napus</i>	Y		
163.	<i>Breynia desorii</i>			
164.	4603 <i>Bridelia tomentosa</i>			
165.	5291 <i>Bruguiera exaristata</i> (Ribbed Mangrove)			
166.	750 <i>Bulbostylis barbata</i>			
167.	752 <i>Bulbostylis turbinata</i>			
168.	11055 <i>Cajanus cinereus</i>			
169.	10972 <i>Cajanus marmoratus</i>			
170.	11150 <i>Cajanus pubescens</i>			
171.	2864 <i>Calandrinia ptychosperma</i>			
172.	2866 <i>Calandrinia quadrivalvis</i>			
173.	2872 <i>Calandrinia tepperiana</i>			
174.	14090 <i>Calocephalus beardii</i>			
175.	7905 <i>Calotis multicaulis</i> (Many-stemmed Burr-daisy)			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
176.	7906 <i>Calotis plumulifera</i>			
177.	7907 <i>Calotis porphyroglossa</i>			
178.	3749 <i>Canavalia rosea</i> (Wild Jack Bean)			
179.	2981 <i>Capparis spinosa</i>			
180.	48291 <i>Capparis spinosa</i> subsp. <i>nummularia</i>			
181.	6567 <i>Carissa lanceolata</i> (Conkerberry, Marnuwiji)			
182.	2949 <i>Cassytha capillaris</i>			
183.	2950 <i>Cassytha filiformis</i> (Love Vine, Jirawan)			
184.	26554 <i>Caulerpa brachypus</i>			
185.	42620 <i>Caulerpa chemnitzia</i>			
186.	26558 <i>Caulerpa constricta</i>			
187.	35158 <i>Caulerpa corynephora</i>			
188.	26559 <i>Caulerpa cupressoides</i>			
189.	47053 <i>Caulerpa cupressoides</i> var. <i>cupressoides</i>			
190.	47054 <i>Caulerpa cupressoides</i> var. <i>elegans</i>			
191.	27378 <i>Caulerpa cupressoides</i> var. <i>lycopodium</i>			
192.	36368 <i>Caulerpa cupressoides</i> var. <i>mamillosa</i>			Y
193.	44539 <i>Caulerpa cylindracea</i>			
194.	44547 <i>Caulerpa lamourouxii</i>			
195.	26568 <i>Caulerpa lentillifera</i>			
196.	37643 <i>Caulerpa parvifolia</i>			
197.	26573 <i>Caulerpa racemosa</i>			
198.	35122 <i>Caulerpa racemosa</i> var. <i>racemosa</i>			
199.	26576 <i>Caulerpa serrulata</i>			
200.	26577 <i>Caulerpa sertularioides</i>			
201.	26579 <i>Caulerpa taxifolia</i>			
202.	26582 <i>Caulerpa verticillata</i>			
203.	26584 <i>Caulerpa webbiana</i>			
204.	258 <i>Cenchrus ciliaris</i> (Buffel Grass)	Y		
205.	259 <i>Cenchrus echinatus</i> (Burrgrass)	Y		
206.	41568 <i>Cenchrus setaceus</i> (Fountain Grass)	Y		
207.	29721 <i>Cenchrus setiger</i> (Birdwood Grass)	Y		
208.	6539 <i>Centaurium erythraea</i> (Common Centaury)	Y		
209.	7919 <i>Centipeda minima</i> (Spreading Sneezewood, Kanjirralaa, Inteng-inteng, Karengkal, Kata-palkalpa, Munyu-parnti-parnti)			
210.	19762 <i>Centipeda minima</i> subsp. <i>macrocephala</i>			
211.	26587 <i>Centroceras clavulatum</i>			
212.	26606 <i>Ceratodictyon spongiosum</i>			
213.	39680 <i>Ceriops australis</i>			
214.	44320 <i>Chaetomorpha basiretrorsa</i>			Y
215.	26612 <i>Chaetomorpha melagonium</i>			
216.	26619 <i>Champia stipitata</i>			
217.	33 <i>Cheilanthes contigua</i>			
218.	12818 <i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>			
219.	8462 <i>Cheilanthes tenuifolia</i> (Rock Fern)			
220.	266 <i>Chloris barbata</i> (Purpletop Chloris)	Y		
221.	269 <i>Chloris pectinata</i> (Comb Chloris)			
222.	270 <i>Chloris pumilio</i>			
223.	26628 <i>Chondria armata</i>			
224.	33516 <i>Chrysocephalum gilesii</i>			
225.	273 <i>Chrysopogon fallax</i> (Golden Beard Grass)			
226.	275 <i>Chrysopogon pallidus</i> (Ribbongrass)			
227.	35865 <i>Cladophora catenata</i>			
228.	36316 <i>Cladophora herpestica</i>			
229.	2985 <i>Cleome oxalidea</i>			
230.	2987 <i>Cleome uncifera</i>			
231.	2988 <i>Cleome viscosa</i> (Tickweed, Tjinduwadhu)			
232.	6729 <i>Clerodendrum floribundum</i> (Lollybush)			
233.	6732 <i>Clerodendrum tomentosum</i>			
234.	13689 <i>Clerodendrum tomentosum</i> var. <i>lanceolatum</i>			
235.	3769 <i>Clitoria ternatea</i>	Y		
236.	<i>Cocos nucifera</i>			Y
237.	35917 <i>Codium arabicum</i>			
238.	35857 <i>Codium dwarkense</i>			
239.	26673 <i>Codium geppiorum</i>			
240.	<i>Codium platyclados</i>			Y
241.	2778 <i>Codonocarpus cotinifolius</i> (Native Poplar, Kundurangu)			
242.	26685 <i>Coelarthrum cliftonii</i>			
243.	26686 <i>Coelarthrum opuntia</i>			
244.	26691 <i>Coelothrix irregularis</i>			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
245.	1165 <i>Commelina ensifolia</i> (Wandering Jew, Buargu)			
246.	2776 <i>Commicarpus australis</i> (Perennial Tar Vine)			
247.	19880 <i>Convolvulus angustissimus</i>			
248.	6612 <i>Convolvulus clementii</i>			
249.	7939 <i>Conyza bonariensis</i> (Flaxleaf Fleabane)	Y		
250.	4857 <i>Corchorus elachocarpus</i>			
251.	17339 <i>Corchorus incanus</i>			
252.	25847 <i>Corchorus incanus</i> subsp. <i>incanus</i>			
253.	13659 <i>Corchorus laniflorus</i>			
254.	18409 <i>Corchorus lasiocarpus</i> subsp. <i>lasiocarpus</i>			
255.	4862 <i>Corchorus parviflorus</i>			
256.	17661 <i>Corchorus tectus</i>			
257.	4865 <i>Corchorus tridens</i>			
258.	13467 <i>Corchorus trilocularis</i>			
259.	4867 <i>Corchorus walcottii</i> (Woolly Corchorus)			
260.	19125 <i>Corymbia dichromophloia</i>			
261.	17089 <i>Corymbia greeniana</i>			
262.	17093 <i>Corymbia hamersleyana</i>			
263.	17092 <i>Corymbia opaca</i>			
264.	26698 <i>Corynomorpha prismatica</i>			
265.	19565 <i>Cressa australis</i>			
266.	3774 <i>Crotalaria cunninghamii</i> (Green Birdflower, Bilbun)			
267.	20176 <i>Crotalaria cunninghamii</i> subsp. <i>cunninghamii</i>			
268.	19378 <i>Crotalaria dissitiflora</i> subsp. <i>benthamiana</i>			
269.	3783 <i>Crotalaria medicaginea</i>			
270.	20179 <i>Crotalaria medicaginea</i> var. <i>neglecta</i>			
271.	3785 <i>Crotalaria novae-hollandiae</i> (New Holland Rattlepod)			
272.	11231 <i>Crotalaria novae-hollandiae</i> subsp. <i>novae-hollandiae</i>			
273.	19398 <i>Crotalaria ramosissima</i>			
274.	4809 <i>Cryptandra pungens</i>			
275.	26708 <i>Cryptonemia kallymenioides</i>			
276.	41720 <i>Cucumis argenteus</i>			
277.	7371 <i>Cucumis melo</i> (Ulcardo Melon)			
278.	41721 <i>Cucumis variabilis</i>			
279.	17117 <i>Cullen cinereum</i>			
280.	17436 <i>Cullen graveolens</i>			
281.	17439 <i>Cullen lachnostachys</i>			
282.	17118 <i>Cullen leucanthum</i>			
283.	17119 <i>Cullen leucochaites</i>			
284.	17120 <i>Cullen pogonocarpum</i>			
285.	6662 <i>Cuscuta australis</i> (Australian Dodder)			
286.	13733 <i>Cuscuta victoriana</i>			
287.	279 <i>Cymbopogon ambiguus</i> (Scentgrass)			
288.	280 <i>Cymbopogon bombycinus</i> (Silky Oilgrass)			
289.	281 <i>Cymbopogon obtectus</i> (Silkyheads)			
290.	282 <i>Cymbopogon procerus</i> (Lemon Grass)			
291.	6584 <i>Cynanchum floribundum</i> (Dumara Bush, Tjipa)			
292.	48280 <i>Cynanchum viminale</i> subsp. <i>australe</i>			
293.	46558 <i>Cynodon convergens</i>			
294.	283 <i>Cynodon dactylon</i> (Couch)	Y		
295.	46555 <i>Cynodon prostratus</i>			
296.	774 <i>Cyperus bifax</i> (Downs Nutgrass)			
297.	12801 <i>Cyperus blakeanus</i>			
298.	777 <i>Cyperus bulbosus</i> (Bush Onion, Tjanmata)			
299.	786 <i>Cyperus cunninghamii</i>			
300.	12811 <i>Cyperus cunninghamii</i> subsp. <i>cunninghamii</i>			
301.	789 <i>Cyperus difformis</i> (Rice Sedge)			
302.	798 <i>Cyperus iria</i>			
303.	804 <i>Cyperus nervulosus</i>			
304.	807 <i>Cyperus pulchellus</i>			
305.	814 <i>Cyperus squarrosus</i>			
306.	818 <i>Cyperus vaginatus</i> (Stiffleaf Sedge)			
307.	290 <i>Dactyloctenium radulans</i> (Button Grass)			
308.	26740 <i>Dasya frutescens</i>			
309.	6962 <i>Datura leichhardtii</i> (Native Thornapple)	Y		
310.	6963 <i>Datura metel</i> (Downy Thornapple)	Y		
311.	7317 <i>Dentella asperata</i>			
312.	7318 <i>Dentella minutissima</i>			
313.	3852 <i>Desmodium campylocaulon</i>			
314.	3853 <i>Desmodium filiforme</i>			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
315.	3856 <i>Desmodium muelleri</i>			
316.	303 <i>Dichanthium fecundum</i> (Curly Bluegrass)			
317.	13741 <i>Dichanthium sericeum</i> subsp. <i>humilius</i>			
318.	11964 <i>Dichanthium sericeum</i> subsp. <i>sericeum</i>			
319.	29616 <i>Dichotomaria marginata</i>			
320.	3612 <i>Dichrostachys spicata</i> (Pied Piper Bush)			
321.	7166 <i>Dicliptera armata</i>			
322.	26769 <i>Dictyosphaeria cavernosa</i>			
323.	26782 <i>Digenea simplex</i>			
324.	310 <i>Digitaria brownii</i> (Cotton Panic Grass)			
325.	313 <i>Digitaria ctenantha</i> (Comb Finger Grass)			
326.	48378 <i>Diplachne fusca</i> subsp. <i>fusca</i>			
327.	4745 <i>Diplopeltis eriocarpa</i> (Hairy Pepperflower)			
328.	48738 <i>Distimake dissectus</i> var. <i>dissectus</i>	Y		
329.	4759 <i>Dodonaea coriacea</i>			
330.	48390 <i>Dolichandrone occidentalis</i>			
331.	6966 <i>Duboisia hopwoodii</i> (Pituri, Kundugu)			
332.	31274 <i>Duperreya commixta</i>			
333.	33479 <i>Dysphania melanocarpa</i> (Black Crumbweed)			
334.	2504 <i>Dysphania plantaginella</i>			
335.	2506 <i>Dysphania rhadinostachya</i>			
336.	11653 <i>Dysphania rhadinostachya</i> subsp. <i>inflata</i>			
337.	11890 <i>Dysphania rhadinostachya</i> subsp. <i>rhadinostachya</i>			
338.	32348 <i>Eccremidium arcuatum</i>			
339.	328 <i>Echinochloa colona</i> (Awnless Barnyard Grass)	Y		
340.	26800 <i>Echinophycus minutus</i>			Y
341.	343 <i>Ectrosia leporina</i> (Hare's-foot Grass)			
342.	6682 <i>Ehretia saligna</i> (False Cedar)			
343.	14301 <i>Ehretia saligna</i> var. <i>saligna</i>			
344.	826 <i>Eleocharis dulcis</i> (Chinese Water Chestnut)			
345.	827 <i>Eleocharis geniculata</i>			
346.	2511 <i>Enchylaena tomentosa</i> (Barrier Saltbush)			
347.	12064 <i>Enchylaena tomentosa</i> var. <i>tomentosa</i> (Barrier Saltbush)			
348.	160 <i>Enhalus acoroides</i>			
349.	357 <i>Enneapogon caeruleus</i> (Limestone Grass)			
350.	360 <i>Enneapogon lindleyanus</i> (Wiry Nineawn, Purple-head Nineawn)			
351.	363 <i>Enneapogon pallidus</i> (Conetop Nineawn)			
352.	365 <i>Enneapogon polyphyllus</i> (Leafy Nineawn)			
353.	12749 <i>Enneapogon purpurascens</i> (Purple Nineawn)			
354.	368 <i>Enteropogon ramosus</i> (Windmill Grass, Curly Windmill Grass)			
355.	375 <i>Eragrostis cumingii</i> (Cuming's Love Grass)			
356.	378 <i>Eragrostis dielsii</i> (Mallee Lovegrass)			
357.	380 <i>Eragrostis eriopoda</i> (Woollybutt Grass, Wangurnu)			
358.	16731 <i>Eragrostis exigua</i>			
359.	381 <i>Eragrostis falcata</i> (Sickle Lovegrass)			
360.	388 <i>Eragrostis leptocarpa</i> (Drooping Lovegrass)			
361.	393 <i>Eragrostis setifolia</i> (Neverfail Grass)			
362.	398 <i>Eragrostis tenellula</i> (Delicate Lovegrass)			
363.	399 <i>Eragrostis xerophila</i> (Knotty-butt Neverfail)			
364.	7234 <i>Eremophila longifolia</i> (Berrigan, Tulypurpa)			
365.	16363 <i>Eremophila maculata</i> subsp. <i>brevifolia</i> (Native Fuchsia)			
366.	400 <i>Eriachne aristidea</i>			
367.	403 <i>Eriachne benthamii</i> (Swamp Wanderie)			
368.	408 <i>Eriachne flaccida</i> (Claypan Grass)			
369.	409 <i>Eriachne gardneri</i>			
370.	411 <i>Eriachne helmsii</i> (Buck Wanderie Grass)			
371.	413 <i>Eriachne mucronata</i> (Mountain Wanderie Grass)			
372.	414 <i>Eriachne obtusa</i> (Northern Wandarie Grass)			
373.	417 <i>Eriachne pulchella</i> (Pretty Wanderie)			
374.	16485 <i>Eriachne pulchella</i> subsp. <i>dominii</i>			
375.	16486 <i>Eriachne pulchella</i> subsp. <i>pulchella</i>			
376.	421 <i>Eriachne tenuiculmis</i>			
377.	425 <i>Eriochloa procera</i> (Cupgrass)			
378.	426 <i>Eriochloa pseudoacrotricha</i> (Perennial Cupgrass)			
379.	4335 <i>Erodium cygnorum</i> (Blue Heronsbill)			
380.	3871 <i>Erythrina vespertilio</i> (Yulbah)			
381.	26823 <i>Erythroclonium sonderi</i>			
382.	5580 <i>Eucalyptus camaldulensis</i> (River Gum, Yabalinyba)			
383.	35345 <i>Eucalyptus camaldulensis</i> subsp. <i>obtusata</i> (Blunt-budded River Red Gum)			
384.	35343 <i>Eucalyptus camaldulensis</i> subsp. <i>refulgens</i>			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
385.	5714 <i>Eucalyptus microtheca</i> (Coolibah)			
386.	5752 <i>Eucalyptus prominens</i>			
387.	14548 <i>Eucalyptus victrix</i>			
388.	15592 <i>Eucalyptus xerothermica</i>			
389.	26827 <i>Eucheuma denticulatum</i>			
390.	11011 <i>Eulalia aurea</i>			
391.	4617 <i>Euphorbia australis</i> (Namana)			
392.	35307 <i>Euphorbia australis</i> var. <i>australis</i>			
393.	35303 <i>Euphorbia australis</i> var. <i>subtomentosa</i>			
394.	4619 <i>Euphorbia biconvexa</i>			
395.	4620 <i>Euphorbia boophthona</i> (Gascoyne Spurge)			
396.	9048 <i>Euphorbia careyi</i>			
397.	4623 <i>Euphorbia coghlanii</i> (Namana)			
398.	4626 <i>Euphorbia drummondii</i> (Caustic Weed, Piwi)			
399.	4629 <i>Euphorbia hirta</i> (Asthma Plant)	Y		
400.	4635 <i>Euphorbia myrtoides</i>			
401.	4642 <i>Euphorbia schultzi</i>			
402.	4644 <i>Euphorbia sharkoensis</i>			
403.	4647 <i>Euphorbia tannensis</i>			
404.	12097 <i>Euphorbia tannensis</i> subsp. <i>eremophila</i> (Desert Spurge)			
405.	42879 <i>Euphorbia trigonosperma</i>			
406.	13281 <i>Euphorbia vaccaria</i>			
407.	42876 <i>Euphorbia vaccaria</i> var. <i>vaccaria</i>			
408.	6617 <i>Evolvulus alsinoides</i> (Tropical Speedwell)			
409.	11416 <i>Evolvulus alsinoides</i> var. <i>decumbens</i>			
410.	11200 <i>Evolvulus alsinoides</i> var. <i>villosicalyx</i>			
411.	10977 <i>Exocarpos aphyllus</i> (Leafless Ballart)			
412.	25811 <i>Ficus aculeata</i>			
413.	31578 <i>Ficus aculeata</i> var. <i>indecora</i> (Ranji)			
414.	19648 <i>Ficus brachypoda</i>			
415.	1753 <i>Ficus platypoda</i> (Native Fig, Makartu)			
416.	<i>Ficus</i> sp.			
417.	1759 <i>Ficus virens</i> (Albayi)			
418.	11572 <i>Ficus virens</i> var. <i>sublanceolata</i>			
419.	12096 <i>Ficus virens</i> var. <i>virens</i>			
420.	851 <i>Fimbristylis dichotoma</i> (Eight Day Grass)			
421.	853 <i>Fimbristylis elegans</i>			
422.	855 <i>Fimbristylis ferruginea</i>			
423.	859 <i>Fimbristylis littoralis</i>			
424.	862 <i>Fimbristylis microcarya</i>			
425.	870 <i>Fimbristylis oxystachya</i>			
426.	878 <i>Fimbristylis rara</i>			
427.	880 <i>Fimbristylis schultzi</i>			
428.	12159 <i>Fimbristylis simulans</i>			
429.	35558 <i>Flaveria trinervia</i> (Speedy Weed)	Y		
430.	4654 <i>Flueggea virosa</i>			
431.	12013 <i>Flueggea virosa</i> subsp. <i>melanthesoides</i> (Dogwood, Guwal)			
432.	5188 <i>Frankenia ambita</i>			
433.	5209 <i>Frankenia pauciflora</i> (Seaheath)			
434.	14297 <i>Frankenia pauciflora</i> var. <i>pauciflora</i>			
435.	26835 <i>Galaxaura rugosa</i>			
436.	26837 <i>Ganonema farinosum</i>			
437.	26842 <i>Gelidiella acerosa</i>			
438.	26845 <i>Gelidiopsis intricata</i>			
439.	26848 <i>Gelidium crinale</i>			
440.	2835 <i>Glinus lotoides</i> (Hairy Carpet Weed)			
441.	2836 <i>Glinus oppositifolius</i>			
442.	3938 <i>Glycine canescens</i> (Silky Glycine)			
443.	2674 <i>Gomphrena affinis</i>			
444.	18361 <i>Gomphrena affinis</i> subsp. <i>pilbarensis</i>			
445.	2676 <i>Gomphrena canescens</i> (Batchelors Buttons)			
446.	18363 <i>Gomphrena canescens</i> subsp. <i>canescens</i>			
447.	2680 <i>Gomphrena cunninghamii</i>			
448.	2682 <i>Gomphrena flaccida</i> (Gomphrena Weed)			
449.	18367 <i>Gomphrena kanisii</i>			
450.	2683 <i>Gomphrena leptoclada</i>			
451.	18257 <i>Gomphrena leptoclada</i> subsp. <i>leptoclada</i>			
452.	11131 <i>Gomphrena sordida</i>			
453.	31074 <i>Gomphrena</i> sp. <i>Martins Well</i> (K.F. Kenneally 6116)			Y
454.	6151 <i>Gonocarpus ephemerus</i>			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
455.	7495 <i>Goodenia berardiana</i>			
456.	7509 <i>Goodenia forrestii</i>			
457.	7515 <i>Goodenia heterochila</i>			
458.	7521 <i>Goodenia lamprosperma</i>			
459.	7526 <i>Goodenia microptera</i>			
460.	12552 <i>Goodenia muelleriana</i>			
461.	12574 <i>Goodenia prostrata</i>			
462.	10982 <i>Goodenia stobbsiana</i>			
463.	7556 <i>Goodenia tenuiloba</i>			
464.	7560 <i>Goodenia vilmorinae</i>			
465.	4910 <i>Gossypium australe</i> (Native Cotton)			
466.	4913 <i>Gossypium hirsutum</i> (Upland Cotton)	Y		
467.	4918 <i>Gossypium robinsonii</i> (Wild Cotton)			
468.	35899 <i>Gracilaria canaliculata</i>			
469.	26873 <i>Gracilaria salicornia</i>			
470.	2079 <i>Grevillea pyramidalis</i> (Caustic Bush, Tjungu)			
471.	19570 <i>Grevillea pyramidalis</i> subsp. <i>leucadendron</i>			
472.	15975 <i>Grevillea pyramidalis</i> subsp. <i>pyramidalis</i>			
473.	2121 <i>Grevillea wickhamii</i> (Wickham's Grevillea)			
474.	13440 <i>Grevillea wickhamii</i> subsp. <i>aprica</i>			
475.	19478 <i>Grevillea wickhamii</i> subsp. <i>hispidula</i>			
476.	2138 <i>Hakea chordophylla</i>			
477.	2177 <i>Hakea lorea</i> (Witinti)			
478.	19137 <i>Hakea lorea</i> subsp. <i>lorea</i>			
479.	47313 <i>Halimeda borneensis</i>			
480.	26891 <i>Halimeda cylindracea</i>			
481.	26892 <i>Halimeda discoidea</i>			
482.	26894 <i>Halimeda macroloba</i>			
483.	26896 <i>Halimeda simulans</i>			
484.	26898 <i>Halimeda velasquezii</i>			
485.	47213 <i>Halimeda versatilis</i>			
486.	131 <i>Halodule uninervis</i>			
487.	162 <i>Halophila decipiens</i>			
488.	163 <i>Halophila minor</i>			
489.	164 <i>Halophila ovalis</i> (Sea Wrack)			
490.	165 <i>Halophila spinulosa</i>			
491.	37642 <i>Halymenia durvillei</i>			
492.	37640 <i>Halymenia floresii</i>			
493.	17301 <i>Heliotropium chrysocarpum</i>			
494.	6704 <i>Heliotropium conocarpum</i>			
495.	6705 <i>Heliotropium crispatum</i>			
496.	6706 <i>Heliotropium cunninghamii</i>			
497.	6707 <i>Heliotropium curassavicum</i> (Smooth Heliotrope)			
498.	6712 <i>Heliotropium heteranthum</i>			
499.	17307 <i>Heliotropium inexplicitum</i>			
500.	6713 <i>Heliotropium ovalifolium</i>			
501.	6714 <i>Heliotropium paniculatum</i>			
502.	17315 <i>Heliotropium tanythrix</i>			
503.	6718 <i>Heliotropium tenuifolium</i> (Mamukata)			
504.	26930 <i>Heterosiphonia crassipes</i>			
505.	29316 <i>Hibiscus austrinus</i>			
506.	29317 <i>Hibiscus austrinus</i> var. <i>austrinus</i>			
507.	4923 <i>Hibiscus brachysiphonius</i>			
508.	4925 <i>Hibiscus coatesii</i>			
509.	4933 <i>Hibiscus leptocladus</i>			
510.	4942 <i>Hibiscus sturtii</i> (Sturt's Hibiscus)			
511.	11651 <i>Hibiscus sturtii</i> var. <i>campylochlamys</i>			
512.	11385 <i>Hibiscus sturtii</i> var. <i>grandiflorus</i>			
513.	11477 <i>Hibiscus sturtii</i> var. <i>platychlamys</i>			
514.	5215 <i>Hybanthus aurantiacus</i>			
515.	5219 <i>Hybanthus enneaspermus</i>			
516.	26956 <i>Hydrolithon reinboldii</i>			
517.	35871 <i>Hydroputia urvillei</i>			
518.	48203 <i>Hypertelis cerviana</i>			
519.	35922 <i>Hypnea cornuta</i>			
520.	14587 <i>Indigostrum parviflorum</i>			
521.	3973 <i>Indigofera colutea</i> (Sticky Indigo)			
522.	3980 <i>Indigofera linifolia</i>			
523.	3981 <i>Indigofera linnaei</i> (Birdsville Indigo)			
524.	3982 <i>Indigofera monophylla</i>			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
525.	16061 <i>Indigofera oblongifolia</i>	Y		
526.	3987 <i>Indigofera trita</i>			
527.	31035 <i>Indigofera trita</i> subsp. <i>trita</i>			
528.	6623 <i>Ipomoea coptica</i>			
529.	6624 <i>Ipomoea costata</i> (Rock Morning Glory, Kanti)			
530.	6631 <i>Ipomoea lonchophylla</i> (Cowvine)			
531.	6633 <i>Ipomoea muelleri</i> (Poison Morning Glory, Yumbu)			
532.	6635 <i>Ipomoea pes-caprae</i>			
533.	11312 <i>Ipomoea pes-caprae</i> subsp. <i>brasiliensis</i>			
534.	6636 <i>Ipomoea plebeia</i> (Bellvine)			
535.	6637 <i>Ipomoea polymorpha</i>			
536.	<i>Ipomoea</i> sp.			
537.	458 <i>Iseilema dolichotrichum</i>			
538.	459 <i>Iseilema eremaum</i>			
539.	465 <i>Iseilema vaginiflorum</i> (Red Flinders Grass)			
540.	3989 <i>Isotropis atropurpurea</i> (Poison Sage)			
541.	8088 <i>Ixiochlamys cuneifolia</i>			
542.	6501 <i>Jasminum didymum</i>			
543.	12059 <i>Jasminum didymum</i> subsp. <i>lineare</i> (Desert Jasmine)			
544.	8095 <i>Lactuca saligna</i> (Wild Lettuce, Willow-leaf Lettuce)	Y		
545.	<i>Launaea sarmentosa</i>			
546.	8098 <i>Launaea sarmentosa</i>			
547.	48408 <i>Laurencia dendroidea</i>			
548.	<i>Laurencia similis</i>			
549.	4960 <i>Lawrenzia viridigrisea</i>			
550.	<i>Lawsonia inermis</i>			
551.	3029 <i>Lepidium linifolium</i>			
552.	3035 <i>Lepidium pedicellosum</i>			
553.	3038 <i>Lepidium pholidogynum</i>			
554.	3039 <i>Lepidium platypetalum</i> (Slender Peppergrass)			
555.	3613 <i>Leucaena leucocephala</i> (Leucaena)	Y		
556.	27018 <i>Leveillea jungermannoides</i>			
557.	27021 <i>Liagora ceranoides</i>			
558.	27037 <i>Lithophyllum kotschyianum</i>			
559.	37480 <i>Lobelia arnhemiaca</i>			
560.	4060 <i>Lotus australis</i> (Austral Trefoil)			
561.	4061 <i>Lotus cruentus</i> (Redflower Lotus)			
562.	6136 <i>Ludwigia perennis</i>			
563.	4070 <i>Macroptilium atropurpureum</i> (Purple Bean)	Y		
564.	2544 <i>Maireana georgei</i> (Satiny Bluebush)			
565.	2556 <i>Maireana planifolia</i> (Low Bluebush)			
566.	2564 <i>Maireana stipitata</i>			
567.	2567 <i>Maireana tomentosa</i> (Felt Bluebush)			
568.	11662 <i>Maireana tomentosa</i> subsp. <i>tomentosa</i>			
569.	4962 <i>Malvastrum americanum</i> (Spiked Malvastrum)	Y		
570.	75 <i>Marsilea exarata</i>			
571.	76 <i>Marsilea hirsuta</i> (Nardoo)			
572.	27056 <i>Martensia elegans</i>			
573.	5875 <i>Melaleuca argentea</i> (Silver Cadjeput, Bandaran)			
574.	5915 <i>Melaleuca glomerata</i>			
575.	5923 <i>Melaleuca lasiandra</i>			
576.	5933 <i>Melaleuca linophylla</i>			
577.	5051 <i>Melhania oblongifolia</i>			
578.	5053 <i>Melochia pyramidata</i>	Y		
579.	7082 <i>Mimulus gracilis</i>			
580.	8109 <i>Minuria integerrima</i> (Smooth Minuria)			
581.	8110 <i>Minuria leptophylla</i> (Minnie Daisy)			
582.	6490 <i>Muellerolimon salicorniaceum</i>			
583.	27079 <i>Mychodea camosa</i>			
584.	17158 <i>Myoporum montanum</i> (Native Myrtle)			
585.	6201 <i>Myriophyllum verrucosum</i> (Red Water Milfoil)			
586.	139 <i>Najas tenuifolia</i> (Water Nymph)			
587.	2573 <i>Neobassia astrocarpa</i>			
588.	44548 <i>Neomeris bilimbata</i>			
589.	27099 <i>Neomeris van-bosseae</i>			
590.	3614 <i>Neptunia dimorphantha</i> (Sensitive Plant)			
591.	3617 <i>Neptunia monosperma</i>			
592.	6971 <i>Nicotiana benthamiana</i> (Tjuntiwari)			
593.	6976 <i>Nicotiana occidentalis</i> (Native Tobacco)			
594.	11331 <i>Nicotiana occidentalis</i> subsp. <i>obliqua</i>			



Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
595.	11856 <i>Nicotiana occidentalis</i> subsp. <i>occidentalis</i>			
596.	11734 <i>Nicotiana rosulata</i> subsp. <i>rosulata</i>			
597.	38421 <i>Notoleptopus decaisnei</i>			
598.	38422 <i>Notoleptopus decaisnei</i> var. <i>decaisnei</i>			
599.	7338 <i>Oldenlandia crouchiana</i>			
600.	<i>Olearia</i> Kennedy Range (G. Byrne 66)			
601.	8127 <i>Olearia axillaris</i> (Coastal Daisybush)			
602.	42024 <i>Olearia</i> sp. Kennedy Range (G. Byrne 66)			
603.	6651 <i>Operculina aequisepala</i>			
604.	6652 <i>Operculina brownii</i> (Potato Vine, Bara)			
605.	5227 <i>Opuntia stricta</i> (Common Prickly Pear)	Y		
606.	6005 <i>Osbornia octodonta</i> (Myrtle Mangrove)			
607.	46834 <i>Osmundaria melvillii</i>			
608.	4518 <i>Owenia reticulata</i> (Native Walnut, Bandal)			
609.	36400 <i>Palisada perforata</i>			
610.	503 <i>Panicum decompositum</i> (Native Millet, Kaltu-kaltu)			
611.	504 <i>Panicum effusum</i> (Hairy Panic Grass)			
612.	505 <i>Panicum laevinode</i>			
613.	515 <i>Paraneurachne muelleri</i> (Northern Mulga Grass)			
614.	3673 <i>Parkinsonia aculeata</i> (Parkinsonia)	Y		
615.	10975 <i>Paspalidium basicladum</i>			
616.	518 <i>Paspalidium clementii</i> (Clements Paspalidium)			
617.	523 <i>Paspalidium rarum</i> (Rare Paspalidium)			
618.	525 <i>Paspalidium tabulatum</i>			
619.	5226 <i>Passiflora foetida</i> (Stinking Passion Flower)	Y		
620.	35120 <i>Patenocarpus paraphysiferus</i>			
621.	27121 <i>Penicillus nodulosus</i>			
622.	13494 <i>Pentalepis trichodesmoides</i>			
623.	42160 <i>Pentalepis trichodesmoides</i> subsp. <i>trichodesmoides</i>			
624.	7092 <i>Peplidium muelleri</i>			
625.	18462 <i>Peplidium</i> sp. E Evol. Fl. Fauna Arid Aust. (A.S. Weston 12768)			
626.	3675 <i>Petalostylis labicheoides</i> (Slender Petalostylis)			
627.	1042 <i>Phoenix dactylifera</i> (Date Palm)	Y		
628.	4673 <i>Phyllanthus amarus</i>	Y		
629.	9056 <i>Phyllanthus baccatus</i>			
630.	17626 <i>Phyllanthus erwinii</i>			
631.	4680 <i>Phyllanthus maderaspatensis</i>			
632.	20652 <i>Physalis angulata</i>	Y		
633.	5230 <i>Pimelea ammocharis</i>			
634.	19744 <i>Pittosporum angustifolium</i>			
635.	41300 <i>Pittosporum phillyreoides</i> (Weeping Pittosporum, Yaliti)			
636.	8167 <i>Pluchea dentex</i>			
637.	17816 <i>Pluchea ferdinandi-muelleri</i>			
638.	43944 <i>Pluchea longiseta</i>			
639.	8168 <i>Pluchea rubelliflora</i>			
640.	8170 <i>Pluchea tetranthera</i>			
641.	6491 <i>Plumbago zeylanica</i> (Native Plumbago)			
642.	2898 <i>Polycarpaea corymbosa</i>			
643.	12075 <i>Polycarpaea corymbosa</i> var. <i>corymbosa</i>			
644.	2901 <i>Polycarpaea holtzei</i>			
645.	2902 <i>Polycarpaea involucreta</i>			
646.	2903 <i>Polycarpaea longiflora</i>			
647.	41363 <i>Polygala galeocephala</i>			
648.	41365 <i>Polygala glaucifolia</i>			
649.	4572 <i>Polygala isingii</i>			
650.	6653 <i>Polymeria ambigua</i> (Morning Glory)			
651.	6655 <i>Polymeria calycina</i>			
652.	17513 <i>Polymeria lanata</i>			
653.	<i>Polymeria</i> sp.			
654.	<i>Pomax</i> Desert (A.S. George 11968)			Y
655.	27186 <i>Portieria hornemannii</i>			
656.	2878 <i>Portulaca conspicua</i>			
657.	2879 <i>Portulaca cyclophylla</i>			
658.	43981 <i>Portulaca decipiens</i>			
659.	2882 <i>Portulaca intraterranea</i>			
660.	2884 <i>Portulaca oleracea</i> (Purslane, Wakati)			
661.	2886 <i>Portulaca pilosa</i> (Djanggarra)	Y		
662.	20426 <i>Potamogeton tepperi</i>			
663.	113 <i>Potamogeton tricarınatus</i> (Floating Pondweed)			
664.	27189 <i>Predaea weldii</i>			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
665.	27191 <i>Pseudobryopsis hainanensis</i>			
666.	8189 <i>Pseudognaphalium luteoalbum</i> (Jersey Cudweed)			
667.	8191 <i>Pterocaulon serrulatum</i>			
668.	<i>Pterocaulon</i> sp.			
669.	8192 <i>Pterocaulon sphacelatum</i> (Apple Bush, Fruit Salad Plant)			
670.	8193 <i>Pterocaulon sphaeranthoides</i>			
671.	2690 <i>Ptilotus aervoides</i>			
672.	2696 <i>Ptilotus astrolasius</i>			
673.	2698 <i>Ptilotus auriculifolius</i>			
674.	2699 <i>Ptilotus axillaris</i> (Mat Mulla Mulla)			
675.	2704 <i>Ptilotus calostachyus</i> (Weeping Mulla Mulla)			
676.	2706 <i>Ptilotus carinatus</i>			
677.	2711 <i>Ptilotus clementii</i> (Tassel Top)			
678.	2717 <i>Ptilotus divaricatus</i> (Climbing Mulla Mulla)			
679.	2721 <i>Ptilotus exaltatus</i> (Tall Mulla Mulla)			
680.	2725 <i>Ptilotus fusiformis</i>			
681.	2728 <i>Ptilotus gomphrenoides</i>			
682.	2729 <i>Ptilotus grandiflorus</i>			
683.	2731 <i>Ptilotus helipteroides</i> (Hairy Mulla Mulla)			
684.	2734 <i>Ptilotus incanus</i>			
685.	2745 <i>Ptilotus murrayi</i>			
686.	2746 <i>Ptilotus nobilis</i> (Tall Mulla Mulla)			
687.	2747 <i>Ptilotus obovatus</i> (Cotton Bush)			
688.	2751 <i>Ptilotus polystachyus</i> (Prince of Wales Feather)			
689.	2766 <i>Ptilotus villosiflorus</i>			
690.	2582 <i>Rhagodia eremaea</i> (Thorny Saltbush)			
691.	2584 <i>Rhagodia preissii</i>			
692.	11240 <i>Rhagodia preissii</i> subsp. <i>obovata</i>			
693.	11254 <i>Rhagodia preissii</i> subsp. <i>preissii</i>			
694.	27213 <i>Rhipidosiphon javensis</i>			
695.	5295 <i>Rhizophora stylosa</i> (Spotted-leaved Red Mangrove)			
696.	13301 <i>Rhodanthe floribunda</i>			
697.	13246 <i>Rhodanthe humboldtiana</i>			
698.	13310 <i>Rhodanthe margarethae</i>			
699.	4190 <i>Rhynchosia australis</i> (Rhynchosia)			
700.	4191 <i>Rhynchosia minima</i> (Rhynchosia)			
701.	<i>Riccia albida</i>			
702.	45146 <i>Roebuckiella oncocarpa</i>			
703.	48900 <i>Roepera retivalvis</i>			
704.	2443 <i>Rumex vesicarius</i> (Ruby Dock)	Y		
705.	30434 <i>Salsola australis</i>			
706.	2357 <i>Santalum lanceolatum</i> (Northern Sandalwood, Yarnguli)			
707.	12578 <i>Scaevola acacioides</i>			
708.	12723 <i>Scaevola amblyanthera</i>			
709.	13178 <i>Scaevola amblyanthera</i> var. <i>centralis</i>			
710.	7595 <i>Scaevola anchusifolia</i>			
711.	7606 <i>Scaevola crassifolia</i> (Thick-leaved Fan-flower)			
712.	7608 <i>Scaevola cunninghamii</i>			
713.	7614 <i>Scaevola globulifera</i>			
714.	7644 <i>Scaevola spinescens</i> (Currant Bush, Maroon)			
715.	41660 <i>Schenkia australis</i>			
716.	41646 <i>Schenkia clementii</i>			
717.	599 <i>Schizachyrium fragile</i> (Senale Redgrass)			
718.	16257 <i>Schoenoplectus subulatus</i>			
719.	1006 <i>Schoenus odontocarpus</i>			
720.	2597 <i>Sclerolaena bicornis</i> (Goathead Burr)			
721.	11650 <i>Sclerolaena bicornis</i> var. <i>bicornis</i> (Goathead Burr)			
722.	2604 <i>Sclerolaena costata</i>			
723.	2607 <i>Sclerolaena densiflora</i>			
724.	2609 <i>Sclerolaena diacantha</i> (Grey Copperburr)			
725.	8877 <i>Sclerolaena gardneri</i>			
726.	2616 <i>Sclerolaena glabra</i>			
727.	2617 <i>Sclerolaena hostilis</i>			
728.	2633 <i>Sclerolaena uniflora</i> (Two-spined Saltbush)			
729.	27274 <i>Sebdenia flabellata</i>			
730.	12279 <i>Senna artemisioides</i> subsp. <i>helmsii</i>			
731.	12280 <i>Senna artemisioides</i> subsp. <i>oligophylla</i>			
732.	18444 <i>Senna charlesiana</i>			
733.	12303 <i>Senna costata</i>			
734.	18443 <i>Senna ferraria</i>			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
735.	18346 <i>Senna glutinosa</i>			
736.	<i>Senna glutinosa</i> subsp. <i>X luerssenii</i>			
737.	12305 <i>Senna glutinosa</i> subsp. <i>chatelainiana</i>			
738.	12307 <i>Senna glutinosa</i> subsp. <i>glutinosa</i>			
739.	12309 <i>Senna glutinosa</i> subsp. <i>pruinosa</i>			
740.	12308 <i>Senna glutinosa</i> subsp. <i>x luerssenii</i>			
741.	18451 <i>Senna hamersleyensis</i>			
742.	12312 <i>Senna notabilis</i>			
743.	18450 <i>Senna symonii</i>			
744.	12319 <i>Senna venusta</i>			
745.	4196 <i>Sesbania cannabina</i> ( <i>Sesbania</i> Pea)			
746.	4198 <i>Sesbania formosa</i> ( <i>White Dragon Tree</i> )			
747.	2818 <i>Sesuvium portulacastrum</i>			
748.	606 <i>Setaria dielsii</i> ( <i>Diels' Pigeon Grass</i> )			
749.	613 <i>Setaria verticillata</i> ( <i>Whorled Pigeon Grass</i> )	Y		
750.	<i>Sida Excedentifolia</i> (J.L. Egan 1925)			
751.	31758 <i>Sida arsinata</i>			
752.	4971 <i>Sida cardiophylla</i>			
753.	4972 <i>Sida clementii</i>			
754.	4976 <i>Sida echinocarpa</i>			
755.	4977 <i>Sida fibulifera</i> ( <i>Silver Sida</i> )			
756.	4988 <i>Sida rohlenae</i>			
757.	33698 <i>Sida</i> sp. <i>Pilbara</i> (A.A. Mitchell PRP 1543)			
758.	16617 <i>Sida</i> sp. <i>spiciform panicles</i> (E. Leyland s.n. 14/8/90)			
759.	4989 <i>Sida spinosa</i> ( <i>Spiny Sida</i> )			
760.	27280 <i>Siphonocladus tropicus</i>			
761.	6998 <i>Solanum cleistogamum</i>			
762.	7002 <i>Solanum diversiflorum</i>			
763.	7007 <i>Solanum esuriale</i> ( <i>Quena</i> )			
764.	7009 <i>Solanum gabrielae</i>			
765.	7014 <i>Solanum horridum</i>			
766.	7018 <i>Solanum lasiophyllum</i> ( <i>Flannel Bush, Mindjulu</i> )			
767.	7022 <i>Solanum nigrum</i> ( <i>Black Berry Nightshade</i> )	Y		
768.	7029 <i>Solanum phlomoides</i>			
769.	7036 <i>Solanum sturtianum</i> ( <i>Thargomindah Nightshade</i> )			
770.	8231 <i>Sonchus oleraceus</i> ( <i>Common Sowthistle</i> )	Y		
771.	44731 <i>Sonderophycus capensis</i>			
772.	619 <i>Sorghum plumosum</i> ( <i>Plume Canegrass</i> )			
773.	12919 <i>Sorghum plumosum</i> var. <i>plumosum</i>			
774.	622 <i>Sorghum timorense</i>			
775.	625 <i>Spinifex longifolius</i> ( <i>Beach Spinifex</i> )			
776.	44523 <i>Spongophloea tissotii</i>			
777.	629 <i>Sporobolus australasicus</i> ( <i>Fairy Grass</i> )			
778.	635 <i>Sporobolus virginicus</i> ( <i>Marine Couch</i> )			
779.	27310 <i>Spyridia filamentosa</i>			
780.	4731 <i>Stackhousia intermedia</i>			
781.	19555 <i>Stackhousia muricata</i> subsp. <i>annual</i> (W.R. Barker 2172)			
782.	7098 <i>Stemodia grossa</i> ( <i>Marsh Stemodia, Mindjaara</i> )			
783.	7099 <i>Stemodia kingii</i>			
784.	7102 <i>Stemodia viscosa</i> ( <i>Pagurda</i> )			
785.	8234 <i>Streptoglossa adscendens</i>			
786.	8235 <i>Streptoglossa bubakii</i>			
787.	8236 <i>Streptoglossa cylindriceps</i>			
788.	8237 <i>Streptoglossa decurrens</i>			
789.	8238 <i>Streptoglossa liatroides</i>			
790.	8240 <i>Streptoglossa odora</i>			
791.	8241 <i>Streptoglossa tenuiflora</i>			
792.	7103 <i>Striga curviflora</i>			
793.	7729 <i>Stylidium fluminense</i>			
794.	3182 <i>Stylobasium spathulatum</i> ( <i>Pebble Bush</i> )			
795.	12353 <i>Stylosanthes hamata</i> ( <i>Verano Stylo</i> )	Y		
796.	2638 <i>Suaeda arbusculoides</i>			
797.	43203 <i>Surreya diandra</i>			
798.	4220 <i>Swainsona canescens</i> ( <i>Grey Swainsona</i> )			
799.	12356 <i>Swainsona formosa</i>			
800.	4231 <i>Swainsona kingii</i>			
801.	4233 <i>Swainsona leeana</i>			
802.	4234 <i>Swainsona maccullochiana</i> ( <i>Ashburton Pea</i> )			
803.	4242 <i>Swainsona pterostylis</i>			
804.	7363 <i>Synaptantha tillaeacea</i>			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
805.	13339 <i>Synaptantha tillaeacea</i> var. <i>tillaeacea</i>			
806.	132 <i>Syringodium isoetifolium</i>			
807.	15741 <i>Tamarix aphylla</i> (Athel Tree)	Y		
808.	31616 <i>Tecticornia auriculata</i>			
809.	33236 <i>Tecticornia halocnemoides</i> (Shrubby Samphire)			
810.	33240 <i>Tecticornia halocnemoides</i> subsp. <i>longispicata</i>			
811.	33238 <i>Tecticornia halocnemoides</i> subsp. <i>tenuis</i>			
812.	33317 <i>Tecticornia indica</i>			
813.	33319 <i>Tecticornia indica</i> subsp. <i>bidens</i>			
814.	33356 <i>Tecticornia indica</i> subsp. <i>indica</i>			
815.	33357 <i>Tecticornia indica</i> subsp. <i>julacea</i>			
816.	33318 <i>Tecticornia indica</i> subsp. <i>leiostachya</i> (Samphire)			
817.	33299 <i>Tecticornia pergranulata</i> subsp. <i>elongata</i>			
818.	31618 <i>Tecticornia pruinosa</i>			
819.	33220 <i>Tecticornia pterygosperma</i> subsp. <i>denticulata</i>			
820.	<i>Tephrosia Fortescue</i> (A.A. Mitchell 606)			Y
821.	39500 <i>Tephrosia brachyodon</i> var. <i>longifolia</i>			
822.	4263 <i>Tephrosia clementii</i>			
823.	49016 <i>Tephrosia densa</i>			
824.	4269 <i>Tephrosia flammea</i>			
825.	4272 <i>Tephrosia leptoclada</i>			
826.	4280 <i>Tephrosia rosea</i> (Flinders River Poison, Bungoo'dah)			
827.	19531 <i>Tephrosia rosea</i> var. <i>clementii</i>			
828.	<i>Tephrosia rosea</i> var. <i>fortescue</i> creeks (M.I.H. Brooker 2186)			
829.	19529 <i>Tephrosia rosea</i> var. <i>rosea</i>			
830.	15947 <i>Tephrosia</i> sp. B Kimberley Flora (C.A. Gardner 7300)			
831.	17768 <i>Tephrosia</i> sp. Bungaroo Creek (M.E. Trudgen 11601)			
832.	15949 <i>Tephrosia</i> sp. D Kimberley Flora (R.D. Royce 1848)			
833.	42442 <i>Tephrosia</i> sp. NW Eremaean (S. van Leeuwen et al. PBS 0356)			
834.	40060 <i>Tephrosia</i> sp. clay soils (S. van Leeuwen et al. PBS 0273)			
835.	4285 <i>Tephrosia supina</i>			
836.	5300 <i>Terminalia canescens</i> (Joolal)			
837.	45698 <i>Terminalia circumalata</i>			
838.	5310 <i>Terminalia platyphylla</i> (Wild Plum, Durin)			
839.	169 <i>Thalassia hemprichii</i>			
840.	<i>Themeda</i> Mt Barricade (M.E. Trudgen 2471)			
841.	672 <i>Themeda avenacea</i> (Native Oatgrass)			
842.	17819 <i>Themeda</i> sp. Mt Barricade (M.E. Trudgen 2471)			
843.	673 <i>Themeda triandra</i>			
844.	2644 <i>Threlkeldia diffusa</i> (Coast Bonefruit)			
845.	2942 <i>Tinospora smilacina</i> (Snakevine, Oondala)			
846.	35182 <i>Titanophora pikeana</i>			
847.	29601 <i>Titanophycus validus</i>			
848.	27335 <i>Tolypocladia calodictyon</i>			
849.	27336 <i>Tolypocladia glomerulata</i>			
850.	6270 <i>Trachymene didiscoides</i>			
851.	6273 <i>Trachymene glaucifolia</i> (Wild Carrot)			
852.	6278 <i>Trachymene oleracea</i>			
853.	19043 <i>Trachymene oleracea</i> subsp. <i>oleracea</i>			
854.	678 <i>Tragus australianus</i> (Small Burrgrass)			
855.	44305 <i>Trianthema pilosum</i>			
856.	2830 <i>Trianthema portulacastrum</i> (Giant Pigweed)	Y		
857.	44362 <i>Trianthema triquetrum</i>			
858.	44360 <i>Trianthema turgidifolium</i>			
859.	4375 <i>Tribulus cistoides</i>			
860.	4377 <i>Tribulus hirsutus</i>			
861.	4379 <i>Tribulus macrocarpus</i>			
862.	4380 <i>Tribulus occidentalis</i> (Perennial Caltrop)			
863.	4381 <i>Tribulus platypterus</i> (Cork Hopbush)			
864.	18072 <i>Tribulus suberosus</i>			
865.	4383 <i>Tribulus terrestris</i> (Caltrop)	Y		
866.	6727 <i>Trichodesma zeylanicum</i> (Camel Bush, Kumbalin)			
867.	13559 <i>Trichodesma zeylanicum</i> var. <i>grandiflorum</i>			
868.	11750 <i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>			
869.	27339 <i>Trichogloea requienii</i>			
870.	7381 <i>Trichosanthes cucumerina</i>			
871.	12032 <i>Trichosanthes cucumerina</i> var. <i>cucumerina</i>			
872.	27340 <i>Tricleocarpa cylindrica</i>			
873.	8252 <i>Tridax procumbens</i> (Tridax, Tridax Daisy)	Y		
874.	48201 <i>Trigastrotheca molluginea</i>			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
875.	679 <i>Triodia angusta</i>			
876.	13131 <i>Triodia epactia</i>			
877.	696 <i>Triodia pungens</i> (Soft Spinifex)			
878.	17873 <i>Triodia schinzii</i>			
879.	704 <i>Triodia wiseana</i> (Limestone Spinifex)			
880.	706 <i>Triraphis mollis</i> (Needle Grass)			
881.	4873 <i>Triumfetta appendiculata</i>			
882.	4875 <i>Triumfetta chaetocarpa</i> (Urchins)			
883.	14694 <i>Triumfetta clementii</i>			
884.	4879 <i>Triumfetta leptacantha</i>			
885.	14942 <i>Triumfetta maconochieana</i>			
886.	27348 <i>Udotea argentea</i>			
887.	27349 <i>Udotea flabellum</i>			
888.	35302 <i>Udotea glaucescens</i>			
889.	30716 <i>Vachellia farnesiana</i> (Mimosa Bush)	Y		
890.	17868 <i>Vallisneria nana</i>			
891.	36143 <i>Valonia fastigiata</i>			
892.	46438 <i>Valonia ventricosa</i>			
893.	27357 <i>Valoniopsis pachynema</i>			
894.	7660 <i>Velleia glabrata</i> (Pee the Bed)			
895.	4846 <i>Ventilago viminalis</i> (Supplejack, Barndaragu)			
896.	4323 <i>Vigna lanceolata</i> (Maloga Vigna, Wega)			
897.	<i>Vigna lanceolata</i> subsp. <i>latifolia</i>			Y
898.	11576 <i>Vigna lanceolata</i> var. <i>lanceolata</i>			
899.	<i>Vigna</i> sp.			
900.	31391 <i>Vigna</i> sp. <i>Hammersley Clay</i> (A.A. Mitchell PRP 113)			
901.	11359 <i>Vitex trifolia</i> var. <i>subtrisepta</i>	Y		
902.	7393 <i>Wahlenbergia tumidifruca</i>			
903.	5106 <i>Waltheria indica</i>			
904.	17910 <i>Washingtonia filifera</i>	Y		
905.	725 <i>Whiteochloa airoides</i>			
906.	728 <i>Whiteochloa cymbiformis</i>			
907.	6578 <i>Wrightia saligna</i>			
908.	729 <i>Xerochloa barbata</i> (Rice Grass)			
909.	731 <i>Xerochloa laniflora</i> (Rice Grass)			
910.	732 <i>Yakirra australiensis</i>			
911.	11894 <i>Yakirra australiensis</i> var. <i>australiensis</i>			
912.	27370 <i>Yamadaella caenomyce</i>			
913.	2834 <i>Zaleya galericulata</i> (Hogweed)			
914.	29095 <i>Zaleya galericulata</i> subsp. <i>galericulata</i>			
915.	4326 <i>Zornia albiflora</i>			
916.	12679 <i>Zornia muelleriana</i> subsp. <i>congesta</i>			

**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

<sup>1</sup> 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 23/06/2021

Kingdom Animalia  
 Current Names Only Yes  
 Core Datasets Only Yes  
 Method 'By Circle'  
 Centre 116° 49' 16" E, 20° 45' 54" S  
 Buffer 40km  
 Group By Conservation Status

Conservation Status	Species	Records
Non-conservation taxon	1190	20227
Other specially protected fauna	4	15
Priority 1	1	2
Priority 3	1	5
Priority 4	7	254
Protected under international agreement	40	1346
Rare or likely to become extinct	16	1239
<b>TOTAL</b>	<b>1259</b>	<b>23088</b>

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
<b>Rare or likely to become extinct</b>				
1.	24050 <i>Balaenoptera physalus</i> (Fin Whale)		T	
2.	24784 <i>Calidris ferruginea</i> (Curlew Sandpiper)		T	
3.	24790 <i>Calidris tenuirostris</i> (Great Knot)		T	
4.	25575 <i>Charadrius leschenaultii</i> (Greater Sand Plover)		T	
5.	25576 <i>Charadrius mongolus</i> (Lesser Sand Plover)		T	
6.	24375 <i>Charadrius mongolus</i> subsp. <i>mongolus</i> (Lesser Sand Plover)		T	
7.	25336 <i>Chelonia mydas</i> (Green Turtle)		T	
8.	24093 <i>Dasyurus hallucatus</i> (Northern Quoll)		T	
9.	25473 <i>Eretmochelys imbricata</i> (Hawksbill Turtle)		T	
10.	25342 <i>Eretmochelys imbricata</i> subsp. <i>bissa</i> (Hawksbill Turtle)		T	
11.	24128 <i>Lagostrophus fasciatus</i> subsp. <i>fasciatus</i> (Banded hare-wallaby, Mernine)		T	
12.	30921 <i>Lerista neviniae</i> (Nevin's slider)		T	
13.	25238 <i>Liasis olivaceus</i> subsp. <i>barroni</i> (Pilbara Olive Python)		T	
14.	24180 <i>Macroderma gigas</i> (Ghost Bat)		T	
15.	25344 <i>Natator depressus</i> (Flatback Turtle)		T	
16.	24798 <i>Numenius madagascariensis</i> (Eastern Curlew)		T	
<b>Protected under international agreement</b>				
17.	41323 <i>Actitis hypoleucos</i> (Common Sandpiper)		IA	
18.	25634 <i>Anous stolidus</i> (Common Noddy)		IA	
19.	24505 <i>Anous stolidus</i> subsp. <i>pileatus</i> (Common Noddy)		IA	
20.	25554 <i>Apus pacificus</i> (Fork-tailed Swift, Pacific Swift)		IA	
21.	48573 <i>Ardenna pacifica</i> (Wedge-tailed Shearwater)		IA	
22.	25736 <i>Arenaria interpres</i> (Ruddy Turnstone)		IA	
23.	24779 <i>Calidris acuminata</i> (Sharp-tailed Sandpiper)		IA	
24.	24780 <i>Calidris alba</i> (Sanderling)		IA	
25.	25738 <i>Calidris canutus</i> (Red Knot, knot)		IA	
26.	24788 <i>Calidris ruficollis</i> (Red-necked Stint)		IA	
27.	24789 <i>Calidris subminuta</i> (Long-toed Stint)		IA	
28.	24378 <i>Charadrius veredus</i> (Oriental Plover)		IA	
29.	41332 <i>Chlidonias leucopterus</i> (White-winged Black Tern, white-winged tern)		IA	
30.	24478 <i>Fregata ariel</i> (Lesser Frigatebird)		IA	
31.	24793 <i>Gallinago stenura</i> (Pin-tailed Snipe)		IA	
32.	47954 <i>Gelochelidon nilotica</i> (Gull-billed Tern)		IA	
33.	24481 <i>Glareola maldivarum</i> (Oriental Pratincole)		IA	
34.	25630 <i>Hirundo rustica</i> (Barn Swallow)		IA	
35.	48587 <i>Hydroprogne caspia</i> (Caspian Tern)		IA	
36.	25739 <i>Limicola falcinellus</i> (Broad-billed Sandpiper)		IA	
37.	30932 <i>Limosa lapponica</i> (Bar-tailed Godwit)		IA	
38.	25741 <i>Limosa limosa</i> (Black-tailed Godwit)		IA	

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
39.	24799 <i>Numenius minutus</i> (Little Curlew, Little Whimbrel)		IA	
40.	25742 <i>Numenius phaeopus</i> (Whimbrel)		IA	
41.	24497 <i>Oceanites oceanicus</i> (Wilson's Storm-petrel)		IA	
42.	41347 <i>Onychoprion anaethetus</i> (Bridled Tern)		IA	
43.	48591 <i>Pandion cristatus</i> (Osprey, Eastern Osprey)		IA	
44.	24843 <i>Plegadis falcinellus</i> (Glossy Ibis)		IA	
45.	24382 <i>Pluvialis fulva</i> (Pacific Golden Plover)		IA	
46.	24383 <i>Pluvialis squatarola</i> (Grey Plover)		IA	
47.	24716 <i>Puffinus pacificus</i> (Wedge-tailed Shearwater)		IA	
48.	25640 <i>Sterna dougallii</i> (Roseate Tern)		IA	
49.	25642 <i>Sterna hirundo</i> (Common Tern)		IA	
50.	48593 <i>Sternula albifrons</i> (Little Tern)		IA	
51.	25754 <i>Sula leucogaster</i> (Brown Booby)		IA	
52.	48597 <i>Thalasseus bergii</i> (Crested Tern)		IA	
53.	24806 <i>Tringa glareola</i> (Wood Sandpiper)		IA	
54.	24808 <i>Tringa nebularia</i> (Common Greenshank, greenshank)		IA	
55.	24809 <i>Tringa stagnatilis</i> (Marsh Sandpiper, little greenshank)		IA	
56.	41351 <i>Xenus cinereus</i> (Terek Sandpiper)		IA	
<b>Other specially protected fauna</b>				
57.	24084 <i>Dugong dugon</i> (Dugong)		S	
58.	25624 <i>Falco peregrinus</i> (Peregrine Falcon)		S	
59.	24475 <i>Falco peregrinus subsp. macropus</i> (Australian Peregrine Falcon)		S	
60.	24051 <i>Megaptera novaeangliae</i> (Humpback Whale)		S	
<b>Priority 1</b>				
61.	25168 <i>Lerista quadrivincula</i> (four-lined slider (Karratha), Four-chained Slider)		P1	Y
<b>Priority 3</b>				
62.	25024 <i>Ctenotus angusticeps</i> (Airlie Island Ctenotus, Northwestern coastal Ctenotus)		P3	
<b>Priority 4</b>				
63.	24215 <i>Hydromys chrysogaster</i> (Water-rat, Rakali)		P4	
64.	24217 <i>Leggadina lakedownensis</i> (Northern Short-tailed Mouse, Lakeland Downs Mouse, Kerakenga)		P4	
65.	25196 <i>Notoscincus butleri</i> (lined soil-crevice skink (Dampier))		P4	
66.	24233 <i>Pseudomys chapmani</i> (Western Pebble-mound Mouse, Ngadji)		P4	
67.	43368 <i>Rhinonicteris aurantia</i> (Orange Leaf-nosed bat)		P4	
68.	48114 <i>Stenella longirostris</i> (Spinner Dolphin)		P4	
69.	24803 <i>Tringa brevipes</i> (Grey-tailed Tattler)		P4	
<b>Non-conservation taxon</b>				
70.	'Kencandona' 'harleyi' (PSS)			
71.	? ?			
72.	<i>Abudefduf bengalensis</i>			
73.	<i>Abudefduf saxatilis</i>			
74.	<i>Abudefduf saxatilis subsp. vaigiensis</i>			Y
75.	<i>Abudefduf septemfasciatus</i>			
76.	<i>Abudefduf sexfasciatus</i>			
77.	<i>Abudefduf sordidus</i>			
78.	<i>Abudefduf</i> sp.			
79.	<i>Acanthocybium solandri</i>			Y
80.	<i>Acanthopagrus latus</i>			
81.	<i>Acanthophis wellsei</i>			
82.	25332 <i>Acanthophis wellsi</i> (Pilbara Death Adder)			
83.	<i>Acanthurus grammoptilus</i>			
84.	<i>Acariformes</i> sp.			
85.	25535 <i>Accipiter cirrocephalus</i> (Collared Sparrowhawk)			
86.	25536 <i>Accipiter fasciatus</i> (Brown Goshawk)			
87.	<i>Acentrogobius gracilis</i>			
88.	<i>Acentrogobius</i> sp.			
89.	<i>Achnanthis minutissima</i> (Kütz.) Czarneci			
90.	25755 <i>Acrocephalus australis</i> (Australian Reed Warbler)			
91.	24831 <i>Acrocephalus australis subsp. gouldi</i> (Australian Reed Warbler)			
92.	<i>Actacarus pacificus</i>			
93.	25544 <i>Aegotheles cristatus</i> (Australian Owlet-nightjar)			
94.	<i>Aeshnidae</i> sp.			
95.	<i>Aetobatus narinari</i>			Y
96.	<i>Agauopsis arborea</i>			Y
97.	<i>Agauopsis dasyderma</i>			Y
98.	<i>Agauopsis moorea</i>			Y
99.	<i>Agauopsis obtusa</i>			Y
100.	<i>Agriptocorixa parvipunctata</i>			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
101.	25355 <i>Aipysurus laevis</i> (Olive Seasnake)			
102.	<i>Alepes apercna</i>			
103.	<i>Alepes mate</i>			Y
104.	<i>Allodessus bistrigatus</i>			
105.	<i>Alluaudomyia</i> sp.			
106.	<i>Alona anodonta</i>			
107.	<i>Alona</i> cf. <i>verrucosa</i>			
108.	<i>Alona rigidicaudis</i>			
109.	<i>Ambassis vachellii</i>			
110.	<i>Ambassis vachellii?</i>			Y
111.	<i>Amblyeleotris gymnocephala</i>			
112.	<i>Amblygobius bynoensis</i>			
113.	<i>Amblygobius decussatus</i>			
114.	<i>Amblygobius phalaena</i>			
115.	<i>Amblyomma triguttatum</i>			
116.	<i>Amniataba caudavittata</i>			
117.	<i>Amniataba percoides</i>			
118.	30831 <i>Amphibolurus gilberti</i> (Ta-ta, Gilbert's Dragon)			
119.	30833 <i>Amphibolurus longirostris</i> (Long-nosed Dragon)			
120.	<i>Amphiprion clarkii</i>			
121.	<i>Amphiprion rubrocinctus</i>			
122.	<i>Amsichthys knighti</i>			
123.	25647 <i>Amytornis striatus</i> (Striated Grasswren)			
124.	<i>Anacanthus barbatus</i>			
125.	<i>Aname mainae</i>			
126.	<i>Aname mellosa</i>			
127.	<i>Anampses caeruleopunctatus</i>			
128.	<i>Anampses lennardi</i>			
129.	24312 <i>Anas gracilis</i> (Grey Teal)			
130.	24316 <i>Anas superciliosa</i> (Pacific Black Duck)			
131.	<i>Anax papuensis</i>			
132.	<i>Ancylidae</i> sp.			
133.	47414 <i>Anhinga novaehollandiae</i> (Australasian Darter)			
134.	44628 <i>Anilios ammodytes</i>			
135.	44635 <i>Anilios grypus</i>			
136.	<i>Anisops canaliculatus</i>			
137.	<i>Anisops hackeri</i>			
138.	<i>Anisops nasutus</i>			
139.	<i>Anisops</i> sp.			
140.	<i>Anomalohalacarus dampierensis</i>			Y
141.	<i>Anopheles annulipes</i> s.l.			
142.	25317 <i>Antaresia childreni</i> (Children's Python)			
143.	25318 <i>Antaresia perthensis</i> (Pygmy Python)			
144.	25448 <i>Antaresia stimsoni</i> (Stimson's Python)			
145.	25241 <i>Antaresia stimsoni</i> subsp. <i>stimsoni</i> (Stimson's Python)			
146.	25670 <i>Anthus australis</i> (Australian Pipit)			
147.	24599 <i>Anthus australis</i> subsp. <i>australis</i> (Australian Pipit)			
148.	<i>Antipodectes bituberculatus</i>			Y
149.	<i>Anuraeopsis navicula</i>			
150.	<i>Apistus carinatus</i>			
151.	<i>Apogon aureus</i>			
152.	<i>Apogon brevicaudatus</i>			
153.	<i>Apogon cavitiensis</i>			
154.	<i>Apogon cookii</i>			
155.	<i>Apogon dianthus</i>			
156.	<i>Apogon doederleini</i>			
157.	<i>Apogon fasciatus</i>			
158.	<i>Apogon fuscomaculatus</i>			
159.	<i>Apogon nigripinnis</i>			
160.	<i>Apogon pallidofasciatus</i>			
161.	<i>Apogon rueppellii</i>			
162.	<i>Apogon talboti</i>			
163.	<i>Apogon timorensis</i>			
164.	<i>Apogon trimaculatus</i>			
165.	24285 <i>Aquila audax</i> (Wedge-tailed Eagle)			
166.	<i>Arcella</i> sp.			
167.	25557 <i>Ardea garzetta</i> (Little Egret)			
168.	25558 <i>Ardea ibis</i> (Cattle Egret)			
169.	25559 <i>Ardea intermedia</i> (Intermediate Egret)			
170.	41324 <i>Ardea modesta</i> (great egret, white egret)			



Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
171.	24340 <i>Ardea novaehollandiae</i> (White-faced Heron)			
172.	24341 <i>Ardea pacifica</i> (White-necked Heron)			
173.	24343 <i>Ardea sacra</i> subsp. <i>sacra</i> (Eastern Reef Egret, Eastern Reef Heron)			
174.	24610 <i>Ardeotis australis</i> (Australian Bustard)			
175.	<i>Areacandona</i> 'lepte' (PSS)			
176.	<i>Areacandona</i> cf. 'iuno' (PSS)			
177.	<i>Areacandona</i> cf. 'lepte' (PSS)			
178.	<i>Areacandona</i> sp.			
179.	<i>Argiope protensa</i>			
180.	<i>Arius leptaspis</i>			Y
181.	<i>Arnoglossus</i> sp.			
182.	<i>Arnoglossus waitei</i>			Y
183.	<i>Arothron hispidus</i>			
184.	<i>Arothron manilensis</i>			
185.	25566 <i>Artamus cinereus</i> (Black-faced Woodswallow)			
186.	25567 <i>Artamus leucorhynchus</i> (White-breasted Woodswallow)			
187.	24354 <i>Artamus leucorhynchus</i> subsp. <i>leucopygialis</i> (White-breasted Woodswallow)			
188.	24355 <i>Artamus minor</i> (Little Woodswallow)			
189.	24356 <i>Artamus personatus</i> (Masked Woodswallow)			
190.	24357 <i>Artamus superciliosus</i> (White-browed Woodswallow)			
191.	<i>Arthrorhabdus paucispinus</i>			
192.	<i>Aseraggodes</i> sp.			
193.	25320 <i>Aspidites melanocephalus</i> (Black-headed Python)			
194.	25236 <i>Aspidites ramsayi</i> (Woma)			
195.	<i>Asterorhombus intermedius</i>			
196.	<i>Asteropteryx semipunctatus</i>			
197.	<i>Atherinid</i> sp.			
198.	<i>Atherinomorus endrachtensis</i>			
199.	<i>Atherinomorus vaigiensis</i>			
200.	<i>Atrosalaria fuscus</i>			
201.	<i>Atule mate</i>			
202.	<i>Austracantha minax</i>			
203.	<i>Australutica</i> sp. 1			
204.	47713 <i>Austronomus australis</i> (White-striped Free-tailed Bat)			
205.	<i>Austrostrophus stictopygus</i>			
206.	24318 <i>Aythya australis</i> (Hardhead)			
207.	<i>Backobourkia collina</i>			
208.	<i>Baetidae</i> sp.			
209.	<i>Barnardius zonarius</i>			
210.	<i>Bathygobius cocosensis</i>			
211.	<i>Bathygobius fuscus</i>			
212.	<i>Bathygobius laddi</i>			
213.	<i>Bathygobius</i> sp.			
214.	<i>Batrachomoeus dahli</i>			
215.	<i>Batrachomoeus dahli?</i>			Y
216.	<i>Batrachomoeus trispinosus</i>			
217.	<i>Bdelloidea</i> sp. 2:2			
218.	<i>Bdelloidea</i> sp. 3:3			
219.	<i>Beaglichthys bleekeri</i>			
220.	<i>Belostomatidae</i> sp.			
221.	<i>Bennelongia minimus</i>			
222.	<i>Berosus pulchellus</i>			
223.	<i>Blennodesmus scapularis</i>			
224.	<i>Boeckella triarticulata</i>			
225.	<i>Bolboleaus truncatus</i>			
226.	<i>Boreoheperus undulatus</i>			
227.	<i>Bostrychus sinensis</i>			Y
228.	<i>Brachionus</i> n sp P2 (PSW)			
229.	<i>Brachionus quadridentatus</i>			
230.	25331 <i>Brachyurophis approximans</i> (North-western Shovel-nosed Snake)			
231.	42373 <i>Brachyurophis fasciolatus</i> (Narrow-banded Shovel-nosed Snake)			
232.	<i>Bryaninops loki</i>			
233.	<i>Buddelundia</i> sp.			
234.	24359 <i>Burhinus grallarius</i> (Bush Stone-curlew)			
235.	47897 <i>Butorides striata</i> (Striated Heron, Mangrove Heron)			
236.	25715 <i>Cacatua roseicapilla</i> (Galah)			
237.	25716 <i>Cacatua sanguinea</i> (Little Corella)			
238.	24727 <i>Cacatua sanguinea</i> subsp. <i>westralensis</i> (Little Corella)			
239.	42307 <i>Cacomantis pallidus</i> (Pallid Cuckoo)			
240.	<i>Caenidae</i> sp.			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
241.	<i>Caesio</i> sp.			Y
242.	<i>Calanoida</i> sp.			
243.	<i>Callionymus grossi</i>			
244.	<i>Callionymus japonicus</i>			Y
245.	<i>Callionymus russelli</i>			Y
246.	<i>Callionymus</i> sp.			
247.	<i>Callogobius</i> n.sp.			Y
248.	<i>Callogobius sclateri</i>			
249.	<i>Callogobius</i> sp. 2			Y
250.	<i>Caloneis sillicula</i> (Ehr.) Cl.			
251.	<i>Candonopsis 'inaffecta'</i> (PSS)			Y
252.	<i>Candonopsis williamsi</i>			Y
253.	48920 <i>Canis familiaris</i> (Dog, Dingo)	Y		
254.	24253 <i>Capra hircus</i> (Goat)	Y		
255.	<i>Carangoides ferdau</i>			
256.	<i>Carangoides hedlandensis</i>			
257.	<i>Carangoides</i> sp.			
258.	<i>Caranx bucculentus</i>			
259.	<i>Caranx ignobilis</i>			
260.	<i>Caranx sexfasciatus</i>			
261.	<i>Carcharhinus brachyurus</i>			
262.	<i>Carcharhinus leucas</i>			
263.	<i>Carenum pulchrum</i>			
264.	<i>Carenum subplanatum</i>			
265.	<i>Carenum venustum</i>			
266.	25015 <i>Carlia munda</i> (Shaded-litter Rainbow Skink)			
267.	25017 <i>Carlia triacantha</i> (Desert Rainbow Skink)			
268.	<i>Catadromus lacordairei</i>			
269.	<i>Cavisternum clavatum</i>			
270.	<i>Centriscus scutatus</i>			
271.	<i>Centrogenys vaigiensis</i>			
272.	25600 <i>Centropus phasianinus</i> (Pheasant Coucal)			
273.	<i>Cephalodella biungulata</i>			
274.	<i>Cephalodella cf forficula</i>			
275.	<i>Cephalodella gibba</i>			
276.	<i>Cephalopholis boenak</i>			
277.	<i>Cephalopholis cyanostigma</i>			
278.	<i>Cephalopholis urodeta</i>			
279.	<i>Ceratopogonidae</i> sp.			
280.	<i>Ceriodaphnia cornuta</i>			
281.	<i>Ceriodaphnia</i> n. sp. a (Berner sp.#3) (SAP)			
282.	<i>Ceriodaphnia</i> n. sp. c (Berner sp.#1) (SAP)			
283.	24564 <i>Certhionyx variegatus</i> (Pied Honeyeater)			
284.	24181 <i>Chaerephon jobensis</i> (Greater Northern Freetail-bat, Northern Mastiff Bat)			
285.	<i>Chaetodermis penicilligera</i>			
286.	<i>Chaetodon aureofasciatus</i>			
287.	<i>Chaetodon lunula</i>			
288.	<i>Chaetodontoplus duboulayi</i>			
289.	<i>Chaetodontoplus personifer</i>			
290.	24186 <i>Chalinolobus gouldii</i> (Gould's Wattled Bat)			
291.	<i>Chanos chanos</i>			
292.	24377 <i>Charadrius ruficapillus</i> (Red-capped Plover)			
293.	<i>Cheilinus chlorourus</i>			
294.	<i>Cheilodipterus macrodon</i>			
295.	<i>Cheilodipterus quinquelineatus</i>			
296.	<i>Cheilopogon arcticeps</i>			
297.	<i>Cheiloprion labiatus</i>			
298.	<i>Chelmon marginalis</i>			
299.	<i>Chelmon muelleri</i>			
300.	<i>Chelonodon patoca</i>			
301.	24321 <i>Chenonetta jubata</i> (Australian Wood Duck, Wood Duck)			
302.	47909 <i>Cheramoeca leucosterna</i> (White-backed Swallow)			
303.	<i>Cheumatopsyche wellsae</i>			
304.	<i>Chirocentrus dorab</i>			
305.	<i>Chironominae</i> sp.			
306.	<i>Chironomus aff. alternans</i> (V24) (CB)			
307.	<i>Chlaenius australis</i>			
308.	<i>Chlamydera guttatus</i>			Y
309.	<i>Choerodon cauteroma</i>			
310.	<i>Choerodon cyanodus</i>			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
311.	<i>Choerodon schoenleinii</i>			
312.	<i>Choerodon sp.</i>			
313.	<i>Choerodon vitta</i>			
314.	<i>Choeroichthys brachysoma</i>			
315.	<i>Chroicocephalus novaehollandiae</i>			
316.	<i>Chromileptes altivelis</i>			
317.	<i>Chromis fumea</i>			
318.	<i>Chromis viridis</i>			
319.	24431 <i>Chrysococcyx basalis</i> (Horsfield's Bronze Cuckoo)			
320.	24434 <i>Chrysococcyx osculans</i> (Black-eared Cuckoo)			
321.	24288 <i>Circus approximans</i> (Swamp Harrier)			
322.	24289 <i>Circus assimilis</i> (Spotted Harrier)			
323.	<i>Cirripectes filamentosus</i>			
324.	24774 <i>Cladorhynchus leucocephalus</i> (Banded Stilt)			
325.	<i>Cleidopus gloriamaris</i>			
326.	<i>Cloeon sp.</i>			
327.	<i>Clupeid sp.</i>			
328.	<i>Coenagrionidae sp.</i>			
329.	25675 <i>Colluricincla harmonica</i> (Grey Shrike-thrush)			
330.	24613 <i>Colluricincla harmonica subsp. rufiventris</i> (Grey Shrike-thrush)			
331.	24399 <i>Columba livia</i> (Domestic Pigeon)	Y		
332.	<i>Conger cinereus</i>			
333.	<i>Conger sp.</i>			
334.	<i>Congrogadus spinifer</i>			
335.	<i>Congrogadus subducens</i>			
336.	<i>Copidognathus lutarius</i>			Y
337.	<i>Copidognathus meridianus</i>			
338.	<i>Copidognathus piger</i>			Y
339.	25568 <i>Coracina novaehollandiae</i> (Black-faced Cuckoo-shrike)			
340.	24363 <i>Coracina novaehollandiae subsp. subpallida</i> (Black-faced Cuckoo-shrike)			
341.	<i>Cordylocheres dingo</i>			Y
342.	<i>Coris sp.</i>			
343.	<i>Corixidae sp.</i>			
344.	<i>Cormocephalus turneri</i>			
345.	24416 <i>Corvus bennetti</i> (Little Crow)			
346.	25593 <i>Corvus orru</i> (Torresian Crow)			
347.	24419 <i>Corvus splendens</i> (House Crow)			
348.	<i>Cottapistus cottoides</i>			
349.	25701 <i>Coturnix ypsilophora</i> (Brown Quail)			
350.	24673 <i>Coturnix ypsilophora subsp. australis</i> (Brown Quail)			
351.	24672 <i>Coturnix ypsilophora subsp. cervina</i> (Brown Quail)			
352.	24420 <i>Cracticus nigrogularis</i> (Pied Butcherbird)			
353.	25595 <i>Cracticus tibicen</i> (Australian Magpie)			
354.	25596 <i>Cracticus torquatus</i> (Grey Butcherbird)			
355.	<i>Craterocephalus capreoli</i>			
356.	<i>Craterocephalus mugiloides</i>			
357.	<i>Craterocephalus pauciradiatus</i>			
358.	25456 <i>Crenadactylus ocellatus</i> (Clawless Gecko)			
359.	24919 <i>Crenadactylus ocellatus subsp. horni</i> (Clawless Gecko)			
360.	<i>Crossorhombus azureus</i>			
361.	30893 <i>Cryptoblepharus buchananii</i>			
362.	25020 <i>Cryptoblepharus plagiocephalus</i>			
363.	30892 <i>Cryptoblepharus ustulatus</i>			
364.	<i>Cryptocentrus caeruleomaculatus</i>			
365.	<i>Cryptocentrus cinctus</i>			
366.	<i>Cryptocentrus sp.</i>			
367.	<i>Cryptochironomus griseidorsum</i>			
368.	<i>Cryptodus caviceps</i>			
369.	<i>Cryptoerithus halli</i>			
370.	<i>Cryptoerithus occultus</i>			
371.	25458 <i>Ctenophorus caudicinctus</i> (Ring-tailed Dragon)			
372.	24865 <i>Ctenophorus caudicinctus subsp. caudicinctus</i> (Ring-tailed Dragon)			
373.	25459 <i>Ctenophorus isolepis</i> (Crested Dragon, Military Dragon)			
374.	24874 <i>Ctenophorus isolepis subsp. citrinus</i> (Yellow Military Dragon)			
375.	24876 <i>Ctenophorus isolepis subsp. isolepis</i> (Crested Dragon, Military Dragon)			
376.	24882 <i>Ctenophorus nuchalis</i> (Central Netted Dragon)			
377.	24886 <i>Ctenophorus reticulatus</i> (Western Netted Dragon)			
378.	<i>Ctenotrypauchen microcephalus</i>			
379.	25027 <i>Ctenotus australis</i>			
380.	25036 <i>Ctenotus duricola</i>			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
381.	25039 <i>Ctenotus fallens</i>			
382.	25462 <i>Ctenotus grandis</i>			
383.	25043 <i>Ctenotus grandis</i> subsp. <i>titan</i>			
384.	25044 <i>Ctenotus hanloni</i>			
385.	25045 <i>Ctenotus helenae</i>			
386.	25052 <i>Ctenotus leonhardii</i>			
387.	25463 <i>Ctenotus pantherinus</i> (Leopard Ctenotus)			
388.	25060 <i>Ctenotus pantherinus</i> subsp. <i>acripes</i> (Leopard Ctenotus)			
389.	25064 <i>Ctenotus pantherinus</i> subsp. <i>ocellifer</i> (Leopard Ctenotus)			
390.	25070 <i>Ctenotus robustus</i>			
391.	25072 <i>Ctenotus rubicundus</i>			
392.	25073 <i>Ctenotus saxatilis</i> (Rock Ctenotus)			
393.	25074 <i>Ctenotus schomburgkii</i>			
394.	25077 <i>Ctenotus serventyi</i>			
395.	25465 <i>Ctenotus uber</i> (Spotted Ctenotus)			
396.	<i>Culex</i> ( <i>Culex</i> ) <i>annulirostris</i>			
397.	<i>Culex crinicauda</i>			
398.	<i>Culex</i> nr. <i>crinicauda</i> (PSW)			
399.	<i>Culex palpalis</i>			
400.	<i>Culicidae</i> sp.			
401.	<i>Curculionidae</i> sp.			
402.	<i>Cybister tripunctatus</i>			
403.	25466 <i>Cyclodomorphus melanops</i> (Slender Blue-tongue)			
404.	25090 <i>Cyclodomorphus melanops</i> subsp. <i>melanops</i> (Slender Blue-tongue)			
405.	25371 <i>Cyclorana australis</i> (Giant Frog)			
406.	25373 <i>Cyclorana cultripes</i> (Knife-footed Frog)			
407.	25375 <i>Cyclorana maini</i> (Sheep Frog)			
408.	25376 <i>Cyclorana platycephala</i> (Water-holding Frog)			
409.	24322 <i>Cygnus atratus</i> (Black Swan)			
410.	<i>Cymbacephalus bosschei</i>			
411.	<i>Cymbacephalus nematophthalmus</i>			
412.	<i>Cymbella delicatula</i> Kütz.			
413.	<i>Cynoglossus maculipinnis</i>			
414.	<i>Cynoglossus</i> sp.			
415.	<i>Cypretta</i> ? <i>lutea</i>			
416.	<i>Cypretta seurati</i>			
417.	<i>Cypretta</i> sp PSW074			
418.	<i>Cypricercus salinus</i>			
419.	<i>Cypricercus</i> sp. 422 (CB)			
420.	25547 <i>Dacelo leachii</i> (Blue-winged Kookaburra)			
421.	<i>Dampierosa daruma</i>			
422.	<i>Dasyatis kuhlii</i>			
423.	<i>Dasyheleinae</i> sp. P2 (PSW)			
424.	24091 <i>Dasykaluta rosamondae</i> (Little Red Kaluta)			
425.	24996 <i>Delma borea</i>			
426.	24997 <i>Delma butleri</i>			
427.	25766 <i>Delma fraseri</i> (Fraser's Legless Lizard)			
428.	25001 <i>Delma nasuta</i>			
429.	25002 <i>Delma pax</i>			
430.	25004 <i>Delma tincta</i>			
431.	25468 <i>Demansia psammophis</i> (Yellow-faced Whipsnake)			
432.	25295 <i>Demansia psammophis</i> subsp. <i>cupreiceps</i> (Yellow-faced Whipsnake)			
433.	25296 <i>Demansia psammophis</i> subsp. <i>reticulata</i> (Yellow-faced Whipsnake)			
434.	25297 <i>Demansia rufescens</i> (Rufous Whipsnake)			
435.	24324 <i>Dendrocygna arcuata</i> (Wandering Whistling Duck, Chestnut Whistling Duck)			
436.	24325 <i>Dendrocygna eytoni</i> (Plumed Whistling Duck)			
437.	<i>Dexillus muelleri</i>			
438.	<i>Diacyclops humphreysi humphreysi</i>			
439.	<i>Diacyclops humphreysi</i> s. str X <i>unispinosus</i>			
440.	<i>Diacyclops</i> sp. 4 (PSS)			Y
441.	<i>Diademichthys lineatus</i>			
442.	<i>Diaphanosoma excisum</i>			
443.	<i>Dibrachichthys melanurus</i>			
444.	25607 <i>Dicaeum hirundinaceum</i> (Mistletoebird)			
445.	<i>Dicrotendipes</i> P5 (=balciunasi?) (PSW)			
446.	<i>Didymothallus mizolepis</i>			
447.	<i>Diffugia</i> sp. P1			
448.	<i>Dinematichthys</i> sp.			
449.	<i>Dineutus australis</i>			
450.	<i>Diplacodes bipunctata</i>			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
451.	<i>Diplacodes haematodes</i>			
452.	24926 <i>Diplodactylus conspicillatus</i> (Fat-tailed Gecko)			
453.	41404 <i>Diplodactylus galaxias</i> (Northern Pilbara Beak-faced Gecko)			
454.	24937 <i>Diplodactylus mitchelli</i>			
455.	24944 <i>Diplodactylus savagei</i> (Southern Pilbara Beak-faced Gecko)			
456.	<i>Diplogrammus xenicus</i>			
457.	<i>Diploprion bifasciatum</i>			
458.	24896 <i>Diporiphora pindan</i> (Pindan Dragon)			
459.	42402 <i>Diporiphora vescus</i> (Northern Pilbara Tree Dragon)			
460.	<i>Dischistodus darwiniensis</i>			
461.	<i>Discotrema lineata</i>			Y
462.	24470 <i>Dromaius novaehollandiae</i> (Emu)			
463.	<i>Drombus</i> sp.			
464.	<i>Dytiscidae</i> sp.			
465.	<i>Ecnomidae</i> sp.			
466.	<i>Ecnomus pilbarensis</i>			
467.	<i>Ecsenius bicolor</i>			
468.	<i>Ecsenius yaeyamaensis</i>			
469.	41406 <i>Egernia cygnitos</i> (Western Pilbara Spiny-tailed Skink)			
470.	25092 <i>Egernia depressa</i> (Southern Pygmy Spiny-tailed Skink)			
471.	25101 <i>Egernia pilbarensis</i> (Pilbara Skink)			
472.	<i>Egernia</i> sp.			
473.	<i>Egretta garzetta</i>			
474.	<i>Egretta novaehollandiae</i>			
475.	<i>Elanus axillaris</i>			
476.	25540 <i>Elanus caeruleus</i> (Black-shouldered Kite)			
477.	24290 <i>Elanus caeruleus</i> subsp. <i>axillaris</i> (Australian Black-shouldered Kite)			
478.	<i>Eleutheronema tetradactylum</i>			
479.	<i>Elops hawaiiensis</i>			
480.	47937 <i>Elseymornis melanops</i> (Black-fronted Dotterel)			
481.	24631 <i>Emblema pictum</i> (Painted Finch)			
482.	<i>Encentridophorus sarasini</i>			
483.	<i>Enchytraeidae</i> sp.			
484.	<i>Enchytraeus Pilbara</i> sp. 1 (PSS)			
485.	<i>Engyprosopon grandisquama</i>			
486.	<i>Engyprosopon</i> sp.			
487.	<i>Enneapterygius gracilis</i>			
488.	<i>Enneapterygius larsonae</i>			
489.	<i>Enneapterygius philippinus</i>			
490.	<i>Enneapterygius</i> sp.			
491.	<i>Enneapterygius tutuilae</i>			
492.	<i>Enochrus deserticola</i>			
493.	<i>Enochrus</i> sp.			
494.	<i>Eolophus roseicapillus</i>			
495.	24653 <i>Eopsaltria pulverulenta</i> (Mangrove Robin)			
496.	25362 <i>Ephalophis greyae</i>			
497.	<i>Ephemeroporus barroisi</i> s.l.			
498.	25578 <i>Ephippiorhynchus asiaticus</i> (Black-necked Stork)			
499.	<i>Ephydriidae</i> sp.			
500.	<i>Ephydriidae</i> sp. 12 (PSW)			
501.	<i>Epinephelus bilobatus</i>			
502.	<i>Epinephelus coioides</i>			
503.	<i>Epinephelus corallicola</i>			
504.	<i>Epinephelus fasciatus</i>			
505.	<i>Epinephelus fuscoguttatus</i>			
506.	<i>Epinephelus malabaricus</i>			
507.	<i>Epinephelus quoyanus</i>			
508.	<i>Epinephelus sexfasciatus</i>			
509.	<i>Epinephelus</i> sp.			
510.	<i>Epistylis</i> sp.			
511.	24568 <i>Epthianura aurifrons</i> (Orange Chat)			
512.	24570 <i>Epthianura tricolor</i> (Crimson Chat)			
513.	<i>Equulites moretoniensis</i>			
514.	42404 <i>Eremiascincus isolepis</i>			
515.	41409 <i>Eremiascincus musivus</i> (Mosaic Desert Skink)			
516.	43381 <i>Eremiascincus pallidus</i> (Western Narrow-banded Skink, Narrow-banded Sand Swimmer)			
517.	24837 <i>Eremiornis carteri</i> (Spinifex-bird)			
518.	<i>Eretes australis</i>			
519.	24379 <i>Erythrogonys cinctus</i> (Red-kneed Dotterel)			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
520.	47938 <i>Esacus magnirostris</i> (Beach Stone-curlew, Beach Thick-knee)			
521.	<i>Ethmostigmus curtipes</i>			
522.	<i>Euchlanis dilatata</i>			
523.	<i>Euchlanis lyra</i>			
524.	<i>Euglypha</i> sp.			
525.	<i>Eulimnadia dahl</i>			Y
526.	<i>Eulimnadia</i> sp. P1 (PSW)			Y
527.	<i>Euristhmus microceps</i>			
528.	<i>Euristhmus sandrae</i>			Y
529.	24368 <i>Eurostopodus argus</i> (Spotted Nightjar)			
530.	<i>Eusurculus pistillum</i>			
531.	<i>Eviota queenslandica</i>			
532.	<i>Eviota</i> sp.			
533.	<i>Eviota storthynx</i>			
534.	<i>Eviota zebrina</i>			
535.	<i>Exocoetid</i> juv. sp.			Y
536.	25621 <i>Falco berigora</i> (Brown Falcon)			
537.	24471 <i>Falco berigora</i> subsp. <i>berigora</i> (Brown Falcon)			
538.	25622 <i>Falco cenchroides</i> (Australian Kestrel, Nankeen Kestrel)			
539.	25623 <i>Falco longipennis</i> (Australian Hobby)			
540.	24476 <i>Falco subniger</i> (Black Falcon)			
541.	<i>Favonigobius melanobranchus</i>			
542.	<i>Favonigobius</i> sp.			
543.	24041 <i>Felis catus</i> (Cat)	Y		
544.	<i>Festucalex</i> sp.			
545.	<i>Foa brachygramma</i>			
546.	25327 <i>Fordonia leucobalia</i> (White-bellied Mangrove Snake)			
547.	<i>Fowleria aurita</i>			
548.	<i>Fowleria variegata</i>			
549.	25727 <i>Fulica atra</i> (Eurasian Coot)			
550.	25301 <i>Furina ornata</i> (Moon Snake)			
551.	25729 <i>Gallinula tenebrosa</i> (Dusky Moorhen)			
552.	25730 <i>Gallirallus philippensis</i> (Buff-banded Rail)			
553.	24765 <i>Gallirallus philippensis</i> subsp. <i>mellori</i> (Buff-banded Rail)			
554.	<i>Gastrocopta mussoni</i>			Y
555.	42314 <i>Gavicalis virescens</i> (Singing Honeyeater)			
556.	24956 <i>Gehyra pilbara</i>			
557.	24958 <i>Gehyra punctata</i>			
558.	24959 <i>Gehyra variegata</i>			
559.	24401 <i>Geopelia cuneata</i> (Diamond Dove)			
560.	24402 <i>Geopelia humeralis</i> (Bar-shouldered Dove)			
561.	25585 <i>Geopelia striata</i> (Zebra Dove)			
562.	24403 <i>Geopelia striata</i> subsp. <i>placida</i> (Peaceful Dove)			
563.	24404 <i>Geophaps plumifera</i> (Spinifex Pigeon)			
564.	<i>Geoscaptus laevisimus</i>			
565.	<i>Gerres filamentosus</i>			
566.	<i>Gerres oyena</i>			
567.	<i>Gerres</i> sp.			
568.	<i>Gerres subfasciatus</i>			
569.	<i>Gerridae</i> sp.			
570.	25530 <i>Gerygone fusca</i> (Western Gerygone)			
571.	<i>Gerygone</i> sp.			
572.	24276 <i>Gerygone tenebrosa</i> (Dusky Gerygone)			
573.	<i>Glossogobius giuris</i>			
574.	<i>Glossogobius</i> sp.			
575.	<i>Glyptophysa</i> sp.			
576.	<i>Gnatholepis argus</i>			
577.	<i>Gnatholepis</i> sp.			
578.	<i>Gobiodon citrinus</i>			
579.	<i>Gobiodon erythrospilus</i>			
580.	<i>Gobiodon histrio</i>			
581.	<i>Gobiodon quinquestrigatus</i>			
582.	<i>Gobiodon rivulatus</i>			
583.	<i>Gobiodon</i> sp.			
584.	<i>Gomphidae</i> sp.			
585.	<i>Gomphodella</i> sp.			
586.	24443 <i>Grallina cyanoleuca</i> (Magpie-lark)			
587.	<i>Grayenulla waldockae</i>			
588.	24484 <i>Grus rubicunda</i> (Brolga)			
589.	<i>Gymnothorax pseudothyroideus</i>			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
590.	<i>Gymnothorax pseudothyroideus</i>			
591.	<i>Gymnothorax thyroideus</i>			
592.	<i>Gymnothorax thyroideus</i>			
593.	<i>Gymnothorax undulatus</i>			
594.	25627 <i>Haematopus fuliginosus</i> (Sooty Oystercatcher)			
595.	24487 <i>Haematopus longirostris</i> (Pied Oystercatcher)			
596.	<i>Haematopus ostralegus</i>			Y
597.	<i>Halacaridae</i> sp.			
598.	24293 <i>Haliaeetus leucogaster</i> (White-bellied Sea-Eagle)			
599.	25541 <i>Haliastur indus</i> (Brahminy Kite)			
600.	24294 <i>Haliastur indus</i> subsp. <i>girrenera</i> (Brahminy Kite)			
601.	24295 <i>Haliastur sphenurus</i> (Whistling Kite)			
602.	<i>Halichoeres marginatus</i>			
603.	<i>Halichoeres melanochir</i>			
604.	<i>Halichoeres nebulosus</i>			
605.	<i>Halichoeres nigrescens</i>			
606.	<i>Halichoeres</i> sp.			
607.	<i>Halicyclops</i> (Rochacyclops) <i>roachi</i>			
608.	<i>Halietaea brevicaudata</i> ?			
609.	<i>Haliichthys taeniophorus</i>			
610.	<i>Halophryne diemensis</i>			
611.	<i>Halophryne ocellatus</i>			
612.	24297 <i>Hamirostra melanosternon</i> (Black-breasted Buzzard)			
613.	<i>Hantzschia amphioxys</i> (Ehr.) Grun.			
614.	<i>Hebridae</i> sp.			
615.	<i>Helcogramma striata</i>			
616.	<i>Helicoverpa punctigera</i>			
617.	<i>Hellyethira</i> sp.			
618.	<i>Hemicordulia</i> sp.			
619.	<i>Hemicypris megalops</i>			
620.	25232 <i>Hemidactylus frenatus</i> (Asian House Gecko)	Y		
621.	<i>Hemigymnus melapterus</i>			
622.	<i>Hemipristis elongata</i>			
623.	<i>Hemiramphus</i> sp.			
624.	<i>Hemiscyllium trispeculare</i>			
625.	<i>Heniochus acuminatus</i>			
626.	<i>Herklotsichthys koningsbergeri</i>			
627.	<i>Heterocypris</i> sp.			
628.	<i>Heterocypris tatei</i>			
629.	24633 <i>Heteromunia pectoralis</i> (Pictorella Mannikin)			
630.	24961 <i>Heteronotia binoei</i> (Bynoe's Gecko)			
631.	<i>Heteronotia</i> sp.			
632.	24962 <i>Heteronotia spelea</i> (Desert Cave Gecko, Pilbara Cave Gecko)			
633.	<i>Heteronyx mimus</i>			
634.	<i>Heteronyx tepperi</i>			
635.	<i>Hexarthra cf brandorffi</i> (PSW)			
636.	<i>Hexarthra</i> sp P3 5-2/5-2 (PSW)			Y
637.	47965 <i>Hieraaetus morphnoides</i> (Little Eagle)			
638.	25734 <i>Himantopus himantopus</i> (Black-winged Stilt)			
639.	<i>Himantura granulata</i>			Y
640.	<i>Hippichthys penicillus</i>			
641.	<i>Hippocampus</i> sp.			
642.	24491 <i>Hirundo neoxena</i> (Welcome Swallow)			
643.	<i>Hogna crispipes</i>			
644.	<i>Hydrachna</i> sp. 4/5 (PSW)			
645.	<i>Hydraena</i> sp.			
646.	<i>Hydraenidae</i> sp.			
647.	25363 <i>Hydrelaps darwiniensis</i>			
648.	<i>Hydrobiidae</i> sp P1 (not assimineid) (PSW)			
649.	<i>Hydrochus obscuroeneus</i>			
650.	<i>Hydroglyphus grammopterus</i> (=trilineatus)			
651.	<i>Hydroglyphus leai</i>			
652.	<i>Hydroglyphus orthogrammus</i>			
653.	<i>Hydrometridae</i> sp.			
654.	<i>Hydrophilidae</i> sp.			
655.	44656 <i>Hydrophis major</i> (Olive-headed seasnake, greater seasnake)			
656.	43385 <i>Hydrophis stokesii</i> (Stoke's Seasnake, Sea Snake)			
657.	<i>Hydroptilidae</i> sp.			
658.	<i>Hyphydrus elegans</i>			
659.	<i>Hyphydrus lyratus</i>			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
660.	<i>Hyphydrus</i> sp.			
661.	<i>Hypopterus macropterus</i>			
662.	<i>Hyporhamphus affinis</i>			
663.	<i>Hyporhamphus quoyi</i>			
664.	<i>Ilyocypris australiensis</i>			
665.	<i>Ilyodromus</i> sp BOS25			
666.	<i>Ilyodromus</i> sp. PB			
667.	<i>Indolpium</i> sp.			
668.	<i>Inegocia japonica</i>			
669.	<i>Inimicus sinensis</i>			
670.	<i>Ischnura aurora aurora</i>			
671.	<i>Isidorella egraria</i>			
672.	<i>Isobactrus australiensis</i>			Y
673.	<i>Isobactrus obesus</i>			Y
674.	<i>Isocypris williamsi</i> (ex <i>Ilyodromus</i> sp. 413)			
675.	<i>Isopedella gibsandii</i>			
676.	<i>Isopedella tindalei</i>			
677.	<i>Istiblennius edentulus</i>			
678.	<i>Istiblennius meleagris</i>			
679.	<i>Istigobius nigrocellatus</i>			
680.	<i>Istigobius ornatus</i>			
681.	25562 <i>Ixobrychus flavicollis</i> (Black Bittern)			
682.	<i>Keratella procurva</i>			
683.	<i>Knoelle clara</i>			
684.	<i>Labracinus lineatus</i>			
685.	<i>Labroides dimidiatus</i>			
686.	<i>Laccophilus sharpi</i>			
687.	<i>Lacinularia flosculosa</i>			
688.	24057 <i>Lagenodelphis hosei</i> (Fraser's Dolphin)			
689.	<i>Laiphognathus multimaculatus</i>			
690.	24367 <i>Lalage tricolor</i> (White-winged Triller)			
691.	<i>Lampona ampeinna</i>			
692.	<i>Lampona cylindrata</i>			
693.	<i>Lamponina scutata</i>			
694.	<i>Larsia albiceps</i>			
695.	25637 <i>Larus novaehollandiae</i> (Silver Gull)			
696.	25638 <i>Larus pacificus</i> (Pacific Gull)			
697.	<i>Latonopsis australis</i>			
698.	<i>Latrodectus geometricus</i>			
699.	<i>Leberis</i> cf. <i>diaphanus</i>			
700.	<i>Lecane bifastigata</i>			Y
701.	<i>Lecane bulla</i>			
702.	<i>Lecane</i> cf. <i>ludwigii</i> (PSW)			
703.	<i>Lecane</i> cf. <i>rhenana</i> (SAP)			
704.	<i>Lecane luna</i>			
705.	<i>Lecane papuana</i>			
706.	<i>Lecane punctata</i>			
707.	<i>Lecane thalera</i>			
708.	<i>Lecane unguata</i>			
709.	<i>Leiognathus leuciscus</i>			
710.	<i>Leiognathus</i> sp.			
711.	<i>Leiopotherapon unicolor</i>			
712.	<i>Lepadella patella</i>			
713.	<i>Lepadichthys sandaracatus</i>			
714.	<i>Lepidotrigla</i> sp.			
715.	<i>Leptasteron platyconductor</i>			
716.	<i>Leptoceridae</i> sp.			
717.	25125 <i>Lerista bipes</i>			
718.	30928 <i>Lerista clara</i>			
719.	30929 <i>Lerista jacksoni</i>			
720.	30927 <i>Lerista kingi</i>			
721.	25155 <i>Lerista muelleri</i>			
722.	42411 <i>Lerista timida</i>			
723.	30925 <i>Lerista verhmens</i>			
724.	<i>Lethrinus genivittatus</i>			
725.	<i>Lethrinus</i> sp.			
726.	25005 <i>Lialis burtonis</i>			
727.	25239 <i>Liasis olivaceus</i> subsp. <i>olivaceus</i> (Olive Python)			
728.	<i>Libellulidae</i> sp.			
729.	25661 <i>Lichmera indistincta</i> (Brown Honeyeater)			



Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
730.	24582 <i>Lichmera indistincta</i> subsp. <i>indistincta</i> (Brown Honeyeater)			
731.	<i>Limbodessus compactus</i>			
732.	<i>Limnadopsis</i> "pilbarensis" (ex P2)(PSW)			Y
733.	<i>Limnadopsis birchii</i>			
734.	<i>Limnocythere dorsosicula</i>			
735.	<i>Liocranium praepositum</i>			
736.	41417 <i>Liopholis striata</i> (Night Skink)			
737.	<i>Litarachna bartschae</i>			Y
738.	25392 <i>Litoria rubella</i> (Little Red Tree Frog)			
739.	<i>Liza alata</i>			
740.	<i>Liza subviridis</i>			
741.	<i>Liza vaigiensis</i>			
742.	<i>Lophiocharon hutchinsi</i>			
743.	<i>Lophiocharon trisignatus</i>			
744.	<i>Loxandrus laevigatus</i>			
745.	<i>Loxandrus micantior</i>			
746.	30933 <i>Lucasium stenodactylum</i>			
747.	30934 <i>Lucasium wombeyi</i>			
748.	<i>Luticola mutica</i> (Kütz.) Mann			
749.	<i>Lutjanus argentimaculatus</i>			
750.	<i>Lutjanus carponotatus</i>			
751.	<i>Lutjanus fulviflamma</i>			
752.	<i>Lutjanus kasmira</i>			
753.	<i>Lutjanus malabaricus</i>			
754.	<i>Lutjanus russellii</i>			
755.	<i>Lutjanus</i> sp.			
756.	<i>Lychas</i> sp. 1			
757.	<i>Lychas</i> sp. 2			
758.	<i>Lycosa corallina</i>			
759.	<i>Lymnaeidae</i> sp.			
760.	<i>Macrochaetus</i> sp.			
761.	25489 <i>Macropus robustus</i> (Euro, Biggada)			
762.	24135 <i>Macropus robustus</i> subsp. <i>erubescens</i> (Euro, Biggada)			
763.	24136 <i>Macropus rufus</i> (Red Kangaroo, Marlu)			
764.	<i>Macrothrix</i> sp.			
765.	24326 <i>Malacorhynchus membranaceus</i> (Pink-eared Duck)			
766.	25651 <i>Malurus lamberti</i> (Variegated Fairy-wren)			
767.	25652 <i>Malurus leucopterus</i> (White-winged Fairy-wren)			
768.	24583 <i>Manorina flavigula</i> (Yellow-throated Miner)			
769.	<i>Meedo houstoni</i>			
770.	<i>Megacephala greyana</i>			
771.	<i>Megalaspis cordyla</i>			
772.	25758 <i>Megalurus gramineus</i> (Little Grassbird)			
773.	<i>Meiacanthus grammistes</i>			
774.	<i>Melanotaenia australis</i>			
775.	25665 <i>Melithreptus gularis</i> (Black-chinned Honeyeater)			
776.	24589 <i>Melithreptus gularis</i> subsp. <i>laetior</i> (Black-chinned Honeyeater)			
777.	<i>Melitidae</i> sp.			
778.	24736 <i>Melopsittacus undulatus</i> (Budgerigar)			
779.	25184 <i>Menetia greyii</i>			
780.	25491 <i>Menetia surda</i>			
781.	25187 <i>Menetia surda</i> subsp. <i>surda</i>			
782.	24598 <i>Merops omatus</i> (Rainbow Bee-eater)			
783.	<i>Mesocyclops brooksi</i>			
784.	<i>Mesovelgia hungerfordi</i>			
785.	<i>Mesoveliidae</i> sp.			
786.	<i>Metacyclops</i> sp. P2 (PSW)			
787.	<i>Metavellifer multiradiatus</i>			
788.	<i>Microcarbo melanoleucos</i>			
789.	<i>Microcyclops varicans</i>			
790.	<i>Micrognathus micronotopterus</i>			
791.	<i>Micronecta gracilis</i>			
792.	<i>Micronecta</i> n. sp. P3 (PSW)			
793.	<i>Micronecta</i> sp.			
794.	<i>Microvelia</i> ( <i>Austromicrovelia</i> ) <i>peramoena</i>			
795.	25542 <i>Milvus migrans</i> (Black Kite)			
796.	24298 <i>Milvus migrans</i> subsp. <i>affinis</i> (Black Kite)			
797.	<i>Mimoblennius atrocinctus</i>			
798.	<i>Minasteron minusculum</i>			
799.	<i>Minous versicolor</i>			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
800.	25545 <i>Mirafa javanica</i> (Horsfield's Bushlark, Singing Bushlark)			
801.	24302 <i>Mirafa javanica</i> subsp. <i>horsfieldii</i> (Horsfield's Bushlark, Singing Bushlark)			
802.	<i>Missulena rutraspina</i>			
803.	<i>Moina micrura</i> s.l.			
804.	<i>Monacanthus chinensis</i>			
805.	<i>Monodactylus argenteus</i>			
806.	<i>Monommata</i> sp.			
807.	<i>Monopylephorus</i> n. sp. WA29 (ex <i>Pristina</i> WA3) (PSS)			
808.	25495 <i>Morethia ruficauda</i>			
809.	25193 <i>Morethia ruficauda</i> subsp. <i>exquisita</i>			
810.	<i>Mormopterus (Ozimops) cobourgianus</i>			
811.	24183 <i>Mormopterus loriae</i> (Little Northern Freetail-bat)			
812.	<i>Mugil cephalus</i>			
813.	<i>Mugil</i> sp.			
814.	<i>Mugilid</i> sp.			
815.	<i>Mugilid</i> sp.			Y
816.	<i>Muraenichthys gymnotus</i>			
817.	<i>Muraenichthys</i> sp.			
818.	24223 <i>Mus musculus</i> (House Mouse)	Y		
819.	<i>Muscidae</i> sp. P1			
820.	24445 <i>Myiagra alecto</i> subsp. <i>melvillensis</i> (Shining Flycatcher)			
821.	<i>Myripristis berndti</i>			
822.	<i>Myripristis hexagona</i>			
823.	<i>Naididae</i> (ex <i>Tubificidae</i> )			
824.	<i>Nannocampus</i> sp.			Y
825.	<i>Naso unicornis</i>			
826.	<i>Nebrius ferrugineus</i>			Y
827.	<i>Nectamia fusca</i>			
828.	<i>Nedsia nr hurlberti</i>			
829.	<i>Nedsia</i> sp.			
830.	<i>Nematalosa come</i>			
831.	<i>Nematalosa erebi</i>			
832.	<i>Nematoda</i> sp.			
833.	<i>Nematoda</i> sp. P2/P4 (PSW)			
834.	<i>Nemipterus celebicus</i>			
835.	<i>Nemipterus furcosus</i>			
836.	25422 <i>Neobatrachus aquilonius</i> (Northern Burrowing Frog)			
837.	25685 <i>Neochmia ruficauda</i> (Star Finch)			
838.	24639 <i>Neochmia ruficauda</i> subsp. <i>clarescens</i> (Star Finch)			
839.	<i>Neoglyphidodon nigroris</i>			
840.	<i>Neopomacentrus anabatoides</i>			
841.	<i>Neopomacentrus azysron</i>			
842.	<i>Neopomacentrus cyanomos</i>			
843.	<i>Neopomacentrus filamentosus</i>			
844.	<i>Neopomacentrus taeniurus</i>			
845.	<i>Neopsephotus bourkii</i>			
846.	<i>Neosilurus hyrtlii</i>			
847.	<i>Nephila edulis</i>			
848.	24969 <i>Nephrurus levis</i> subsp. <i>pilbarensis</i>			
849.	<i>Nepidae</i> sp.			
850.	24327 <i>Nettapus pulchellus</i> (Green Pygmy-goose)			
851.	<i>Netuma bilineata</i>			
852.	<i>Netuma proxima</i>			
853.	24095 <i>Ningai timealeyi</i> (Pilbara Ningai)			
854.	48016 <i>Ninox boobook</i> (Boobook Owl)			
855.	25747 <i>Ninox connivens</i> (Barking Owl)			
856.	<i>Nitzschia microcephala</i> Grun.			
857.	<i>Nitzschia perminuta</i> (Grun.) M. Peragallo			
858.	<i>Nitzschia sigma</i> (Kütz.) W. Sm.			
859.	No invertebrates			
860.	<i>Norfolkia brachylepis</i>			
861.	25430 <i>Notaden nicholli</i> (Desert Spadefoot)			
862.	<i>Notograptus guttatus</i>			
863.	24224 <i>Notomys alexis</i> ( <i>Spinifex</i> Hopping-mouse)			
864.	<i>Notonectidae</i> sp.			
865.	25197 <i>Notoscincus ornatus</i> subsp. <i>ornatus</i>			
866.	25564 <i>Nycticorax caledonicus</i> (Rufous Night Heron)			
867.	24192 <i>Nyctophilus arnhemensis</i> (Arnhem Land Long-eared Bat)			
868.	42365 <i>Nyctophilus daedalus</i> (Northwestern Long-eared Bat, Pallid Long-eared Bat)			
869.	24194 <i>Nyctophilus geoffroyi</i> (Lesser Long-eared Bat)			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
870.	<i>Nyctophilus geoffroyi</i> subsp. <i>palescens</i>			Y
871.	<i>Nyctophilus geoffroyi</i> subsp. <i>palescens</i>			
872.	24742 <i>Nymphicus hollandicus</i> (Cockatiel)			
873.	24407 <i>Ocyphaps lophotes</i> (Crested Pigeon)			
874.	24976 <i>Oedura marmorata</i> (Marbled Velvet Gecko)			
875.	<i>Oligochaeta</i> sp.			
876.	<i>Omobranchus germaini</i>			
877.	<i>Omobranchus punctatus</i>			
878.	<i>Omobranchus rotundiceps</i>			
879.	<i>Omobranchus</i> sp.			
880.	<i>Omoedus orbiculatus</i>			
881.	<i>Onigocia pedimacula</i>			
882.	<i>Onigocia pedimacula?</i>			
883.	<i>Ophichthus celebicus?</i>			
884.	<i>Ophisurus serpens</i>			
885.	<i>Opisthopora</i> sp.			
886.	<i>Opistognathus darwiniensis</i>			
887.	<i>Opistognathus inornatus</i>			
888.	<i>Orectolobus wardi</i>			
889.	24618 <i>Oreocia gutturalis</i> (Crested Bellbird)			
890.	34012 <i>Oreocia gutturalis</i> subsp. <i>palescens</i> (Crested Bellbird, central)			
891.	<i>Origocandona</i> sp. 1' (PSS)			Y
892.	<i>Orthetrum caledonicum</i>			
893.	<i>Orthocladinae</i> sp.			
894.	<i>Orthomorpha coarctata</i>			
895.	24085 <i>Oryctolagus cuniculus</i> (Rabbit)	Y		
896.	48034 <i>Osphranter robustus</i> (Euro, Biggada)			
897.	<i>Ostracoda</i> (unident.)			
898.	<i>Ovatalona cf. cambouei</i>			
899.	34016 <i>Ovis aries</i> (Sheep)			
900.	<i>Oxyopes variabilis</i>			
901.	<i>Oxyurichthys</i> sp.			
902.	<i>Ozestheria packardii</i>			
903.	24620 <i>Pachycephala lanioides</i> (White-breasted Whistler)			
904.	25678 <i>Pachycephala melanura</i> (Mangrove Golden Whistler)			
905.	24621 <i>Pachycephala melanura</i> subsp. <i>melanura</i> (Mangrove Golden Whistler)			
906.	25680 <i>Pachycephala rufiventris</i> (Rufous Whistler)			
907.	<i>Pandaka lidwilli</i>			
908.	<i>Pantala flavescens</i>			
909.	<i>Paracentropogon vespa</i>			
910.	<i>Parachaeturichthys</i> sp.			Y
911.	<i>Paracyclops chiltoni</i>			
912.	<i>Paracymus pygmaeus</i>			
913.	<i>Paracymus spenceri</i>			
914.	<i>Paradiplogrammus enneactis</i>			
915.	<i>Paraexocoetus brachypterus</i>			Y
916.	<i>Paramonacanthus choirocephalus</i>			
917.	<i>Parapercis diplospilus</i>			
918.	<i>Parapercis multiplicata?</i>			
919.	<i>Paraplagusia guttata</i>			Y
920.	<i>Paraplatoides darwini</i>			
921.	<i>Paraploactis pulvinus</i>			
922.	<i>Paraplotosus albilabris</i>			
923.	<i>Paraplotosus butleri</i>			
924.	<i>Paraplotosus muelleri</i>			
925.	<i>Parascorpaena picta</i>			
926.	25254 <i>Parasuta monachus</i>			
927.	<i>Paratanytarsus</i> sp. P2 (PSW)			
928.	<i>Pardachirus pavoninus</i>			
929.	24627 <i>Pardalotus rubricatus</i> (Red-browed Pardalote)			
930.	48053 <i>Pardalotus rubricatus</i> subsp. <i>rubricatus</i> (Red-browed Pardalote)			Y
931.	25682 <i>Pardalotus striatus</i> (Striated Pardalote)			
932.	<i>Parupeneus indicus</i>			
933.	<i>Parupeneus spilurus</i>			
934.	25687 <i>Passer domesticus</i> (House Sparrow)	Y		
935.	24642 <i>Passer montanus</i> (Eurasian Tree Sparrow)	Y		
936.	<i>Pediana horni</i>			
937.	<i>Pediana tenuis</i>			
938.	<i>Pegasus volitans</i>			
939.	<i>Pelates quadrilineatus</i>			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
940.	24648 <i>Pelecanus conspicillatus</i> (Australian Pelican)			
941.	<i>Pemppheris mangula</i>			
942.	<i>Pemppheris ypsilychnus</i>			
943.	<i>Peneoenanthe pulverulenta</i>			
944.	<i>Pentapodus porosus</i>			
945.	<i>Pentapodus</i> sp.			
946.	<i>Pentapodus vitta</i>			
947.	<i>Periophthalmus argentilineatus</i>			
948.	<i>Periophthalmus koelreuteri</i>			
949.	48060 <i>Petrochelidon ariel</i> (Fairy Martin)			
950.	48061 <i>Petrochelidon nigricans</i> (Tree Martin)			
951.	24144 <i>Petrogale rothschildi</i> (Rothschild's Rock-wallaby)			
952.	24659 <i>Petroica goodenovii</i> (Red-capped Robin)			
953.	<i>Petroscirtes breviceps</i>			
954.	<i>Petroscirtes mitratus</i>			
955.	25697 <i>Phalacrocorax carbo</i> (Great Cormorant)			
956.	25698 <i>Phalacrocorax melanoleucos</i> (Little Pied Cormorant)			
957.	24667 <i>Phalacrocorax sulcirostris</i> (Little Black Cormorant)			
958.	25699 <i>Phalacrocorax varius</i> (Pied Cormorant)			
959.	24409 <i>Phaps chalcoptera</i> (Common Bronzewing)			
960.	24411 <i>Phaps histrionica</i> (Flock Bronzewing, Flock Pigeon)			
961.	<i>Pheropsophus verticalis</i>			
962.	<i>Phorticosomus gularis</i>			
963.	<i>Phreodrilid with dissimilar ventral chaetae</i>			
964.	<i>Phreodrilid with similar ventral chaetae</i>			
965.	<i>Phreodrilidae</i> sp.			
966.	<i>Phyllophichthys xenodontus</i>			
967.	<i>Pilbaracandona 'rosa'</i> (PSS)			
968.	<i>Pilbarascutigera incola</i>			
969.	<i>Pilbarophreatoicus platyarthricus</i>			
970.	<i>Pinnularia divergens</i> W. Sm.			
971.	<i>Pinnularia subrostrata</i> (A. Cl.) Cl.-Euler			
972.	<i>Pisodonophis cancrivorus</i>			
973.	24677 <i>Pitta moluccensis</i> (Blue-winged Pitta)			
974.	24102 <i>Planigale maculata</i> (Common Planigale)			
975.	<i>Planigale</i> sp. nov.			
976.	<i>Planorbidae</i> sp.			
977.	24841 <i>Platalea flavipes</i> (Yellow-billed Spoonbill)			
978.	24842 <i>Platalea regia</i> (Royal Spoonbill)			
979.	<i>Platycephalus endrachtensis</i>			
980.	<i>Platycephalus</i> sp.			
981.	25721 <i>Platycercus zonarius</i> (Australian Ringneck, Ring-necked Parrot)			
982.	<i>Plectorhinchus pictus</i>			
983.	<i>Plectorhinchus polytaenia</i>			
984.	<i>Pleidae</i> sp.			
985.	<i>Pleurosicya</i> sp.			
986.	<i>Plotosus lineatus</i>			
987.	25703 <i>Podargus strigoides</i> (Tawny Frogmouth)			
988.	24679 <i>Podargus strigoides</i> subsp. <i>brachypterus</i> (Tawny Frogmouth)			
989.	24678 <i>Podargus strigoides</i> subsp. <i>phalaenoides</i> (Tawny Frogmouth)			
990.	25704 <i>Podiceps cristatus</i> (Great Crested Grebe)			
991.	25510 <i>Pogona minor</i> (Dwarf Bearded Dragon)			
992.	24907 <i>Pogona minor</i> subsp. <i>minor</i> (Dwarf Bearded Dragon)			
993.	24908 <i>Pogona minor</i> subsp. <i>mitchelli</i> (Dwarf Bearded Dragon)			
994.	24681 <i>Poliocephalus poliocephalus</i> (Hoary-headed Grebe)			
995.	<i>Polyarthra dolichoptera</i>			
996.	<i>Polydactylus multiradiatus</i>			
997.	<i>Polypedilum nubifer</i>			
998.	<i>Pomacanthus semicirculatus</i>			
999.	<i>Pomacanthus sexstriatus</i>			
1000.	<i>Pomacentrus amboinensis</i>			
1001.	<i>Pomacentrus milleri</i>			
1002.	<i>Pomacentrus moluccensis</i>			
1003.	<i>Pomacentrus nigromanus</i>			
1004.	<i>Pomacentrus</i> sp.			
1005.	<i>Pomadasys argenteus</i>			
1006.	<i>Pomadasys kaakan</i>			
1007.	<i>Pomadasys maculatus</i>			
1008.	24683 <i>Pomatostomus superciliosus</i> (White-browed Babbler)			
1009.	25706 <i>Pomatostomus temporalis</i> (Grey-crowned Babbler)			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
1010.	24684 <i>Pomatostomus temporalis</i> subsp. <i>rubeculus</i> (Grey-crowned Babbler)			
1011.	<i>Pontarachne australis</i>			Y
1012.	25731 <i>Porphyrio porphyrio</i> (Purple Swamphen)			
1013.	24769 <i>Porzana fluminea</i> (Australian Spotted Crane)			
1014.	25732 <i>Porzana pusilla</i> (Baillon's Crane)			
1015.	24771 <i>Porzana tabuensis</i> (Spotless Crane)			
1016.	<i>Priacanthus hamrur</i>			
1017.	<i>Priacanthus tayenus</i>			
1018.	<i>Priolepis nuchifasciata</i>			
1019.	<i>Pristina longiseta</i>			
1020.	<i>Pristotis obtusirostris</i>			
1021.	25199 <i>Proablepharus reginae</i>			
1022.	<i>Procladius paludicola</i>			
1023.	<i>Prodidomus woodleigh</i>			
1024.	<i>Protonibea diacanthus</i>			
1025.	<i>Psammoperca waigiensis</i>			
1026.	<i>Psettodes erumei</i>			
1027.	24105 <i>Pseudantechinus roryi</i> (Rory's Pseudantechinus)			
1028.	24106 <i>Pseudantechinus woolleyae</i> (Woolley's Pseudantechinus)			
1029.	25261 <i>Pseudechis australis</i> (Mulga Snake)			
1030.	<i>Pseudocallirichthys goodladi</i>			
1031.	<i>Pseudochromis fuscus</i>			
1032.	<i>Pseudochromis wilsoni</i>			
1033.	<i>Pseudogobius</i> sp.			
1034.	24234 <i>Pseudomys delicatulus</i> (Delicate Mouse)			
1035.	24235 <i>Pseudomys desertor</i> (Desert Mouse)			
1036.	24237 <i>Pseudomys hermannsburgensis</i> (Sandy Inland Mouse)			
1037.	42416 <i>Pseudonaja mengdeni</i> (Western Brown Snake)			
1038.	25263 <i>Pseudonaja modesta</i> (Ringed Brown Snake)			
1039.	25264 <i>Pseudonaja nuchalis</i> (Gwardar, Northern Brown Snake)			
1040.	24063 <i>Pseudorca crassidens</i> (False Killer Whale)			
1041.	<i>Pseudorhombus argus</i>			
1042.	<i>Pseudorhombus arsius</i>			
1043.	<i>Pseudorhombus elevatus</i>			
1044.	<i>Pseudorhombus</i> sp.			
1045.	<i>Pseudorhombus spinosus</i>			
1046.	<i>Pterapogon mirifica</i>			
1047.	<i>Pterois volitans</i>			
1048.	24172 <i>Pteropus alecto</i> (Black Flying-fox)			
1049.	24173 <i>Pteropus scapulatus</i> (Little Red Flying-fox)			
1050.	<i>Ptilonorhynchus guttatus</i>			
1051.	24757 <i>Ptilonorhynchus maculatus</i> subsp. <i>guttatus</i> (Western Bowerbird)			
1052.	42323 <i>Ptilotula keartlandi</i> (Grey-headed Honeyeater)			
1053.	<i>Pupoides contrarius</i>			
1054.	<i>Pupoides lepidulus</i>			Y
1055.	42344 <i>Purnella albifrons</i> (White-fronted Honeyeater)			
1056.	<i>Pyralidae</i> sp.			
1057.	<i>Quistrachia legendrei</i>			
1058.	<i>Ramphotyphlops diversus</i> subsp. <i>ammodytes</i>			
1059.	<i>Rastrelliger kanagurta</i>			
1060.	24245 <i>Rattus rattus</i> (Black Rat)	Y		
1061.	24246 <i>Rattus tunneyi</i> (Pale Field-rat)			
1062.	24776 <i>Recurvirostra novaehollandiae</i> (Red-necked Avocet)			
1063.	<i>Regimbartia attenuata</i>			
1064.	<i>Repomucenus calcaratus</i>			
1065.	<i>Repomucenus calcaratus?</i>			
1066.	<i>Rhagada angulata</i>			
1067.	<i>Rhagada convicta</i>			
1068.	<i>Rhagada dampierana</i>			Y
1069.	<i>Rhagada elachystoma</i>			
1070.	<i>Rhagada intermedia</i>			
1071.	<i>Rhagada minima</i>			
1072.	<i>Rhagada perprima</i>			Y
1073.	<i>Rheotanytarsus trivittatus</i>			
1074.	48096 <i>Rhipidura albiscapa</i> (Grey Fantail)			
1075.	25614 <i>Rhipidura leucophrys</i> (Willie Wagtail)			
1076.	24454 <i>Rhipidura leucophrys</i> subsp. <i>leucophrys</i> (Willie Wagtail)			
1077.	24457 <i>Rhipidura phasiana</i> (Mangrove Grey Fantail)			
1078.	<i>Rhombognathus dispar</i>			Y
1079.	<i>Rhombognathus ocularis</i>			Y

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
1080.	<i>Rhombognathus scutulatus</i>			
1081.	24982 <i>Rhynchoedura ornata</i> (Western Beaked Gecko)			
1082.	<i>Rogadius tuberculatus</i>			
1083.	25735 <i>Rostratula benghalensis</i> (Painted Snipe)			
1084.	24174 <i>Saccolaimus flaviventris</i> (Yellow-bellied Sheath-tailed Bat)			
1085.	<i>Salarias fasciatus</i>			
1086.	<i>Salarias sexfilum</i>			
1087.	<i>Sargocentron rubrum</i>			
1088.	<i>Saurida gracilis</i>			
1089.	<i>Saurida tumbil</i>			
1090.	<i>Scaevius milii</i>			
1091.	<i>Scaptognathides hawaiiensis</i>			Y
1092.	<i>Scaptognathides ornatus</i>			Y
1093.	<i>Scarus ghobban</i>			
1094.	<i>Scarus</i> sp.			
1095.	<i>Scatophagus argus</i>			
1096.	<i>Scirtidae</i> sp.			
1097.	<i>Scolecenchelys macroptera</i>			
1098.	<i>Scolopendra laeta</i>			
1099.	<i>Scolopendra morsitans</i>			
1100.	<i>Scolopsis bilineatus</i>			
1101.	<i>Scolopsis</i> sp.			
1102.	<i>Scolopsis taenioptera</i>			
1103.	<i>Scorpaenodes guamensis</i>			
1104.	<i>Scorpaenopsis neglecta</i>			
1105.	24199 <i>Scotorepens balstoni</i> (Inland Broad-nosed Bat)			
1106.	24200 <i>Scotorepens greyii</i> (Little Broad-nosed Bat)			
1107.	<i>Secutor insidiator</i>			
1108.	<i>Selar</i> sp.			
1109.	<i>Selaroides leptolepis</i>			
1110.	<i>Selenotoca multifasciata</i>			
1111.	<i>Selenotoca</i> sp.			Y
1112.	<i>Siganus doliatus</i>			
1113.	<i>Siganus doliatus?</i>			Y
1114.	<i>Siganus fuscescens</i>			
1115.	<i>Siganus punctatus</i>			
1116.	<i>Sillago burrus</i>			
1117.	<i>Sillago lutea</i>			
1118.	<i>Sillago maculata</i>			
1119.	<i>Sillago</i> sp.			
1120.	<i>Sillago vittata</i>			
1121.	<i>Simaetha tenuior</i>			
1122.	<i>Simognathus platyaspis</i>			Y
1123.	<i>Simognathus salebrosus</i>			Y
1124.	<i>Simognathus tener</i>			Y
1125.	<i>Simulium ornatipes</i>			
1126.	<i>Siphamia majimae</i>			
1127.	30948 <i>Smicromis brevisrostris</i> (Weebill)			
1128.	24116 <i>Sminthopsis macroura</i> (Stripe-faced Dunnart)			
1129.	24120 <i>Sminthopsis youngsoni</i> (Lesser Hairy-footed Dunnart)			
1130.	<i>Soleichthys heterorhinos</i>			
1131.	<i>Sorsogona tuberculata</i>			
1132.	<i>Sphyaena barracuda</i>			
1133.	<i>Sphyaena</i> sp.			
1134.	<i>Spinasteron casuarium</i>			Y
1135.	<i>Spratelloides delicatulus</i>			
1136.	<i>Stauroneis anceps</i> Ehr.			
1137.	<i>Stauroneis phoenicenteron</i> (Nitz.) Ehr.			
1138.	<i>Stegastes lividus</i>			
1139.	<i>Stegastes obreptus</i>			
1140.	24521 <i>Sterna bengalensis</i> (Lesser Crested Tern)			
1141.	24522 <i>Sterna bergii</i> (Crested Tern)			
1142.	25643 <i>Sterna hybrida</i> (Whiskered Tern)			
1143.	<i>Sternolophus australis</i>			
1144.	48594 <i>Sternula nereis</i> (Fairy Tern)			
1145.	<i>Stethojulis interrupta</i>			
1146.	<i>Stethojulis strigiventer</i>			
1147.	24329 <i>Stictonetta naevosa</i> (Freckled Duck)			
1148.	24482 <i>Stiltia isabella</i> (Australian Pratincole)			
1149.	<i>Stratiomyidae</i> sp.			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
1150.	25589 <i>Streptopelia chinensis</i> (Spotted Turtle-Dove)	Y		
1151.	25517 <i>Strophurus ciliaris</i>			
1152.	24924 <i>Strophurus ciliaris</i> subsp. <i>aberrans</i>			
1153.	24927 <i>Strophurus elderi</i>			
1154.	24932 <i>Strophurus jeanae</i>			
1155.	24949 <i>Strophurus wellingtonae</i>			
1156.	<i>Stygionitocrella</i> sp.			
1157.	<i>Stygorigedwayia trispinosa</i>			
1158.	<i>Sugggrundus macracanthus</i>			
1159.	<i>Sugggrundus</i> sp.			
1160.	<i>Supunna picta</i>			
1161.	25269 <i>Suta fasciata</i> (Rosen's Snake)			
1162.	25307 <i>Suta punctata</i> (Spotted Snake)			
1163.	<i>Synanceia horrida</i>			
1164.	<i>Synchiropus occidentalis</i> subsp. <i>occidentalis</i>			Y
1165.	<i>Synodus sageneus</i>			
1166.	<i>Tabanidae</i> sp.			
1167.	25705 <i>Tachybaptus novaehollandiae</i> (Australasian Grebe, Black-throated Grebe)			
1168.	24682 <i>Tachybaptus novaehollandiae</i> subsp. <i>novaehollandiae</i> (Australasian Grebe, Black-throated Grebe)			
1169.	24207 <i>Tachyglossus aculeatus</i> (Short-beaked Echidna)			
1170.	24331 <i>Tadorna tadornoides</i> (Australian Shelduck, Mountain Duck)			
1171.	<i>Taeniopygia castanotis</i>			
1172.	30870 <i>Taeniopygia guttata</i> (Zebra Finch)			
1173.	<i>Tanypodinae</i> sp.			
1174.	<i>Tanytarsus fuscithorax/semibarbitarsus</i>			
1175.	<i>Tanytarsus</i> sp. D (SAP)			
1176.	<i>Tanytarsus</i> sp. P8 (PSW)			
1177.	24175 <i>Taphozous georgianus</i> (Common Sheath-tailed Bat)			
1178.	<i>Tarsotomus velopes</i>			Y
1179.	<i>Tasmanocoenis arcuata</i>			
1180.	<i>Terapon jarbua</i>			
1181.	<i>Testudinella patina</i>			
1182.	<i>Thalasseus bengalensis</i>			
1183.	<i>Thalassoma lunare</i>			
1184.	<i>Thermocyclops decipiens</i>			
1185.	<i>Thiaridae</i> sp.			
1186.	24845 <i>Threskiornis spinicollis</i> (Straw-necked Ibis)			
1187.	25202 <i>Tiliqua multifasciata</i> (Central Blue-tongue)			
1188.	25548 <i>Todiramphus chloris</i> (Collared Kingfisher)			
1189.	24306 <i>Todiramphus chloris</i> subsp. <i>pilbara</i> (Pilbara Collared Kingfisher)			
1190.	42351 <i>Todiramphus pyrrhopygius</i> (Red-backed Kingfisher)			
1191.	25549 <i>Todiramphus sanctus</i> (Sacred Kingfisher)			
1192.	24309 <i>Todiramphus sanctus</i> subsp. <i>sanctus</i> (Sacred Kingfisher)			
1193.	<i>Trachinotus blochii</i>			
1194.	<i>Tragulichthys jaculiferus</i>			
1195.	<i>Tramea stenoloba</i>			
1196.	<i>Triacanthus</i> sp.			
1197.	48141 <i>Tribonyx ventralis</i> (Black-tailed Native-hen)			
1198.	<i>Trichocerca similis</i>			
1199.	<i>Trichocyclus aranda</i>			
1200.	<i>Trichocyclus gnalooma</i>			
1201.	<i>Trichocyclus nigropunctatus</i>			
1202.	<i>Trichonotus setiger</i>			
1203.	<i>Trichonotus</i> sp.			
1204.	25521 <i>Trichosurus vulpecula</i> (Common Brushtail Possum)			
1205.	<i>Triops australiensis australiensis</i>			
1206.	<i>Triops nr australiensis</i> (PSW) (?nsp BVT)			Y
1207.	<i>Tuoba sydneyensis</i>			
1208.	<i>Turbellaria</i> sp.			
1209.	24851 <i>Turnix velox</i> (Little Button-quail)			
1210.	30954 <i>Tursiops aduncus</i> (Indo-Pacific Bottlenose Dolphin)			
1211.	<i>Tylosurus crocodilus</i>			
1212.	30814 <i>Tympanocryptis cephalus</i> (Pebble Dragon)			
1213.	<i>Tyrannochthonius aridus</i>			
1214.	25762 <i>Tyto alba</i> (Barn Owl)			
1215.	<i>Tyto delicatula</i>			
1216.	<i>Upeneus sulphureus</i>			
1217.	<i>Upeneus tragula</i>			
1218.	25445 <i>Uperoleia russelli</i> (Northwest Toadlet)			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
1219.	41428 <i>Uperoleia saxatilis</i> (Pilbara Toadlet)			
1220.	<i>Uranoscopus cognatus</i>			
1221.	<i>Urodacus armatus</i>			
1222.	<i>Valamugil buchanani</i>			
1223.	<i>Valamugil seheli</i>			
1224.	<i>Valenciennea alleni</i>			
1225.	<i>Valenciennea muralis</i>			
1226.	25577 <i>Vanellus miles</i> (Masked Lapwing)			
1227.	24386 <i>Vanellus tricolor</i> (Banded Lapwing)			
1228.	25209 <i>Varanus acanthurus</i> (Spiny-tailed Monitor)			
1229.	25210 <i>Varanus brevicauda</i> (Short-tailed Pygmy Monitor)			
1230.	30825 <i>Varanus bushi</i> (Pilbara Mulga Monitor)			
1231.	25212 <i>Varanus eremius</i> (Pygmy Desert Monitor)			
1232.	25216 <i>Varanus giganteus</i> (Perentie)			
1233.	25218 <i>Varanus gouldii</i> (Bungarra or Sand Monitor)			
1234.	25524 <i>Varanus panoptes</i> (Yellow-spotted Monitor)			
1235.	25223 <i>Varanus panoptes subsp. rubidus</i>			
1236.	25224 <i>Varanus pilbarensis</i> (Pilbara Rock Monitor, Northern Pilbara Rock Goanna)			
1237.	25526 <i>Varanus tristis</i> (Racehorse Monitor)			
1238.	25227 <i>Varanus tristis subsp. tristis</i> (Racehorse Monitor)			
1239.	<i>Veliidae</i> sp.			
1240.	<i>Venatrix arenaris</i>			
1241.	25311 <i>Vermicella snelli</i>			
1242.	24205 <i>Vespadelus finlaysoni</i> (Finlayson's Cave Bat)			
1243.	24206 <i>Vespadelus regulus</i> (Southern Forest Bat)			
1244.	24040 <i>Vulpes vulpes</i> (Red Fox)	Y		
1245.	<i>Wesmaldra nixaut</i>			
1246.	<i>Wyndura kennedy</i>			
1247.	<i>Wyndura nixaut</i>			Y
1248.	<i>Xenophilus margaritaceus</i>			
1249.	<i>Yirrkala lumbricoides</i>			
1250.	<i>Yirrkala</i> sp.			
1251.	<i>Yongeichthys nebulosus</i>			
1252.	<i>Zanclus cornutus</i>			
1253.	<i>Zebrias quagga</i>			
1254.	<i>Zenarchopterus buffonis</i>			
1255.	<i>Zenodorus orbiculatus</i>			
1256.	<i>Zonocyprretta kalimna</i>			
1257.	24857 <i>Zosterops luteus</i> (Yellow White-eye)			
1258.	<i>Zosterops luteus subsp. balstoni</i>			
1259.	24248 <i>Zyzomys argurus</i> (Common Rock-rat)			

**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

<sup>1</sup> 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.





# 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: 23/06/21 12:46:20

[Summary](#)

[Details](#)

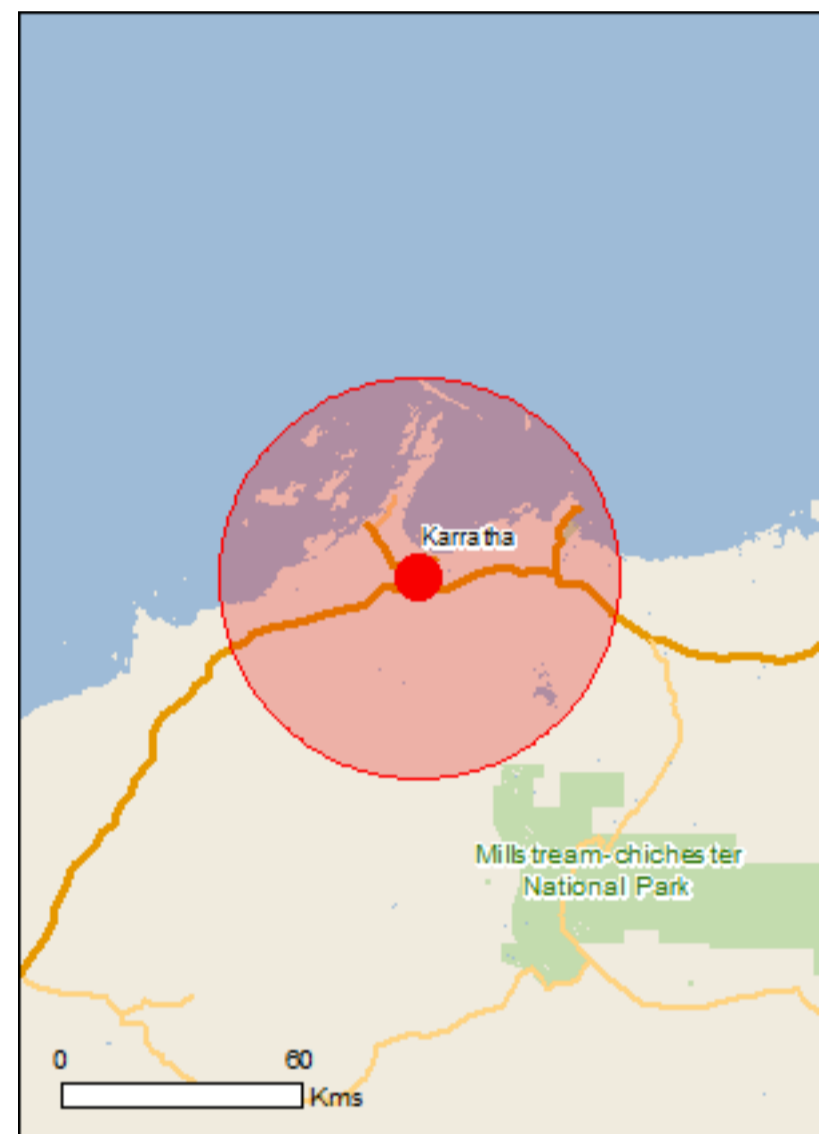
[Matters of NES](#)

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

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)



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

[Coordinates](#)

Buffer: 50.0Km



# 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](#).

<a href="#">World Heritage Properties:</a>	None
<a href="#">National Heritage Places:</a>	1
<a href="#">Wetlands of International Importance:</a>	None
<a href="#">Great Barrier Reef Marine Park:</a>	None
<a href="#">Commonwealth Marine Area:</a>	1
<a href="#">Listed Threatened Ecological Communities:</a>	None
<a href="#">Listed Threatened Species:</a>	32
<a href="#">Listed Migratory Species:</a>	61

## 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.

<a href="#">Commonwealth Land:</a>	2
<a href="#">Commonwealth Heritage Places:</a>	None
<a href="#">Listed Marine Species:</a>	103
<a href="#">Whales and Other Cetaceans:</a>	12
<a href="#">Critical Habitats:</a>	None
<a href="#">Commonwealth Reserves Terrestrial:</a>	None
<a href="#">Australian Marine Parks:</a>	2

## Extra Information

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

<a href="#">State and Territory Reserves:</a>	9
<a href="#">Regional Forest Agreements:</a>	None
<a href="#">Invasive Species:</a>	19
<a href="#">Nationally Important Wetlands:</a>	None
<a href="#">Key Ecological Features (Marine)</a>	None

# Details

## Matters of National Environmental Significance

National Heritage Properties		<a href="#">[ Resource Information ]</a>
Name	State	Status
Indigenous		
<a href="#">Dampier Archipelago (including Burrup Peninsula)</a>	WA	Listed place

## Commonwealth Marine Area [\[ Resource Information \]](#)

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside the Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area. Generally the Commonwealth Marine Area stretches from three nautical miles to two hundred nautical miles from the coast.

Name
EEZ and Territorial Sea

## Marine Regions [\[ Resource Information \]](#)

If you are planning to undertake action in an area in or close to the Commonwealth Marine Area, and a marine bioregional plan has been prepared for the Commonwealth Marine Area in that area, the marine bioregional plan may inform your decision as to whether to refer your proposed action under the EPBC Act.

Name
<a href="#">North-west</a>

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

Name	Status	Type of Presence
Birds		
<a href="#">Calidris canutus</a> Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Calidris tenuirostris</a> Great Knot [862]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Charadrius leschenaultii</a> Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Charadrius mongolus</a> Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area
<a href="#">Falco hypoleucos</a> Grey Falcon [929]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Limosa lapponica menzbieri</a> Northern Siberian Bar-tailed Godwit, Russkoye Bar-tailed Godwit [86432]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area

Name	Status	Type of Presence
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Pezoporus occidentalis</a> Night Parrot [59350]	Endangered	Species or species habitat may occur within area
<a href="#">Rostratula australis</a> Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area
<a href="#">Sternula nereis nereis</a> Australian Fairy Tern [82950]	Vulnerable	Breeding known to occur within area
<b>Mammals</b>		
<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
<a href="#">Dasyurus hallucatus</a> Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu] [331]	Endangered	Species or species habitat known to occur within area
<a href="#">Macroderma gigas</a> Ghost Bat [174]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Macrotis lagotis</a> Greater Bilby [282]	Vulnerable	Species or species habitat may occur within area
<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]	Vulnerable	Breeding known to occur within area
<a href="#">Rhinonictis aurantia (Pilbara form)</a> Pilbara Leaf-nosed Bat [82790]	Vulnerable	Species or species habitat may occur within area
<b>Reptiles</b>		
<a href="#">Aipysurus apraefrontalis</a> Short-nosed Seasnake [1115]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Aipysurus foliosquama</a> Leaf-scaled Seasnake [1118]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Breeding known to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Breeding known to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Breeding known to occur within area
<a href="#">Lerista neviniae</a> Nevin's Slider [85296]	Endangered	Species or species habitat known to occur within area
<a href="#">Liasis olivaceus barroni</a> Olive Python (Pilbara subspecies) [66699]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area
<b>Sharks</b>		

Name	Status	Type of Presence
<a href="#">Carcharias taurus (west coast population)</a> Grey Nurse Shark (west coast population) [68752]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Carcharodon carcharias</a> White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area
<a href="#">Pristis clavata</a> Dwarf Sawfish, Queensland Sawfish [68447]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Pristis zijsron</a> Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Rhincodon typus</a> 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
<b>Migratory Marine Birds</b>		
<a href="#">Anous stolidus</a> Common Noddy [825]		Species or species habitat may occur within area
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area
<a href="#">Ardenna pacifica</a> Wedge-tailed Shearwater [84292]		Breeding known to occur within area
<a href="#">Calonectris leucomelas</a> Streaked Shearwater [1077]		Species or species habitat likely to occur within area
<a href="#">Fregata ariel</a> Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat known to occur within area
<a href="#">Hydroprogne caspia</a> Caspian Tern [808]		Breeding known to occur within area
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
<a href="#">Onychoprion anaethetus</a> Bridled Tern [82845]		Breeding known to occur within area
<a href="#">Sterna dougallii</a> Roseate Tern [817]		Breeding likely to occur within area
<b>Migratory Marine Species</b>		
<a href="#">Anoxypristis cuspidata</a> Narrow Sawfish, Knifetooth Sawfish [68448]		Species or species habitat likely to occur within area
<a href="#">Balaenoptera edeni</a> Bryde's Whale [35]		Species or species habitat may occur within area
<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
<a href="#">Carcharhinus longimanus</a> Oceanic Whitetip Shark [84108]		Species or species

Name	Threatened	Type of Presence
<a href="#">Carcharodon carcharias</a> White Shark, Great White Shark [64470]	Vulnerable	habitat likely to occur within area Species or species habitat may occur within area
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Breeding known to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Breeding known to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
<a href="#">Dugong dugon</a> Dugong [28]		Species or species habitat known to occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Breeding known to occur within area
<a href="#">Manta alfredi</a> Reef Manta Ray, Coastal Manta Ray, Inshore Manta Ray, Prince Alfred's Ray, Resident Manta Ray [84994]		Species or species habitat known to occur within area
<a href="#">Manta birostris</a> Giant Manta Ray, Chevron Manta Ray, Pacific Manta Ray, Pelagic Manta Ray, Oceanic Manta Ray [84995]		Species or species habitat likely to occur within area
<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]	Vulnerable	Breeding known to occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area
<a href="#">Orcinus orca</a> Killer Whale, Orca [46]		Species or species habitat may occur within area
<a href="#">Pristis clavata</a> Dwarf Sawfish, Queensland Sawfish [68447]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Pristis zijsron</a> Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Rhincodon typus</a> Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
<a href="#">Sousa chinensis</a> Indo-Pacific Humpback Dolphin [50]		Species or species habitat known to occur within area
<a href="#">Tursiops aduncus (Arafura/Timor Sea populations)</a> Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat known to occur within area
<b>Migratory Terrestrial Species</b>		
<a href="#">Hirundo rustica</a> Barn Swallow [662]		Species or species habitat may occur within area
<a href="#">Motacilla cinerea</a> Grey Wagtail [642]		Species or species habitat may occur within area
<a href="#">Motacilla flava</a> Yellow Wagtail [644]		Species or species habitat may occur within area

Name	Threatened	Type of Presence
<b>Migratory Wetlands Species</b>		
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat known to occur within area
<a href="#">Arenaria interpres</a> Ruddy Turnstone [872]		Species or species habitat known to occur within area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
<a href="#">Calidris alba</a> Sanderling [875]		Species or species habitat known to occur within area
<a href="#">Calidris canutus</a> Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat known to occur within area
<a href="#">Calidris ruficollis</a> Red-necked Stint [860]		Species or species habitat known to occur within area
<a href="#">Calidris subminuta</a> Long-toed Stint [861]		Species or species habitat known to occur within area
<a href="#">Calidris tenuirostris</a> Great Knot [862]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Charadrius leschenaultii</a> Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Charadrius mongolus</a> Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area
<a href="#">Charadrius veredus</a> Oriental Plover, Oriental Dotterel [882]		Species or species habitat known to occur within area
<a href="#">Glareola maldivarum</a> Oriental Pratincole [840]		Species or species habitat known to occur within area
<a href="#">Limicola falcinellus</a> Broad-billed Sandpiper [842]		Species or species habitat known to occur within area
<a href="#">Limosa lapponica</a> Bar-tailed Godwit [844]		Species or species habitat known to occur within area
<a href="#">Limosa limosa</a> Black-tailed Godwit [845]		Species or species habitat known to occur within area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area

Name	Threatened	Type of Presence
<a href="#">Numenius phaeopus</a> Whimbrel [849]		Species or species habitat known to occur within area
<a href="#">Pandion haliaetus</a> Osprey [952]		Breeding known to occur within area
<a href="#">Phalaropus lobatus</a> Red-necked Phalarope [838]		Species or species habitat known to occur within area
<a href="#">Pluvialis fulva</a> Pacific Golden Plover [25545]		Species or species habitat known to occur within area
<a href="#">Pluvialis squatarola</a> Grey Plover [865]		Species or species habitat known to occur within area
<a href="#">Thalasseus bergii</a> Greater Crested Tern [83000]		Breeding known to occur within area
<a href="#">Tringa brevipes</a> Grey-tailed Tattler [851]		Species or species habitat known to occur within area
<a href="#">Tringa nebularia</a> Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area
<a href="#">Tringa stagnatilis</a> Marsh Sandpiper, Little Greenshank [833]		Species or species habitat known to occur within area
<a href="#">Tringa totanus</a> Common Redshank, Redshank [835]		Species or species habitat known to occur within area
<a href="#">Xenus cinereus</a> Terek Sandpiper [59300]		Species or species habitat known to occur within area

## Other Matters Protected by the EPBC Act

### Commonwealth Land [\[ Resource Information \]](#)

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Name
Commonwealth Land - Defence - KARRATHA TRAINING DEPOT

### 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
<b>Birds</b>		
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat known to occur within area
<a href="#">Anous stolidus</a> Common Noddy [825]		Species or species habitat may occur within area
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur



Name	Threatened	Type of Presence within area
<a href="#">Ardea ibis</a> Cattle Egret [59542]		Species or species habitat may occur within area
<a href="#">Arenaria interpres</a> Ruddy Turnstone [872]		Species or species habitat known to occur within area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
<a href="#">Calidris alba</a> Sanderling [875]		Species or species habitat known to occur within area
<a href="#">Calidris canutus</a> Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat known to occur within area
<a href="#">Calidris ruficollis</a> Red-necked Stint [860]		Species or species habitat known to occur within area
<a href="#">Calidris subminuta</a> Long-toed Stint [861]		Species or species habitat known to occur within area
<a href="#">Calidris tenuirostris</a> Great Knot [862]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Calonectris leucomelas</a> Streaked Shearwater [1077]		Species or species habitat likely to occur within area
<a href="#">Charadrius leschenaultii</a> Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Charadrius mongolus</a> Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area
<a href="#">Charadrius ruficapillus</a> Red-capped Plover [881]		Species or species habitat known to occur within area
<a href="#">Charadrius veredus</a> Oriental Plover, Oriental Dotterel [882]		Species or species habitat known to occur within area
<a href="#">Chrysococcyx osculans</a> Black-eared Cuckoo [705]		Species or species habitat known to occur within area
<a href="#">Fregata ariel</a> Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat known to occur within area
<a href="#">Glareola maldivarum</a> Oriental Pratincole [840]		Species or species habitat known to occur within area

Name	Threatened	Type of Presence
<a href="#">Haliaeetus leucogaster</a> White-bellied Sea-Eagle [943]		Breeding known to occur within area
<a href="#">Heteroscelus brevipes</a> Grey-tailed Tattler [59311]		Species or species habitat known to occur within area
<a href="#">Himantopus himantopus</a> Pied Stilt, Black-winged Stilt [870]		Species or species habitat known to occur within area
<a href="#">Hirundo rustica</a> Barn Swallow [662]		Species or species habitat may occur within area
<a href="#">Larus novaehollandiae</a> Silver Gull [810]		Breeding known to occur within area
<a href="#">Limicola falcinellus</a> Broad-billed Sandpiper [842]		Species or species habitat known to occur within area
<a href="#">Limosa lapponica</a> Bar-tailed Godwit [844]		Species or species habitat known to occur within area
<a href="#">Limosa limosa</a> Black-tailed Godwit [845]		Species or species habitat known to occur within area
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
<a href="#">Merops ornatus</a> Rainbow Bee-eater [670]		Species or species habitat may occur within area
<a href="#">Motacilla cinerea</a> Grey Wagtail [642]		Species or species habitat may occur within area
<a href="#">Motacilla flava</a> Yellow Wagtail [644]		Species or species habitat may occur within area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Numenius phaeopus</a> Whimbrel [849]		Species or species habitat known to occur within area
<a href="#">Pandion haliaetus</a> Osprey [952]		Breeding known to occur within area
<a href="#">Phalaropus lobatus</a> Red-necked Phalarope [838]		Species or species habitat known to occur within area
<a href="#">Pluvialis fulva</a> Pacific Golden Plover [25545]		Species or species habitat known to occur within area
<a href="#">Pluvialis squatarola</a> Grey Plover [865]		Species or species habitat known to occur within area
<a href="#">Puffinus pacificus</a> Wedge-tailed Shearwater [1027]		Breeding known to occur within area

Name	Threatened	Type of Presence
<a href="#">Recurvirostra novaehollandiae</a> Red-necked Avocet [871]		Species or species habitat known to occur within area
<a href="#">Rostratula benghalensis (sensu lato)</a> Painted Snipe [889]	Endangered*	Species or species habitat may occur within area
<a href="#">Sterna anaethetus</a> Bridled Tern [814]		Breeding known to occur within area
<a href="#">Sterna bergii</a> Crested Tern [816]		Breeding known to occur within area
<a href="#">Sterna caspia</a> Caspian Tern [59467]		Breeding known to occur within area
<a href="#">Sterna dougallii</a> Roseate Tern [817]		Breeding likely to occur within area
<a href="#">Sterna fuscata</a> Sooty Tern [794]		Breeding known to occur within area
<a href="#">Sterna nereis</a> Fairy Tern [796]		Breeding known to occur within area
<a href="#">Stiltia isabella</a> Australian Pratincole [818]		Species or species habitat known to occur within area
<a href="#">Tringa nebularia</a> Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area
<a href="#">Tringa stagnatilis</a> Marsh Sandpiper, Little Greenshank [833]		Species or species habitat known to occur within area
<a href="#">Tringa totanus</a> Common Redshank, Redshank [835]		Species or species habitat known to occur within area
<a href="#">Xenus cinereus</a> Terek Sandpiper [59300]		Species or species habitat known to occur within area
<b>Fish</b>		
<a href="#">Bulbonaricus brauni</a> Braun's Pughead Pipefish, Pug-headed Pipefish [66189]		Species or species habitat may occur within area
<a href="#">Campichthys tricarinatus</a> Three-keel Pipefish [66192]		Species or species habitat may occur within area
<a href="#">Choeroichthys brachysoma</a> Pacific Short-bodied Pipefish, Short-bodied Pipefish [66194]		Species or species habitat may occur within area
<a href="#">Choeroichthys suillus</a> Pig-snouted Pipefish [66198]		Species or species habitat may occur within area
<a href="#">Doryrhamphus janssi</a> Cleaner Pipefish, Janss' Pipefish [66212]		Species or species habitat may occur within area
<a href="#">Doryrhamphus negrosensis</a> Flagtail Pipefish, Masthead Island Pipefish [66213]		Species or species habitat may occur within area
<a href="#">Festucalex scalaris</a> Ladder Pipefish [66216]		Species or species

Name	Threatened	Type of Presence
<a href="#">Filicampus tigris</a> Tiger Pipefish [66217]		habitat may occur within area  Species or species habitat may occur within area
<a href="#">Halicampus brocki</a> Brock's Pipefish [66219]		Species or species habitat may occur within area
<a href="#">Halicampus grayi</a> Mud Pipefish, Gray's Pipefish [66221]		Species or species habitat may occur within area
<a href="#">Halicampus nitidus</a> Glittering Pipefish [66224]		Species or species habitat may occur within area
<a href="#">Halicampus spirostris</a> Spiny-snout Pipefish [66225]		Species or species habitat may occur within area
<a href="#">Haliichthys taeniophorus</a> Ribboned Pipehorse, Ribboned Seadragon [66226]		Species or species habitat may occur within area
<a href="#">Hippichthys penicillus</a> Beady Pipefish, Steep-nosed Pipefish [66231]		Species or species habitat may occur within area
<a href="#">Hippocampus angustus</a> Western Spiny Seahorse, Narrow-bellied Seahorse [66234]		Species or species habitat may occur within area
<a href="#">Hippocampus histrix</a> Spiny Seahorse, Thorny Seahorse [66236]		Species or species habitat may occur within area
<a href="#">Hippocampus kuda</a> Spotted Seahorse, Yellow Seahorse [66237]		Species or species habitat may occur within area
<a href="#">Hippocampus planifrons</a> Flat-face Seahorse [66238]		Species or species habitat may occur within area
<a href="#">Hippocampus trimaculatus</a> Three-spot Seahorse, Low-crowned Seahorse, Flat-faced Seahorse [66720]		Species or species habitat may occur within area
<a href="#">Micrognathus micronotopterus</a> Tidepool Pipefish [66255]		Species or species habitat may occur within area
<a href="#">Solegnathus hardwickii</a> Pallid Pipehorse, Hardwick's Pipehorse [66272]		Species or species habitat may occur within area
<a href="#">Solegnathus lettiensis</a> Gunther's Pipehorse, Indonesian Pipefish [66273]		Species or species habitat may occur within area
<a href="#">Solenostomus cyanopterus</a> Robust Ghostpipefish, Blue-finned Ghost Pipefish, [66183]		Species or species habitat may occur within area
<a href="#">Syngnathoides biaculeatus</a> Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area
<a href="#">Trachyrhamphus bicoarctatus</a> Bentstick Pipefish, Bend Stick Pipefish, Short-tailed Pipefish [66280]		Species or species habitat may occur within

Name	Threatened	Type of Presence area
<a href="#">Trachyrhamphus longirostris</a> Straightstick Pipefish, Long-nosed Pipefish, Straight Stick Pipefish [66281]		Species or species habitat may occur within area
<b>Mammals</b>		
<a href="#">Dugong dugon</a> Dugong [28]		Species or species habitat known to occur within area
<b>Reptiles</b>		
<a href="#">Acalyptophis peronii</a> Horned Seasnake [1114]		Species or species habitat may occur within area
<a href="#">Aipysurus apraefrontalis</a> Short-nosed Seasnake [1115]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Aipysurus duboisii</a> Dubois' Seasnake [1116]		Species or species habitat may occur within area
<a href="#">Aipysurus eydouxii</a> Spine-tailed Seasnake [1117]		Species or species habitat may occur within area
<a href="#">Aipysurus foliosquama</a> Leaf-scaled Seasnake [1118]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Aipysurus laevis</a> Olive Seasnake [1120]		Species or species habitat may occur within area
<a href="#">Aipysurus tenuis</a> Brown-lined Seasnake [1121]		Species or species habitat may occur within area
<a href="#">Astrotia stokesii</a> Stokes' Seasnake [1122]		Species or species habitat may occur within area
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Breeding known to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Breeding known to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
<a href="#">Disteira kingii</a> Spectacled Seasnake [1123]		Species or species habitat may occur within area
<a href="#">Disteira major</a> Olive-headed Seasnake [1124]		Species or species habitat may occur within area
<a href="#">Emydocephalus annulatus</a> Turtle-headed Seasnake [1125]		Species or species habitat may occur within area
<a href="#">Ephalophis greyi</a> North-western Mangrove Seasnake [1127]		Species or species habitat may occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Breeding known to occur within area

Name	Threatened	Type of Presence
<a href="#">Hydrelaps darwiniensis</a> Black-ringed Seasnake [1100]		Species or species habitat may occur within area
<a href="#">Hydrophis czeblukovi</a> Fine-spined Seasnake [59233]		Species or species habitat may occur within area
<a href="#">Hydrophis elegans</a> Elegant Seasnake [1104]		Species or species habitat may occur within area
<a href="#">Hydrophis mcdowelli</a> null [25926]		Species or species habitat may occur within area
<a href="#">Hydrophis ornatus</a> Spotted Seasnake, Ornate Reef Seasnake [1111]		Species or species habitat may occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area
<a href="#">Pelamis platurus</a> Yellow-bellied Seasnake [1091]		Species or species habitat may occur within area

## Whales and other Cetaceans [ Resource Information ]

Name	Status	Type of Presence
<b>Mammals</b>		
<a href="#">Balaenoptera acutorostrata</a> Minke Whale [33]		Species or species habitat may occur within area
<a href="#">Balaenoptera edeni</a> Bryde's Whale [35]		Species or species habitat may occur within area
<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
<a href="#">Delphinus delphis</a> Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
<a href="#">Grampus griseus</a> Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]	Vulnerable	Breeding known to occur within area
<a href="#">Orcinus orca</a> Killer Whale, Orca [46]		Species or species habitat may occur within area
<a href="#">Sousa chinensis</a> Indo-Pacific Humpback Dolphin [50]		Species or species habitat known to occur within area
<a href="#">Stenella attenuata</a> Spotted Dolphin, Pantropical Spotted Dolphin [51]		Species or species habitat may occur within area
<a href="#">Tursiops aduncus</a> Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area
<a href="#">Tursiops aduncus (Arafura/Timor Sea populations)</a> Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat known to occur

Name	Status	Type of Presence within area
<a href="#">Tursiops truncatus s. str.</a> Bottlenose Dolphin [68417]		Species or species habitat may occur within area

### Australian Marine Parks [ Resource Information ]

Name	Label
Dampier	Habitat Protection Zone (IUCN IV)
Dampier	National Park Zone (IUCN II)

### Extra Information

### State and Territory Reserves [ Resource Information ]

Name	State
Millstream Chichester	WA
Murujuga	WA
Unnamed WA36907	WA
Unnamed WA36909	WA
Unnamed WA36910	WA
Unnamed WA36913	WA
Unnamed WA36915	WA
Unnamed WA38287	WA
Unnamed WA40877	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
------	--------	------------------

### Birds

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

### Mammals

Camelus dromedarius Dromedary, Camel [7]		Species or species habitat likely to occur within area
Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Equus asinus Donkey, Ass [4]		Species or species habitat likely to occur within area
Equus caballus Horse [5]		Species or species habitat likely to occur within area

Name	Status	Type of Presence
Felis catus Cat, House Cat, Domestic Cat [19]		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
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area

## Plants

Cenchrus ciliaris Buffel-grass, Black Buffel-grass [20213]		Species or species habitat likely to occur within area
Jatropha gossypifolia Cotton-leaved Physic-Nut, Bellyache Bush, Cotton-leaf Physic Nut, Cotton-leaf Jatropha, Black Physic Nut [7507]		Species or species habitat likely to occur within area
Opuntia spp. Prickly Pears [82753]		Species or species habitat likely to occur within area
Parkinsonia aculeata Parkinsonia, Jerusalem Thorn, Jelly Bean Tree, Horse Bean [12301]		Species or species habitat likely to occur within area
Prosopis spp. Mesquite, Algaroba [68407]		Species or species habitat likely to occur within area

## Reptiles

Hemidactylus frenatus Asian House Gecko [1708]		Species or species habitat likely to occur within area
Ramphotyphlops braminus Flowerpot Blind Snake, Brahminy Blind Snake, Cacing Besi [1258]		Species or species habitat known 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

-20.77366 116.83266

# 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

Department of Agriculture Water and the Environment

GPO Box 858

Canberra City ACT 2601 Australia

+61 2 6274 1111



Taxon	Cons_Code	Plant_Desc	Site	Vegetation	Frequency	Notes	Locality	Date
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub 1-1.5 m high. Flowers yellow-orange. Aug.					2.8 km E of Port Hedland - Wittenoom Road, ca 23 km SSE of South Hedland	19/04/2011
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3	Red-brown sand.	Acacia ancistrocarpa and A. inaequilatera tall open shrubland over Triodia epactia hummock grassland.		Fills small locality hole.	On eastern verge, road reserve of Great Northern Highway, ca 33 km S from intersection with North West Coastal Highway, ca 55 km S of Port Hedland	10/05/2013
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Tall spindly shrub or robust herb up to 2 m.	Vegetated sand bar within large creek bed.	Eucalyptus camaldulensis subsp. obtusa sparse open trees over sparse or open <i>Corchorus incanus</i> subsp. <i>incanus</i> , <i>Cullen martinii</i> , ( <i>Abutilon pritzelianum</i> P1) over <i>Aristida contorta</i> sparse or open tussock grass, <i>Triodia lanigera</i> hummock grass.	common through the sand bars and flood plain of the Turner River.		Turner River Creek bed where the Turner River intersects with North West Highway	17/07/2013
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub to 0.6 m with male flowers.	Sandplain with orange brown sandy loam.	<i>Eragrostis eriopoda</i> tussock grassland with <i>Aristida hygrometrica</i> , <i>Corchorus incanus</i> , <i>Triumfetta chaetocarpa</i> & <i>Aerva javanica</i> .			Turner River crossing on the Great Northern Highway, c. 40 km SSW of Port Hedland	20/08/2009
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub 1 - 1.5 m high.					16 km SE of Port Hedland	22/03/2011
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub, 1 - 1.5 m high.					C. 30 km S of Port Hedland	24/03/2011
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub 1 - 1.5 m high.					C. 20 km SW of Port Hedland	25/03/2011
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub to 1.5 m.	Plain near the road verge.	Acacia tumida var. <i>pilbarensis</i> and <i>Acacia colei</i> var. <i>colei</i> shrubland over a low <i>Acacia stellaticeps</i> shrubland over <i>Triodia epactia</i> hummock grassland/low <i>Acacia stellaticeps</i> shrubland over <i>Triodia epactia</i> hummock grassland mosaic.			Port Hedland, Pilbara	02/05/2011
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub to 1.5 m.	Sandplain.	Acacia tumida var. <i>pilbarensis</i> and <i>Acacia colei</i> var. <i>colei</i> shrubland over a low <i>Acacia stellaticeps</i> shrubland over <i>Triodia epactia</i> hummock grassland/low <i>Acacia stellaticeps</i> shrubland over <i>Triodia epactia</i> hummock grassland mosaic.			Port Hedland, Pilbara	02/05/2011
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Herb to 0.4 m.	Sandplain of orange brown silty sand.	A low open <i>Corymbia zygophylla</i> woodland over an open <i>Acacia ancistrocarpa</i> , <i>Acacia inaequilatera</i> , <i>Acacia tumida</i> var. <i>pilbarensis</i> and <i>Acacia sericophylla</i> shrubland over <i>Acacia stellaticeps</i> low open shrubland over <i>Triodia epactia</i> and <i>Triodia lanigera</i> hummock			Port Hedland, Pilbara	30/06/2011
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub to 1.2 m; flowers orange.	Growing on sandy plain.	With <i>Acacia inaequilatera</i> , <i>Bonania erecta</i> , <i>Indigofera monophylla</i> and <i>Triodia epactia</i> .	220 plants.		Boodarie Station, ca. 18 km S of South Hedland	02/07/2015
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub to 2 m; flowers yellow.	Growing on sandy plain.	With <i>Acacia inaequilatera</i> and <i>A. ancistrocarpa</i> sparse mid shrubland over <i>Triodia epactia</i> open hummock grassland.	100 plants.		Indee Station, ca. 43 km SE of Port Hedland	21/04/2015
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub to 1 m.	Sandplain of orange brown sands.	Shrubland of <i>Acacia stellaticeps</i> , <i>Acacia tumida</i> var. <i>pilbarensis</i> and <i>Acacia inaequilatera</i> over an Open Hummock Grassland of <i>Triodia epactia</i> over Tussock Grassland of <i>Aristida holathera</i> var. <i>holathera</i> and <i>Eriachne mucronata</i> .			Port Hedland, Pilbara	24/06/2011
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub to 0.6 m with male flowers.	Sandplain with orange brown sandy loam.	<i>Eragrostis eriopoda</i> tussock grassland with <i>Aristida hygrometrica</i> , <i>Corchorus incanus</i> , <i>Triumfetta chaetocarpa</i> & <i>Aerva javanica</i> .			Turner River crossing on the Great Northern Highway, c. 40 km SSW of Port Hedland	20/08/2009
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Perennial erect open shrub 1.8 m high x 1.6 m wide. Cordate, dull green, fuzzy, circular-elliptical leaves 15-55 mm long x 10-45 mm wide. Yellow flower 27 mm across.	Plain. Red sand. Collection site: rangeland/road verge. Recently burnt: previous year ?	Low shrubland. With <i>Sida clementi</i> , <i>S. rohlenae</i> , <i>S. pilbarensis</i> , <i>Corchorus walcottii</i> , <i>Ipomoea muelleri</i> , <i>Acacia tumida</i> , <i>Abutilon otocarpum</i> , <i>Walteria indica</i> and <i>Cajanus pubescens</i> .	over 50 plants.		North West Coastal Highway, 1 km E of Turner River, 19 km E of Yule River	19/08/2003
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub up to ca 2 m high, flowers large, petals yellow.	Roadsides.				North West Coastal Highway, ca 35-40 km ENE of Whim Creek	20/09/1995
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Tall grey spreading shrub with yellow flowers, growing up to 2 m tall.	Stony undulating shallow soiled granitic plain.	Hard hummock grassland.	common on road side.		Old main Port Hedland, Wittenoom Road, 16 km WNW of Wallarenya Station Homestead near Port Hedland.	27/08/1997
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Erect, open, perennial shrub 1.75 m high x 1.6 m wide. Flowers yellow.	Floodplain. Dry, red clay.	Low shrubland.	over 50 plants.	Percentage of population in bud 10%, flowering 90%.	1 km W of Yule River, North West Coastal Highway, Port Hedland	15/06/2003
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub to 0.6 m with male flowers.	Sandplain with orange brown sandy loam.	<i>Eragrostis eriopoda</i> tussock grassland with <i>Aristida hygrometrica</i> , <i>Corchorus incanus</i> , <i>Triumfetta chaetocarpa</i> & <i>Aerva javanica</i> .			Turner River crossing on the Great Northern Highway, c. 40 km SSW of Port Hedland	20/08/2009
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub to 0.6 m with flowers and fruit.	Sandplain with orange brown sandy loam.	<i>Eragrostis eriopoda</i> tussock grassland with <i>Aristida hygrometrica</i> , <i>Corchorus incanus</i> , <i>Triumfetta chaetocarpa</i> & <i>Aerva javanica</i> .			Turner River crossing on the Great Northern Highway, c. 40 km SSW of Port Hedland	20/08/2009
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub to 0.6 m with flowers and fruit.	Sandplain with orange brown sandy loam.	<i>Eragrostis eriopoda</i> tussock grassland with <i>Aristida hygrometrica</i> , <i>Corchorus incanus</i> , <i>Triumfetta chaetocarpa</i> & <i>Aerva javanica</i> .			Turner River crossing on the Great Northern Highway, c. 40 km SSW of Port Hedland	20/08/2009
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub to 1.5 m with male flowers.	Sandplain with orange brown sandy loam.	<i>Eragrostis eriopoda</i> tussock grassland with <i>Aristida hygrometrica</i> , <i>Corchorus incanus</i> , <i>Triumfetta chaetocarpa</i> & <i>Aerva javanica</i> .			Turner River crossing on the Great Northern Highway, c. 40 km SSW of Port Hedland	20/08/2009
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub to 1.5 m with male flowers.	Sandplain with orange brown sandy loam.	<i>Eragrostis eriopoda</i> tussock grassland with <i>Aristida hygrometrica</i> , <i>Corchorus incanus</i> , <i>Triumfetta chaetocarpa</i> & <i>Aerva javanica</i> .			Turner River crossing on the Great Northern Highway, c. 40 km SSW of Port Hedland	20/08/2009
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub to 0.6 m with flowers and fruit.	Sandplain with orange brown sandy loam.	<i>Eragrostis eriopoda</i> tussock grassland with <i>Aristida hygrometrica</i> , <i>Corchorus incanus</i> , <i>Triumfetta chaetocarpa</i> & <i>Aerva javanica</i> .			Turner River crossing on the Great Northern Highway, c. 40 km SSW of Port Hedland	20/08/2009
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub to 0.7 m with flowers and fruit.	Sandplain with orange brown sandy loam.	<i>Eragrostis eriopoda</i> tussock grassland with <i>Aristida hygrometrica</i> , <i>Corchorus incanus</i> , <i>Triumfetta chaetocarpa</i> & <i>Aerva javanica</i> .			Turner River crossing on the Great Northern Highway, c. 40 km SSW of Port Hedland	20/08/2009
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub to 1 m.	Plain. Brown / red sandy loam.	Tall shrubland ( <i>Acacia inaequilatera</i> ) over shrubland ( <i>Acacia stellaticeps</i> ) over grassland ( <i>Triodia lanigera</i> , <i>Triodia epactia</i> ).			C. 24.3 km S of Great Northern Highway, 24.3 km E of Great Northern Highway and 24.9 km SE of South Hedland	07/06/2011
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub to 0.7 m, flowering. Flowers yellow.	Mid-slope. Red/brown sandy loam with clay.	Grassland with emergent trees, with <i>Corymbia zygophylla</i> , <i>Triodia lanigera</i> , <i>T. epactia</i> .	1 plant seen.		Ca 28 km SSW of Port Hedland, 11.8 km E of the Great Northern Highway on Boodarie Station	02/08/2010
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub to 0.7 m, flowering. Flowers yellow.	Plain. Red-brown sandy clay loam.	Open <i>Acacia</i> shrubland over hummock grassland of <i>Triodia epactia</i> .	50+ plants.		Ca 32.5 km S of Port Hedland, 12.8 km E of the Great Northern Highway on Boodarie Station	30/08/2010
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub to 1.2 m.	Sandplain of orange brown sandy loam.	Low Open Heath of <i>Acacia stellaticeps</i> over Open Hummock Grassland of <i>Triodia epactia</i> .			Port Hedland, Pilbara	02/06/2011
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub 1 m high.	Sandy plain with red/brown sand.	Tall open shrubland of <i>Acacia ancistrocarpa</i> and <i>Acacia inaequilatera</i> over low hummock grassland of <i>Triodia epactia</i> .	24 plants.		C. 19 km S of South Hedland, 14.7 km E of the intersection of NW Coastal Highway and Great Northern Highway, 600 m W of railway line.	24/03/2011
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub to 0.4 m.	Sandplain of orange brown sandy loam.	Low Open Woodland of <i>Corymbia zygophylla</i> over High Open Shrubland of <i>Acacia tumida</i> var. <i>pilbarensis</i> over Hummock Grassland of <i>Triodia epactia</i> and <i>Triodia lanigera</i> .			Port Hedland, Pilbara	27/06/2011
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub 1 - 1.5 m high.					C. 38 km S of Port Hedland	25/03/2011
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub, 1 - 1.5 m high.					C. 30 km S of Port Hedland	24/03/2011
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Shrub, 1 - 1.5 m high.					C. 48 km S of Port Hedland	07/04/2011
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)		3 Very open shrub to 2 m high, leaves grey, corolla very pale yellow with red stripes at base.	On sand plain.	With <i>Triodia epactia</i> , <i>Eragrostis eriopoda</i> and <i>Acacia inaequilatera</i> .	common.		Turner River, c. 27 km due SSW of Port Hedland, Pilbara	23/08/2004
<i>Acacia leeuweniana</i>		1 Tree, < 3 m high.	Granite outcrop (domes). Red sandy-clay soil over granite.	Low open woodland of <i>Acacia leeuweniana</i> with a very open hummock grassland of <i>Triodia epactia</i> . Associated species: <i>Acacia retivena</i> , <i>Ficus brachypoda</i> and <i>Acacia tumida</i> var. <i>pilbarensis</i> .	50 plants.		16 km SE of Wodgina, E of Great Northern Highway, Pilbara	05/12/2010
<i>Atriplex eremita</i>		1 Bushy sparse shrub with grey foliage growing up to 0.3 m tall.	Semi saline plain in a saline patch.	Tussock grassland of <i>Eragrostis xerophila</i> , <i>Cenchrus ciliaris</i> and <i>Eulalia auria</i> and saltbushes.	common.		Site 1727, ca 3 km E of Wattle Well, De Grey Station, Port Hedland	28/08/1997
<i>Bulbostylis burbridgeae</i>		4 Granite outcrop. Skeletal brown sand.			Relatively common in shaded overhangs.		Ca 65 km S of Port Hedland, on Indee Station, near FMG railway line	02/06/2010
<i>Bulbostylis burbridgeae</i>		4 Ridge. Very steep. Brown clay loam.		Open low shrubland over hummock grassland.			Ca 50 km S of Port Hedland, on Indee Station, just W of FMG Railway line	22/06/2010
<i>Bulbostylis burbridgeae</i>		4 Annual sedge growing up to 0.1 m tall.	Crevice in granite tors that are rarely exposed to the sun.	Nil except for this species.	common.		1755, 15 km W of Lalla Rookh Station Homestead near Port Hedland	27/08/1997
<i>Bulbostylis burbridgeae</i>		4 Tufted, erect to spreading annual, grass-like or herb (sedge), 0.03 - 0.25 m high, spikelets in a simple umbel or rarely solitary; stamens 3; involucre bracts long, hairy. Flowers brown, March to June to August.	Granite outcrop. Brown sand.	Open shrubland ( <i>Acacia tumida</i> var. <i>pilbarensis</i> ) over open hummock and tussock grassland ( <i>Triodia epactia</i> , <i>Eriachne mucronata</i> ).			C. 14.9 km E of Great Northern Highway and 16.2 km SE of Indee	08/06/2011
<i>Bulbostylis burbridgeae</i>		4 Tufted, erect to spreading annual, grass-like or herb (sedge), 0.03 - 0.25 m high, spikelets in a simple umbel or rarely solitary; stamens 3; involucre bracts long, hairy. Flowers brown, March to June to August.	Low granite outcrop on plain. Brown sandy loam.	Open shrubland ( <i>Acacia tumida</i> var. <i>pilbarensis</i> ) over low mixed shrubland ( <i>Corchorus incanus</i> subsp. <i>incanus</i> , <i>Corchorus</i> ? <i>parviflorus</i> ).			C. 8.9 km E of Great Northern Highway and 20.6 km SE of Indee	10/06/2011
<i>Bulbostylis burbridgeae</i>		4	Track.	<i>Triodia epactia</i> open hummock grassland.			Northern side of Finucane Rd, 3.2 km northwest of intersection with Great Northern Highway	13/04/2007
<i>Bulbostylis burbridgeae</i>		4	Small track.	<i>Triodia epactia</i> open hummock grassland / <i>Bulbostylis burbridgeae</i> scattered herbs.			Northern side of Finucane Rd, 4.5 km northwest of the intersection with Great Northern Highway	13/04/2007
<i>Bulbostylis burbridgeae</i>		4	Pastoral lease for mine. Outcrop granite boulder. Clay.			Potential threats: mining.	Along the FMG railway, ca 70 km from Port Hedland	15/05/2006
<i>Bulbostylis burbridgeae</i>		4 Tufted, erect to spreading annual, grass-like or herb (sedge), 0.03 - 0.25 m high, spikelets in a simple umbel or rarely solitary; stamens 3; involucre bracts long and hairy.					C. 57 km S of Port Hedland	08/04/2011
<i>Bulbostylis burbridgeae</i>		4 Tufted, erect to spreading annual, grass-like or herb, 0.03 - 0.25 m high, spikelets in a simple umbel or rarely solitary; stamens 3; involucre bracts long and hairy.					C. 67 km S of Port Hedland	09/04/2011
<i>Bulbostylis burbridgeae</i>		4 Tufted, erect to spreading annual, grass-like or herb, 0.03 - 0.25 m high, spikelets in a simple umbel or rarely solitary; stamens 3; involucre bracts long and hairy.					C. 67 km S of Port Hedland	09/04/2011
<i>Bulbostylis burbridgeae</i>		4 Sedge to 0.2 m.	Growing in between granite boulders.	With <i>Acacia tumida</i> subsp. <i>pilbarensis</i> , <i>Triodia epactia</i> , <i>Mallotus nesophilus</i> and <i>Indigofera virens</i> .	200 plants.		Kangan Station, ca. 100 km S of South Hedland	08/07/2015
<i>Bulbostylis burbridgeae</i>		4 Herb.	Brown clay-loam soil in sheltered areas amongst granite outcrops.	<i>Terminalia circumalata</i> , <i>Flueggea virosa</i> subsp. <i>melanthesioides</i> mid sparse shrubland; <i>Cymbopogon ambiguus</i> , <i>Triodia epactia</i> sparse hummock/tussock grassland.	ca. 10 mature plants.		Wallarenya Station and Strelley Station, ca. 30 km SE of Port Hedland	25/05/2018
<i>Dolichocarpa</i> sp. Hamersley Station (A.A. Mitchell PRP 1479)		3 Herb, 0.1 m high, in flower.	Claypan, red-brown sandy clay.	Open shrubland to sparse shrubland of <i>Acacia synchronica</i> over open grassland and herbfield of mixed species, dominated by <i>Eragrostis setifolia</i> , <i>Cullen graveolens</i> , <i>Cynodon convergens</i> , <i>Desmodium filiforme</i> , <i>Dichanthium sericeum</i> subsp. <i>humilius</i> , <i>Neptunia di</i>			Strelley pastoral lease, ca. 50 km NW of Marble Bar	16/05/2019

Taxon	Cons_Code	Plant_Desc	Site	Vegetation	Frequency	Notes	Locality	Date
<i>Eragrostis crateriformis</i>	3	Annual, grass-like or herb, 0.17 - 0.42 m high.	Flat / plain. Red sandy loam / clay.	Low open woodland (Corymbia hamersleyana) over sparse shrubland (Acacia ancistrocarpa, Acacia colei var. colei) over low sparse shrubland (Indigofera monophylla) over grassland (Triodia epactia).			C. 10 km S of Great Northern Highway, 10.2 km E of Great Northern Highway and 8.2 km SE of South Hedland	05/05/2011
<i>Eragrostis crateriformis</i>	3	Annual grass, 0.3 m high.	Plain. Orange-brown clayey sand.	Sparse low scrub of Acacia pyrifolia var. morrisii, A. ancistrocarpa & Acacia tumida var. pilbarensis over very sparse dwarf scrub of Acacia stellaticeps over mid dense Triodia epactia hummock grass over very sparse mixed herbaceous species.	2-5 plants. Very sparse.		Port Hedland	14/04/2012
<i>Eragrostis crateriformis</i>	3	Grass, 0.2 m high, in flower.	Very gently inclined flood plain, brown sandy clay.	Open woodland of Corymbia hamersleyana and occasionally C. flavescens or Terminalia circumalata over tall open shrubland to sparse shrubland of mixed Acacia species dominated by Acacia tumida var. pilbarensis, A. acradenia and A. pyrifolia var. pyrifolia			Strelley pastoral lease, ca. 50 km NW of Marble Bar	16/05/2019
<i>Eragrostis crateriformis</i>	3		Red-brown clay-silt, flat.	Very open woodland over grassland with Triodia epactia.	Estimated area occupied 0.1%.	Potential threats from mining. Vegetative.	Approximately 70 kms NE of Port Hedland, on the Northern side of Great Northern Highway	11/04/2007
<i>Eragrostis crateriformis</i>	3		Red-brown loam-clay, drainageline.	Grassland with Chrysopogon fallax and Triodia epactia.	Estimated area occupied 0.1%.	Potential threats from mining. Vegetative.	Approximately 70 kms NE of Port Hedland, on the Northern side of Great Northern Highway	13/05/2007
<i>Eragrostis crateriformis</i>	3	Delicate annual grass to 0.2 m high.	Red sandy clay. Small depression on a plain above coastal mudflats.	Sparse low shrubland of Acacia stellaticeps over mixed grassland including Sorghum plumosum and Triodia epactia and Eriachne obtusa.		Project: Hancock 11-03 RH1 Railway Corridor.	Boodarie Station, 6 km W of Boodarie loading facilities, 3.5 km WNW of Boodarie Hot Briquetted Iron Plant, c. 9 km SW of Port Hedland	22/03/2011
<i>Eragrostis crateriformis</i>	3		Red-brown clay-silt, flat.	Very open woodland over grassland with Triodia epactia.	Estimated area occupied 0.1%.	Potential threats from mining. Vegetative.	Approximately 70 kms NE of Port Hedland, on the Northern side of Great Northern Highway	11/04/2007
<i>Eragrostis crateriformis</i>	3	Annual, grass-like or herb, 0.17 - 0.42 m high.					C. 38 km S of Port Hedland	25/03/2011
<i>Eragrostis crateriformis</i>	3	Annual, grass-like or herb, 0.17 - 0.42 m high.					C. 41 km S of Port Hedland	06/04/2011
<i>Eragrostis crateriformis</i>	3	Annual, grass-like or herb, 0.17 - 0.42 m high.					C. 41 km S of Port Hedland	25/03/2011
<i>Eragrostis crateriformis</i>	3	Annual, grass-like or herb, 0.17 - 0.42 m high.					C. 43 km S of Port Hedland	06/04/2011
<i>Eragrostis crateriformis</i>	3	Annual, grass-like or herb, 0.17 - 0.42 m high.					C. 72 km S of Port Hedland	09/04/2011
<i>Eragrostis crateriformis</i>	3	Annual, grass-like or herb, 0.17 - 0.42 m high.					C. 54 km S of Port Hedland	08/04/2011
<i>Eragrostis crateriformis</i>	3	Annual, grass-like or herb, 0.17 - 0.42 m high.					C. 12 km SW of Port Hedland	06/04/2011
<i>Eragrostis crateriformis</i>	3	Annual, grass-like or herb, 0.17 - 0.42 m high.					C. 15 km SW of Port Hedland	22/03/2010
<i>Eragrostis crateriformis</i>	3	Annual, grass-like or herb, 0.17 - 0.42 m high.					C. 52 km S of Port Hedland	07/04/2011
<i>Eragrostis crateriformis</i>	3	Annual, grass-like or herb, 0.17 - 0.42 m high.	Clay loam - brown.				C. 21 km SE of Port Hedland	09/04/2011
<i>Eragrostis crateriformis</i>	3		In red loam by claypan.				Ca 1 mile E of Munda Creek, North West Coastal Highway, Mundabullangana Station,	24/02/1962
<i>Eragrostis crateriformis</i>	3		In red sand.	In spinifex steppe.			W side of Little Yule River, S of Highway, Mundabullangana Station,	02/03/1962
<i>Euphorbia clementii</i>	3		Sandy-clay plain. Recently burnt.	Corymbia hamersleyana, Acacia acradenia and Triodia pungens.	2 plants.		Caogan Station, 90 km SE of Port Hedland	03/06/2016
<i>Euphorbia clementii</i>	3		Plain. Slope: level. Red clay loam, ironstone and quartz pebbles.		500+ plants.		Unallocated Crown Land, ca 0.5 km N of Strelley Station southern boundary, ca 2.5 km W-SW of Strelley Pool, W of Panorama Station western boundary, and ca 20 km W of the Shaw River, ca 90 km SE-E of Port Hedland	30/05/2013
<i>Euphorbia clementii</i>	3	Herb with yellow stems to 0.3 m, whitish flowers.	Drainage line/lowerslope. Clay loam with ironstone.				Ca 90 km S of Port Hedland, on Kangan Station, just W of Great Northern Highway, S of Wodgina mine entrance	28/05/2010
<i>Euphorbia clementii</i>	3	Herb with yellow stems to 0.3 m, whitish flowers.	Undulating rocky plain. Clay loam with ironstone. Population runs ENE adjacent to creek.				Ca 90 km S of Port Hedland, on Kangan Station, just W of Great Northern Highway, S of Wodgina mine entrance	27/05/2010
<i>Euphorbia clementii</i>	3		Undulating rocky plain. Clay loam with ironstone.		26 plants.		Ca 90 km S of Port Hedland, on Kangan Station, just W of Great Northern Highway, S of Wodgina mine entrance	29/05/2010
<i>Euphorbia clementii</i>	3	Herb with yellow stems to 0.3 m, whitish flowers.	Undulating rocky plain. Clay loam with ironstone.	Area very recently burnt.	500 plants.		Ca 90 km S of Port Hedland, on Kangan Station, just W of Great Northern Highway, S of Wodgina mine entrance	29/05/2010
<i>Euphorbia clementii</i>	3		Undulating rocky plain. Clay loam with ironstone.		1 plant.		Ca 90 km S of Port Hedland, on Kangan Station, just W of Great Northern Highway, S of Wodgina mine entrance	29/05/2010
<i>Euphorbia clementii</i>	3	Low herb 20 cm tall.	Recently burnt plain dissected by minor drainage lines.	High open shrubland of Acacia ancistrocarpa and Grevillea wickhamii over low shrubland of Acacia ancistrocarpa and Acacia acradenia over hummock grassland of Triodia basedowii.			100 km SSE of Port Hedland and 133 km N of Auski Roadhouse	25/04/2012
<i>Euphorbia clementii</i>	3	Low shrub 0.3 m tall.	Sandplain. Fire age: old, 5-10 years.		<1% cover.		16.5 km E of Hardy Siding, 45.75 km NE of Pardoo Road House and 99 km E of Port Hedland	03/09/2012
<i>Euphorbia clementii</i>	3					Condition of plants: healthy. Potential threats: clearing by mining company, presence of invasive species nearby, grazing by wildlife and cattle. Percentage in flower: 100 %.	North Star	03/07/2011
<i>Euphorbia clementii</i>	3		Distal colluvium in outwash fans. Very gently inclined slope, aspect 80 degrees. Coarse fragments common to maximum size of 20 mm. No bedrock exposed. Red brown sandy loam, average depth 33.2 cm.	Scattered Low Trees of Corymbia hamersleyana over Scattered Tall Shrubs of Acacia tumida var. pilbarensis over Open Shrubland of Acacia tumida var. pilbarensis, Grevillea wickhamii & Acacia ancistrocarpa over Low Shrubland of Acacia tumida var. pilbarensis			Site: MBW09, South side of track, 1.8 km west of Great Northern Highway on southern access road to Yandeyarra Community, 7.7 km NNE of Mt Tinstone, 109.1 km W of Marble Bar, Kangan Station, Pilbara IBRA	31/05/2006
<i>Euphorbia clementii</i>	3		Plain, no rock outcropping. Red clay loam.	Hummock grassland (Triodia epactia 0.3 m 60%) with emergent shrubs (Acacia inaequilatera 3 m 0.4%, Grevillea wickhamii 3 m 0.1%, Acacia acradenia 1 m 0.1%).			C. 7.5 km W of the Great Northern Highway, 1.9 km S of Kangan Road	17/05/2011
<i>Euphorbia clementii</i>	3						Ca 3.2 km W of Great Northern Highway, 1.3 km SW of Wodgina Airport	07/06/2011
<i>Euphorbia clementii</i>	3	Erect, pale green herb to 60 cm tall.	On gravel slope below hillside.		rare.		20 km E De Grey River crossing on Port Hedland/Broome road	12/05/1991
<i>Euphorbia clementii</i>	3		Flat floodplain. Coarse orange loam.	Very sparse Corymbia woodland over Acacia shrubland over grassland. Associated species include: Corymbia hamersleyana, Acacia ancistrocarpa, A. aff. acradenia, A. bivenosa and Triodia epactia.	a single plant.	A single plant only was located during a survey to ca 300 m N of access track along creek banks (E & W) and 200 m S of the access track.	70 km S of Port Hedland on Great Northern Highway then ca 10 km E along Southern access track. E of Pincunah Hill and parallel to rail line	15/05/2008
<i>Euphorbia clementii</i>	3		Ddrainage line. Red silty sand.	Mixed grassland dominated by Triodia wiseana and Chrysopogon fallax with emergent Corymbia hamersleyana.			70 km S of Port Hedland on Great Northern Highway then ca 18 km E along Northern access track. E of Pincunah Hill and W of Strelley Gorge	10/07/2008
<i>Euphorbia clementii</i>	3		Drainage line. Red brown sand.	Dense Acacia shrubland over mixed hummock grassland.			Ca 50 km E of Great Northern Highway, 44 km SW of Newman Tabba Tabba Road and 107 km SE of Port Hedland	13/06/2012
<i>Euphorbia clementii</i>	3	Herb with yellow stems to 0.3 m, whitish flowers.	Undulating rocky plain. Clay loam with ironstone.				Ca 90 km S of Port Hedland, on Kangan Station, just W of Great Northern Highway, S of Wodgina mine entrance	28/05/2010
<i>Euphorbia clementii</i>	3	Herb with yellow stems to 0.3 m, whitish flowers.	Undulating rocky plain. Clay loam with ironstone.				Ca 90 km S of Port Hedland, on Kangan Station, just W of Great Northern Highway, S of Wodgina mine entrance	26/05/2010
<i>Euphorbia clementii</i>	3	Annual semi-prostrate herb with yellow and red stems growing up to 0.1 m tall.	Flat sandplain in granitic landscape.	Recently burnt Triodia lanigera hummock grassland.		Abundance: common	c. 37 km SE of Yandeyarra on southern access track from Great Northern Highway	03/04/1995
<i>Euphorbia clementii</i>	3	Erect herb 0.6 m high.					C. 55 km S of Port Hedland	08/04/2011
<i>Euphorbia clementii</i>	3	Shrub to 0.2 m.	Growing on low rocky ironstone slope. Recently burnt.	With Corymbia hamersleyana, Acacia inaequilatera, Petalostylis labicheoides, Corchorus lasiocarpus and Senna notabilis.	100 plants.		Near North Star Mine site, ca. 100 km SE of South Hedland	09/07/2015
<i>Euphorbia clementii</i>	3	Yellow-green herb to ca. 30 cm.	Edge of minor drainage line. Red-brown clay-loam.	Corymbia hamersleyana isolated trees over Acacia acradenia and Tephrosia rosea var. clementii open shrubland over Triodia epactia and T. wiseana hummock grassland.	ca. 30 mature plants.		Ca. 75 km SSE of Port Hedland	08/05/2017
<i>Euphorbia clementii</i>	3	Herb.	Brown clay-loam soil with quartzite.	Corymbia hamersleyana low open woodland; Acacia inaequilatera, A. stellaticeps, Senna artemisioides subsp. oligophylla mid/low sparse shrubland; Triodia chichesterensis, T. epactia hummock grassland.	ca. 20 mature plants.		Wallareeny Station and Strelley Station, ca. 30 km SE of Port Hedland	21/05/2018
<i>Euphorbia inappendiculata</i> var. <i>inappendiculata</i>	2	Herb, 0.1 m high, in flower.	Claypan, red-brown sandy clay.	Open shrubland to sparse shrubland of Acacia synchronica over open grassland and herbfield of mixed species, dominated by Eragrostis setifolia, Cullen graveolens, Cynodon convergens, Desmodium filiforme, Dichanthium sericeum subsp. humiliss, Neptunia di			Strelley pastoral lease, ca. 50 km NW of Marble Bar	16/05/2019
<i>Gomphrena cucullata</i>	3	Flowers whitish.	In red sandy loam.				River crossing near Homestead, Mundabullangana Station,	24/02/1962
<i>Gomphrena leptophylla</i>	3	Small erect herb to 0.1 m, flowers. Flowers white.	Drainage line. Red sandy loam.	Hummock grassland, with Triodia epactia, T. secunda.	5 plants seen.		Ca 14 km W of Port Hedland, 8.5 km W of Great Northern Highway on Boodarie Station	29/07/2010
<i>Gomphrena leptophylla</i>	3	Herb to 0.2 m.	Growing on sandy floodplain.	With Triodia epactia, Acacia bivenosa and A. inaequilatera.	10 plants.		Kangan Station, ca. 85 km S of South Hedland	04/07/2015
<i>Gomphrena pusilla</i>	2						[Port Hedland]	/04/1905
<i>Gomphrena pusilla</i>	2						Port Hedland	/04/1905
<i>Gomphrena pusilla</i>	2	Semi-prostrate herb 10 - 20 cm high with white and purple flowers.	Growing in limestone.				Finucane Island	29/03/1981
<i>Gomphrena pusilla</i>	2	Slender branching annual herb 0.2 m high.					C. 6 km SW of Port Hedland	24/03/2011
<i>Gomphrena pusilla</i>	2	Shrub to 0.2 m.	Limestone ridge top of brown loam and exposed calcareous rock.	Open Shrubland of Acacia bivenosa over an Open Hummock Grassland of Triodia epactia over an Open Tussock of Cenchrus ciliaris.			Port Hedland, Pilbara	23/06/2011
<i>Goodenia nuda</i>	4	Herb 0.1 m high. Flowers yellow.	Drainage line. Mining tenement. Red soil.				Cloudbreak FMG Mine, Pilbara	25/02/2008
<i>Goodenia nuda</i>	4	Erect, spreading herb 0.2 m high. Flowers yellow.	Plain. Brown - orange loam.	Low shrubland, grassland. Acacia tumida var. pilbarensis and Acacia colei var. colei shrubland over a low Acacia stellaticeps shrubland over a Triodia epactia hummock grassland / low Acacia stellaticeps shrubland over a Triodia epactia hummock grassland	2-5 plants.	ENV BIM 01	ca 6.5 km SW of Port Hedland	27/07/2009
<i>Goodenia nuda</i>	4	Erect, spreading herb 0.2 m high. Flowers yellow.	Plain. Orange - brown loam.	Low shrubland, grassland. Low Acacia stellaticeps shrublands over Triodia epactia and Triodia secunda hummock grasslands, Triodia epactia and Triodia secunda hummock grasslands mosaic.	2-5 plants.	ENV OHT 15	ca 8 km SW of Port Hedland	27/07/2009

Taxon	Cons_Code	Plant_Desc	Site	Vegetation	Frequency	Notes	Locality	Date
<i>Goodenia nuda</i>		4	Plain.	Acacia stellaticeps, low shrubland over Triodia pungens and Triodia schinzii open hummock grassland and Sorghum plumosum open tussock grassland.			12 km SW of Port Hedland, 12.2 km W-NW of South Hedland and 59 km E-NE of Reefs Island	25/05/2009
<i>Goodenia nuda</i>		4	Plain.	Acacia stellaticeps, low shrubland over Triodia pungens and Triodia schinzii open hummock grassland and Sorghum plumosum open tussock grassland.			11.9 km SW of Port Hedland, 11.5 km W-NW of South Hedland and 59.8 km E-NE of Reefs Island	26/05/2009
<i>Goodenia nuda</i>		4 Erect, spreading herb 0.2 m high. Flowers yellow.	Plain. Brown - orange loam.	Low trees, tall - low shrubland, grassland. Low open Eucalyptus victrix, Corymbia hamersleyana and Corymbia flavescens woodland over an open Acacia coleii var. coleii shrubland over a low open Acacia stellaticeps and Pluchea tetranthera shrubland over a Tr	6-20 plants.	ENV. OHT 07	ca 19.5 km S of Port Hedland	27/07/2009
<i>Goodenia nuda</i>		4 Herb 0.3 m high.	Plain with orange sand loam. Burnt within last 2 years.	Carissa lanceolata open shrubland, over Triodia secunda and T. epactia hummock grassland, over Eriachne obtusa tussock grassland.	1 plant.		Port Hedland Outer Harbour Development	08/05/2008
<i>Goodenia nuda</i>		4 Low herb, bright green, leaves flat. Flowering and fruiting.	Mixed alluvial plain with sandy brown loam.	Corymbia hamersleyana low woodland; over Acacia arida and Acacia stellaticeps mid sparse shrubland; over Triodia epactia hummock grassland and Bonamia erecta sparse herbs.	2 - 5 plants seen.		C. 12 km NW of Whim Creek	07/07/2014
<i>Goodenia nuda</i>		4 Herb to 0.2 m; yellow flowers.	Growing on sandy floodplain.	With Eucalyptus victrix, Chrysopogon fallax, Sida fibulifera, Corymbia hamersleyana and Ipomoea muelleri.	200 plants.		Boodarie Station, ca. 5 km S of South Hedland	01/07/2015
<i>Gymnanthera cunninghamii</i>		3 Erect shrub, 1 - 2 m high. Flowers cream - yellow - green.	Flat, floodplain. 0 - 10 % loose rock, well - drained sandy soil. Area burnt more than 5 years ago.				C. 24 km S of Great Northern Highway and 25.3 km SE of South Hedland	14/05/2011
<i>Gymnanthera cunninghamii</i>		3	Flat, floodplain. 0 - 10 % loose rock, well - drained sandy soil. Area burnt more than 5 years ago.		1 plant.	Potential threats: clearing by mining company, presence of invasive species nearby, grazing by wildlife and cattle.	North Star	04/04/2011
<i>Gymnanthera cunninghamii</i>		3 Upright shrub with pendulous foliage and milky sap growing up to 1.5 m tall.	Base of low limestone ridge of Bousset Formation and above mangrove mud flats.	Hummock grassland of Triodia epactia.		Abundance: 2 populations seen in Pt Hedland area of ca 20 plants. Also seen at De grey behind calcrete dunes of ca 6 very small populations.	Grey [Gray] Street, 1.3 km N of main road, between Port Hedland and S Hedland.	23/08/1997
<i>Gymnanthera cunninghamii</i>		3 Perennial shrub. Flowers green-cream-yellow.	Brown-red sand.	Open Hummock Grassland of Triodia sp.	2-5 plants.	Percentage of population flowering 100%.	FMG Stage A Rail Corridor	07/05/2006
<i>Gymnanthera cunninghamii</i>		3 Upright, spindly, perennial shrub growing up to 1 m tall.	Limestone rise of Bossut formation in very deep (0.5 m) solution pockets.	Triodia pungens hummock grassland.	rare, population of 100 seen, none elsewhere.		About 1 km W of Boodarie Landing and about 12 km N [NNE] of Boodarie Homestead	20/10/1995
<i>Gymnanthera cunninghamii</i>		3 Erect shrub, 1 - 2 m high.					C. 79 km S of Port Hedland	10/04/2011
<i>Gymnanthera cunninghamii</i>		3 Erect shrub, 1 - 2 m high.					C. 42 km S of Port Hedland	06/04/2011
<i>Gymnanthera cunninghamii</i>		3 Erect shrub, 1.8 m high.	Drainage line. White sand.	Eucalyptus camaldulensis and Melaleuca argentea woodland.	1 plant.		12 km NNE of Wodgina, 2.5 km E of Great Northern Highway, Pilbara	19/05/2011
<i>Gymnanthera cunninghamii</i>		3 Erect shrub, 1.5 m high.	River. Brown-white sand.	Open Woodland of Eucalyptus camaldulensis and Melaleuca argentea with a High Shrubland of Acacia tumida var. pilbarensis and A. coleii and an Open Shrubland of mixed Melaleuca spp. Associated species: Corymbia flavescens, Hibiscus austrinus, Melaleuca glo	1 plant.		8.5 km NNE of Wodgina, 1 km E of Great Northern Highway along Turner River, Pilbara	09/04/2011
<i>Gymnanthera cunninghamii</i>		3 Erect shrub, 1.8 m high.	Creek. White sand.	Open Tall Shrubland of Melaleuca argentea and M. glomerata with a sparse Hummock Grassland of Triodia epactia and Scattered Low Trees of Eucalyptus camaldulensis.	1 plant.		Nearby to [Chinaman's] Pool, 3.2 km W of BHP rail, 26 km S of Indee Road, Pilbara	25/07/2011
<i>Gymnanthera cunninghamii</i>		3 Low shrub.	Creek bed, pale brown sand.	Eucalyptus camaldulensis subsp. obtusa, E. victrix, Melaleuca argentea mid open woodland; Acacia coleii var. coleii, A. trachycarpa, A. tumida var. pilbarensis mid open shrubland; Cenchrus ciliaris, Triodia epactia sparse hummock/tussock grassland.	4 mature plants.		Wallareena Station and Strelley Station, ca. 30 km SE of Port Hedland	22/05/2018
<i>Gymnanthera cunninghamii</i>		3 Multistemmed shrub 1.5 m high. Leaf pale green, glossy. Sap white, sticky, strong smelling. Stems brittle. Calyx pale green. Petals white.	Calcareous ridge adjacent to tidal flats. In soil pocket cemented sandstone.		several shrubs in a scattered group.		6-Mile Creek access road, opposite Port Hedland rubbish tip	12/02/1985
<i>Heliotropium muticum</i>		3 Herb to 0.3 m.	Sandplain of orange brown sandy loam.	Low Open Woodland of Eucalyptus camaldulensis subsp. refulgens over Hummock Grassland of Triodia epactia and Triodia lanigera over Very Open Tussock Grassland of Aristida holathera var. holathera.			Port Hedland, Pilbara	27/06/2011
<i>Heliotropium muticum</i>		3 Herb to 0.2 m.	Plain of orange brown sandy loam.	Scattered Shrubs of Acacia ancistrocarpa and Acacia stellaticeps over Very Open Hummock Grassland of Triodia lanigera.			Port Hedland, Pilbara	02/06/2011
<i>Heliotropium muticum</i>		3	Alluvial stream bed and banks. Very gently inclined slope, aspect 130 degrees. Many coarse fragments to maximum size of 200 mm. No bedrock exposed. Red brown sand, average depth 60.8 cm.	Open Woodland of Eucalyptus camaldulensis & Eucalyptus victrix over Low Shrubland of Acacia arida, Acacia pyrifolia & Grevillea wickhamii over Shrubland of Acacia pyrifolia, Grevill			Site: MBW07, Gillam Creek, N side of track to Pilgangoora Mining Centre, 14.6 km W of Pilgangoora Mining Centre, 15.9 km WNW of Mt York, 102.4 km WNW of Marble Bar, Wallareena Station, Pilbara IBRA	31/05/2006
<i>Heliotropium muticum</i>		3 Herb to 0.2 m.	Sandy plain of orange brown sandy loam.	Scattered Low Trees of Eucalyptus camaldulensis subsp. refulgens over open shrubland of Acacia sericophylla over Scattered Tussock Grass of Paspalidium tabulatum.	7 individuals.		Port Hedland, Pilbara	28/06/2011
<i>Heliotropium muticum</i>		3 Herb to 0.2 m.	Plain of orange brown sandy loam with gravel, rocks, cobbles and pebbles.	Open shrubland of Acacia inaequilatera over Open Hummock Grassland of Triodia epactia and Triodia lanigera.			Port Hedland, Pilbara	28/06/2011
<i>Heliotropium muticum</i>		3 Herb to 0.2 m.	Plain with orange brown sandy loam with quartz and ironstone.	Open Shrubland of Acacia trudgeniana over Low Open Shrubland of Acacia sphaerostachya and Acacia stellaticeps over Open Hummock Grassland of Triodia lanigera and Triodia epactia.			Port Hedland, Pilbara	27/06/2011
<i>Heliotropium muticum</i>		3 Sub-shrub 20 cm tall.					24.6 km SSE of South Hedland and 21.3 km NW of Wallareena Homestead	02/12/2011
<i>Heliotropium muticum</i>		3 Spreading herb to 0.3 m.	Sand plain with orange-brown sandy soils.	Very open hummock grassland of Triodia epactia and T. secunda with scattered shrubs of Acacia ancistrocarpa and A. stellaticeps.	one only.		Ca 34 km SSE of Port Hedland	06/03/2010
<i>Heliotropium muticum</i>		3 Sub-shrub 10 cm tall.					50.8 km S of South Hedland and 18.6 km SW of Wallareena Homestead	29/11/2011
<i>Heliotropium muticum</i>		3 Herb to 0.3 m. Flower white.	Plain with silty sandy clay.	Scattered Acacia inaequilatera shrubs over Triodia epactia and Triodia lanigera very open hummock grassland.			Port Hedland, Pilbara	03/05/2011
<i>Heliotropium muticum</i>		3 Herb to 0.3 m. Flower white.	Sand plain with quartz outcrops.	Scattered Acacia inaequilatera shrubs over Triodia epactia and Triodia lanigera very open hummock grassland.			Port Hedland, Pilbara	03/05/2011
<i>Heliotropium muticum</i>		3 Herb to 0.3 m. Flower white.		Scattered low Corymbia flavescens trees over open Acacia ancistrocarpa and Acacia bivenosa shrubland over scattered low Acacia stellaticeps shrubs over a Triodia epactia and Triodia lanigera hummock grassland.			Port Hedland, Pilbara	03/05/2011
<i>Heliotropium muticum</i>		3 Herb to 0.4 m. Flower white.	Plain.	Scattered Acacia inaequilatera shrubs over Triodia epactia and Triodia lanigera very open hummock grassland.			Port Hedland, Pilbara	03/05/2011
<i>Heliotropium muticum</i>		3 Herb to 0.3 m.	Sandy plain of orange brown sandy loam.	Scattered Low Trees of Corymbia candida subsp. dipsodes over Low Open Shrubland of Acacia, Indigofera monophylla and Tephrosia uniovulata over Very Open Hummock Grassland of Triodia lanigera.			Port Hedland, Pilbara	26/06/2011
<i>Heliotropium muticum</i>		3 Herb to 0.4 m. Flower white.	Sandplain.	Scattered Acacia inaequilatera shrubs over Triodia epactia and Triodia lanigera very open hummock grassland.			Port Hedland, Pilbara	02/11/2011
<i>Heliotropium muticum</i>		3 Height 0.2 m.	Flat sand plains.	Scattered Low Trees of Corymbia candida subsp. laetifolia over Scattered Shrubs to High Open Shrubland of Acacia coleii and/or A. ancistrocarpa and/or Acacia ?sericophylla and/or A. tumida var. pilbarensis over Low Open Shrubland to Low Shrubland of Acaci		Condition: Excellent.	Survey area is located at its closest point ca 2.1 km E of the extent of the South Hedland Development	01/08/2012
<i>Heliotropium muticum</i>		3 Ascending to spreading perennial, herb, to 0.3 m high.	Flat / plain. Red sandy loam.	Open shrubland (Acacia inaequilatera, Acacia ancistrocarpa) over mixed grassland (Triodia epactia, Triodia lanigera).			C. 21.8 km S of Great Northern Highway and 21.8 km SE of South Hedland	11/05/2011
<i>Heliotropium muticum</i>		3 Spreading herb .1 m high.	Plain. Brown loam.	Low shrubland, grassland. Acacia tumida var. pilbarensis and Acacia coleii var. coleii shrubland over a low Acacia stellaticeps shrubland over a Triodia epactia hummock grassland / low Acacia stellaticeps shrubland over a Triodia epactia hummock grassland	1-3 plants.	ENV OHCS 14	ca 19 km S of Port Hedland	23/07/2009
<i>Heliotropium muticum</i>		3 Spreading herb 0.1 m high.	Plain. Brown - orange loam.	Low shrubland, grassland. Acacia tumida var. pilbarensis and Acacia coleii var. coleii shrubland over a low Acacia stellaticeps shrubland over a Triodia epactia hummock grassland / low Acacia stellaticeps shrubland over a Triodia epactia hummock grassland	2-5 plants.	ENV. OHCS 10	ca 19 km S of Port Hedland	23/07/2009
<i>Heliotropium muticum</i>		3	Sheet-flood fan. Very gently inclined slope, aspect 110 degrees. No coarse fragments. No bedrock exposed. Red brown sandy loam, average depth 48 cm.	Very Open Mallee over Shrubland of Acacia arida, Acacia coriacea & Grevillea wickhamii over Low Open Shrubland of Acacia stellaticeps over Hummock Grassland of Triodia sp. over Scattered Herbs.			Site: DRE118, West side of track, 13.2 km S of the North West Coastal Highway on access track to Croydon Outstation, 11.1 km SSE of Mt Brown, 11.7 km SSE of Whim Creek, Sherlock Station, Pilbara IBRA	25/08/2005
<i>Heliotropium muticum</i>		3	Bedrock outcrop. Steep slope, aspect 80 degrees. Abundant coarse fragments to maximum size of 600 mm. Abundant bedrock outcrop. Brown sandy loam, average depth 8.8 cm.	High Shrubland of Acacia pyrifolia & Acacia trachycarpa over Low Open Shrubland of Indigofera monophylla over Open Hummock Grassland of Triodia sp. over Scattered Bunch Grass of Cymbopogon sp. over Scattered Herbs.			Site: DRE08, West side of track, 1.9 km S of the North West Coastal Highway on access track to Croydon Outstation, 6.4 km ENE of Mt Brown, 2.7 km E of Whim Creek, Pilbara IBRA	16/04/2004
<i>Heliotropium muticum</i>		3 Spreading herb, 0.3 x 0.2 m.	Sandplain; soil surface loose to firm. Light brown sand / loam; granitoid. Burnt in 2009.	Mixed sparse micro Acacia shrubs over sparse medium hummock grasses. Acacia bivenosa, Acacia stellaticeps, Acacia inaequilatera, Triodia epactia, Pluchea tetranthera.	common locally.		Pippingarra, approximately 30 km SSE of Port Hedland	16/11/2012
<i>Heliotropium muticum</i>		3 Ascending to spreading perennial herb to 0.3 m high.					Ca 3.5 km W of Port Hedland - Wittensoom Road, 20 km SSE of South Hedland	19/04/2011
<i>Heliotropium muticum</i>		3 Prostrate herb, 0.3 m high.	Plain. Brown clayey sand.	Corymbia hamersleyana and C. flavescens open woodland over Acacia tumida var. pilbarensis open shrubland over A. stellaticeps low open shrubland over Triodia epactia hummock grassland.	2-5 plants.		Port Hedland	14/04/2012



Taxon	Cons_Code	Plant_Desc	Site	Vegetation	Frequency	Notes	Locality	Date
<i>Heliotropium parviantrum</i>		1					C. 9.9 km N of Great Northern Highway, 4.6 km W of De Grey Road at Pardoo minesite	10/03/2011
<i>Nicotiana umbratica</i>		3	Granite boulder outcrop.	<i>Terminalia canescens</i> , <i>Mallotus nesophilus</i> , <i>Hibiscus goldworthii</i> .			Road Reserve just E of Great Northern Highway, ca 22 km S of Wodgina mine turnoff, ca 132 km S of Port Hedland	13/05/2013
<i>Nicotiana umbratica</i>		3	Glandular annual herb with long tubular flowers.	Granite outcrops.			Triodia grassland with scattered trees and shrubs.	21/09/1995
<i>Nicotiana umbratica</i>		3	Decumbent herbaceous shrub, 20 cm high. White flowers.	Granite dome/tor. Orange sand over granite.			Low open woodland of <i>Terminalia canescens</i> with a very open hummock grassland of <i>Triodia epactia</i> . Associated species: <i>Acacia tumida</i> , <i>A. coleii</i> , <i>A. retivenea</i> and <i>Cymbopogon ambiguus</i> .	30/03/2011
<i>Nicotiana umbratica</i>		3	Shrub to 0.4 m; white flowers.	Growing in between granite boulders.			With <i>Acacia tumida</i> subsp. <i>pilbarensis</i> , <i>Triodia epactia</i> , <i>Mallotus nesophilus</i> , <i>Indigofera virens</i> and <i>Bulbostylis burbridgeae</i> .	08/07/2015
<i>Phyllanthus hebecarpus</i>		3		Granite boulder outcrop.			Road Reserve just E of Great Northern Highway, ca 22 km S of Wodgina mine turnoff, ca 132 km S of Port Hedland	13/05/2013
<i>Phyllanthus hebecarpus</i>		3					Near the Port Hedland to Newman Highway ca 250 km NW of Newman	30/04/2009
<i>Phyllanthus hebecarpus</i>		3	Shrub to 0.5 m.	Growing in between granite boulders.			With <i>Acacia orthocarpa</i> , <i>Triodia epactia</i> , <i>Indigofera virens</i> , <i>Cenchrus ciliaris</i> and <i>Senna glutinosa</i> subsp. <i>glutinosa</i> .	10/07/2015
<i>Ptilotus mollis</i>		4	Dense shrub to 0.5 m, flowering. Flowers white.	Single ridge line. Skeletal red/brown clay loam. Ironstone outcropping.			Ca 150 km SE of Port Hedland, 50 km E of the Great Northern Highway on western edge of Panorama Station	19/08/2010
<i>Quoyia zonalis</i>	T		Soft, grey woody shrub to 1.2 m high, mostly in bud with some early flowers. Buds bright pink, borne at the ends of branches. Flowers with pink spots on lower lobe, pink stripes in throat.	Base of very steep sandstone hillslope, S-facing, within gorge. Skeletal brown sandy loam over massive sandstone.			Tall shrubland of <i>Terminalia canescens</i> and <i>Acacia tumida</i> var. <i>pilbarensis</i> over hummock grassland of <i>Triodia longiceps</i> , with <i>Eriachne mucronata</i> , <i>Sarcostemma viminale</i> subsp. <i>australe</i> .	30/08/2010
<i>Quoyia zonalis</i>	T		Soft, grey woody shrub to 1.5 m high, in flower and with some buds. Buds pale pink, borne at the ends of branches. Flowers with pink spots on lower lobe, pink stripes in throat.	Midslope of very steep ironstone hillslope, base of small cliff, SW facing. Skeletal red-brown sandy loam over massive ironstone.			With <i>Triodia</i> spp.	30/08/2010
<i>Quoyia zonalis</i>	T						approximately 50 plants seen.	
<i>Quoyia zonalis</i>	T						19 plants.	Condition of plants: healthy. Potential threats: clearing by mining company, presence of invasive species nearby, grazing by wildlife and cattle.
<i>Quoyia zonalis</i>	T						13 plants.	Condition of plants: healthy. Potential threats: clearing by mining company, presence of invasive species nearby, grazing by wildlife and cattle.
<i>Quoyia zonalis</i>	T			Granite or conglomerate steep slope. Skeletal red clay loam.			11 plants.	
<i>Quoyia zonalis</i>	T			Granite or conglomerate steep slope. Skeletal red clay loam.			11 plants.	
<i>Quoyia zonalis</i>	T			Mid slope of very steep ironstone hill slope. Red brown sandy loam.				
<i>Quoyia zonalis</i>	T			S side of small gully. Steep. Skeletal clay loam over sandstone/conglomerate.				
<i>Quoyia zonalis</i>	T			Slope. Well drained red sandy-clay over sandstone.				
<i>Quoyia zonalis</i>	T			Sandstone or conglomerate slope. Very steep. Skeletal red clay loam.				
<i>Quoyia zonalis</i>	T		Shrub to 3.5 m.	Growing on rocky ironstone hill slopes. Recently burnt.				
<i>Quoyia zonalis</i>	T			Very steep low hills. Shallow, very gravelly, dark reddish brown loamy sand. 1-2 years since last fire.				
<i>Quoyia zonalis</i>	T			Base of small breakaway on the crest of a broad gently undulating ironstone plateau, high in the landscape. Skeletal soils over massive ironstone outcropping.				
<i>Quoyia zonalis</i>	T			In very early flower, mostly buds present.				
<i>Quoyia zonalis</i>	T			Erect sparsely branched shrub to 0.8 m high. Immature flower buds present.				
<i>Rathia indica</i> subsp. <i>australis</i>		3	Prostrate annual herb 0.3 m high, densely covered in spreading hairs.					
<i>Rathia indica</i> subsp. <i>australis</i>		3	Prostrate annual herb 0.3 m high, densely covered in spreading hairs.					
<i>Rathia indica</i> subsp. <i>australis</i>		3		Edge of minor drainage line. Red sandy clay.				
<i>Rathia indica</i> subsp. <i>australis</i>		3	Prostrate annual herb 0.3 m high, densely covered in spreading hairs.					
<i>Rathia indica</i> subsp. <i>australis</i>		3	Prostrate annual, herb, to 0.3 m high, densely covered in spreading hairs.	Outcrop. Red / brown clay loam.				
<i>Rathia indica</i> subsp. <i>australis</i>		3		Edge of creekline. Red sandy clay.				
<i>Rathia indica</i> subsp. <i>australis</i>		3		Edge of broad drainage system, on loamy plain. Red clay loam.				
<i>Rathia indica</i> subsp. <i>australis</i>		3		Edge of creekline. Red clay loam.				
<i>Rathia indica</i> subsp. <i>australis</i>		3		On low drainage flat adjacent to minor creekline, and a road verge, near the base of the Ord Range. Red-brown clay loam soils.				
<i>Rathia indica</i> subsp. <i>australis</i>		3		Edge of minor drainage line. Red sandy clay.				
<i>Rathia indica</i> subsp. <i>australis</i>		3	Short, erect annual herb, 15 cm to 20 cm high. Trifoliate pea.	Edge of broad, very gently undulating plain adjacent to creek bank. Red loamy sand.				
<i>Rathia indica</i> subsp. <i>australis</i>		3	Prostrate annual herb 0.3 m high, densely covered in spreading hairs.					
<i>Seringia exastia</i>	T		Shrub 60 - 80 cm high. Flowers lavender.	Growing on verge of dirt track in red sand.				
<i>Sida</i> sp. Barlee Range (S. van Leeuwen 1642)		3	Very open shrub to 1 m high with yellowish indumentum, apparently not consistent, corolla pale yellow.					
<i>Stylidium weelwollii</i>		3	Annual herb 0.1 - 0.25 m high.					
<i>Stylidium weelwollii</i>		3	Erect herb, 15 cm high. Purple flowers.	Creek edges. Brown-white sand.				
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)		1	Erect shrub to 0.75 m high, 1 m wide with flowers and fruit. Flowers deep pink.	Road verge on a plain with red-brown loam sand soil.				
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)		1	Low spreading shrub to 1 m. In flower and fruit, flowers deep pink.	Slope and crest of a dune with red-brown sandy soil.				
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)		1		Plain.				
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)		1	Low spreading shrub to 1 m. In flower and fruit, flowers deep pink. Spreading, low coastal shrub 0.9 x 2.5 m. Upper leaflets glabrous, green; lower leaflets silver. Growing next to other colour forms (RB 1529m RB 1531).	Slope and crest of a dune with red-brown sandy soil.				
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)		1		First coastal du ne from beach. Tan-dark yellow deep sand.				
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)		1	Erect shrub to 0.4 m.	Sand plain with orange-brown sandy loam soils.				



Taxon	Cons_Code	Plant_Desc	Site	Vegetation	Frequency	Notes	Locality	Date
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)	1	Erect shrub 0.4 m high. Flowers red - purple.	Plain. Brown - orange loam.	Low shrubland, grassland. <i>Acacia coleii</i> var. <i>colei</i> scattered tall shrubs over <i>Acacia stellaticeps</i> low open shrubland over <i>Triodia epactia</i> hummock grassland over <i>Eriachne obtusa</i> , <i>Panicum decompositum</i> var. <i>decompositum</i> very open tussock grassland over an op	6-2 plants.	ENV. CS 76	ca 5.5 km S of Port Hedland	21/07/2009
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)	1	Erect shrub 0.4 m high. Flowers red.	Plain. Brown - orange loam.	Grassland. <i>Triodia secunda</i> , <i>Triodia epactia</i> hummock grassland.	6-20 plants.	ENV PH 12	ca 6 km SW of Port Hedland	28/07/2009
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)	1		Roadside plain.	<i>Triodia epactia</i> open hummock grassland.			On eastern side of Finucane Road, 8 km northwest from intersection with Great Northern Highway	13/04/2007
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)	1	Spreading, low, coastal shrub 0.9 x 3.5 m. Plant with dull green-silver hue. Upper leaflets hairy. Growing next to other colour forms (RB 1529, RB 1530).	First coastal dune from beach. Tan-dark yellow deep sand.	Coastal heath with <i>Spinifex longifolius</i> , <i>Crotalaria</i> , <i>Oenothera</i> ?, <i>Cenchrus ciliaris</i> , <i>kapok</i> .	abundant.		Finucane Island, just beyond boat launch area	30/05/2011
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)	1	Erect open shrub, 50 cm high.	Sandy plain. Red sand.	<i>Triodia schinzii</i> open hummock grassland, with <i>Acacia stellaticeps</i> sparse low shrubland.	1 plant.		Directly E of Port Hedland Airport	13/10/2011
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)	1	Much branching tomentose shrub, 0.5 m high. Leaves grey-green, hirsute on both sides. Flowers crimson.	Yellow sand.	<i>T. rosea</i> var. a (coll. no. 269).			Finucane Island	15/07/1981
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)	1	Much branching tomentose shrub, 0.5 m high. Leaves grey-green hirsute underneath more or less green minutely pubescent on upperside. Flowers crimson.	Yellow sand.	<i>T. rosea</i> var. b. (coll. no. 270).			Finucane Island	15/07/1981
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)	1	Flowers maroon.	Growing in sand near creek crossing				Peawah River, 62 miles W of Port Hedland, N.W. Coastal Highway	27/08/1960
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)	1	Erect shrub to 0.4 m.	Sand plain with orange-brown sandy loam soils.	Open shrubland of <i>Acacia stellaticeps</i> and <i>A. ampliceps</i> over scattered hummock grasses of <i>Triodia schinzii</i> , <i>T. secunda</i> and <i>T. epactia</i> over scattered tussock grasses of <i>Eriachne obtusa</i> , <i>Aristida contorta</i> and <i>*Cenchrus ciliaris</i> .	2-5 plants.		Ca 6 km S of Port Hedland	24/04/2009
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)	1	Flowers maroon.	Growing in sand near creek crossing				Peawah River, 62 miles W of Port Hedland, N.W. Coastal Highway	27/08/1960
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)	1						Fortescue district, Port Hedland, Finucane Island	04/08/1974
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)	1	Erect shrub to 1.25 m high x 2 m wide with flowers and fruit. Flowers deep pink.	Road verge on a plain with red-brown loamy sand soil.	Sparse low shrubland of <i>Acacia stellaticeps</i> , <i>Corchorus</i> sp., <i>Tephrosia rosea</i> and <i>Triumfetta</i> sp. over sparse grassland of <i>Cenchrus ciliaris</i> and <i>Eragrostis</i> sp.	50-70 plants. Only occurs in the disturbed road verge.		Road verge of unnamed FMG road that runs parallel to Finucane Road, 1.16 km NW of Great Northern Highway, 0.53 km NW of the corner of Cajarina Road and Harwell Way, Wedgefield, Port Hedland	07/09/2010
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)	1	Erect shrub 1.5-1.7 m. Flowers deep red, small, leaves lanceolate pinnate.	Red sand.				Peawah River	17/08/1970
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)	1	20 cm high, straggly, silvery tomentose, mauve flowers maturing unevenly.	Red sand dune.	Grass and shrublets.			Finucane Island	04/09/1976
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)	1	Spreading, low coastal shrub 1.5 x 2.5 m. Whole plant with grey-silver sheen, upper leaflets hairy. Growing next to other colour forms (RB 1530, RB 1531).	First coastal dune from beach. Tan-dark yellow deep sand.	Coastal heath with <i>Spinifex longifolius</i> , <i>Crotalaria</i> , <i>Oenothera</i> ?, <i>Cenchrus ciliaris</i> , <i>kapok</i> .	abundant.		Finucane Island, just beyond boat launch area	30/05/2011
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)	1	Erect shrub to 0.4 m.	Sand plain with red-brown sandy loam soils.	Low shrubland of <i>Tephrosia rosea</i> var. <i>venulosa</i> over grassland of <i>Cenchrus ciliaris</i> .	300 individuals.		Ca 5 km NW of Port Hedland	29/01/2010
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)	1	Much branching tomentose shrub, 0.5 m high. Leaves grey-green, hirsute on both sides. Flowers crimson.	Yellow sand.	<i>T. rosea</i> var. a (coll. no. 269).			Finucane Island	15/07/1981
<i>Terminalia supranitfolia</i>	3	Spreading tangled shrub or tree 1.5-3 m high.	Drainage line alongside of hill. Red brown sandy loam.	Open tall <i>Eucalypts</i> over open shrubland over grassland.			ca 5.4 km SW of Wodgina Airport, 6.9 km W of Great Northern Highway and 36.7 km SE of Indee	13/12/2012
<i>Terminalia supranitfolia</i>	3	Tangled shrub/small tree to 2 m, not flowering.	Crest of ridge. Skeletal clay loam over ironstone.		2 plants seen.		Ca 4 km E of Great Northern Highway and ca 96 km S of Port Hedland	07/03/2012
<i>Terminalia supranitfolia</i>	3	Spreading tangled shrub or tree 1.5-3 m high.	Hilltop - precipice. Brown clay loam.	<i>Triodia epactia</i> , <i>Triodia wiseana</i> , <i>Acacia acradenia</i> .			Ca 94 km S of Port Hedland, 3.5 km E of Great Northern Highway on Kangan Station	30/08/2010
<i>Terminalia supranitfolia</i>	3	Large shrub to 2 m high with glossy green leaves and small brown fruits.	Upper slope of steep gully. Granite, stony red-brown clay loam.				ca 5.55 km SW of Wodgina Airport, 7.1 km W of Great Northern Highway and 36.9 km NW of Indee	13/12/2012
<i>Triodia bastricha</i>	3		Crest of range. Skeletal clay loam over ironstone.	With <i>Acacia tumida</i> var. <i>pilbarensis</i> , <i>Grevillea wickhamii</i> , <i>Acacia ptychophylla</i> .			?Unallocated Crown Land, ca 5 km S of Strelley Station southern boundary, ca 15 km W of Panorama Station western boundary, just E of the Strelley River. Ca 90 km SSE of Port Hedland	16/06/2010
<i>Triodia chichesterensis</i>	3	Spinifex.	Gravelly loam.	<i>Acacia</i> - <i>Grevillea</i> open shrubland/ hummock grassland.			96 km S of Port Hedland on Wittenoom Road	29/04/1977
<i>Triodia chichesterensis</i>	3	Hard hummock growing up to 0.2 m tall with 0.3 m tall culms.	Hillslope with dense quartz straw and shallow 0.2 m deep loam soil onto decomposing basalt bedrock.	Hedgehog hard hummock grassland.	abundant.		10.2 km NNW of Indee Homestead at site I68	21/10/1995
<i>Triodia chichesterensis</i>	3	Low spreading hard hummock grass with hummocks growing to 0.2 m and culms growing up to 0.5 m tall.	Almost flat calcareous plain with quartz strew and formed from granite.	Hard hummock grassland of this species.	abundant.		Site 1751, 11.5 km NE of old Tabba Tabba Station Homestead, Port Hedland.	26/08/1997
<i>Triodia chichesterensis</i>	3	Tufted grass, 0.2 m high, in flower.					Strelley pastoral lease, ca. 50 km NW of Marble Bar	16/05/2019
<i>Triodia chichesterensis</i>	3	Hummock grass.	Brown clay-loam soil with quartzite.	<i>Corymbia hamersleyana</i> low open woodland; <i>Acacia inaequilatera</i> , <i>A. stellaticeps</i> , <i>Senna artemisioides</i> subsp. <i>oligophylla</i> mid/low sparse shrubland; <i>Triodia chichesterensis</i> , <i>T. epactia</i> hummock grassland.	ca. >400 mature plants.		Wallareena Station and Strelley Station, ca. 30 km SE of Port Hedland	21/05/2018
<i>Triodia chichesterensis</i>	3	Domed hummock grass with hummocks up to 35 cm, short grey-green leaves and woolly orifice hairs.	Moderately inclined lower slope, red-brown sandy clay with > 90 % ironstone surface stones up to and greater than 2 m.	Mid sparse shrubland of <i>Acacia acradenia</i> and <i>Acacia inaequilatera</i> over hummock grassland of <i>Triodia brizoides</i> and <i>Triodia wiseana</i> .	uncommon.		Ca. 3.4 km SSW of the MRL Wodgina mine site, ca. 4.2 km W of Great Northern Highway	26/04/2018
<i>Triodia chichesterensis</i>	3	Hummock grass.	Brown clay-loam soil with quartzite.	<i>Corymbia hamersleyana</i> low open woodland; <i>Acacia ancistrocarpa</i> , <i>A. inaequilatera</i> , <i>Indigofera monophylla</i> mid/low sparse shrubland; <i>Bonamia pilbarensis</i> , <i>Triodia chichesterensis</i> , <i>T. epactia</i> herbland/hummock grassland.	ca. >500 mature plants.		Wallareena Station and Strelley Station, ca. 30 km SE of Port Hedland	21/05/2018
<i>Triodia chichesterensis</i>	3	Hummock grass.	Brown clay-loam soil with quartzite.	<i>Corymbia hamersleyana</i> low open woodland; <i>Acacia inaequilatera</i> , <i>A. stellaticeps</i> , <i>Senna artemisioides</i> subsp. <i>oligophylla</i> mid/low sparse shrubland; <i>Triodia chichesterensis</i> , <i>T. epactia</i> hummock grassland.	ca. >100 mature plants.		Wallareena Station and Strelley Station, ca. 30 km SE of Port Hedland	22/05/2018
<i>Triodia chichesterensis</i>	3	Hummock grass to 20 cm high with short blue-green leaves, pubescent lemma midlobe and colourless sparkly droplets on glumes and leaf sheaths.	Low rise on outwash slopes of range, decaying dolerite/basalt stony red clay loam.	Mid sparse shrubland of <i>Acacia acradenia</i> over low hummock grassland of <i>Triodia wiseana</i> , <i>Triodia lanigera</i> and <i>Triodia chichesterensis</i> .	small patch of c. 200 plants.		Near Wodgina mining area (Kangan Station), ca. 2.7 km W of the Great Northern Highway at 71.5 km S of the intersection with the North West Coastal Highway, 91.5 km S of Port Hedland	07/04/2019
<i>Triodia chichesterensis</i>	3	Hummock grass to 20 cm high with short blue-green leaves, pubescent lemma midlobe, somewhat woolly leaf sheaths and occasional colourless sparkly droplets on glumes and leaf sheaths.	Undulating plain. Quartz/calcrete stony red clay loam.	Low open woodland of <i>Corymbia hamersleyana</i> over tall sparse shrubland of <i>Acacia inaequilatera</i> over low sparse shrubland of <i>Corchorus parviflorus</i> over low hummock grassland of <i>Triodia chichesterensis</i> and <i>Triodia epactia</i> .	dominant.	Growing with <i>Triodia lanigera</i> , possibly an intergrade with this taxon.	Near Wodgina mining area (Kangan Station), ca. 1.4 km W of the Great Northern Highway at 69.5 km S of the intersection with the North West Coastal Highway, 89 km S of Port Hedland	09/04/2019
<i>Triodia chichesterensis</i>	3	Hummocks 15 - 30 x 20 - 80 cm, inflorescences 50 - 70 cm tall. Leaves dull green, short. Shining minute specks on fresh glumes.	Very low rounded ridge.	In open low woodland. <i>Acacia inaequilatera</i> , <i>Cleome viscosa</i> , <i>Bonamia</i> , <i>Hybanthus</i> .	over 1000 plants, but this population only c. 500 m in extent along road.		24.5 km S Pippingarra Road, S of Port Hedland, Pilbara region	19/03/2013
<i>Triodia chichesterensis</i>	3	Hummocks 30 cm tall, inflorescences 1 m tall.	Flat plain, light orange sandy soil.	Associated vegetation: <i>Acacia inaequilatera</i> , <i>Cenchrus ciliaris</i> , <i>Acacia</i> ? <i>eripodoides</i> , <i>Senna</i> .	small patches only amongst <i>T. lanigera</i> .		71 km S on Pippingarra Road, North Pilbara region	19/03/2013
<i>Vigna triodiophila</i>	3	Fine, sprawling herb with yellow flowers.	Among dolerite boulders on very steep upper slope. Stony red-brown clay loam.	Low isolated trees of <i>Corymbia hamersleyana</i> over mid sparse shrubland of <i>Acacia acradenia</i> , <i>Acacia inaequilatera</i> and <i>Grevillea wickhamii</i> subsp. <i>hispidula</i> over low hummock grassland of <i>Triodia wiseana</i> and <i>Triodia epactia</i> .	uncommon, a few plants seen.		Near Wodgina mining area (Kangan Station), ca. 5 km W of the Great Northern Highway at ca. 75 km S of the intersection with North West Coastal Highway, 94 km S of Port Hedland	09/04/2019

## Threatened and Priority Ecological Communities Database Search

COM_ID	COM_NAME	STATE_CATG	COMM_CATG	BUFFER
Eighty Mile Land System	Eighty Mile Land System	Priority 3		500

Conservation Significant Fauna DBCA Database Search

SCI_NAME	COM_NAME	CLASS	WA_LISTING	WA_status	EPBCstatus
Actitis hypoleucos	Common Sandpiper	BIRD	Specially Protected - migratory	MI	MI
Arenaria interpres	Ruddy turnstone	BIRD	Specially Protected - migratory	MI	MI
Calidris acuminata	Sharp-tailed sandpiper	BIRD	Specially Protected - migratory	MI	MI
Calidris alba	Sanderling	BIRD	Specially Protected - migratory	MI	MI
Calidris canutus	Red knot	BIRD	Threatened - Endangered	EN	EN
Calidris ferruginea	Curlew Sandpiper	BIRD	Threatened - Critically endangered	CR	CR
Calidris melanotos	Pectoral Sandpiper	BIRD	Specially Protected - migratory	MI	MI
Calidris ruficollis	Red-necked stint	BIRD	Specially Protected - migratory	MI	MI
Calidris subminuta	Long-toed Stint	BIRD	Specially Protected - migratory	MI	MI
Calidris tenuirostris	Great knot	BIRD	Threatened - Critically endangered	CR	CR
Charadrius leschenaultii	Greater sand plover, large sand plover	BIRD	Threatened - Vulnerable	VU	MI
Charadrius mongolus	Lesser Sand Plover	BIRD	Threatened - Endangered	EN	EN
Charadrius veredus	Oriental Plover	BIRD	Specially Protected - migratory	MI	MI
Chelonia mydas	green turtle	REPTILE	Threatened - Vulnerable	VU	VU
Chlidonias leucopterus	White-winged black tern, white-winged tern	BIRD	Specially Protected - migratory	MI	MI
Ctenotus angusticeps	Airlie Island Ctenotus, Northwestern coastal Ctenotus	REPTILE	Priority	P3	VU
Dasyercus blythi	Brush-tailed mulgara	MAMMAL	Priority	P4	
Dasyurus hallucatus	Northern quoll	MAMMAL	Threatened - Endangered	EN	EN
Dugong dugon	Dugong	MAMMAL	Specially Protected - other specially protected	OS	
Eretmochelys imbricata	Hawksbill turtle	REPTILE	Threatened - Vulnerable	VU	VU
Falco hypoleucos	Grey falcon	BIRD	Threatened - Vulnerable	VU	
Falco peregrinus	Peregrine falcon	BIRD	Specially Protected - other specially protected	OS	
Fregata ariel	Lesser frigatebird	BIRD	Specially Protected - migratory	MI	MI
Gallinago stenura	Pin-tailed snipe	BIRD	Specially Protected - migratory	MI	MI
Gelochelidon nilotica	Gull-billed tern	BIRD	Specially Protected - migratory	MI	MI
Glaucous gull	Oriental pratincole	BIRD	Specially Protected - migratory	MI	MI
Hirundo rustica	Barn swallow	BIRD	Specially Protected - migratory	MI	MI
Hydroprogne caspia	Caspian Tern	BIRD	Specially Protected - migratory	MI	MI
Limicola falcinellus	Broad-billed sandpiper	BIRD	Specially Protected - migratory	MI	MI
Limnodromus semipalmatus	Asian dowitcher	BIRD	Specially Protected - migratory	MI	MI
Limosa lapponica	Bar-tailed godwit	BIRD	Specially Protected - migratory	MI	MI
Macrotis lagotis	Bilby, dalgyte, ninu	MAMMAL	Threatened - Vulnerable	VU	VU
Mormopterus cobourgiensis	North-western free-tailed bat	MAMMAL	Priority	P1	
Motacilla flava	Yellow wagtail	BIRD	Specially Protected - migratory	MI	MI
Natator depressus	Flatback turtle	REPTILE	Threatened - Vulnerable	VU	VU
Numenius madagascariensis	Eastern curlew	BIRD	Threatened - Critically endangered	CR	CR
Numenius minutus	Little curlew, little whimbrel	BIRD	Specially Protected - migratory	MI	MI
Numenius phaeopus	Whimbrel	BIRD	Specially Protected - migratory	MI	MI
Oceanites oceanicus	Wilson's storm-petrel	BIRD	Specially Protected - migratory	MI	MI
Onychoprion anaethetus	Bridled tern	BIRD	Specially Protected - migratory	MI	MI
Pandion cristatus	Osprey, eastern osprey	BIRD	Specially Protected - migratory	MI	MI
Philomachus pugnax	Ruff (reeve)	BIRD	Specially Protected - migratory	MI	MI
Plegadis falcinellus	Glossy ibis	BIRD	Specially Protected - migratory	MI	MI
Pluvialis fulva	Pacific golden plover	BIRD	Specially Protected - migratory	MI	MI
Pluvialis squatarola	Grey plover	BIRD	Specially Protected - migratory	MI	MI
Sousa sahalensis	Australian humpback dolphin	MAMMAL	Priority	P4	MI
Sterna hirundo	Common tern	BIRD	Specially Protected - migratory	MI	MI
Sternula albifrons	Little tern	BIRD	Specially Protected - migratory	MI	MI
Sternula nereis nereis	Fairy tern	BIRD	Threatened - Vulnerable	VU	VU
Thalasseus bergii	Crested tern	BIRD	Specially Protected - migratory	MI	MI
Tringa brevipes	Grey-tailed tattler	BIRD	Priority	P4	MI
Tringa glareola	Wood sandpiper	BIRD	Specially Protected - migratory	MI	MI
Tringa nebularia	Common greenshank, greenshank	BIRD	Specially Protected - migratory	MI	MI
Tringa stagnatilis	Marsh sandpiper, little greenshank	BIRD	Specially Protected - migratory	MI	MI
Xenus cinereus	Terek sandpiper	BIRD	Specially Protected - migratory	MI	MI

# NatureMap Species Report

Created By Guest user on 23/06/2021

**Kingdom** Plantae  
**Current Names Only** Yes  
**Core Datasets Only** Yes  
**Method** 'By Circle'  
**Centre** 118° 32' 52" E, 20° 26' 33" S  
**Buffer** 40km  
**Group By** Conservation Status

Conservation Status	Species	Records
Non-conservation taxon	486	1238
Priority 1	2	66
Priority 2	1	7
Priority 3	7	58
Priority 4	3	10
<b>TOTAL</b>	<b>499</b>	<b>1379</b>

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
<b>Priority 1</b>				
1.	43021 <i>Abutilon</i> sp. <i>Pritzelianum</i> (S. van Leeuwen 5095)		P1	
2.	41920 <i>Tephrosia rosea</i> var. <i>Port Hedland</i> (A.S. George 1114)		P1	
<b>Priority 2</b>				
3.	2686 <i>Gomphrena pusilla</i>		P2	
<b>Priority 3</b>				
4.	6607 <i>Bonamia oblongifolia</i>		P3	
5.	16730 <i>Eragrostis crateriformis</i>		P3	
6.	17894 <i>Gomphrena leptophylla</i>		P3	
7.	12832 <i>Gymnanthera cunninghamii</i>		P3	
8.	10891 <i>Heliotropium muticum</i>		P3	
9.	17720 <i>Rothia indica</i> subsp. <i>australis</i>		P3	
10.	48468 <i>Triodia chichesterensis</i>		P3	
<b>Priority 4</b>				
11.	751 <i>Bulbostylis burbridgeae</i>		P4	
12.	7530 <i>Goodenia nuda</i>		P4	
13.	2744 <i>Ptilotus mollis</i>		P4	
<b>Non-conservation taxon</b>				
14.	4895 <i>Abutilon lepidum</i>			
15.	4901 <i>Abutilon otocarpum</i> ( <i>Desert Chinese Lantern</i> )			
16.	43020 <i>Abutilon oxycarpum</i> subsp. <i>Prostrate</i> (A.A. Mitchell PRP 1266)			
17.	42920 <i>Abutilon</i> sp. <i>Dioicum</i> (A.A. Mitchell PRP 1618)			
18.	14113 <i>Abutilon</i> sp. <i>Pilbara</i> (W.R. Barker 2025)			
19.	3198 <i>Acacia acradenia</i>			
20.	3214 <i>Acacia ancistrocarpa</i> ( <i>Fitzroy Wattle</i> )			
21.	3241 <i>Acacia bivenosa</i>			
22.	44588 <i>Acacia bivenosa</i> x <i>sclerosperma</i> subsp. <i>sclerosperma</i>			
23.	13403 <i>Acacia colei</i>			
24.	17013 <i>Acacia colei</i> var. <i>colei</i>			
25.	3300 <i>Acacia dictyophleba</i> ( <i>Sandhill Wattle</i> , <i>Ngarkalya</i> )			
26.	3377 <i>Acacia inaequilatera</i> ( <i>Baderi</i> )			
27.	3434 <i>Acacia maitlandii</i> ( <i>Maitland's Wattle</i> )			
28.	19305 <i>Acacia melleodora</i>			
29.	3471 <i>Acacia orthocarpa</i> ( <i>Needleleaf Wattle</i> )			
30.	29016 <i>Acacia pyrifolia</i> var. <i>morrisonii</i>			
31.	29015 <i>Acacia pyrifolia</i> var. <i>pyrifolia</i>			
32.	30071 <i>Acacia robeorum</i>			
33.	15203 <i>Acacia sabulosa</i>			
34.	13078 <i>Acacia sclerosperma</i> subsp. <i>sclerosperma</i>			
35.	29135 <i>Acacia sericophylla</i>			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
36.	<i>Acacia</i> sp.			
37.	3551 <i>Acacia sphaerostachya</i>			
38.	19456 <i>Acacia stellaticeps</i>			
39.	13070 <i>Acacia synchronicia</i>			
40.	3579 <i>Acacia trachycarpa</i> (Minni Ritchi, Balgali)			
41.	20319 <i>Acacia tumida</i> var. <i>pilbarensis</i>			
42.	26441 <i>Acanthophora spicifera</i>			
43.	2645 <i>Achyranthes aspera</i> (Chaff Flower)			
44.	4583 <i>Adriana tomentosa</i>			
45.	17422 <i>Adriana tomentosa</i> var. <i>tomentosa</i>			
46.	6478 <i>Aegiceras corniculatum</i> (River Mangrove)			
47.	2646 <i>Aerva javanica</i> (Kapok Bush)	Y		
48.	3680 <i>Aeschynomene indica</i> (Budda Pea)			
49.	3609 <i>Albizia lebbbeck</i>			
50.	2647 <i>Alternanthera angustifolia</i>			
51.	2651 <i>Alternanthera nana</i> (Hairy Joyweed)			
52.	17147 <i>Alysicarpus muelleri</i>			
53.	43680 <i>Ammannia muelleri</i>			
54.	5278 <i>Ammannia multiflora</i>			
55.	2383 <i>Amyema preissii</i> (Wireleaf Mistletoe)			
56.	35872 <i>Anadyomene plicata</i>			
57.	17651 <i>Andropogon gayanus</i>	Y		
58.	17797 <i>Argemone ochroleuca</i> subsp. <i>ochroleuca</i>	Y		
59.	207 <i>Aristida contorta</i> (Bunched Kerosene Grass)			
60.	210 <i>Aristida holathera</i>			
61.	12063 <i>Aristida holathera</i> var. <i>holathera</i>			
62.	211 <i>Aristida hygrometrica</i> (Northern Kerosene Grass)			
63.	212 <i>Aristida inaequiglumis</i> (Feathertop Threewawn)			
64.	26486 <i>Asparagopsis taxiformis</i>			
65.	2476 <i>Atriplex semilunaris</i> (Annual Saltbush)			
66.	6828 <i>Avicennia marina</i> (White Mangrove)			
67.	14555 <i>Avicennia marina</i> subsp. <i>marina</i>			
68.	12709 <i>Bergia henschallii</i>			
69.	5184 <i>Bergia pedicellaris</i>			
70.	5186 <i>Bergia trimera</i>			
71.	7866 <i>Blumea tenella</i>			
72.	2770 <i>Boerhavia coccinea</i> (Tar Vine, Wituka)			
73.	2774 <i>Boerhavia replata</i>			
74.	6603 <i>Bonamia alatisemina</i>			
75.	11167 <i>Bonamia erecta</i>			
76.	6605 <i>Bonamia linearis</i>			
77.	6606 <i>Bonamia media</i>			
78.	240 <i>Bothriochloa ewartiana</i> (Desert Bluegrass)			
79.	5291 <i>Bruguiera exaristata</i> (Ribbed Mangrove)			
80.	750 <i>Bulbostylis barbata</i>			
81.	752 <i>Bulbostylis turbinata</i>			
82.	18073 <i>Byblis filifolia</i>			
83.	<i>Byblis</i> sp.			
84.	11055 <i>Cajanus cinereus</i>			
85.	10972 <i>Cajanus marmoratus</i>			
86.	11150 <i>Cajanus pubescens</i>			
87.	40825 <i>Calandrinia pentavalvis</i>			
88.	2865 <i>Calandrinia pumila</i>			
89.	2870 <i>Calandrinia stagnensis</i>			
90.	2872 <i>Calandrinia tepperiana</i>			
91.	7903 <i>Calotis hispidula</i> (Bindy Eye)			
92.	3749 <i>Canavalia rosea</i> (Wild Jack Bean)			
93.	48291 <i>Capparis spinosa</i> subsp. <i>nummularia</i>			
94.	6567 <i>Carissa lanceolata</i> (Conkerberry, Marnuwiji)			
95.	2949 <i>Cassytha capillaris</i>			
96.	2950 <i>Cassytha filiformis</i> (Love Vine, Jirawan)			
97.	26554 <i>Caulerpa brachypus</i>			
98.	42620 <i>Caulerpa chemnitzia</i>			
99.	44539 <i>Caulerpa cylindracea</i>			
100.	44547 <i>Caulerpa lamourouxii</i>			
101.	26568 <i>Caulerpa lentillifera</i>			
102.	26577 <i>Caulerpa sertularioides</i>			
103.	258 <i>Cenchrus ciliaris</i> (Buffel Grass)	Y		
104.	41568 <i>Cenchrus setaceus</i> (Fountain Grass)	Y		
105.	29721 <i>Cenchrus setiger</i> (Birdwood Grass)	Y		

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
106.	7919 <i>Centipeda minima</i> (Spreading Sneezewood, Kanjirralaa, Inteng-inteng, Karengkal, Kata-palkalpa, Munyu-parnti-parnti)			
107.	1122 <i>Centrolepis banksii</i>			
108.	39680 <i>Cerriops australis</i>			
109.	26612 <i>Chaetomorpha melagonium</i>			
110.	266 <i>Chloris barbata</i> (Purpletop Chloris)	Y		
111.	272 <i>Chloris virgata</i> (Feathertop Rhodes Grass)	Y		
112.	47174 <i>Chrysocephalum apiculatum</i> subsp. <i>pilbarensis</i>			
113.	273 <i>Chrysopogon fallax</i> (Golden Beard Grass)			
114.	48838 <i>Citrullus amarus</i>	Y		
115.	2987 <i>Cleome uncifera</i>			
116.	29101 <i>Cleome uncifera</i> subsp. <i>uncifera</i>			
117.	2988 <i>Cleome viscosa</i> (Tickweed, Tjinduwadhu)			
118.	13689 <i>Clerodendrum tomentosum</i> var. <i>lanceolatum</i>			
119.	3769 <i>Clitoria ternatea</i>	Y		
120.	15036 <i>Coccinia grandis</i>	Y		
121.	2778 <i>Codonocarpus cotinifolius</i> (Native Poplar, Kundurangu)			
122.	1165 <i>Commelina ensifolia</i> (Wandering Jew, Buargu)			
123.	7939 <i>Coryza bonariensis</i> (Flaxleaf Fleabane)	Y		
124.	18410 <i>Corchorus carmarvonensis</i>			
125.	4857 <i>Corchorus elachocarpus</i>			
126.	17339 <i>Corchorus incanus</i>			
127.	25847 <i>Corchorus incanus</i> subsp. <i>incanus</i>			
128.	13659 <i>Corchorus laniflorus</i>			
129.	4865 <i>Corchorus tridens</i>			
130.	13467 <i>Corchorus trilocularis</i>			
131.	4867 <i>Corchorus walcottii</i> (Woolly Corchorus)			
132.	17073 <i>Corymbia aspera</i>			
133.	16783 <i>Corymbia candida</i>			
134.	16781 <i>Corymbia candida</i> subsp. <i>lautifolia</i>			
135.	17083 <i>Corymbia deserticola</i> subsp. <i>deserticola</i>			
136.	14650 <i>Corymbia flavescens</i>			
137.	17093 <i>Corymbia hamersleyana</i>			
138.	17084 <i>Corymbia zygophylla</i>			
139.	1285 <i>Corynotheca micrantha</i> (Sand Lily)			
140.	1286 <i>Corynotheca pungens</i>			
141.	3774 <i>Crotalaria cunninghamii</i> (Green Birdflower, Bilbun)			
142.	20175 <i>Crotalaria cunninghamii</i> subsp. <i>sturtii</i>			
143.	19378 <i>Crotalaria dissitiflora</i> subsp. <i>benthamiana</i>			
144.	20179 <i>Crotalaria medicaginea</i> var. <i>neglecta</i>			
145.	19398 <i>Crotalaria ramosissima</i>			
146.	41720 <i>Cucumis argenteus</i>			
147.	41721 <i>Cucumis variabilis</i>			
148.	17439 <i>Cullen lachnostachys</i>			
149.	17118 <i>Cullen leucanthum</i>			
150.	17119 <i>Cullen leucochaetes</i>			
151.	17116 <i>Cullen martinii</i>			
152.	15714 <i>Cullen stipulaceum</i>			
153.	45972 <i>Cyanthillium cinereum</i> var. <i>cinereum</i>	Y		
154.	280 <i>Cymbopogon bombycinus</i> (Silky Oilgrass)			
155.	6584 <i>Cynanchum floribundum</i> (Dumara Bush, Tjipa)			
156.	<i>Cynodon radiatus</i>			
157.	12801 <i>Cyperus blakeanus</i>			
158.	777 <i>Cyperus bulbosus</i> (Bush Onion, Tjanmata)			
159.	13657 <i>Cyperus castaneus</i> var. <i>brevimucronatus</i>			
160.	782 <i>Cyperus concinnus</i>			
161.	784 <i>Cyperus conicus</i>			
162.	798 <i>Cyperus iria</i>			
163.	806 <i>Cyperus polystachyos</i> (Bunchy Sedge)			
164.	814 <i>Cyperus squarrosus</i>			
165.	818 <i>Cyperus vaginatus</i> (Stiffleaf Sedge)			
166.	288 <i>Dactyloctenium aegyptium</i> (Coast Button Grass)	Y		
167.	290 <i>Dactyloctenium radulans</i> (Button Grass)			
168.	7317 <i>Dentella asperata</i>			
169.	3853 <i>Desmodium filiforme</i>			
170.	19333 <i>Desmodium scorpiurus</i>	Y		
171.	13741 <i>Dichanthium sericeum</i> subsp. <i>humilius</i>			
172.	29615 <i>Dichotomaria obtusata</i>			
173.	26769 <i>Dictyosphaeria cavernosa</i>			
174.	310 <i>Digitaria brownii</i> (Cotton Panic Grass)			
175.	311 <i>Digitaria ciliaris</i> (Summer Grass)			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
		Y		
176.	323 <i>Diplachne fusca</i> (Brown Beetle Grass)			
177.	48378 <i>Diplachne fusca</i> subsp. <i>fusca</i>			
178.	2499 <i>Dissocarpus paradoxus</i> (Curious Saltbush)			
179.	48742 <i>Distimake davenportii</i>			
180.	48738 <i>Distimake dissectus</i> var. <i>dissectus</i>	Y		
181.	4759 <i>Dodonaea coriacea</i>			
182.	48390 <i>Dolichandrone occidentalis</i>			
183.	3093 <i>Drosera burmanni</i> (Tropical Sundew)			
184.	3103 <i>Drosera indica</i> (Indian Sundew)			
185.	2504 <i>Dysphania plantaginella</i>			
186.	2506 <i>Dysphania rhadinostachya</i>			
187.	11890 <i>Dysphania rhadinostachya</i> subsp. <i>rhadinostachya</i>			
188.	328 <i>Echinochloa colona</i> (Awnless Barnyard Grass)	Y		
189.	823 <i>Eleocharis atropurpurea</i>			
190.	355 <i>Elytrophorus spicatus</i> (Spikegrass)			
191.	12064 <i>Enchylaena tomentosa</i> var. <i>tomentosa</i> (Barrier Saltbush)			
192.	360 <i>Enneapogon lindleyanus</i> (Wiry Nineawn, Purple-head Nineawn)			
193.	365 <i>Enneapogon polyphyllus</i> (Leafy Nineawn)			
194.	12749 <i>Enneapogon purpurascens</i> (Purple Nineawn)			
195.	20377 <i>Enneapogon robustissimus</i>			
196.	368 <i>Enteropogon ramosus</i> (Windmill Grass, Curly Windmill Grass)			
197.	375 <i>Eragrostis cumingii</i> (Cuming's Love Grass)			
198.	378 <i>Eragrostis dielsii</i> (Mallee Lovegrass)			
199.	379 <i>Eragrostis elongata</i> (Clustered Lovegrass)			
200.	380 <i>Eragrostis eriopoda</i> (Woollybutt Grass, Wangurnu)			
201.	381 <i>Eragrostis falcata</i> (Sickle Lovegrass)			
202.	389 <i>Eragrostis minor</i> (Smaller Stinkgrass)	Y		
203.	17609 <i>Eragrostis pilosa</i>	Y		
204.	395 <i>Eragrostis speciosa</i> (Handsome Lovegrass)			
205.	400 <i>Eriachne aristidea</i>			
206.	403 <i>Eriachne benthamii</i> (Swamp Wanderrie)			
207.	404 <i>Eriachne ciliata</i> (Slender Wandarrie Grass)			
208.	407 <i>Eriachne festucacea</i> (Plains Wandarrie Grass)			
209.	410 <i>Eriachne glauca</i> (Pan Wandarrie Grass)			
210.	12055 <i>Eriachne glauca</i> var. <i>glauca</i>			
211.	411 <i>Eriachne helmsii</i> (Buck Wanderrie Grass)			
212.	412 <i>Eriachne melicacea</i>			
213.	413 <i>Eriachne mucronata</i> (Mountain Wanderrie Grass)			
214.	414 <i>Eriachne obtusa</i> (Northern Wandarrie Grass)			
215.	417 <i>Eriachne pulchella</i> (Pretty Wanderrie)			
216.	420 <i>Eriachne sulcata</i>			
217.	35343 <i>Eucalyptus camaldulensis</i> subsp. <i>refulgens</i>			
218.	14548 <i>Eucalyptus victrix</i>			
219.	11011 <i>Eulalia aurea</i>			
220.	4617 <i>Euphorbia australis</i> (Namana)			
221.	35307 <i>Euphorbia australis</i> var. <i>australis</i>			
222.	35303 <i>Euphorbia australis</i> var. <i>subtomentosa</i>			
223.	4619 <i>Euphorbia biconvexa</i>			
224.	4623 <i>Euphorbia coghlanii</i> (Namana)			
225.	4635 <i>Euphorbia myrtoides</i>			
226.	42870 <i>Euphorbia psilosperma</i>			
227.	12097 <i>Euphorbia tannensis</i> subsp. <i>eremophila</i> (Desert Spurge)			
228.	18124 <i>Euphorbia tirucalli</i>	Y		
229.	42879 <i>Euphorbia trigonosperma</i>			
230.	42876 <i>Euphorbia vaccaria</i> var. <i>vaccaria</i>			
231.	11416 <i>Evolvulus alsinoides</i> var. <i>decumbens</i>			
232.	11200 <i>Evolvulus alsinoides</i> var. <i>villosicalyx</i>			
233.	31578 <i>Ficus aculeata</i> var. <i>indecora</i> (Ranji)			
234.	19648 <i>Ficus brachypoda</i>			
235.	851 <i>Fimbristylis dichotoma</i> (Eight Day Grass)			
236.	853 <i>Fimbristylis elegans</i>			
237.	859 <i>Fimbristylis littoralis</i>			
238.	862 <i>Fimbristylis microcarya</i>			
239.	865 <i>Fimbristylis neilsonii</i>			
240.	870 <i>Fimbristylis oxystachya</i>			
241.	878 <i>Fimbristylis rara</i>			
242.	35558 <i>Flaveria trinervia</i> (Speedy Weed)	Y		
243.	5188 <i>Frankenia ambita</i>			
244.	5209 <i>Frankenia pauciflora</i> (Seaheath)			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
245.	26835 <i>Galaxaura rugosa</i>			
246.	26842 <i>Gelidiella acerosa</i>			
247.	7060 <i>Glossostigma diandrum</i>			
248.	3942 <i>Glycine tomentella</i> (Woolly Glycine)			
249.	18361 <i>Gomphrena affinis</i> subsp. <i>pilbarensis</i>			
250.	18363 <i>Gomphrena canescens</i> subsp. <i>canescens</i>			
251.	2677 <i>Gomphrena celosioides</i> (Gomphrena Weed)	Y		
252.	2680 <i>Gomphrena cunninghamii</i>			
253.	2683 <i>Gomphrena leptoclada</i>			
254.	18257 <i>Gomphrena leptoclada</i> subsp. <i>leptoclada</i>			
255.	11131 <i>Gomphrena sordida</i>			
256.	6151 <i>Gonocarpus ephemerus</i>			
257.	7490 <i>Goodenia armitiana</i>			
258.	7509 <i>Goodenia forrestii</i>			
259.	7521 <i>Goodenia lamprosperma</i>			
260.	7526 <i>Goodenia microptera</i>			
261.	12552 <i>Goodenia muelleriana</i>			
262.	10982 <i>Goodenia stobbsiana</i>			
263.	4910 <i>Gossypium australe</i> (Native Cotton)			
264.	4913 <i>Gossypium hirsutum</i> (Upland Cotton)	Y		
265.	2079 <i>Grevillea pyramidalis</i> (Caustic Bush, Tjungu)			
266.	19478 <i>Grevillea wickhamii</i> subsp. <i>hispidula</i>			
267.	2789 <i>Gyrostemon tepperi</i>			
268.	19137 <i>Hakea lorea</i> subsp. <i>lorea</i>			
269.	131 <i>Halodule uninervis</i>			
270.	6174 <i>Haloragis gossei</i>			
271.	6704 <i>Heliotropium conocarpum</i>			
272.	6705 <i>Heliotropium crispatum</i>			
273.	6706 <i>Heliotropium cunninghamii</i>			
274.	10882 <i>Heliotropium foliatum</i>			
275.	17309 <i>Heliotropium pachyphyllum</i>			
276.	443 <i>Heteropogon contortus</i> (Bunch Speargrass)			
277.	26930 <i>Heterosiphonia crassipes</i>			
278.	29317 <i>Hibiscus austrinus</i> var. <i>austrinus</i>			
279.	4922 <i>Hibiscus brachychaenus</i>			
280.	4930 <i>Hibiscus goldsworthii</i>			
281.	4933 <i>Hibiscus leptocladus</i>			
282.	11651 <i>Hibiscus sturtii</i> var. <i>campylochlamys</i>			
283.	5215 <i>Hybanthus aurantiacus</i>			
284.	48203 <i>Hypertelis cerviana</i>			
285.	14587 <i>Indigastrium parviflorum</i>			
286.	17113 <i>Indigofera boviparda</i> subsp. <i>boviparda</i>			
287.	3973 <i>Indigofera colutea</i> (Sticky Indigo)			
288.	3978 <i>Indigofera hirsuta</i> (Hairy Indigo)			
289.	38080 <i>Indigofera hochstetteri</i>	Y		
290.	3980 <i>Indigofera linifolia</i>			
291.	3981 <i>Indigofera linnaei</i> (Birdsville Indigo)			
292.	3982 <i>Indigofera monophylla</i>			
293.	16061 <i>Indigofera oblongifolia</i>	Y		
294.	3985 <i>Indigofera rugosa</i>			
295.	16062 <i>Indigofera sessiliflora</i>	Y		
296.	3987 <i>Indigofera trita</i>			
297.	6633 <i>Ipomoea muelleri</i> (Poison Morning Glory, Yumbu)			
298.	6635 <i>Ipomoea pes-caprae</i>			
299.	11312 <i>Ipomoea pes-caprae</i> subsp. <i>brasiliensis</i>			
300.	6637 <i>Ipomoea polymorpha</i>			
301.	464 <i>Iseilema membranaceum</i> (Small Flinders Grass)			
302.	4656 <i>Jatropha gossypifolia</i> (Bellyache Bush)	Y		
303.	468 <i>Lamarckia aurea</i> (Goldentop)	Y		
304.	4054 <i>Leptosema anomalum</i>			
305.	3613 <i>Leucaena leucocephala</i> (Leucaena)	Y		
306.	952 <i>Lipocarpha microcephala</i>			
307.	74 <i>Marsilea drummondii</i> (Common Nardoo)			
308.	76 <i>Marsilea hirsuta</i> (Nardoo)			
309.	<i>Marsilea</i> sp.			
310.	5875 <i>Melaleuca argentea</i> (Silver Cadjeput, Bandaran)			
311.	5923 <i>Melaleuca lasiandra</i>			
312.	5051 <i>Melhania oblongifolia</i>			
313.	6519 <i>Mitrasacme connata</i>			
314.	6522 <i>Mitrasacme exserta</i>			



Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
315.	6490 <i>Muellerolimon salicorniaceum</i>			
316.	1167 <i>Murdannia graminea</i> (Baniyu)			
317.	17158 <i>Myoporum montanum</i> (Native Myrtle)			
318.	2573 <i>Neobassia astrocarpa</i>			
319.	44548 <i>Neomeris bilimbata</i>			
320.	27099 <i>Neomeris van-bosseae</i>			
321.	3614 <i>Neptunia dimorphantha</i> (Sensitive Plant)			
322.	3617 <i>Neptunia monosperma</i>			
323.	6971 <i>Nicotiana benthamiana</i> (Tjuntiwari)			
324.	11856 <i>Nicotiana occidentalis</i> subsp. <i>occidentalis</i>			
325.	6651 <i>Operculina aequisejala</i>			
326.	6005 <i>Osbornia octodonta</i> (Myrtle Mangrove)			
327.	4518 <i>Owenia reticulata</i> (Native Walnut, Bandal)			
328.	503 <i>Panicum decompositum</i> (Native Millet, Kaltu-kaltu)			
329.	3673 <i>Parkinsonia aculeata</i> (Parkinsonia)	Y		
330.	518 <i>Paspalidium clementii</i> (Clements Paspalidium)			
331.	523 <i>Paspalidium rarum</i> (Rare Paspalidium)			
332.	529 <i>Paspalum fasciculatum</i>	Y		
333.	14096 <i>Passiflora foetida</i> var. <i>hispida</i>	Y		
334.	12486 <i>Peplidium aithocheilum</i>			
335.	7092 <i>Peplidium muelleri</i>			
336.	546 <i>Perotis rara</i> (Comet Grass)			
337.	3675 <i>Petalostylis labicheoides</i> (Slender Petalostylis)			
338.	14462 <i>Phyllanthus exilis</i>			
339.	4680 <i>Phyllanthus maderaspatensis</i>			
340.	20652 <i>Physalis angulata</i>	Y		
341.	5230 <i>Pimelea ammocharis</i>			
342.	19744 <i>Pittosporum angustifolium</i>			
343.	17816 <i>Pluchea ferdinandi-muelleri</i>			
344.	8168 <i>Pluchea rubelliflora</i>			
345.	8170 <i>Pluchea tetranthera</i>			
346.	2898 <i>Polycarpaea corymbosa</i>			
347.	12075 <i>Polycarpaea corymbosa</i> var. <i>corymbosa</i>			
348.	2902 <i>Polycarpaea involucreta</i>			
349.	2903 <i>Polycarpaea longiflora</i>			
350.	41363 <i>Polygala galeocephala</i>			
351.	41357 <i>Polygala saccopetala</i>			
352.	6653 <i>Polymeria ambigua</i> (Morning Glory)			
353.	17513 <i>Polymeria lanata</i>			
354.	<i>Polymeria</i> sp.			
355.	2875 <i>Portulaca australis</i>			
356.	43981 <i>Portulaca decipiens</i>			
357.	2884 <i>Portulaca oleracea</i> (Purslane, Wakati)			
358.	2886 <i>Portulaca pilosa</i> (Djanggara)	Y		
359.	8189 <i>Pseudognaphalium luteoalbum</i> (Jersey Cudweed)			
360.	41224 <i>Pterocaulon intermedium</i>			
361.	8192 <i>Pterocaulon sphacelatum</i> (Apple Bush, Fruit Salad Plant)			
362.	2694 <i>Ptilotus appendiculatus</i>			
363.	2695 <i>Ptilotus arthrolasius</i>			
364.	2696 <i>Ptilotus astrolasius</i>			
365.	2699 <i>Ptilotus axillaris</i> (Mat Mulla Mulla)			
366.	2704 <i>Ptilotus calostachyus</i> (Weeping Mulla Mulla)			
367.	2717 <i>Ptilotus divaricatus</i> (Climbing Mulla Mulla)			
368.	2721 <i>Ptilotus exaltatus</i> (Tall Mulla Mulla)			
369.	2725 <i>Ptilotus fusiformis</i>			
370.	2734 <i>Ptilotus incanus</i>			
371.	2746 <i>Ptilotus nobilis</i> (Tall Mulla Mulla)			
372.	2751 <i>Ptilotus polystachyus</i> (Prince of Wales Feather)			
373.	2766 <i>Ptilotus villosiflorus</i>			
374.	2768 <i>Pupalia lappacea</i>	Y		
375.	2582 <i>Rhagodia eremaea</i> (Thorny Saltbush)			
376.	5295 <i>Rhizophora stylosa</i> (Spotted-leaved Red Mangrove)			
377.	4191 <i>Rhynchosia minima</i> (Rhynchosia)			
378.	<i>Riccia crystallina</i>			
379.	5285 <i>Rotala diandra</i>			
380.	30434 <i>Salsola australis</i>			
381.	12723 <i>Scaevola amblyanthera</i>			
382.	13178 <i>Scaevola amblyanthera</i> var. <i>centralis</i>			
383.	13150 <i>Scaevola browniana</i> subsp. <i>browniana</i>			
384.	7606 <i>Scaevola crassifolia</i> (Thick-leaved Fan-flower)			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
385.	13172 <i>Scaevola parvifolia</i> subsp. <i>pilbarae</i>			
386.	599 <i>Schizachyrium fragile</i> ( <i>Senale Redgrass</i> )			
387.	48362 <i>Schoenoplectiella laevis</i>			
388.	48360 <i>Schoenoplectiella lateriflora</i>			Y
389.	11650 <i>Sclerolaena bicornis</i> var. <i>bicornis</i> ( <i>Goathead Burr</i> )			
390.	2616 <i>Sclerolaena glabra</i>			
391.	2617 <i>Sclerolaena hostilis</i>			
392.	27274 <i>Sebdenia flabellata</i>			
393.	12152 <i>Senna curvistyla</i>			
394.	12307 <i>Senna glutinosa</i> subsp. <i>glutinosa</i>			
395.	12309 <i>Senna glutinosa</i> subsp. <i>pruinosa</i>			
396.	12308 <i>Senna glutinosa</i> subsp. <i>x luerssenii</i>			
397.	12312 <i>Senna notabilis</i>			
398.	10848 <i>Senna occidentalis</i>	Y		
399.	18445 <i>Senna stricta</i>			
400.	12319 <i>Senna venusta</i>			
401.	46816 <i>Seringia elliptica</i> ( <i>Showy fire-bush</i> )			
402.	46821 <i>Seringia nephrosperma</i> ( <i>Free carpel fire-bush</i> )			
403.	4196 <i>Sesbania cannabina</i> ( <i>Sesbania Pea</i> )			
404.	4198 <i>Sesbania formosa</i> ( <i>White Dragon Tree</i> )			
405.	2818 <i>Sesuvium portulacastrum</i>			
406.	606 <i>Setaria dielsii</i> ( <i>Diels' Pigeon Grass</i> )			
407.	611 <i>Setaria sphacelata</i> ( <i>South African Pigeon Grass</i> )	Y		
408.	612 <i>Setaria surgens</i> ( <i>Pigeon Grass</i> )			
409.	16479 <i>Sida ammophila</i>			
410.	4972 <i>Sida clementii</i>			
411.	4976 <i>Sida echinocarpa</i>			
412.	4977 <i>Sida fibulifera</i> ( <i>Silver Sida</i> )			
413.	4988 <i>Sida rohlenae</i>			
414.	18149 <i>Sida rohlenae</i> subsp. <i>rohlenae</i>			
415.	33698 <i>Sida</i> sp. <i>Pilbara</i> ( <i>A.A. Mitchell PRP 1543</i> )			
416.	16993 <i>Sida</i> sp. <i>Rabbit Flat</i> ( <i>B.J. Carter 626</i> )			
417.	16923 <i>Sida trichopoda</i>			
418.	7002 <i>Solanum diversiflorum</i>			
419.	7021 <i>Solanum lucani</i>			
420.	7029 <i>Solanum phlomoides</i>			
421.	619 <i>Sorghum plumosum</i> ( <i>Plume Canegrass</i> )			
422.	620 <i>Sorghum stipoideum</i> ( <i>Annual Sorghum</i> )			
423.	625 <i>Spinifex longifolius</i> ( <i>Beach Spinifex</i> )			
424.	628 <i>Sporobolus actinocladius</i> ( <i>Ray Grass, Katoora</i> )			
425.	629 <i>Sporobolus australasicus</i> ( <i>Fairy Grass</i> )			
426.	635 <i>Sporobolus virginicus</i> ( <i>Marine Couch</i> )			
427.	4731 <i>Stackhousia intermedia</i>			
428.	7098 <i>Stemodia grossa</i> ( <i>Marsh Stemodia, Mindjaara</i> )			
429.	12489 <i>Stemodia lathraia</i>			
430.	7102 <i>Stemodia viscosa</i> ( <i>Pagurda</i> )			
431.	8236 <i>Streptoglossa cylindriceps</i>			
432.	8239 <i>Streptoglossa macrocephala</i>			
433.	8240 <i>Streptoglossa odora</i>			
434.	7711 <i>Stylidium desertorum</i>			
435.	43320 <i>Stylosanthes guianensis</i> var. <i>guianensis</i>	Y		
436.	12353 <i>Stylosanthes hamata</i> ( <i>Verano Stylo</i> )	Y		
437.	2638 <i>Suaeda arbusculoides</i>			
438.	43203 <i>Surreya diandra</i>			
439.	4242 <i>Swainsona pterostylis</i>			
440.	25902 <i>Symphotrichum squamatum</i> ( <i>Bushy Starwort</i> )	Y		
441.	13339 <i>Synaptantha tillaeacea</i> var. <i>tillaeacea</i>			
442.	31616 <i>Tecticornia auriculata</i>			
443.	33236 <i>Tecticornia halocnemoides</i> ( <i>Shrubby Samphire</i> )			
444.	33238 <i>Tecticornia halocnemoides</i> subsp. <i>tenuis</i>			
445.	33317 <i>Tecticornia indica</i>			
446.	33319 <i>Tecticornia indica</i> subsp. <i>bidens</i>			
447.	33318 <i>Tecticornia indica</i> subsp. <i>leiostachya</i> ( <i>Samphire</i> )			
448.	33220 <i>Tecticornia pterygosperma</i> subsp. <i>denticulata</i>			
449.	4272 <i>Tephrosia leptoclada</i>			
450.	4280 <i>Tephrosia rosea</i> ( <i>Flinders River Poison, Bungoo'dah</i> )			
451.	41825 <i>Tephrosia rosea</i> var. <i>Fortescue creeks</i> ( <i>M.I.H. Brooker 2186</i> )			
452.	19531 <i>Tephrosia rosea</i> var. <i>clementii</i>			
453.	19529 <i>Tephrosia rosea</i> var. <i>rosea</i>			
454.	4281 <i>Tephrosia simplicifolia</i>			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
455.	15947 <i>Tephrosia</i> sp. B Kimberley Flora (C.A. Gardner 7300)			
456.	17768 <i>Tephrosia</i> sp. Bungaroo Creek (M.E. Trudgen 11601)			
457.	15949 <i>Tephrosia</i> sp. D Kimberley Flora (R.D. Royce 1848)			
458.	40060 <i>Tephrosia</i> sp. clay soils (S. van Leeuwen et al. PBS 0273)			
459.	169 <i>Thalassia hemprichii</i>			
460.	672 <i>Themeda avenacea</i> (Native Oatgrass)			
461.	2644 <i>Threlkeldia diffusa</i> (Coast Bonefruit)			
462.	2942 <i>Tinospora smilacina</i> (Snakevine, Oondala)			
463.	44240 <i>Trianthema cusackianum</i>			
464.	44305 <i>Trianthema pilosum</i>			
465.	2830 <i>Trianthema portulacastrum</i> (Giant Pigweed)	Y		
466.	<i>Trianthema</i> sp.			
467.	44362 <i>Trianthema triquetrum</i>			
468.	44360 <i>Trianthema turgidifolium</i>			
469.	4368 <i>Tribulopsis angustifolia</i>			
470.	4377 <i>Tribulus hirsutus</i>			
471.	4379 <i>Tribulus macrocarpus</i>			
472.	4380 <i>Tribulus occidentalis</i> (Perennial Caltrop)			
473.	6727 <i>Trichodesma zeylanicum</i> (Camel Bush, Kumbalin)			
474.	12032 <i>Trichosanthes cucumerina</i> var. <i>cucumerina</i>			
475.	8252 <i>Tridax procumbens</i> (Tridax, Tridax Daisy)	Y		
476.	48201 <i>Trigastrotheca molluginea</i>			
477.	13131 <i>Triodia epactia</i>			
478.	689 <i>Triodia lanigera</i>			
479.	690 <i>Triodia longiceps</i> (Giant Grey Spinifex)			
480.	700 <i>Triodia secunda</i>			
481.	706 <i>Triraphis mollis</i> (Needle Grass)			
482.	4873 <i>Triumfetta appendiculata</i>			
483.	4875 <i>Triumfetta chaetocarpa</i> (Urchins)			
484.	17317 <i>Triumfetta propinqua</i>			
485.	13481 <i>Triumfetta ramosa</i>			
486.	27348 <i>Udotea argentea</i>			
487.	35302 <i>Udotea glaucescens</i>			
488.	11321 <i>Urochloa holosericea</i> subsp. <i>velutina</i>			
489.	48216 <i>Uvedalia linearis</i> var. <i>linearis</i>			
490.	11576 <i>Vigna lanceolata</i> var. <i>lanceolata</i>			
491.	7393 <i>Wahlenbergia tumidifruca</i>			
492.	5106 <i>Waltheria indica</i>			
493.	728 <i>Whiteochloa cymbiformis</i>			
494.	730 <i>Xerochloa imberbis</i> (Rice Grass)			
495.	732 <i>Yakirra australiensis</i>			
496.	733 <i>Yakirra majuscula</i>			
497.	4326 <i>Zornia albiflora</i>			
498.	4327 <i>Zornia chaetophora</i>			
499.	18661 <i>Zornia muelleriana</i>			

**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

<sup>1</sup> 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 23/06/2021

Kingdom Animalia  
 Current Names Only Yes  
 Core Datasets Only Yes  
 Method 'By Circle'  
 Centre 118° 32' 52" E, 20° 26' 33" S  
 Buffer 40km  
 Group By Conservation Status

Conservation Status	Species	Records
Non-conservation taxon	652	7731
Other specially protected fauna	2	4
Priority 3	1	16
Priority 4	6	311
Protected under international agreement	41	630
Rare or likely to become extinct	16	3179
<b>TOTAL</b>	<b>718</b>	<b>11871</b>

Name ID	Species Name	Naturalised	Conservation Code	Endemic To Query Area
<b>Rare or likely to become extinct</b>				
1.	24784 <i>Calidris ferruginea</i> (Curlew Sandpiper)		T	
2.	24790 <i>Calidris tenuirostris</i> (Great Knot)		T	
3.	25575 <i>Charadrius leschenaultii</i> (Greater Sand Plover)		T	
4.	25576 <i>Charadrius mongolus</i> (Lesser Sand Plover)		T	
5.	25336 <i>Chelonia mydas</i> (Green Turtle)		T	
6.	24093 <i>Dasyurus hallucatus</i> (Northern Quoll)		T	
7.	25342 <i>Eretmochelys imbricata</i> subsp. <i>bissa</i> (Hawksbill Turtle)		T	
8.	24473 <i>Falco hypoleucos</i> (Grey Falcon)		T	
9.	24128 <i>Lagostrophus fasciatus</i> subsp. <i>fasciatus</i> (Banded hare-wallaby, Mermine)		T	
10.	25238 <i>Liasis olivaceus</i> subsp. <i>barroni</i> (Pilbara Olive Python)		T	
11.	24796 <i>Limosa lapponica</i> subsp. <i>menzbieri</i> (Bar-tailed Godwit (northern Siberian))		T	
12.	24180 <i>Macroderma gigas</i> (Ghost Bat)		T	
13.	24168 <i>Macrotis lagotis</i> (Bilby, Dalgyte, Ninu)		T	
14.	25344 <i>Natator depressus</i> (Flatback Turtle)		T	
15.	24798 <i>Numenius madagascariensis</i> (Eastern Curlew)		T	
16.	34037 <i>Pristis zijsron</i> (Green Sawfish)		T	
<b>Protected under international agreement</b>				
17.	41323 <i>Actitis hypoleucos</i> (Common Sandpiper)		IA	
18.	25554 <i>Apus pacificus</i> (Fork-tailed Swift, Pacific Swift)		IA	
19.	25736 <i>Arenaria interpres</i> (Ruddy Turnstone)		IA	
20.	24778 <i>Arenaria interpres</i> subsp. <i>interpres</i> (Ruddy Turnstone)		IA	
21.	24779 <i>Calidris acuminata</i> (Sharp-tailed Sandpiper)		IA	
22.	24780 <i>Calidris alba</i> (Sanderling)		IA	
23.	25738 <i>Calidris canutus</i> (Red Knot, knot)		IA	
24.	24786 <i>Calidris melanotos</i> (Pectoral Sandpiper)		IA	
25.	24788 <i>Calidris ruficollis</i> (Red-necked Stint)		IA	
26.	24789 <i>Calidris subminuta</i> (Long-toed Stint)		IA	
27.	24378 <i>Charadrius veredus</i> (Oriental Plover)		IA	
28.	41332 <i>Chlidonias leucopterus</i> (White-winged Black Tern, white-winged tern)		IA	
29.	24478 <i>Fregata ariel</i> (Lesser Frigatebird)		IA	
30.	24793 <i>Gallinago stenura</i> (Pin-tailed Snipe)		IA	
31.	47954 <i>Gelochelidon nilotica</i> (Gull-billed Tern)		IA	
32.	47955 <i>Gelochelidon nilotica</i> subsp. <i>affinis</i> (Gull-billed Tern)		IA	Y
33.	24481 <i>Glareola maldivarum</i> (Oriental Pratincole)		IA	
34.	25630 <i>Hirundo rustica</i> (Barn Swallow)		IA	
35.	48587 <i>Hydroprogne caspia</i> (Caspian Tern)		IA	
36.	25739 <i>Limicola falcinellus</i> (Broad-billed Sandpiper)		IA	
37.	24794 <i>Limicola falcinellus</i> subsp. <i>sibiricus</i> (Broad-billed Sandpiper)		IA	
38.	24795 <i>Limnodromus semipalmatus</i> (Asian Dowitcher)		IA	
39.	30932 <i>Limosa lapponica</i> (Bar-tailed Godwit)		IA	

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
40.	25741 <i>Limosa limosa</i> (Black-tailed Godwit)		IA	
41.	24602 <i>Motacilla flava</i> subsp. <i>simillima</i> (Yellow Wagtail)		IA	Y
42.	24799 <i>Numenius minutus</i> (Little Curlew, Little Whimbrel)		IA	
43.	25742 <i>Numenius phaeopus</i> (Whimbrel)		IA	
44.	24497 <i>Oceanites oceanicus</i> (Wilson's Storm-petrel)		IA	
45.	41347 <i>Onychoprion anaethetus</i> (Bridled Tern)		IA	
46.	48591 <i>Pandion cristatus</i> (Osprey, Eastern Osprey)		IA	
47.	24801 <i>Phalaropus lobatus</i> (Red-necked Phalarope)		IA	
48.	24843 <i>Plegadis falcinellus</i> (Glossy Ibis)		IA	
49.	24382 <i>Pluvialis fulva</i> (Pacific Golden Plover)		IA	
50.	24383 <i>Pluvialis squatarola</i> (Grey Plover)		IA	
51.	25642 <i>Sterna hirundo</i> (Common Tern)		IA	
52.	48593 <i>Sternula albifrons</i> (Little Tern)		IA	
53.	48597 <i>Thalasseus bergii</i> (Crested Tern)		IA	
54.	24806 <i>Tringa glareola</i> (Wood Sandpiper)		IA	
55.	24808 <i>Tringa nebularia</i> (Common Greenshank, greenshank)		IA	
56.	24809 <i>Tringa stagnatilis</i> (Marsh Sandpiper, little greenshank)		IA	
57.	41351 <i>Xenus cinereus</i> (Terek Sandpiper)		IA	
<b>Other specially protected fauna</b>				
58.	24084 <i>Dugong dugon</i> (Dugong)		S	
59.	25624 <i>Falco peregrinus</i> (Peregrine Falcon)		S	
<b>Priority 3</b>				
60.	25024 <i>Ctenotus angusticeps</i> (Airlie Island Ctenotus, Northwestern coastal Ctenotus)		P3	
<b>Priority 4</b>				
61.	30903 <i>Dasyercus blythi</i> (Brush-tailed Mulgara, Ampurta)		P4	
62.	24089 <i>Dasyercus cristicauda</i> (Crest-tailed Mulgara, minyiminyl)		P4	
63.	48395 <i>Dasyercus</i> sp. (mulgara)		P4	
64.	24233 <i>Pseudomys chapmani</i> (Western Pebble-mound Mouse, Ngadji)		P4	
65.	43368 <i>Rhinonictis aurantia</i> (Orange Leaf-nosed bat)		P4	
66.	24803 <i>Tringa brevipes</i> (Grey-tailed Tattler)		P4	
<b>Non-conservation taxon</b>				
67.	' <i>Leicacandona</i> ' 'mookae' (PSS)			Y
68.	? ?			
69.	<i>Abudedefduf bengalensis</i>			
70.	<i>Acanthopagrus australis</i>			
71.	<i>Acanthopagrus latus</i>			
72.	<i>Acanthophis</i> GT NOTHERN species			Y
73.	25243 <i>Acanthophis pyrrhus</i> (Desert Death Adder)			
74.	<i>Acanthophis wellsei</i>			
75.	<i>Acariformes</i> sp.			
76.	25535 <i>Accipiter cirrocephalus</i> (Collared Sparrowhawk)			
77.	25536 <i>Accipiter fasciatus</i> (Brown Goshawk)			
78.	24282 <i>Accipiter fasciatus</i> subsp. <i>fasciatus</i> (Brown Goshawk)			
79.	<i>Achnanthidium minutissima</i> (Kütz.) Czarnocki			
80.	25544 <i>Aegotheles cristatus</i> (Australian Owlet-nightjar)			
81.	25355 <i>Aipysurus laevis</i> (Olive Seasnake)			
82.	<i>Allodessus bistrigatus</i>			
83.	<i>Alona</i> 'davidi' <i>vermiculata</i> '			
84.	<i>Ameriana</i> sp. P3 (cf <i>bonushenricus</i> ) (PSW)			
85.	<i>Amniataba caudavittata</i>			
86.	30831 <i>Amphibolurus gilberti</i> (Ta-ta, Gilbert's Dragon)			
87.	30833 <i>Amphibolurus longirostris</i> (Long-nosed Dragon)			
88.	<i>Amphiprion clarkii</i>			
89.	<i>Amphora veneta</i> Kütz.			
90.	<i>Aname ellenae</i>			
91.	24312 <i>Anas gracilis</i> (Grey Teal)			
92.	24315 <i>Anas rhynchotis</i> (Australasian Shoveler)			
93.	24316 <i>Anas superciliosa</i> (Pacific Black Duck)			
94.	<i>Anax papuensis</i>			
95.	47414 <i>Anhinga novaehollandiae</i> (Australasian Darter)			
96.	<i>Anisops canaliculatus</i>			
97.	<i>Anisops gratus</i>			
98.	<i>Anisops nasutus</i>			
99.	<i>Anisops thienemanni</i>			
100.	<i>Anomoeoneis brachysira</i> (Bréb.) Grun.			
101.	<i>Anomoeoneis sphaerophora</i> (Ehr.) Pfitzer			
102.	<i>Anopheles annulipes</i> s.l.			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
103.	25318 <i>Antaresia perthensis</i> (Pygmy Python)			
104.	25448 <i>Antaresia stimsoni</i> (Stimson's Python)			
105.	25241 <i>Antaresia stimsoni</i> subsp. <i>stimsoni</i> (Stimson's Python)			
106.	24087 <i>Antechinomys laniger</i> (Kultarr)			
107.	25670 <i>Anthus australis</i> (Australian Pipit)			
108.	<i>Apogon rueppellii</i>			
109.	24285 <i>Aquila audax</i> (Wedge-tailed Eagle)			
110.	<i>Arcella</i> sp. P1			
111.	25557 <i>Ardea garzetta</i> (Little Egret)			
112.	25558 <i>Ardea ibis</i> (Cattle Egret)			
113.	25559 <i>Ardea intermedia</i> (Intermediate Egret)			
114.	41324 <i>Ardea modesta</i> (great egret, white egret)			
115.	24340 <i>Ardea novaehollandiae</i> (White-faced Heron)			
116.	24341 <i>Ardea pacifica</i> (White-necked Heron)			
117.	24610 <i>Ardeotis australis</i> (Australian Bustard)			
118.	<i>Areacandona 'uno'</i> (PSS)			
119.	<i>Areacandona 'jessicae'</i> (PSS)			
120.	<i>Areacandona 'krypte'</i> (PSS)			
121.	<i>Areacandona 'yuleae'</i> (PSS)			Y
122.	<i>Arrhamphus sclerolepis</i>			
123.	25566 <i>Artamus cinereus</i> (Black-faced Woodswallow)			
124.	24352 <i>Artamus cinereus</i> subsp. <i>melanops</i> (Black-faced Woodswallow)			
125.	24353 <i>Artamus cyanopterus</i> (Dusky Woodswallow)			
126.	25567 <i>Artamus leucorhynchus</i> (White-breasted Woodswallow)			
127.	24354 <i>Artamus leucorhynchus</i> subsp. <i>leucopygialis</i> (White-breasted Woodswallow)			
128.	24356 <i>Artamus personatus</i> (Masked Woodswallow)			
129.	24357 <i>Artamus superciliosus</i> (White-browed Woodswallow)			
130.	<i>Arthrorhabdus paucispinus</i>			
131.	25320 <i>Aspidites melanocephalus</i> (Black-headed Python)			
132.	25236 <i>Aspidites ramsayi</i> (Woma)			
133.	<i>Atelomycterus</i> sp.			Y
134.	<i>Aulacoseira ambigua</i>			
135.	<i>Austracantha minax</i>			
136.	<i>Australobates vertriscutatus</i>			
137.	<i>Austrolestes analis</i>			
138.	<i>Austropeplea lessoni</i>			
139.	24318 <i>Aythya australis</i> (Hardhead)			
140.	<i>Barnardius zonarius</i>			
141.	<i>Bathygobius fuscus</i>			
142.	<i>Batrachomoeus dahl</i>			
143.	<i>Bennelongia australis</i> OrdX (PSW)			
144.	<i>Bennelongia strellyensis</i>			
145.	<i>Berosus dallasae</i>			
146.	<i>Berosus nr josephena</i> (was <i>Pilbara</i> sp 3) (PSW)			
147.	<i>Berosus pulchellus</i>			
148.	<i>Blackburnium neocavicolle</i>			
149.	<i>Boeckella triarticulata</i>			
150.	<i>Bolboleaus truncatus</i>			
151.	24251 <i>Bos taurus</i> (European Cattle)	Y		
152.	25331 <i>Brachyurophis approximans</i> (North-western Shovel-nosed Snake)			
153.	24359 <i>Burhinus grallarius</i> (Bush Stone-curlew)			
154.	<i>Butis butis</i>			
155.	47897 <i>Butorides striata</i> (Striated Heron, Mangrove Heron)			
156.	25715 <i>Cacatua roseicapilla</i> (Galah)			
157.	24725 <i>Cacatua roseicapilla</i> subsp. <i>assimilis</i> (Galah)			
158.	25716 <i>Cacatua sanguinea</i> (Little Corella)			
159.	24727 <i>Cacatua sanguinea</i> subsp. <i>westralensis</i> (Little Corella)			
160.	42307 <i>Cacomantis pallidus</i> (Pallid Cuckoo)			
161.	<i>Calanoida</i> sp.			
162.	<i>Caloneis pulchra</i> Messikommer			
163.	<i>Caloneis silicula</i> (Ehr.) Cl.			
164.	<i>Campylodiscus clypeus</i> Ehr.			
165.	48920 <i>Canis familiaris</i> (Dog, Dingo)	Y		
166.	24253 <i>Capra hircus</i> (Goat)	Y		
167.	<i>Caranx ignobilis</i>			
168.	<i>Caranx</i> sp.			
169.	<i>Carenum pulchrum</i>			
170.	<i>Carenum venustum</i>			
171.	25015 <i>Carlia munda</i> (Shaded-litter Rainbow Skink)			
172.	25017 <i>Carlia triacantha</i> (Desert Rainbow Skink)			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
173.	<i>Centrogenys vaigiensis</i>			
174.	25600 <i>Centropus phasianinus</i> (Pheasant Coucal)			
175.	<i>Cephalopholis boenak</i>			
176.	<i>Ceriodaphnia cornuta</i>			
177.	24181 <i>Chaerephon jobensis</i> (Greater Northern Freetail-bat, Northern Mastiff Bat)			
178.	<i>Chaetarthria nigerrimus</i>			
179.	24186 <i>Chalinolobus gouldii</i> (Gould's Wattled Bat)			
180.	<i>Chaoborus punctilliger</i>			
181.	24377 <i>Charadrius ruficapillus</i> (Red-capped Plover)			
182.	24321 <i>Chenonetta jubata</i> (Australian Wood Duck, Wood Duck)			
183.	47909 <i>Cheramoeca leucosterna</i> (White-backed Swallow)			
184.	<i>Chiloscyllium punctatum</i>			
185.	<i>Chironomus aff. alternans</i> (V24) (CB)			
186.	<i>Chlaenius australis</i>			
187.	<i>Choerodon cyanodus</i>			
188.	<i>Chroicocephalus novaehollandiae</i>			
189.	24431 <i>Chrysococcyx basalis</i> (Horsfield's Bronze Cuckoo)			
190.	25580 <i>Cinlosoma castaneothorax</i> (Chestnut-breasted Quail-thrush)			
191.	24288 <i>Circus approximans</i> (Swamp Harrier)			
192.	24289 <i>Circus assimilis</i> (Spotted Harrier)			
193.	24774 <i>Cladorhynchus leucocephalus</i> (Banded Stilt)			
194.	<i>Cloeon</i> sp.			
195.	<i>Coelopynia pruinosa</i>			
196.	25675 <i>Colluricincla harmonica</i> (Grey Shrike-thrush)			
197.	24399 <i>Columba livia</i> (Domestic Pigeon)	Y		
198.	<i>Copelatus nigrolineatus</i>			
199.	25568 <i>Coracina novaehollandiae</i> (Black-faced Cuckoo-shrike)			
200.	<i>Cormocephalus strigosus</i>			
201.	24416 <i>Corvus bennetti</i> (Little Crow)			
202.	25592 <i>Corvus coronoides</i> (Australian Raven)			
203.	25593 <i>Corvus orru</i> (Torresian Crow)			
204.	24418 <i>Corvus orru</i> subsp. <i>ceciliae</i> (Western Crow)			
205.	25701 <i>Coturnix ypsilophora</i> (Brown Quail)			
206.	24420 <i>Cracticus nigrogularis</i> (Pied Butcherbird)			
207.	25595 <i>Cracticus tibicen</i> (Australian Magpie)			
208.	<i>Craticula cuspidata</i> (Grun. ex. Van Heurck) Mann			
209.	<i>Craticula halophila</i> (Grun. ex. Van Heurck) Mann			
210.	30893 <i>Cryptoblepharus buchananii</i>			
211.	25020 <i>Cryptoblepharus plagioccephalus</i>			
212.	<i>Cryptochironomus griseidorsum</i>			
213.	25458 <i>Ctenophorus caudicinctus</i> (Ring-tailed Dragon)			
214.	24865 <i>Ctenophorus caudicinctus</i> subsp. <i>caudicinctus</i> (Ring-tailed Dragon)			
215.	25459 <i>Ctenophorus isolepis</i> (Crested Dragon, Military Dragon)			
216.	24876 <i>Ctenophorus isolepis</i> subsp. <i>isolepis</i> (Crested Dragon, Military Dragon)			
217.	24882 <i>Ctenophorus nuchalis</i> (Central Netted Dragon)			
218.	24886 <i>Ctenophorus reticulatus</i> (Western Netted Dragon)			
219.	25036 <i>Ctenotus duricola</i>			
220.	25037 <i>Ctenotus dux</i>			
221.	25462 <i>Ctenotus grandis</i>			
222.	25043 <i>Ctenotus grandis</i> subsp. <i>titan</i>			
223.	25044 <i>Ctenotus hanloni</i>			
224.	25045 <i>Ctenotus helenae</i>			
225.	25463 <i>Ctenotus pantherinus</i> (Leopard Ctenotus)			
226.	25064 <i>Ctenotus pantherinus</i> subsp. <i>ocellifer</i> (Leopard Ctenotus)			
227.	25062 <i>Ctenotus piankai</i>			
228.	25069 <i>Ctenotus rufescens</i>			
229.	25073 <i>Ctenotus saxatilis</i> (Rock Ctenotus)			
230.	25077 <i>Ctenotus serventyi</i>			
231.	<i>Culex</i> ( <i>Culex</i> ) <i>annulirostris</i>			
232.	<i>Culex crinicauda</i>			
233.	<i>Culicoides</i> sp. P2 (PSW)			
234.	<i>Cybister tripunctatus</i>			
235.	25371 <i>Cyclorana australis</i> (Giant Frog)			
236.	25375 <i>Cyclorana maini</i> (Sheep Frog)			
237.	24322 <i>Cygnus atratus</i> (Black Swan)			
238.	<i>Cymbella affinis</i> Kütz.			
239.	<i>Cypretta baylyi</i>			
240.	<i>Cypricerus salinus</i>			
241.	25547 <i>Dacelo leachii</i> (Blue-winged Kookaburra)			
242.	<i>Dactyloptena papilio</i>			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
243.	<i>Daphnia carinata</i>			
244.	<i>Daphnia cf. cephalata</i>			
245.	<i>Dasyheleinae sp. P1 (PSW)</i>			
246.	24091 <i>Dasykaluta rosamondae (Little Red Kaluta)</i>			
247.	24997 <i>Delma butleri</i>			
248.	25000 <i>Delma haroldi</i>			
249.	25001 <i>Delma nasuta</i>			
250.	25002 <i>Delma pax</i>			
251.	25004 <i>Delma tincta</i>			
252.	25468 <i>Demansia psammophis (Yellow-faced Whipsnake)</i>			
253.	25295 <i>Demansia psammophis subsp. cupreiceps (Yellow-faced Whipsnake)</i>			
254.	25297 <i>Demansia rufescens (Rufous Whipsnake)</i>			
255.	<i>Demansia torquata</i>			Y
256.	<i>Demicroptochironomus sp. P1 (PSW)</i>			
257.	24324 <i>Dendrocygna arcuata (Wandering Whistling Duck, Chestnut Whistling Duck)</i>			
258.	24325 <i>Dendrocygna eytoni (Plumed Whistling Duck)</i>			
259.	<i>Diacyclops einslei</i>			
260.	<i>Diacyclops humphreysi humphreysi</i>			
261.	<i>Diacyclops scanloni</i>			
262.	<i>Diacyclops sobeprolatus</i>			
263.	25607 <i>Dicaeum hirundinaceum (Mistletoebird)</i>			
264.	<i>Dineutus australis</i>			
265.	<i>Diplacodes bipunctata</i>			
266.	24926 <i>Diplodactylus conspicillatus (Fat-tailed Gecko)</i>			
267.	<i>Diploneis pseudovalis Hust.</i>			
268.	42401 <i>Diporiphora paraconvergens (Grey-striped Western Desert Dragon)</i>			
269.	24896 <i>Diporiphora pindan (Pindan Dragon)</i>			
270.	24899 <i>Diporiphora valens (Southern Pilbara Tree Dragon)</i>			
271.	42402 <i>Diporiphora vescus (Northern Pilbara Tree Dragon)</i>			
272.	<i>Drepane punctata</i>			
273.	24470 <i>Dromaius novaehollandiae (Emu)</i>			
274.	<i>Ecnomus pilbarensis</i>			
275.	25092 <i>Egernia depressa (Southern Pygmy Spiny-tailed Skink)</i>			
276.	<i>Egretta garzetta</i>			
277.	<i>Egretta novaehollandiae</i>			
278.	<i>Elanus axillaris</i>			
279.	25540 <i>Elanus caeruleus (Black-shouldered Kite)</i>			
280.	24290 <i>Elanus caeruleus subsp. axillaris (Australian Black-shouldered Kite)</i>			
281.	<i>Elaphoidella humphreysi</i>			
282.	<i>Eleutheronema tetradactylum</i>			
283.	47937 <i>Euseyornis melanops (Black-fronted Dotterel)</i>			
284.	24631 <i>Emblema pictum (Painted Finch)</i>			
285.	<i>Encentridophorus sarasini</i>			
286.	<i>Enochrus deserticola</i>			
287.	<i>Enochrus elongatulus</i>			
288.	<i>Enochrus sp.</i>			
289.	<i>Eodiaptomus lumholtzi</i>			
290.	<i>Eolimna subminiscula (Grun.) Lange-Bertalot</i>			
291.	<i>Eolophus roseicapillus</i>			
292.	24653 <i>Eopsaltria pulverulenta (Mangrove Robin)</i>			
293.	25578 <i>Ephippiorhynchus asiaticus (Black-necked Stork)</i>			
294.	<i>Epinephelus areolatus</i>			
295.	<i>Epinephelus malabaricus</i>			
296.	<i>Epinephelus quoyanus</i>			
297.	24570 <i>Epthianura tricolor (Crimson Chat)</i>			
298.	24258 <i>Equus caballus (Horse)</i>	Y		
299.	42404 <i>Eremiascincus isolepis</i>			
300.	41409 <i>Eremiascincus musivus (Mosaic Desert Skink)</i>			
301.	43381 <i>Eremiascincus pallidus (Western Narrow-banded Skink, Narrow-banded Sand Swimmer)</i>			
302.	25109 <i>Eremiascincus richardsonii (Broad-banded Sand Swimmer)</i>			
303.	24837 <i>Eremiornis carteri (Spinifex-bird)</i>			
304.	<i>Eretes australis</i>			
305.	24379 <i>Erythrogonys cinctus (Red-kneed Dotterel)</i>			
306.	47938 <i>Esacus magnirostris (Beach Stone-curlew, Beach Thick-knee)</i>			
307.	<i>Ethmostigmus curtipes</i>			
308.	<i>Ethmostigmus parkeri</i>			
309.	<i>Euchlanis dilatata</i>			
310.	<i>Eunotia bilunaris (Ehr.) Mills.</i>			
311.	<i>Eunotia pectinatus (Dillw.) Rabh.</i>			



Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
312.	24368 <i>Eurostopodus argus</i> (Spotted Nightjar)			
313.	25621 <i>Falco berigora</i> (Brown Falcon)			
314.	24471 <i>Falco berigora</i> subsp. <i>berigora</i> (Brown Falcon)			
315.	25622 <i>Falco cenchroides</i> (Australian Kestrel, Nankeen Kestrel)			
316.	24472 <i>Falco cenchroides</i> subsp. <i>cenchroides</i> (Australian Kestrel, Nankeen Kestrel)			
317.	25623 <i>Falco longipennis</i> (Australian Hobby)			
318.	24041 <i>Felis catus</i> (Cat)	Y		
319.	<i>Filicampus tigris</i>			
320.	<i>Flosculariidae</i> sp.			
321.	25327 <i>Fordonia leucobalia</i> (White-bellied Mangrove Snake)			
322.	<i>Fragilaria capucina</i> Desm.			
323.	<i>Fragilaria capucina</i> var. <i>vaucheriae</i> (Kütz.) lange-bertalot			
324.	<i>Fragilaria ulna</i> (Nitz.) Lange Bertalot			
325.	25727 <i>Fulica atra</i> (Eurasian Coot)			
326.	25301 <i>Furina ornata</i> (Moon Snake)			
327.	25730 <i>Gallirallus philippensis</i> (Buff-banded Rail)			
328.	<i>Gallirallus philippensis</i> subsp. <i>mellori</i> (Buff-banded Rail)			
329.	42314 <i>Gavicalis virescens</i> (Singing Honeyeater)			
330.	24956 <i>Gehyra pilbara</i>			
331.	24958 <i>Gehyra punctata</i>			
332.	24957 <i>Gehyra purpurascens</i>			
333.	24959 <i>Gehyra variegata</i>			
334.	24401 <i>Geopelia cuneata</i> (Diamond Dove)			
335.	24402 <i>Geopelia humeralis</i> (Bar-shouldered Dove)			
336.	25585 <i>Geopelia striata</i> (Zebra Dove)			
337.	24403 <i>Geopelia striata</i> subsp. <i>placida</i> (Peaceful Dove)			
338.	24404 <i>Geophaps plumifera</i> (Spinifex Pigeon)			
339.	<i>Gerres subfasciatus</i>			
340.	24276 <i>Gerygone tenebrosa</i> (Dusky Gerygone)			
341.	<i>Glossamia aprion</i>			
342.	<i>Glyptophysa</i> sp			
343.	<i>Gomphodella</i> sp. 2 (PSS)			Y
344.	<i>Gomphonema parvulum</i> (Kütz.) Kütz.			
345.	24443 <i>Grallina cyanoleuca</i> (Magpie-lark)			
346.	<i>Grayenulla waldockae</i>			
347.	24484 <i>Grus rubicunda</i> (Brolga)			
348.	25627 <i>Haematopus fuliginosus</i> (Sooty Oystercatcher)			
349.	24487 <i>Haematopus longirostris</i> (Pied Oystercatcher)			
350.	24293 <i>Haliaeetus leucogaster</i> (White-bellied Sea-Eagle)			
351.	25541 <i>Haliastur indus</i> (Brahminy Kite)			
352.	24295 <i>Haliastur spheurnus</i> (Whistling Kite)			
353.	<i>Halicyclops (Rochacyclops) calm</i>			
354.	<i>Halipus</i> sp.			
355.	<i>Halophryne diemensis</i>			
356.	<i>Hantzschia amphioxys</i> (Ehr.) Grun.			
357.	<i>Hemicordulia tau</i>			
358.	25232 <i>Hemidactylus frenatus</i> (Asian House Gecko)	Y		
359.	<i>Herklotsichthys koningsbergeri</i>			
360.	<i>Herklotsichthys lippa</i>			
361.	24633 <i>Heteromunia pectoralis</i> (Pictorella Mannikin)			
362.	24961 <i>Heteronotia binoei</i> (Bynoe's Gecko)			
363.	24962 <i>Heteronotia spelea</i> (Desert Cave Gecko, Pilbara Cave Gecko)			
364.	<i>Hexarthra cf brandorffii</i> (PSW)			
365.	47965 <i>Hieraaetus morphnoides</i> (Little Eagle)			
366.	25734 <i>Himantopus himantopus</i> (Black-winged Stilt)			
367.	24491 <i>Hirundo neoxena</i> (Welcome Swallow)			
368.	<i>Holoplatys meda</i>			
369.	<i>Humphreyscandona fovea</i>			
370.	<i>Humphreyscandona waldockae</i>			
371.	<i>Hydra</i> sp.			
372.	<i>Hydrachna</i> sp. 4/5 (PSW)			
373.	<i>Hydraena barbipes</i>			
374.	25363 <i>Hydrelaps darwiniensis</i>			
375.	<i>Hydrobiidae</i> sp P1 (not <i>assimineid</i> ) (PSW)			
376.	<i>Hydrochus burdekinensis</i>			
377.	<i>Hydrochus</i> sp. P1 (PSW)			
378.	<i>Hydrodroma</i> sp.			
379.	<i>Hydroglyphus basalis</i>			
380.	<i>Hydroglyphus grammopterus</i> (=trilineatus)			
381.	<i>Hydroglyphus leai</i>			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
382.	<i>Hydroglyphus orthogrammus</i>			
383.	<i>Hydrophilidae</i> sp.			
384.	25366 <i>Hydrophis elegans</i> (Elegant Seasnake, Bar-bellied Seasnake)			
385.	43385 <i>Hydrophis stokesii</i> (Stoke's Seasnake, Sea Snake)			
386.	<i>Hyphydrus elegans</i>			
387.	<i>Hyphydrus lyratus</i>			
388.	<i>Hyporhamphus quoyi</i>			
389.	<i>Hyporhamphus</i> sp.			
390.	<i>Ichthyoscopus spinosus</i>			
391.	<i>Ictinogomphus dobsoni</i>			
392.	<i>Ilyodromus</i> sp. PB			
393.	<i>Indolpium</i> sp.			
394.	<i>Insulodrilus angela</i>			
395.	<i>Insulodrilus lacustris</i> s.l. Pilbara type 2/3 = WA35 (PSS)			
396.	<i>Ischnura aurora aurora</i>			
397.	<i>Ischnura heterosticta heterosticta</i>			
398.	<i>Isidorella egraria</i>			
399.	<i>Isocypris williamsi</i> (ex <i>Ilyodromus</i> sp. 413)			
400.	<i>Kathala axillaris</i>			Y
401.	<i>Keratella procurva</i>			
402.	<i>Keratella tropica</i>			
403.	<i>Knoelle clara</i>			
404.	<i>Labracinus</i> sp.			Y
405.	<i>Laccobius matthewsi</i>			
406.	<i>Laccophilus clarki</i>			
407.	<i>Laccophilus sharpi</i>			
408.	24367 <i>Lalage tricolor</i> (White-winged Triller)			
409.	<i>Lampona ampeinna</i>			
410.	<i>Lamponina scutata</i>			
411.	<i>Larsia albiceps</i>			
412.	25637 <i>Larus novaehollandiae</i> (Silver Gull)			
413.	<i>Latonopsis australis</i>			
414.	<i>Latrodectus hasseltii</i>			
415.	<i>Leiopotherapon unicolor</i>			
416.	<i>Leptobrama muelleri</i>			
417.	<i>Leptoceridae</i> sp.			
418.	25125 <i>Lerista bipes</i>			
419.	30928 <i>Lerista clara</i>			
420.	25155 <i>Lerista muelleri</i>			
421.	25005 <i>Lialis burtonis</i>			
422.	25661 <i>Lichmera indistincta</i> (Brown Honeyeater)			
423.	<i>Limnebius</i> sp.			
424.	25380 <i>Litoria caerulea</i> (Green Tree Frog)			
425.	25391 <i>Litoria rothii</i> (Northern Laughing Tree Frog)			
426.	25392 <i>Litoria rubella</i> (Little Red Tree Frog)			
427.	<i>Liza vaigiensis</i>			
428.	<i>Lophiocharon trisignatus</i>			
429.	<i>Lophoictinia isura</i>			
430.	30933 <i>Lucasium stenodactylum</i>			
431.	<i>Lutjanus carponotatus</i>			
432.	<i>Lycidas</i> sp. 1			
433.	<i>Macrochaetus altamirai</i>			
434.	25489 <i>Macropus robustus</i> (Euro, Biggada)			
435.	24135 <i>Macropus robustus</i> subsp. <i>erubescens</i> (Euro, Biggada)			
436.	24136 <i>Macropus rufus</i> (Red Kangaroo, Marlu)			
437.	24326 <i>Malacorhynchus membranaceus</i> (Pink-eared Duck)			
438.	25651 <i>Malurus lamberti</i> (Variegated Fairy-wren)			
439.	24544 <i>Malurus lamberti</i> subsp. <i>assimilis</i> (Variegated Fairy-wren)			
440.	25652 <i>Malurus leucopterus</i> (White-winged Fairy-wren)			
441.	24583 <i>Manorina flavigula</i> (Yellow-throated Miner)			
442.	<i>Masasteron tealei</i>			
443.	<i>Megalops cyprinoides</i>			
444.	<i>Megaporus</i> sp.			
445.	<i>Melanotaenia australis</i>			
446.	25665 <i>Melithreptus gularis</i> (Black-chinned Honeyeater)			
447.	<i>Melitidae</i> sp. 1 (PSS)			
448.	24736 <i>Melopsittacus undulatus</i> (Budgerigar)			
449.	25184 <i>Menetia greyii</i>			
450.	24598 <i>Merops ornatus</i> (Rainbow Bee-eater)			
451.	<i>Mesocyclops brooksi</i>			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
452.	<i>Microcarbo melanoleucos</i>			
453.	<i>Microcerberidae</i> sp.			
454.	<i>Microcyclops varicans</i>			
455.	<i>Micronecta gracilis</i>			
456.	<i>Micronecta micra</i>			
457.	<i>Micronecta</i> n. sp. P3 (PSW)			
458.	<i>Micronecta robusta</i>			
459.	25542 <i>Milvus migrans</i> (Black Kite)			
460.	24298 <i>Milvus migrans</i> subsp. <i>affinis</i> (Black Kite)			
461.	<i>Minasteron minusculum</i>			
462.	25545 <i>Mirafra javanica</i> (Horsfield's Bushlark, Singing Bushlark)			
463.	<i>Moina micrura</i> s.l.			
464.	<i>Monodactylus argenteus</i>			
465.	<i>Monohelea</i> sp. P2 (PSW)			
466.	<i>Monopylephorus</i> n. sp. WA29 (ex <i>Pristina</i> WA3) (PSS)			
467.	<i>Morebilus diversus</i>			
468.	25495 <i>Morethia ruficauda</i>			
469.	25193 <i>Morethia ruficauda</i> subsp. <i>exquisita</i>			
470.	<i>Mormopterus</i> ( <i>Ozimops</i> ) <i>cobourgianus</i>			
471.	<i>Mugil cephalus</i>			
472.	24223 <i>Mus musculus</i> (House Mouse)	Y		
473.	<i>Naididae</i> (ex <i>Tubificidae</i> )			
474.	<i>Navicula cryptocephala</i> Kütz.			
475.	<i>Navicula kriegerii</i>			Y
476.	<i>Navicula molestiformis</i> Hust.			
477.	<i>Necterosoma regulare</i>			
478.	<i>Nedsia</i> sp.			
479.	<i>Nematalosa vlaminghi</i>			
480.	<i>Nematoda</i> sp. P2/P4 (PSW)			
481.	25422 <i>Neobatrachus aquilonius</i> (Northern Burrowing Frog)			
482.	25427 <i>Neobatrachus sutor</i> (Shoemaker Frog)			
483.	25685 <i>Neochmia ruficauda</i> (Star Finch)			
484.	25497 <i>Nephurus levis</i>			
485.	24969 <i>Nephurus levis</i> subsp. <i>pilbarensis</i>			
486.	<i>Nilobezzia</i> sp.			
487.	<i>Nilobezzia</i> sp. P2 (PSW)			
488.	24095 <i>Ningui timealeyi</i> (Pilbara Ningui)			
489.	25747 <i>Ninox connivens</i> (Barking Owl)			
490.	<i>Nitzschia constricta</i> (Greg.) Grun.			
491.	<i>Nitzschia filiformis</i> (W. Sm.) Van Heurck			
492.	<i>Nitzschia linearis</i> (Ag.) W. Sm.			
493.	<i>Nitzschia microcephala</i> Grun.			
494.	<i>Nitzschia palea</i> (Kütz.) W. Sm.			
495.	<i>Nitzschia sigma</i> (Kütz.) W. Sm.			
496.	No invertebrates			
497.	25430 <i>Notaden nichollsi</i> (Desert Spadefoot)			
498.	24224 <i>Notomys alexis</i> ( <i>Spinifex</i> Hopping-mouse)			
499.	25197 <i>Notoscincus ornatus</i> subsp. <i>ornatus</i>			
500.	25564 <i>Nycticorax caledonicus</i> (Rufous Night Heron)			
501.	24192 <i>Nyctophilus arnhemensis</i> (Arnhem Land Long-eared Bat)			
502.	24194 <i>Nyctophilus geoffroyi</i> (Lesser Long-eared Bat)			
503.	24742 <i>Nymphicus hollandicus</i> (Cockatiel)			
504.	<i>Ochthebius</i> sp. P2 (PSW)			
505.	24407 <i>Ocyphaps lophotes</i> (Crested Pigeon)			
506.	<i>Oecetis</i> sp. Pilbara 5 (PSW)			
507.	<i>Omobranchus</i> sp.			
508.	<i>Onthophagus margaretensis</i>			
509.	<i>Opistognathus inornatus</i>			
510.	24618 <i>Oreoica gutturalis</i> (Crested Bellbird)			
511.	<i>Orthetrum caledonicum</i>			
512.	24085 <i>Oryctolagus cuniculus</i> (Rabbit)	Y		
513.	48034 <i>Osphranter robustus</i> (Euro, Biggada)			
514.	<i>Ostracion</i> sp.			
515.	<i>Ostracoda</i> (unident.)			
516.	<i>Oxus orientalis</i>			
517.	<i>Ozestheria packardii</i>			
518.	24620 <i>Pachycephala lanioides</i> (White-breasted Whistler)			
519.	25678 <i>Pachycephala melanura</i> (Mangrove Golden Whistler)			
520.	25680 <i>Pachycephala rufiventris</i> (Rufous Whistler)			
521.	<i>Pantala flavescens</i>			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
522.	<i>Paracladopelma</i> sp. P2 (nr M2) (PSW)			
523.	<i>Paracymus spenceri</i>			
524.	<i>Paramerina</i> sp. D (PSW)			
525.	<i>Paraplotosus albilabris</i>			
526.	<i>Parascorpaena picta</i>			
527.	<i>Parastenocaris jane</i>			
528.	24627 <i>Pardalotus rubricatus</i> (Red-browed Pardalote)			
529.	25682 <i>Pardalotus striatus</i> (Striated Pardalote)			
530.	24642 <i>Passer montanus</i> (Eurasian Tree Sparrow)	Y		
531.	24648 <i>Pelecanus conspicillatus</i> (Australian Pelican)			
532.	<i>Peneoenanthe pulverulenta</i>			
533.	<i>Pentapodus porosus</i>			
534.	<i>Periophthalmodon freycineti</i>			
535.	<i>Periophthalmus novaeguineaeensis</i>			
536.	<i>Periophthalmus</i> sp.			
537.	<i>Pescecyclus</i> sp. P1			
538.	48060 <i>Petrochelidon ariel</i> (Fairy Martin)			
539.	48061 <i>Petrochelidon nigricans</i> (Tree Martin)			
540.	24144 <i>Petrogale rothschildi</i> (Rothschild's Rock-wallaby)			
541.	24659 <i>Petroica goodenovii</i> (Red-capped Robin)			
542.	25697 <i>Phalacrocorax carbo</i> (Great Cormorant)			
543.	25698 <i>Phalacrocorax melanoleucos</i> (Little Pied Cormorant)			
544.	24667 <i>Phalacrocorax sulcirostris</i> (Little Black Cormorant)			
545.	25699 <i>Phalacrocorax varius</i> (Pied Cormorant)			
546.	24409 <i>Phaps chalcoptera</i> (Common Bronzewing)			
547.	24411 <i>Phaps histrionica</i> (Flock Bronzewing, Flock Pigeon)			
548.	<i>Phorticosomus gularis</i>			
549.	<i>Phreodrilid with dissimilar ventral chaetae</i>			
550.	<i>Phreodrilid with similar ventral chaetae</i>			
551.	<i>Phreodrilidae</i> sp.			
552.	<i>Pilbarascutigera incola</i>			
553.	<i>Pinnularia divergens</i> W. Sm.			
554.	<i>Pinnularia subrostrata</i> (A. Cl.) Cl.-Euler			
555.	24101 <i>Planigale ingrami</i> (Long-tailed Planigale)			
556.	24841 <i>Platalea flavipes</i> (Yellow-billed Spoonbill)			
557.	24842 <i>Platalea regia</i> (Royal Spoonbill)			
558.	24747 <i>Platycercus spurius</i> (Red-capped Parrot)			
559.	25721 <i>Platycercus zonarius</i> (Australian Ringneck, Ring-necked Parrot)			
560.	42306 <i>Platyplectrum spenceri</i> (Centralian Burrowing Frog)			
561.	25703 <i>Podargus strigoides</i> (Tawny Frogmouth)			
562.	25704 <i>Podiceps cristatus</i> (Great Crested Grebe)			
563.	25510 <i>Pogona minor</i> (Dwarf Bearded Dragon)			
564.	24907 <i>Pogona minor</i> subsp. <i>minor</i> (Dwarf Bearded Dragon)			
565.	24908 <i>Pogona minor</i> subsp. <i>mitchelli</i> (Dwarf Bearded Dragon)			
566.	24681 <i>Poliocephalus poliocephalus</i> (Hoary-headed Grebe)			
567.	<i>Polyarthra dolichoptera</i>			
568.	<i>Polypedilum leei</i>			
569.	<i>Polypedilum nubifer</i>			
570.	<i>Polypedilum watsoni</i>			
571.	24683 <i>Pomatostomus superciliosus</i> (White-browed Babbler)			
572.	25706 <i>Pomatostomus temporalis</i> (Grey-crowned Babbler)			
573.	25731 <i>Porphyrio porphyrio</i> (Purple Swamphen)			
574.	24769 <i>Porzana fluminea</i> (Australian Spotted Crane)			
575.	25199 <i>Proablepharus reginae</i>			
576.	<i>Procladius paludicola</i>			
577.	<i>Protonibea diacanthus</i>			
578.	<i>Pseudagrion aureofrons</i>			
579.	24105 <i>Pseudantechinus roryi</i> (Rory's Pseudantechinus)			
580.	24106 <i>Pseudantechinus woolleyae</i> (Woolley's Pseudantechinus)			
581.	25261 <i>Pseudechis australis</i> (Mulga Snake)			
582.	<i>Pseudocloeon hypodelum</i> (ex <i>Baetid</i> genus3 WA sp. 2) (PSW)			
583.	24234 <i>Pseudomys delicatulus</i> (Delicate Mouse)			
584.	24235 <i>Pseudomys desertor</i> (Desert Mouse)			
585.	24237 <i>Pseudomys hermannsburgensis</i> (Sandy Inland Mouse)			
586.	24239 <i>Pseudomys nanus</i> (Western Chestnut Mouse)			
587.	42416 <i>Pseudonaja mengdeni</i> (Western Brown Snake)			
588.	25263 <i>Pseudonaja modesta</i> (Ringed Brown Snake)			
589.	25264 <i>Pseudonaja nuchalis</i> (Gwardar, Northern Brown Snake)			
590.	<i>Ptilonorhynchus guttatus</i>			
591.	25724 <i>Ptilonorhynchus maculatus</i> (Spotted Bowerbird)			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
592.	24757 <i>Ptilonorhynchus maculatus</i> subsp. <i>guttatus</i> (Western Bowerbird)			
593.	48088 <i>Ptilotula penicillata</i> (White-plumed Honeyeater)			
594.	<i>Ptygura</i> sp.			
595.	25009 <i>Pygopus nigriceps</i>			
596.	<i>Pyralidae Pilbara</i> sp 2 (PSW)			
597.	<i>Ramphotyphlops</i> GT NOTHERN species			Y
598.	<i>Ranatra diminuta</i>			
599.	<i>Rastrelliger serventyi</i> (invalid)			Y
600.	24245 <i>Rattus rattus</i> (Black Rat)	Y		
601.	24776 <i>Recurvirostra novaehollandiae</i> (Red-necked Avocet)			
602.	<i>Regimbartia attenuata</i>			
603.	<i>Reimeria sinutata</i>			
604.	<i>Rendahlia jaubertensis</i>			
605.	<i>Rhagada richardsonii</i>			
606.	<i>Rhagadotarsus anomalus</i>			
607.	48096 <i>Rhipidura albiscapa</i> (Grey Fantail)			
608.	25614 <i>Rhipidura leucophrys</i> (Willie Wagtail)			
609.	24454 <i>Rhipidura leucophrys</i> subsp. <i>leucophrys</i> (Willie Wagtail)			
610.	24457 <i>Rhipidura phasiana</i> (Mangrove Grey Fantail)			
611.	<i>Rhopalodia gibba</i> (Ehr.) O. Mull.)			
612.	24982 <i>Rhynchoedura ornata</i> (Western Beaked Gecko)			
613.	<i>Rhynchostracion nasus</i>			
614.	24174 <i>Saccolaimus flaviventris</i> (Yellow-bellied Sheath-tailed Bat)			
615.	<i>Salarias sexfilum</i>			
616.	<i>Salarias</i> sp.			
617.	<i>Saldidae</i> sp.			
618.	<i>Scaevius milii</i>			
619.	<i>Scolopendra laeta</i>			
620.	<i>Scolopendra morsitans</i>			
621.	<i>Scomberoides commersonianus</i>			
622.	<i>Scomberomorus semifasciatus</i>			
623.	24200 <i>Scotorepens greyii</i> (Little Broad-nosed Bat)			
624.	<i>Selenotoca multifasciata</i>			
625.	<i>Sillago analis</i>			
626.	<i>Sillago schomburgkii</i>			
627.	25305 <i>Simoselaps anomalus</i> (Desert Banded Snake)			
628.	<i>Skusella</i> nr "V12 ex-WA" (Cranston)			
629.	30948 <i>Smicronis brevirostris</i> (Weebill)			
630.	24116 <i>Sminthopsis macroura</i> (Stripe-faced Dunnart)			
631.	24120 <i>Sminthopsis youngsoni</i> (Lesser Hairy-footed Dunnart)			
632.	<i>Spinasteron arenarium</i>			
633.	<i>Spongillidae</i> sp.			
634.	<i>Staphylinidae</i> sp.			
635.	<i>Stauroneis anceps</i> Ehr.			
636.	<i>Stauroneis phoenicenteron</i> (Nitz.) Ehr.			
637.	<i>Stauroneis producta</i>			Y
638.	24521 <i>Sterna bengalensis</i> (Lesser Crested Tern)			
639.	25643 <i>Sterna hybrida</i> (Whiskered Tern)			
640.	24528 <i>Sterna hybrida</i> subsp. <i>javanica</i> (Whiskered Tern)			
641.	<i>Sternopriscus</i> sp.			
642.	24482 <i>Stiltia isabella</i> (Australian Pratincole)			
643.	25656 <i>Stipiturus ruficeps</i> (Rufous-crowned Emu-wren)			
644.	<i>Stratiomyidae</i> sp.			
645.	<i>Strongylura strongylura</i>			
646.	24924 <i>Strophurus ciliaris</i> subsp. <i>aberrans</i>			
647.	24925 <i>Strophurus ciliaris</i> subsp. <i>ciliaris</i>			
648.	24927 <i>Strophurus elderi</i>			
649.	24932 <i>Strophurus jeanae</i>			
650.	<i>Stygonitocrella bispinosa</i>			
651.	<i>Stygonitocrella trispinosa</i>			
652.	<i>Stygonitocrella unispinosa</i>			
653.	<i>Surirella striatula</i> Turp.			
654.	25307 <i>Suta punctata</i> (Spotted Snake)			
655.	<i>Synanceia horrida</i>			
656.	<i>Synodus sageneus</i>			
657.	<i>Tabanidae</i> sp.			
658.	25705 <i>Tachybaptus novaehollandiae</i> (Australasian Grebe, Black-throated Grebe)			
659.	24682 <i>Tachybaptus novaehollandiae</i> subsp. <i>novaehollandiae</i> (Australasian Grebe, Black-throated Grebe)			
660.	24207 <i>Tachyglossus aculeatus</i> (Short-beaked Echidna)			

Name ID	Species Name	Naturalised	Conservation Code	<sup>1</sup> Endemic To Query Area
661.	30870 <i>Taeniopygia guttata</i> (Zebra Finch)			
662.	<i>Tanytarsus</i> sp. P10 (PSW)			
663.	<i>Tanytarsus</i> sp. P4 (PSW)			
664.	24175 <i>Taphozous georgianus</i> (Common Sheath-tailed Bat)			
665.	<i>Tasmanocoenis arcuata</i>			
666.	<i>Tasmanocoenis</i> sp. E (PSW)			
667.	<i>Terapon jarbua</i>			
668.	<i>Tesserodon novaehollandiae</i>			
669.	<i>Testudinella patina</i>			
670.	<i>Thalasseus bengalensis</i>			
671.	<i>Thermocyclops decipiens</i>			
672.	24845 <i>Threskiornis spinicollis</i> (Straw-necked Ibis)			
673.	25202 <i>Tiliqua multifasciata</i> (Central Blue-tongue)			
674.	<i>Tiporus tambreyi</i>			
675.	<i>Tipulidae</i> type P3 (nr SAP type D) (PSW)			
676.	25548 <i>Todiramphus chloris</i> (Collared Kingfisher)			
677.	24306 <i>Todiramphus chloris</i> subsp. <i>pilbara</i> (Pilbara Collared Kingfisher)			
678.	42351 <i>Todiramphus pyrrhopygius</i> (Red-backed Kingfisher)			
679.	25549 <i>Todiramphus sanctus</i> (Sacred Kingfisher)			
680.	<i>Tramea stenoloba</i>			
681.	<i>Trienodes</i> sp. P1=P2 (PSW)			
682.	48141 <i>Tribonyx ventralis</i> (Black-tailed Native-hen)			
683.	<i>Trichocerca braziliensis</i>			
684.	<i>Trichocerca similis</i>			
685.	<i>Trichocyclops gnalooma</i>			
686.	<i>Tripletides australis</i>			
687.	<i>Tubificidae</i> WA24 (PSS)			Y
688.	24851 <i>Turnix velox</i> (Little Button-quail)			
689.	30954 <i>Tursiops aduncus</i> (Indo-Pacific Bottlenose Dolphin)			
690.	<i>Tyrannochthonius aridus</i>			
691.	24852 <i>Tyto alba</i> subsp. <i>delicatula</i> (Barn Owl)			
692.	<i>Tyto delicatula</i>			
693.	<i>Unionicola crassipalpis</i>			
694.	<i>Unionicola</i> nr <i>alpa</i> (PSW)			
695.	25439 <i>Uperoleia glandulosa</i> (Glandular Toadlet)			
696.	25445 <i>Uperoleia russelli</i> (Northwest Toadlet)			
697.	41428 <i>Uperoleia saxatilis</i> (Pilbara Toadlet)			
698.	25446 <i>Uperoleia talpa</i> (Ratcheting Toadlet)			
699.	<i>Urodacus armatus</i>			
700.	<i>Urodacus hoplurus</i>			
701.	<i>Urodacus varians</i>			
702.	25577 <i>Vanellus miles</i> (Masked Lapwing)			
703.	24386 <i>Vanellus tricolor</i> (Banded Lapwing)			
704.	25209 <i>Varanus acanthurus</i> (Spiny-tailed Monitor)			
705.	25210 <i>Varanus brevicauda</i> (Short-tailed Pygmy Monitor)			
706.	30825 <i>Varanus bushi</i> (Pilbara Mulga Monitor)			
707.	25212 <i>Varanus eremius</i> (Pygmy Desert Monitor)			
708.	25216 <i>Varanus giganteus</i> (Perentie)			
709.	25218 <i>Varanus gouldii</i> (Bungarra or Sand Monitor)			
710.	25524 <i>Varanus panoptes</i> (Yellow-spotted Monitor)			
711.	25224 <i>Varanus pilbarensis</i> (Pilbara Rock Monitor, Northern Pilbara Rock Goanna)			
712.	24205 <i>Vespadelus finlaysoni</i> (Finlayson's Cave Bat)			
713.	24040 <i>Vulpes vulpes</i> (Red Fox)	Y		
714.	<i>Yongeichthys nebulosus</i>			
715.	<i>Zabidius novemaculeatus</i>			
716.	<i>Zebraplatys keyserlingi</i>			
717.	24857 <i>Zosterops luteus</i> (Yellow White-eye)			
718.	24248 <i>Zyzomys argurus</i> (Common Rock-rat)			

**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

<sup>1</sup> 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.



# 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: 23/06/21 12:47:35

[Summary](#)

[Details](#)

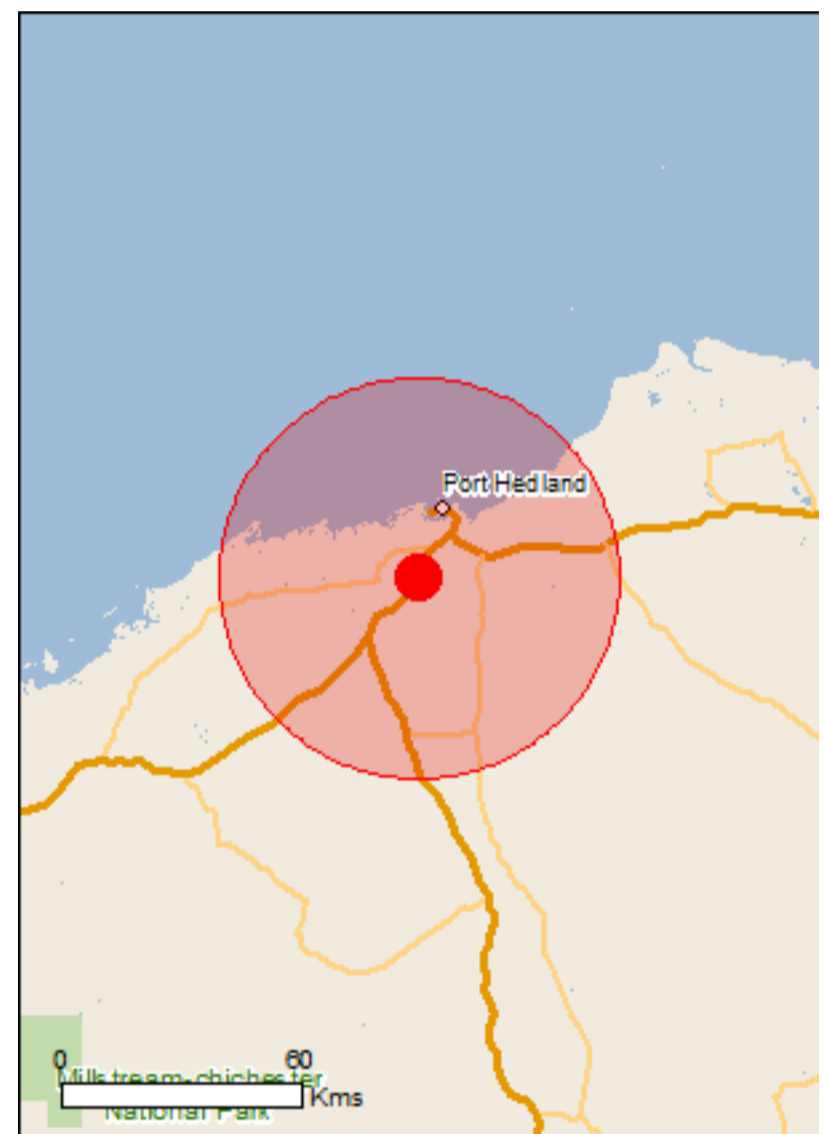
[Matters of NES](#)

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

[Extra Information](#)

[Caveat](#)

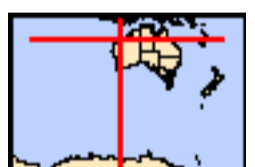
[Acknowledgements](#)



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

[Coordinates](#)

Buffer: 50.0Km



# 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](#).

<a href="#">World Heritage Properties:</a>	None
<a href="#">National Heritage Places:</a>	None
<a href="#">Wetlands of International Importance:</a>	None
<a href="#">Great Barrier Reef Marine Park:</a>	None
<a href="#">Commonwealth Marine Area:</a>	1
<a href="#">Listed Threatened Ecological Communities:</a>	None
<a href="#">Listed Threatened Species:</a>	29
<a href="#">Listed Migratory Species:</a>	61

## 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.

<a href="#">Commonwealth Land:</a>	1
<a href="#">Commonwealth Heritage Places:</a>	None
<a href="#">Listed Marine Species:</a>	102
<a href="#">Whales and Other Cetaceans:</a>	12
<a href="#">Critical Habitats:</a>	None
<a href="#">Commonwealth Reserves Terrestrial:</a>	None
<a href="#">Australian Marine Parks:</a>	None

## Extra Information

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

<a href="#">State and Territory Reserves:</a>	None
<a href="#">Regional Forest Agreements:</a>	None
<a href="#">Invasive Species:</a>	17
<a href="#">Nationally Important Wetlands:</a>	1
<a href="#">Key Ecological Features (Marine)</a>	None



# Details

## Matters of National Environmental Significance

### Commonwealth Marine Area

[\[ Resource Information \]](#)

Approval is required for a proposed activity that is located within the Commonwealth Marine Area which has, will have, or is likely to have a significant impact on the environment. Approval may be required for a proposed action taken outside the Commonwealth Marine Area but which has, may have or is likely to have a significant impact on the environment in the Commonwealth Marine Area. Generally the Commonwealth Marine Area stretches from three nautical miles to two hundred nautical miles from the coast.

#### Name

EEZ and Territorial Sea

### Marine Regions

[\[ Resource Information \]](#)

If you are planning to undertake action in an area in or close to the Commonwealth Marine Area, and a marine bioregional plan has been prepared for the Commonwealth Marine Area in that area, the marine bioregional plan may inform your decision as to whether to refer your proposed action under the EPBC Act.

#### Name

[North-west](#)

### Listed Threatened Species

[\[ Resource Information \]](#)

Name	Status	Type of Presence
<b>Birds</b>		
<a href="#">Calidris canutus</a> Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Calidris tenuirostris</a> Great Knot [862]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Charadrius leschenaultii</a> Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Charadrius mongolus</a> Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area
<a href="#">Falco hypoleucos</a> Grey Falcon [929]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Limosa lapponica menzbieri</a> Northern Siberian Bar-tailed Godwit, Russkoye Bar-tailed Godwit [86432]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur

Name	Status	Type of Presence within area
<a href="#">Pezoporus occidentalis</a> Night Parrot [59350]	Endangered	Species or species habitat may occur within area
<a href="#">Rostratula australis</a> Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area
<b>Mammals</b>		
<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
<a href="#">Dasyurus hallucatus</a> Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu] [331]	Endangered	Species or species habitat known to occur within area
<a href="#">Macroderma gigas</a> Ghost Bat [174]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Macrotis lagotis</a> Greater Bilby [282]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]	Vulnerable	Breeding known to occur within area
<a href="#">Rhinonictis aurantia (Pilbara form)</a> Pilbara Leaf-nosed Bat [82790]	Vulnerable	Species or species habitat known to occur within area
<b>Reptiles</b>		
<a href="#">Aipysurus apraefrontalis</a> Short-nosed Seasnake [1115]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Aipysurus foliosquama</a> Leaf-scaled Seasnake [1118]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Breeding known to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Breeding known to occur within area
<a href="#">Liasis olivaceus barroni</a> Olive Python (Pilbara subspecies) [66699]	Vulnerable	Species or species habitat likely to occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area
<b>Sharks</b>		
<a href="#">Carcharodon carcharias</a> White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area
<a href="#">Pristis clavata</a> Dwarf Sawfish, Queensland Sawfish [68447]	Vulnerable	Species or species habitat known to occur within area

Name	Status	Type of Presence
<a href="#">Pristis zijsron</a> Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Rhincodon typus</a> Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
<b>Listed Migratory Species</b>		<a href="#">[ Resource Information ]</a>
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
<b>Migratory Marine Birds</b>		
<a href="#">Anous stolidus</a> Common Noddy [825]		Species or species habitat may occur within area
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area
<a href="#">Calonectris leucomelas</a> Streaked Shearwater [1077]		Species or species habitat likely to occur within area
<a href="#">Fregata ariel</a> Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat known to occur within area
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
<b>Migratory Marine Species</b>		
<a href="#">Anoxypristis cuspidata</a> Narrow Sawfish, Knifetooth Sawfish [68448]		Species or species habitat likely to occur within area
<a href="#">Balaenoptera edeni</a> Bryde's Whale [35]		Species or species habitat may occur within area
<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
<a href="#">Carcharhinus longimanus</a> Oceanic Whitetip Shark [84108]		Species or species habitat may occur within area
<a href="#">Carcharodon carcharias</a> White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Breeding known to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
<a href="#">Dugong dugon</a> Dugong [28]		Species or species habitat known to occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Breeding known to occur within area

Name	Threatened	Type of Presence
<a href="#">Isurus oxyrinchus</a> Shortfin Mako, Mako Shark [79073]		Species or species habitat likely to occur within area
<a href="#">Isurus paucus</a> Longfin Mako [82947]		Species or species habitat likely to occur within area
<a href="#">Manta alfredi</a> Reef Manta Ray, Coastal Manta Ray, Inshore Manta Ray, Prince Alfred's Ray, Resident Manta Ray [84994]		Species or species habitat known to occur within area
<a href="#">Manta birostris</a> Giant Manta Ray, Chevron Manta Ray, Pacific Manta Ray, Pelagic Manta Ray, Oceanic Manta Ray [84995]		Species or species habitat likely to occur within area
<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]	Vulnerable	Breeding known to occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area
<a href="#">Orcinus orca</a> Killer Whale, Orca [46]		Species or species habitat may occur within area
<a href="#">Pristis clavata</a> Dwarf Sawfish, Queensland Sawfish [68447]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Pristis zijsron</a> Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Rhincodon typus</a> Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
<a href="#">Sousa chinensis</a> Indo-Pacific Humpback Dolphin [50]		Species or species habitat likely to occur within area
<a href="#">Tursiops aduncus (Arafura/Timor Sea populations)</a> Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat known to occur within area
<b>Migratory Terrestrial Species</b>		
<a href="#">Cuculus optatus</a> Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area
<a href="#">Hirundo rustica</a> Barn Swallow [662]		Species or species habitat known to occur within area
<a href="#">Motacilla cinerea</a> Grey Wagtail [642]		Species or species habitat may occur within area
<a href="#">Motacilla flava</a> Yellow Wagtail [644]		Species or species habitat known to occur within area
<b>Migratory Wetlands Species</b>		
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat known to occur within area
<a href="#">Arenaria interpres</a> Ruddy Turnstone [872]		Species or species habitat known to occur within area

Name	Threatened	Type of Presence
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
<a href="#">Calidris alba</a> Sanderling [875]		Species or species habitat known to occur within area
<a href="#">Calidris canutus</a> Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat known to occur within area
<a href="#">Calidris ruficollis</a> Red-necked Stint [860]		Species or species habitat known to occur within area
<a href="#">Calidris subminuta</a> Long-toed Stint [861]		Species or species habitat known to occur within area
<a href="#">Calidris tenuirostris</a> Great Knot [862]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Charadrius leschenaultii</a> Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Charadrius mongolus</a> Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area
<a href="#">Charadrius veredus</a> Oriental Plover, Oriental Dotterel [882]		Species or species habitat known to occur within area
<a href="#">Glareola maldivarum</a> Oriental Pratincole [840]		Species or species habitat known to occur within area
<a href="#">Limicola falcinellus</a> Broad-billed Sandpiper [842]		Species or species habitat known to occur within area
<a href="#">Limnodromus semipalmatus</a> Asian Dowitcher [843]		Species or species habitat known to occur within area
<a href="#">Limosa lapponica</a> Bar-tailed Godwit [844]		Species or species habitat known to occur within area
<a href="#">Limosa limosa</a> Black-tailed Godwit [845]		Species or species habitat known to occur within area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Numenius minutus</a> Little Curlew, Little Whimbrel [848]		Species or species habitat known to occur within area

Name	Threatened	Type of Presence
<a href="#">Numenius phaeopus</a> Whimbrel [849]		Species or species habitat known to occur within area
<a href="#">Pandion haliaetus</a> Osprey [952]		Breeding known to occur within area
<a href="#">Phalaropus lobatus</a> Red-necked Phalarope [838]		Species or species habitat known to occur within area
<a href="#">Pluvialis fulva</a> Pacific Golden Plover [25545]		Species or species habitat known to occur within area
<a href="#">Pluvialis squatarola</a> Grey Plover [865]		Species or species habitat known to occur within area
<a href="#">Tringa brevipes</a> Grey-tailed Tattler [851]		Species or species habitat known to occur within area
<a href="#">Tringa glareola</a> Wood Sandpiper [829]		Species or species habitat known to occur within area
<a href="#">Tringa nebularia</a> Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area
<a href="#">Tringa stagnatilis</a> Marsh Sandpiper, Little Greenshank [833]		Species or species habitat known to occur within area
<a href="#">Xenus cinereus</a> Terek Sandpiper [59300]		Species or species habitat known to occur within area

## Other Matters Protected by the EPBC Act

### Commonwealth Land [\[ Resource Information \]](#)

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Name
Commonwealth Land -

### 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
<b>Birds</b>		
<a href="#">Actitis hypoleucos</a> Common Sandpiper [59309]		Species or species habitat known to occur within area
<a href="#">Anous stolidus</a> Common Noddy [825]		Species or species habitat may occur within area
<a href="#">Apus pacificus</a> Fork-tailed Swift [678]		Species or species habitat likely to occur within area
<a href="#">Ardea ibis</a> Cattle Egret [59542]		Species or species habitat may occur within

Name	Threatened	Type of Presence area
<a href="#">Arenaria interpres</a> Ruddy Turnstone [872]		Species or species habitat known to occur within area
<a href="#">Calidris acuminata</a> Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area
<a href="#">Calidris alba</a> Sanderling [875]		Species or species habitat known to occur within area
<a href="#">Calidris canutus</a> Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
<a href="#">Calidris ferruginea</a> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Calidris melanotos</a> Pectoral Sandpiper [858]		Species or species habitat known to occur within area
<a href="#">Calidris ruficollis</a> Red-necked Stint [860]		Species or species habitat known to occur within area
<a href="#">Calidris subminuta</a> Long-toed Stint [861]		Species or species habitat known to occur within area
<a href="#">Calidris tenuirostris</a> Great Knot [862]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Calonectris leucomelas</a> Streaked Shearwater [1077]		Species or species habitat likely to occur within area
<a href="#">Charadrius leschenaultii</a> Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
<a href="#">Charadrius mongolus</a> Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area
<a href="#">Charadrius ruficapillus</a> Red-capped Plover [881]		Species or species habitat known to occur within area
<a href="#">Charadrius veredus</a> Oriental Plover, Oriental Dotterel [882]		Species or species habitat known to occur within area
<a href="#">Chrysococcyx osculans</a> Black-eared Cuckoo [705]		Species or species habitat known to occur within area
<a href="#">Fregata ariel</a> Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat known to occur within area
<a href="#">Glareola maldivarum</a> Oriental Pratincole [840]		Species or species habitat known to occur within area
<a href="#">Haliaeetus leucogaster</a> White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area

Name	Threatened	Type of Presence
<a href="#">Heteroscelus brevipes</a> Grey-tailed Tattler [59311]		Species or species habitat known to occur within area
<a href="#">Himantopus himantopus</a> Pied Stilt, Black-winged Stilt [870]		Species or species habitat known to occur within area
<a href="#">Hirundo rustica</a> Barn Swallow [662]		Species or species habitat known to occur within area
<a href="#">Limicola falcinellus</a> Broad-billed Sandpiper [842]		Species or species habitat known to occur within area
<a href="#">Limnodromus semipalmatus</a> Asian Dowitcher [843]		Species or species habitat known to occur within area
<a href="#">Limosa lapponica</a> Bar-tailed Godwit [844]		Species or species habitat known to occur within area
<a href="#">Limosa limosa</a> Black-tailed Godwit [845]		Species or species habitat known to occur within area
<a href="#">Macronectes giganteus</a> Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
<a href="#">Merops ornatus</a> Rainbow Bee-eater [670]		Species or species habitat may occur within area
<a href="#">Motacilla cinerea</a> Grey Wagtail [642]		Species or species habitat may occur within area
<a href="#">Motacilla flava</a> Yellow Wagtail [644]		Species or species habitat known to occur within area
<a href="#">Numenius madagascariensis</a> Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Numenius minutus</a> Little Curlew, Little Whimbrel [848]		Species or species habitat known to occur within area
<a href="#">Numenius phaeopus</a> Whimbrel [849]		Species or species habitat known to occur within area
<a href="#">Pandion haliaetus</a> Osprey [952]		Breeding known to occur within area
<a href="#">Phalaropus lobatus</a> Red-necked Phalarope [838]		Species or species habitat known to occur within area
<a href="#">Pluvialis fulva</a> Pacific Golden Plover [25545]		Species or species habitat known to occur within area
<a href="#">Pluvialis squatarola</a> Grey Plover [865]		Species or species habitat known to occur within area
<a href="#">Recurvirostra novaehollandiae</a> Red-necked Avocet [871]		Species or species



Name	Threatened	Type of Presence
<a href="#">Rostratula benghalensis (sensu lato)</a> Painted Snipe [889]	Endangered*	habitat known to occur within area  Species or species habitat may occur within area
<a href="#">Stiltia isabella</a> Australian Pratincole [818]		Species or species habitat known to occur within area
<a href="#">Tringa glareola</a> Wood Sandpiper [829]		Species or species habitat known to occur within area
<a href="#">Tringa nebularia</a> Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area
<a href="#">Tringa stagnatilis</a> Marsh Sandpiper, Little Greenshank [833]		Species or species habitat known to occur within area
<a href="#">Xenus cinereus</a> Terek Sandpiper [59300]		Species or species habitat known to occur within area
<b>Fish</b>		
<a href="#">Acentronura larsonae</a> Helen's Pygmy Pipehorse [66186]		Species or species habitat may occur within area
<a href="#">Bulbonaricus brauni</a> Braun's Pughead Pipefish, Pug-headed Pipefish [66189]		Species or species habitat may occur within area
<a href="#">Campichthys tricarinatus</a> Three-keel Pipefish [66192]		Species or species habitat may occur within area
<a href="#">Choeroichthys brachysoma</a> Pacific Short-bodied Pipefish, Short-bodied Pipefish [66194]		Species or species habitat may occur within area
<a href="#">Choeroichthys latispinosus</a> Muiron Island Pipefish [66196]		Species or species habitat may occur within area
<a href="#">Choeroichthys suillus</a> Pig-snouted Pipefish [66198]		Species or species habitat may occur within area
<a href="#">Doryrhamphus dactyliophorus</a> Banded Pipefish, Ringed Pipefish [66210]		Species or species habitat may occur within area
<a href="#">Doryrhamphus janssi</a> Cleaner Pipefish, Janss' Pipefish [66212]		Species or species habitat may occur within area
<a href="#">Doryrhamphus multiannulatus</a> Many-banded Pipefish [66717]		Species or species habitat may occur within area
<a href="#">Doryrhamphus negrosensis</a> Flagtail Pipefish, Masthead Island Pipefish [66213]		Species or species habitat may occur within area
<a href="#">Festucalex scalaris</a> Ladder Pipefish [66216]		Species or species habitat may occur within area
<a href="#">Filicampus tigris</a> Tiger Pipefish [66217]		Species or species

Name	Threatened	Type of Presence
<a href="#">Halicampus brocki</a> Brock's Pipefish [66219]		habitat may occur within area  Species or species habitat may occur within area
<a href="#">Halicampus grayi</a> Mud Pipefish, Gray's Pipefish [66221]		Species or species habitat may occur within area
<a href="#">Halicampus nitidus</a> Glittering Pipefish [66224]		Species or species habitat may occur within area
<a href="#">Halicampus spirostris</a> Spiny-snout Pipefish [66225]		Species or species habitat may occur within area
<a href="#">Haliichthys taeniophorus</a> Ribboned Pipehorse, Ribboned Seadragon [66226]		Species or species habitat may occur within area
<a href="#">Hippichthys penicillus</a> Beady Pipefish, Steep-nosed Pipefish [66231]		Species or species habitat may occur within area
<a href="#">Hippocampus angustus</a> Western Spiny Seahorse, Narrow-bellied Seahorse [66234]		Species or species habitat may occur within area
<a href="#">Hippocampus histrix</a> Spiny Seahorse, Thorny Seahorse [66236]		Species or species habitat may occur within area
<a href="#">Hippocampus kuda</a> Spotted Seahorse, Yellow Seahorse [66237]		Species or species habitat may occur within area
<a href="#">Hippocampus planifrons</a> Flat-face Seahorse [66238]		Species or species habitat may occur within area
<a href="#">Hippocampus trimaculatus</a> Three-spot Seahorse, Low-crowned Seahorse, Flat-faced Seahorse [66720]		Species or species habitat may occur within area
<a href="#">Micrognathus micronotopterus</a> Tidepool Pipefish [66255]		Species or species habitat may occur within area
<a href="#">Phoxocampus belcheri</a> Black Rock Pipefish [66719]		Species or species habitat may occur within area
<a href="#">Solegnathus hardwickii</a> Pallid Pipehorse, Hardwick's Pipehorse [66272]		Species or species habitat may occur within area
<a href="#">Solegnathus lettiensis</a> Gunther's Pipehorse, Indonesian Pipefish [66273]		Species or species habitat may occur within area
<a href="#">Solenostomus cyanopterus</a> Robust Ghostpipefish, Blue-finned Ghost Pipefish, [66183]		Species or species habitat may occur within area
<a href="#">Syngnathoides biaculeatus</a> Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area
<a href="#">Trachyrhamphus bicoarctatus</a> Bentstick Pipefish, Bend Stick Pipefish, Short-tailed Pipefish [66280]		Species or species habitat may occur within

Name	Threatened	Type of Presence area
<a href="#">Trachyrhamphus longirostris</a> Straightstick Pipefish, Long-nosed Pipefish, Straight Stick Pipefish [66281]		Species or species habitat may occur within area
<b>Mammals</b>		
<a href="#">Dugong dugon</a> Dugong [28]		Species or species habitat known to occur within area
<b>Reptiles</b>		
<a href="#">Acalyptophis peronii</a> Horned Seasnake [1114]		Species or species habitat may occur within area
<a href="#">Aipysurus apraefrontalis</a> Short-nosed Seasnake [1115]	Critically Endangered	Species or species habitat likely to occur within area
<a href="#">Aipysurus duboisii</a> Dubois' Seasnake [1116]		Species or species habitat may occur within area
<a href="#">Aipysurus eydouxii</a> Spine-tailed Seasnake [1117]		Species or species habitat may occur within area
<a href="#">Aipysurus foliosquama</a> Leaf-scaled Seasnake [1118]	Critically Endangered	Species or species habitat known to occur within area
<a href="#">Aipysurus laevis</a> Olive Seasnake [1120]		Species or species habitat may occur within area
<a href="#">Aipysurus tenuis</a> Brown-lined Seasnake [1121]		Species or species habitat may occur within area
<a href="#">Astrotia stokesii</a> Stokes' Seasnake [1122]		Species or species habitat may occur within area
<a href="#">Caretta caretta</a> Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
<a href="#">Chelonia mydas</a> Green Turtle [1765]	Vulnerable	Breeding known to occur within area
<a href="#">Dermochelys coriacea</a> Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
<a href="#">Disteira kingii</a> Spectacled Seasnake [1123]		Species or species habitat may occur within area
<a href="#">Disteira major</a> Olive-headed Seasnake [1124]		Species or species habitat may occur within area
<a href="#">Emydocephalus annulatus</a> Turtle-headed Seasnake [1125]		Species or species habitat may occur within area
<a href="#">Ephalophis greyi</a> North-western Mangrove Seasnake [1127]		Species or species habitat may occur within area
<a href="#">Eretmochelys imbricata</a> Hawksbill Turtle [1766]	Vulnerable	Breeding known to occur within area

Name	Threatened	Type of Presence
<a href="#">Hydrelaps darwiniensis</a> Black-ringed Seasnake [1100]		Species or species habitat may occur within area
<a href="#">Hydrophis czeblukovi</a> Fine-spined Seasnake [59233]		Species or species habitat may occur within area
<a href="#">Hydrophis elegans</a> Elegant Seasnake [1104]		Species or species habitat may occur within area
<a href="#">Hydrophis mcdowellii</a> null [25926]		Species or species habitat may occur within area
<a href="#">Hydrophis ornatus</a> Spotted Seasnake, Ornate Reef Seasnake [1111]		Species or species habitat may occur within area
<a href="#">Natator depressus</a> Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area
<a href="#">Pelamis platurus</a> Yellow-bellied Seasnake [1091]		Species or species habitat may occur within area

## Whales and other Cetaceans [ Resource Information ]

Name	Status	Type of Presence
<b>Mammals</b>		
<a href="#">Balaenoptera acutorostrata</a> Minke Whale [33]		Species or species habitat may occur within area
<a href="#">Balaenoptera edeni</a> Bryde's Whale [35]		Species or species habitat may occur within area
<a href="#">Balaenoptera musculus</a> Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
<a href="#">Delphinus delphis</a> Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
<a href="#">Grampus griseus</a> Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
<a href="#">Megaptera novaeangliae</a> Humpback Whale [38]	Vulnerable	Breeding known to occur within area
<a href="#">Orcinus orca</a> Killer Whale, Orca [46]		Species or species habitat may occur within area
<a href="#">Sousa chinensis</a> Indo-Pacific Humpback Dolphin [50]		Species or species habitat likely to occur within area
<a href="#">Stenella attenuata</a> Spotted Dolphin, Pantropical Spotted Dolphin [51]		Species or species habitat may occur within area
<a href="#">Tursiops aduncus</a> Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area
<a href="#">Tursiops aduncus (Arafura/Timor Sea populations)</a> Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat known to occur

Name	Status	Type of Presence within area
<a href="#">Tursiops truncatus s. str.</a> Bottlenose Dolphin [68417]		Species or species habitat may occur within area

## Extra Information

### 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
<b>Birds</b>		
Columba livia Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Passer montanus Eurasian Tree Sparrow [406]		Species or species habitat likely to occur within area
<b>Mammals</b>		
Camelus dromedarius Dromedary, Camel [7]		Species or species habitat likely to occur within area
Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Equus asinus Donkey, Ass [4]		Species or species habitat likely to occur within area
Equus caballus Horse [5]		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
Mus musculus House Mouse [120]		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

Name	Status	Type of Presence
<b>Plants</b>		
Andropogon gayanus Gamba Grass [66895]		Species or species habitat likely to occur within area
Cenchrus ciliaris Buffel-grass, Black Buffel-grass [20213]		Species or species habitat likely to occur within area
Jatropha gossypifolia Cotton-leaved Physic-Nut, Bellyache Bush, Cotton-leaf Physic Nut, Cotton-leaf Jatropha, Black Physic Nut [7507]		Species or species habitat likely to occur within area
Parkinsonia aculeata Parkinsonia, Jerusalem Thorn, Jelly Bean Tree, Horse Bean [12301]		Species or species habitat likely to occur within area
Prosopis spp. Mesquite, Algaroba [68407]		Species or species habitat likely to occur within area
<b>Reptiles</b>		
Hemidactylus frenatus Asian House Gecko [1708]		Species or species habitat likely to occur within area
Ramphotyphlops braminus Flowerpot Blind Snake, Brahminy Blind Snake, Cacing Besi [1258]		Species or species habitat may occur within area
<b>Nationally Important Wetlands</b>		<b>[ Resource Information ]</b>
Name		State
<a href="#">Leslie (Port Hedland) Saltfields System</a>		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

-20.45435 118.55199

# 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

Department of Agriculture Water and the Environment

GPO Box 858

Canberra City ACT 2601 Australia

+61 2 6274 1111



# **Appendix C**

## **Flora Likelihood of Occurrence Assessment**

**Appendix: Assessment of the Likelihood of Occurrence of Threatened and Priority Flora as per Desktop Assessment Database Searches surrounding the Karratha Survey Area**

Distance to Nearest Record from the Survey Area is based on a distance analysis undertaken against 2021 DBCA database. High = Suitable habitat present and records less than 5 km from the Survey Area, Medium = Suitable habitat present and records between 5 km and 15 km from the Survey Area, and Low = No suitable habitat present and/or records greater than 15 km from the Survey Area, Unknown = Insufficient information available to classify. CR= Listed as Critically Endangered under the EPBC Act, EN = Listed as Endangered under the EPBC Act, VU = listed as Vulnerable under the EPBC Act. T = Threatened under the BC Act, P = Priority Listed, Ranked and Listed by the DBCA. Likelihoods are assessed both pre and post survey based on knowledge of the Survey Area, nearest known records, known flowering period of flora taxa and knowledge gained from the survey effort during ground truthing.

Species	Conservation Status			Source		Distance to Nearest Record (km)	Flowering Period	Preferred Habitat	Habitat occurs within the Survey Area	Pre-Survey Likelihood of Occurrence	Post-Survey Likelihood of Occurrence
	DBCA	EPBC	NatureMap	PMST	DBCA						
<i>Goodenia pallida</i>	P1		X		X	35.9	Aug	Known only from type specimen. Red soils.	Possible	Low	Low
<i>Helichrysum oligochaetum</i>	P1		X		X	37.6	Aug to Nov	Red clay. Floodplains, depressions, alluvial plains. <sup>2</sup>	Yes	Medium	Low
<i>Minuria tridens</i>	P1	VU			X	95	Sep	South facing slopes, steep rocky cliffs, dolomite, limestone, calcrete-impregnated sandstone hills. <sup>1</sup>	No	Low	Low
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)	P1		X		X	30.2	Jul - Oct	Pale red/yellow/brown sand. Coastal sandy areas, ephemeral rivers, sand plains. <sup>2</sup>	No	Low	Low
<i>Cladium procerum</i>	P2				X	93.8	Nov	Coastal swamps, along watercourses, perennial pools. <sup>2</sup>	No	Low	Low
<i>Euphorbia inappendiculata</i> var. <i>inappendiculata</i>	P2				X	59.3	May, Aug	Red, brown clay or loam. Claypans, plains. <sup>2</sup>	Yes	Medium	Low
<i>Ipomoea racemigera</i>	P2				X	92.5	Mar - Aug	On sandy soils along watercourses. <sup>2</sup>	No	Low	Low
<i>Paspalidium retiglume</i>	P2				X	76.2	Mar - Sep	Cracking clay. <sup>2</sup>	Yes	Medium	Low
<i>Pentalepis trichodesmoides</i> subsp. <i>hispida</i>	P2				X	40.6	Aug - Sep	Summits and slopes of low hills below 1150 m, basalts.	Yes	Medium	Low
<i>Teucrium pilbaranum</i>	P2				X	91.6	May or Sep	Clay. Crab hole plain, river floodplains, margin of calcrete table. <sup>2</sup>	Yes	Medium	Low
<i>Trianthema</i> sp. Python Pool (G.R. Guerin & M.E. Trudgen GG 1023)	P2		X		X	19	Mar - Sep	Low lying sandy areas, gibber plains.	No	Low	Low
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)	P3		X		X	34.4	Jun - Nov	Red sands or clay. Sand dunes, margins of estuaries and coastal plains, sandy plains. <sup>2</sup>	No	Low	Low
<i>Atriplex lindleyi</i> subsp. <i>conduplicata</i>	P3		X		X	31.1	Jul	Saline soils, yellow bare sandy clay. Crabhole plains, salt flats, edges of saline swamps. <sup>2</sup>	No	Low	Low
<i>Corchorus congener</i>	P3		X		X	73.8	Apr - Oct	Sand, red sandy loam with limestone. Sand dunes, plains. <sup>2</sup>	No	Low	Low
<i>Dolichocarpa</i> sp. Hamersley Station (A.A. Mitchell PRP 1479)	P3		X		X	5.1	May - Oct	Seasonally inundated clays on gibber plains	Yes	Medium	Low
<i>Eragrostis crateriformis</i>	P3				X	61.3	Jan - Jul	Clayey loam or clay. Creek banks, run-on flats, depressions. <sup>2</sup>	No	Low	Low

<sup>1</sup> Department of Agriculture, Water and Environment (2020) <sup>2</sup>Western Australian Herbarium (2020)

<i>Eragrostis lanicaulis</i>	P3			X	39.8	Mar - Oct	Red or red-brown loam, clay or sand. Floodouts, drainage channels, broad shallow depressions, on sand dunes and limestone rises.	No	Low	Low
<i>Eragrostis surreyana</i>	P3		X	X	22.9	May - Sep	Shallow grey, alluvial soils and deep fine alluvial sands. Soak and seepage areas, broad drainage, seasonally wet areas. <sup>2</sup>	Yes	Medium	Low
<i>Eriochloa fatmensis</i>	P3		X	X	35	Mar - Oct	Heavy clay soils, slightly saline soils along estuaries. Seasonally wet areas. <sup>2</sup>	No	Low	Low
<i>Euphorbia australis</i> var. <i>glabra</i>	P3		X	X	98.8	May	Flat, red brown loam, alluvial cracking clays. Low in the landscape. <sup>2</sup>	Yes	Medium	Low
<i>Euphorbia stevenii</i>	P3			X	52.4	May - Jun	Sandy, clay-loam soils. Flood plains.	No	Low	Low
<i>Fimbristylis sieberiana</i>	P3			X	86.3	May - Jun	Mud, skeletal soil pockets. Pool edges in gorges, sandstone cliffs. <sup>2</sup>	No	Low	Low
<i>Glycine falcata</i>	P3		X	X	27.4	May or Jul	Black clayey sand, stony loam, cracking clays. Along drainage depressions in crabhole plains, river floodplains. <sup>2</sup>	Yes	Medium	Low
<i>Gomphrena cucullata</i>	P3		X	X	16.8	Feb - Apr	Red sandy loam, clayey sand. Open floodplains. <sup>2</sup>	Yes	Medium	Low
<i>Gomphrena leptophylla</i>	P3		X	X	28.5	Mar - Sep	Sand, sandy to clayey loam, granite, quartzite. Open flats, sandy creek beds, edges salt pans and marshes, stony hillsides. <sup>2</sup>	Yes	Medium	Low
<i>Gymnanthera cunninghamii</i>	P3		X	X	30.8	Jan - Dec	Sandy soils. In areas surrounding permanent or semi-permanent water courses, among rocks on Burrup Peninsula. <sup>2</sup>	No	Low	Low
<i>Heliotropium muticum</i>	P3			X	84.6	Aug	Flat sandplains, floodplains, calcareous plains with quartz over granite. <sup>2</sup>	No	Low	Low
<i>Nicotiana umbratica</i>	P3		X		21	Apr - Jun	Shallow soils. Rocky outcrops. <sup>2</sup>	Yes	Medium	Low
<i>Owenia acidula</i>	P3			X	97.7	Jun	Red-brown sandy clay. Floodplains, edge of watercourses. <sup>2</sup>	No	Low	Low
<i>Schoenus punctatus</i>	P3		X		19.3	Aug	Coastal mud and sand, permanent wet areas, watercourses.	No	Low	Low
<i>Solanum albotellatum</i>	P3		X	X	27.4	Mar - May	Cracking clay soils, open floodplains, open clay flats. <sup>2</sup>	Yes	Medium	Low
<i>Sporobolus blakei</i>	P3			X	82.2	Mar or Jun - Jul	Red sandy clay, loam. Creeks.	No	Low	Low
<i>Stackhousia clementii</i>	P3		X	X	10.1	Nov- Mar	Sand, cracking clay, gibber plains and gilgai, often associated with limestone flats and ridges. <sup>2</sup>	Yes	Medium	Low
<i>Stackhousia umbellata</i>	P3		X		38.8	May - Aug	Sandy soils on limestone. <sup>2</sup>	No	Low	Low
<i>Swainsona thompsoniana</i>	P3			X	71.9	Jan - Dec	Gibber plains, crabhole plains and gilgai.	Yes	Medium	Low
<i>Terminalia supranitfolia</i>	P3		X	X	7.6	May or Jul or Nov - Dec	Sand. Among basalt rock piles, near rocky ridges, hill tops. <sup>2</sup>	Yes	Medium	Low

<i>Themeda</i> sp. Hamersley Station (M.E. Trudgen 11431)	P3		X		X	9.3	Aug	Red clay, dark self-mulching clays. Drainage lines, clay flats, crabhole plains. <sup>2</sup>	Yes	Medium	Low
<i>Triodia basitricha</i>	P3				X	93.8	Feb - Aug	Stony ground, gravelly hill, crests, hills, in gorges. <sup>2</sup>	No	Low	Low
<i>Triodia pisoliticola</i>	P3				X	93.3	Mar - Jun	Skeletal soils. Summit of mesas or other hills, midslopes and associated valleys. <sup>2</sup>	No	Low	Low
<i>Vigna triodiophila</i>	P3		X		X	15.9	Dec - Jun	Shallow red-brown clayey sand. Between rocks and on rockpiles	Yes	Medium	Low
<i>Goodenia nuda</i>	P4				X	92.2	Apr - Aug	Red brown clay loam, seasonally inundated clay soils, sand and scoured river beds. Drainage lines, floodplains, hillsides. <sup>2</sup>	Yes	Medium	Low
<i>Livistona alfredii</i>	P4				X	78	Nov - Dec	Edges of permanent pools, adjacent to watercourses. <sup>2</sup>	No	Low	Low
<i>Rhynchosia bungarensis</i>	P4		X		X	7.6	May - Dec	Pebbly, shingly coarse sand amongst boulders. Rock piles, gorges, river beds and adjacent alluvial soils. <sup>2</sup>	Yes	Medium	Low

**Appendix: Assessment of the Likelihood of Occurrence of Threatened and Priority Flora as per Desktop Assessment Database Searches surrounding the Boodarie Survey Area**

Distance to Nearest Record from the Survey Area is based on a distance analysis undertaken against 2020 DBCA database. High = Suitable habitat present and records less than 5 km from the Survey Area, Medium = Suitable habitat present and records between 5 km and 15 km from the Survey Area, and Low = No suitable habitat present and/or records greater than 15 km from the Survey Area, Unknown = Insufficient information available to classify. CR= Listed as Critically Endangered under the EPBC Act, EN = Listed as Endangered under the EPBC Act, VU = listed as Vulnerable under the EPBC Act. T = Threatened under the BC Act, P = Priority Listed, Ranked and Listed by the DBCA. Likelihoods are assessed both pre and post survey based on knowledge of the Survey Area, nearest known records, known flowering period of flora taxa and knowledge gained from the survey effort during ground truthing.

Species	Conservation Status			Source		Distance to Nearest Record (km)	Flowering Period	Preferred Habitat	Habitat occurs within the Survey Area	Pre-Survey Likelihood of Occurrence	Post-Survey Likelihood of Occurrence
	DBCA	EPBC	NatureMap	PMST	DBCA						
<i>Quoya zonalis</i>	T	EN			X	93.7	Jul - Sep	Skeletal brown sandy loam. Steep rocky granite or sandstone conglomerate hill slopes. <sup>2</sup>	No	Low	Low
<i>Acacia leeuweniana</i>	P1				X	95.5	Apr - May	Gritty, skeletal red-grey sandy loam, light orange-brown gravelly sand, granite. In rock fissures in outcrops, among boulders. <sup>2</sup>	No	Low	Low
<i>Atriplex eremitis</i>	P1				X	54.5	Aug	Known only from type specimen. Brown sand. Saline plain.	No	Low	Low
<i>Heliotropium parviantrum</i>	P1				X	67.6	Feb - Jun	Sandy soils. Flats, plains, rocky slopes. <sup>2</sup>	Yes	Medium	Low
<i>Tephrosia rosea</i> var. Port Hedland (A.S. George 1114)	P1		X		X	6.9	Jul - Sep	Pale red/yellow/brown sand. Sand plains. <sup>2</sup>	Yes	Medium	Low
<i>Euphorbia inappendiculata</i> var. <i>inappendiculata</i>	P2				X	99	May, Aug	Red, brown clay or loam. Claypans, plains. <sup>2</sup>	No	Low	Low
<i>Gomphrena pusilla</i>	P2		X		X	12	Mar - Apr	Fine beach sand. Behind foredune, on limestone. <sup>2</sup>	No	Low	Low
<i>Abutilon</i> sp. Pritzelianum (S. van Leeuwen 5095)	P3		X		X	4.6	Jun, Aug - Sep	Red sands or clay. Sand dunes, margins of estuaries and coastal plains, sandy plains. <sup>2</sup>	Yes	High	Medium
<i>Bonamia oblongifolia</i>	P3		X			9.9	Feb	Sandy or gravelly soils. <sup>2</sup>	Yes	Medium	Low
<i>Dolichocarpa</i> sp. Hamersley Station (A.A. Mitchell PRP 1479)	P3				X	99	May - Oct	Seasonally inundated clays on gibber plains	No	Low	Low
<i>Eragrostis crateriformis</i>	P3		X		X	5.5	Jan - May or Jul	Clayey loam or clay. Creek banks, depressions. <sup>2</sup>	No	Low	Low
<i>Euphorbia clementii</i>	P3				X	40.5	Jun	Gravelly hillsides, stony grounds. <sup>2</sup>	No	Low	Low
<i>Gomphrena cucullata</i>	P3				X	49.8	Feb - Apr	Red sandy loam, clayey sand. Open floodplains. <sup>2</sup>	No	Low	Low
<i>Gomphrena leptophylla</i>	P3		X		X	10.2	Mar - Sep	Sand, sandy to clayey loam, granite, quartzite. Open flats, sandy creek beds, edges salt pans and marshes, stony hillsides. <sup>2</sup>	No	Low	Low
<i>Gymnanthera cunninghamii</i>	P3		X		X	10.1	Jan - Dec	Sandy soils. In areas surrounding permanent or semi-permanent water courses, among rocks on Burrup Peninsula. <sup>2</sup>	No	Low	Low
<i>Heliotropium muticum</i>	P3		X		X	9.4	Aug	Flat sandplains, floodplains, calcareous plains with quartz over granite. <sup>2</sup>	Yes	Medium	Low

<sup>1</sup> Department of Agriculture, Water and Environment (2020) <sup>2</sup>Western Australian Herbarium (2020)

<i>Nicotiana umbratica</i>	P3				X	75.5	Apr - Jun	Shallow soils. Rocky outcrops. <sup>2</sup>	No	Low	Low
<i>Phyllanthus hebecarpus</i>	P3				X	90.8	Apr - Aug	Sandy soils. Granite boulders, granite outcrop, rock land, slopes. <sup>2</sup>	No	Low	Low
<i>Rothia indica</i> subsp. <i>australis</i>	P3		X		X	14.7	Apr - Aug	Sandy soils. Sandhills and sandy flats. <sup>2</sup>	Yes	Medium	Low
<i>Sida</i> sp. Barlee Range (S. van Leeuwen 1642)	P3				X	14	May - Sep	Skeletal red soils pockets. Scree slopes, rock piles, gullies and steep slopes. <sup>2</sup>	No	Low	Low
<i>Stylidium weeliwolli</i>	P3				X	56.8	Aug - Sep	Gritty sandy soil, sandy clay. Edge of watercourses, permanent pools, gorges. <sup>2</sup>	No	Low	Low
<i>Terminalia supranitifolia</i>	P3				X	80.7	May or Jul or Nov - Dec	Sand. Among basalt rock piles, near rocky ridges, hill tops. <sup>2</sup>	No	Low	Low
<i>Triodia basitricha</i>	P3				X	96.7	Feb - Aug	Stony ground, gravelly hill, crests, hills, in gorges. <sup>2</sup>	No	Low	Low
<i>Triodia chichesterensis</i>	P3		X		X	28.8	Feb - Apr, Aug	Sand or loam over rocky or gravelly substrates. Flat plains, light sandy soil, hill slopes, stony soil. <sup>2</sup>	No	Low	Low
<i>Vigna triodiophila</i>	P3				X	80.3	Dec - Jun	Shallow red-brown clayey sand. Between rocks and on rockpiles	No	Low	Low
<i>Bulbostylis burbidgeae</i>	P4		X		X	8.8	Mar or Jun - Aug	Granitic soils. Granite outcrops, cliff bases, creek lines. <sup>2</sup>	No	Low	Low
<i>Goodenia nuda</i>	P4		X		X	3.8	Apr - Aug	Red brown clay loam, seasonally inundated clay soils, sand and scoured river beds. Drainage lines, floodplains, hillsides. <sup>2</sup>	No	Low	Low
<i>Ptilotus mollis</i>	P4		X		X	22.9	May - Sep	Stony hills and screes, steep rocky sites. <sup>2</sup>	No	Low	Low

# **Appendix D**

## **Inventory of Vascular Flora**

## Karratha Survey Area - Inventory of Vascular Flora

Family	Species
Aizoaceae	<i>Trianthema triquetrum</i>
Amaranthaceae	* <i>Aerva javanica</i>
	<i>Gomphrena cunninghamii</i>
	<i>Gomphrena kanisii</i>
	<i>Ptilotus aervoides</i>
	<i>Ptilotus astrolasius</i>
	<i>Ptilotus auriculifolius</i>
	<i>Ptilotus axillaris</i>
	<i>Ptilotus calostachyus</i>
	<i>Ptilotus clementii</i>
	<i>Ptilotus exaltatus</i>
	<i>Ptilotus gomphrenoides</i>
	<i>Ptilotus helipteroides</i>
	<i>Ptilotus xerophilus</i>
Apocynaceae	<i>Cynanchum viminale</i> subsp. <i>australe</i>
Araliaceae	<i>Trachymene oleracea</i> subsp. <i>oleracea</i>
Asteraceae	<i>Centipeda minima</i> subsp. <i>macrocephala</i>
	<i>Peripleura virgata</i>
	<i>Pluchea dentex</i>
	<i>Pluchea rubelliflora</i>
	<i>Pterocaulon sphacelatum</i>
	<i>Streptoglossa macrocephala</i>
	<i>Streptoglossa</i> sp.
Bignoniaceae	<i>Dolichandrone occidentalis</i>
Boraginaceae	<i>Heliotropium heteranthum</i>
	<i>Heliotropium inexplicitum</i>
	<i>Heliotropium ovalifolium</i>
	<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>
Capparaceae	<i>Capparis spinosa</i> subsp. <i>nummularia</i>
Caryophyllaceae	<i>Polycarpaea corymbosa</i> var. <i>corymbosa</i>
	<i>Polycarpaea holtzeii</i>
Celastraceae	<i>Stackhousia intermedia</i>
Chenopodiaceae	<i>Atriplex bunburyana</i>
	<i>Atriplex codonocarpa</i>
	<i>Dysphania rhadinostachya</i> subsp. <i>rhadinostachya</i>
	<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>
	<i>Maireana planifolia</i>
	<i>Rhagodia eremaea</i>
	<i>Salsola australis</i>
	<i>Sclerolaena costata</i>
	<i>Sclerolaena densiflora</i>
Convolvulaceae	<i>Bonamia pilbarensis</i>
	<i>Evolvulus alsinoides</i> var. <i>villosicalyx</i>
	<i>Ipomoea polymorpha</i>
Cyperaceae	<i>Bulbostylis turbinata</i>
	<i>Cyperus cunninghamii</i>
	<i>Cyperus iria</i>
	<i>Fimbristylis dichotoma</i>
Euphorbiaceae	<i>Euphorbia biconvexa</i>



## Karratha Survey Area - Inventory of Vascular Flora

Family	Species
Euphorbiaceae	<i>Euphorbia boophthona</i>
	<i>Euphorbia tannensis</i> subsp. <i>eremophila</i>
	<i>Euphorbia vaccaria</i> var. <i>vaccaria</i>
Fabaceae	<i>Acacia ancistrocarpa</i>
	<i>Acacia bivenosa</i>
	<i>Acacia coriacea</i> subsp. <i>pendens</i>
	<i>Acacia elachantha</i>
	<i>Acacia inaequilatera</i>
	<i>Acacia marramamba</i>
	<i>Acacia monticola</i>
	<i>Acacia pyrifolia</i> var. <i>pyrifolia</i>
	<i>Acacia stellaticeps</i>
	<i>Acacia synchronicia</i>
	<i>Acacia trachycarpa</i>
	<i>Acacia xiphophylla</i>
	<i>Alysicarpus muelleri</i>
	<i>Crotalaria medicaginea</i> var. <i>neglecta</i>
	<i>Crotalaria novae-hollandiae</i> subsp. <i>novae-hollandiae</i>
	<i>Grona muelleri</i>
	<i>Indigofera colutea</i>
	<i>Indigofera linifolia</i>
	<i>Indigofera monophylla</i>
	<i>Indigofera trita</i>
	<i>Lotus cruentus</i>
	<i>Neptunia dimorphantha</i>
	<i>Rhynchosia minima</i>
	<i>Senna artemisioides</i> subsp. <i>oligophylla</i>
	<i>Senna ferraria</i>
	<i>Senna glutinosa</i>
	<i>Senna glutinosa</i> subsp. <i>glutinosa</i>
<i>Senna glutinosa</i> subsp. <i>pruinosa</i>	
<i>Senna glutinosa</i> subsp. <i>x luersenii</i>	
<i>Senna notabilis</i>	
<i>Swainsona formosa</i>	
<i>Tephrosia</i> sp. NW Eremaean (S. van Leeuwen et al. PBS 0356)	
Geraniaceae	<i>Erodium cygnorum</i>
Goodeniaceae	<i>Goodenia microptera</i>
	<i>Scaevola spinescens</i>
Lauraceae	<i>Cassytha capillaris</i>
Malvaceae	<i>Abutilon lepidum</i>
	<i>Abutilon malvifolium</i>
	<i>Abutilon oxycarpum</i> subsp. <i>Prostrate</i> (A.A. Mitchell PRP 1266)
	<i>Corchorus lasiocarpus</i> subsp. <i>parvus</i>
	<i>Corchorus parviflorus</i>
	<i>Corchorus tectus</i>
	<i>Corchorus trilocularis</i>
	<i>Corchorus walcottii</i>
	<i>Hibiscus brachysiphonius</i>
<i>Hibiscus coatesii</i>	

## Karratha Survey Area - Inventory of Vascular Flora

Family	Species
Malvaceae	<i>Hibiscus sturtii</i> var. <i>campylochlamys</i>
	<i>Hibiscus sturtii</i> var. <i>platychlamys</i>
	* <i>Malvastrum americanum</i>
	<i>Melhania oblongifolia</i>
	<i>Sida fibulifera</i>
	<i>Sida</i> sp.
	<i>Sida</i> sp. spiciform panicles (E. Leyland s.n. 14/8/90)
	<i>Triumfetta clementii</i>
	<i>Waltheria indica</i>
	Marsileaceae
Menispermaceae	<i>Tinospora smilacina</i>
Molluginaceae	<i>Trigastrotheca molluginea</i>
Moraceae	<i>Ficus aculeata</i> var. <i>indecora</i>
Myrtaceae	<i>Corymbia hamersleyana</i>
Nyctaginaceae	<i>Boerhavia coccinea</i>
Other	Genus sp.
Passifloraceae	* <i>Passiflora foetida</i> var. <i>hispida</i>
Phyllanthaceae	<i>Notoleptopus decaisnei</i>
	<i>Phyllanthus exilis</i>
	<i>Phyllanthus maderaspatensis</i>
Poaceae	<i>Aristida contorta</i>
	<i>Aristida holathera</i> var. <i>holathera</i>
	<i>Aristida latifolia</i>
	<i>Bothriochloa ewartiana</i>
	* <i>Cenchrus ciliaris</i>
	* <i>Cenchrus setiger</i>
	<i>Chloris pectinata</i>
	<i>Chrysopogon fallax</i>
	<i>Cymbopogon ambiguus</i>
	<i>Cymbopogon obtectus</i>
	<i>Cynodon prostratus</i>
	<i>Dactyloctenium radulans</i>
	<i>Dichanthium sericeum</i> subsp. <i>humilius</i>
	<i>Enneapogon caerulescens</i>
	<i>Enteropogon ramosus</i>
	<i>Eragrostis xerophila</i>
	<i>Eriachne aristidea</i>
	<i>Eriachne benthamii</i>
	<i>Eriachne pulchella</i> subsp. <i>dominii</i>
	<i>Eriachne pulchella</i> subsp. <i>pulchella</i>
	<i>Iseilema dolichotrichum</i>
	<i>Panicum decompositum</i>
	<i>Paraneurachne muelleri</i>
	<i>Paspalidium basicladum</i>
	<i>Paspalidium clementii</i>
	<i>Paspalidium rarum</i>
	<i>Sporobolus australasicus</i>
	<i>Themeda triandra</i>
	<i>Triodia epactia</i>

## Karratha Survey Area - Inventory of Vascular Flora

Family	Species
Poaceae	<i>Triodia wiseana</i>
	<i>Xerochloa laniflora</i>
	<i>Yakirra australiensis</i> var. <i>australiensis</i>
Polygalaceae	<i>Polygala glaucifolia</i>
Portulacaceae	<i>Portulaca cyclophylla</i>
	<i>Portulaca oleracea</i>
	* <i>Portulaca pilosa</i>
Proteaceae	<i>Grevillea pyramidalis</i>
	<i>Hakea chordophylla</i>
	<i>Hakea lorea</i> subsp. <i>lorea</i>
Pteridaceae	<i>Cheilanthes sieberi</i> subsp. <i>sieberi</i>
Rubiaceae	<i>Dolichocarpa crouchiana</i>
Sapindaceae	<i>Diplopeltis eriocarpa</i>
Scrophulariaceae	<i>Eremophila longifolia</i>
Solanaceae	<i>Solanum cleistogamum</i>
	<i>Solanum diversiflorum</i>
	<i>Solanum horridum</i>
	<i>Solanum phlomoides</i>
Violaceae	<i>Hybanthus aurantiacus</i>
Zygophyllaceae	<i>Tribulus hirsutus</i>
	<i>Tribulus occidentalis</i>
	<i>Tribulus platypterus</i>

## Boodarie Survey Area - Inventory of Vascular Flora

Family	Species
Aizoaceae	<i>Trianthema pilosum</i>
Amaranthaceae	<i>Ptilotus astrolasius</i>
	<i>Ptilotus axillaris</i>
	<i>Ptilotus calostachyus</i>
	<i>Ptilotus fusiformis</i>
	<i>Ptilotus polystachyus</i>
Apocynaceae	<i>Carissa lanceolata</i>
Asteraceae	<i>Pluchea tetranthera</i>
	<i>Streptoglossa decurrens</i>
Boraginaceae	<i>Ehretia saligna</i>
Celastraceae	<i>Stackhousia intermedia</i>
Chenopodiaceae	<i>Dysphania rhadinostachya</i> subsp. <i>rhadinostachya</i>
Cleomaceae	<i>Arivela viscosa</i>
Convolvulaceae	<i>Bonamia alatisemina</i>
	<i>Bonamia erecta</i>
	<i>Bonamia pannosa</i>
	Convolvulaceae sp.
	<i>Polymeria calycina</i>
Cyperaceae	<i>Abildgaardia oxystachya</i>
	<i>Bulbostylis barbata</i>
	<i>Bulbostylis turbinata</i>
Droseraceae	<i>Drosera finlaysoniana</i>
Euphorbiaceae	<i>Euphorbia myrtoides</i>
Fabaceae	<i>Acacia ancistrocarpa</i>
	<i>Acacia inaequilatera</i>
	<i>Acacia sericophylla</i>
	<i>Acacia stellaticeps</i>
	<i>Acacia synchronicia</i>
	<i>Acacia tumida</i> var. <i>pilbarensis</i>
	<i>Crotalaria ramosissima</i>
	<i>Indigofera monophylla</i>
	<i>Leptosema anomalum</i>
	<i>Senna notabilis</i>
Goodeniaceae	<i>Goodenia forrestii</i>
	<i>Goodenia microptera</i>
	<i>Scaevola parviflora</i> subsp. <i>pilbarae</i>
Lauraceae	<i>Cassytha capillaris</i>
Malvaceae	<i>Abutilon</i> aff. sp. <i>Dioicum</i> (A.A. Mitchell PRP 1618)
	<i>Abutilon otocarpum</i>
	<i>Corchorus laniflorus</i>
	<i>Corchorus sidoides</i> subsp. <i>vermicularis</i>
	<i>Gossypium australe</i>
	<i>Hibiscus brachychlaenus</i>
	<i>Hibiscus burtonii</i>
	<i>Hibiscus leptocladus</i>
	<i>Hibiscus sturtii</i> var. <i>platychlamys</i>
	<i>Melhania oblongifolia</i>
	<i>Sida rohlenaea</i> subsp. <i>rohlenaea</i>
	<i>Sida</i> sp.

## Boodarie Survey Area - Inventory of Vascular Flora

Family	Species
Malvaceae	<i>Sida</i> sp. Pilbara (A.A. Mitchell PRP 1543)
	<i>Triumfetta chaetocarpa</i>
	<i>Waltheria indica</i>
Menispermaceae	<i>Tinospora smilacina</i>
Molluginaceae	<i>Trigastrotheca molluginea</i>
Myrtaceae	<i>Corymbia zygophylla</i>
Nyctaginaceae	<i>Boerhavia repleta</i>
Oleaceae	<i>Jasminum didymum</i> subsp. <i>lineare</i>
Poaceae	<i>Aristida holathera</i> var. <i>holathera</i>
	<i>Aristida hygrometrica</i>
	<i>Aristida inaequiglumis</i>
	<i>Aristida latifolia</i>
	* <i>Cenchrus ciliaris</i>
	* <i>Cenchrus setiger</i>
	<i>Chrysopogon fallax</i>
	<i>Digitaria brownii</i>
	<i>Eragrostis eriopoda</i>
	<i>Eriachne aristidea</i>
	<i>Eriachne obtusa</i>
	<i>Eulalia aurea</i>
	<i>Paraneurachne muelleri</i>
	<i>Triodia epactia</i>
	<i>Triodia lanigera</i>
	<i>Triodia schinzii</i>
	<i>Yakirra australiensis</i> var. <i>australiensis</i>
Portulacaceae	<i>Calandrinia stagnensis</i>
	<i>Portulaca oleracea</i>
Proteaceae	<i>Hakea lorea</i> subsp. <i>lorea</i>
Solanaceae	<i>Solanum diversiflorum</i>
	<i>Solanum lasiophyllum</i>
	<i>Solanum phlomoides</i>
Violaceae	<i>Afrohybanthus aurantiacus</i>
Zygophyllaceae	<i>Tribulus hirsutus</i>

# **Appendix E Flora Site Sheets**

## FLORA SITE SHEET

**Project Name** 4647 Karratha and Boodarie Biological Surveys  
**Site:** KAR01  
**Location** MGA 50 483571 mE 7703314 mN

**Described by:** BE, LC  
**Date:** 27/06/2021  
**Type:** Relevé

**Landform:** Stony Plain  
**Slope:** Flat  
**Rock Type:** Ironstone, Quartz  
**Soil Type:** Clay, Loam, Sand  
**Soil Colour:** Brown, Red



**Vegetation:** *Acacia xiphophylla* mid sparse shrubland over *Triodia epactia* and *Triodia wiseana* low sparse hummock grassland over \**Cenchrus ciliaris*, *Aristida contorta*, *Cynodon prostratus* and *Eriachne pulchella* subsp. *dominii* low open tussock grassland

**Condition:** Poor **Disturbance Type:** Litter, Vehicle tracks, Weeds  
**Fire Age:** > 15 years

### SPECIES LIST

Taxon	Height (cm)	Cover (%)
<i>Acacia xiphophylla</i>	180	6
<i>Scaevola spinescens</i>	120	0.1
<i>Maireana planifolia</i>	100	0.1
<i>Chrysopogon fallax</i>	70	0.1
<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>	60	0.1
* <i>Malvastrum americanum</i>	50	0.1
<i>Paraneurachne muelleri</i>	50	0.1
<i>Ptilotus exaltatus</i>	45	0.1
<i>Triodia epactia</i>	40	8
<i>Enteropogon ramosus</i>	40	0.1
<i>Indigofera trita</i>	40	0.1
<i>Rhagodia eremaea</i>	40	0.1
<i>Triumfetta clementii</i>	40	0.1
<i>Aristida contorta</i>	30	3
<i>Triodia wiseana</i>	30	2
<i>Abutilon lepidum</i>	30	0.1
<i>Eragrostis xerophila</i>	30	0.1
<i>Fimbristylis dichotoma</i>	30	0.1
<i>Rhynchosia minima</i>	30	0.1
<i>Salsola australis</i>	30	0.1
* <i>Cenchrus ciliaris</i>	20	8
<i>Abutilon oxycarpum</i> subsp. <i>Prostrate</i> (A.A. Mitchell PRP 1266)	20	0.1
<i>Dysphania rhadinostachya</i> subsp. <i>rhadinostachya</i>	20	0.1
<i>Heliotropium inexplicitum</i>	20	0.1
<i>Sclerolaena densiflora</i>	20	0.1
<i>Solanum horridum</i>	20	0.1
<i>Boerhavia coccinea</i>	15	0.1
<i>Evolvulus alsinoides</i> var. <i>villosicalyx</i>	15	0.1
<i>Hibiscus sturtii</i> var. <i>campylochlamys</i>	15	0.1
<i>Sclerolaena costata</i>	15	0.1
<i>Paspalidium basicladum</i>	10	0.1
<i>Ptilotus astrolasius</i>	10	0.1
<i>Ptilotus helipteroides</i>	10	0.1
<i>Sida fibulifera</i>	10	0.1
<i>Sida</i> sp.	10	0.1
<i>Sporobolus australasicus</i>	10	0.1
<i>Xerochloa laniflora</i>	10	0.1
<i>Eriachne pulchella</i> subsp. <i>dominii</i>	5	0.5
<i>Bonamia pilbarensis</i>	5	0.1
<i>Dactyloctenium radulans</i>	5	0.1
<i>Euphorbia boophthona</i>	5	0.1
<i>Euphorbia vaccaria</i> var. <i>vaccaria</i>	5	0.1
<i>Ptilotus aervoides</i>	5	0.1
<i>Senna notabilis</i>	5	0.1
<i>Cynodon prostratus</i>	2	1

## FLORA SITE SHEET

**Project Name** 4647 Karratha and Boodarie Biological Surveys  
**Site:** KAR02  
**Location** MGA 50 483560 mE 7703400 mN

**Described by:** BE, LC  
**Date:** 27/06/2021  
**Type:** Relevé

**Landform:** Footslope  
**Slope:** Gentle  
**Rock Type:** Dolerite  
**Soil Type:** Loam, Sand  
**Soil Colour:** Dark Brown



**Vegetation:** *Acacia inaequilatera* and *Acacia bivenosa* tall sparse shrubland over *Diplopeltis eriocarpa*, *Indigofera monophylla* and *Abutilon lepidum* low sparse shrubland over *Triodia epactia* and *Triodia wiseana* low hummock grassland over \**Cenchrus ciliaris* low sparse tussock grassland

**Condition:** Good **Disturbance Type:** Litter, Weeds  
**Fire Age:** > 15 years

### SPECIES LIST

Taxon	Height (cm)	Cover (%)
<i>Acacia inaequilatera</i>	300	3
<i>Acacia bivenosa</i>	300	2
<i>Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)</i>	130	0.1
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>	100	0.1
<i>Abutilon lepidum</i>	70	0.5
<i>Acacia marramamba</i>	70	0.1
* <i>Cenchrus ciliaris</i>	60	5
<i>Themeda triandra</i>	60	0.1
<i>Diplopeltis eriocarpa</i>	50	0.5
<i>Indigofera monophylla</i>	50	0.5
* <i>Aerva javanica</i>	50	0.1
<i>Boerhavia coccinea</i>	50	0.1
<i>Waltheria indica</i>	50	0.1
<i>Triodia epactia</i>	40	40
<i>Triodia wiseana</i>	40	20
<i>Euphorbia tannensis</i> subsp. <i>eremophila</i>	40	0.1
<i>Evolvulus alsinoides</i> var. <i>villosicalyx</i>	40	0.1
<i>Ptilotus auriculifolius</i>	40	0.1
<i>Ptilotus exaltatus</i>	40	0.1
<i>Rhynchosia minima</i>	40	0.1
<i>Aristida holathera</i> var. <i>holathera</i>	30	0.1
<i>Cassytha capillaris</i>	30	0.1
<i>Corchorus parviflorus</i>	30	0.1
<i>Crotalaria medicaginea</i> var. <i>neglecta</i>	30	0.1
<i>Indigofera trita</i>	30	0.1
<i>Melhania oblongifolia</i>	30	0.1
<i>Ptilotus helipteroides</i>	30	0.1
<i>Senna artemisioides</i> subsp. <i>oligophylla</i>	30	0.1
<i>Swainsona formosa</i>	30	0.1
<i>Alysicarpus muelleri</i>	20	0.1
<i>Corchorus tectus</i>	20	0.1
<i>Goodenia microptera</i>	20	0.1
<i>Phyllanthus maderaspatensis</i>	20	0.1
<i>Ptilotus axillaris</i>	20	0.1
<i>Senna notabilis</i>	20	0.1
<i>Solanum horridum</i>	20	0.1
<i>Triumfetta clementii</i>	20	0.1
<i>Hibiscus sturtii</i> var. <i>campylochlamys</i>	10	0.1
<i>Tribulus hirsutus</i>	10	0.1



## FLORA SITE SHEET

**Project Name** 4647 Karratha and Boodarie Biological Surveys  
**Site:** KAR03  
**Location** MGA 50 482803 mE 7703335 mN

**Described by:** BE, LC  
**Date:** 27/06/2021  
**Type:** Relevé

**Landform:** Hill Crest  
**Slope:** Steep  
**Rock Type:** Dolerite  
**Soil Type:** Loam, Sand  
**Soil Colour:** Brown, Red



**Vegetation:** *Diplopeltis eriocarpa* low sparse shrubland over *Triodia wiseana* low hummock grassland

**Condition:** Very Good                      **Disturbance Type:** Vehicle tracks  
**Fire Age:** > 15 years

### SPECIES LIST

Taxon	Height (cm)	Cover (%)
<i>Senna glutinosa</i> subsp. <i>pruinosa</i>	200	0.1
<i>Acacia inaequilatera</i>	160	0.1
<i>Acacia pyrifolia</i> var. <i>pyrifolia</i>	60	0.1
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>	60	0.1
<i>Sida</i> sp. <i>spiciform</i> panicles (E. Leyland s.n. 14/8/90)	60	0.1
<i>Triodia wiseana</i>	40	40
<i>Acacia bivenosa</i>	40	0.1
<i>Corchorus tectus</i>	40	0.1
<i>Indigofera monophylla</i>	40	0.1
<i>Ptilotus auriculifolius</i>	40	0.1
<i>Ptilotus exaltatus</i>	40	0.1
<i>Senna notabilis</i>	40	0.1
<i>Tribulus platypterus</i>	40	0.1
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>	40	0.1
<i>Diplopeltis eriocarpa</i>	30	2
<i>Abutilon lepidum</i>	30	0.1
<i>Dolichocarpa crouchiana</i>	30	0.1
<i>Cassytha capillaris</i>	20	0.1
<i>Hybanthus aurantiacus</i>	20	0.1
<i>Melhania oblongifolia</i>	20	0.1
<i>Peripleura virgata</i>	20	0.1
<i>Phyllanthus maderaspatensis</i>	20	0.1
<i>Rhynchosia minima</i>	20	0.1
<i>Hibiscus sturtii</i> var. <i>platyklamys</i>	15	0.1
<i>Solanum cleistogamum</i>	15	0.1
<i>Eriachne pulchella</i> subsp. <i>pulchella</i>	10	0.1
<i>Paspalidium clementii</i>	10	0.1
<i>Triumfetta clementii</i>	10	0.1
<i>Tephrosia</i> sp. <i>NW Eremaean</i> (S. van Leeuwen et al. PBS 0356)	5	0.1
<i>Tribulus hirsutus</i>	5	0.1

## FLORA SITE SHEET

**Project Name** 4647 Karratha and Boodarie Biological Surveys  
**Site:** KAR04  
**Location** MGA 50 482030 mE 7703656 mN

**Described by:** BE, LC  
**Date:** 28/06/2021  
**Type:** Relevé

**Landform:** Minor Drain  
**Slope:** Flat  
**Rock Type:** Dolerite, Ironstone  
**Soil Type:** Soft Clay  
**Soil Colour:** Brown, Red



**Vegetation:** *Eriachne benthamii*, \**Cenchrus ciliaris*, \**Cenchrus setiger*, *Chrysopogon fallax* and *Eragrostis setifolia* low closed tussock grassland over *Rhynchosia minima* and *Alysicarpus muelleri* low sparse hermland

**Condition:** Good **Disturbance Type:** Weeds  
**Fire Age:** > 15 years

### SPECIES LIST

Taxon	Height (cm)	Cover (%)
<i>Acacia xiphophylla</i>	250	0.1
<i>Acacia pyrifolia</i> var. <i>pyrifolia</i>	160	0.1
<i>Senna glutinosa</i>	140	0.1
* <i>Cenchrus ciliaris</i>	70	15
* <i>Cenchrus setiger</i>	70	5
<i>Bothriochloa ewartiana</i>	70	1
<i>Chrysopogon fallax</i>	60	5
<i>Corchorus walcottii</i>	60	0.1
<i>Hybanthus aurantiacus</i>	60	0.1
<i>Trichodesma zeylanicum</i> var. <i>zeylanicum</i>	60	0.1
<i>Eriachne benthamii</i>	50	70
<i>Alysicarpus muelleri</i>	50	1
<i>Indigofera monophylla</i>	50	0.1
<i>Eragrostis xerophila</i>	40	2
<i>Dichanthium sericeum</i> subsp. <i>humilius</i>	40	1
<i>Indigofera trita</i>	40	0.1
* <i>Malvastrum americanum</i>	40	0.1
<i>Ptilotus exaltatus</i>	40	0.1
<i>Triodia epactia</i>	40	0.1
<i>Rhynchosia minima</i>	30	2
<i>Chloris pectinata</i>	30	0.1
<i>Phyllanthus maderaspatensis</i>	30	0.1
<i>Gomphrena kanisii</i>	20	0.1
<i>Neptunia dimorphantha</i>	20	0.1
<i>Sida fibulifera</i>	20	0.1
<i>Fimbristylis dichotoma</i>	10	0.1
<i>Centipeda minima</i> subsp. <i>macrocephala</i>	1	0.1

## FLORA SITE SHEET

**Project Name** 4647 Karratha and Boodarie Biological Surveys  
**Site:** KAR05  
**Location** MGA 50 481945 mE 7702832 mN

**Described by:** BE, LC  
**Date:** 28/06/2021  
**Type:** Relevé

**Landform:** Cracking Clay Plain  
**Slope:** Flat  
**Rock Type:** Dolerite, Ironstone, Quartz  
**Soil Type:** Soft Clay  
**Soil Colour:** Brown, Red



**Vegetation:** *Eragrostis setifolia*, *Iseilema dolichotrichum* and *Fimbristylis dichotoma* low tussock grassland over *Ptilotus gomphrenoides*, *Sida fibulifera*, *Lotus cruentus* and *Rhynchosia minima* low sparse herbland

**Condition:** Very Good **Disturbance Type:** Weeds  
**Fire Age:** > 15 years

### SPECIES LIST

Taxon	Height (cm)	Cover (%)
<i>Aristida latifolia</i>	70	0.1
<i>Rhagodia eremaea</i>	70	0.1
<i>Chrysopogon fallax</i>	50	0.1
<i>Enchylaena tomentosa</i> var. <i>tomentosa</i>	50	0.1
<i>Eragrostis xerophila</i>	40	50
<i>Eriachne benthamii</i>	40	0.1
* <i>Malvastrum americanum</i>	40	0.1
<i>Fimbristylis dichotoma</i>	30	4
<i>Sida fibulifera</i>	30	2
<i>Rhynchosia minima</i>	30	1
<i>Abutilon malvifolium</i>	30	0.1
<i>Centipeda minima</i> subsp. <i>macrocephala</i>	30	0.1
<i>Gomphrena kanisii</i>	30	0.1
<i>Phyllanthus maderaspatensis</i>	30	0.1
<i>Sclerolaena costata</i>	30	0.1
<i>Iseilema dolichotrichum</i>	20	6
<i>Ptilotus gomphrenoides</i>	20	3
<i>Lotus cruentus</i>	20	2
<i>Aristida contorta</i>	20	0.1
<i>Hibiscus brachysiphonius</i>	20	0.1
<i>Indigofera trita</i>	20	0.1
<i>Grona muelleri</i>	10	0.1
<i>Bulbostylis turbinata</i>	5	0.1
<i>Pluchea rubelliflora</i>	5	0.1
<i>Streptoglossa</i> sp.	5	0.1

## FLORA SITE SHEET

**Project Name** 4647 Karratha and Boodarie Biological Surveys  
**Site:** BOR01  
**Location** MGA 50 661485 mE 7737927 mN

**Described by:** BE,LC  
**Date:** 25/06/2021  
**Type:** Relevé

**Landform:** Sandy Plain  
**Slope:** Flat  
**Rock Type:** N/A  
**Soil Type:** Loam, Sand  
**Soil Colour:** Orange



**Vegetation:** *Acacia stellaticeps*, *Senna notabilis*, *Corchorus sidoides* subsp. *vermicularis*, *Corchorus laniflorus* and *Indigofera monophylla* low sparse shrubland over *Triodia epactia* low open hummock grassland over *Aristida holathera* var. *holathera*, *Chrysopogon fallax* and *Bulbostylis barbata* low open tussock grassland over *Bonamia alatisemina*, *Afrohybanthus aurantiacus* and *Calandrinia stagnensis* low sparse herbland

**Condition:** Excellent **Disturbance Type:** None  
**Fire Age:** 1-5 years

### SPECIES LIST

Taxon	Height (cm)	Cover (%)
<i>Acacia inaequilatera</i>	210	0.1
<i>Chrysopogon fallax</i>	150	2
<i>Corchorus laniflorus</i>	50	0.5
<i>Acacia sericophylla</i>	50	0.1
<i>Acacia tumida</i> var. <i>pilbarensis</i>	50	0.1
<i>Aristida hygrometrica</i>	50	0.1
<i>Goodenia microptera</i>	50	0.1
<i>Indigofera monophylla</i>	40	0.5
<i>Ptilotus fusiformis</i>	40	0.1
<i>Waltheria indica</i>	40	0.1
<i>Aristida holathera</i> var. <i>holathera</i>	40	20
<i>Triodia epactia</i>	40	14
<i>Afrohybanthus aurantiacus</i>	30	0.5
<i>Bonamia pannosa</i>	30	0.1
<i>Cassyltha capillaris</i>	30	0.1
<i>Crotalaria ramosissima</i>	30	0.1
<i>Hibiscus burtonii</i>	30	0.1
<i>Pluchea tetranthera</i>	30	0.1
<i>Ptilotus astrolasius</i>	30	0.1
<i>Solanum lasiophyllum</i>	30	0.1
<i>Trianthema pilosum</i>	30	0.1
<i>Senna notabilis</i>	30	2
<i>Corchorus sidoides</i> subsp. <i>vermicularis</i>	30	1
<i>Abildgaardia oxystachya</i>	20	0.1
<i>Leptosema anomalum</i>	20	0.1
<i>Ptilotus polystachyus</i>	20	0.1
<i>Sida</i> sp. <i>Pilbara</i> (A.A. Mitchell PRP 1543)	20	0.1
<i>Trigastrotheca molluginea</i>	20	0.1
<i>Acacia stellaticeps</i>	20	4
<i>Bonamia alatisemina</i>	20	3
<i>Stackhousia intermedia</i>	15	0.1
<i>Convolvulaceae</i> sp.	10	0.1
<i>Yakirra australiensis</i> var. <i>australiensis</i>	10	0.1
<i>Bulbostylis barbata</i>	10	1
<i>Calandrinia stagnensis</i>	1	0.5

## FLORA SITE SHEET

**Project Name** 4647 Karratha and Boodarie Biological Surveys  
**Site:** BOR02  
**Location** MGA 50 662737 mE 7737194 mN

**Described by:** BE,LC  
**Date:** 26/06/2021  
**Type:** Relevé

**Landform:** Sandy Plain  
**Slope:** Flat  
**Rock Type:** N/A  
**Soil Type:** Loam, Sand  
**Soil Colour:** Orange



**Vegetation:** *Acacia stellaticeps*, *Senna notabilis*, *Acacia tumida* var. *pilbarensis* and *Indigofera monophylla* low open shrubland over *Triodia lanigera* and *Triodia epactia* low open hummock grassland over *Aristida holathera* var. *holathera* and *Chrysopogon fallax* low sparse tussock grassland over *Bonamia alatisemina* and *Sida* sp. *Pilbara* (A.A. Mitchell PRP 1543) low sparse hermland

**Condition:** Excellent **Disturbance Type:** None  
**Fire Age:** 1-5 years

### SPECIES LIST

Taxon	Height (cm)	Cover (%)
<i>Acacia inaequilatera</i>	310	0.1
<i>Acacia sericophylla</i>	190	0.1
<i>Corymbia zygophylla</i>	160	0.1
<i>Chrysopogon fallax</i>	80	0.5
<i>Solanum lasiophyllum</i>	60	0.1
<i>Afrohybanthus aurantiacus</i>	50	0.1
<i>Bonamia erecta</i>	50	0.1
<i>Acacia tumida</i> var. <i>pilbarensis</i>	50	3
<i>Indigofera monophylla</i>	40	0.5
<i>Corchorus laniflorus</i>	40	0.1
<i>Digitaria brownii</i>	40	0.1
<i>Eragrostis eriopoda</i>	40	0.1
<i>Goodenia microptera</i>	40	0.1
<i>Hibiscus burtonii</i>	40	0.1
<i>Paraneurachne muelleri</i>	40	0.1
<i>Triodia lanigera</i>	40	8
<i>Aristida holathera</i> var. <i>holathera</i>	40	2
<i>Sida</i> sp. <i>Pilbara</i> (A.A. Mitchell PRP 1543)	30	0.5
<i>Corchorus sidoides</i> subsp. <i>vermicularis</i>	30	0.1
<i>Hibiscus leptocladus</i>	30	0.1
<i>Ptilotus astrolasius</i>	30	0.1
<i>Ptilotus fusiformis</i>	30	0.1
<i>Acacia stellaticeps</i>	30	18
<i>Senna notabilis</i>	30	5
<i>Triodia epactia</i>	20	5
<i>Bonamia alatisemina</i>	20	3
<i>Yakirra australiensis</i> var. <i>australiensis</i>	10	0.1

## FLORA SITE SHEET

**Project Name** 4647 Karratha and Boodarie Biological Surveys  
**Site:** BOR03  
**Location** MGA 50 662126 mE 7736846 mN

**Described by:** BE,LC  
**Date:** 26/06/2021  
**Type:** Relevé

**Landform:** Sandy Plain  
**Slope:** Flat  
**Rock Type:** N/A  
**Soil Type:** Loam, Sand  
**Soil Colour:** Orange



**Vegetation:** *Acacia stellaticeps*, *Bonamia erecta*, *Acacia tumida* var. *pilbarensis*, *Senna notabilis* and *Indigofera monophylla* low open shrubland over *Triodia lanigera*, *Triodia epactia* and *Triodia schinzii* low open hummock grassland over *Aristida holathera* var. *holathera* and *Digitaria brownii* low sparse tussock grassland

**Condition:** Excellent      **Disturbance Type:** None  
**Fire Age:** 1-5 years, >10 years      **Site Notes:** Mainly burnt recently but includes a portion of longer unburnt vegetation

### SPECIES LIST

Taxon	Height (cm)	Cover (%)
<i>Chrysopogon fallax</i>	120	0.1
<i>Aristida inaequiglumis</i>	90	0.1
<i>Acacia tumida</i> var. <i>pilbarensis</i>	70	2
<i>Eragrostis eriopoda</i>	50	0.1
<i>Eriachne obtusa</i>	50	0.1
<i>Solanum phlomoides</i>	50	0.1
<i>Goodenia microptera</i>	40	0.1
<i>Hibiscus burtonii</i>	40	0.1
<i>Paraneurachne muelleri</i>	40	0.1
<i>Ptilotus astrolasius</i>	40	0.1
<i>Ptilotus fusiformis</i>	40	0.1
<i>Sida</i> sp.	40	0.1
<i>Sida</i> sp. <i>Pilbara</i> (A.A. Mitchell PRP 1543)	40	0.1
<i>Solanum lasiophyllum</i>	40	0.1
<i>Triumfetta chaetocarpa</i>	40	0.1
<i>Triodia lanigera</i>	40	15
<i>Bonamia erecta</i>	40	4
<i>Senna notabilis</i>	40	2
<i>Triodia schinzii</i>	40	2
<i>Digitaria brownii</i>	40	1
<i>Indigofera monophylla</i>	30	0.5
<i>Acacia ancistrocarpa</i>	30	0.1
<i>Acacia stellaticeps</i>	30	12
<i>Triodia epactia</i>	30	3
<i>Aristida holathera</i> var. <i>holathera</i>	30	2
<i>Bonamia alatisemina</i>	20	0.1
<i>Bulbostylis barbata</i>	5	0.1

## FLORA SITE SHEET

**Project Name** 4647 Karratha and Boodarie Biological Surveys  
**Site:** BOR04  
**Location** MGA 50 661061 mE 7736877 mN

**Described by:** BE,LC  
**Date:** 26/06/2021  
**Type:** Relevé

**Landform:** Sandy Plain  
**Slope:** Flat  
**Rock Type:** N/A  
**Soil Type:** Loam, Sand  
**Soil Colour:** Orange



**Vegetation:** *Acacia stellaticeps* low open shrubland over *Triodia epactia* and *Triodia lanigera* low hummock grassland

**Condition:** Very Good  
**Fire Age:** > 15 years

**Disturbance Type:** Litter, Vehicle tracks

### SPECIES LIST

Taxon	Height (cm)	Cover (%)
<i>Acacia stellaticeps</i>	80	16
<i>Pluchea tetranthera</i>	60	0.1
<i>Triodia epactia</i>	40	35
<i>Triodia lanigera</i>	40	3
<i>Cassutha capillaris</i>	30	0.1

# **Appendix F**

## **Fauna Likelihood of Occurance Assessment**



Conservation Status: State - Listed under Biodiversity Conservation Act 2016 or Department of Biodiversity, Conservation and Attractions Conservation, Federal - Listed under Environmental Protection and Biodiversity Conservation Act 1999. CR - Critically Endangered, EN - Endangered, VU - Vulnerable, MI - Migratory, OS - Other Specially Protected fauna, MA - Marine, P - Listed as Priority by DBCA.

Database: NM - NatureMap, PMST - EPBC Protected Matters Search Tool, DBCA - DBCA Threatened and Priority Fauna database search.

Family	Scientific Name	Common Name	Conservation Status		Database				Likelihood of Occurrence	Justification
			State	Federal	NM	PMST	DBCA	DBCA 15 Years		
<b>AVIAN</b>										
Apodidae	<i>Apus pacificus</i>	Pacific Swift (Fork-tailed Swift)	MI	MI, MA	X	X	X	X	Medium	Species may fly over the Survey Area as it covers a wide range of airspace over varied habitat.
Charadriidae	<i>Charadrius leschenaultii</i>	Greater Sand Plover	VU	VU, MI, MA	X	X	X	X	Low	No suitable habitat present (beaches, tidal flats, sandy substrates).
	<i>Charadrius mongolus</i>	Lesser Sand Plover	EN	EN, MI, MA	X	X	X	X	Low	No suitable habitat present (beaches, tidal flats, muddy substrates).
	<i>Charadrius veredus</i>	Oriental Plover	MI	MI, MA	X	X	X	X	Medium	Suitable habitat present (open plains and grasslands). Nearby records from salt evaporation ponds northwest of the Survey Area.
	<i>Pluvialis fulva</i>	Pacific Golden Plover	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (coastal, tidal flats).
	<i>Pluvialis squatarola</i>	Grey Plover	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (coastal, tidal flats).
Falconidae	<i>Falco hypoleucos</i>	Grey Falcon	VU	VU		X			Low	Preferred nesting habitat absent. May use Survey Area for hunting. No nearby or recent records.
	<i>Falco peregrinus</i>	Peregrine Falcon	OS		X		X	X	Medium	Preferred nesting habitat absent. May use Survey Area for hunting. One nearby record.
Fregatidae	<i>Fregata ariel</i>	Lesser Frigatebird	MI	MI, MA	X	X	X		Low	No suitable habitat present (oceanic).
Glareolidae	<i>Glareola maldivarum</i>	Oriental Pratincole	MI	MI, MA	X	X	X		High	Suitable habitat present (open plains). Nearby recent records.
Hirundinidae	<i>Hirundo rustica</i>	Barn Swallow	MI	MI, MA	X	X	X	X	Medium	May use the Survey Area for foraging (open plains). Nearby records from salt evaporation ponds.
Laridae	<i>Anous stolidus</i>	Common Noddy (Brown Noddy)	MI	MI, MA	X	X			Low	No suitable habitat present (oceanic).
	<i>Chlidonias leucopterus</i>	White-winged Black Tern	MI	MI, MA	X		X	X	Low	No suitable habitat present (fresh to saline wetlands).
	<i>Gelochelidon nilotica</i>	Gull-billed Tern	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (coastal).
	<i>Hydroprogne caspia</i>	Caspian Tern	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (coastal areas, fresh to saline lakes, temporary wetlands).
	<i>Onychoprion anaethetus</i>	Bridled Tern	MI	MI, MA	X	X			Low	No suitable habitat present (oceanic).
	<i>Sterna dougallii</i>	Roseate Tern	MI	MI, MA	X	X			Low	No suitable habitat present (coastal).
	<i>Sterna hirundo</i>	Common Tern	MI	MI, MA	X				Low	No suitable habitat present (coastal).
	<i>Sternula albifrons</i>	White-shafted Little Tern	MI	MI, MA	X		X	X	Low	No suitable habitat present (coastal, beaches).
	<i>Sternula nereis nereis</i>		VU	VU		X			Low	No suitable habitat present (coastal).
	<i>Thalasseus bergii</i>	Crested Tern (Greater Crested Tern)	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (coastal).
Motacillidae	<i>Motacilla cinerea</i>	Grey Wagtail	MI	MI, MA		X			Low	No suitable habitat present (fresh sandy or rocky streams, ploughed land). No nearby records.
	<i>Motacilla tschutschensis</i>	Yellow Wagtail	MI	MI, MA		X			Low	No suitable habitat present (swamp margins, ploughed land). Rarely found in Australia and usually North of Broome.
Oceanitidae	<i>Oceanites oceanicus</i>	Wilson's Storm Petrel	MI	MI, MA	X		X		Low	No suitable habitat present (oceanic).

Family	Scientific Name	Common Name	Conservation Status		Database				Likelihood of Occurrence	Justification
			State	Federal	NM	PMST	DBCA	DBCA 15 Years		
<b>Pandionidae</b>	<i>Pandion haliaetus cristatus</i>	Eastern Osprey	MI		X	X	X	X	Low	No suitable habitat present (coastal).
<b>Procellariidae</b>	<i>Ardena pacifica</i>	Wedge-tailed Shearwater	MI	MI, MA	X	X			Low	No suitable habitat present (oceanic).
	<i>Calonectris leucomelas</i>	Streaked Shearwater	MI	MI, MA		X			Low	No suitable habitat present (oceanic).
	<i>Macronectes giganteus</i>	Southern Giant Petrel	MI	EN, MI, MA		X			Low	No suitable habitat present (oceanic).
<b>Psittaculidae</b>	<i>Pezoporus occidentalis</i>	Night Parrot	CR	EN		X			Low	No suitable habitat present (long unburnt spinifex, samphire on margins of saltlakes). Outside known range, however, due to cryptic nature and lack of certainty surrounding current distribution cannot be ruled out.
<b>Rostratulidae</b>	<i>Rostratula australis</i>	Australian Painted Snipe	EN	EN, MA		X			Low	No suitable habitat present (well vegetated wetlands).
<b>Scolopacidae</b>	<i>Actitis hypoleucos</i>	Common Sandpiper	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (coastal and interior wetlands).
	<i>Arenaria interpres</i>	Ruddy Turnstone	MI	MI, MA	X		X	X	Low	No suitable habitat present (coastal).
	<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (fresh to saline wetlands).
	<i>Calidris alba</i>	Sanderling	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (beaches, tidal flats).
	<i>Calidris canutus</i>	Red Knot	EN	EN, MI, MA	X	X	X	X	Low	No suitable habitat present (tidal flats).
	<i>Calidris falcinellus</i>	Broad-billed Sandpiper		MI, MA	X	X	X	X	Low	No suitable habitat present (estuarine mudflats, saltmarshes, reefs).
	<i>Calidris ferruginea</i>	Curllew Sandpiper	CR	CR, MI, MA	X	X	X	X	Low	No suitable habitat present (tidal mudflats/claypans).
	<i>Calidris melanotos</i>	Pectoral Sandpiper	MI	MI, MA		X			Low	No suitable habitat present (fresh to saline wetlands).
	<i>Calidris ruficollis</i>	Red-necked Stint	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (mudflats, salt marshes, beaches).
	<i>Calidris subminuta</i>	Long-toed Stint	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (fresh wetlands).
	<i>Calidris tenuirostris</i>	Great Knot	CR	CR, MI, MA	X	X	X	X	Low	No suitable habitat present (tidal flats).
	<i>Gallinago stenura</i>	Pin-tailed Snipe	MI	MI, MA	X				Low	No suitable habitat present (wetlands).
	<i>Limosa lapponica</i>	Bar-tailed Godwit	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (tidal flats).
	<i>Limosa limosa</i>	Black-tailed Godwit	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (shallow wetlands with muddy substrates).
	<i>Numenius madagascariensis</i>	Far Eastern Curlew	CR	CR, MI, MA	X	X	X	X	Low	No suitable habitat present (tidal flats).
	<i>Numenius minutus</i>	Little Curlew	MI	MI, MA	X		X	X	Low	No suitable habitat present (oceanic).
	<i>Numenius phaeopus</i>	Whimbrel	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (tidal flats, mangroves).
	<i>Phalaropus lobatus</i>	Red-necked Phalarope	MI	MI, MA		X			Low	No suitable habitat present (oceanic).
	<i>Tringa brevipes</i>	Grey-tailed Tattler	P4, MI	MI, MA	X	X	X	X	Low	No suitable habitat present (tidal flats).
	<i>Tringa glareola</i>	Wood Sandpiper	MI	MI, MA	X		X	X	Low	No suitable habitat present (fresh wetlands).
<i>Tringa nebularia</i>	Common Greenshank	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (wetlands, mudflats, mangroves).	
<i>Tringa stagnatilis</i>	Marsh Sandpiper	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (fresh to brackish inland wetlands).	
<i>Tringa totanus</i>	Common Redshank	MI	MI, MA		X			Low	No suitable habitat present (fresh to saline wetlands).	
<i>Xenus cinereus</i>	Terek Sandpiper	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (tidal flats).	
<b>Sulidae</b>	<i>Sula leucogaster</i>	Brown Booby	MI	MI, MA	X				Low	No suitable habitat present (coastal).

Family	Scientific Name	Common Name	Conservation Status		Database				Likelihood of Occurrence	Justification
			State	Federal	NM	PMST	DBCA	DBCA 15 Years		
Threskiornithidae	<i>Plegadis falcinellus</i>	Glossy Ibis	MI	MI, MA	X		X	X	Medium	May use habitats within the Survey Area (drainage lines, dry grasslands).
<b>MAMMALIAN</b>										
Dasyuridae	<i>Dasyurus hallucatus</i>	Northern Quoll	EN	EN	X	X	X	X	High	Suitable habitat present (rocky escarpments, eucalyptus woodlands). Recent nearby records.
Macropodidae	<i>Lagostrophus fasciatus fasciatus</i>	Banded Hare-wallaby	VU	VU	X				Low	Restricted to offshore islands in Shark Bay, Western Australia.
Megadermatidae	<i>Macroderma gigas</i>	Ghost Bat	VU	VU	X	X			Medium	May use the Survey Area for hunting (spinifex and black soil grasslands). Recent records ~30 km east at Roebourne.
Muridae	<i>Hydromys chrysogaster</i>	Water Rat	P4		X				Low	No suitable habitat present (permanent fresh to brackish waterbodies).
	<i>Leggadina lakedownensis</i>	Short-tailed Mouse	P4		X		X	X	High	Suitable habitat present (spinifex and tussock grasslands, acacia shrublands, stony ranges). Nearby records.
	<i>Pseudomys chapmani</i>	Western Pebble-mound Mouse	P4		X		X		Medium	Suitable habitat present (rocky ranges and stony hillslopes with stony mulch and hard spinifex). Recent record ~25 km east.
Rhinycteridae	<i>Rhinycteris aurantia Pilbara form</i>	Pilbara Leaf-nosed Bat	VU	VU	X	X			Low	May use the Survey Area for hunting (open savannah woodlands and grasslands). No recent or nearby records.
Thylacomyidae	<i>Macrotis lagotis</i>	Bilby, Dalgyte	VU	VU		X			Low	Suitable habitat present (drainage lines, hummock grasslands). No nearby records.
<b>REPTILIAN</b>										
Pythonidae	<i>Liasis olivaceus barroni</i>	Pilbara Olive Python	VU	VU	X	X	X		Low	No suitable habitat present (rocky ranges with permanent waterbodies).
Scincidae	<i>Ctenotus angusticeps</i>	Airlie Island ctenotus	P3		X		X	X	Low	No suitable habitat present (coastal mudflats vegetated with samphire).
	<i>Lerista neviniae</i>	Nevin's three-toed slider	EN	EN	X				Low	No suitable habitat present (coastal dunes).
	<i>Lerista quadrivincula</i>	Dark-streaked slider	P1		X				Low	Known from one specimen found on coastal plains near Karratha in 1980.
	<i>Notoscincus butleri</i>	Lined soil-crevice skink	P4		X		X		High	Suitable habitat present (rocky, spinifex dominated areas near creeks and river margins). Previously recorded in the Survey Area.

Conservation Status: State - Listed under Biodiversity Conservation Act 2016 or Department of Biodiversity, Conservation and Attractions Conservation, Federal - Listed under Environmental Protection and Biodiversity Conservation Act 1999. CR - Critically Endangered, EN - Endangered, VU - Vulnerable, MI - Migratory, OS - Other Specially Protected fauna, MA - Marine, P - Listed as Priority by DBCA. Database: NM - NatureMap, PMST - EPBC Protected Matters Search Tool, DBCA - DBCA Threatened and Priority Fauna database search.

Family	Scientific Name	Common Name	Conservation Status		Database				Likelihood of Occurrence	Justification
			State	Federal	NM	PMST	DBCA	DBCA 15 Years		
<b>AVIAN</b>										
Apodidae	<i>Apus pacificus</i>	Pacific Swift (Fork-tailed Swift)	MI	MI, MA	X	X			Medium	Species may fly over the Survey Area as it covers a wide range of airspace over varied habitat.
Charadriidae	<i>Charadrius leschenaultii</i>	Greater Sand Plover	VU	VU, MI, MA	X	X	X	X	Low	No suitable habitat present (beaches, tidal flats, sandy substrates).
	<i>Charadrius mongolus</i>	Lesser Sand Plover	EN	EN, MI, MA	X	X	X	X	Low	No suitable habitat present (beaches, tidal flats, muddy substrates).
	<i>Charadrius veredus</i>	Oriental Plover	MI	MI, MA	X	X	X	X	Medium	Suitable habitat present (open plains and grasslands). Recent records >15 km north.
	<i>Pluvialis fulva</i>	Pacific Golden Plover	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (coastal, tidal flats).
	<i>Pluvialis squatarola</i>	Grey Plover	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (coastal, tidal flats).
Falconidae	<i>Falco hypoleucos</i>	Grey Falcon	VU	VU	X	X	X	X	High	Preferred nesting habitat absent. May use Survey Area for hunting. Recent nearby records.
	<i>Falco peregrinus</i>	Peregrine Falcon	OS		X		X	X	High	Preferred nesting habitat absent. May use Survey Area for hunting. Recent nearby records.
Fregatidae	<i>Fregata ariel</i>	Lesser Frigatebird	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (oceanic).
Glareolidae	<i>Glareola maldivarum</i>	Oriental Pratincole	MI	MI, MA	X	X	X	X	High	Suitable habitat present (open plains). Nearby recent records.
Hirundinidae	<i>Hirundo rustica</i>	Barn Swallow	MI	MI, MA	X		X	X	High	May use Survey Area for foraging (open plains). Nearby recent records from salt evaporation ponds.
Laridae	<i>Anous stolidus</i>	Common Noddy (Brown Noddy)	MI	MI, MA		X			Low	No suitable habitat present (oceanic).
	<i>Chlidonias leucopterus</i>	White-winged Black Tern	MI	MI, MA	X		X	X	Low	No suitable habitat present (fresh to saline wetlands).
	<i>Gelochelidon nilotica</i>	Gull-billed Tern	MI	MI, MA	X		X	X	Low	No suitable habitat present (coastal).
	<i>Hydroprogne caspia</i>	Caspian Tern	MI	MI, MA	X		X	X	Low	No suitable habitat present (coastal areas, fresh to saline lakes, temporary wetlands).
	<i>Onychoprion anaethetus</i>	Bridled Tern	MI	MI, MA	X		X		Low	No suitable habitat present (oceanic).
	<i>Sterna hirundo</i>	Common Tern	MI	MI, MA	X		X	X	Low	No suitable habitat present (coastal).
	<i>Sternula albifrons</i>	White-shafted Little Tern	MI	MI, MA	X		X	X	Low	No suitable habitat present (coastal, beaches).
	<i>Sternula nereis nereis</i>	Australian Fairy Tern	VU	VU			X	X	Low	No suitable habitat present (coastal).
	<i>Thalasseus bergii</i>	Crested Tern (Greater Crested Tern)	MI	MI, MA	X		X	X	Low	No suitable habitat present (coastal).
Motacillidae	<i>Motacilla tschutschensis</i>	Yellow Wagtail	MI	MI, MA			X		Low	No suitable habitat present (swamp margins, ploughed land). Rarely found in Australia and usually North of Broome.
Oceanitidae	<i>Oceanites oceanicus</i>	Wilson's Storm Petrel	MI	MI, MA	X		X		Low	No suitable habitat present (oceanic).
Pandionidae	<i>Pandion haliaetus cristatus</i>	Eastern Osprey	MI		X		X	X	Low	No suitable habitat present (coastal).
Procellariidae	<i>Calonectris leucomelas</i>	Streaked Shearwater	MI	MI, MA		X			Low	No suitable habitat present (oceanic).
	<i>Macronectes giganteus</i>	Southern Giant Petrel	MI	EN, MI, MA		X			Low	No suitable habitat present (oceanic).

Family	Scientific Name	Common Name	Conservation Status		Database				Likelihood of Occurrence	Justification
			State	Federal	NM	PMST	DBCA	DBCA 15 Years		
Psittaculidae	<i>Pezoporus occidentalis</i>	Night Parrot	CR	EN		X			Low	No suitable habitat present (long unburnt spinifex, samphire on margins of saltlakes). Outside known range, however, due to cryptic nature and lack of certainty surrounding current distribution cannot be ruled out.
Rostratulidae	<i>Rostratula australis</i>	Australian Painted Snipe	EN	EN, MA		X			Low	No suitable habitat present (well vegetated wetlands).
Scolopacidae	<i>Actitis hypoleucos</i>	Common Sandpiper	MI	MI, MA	X		X	X	Low	No suitable habitat present (coastal and interior wetlands).
	<i>Arenaria interpres</i>	Ruddy Turnstone	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (coastal).
	<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	MI	MI, MA	X		X	X	Low	No suitable habitat present (fresh to saline wetlands)
	<i>Calidris alba</i>	Sanderling	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (beaches, tidal flats).
	<i>Calidris canutus</i>	Red Knot	EN	EN, MI, MA	X	X	X	X	Low	No suitable habitat present (tidal flats).
	<i>Calidris falcinellus</i>	Broad-billed Sandpiper	-	MI, MA	X		X	X	Low	No suitable habitat present (estuarine mudflats, saltmarshes, reefs).
	<i>Calidris ferruginea</i>	Curlew Sandpiper	CR	CE, MI, MA	X	X	X	X	Low	No suitable habitat present (tidal mudflats/claypans)
	<i>Calidris melanotos</i>	Pectoral Sandpiper	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (fresh to saline wetlands).
	<i>Calidris ruficollis</i>	Red-necked Stint	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (mudflats, salt marshes, beaches).
	<i>Calidris subminuta</i>	Long-toed Stint	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (fresh wetlands).
	<i>Calidris tenuirostris</i>	Great Knot	CR	CE, MI, MA	X	X	X	X	Low	No suitable habitat present (tidal flats).
	<i>Gallinago stenura</i>	Pin-tailed Snipe	MI	MI, MA	X		X	X	Low	No suitable habitat present (wetlands).
	<i>Limnodromus semipalmatus</i>	Asian Dowitcher	MI	MI, MA	X	X	X		Low	No suitable habitat present (coastal).
	<i>Limosa lapponica</i>	Bar-tailed Godwit	MI	MI, MA	X	X	X		Low	No suitable habitat present (tidal flats).
	<i>Limosa limosa</i>	Black-tailed Godwit	MI	MI, MA	X	X			Low	No suitable habitat present (shallow wetlands with muddy substrates).
	<i>Numenius madagascariensis</i>	Far Eastern Curlew	CR	CE, MI, MA	X	X	X	X	Low	No suitable habitat present (tidal flats).
	<i>Numenius minutus</i>	Little Curlew	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (oceanic).
	<i>Numenius phaeopus</i>	Whimbrel	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (tidal flats, mangroves).
	<i>Phalaropus lobatus</i>	Red-necked Phalarope	MI	MI, MA	X	X			Low	No suitable habitat present (oceanic).
	<i>Tringa brevipes</i>	Grey-tailed Tattler	P4, MI	MI, MA	X	X	X	X	Low	No suitable habitat present (tidal flats).
<i>Tringa glareola</i>	Wood Sandpiper	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (fresh wetlands).	
<i>Tringa nebularia</i>	Common Greenshank	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (wetlands, mudflats, mangroves).	
<i>Tringa stagnatilis</i>	Marsh Sandpiper	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (fresh to brackish inland wetlands).	
<i>Xenus cinereus</i>	Terek Sandpiper	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (tidal flats).	
Threskiornithidae	<i>Plegadis falcinellus</i>	Glossy Ibis	MI	MI, MA	X		X	X	Low	No suitable habitat present (shallow fresh water, dry grasslands).
<b>MAMMALIAN</b>										
Dasyuridae	<i>Dasyercus blythi</i>	Brush-tailed Mulgara, Ampurta	P4		X		X	X	High	Suitable habitat present (spinifex grasslands). Recent nearby records.
	<i>Dasyercus cristicauda</i>	Crest-tailed Mulgara	P4		X				Low	Species not known from the region.

Family	Scientific Name	Common Name	Conservation Status		Database				Likelihood of Occurrence	Justification
			State	Federal	NM	PMST	DBCA	DBCA 15 Years		
	<i>Dasyurus hallucatus</i>	Northern Quoll	EN	EN	X	X	X	X	High	May use the Survey Area for hunting and dispersal. No suitable dening habitat present (rocky escarpments). Recent nearby records.
<b>Macropodidae</b>	<i>Lagostrophus fasciatus fasciatus</i>	Banded Hare-wallaby	VU	VU	X				Low	Restricted to offshore islands in Shark Bay, Western Australia.
<b>Megadermatidae</b>	<i>Macroderma gigas</i>	Ghost Bat	VU	VU	X	X			Medium	May use Survey Area for hunting (spinifex and black soil grasslands). Records from 2009 at ~27 km away.
<b>Muridae</b>	<i>Pseudomys chapmani</i>	Western Pebble-mound Mouse	P4		X				Low	No suitable habitat present (rocky ranges and stony hillslopes with stony mulch and hard spinifex).
<b>Rhinycteridae</b>	<i>Rhinycteris aurantia Pilbara form</i>	Pilbara Leaf-nosed Bat	VU	VU	X	X			Medium	May use Survey Area for hunting (open savannah woodlands and grasslands). Records from 2013 at ~35 km south.
<b>Thylacomyidae</b>	<i>Macrotis lagotis</i>	Bilby, Dalgyte	VU	VU	X	X	X	X	High	Suitable habitat present (hummock grasslands, drainage lines). Recent nearby records.
<b>REPTILIAN</b>										
<b>Pythonidae</b>	<i>Liasis olivaceus barroni</i>	Pilbara Olive Python	VU	VU	X	X			Low	No suitable habitat present (rocky ranges with permanent waterbodies).
<b>Scincidae</b>	<i>Ctenotus angusticeps</i>	Airlie Island Ctenotus	P3		X		X	X	Low	No suitable habitat present (coastal mudflats vegetated with samphire).

# **Appendix G**

## **Fauna Habitat Assessments**

KAR01					
<b>Project:</b>	4647 Karratha-Boodarie				
<b>Date</b>	27/06/2021	<b>Personnel</b>		BE, LC	
<b>Zone</b>	50	<b>Easting</b>	483571	<b>Northing</b>	7703314
Landform and soil			Rock		
<b>Landform</b>	Stony plain		<b>Rock type/s</b>	Ironstone, Quartz	
<b>Soil type</b>	Clay, Loam, Sand		<b>Surface stone cover</b>	5-25%	
<b>Soil colour</b>	Brown, Red		<b>Surface stone size classes present</b>	Small stones (0.6-2 cm), Stones (2-6 cm)	
Condition			Habitat Features		
<b>Quality</b>	Poor		<b>Water Source</b>	Absent	
<b>Fire History</b>	> 15 years		<b>Microhabitats</b>	Hummocks	
<b>Disturbance</b>	Litter, None, Vehicle tracks, Weeds				
<b>Introduced fauna</b>	None observed				
Vegetation					
<b>Upper stratum</b>	Absent				
<b>Mid stratum</b>	Mid (1-2 m)	Sparse shrubland (0.25-20%)		<i>Acacia xiphophylla</i>	
<b>Ground stratum</b>	Low (>0.5 m)	Sparse hummock grassland (0.25-20%), Sparse tussock grassland (0.25-20%)		<i>Triodia epactia, Triodia wiseana, *Cenchrus ciliaris</i>	



Fulcrum photo ID 0063-0064

KAR02					
<b>Project:</b>	4647 Karratha-Boodarie				
<b>Date</b>	27/06/2021	<b>Personnel</b>		BE, LC	
<b>Zone</b>	50	<b>Easting</b>	483560	<b>Northing</b>	7703400
Landform and soil			Rock		
<b>Landform</b>	Footslope		<b>Rock type/s</b>	Dolerite	
<b>Soil type</b>	Loam, Sand		<b>Surface stone cover</b>	0-5%	
<b>Soil colour</b>	Dark Brown		<b>Surface stone size classes present</b>	Small stones (0.6-2 cm)	
Condition			Habitat Features		
<b>Quality</b>	Good		<b>Water Source</b>	Absent	
<b>Fire History</b>	> 15 years		<b>Microhabitats</b>	Hummocks, Woody debris	
<b>Disturbance</b>	Litter, None, Weeds				
<b>Introduced fauna</b>	None observed				
Vegetation					
<b>Upper stratum</b>	Absent				
<b>Mid stratum</b>	Tall (>2 m)	Sparse shrubland (0.25-20%)		<i>Acacia inaequilatera, Acacia bivenosa</i>	
<b>Ground stratum</b>	Low (>0.5 m)	Open hummock grassland (50-80%), Sparse tussock grassland (0.25-20%)		<i>Triodia epactia, Triodia wiseana, *Cenchrus ciliaris</i>	



Fulcrum photo ID 0066-0067



KAR03					
<b>Project:</b>	4647 Karratha-Boodarie				
<b>Date</b>	27/06/2021		<b>Personnel</b>	BE, LC	
<b>Zone</b>	50	<b>Easting</b>	482803	<b>Northing</b>	7703335
Landform and soil			Rock		
<b>Landform</b>	Hill crest		<b>Rock type/s</b>	Dolerite	
<b>Soil type</b>	Loam, Sand		<b>Surface stone cover</b>	50-75%	
<b>Soil colour</b>	Brown, Red		<b>Surface stone size classes present</b>	Small stones (0.6-2 cm), Stones (2-6 cm), Small rocks (6-20 cm), Rocks (20-60 cm)	
Condition			Habitat Features		
<b>Quality</b>	Very Good		<b>Water Source</b>	Absent	
<b>Fire History</b>	> 15 years		<b>Microhabitats</b>	Hummocks, Rock crevices	
<b>Disturbance</b>	Vehicle tracks				
<b>Introduced fauna</b>	None observed				
Vegetation					
<b>Upper stratum</b>	Absent				
<b>Mid stratum</b>	Low (>1 m)	Sparse shrubland (0.25-20%)		<i>Diplopeltis eriocarpa</i>	
<b>Ground stratum</b>	Low (>0.5 m)	Hummock grassland (20-50%)		<i>Triodia wiseana</i>	



Fulcrum photo ID 0093-0094

KAR04					
<b>Project:</b>	4647 Karratha-Boodarie				
<b>Date</b>	28/06/2021		<b>Personnel</b>	BE, LC	
<b>Zone</b>	50	<b>Easting</b>	482030	<b>Northing</b>	7703656
Landform and soil			Rock		
<b>Landform</b>	Minor drain		<b>Rock type/s</b>	Dolerite, Ironstone	
<b>Soil type</b>	Soft Clay		<b>Surface stone cover</b>	5-25%	
<b>Soil colour</b>	Brown, Red		<b>Surface stone size classes present</b>	Small stones (0.6-2 cm), Stones (2-6 cm)	
Condition			Habitat Features		
<b>Quality</b>	Good		<b>Water Source</b>	Absent	
<b>Fire History</b>	> 15 years		<b>Microhabitats</b>	Woody debris	
<b>Disturbance</b>	Weeds				
<b>Introduced fauna</b>	None observed				
Vegetation					
<b>Upper stratum</b>	Absent				
<b>Mid stratum</b>	Absent				
<b>Ground stratum</b>	Low (>0.5 m)	Closed tussock grassland (>80%)		<i>Eriachne benthamii</i> , * <i>Cenchrus ciliaris</i> , * <i>Cenchrus setiger</i> , <i>Chrysopogon fallax</i>	



Fulcrum photo ID 0111-0112

KAR05

<b>Project:</b>	4647 Karratha-Boodarie			
<b>Date</b>	28/06/2021		<b>Personnel</b>	BE, LC
<b>Zone</b>	50	<b>Easting</b>	481945	<b>Northing</b> 7702832
<b>Landform and soil</b>			<b>Rock</b>	
<b>Landform</b>	Cracking clay plain		<b>Rock type/s</b>	Dolerite, Ironstone, Quartz
<b>Soil type</b>	Soft Clay		<b>Surface stone cover</b>	5-25%
<b>Soil colour</b>	Brown, Red		<b>Surface stone size classes present</b>	Small stones (0.6-2 cm), Stones (2-6 cm)
<b>Condition</b>			<b>Habitat Features</b>	
<b>Quality</b>	Very Good		<b>Water Source</b>	Absent
<b>Fire History</b>	> 15 years		<b>Microhabitats</b>	-
<b>Disturbance</b>	Weeds			
<b>Introduced fauna</b>	None observed			
<b>Vegetation</b>				
<b>Upper stratum</b>	Absent			
<b>Mid stratum</b>	Absent			
<b>Ground stratum</b>	Low (>0.5 m)	Tussock grassland (50-80%)	<i>Eragrostis setifolia</i> , <i>Iseilema dolichotrichum</i> ,	



Fulcrum photo ID 0115-0116

BOR01					
<b>Project:</b>	4647 Karratha-Boodarie				
<b>Date</b>	25/06/2021	<b>Personnel</b>	BE, LC		
<b>Zone</b>	50	<b>Easting</b>	661485	<b>Northing</b>	7737927
Landform and soil			Rock		
<b>Landform</b>	Sandy plain		<b>Rock type/s</b>	None	
<b>Soil type</b>	Loam, Sand		<b>Surface stone cover</b>		
<b>Soil colour</b>	Orange		<b>Surface stone size classes present</b>		
Condition			Habitat Features		
<b>Quality</b>	Excellent		<b>Water Source</b>	Absent	
<b>Fire History</b>	1-5 years		<b>Microhabitats</b>	Hummocks, Termite mounds	
<b>Disturbance</b>	None observed				
<b>Introduced fauna</b>	None observed				
Vegetation					
<b>Upper stratum</b>	Absent				
<b>Mid stratum</b>	Mid (1-2 m)	Isolated shrubs (<0.25%)		<i>Chrysopogon fallax</i>	
<b>Ground stratum</b>	Low (>0.5 m)	Sparse hummock grassland (0.25-20%), Sparse herbland (0.25-20%)		<i>Aristida holathera</i> var. <i>holathera</i> , <i>Triodia epactia</i>	



Fulcrum photo ID 0028-0029

BOR02					
<b>Project:</b>	4647 Karratha-Boodarie				
<b>Date</b>	26/06/2021	<b>Personnel</b>	BE, LC		
<b>Zone</b>	50	<b>Easting</b>	662737	<b>Northing</b>	7737194
Landform and soil			Rock		
<b>Landform</b>	Sandy plain		<b>Rock type/s</b>	None	
<b>Soil type</b>	Loam, Sand		<b>Surface stone cover</b>		
<b>Soil colour</b>	Orange		<b>Surface stone size classes present</b>		
Condition			Habitat Features		
<b>Quality</b>	Excellent		<b>Water Source</b>	Absent	
<b>Fire History</b>	1-5 years		<b>Microhabitats</b>	Termite mounds	
<b>Disturbance</b>	None observed				
<b>Introduced fauna</b>	None observed				
Vegetation					
<b>Upper stratum</b>	Absent				
<b>Mid stratum</b>	Low (>1 m)	Sparse shrubland (0.25-20%)		<i>Acacia stellaticeps</i> , <i>Acacia tumida</i> var. <i>pilbarensis</i> , <i>Indigofera monophylla</i>	
<b>Ground stratum</b>	Low (>0.5 m)	Sparse hummock grassland (0.25-20%), Sparse tussock grassland (0.25-20%)		<i>Triodia lanigera</i> , <i>Triodia epactia</i> , <i>Aristida holathera</i> var. <i>holathera</i> , <i>Chrysopogon fallax</i>	



Fulcrum photo ID 0052-0053

BOR03					
<b>Project:</b>	4647 Karratha-Boodarie				
<b>Date</b>	26/06/2021		<b>Personnel</b>	BE, LC	
<b>Zone</b>	50	<b>Easting</b>	662126	<b>Northing</b>	7736846
Landform and soil			Rock		
<b>Landform</b>	Sandy plain		<b>Rock type/s</b>	None	
<b>Soil type</b>	Loam, Sand		<b>Surface stone cover</b>		
<b>Soil colour</b>	Orange		<b>Surface stone size classes present</b>		
Condition			Habitat Features		
<b>Quality</b>	Excellent		<b>Water Source</b>	Absent	
<b>Fire History</b>	1-5 years, >10 years		<b>Microhabitats</b>	Hummocks, Termite mounds	
<b>Disturbance</b>	None observed				
<b>Introduced fauna</b>	None observed				
Vegetation					
<b>Upper stratum</b>	Absent				
<b>Mid stratum</b>	Low (>1 m)	Open shrubland (20-50%)		<i>Acacia stellaticeps, Bonamia erecta, Acacia tumida var. pilbarensis,</i>	
<b>Ground stratum</b>	Low (>0.5 m)	Sparse hummock grassland (0.25-20%), Sparse tussock grassland (0.25-20%)		<i>Triodia lanigera, Triodia epactia, Aristida holathera var. holathera</i>	
			<b>Fulcrum photo ID</b>	0056-0057	



BOR04					
<b>Project:</b>	4647 Karratha-Boodarie				
<b>Date</b>	26/06/2021		<b>Personnel</b>	BE, LC	
<b>Zone</b>	50	<b>Easting</b>	661061	<b>Northing</b>	7736877
Landform and soil			Rock		
<b>Landform</b>	Sandy plain		<b>Rock type/s</b>	None	
<b>Soil type</b>	Loam, Sand		<b>Surface stone cover</b>		
<b>Soil colour</b>	Orange		<b>Surface stone size classes present</b>		
Condition			Habitat Features		
<b>Quality</b>	Very Good		<b>Water Source</b>	Absent	
<b>Fire History</b>	> 15 years		<b>Microhabitats</b>	Hummocks, Termite mounds	
<b>Disturbance</b>	Litter, Vehicle tracks				
<b>Introduced fauna</b>	None observed				
Vegetation					
<b>Upper stratum</b>	Absent				
<b>Mid stratum</b>	Low (>1 m)	Sparse shrubland (0.25-20%)		<i>Acacia stellaticeps</i>	
<b>Ground stratum</b>	Low (>0.5 m)	Open hummock grassland (20-50%)		<i>Triodia epactia, Triodia lanigera</i>	
			<b>Fulcrum photo ID</b>	0061-0062	





# 360

environmental



10 Bermondsey Street West Leederville WA 6007 **t** (+618) 9388 8360 **f** (+618) 9381 2360  
PO BOX 14, West Perth WA 6872  
**w** 360environmental.com.au **e** admin@360environmental.com.au

● people ● planet ● professional