360 environmental

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

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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 Ac*t 2016 were recorded during the survey. No Priority flora listed by DBCA were recorded. One species of interest (*Abutilon* aff. sp. Dioicum (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

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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

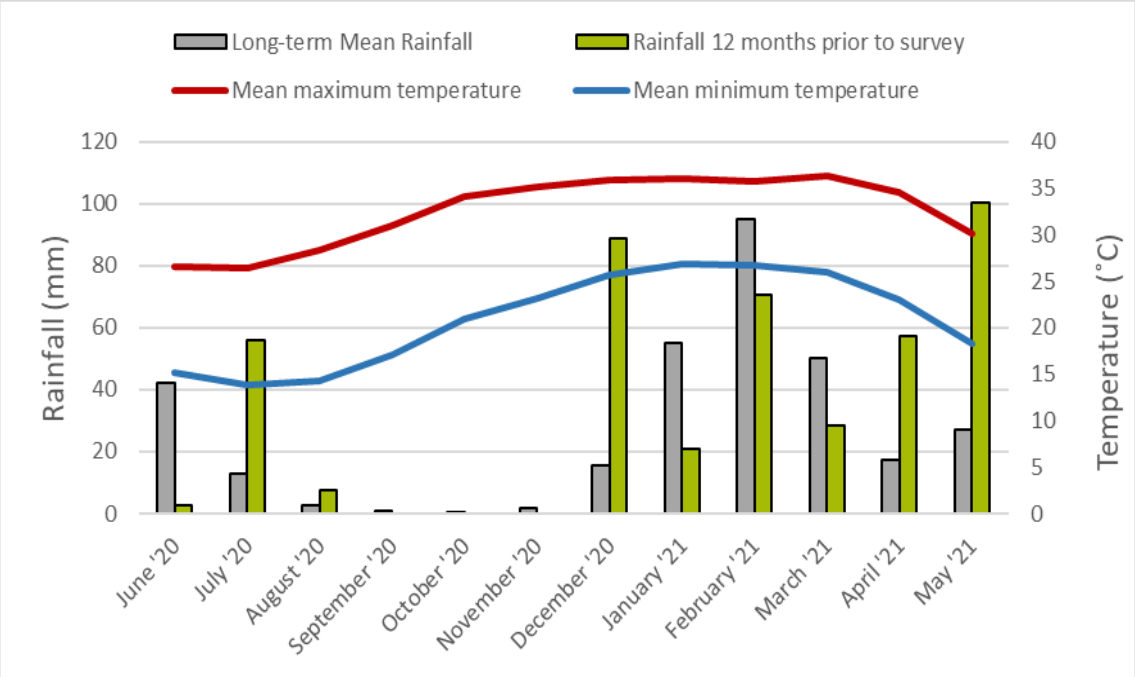
Climate statistics were calculated utilising data from the most current climate normal, which is defined as a 30 year interval (Bureau of Meteorology, 2007). A climate normal is a period long enough to include year-to-year variations while avoiding the influence of longer-term changes in climate (Bureau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



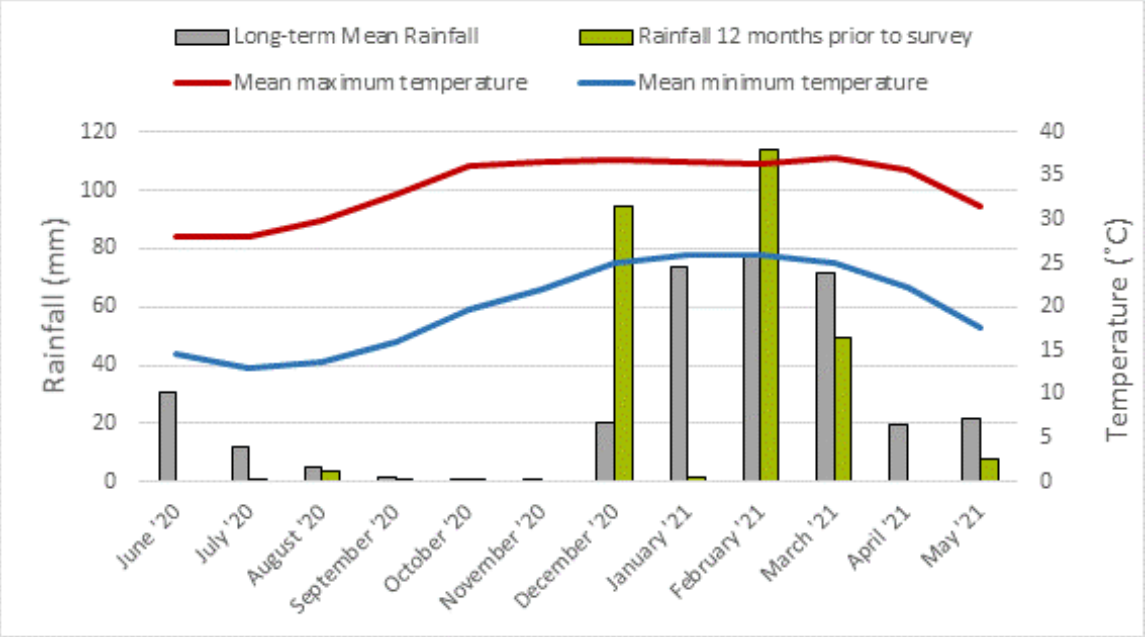
Graph 1: Long term and Monthly Total Rainfall, Maximum and Minimum temperatures for Karratha Aero WA (4083) for the 12 months prior to the June 2021 survey (Bureau of Meteorology, 2021).

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
Karratha Survey Area	
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
Boodarie Survey Area	
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 (%)
Representation across Western Australia					
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 (%)
Representation across the Pilbara Bioregion					
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
Representation across the Roebourne (PIL04) Subregion					
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
Representation across the City of Karratha					
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
Representation across the Town of Port Hedland					
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
Karratha Survey Area	
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.
Boodarie Survey Area	
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)	• 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 • The species is strongly linked to a specific habitat, which is present in the Survey Area; or • The species has more general habitat preferences, and suitable habitat is present.
Medium (May occur)	• There are existing records of the species from the locality (within 15 km), however: ○ The species is strongly linked to a specific habitat, of which only a small amount is present in the Survey Area; or ○ The species has more general habitat preferences, but only some suitable habitat is present. • There is suitable habitat in the Survey Area, but the species is recorded infrequently in the locality.
Low (Unlikely to occur)	• The species is linked to a specific habitat, which is absent from the Survey Area; or • 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 • There is some suitable habitat in the Survey Area, however the species is very infrequently recorded in the locality.

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
Survey Scope	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.
Availability of Data	Not a limitation	All data required to complete the scope of works including regional and local contextual information was available.
Site Access	Not a limitation	The Survey Areas were traversed on foot.
Survey Intensity and Resources	Not a limitation	Five flora sites relevés were sampled across the Karratha Survey Area. An additional eight mapping notes were undertaken to aid vegetation mapping and delineation. Four flora sites relevés were sampled across the Boodarie Survey Area. An additional four mapping notes were undertaken to aid vegetation mapping and delineation. 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. Five fauna habitat assessments were sampled, and fauna taxa were recorded opportunistically across the Karratha Survey Area. Four fauna habitat assessments were sampled, and fauna taxa were recorded opportunistically across the Boodarie Survey Area. Sufficient time was allocated to the fauna survey.
Experience	Not a limitation	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. 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. 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.

Variable	Degree of Limitation	Potential Constraints on Survey Outcomes
Timing, weather, season	Not a limitation for flora Partial limitation for fauna (amphibians and reptiles)	**Flora** 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. **Fauna** According to the EPA Technical Guidance, mammals do not have a preferred time of year for optimal observation. Amphibians and birds are most likely observed after significant rain events. The surveys were conducted in winter (June), but not immediately after significant rainfall. 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. 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.
Life Forms Sampled	Not a limitation	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. 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. 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 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. A total of six vertebrate fauna taxa were recorded within the Karratha Survey Area, comprising six confirmed native taxa and no introduced taxa. A total of five vertebrate fauna taxa were recorded within the Boodarie Survey Area, comprising four confirmed native taxa and no introduced taxa.

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 (*Osphranter* sp.) and were not considered Threatened or Priority Fauna.
Mapping Reliability	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.
Disturbances (fire, flood etc.)	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.
Completeness	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 Mungaroona 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 Whiteochloa airoides	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	**Aerva javanica*	Kapok	Permitted - s11	No
Karratha, Boodarie	**Cenchrus ciliaris*	Buffel Grass	Permitted - s11	No
Karratha, Boodarie	**Cenchrus setiger*	Birdwood Grass	Permitted - s11	No
Karratha	**Malvastrum americanum*	Spiked Malvastrum	Permitted - s11	No
Karratha	**Passiflora foetida* var. *hispida*	Stinking Passion Flower	Permitted - s11	No
Karratha	**Portulaca pilosa*	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
Karratha Survey Area				
D1: *Eriachne benthamii, *Cenchrus ciliaris, *Cenchrus setiger, Chrysopogon fallax* and *Eragrostis xerophila* low closed tussock grassland over *Rhynchosia minima* and *Alysicarpus muelleri* 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
H1: *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	78.1 ha 53.2%	KAR02	Good	
H2: *Diplopeltis eriocarpa* low sparse shrubland over *Triodia wiseana* 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
P1: *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	9.5 ha 6.5%	KAR01	Poor	
P2: *Eragrostis xerophila, Iseilema dolichotrichum* and *Fimbristylis dichotoma* low tussock grassland over *Ptilotus gomphrenoides, Sida fibulifera, Lotus cruentus* and *Rhynchosia minima* low sparse herbland	13.1 ha 8.9%	KAR05	Very Good	

Vegetation Unit and Description*	Total Area, Proportion of the Survey Area	Sites	Vegetation Condition	Photograph
Boodarie Survey Area				
P1: *Acacia stellaticeps* (*Acacia tumida* var. *pilbarensis*, *Senna notabilis* and *Indigofera monophylla*) low open shrubland over *Triodia epactia* (and *Triodia lanigera*) low open hummock grassland over *Aristida holathera* var. *holathera* (and *Chrysopogon fallax*) 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
Karratha Survey Area				
Minor Drainage	1.0 ha 0.7%	HA_KAR04	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.	

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. *Triodia* 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
Boodarie Survey Area				
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	*Ctenophorus isolepis*	Central Military Dragon	Observed
	Ctenophorus caudicinctus	Ring-Tailed Dragon	Observed
Artamidae	*Artamus cinereus*	Black-Faced Woodswallow	Observed
Macropodidae	*Osphranter rufus*	Red Kangaroo	Observed, scats, tracks
Otididae	*Ardeotis australis*	Australian Bustard	Tracks
Psittaculidae	*Melopsittacus undulatus*	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	*Ctenophorus isolepis*	Central Military Dragon	Observed	-
Estrildidae	*Taeniopygia guttata*	Zebra Finch	Observed	-
Falconidae	*Falco cenchroides*	Nankeen Kestrel	Observed	MA (EPBC)
Macropodidae	*Osphranter* sp.	-	Tracks	-
Psittaculidae	*Melopsittacus undulatus*	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 of 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 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 halucatus*) – 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 (*Rhinonicteris 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
Principle (a) – Native vegetation should not be cleared if it comprises a high level of biological diversity	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. **Karratha** 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. 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. 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. 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. 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

Principle	Assessment
	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). 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. 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. Vegetation condition within the Karratha Survey Area ranged from Poor to Very Good, comprising (rounded to one decimal place): • Poor: 0.4 ha, 0.3% • Good: 26.8 ha, 18.2% • Very Good: 119.7 ha, 81.5% **Assessed Outcome:** 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. **Boodarie** 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

Principle	Assessment
	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. 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. 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. 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. 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). 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. 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. Vegetation condition within the Boodarie Survey Area ranged from Very Good to Excellent, comprising (rounded to one decimal place): • Very Good: 0.1 ha, <1.0% • Excellent: 175.0 ha, ~100% 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

Principle	Assessment
	communities were recorded. The proposed clearing is not considered to be at variance with this principle.
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	**Karratha** 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. 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. 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. No fauna taxa of conservation significance were recorded within the Karratha Survey Area. The four taxa considered to have a high likelihood of occurrence were: • 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. The seven taxa considered to have a medium likelihood of occurrence were: • Barn Swallow (*Hirundo rustica*) – Migratory, Marine • Ghost Bat (*Macroderma gigas*) – Vulnerable • Glossy Ibis (*Plegadis falcinellus*) – Migratory, Marine • Oriental Plover (*Charadrius veredus*) – Migratory, Marine • Pacific Swift (*Apus pacificus*) – Migratory, Marine • Peregrine Falcon (*Falco peregrinus*) – Other specially protected fauna • Western Pebble-mound Mouse (*Pseudomys chapmani*) – Priority 4.

Principle	Assessment
	The Lined Soil-crevice Skink (Notoscincus butleri) 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. **Assessed Outcome:** 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. **Boodarie** 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. 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. 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. A single conservation significant taxon, the Nankeen Kestrel (Falco cenchroides) – Marine, was recorded within the Boodarie Survey Area. The seven taxa considered to have a high likelihood of occurrence were: • 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.

Principle	Assessment
	The four taxa considered to have a medium likelihood of occurrence were: • Ghost Bat (*Macroderma gigas*) – Vulnerable • Oriental Plover (*Charadrius veredus*) – Migratory, Marine • Pacific Swift (*Apus pacificus*) – Migrator, Marine • Pilbara Leaf-nosed Bat (*Rhinonicteris aurantia* Pilbara form) – Vulnerable. 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. **Assessed Outcome: 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.
Principle (c) – Native vegetation should not be cleared if it includes, or is necessary for the continued existence of rare flora	**Karratha** 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. **Assessed Outcome:** 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. **Boodarie** One Threatened flora taxon pursuant to the EPBC Act and/or gazetted as Threatened pursuant to the BC Act, Quoya zonalis (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. **Assessed Outcome:** 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.

Principle	Assessment
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).	**Karratha** 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. **Assessed Outcome:** No TECs have been recorded within the Karratha Survey Area. The proposed clearing is not considered to be at variance with this principle. **Boodarie** 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. **Assessed Outcome:** No TECs have been recorded within the Boodarie Survey Area. The proposed clearing is not considered to be at variance with this principle.
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	**Karratha** 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. 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). **Assessed Outcome**: 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.

Principle	Assessment
	Boodarie 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. 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). **Assessed Outcome:** 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.
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	**Karratha** 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. **Assessed Outcome:** 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.

Principle	Assessment
	Boodarie 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. **Assessed Outcome:** 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.
Principle (g) – Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation	The Department of Water and Environmental Regulation (DWER) has defined land degradation as including the following (DER, 2014): • The clearing of vegetation • Decline in vegetation condition • Soil erosion and soil acidity (caused by wind and water erosion due to vegetation clearing) • Salinity or • Waterlogging/flooding. **Karratha** Vegetation condition within the Karratha Survey Area ranged from Poor to Very Good comprising (rounded to one decimal place): • Poor (0.4 ha / 0.3%) • Good (26.8 ha / 18.2%) • Very Good (119.7 ha / 81.5%). **Assessed Outcome:** 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

Principle	Assessment
	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. **Boodarie** Vegetation condition within the Boodarie Survey Area ranged from Very Good to Excellent, comprising (rounded to one decimal place): • Very Good (0.1 ha / <1.0%) • Excellent (175.0 ha / ~100%). **Assessed Outcome:** 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.
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	**Karratha** 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). 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. **Assessed Outcome:** 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

Principle	Assessment
	Boodarie 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). 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. 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.
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	**Karratha** The long-term annual average rainfall is 324.6 mm (1991 to 2021) (Bureau of Meteorology, 2021). 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. 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. **Assessed Outcome:** 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. **Boodarie** The long-term annual average rainfall is 336.6 mm (1991 to 2021) (Bureau of Meteorology, 2021). The Boodarie Survey Area does not intersect any major watercourses or water bodies (Department of Water and Environmental Regulation, 2018).

Principle	Assessment
	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. **Assessed Outcome:** 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.
Principle (j) – Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding	**Karratha** 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. The proposed clearing within the Karratha Survey Area could cause, or exacerbate, the incidence of flooding in the local area. **Assessed Outcome:** If appropriate management actions are implemented the proposed clearing is unlikely to be at variance with this principle. **Boodarie** The Boodarie Survey Area does not intersect any major watercourses or water bodies (Department of Water and Environmental Regulation, 2018). The proposed clearing within the Boodarie Survey Area is unlikely to cause, or exacerbate, the incidence of flooding in the local area. **Assessed Outcome:** If appropriate management actions are implemented the proposed clearing is unlikely to be at variance with this principle.

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 halucatus*) – 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.

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Figures

Legend

- Karratha Survey Area
- State Roads
- Local Roads

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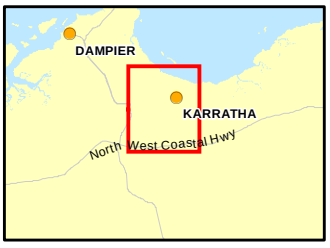
- NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS

LOCALITY MAP



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

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4647	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

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- State Roads
- Local Roads
- Boodarie Survey

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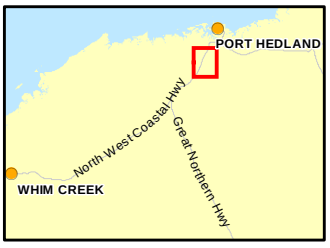
LOCALITY MAP



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

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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

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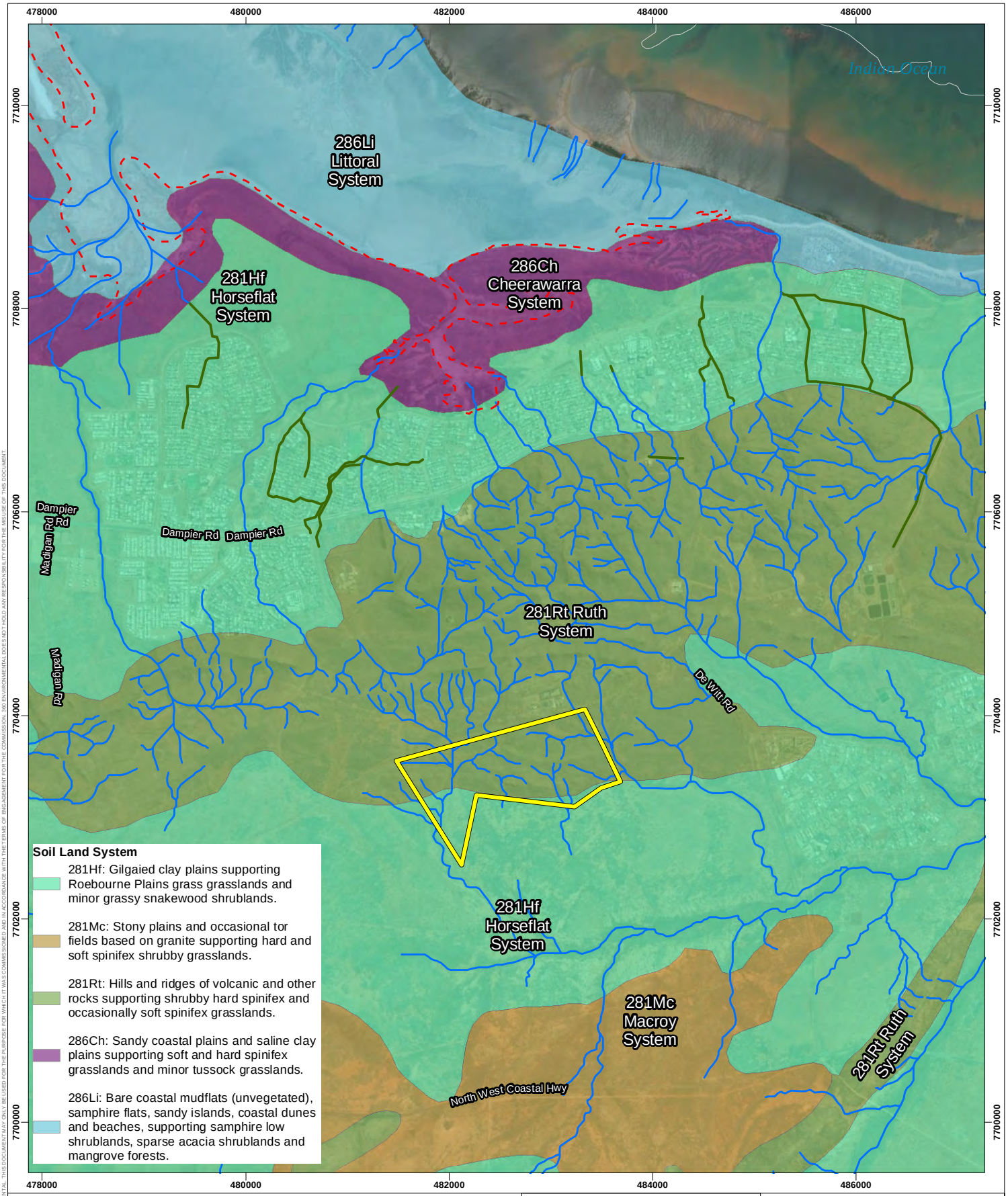

Legend

Karratha Survey Area

Hydrography

- Watercourse - minor
- Drain - major
- Area Subject to Inundation
- Tidal Flat

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- LOCALITY MAP SOURCED FROM LANDGATE 2020
- OTHER DATA SOURCED LANDGATE 2020
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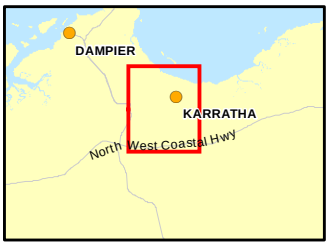
- NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS

LOCALITY MAP



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Horizon Power
Karratha and Boodarie

Karratha Boodarie Biological Surveys

Figure 3 Karratha
Soil Land System and Hydrography

K:\Projects\1.0 EBS\4647 004 Karratha and Boodarie Biological Surveys\4647 F03 Karratha Soil Land System and Hydrography.mxd

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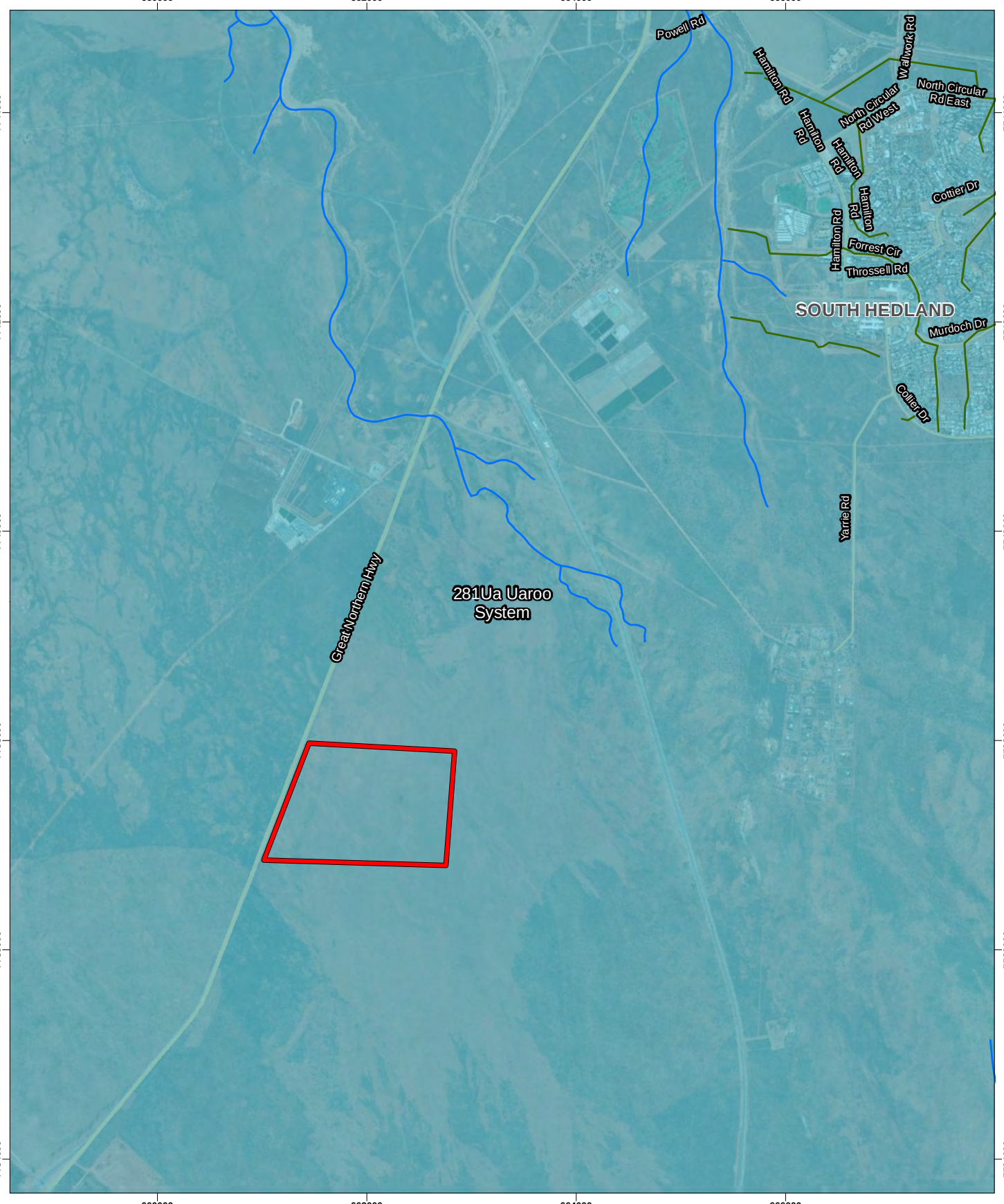

Legend

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.

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N

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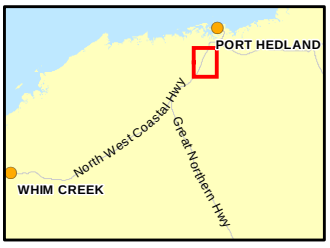
LOCALITY MAP



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Karratha and Boodarie

Karratha Boodarie Biological Surveys

Figure 4 Boodarie
Soil Land System and Hydrography

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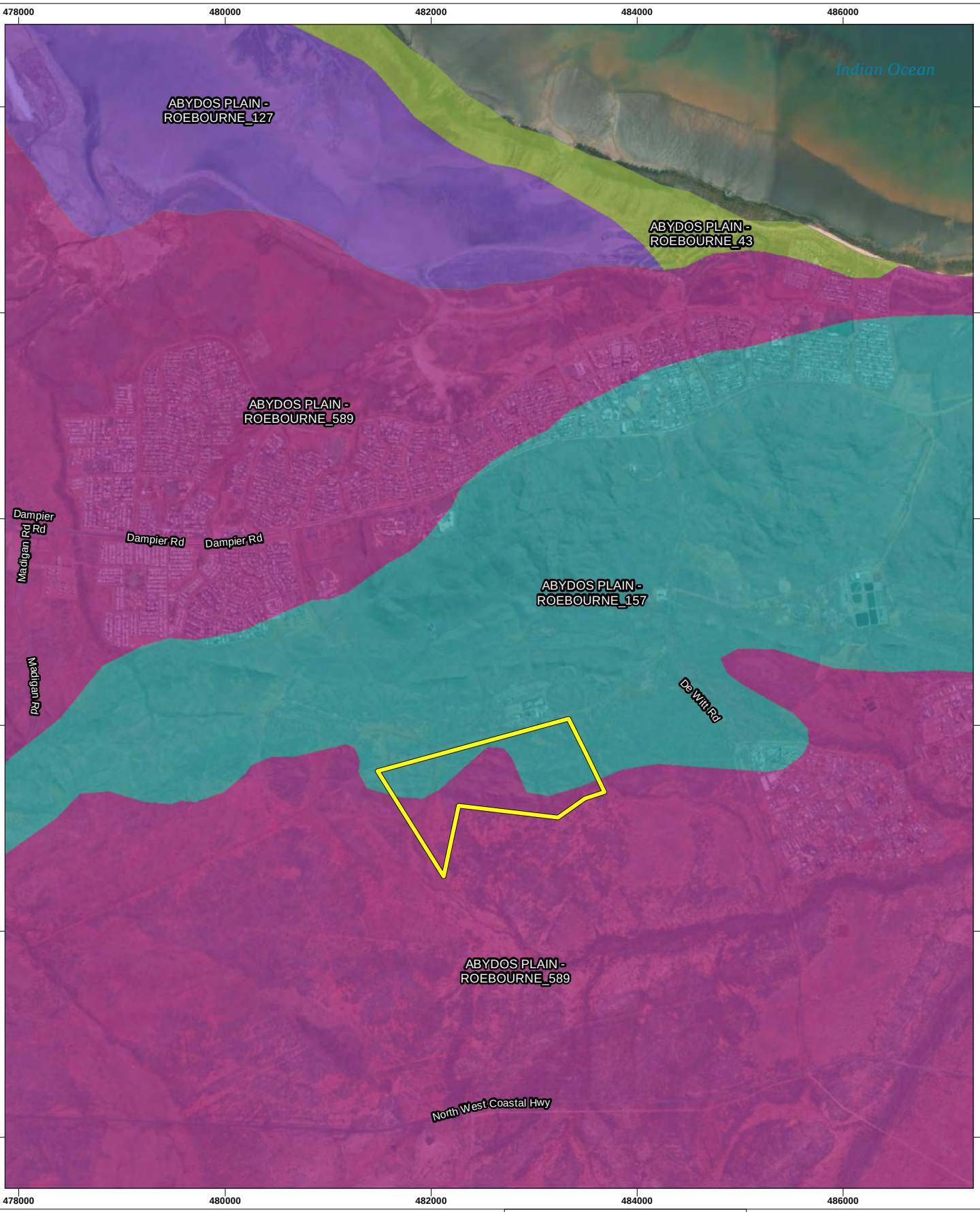

Legend

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

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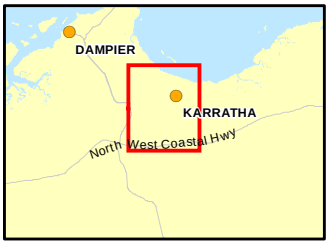

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Horizon Power
Karratha and Boodarie

Karratha Boodarie Biological Surveys

Figure 5 Karratha Broad Vegetation Types

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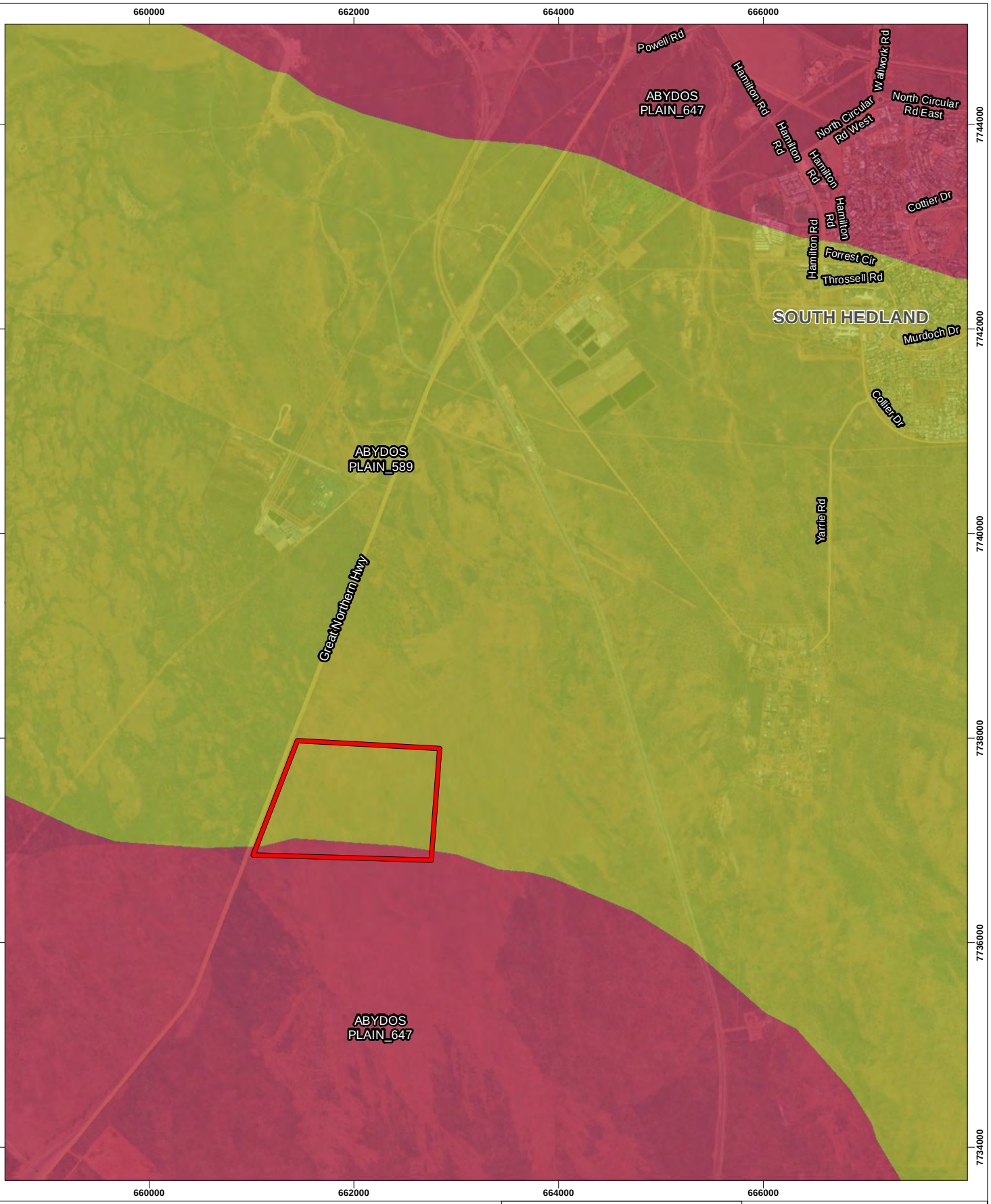

Legend

Boodarie Survey Area

Broad Vegetation Types

ABYDOS PLAIN_589: Short bunch-grass savanna / Grass-steppe

ABYDOS PLAIN_647: Shrub-steppe

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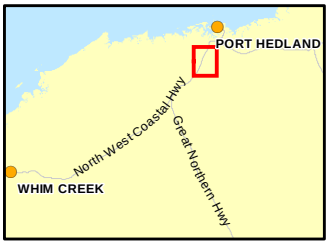

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Horizon Power
Karratha and Boodarie

Karratha Boodarie Biological Surveys

Figure 6 **Boodarie Broad Vegetation Types**

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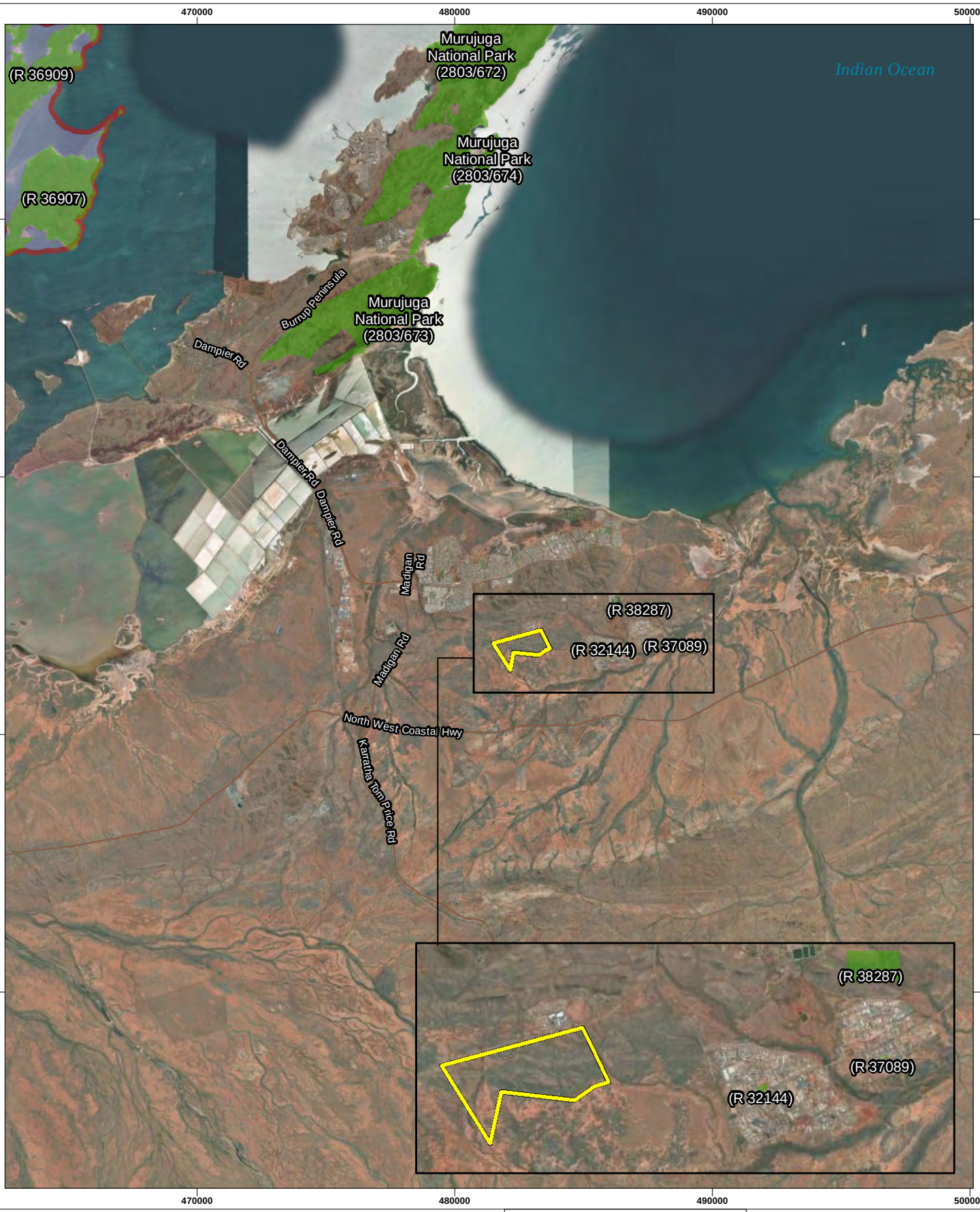

Legend

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

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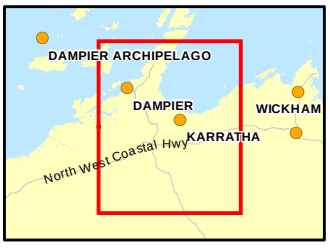
LOCALITY MAP



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Horizon Power
Karratha and Boodarie

Karratha Boodarie Biological Surveys

Figure 7 Karratha Conservation and Environmentally Sensitive Areas

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Legend

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

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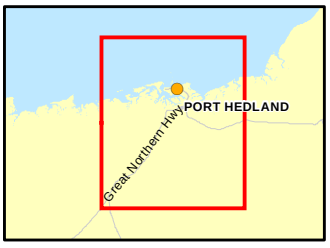

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Horizon Power
Karratha and Boodarie

Karratha Boodarie Biological Surveys

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

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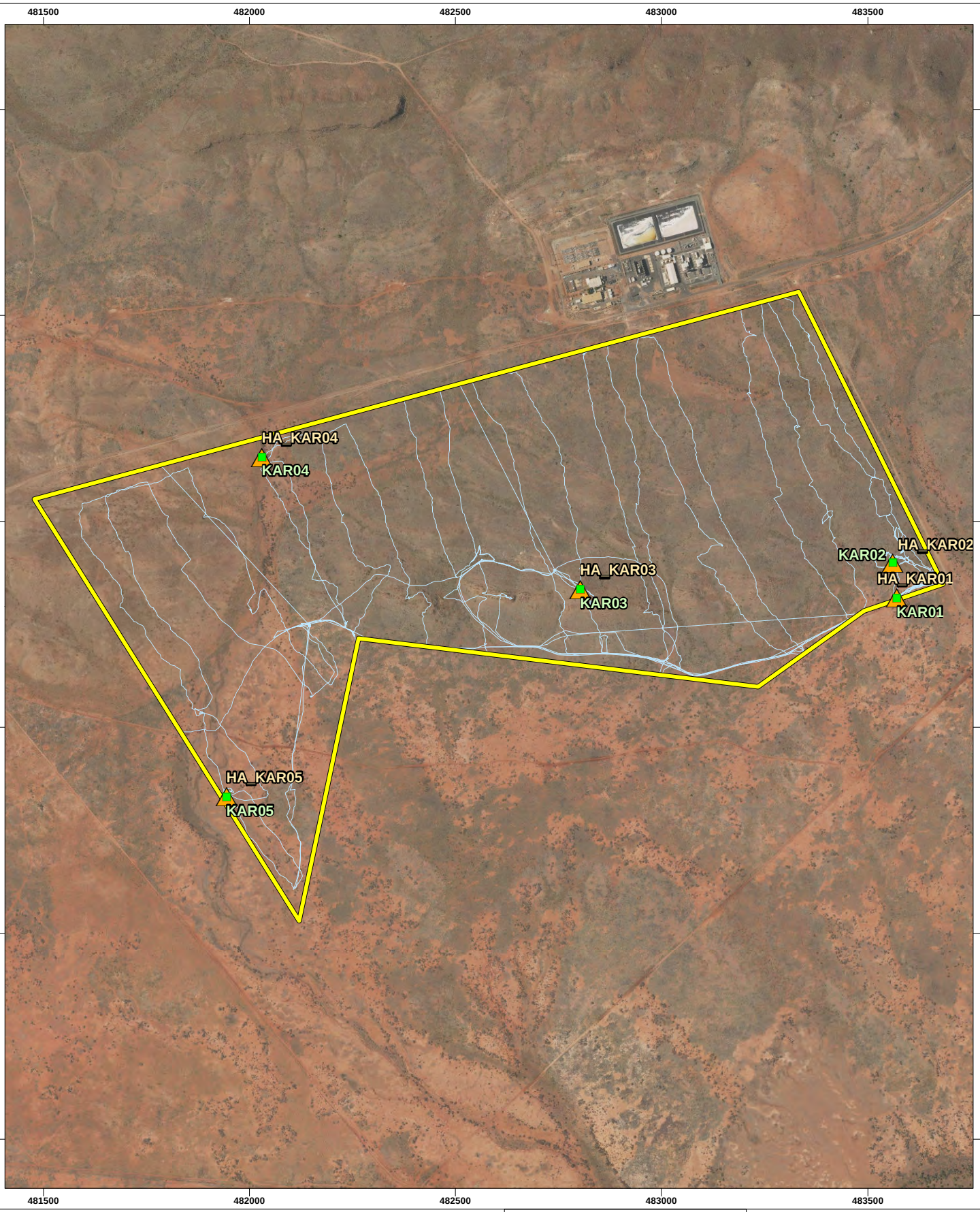

Legend

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

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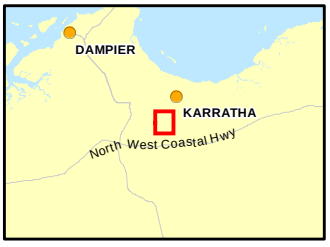
LOCALITY MAP



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Horizon Power
Karratha and Boodarie

Karratha Boodarie Biological Surveys

Figure 9 Karratha Survey Effort

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661000 661500 662000 662500 663000

7738500 7738000 7737500 7737000 7736500 7736000

HA_BOR01
BOR01
Great Northern Hwy
HA_BOR02
BOR02
HA_BOR04
BOR04
HA_BOR03
BOR03

Legend

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

0 130 260 390 Meters
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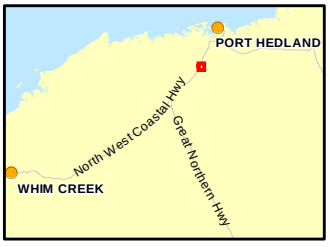
- NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS

LOCALITY MAP



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Horizon Power
Karratha and Boodarie

Karratha Boodarie Biological Surveys

Figure 10 **Boodarie Survey Effort**

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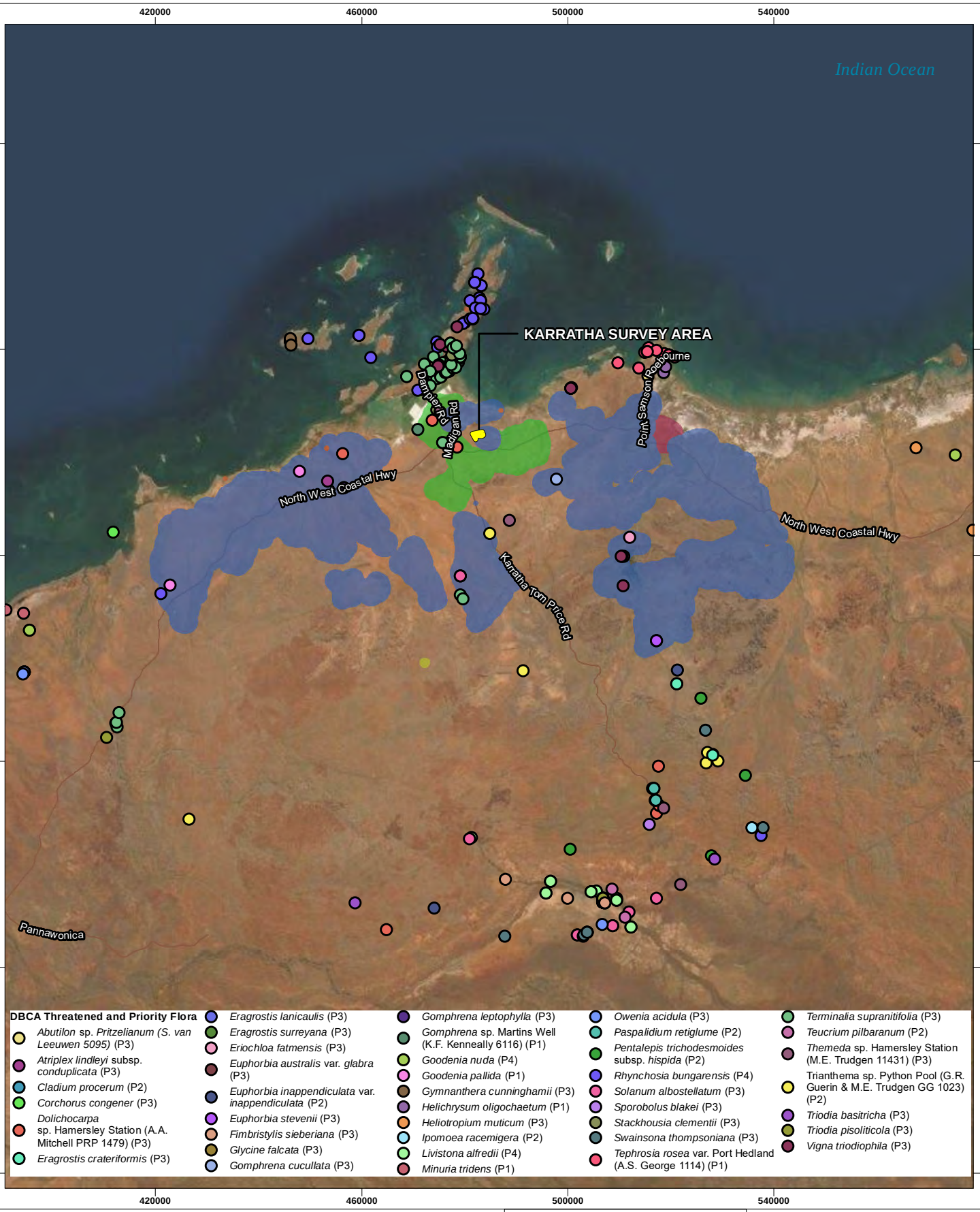

Legend

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 Mungaroona 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)

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Meters
1:1,000,000 @ A4

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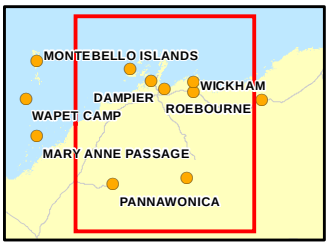
- NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS

LOCALITY MAP



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Horizon Power
Karratha and Boodarie

Karratha Boodarie Biological Surveys

Figure 11 Karratha
DBCA Threatened and Priority Flora and Communities

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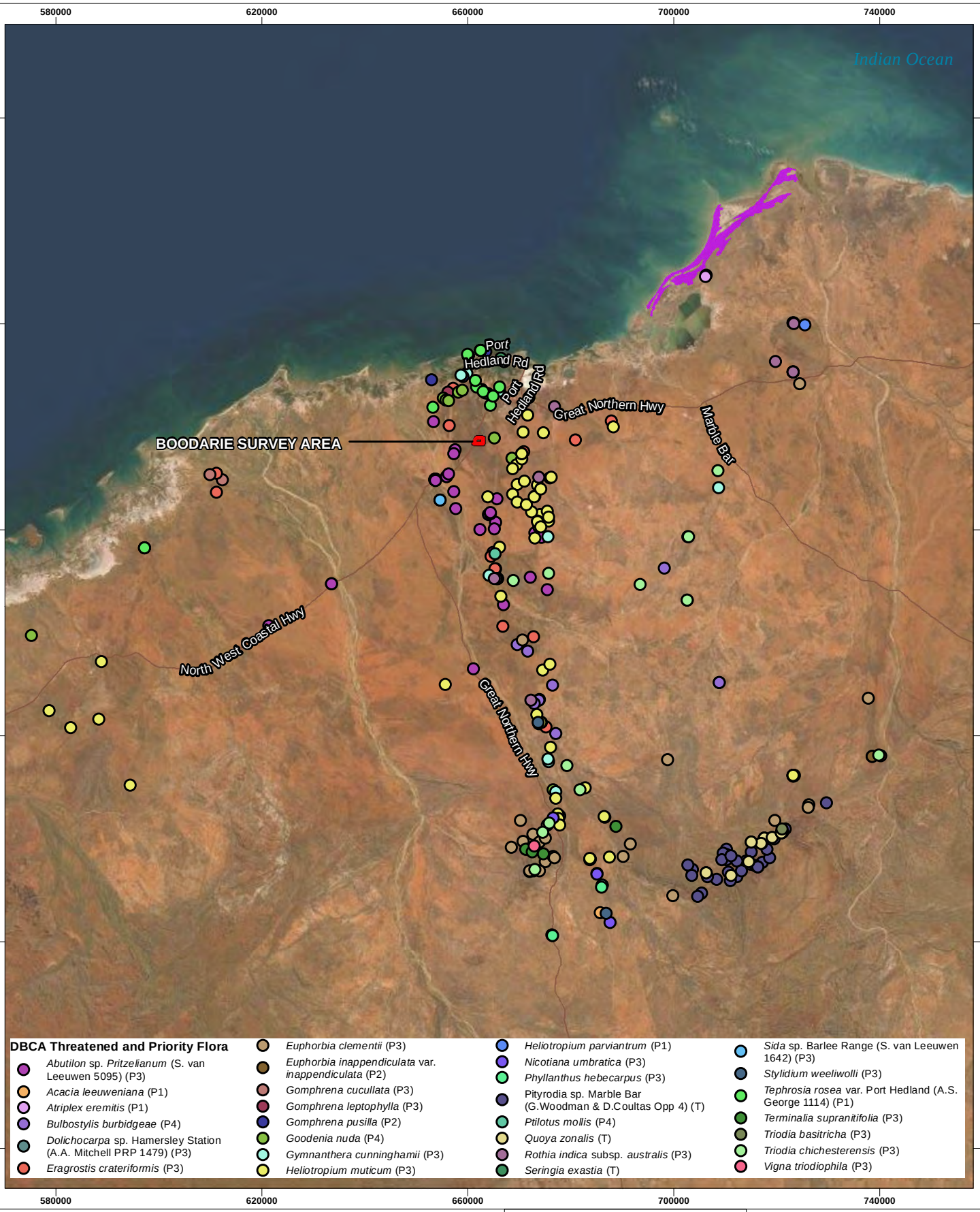

Legend

Boodarie Survey Area

DBCA Threatened and Priority Communities

Eighty Mile Land System (P3)

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Meters
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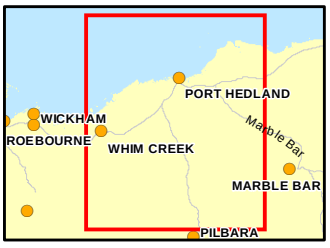
LOCALITY MAP



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Horizon Power
Karratha and Boodarie

Karratha Boodarie Biological Surveys

Figure 12 Boodarie
DBCA Threatened and Priority Flora and Communities

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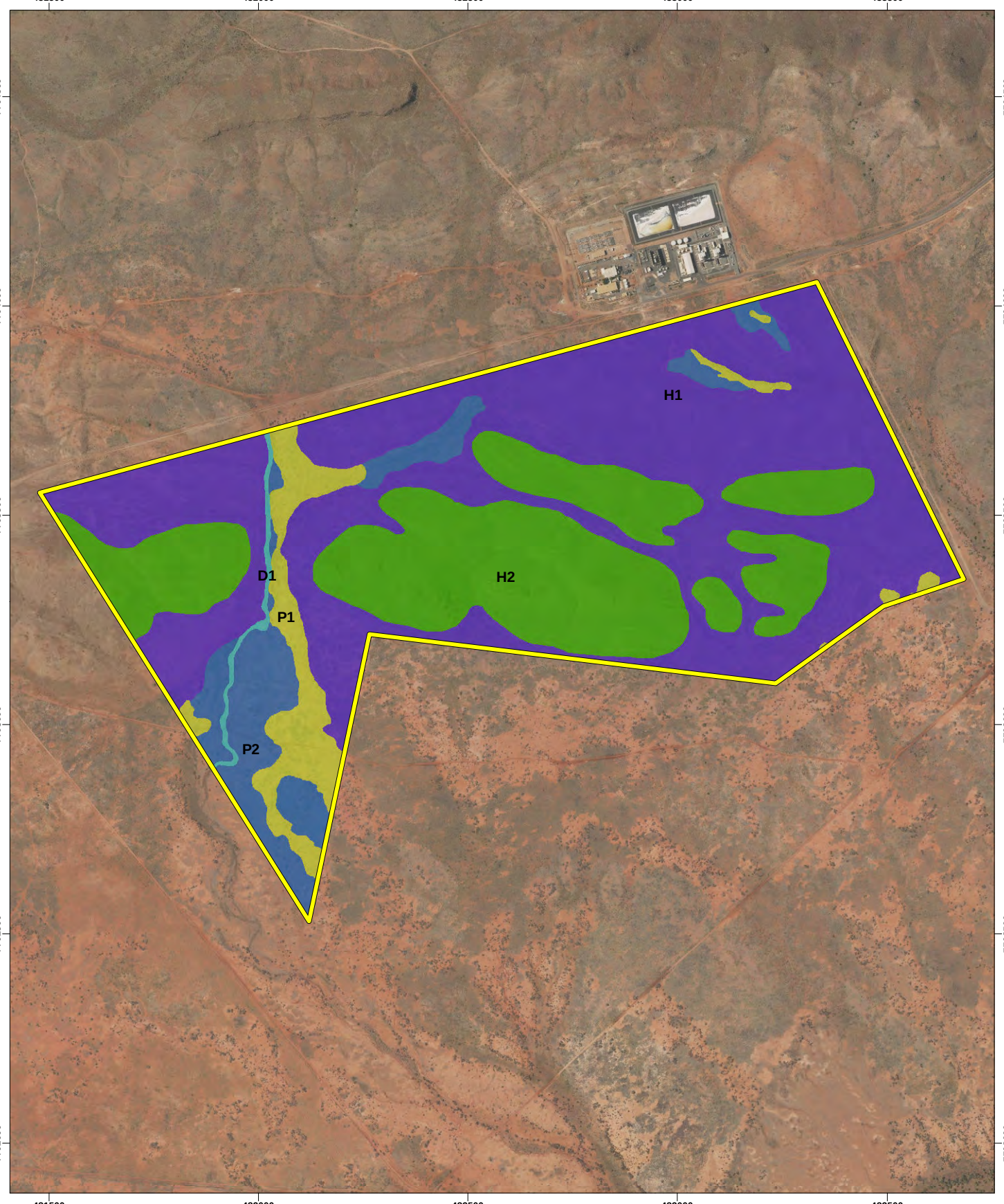

Legend

Karratha Survey Area

Vegetation Types

- D1
- H1
- H2
- P1
- P2

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Meters
1:12,500 @ A4

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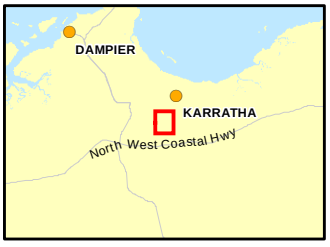
LOCALITY MAP



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Horizon Power
Karratha and Boodarie

Karratha Boodarie Biological Surveys

Figure 13 Karratha
Vegetation Types

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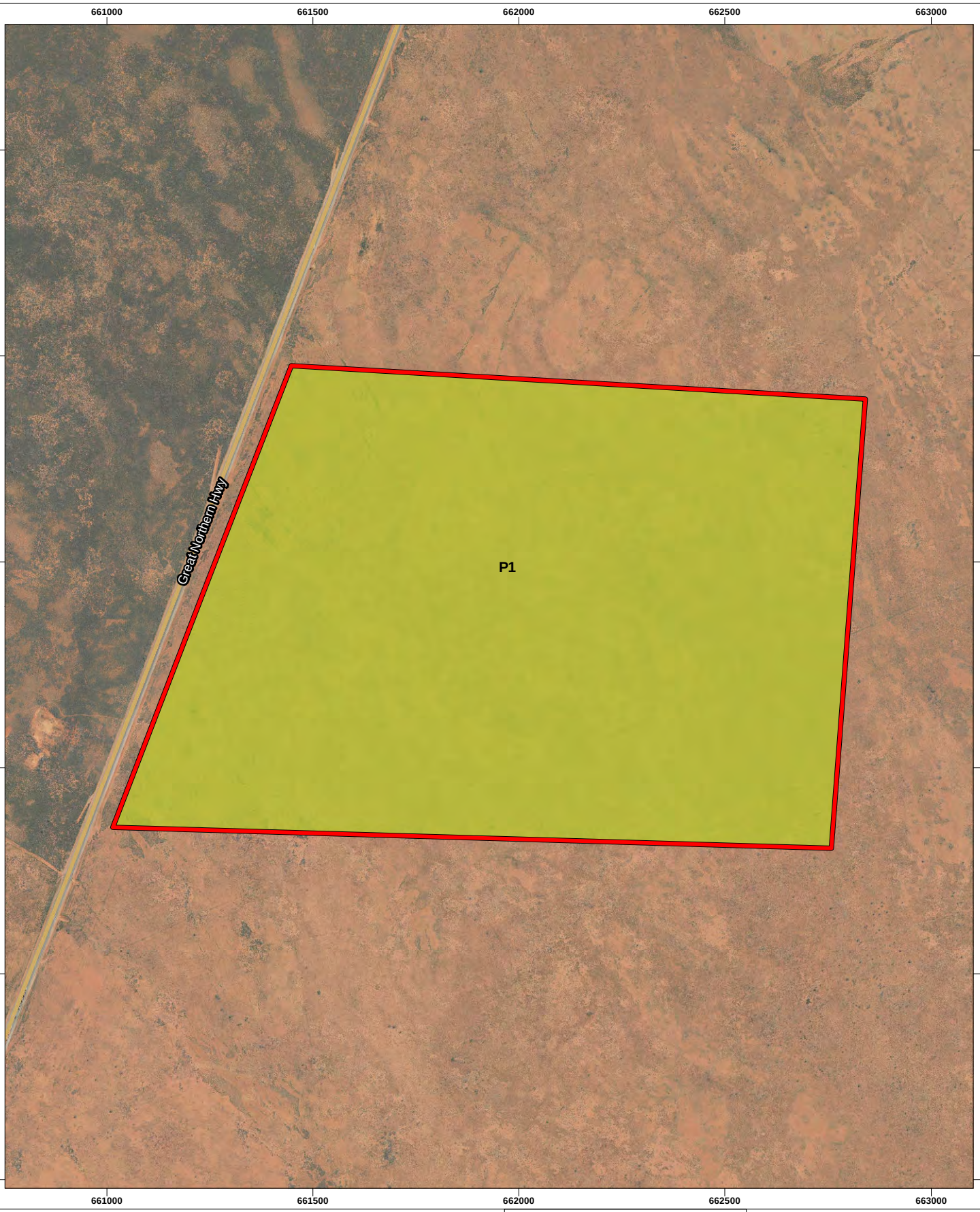
K:\Projects\1.0 EBS\4647 004 Karratha and Boodarie Biological Surveys\4647 F13 Karratha Vegetation Types and Introduced Flora.mxd



Legend

Boodarie Survey Area

Vegetation Types

P1

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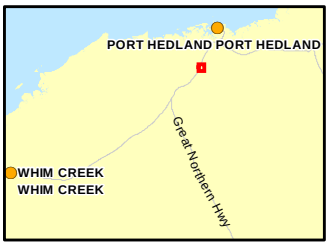
- NOTE THAT POSITION ERRORS CAN BE >5M IN SOME AREAS

LOCALITY MAP



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Horizon Power
Karratha and Boodarie

Karratha Boodarie Biological Surveys

Figure 14 **Boodarie Vegetation Types**

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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

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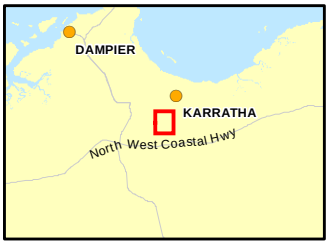
0 130 260 390 Meters
1:12,500 @ A4

N

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

LOCALITY MAP



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Karratha and Boodarie

Karratha Boodarie Biological Surveys

Figure 15 Karratha
Vegetation Condition

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Legend

- Boodarie Survey Area

Vegetation Condition

- Excellent
- Very Good

Introduced Flora

- **Cenchrus ciliaris*
- **Cenchrus setiger*

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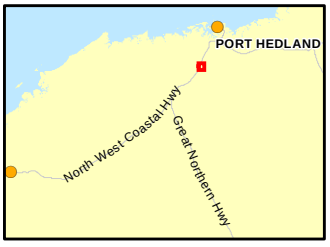
0 130 260 390 Meters

1:12,500 @ A4

N

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

LOCALITY MAP



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Horizon Power
Karratha and Boodarie

Karratha Boodarie Biological Surveys

Figure 16 **Boodarie Vegetation Condition**

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Legend

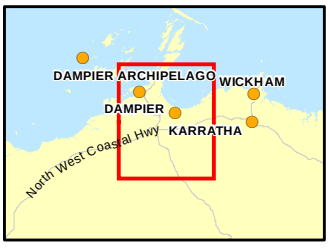
Karratha Survey Area

0 2,100 4,200 6,300
Meters
1:200,000 @ A4

N

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

LOCALITY MAP



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Horizon Power
Karratha and Boodarie

Karratha Boodarie Biological Surveys

Figure 17 Karratha DBCA Threatened and Priority Fauna Locations

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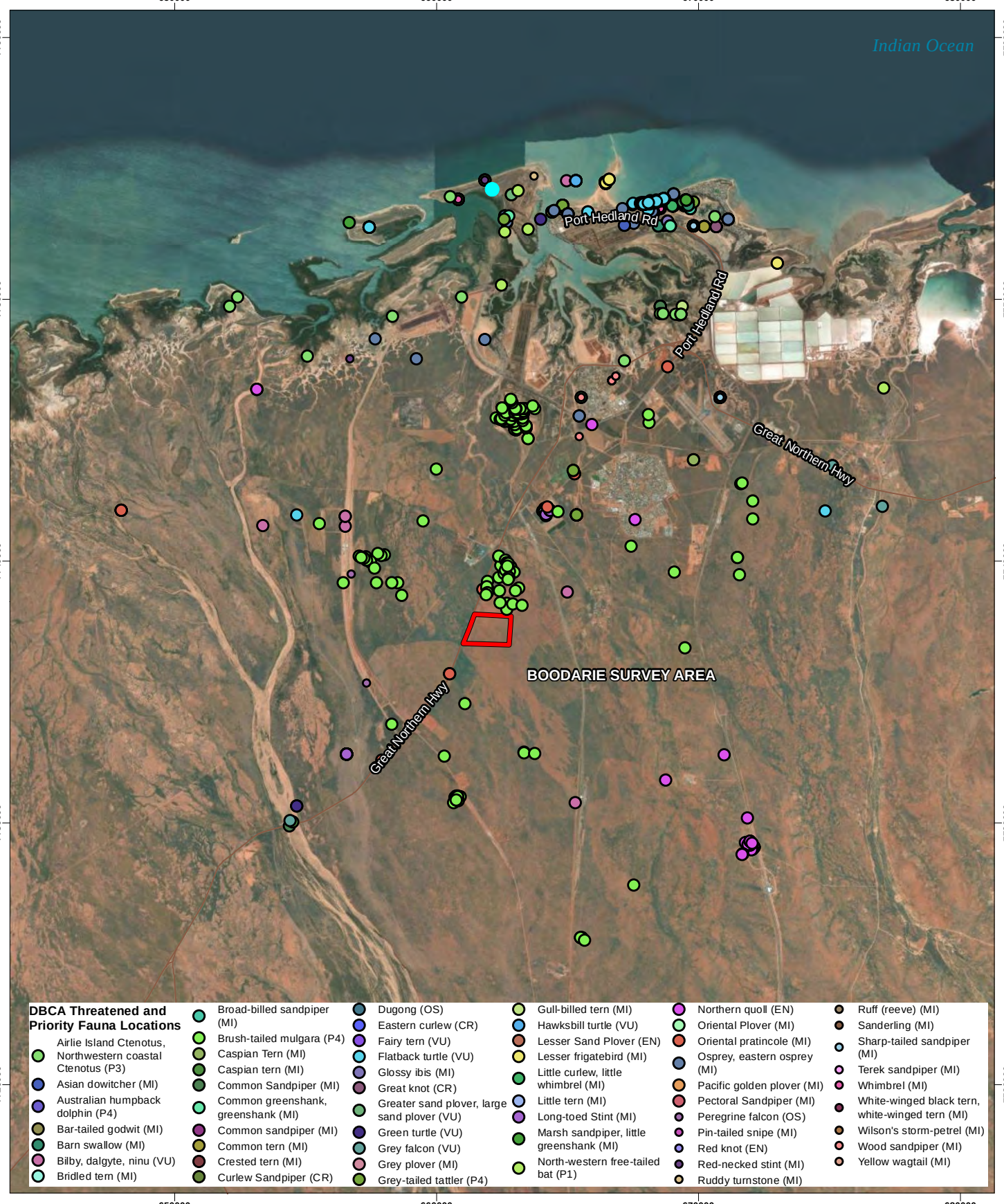


Legend

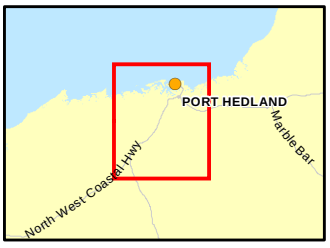
Boodarie Survey Area

0 2,100 4,200 6,300
Meters
1:200,000 @ A4

N

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

LOCALITY MAP



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Horizon Power
Karratha and Boodarie

Karratha Boodarie Biological Surveys

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

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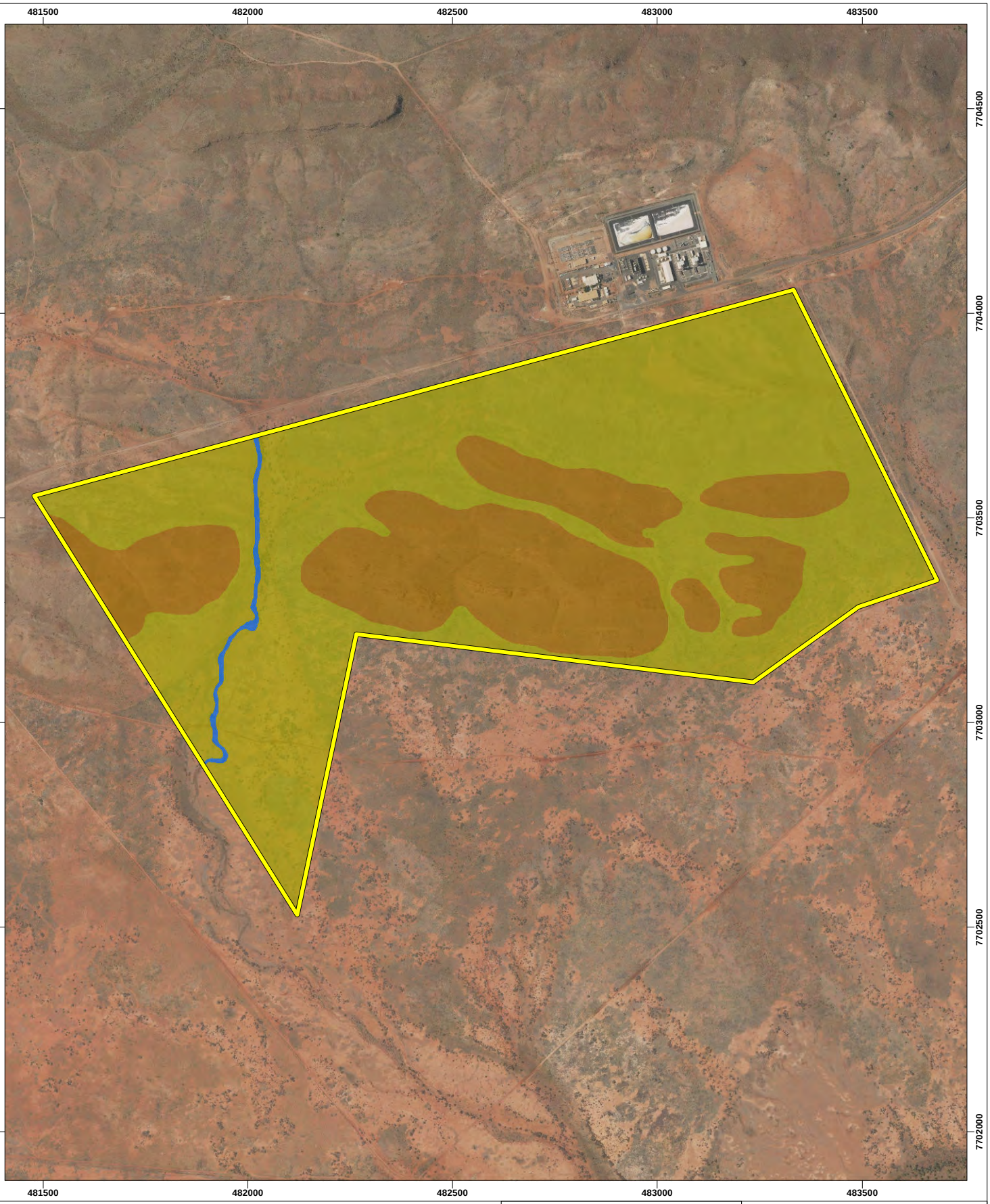


Legend

Karratha Survey Area

Fauna Habitat

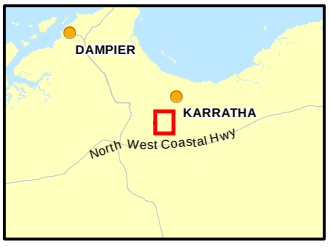
- Minor Drainage
- Rocky Hills
- Stony Plains

0 130 260 390
Meters
1:12,500 @ A4

N

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

LOCALITY MAP



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Horizon Power
Karratha and Boodarie

Karratha Boodarie Biological Surveys

Figure 19 Karratha Fauna Habitat

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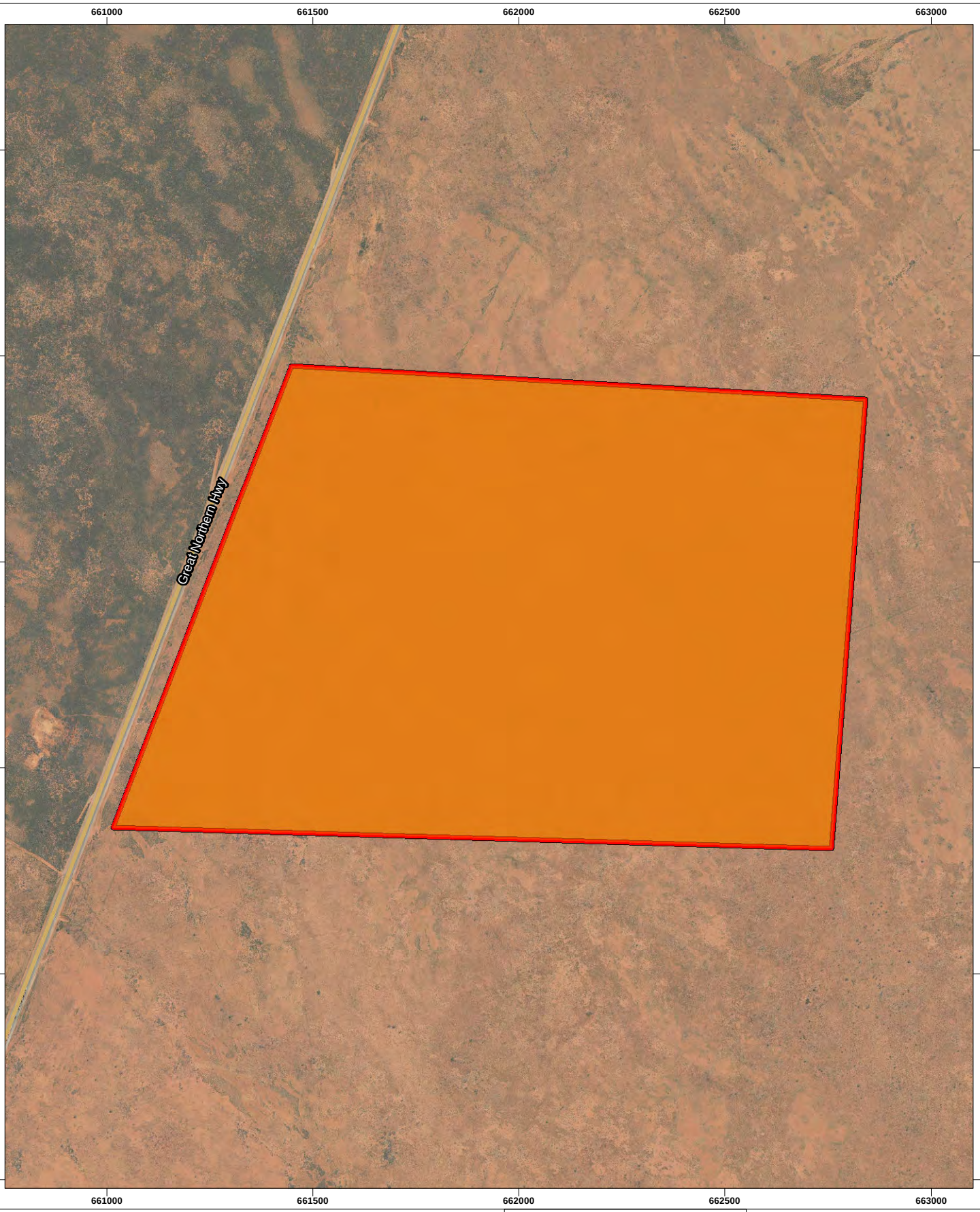

Legend

Boodarie Survey Area

Fauna Habitat

Sandy Plains

0 130 260 390 Meters

1:12,500 @ A4

N

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

LOCALITY MAP

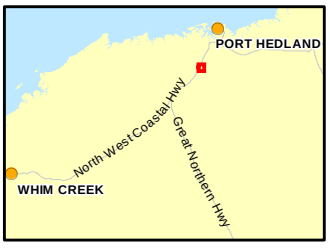

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Figure 20 Boodarie Fauna Habitat

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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)	• *Rhynchosia bungarensis* (Priority 4)	• **Aerva javanica* • **Cenchrus ciliaris* • **Vachellia farnesiana*
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.	• *Terminalia supranitifolia* (Priority 3) • *Rhynchosia bungarensis* (Priority 4)	• **Aerva javanica* • **Cenchrus ciliaris*

Conservation significant flora or vegetation	(GHD, 2019)	(Astron, 2018)
	<1km from the Karratha Survey Area	17.5 km north of the Karratha Survey Area
P2		
Trianthema sp. Python Pool (G.R. Guerin & M.E. Trudgen GG 1023)	★	
P3		
Corchorus congener	★	
Eragrostis surreyana	★	★
Gymnanthera cunninghamii	★	★
Oldenlandia 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
Schoenus punctatus	★	★
Stackhousia clementii	★	★
Terminalia supranitifolia	★	✓
Themeda sp. Hamersley Station (M.E. Trudgen 11431)	★	★
Vigna triodiophila	★	★
P4		
Rhynchosia bungarensis	✓	✓
Threatened and Priority Ecological Communities		
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 *Whiteochloa airoides* (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.	• Rocky plains and low rises • Minor drainage lines • Rock piles • Saline flats • Sandy loam plains • Gilgai grassland
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.	• Grassland • Open woodland/shrubland • Eucalypt woodland
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: • Systematic trapping • Census of bird species • Recording of bat echolocation calls • Spotlighting for nocturnal species • Opportunistic searches for reptiles and other species	• *Chelonia mydas* (EN) • *Lerista nevinae* (P1) • *Pseudomys chapmani* (P4) • *Numenius madagascariensis* (P4) • *Notoscincus butleri* (P4)	• Beach • Coastal dunes • Drainage line • Hill slope • Mangroves • Mudflats and samphire • Plains • Rocky outcrops

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	• Five quadrats	None recorded.	None recorded.	• **Calotropis procera* (Declared Pest)
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: • Six relevés	None recorded.	None recorded.	• **Aerva javanica* • **Agave sp.* • **Arecaceae* sp. 1 • **Arecaceae* sp. 2 • **Calotropis procera* (Declared Pest) • **Cenchrus ciliaris* • **?Jatropha gossypiifolia* • *Spathodea campanulata* • *Stylosanthes hamata* • *Tamarix aphylla* • *Trianthema portulacastrum*
Report for Proposed Boodarie Industrial Area - Flora and Fauna Assessment (GHD, 2010)	Less than 1 km west of the Boodarie Survey Area	June 2009	• 14 quadrats	None recorded.	None recorded.	• **Aerva javanica* • **Cenchrus ciliaris* • **Chloris barbata*
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.	• **Aerva javanica* • **Cenchrus ciliaris* • *Eucalyptus camaldulensis*

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

Conservation significant flora or vegetation	(Emerge Associates, 2019) 10.8 km northeast of the Boodarie Survey Area	(Strategen JBS&G, 2020) 16.2 km north of the Boodarie Survey Area	(GHD, 2010) <1 km west of the Boodarie Survey Area	(GHD, 2016) 8.8 km north of the Boodarie Survey Area
P4				
Bulbostylis burbidgeae	★	★	★	★
Goodenia nuda	★	★		★
Ptilotus mollis	★			
Threatened and Priority Ecological Communities				
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.	• Mixed tussock and hummock grasslands • Low shrublands
Port Hedland Regional Fauna Assessment (ENV Australia Pty Ltd, 2011)	Overlapping with the Boodarie Survey Area	July 2011	Level 2 Fauna Survey	• *Actitis hypoleucos* (MI, MA) • *Arenaria interpres* (MI, MA) • *Aspidites ramsayi* (P1) • *Calidris canutus* (EN, MI, MA) • *Calidris ferruginea* (CR, MI, MA) • *Calidris ruficollis* (MI, MA) • *Calidris tenuirostris* (CR, MI, MA) • *Charadrius leschenaultii* (VU, MI, MA) • *Charadrius mongolus* (EN, MI, MA) • *Charadrius veredus* (MI, MA) • *Dasyurus hallucatus* (EN) • *Fregata ariel* (MI, MA) • *Hydroprogne caspia* (MI, MA) • *Limosa lapponica* (MI, MA) • *Numenius madagascariensis* (CR, MI, MA) • *Numenius minutus* (MI, MA) • *Numenius phaeopus* (MI, MA) • *Pandion haliaetus cristatus* (MI) • *Pluvialis squatarola* (MI, MA) • *Pseudomys chapmani* (P4) • *Sternula albifrons* (MI, MA) • *Sternula nereis nereis* (VU) • *Tringa brevipes* (P4, MI) • *Tringa glareola* (MI, MA) • *Tringa nebularia* (MI, MA)	• Beach/Dunal • Tidal flats • Mangroves • Riverine • Sandplain

Report	Project Area	Survey Timing	Survey Effort	Conservation Significant Fauna	Fauna Habitats
				• *Tringa stagnatilis* (MI, MA) • *Xenus cinereus* (MI, MA)	
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	• *Dasycercus cristicauda* (P4)	• Low open heath over tussock grasslands on sand plains • Ephemeral wetland • Samphire flats • Scattered trees over open shrubland on low rises
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.	• Low *Acacia stellaticeps* and *Triodia* shrubland • *Tecticornia* low open shrubland with bare areas • *Avicennia marina* tall shrubland

Appendix B
Database Searches

Threatened and Priority Flora DBCA Database Search

Taxon	ConsStatus	WARank	PopNumber	Location	District	VestNg	Purpose1	Purpose2	CountDate	Method	MatCount	LiveTotal	InFlower	HabNotes	SoilCondit	Landform	RockType	Gravel	SoilType	SoilColor	AssSpecies	Veg_Stru_A	Veg_domA1	Veg_Stru_B	Veg_domB1	Veg_Stru_C	Veg_domC1	Veg_Stru_D	Veg_domD1
Eragrostis crateriformis	3		1.000000	Millstream-Chichester National Park (Crown Reserve 30071), 2.2 km ENE of Black Hill Pool [on Narrina Creek].	KARRATHA	CC	NPK		10/04/1997		0.000000	6.000000	Y	Scattered shrubs over mixed tussock with Triodia pungens.	MOIST	DD_CREEK			CLA_LOAM	BROWN	Flueggea virosa subsp. melanthesoides,Acacia trachycarpa,Cenchrus ciliaris,Cenchrus setigerus	Unknown Veg Class	Flueggea virosa subsp. melanthesoides	Unknown Veg Class	Cenchrus ciliaris	open hummock grassland 0.5-1m, 20-50%	Cenchrus setigerus	Unknown Veg Class	Acacia trachycarpa
Eragrostis crateriformis	3		2.000000	Millstream-Chichester National Park (Crown Reserve 30071), 7.4 km SE of Mount Sabine.	KARRATHA	CC	NPK		26/05/1997		0.000000	0.000000	N	With Mollugo molluginis, Tephrosia uniovulata and Eucalyptus victrix.		CREST		GRVL_30	LOAM	RED_BRWN	Triodia wiseana,Hakea suberea,Acacia arida,Acacia pyrifolia	Unknown Veg Class	Triodia wiseana	Unknown Veg Class	Acacia arida	Unknown Veg Class	Acacia pyrifolia	Unknown Veg Class	Hakea suberea
Fimbristylis sieberiana	3		6.000000	Millstream-Chichester National Park (Crown Rserve 38333; Expl. Lease 4701659 Pending, FMG Pilbara). Walk at Millstream Homestead.	KARRATHA	CC	NPK		28/05/2008		0.000000	0.000000	N			FL_PALU						Cladium procerum	Unknown Veg Class	Cladium procerum						
Goodenia nuda	4		2.000000	Mardle Station (Crown Lease 3114-1027; Expl. Lic. 801607, Leteni Pty Ltd), side of management track, [ca 9 km north of homestead, 3.8 km SE of Mount Salt].	KARRATHA	PLB	PAS	EXL	31/07/2002		0.000000	4.000000	Y	Plain. Mesquite scrub. 25 % weed cover.	DRY				SAND	RED									
Goodenia pallida	1		1.000000	127 miles (ca 203 km) from Onslow on Roebourne road, 11.5 miles (18.5 km) north of Balmoral Homestead on old highway, near Eramura Well, [south-west of Mosquito Pains]. De Witt part Location 263 (L 3114 1027).	KARRATHA	PLB	PAS		11/08/1970		0.000000	0.000000	Y	Annual grassland. Acacia scrub-steppe.						RED									
Gymnanthera cunninghamii	3		1.000000	Nature Reserve (36915), Enderby Island, west end, near Rocky Head, [8.8 km WNW of Bluff Point].	KARRATHA	CC	NRE	CFF	13/05/1982		0.000000	0.000000	N			CREST	DOLERITE		SAND										
Owenia acidula	3		2.000000	Mill Stream creek crossing (Crown Reserve 38991; Expl. Lic. 4701259 Pending, De Beers Australia Exploration), at Pannawonnica Road.	KARRATHA	WAT	WAT		23/09/1990		0.000000	0.000000	N			FL_PALU			SIL_CLAY		Santalum lanceolatum	Unknown Veg Class	Santalum lanceolatum						
Paspalidium retiglume	2		2.000000	Roebourne Wittenoom Road in Millstream Chichester National Park (Crown Reserve 30071), 10.5 km SSW Mount Herbert.	KARRATHA	MRD	VER	NPK	20/05/1997		0.000000	0.000000	N	Low shrubland over open herbland. With Astrebla pectinata and Aristida latifolia.					CLAY	ORANGE	Sida fibulifera,Streptoglossa bubakii,Phyllanthus maderaspatensis var. angustifolius,Neptunia dimorphantha	Unknown Veg Class	Sida fibulifera	Unknown Veg Class	Streptoglossa bubakii	Unknown Veg Class	Neptunia dimorphantha	Unknown Veg Class	Phyllanthus maderaspatensis var. angustifolius
Paspalidium retiglume	2		3.000000	About 9 km south-west of Mount Herbert [summit], Millstream-Chichester National Park (Crown Reserve 38333: De Witt Lot 170).	KARRATHA	CC	NPK		21/05/1997		0.000000	0.000000	N	Cobbly, cracking soil. Low open heath over very open herbland. With Phyllanthus maderaspatensis.					CLAY	RED_BRWN	Neptunia dimorphantha,Sida fibulifera,Streptoglossa bubakii,Aristida latifolia	Unknown Veg Class	Neptunia dimorphantha	Unknown Veg Class	Sida fibulifera	Unknown Veg Class	Aristida latifolia	Unknown Veg Class	Streptoglossa bubakii
Stackhousia clementii	3		4.000000	King Bay - Hearson Cove tidal inlet, Burrup Peninsula. Lot 564 Village Road, Burrup (De Witt Location).	KARRATHA	PRI			30/04/2002		0.000000	0.000000	Y	Soil Condition :Saline; Soft soil with coral rubble, on small 'island' (rarely inundated).		FL_PALU	LIMESTN		SIL_LOAM		Acacia tetragonophylla	Unknown Veg Class	Acacia tetragonophylla						
Stackhousia clementii	3		5.000000	UCL. Water Corporation service corridor, Burrup Fertilizers, near Hearson Cove Road. De Witt Location 399.	KARRATHA	NON	UCL		14/06/2003	ESTMT	0.000000	6.000000	Y	Soil Condition :Saline; Estuarine area, wet. Small shrubs including Trianthema.		CD_LKBED			CLAY	CREAM									
Terminalia supranitifolia	3		1.000000	King Bay- Withnell Bay Road. Burrup Peninsula. Herbarium Record Only.	KARRATHA	UNKNOWN			06/12/1978		0.000000	0.000000	N	Shrub 1.5 m tall, spreading. Leaves pale green. Flowers yellow-green.															
Terminalia supranitifolia	3		2.000000	2.8 km from Dampier on road to Hearson Cove, Nickol Bay. Herbarium Record Only.	KARRATHA	UNKNOWN			12/12/1971		0.000000	0.000000	N	Small tree 7 feet high, 10 feet across.		RIDGE													
Terminalia supranitifolia	3		3.000000	Rear of Beach. Hearson Cove, Nickol Bay. E of Dampier. Herbarium Record Only.	KARRATHA	UNKNOWN			01/05/1983		0.000000	0.000000	N	Stunted canopy tree, very grained twisted trunk. Leaves glossy, silvery. Flowers lemon, fruits not winged.		OUTCROP					Ipomoea costata,Ficus virens,Brachychiton (acuminatum)	Unknown Veg Class	Ipomoea costata	Unknown Veg Class	Ficus virens	Unknown Veg Class	Brachychiton (acuminatum)		
Terminalia supranitifolia	3		4.000000	Base hills, near right hand side of Dampier Salt Ltd Lease.Herbarium Record Only.	KARRATHA	UNKNOWN			01/12/1986		0.000000	0.000000	N	Low spreading tree to 3 m. Tangled, sometime deciduous. Leaves silvery silky fine pubescence. Lemon flower		CREST			SAND	WHITE	Ipomoea costata,Ficus virens,Brachychiton ?lanceolate	Unknown Veg Class	Ipomoea costata	Unknown Veg Class	Ficus virens	Unknown Veg Class	Brachychiton ?lanceolate		
Terminalia supranitifolia	3		5.000000	Above Munni Munni Creek, about 5 km due S of Cherrata Homestead (aband.) Mt Welcome Station. Herbarium Record Only.	KARRATHA	RDL	PAS		06/07/1986		0.000000	0.000000	N	Shrubby tree to 1.8 m high, spreading. Leaves medium green, fruit yellowish green.		SLOPE													
Terminalia supranitifolia	3		7.000000	Methanex flora survey site B003,B004 & RD, Burrup Peninsula.	KARRATHA	RDL	UNKNOWN		30/10/2001	ESTMT	0.000000	30.000000	N	Other species: Cajanus cinereus, cymbopogon ambiguus, Flueggea virosa subsp. melanthesoides, Rhagodia erem	DRY	OUTCROP	DOLERITE		LOAM	RED	Ficus brachypoda,Brachychiton acuminatus,Acacia coriacea subsp. coriacea,Alectryon oleifolius subsp. oleifolius	Unknown Veg Class	Ficus brachypoda	Unknown Veg Class	Brachychiton acuminatus	Unknown Veg Class	Acacia coriacea subsp. coriacea	Unknown Veg Class	Alectryon oleifolius subsp. oleifolius
Terminalia supranitifolia	3		7.000000	Methanex flora site RE,Burrup Peninsula.	KARRATHA	RDL	UNKNOWN		31/10/2001	ESTMT	0.000000	5.000000	N	Other species: Capparis spinosa var. nummularia, Grevillea pyramidalis subsp. pyramidalis		OUTCROP	DOLERITE		LOAM	BROWN	Brachychiton acuminatus,Erythrina vespertilio,Triodia epactia,Acacia coriacea subsp. coriacea	Unknown Veg Class	Brachychiton acuminatus	Unknown Veg Class	Erythrina vespertilio	Unknown Veg Class	Triodia epactia	Unknown Veg Class	Acacia coriacea subsp. coriacea

Taxon	Cons_Code	Plant_Desc	Site	Vegetation	Frequency	Notes	Locality	Date
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3	Shrub branching from base to 1 m+.	Red stony loam.	Acacia inaequilatera, Sida sp., A. cortiacia, Hibiscus leptocladus.	not common only seen this location.		Rear Roebourne Oval	/08/1982
Atriplex lindleyi subsp. *conduplicata*	3	Open straggly rotund shrub, growing up to 0.2 m tall.	Margin of crabhole plain.	Sparse tussock grassland of Eragrostis xerophila.	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
Cladium procerum	2	Large clumping sedge with spreading culms to 2 m high, inflorescences nodding.	Flood zone of creek.	With Cyperus and Typha and Date Palms.	Common.		Homestead walk at Millstream.	28/05/2008
Cladium procerum	2	Large sedge, 2 m tall, dense tussock.	Water's edge of creek from Crystal Pool.				Millstream	26/09/1969
Cladium procerum	2	2 m high.	Next running water.				Western Millstream Outlet	15/12/1974
Corchorus congener	3		Rocky ironstone headland. Bare 40%.	Open Acacia bivenosa and Grevillea pyramidalis (2-10) shrubland over Triodia wiseana (30-70) hummock grassland.			Potter Island, Great Sandy Islands Nature Reserve	10/06/2016
Dolichocarpa 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 Vachellia farnesiana & Sida sp. over Scattered Tussock Grass of Sorghum ? plumosa, Themeda ? triandra & Eriachne sp. over Closed Bunch Grassland of Sorghum ? plumosa, Dichanthium sericeum subsp. humilius & Sporobolus australasicus			Site: OYE14, N side of road, 4.3 km W of Pannawonica - Cape Lambert railway crossing on Pannawonica - Millstream Road, 36.5 km E of Pannawonica, 26.7 km NW of Mt Elvire, 34 km E of Pannawonica, Yalleen Station, Pilbara IBRA	15/06/2006
Dolichocarpa 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
Dolichocarpa sp. Hamersley Station (A.A. Mitchell PRP 1479)	3		Distal colluvium in lower slopes and fans. Very gently inclined slope, aspect 340 degrees. 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
Dolichocarpa 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 Eriachne sp. over Very Open Herbs.			Site: DRW16, 17.1 km ENE of Yerwararron Hill, 17.5 km WNW of Mt Regal, 18.8 km SW of Dampier, Karratha Station, Pilbara IBRA	21/08/2005
Dolichocarpa sp. Hamersley Station (A.A. Mitchell PRP 1479)	3		Floodplain; calcrete 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 Acacia xiphophylla, Acacia inaequilatera & Carissa lanceolata over Low Open Shrubland of Ptilotus obovatus over Scattered Hummock Grass over Tussock Grassland of Eriachne sp. over Open Bunch Grassland of Chrysopogon 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 ÷ÓÕèíóÕÇÉ Pannawonica Road, 14.6 km NNE of Mt Flora, 72.9 km E of Pannawonica, Pilbara IBRA	19/04/2004
Dolichocarpa 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.	Low Shrubland of Rhynchosia sp. & Sida sp. over Tussock Grassland of Eragrostis sp. & Dichanthium sericeum over Open Bunch Grassland of Herbs of Streptoglossa spp, Heliotropium sp. & Ptilotus exaltatus.			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
Dolichocarpa 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.	Streptoglossa bubakii open herbland. Streptoglossa bubakii 20-35 cm 15%. Lower half of site had Rhynchosia sp. Chichester (MET 15,225) 25 cm = 20% cover. A small patch nearby of Neptunia dimorphantha > 25% cover . Associated annuals: Indigastrum parviflor			Site number: 461. 5.5 km west-south-west of Mount Herbert, Millstream-Chichester National Park, Fortescue Botanical District	22/05/1997
Dolichocarpa 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).	Rhynchosia sp. Barowanna Hill (MET 15,623) and Sida fibulifera low shrubland over Stemodia kingii very open herbland. Stemodia kingii 15-35 cm < 1-10%; Rhynchosia sp. Barowanna Hill (MET 15,623) 20 cm < 1-15%; Sida fibulifera 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
Dolichocarpa 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.	Rhynchosia sp. Chichester (MET 15,225) low open heath over Streptoglossa bubakii very open herbland over Triodia wiseana scattered hummock grassland. Rhynchosia sp. Chichester (MET 15,225) 10-20 cm 30-35%; Streptoglossa bubakii 30 cm = 5%; Triodia wisean			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
Eragrostis crateriformis	3	Annual grass.	Low rise and gentle slopes. Soil: Red-brown gravelly, pebbly loam, with gravel/pebble surface.	Triodia wiseana hummock grassland. Triodia wiseana 20-30 cm 25-35%. There were few Acacia arida along the flowline. The Eucalyptus victrix occured in the lower area only. Associated annuals: Eriachne pulchella ssp. dominii, Cleome viscosa, Sporobolus aus			Site number: 565. 7.4 km south-east of Mount Sabine, Millstream-Chichester National Park, Fortescue Botanical District	26/05/1997
Eragrostis crateriformis	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, damp, clayey loam.	Scattered shrubs of Flueggea virosa ssp. melanthesoides and Acacia trachycarpa over Cenchrus ciliaris, Cenchrus setigerus , Triodia pungens mixed tussock, hummock grassland. Flueggea virosa ssp. melanthesoides < 1%; Acacia trachycarpa < 1%; Triodia punge			Site number: 18. 2.2 km east-north-east of Black Hill Pool, Millstream-Chichester National Park, Fortescue Botanical District	10/04/1997
Eragrostis lanicaulis	3						Near Point Sampson [Samson]	/03/1921
Eragrostis lanicaulis	3						Near Point Sampson [Samson]	/03/1921
Eragrostis surreyana	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 gb	Cyperus vaginatus, Schoenus falcatus, Fimbristylis rara, Schoenoplectus littoralis, Eragrostis sp. Mt Montague, sedgeland - tussock grassland with Stemodia grossa, Pluchea rubellilfora, Stylidium fluminense, Peplidium 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. Quadrat within wet areas, 20-30 m wide.	Site B233, Burrup Peninsula 5 km NE of North West Shelf Gasworks, Pilbara Bioregion	27/06/2000
Eragrostis surreyana	3	Tufted annual.	Damp sleepage agt top of rocky gorge. Stoney soil of red-brown sandy-clay.	With Stylidium fluminense.	occasional.		Wetland above waterfall, Burrup Peninsula. (Trudgen & Associates Burrup Vegetation Survey Site B233)	27/05/2009
Eragrostis surreyana	3	Clumped herb to 2 cm high x to 7 cm wide.	Edge of perched rockpool above waterfall, at top of rockpile. Wet, deep brown, gravelly, clayey sand between rocks.	Triodia angusta dominated community with Eucalyptus victrix, scattered Acacia ampliceps, A. coriacea and Brachychiton acuminatus over Rhynchosia minima, Themeda ? triandra, Paspalidium tabulatum, Trachymene oleracea and herbland including Pluchea rubelli			Waterhole above waterfall: Burrup Peninsula	27/05/2009
Eriochloa fatmensis	3						Bamba Pool, Harding River	16/09/1981
Euphorbia australis var. *glabra*	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.	Scattered Shrubs of Vachellia farnesiana over Open Tussock Grassland of Chrysopogon fallax over Open Bunch Grassland of Eriachne sp. over Scattered Sedges over Herbs of Ptilotus exaltatus, Salsola sp. & Flaveria trinervia.			Site: PW17, 13.4 km N of Mt Flora, 25.1 km NW of Mt Ulric, 71.1 km E of Pannawonica, Pilbara IBRA	16/08/2004
Euphorbia inappendiculata var. *inappendiculata*	2	Prostrate annual.	On open plain in heavy soil.				10 km W Fortescue River bridge, Panawonica railway	17/05/1991
Euphorbia inappendiculata var. *inappendiculata*	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 Triodia wiseana with low open shrubland of Acacia arida and Acacia pyrifolia (slender form). Triodia wiseana 30-60 cm 50%-60%; Acacia arida 1-1.6 m = 3%; Acacia pyrifolia (slender form) 1%. Had a patch with Acacia bivenosa > 5% cover			Site number: 89. 5.9 km east-south-east of Mount Sabine, Fortescue Botanical District	16/04/1997
Euphorbia stevenii	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).	Sida fibulifera and Crotalaria benthamiana low open shrubland over scattered herbland of Euphorbia sp. Harding (MET 15,683). Sida fibulifera 10-20 cm < 1-20%; Euphorbia sp. Harding (MET 15,683) (15) 40-50 cm < 1%; Crotalaria benthamiana (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
Fimbristylis sieberiana	3	A leafed sedge, 45 cm, spikelets in groups with short bracts.					Ganya and Dogger Gorge	24/08/1976
Fimbristylis sieberiana	3	Rhizamatous perennial.	Soft mud at edge of pool.				Palm Pool - Millstream - Fortescue River	22/05/1976
Fimbristylis sieberiana	3	Grassy sedge 50 cm high.	On flats in flood zone away from creek.	Cladium procerum and open areas.	Forming monospecific patches.		Homestead walk at Millstream.	28/05/2008
Glycine falcata	3		Clay flat. Red-brown silty loamy clay.	With Themeda sp. Hamersley Station to 1.3 m, PFC 35% over grasses and herbs.			Mount McLeod, Pilbara, MMW Site 3, WPT 4	17/05/2011
Gomphrena cucullata	3	Herb 10 cm high x 10 cm wide.	Plain. 0-10% quartz rocks. Red sand.	Triodia angusta Hummock grassland. With Triodia epactia, Cenchrus ciliaris, Scleroiaena costata, Chrysopogon fallax, Evolvulus alsinoides var. villosicalyx, Fimbristylis dichotoma, Sida fibulifera, Indigofera colutea.			Karratha - ca 16.5 km SE	16/07/2012
Gomphrena cucullata	3	Prostrate, compact herb 20 cm high x 55 cm wide. Wiry red stems, young stems slightly hairy. Revolute, linear leaves, acucte 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
Gomphrena leptophylla	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
Gomphrena 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).	Myoporum montanum scattered shrubs over Tecticornia indica subsp. leiostachya, Neobassia astrocarpa, (Scaevola spinescens, Frankenia ambita) low shrubland over Eragrostis falcata scattered tussock grassland. Associated Species: Myoporum montanum, Scaevol			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
Goodenia nuda	4	Erect herb 0.3 m high x 0.2 m wide. Flowers yellow.	Plain. Dry, red sand.	Mesquite 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
Goodenia nuda	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	7/07/2014
Goodenia pallida	1	Corolla very pale purple.	Red soil.	Annual grassland, Acacia scrub-steppe.			127 miles from Onslow on Roebourne road,	11/08/1970
Gymnanthera cunninghamii	3	Shrub 4 - 5 ft branched from ground; milky sap.					West Lewis Island, Dampier Archipelago	13/06/1962
Gymnanthera cunninghamii	3						Enderby's Island, Dampier Archipelago	/02/1818
Gymnanthera cunninghamii	3						Enderby's Island, Dampier Archipelago	/02/1818
Gymnanthera cunninghamii	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
Gymnanthera cunninghamii	3	Single stemmed bush to 2 m tall. Stem very pliable, bronze colour, glabrous. Leaves opposite, margins undulating, glossy, lime green above, dull beneaht. Petioles 2-2.5 cm long. Milky sap.	Sandplain at the base of rocky slope, red sandy soil.	With Triodia sp., and Myoporum acuminatum.	frequent.		Enderby Island, S side, Fortescue Botanical District	2/09/1987
Helichrysum oligochaetum	1						Port Walcott	//
Helichrysum oligochaetum	1						Port Walcott, ca 10 km N of Roebourne	//
Heliotropium muticum	3	Perennial shrub, 15 cm high.	Flat. Red/brown sand/clay. No sign of fire.	Triodia pungens, Acacia inaequilatera, Chrysopogon fallax, Corchorus walcottii, Indigofera monophylla, Solanum lasiophyllum.	2-5 plants.	Condition: good.	92 km E of Karratha	11/05/2011
Heliotropium muticum	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.	Corymbia hamersleyana and Grevillea pyramidalis subsp. leucadendron woodland over Triodia angusta and Triodia wiseana hummock grassland.	single plant seen.		C. 14 km SW of Whim Creek	13/07/2014
Ipomoea racemigera	2	Scrambling twining herb with white flowers, growing up to 0.5 m tall.	Flat bedded creekline in a basalt upland.	Eriachne tussock grassland.		Abundance: common.	Ca 55 km NW of Coolawanyah Homestead on Roebourne road	1/04/1995
Livistona alfredii	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 Enneapogon 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
Livistona alfredii	4	Tree to 10 m, grey green fan-like foliage, trunks blackened from fire.	Gentle, brown loam. Riverine.	Palm and Melaleuca 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
Livistona alfredii	4	3 m tall palm tree in fruit.	Common along creek.	In Open Tall Woodland of Corymbia terminalis, Eucalyptus camaldulensis and Melaleuca argentea over Open Scrub of Acacia bivenosa over Mid-Dense Hummock of Triodia sp.	common along creek.		Palm Valley, Millsteam - Chichester National Park,	18/11/1998
Livistona alfredii	4	3 m tall palm tree in fruit.	Common along creek.	In Open Tall Woodland of Corymbia terminalis, Eucalyptus camaldulensis and Melaleuca argentea over Open Scrub of Acacia bivenosa over Mid-Dense Hummock of Triodia sp.	common along creek.		Palm Valley, Millsteam - Chichester National Park,	18/11/1998
Livistona alfredii	4						Millstream [Homestead], Fortescue River	/08/1974
Livistona alfredii	4	Seedling.	Dry bed of river.				Millstream [Homestead]	24/09/1969
Livistona alfredii	4					Found with Collectors collection but not labelled.	[Near Millstream [Homestead], Fortescue River, Fortescue District]	13/08/1974
Livistona alfredii	4						Near Millstream [Homestead], Fortescue River, Fortescue District	13/08/1974
Livistona alfredii	4						Longreach, Millstream [Homestead], Fortescue River	21/08/1932
Livistona alfredii	4	Palm to 10 m.					Millstream [Homestead], Fortescue River	3/03/1962
Livistona alfredii	4					Found with Collectors collection but not labelled.	[Near Millstream [Homestead], Fortescue River, Fortescue District]	13/08/1974
Livistona alfredii	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 ampliceps over Tall Grass.	common.		Millstream/Yarraloola Road crossing the Fortescue River,	19/11/1998
Livistona alfredii	4	Tall erect palm, grey trunk. Large fan-shaped, palmately divided leaves forming dense crown. Bole of trunk expanded. Petioles with few spines or O. Seeds globular.	Riverine deltas and floodplains.	With Cajepats, Euc. camaldulensis.		Endemic to Pilbara.	Millstream Pools, Millstream-Chichester National Park	28/07/1990
Livistona alfredii	4	4 m tall palm tree.	Riverine overflow bed of rock and stones.	In Open Tall Woodland of Corymbia terminalis, Eucalyptus coolabah and E. camaldulensis over Open Scrub of Acacia monticola.	group of 4 only.		400 m E of Robe River Rion rail bridge, Fortescue River,	18/11/1998
Livistona alfredii	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

Taxon	Cons_Code	Plant_Desc	Site	Vegetation	Frequency	Notes	Locality	Date
Livistona alfredii	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
Livistona alfredii	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
Livistona alfredii	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
Livistona alfredii	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 Enneapogon 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
Livistona alfredii	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 ampliceps over Tall Grass.	common.		Millstream/Yarraloola Road crossing the Fortescue River,	19/11/1998
Livistona alfredii	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 Ennopogon 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
Livistona alfredii	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 Ennopogon 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
Livistona alfredii	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
Livistona alfredii	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
Livistona alfredii	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
Livistona alfredii	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
Livistona alfredii	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
Livistona alfredii	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
Minuria tridens	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. bidens, Swainsona pterostylis, Euphorbia tannensis, Solanum lasiophyllum and Trianthema cusac		6 mature plants, all flowering.	6 km E of Powdar Creek inlet and 97 km WSW of Karratha	28/03/2020
Minuria tridens	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. bidens, Pluchea longiseta, Myoporum montanum, Sporobolus virginicus and Scaevola spinescens.		7 mature plants flowering, 15 seedlings.	2 km E of Powdar Creek inlet and 99 km WSW of Karratha	28/03/2020
Owenia acidula	3					Wild pepper tree.	Mardi Station	//
Owenia acidula	3						Mardie Station	10/12/1949
Owenia acidula	3						Mardie Station	10/12/1949
Owenia acidula	3						Mardie Station	10/12/1949
Owenia acidula	3	Erect tree to 8 m; bark brown, branches red-brown, pendulous. Viscid. Leaves parapinnate, 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 Panawonnica road. 1:50 000 map. Millstream 067081	23/09/1990
Owenia acidula	3	Small tree 10 ft. Leaves pseudopinnate.	Near creek.	Shrub steppe.			Mardie Station	19/08/1966
Owenia acidula	3						Mardie	5/03/1953
Paspalidium retiglume	2	Annual tussock grass	Soil: Cobbly 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: 426B. 9.5 km south-south-west of Mount Herbert, Millstream-Chichester National Park, Fortescue Botanical District	21/05/1997
Paspalidium retiglume	2	Annual tussock grass.	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 Iseilema aff. fragile was common. The Iseilema 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
Pentalepis trichodesmoides subsp. *hispida*	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.					45 km peg, NW Gas Pipeline	8/10/1992
Pentalepis trichodesmoides subsp. *hispida*	2	0.5 m multi-branched upright shrub.	Banks of creeks and edges of basalt screes.				40 km S of Pyramid Homestead	20/08/1989
Pentalepis trichodesmoides subsp. *hispida*	2	Compact shrub, 1.3 m high x 2 m wide. Flowers yellow.	Slight rise. Stony brown clayey - sand.	Triodia grassland.	occasional.		Ca 3 km ESE of Python Pool	3/09/2013
Pentalepis trichodesmoides subsp. *hispida*	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 Ptilotus 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
Pentalepis trichodesmoides subsp. *hispida*	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
Rhynchosia bungarensis	4	Creeper.	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, Flueggia 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 B082	27/06/2000
Rhynchosia bungarensis	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, Ptilotus incanus open shrubland over Triodia epactia hummock grassland. Associated Species: Acacia arida, Ptilotus 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
Rhynchosia bungarensis	4		Perched wetland with rock pools above waterfall at top of rockpile formation. Deep, brown, gravelly, wet, clayey sand.	Triodia angusta with Eucalyptus victrix and scattered Acacia ampliceps, A. coriacea and Brachychiton acuminatus, over herbland of Pluchea rubelliflora, Fimbristylis.	occasional.		Waterhole above waterfall, Burrup Peninsula	27/05/2009
Rhynchosia bungarensis	4		Narrow passage through granophyre rock piles.	Ehretia saligna over kapok, buffel grass, Rhynchosia minima, Corchorus walcottii, Indigofera linifolia with Eucalyptus victrix present near drainage line.			Deep Gorge, Burrup Peninsula, N of Karratha	26/05/2009
Rhynchosia bungarensis	4	Ca 15 cm tall x ca 2 m wide. Viscid. In full flower and with well developed and dehisced fruits.	Dry creekbed. Small dolerite and granophyre fragments. Red-brown clayey sand.	Eucalyptus victrix, Sesbania cannagina, Rhagodia eremaea, Corchorus.	frequent.		Burrup Peninsula, dry creekbed crossing near waterfall area	27/05/2009
Rhynchosia bungarensis	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
Rhynchosia bungarensis	4	Flowers yellow, scrambling over rocks.	Rocks in watercourse.				West Lewis Island, Dampier Archipelago	14/06/1962
Rhynchosia bungarensis	4	Flowers yellow, red striped.	In sandy soil.				Dolphin Island, Dampier Archipilago	5/06/1962
Rhynchosia bungarensis	4	Twining, very sticky dark green spreading creeper. Velvety 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 outctop atop rocky slopes.				One Shack Bay; East Lewis Island	9/11/1987
Rhynchosia bungarensis	4	Soft shrub 0.3 m tall with resinous hairs.	At base of dolerite hill.	Scree with spinifex.			NE end of Enderby Island, Dampier Archipelago	19/07/1980
Rhynchosia bungarensis	4	Creeper, 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, Flueggia 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 B082	27/06/2000
Rhynchosia bungarensis	4	Viscid, spreading 1 m high.	High rock pile, medium sized rocks (not vertical, not platey, 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 acuminata, Terminalia canescens low open woodland over Pittosporum phyllíraeoides var. phyllíraeoides, 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
Rhynchosia bungarensis	4	Creeper.	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, Flueggia 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 B082	27/06/2000
Rhynchosia bungarensis	4	Creeper.	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, Flueggia 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 B082	27/06/2000
Rhynchosia bungarensis	4	Creeper, 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 victrix low woodland to low open woodland (Patchy) over Triodia angusta (Burrup form), Triodia epactia (Burrup form) hummock grassland. Associated species: Cyperus bifax, CYperus vaginatus, Diclíptera armata, Eriachne tenuiculmis, 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
Rhynchosia bungarensis	4	Creeper, 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 victrix low woodland to low open woodland (Patchy) over Triodia angusta (Burrup form), Triodia epactia (Burrup form) hummock grassland. Associated species: Cyperus bifax, CYperus vaginatus, Diclíptera armata, Eriachne tenuiculmis, 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
Rhynchosia bungarensis	4	Creeper. 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 (Burru			Site B235. 600 m E of the inner corner of Withnell Bay, Pilbara Bioregion	26/06/2000
Rhynchosia bungarensis	4	Creeper. 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 phyllíraeoides var. phyllíraeoides 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
Rhynchosia bungarensis	4	Creeper 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 goo			Site B076, NW part of the Burrup Peninsula, 600 m NE of the N corner of Conzinc Bay	27/05/2000
Rhynchosia bungarensis	4	Creeper, 20-60 cm tall.	Isolated rock pile, near the crest. Fine brown sand, fine grained grey volcanic rock.	Terminalia supranitifolia scattered tall shrubs over Acacia coriacea subsp. coriacea high open shrubland over Scaevola spinescens (narrow form), Dichrostachys spicata scattered shrubs over Aervia javanica low open shrubland and patches of Triodia epcatia		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 BO64, Burrup Peninsula, Pilbara Bioregion, west coast, adjacent to Holden Beach, between Dampier Port and NW Shelf Gas Works	26/05/2000
Rhynchosia bungarensis	4	Creeper 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 supranitifolia 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
Rhynchosia bungarensis	4	Creeper, green, sticky, 50 cm tall.	Gully with rock pile sides, fairly narrow base (ca 5-8 m). Has seepage and a series of small temporary pools (some 50 m across). Brown silty sand (medium grained). Has a ca 1-2 cm deeper litter layer. Rock is volcanic, fairly fine grained.	Eucalyptus victrix low open woodland over Acacia coriacea subsp. coriacea, Flueggea virosa subsp. melanthesoides, Rhagodia eremaea scattered shrubs over Triodia angusta (Burrup form) hummock grassland with a narrow strip of Cyperus vaginatus, C. bifax se		Most of the Rhynchosia sp. Burrup (82-1C) was near the rocky areas. Condition: Excellent. Fire: >10 years.	Site B062, 1.5 km almost due S of Holden Poiint between Dampier Port and North West Shelf Gas plant (on E side of road), Burrup Peninsula, Pilbara Bioregion	26/05/2000
Rhynchosia bungarensis	4	Creeper.	Rock pile. Light grey medium grained volcanic.	Ehretia saligna var. saligna, Brachychiton acuminatus scattered low trees over Terminalia supranitifolia high open shrubland over Acacia coriacea subsp. coriacea, Rhagodia eremaea, Grevillea pyramidalis subsp. pyramidalis, Ipomoea costata, Scaevola spine		2 pegs 50 m apart. Recorded up to crest of rock pile. Footage taken on electronic camera. Elongate crest. Some outcrop. Mostly medium (ca 50 m) to long (>1 m) boulders. Some small areas with soil surface - mostly on lower part, but one on crest with Trio	Site B066, 1.2 km S of the point near the centre of the end of the Burrup Peninsula, Pilbara Bioregion	27/05/2000
Rhynchosia bungarensis	4	Creeper, green, sticky 30 cm tall.	Rock pile. Light grey medium grained volcanic.	Ehretia saligna var. saligna, Brachychiton acuminatus scattered low trees over Terminalia supranitifolia high open shrubland over Acacia coriacea subsp. coriacea, Rhagodia eremaea, Grevillea pyramidalis subsp. pyramidalis, Ipomoea costata, Scaevola spine		At lower edge only. 2 pegs 50 m apart. Recorded up to crest of rock pile. Footage taken on electronic camera. Elongate crest. Some outcrop. Mostly medium (ca 50 cm) to long (>1 m) boulders. Some small areas with soil surface - mostly on lower part, but o	Site B066, 1.2 km S of the point near the centre of the end of the Burrup Peninsula, Pilbara Bioregion	27/05/2000
Rhynchosia bungarensis	4	Creeper, green, sticky 0.4-1.1 m tall.	Gently sloping floor of narrow part of a valley between two ridges. Pebbly dark brown clayey fine sand amongst cobbles and round boulders.	Eucalyptus victrix low open forest over A. coriacea subsp. coriacea, A. colei var. colei and A. bivenosa scattered tall shrubs over Adriana tomentosa, Stylobasium spathulatum, Flueggea virosa subsp. melanthesoides scattered shrubs over Indigofera monophy		There is a track through the area recorded. The part of the valley recorded has E. victrix vegetation, this varies from about 5-10 m across. Next to it, there is a narrow strip that has scattered Corymbia over Triodia angusta (Burrup form.) The valley ha	Site B193, 2.5 km ENE of the inner end of Withnell Bay, Burrup Peninsula, Pilbara Bioregion	5/06/2000
Rhynchosia bungarensis	4	Creeper, green, sticky 20-30 cm tall.	Boulder rockpile. Volcanic.	Brachychiton acuminatus, Acacia coriacea subsp. coriacea, Terminalia supranitifolia scattered tall shrubs over Scaevola spinescens (narrow form), Rhagodia eremaea scattered shrubs over Melhania sp. Burrup, Alectryon oleifolius scattered low shrubs over T		Recorded from peg around north side to area of Triodia angusta (Burrup form) that runs up the slope to the [?]	Site B052, 1.74 km ENE of Mt Burrup and 160 m from the E coast of the Burrup Peninsula, Pilbara Bioregion	25/05/2000
Rhynchosia bungarensis	4	Vine, sticky, 20 cm tall.	Small gully, N facing, runs up a boulder scree slope. Red-brown gravelly loam amongst cobbles and boulders. Volcanic, Dark grey, fine grained.	Corymbia hamersleyana low open woodland over Dichrostachys spicata, Acacia coriacea subsp. coriacea, Acacia colei var. colei high open shrubland over Themeda sp. Burrup (B84), Chrysopogon fallax, Triodia epactia (Burrup form) very open tussock/hummock gr		Recorded to the edges of the rockpiles on both sides. Site much smaller than 50 x 50 m, was 50 m long and 10-20 m wide. More Triodia at the mouth of the gully, also more Chrysopogon. Condition: very good-excellent. Some fire damage to Corymbia. Fire: ca	Site B003, 1.6 km SW of the inner end of King Bay, Burrup Peninsula, Pilbara Bioregion	20/05/2000
Rhynchosia bungarensis	4	Creeper. 2, large leaf scrambling.	Drainage gully along valley surrounded by rocky mountain slopes. The gully is narrow (2-3 m only, broadens to 5 m in places), stony, well worn stones and boulders (5-25 cm in diameter). Colluvial red-grey soil, skeletal beneath stones. Well worn grey-red	Eucalyptus victrix low woodland over Triodia angusta (Burrup form), Triodia epactia (Burrup form), Cyperus vaginatus, C. bifax hummock grassland/sedgeland with Sesbania cannabina tall annual herbland and Stemodia grossa, Dicliptera armata annual open low		The entire site was within a narrow gully, one small section of ca 10 m had rocky walls (rockpile on each side). The entire gully smapled had some water. Condition: Excellent, no weeds. Fire: N/A.	Site B040, 900 m slightly W of N of Mt Burrup, Burrup Peninsula, Pilbara Bioregion	25/05/2000
Rhynchosia bungarensis	4	Creeper, green, sticky, 10-50 cm tall.	Small flow line/creek between low rockpile (boulder scree) ridges. Has a gentle slope. Silty coarse sand, brown, amongst cobbles and boulders. Boulders and volcanic rocks, fine to medium grained, grey.	Eucalyptus victrix scattered low trees over Acacia coriacea subsp. coriacea, A. bivenosa scattered tall shrubs over Flueggia virosa subsp. melanthesoides scattered shrubs over Triodia angusta (Burrup form), Cyperus vaginatus open hummock grassland/sedgel		The creek has small, shallow pools of water in the lowest parts, water flowing very slowly. Where there are more sandy banks there is more Triodia angusta (Burrup form). Parts of the bed are mostly boulders with some other parts (near Peg 2) fairly flat	Site B007, 1.34 km WSW of the southern corner of Hearson Cove, Burrup Peninsula, Pilbara Bioregion	20/05/2000
Rhynchosia bungarensis	4	Creepern, green sticky 30-80 cm tall.	Strip along the base of the N facing side of a large rockpile. Fine grained, grey igneous/volcanic. Fire > 10 years.	Ehretia saligna var. saligna, Brachychiton acuminatus scattered low trees over Flueggea virosa subsp. melanthesoides, Ipoloea costata, Terminalia supranitifolia scattered tall shrubs over Rhagodia eremaea, Scaevola spinescens (narrow form) scattered shru			Pistol Range ENE Of Telstra tower, Burrup Peninsula, Site B183, Pilbara Bioregion	3/06/2000
Rhynchosia bungarensis	4	Creeper. Viscid, spreading 1.5 m tall.	W facing slope of large hill. Light pinky sandy soil - skeletal, amongst boulders.	Acacia coariacea subsp. coriacea, Scaevola spinescens (narrow form) scattered shrubs over Indigofera monophylla (Burrup form), Corchorus walcottii, Ptilotus obovatus var. obovatus low shrubland over Themeda sp. Burrup (B84), Triodia epactia (Burrup form)		Transect shape and size altered to fit Themeda sp. Burrup (B84) granite boulder slope uninterrupted by rockpiles, 28 m x 72 m down slope.	Site B091, White Hill, Pilbara Bioregion S of Dampier Road, NW corner of Dampier Salt lease on W facing exposed slope	28/05/2000
Rhynchosia bungarensis	4	Green, sticky 40-190 cm tall.	Narrow flowline in the base of a braod gully Narrow flowline in the base of a broad gully between rockpiles of boulder scree. Brown claypan.	Eucalyptus victrix low open woodland over Dichrostachys spicata, Acacia coriacea subsp. coriacea scattered shrubs over Triodia angusta (Burrup form), Themeda sp. Burrup (B84), cyperus vaginatus hummock/tussock grassland/sedgeland with Rhynchosia sp. Burr			1.94 km slightly W of the S of the inner end of King Bay, Site B017, Burrup Peninsula, Pilbara Bioregion	21/05/2000
Rhynchosia bungarensis	4	Creeper, green, sticky 90 cm tall.	Rockpile above broad gully-valley. Clayey loam, reddish brown, lots of organic matter. Slope facing - S. Rock sized 20-60 cm and many big diameter boulders in scree area, soil cover <2%.	Eucalyptus victrix, Eucalyptus xerothermica, Ehretia saligna var. saligna, Clerodendrum tomentosum, Brahcychiton acuminatus scattered low trees over Flueggea virosa subsp. melanthesoides, Acacia coriacea subsp. coriacea and Dichrostachys spicata scattere			Site B195, 2.25 km ENE of the SE corner of Withnell Bay and 1.5 km inland from the E coast of the Burrup Peninsula, Pilbara Bioregion	5/06/2000
Rhynchosia bungarensis	4	Creeper. 20-60 cm tall.	Rockpile - large outcrop. Has very steep slopes. In effect is a small hill (knoll). Red brown loam, rock granite (or close - feldspar, quartz and a small amount of a dark mineral).Fire > 5 years?, > 10 years. Has mostly boulders (>50 cm to >2+m) and some	Brachychiton acuminatus scattered low trees over Ehretia saligna var. saligna, Flueggia virosa subsp. melanthesoides scattered tall shrubs over Abutilon aff. dioicum (HD72-14) scattered shrubs to open shrubland over Themeda sp. Burrup (B84), Cymbopogon a			Site B031, NE part of Burrup Peninsula, 3.7 km from NE point and 0.6 km from east coast (near Mt Burrup)	25/05/2000
Rhynchosia bungarensis	4	Fine wiry scandent creeper growing from large rootstock appears to be able to withstand intense heat from and on the rocks.	In crevices in rock piles.				Near quadrant on cutting along road to Con. camp; Burrup Peninsula	21/09/1983
Rhynchosia bungarensis	4	Shrub 80 cm tall 1.5 x 2 m across. Stems erect or (lower ones) spreading, lax. Leaflets mid-dark green, glandular-hair. Standard soft yellow with fine dark red stripes radiating from a small light green centre. Wings yellow, spreading. Wings light yellow	Section of moderate to large creek between low ridges. Along the east edge of the bed there was a flowing stream 1-2 m across, probably permanent as it had patches of Typha domingensis. The main part of the bed and the stream and pools were treated separ	Eucalyptus camaldulensis var. obtusa open forest over Acacia coriacea ssp. pendens and Acacia holosericea high open shrubland over Stemodia grossa, Cullen leucanthum and Lobelia quadrangularis open herbland over Cyperus vaginatus sedgeland. Main part of	uncommon.		Site number: 271 (Permanent quadrat = MET 2). 7.1 km west of Mount Richthofen, Millstream-Chichester National Park, Fortescue Botanical District	15/05/1997
Rhynchosia bungarensis	4	Sprawling woody herb, ca 1 m wide.	Perched wetland with rock pools above waterfall at top of rockpile formation. Deep, brown, gravelly, wet, clayey sand. Among rocks away from water hole.	Triodia angusta with Eucalyptus victrix and scattered Acacia ampliceps, A. coriacea and Brachychiton acuminatus, over herbland of Pluchea rubelliflora, Fimbristylis.	occasional.		Burrup Peninsula, waterhole above waterfall	27/05/2009
Rhynchosia bungarensis	4	Creeper, scrambling.	Gully floor between two high rockpile ridge. BRown-grey alluvial soil with rocks and boulders 20-40 cm diameter, fine grained red-grey rhyodacite.	Terminalia canescens low open forest over Triodia epactia (Burrup form), Triodia angusta (Burrup form), (Eriachne tenuiculmis) open hummock/tussock grassland with Sesbania cannabina annual tall herbland. Condition: Excellent. Fire: N/A. Associated specie			Site BO20. 1.7 km SSE of inner end of King Bay, Burrup Peninsula, Pilbara Bioregion	21/05/2000
Rhynchosia bungarensis	4	Creeper.	Hill slope. Red loamy sand with rocky ironstone surface.	Triodia wiseana hummock grassland with mixed Acacia sparse shrubland. Associated species: Eriachne benthamii, Polycarpaea longiflora, Cymbopogon ambiguus, Triumfetta clementii, Hibiscus sturtii var. grandiflorus, Triodia wiseana, Acacia ancistrocarpa.	1 plant.		Cape Preston	7/06/2017
Solanum albostellatum	3		Floodplain; calcrete 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 Acacia xiphophylla, Acacia inaequilatera & Carissa lanceolata over Low Open Shrubland of Ptilotus obovatus over Scattered Hummock Grass over Tussock Grassland of Eriachne sp. over Open Bunch Grassland of Chrysopogon sp. over Scattered S			Site: PW07, East side of road, 11.1 km W of jnc with main Millstream Chichester National Park entry road on Millstream ÏÓÕéìÓÇÉ Pannawonica Road, 14.6 km NNE of Mt Flora, 72.9 km E of Pannawonica, Pilbara IBRA	16/08/2004
Solanum albostellatum	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.	Scattered Shrubs of Vachellia farnesiana over Open Tussock Grassland of Chrysopogon fallax over Open Bunch Grassland of Eriachne sp. over Scattered Sedges over Herbs of Ptilotus exaltatus, Salsola sp. & Flaveria trinervia.			Site: PW17, 13.4 km N of Mt Flora, 25.1 km NW of Mt Ulric, 71.1 km E of Pannawonica, Pilbara IBRA	16/08/2004
Solanum albostellatum	3	Low-domed, moderately dense, semi-herbaceous annual 10 cm high (range 8-10 cm x 18-250 cm). Leaf upper surface bright medium green; corolla pale mauve; anthers medium yellow.	On road shoulder. Well-drained, black gravelly sandy loam. Flat plain.	In Triodia Hummock grassland.		Abundance: scattered in patches.	16 km S of Barowana Hill	24/03/1984
Solanum albostellatum	3	Clonal perennial, herb.	Crabhole country, heavy clay.		20+ plants.	Photo: 4325-4328	54 km NE of Pannawonica (Pannawonica rail)	24/03/2007
Solanum albostellatum	3	Low perennial herb.	Open clay flats.	Associated species: Aristida latifolia.			Mount McLeod	20/05/2011
Solanum albostellatum	3	Low shrub 10 cm high and up to 20 cm across, suckering, fruit green, globose.	Plain, red-brown cracking clay loam.	Tussock grassland.	common.		ca 30 km W of Millstream along Millstream - Pannawonica Road	26/09/2006
Solanum albostellatum	3	Forb.	Plot on alluvial plain - quite soft and spongy underfoot. More dense on the edges of the site. Extensive gravel pavements through the middle of the site. Mostly limestone surface strew with some ironstone mixed through. Long unburnt.	Acacia xiphophylla low woodland to tall shrubland with a mid-storey of Eremophila maculata subsp. brevifolia and a diverse ground storey of Triodia, annual forbs and tussock grasses.			Millstream Chichester National Park, 4.9 km SE of ranger station, 100 km SSE of Karratha	28/07/2016
Solanum albostellatum	3	Low shrub to 15 cm, purple flowers, ovate felty leaves, one fruit seen.	Flat, gravel.	Spinifex shrublands. Associated taxa: Acacia sp., Triodia pungens, Corymbia sp.		Bush tucker.	2.1 km S from the Millstream homestead turnoff on road to Paraburdoo	8/08/2018
Solanum albostellatum	3	Low shrub to 15 cm, purple flowers, ovate felty leaves, one fruit seen.	Flat, gravel.	Spinifex shrublands. Associated taxa: Acacia sp., Triodia pungens, Corymbia sp.		Bush tucker.	2.1 km S from the Millstream homestead turnoff on road to Paraburdoo	8/08/2018
Sporobolus blakei	3	Weakly tussocking perennial? grass growing up to 0.4 m tall.	Tableland area with basaltic cracking clay that has been formed in situ.	Tall shrubland of Acacia xiphophylla with a halophytic understorey.	infrequent.		Above Python Pool, Chichester Range, Pilbara Region	14/06/2013
Stackhousia clementii	3	Lime-green, more or less leafless plant (or scale like leaves) to 45 cm with numerous erect slender branches. Flowers in clusters, forming a cylindrical spike. Woody base.	Soft, silty saline soil over limestone - with much limestone and coral rubble, on small 'island' within tidal inlet (very rarely inundated).				King Bay - Hearson Cove tidal inlet, Burrup Peninsula	30/04/2002
Stackhousia clementii	3	Small, perennial herb to 40 cm tall. Flowers greeny-yellow.	Sandy, loam clay flat.	Tall shrubland of Acacia bivenosa over open hummock grassland of Triodia epactia with open tussock grassland of Cenchrus ciliaris, Eragrostis xerophila and Aristida contorta.	rare.		On 7 Mile Flats, 8.4 km SE of Dampier, 9.4 km W of Karratha	24/02/2013
Swainsona thompsoniana	3	10 cm high.	Flat open plain. Red-brown cracking clay. Good example of high altitude cracking clay.	Astrebla pectinata, Eragrostis xerophila, Brachyachne convergens tussock grassland, Streptogloss bubakii very open herbland. Condition very good.			28 km NE on Millstream Yarraloola Road from the intersection with Pannawonica Road, Proj. Code 537, Site BCW 03	29/07/2009
Swainsona thompsoniana	3	0.05 m tall prostrate annual.	Crabholes in calcrete table.				10 km N of Millstream Rangers Station	17/05/1991
Swainsona thompsoniana	3	Prostrate herb, growing up to 0.05 m tall.	Cracking clay plain.	Astrebla pectinata tussock grassland.	infrequent.		17.2 km WSW of Millstream Visitors Centre	13/09/1995
Swainsona thompsoniana	3	Annual herb.	200 + m east of site 276.	Brachyachne convergens tussock grassland over Streptoglossa bubakii very open herbland. Streptoglossa bubakii > 5%. The Streptoglossa bubakii had patches up to 30% cover. Abundant Brachyachne convergens, but no Rhynchosia on this plot. Associated annuals			Site number: 276A. 7 km west-north-west of Mount Richthofen, Millstream-Chichester National Park, Fortescue Botanical District	15/05/1997
Swainsona thompsoniana	3	Herb with erect central stem and prostrate side stems (then ascending). Leaflets mid-blue-green above and below. Standard and wings dull magenta-purple with fine darker lines. One patch of about 15 plants. Pods deeply grooved.	Very gentle slope. Soil: Red-brown cracking clay/loam, few pebbles.	Triodia wiseana open hummock grassland with Crotalaria benthamiana, Vigna lanceolata var. latifolia low open shrubland; Triodia wiseana 40 cm 20-25%; Crotalaria benthamiana 20-35 cm 5-10%; Vigna lanceolata var. latifolia 20 cm 1% (2%). The Crotalaria ben			Site number: 34. 5.2 km north of Black Hill Pool, Millstream-Chichester National Park, Fortescue Botanical District	11/04/1997
Swainsona thompsoniana	3		Floodplain; calcrete 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 Acacia xiphophylla, Acacia inaequilatera & Carissa lanceolata over Low Open Shrubland of Ptilotus obovatus over Scattered Hummock Grass over Tussock Grassland of Eriachne sp. over Open Bunch Grassland of Chrysopogon 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 Pannawonica Road, 14.6 km NNE of Mt Flora, 72.9 km E of Pannawonica, Pilbara IBRA	16/08/2004
Tephrosia rosea var. Port Hedland (A.S. George 1114)	1	1.1 m high.	Low rocky ridge and its upper slopes; adjacent to lower-lying saline drainage areas at or just above sea level.	Acacia inaequilatera, A. bivenosa open shrubland over Triodia epactia, T. wiseana hummock grassland.			32.1 km E-NE of Karratha town site	7/10/2007
Tephrosia rosea var. Port Hedland (A.S. George 1114)	1	75 cm high.	West facing, secondary coastal sand dune.	Acacia coriacea subsp. coriacea tall open shrubland over Crotalaria cunninghamii scattered shrubs over Tephrosia rosea var. venulosa, *Aerva javanica low open shrubland over *Cenchrus ciliaris, Whiteochloa airoides open tussock grassland.			34.9 km NE of Karratha town site	9/10/2007
Tephrosia rosea var. Port Hedland (A.S. George 1114)	1		Small rocky hillcrest.	Triodia wiseana, T. epactia hummock grassland.			34.1 km NE of Karratha town site	10/03/2008
Tephrosia rosea var. Port Hedland (A.S. George 1114)	1	50 cm high.	Coastal dune ridge of secondary dune.	Acacia coriacea subsp. coriacea tall shrubland over Crotalaria cunninghamii open shrubland over Tephrosia rosea var. venulosa low open shrubland over *Cenchrus ciliaris, Whiteochloa airoides tussock grassland.			35 km NE of Karratha town site	5/10/2007
Tephrosia rosea var. Port Hedland (A.S. George 1114)	1	Erect, spreading shrub 100 cm tall.	Very pale yellow - orange coastal dune sands.	Acacia coriacea subsp. coriacea scattered shrubs with Hybanthus floribundus over scattered Tephrosia rosea var. Port Hedland shrubs over Triodia epactia, and *Cenchrus ciliaris.	15 adults and 3 juvenile in 40 x 40 m area.		W of track to Sams Creek, c. 1.5 km W of Point Samson, c. 5 km NE of Wickham	4/09/2012
Tephrosia rosea var. Port Hedland (A.S. George 1114)	1	Erect, spreading shrub 100 cm tall.	Loose pale orange coastal dune sands.	Open shrubland of Acacia coriacea subsp. coriacea and Acacia sabulosa over scattered shrubs of Tephrosia rosea var. Port Hedland over Triodia epactia, *Cenchrus ciliaris and *Aerva javainca.	about 185 plants in local area.		C. 2 km S of Anketell Point, c. 5 km NW of Wickham	3/09/2012
Tephrosia rosea var. Port Hedland (A.S. George 1114)	1	Erect, spreading shrub 120 cm tall x 120 cm wide.	Very pale orange to light brown coastal dune sands.	Open shrubland of Acacia coriacea subsp. coriacea over scattered Tephrosia rosea var. Port Hedland shrubs over Triodia epactia, Whiteochloa airoides and *Cenchrus ciliaris.	locally common. Scattered through coastal dunes.		C. 2.5 km SW of Cape Lambert Port. C. 6 km N of Wickham	4/09/2012
Tephrosia rosea var. Port Hedland (A.S. George 1114)	1	Erect, spreading shrub 100 cm tall.	Very pale yellow - orange coastal dune sands.	Open shrubland of Acacia coriacea subsp. coriacea over scattered shrubs of Tephrosia rosea var. Port Hedland over Triodia epactia, Whiteochloa airoides and *Cenchrus ciliaris.	about 130 plants in local area.		C. 2.5 km S of Cape Lambert Port. C. 5.5 km NNE of Wickham	3/09/2012
Tephrosia rosea var. Port Hedland (A.S. George 1114)	1	Erect, spreading shrub 120 cm tall x 120 cm wide.	Very pale orange to light brown coastal dune sands.	Open shrubland of Acacia coriacea subsp. coriacea over scattered Tephrosia rosea var. Port Hedland shrubs over Triodia epactia, Whitechloa airoides and Cenchrus ciliaris.	locally common. Scattered throughout coastal dunes.		Ca 2.5 km SW of Cape Lambert Port, ca 6 km N of Wickham	4/09/2012
Tephrosia rosea var. Port Hedland (A.S. George 1114)	1	Straggly open tomentose perennial. All parts densely grey/white felt, except inner petals. Deep burgundy flowers. Lower leaves becoming large.	Sandy soil.	Triodia. Corynotheca leteriflora, Indigofera monopohylla.		Abundance: only seen in this area by self.	Sams Creek, Point Samson	/08/1984
Tephrosia rosea var. Port Hedland (A.S. George 1114)	1	1 m tall x 1 m wide. 5-7 leaflets, oppressed tomentose, 1-4.4 x 0.4-1.9 cm, 7-11 lateral veins. Raceme terminal 22-38 cm long, Flower purple. Legume 2.5-3 cm, tomentose.				Common name: Pattersons Poison.	Pt Samson	8/10/1992
Terminalia supranitifolia	3	Perennial tree 2 m high x 2 m wide. Cream flowers.	Hillside. W facing slope of rocky hill. Burnt 5-7 years ago.	Acacia bivenosa scattered tall shrubs over Triodia wiseana hummock grassland.	2-5 plants.	Reproductive method: seeds.	100 km S of Karratha	9/03/2011

Taxon	Cons_Code	Plant_Desc	Site	Vegetation	Frequency	Notes	Locality	Date
Terminalia supranitifolia	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.	Ipomoea costata, Brachychiton ?lanceolate and Ficus virens.		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
Terminalia supranitifolia	3	Perennial tree/shrub. 3 m high x 1-2 m wide. White flowers.	Breakaway. Dry red brown rocky soil. Collection site: rangeland.	Ficus brachypoda scattered low trees over Grevillea wickhamii, Rhagodia eremaea scattered tall shrubs over Triodia wiseana very open hummock grassland.	one only.		2.6 km N-E of Fortescue Roadhouse	15/07/2010
Terminalia supranitifolia	3	Tree.	Breakaway - hillside. Red brown loam.	Terminalia suprantifolia scattered low trees over Grevillea wickhamii scattered tall shrubs over Triodia wiseana 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
Terminalia supranitifolia	3		Breakaway - hillside. Red brown sandy loam.	Pasture. Terminalia supranitifolia scattered low trees over Triodia wiseana hummock grassland.	2-5 plants.		3.5 km NE of Fortescue Roadhouse on North West Coastal Highway	15/10/2010
Terminalia supranitifolia	3		Base of rockpile.				Site 1, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	2/11/1998
Terminalia supranitifolia	3		Rocky plateau.				Site 12, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	12/11/1998
Terminalia supranitifolia	3		Top of rock outcrop.				Site 13, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	15/11/1998
Terminalia supranitifolia	3	Shrub or small tree with flaky bark.	Rock pile.				Near Dampier	21/07/2004
Terminalia supranitifolia	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
Terminalia supranitifolia	3		Top of rock outcrop.			Site 13.	Burrup Peninsula, Pistol Ranges, S of Hearson Cove Road	15/11/1998
Terminalia supranitifolia	3		Rocky plateau.			Site 12.	Burrup Peninsula, Pistol Ranges, S of Hearson Cove Road	12/11/1998
Terminalia supranitifolia	3		Base of rockpile.			Site 1.	Burrup Peninsula, Pistol Ranges, S of Hearson Cove Road	2/11/1998
Terminalia supranitifolia	3		Rocky slope.				Site 11, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	10/11/1998
Terminalia supranitifolia	3		Top of rock outcrop.				Site 20, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	26/11/1998
Terminalia supranitifolia	3		Top of rock outcrop.				Site 21, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	26/11/1998
Terminalia supranitifolia	3	Small spreading tree 2.5 m.	In shelter of Boulders above [HMW]. Calcium soil.	Associated vegetation: Myamorphum sp., and Rhagodia sp.			Hearson's cove beach	11/03/1983
Terminalia supranitifolia	3	Small spreading tree 2.5 m.	In shelter of Boulders above [HWM].	Associated vegetation: Myamorphum sp., and Rhagodia sp.			Hearson's cove beach	11/03/1983
Terminalia supranitifolia	3						Hearson's cove beach	11/03/1983
Terminalia supranitifolia	3	A compact spreading small tree to 6 m x 8 m	In rock piles.			Near Burrow Pitt 8.	Burrup Peninsula	10/02/1982
Terminalia supranitifolia	3	Small tree 7 feet high, 10 feet across.	At base of basalt ridge.				1.8 miles from Dampier on road to Hearson Cove, Nickol Bay	/12/1971
Terminalia supranitifolia	3		Rock outcrop terrace, some soil.	Spinifex/shrubs			Site 18, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	24/11/1998
Terminalia supranitifolia	3		Small rocky terrace on large rock outcrop				Site 6, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	5/11/1998
Terminalia supranitifolia	3		Top of rock outcrop.				Site 19, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	24/11/1998
Terminalia supranitifolia	3		Rocky slope.				Site 17, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	22/11/1998
Terminalia supranitifolia	3		Top of rock outcrop on plateau.	Spinifex/shrub.			Site 16. Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	22/11/1998
Terminalia supranitifolia	3		Base of rockpile.				Site 5, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	28/11/1998
Terminalia supranitifolia	3		Mid-slope of rock outcrop.				Site 2, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	2/11/1998
Terminalia supranitifolia	3		Rocky plateau.				Site 3, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	3/11/1998
Terminalia supranitifolia	3		Mid-slope of rock outcrop.				Site 22, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	28/11/1998
Terminalia supranitifolia	3		Rocky plateau.				Site 4, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	3/11/1998
Terminalia supranitifolia	3		Steep rock outcrop slope.				Site 10, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	10/11/1998
Terminalia supranitifolia	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 Ipomoea costata, Ficus virens, Brachychiton (acuminatum), [???] maritima.		Abundance: uncommon.	Rear of beach, Hearson Cove	/05/1983
Terminalia supranitifolia	3		Steep rock outcrop slope.				Site 7, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	8/11/1998
Terminalia supranitifolia	3		Base of rockpile.				Site 9, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	8/11/1998
Terminalia supranitifolia	3		Steep rock outcrop slope.				Site 15, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	20/11/1998
Terminalia supranitifolia	3		Steep rock outcrop slope.				Site 14, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	20/11/1998
Terminalia supranitifolia	3		Top of rock outcrop.				Site 8, Burrup Peninsula, Pistol Ranges, south of Hearson's Cove Road	18/11/1998
Terminalia supranitifolia	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
Terminalia supranitifolia	3	Spreading tree, 3 m high x 5 m wide. Yellow flowers.	Semi disturbed ground, rocky outcrops. UCL. Red rocky soil.	Low shrubland with Brachychiton acuminatus, Ipomoea costata and Cenchrus ciliaris.	1 plant only.		Dampier Port	7/02/2003
Teucrium pilbaranum	2	Upright, perennial herb growing up to 0.1 m tall.	Crabholed drainage floor on margin of calcrete table.	Open woodland of Eucalyptus victrix, with a tussock grass understorey of Eriachne benthamii.	abundant.		Howletts Well, about 11 km SE of Visitors Centre, Millstream National Park	7/09/1996
Teucrium pilbaranum	2	Perennial herb with a woody rootstock and annual shoots. Corolla white, stamens and style white. Stamens and style exserted.	On river floor, next to a permanent pool. Red clay-loam.	Livistona alfredii, Eucalyptus camaldulensis woodland over scattered herb.			Close to the middle of the N side of Crossing Pool, Millstream	27/01/1976
Themeda sp. Hamersley 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.	Corymbia and Acacia over Cenchrus. With Acacia pyrifolia, A. bivenosa, Cenchrus ciliaris, Corymbia hamersleyana, Hybanthus aurantiacus, Triodia epactia, Triumfetta clementii.	2-5 plants.		Pilbara: Scholls Lease, ca 25 km S of Karratha	3/04/2007
Themeda sp. Hamersley Station (M.E. Trudgen 11431)	3		Broad ironstone drainage line.	Eucalyptus victrix low open woodland over mixed closed tussock grassland. Associated species: Melaleuca glomerata, Acacia tumida, Stemodia grossa, Cyperus vaginatus, Cenchrus ciliaris, Echinochloa colona.			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
Themeda sp. Hamersley Station (M.E. Trudgen 11431)	3	Grass.	Grass plain.				Millstream Station	17/08/1966
Themeda sp. Hamersley Station (M.E. Trudgen 11431)	3	1.8m tall upright grass bsaes not buried in ground	Drainage focus in cracking clay plain	Eragrostis xerophila grassland		Common	10km W of Karratha on road to Dampier opp & Mile Railway sheds on E side of road	20/08/1992
Themeda sp. Hamersley 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 Corymbia hamersleyana over Acacia tumida open scrub over Tephrosia rosea var. clementii low open shrubland over Triodia wiseana and Themeda triandra hummock grassland.	not common.		9.25 km SSW of Mount Herbet, Millstream-Chichester National Park, Fortescue Botanical District	21/05/1997
Themeda sp. Hamersley 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.	Scattered low trees of Eucalyptus leucophloia over Acacia maitlandii open heath.			11.5 km SSW of Mount Herbert, Millstream-Chichester National Park, Fortescue Botanical District	20/05/1997
Trianthema 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
Trianthema 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
Trianthema sp. Python Pool (G.R. Guerin & M.E. Trudgen GG 1023)	2		Low undulating hills. No recent sign of fire.	Acacia inaequilatera scattered tall shrubs over Triodia wiseana hummock grassland.			22 km SE of Fortescue Roadhouse, 22 km N of Pannawonica and 94 km SW of Karratha	28/06/2015
Trianthema 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.	Rocky soil on flat plain.	Spinifex.	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
Trianthema 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.	Area of mosaic of bare areas with herbs and Triodia angusta hummock grassland which extends both sides of the tract. Soil: Red-brown loam with some fine gravel. Water (a few cm) lies in places.	Triodia longiceps, Triodia pungens hummock grassland. Triodia longiceps 5-15%; Triodia pungens = 5%. Associated annuals: Gomphrena cunninghamii, Ptilotus murrayi var. murrayi, Trianthema aff. kimberleyi (MET 15,060), Polycarpaea corymbosa, Indigastrum pa			Site number: 11. 5.7 km north-west of Mount Montagu, Millstream-Chichester National Park, Fortescue Botanical District	9/04/1997
Trianthema 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. Tepals pink-mauve above, light green below with a narrow pale pink edge. Filaments white, united near base, 10, spreading almost horizontally, erect at first. Ovary p	Narrow plain between a creek and a large ridge. On brown clay loam between gravel to cobbles with pebble to cobble surface.	Triodia longiceps scattered hummocks over Trianthema sp. associated with Ptilotus murrayi, Brachyachne prostrata, Dactyloctenium radulans and Trianthema triquetra.	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
Triodia basitricha	3	Soft hummock grass to 0.3 m tall hummock and 0.7 m tall seed heads.	Stipped 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
Triodia basitricha	3	Perennial hummock grass.	Flat topped hill. Soil: Terracotta coloured gravelly loam with gravelly surface.	Acacia hilliana low open shrubland over Plectrachne sp. (MET 10,114) open hummock grassland. Plectrachne sp. (MET 10,114) 15-25 cm 20-25%; Acacia hilliana 50 cm < 1- < 5%. Burnt about 5 years ago. Some patches of Acacia monticola along the shoulder and o			Site number: 489. 26.2 km west-north-west of Erallinya Pool, Hamersley Range, Fortescue Botanical District	24/05/1997
Triodia pisoliticola	3	Perennial grass. Yellow flowers.	Hilltop plateau. Skeletal with pavement. Collection site: rangeland.	Ehretia saligna var. saligna scattered tall shrubs over Acacia arida open shrubland over Triodia wiseana (Triodia sp. Robe River) open hummock grassland.	6-20 plants.		300 m S of Fortescue Roadhouse. 100 km from Karratha	15/07/2010
Triodia pisoliticola	3						N Tributary of upper Fortescue River	30/01/1975
Vigna triodiophila	3	Herb. Slender vine entwined in Triodia epactia 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. Silts in pockets between rocks and stones.	Triodia epcatia hummock grassland with Paspalidium tabulatum and scattered low trees Terminalia supranitifolia, Ipomaea costata 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	9/06/2011
Vigna triodiophila	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.	Acacia inaequilatera, A. bivenosa scattered tall shrubs over Indigofera monophylla (Burrup form) low shrubland over Triodia epactia (Burrup form) hummock grassland with Rhynchosia cf. minima open lianes. Condition: very good to excellent.			Site B024, E of Burrup road at bend before North West Shelf gas plant	21/05/2000
Vigna triodiophila	3	Legume.	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 rhyodacite. There are small outc	Acacia bivenosa, Grevillea pyramidalis subsp. pyramidalis high open shrubland over Indigofera monophylla (Burrup form) low open shrubland over Triodia epactia (Burrup form) hummock grassland. Condition excellent. Acacia orthocarpa, Boerhavia gardneri, Cy			Site B025, Burrup Peninsula, ca 250 m indland from the East coast of Withnell Bay	22/05/2000
Vigna triodiophila	3	Spreading, slender vine.	Rockpiles (including Riodia pockets) on a NW facing slope, medium sized blocky boulders. Coarse grained pink-brown rock with black oxidization on surface.	Ipomoea costata, Dichrostachys spicata, Eremophila longifolia open shrubland over Scaevola spinescens (narrow form), Rhagodia eremaea low open shrubland over Triodia angusta, Aristida nitidula very open hummock grassland. Associated species: Commicarpus			Site HD188, Harding Dam area, rockpiles SW of the dam, ca 500 m from carpark	4/06/2000
Vigna triodiophila	3	Slightly twining woody herb, growing through Triodia hummocks and well concealed, flowers helf 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 youn	Gently sloping plateau at crest of rockpile. Shallow red soil between red rocks.	Sparse Brachychiton acuminatus and Acacia sp. over low shrubland with Triumfetta propinqua, Tephrosia supina, Rhynchosia minima, Indigofera, and Triodia wiseana 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
Vigna triodiophila	3	Trailing woody herb. Often growing through Triodia clumps. Leaflets ovate, lateral leaflets asymmetrical and without lobing near their base. Standard yellow and with prominent callosities; 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 Triodia, Themeda, Indigofera, Rhynchosia minima.	occasional, ca 20 plants seen.		8.2 km along Cleaverville track from North West Coastal Highway, N of Karratha; Pilbara Biological Survey site BRC 11	26/05/2009
Vigna triodiophila	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.	Brachychiton acuminatus scattered low trees over Flueggia virosa subsp. melanthesoides scattered tall shrubs to tall open shrubland over Dichrostachys spicata scattered shrubs to open shrubland over Cymbopogon ambiguus, Themeda sp. Burrup (B84), Eriachne			Site B018. Burrup Peninsula, Pilbara Bioregion, 400 m SE of Burrup	21/05/2000
Vigna triodiophila	3	Slightly twining woody herb, growing through Triodia 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 Acacia shrubs over Ipomoea costata, Eremophila longifolia and Triodia 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
Vigna triodiophila	3	Annual, climbing herb. Vine spreaind 1m through Triodia angusta. Flowers yellow.	Colluvial red-brown soil with outcrop on lower hillslope.	Triodia angusta hummock grassland with Cassytha capillaris.	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
Vigna triodiophila	3	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.	Between rocks on hill slope.				Below lookout steps at side of car park at top of dam site, Harding River Dam	3/07/1986
Vigna triodiophila	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.	Grevillea pyramidalis subsp. pyramidalis, Ipomoea costata scattered shrubs to open shrubland over Triodia epactia (Burrup form) hummock grassland with Tephrosia aff. supina (MET 12357) open herbland and Rhynchosia sp. Burrup (82-1C) open lianes. Conditio			1.7 km SE of the centre of King Bay, Burrup Peninsula, Pilbara Bioregion, Site B016	21/05/2000
Vigna triodiophila	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	Ipomoea costata scattered shrubs over Triodia wiseana hummock grassland with Vigna sp. Harding Dam (HD189-12) very open lianes. Condition excellent, no weeds. Corchorus aff. sidoides (HD179-5), Dichanthium sericeum subsp. humilus, Dysphania rhadinostachy			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
Vigna triodiophila	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 Acacia inaequilatera & Acacia pyrifolia over Open Shrubland of Acacia coriacea subsp. Pendens & Acacia pyrifolia over Low Open Shrubland of Acacia bivenosa, Triumfetta sp. & Acacia coriacea subsp. pendens 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
Vigna triodiophila	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 Acacia inaequilatera & Acacia pyrifolia over Open Shrubland of Acacia coriacea subsp. Pendens & Acacia pyrifolia over Low Open Shrubland of Acacia bivenosa, Triumfetta sp. & Acacia coriacea subsp. pendens 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
Vigna triodiophila	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 Acacia inaequilatera & Acacia pyrifolia over Open Shrubland of Acacia coriacea subsp. Pendens & Acacia pyrifolia over Low Open Shrubland of Acacia bivenosa, Triumfetta sp. & Acacia coriacea subsp. pendens 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 Whiteochloa airoides	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 RangeÔÇÖ)	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
Mapping Western Australia's biodiversity

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
TOTAL	**916**	**8716**

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

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Department of Biodiversity, Conservation and Attractions

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	Name ID	Species Name	Naturalised	Conservation Code	[1]Endemic To Query Area
36.	43020	*Abutilon oxycarpum subsp. Prostrate (A.A. Mitchell PRP 1266)*			
37.		*Acacia Airlie Island (V. Long VL163)*			
38.	3209	*Acacia ampliceps*			
39.	44580	*Acacia ampliceps x bivenosa*			
40.	44586	*Acacia ampliceps x sclerosperma subsp. sclerosperma*			
41.	3214	*Acacia ancistrocarpa (Fitzroy Wattle)*			
42.	3223	*Acacia arida*			
43.	3241	*Acacia bivenosa*			
44.	44588	*Acacia bivenosa x sclerosperma subsp. sclerosperma*			
45.	13403	*Acacia colei*			
46.	17013	*Acacia colei var. colei*			
47.	3270	*Acacia coriacea (Wirewood)*			
48.	13500	*Acacia coriacea subsp. coriacea*			
49.	13502	*Acacia coriacea subsp. pendens*			
50.	16174	*Acacia elachantha*			
51.	12673	*Acacia glaucocaesia*			
52.	3356	*Acacia gregorii (Gregory's Wattle)*			
53.	3372	*Acacia holosericea (Candelbra Wattle, Liringgin)*			
54.	3377	*Acacia inaequilatera (Baderi)*			
55.	3419	*Acacia ligulata (Umbrella Bush, Watarka)*			
56.	3434	*Acacia maitlandii (Maitland's Wattle)*			
57.	3471	*Acacia orthocarpa (Needleleaf Wattle)*			
58.	3506	*Acacia pyrifolia (Ranji Bush, Kandji)*			
59.	29016	*Acacia pyrifolia var. morrisonii*			
60.	29015	*Acacia pyrifolia var. pyrifolia*			
61.	15215	*Acacia retivenea subsp. clandestina*			
62.	15203	*Acacia sabulosa*			
63.	13078	*Acacia sclerosperma subsp. sclerosperma*			
64.	29135	*Acacia sericophylla*			
65.	29102	*Acacia sp. Airlie Island (V. Long VL 163)*			
66.	3551	*Acacia sphaerostachya*			
67.	19456	*Acacia stellaticeps*			
68.	13070	*Acacia synchronicia*			
69.	3573	*Acacia tenuissima*			
70.	3579	*Acacia trachycarpa (Minni Ritchi, Balgali)*			
71.	29992	*Acacia trachycarpa x tumida var. pilbarensis*			
72.	3585	*Acacia tumida (Pindan Wattle, Walgali)*			
73.	20319	*Acacia tumida var. pilbarensis*			
74.	3606	*Acacia xiphophylla*			
75.	26440	*Acanthophora dendroides*			
76.	26441	*Acanthophora spicifera*			
77.	48409	*Acetabularia caliculus*			
78.	2645	*Achyranthes aspera (Chaff Flower)*			
79.	172	*Acrachne racemosa*			
80.	4583	*Adriana tomentosa*			
81.	17422	*Adriana tomentosa var. tomentosa*			
82.	6486	*Aegialitis annulata (Club Mangrove)*			
83.	6478	*Aegiceras corniculatum (River Mangrove)*			
84.	2646	*Aerva javanica (Kapok Bush)*	Y		
85.	3680	*Aeschynomene indica (Budda Pea)*			
86.	26450	*Aglaothamnion cordatum*			
87.	3609	*Albizia lebbeck*			
88.	4739	*Alectryon oleifolius*			
89.	11487	*Alectryon oleifolius subsp. oleifolius*			
90.	2647	*Alternanthera angustifolia*			
91.	2651	*Alternanthera nana (Hairy Joyweed)*			
92.	2652	*Alternanthera nodiflora (Common Joyweed)*			
93.	17147	*Alysicarpus muelleri*			
94.	2660	*Amaranthus cuspidifolius*			
95.	2666	*Amaranthus mitchellii (Boggabri Weed)*			
96.	20018	*Amaranthus undulatus*			
97.	2671	*Amaranthus viridis (Green Amaranth)*	Y		
98.	5276	*Ammannia auriculata*			
99.	5277	*Ammannia baccifera*			
100.	5278	*Ammannia multiflora*			
101.	26461	*Amphiroa foliacea*			
102.	26462	*Amphiroa fragilissima*			
103.	2381	*Amyema miraculosa*			
104.	2383	*Amyema preissii (Wireleaf Mistletoe)*			
105.	11874	*Amyema sanguinea var. sanguinea*			

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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
TOTAL	**1259**	**23088**

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Australian Government
Department of Agriculture, Water and the Environment

EPBC Act Protected Matters Report

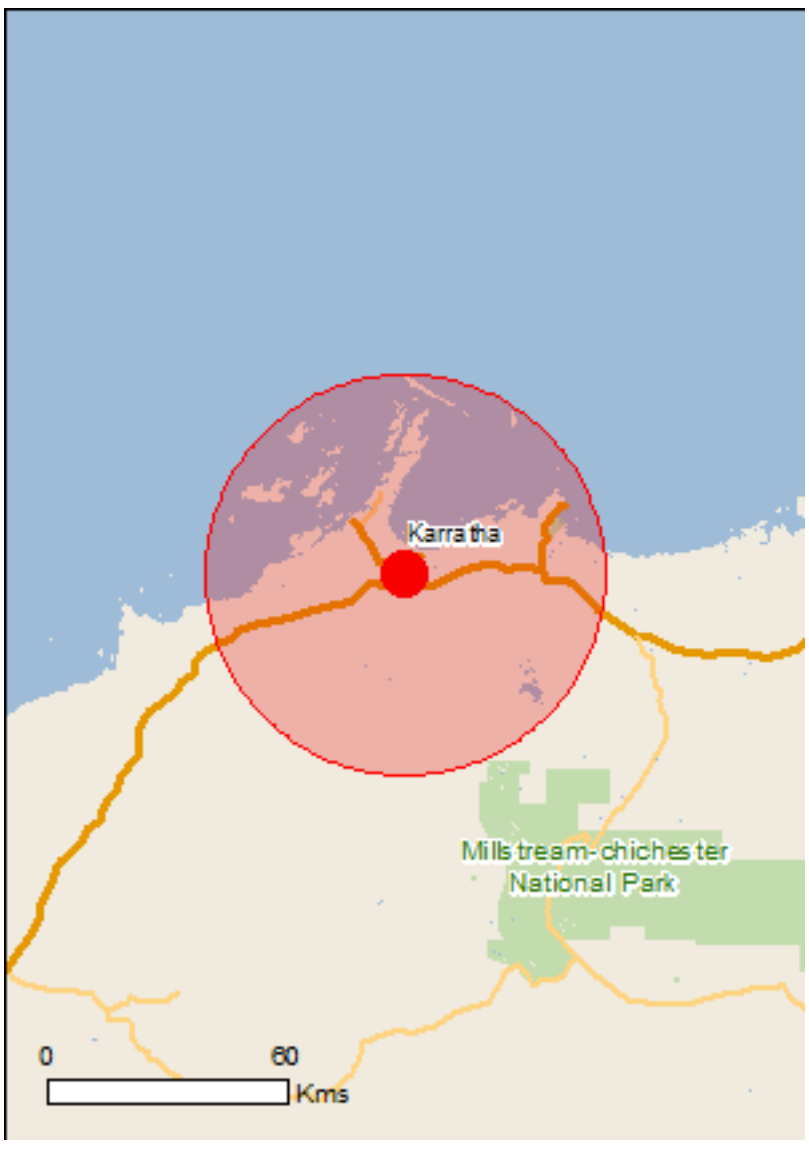
This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

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



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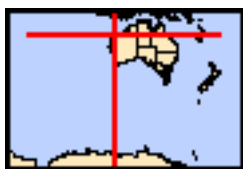
Coordinates
Buffer: 50.0Km



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.

World Heritage Properties:	None
National Heritage Places:	1
Wetlands of International Importance:	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	1
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	32
Listed Migratory Species:	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.

Commonwealth Land:	2
Commonwealth Heritage Places:	None
Listed Marine Species:	103
Whales and Other Cetaceans:	12
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	2

Extra Information

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

State and Territory Reserves:	9
Regional Forest Agreements:	None
Invasive Species:	19
Nationally Important Wetlands:	None
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

National Heritage Properties [Resource Information]

Name	State	Status
Indigenous		
Dampier Archipelago (including Burrup Peninsula)	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
North-west

Listed Threatened Species [Resource Information]

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

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

Name	Status	Type of Presence
Carcharias taurus (west coast population) Grey Nurse Shark (west coast population) [68752]	Vulnerable	Species or species habitat likely to occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area
Pristis clavata Dwarf Sawfish, Queensland Sawfish [68447]	Vulnerable	Species or species habitat known to occur within area
Pristis zijsron Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Species or species habitat known to occur within area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area

Listed Migratory Species

[Resource Information]

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

Name	Threatened	Type of Presence
Migratory Marine Birds		
Anous stolidus Common Noddy [825]		Species or species habitat may occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardenna pacifica Wedge-tailed Shearwater [84292]		Breeding known to occur within area
Calonectris leucomelas Streaked Shearwater [1077]		Species or species habitat likely to occur within area
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat known to occur within area
Hydroprogne caspia Caspian Tern [808]		Breeding known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Onychoprion anaethetus Bridled Tern [82845]		Breeding known to occur within area
Sterna dougallii Roseate Tern [817]		Breeding likely to occur within area
Migratory Marine Species		
Anoxypristis cuspidata Narrow Sawfish, Knifetooth Sawfish [68448]		Species or species habitat likely to occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
Carcharhinus longimanus Oceanic Whitetip Shark [84108]		Species or species

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

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

Name	Threatened	Type of Presence
Numenius phaeopus Whimbrel [849]		Species or species habitat known to occur within area
Pandion haliaetus Osprey [952]		Breeding known to occur within area
Phalaropus lobatus Red-necked Phalarope [838]		Species or species habitat known to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Species or species habitat known to occur within area
Pluvialis squatarola Grey Plover [865]		Species or species habitat known to occur within area
Thalasseus bergii Greater Crested Tern [83000]		Breeding known to occur within area
Tringa brevipes Grey-tailed Tattler [851]		Species or species habitat known to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Species or species habitat known to occur within area
Tringa totanus Common Redshank, Redshank [835]		Species or species habitat known to occur within area
Xenus cinereus 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
Birds		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Anous stolidus Common Noddy [825]		Species or species habitat may occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur

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

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

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

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

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

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

Whales and other Cetaceans

[Resource Information]

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

Name	Status	Type of Presence
		within area
Tursiops truncatus s. str. 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 Resouces 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.

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Department of Agriculture Water and the Environment
GPO Box 858
Canberra City ACT 2601 Australia
+61 2 6274 1111

Threatened and Priority Flora DBCA Database Search

Taxon	ConStatus	WARank	PopNumber	LocDesc	District	Vesting	Purpose1	Purpose2	CountDate	Method	MidCount	JuvCount	UseTotal	CountType	AreaOccupy	InFlower	PopCondtn	HabCondtn	HabNotes	SoilCondtn	Landform	RockType	Gravel	SoilType	SoilColor	Drainage	Aspect	AssSpecies	Veg_Stru_A	Veg_domA1	Veg_domA2	Veg_Stru_B	Veg_domB1	Veg_domB2	Veg_Stru_C	Veg_domC1	Veg_Stru_D	Veg_domD1
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3		2.000000	Mundabullangana Station (Crown Lease 3114-517), on south side of North West Coastal Highway, 1.5 km SW of Yule River crossing, (ca 65 km SW of) Port Hedland.	KARRATHA	PLB	PAS		15/08/2000	ESTMT	0.000000		50.000000			Y			Low shrubland.	DRY	FL_PALU			CLAY	RED														
Atriplex eremita	1		1.000000	De Grey Station (Crown Lease 3114-1142), ca 3 km (SE) of Wattle Well (following track from coast, NE of) Port Hedland.	KARRATHA	PLB	PAS		28/08/1997		0.000000		0.000000			N			Soil Condition: Saline; Tussock grassland plain with saltbushes.										Eragrostis xerophila,Cenchrus ciliaris,Eulalia aurea	Unknown Veg Class	Eragrostis xerophila		Unknown Veg Class	Cenchrus ciliaris		Unknown Veg Class	Eulalia aurea		
Bulbostylis burbidgeae	4		3.000000	Shirley Station (c 3114-1281), 15 km west of Lalla Rookh homestead, near Port Hedland.	KARRATHA	PLB	PAS		27/08/1997		0.000000		0.000000			N			Crevices in tors. No other flora species present.			GRANITE																	
Bulbostylis burbidgeae	4		4.000000	Indee Station (c 3114-1197), along FMG railway, ca 70 km south of Port Hedland.	KARRATHA	PLB	PAS	MIN	15/05/2006		0.000000		0.000000			N					OUTCROP	GRANITE		CLAY														
Eragrostis craterformis	3		3.000000	De Grey Station (Crown Lease 3114-1142; Expl. Licence 4502132, Atlas Iron), ca 70 km ENE of Port Hedland, on northern side of Great Northern Highway, (9.1 km NNW Mount Saint George, 9.4 km SW De Grey Homestead, east of De Grey River).	KARRATHA	PLB	PAS	OTH	11/05/2007	ESTMT	0.000000		2.000000			N			Very open woodland over grassland.		FLAT			SIL_CLAY	RED_BRWN			Triodia epactia	Unknown Veg Class	Triodia epactia								
Eragrostis craterformis	3		4.000000	De Grey Station (Crown Lease 3114-1142; Expl. Licence 4502132, Atlas Iron), ca 70 km ENE of Port Hedland, on northern side of Great Northern Highway, (3.6 km WSW Mount Saint George, 1.8 km NNE Ryan Siding, east of De Grey River).	KARRATHA	PLB	PAS	EXL	11/05/2007	ESTMT	0.000000		0.000000			N			Grassland.		OD_DRGLN			CLA_LOAM	RED_BRWN			Chrysopogon fallax,Triodia epactia	Unknown Veg Class	Chrysopogon fallax		Unknown Veg Class	Triodia epactia					
Euphorbia clementii	3		3.000000	Kangan Station (Crown Lease 3114-1188), Wodgina Lateral Pipeline ROW (Epic Energy), at 62.0 km south(- east) of the North West Highway.	KARRATHA	PLB	PAS		15/05/2001		0.000000		0.000000			N			Shrubland of mixed Acacia with occasional emergent trees.					SAND	RED			Triodia epactia,Triodia lanigera	Unknown Veg Class	Triodia epactia		Unknown Veg Class	Triodia lanigera		open hummock grassland 0.5-1m, 20-50%			
Euphorbia clementii	3		4.000000	Kangan Station (Crown Lease 3114-1188), Wodgina Lateral Pipeline ROW (Epic Energy), at 62.0 km south(- east) of the North West Highway.	KARRATHA	PLB	PAS		15/05/2001		0.000000		0.000000			N								SAND	RED			Corymbia hamersleyana,Acacia anacistrocarpa,Acacia inaequilatera,Triodia lanigera	Unknown Veg Class	Corymbia hamersleyana		Unknown Veg Class	Acacia anacistrocarpa		Unknown Veg Class	Triodia lanigera	open hummock grassland 0.5-1m, 20-50%	Acacia inaequilatera
Euphorbia clementii	3		5.000000	Kangan Station (Crown Lease 3114-1188; Mining Lease 4500381, Talison Wodgina), Wodgina Lateral Pipeline ROW (Epic Energy), at 64.1 km south(- east) of the North West Highway.	KARRATHA	PLB	PAS	MIN	15/05/2001		0.000000		0.000000			N			Rocky hills with minor drainage.									Triodia basedowii,Corymbia hamersleyana,Acacia anacistrocarpa,Acacia acradenia	Unknown Veg Class	Triodia basedowii		Unknown Veg Class	Corymbia hamersleyana		Unknown Veg Class	Acacia anacistrocarpa	Unknown Veg Class	Acacia acradenia
Gompherena cuculata	3		1.000000	(Yule) River (West Munda Creek) crossing near Mundabullangana Station (Homestead). Crown Reserve 9701 (De Grey Mulvey Stock Route)	KARRATHA	UNKNOWN	STK		24/02/1962		0.000000		0.000000			Y								LOAM_SND	RED													
Gymnanthera cunninghamii	3		3.000000	(ACL (Expl. Lic. 4502884 Pending, BHP Billiton Minerals), ca (8.3 km east) of Boodaine Landing (12 km north of Boodaine Homestead).	KARRATHA	NON	UCL		20/12/1995		0.000000		30.000000			N			Bossut formation in very deep solution pockets,		OUTCROP	LIMESTN						Triodia pungens	Unknown Veg Class	Triodia pungens		open hummock grassland 0.5-1m, 20-50%						
Gymnanthera cunninghamii	3		7.000000	Kangan Station (Crown Lease 3114-1188; Misc. Lic. 7000021, Pilbara Infrastructure), FMG Stage A Rail Corridor, (6.7 km south of Pinnacle Hill, 9.7 km WSW of Pincunah Hill- Turner River region).	KARRATHA	PLB	PAS		07/05/2006		0.000000		4.000000			Y			Triodia sp.		OD_DRGLN			SAND	RED_BRWN				sparse hummock grassland 0.5-1m,0.25-20%									
Ptilyodia sp. Marble Bar (G. Woodman & D. Coultas GWDC Opp 4)	T	EN	1.000000	Unallocated Crown Land, ca 5km south of Shirley Station southern boundary. ca. 15km west of Port Hedland.	KARRATHA	NON	UCL		30/08/2010	ESTMT	27.000000		0.000000	PLANTS		Y	HEALTHY	EXCELENT	Base of a sandy hill slope. Skeletal soil over sandstone.	DRY	HILL	SANDSTN		SND_LOAM	BROWN			tall shrubland >2m, 50-80%	Terminalia canescens	Acacia tumida var. pilbarensis	hummock grassland 0.5-1m, 50-80%	Triodia longiceps	Eriachne mucronata	hummock grass	Sarcostemma viminale subsp. australe		
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	2.000000	Unallocated Crown Land, ca 3km south of Shirley Station southern boundary. ca. 13km W of Port Hedland. Approximately 90km south, south-east of Port Hedland. Population extends along cliff face, 3km N following the curve of the cliff and 1km S.	KARRATHA	NON	UCL		19/09/2015		1036.000000		0.000000			N		EXCELENT	Midslop of very steem ironstone hillslope.	DRY	SLOPE	IRONSTN		SND_LOAM	RED_BRWN		SW											
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	3.000000	Unallocated Crown Land, ca 3km south of Shirley Station southern boundary. ca. 13km W of Panorama Station western boundary, east of the Shirley River. Approximately 90km south, south-east of Port Hedland.	KARRATHA	NON	UCL		29/05/2013		11.000000		0.000000			N		EXCELENT	Granite or conglomerate steep slope. Skeletal red clay loam.	DRY	SLOPE	GRANITE		CLA_LOAM	RED		SW											
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	5.000000	Unallocated Crown Land, ca 5km south of Shirley Station southern boundary. ca. 15km west of Panorama Station western boundary, just east of the Shirley River. Approximately 90km south, south-east of Port Hedland.	KARRATHA	NON	UCL		28/05/2010	ESTMT	6.000000		0.000000	PLANTS		N	HEALTHY	EXCELENT			SLOPE			CLA_LOAM	RED_BRWN												
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	6.000000	Crown Lease: Wallareenya Pastoral Lease. Lot 228 on Plan 238638. LPI N-092865. 13km South east of Mount York, Marble Bar. East of the Shirley Rive, 13km South West of Shirley Station. 90km SSE of Port Hedland.	KARRATHA	PLB	PAS		23/04/2012	ACT_IND	115.000000		0.000000	PLANTS	15000	N	HEALTHY	EXCELENT	Senna artemisioides low ope shrubland over Triodia sp. hummock grassland	DRY	SLOPE	SANDSTN	GRVL_100	SND_CLAY	RED	WLL_DRND											
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	7.000000	Unallocated Crown Land. North Star. 15km South West of Shirley Station. 90km SSE of Port Hedland.	KARRATHA	PLB	PAS		17/08/2011	ESTMT	1.000000		0.000000	PLANTS		Y	HEALTHY			DRY	SLOPE	SANDSTN	GRVL_100	SND_CLAY	RED	WLL_DRND											
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	8.000000	Unallocated Crown Land. North Star. East of the Shirley River, 5km SSW of Shirley Station. 13km South-east of Mount York. 90km SSE of Port Hedland.	KARRATHA	NON	UCL		17/08/2011		1.000000		0.000000			Y	HEALTHY			DRY	SLOPE	SANDSTN	GRVL_100	SND_CLAY	RED	WLL_DRND											
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	9.000000	Unallocated Crown Land. North Star. East of the Shirley River, 5km SSW of Shirley Station. 13km South-east of Mount York. 90km SSE of Port Hedland.	KARRATHA	NON	UCL		17/08/2011		25.000000		0.000000			Y				DRY	SLOPE	SANDSTN	GRVL_100	SND_CLAY	RED	WLL_DRND											
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	10.000000	Unallocated Crown Land. North Star. East of the Shirley River, 6km SSW of Shirley Station. 13km South-east of Mount York. 90km SSE of Port Hedland.	KARRATHA	NON	UCL		17/08/2011		176.000000		0.000000			Y				DRY	SLOPE	SANDSTN	GRVL_100	SND_CLAY	RED	WLL_DRND											
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	11.000000	UCL. North Star. East of the Shirley River, 7km SSW of Shirley Station. 13km South-east of Mount York. 90km SSE of Port Hedland.	KARRATHA	NON	UCL		17/08/2011		26.000000		0.000000			Y				DRY	SLOPE	SANDSTN	GRVL_100	SND_CLAY	RED	WLL_DRND											
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	12.000000	UCL. North Star. East of the Shirley River, 6km South of Shirley Station. 13km South-east of Mount York. Ca. 12km East of Wallareenya Station Eastern boundary. Population extends 3km N and 2km across.	KARRATHA	NON	UCL		21/09/2015		3036.000000		0.000000			Y				DRY	SLOPE	SANDSTN	GRVL_100	SND_CLAY	RED	WLL_DRND											
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	13.000000	Unallocated Crown Land, ca 7km south of Shirley Station southern boundary. ca. 12km east of Wallareenya Station eastern boundary, east of the Shirley River. Approximately 90km south, south-east of Port Hedland.	KARRATHA	NON	UCL		17/08/2011		12.000000		0.000000			Y		EXCELENT	Midslop of very steem ironstone hillslope.	DRY	SLOPE	IRONSTN		SND_LOAM	RED_BRWN		SW											
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	14.000000	Unallocated Crown Land, ca 9.8km south of Shirley Station southern boundary. ca. 12km south-east of Wallareenya Station eastern boundary, east of the Shirley River. Approximately 90km south, south-east of Port Hedland.	KARRATHA	NON	UCL		17/08/2011		80.000000		0.000000			N		EXCELENT	Midslop of very steem ironstone hillslope.	DRY	SLOPE	IRONSTN		SND_LOAM	RED_BRWN		SW											
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	21.000000	Unallocated Crown Land. 67.5km West of Marble Bar, 39km east of the Great Northern Highway.	KARRATHA	NON	UCL		03/06/2015	ESTMT	31.000000		0.000000	PLANTS		N		PRISTINE	Sandstone gorge.		OD_GORGE	SANDSTN	GRVL_10	SND_LOAM	BROWN		SW	Acacia tumida var. pilbarensis, Triodia eJactea										
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	22.000000	Unallocated Crown Land, ca 7km south of Shirley Station southern boundary. ca. 12km east of Wallareenya Station eastern boundary, east of the Shirley River. Approximately 90km south, south-east of Port Hedland.	KARRATHA	NON	UCL		17/08/2011		1.000000		0.000000			N		EXCELENT	Midslop of very steem ironstone hillslope.	DRY	SLOPE	IRONSTN		SND_LOAM	RED_BRWN		SW											
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	24.000000	UCL. North Star. [Add location info. Same pop as 73384]	KARRATHA	NON	UCL		17/04/2012	ACT_IND	2.000000		0.000000	PLANTS	100	N	HEALTHY		Senna artemisioides low open shrubland over Triodia sp. hummock grassland	DRY	SLOPE	SANDSTN	GRVL_100	SND_CLAY	RED	WLL_DRND											
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	25.000000	UCL. North Star. 7.6km east of Shirley Station eastern boundary. Ca. 13km West of Panorama Station Western boundary. East of Shirley River. Approx. 90km South South East of Port Hedland.	KARRATHA	NON	UCL		17/04/2012	ACT_IND	2.000000		0.000000	PLANTS	100	N	HEALTHY	EXCELENT	Open Triodia sp. hummock grassland	DRY	SLOPE	SANDSTN	GRVL_100	SND_CLAY	RED	WLL_DRND											
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	36.000000	Crown Lease. Panorama Pastoral Lease. Lot 211 on Plan 238430. PLN-050454. North Star. Ca. 16.5km north-east of Shirley Station northern boundary. ca. 8.3km NW of Panorama Station western boundary, east of the Shirley River.	KARRATHA	PLB	PAS		17/08/2011		3.000000		0.000000			N				DRY	SLOPE	SANDSTN	GRVL_100	SND_CLAY	RED	WLL_DRND											
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	38.000000	Unallocated Crown Land. 66.5km West of Marble Bar, 40km east of the Great Northern Highway. Population extendsapprox 2km to the East.	KARRATHA	NON	UCL		25/05/2015		236.000000		0.000000			Y		PRISTINE	Sandstone gorge.		OD_GORGE	SANDSTN	GRVL_10	SND_LOAM	BROWN		SW	Acacia tumida var. pilbarensis, Triodia eJactea										
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	39.000000	Unallocated Crown Land. 68km West of Marble Bar, 39km east of the Great Northern Highway.	KARRATHA	NON	UCL		03/06/2015	ESTMT	27.000000		0.000000	PLANTS		N		PRISTINE			SL_CLIFF	IRONSTN	GRVL_10	CLA_LOAM	RED_BRWN		SW	Acacia tumida var. pilbarensis, Triodia epactia, Grevillea wickhamii										
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	40.000000	Unallocated Crown Land. 70km West of Marble Bar, 37km east of the Great Northern Highway.	KARRATHA	NON	UCL		04/06/2015	ESTMT	361.000000		0.000000	PLANTS		N		PRISTINE			SL_CLIFF	SANDSTN	GRVL_10	SAND	BROWN		SW	Acacia tumida var. pilbarensis, Triodia eJactea										
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	41.000000	Unallocated Crown Land. 70km West of Marble Bar, 37km east of the Great Northern Highway.	KARRATHA	NON	UCL		04/06/2015	ESTMT	7.000000		0.000000	PLANTS		N		PRISTINE	Skeletal soil.		OD_GORGE	SANDSTN	GRVL_30	SAND	RED_BRWN		SW	Acacia tumida var. pilbarensis, Triodia epactia, Grevillea wickhamii										
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	42.000000	Crown Lease: Wallareenya Pastoral Lease. Lot 228 on Plan 238638. LPI N-092865. 15.5km south east of Mount York, Marble Bar. East of the Shirley River, 15.4km south west of Shirley Station. 90km SSE of Port Hedland.	KARRATHA	NON	UCL		26/09/2015		1.000000		0.000000			Y																							
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	43.000000	Crown Lease: Wallareenya Pastoral Lease. Lot 228 on Plan 238638. LPI N-092865. 15.5km south east of Mount York, Marble Bar. East of the Shirley River, 14km south west of Shirley Station. Population extends 800m to the east, and 400m to the west.	KARRATHA	NON	UCL		26/09/2015		0.000000		400.000000			Y																							
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	44.000000	Unallocated Crown Land. 15.2km South-east of Mount York, Marble Bar. East of the Shirley River, 12.2km South-west of Shirley Station. 90km SSE of Port Hedland. Population extends approximately 50m NW and 780m SE.	KARRATHA	NON	UCL		24/09/2015		0.000000		411.000000			Y																							
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	45.000000	Unallocated Crown Land. 14.6km South-east of Mount York, Marble Bar. East of the Shirley River, 11.7km South-west of Shirley Station. 90km SSE of Port Hedland.	KARRATHA	NON	UCL		24/09/2015		0.000000		9.000000			Y																							
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	46.000000	Unallocated Crown Land.. North Star. East of the Shirley River, 6.6km SSW of Shirley Station. 13.9km South-east of Mount York. 90km SSE of Port Hedland.	KARRATHA	NON	UCL		17/09/2015		0.000000		118.000000			Y																							
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	47.000000	Unallocated Crown Land. 14.7km South-east of Mount York, Marble Bar. East of the Shirley River, 7.8km South-west of Shirley Station. 90km SSE of Port Hedland.	KARRATHA	NON	UCL		22/09/2015		0.000000		6.000000			Y																							
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	48.000000	Unallocated Crown Land. 18.7km South-east of Mount York, Marble Bar. East of the Shirley River, 10.8km South-west of Shirley Station. 90km SSE of Port Hedland.	KARRATHA	NON	UCL		16/09/2015		0.000000		36.000000			Y																							
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	49.000000	Unallocated Crown Land. 17.1km South-east of Mount York, Marble Bar. East of the Shirley River, 9.3km South-west of Shirley Station. 90km SSE of Port Hedland.	KARRATHA	NON	UCL		23/09/2015		0.000000		1047.000000			Y																							
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	50.000000	Unallocated Crown Land. 15.5km South-east of Mount York, Marble Bar. East of the Shirley River, 6.2km South-west of Shirley Station. 90km SSE of Port Hedland. Population extends north 270m, and SE 340m.	KARRATHA	NON	UCL		17/09/2015		0.000000		220.000000			Y																							
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	51.000000	Unallocated Crown Land. 19km South-east of Mount York, Marble Bar. East of the Shirley River, 8.5km South of Shirley Station. 90km SSE of Port Hedland. Population extends 500m E and 800m W.	KARRATHA	NON	UCL		27/09/2015		0.000000		198.000000			Y																							
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	53.000000	Unallocated Crown Land.15.5km East of Wallareenya Station, Marble Bar. East of the Shirley River? 5km South of Shirley Station. 90km SSE of Port Hedland. Population?.	KARRATHA	NON	UCL		26/09/2015		6.000000		0.000000			N																							
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	54.000000	Unallocated Crown Land. 16km East of Wallareenya Station, Marble Bar. East of the Shirley River. 8km South of Shirley Station. 90km SSE of Port Hedland.	KARRATHA	NON	UCL		26/09/2015		4.000000		0.000000			N																							
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	55.000000	Unallocated Crown Land. 16km East of Wallareenya Station, Marble Bar. East of the Shirley River. 8km South of Shirley Station. 90km SSE of Port Hedland.	KARRATHA	NON	UCL		26/09/2015		4.000000		0.000000			N																							
Ptilyodia sp. Marble Bar (G. Woodman B.D. Coultas GWDC Opp 4)	T	EN	72.000000	Crown Lease: Wallareenya. Lot 228 on plan 238638. North Star Mine, approx. 100km south of Port Headland. Occurs approximately 1.7km north of North Star Access Road	KARRATHA	PLB	PAS		16/09/2016	ACT_IND	5.000000	3	0.000000	PLANTS	20	Y	HEALTHY	PRISTINE			SLOPE	GRANITE	GRVL_100		RED	WLL_DRND			open shrubland 1-2m, 20-50%	Acacia acradenia		hummock grassland 0.5-1m, 50-80%	Triodia wiseana					

Taxon	Cons_Code	Plant_Desc	Site	Vegetation	Frequency	Notes	Locality	Date
Abutilon 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
Abutilon 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
Abutilon 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 Cochorus incanus subsp. incanus, Cullen martinii, (Abultilon pritzelianum P1) over Aristida contorta sparse or open tussock grass, Triodia lanigera 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
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3	Shrub to 0.6 m with male flowers.	Sandplain with orange brown sandy loam.	Eragrostis eriopoda tussock grassland with Aristida hygrometrica, Corchorus incanus, Triumfetta chaetocarpa & Aerva javanica.			Turner River crossing on the Great Northern Highway, c. 40 km SSW of Port Hedland	20/08/2009
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3	Shrub 1 - 1.5 m high.					16 km SE of Port Hedland	22/03/2011
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3	Shrub, 1 - 1.5 m high.					C. 30 km S of Port Hedland	24/03/2011
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3	Shrub 1 - 1.5 m high.					C. 20 km SW of Port Hedland	25/03/2011
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3	Shrub to 1.5 m.	Plain near the road verge.	Acacia tumida var. pilbarensis and Acacia colei var. colei shrubland over a low Acacia stellaticeps shrubland over Triodia epactia hummock grassland/low Acacia stellaticeps shrubland over Triodia epactia hummock grassland mosaic.			Port Hedland, Pilbara	02/05/2011
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3	Shrub to 1.5 m.	Sandplain.	Acacia tumida var. pilbarensis and Acacia colei var. colei shrubland over a low Acacia stellaticeps shrubland over Triodia epactia hummock grassland/low Acacia stellaticeps shrubland over Triodia epactia hummock grassland mosaic.			Port Hedland, Pilbara	02/05/2011
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3	Herb to 0.4 m.	Sandplain of orange brown silty sand.	A low open Corymbia zygophylla woodland over an open Acacia ancistrocarpa, Acacia inaequilatera, Acacia tumida var. pilbarensis and Acacia sericophylla shrubland over Acacia stellaticeps low open shrubland over Triodia epactia and Triodia lanigera hummock			Port Hedland, Pilbara	30/06/2011
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3	Shrub to 1.2 m; flowers orange.	Growing on sandy plain.	With Acacia inaequilatera, Bonamia erecta, Indigofera monophylla and Triodia epactia.	220 plants.		Boodarie Station, ca. 18 km S of South Hedland	02/07/2015
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3	Shrub to 2 m; flowers yellow.	Growing on sandy plain.	With Acacia inaequilatera and A. ancistrocarpa sparse mid shrubland over Triodia epactia open hummock grassland.	100 plants.		Indee Station, ca. 43 km SE of Port Hedland	21/04/2015
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3	Shrub to 1 m.	Sandplain of orange brown sands.	Shrubland of Acacia stellaticeps, Acacia tumida var. pilbarensis and Acacia inaequilatera over an Open Hummock Grassland of Triodia epactia over Tussock Grassland of Aristada holathera var. holathera and Eriachne mucronata.			Port Hedland, Pilbara	24/06/2011
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3	Shrub to 0.6 m with male flowers.	Sandplain with orange brown sandy loam.	Eragrostis eriopoda tussock grassland with Aristida hygrometrica, Corchorus incanus, Triumfetta chaetocarpa & Aerva javanica.			Turner River crossing on the Great Northern Highway, c. 40 km SSW of Port Hedland	20/08/2009
Abutilon 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 Sida clementii, S. rohlenae, S. pilbarensis, Corchorus walcottii, Ipomoea muelleri, Acacia tumida, Abutilon otocarpum, Walteria indica and Cajanus pubescnes.	over 50 plants.		North West Coastal Highway, 1 km E of Turner River, 19 km E of Yule River	19/08/2003
Abutilon 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
Abutilon 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
Abutilon 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
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3	Shrub to 0.6 m with male flowers.	Sandplain with orange brown sandy loam.	Eragrostis eriopoda tussock grassland with Aristida hygrometrica, Corchorus incanus, Triumfetta chaetocarpa & Aerva javanica.			Turner River crossing on the Great Northern Highway, c. 40 km SSW of Port Hedland	20/08/2009
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3	Shrub to 0.6 m with flowers and fruit.	Sandplain with orange brown sandy loam.	Eragrostis eriopoda tussock grassland with Aristida hygrometrica, Corchorus incanus, Triumfetta chaetocarpa & Aerva javanica.			Turner River crossing on the Great Northern Highway, c. 40 km SSW of Port Hedland	20/08/2009
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3	Shrub to 0.6 m with flowers and fruit.	Sandplain with orange brown sandy loam.	Eragrostis eriopoda tussock grassland with Aristida hygrometrica, Corchorus incanus, Triumfetta chaetocarpa & Aerva javanica.			Turner River crossing on the Great Northern Highway, c. 40 km SSW of Port Hedland	20/08/2009
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3	Shrub to 1.5 m with male flowers.	Sandplain with orange brown sandy loam.	Eragrostis eriopoda tussock grassland with Aristida hygrometrica, Corchorus incanus, Triumfetta chaetocarpa & Aerva javanica.			Turner River crossing on the Great Northern Highway, c. 40 km SSW of Port Hedland	20/08/2009
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3	Shrub to 1.5 m with male flowers.	Sandplain with orange brown sandy loam.	Eragrostis eriopoda tussock grassland with Aristida hygrometrica, Corchorus incanus, Triumfetta chaetocarpa & Aerva javanica.			Turner River crossing on the Great Northern Highway, c. 40 km SSW of Port Hedland	20/08/2009
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3	Shrub to 0.6 m with flowers and fruit.	Sandplain with orange brown sandy loam.	Eragrostis eriopoda tussock grassland with Aristida hygrometrica, Corchorus incanus, Triumfetta chaetocarpa & Aerva javanica.			Turner River crossing on the Great Northern Highway, c. 40 km SSW of Port Hedland	20/08/2009
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3	Shrub to 0.7 m with flowers and fruit.	Sandplain with orange brown sandy loam.	Eragrostis eriopoda tussock grassland with Aristida hygrometrica, Corchorus incanus, Triumfetta chaetocarpa & Aerva javanica.			Turner River crossing on the Great Northern Highway, c. 40 km SSW of Port Hedland	20/08/2009
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3	Shrub to 1 m.	Plain. Brown / red sandy loam.	Tall shrubland (Acacia inaequilatera) over shrubland (Acacia stellaticeps) over grassland (Triodia lanigera, Triodia epactia).			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
Abutilon 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 Corymbia zygophylla, Triodia ?lanigera, T. epactia.	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
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3	Shrub to 0.7 m, flowering. Flowers yellow.	Plain. Red-brown sandy clay loam.	Open Acacia shrubland over hummock grassland of Triodia epactia.	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
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3	Shrub to 1.2 m.	Sandplain of orange brown sandy loam.	Low Open Heath of Acacia stellaticeps over Open Hummock Grassland of Triodia epactia.			Port Hedland, Pilbara	02/06/2011
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3	Shrub 1 m high.	Sandy plain with red/brown sand.	Tall open shrubland of Acacia ancistrocarpa and Acacia inaequilatera over low hummock grassland of Triodia epactia.	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
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3	Shrub to 0.4 m.	Sandplain of orange brown sandy loam.	Low Open Woodland of Corymbia zygophylla over High Open Shrubland of Acacia tumida var. pilbarensis over Hummock Grassland of Triodia epactia and Triodia lanigera.			Port Hedland, Pilbara	27/06/2011
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3	Shrub 1 - 1.5 m high.					C. 38 km S of Port Hedland	25/03/2011
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3	Shrub, 1 - 1.5 m high.					C. 30 km S of Port Hedland	24/03/2011
Abutilon sp. Pritzelianum (S. van Leeuwen 5095)	3	Shrub, 1 - 1.5 m high.					C. 48 km S of Port Hedland	07/04/2011
Abutilon 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 Triodia epactia, Eragrostis eriopoda and Acacia inaequilatera.	common.		Turner River, c. 27 km due SSW of Port Hedland, Pilbara	23/08/2004
Acacia leeuweniana	1	Tree, < 3 m high.	Granite outcrop (domes). Red sandy-clay soil over granite.	Low open woodland of Acacia leeuweniana with a very open hummock grassland of Triodia epactia. Associated species: Acacia retivenea, Ficus brachypoda and Acacia tumida var. pilbarensis.	50 plants.		16 km SE of Wodgina, E of Great Northern Highway, Pilbara	05/12/2010
Atriplex eremitis	1	Bushy sparse shrub with grey foliage growing up to 0.3 m tall.	Semi saline plain in a saline patch.	Tussock grassland of Eragrostis xerophila, Cenchrus ciliaris and Eulalia auria and saltbushes.	common.		Site I727, ca 3 km E of Wattle Well, De Grey Station, Port Hedland	28/08/1997
Bulbostylis burbidgeae	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
Bulbostylis burbidgeae	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
Bulbostylis burbidgeae	4	Annual sedge growing up to 0.1 m tall.	Crevices in granite tors that are rarely exposed to the sun.	Nil except for this species.	common.		I 755, 15 km W of Lalla Rookh Station Homestead near Port Hedland	27/08/1997
Bulbostylis burbidgeae	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; involucral bracts long, hairy. Flowers brown, March to June to August.	Granite outcrop. Brown sand.	Open shrubland (Acacia tumida var. pilbarensis) over open hummock and tussock grassland (Triodia epactia, Eriachne mucronata).			C. 14.9 km E of Great Northern Highway and 16.2 km SE of Indee	08/06/2011
Bulbostylis burbidgeae	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; involucral bracts long, hairy. Flowers brown, March to June to August.	Low granite outcrop on plain. Brown sandy loam.	Open shrubland (Acacia tumida var. pilbarensis) over low mixed shrubland (Corchorus incanus subsp. incanus, Corchorus ? parviflorus).			C. 8.9 km E of Great Northern Highway and 20.6 km SE of Indee	10/06/2011
Bulbostylis burbidgeae	4		Track.	Triodia epactia open hummock grassland.			Northern side on Finucane Rd, 3.2 km northwest of intersection with Great Northern Highway	13/04/2007
Bulbostylis burbidgeae	4		Small track.	Triodia epactia open hummock grassland / Bulbostylis burbidgeae scattered herbs.			Northern side of Finucane Rd, 4.5 km northwest of the intersection with Great Northern Highway	13/04/2007
Bulbostylis burbidgeae	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
Bulbostylis burbidgeae	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, involucral bracts long and hairy.					C. 57 km S of Port Hedland	08/04/2011
Bulbostylis burbidgeae	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, involucral bracts long and hairy.					C. 67 km S of Port Hedland	09/04/2011
Bulbostylis burbidgeae	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, involucral bracts long and hairy.					C. 67 km S of Port Hedland	09/04/2011
Bulbostylis burbidgeae	4	Sedge to 0.2 m.	Growing in between granite boulders.	With Acacia tumida subsp. pilbarensis, Triodia epactia, Mallotus nesophilus and Indigofera virens.	200 plants.		Kangan Station, ca. 100 km S of South Hedland	08/07/2015
Bulbostylis burbidgeae	4	Herb.	Brown clay-loam soil in sheltered areas amongst granite outcrops.	Terminalia circumalata, Flueggea virosa subsp. melanthesioides mid sparse shrubland; Cymbopogon ambiguus, Triodia epactia sparse hummock/tussock grassland.	ca. 10 mature plants.		Wallareenya Station and Strelley Station, ca. 30 km SE of Port Hedland	25/05/2018
Dolichocarpa 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 Acacia synchronicia over open grassland and herbfield of mixed species, dominated by Eragrostis setifolia, Cullen graveolens, Cynodon convergens, Desmodium filiforme, Dichanthium sericeum subsp. humilius, Neptunia di			Strelley pastoral lease, ca. 50 km NW of Marble Bar	16/05/2019

Taxon	Cons_Code	Plant_Desc	Site	Vegetation	Frequency	Notes	Locality	Date
Eragrostis crateriformis	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
Eragrostis crateriformis	3	Annual grass, 0.3 m high.	Plain. Orange-brown clayey sand.	Sparse low scrub of Acacia pyrifolia var. morrisonii, 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
Eragrostis crateriformis	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
Eragrostis crateriformis	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
Eragrostis crateriformis	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
Eragrostis crateriformis	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
Eragrostis crateriformis	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
Eragrostis crateriformis	3	Annual, grass-like or herb, 0.17 - 0.42 m high.					C. 38 km S of Port Hedland	25/03/2011
Eragrostis crateriformis	3	Annual, grass-like or herb, 0.17 - 0.42 m high.					C. 41 km S of Port Hedland	06/04/2011
Eragrostis crateriformis	3	Annual, grass-like or herb, 0.17 - 0.42 m high.					C. 41 km S of Port Hedland	25/03/2011
Eragrostis crateriformis	3	Annual, grass-like or herb, 0.17 - 0.42 m high.					C. 43 km S of Port Hedland	06/04/2011
Eragrostis crateriformis	3	Annual, grass-like or herb, 0.17 - 0.42 m high.					C. 72 km S of Port Hedland	09/04/2011
Eragrostis crateriformis	3	Annual, grass-like or herb 0.17 - 0.42 m high.					C. 54 km S of Port Hedland	08/04/2011
Eragrostis crateriformis	3	Annual, grass-like or herb 0.17 - 0.42 m high.					C. 12 km SW of Port Hedland	06/04/2011
Eragrostis crateriformis	3	Annual grass-like or herb 0.17 - 0.42 m high.					C. 15 km SW of Port Hedland	22/03/2010
Eragrostis crateriformis	3	Annual, grass-like or herb 0.17 - 0.42 m high.					C. 52 km S of Port Hedland	07/04/2011
Eragrostis crateriformis	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
Eragrostis crateriformis	3		In red loam by claypan.				Ca 1 mile E of Munda Creek, North West Coastal Highway, Mundabullangana Station,	24/02/1962
Eragrostis crateriformis	3		In red sand.	In spinifex steppe.			W side of Little Yule River, S of Highway, Mundabullangana Station,	02/03/1962
Euphorbia clementii	3		Sandy-clay plain. Recently burnt.	Corymbia hamersleyana, Acacia acradenia and Triodia pungens.	2 plants.		Coongan Station, 90 km SE of Port Hedland	03/06/2016
Euphorbia clementii	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 SS-E of Port Hedland	30/05/2013
Euphorbia clementii	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
Euphorbia clementii	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
Euphorbia clementii	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
Euphorbia clementii	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
Euphorbia clementii	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
Euphorbia clementii	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
Euphorbia clementii	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
Euphorbia clementii	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
Euphorbia clementii	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. pilbaren			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
Euphorbia clementii	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
Euphorbia clementii	3						Ca 3.2 km W of Great Northern Highway, 1.3 km SW of Wodgina Airport	07/06/2011
Euphorbia clementii	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
Euphorbia clementii	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
Euphorbia clementii	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
Euphorbia clementii	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
Euphorbia clementii	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
Euphorbia clementii	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
Euphorbia clementii	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
Euphorbia clementii	3	Erect herb 0.6 m high.					C. 55 km S of Port Hedland	08/04/2011
Euphorbia clementii	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
Euphorbia clementii	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
Euphorbia clementii	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.		Wallareenya Station and Strelley Station, ca. 30 km SE of Port Hedland	21/05/2018
Euphorbia inappendiculata var. *inappendiculata*	2	Herb, 0.1 m high, in flower.	Claypan, red-brown sandy clay.	Open shrubland to sparse shrubland of Acacia synchronicia over open grassland and herbfield of mixed species, dominated by Eragrostis setifolia, Cullen graveolens, Cynodon convergens, Desmodium filiforme, Dichanthium sericeum subsp. humilius, Neptunia di			Strelley pastoral lease, ca. 50 km NW of Marble Bar	16/05/2019
Gomphrena cucullata	3	Flowers whitish.	In red sandy loam.				River crossing near homestead, Mundabullangana Station,	24/02/1962
Gomphrena leptophylla	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
Gomphrena leptophylla	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
Gomphrena pusilla	2						[Port Hedland]	/04/1905
Gomphrena pusilla	2						Port Hedland	/04/1905
Gomphrena pusilla	2	Semi-prostrate herb 10 - 20 cm high with white and purple flowers.	Growing in limestone.				Finucane Island	29/03/1981
Gomphrena pusilla	2	Slender branching annual herb 0.2 m high.					C. 6 km SW of Port Hedland	24/03/2011
Gomphrena pusilla	2	Shrub to 0.2 m.	Limestone ridge top of brown loam and exposed calcrete 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
Goodenia nuda	4	Herb 0.1 m high. Flowers yellow.	Drainage line. Mining tenemant. Red soil.				Cloudbreak FMG Mine, Pilbara	25/02/2008
Goodenia nuda	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
Goodenia nuda	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

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Taxon	Cons_Code	Plant_Desc	Site	Vegetation	Frequency	Notes	Locality	Date
Goodenia nuda	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
Goodenia nuda	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
Goodenia nuda	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 colei var. colei 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
Goodenia nuda	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
Goodenia nuda	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
Goodenia nuda	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
Gymnanthera cunninghamii	3	Erect shrub, 1 - 2 m high. Flowers cream - yellow - green.					C. 24 km S of Great Northern Highway and 25.3 km SE of South Hedland	14/05/2011
Gymnanthera cunninghamii	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
Gymnanthera cunninghamii	3	Upright shrub with pendulous foliage and milky sap growing up to 1.5 m tall.	Base of low limestone ridge of Bouset 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
Gymnanthera cunninghamii	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
Gymnanthera cunninghamii	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
Gymnanthera cunninghamii	3	Erect shrub, 1 - 2 m high.					C. 79 km S of Port Hedland	10/04/2011
Gymnanthera cunninghamii	3	Erect shrub, 1 - 2 m high.					C. 42 km S of Port Hedland	06/04/2011
Gymnanthera cunninghamii	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
Gymnanthera cunninghamii	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. colei 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
Gymnanthera cunninghamii	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
Gymnanthera cunninghamii	3	Low shrub.	Creek bed, pale brown sand.	Eucalyptus camaldulensis subsp. obtusa, E. victrix, Melaleuca argentea mid open woodland; Acacia colei var. colei, A. trachycarpa, A. tumida var. pilbarensis mid open shrubland; Cenchrus ciliaris, Triodia epactia sparse hummock/tussock grassland.	4 mature plants.		Wallareenya Station and Strelley Station, ca. 30 km SE of Port Hedland	22/05/2018
Gymnanthera cunninghamii	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
Heliotropium muticum	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
Heliotropium muticum	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
Heliotropium muticum	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 Open Woodland of Eucalyptus camaldulensis & Eucalyptus victrix over High 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, Wallareenya Station, Pilbara IBRA	31/05/2006
Heliotropium muticum	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
Heliotropium muticum	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
Heliotropium muticum	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
Heliotropium muticum	3	Sub-shrub 20 cm tall.					24.6 km SSE of South Hedland and 21.3 km NW of Wallareenya Homestead	02/12/2011
Heliotropium muticum	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
Heliotropium muticum	3	Sub-shrub 10 cm tall.					50.8 km S of South Hedland and 18.6 km SW of Wallareenya Homestead	29/11/2011
Heliotropium muticum	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
Heliotropium muticum	3	Herb to 0.3 m. Flower white.	Sand plain with quartz outcrops.	Scattered Acacia inaequilatera shrubs over Triodia epactia andTriodia lanigera very open hummock grassland.			Port Hedland, Pilbara	03/05/2011
Heliotropium muticum	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
Heliotropium muticum	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
Heliotropium muticum	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
Heliotropium muticum	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
Heliotropium muticum	3	Height 0.2 m.	Flat sand plains.	Scattered Low Trees of Corymbia candida subsp. lautifolia over Scattered Shrubs to High Open Shrubland of Acacie colei 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
Heliotropium muticum	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
Heliotropium muticum	3	Spreading herb .1 m high.	Plain. Brown 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	1-3 plants.	ENV OHCS 14	ca 19 km S of Port Hedland	23/07/2009
Heliotropium muticum	3	Spreading herb 0.1 m high.	Plain. Brown - orange loan.	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. OHCS 10	ca 19 km S of Port Hedland	23/07/2009
Heliotropium muticum	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: DRE11B, 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
Heliotropium muticum	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
Heliotropium muticum	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, Trioida epactia, Pluchea tetranthera.	common locally.		Pippingarra, approximately 30 km SSE of Port Hedland	16/11/2012
Heliotropium muticum	3	Ascending to spreading perennial herb to 0.3 m high.					Ca 3.5 km W of Port Hedland - Wittenoom Road, 20 km SSE of South Hedland	19/04/2011
Heliotropium muticum	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

Western Australian Herbarium Database Search

Taxon	Cons_Code	Plant_Desc	Site	Vegetation	Frequency	Notes	Locality	Date
Heliotropium muticum	3		Plain with gentle slope. Red sandy loam.	Open shrubland over Triodia grassland with occasional trees. Associated species include Triodia schinzii, Acacia sericophylla and Pluchea tetranthera.			Ca 70 km S of Port Hedland, 15 km W of the Great Northern Highway	17/06/2010
Heliotropium muticum	3	Low shrub with white flowers growing up to 0.2 m tall.	Almost flat calcareous plain with quartz strew and formed from granite.	Hard hummock grassland of this species.	rare.		Site I751, 11.5 km NE of old Tabba Tabba Station Homestead, Port Hedland,	26/08/1997
Heliotropium muticum	3		Flat. Red silty sand. Low lying floodplain. Burnt <3 years ago.	Hummock grassland with emergent shrubs. Associated species include Acacia stellaticeps, Corchorus sp., Triodia sp., Eriachne sp.			Along FMG northern access track E of Great Northern Highway, 70 km S of Port Hedland	13/05/2008
Heliotropium muticum	3	Small herb to 0.3 m, flowering.	Plain. Brown sandy clay loam.	Mixed Acacia shrubland over hummock grassland, with Acacia inaequilatera, A. ancistrocarpa, Triodia epactia.	1 plant seen.		Ca 21.4 km S of Port Hedland, near the Port Hedland to Newman Railway on Boodarie Station	02/08/2010
Heliotropium muticum	3		Lower slope. Flat. Red sandy loam.	Open shrubland over Triodia grassland with occasional Eucalypts. Associated species include Triodia epactia, Corymbia hamersleyana, Acacia acradenia and Corchorus parviflorus.			Ca 85 km S of Port Hedland, on Wallareenya Station, near the BHP Newman railway line	28/05/2010
Heliotropium muticum	3	Open, spreading shrub with white flowers with very short but stiff, spiny hairs, growing up to 0.3 m tall.	Flat plain of granite origin.	Hard hummock grassland of Triodia sp. `indee' with an overstorey of Acacia pyrifolia.	rare.		Site I733, near Higgins Well, Pippingarra Station near Port Hedland,	30/08/1997
Heliotropium muticum	3	Small herb to 0.3 m, flowering.	Mid-slope. Red/brown sandy loam with clay.	Triodia grassland with occasional shrubs, with Triodia epactia.	5 plants seen.		Ca 22.8 km S of Port Hedland, 1.5 km W of the Port Hedland to Newman Railway on Boodarie Station	03/08/2010
Heliotropium muticum	3	Small herb to 0.3 m, not flowering.	Plain. Red sandy clay.	Acacia shrubland over hummock grassland, with Acacia ancistrocarpa.	1 plant seen.		Ca 13 km SSW of Port Hedland, 6 km E of Great Northern Highway on Boodarie Station	31/07/2010
Heliotropium muticum	3		Flat. Brown light clay/sand over ironstone. 0-10% loose rock. Collection site: private property.		1 mature plant.	Condition of plants: Healthy. Condition of habitat: Very good. Clearing by mining company. Presence of invasive species nearby. Grazing.	Canning Basin	15/10/2011
Heliotropium muticum	3		Flat. Brown light clay/sand over ironstone. 0-10% loose rock. Collection site: private property.		1 mature plant.	Condition of plants: Healthy. Condition of habitat: Very good. Clearing by mining company. Presence of invasive species nearby. Grazing.	Canning Basin	15/10/2011
Heliotropium muticum	3		Flat. Brown light clay/sand over ironstone. 0-10% loose rock. Collection site: private property.		5 mature plants.	Condition of plants: Healthy. Condition of habitat: Very good. Clearing by mining company. Presence of invasive species nearby. Grazing.	Canning Basin	15/10/2011
Heliotropium muticum	3		Flat. Brown light clay/sand over ironstone. 0-10% loose rock. Collection site: private property.		1 mature plant.	Condition of plants: Healthy. Condition of habitat: Very good. Clearing by mining company. Presence of invasive species nearby. Grazing.	Canning Basin	15/10/2011
Heliotropium muticum	3		Flat. Brown light clay/sand over ironstone. 0-10% loose rock. Collection site: private property.		1 mature plant.	Condition of plants: Healthy. Condition of habitat: Very good. Clearing by mining company. Presence of invasive species nearby. Grazing.	Canning Basin	15/10/2011
Heliotropium muticum	3		Flat. Brown light clay/sand over ironstone. 0-10% loose rock. Collection site: private property.		1 mature plant.	Condition of plants: Healthy. Condition of habitat: Very good. Clearing by mining company. Presence of invasive species nearby. Grazing.	Canning Basin	15/10/2011
Heliotropium muticum	3		Flat. Brown light clay/sand over ironstone. 0-10% loose rock. Collection site: private property.		1 mature plant.	Condition of plants: Healthy. Condition of habitat: Very good. Clearing by mining company. Presence of invasive species nearby. Grazing.	Canning Basin	15/10/2011
Heliotropium muticum	3		Flat. Brown light clay/sand over ironstone. 0-10% loose rock. Collection site: private property.		1 mature plant.	Condition of plants: Healthy. Condition of habitat: Very good. Clearing by mining company. Presence of invasive species nearby. Grazing.	Canning Basin	15/10/2011
Heliotropium muticum	3		Flat. Brown light clay/sand over ironstone. 0-10% loose rock. Collection site: private property.		1 mature plant.	Condition of plants: Healthy. Condition of habitat: Very good. Clearing by mining company. Presence of invasive species nearby. Grazing.	Canning Basin	15/10/2011
Heliotropium muticum	3		Flat. Brown light clay/sand over ironstone. 0-10% loose rock. Collection site: private property.		1 mature plant.	Condition of plants: Healthy. Condition of habitat: Very good. Clearing by mining company. Presence of invasive species nearby. Grazing.	Canning Basin	15/10/2011
Heliotropium muticum	3		Undulating plain. Sandy loam. Burnt.		100+ plants.		Ca 70 km S of Port Hedland, on Indee Station, near FMG railway line	31/05/2010
Heliotropium muticum	3		Undulating granitic plain. Brown sandy clay loam.		15 plants.		Ca 65 km S of Port Hedland, on Indee Station, near FMG railway line	01/06/2010
Heliotropium muticum	3		Undulating granitic plain. Brown sandy clay loam.		5 plants.		Ca 65 km S of Port Hedland, on Indee Station, near FMG railway line	02/06/2010
Heliotropium muticum	3		Flat. Brown light clay/sand over ironstone. 0-10% loose rock. Collection site: private property.		1 mature plant.	Condition of plants: Healthy. Condition of habitat: Very good. Clearing by mining company. Presence of invasive species nearby. Grazing.	Canning Basin	15/10/2011
Heliotropium muticum	3	Ascending to spreading perennial, herb, to 0.3 m high.	Flat / plain. Red sand.	Open shrubland (Acacia inaequilatera) over low shrubland (Indigofera monophylla, Bonamia ?erecta, Goodenia microptera) over hummock grassland (Triodia lanigera).			C. 15.9 km E of Great Northern Highway and 49.1 km SE of South Hedland	17/05/2011
Heliotropium muticum	3	Ascending to spreading perennial herb 0.3 m high.					C. 86 km S of Port Hedland	07/04/2011
Heliotropium muticum	3	Ascending to spreading perennial herb 0.3 m high.					C. 89 km S of Port Hedland	07/04/2011
Heliotropium muticum	3	Shrub to 0.4 m.	Sand plains of red sandy loam with quartz stones and gravel. Burnt c. 2 years ago.	High open shrubland of Acacia inaequilatera over shrubland of A. ancistrocarpa and A. stellaticeps over open hummock grassland of Triodia epactia and T. lanigera.	one plant.		Ca. 25 km S of Port Hedland, 2.7 km SE of Quarry 1 and 2.8 km W of Fingerpost Well, adjacent to the BHP Billiton Iron Ore Mainline rail corridor	28/08/2010
Heliotropium muticum	3	Shrub to 0.5 m with white flowers.	Sand plains of red sandy loam with quartz stones, gravel and ?calcrete or weathered quartz. Burnt c. 2 years ago.	High open shrubland of Acacia inaequilatera over shrubland of A. ancistrocarpa and A. stellaticeps over open hummock grassland of Triodia epactia and T. lanigera.	one plant.		Newman Well, ca. 30 km S of Port Hedland adjacent to the BHP Billiton Iron Ore Mainline rail corridor	28/08/2010
Heliotropium muticum	3	Shrub to 1.2 m.	Sandplain of brown orange loamy sand.	Open Shrubland of Acacia colei var. colei over Low Open Shrubland of Corchorus lasiocarpus subsp. lasiocarpus, Sida sp. Pilbara (A.A. Mitchell PRP 1543), Heliotropium muticum and Indigofera monophylla over Very Open Hummock Grassland of Triodia epactia o			Port Hedland, Pilbara	28/06/2011
Heliotropium muticum	3	Herb to 0.3 m. Flower white.	Alluvial plain, which has been recently burnt.	Low open Corymbia zygophylla woodland over open Acacia ancistrocarpa, Acacia inaequilatera, Acacia tumida var. pilbarensis and Acacia sericophylla shrubland over Acacia stellaticeps low open shrubland over Triodia epactia and Triodia lanigera hummock gra			Port Hedland, Pilbara	05/05/2011
Heliotropium muticum	3	Herb to 0.3 m. Flower white.	Flood plain.	Low open Corymbia zygophylla woodland over open Acacia ancistrocarpa, Acacia inaequilatera, Acacia tumida var. pilbarensis and Acacia sericophylla shrubland over Acacia stellaticeps low open shrubland over Triodia epactia and Triodia lanigera hummock gra			Port Hedland, Pilbara	02/05/2011
Heliotropium muticum	3	Herb to 0.15 m. Flower white.	Sandplain.	Scattered low Owenia reticulata trees over Acacia tumida var. pibarensis and Acacia colei var. colei shrubland over low Acacia stellaticeps shrubland over Triodia epactia hummock grassland/low Acacia stellaticeps shrubland over Triodia epactia hummock gr			Port Hedland, Pilbara	03/05/2011
Heliotropium muticum	3		Floodplain. Red silty sand.	Hummock grassland of Triodia basedowii, T. epactia and T. longiceps with emergent Acacia stellaticeps.			70 km S of Port Hedland on Great Northern Highway and ca 500 m E of the Great Northern Highway, between Highway and Turner River	10/07/2008
Heliotropium muticum	3				1 plant.	Condition of plants: healthy. Potential threats: clearing by mining company, presence of invasive species nearby, grazing by wildlife and cattle.	North Star	05/04/2011
Heliotropium muticum	3				1 plant.	Condition of plants: healthy. Potential threats: clearing by mining company, presence of invasive species nearby, grazing by wildlife and cattle. Percentage in flower: 5 %.	North Star	18/08/2011
Heliotropium muticum	3	A grey-green scabrous herb or spreading shrub, c. 30 cm tall. Leaves are small and ovate, flowers white with very short but stiff, spiny hairs.			150 plants seen.		C. 15 km SW of Whim Creek	13/07/2014
Heliotropium muticum	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.	Corymbia hamersleyana and Grevillea pyramidalis subsp. leucadendron woodland over Triodia angusta and Triodia wiseana hummock grassland.	single plant seen.		C. 14 km SW of Whim Creek	13/07/2014
Heliotropium muticum	3	A grey-green scabrous herb or spreading shrub, c. 30 cm tall. Leaves small and ovate, flowers white with very short but stiff, spiny hairs.	Plain with red brown loamy sand over ?ironstone/quartz.	Acacia inaequilatera, Acacia pyrifolia var. pyrifolia and Acacia ancistrocarpa shrubland; over Triodia lanigera, Triodia epactia hummock grassland.	single plant seen.		C. 9 km E of Coppermine Hills	11/07/2014
Heliotropium muticum	3	Ascending to spreading perennial herb to 0.3 m high. White flowers.	Sand plain with orange brown sand.	Low shrubland/grassland of Acacia trudgeniana and A. ancistrocarpa scattered shrubs, low scattered shrubs, over Triodia lanigera hummock grassland.	1 plant.		Mining tenement, along BHP railway line, c. 19 km SE of Port Hedland	08/05/2008
Heliotropium muticum	3	Perennial herb, c. 30 cm tall.	Flat plain, red / brown sand.	Isolated Corymbia candida trees over sparse Acacia stellaticeps, Pluchea tetranthera and Bonamia erecta shrubland over sparse Triodia schinzii hummock grassland.	uncommon.		S of rail loop - c. 3 km E of South Hedland	02/04/2017
Heliotropium muticum	3	Shrub, <30 cm high. White flowers.	Sandy plain. Red sand over granite.	Hummock Grassland of Triodia schinzii and T. lanigera with a Sparse Low Shrubland of Bonamia rosea and Ptilotus astrolasius and Scattered Low Trees of Corymbia hamersleyana and Acacaia inaequilatera.	1 plant.		46 km S of Port Hedland, 6 km N of Indee Road on Indee Station, Pilbara	07/07/2011
Heliotropium muticum	3	Small shrub, 20 cm high x 20 cm wide. White flowers.	Sandy plain. Red sandy soil over granite.		2 plants.		140 km S of Port Hedland near Great Northern Highway, S of Yandeyarra Road, Pilbara	28/10/2010
Heliotropium muticum	3	Small erect shrub, short-lived perennial, 30 cm high. White flowers.	Flat. Red sand over ironstone.	Hummock grassland of Triodia epactia and T. schinzii with a sparse low shrubland of Acacia acradenia and scattered low trees of Corymbia hamersleyana.	1 plant.		[1.5 km W of Pippingarra Road, 17 km S of Indee Road, Pilbara]	25/07/2011
Heliotropium muticum	3	Low perennial herb.	On plain with red-orange sand.	Acacia inaequilatera, A. colei var. colei tall sparse shrubland; Corchorus elachocarpus, Tephrosia sp. NW Eremaean (S. van Leeuwen et al. PBS 0356) low sparse shrubland; Triodia epactia, T. lanigera hummock grassland.	1 mature plant.		Wallareenya Station and Strelley Station, ca. 30 km SE of Port Hedland	25/05/2018

Taxon	Cons_Code	Plant_Desc	Site	Vegetation	Frequency	Notes	Locality	Date
Heliotropium parviantrum	1						C. 9.9 km N of Great Northern Highway, 4.6 km W of De Grey Road at Pardoo minesite	10/03/2011
Nicotiana umbratica	3		Granite boulder outcrop.	Terminalia canescens, Mallotus nesophilus, Hibiscus goldworthii.			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
Nicotiana umbratica	3	Glandular annual herb with long tubular flowers.	Granite outcrops.	Triodia grassland with scattered trees and subshrubs.			Road to Nullagine, 2-5 km from junction with Great Northern Highway, Pilbara	21/09/1995
Nicotiana umbratica	3	Decumbent herbaceous shrub, 20 cm high. White flowers.	Granite dome/tor. Orange sand over granite.	Low open woodland of Terminalia canescens with a very open hummock grassland of Triodia epactia. Associated species: Acacia tumida, A. colei, A. retivenea and Cymbopogon ambiguus.	5 plants.		19 km SE of Wodgina, 11 km E of Great Northern Highway, Pilbara	30/03/2011
Nicotiana umbratica	3	Shrub to 0.4 m; white flowers.	Growing in between granite boulders.	With Acacia tumida subsp. pilbarensis, Triodia epactia, Mallotus nesophilus, Indigofera virens and Bulbostylis burbidgeae.	8Ã‚Â plants.		Kangan Station, ca. 100 km S of South Hedland	08/07/2015
Phyllanthus hebecarpus	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
Phyllanthus hebecarpus	3						Near the Port Hedland to Newman Highway ca 250 km NW of Newman	30/04/2009
Phyllanthus hebecarpus	3	Shrub to 0.5 m.	Growing in between granite boulders.	With Acacia orthocarpa, Triodia epactia, Indigofera virens, Cenchrus ciliaris and Senna glutinosa subsp. glutinosa.	25Ã‚Â plants.		Kangan Station. ca. 100 km S of South Hedland	10/07/2015
Ptilotus mollis	4	Dense shrub to 0.5 m, flowering. Flowers white.	Single ridge line. Skeletal red/brown clay loam. Ironstone outcropping.		30+ plants.		Ca 150 km SE of Port Hedland, 50 km E of the Great Northern Highway on western edge of Panorama Station	19/08/2010
Quoya zonalis	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 Terminalia canescens and Acacia tumida var. pilbarensis over hummock grassland of Triodia longiceps, with Eriachne mucronata, Sarcostemma viminale subsp. australe.	ca 27 plants seen.		? 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	30/08/2010
Quoya zonalis	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 Triodia spp.	approximately 50 plants seen.		? Unallocated Crown Land, ca 7 km S of Strelley Station southern boundary, ca 12 km E of Wallareenya Station eastern boundary, E of the Strelley River, ca 90 km SSE of Port Hedland	30/08/2010
Quoya zonalis	T				19 plants.	Condition of plants: healthy. Potential threats: clearing by mining company, presence of invasive species nearby, grazing by wildlife and cattle.	North Star	04/07/2011
Quoya zonalis	T				13 plants.	Condition of plants: healthy. Potential threats: clearing by mining company, presence of invasive species nearby, grazing by wildlife and cattle.	North Star	04/07/2011
Quoya zonalis	T		Granite or conglomerate steep slope. Skeletal red clay loam.		11 plants.		Unallocated Crown Land, ca 3 km S of Strelley Station southern boundary, ca 13 km W of Panorama Station western boundary, just E of the Strelley River, ca 90 km SS-E of Port Hedland	29/05/2013
Quoya zonalis	T		Granite or conglomerate steep slope. Skeletal red clay loam.		11 plants.		Unallocated Crown Land, ca 3 km S of Strelley Station southern boundary, ca 13 km W of Panorama Station western boundary, just E of the Strelley River, ca 90 km SS-E of Port Hedland	29/05/2013
Quoya zonalis	T		Mid slope of very steep ironstone hill slope. Red brown sandy loam.				Ca 7 km S of Strelley Station southern boundary, ca 12 km E of Wallareenya Station eastern boundary, E of the Strelley River, ca 90 km SSE of Port Hedland	22/09/2011
Quoya zonalis	T		S side of small gully. Steep. Skeletal clay loam over sandstone/conglomerate.		6 plants.		?Unallocated Crown Land, ca 5 km S of Strelley Station southern boundary, ca 15 km W of Panorama Station western boundadry, just E of the Strelley River. Ca 90 km SE of Port Hedland	28/05/2010
Quoya zonalis	T		Slope. Well drained red sandy-clay over sandstone.		44 mature plants.	Clearing by mining company, Presence of invasive species nearby. Grazing.	North Star, near Marble Bar in Pilbara	12/04/2012
Quoya zonalis	T		Sandstone or conglomerate slope. Very steep. Skeletal red clay loam.		11 plants.		?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	26/05/2010
Quoya zonalis	T	Shrub to 1Ã‚Â m.	Growing on rocky ironstone hill slopes. Recently burnt.	With Triodia wiseana.	6 plants.		North Star mining area	24/09/2015
Quoya zonalis	T		Very steep low hills. Shallow, very gravelly, dark reddish brown loamy sand. 1-2 years since last fire.				110 km SSE of Port Hedland, 31 km SW of Great Northern Highway	04/09/2017
Quoya zonalis	T	In very early flower, mostly buds present.	Base of small breakaway on the crest of a broad gently undulating ironstone plateau, high in the landscape. Skeletal soils over massive ironstone outcropping.	Tall open shrubland of Acacia orthocarpa, Acacia tumida and Grevillea wickhamii over Triodia epactia and Triodia basitricha hummock grassland.	total of 16 plants.		Atlas Iron Abydos Minesite (adjacent to Cove deposit), on UCL, 3 km S of southern boundary of Strelley Station, 13 km E of western boundary of Wallareenya Station, 68 km W of Marble Bar	15/07/2017
Quoya zonalis	T	Erect sparsely branched shrub to 0.8 m high. Immature flower buds present.	Steep ironstone gorge. Skeletal red/brown clay.	Open tall shrubland of Acacia tumida var. pilbarensis, Grevillea wickhamii over hummock grassland of Triodia epactia.			C. 70 km W of Marble Bar, 37 km E of the Great Northern Highway	03/06/2015
Rothia indica subsp. *australis*	3	Prostrate annual herb 0.3 m high, densely covered in spreading hairs.					C. 43 km S of Port Hedland	06/04/2011
Rothia indica subsp. *australis*	3	Prostrate annual herb 0.3 m high, densely covered in spreading hairs.					C. 43 km S of Port Hedland	06/04/2011
Rothia indica subsp. *australis*	3		Edge of minor drainage line. Red sandy clay.	Open woodland of Corymbia flavescens, over scattered shrubs including Acacia acradenia and A. colei, over grasses dominated by Chrysopogon fallax and Triodia epactia.			On DeGrey Station, ca 70 km E of Port Hedland on Great Northern Highway then ca 3 km N on main access road to proposed Atlas Iron Pardoo minesite	13/04/2007
Rothia indica subsp. *australis*	3	Prostrate annual herb 0.3 m high, densely covered in spreading hairs.					C. 43 km S of Port Hedland	06/04/2011
Rothia indica subsp. *australis*	3	Prostrate annual, herb, to 0.3 m high, densely covered in spreading hairs.	Outcrop. Red / brown clay loam.	Tall sparse shrubland (Acacia tumida) over low shrubland (Corchorus incanus subsp. incanus, Solanum phlomoides) grassland (Triodia epactia, Eragrostis eriopoda).			C. 13.1 km S of Great Northern Highway, 16.4 km E of Great Northern Highway and 14 km SE of South Hedland	06/05/2011
Rothia indica subsp. *australis*	3		Edge of creekline. Red sandy clay.	Grassland of Triodia epactia and Chrysopogon fallax, with scattered annual herbs.	1 plant only seen.		On DeGrey Station, ca 70 km E of Port Hedland on Great Northern Highway then ca 3 km N on old track before main track to proposed Atlas Iron Pardoo minesite. Adjacent to Connie deposit	02/05/2008
Rothia indica subsp. *australis*	3		Edge of broad drainage system, on loamy plain. Red clay loam.	Open woodland of Eucalyptus victrix, Corymbia flavescens and Bauhinia cunninghamii over scattered shrubs including Acacia inaequilatera, over grasses dominated by Triodia epactia and Cenchrus ciliaris.			On DeGrey Station, ca 70 km E of Port Hedland on Great Northern Highway then ca 15 km N on main access road to proposed Atlas Iron Pardoo minesite	30/04/2008
Rothia indica subsp. *australis*	3		Edge of creekline. Red clay loam.	Open woodland of Eucalyptus victrix, Corymbia flavescens and Bauhinina cunninghamii over scattered shrubs including Acacia inaequilatera, over grasses dominated by Triodia epactia and Cenchrus ciliaris.	ca 40 plants in area, generally uncommon.		On DeGrey Station, ca 70 km E of Port Hedland on Great Northern Highway then ca 15 km N on main access road to proposed Atlas Iron Pardoo minesite	30/04/2008
Rothia indica subsp. *australis*	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.	Associated species: Corymbia flavescens, Owenia reticulata, Triodia epactia, Acacia acradenia and Acacia ? colei.	only a few plants in undisturbed vegetation, generally growing semi- erect to weakly ascending through the vegetation.	Most plants of road verge in drain where water obviously collects, tend to grow prostrate.	De Grey station, ca 70 km E of Port Hedland, ca 5 km N of Great Northern Highway, adjacent to the Ord Ranges	16/06/2008
Rothia indica subsp. *australis*	3		Edge of minor drainage line. Red sandy clay.	Open woodland of Corymbia flavescens, over scattered shrubs including Acacia acradenia and A. colei, over grasses dominated by Chrysopogon fallax and Triodia epactia.	ca 100 plants on road verge, few in undisturbed vegetation.		On DeGrey Station, ca 70 km E of Port Hedland on Great Northern Highway then ca 3 km N on main access road to proposed Atlas Iron Pardoo minesite	02/05/2008
Rothia indica subsp. *australis*	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.	Acacia inaequilatera, Acacia colei var. colei scattered tall shrubs over Triodia epactia, Cenchrus ciliaris, Chrysopogon fallax. Associated species: Aristida hygrometrica, Cleome viscosa, Triodia secunda, Pluchea tetranthera.		Recorded at few other locations within 1300 m in the survey area. Occurred over large areas in Triodia epactia hummock grasslands at those locations. Formed a verge open herbland at the collection location.	80 m E of Beebingarra Creek, 1200 m N of Great Northern Highway, c. 20 km E of Port Hedland	09/03/2011
Rothia indica subsp. *australis*	3	Prostrate annual herb 0.3 m high, densely covered in spreading hairs.					C. 67 km S of Port Hedland	09/04/2011
Seringia exastia	T	Shrub 60 - 80 cm high. Flowers lavender.	Growing on verge of dirt track in red sand.				'26 Mile' N of Hedland	17/06/1981
Sida sp. Barlee Range (S. van Leeuwen 1642)	3	Very open shrub to 1 m high with yellowish indumentum, apparently not consistent, corolla pale yellow.		With Triodia epactia, Acacia inaequilatera, Eragrostis eriopoda and Mollugo molluginea.	common on sand plain.		Pilbara, Turner River, c. 27 km due SSW of Port Hedland	23/08/2004
Stylidium weeliwolli	3	Annual herb 0.1 - 0.25 m high.					C. 55 km S of Port Hedland	09/04/2011
Stylidium weeliwolli	3	Erect herb, 15 cm high. Purple flowers.	Creek edges. Brown-white sand.	Open Woodland of Eucalyptus camaldulensis and Melaleuca argentea with a High Shrubland of Acacia tumida var. pilbarensis and A. colei and an Open Shrubland of mixed Melaleuca spp.	100 plants.		[17 km SE of Wodgina, 11 km E of Great Northern Highway, Pilbara]	29/03/2011
Tephrosia rosea 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.	Very sparse shrubs of Acacia ? colei over low shrubland of Acacia stellaticeps, Corchorus sp. over sparse grassland of Aristida hygrometrica.	21-50 plants.	Only occurs in the disturbed road verge, absent from adjacent undisturbed areas with similar vegetation.	Road verge of Great Northern Highway, ca 1.9 km SW along the highway from Finucane Road, ca 8.7 km S of Port Hedland, South Hedland	07/09/2010
Tephrosia rosea 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.	Shrubland of Tephrosia rosea var. venulosa with very sparse shrubs of Crotalaria cunninghamii and Aerva javanica over grassland of Cenchrus ciliaris with very sparse Corynotheca sp., Tribulus occidentalis and Spinifex longifolius.	100-200 plants.	The density of indumentum, leaflet shape and size all show a high amount of variation within a population.	W end of Finucane Island, 90 m WNW of the carpark, 4.3 km W of Port Hedland	06/09/2010
Tephrosia rosea var. Port Hedland (A.S. George 1114)	1		Plain.	Acacia stellaticeps low shrubland over Triodia epactia, T. secunda hummock grassland.			14.7 km SW of Port Hedland, 13.7 km W of South Hedland and 56.7 km E-NE of Reefs Island	14/01/2010
Tephrosia rosea 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.	Shrubland of Tephrosia rosea var. venulosa with very sparse shrubs of Crotalaria cunninghamii and Aerva javanica over grassland of Cenchrus ciliaris with very sparse Corynotheca sp., Tribulus occidentalis and Spinifex longifolius.	100-200 plants.	The density of indumentum, leaflet shape and size all show a high amount of variation within a population.	West end of Finucane Island, 90 m WNW of the car park, 4.3 km W of Port Hedland	06/09/2010
Tephrosia rosea var. Port Hedland (A.S. George 1114)	1	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).	First coastal du ne from beach. Tan-dark yellow deep sand.	Coastal heath with Spinifex longifolius, Crotalaria, Oenothera ?. Cenchrus ciliaris, kapok.	abundant.		Finucane Island, just beyond boat launch area	30/05/2011
Tephrosia rosea 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 Acacia stellaticeps and A. ampliceps over scattered hummock grasses of Triodia schinzii, T. secunda and T. epactia over scattered tussock grasses of Eriachne obtusa, Aristida contorta and Cenchrus ciliaris.	6-20 plants.		Ca 6 km S of Port Hedland	24/04/2009

Taxon	Cons_Code	Plant_Desc	Site	Vegetation	Frequency	Notes	Locality	Date
Tephrosia rosea var. Port Hedland (A.S. George 1114)	1	Erect shrub 0.4 m high. FLowers red - purple.	Plain. Brown - orange loam.	Low shrubland, grassland. Acacia colei var. colei scattered tall shrubs over Acacia stellaticeps low open shrubland over Triodia epactia hummock grassland over Eriachne obtusa, Panicum decompositum var. decompositum very open tussock grassland over an op	6-2 plants.	ENV. CS 76	ca 5.5 km S of Port Hedland	21/07/2009
Tephrosia rosea var. Port Hedland (A.S. George 1114)	1	Erect shrub 0.4 m high. Flowers red.	Plain. Brown - orange loam.	Grassland. Triodia secunda, Triodia epactia hummock grassland.	6-20 plants.	ENV PH 12	ca 6 km SW of Port Hedland	28/07/2009
Tephrosia rosea var. Port Hedland (A.S. George 1114)	1		Roadside plain.	Triodia epactia open hummock grassland.			On eastern side of Finucane Road, 8 km northwest from intersection with Great Northern Highway	13/04/2007
Tephrosia rosea 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 Spinifex longifolius, Crotalaria, Oenothera ?, Cenchrus ciliaris, kapok.	abundant.		Finucane Island, just beyond boat launch area	30/05/2011
Tephrosia rosea var. Port Hedland (A.S. George 1114)	1	Erect open shrub, 50 cm high.	Sandy plain. Red sand.	Triodia schinzii open hummock grassland, with Acacia stellaticeps sparse low shrubland.	1 plant.		Directly E of Port Hedland Airport	13/10/2011
Tephrosia rosea 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.	T. rosea var. a (coll. no. 269).			Finucane Island	15/07/1981
Tephrosia rosea 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.	T. rosea var b. (coll. no. 270).			Finucane Island	15/07/1981
Tephrosia rosea 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
Tephrosia rosea 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 Acacia stellaticeps and A. ampliceps over scattered hummock grasses of Triodia schinzii, T. secunda and T. epactia over scattered tussock grasses of Eriachne obtusa, Aristida contorta and *Cenchrus ciliaris.	2-5 plants.		Ca 6 km S of Port Hedland	24/04/2009
Tephrosia rosea var. Port Hedland (A.S. George 1114)	1	Flowers maroon.	Growing in sand near creek crossing				Peeawah River, 62 miles W of Port Hedland, N.W. Coastal Highway	27/08/1960
Tephrosia rosea var. Port Hedland (A.S. George 1114)	1						Fortescue district, Port Hedland, Finucane Island	04/08/1974
Tephrosia rosea 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 Acacia stellaticeps, Corchorus sp., Tephrosia rosea and Triumfetta sp. over sparse grassland of Cenchrus ciliaris and Eragrostis 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
Tephrosia rosea 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
Tephrosia rosea 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
Tephrosia rosea 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 Spinifex longifolius, Crotalaria, Oenothera ?, Cenchrus ciliaris, kapok.	abundant.		Finucane Island, just beyond boat launch area	30/05/2011
Tephrosia rosea 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 Tephrosia rosea var. venulosa over grassland of Cenchrus ciliaris.	300 individuals.		Ca 5 km NW of Port Hedland	29/01/2010
Tephrosia rosea 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.	T. rosea var. a (coll. no. 269).			Finucane Island	15/07/1981
Terminalia supranitifolia	3	Spreading tangled shrub or tree 1.5-3 m high.					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
Terminalia supranitifolia	3		Drainage line alongside of hill. Red brown sandy loam.	Open tall Eucalypts over open shrubland over grassland.			Ca 4 km E of Great Northern Highway and ca 96 km S of Port Hedland	07/03/2012
Terminalia supranitifolia	3	Tangled shrub/small tree to 2 m, not flowering.	Crest of ridge. Skeletal clay loam over ironstone.		2 plants seen.		Ca 94 km S of Port Hedland, 3.5 km E of Great Northern Highway on Kangan Station	30/08/2010
Terminalia supranitifolia	3	Spreading tangled shrub or tree 1.5-3 m high.	Hilltop - precipice. Brown clay loam.	Triodia epactia, Triodia wiseana, Acacia acradenia.			ca 5.55 km SW of Wondgina Airport, 7.1 km W of Great Northern Highway and 36.9 km NW of Indee	13/12/2012
Terminalia supranitifolia	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.				Near Wodgina mining area (Kangan Station), ca. 6 km W of the Great Northern Highway at ca. 76 km S of the intersection with North West Coastal Highway, 95 km S of Port Hedland	04/04/2019
Triodia basitricha	3		Crest of range. Skeletal clay loam over ironstone.	With Acacia tumida var. pilbarensis, Grevillea wickhamii, Acacia ptychophylla.			?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
Triodia chichesterensis	3	Spinifex.	Gravelly loam.	Acacia - Grevillea open shrubland/ hummock grassland.			96 km S of Port Hedland on Wittenoom Road	29/04/1977
Triodia chichesterensis	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
Triodia chichesterensis	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 I751, 11.5 km NE of old Tabba Tabba Station Homestead, Port Hedland,	26/08/1997
Triodia chichesterensis	3	Tufted grass, 0.2 m high, in flower.					Strelley pastoral lease, ca. 50 km NW of Marble Bar	16/05/2019
Triodia chichesterensis	3	Hummock grass.	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. >400 mature plants.		Wallareenya Station and Strelley Station, ca. 30 km SE of Port Hedland	21/05/2018
Triodia chichesterensis	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 Acacia acradenia and Acacia inaequilatera over hummock grassland of Triodia brizoides and Triodia wiseana.	uncommon.		Ca. 3.4 km SSW of the MRL Wodgina mine site, ca. 4.2 km W of Great Northern Highway	26/04/2018
Triodia chichesterensis	3	Hummock grass.	Brown clay-loam soil with quartzite.	Corymbia hamersleyana low open woodland; Acacia ancistrocarpa, A. inaequilatera, Indigofera monophylla mid/low sparse shrubland; Bonamia pilbarensis, Triodia chichesterensis, T. epactia herbland/hummock grassland.	ca. >500 mature plants.		Wallareenya Station and Strelley Station, ca. 30 km SE of Port Hedland	21/05/2018
Triodia chichesterensis	3	Hummock grass.	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. >100 mature plants.		Wallareenya Station and Strelley Station, ca. 30 km SE of Port Hedland	22/05/2018
Triodia chichesterensis	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 Acacia acradenia over low hummock grassland of Triodia wiseana, Triodia lanigera and Triodia chichesterensis.	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
Triodia chichesterensis	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 Corymbia hamersleyana over tall sparse shrubland of Acacia inaequilatera over low sparse shrubland of Corchorus parviflorus over low hummock grassland of Triodia chichesterensis and Triodia epactia.	dominant.	Growing with Triodia lanigera, 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
Triodia chichesterensis	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. Acacia inaequilatera, Cleome viscosa, Bonamia, Hybanthus.	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
Triodia chichesterensis	3	Hummocks 30 cm tall, inflorescences 1 m tall.	Flat plain, light orange sandy soil.	Associated vegetation: Acacia inaequilatera, Cenchrus ciliaris, Acacia ? eriopoda, Senna.	small patches only amongst T. lanigera.		71 km S on Pippingarra Road, North Pilbara region	19/03/2013
Vigna triodiophila	3	Fine, sprawling herb with yellow flowers.	Among dolerite boulders on very steep upper slope. Stony red-brown clay loam.	Low isolated trees of Corymbia hamersleyana over mid sparse shrubland of Acacia acradenia, Acacia inaequilatera and Grevillea wickhamii subsp. hispidula over low hummock grassland of Triodia wiseana and Triodia epactia.	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
Dasycercus 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
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
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 cobourgianus	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 sahulensis	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
Mapping Western Australia's biodiversity

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
TOTAL	**499**	**1379**

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

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

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

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

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

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

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

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

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

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

NatureMap
Mapping Western Australia's biodiversity

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
TOTAL	**718**	**11871**

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

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

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

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

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

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312.	24368	*Eurostopodus argus (Spotted Nightjar)*			
313.	25621	*Falco berigora (Brown Falcon)*			
314.	24471	*Falco berigora subsp. berigora (Brown Falcon)*			
315.	25622	*Falco cenchroides (Australian Kestrel, Nankeen Kestrel)*			
316.	24472	*Falco cenchroides subsp. cenchroides (Australian Kestrel, Nankeen Kestrel)*			
317.	25623	*Falco longipennis (Australian Hobby)*			
318.	24041	*Felis catus (Cat)*	Y		
319.		*Filicampus tigris*			
320.		*Flosculariidae sp.*			
321.	25327	*Fordonia leucobalia (White-bellied Mangrove Snake)*			
322.		*Fragilaria capucina Desm.*			
323.		*Fragilaria capucina var. vaucheriae (kütz.) lange-bertalot*			
324.		*Fragilaria ulna (Nitz.) Lange Bertalot*			
325.	25727	*Fulica atra (Eurasian Coot)*			
326.	25301	*Furina ornata (Moon Snake)*			
327.	25730	*Gallirallus philippensis (Buff-banded Rail)*			
328.	24765	*Gallirallus philippensis subsp. mellori (Buff-banded Rail)*			
329.	42314	*Gavicalis virescens (Singing Honeyeater)*			
330.	24956	*Gehyra pilbara*			
331.	24958	*Gehyra punctata*			
332.	24957	*Gehyra purpurascens*			
333.	24959	*Gehyra variegata*			
334.	24401	*Geopelia cuneata (Diamond Dove)*			
335.	24402	*Geopelia humeralis (Bar-shouldered Dove)*			
336.	25585	*Geopelia striata (Zebra Dove)*			
337.	24403	*Geopelia striata subsp. placida (Peaceful Dove)*			
338.	24404	*Geophaps plumifera (Spinifex Pigeon)*			
339.		*Gerres subfasciatus*			
340.	24276	*Gerygone tenebrosa (Dusky Gerygone)*			
341.		*Glossamia aprion*			
342.		*Glyptophysa sp*			
343.		*Gomphodella sp. 2 (PSS)*			Y
344.		*Gomphonema parvulum (Kütz.) Kütz.*			
345.	24443	*Grallina cyanoleuca (Magpie-lark)*			
346.		*Grayenulla waldockae*			
347.	24484	*Grus rubicunda (Brolga)*			
348.	25627	*Haematopus fuliginosus (Sooty Oystercatcher)*			
349.	24487	*Haematopus longirostris (Pied Oystercatcher)*			
350.	24293	*Haliaeetus leucogaster (White-bellied Sea-Eagle)*			
351.	25541	*Haliastur indus (Brahminy Kite)*			
352.	24295	*Haliastur sphenurus (Whistling Kite)*			
353.		*Halicyclops (Rochacyclops) calm*			
354.		*Haliplus sp.*			
355.		*Halophryne diemensis*			
356.		*Hantzschia amphioxys (Ehr.) Grun.*			
357.		*Hemicordulia tau*			
358.	25232	*Hemidactylus frenatus (Asian House Gecko)*	Y		
359.		*Herklotsichthys koningsbergeri*			
360.		*Herklotsichthys lippa*			
361.	24633	*Heteromunia pectoralis (Pictorella Mannikin)*			
362.	24961	*Heteronotia binoei (Bynoe's Gecko)*			
363.	24962	*Heteronotia spelea (Desert Cave Gecko, Pilbara Cave Gecko)*			
364.		*Hexarthra cf brandorffi (PSW)*			
365.	47965	*Hieraaetus morphnoides (Little Eagle)*			
366.	25734	*Himantopus himantopus (Black-winged Stilt)*			
367.	24491	*Hirundo neoxena (Welcome Swallow)*			
368.		*Holoplatys meda*			
369.		*Humphreyscandona fovea*			
370.		*Humphreyscandona waldockae*			
371.		*Hydra sp.*			
372.		*Hydrachna sp. 4/5 (PSW)*			
373.		*Hydraena barbipes*			
374.	25363	*Hydrelaps darwiniensis*			
375.		*Hydrobiidae sp P1 (not assimineid) (PSW)*			
376.		*Hydrochus burdekinensis*			
377.		*Hydrochus sp. P1 (PSW)*			
378.		*Hydrodroma sp.*			
379.		*Hydroglyphus basalis*			
380.		*Hydroglyphus grammopterus (=trilineatus)*			
381.		*Hydroglyphus leai*			

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

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

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

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

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

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

Australian Government

Department of Agriculture, Water and the Environment

EPBC Act Protected Matters Report

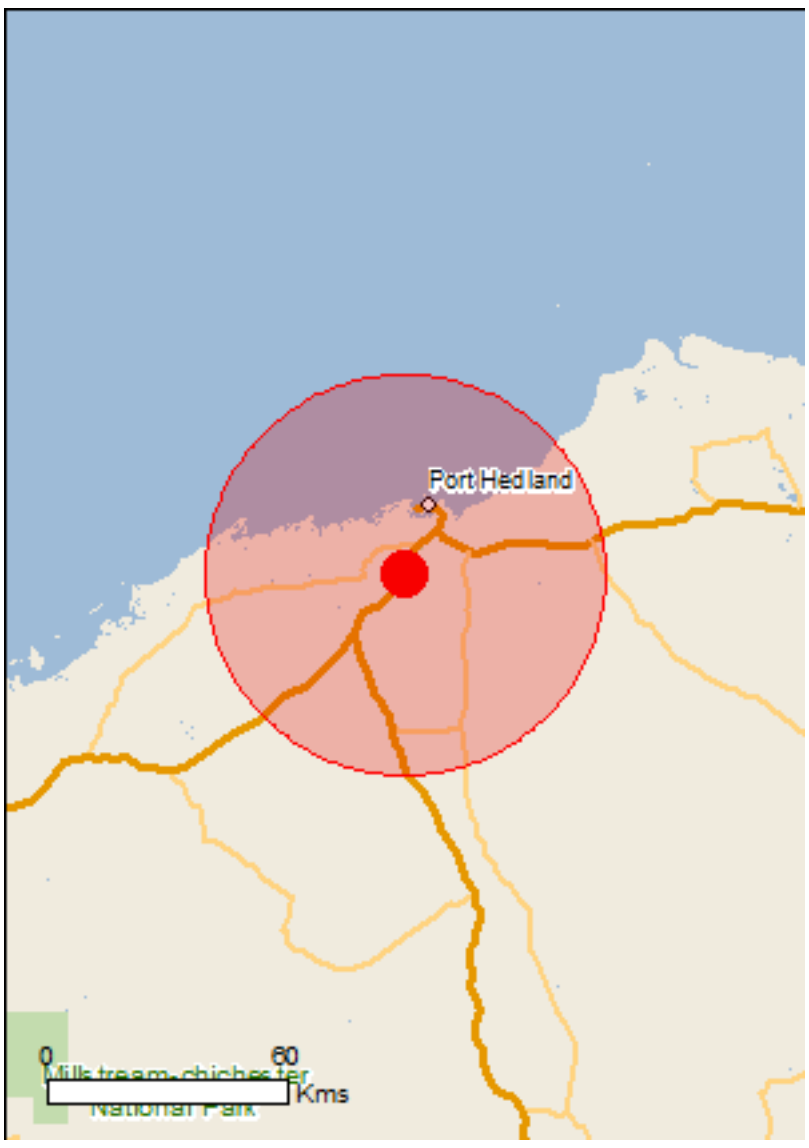
This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

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



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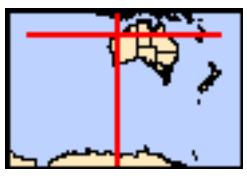
Coordinates

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.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	1
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	29
Listed Migratory Species:	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.

Commonwealth Land:	1
Commonwealth Heritage Places:	None
Listed Marine Species:	102
Whales and Other Cetaceans:	12
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None

Extra Information

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

State and Territory Reserves:	None
Regional Forest Agreements:	None
Invasive Species:	17
Nationally Important Wetlands:	1
Key Ecological Features (Marine)	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
Birds		
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Species or species habitat known to occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Species or species habitat known to occur within area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat known to occur within area
Limosa lapponica menzbieri Northern Siberian Bar-tailed Godwit, Russkoye Bar-tailed Godwit [86432]	Critically Endangered	Species or species habitat known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur

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

Name	Status	Type of Presence
Pristis zijsron Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Species or species habitat known to occur within area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area

Listed Migratory Species

[Resource Information]

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

Name	Threatened	Type of Presence
Migratory Marine Birds		
Anous stolidus Common Noddy [825]		Species or species habitat may occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Calonectris leucomelas Streaked Shearwater [1077]		Species or species habitat likely to occur within area
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat known to occur within area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area
Migratory Marine Species		
Anoxypristis cuspidata Narrow Sawfish, Knifetooth Sawfish [68448]		Species or species habitat likely to occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area
Carcharhinus longimanus Oceanic Whitetip Shark [84108]		Species or species habitat may occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding known to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
Dugong dugon Dugong [28]		Species or species habitat known to occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Breeding known to occur within area

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

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

Name	Threatened	Type of Presence
Numenius phaeopus Whimbrel [849]		Species or species habitat known to occur within area
Pandion haliaetus Osprey [952]		Breeding known to occur within area
Phalaropus lobatus Red-necked Phalarope [838]		Species or species habitat known to occur within area
Pluvialis fulva Pacific Golden Plover [25545]		Species or species habitat known to occur within area
Pluvialis squatarola Grey Plover [865]		Species or species habitat known to occur within area
Tringa brevipes Grey-tailed Tattler [851]		Species or species habitat known to occur within area
Tringa glareola Wood Sandpiper [829]		Species or species habitat known to occur within area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Species or species habitat known to occur within area
Xenus cinereus 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
Birds		
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area
Anous stolidus Common Noddy [825]		Species or species habitat may occur within area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardea ibis Cattle Egret [59542]		Species or species habitat may occur within

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

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

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

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

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

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

Whales and other Cetaceans

[Resource Information]

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

Name	Status	Type of Presence
		within area
Tursiops truncatus s. str. 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 Resouces 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 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
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
Plants		
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
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 may occur within area

Nationally Important Wetlands	[Resource Information]
Name	State
Leslie (Port Hedland) Saltfields System	WA

Caveat

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

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

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

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

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

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

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

- migratory and
- marine

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

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

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

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

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

Coordinates

-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.

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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 EBPC Act, VU = listed as Vulnerable under the EBPC 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	Prefered Habitat	Habitat occurs within the Survey Area	Pre-Survey Likelihood of Occurrence	Post-Survey Likelihood of Occurrence
	DBCA	EPBC	NatureMap	PMST	DBCA						
Goodenia pallida	P1		X		X	35.9	Aug	Known only from type specimen. Red soils.	Possible	Low	Low
Helichrysum oligochaetum	P1		X		X	37.6	Aug to Nov	Red clay. Floodplains, depressions, alluvial plains.[2]	Yes	Medium	Low
Minuria tridens	P1	VU			X	95	Sep	South facing slopes, steep rocky cliffs, dolomite, limestone, calcrete-impregnated sandstone hills.[1]	No	Low	Low
Tephrosia rosea 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.2	No	Low	Low
Cladium procerum	P2				X	93.8	Nov	Coastal swamps, along watercourses, perennial pools.[2]	No	Low	Low
Euphorbia inappendiculata var. *inappendiculata*	P2				X	59.3	May, Aug	Red, brown clay or loam. Claypans, plains.[2]	Yes	Medium	Low
Ipomoea racemigera	P2				X	92.5	Mar - Aug	On sandy soils along watercourses.[2]	No	Low	Low
Paspalidium retiglume	P2				X	76.2	Mar - Sep	Cracking clay.[2]	Yes	Medium	Low
Pentalepis trichodesmoides subsp. *hispida*	P2				X	40.6	Aug - Sep	Summits and slopes of low hills below 1150 m, basalts.	Yes	Medium	Low
Teucrium pilbaranum	P2				X	91.6	May or Sep	Clay. Crab hole plain, river floodplains, margin of calcrete table.[2]	Yes	Medium	Low
Trianthema 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
Abutilon 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.[2]	No	Low	Low
Atriplex lindleyi subsp. *conduplicata*	P3		X		X	31.1	Jul	Saline soils, yellow bare sandy clay. Crabhole plains, salt flats, edges of saline swamps.[2]	No	Low	Low
Corchorus congener	P3		X		X	73.8	Apr - Oct	Sand, red sandy loam with limestone. Sand dunes, plains.[2]	No	Low	Low
Dolichocarpa sp. Hamersley Station (A.A. Mitchell PRP 1479)	P3		X		X	5.1	May - Oct	Seasonally inundated clays on gibber plains	Yes	Medium	Low
Eragrostis crateriformis	P3				X	61.3	Jan -Jul	Clayey loam or clay. Creek banks, run-on flats, depressions.[2]	No	Low	Low

[1] Department of Agriculture, Water and Environment (2020) [2]Western Australian Herbarium (2020)

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

[1] Department of Agriculture, Water and Environment (2020) [2]Western Australian Herbarium (2020)

Themeda 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.[2]	Yes	Medium	Low
Triodia basitricha	P3				X	93.8	Feb - Aug	Stony ground, gravelly hill, crests, hills, in gorges.[2]	No	Low	Low
Triodia pisoliticola	P3				X	93.3	Mar - Jun	Skeletal soils. Summit of mesas or other hills, midslopes and associated valleys.[2]	No	Low	Low
Vigna triodiophila	P3		X		X	15.9	Dec - Jun	Shallow red-brown clayey sand. Between rocks and on rockpiles	Yes	Medium	Low
Goodenia nuda	P4				X	92.2	Apr - Aug	Red brown clay loam, seasonally inundated clay soils, sand and scoured river beds. Drainage lines, floodplains, hillsides.[2]	Yes	Medium	Low
Livistona alfredii	P4				X	78	Nov - Dec	Edges of permanent pools, adjacent to watercourses.[2]	No	Low	Low
Rhynchosia bungarensis	P4		X		X	7.6	May - Dec	Pebbly, shingly coarse sand amongst boulders. Rock piles, gorges, river beds and adjacent alluvial soils.[2]	Yes	Medium	Low

[1] Department of Agriculture, Water and Environment (2020) [2]Western Australian Herbarium (2020)

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 EBPC Act, VU = listed as Vulnerable under the EBPC 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	Prefered Habitat	Habitat occurs within the Survey Area	Pre-Survey Likelihood of Occurrence	Post-Survey Likelihood of Occurrence
	DBCA	EPBC	NatureMap	PMST	DBCA						
Quoya zonalis	T	EN			X	93.7	Jul - Sep	Skeletal brown sandy loam. Steep rocky granite or sandstone conglomerate hill slopes.[2]	No	Low	Low
Acacia leeuweniana	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.[2]	No	Low	Low
Atriplex eremitis	P1				X	54.5	Aug	Known only from type specimen. Brown sand. Saline plain.	No	Low	Low
Heliotropium parviantrum	P1				X	67.6	Feb - Jun	Sandy soils. Flats, plains, rocky slopes.2	Yes	Medium	Low
Tephrosia rosea var. Port Hedland (A.S. George 1114)	P1		X		X	6.9	Jul - Sep	Pale red/yellow/brown sand. Sand plains.2	Yes	Medium	Low
Euphorbia inappendiculata var. *inappendiculata*	P2				X	99	May, Aug	Red, brown clay or loam. Claypans, plains.[2]	No	Low	Low
Gomphrena pusilla	P2		X		X	12	Mar - Apr	Fine beach sand. Behind foredune, on limestone.[2]	No	Low	Low
Abutilon 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.[2]	Yes	High	Medium
Bonamia oblongifolia	P3		X			9.9	Feb	Sandy or gravelly soils.2	Yes	Medium	Low
Dolichocarpa sp. Hamersley Station (A.A. Mitchell PRP 1479)	P3				X	99	May - Oct	Seasonally inundated clays on gibber plains	No	Low	Low
Eragrostis crateriformis	P3		X		X	5.5	Jan - May or Jul	Clayey loam or clay. Creek banks, depressions.[2]	No	Low	Low
Euphorbia clementii	P3				X	40.5	Jun	Gravelly hillsides, stony grounds.[2]	No	Low	Low
Gomphrena cucullata	P3				X	49.8	Feb - Apr	Red sandy loam, clayey sand. Open floodplains.[2]	No	Low	Low
Gomphrena leptophylla	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.[2]	No	Low	Low
Gymnanthera cunninghamii	P3		X		X	10.1	Jan - Dec	Sandy soils. In areas surrounding permanent or semi-permanent water courses, among rocks on Burrup Peninsula.[2]	No	Low	Low
Heliotropium muticum	P3		X		X	9.4	Aug	Flat sandplains, floodplains, calcareous plains with quartz over granite.[2]	Yes	Medium	Low

[1] Department of Agriculture, Water and Environment (2020) [2]Western Australian Herbarium (2020)

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

[1] Department of Agriculture, Water and Environment (2020) [2]Western Australian Herbarium (2020)

Appendix D
Inventory of Vascular Flora

Karratha Survey Area - Inventory of Vascular Flora

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

Karratha Survey Area - Inventory of Vascular Flora

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

Karratha Survey Area - Inventory of Vascular Flora

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

Karratha Survey Area - Inventory of Vascular Flora

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

Boodarie Survey Area - Inventory of Vascular Flora

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

Boodarie Survey Area - Inventory of Vascular Flora

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

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 (%)
Acacia xiphophylla	180	6
Scaevola spinescens	120	0.1
Maireana planifolia	100	0.1
Chrysopogon fallax	70	0.1
Enchylaena tomentosa var. tomentosa	60	0.1
**Malvastrum americanum*	50	0.1
Paraneurachne muelleri	50	0.1
Ptilotus exaltatus	45	0.1
Triodia epactia	40	8
Enteropogon ramosus	40	0.1
Indigofera trita	40	0.1
Rhagodia eremaea	40	0.1
Triumfetta clementii	40	0.1
Aristida contorta	30	3
Triodia wiseana	30	2
Abutilon lepidum	30	0.1
Eragrostis xerophila	30	0.1
Fimbristylis dichotoma	30	0.1
Rhynchosia minima	30	0.1
Salsola australis	30	0.1
**Cenchrus ciliaris*	20	8
Abutilon oxycarpum subsp. Prostrate (A.A. Mitchell PRP 1266)	20	0.1
Dysphania rhadinostachya subsp. rhadinostachya	20	0.1
Heliotropium inexplicitum	20	0.1
Sclerolaena densiflora	20	0.1
Solanum horridum	20	0.1
Boerhavia coccinea	15	0.1
Evolvulus alsinoides var. villosicalyx	15	0.1
Hibiscus sturtii var. campylochlamys	15	0.1
Sclerolaena costata	15	0.1
Paspalidium basicladum	10	0.1
Ptilotus astrolasius	10	0.1
Ptilotus helipteroides	10	0.1
Sida fibulifera	10	0.1
Sida sp.	10	0.1
Sporobolus australasicus	10	0.1
Xerochloa laniflora	10	0.1
Eriachne pulchella subsp. dominii	5	0.5
Bonamia pilbarensis	5	0.1
Dactyloctenium radulans	5	0.1
Euphorbia boophthona	5	0.1
Euphorbia vaccaria var. vaccaria	5	0.1
Ptilotus aervoides	5	0.1
Senna notabilis	5	0.1
Cynodon prostratus	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 (%)
Acacia inaequilatera	300	3
Acacia bivenosa	300	2
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	130	0.1
Trichodesma zeylanicum var. zeylanicum	100	0.1
Abutilon lepidum	70	0.5
Acacia marramamba	70	0.1
**Cenchrus ciliaris*	60	5
Themeda triandra	60	0.1
Diplopeltis eriocarpa	50	0.5
Indigofera monophylla	50	0.5
**Aerva javanica*	50	0.1
Boerhavia coccinea	50	0.1
Waltheria indica	50	0.1
Triodia epactia	40	40
Triodia wiseana	40	20
Euphorbia tannensis subsp. eremophila	40	0.1
Evolvulus alsinoides var. villosicalyx	40	0.1
Ptilotus auriculifolius	40	0.1
Ptilotus exaltatus	40	0.1
Rhynchosia minima	40	0.1
Aristida holathera var. holathera	30	0.1
Cassytha capillaris	30	0.1
Corchorus parviflorus	30	0.1
Crotalaria medicaginea var. neglecta	30	0.1
Indigofera trita	30	0.1
Melhania oblongifolia	30	0.1
Ptilotus helipteroides	30	0.1
Senna artemisioides subsp. oligophylla	30	0.1
Swainsona formosa	30	0.1
Alysicarpus muelleri	20	0.1
Corchorus tectus	20	0.1
Goodenia microptera	20	0.1
Phyllanthus maderaspatensis	20	0.1
Ptilotus axillaris	20	0.1
Senna notabilis	20	0.1
Solanum horridum	20	0.1
Triumfetta clementii	20	0.1
Hibiscus sturtii var. campylochlamys	10	0.1
Tribulus hirsutus	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 (%)
Senna glutinosa subsp. pruinosa	200	0.1
Acacia inaequilatera	160	0.1
Acacia pyrifolia var. pyrifolia	60	0.1
Senna glutinosa subsp. glutinosa	60	0.1
Sida sp. spiciform panicles (E. Leyland s.n. 14/8/90)	60	0.1
Triodia wiseana	40	40
Acacia bivenosa	40	0.1
Corchorus tectus	40	0.1
Indigofera monophylla	40	0.1
Ptilotus auriculifolius	40	0.1
Ptilotus exaltatus	40	0.1
Senna notabilis	40	0.1
Tribulus platypterus	40	0.1
Trichodesma zeylanicum var. zeylanicum	40	0.1
Diplopeltis eriocarpa	30	2
Abutilon lepidum	30	0.1
Dolichocarpa crouchiana	30	0.1
Cassytha capillaris	20	0.1
Hybanthus aurantiacus	20	0.1
Melhania oblongifolia	20	0.1
Peripleura virgata	20	0.1
Phyllanthus maderaspatensis	20	0.1
Rhynchosia minima	20	0.1
Hibiscus sturtii var. platychlamys	15	0.1
Solanum cleistogamum	15	0.1
Eriachne pulchella subsp. pulchella	10	0.1
Paspalidium clementii	10	0.1
Triumfetta clementii	10	0.1
Tephrosia sp. NW Eremaean (S. van Leeuwen et al. PBS 0356)	5	0.1
Tribulus hirsutus	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 herbland*

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

SPECIES LIST

Taxon	Height (cm)	Cover (%)
Acacia xiphophylla	250	0.1
Acacia pyrifolia var. pyrifolia	160	0.1
Senna glutinosa	140	0.1
**Cenchrus ciliaris*	70	15
**Cenchrus setiger*	70	5
Bothriochloa ewartiana	70	1
Chrysopogon fallax	60	5
Corchorus walcottii	60	0.1
Hybanthus aurantiacus	60	0.1
Trichodesma zeylanicum var. zeylanicum	60	0.1
Eriachne benthamii	50	70
Alysicarpus muelleri	50	1
Indigofera monophylla	50	0.1
Eragrostis xerophila	40	2
Dichanthium sericeum subsp. humilius	40	1
Indigofera trita	40	0.1
**Malvastrum americanum*	40	0.1
Ptilotus exaltatus	40	0.1
Triodia epactia	40	0.1
Rhynchosia minima	30	2
Chloris pectinata	30	0.1
Phyllanthus maderaspatensis	30	0.1
Gomphrena kanisii	20	0.1
Neptunia dimorphantha	20	0.1
Sida fibulifera	20	0.1
Fimbristylis dichotoma	10	0.1
Centipeda minima subsp. macrocephala	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 (%)
Aristida latifolia	70	0.1
Rhagodia eremaea	70	0.1
Chrysopogon fallax	50	0.1
Enchylaena tomentosa var. tomentosa	50	0.1
Eragrostis xerophila	40	50
Eriachne benthamii	40	0.1
**Malvastrum americanum*	40	0.1
Fimbristylis dichotoma	30	4
Sida fibulifera	30	2
Rhynchosia minima	30	1
Abutilon malvifolium	30	0.1
Centipeda minima subsp. macrocephala	30	0.1
Gomphrena kanisii	30	0.1
Phyllanthus maderaspatensis	30	0.1
Sclerolaena costata	30	0.1
Iseilema dolichotrichum	20	6
Ptilotus gomphrenoides	20	3
Lotus cruentus	20	2
Aristida contorta	20	0.1
Hibiscus brachysiphonius	20	0.1
Indigofera trita	20	0.1
Grona muelleri	10	0.1
Bulbostylis turbinata	5	0.1
Pluchea rubelliflora	5	0.1
Streptoglossa 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 (%)
Acacia inaequilatera	210	0.1
Chrysopogon fallax	150	2
Corchorus laniflorus	50	0.5
Acacia sericophylla	50	0.1
Acacia tumida var. pilbarensis	50	0.1
Aristida hygrometrica	50	0.1
Goodenia microptera	50	0.1
Indigofera monophylla	40	0.5
Ptilotus fusiformis	40	0.1
Waltheria indica	40	0.1
Aristida holathera var. holathera	40	20
Triodia epactia	40	14
Afrohybanthus aurantiacus	30	0.5
Bonamia pannosa	30	0.1
Cassytha capillaris	30	0.1
Crotalaria ramosissima	30	0.1
Hibiscus burtonii	30	0.1
Pluchea tetranthera	30	0.1
Ptilotus astrolasius	30	0.1
Solanum lasiophyllum	30	0.1
Trianthema pilosum	30	0.1
Senna notabilis	30	2
Corchorus sidoides subsp. vermicularis	30	1
Abildgaardia oxystachya	20	0.1
Leptosema anomalum	20	0.1
Ptilotus polystachyus	20	0.1
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	20	0.1
Trigastrotheca molluginea	20	0.1
Acacia stellaticeps	20	4
Bonamia alatisemina	20	3
Stackhousia intermedia	15	0.1
Convolvulaceae sp.	10	0.1
Yakirra australiensis var. australiensis	10	0.1
Bulbostylis barbata	10	1
Calandrinia stagnensis	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 herbland*

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

SPECIES LIST

Taxon	Height (cm)	Cover (%)
Acacia inaequilatera	310	0.1
Acacia sericophylla	190	0.1
Corymbia zygophylla	160	0.1
Chrysopogon fallax	80	0.5
Solanum lasiophyllum	60	0.1
Afrohybanthus aurantiacus	50	0.1
Bonamia erecta	50	0.1
Acacia tumida var. pilbarensis	50	3
Indigofera monophylla	40	0.5
Corchorus laniflorus	40	0.1
Digitaria brownii	40	0.1
Eragrostis eriopoda	40	0.1
Goodenia microptera	40	0.1
Hibiscus burtonii	40	0.1
Paraneurachne muelleri	40	0.1
Triodia lanigera	40	8
Aristida holathera var. holathera	40	2
Sida sp. Pilbara (A.A. Mitchell PRP 1543)	30	0.5
Corchorus sidoides subsp. vermicularis	30	0.1
Hibiscus leptocladus	30	0.1
Ptilotus astrolasius	30	0.1
Ptilotus fusiformis	30	0.1
Acacia stellaticeps	30	18
Senna notabilis	30	5
Triodia epactia	20	5
Bonamia alatisemina	20	3
Yakirra australiensis var. australiensis	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
Fire Age: 1-5 years, >10 years
Disturbance Type: None
Site Notes: Mainly burnt recently but includes a portion of longer unburnt vegetation

SPECIES LIST

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

SPECIES LIST

Taxon	Height (cm)	Cover (%)
Acacia stellaticeps	80	16
Pluchea tetranthera	60	0.1
Triodia epactia	40	35
Triodia lanigera	40	3
Cassytha capillaris	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		
AVIAN										
Apodidae	*Apus pacificus*	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	*Charadrius leschenaultii*	Greater Sand Plover	VU	VU, MI, MA	X	X	X	X	Low	No suitable habitat present (beaches, tidal flats, sandy substrates).
	Charadrius mongolus	Lesser Sand Plover	EN	EN, MI, MA	X	X	X	X	Low	No suitable habitat present (beaches, tidal flats, muddy substrates).
	Charadrius veredus	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.
	Pluvialis fulva	Pacific Golden Plover	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (coastal, tidal flats).
	Pluvialis squatarola	Grey Plover	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (coastal, tidal flats).
Falconidae	*Falco hypoleucos*	Grey Falcon	VU	VU		X			Low	Preferred nesting habitat absent. May use Survey Area for hunting. No nearby or recent records.
	Falco peregrinus	Peregrine Falcon	OS		X		X	X	Medium	Preferred nesting habitat absent. May use Survey Area for hunting. One nearby record.
Fregatidae	*Fregata ariel*	Lesser Frigatebird	MI	MI, MA	X	X	X		Low	No suitable habitat present (oceanic).
Glareolidae	*Glareola maldivarum*	Oriental Pratincole	MI	MI, MA	X	X	X		High	Suitable habitat present (open plains). Nearby recent records.
Hirundinidae	*Hirundo rustica*	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	*Anous stolidus*	Common Noddy (Brown Noddy)	MI	MI, MA	X	X			Low	No suitable habitat present (oceanic).
	Chlidonias leucopterus	White-winged Black Tern	MI	MI, MA	X		X	X	Low	No suitable habitat present (fresh to saline wetlands).
	Gelochelidon nilotica	Gull-billed Tern	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (coastal).
	Hydroprogne caspia	Caspian Tern	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (coastal areas, fresh to saline lakes, temporary wetlands).
	Onychoprion anaethetus	Bridled Tern	MI	MI, MA	X	X			Low	No suitable habitat present (oceanic).
	Sterna dougallii	Roseate Tern	MI	MI, MA	X	X			Low	No suitable habitat present (coastal).
	Sterna hirundo	Common Tern	MI	MI, MA	X				Low	No suitable habitat present (coastal).
	Sternula albifrons	White-shafted Little Tern	MI	MI, MA	X		X	X	Low	No suitable habitat present (coastal, beaches).
	Sternula nereis nereis		VU	VU		X			Low	No suitable habitat present (coastal).
	Thalasseus bergii	Crested Tern (Greater Crested Tern)	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (coastal).
Motacillidae	*Motacilla cinerea*	Grey Wagtail	MI	MI, MA		X			Low	No suitable habitat present (fresh sandy or rocky streams, ploughed land). No nearby records.
	Motacilla tschutschensis	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	*Oceanites oceanicus*	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		
Pandionidae	*Pandion haliaetus cristatus*	Eastern Osprey	MI		X	X	X	X	Low	No suitable habitat present (coastal).
Procellariidae	*Ardenna pacifica*	Wedge-tailed Shearwater	MI	MI, MA	X	X			Low	No suitable habitat present (oceanic).
	Calonectris leucomelas	Streaked Shearwater	MI	MI, MA		X			Low	No suitable habitat present (oceanic).
	Macronectes giganteus	Southern Giant Petrel	MI	EN, MI, MA		X			Low	No suitable habitat present (oceanic).
Psittaculidae	*Pezoporus occidentalis*	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	*Rostratula australis*	Australian Painted Snipe	EN	EN, MA		X			Low	No suitable habitat present (well vegetated wetlands).
Scolopacidae	*Actitis hypoleucos*	Common Sandpiper	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (coastal and interior wetlands).
	Arenaria interpres	Ruddy Turnstone	MI	MI, MA	X		X	X	Low	No suitable habitat present (coastal).
	Calidris acuminata	Sharp-tailed Sandpiper	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (fresh to saline wetlands).
	Calidris alba	Sanderling	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (beaches, tidal flats).
	Calidris canutus	Red Knot	EN	EN, MI, MA	X	X	X	X	Low	No suitable habitat present (tidal flats).
	Calidris falcinellus	Broad-billed Sandpiper		MI, MA	X	X	X	X	Low	No suitable habitat present (estuarine mudflats, saltmarshes, reefs).
	Calidris ferruginea	Curlew Sandpiper	CR	CR, MI, MA	X	X	X	X	Low	No suitable habitat present (tidal mudflats/claypans).
	Calidris melanotos	Pectoral Sandpiper	MI	MI, MA		X			Low	No suitable habitat present (fresh to saline wetlands).
	Calidris ruficollis	Red-necked Stint	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (mudflats, salt marshes, beaches).
	Calidris subminuta	Long-toed Stint	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (fresh wetlands).
	Calidris tenuirostris	Great Knot	CR	CR, MI, MA	X	X	X	X	Low	No suitable habitat present (tidal flats).
	Gallinago stenura	Pin-tailed Snipe	MI	MI, MA	X				Low	No suitable habitat present (wetlands).
	Limosa lapponica	Bar-tailed Godwit	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (tidal flats).
	Limosa limosa	Black-tailed Godwit	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (shallow wetlands with muddy substrates).
	Numenius madagascariensis	Far Eastern Curlew	CR	CR, MI, MA	X	X	X	X	Low	No suitable habitat present (tidal flats).
	Numenius minutus	Little Curlew	MI	MI, MA	X		X	X	Low	No suitable habitat present (oceanic).
	Numenius phaeopus	Whimbrel	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (tidal flats, mangroves).
	Phalaropus lobatus	Red-necked Phalarope	MI	MI, MA		X			Low	No suitable habitat present (oceanic).
	Tringa brevipes	Grey-tailed Tattler	P4, MI	MI, MA	X	X	X	X	Low	No suitable habitat present (tidal flats).
	Tringa glareola	Wood Sandpiper	MI	MI, MA	X		X	X	Low	No suitable habitat present (fresh wetlands).
	Tringa nebularia	Common Greenshank	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (wetlands, mudflats, mangroves).
	Tringa stagnatilis	Marsh Sandpiper	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (fresh to brackish inland wetlands).
	Tringa totanus	Common Redshank	MI	MI, MA		X			Low	No suitable habitat present (fresh to saline wetlands).
	Xenus cinereus	Terek Sandpiper	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (tidal flats).
Sulidae	*Sula leucogaster*	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	*Plegadis falcinellus*	Glossy Ibis	MI	MI, MA	X		X	X	Medium	May use habitats within the Survey Area (drainage lines, dry grasslands).
MAMMALIAN										
Dasyuridae	*Dasyurus hallucatus*	Northern Quoll	EN	EN	X	X	X	X	High	Suitable habitat present (rocky escarpments, eucalyptus woodlands). Recent nearby records.
Macropodidae	*Lagostrophus fasciatus fasciatus*	Banded Hare-wallaby	VU	VU	X				Low	Restricted to offshore islands in Shark Bay, Western Australia.
Megadermatidae	*Macroderma gigas*	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	*Hydromys chrysogaster*	Water Rat	P4		X				Low	No suitable habitat present (permanent fresh to brackish waterbodies).
	Leggadina lakedownensis	Short-tailed Mouse	P4		X		X	X	High	Suitable habitat present (spinifex and tussock grasslands, acacia shrublands, stony ranges). Nearby records.
	Pseudomys chapmani	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.
Rhinonycteridae	*Rhinonicteris aurantia Pilbara form*	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	*Macrotis lagotis*	Bilby, Dalgyte	VU	VU		X			Low	Suitable habitat present (drainage lines, hummock grasslands). No nearby records.
REPTILIAN										
Pythonidae	*Liasis olivaceus barroni*	Pilbara Olive Python	VU	VU	X	X	X		Low	No suitable habitat present (rocky ranges with permanent waterbodies).
Scincidae	*Ctenotus angusticeps*	Airlie Island ctenotus	P3		X		X	X	Low	No suitable habitat present (coastal mudflats vegetated with samphire).
	Lerista nevinae	Nevin's three-toed slider	EN	EN	X				Low	No suitable habitat present (coastal dunes).
	Lerista quadrivincula	Dark-streaked slider	P1		X				Low	Known from one specimen found on coastal plains near Karratha in 1980.
	Notoscincus butleri	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		
AVIAN										
Apodidae	*Apus pacificus*	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	*Charadrius leschenaultii*	Greater Sand Plover	VU	VU, MI, MA	X	X	X	X	Low	No suitable habitat present (beaches, tidal flats, sandy substrates).
	Charadrius mongolus	Lesser Sand Plover	EN	EN, MI, MA	X	X	X	X	Low	No suitable habitat present (beaches, tidal flats, muddy substrates).
	Charadrius veredus	Oriental Plover	MI	MI, MA	X	X	X	X	Medium	Suitable habitat present (open plains and grasslands). Recent records >15 km north.
	Pluvialis fulva	Pacific Golden Plover	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (coastal, tidal flats).
	Pluvialis squatarola	Grey Plover	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (coastal, tidal flats).
Falconidae	*Falco hypoleucos*	Grey Falcon	VU	VU	X	X	X	X	High	Preferred nesting habitat absent. May use Survey Area for hunting. Recent nearby records.
	Falco peregrinus	Peregrine Falcon	OS		X		X	X	High	Preferred nesting habitat absent. May use Survey Area for hunting. Recent nearby records.
Fregatidae	*Fregata ariel*	Lesser Frigatebird	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (oceanic).
Glareolidae	*Glareola maldivarum*	Oriental Pratincole	MI	MI, MA	X	X	X	X	High	Suitable habitat present (open plains). Nearby recent records.
Hirundinidae	*Hirundo rustica*	Barn Swallow	MI	MI, MA	X		X	X	High	May use Survey Area for foraging (open plains). Nearby recent records from salt evaporatiion ponds.
Laridae	*Anous stolidus*	Common Noddy (Brown Noddy)	MI	MI, MA		X			Low	No suitable habitat present (oceanic).
	Chlidonias leucopterus	White-winged Black Tern	MI	MI, MA	X		X	X	Low	No suitable habitat present (fresh to saline wetlands).
	Gelochelidon nilotica	Gull-billed Tern	MI	MI, MA	X		X	X	Low	No suitable habitat present (coastal).
	Hydroprogne caspia	Caspian Tern	MI	MI, MA	X		X	X	Low	No suitable habitat present (coastal areas, fresh to saline lakes, temporary wetlands).
	Onychoprion anaethetus	Bridled Tern	MI	MI, MA	X		X		Low	No suitable habitat present (oceanic).
	Sterna hirundo	Common Tern	MI	MI, MA	X		X	X	Low	No suitable habitat present (coastal).
	Sternula albifrons	White-shafted Little Tern	MI	MI, MA	X		X	X	Low	No suitable habitat present (coastal, beaches).
	Sternula nereis nereis	Australian Fairy Tern	VU	VU			X	X	Low	No suitable habitat present (coastal).
	Thalasseus bergii	Crested Tern (Greater Crested Tern)	MI	MI, MA	X		X	X	Low	No suitable habitat present (coastal).
Motacillidae	*Motacilla tschutschensis*	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	*Oceanites oceanicus*	Wilson's Storm Petrel	MI	MI, MA	X		X		Low	No suitable habitat present (oceanic).
Pandionidae	*Pandion haliaetus cristatus*	Eastern Osprey	MI		X		X	X	Low	No suitable habitat present (coastal).
Procellariidae	*Calonectris leucomelas*	Streaked Shearwater	MI	MI, MA		X			Low	No suitable habitat present (oceanic).
	Macronectes giganteus	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	*Pezoporus occidentalis*	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	*Rostratula australis*	Australian Painted Snipe	EN	EN, MA		X			Low	No suitable habitat present (well vegetated wetlands).
Scolopacidae	*Actitis hypoleucos*	Common Sandpiper	MI	MI, MA	X		X	X	Low	No suitable habitat present (coastal and interior wetlands).
	Arenaria interpres	Ruddy Turnstone	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (coastal).
	Calidris acuminata	Sharp-tailed Sandpiper	MI	MI, MA	X		X	X	Low	No suitable habitat present (fresh to saline wetlands)
	Calidris alba	Sanderling	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (beaches, tidal flats).
	Calidris canutus	Red Knot	EN	EN, MI, MA	X	X	X	X	Low	No suitable habitat present (tidal flats).
	Calidris falcinellus	Broad-billed Sandpiper	-	MI, MA	X		X	X	Low	No suitable habitat present (estuarine mudflats, saltmarshes, reefs).
	Calidris ferruginea	Curlew Sandpiper	CR	CE, MI, MA	X	X	X	X	Low	No suitable habitat present (tidal mudflats/claypans)
	Calidris melanotos	Pectoral Sandpiper	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (fresh to saline wetlands).
	Calidris ruficollis	Red-necked Stint	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (mudflats, salt marshes, beaches).
	Calidris subminuta	Long-toed Stint	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (fresh wetlands).
	Calidris tenuirostris	Great Knot	CR	CE, MI, MA	X	X	X	X	Low	No suitable habitat present (tidal flats).
	Gallinago stenura	Pin-tailed Snipe	MI	MI, MA	X		X	X	Low	No suitable habitat present (wetlands).
	Limnodromus semipalmatus	Asian Dowitcher	MI	MI, MA	X	X	X		Low	No suitable habitat present (coastal).
	Limosa lapponica	Bar-tailed Godwit	MI	MI, MA	X	X	X		Low	No suitable habitat present (tidal flats).
	Limosa limosa	Black-tailed Godwit	MI	MI, MA	X	X			Low	No suitable habitat present (shallow wetlands with muddy substrates).
	Numenius madagascariensis	Far Eastern Curlew	CR	CE, MI, MA	X	X	X	X	Low	No suitable habitat present (tidal flats).
	Numenius minutus	Little Curlew	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (oceanic).
	Numenius phaeopus	Whimbrel	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (tidal flats, mangroves).
	Phalaropus lobatus	Red-necked Phalarope	MI	MI, MA	X	X			Low	No suitable habitat present (oceanic).
	Tringa brevipes	Grey-tailed Tattler	P4, MI	MI, MA	X	X	X	X	Low	No suitable habitat present (tidal flats).
	Tringa glareola	Wood Sandpiper	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (fresh wetlands).
	Tringa nebularia	Common Greenshank	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (wetlands, mudflats, mangroves).
	Tringa stagnatilis	Marsh Sandpiper	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (fresh to brackish inland wetlands).
	Xenus cinereus	Terek Sandpiper	MI	MI, MA	X	X	X	X	Low	No suitable habitat present (tidal flats).
Threskiornithidae	*Plegadis falcinellus*	Glossy Ibis	MI	MI, MA	X		X	X	Low	No suitable habitat present (shallow fresh water, dry grasslands).
MAMMALIAN										
Dasyuridae	*Dasycercus blythi*	Brush-tailed Mulgara, Ampurta	P4		X		X	X	High	Suitable habitat present (spinifex grasslands). Recent nearby records.
	Dasycercus cristicauda	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		
	Dasyurus hallucatus	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.
Macropodidae	*Lagostrophus fasciatus fasciatus*	Banded Hare-wallaby	VU	VU	X				Low	Restricted to offshore islands in Shark Bay, Western Australia.
Megadermatidae	*Macroderma gigas*	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.
Muridae	*Pseudomys chapmani*	Western Pebble-mound Mouse	P4		X				Low	No suitable habitat present (rocky ranges and stony hillslopes with stony mulch and hard spinifex).
Rhinonycteridae	*Rhinonicteris aurantia Pilbara form*	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.
Thylacomyidae	*Macrotis lagotis*	Bilby, Dalgyte	VU	VU	X	X	X	X	High	Suitable habitat present (hummock grasslands, drainage lines). Recent nearby records.
REPTILIAN										
Pythonidae	*Liasis olivaceus barroni*	Pilbara Olive Python	VU	VU	X	X			Low	No suitable habitat present (rocky ranges with permanent waterbodies).
Scincidae	*Ctenotus angusticeps*	Airlie Island Ctenotus	P3		X		X	X	Low	No suitable habitat present (coastal mudflats vegetated with samphire).

Appendix G
Fauna Habitat Assessments

KAR01

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

Fulcrum photo ID	0063-0064

KAR02

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

Fulcrum photo ID	0066-0067

KAR03

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

Fulcrum photo ID 0093-0094

KAR04

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

Fulcrum photo ID 0111-0112

KAR05					
Project:	4647 Karratha-Boodarie				
Date	28/06/2021		**Personnel**	BE, LC	
Zone	50	**Easting**	481945	**Northing**	7702832
Landform and soil			**Rock**		
Landform	Cracking clay plain		**Rock type/s**	Dolerite, Ironstone, Quartz	
Soil type	Soft Clay		**Surface stone cover**	5-25%	
Soil colour	Brown, Red		**Surface stone size classes present**	Small stones (0.6-2 cm), Stones (2-6 cm)	
Condition			**Habitat Features**		
Quality	Very Good				
Fire History	> 15 years		**Water Source**	Absent	
Disturbance	Weeds		**Microhabitats**	-	
Introduced fauna	None observed				
Vegetation					
Upper stratum	Absent				
Mid stratum	Absent				
Ground stratum	Low (>0.5 m)	Tussock grassland (50-80%)	*Eragrostis setifolia, Iseilema dolichotrichum,*		

Fulcrum photo ID	0115-0116

BOR01

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

Fulcrum photo ID 0028-0029

BOR02

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

Fulcrum photo ID 0052-0053

BOR03

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

Fulcrum photo ID 0056-0057

BOR04

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

Fulcrum photo ID 0061-0062

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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

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