

Appendix B

Flora and Vegetation Report

(360 Environmental 2023)



Cable Beach Development

Biological Assessment

**Prepared for
Shire of Broome**

April 2023

● people ● planet ● professional

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Executive Summary

The Shire of Broome commissioned 360 Environmental Pty Ltd (360 Environmental) part of SLR Consulting Australia Pty Ltd (SLR) to undertake a biological assessment (detailed flora and vegetation and basic vertebrate fauna) for the proposed Cable Beach development (the Survey Area). The Survey Area is 4.41 ha and located in the township of Broome, Western Australia.

The purpose of the assessment was to identify key biological values within the Survey Area to support the approvals applications to develop the Project. This report presents results of the surveys undertaken.

Flora and Vegetation

The flora desktop assessment identified 20 significant species occurring within 50 km of the Survey Area. A pre-survey likelihood of occurrence assessment was undertaken, and eight species were determined as having a high likelihood of occurrence, two species as having a medium likelihood of occurrence, and nine species as having a low likelihood of occurrence.

The detailed flora and vegetation survey recorded the floristic composition and vegetation types from five flora sites (three quadrats, two relevés), mapping notes and opportunistic observations. A total of 67 taxa were recorded from 52 genera across 25 families.

No Threatened flora species pursuant to the *Environment Protection and Biodiversity Conservation Act 1999* and/or gazetted as Threatened/Declared Rare Flora under the *Biodiversity and Conservation Act 2016*, were recorded during the survey.

One Priority flora, *Corymbia paractia* (P1) was recorded in two sites as well as opportunistically within the Survey Area. The presence of Priority flora is unlikely to be a statutory constraint for the Survey Area and is dealt with by the Department of Water and Environmental Regulation and the Department of Biodiversity, Conservation, and Attractions on a case-by-case basis.

Nine introduced species were recorded during the survey. One species, **Azadirachta indica*, is listed as a Declared Pest under the Declared Pests under the *Biosecurity and Agriculture Management Act 2007*. No introduced species were found to be a Weed of National Significance as declared by the Department of Climate Change, Energy, the Environment and Water.

Seven vegetation types were described and mapped across one broad landform (dune swale) within the Survey Area. Vegetation in the Survey Area was representative of existing broad scale vegetation mapping and soil and land system mapping for the area.

Vegetation condition within the Survey Area ranged from Completely Degraded to Very Good condition, with the majority being in a Completely Degraded Condition (53%). Evidence of disturbance included, weeds, human trampling, rubbish, and cleared areas for infrastructure, and makeshift dwellings.

Vertebrate Fauna

The vertebrate fauna desktop assessment identified 90 significant species occurring within 50 km of the Survey Area. An assessment of the likelihood of occurrence within the Survey Area was undertaken and identified that, of the potential significant fauna, one was recorded in the Survey Area, four had a high likelihood of occurrence, 25 had a medium likelihood of occurrence, and 60 had a low likelihood of occurrence.

Fauna habitat mapping was based on a combination of field observations, vegetation mapping, and fauna habitat assessment data. Eight fauna habitats were mapped within the Survey Area, of which, the Temporary Open Water, Vine Thicket, and Mixed Shrubland habitats represent the most value to significant fauna and overall fauna assemblages.

The basic terrestrial vertebrate fauna survey recorded a total of 42 fauna species from 25 families, comprising 34 bird species and eight reptile species.

One significant fauna species was recorded during the fauna survey, the Saltwater Crocodile (*Crocodylus porosus*), listed as Other Specially Protected under the BC Act and Marine under the EPBC Act. This juvenile individual is likely to have originated from a wildlife park approximately 15 km northeast of Cable Beach and is unlikely to persist in the Survey Area due to the low suitability of available habitat.

One introduced species was recorded during the survey, the Asian House Gecko (*Hemidactylus frenatus*).

The detailed flora and vegetation and basic fauna survey was undertaken from 17 – 20 January 2023 which is the recommended timing for flora surveys and considered suitable for all vertebrate fauna taxa (EPA, 2016; 2020).

Abbreviations

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

Table 1: Abbreviations

Abbreviation	Description
360 Environmental	360 Environmental part of SLR Consulting Australia Pty Ltd
BAM Act	Biosecurity and Agriculture Management Act 2007
BC Act	Biodiversity Conservation Act 2016
BoM	Bureau of Meteorology
°C	Degree Celsius
CD	Conservation Dependent Fauna
CR	Critically Endangered
DAFF	Department of Agriculture, Fisheries and Forestry
DBCA	Department of Biodiversity, Conservation and Attractions
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DP	Declared Pest
DWER	Department of Water and Environmental Regulation
EIA	Environmental Impact Assessment
EN	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
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
MVT	Monsoon Vine Thicket
NVIS	National Vegetation Information System

Abbreviation	Description
OS	Other Specially Protected Fauna
P	Priority
PEC	Priority Ecological Community
PMST	Protected Matters Search Tool
SLR Consulting	SLR Consulting Australia Pty Ltd
Study Area	The database search area (varied according to each parameter)
Survey Area	The Cable Beach Survey Area is approximately 4.41 ha
T	Threatened
TEC	Threatened Ecological Community
TPFL	Threatened and Priority Flora Database
TPFRF	Threatened and Priority Flora Report Forms
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

The Shire of Broome commissioned 360 Environmental Pty Ltd (360 Environmental) part of SLR Consulting Australia Pty Ltd (SLR) to undertake a detailed flora and vegetation survey and a basic vertebrate fauna survey for the proposed Cable Beach development in Broome (the Survey Area). The Survey Area is 4.41 ha in size and located within the township of Broome, in the Dampier bioregion of Western Australia (Figure 1).

1.2 Objectives and Scope

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

The scope of works included:

- Undertake a desktop assessment including relevant database searches and a literature review to compile and summarise existing records of flora, vegetation, and fauna (including significant species and communities (such as Monsoon Vine Thicket) in the vicinity of the Survey Area
- Undertake a detailed flora and vegetation survey using quadrats and relevés to identify and describe the vegetation and flora occurring within the Survey Area
- Undertake targeted searching for significant flora within the Survey Area
- Undertake a basic terrestrial fauna survey which includes opportunistic observations of fauna and signs of fauna including tracks, scats, and calls
- Prepare a technical biological report
- Prepare a Native Vegetation Clearing Permit (NVCP) for the Survey Area (separate document)
- Supply a geospatial data package prepared in accordance with IBSA requirements
- This report presents the results of the Cable Beach Biological 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
- In addition to these protection mechanisms, the EIA process is supported by various guidance documents published by the Environmental Protection Authority (EPA), DBCA and the Department of Climate Change, Energy, the Environment and Water (DCCEEW).

Western Australia:

- *Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment* (Environmental Protection Authority, 2016)
- *Technical Guidance – Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment* (Environmental Protection Authority, 2020)
- *Guidelines for surveys to detect the presence of bilbies and assess the importance of habitat in Western Australia* (Department of Biodiversity Conservation and Attractions, 2017).

Commonwealth:

- *EPBC Act referral guideline for the endangered northern quoll *Dasyurus hallucatus*: EPBC Act Policy Statement* (Department of the Environment, 2016)
- *Matters of National Environmental Significance Significant impact guidelines 1.1 Environment Protection and Biodiversity Conservation Act 1999* (Department of the Environment, 2013)

- *Survey Guidelines for Australia's Threatened Bats: Guidelines for detecting birds listed as threatened under the EPBC Act* (Department of the Environment Water Heritage and the Arts, 2010a)
- *Survey Guidelines for Australia's Threatened Birds: Guidelines for detecting birds listed as threatened under the EPBC Act* (Department of the Environment Water Heritage and the Arts, 2010b)
- *Survey Guidelines for Australia's Threatened Mammals: Guidelines for detecting mammals listed as threatened under the EPBC Act* (Department of Sustainability Environment Population and Communities, 1999)
- *Survey Guidelines for Australia's Threatened Reptiles: Guidelines for detecting reptiles listed as threatened under the EPBC Act* (Department of Sustainability Environment Water Population and Communities, 2011).

2.2 Existing Environment

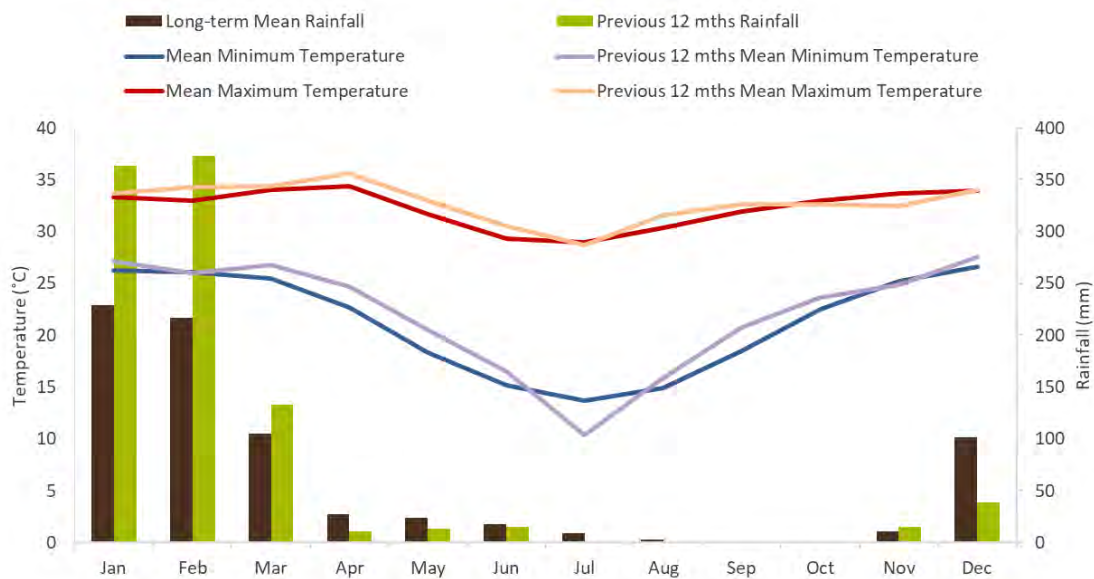
2.2.1 Climate

The closest long-term Bureau of Meteorology weather station with a complete dataset is the Broome Weather Station (Station 003003), located approximately 2.6 km southeast of the Survey Area.

Climate statistics were calculated utilising data from the most current climate normal, which is defined as a 30-year interval (Bureau of Meteorology, 2007), where possible. 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).

The long-term (1991 to 2022) mean minimum temperature for the Broome weather station ranges from 13.7°C (July) to 26.8°C (April) and the long-term mean maximum temperature ranges from 31.6°C (July) to 34.4°C (April) (Graph 1) (Bureau of Meteorology, 2023).

The Broome weather station (Station 003003) recorded 963.7 mm of rainfall in the 12 months prior to the survey (January 2022 to December 2022), which is 216.7 mm above the long-term average of 747.0 mm (Bureau of Meteorology, 2023). In the three months prior to the survey (October 2022 to December 2022), 54.2 mm of rainfall was recorded, which is 59.3 mm below the long-term average of 113.5 mm for the same time period (Bureau of Meteorology, 2023). There was, however, a significant rainfall event that occurred two weeks prior to the survey event, which resulted in 485.0 mm rain recorded over three days (4 – 6 January 2023).



Graph 1. Monthly long term (1991 -2022) and prior 12 month (Jan -Dec 2022) total rainfall and mean maximum and mean minimum temperatures for the Broome weather station (003003) (Bureau of Meteorology, 2023). Survey was completed 17 – 20 January 2023.

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). The Survey Area occurs within the Dampierland bioregion and the Pindanland (DAL02) subregion (Figure 2).

The Pindanland subregion is characterised by sandplains of the Dampier Peninsular and western part of Dampier Land, including the hinterland of the Eighty Mile Beach (Graham, 2001). It is a fine-textured sand-sheet with subdued dunes and includes the paleodelta of the Fitzroy River. The vegetation is described primarily as pindan. This is the coastal, semi-arid, north-western margin of the Canning Basin.

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 Primary Industries and Regional Development, 2018b). The Survey Area occurs within one land system. The Yeeda (335Ye) land system is described as sandplain, deep red and yellow sands, pindan, and tall woodlands. With red sandplains supporting pindan vegetation with dense acacia shrubs, scattered bloodwood, and grey box trees and curly spinifex and ribbon grass.

2.2.4 Hydrography

No hydrographic features intersect the Survey Area. The buffer zone of the Roebuck Bay mudflats occurs approximately three km to the east of the Survey Area (Figure 2). This area supports the Roebuck Bay mudflats Threatened Ecological Community (TEC), which is an intertidal system supporting a species-rich faunal community and numerous conservation significant fauna species (Department of Water and Environmental Regulation, 2016; Graham, 2001).

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.* (Shepherd *et al.*, 2002) resulting in 819 vegetation types. One broad vegetation system association is mapped within the Survey Area. The Dampierland 750 vegetation association is described as Pindan Woodland which is composed of Acacia thickets with eucalypt woodlands over spinifex. Key species include *Acacia tumida*, *Eucalyptus tectifica*, *Corymbia grandifolia*, *Triodia pungens*, and *T. bitextura*.

Representation of the broad vegetation type at a local, regional, and state level is shown in Table 2.

Table 2: Broad Vegetation Types within the Survey Area and their Representation at the State, Regional and Local Levels (Department of Primary Industries and Regional Development, 2018a)

Broad Vegetation Type	Extent			
	Pre-European (ha)	Current (ha)	Remaining (%)	Managed in DBCA Lands (%)*
Representation across Western Australia				
750	1,231,155.50	1,225,687.52	99.56	2.78
Representation across the Dampierland Bioregion				
750	1,229,182.16	1,225,280.52	99.68	2.78
Representation across the Pindanland (DAL02) Subregion				
750	1,221,734.45	1,217,843.72	99.68	2.80
Representation across the Shire of Broome				
750	1,115,559.36	1,110,131.18	99.51	3.07

*as a portion of the current extent

2.2.6 Environmentally Sensitive and Conservation 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 Survey Area occurs within a mapped ESA, which comprises an occurrence of the '*Monsoon Vine Thickets on coastal sand dunes of Dampier Peninsula*', and a buffer associated with the Species-rich faunal community of the intertidal mudflats of Roebuck Bay TEC (Roebuck Bay mudflats) (Figure 3). The Roebuck Bay mudflats themselves are a mapped ESA occurring 2.9 km east of the Survey Area (Department of Water and Environmental Regulation, 2020).

Conservation Areas consist of areas protected for the purpose of conservation, including but not limited to National Parks, Nature Reserves, Conservation Parks, and Regional Parks.

The Survey Area does not occur within a Conservation Area (Figure 3). Conservation Areas within five km of the Survey Area are:

- Broome Wildlife Centre located 2.2 km north of the Survey Area and is vested under the Conservation Parks and Commission of WA (Department of Biodiversity Conservation and Attractions, 2022a)
- Yawuru Nagulagun/Roebuck Bay Marine Park located 3.1 km east of the Survey Area and is vested under the Conservation Parks and Commission of WA (Department of Biodiversity Conservation and Attractions, 2022a)
- Unnamed conservation reserve located 3.7 km to north of the Survey Area and is vested under the Yawuru native Title Holders (Department of Biodiversity Conservation and Attractions, 2022a)
- Yawuru Birragun Conservation Park located 4.2 km northeast of the Survey Area and is vested under the Yawuru native Title Holders (Department of Biodiversity Conservation and Attractions, 2022a).

2.2.7 Land Use

The Survey Area is located on Crown and freehold land. Current land use consists of unused crown land and infrastructure that includes a carpark, walking paths (paved and unpaved), and walking bridges. Some clearing has occurred throughout the Survey Area but is generally associated with the stormwater drain.

3 Methods

The biological survey documented by this report were undertaken in accordance with relevant EPA and DCCEEW guidelines (see section 2.1).

3.1 Desktop Assessment

3.1.1 Literature Review

Background information on the Survey Area 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 Primary Industries and Regional Development, 2018b), and the IBRA classification system (Department of the Environment and Energy, 2016) were consulted to provide broad contextual knowledge of the vegetation units and habitat likely to be encountered within the Survey Area.

The literature review also considered a selection of biological reports detailing assessments undertaken in the region that are publicly available (Appendix A).

- Broome North: Southern Portion - Preliminary Environmental Impact Assessment and Biological Survey (GHD, 2009), 1.0 km east of the Survey Area
- Broome Regional Resource Recovery Park Reconnaissance Flora and Level 1 Fauna Survey (Spectrum Ecology, 2020), 9.2 northeast and 34 km east of the Survey Area
- Broome Road Industrial Area - Preliminary Environmental Impact Assessment and Biological Survey (GHD, 2010), 7.5 km northeast of the Survey Area
- Broome Road Subdivision Area - Conservation Significant Fauna Survey (GHD, 2015), 7.1 km southeast of the Survey Area
- Fauna Assessment of the Broome Port Area (Bamford Consulting, 2010), 5.8 km south of the Survey Area
- Flora and Vegetation Assessment, Cable Beach Foreshore Adaptation Project (Focused Vision, 2019b), overlaps the Survey Area
- Flora, Vegetation and Fauna Assessment - Broome Asparagus Farm (AECOM Australia Pty Ltd, 2017), 23 km northeast of the Survey Area
- Flora, Vegetation and Fauna Survey Broome Golf Club Redevelopment (Docherty, 2019), 5.8 km south of the Survey Area
- Mamabulanjin Orchard Flora and Fauna Survey (GHD, 2019), 10.5 km west northeast of the Survey Area
- Nyamba Buru Yawuru Flora and Fauna Survey (Ecoscape (Australia) Pty Ltd, 2017), 46 km southeast of the Survey Area
- Targeted Bilby Survey - Crab Creek Road, Broome (360 Environmental Pty Ltd, 2017), 7.6 km east of the Survey Area.

Table 3: Database Searches of the Survey Area

Database Name	Date Received	Search Target	Buffer around the Survey Area
Threatened and Priority Ecological Communities database search (Department of Biodiversity Conservation and Attractions, 2022d)	21 December 2022	TECs and PECs	50 km
Threatened and Priority Flora (TPFL) database search (Department of Biodiversity Conservation and Attractions, 2022g)	14 November 2022	Threatened and Priority Flora	50 km
Western Australian Herbarium Flora database search (Department of Biodiversity Conservation and Attractions, 2022h)	16 November 2022	Threatened and Priority Flora	50 km
DBCA Threatened and Priority Fauna database search (Department of Biodiversity Conservation and Attractions, 2022f)	14 November 2022	Threatened and Priority Fauna	40 km
NatureMap (Department of Biodiversity Conservation and Attractions, 2022c)	11 November 2022	Inventory of potential flora and fauna	50 km
Protected Matters Search Tool (Department of Agriculture Water and the Environment, 2022b)	13 December 2022	Commonwealth listed Threatened flora and fauna and TECs	20 km

3.1.2 Likelihood of Occurrence

Significant flora and fauna species identified from the desktop assessment were assessed to determine the likelihood of their occurrence within the Survey Area, both prior to and post field survey. The assessment was completed based on the likelihood of occurrence criteria presented in Table 4.

Only species either recorded within the Survey Area or considered as having a high or medium likelihood of occurrence are discussed in detail. Species classified as having a low likelihood of occurrence based on the above criteria are not discussed unless a justification for this classification is required.

Taxa listed as Marine only under the EPBC Act were not included as significant taxa because the Marine only listed taxa identified by the desktop assessment and field survey do not constitute MNES under the EPBC Act. Additionally Marine only listed taxa identified were common and widespread, and the Survey Area does not contain any marine habitat.

Table 4: Likelihood of Occurrence Criteria

Rank	Criteria
Recorded	The species was recorded in the Survey Area.
Previously Recorded	The species has been previously recorded in the Survey Area.
High (Likely to occur)	<ul style="list-style-type: none"> There are existing records of the species near 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)	<ul style="list-style-type: none"> There are existing records of the species from the locality (within 5 – 15km), however: <ul style="list-style-type: none"> 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)	<ul style="list-style-type: none"> 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 efforts 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

3.2.1 Survey Timing

The biological surveys were undertaken across one field trip to collect data from the Survey Area (Table 5). Survey effort is shown in Figure 4.

Table 5: Field Trips

Trip	Scope	Date	Personnel	Person Field Days
1 (Flora and Fauna)	Establishment of flora quadrat sites Preliminary vegetation and condition mapping Targeted flora searches during traverses between flora sites Basic fauna survey	17/01/2023-20/01/2023	Brian Vincent Dr Jon-Paul Emery	4

3.2.2 Field Personnel

Field personnel and their roles are detailed in Table 6.

The flora and vegetation surveys were led by Associate Botanist Brian Vincent. Brian has over 20 years of experience conducting surveys of similar scope throughout Western Australia with specific Kimberley experience.

The basic terrestrial vertebrate fauna survey was undertaken by Senior Zoologist Dr. Jon-Paul Emery. Jon-Paul has 3 years' experience conducting surveys of similar scope throughout Western Australia.

Table 6: Field Personnel

Personnel	Collection Licence	Role
Brian Vincent	FB62000440	Senior Botanist
Dr. Jon-Paul Emery	-	Senior Zoologist

3.3 Flora and Vegetation

3.3.1 Establishment of Flora Sites

Indicative flora sites were identified prior to the survey using aerial photography, and adjacent available vegetation mapping, to estimate broad vegetation patterns within the Survey Area. The location and number of flora sites completed were adjusted on site to achieve sites most representative of the vegetation present.

At least three flora sites were sampled in each vegetation type observed within the Survey Area, where possible. Some vegetation types that were not large enough to accommodate three flora sites had only one or two sites sampled.

Flora sites were quadrats typically 50 x 50 m, or of an alternative configuration equating to 2500 m² as required in areas such as drainage lines, gullies, and narrow ridge lines. Where possible, corners were aligned to northwest, northeast, southeast and southwest, and accurately measured using measuring tapes. As a minimum, the north-west corner of each quadrat was demarcated with an aluminum fence dropper and removed at the completion of the sites (as requested by the Shire of Broome). A comprehensive record of the flora present at the time of sampling was recorded for each quadrat.

A handheld Fulcrum mobile data collection device was used to record quadrat data, and mapping notes, opportunistic flora collections and photographs were also taken where required. Tracks were recorded using a handheld Garmin GPS unit. 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 average height and percentage foliar cover for each taxon recorded
- Vegetation description in accordance with the National Vegetation Information System (NVIS), Level 5 'association', whereby the dominant growth form, height, cover and species (three species) for the three traditional strata (upper, mid and ground) are described
- Vegetation condition in accordance with the Northern Botanical Provinces vegetation condition scale (Environmental Protection Authority, 2016), 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.

3.3.2 Opportunistic Flora

Additional flora taxa observed opportunistically around flora sites or while traversing on foot within the Survey Area were also recorded. Where populations of significant flora taxa, Declared Pests (DPs) or WoNS were encountered, a GPS location and a count of the individuals present was recorded.

3.3.3 Targeted Searching

Prior to the survey significant flora with the likelihood or potential to occur within the Survey Area was compiled (see section 3.1.2). Field personnel familiarised themselves with photographs, reference samples and descriptions of these taxa before conducting the survey.

The Survey Area was systematically searched targeting suitable habitat for significant flora. Where Threatened or Priority flora were encountered in the field a GPS location was taken and a count of individuals was recorded. Specimens of any potential significant flora that could not be identified in the field were collected for identification and lodgement at the Western Australian Herbarium (WAH).

3.3.4 Taxonomy and Nomenclature

Where field identification of plant taxa was not possible, specimens were collected for identification using resources of the WAH. Identification of flora collections was completed by experienced taxonomist Sharnya Yates.

The finalised species list was checked against FloraBase (Department of Biodiversity Conservation and Attractions, 2022b) to determine the conservation status and known distribution of each taxon. Introduced species were compared against the current BAM Act Declared Plants list the WoNS list to determine their control status (Department of Agriculture Water and the Environment, 2022c; Department of Primary Industries and Regional Development, 2022).

Any significant flora taxa, including potential Threatened and Priority species, range extensions, and potential new taxa were submitted to the WAH for verification and lodgement. Where relevant, Threatened and Priority Flora Report Forms (TPFRFs) were submitted to DBCA.

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 approximately 1:2,000. Broad vegetation units were refined based on taxonomic identification of flora collections, statistical analysis of data collected from the quadrats, and relevés 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 Daily Survey Conditions

Survey conditions for the basic fauna survey are presented in Table 7. Daily temperature and rainfall data is from the Broome Weather Station (Station 003003) (Bureau of Meteorology, 2023). This information is important for potential detection of species diversity during a survey.

Table 7: Basic Fauna Survey Weather Conditions

Date	Temperature (°C)		Rainfall (mm)
	Min	Max	
17/01/2023	23.2	31	24.6
18/01/2023	25.9	32.5	0.2
19/01/2023	23.9	32.1	15.4
20/01/2023	27.8	32.1	0

3.4.2 Fauna Habitat Assessment

Fauna habitat assessments were undertaken throughout the Survey Area to identify fauna habitat values. Habitat assessment locations are shown in Figure 4. The following information was collected at each site using the mobile data collection app, Fulcrum:

- Site photo
- Landform
- Soil type and colour
- Rock types, surface stone cover, and size classes
- Key habitat and microhabitat features including leaf litter, logs, burrows, rocky outcrops, rock crevices, hollows, and water sources
- Habitat quality, fire history, and evidence of disturbance
- General description of vegetation structure
- Fauna habitat mapping was based on a combination of field observations, fauna habitat assessment data, and vegetation mapping undertaken by 360 Environmental.

3.4.3 Opportunistic Observations

Opportunistic observations of fauna were recorded throughout the Survey Area. Observations of primary evidence (direct sightings, calls) and secondary evidence (tracks, scats, diggings, etc.) were recorded.

3.4.4 Bird Surveys

Bird surveys were undertaken within the Survey Area for 20 minutes at each fauna habitat assessment location (at a minimum).

3.4.5 Identification and Taxonomy

Terrestrial vertebrate fauna taxa were identified in the field from calls or direct observations. Species names follow the most up to date taxonomy and nomenclature from the WA Museum Checklist November 2022 (Western Australian Museum, 2022).

4 Results

4.1 Limitations

Limitations and constraints of the flora, vegetation, and fauna survey are detailed below in Table 8. There were no significant limitations associated with the survey.

Table 8: Limitations and Constraints Associated with the Survey

Variable	Degree of Limitation	Potential Constraints on Survey Outcomes
Survey Scope	No limitation	<p>The detailed flora and vegetation survey was undertaken in accordance with EPA guidelines (Environmental Protection Authority, 2016) and was considered appropriate to support approvals applications.</p> <p>Targeted searching for flora of conservation significance was undertaken.</p> <p>The basic terrestrial vertebrate fauna survey was undertaken in accordance with EPA guidelines (Environmental Protection Authority, 2020).</p>
Availability of Data	No limitation	All data required to complete the scope of works including regional and local contextual information was available.
Site Access	No limitation	The entirety of the Survey Area was able to be accessed on foot.
Survey Intensity and Resources	No limitation	<p>Five flora sites (comprising three quadrats and two relevés) were sampled across the Survey Area. An additional 12 mapping notes were undertaken to aid vegetation mapping and delineation.</p> <p>Given the size of the Survey Area, it was possible to systematically survey the Survey Area. Additional flora species, and populations of significant flora species and weed species were recorded.</p> <p>Sufficient time was allocated to the flora and vegetation survey, given the size and complexity of the Survey Area, and the expected level of survey intensity.</p> <p>The survey effort was considered adequate to assess the flora and vegetation values of the Survey Area and provide information required to support approvals applications.</p> <p>The basic fauna survey comprised 15 fauna habitat assessments and adequately captured the fauna habitat in the Survey Area.</p> <p>Sufficient time and resources were allocated to the biological survey.</p>

Variable	Degree of Limitation	Potential Constraints on Survey Outcomes
Experience	No limitation	<p>The flora and vegetation survey was undertaken by Associate Botanist Brian Vincent. Brian has over 20 years' experience conducting surveys of similar scope throughout Western Australia, including the Kimberley region.</p> <p>Identification of flora collections was completed by experienced taxonomist Sharnya Yates 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 8487). Identifications were undertaken by WAH taxonomist Rob Davis.</p> <p>The fauna survey was undertaken by Senior Zoologist Jon-Paul Emery, who has 3 years' experience conducting surveys of similar scope throughout Western Australia and the bioregion.</p>
Timing, weather, season	Partial limitation	<p>The detailed flora and vegetation and basic vertebrate fauna survey was conducted within the recommended period for flora and vegetation and all vertebrate fauna species for the Northern Climatic Region as per the EPA Technical Guidance (Environmental Protection Authority, 2016; 2020).</p> <p>In the October to December 2022 period, 54.2 mm of rainfall was recorded, which is 59.3 mm below the long-term average of 113.5 mm for this same 3 month period (Bureau of Meteorology, 2023). There was, however, a significant rainfall event that occurred two weeks before the current survey which resulted in 485 mm rain in three days (4 – 6 January 2023).</p>
Life Forms Sampled	Partial limitation	<p>The Survey Area was traversed by foot and representative sites of all remnant vegetation was sampled.</p> <p>A total of 67 vascular flora taxa were recorded from the Survey Area, comprising 86.57 % native flora taxa and 13.43 % introduced flora taxa.</p> <p>Of the 67 flora taxa recorded, 9 taxa (13.4%), could not be identified to species level because they were sterile at the time of the survey. This was considered a partial constraint, however this may have been due to several factors: seasonal rainfall was lower than average leading up to the survey, potentially resulting in an increase in sterile material, while six of the nine species were still tentatively identified to species level. This is not unexpected for a small Survey Area with a low number of species recorded.</p> <p>One of the nine taxa that could not be identified to species level was analogous to the Priority 1 <i>Corymbia paractia</i>. However sufficient additional specimens of <i>Corymbia paractia</i> were collected to confirm its presence in the survey area and provide an accurate estimate of abundance. None of the remaining eight remaining eight taxa that could not be identified to species level were analogous to Threatened or Priority taxa identified by the database searches as likely to occur within the Survey Area, nor were they representative of flora of other significance.</p>

Variable	Degree of Limitation	Potential Constraints on Survey Outcomes
		<p>The basic vertebrate fauna surveys detected fauna taxa within the Survey Area on an opportunistic basis and was not exhaustive. All vertebrate fauna species were readily identified in the field.</p> <p>A total of 42 vertebrate fauna taxa were recorded from the Survey Area.</p>
Mapping Reliability	No limitation	<p>Vegetation types were described and mapped based on quadrat and relevé data and additional mapping notes taken during the field survey.</p> <p>High resolution aerial mapping was used to differentiate all vegetation greater than 1 ha in size.</p> <p>Draft vegetation mapping was undertaken during the field survey and was refined later using aerial imagery and quadrat data.</p>
Disturbances (fire, flood etc.)	No limitation	<p>No disturbances occurred during the surveys. However, two weeks prior to the survey, a significant rainfall event occurred (~460 mm in 3 days) that resulted in widespread flooding in the Survey Area.</p> <p>High resolution aerial mapping used to differentiate vegetation for mapping purposes indicated vegetation within and adjacent to the drains had been impacted; it is assumed that this was as a result of storm surge impact to vegetation condition.</p> <p>Areas of disturbance associated with access tracks, weeds, and frequent fire were recorded but were not a constraint on the results of the survey.</p>
Completeness	No limitation	<p>The survey was considered complete for a detailed flora and vegetation survey, all vegetation types were surveyed and delineated within the Survey Area.</p> <p>The basic fauna survey was considered complete.</p>

4.2 Flora and Vegetation

4.2.1 Literature Review

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

4.2.2 Database Searches

Database searches identified 20 significant flora species occurring within 50 km, and one species within 75 km, of the Survey Area. (Appendix B, Figure 5), comprising:

- No Threatened species
- Five Priority 1 species
- One Priority 2 species
- Thirteen Priority 3 species
- One Priority 4 species.

One additional species, *Triodia caelestialis* (P3), was identified within 50 km by the literature review.

One State and Commonwealth listed TEC and one State-listed PEC were identified by the database searches as occurring within the Survey Area.

- Monsoon vine thickets on coastal sand dunes of Dampier Peninsula (Vulnerable, Endangered)
- *Corymbia paractia* dominated community on dunes (Priority 1).

A further 11 State listed PECs occur within 50 km of the Survey Area (Department of Biodiversity Conservation and Attractions, 2022e) (Appendix B, Figure 6):

- Species-rich faunal community of the intertidal mudflats of Roebuck Bay (Vulnerable) - 3 km east of Survey Area.
- Dwarf pindan heath community of Broome coast (Priority 1) - 5 km southwest of the Survey Area.
- Kimberley Vegetation Association 770 (Priority 1) – 2.7 km north of Survey Area.
- Relict dune system dominated by extensive stands of Minyjuru (Mangarr) *Sersalisia* (formerly *Pouteria*) *sericea*. (Priority 1) - 2.7 km northeast of Survey Area.
- Eighty Mile Land System (Priority 3) - 32 km south of Survey Area.
- Gourdon Land System (Priority 3) - 46 km southwest of Survey Area.
- Kimberley Vegetation Association 37 (Priority 3) - 29 km south-southeast of Survey Area.

- Kimberley Vegetation Association 67 (Priority 3) - 45 km east of Survey Area.
- Kimberley Vegetation Association 73 (Priority 3) - 2.8 km east of Survey Area.
- Roebuck Land System (Priority 3) - 13.5 km east of Survey Area.
- Nimalarica Claypan Community (previously Nimalaica) (Priority 4) - 18 km north-northeast of Survey Area.

4.2.3 Likelihood of Occurrence

The pre-survey likelihood of occurrence assessment identified that, of the 20 significant flora species identified by the desktop assessment:

- One had previously been recorded within the Survey Area
- Eight were considered to have a high likelihood of occurrence
- Two were considered to have a medium likelihood of occurrence
- Nine were considered to have a low likelihood of occurrence.

Following the survey, the likelihood of occurrence assessment identified that:

- One taxa was recorded within the Survey Area
- No taxa were considered to have a high likelihood of occurrence
- One taxa was considered to have a medium likelihood of occurrence
- Eighteen taxa were considered to have a low likelihood of occurrence.

The likelihood of occurrence assessment is provided in Appendix C.

4.2.4 Flora Composition

The survey recorded a total of 67 taxa from 56 genera across 25 families (Appendix D). The dominant families were Fabaceae (21 species), Malvaceae (6 species) and Myrtaceae (6 species). The most dominant genera was *Acacia* (6 species).

4.2.5 Flora of Conservation Significance

Of the Priority flora identified by the desktop assessment, *Corymbia paractia* (P1) was recorded in the Survey Area, associated with vegetation types TpTmCc and CpTfAtTm (Plate 1). A total of 49 individuals were positively identified within the Survey Area.



Plate 1: *Corymbia paractia* (P1) within the Survey Area (A), and fruits (B).

4.2.5.1 Threatened or Priority Flora

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

One Priority species as listed by DBCA, *Corymbia paractia* (P1), was recorded within the Survey Area (Figure 7, Table 9).

Threatened and Priority Flora Report forms have been submitted to DBCA.

Table 9: Flora of Conservation Significance within the Survey Area

Taxon (status)	Number of Individuals	Vegetation Code	Habitat within the Survey Area (Flora site)
<i>Corymbia paractia</i> (P1)	35	CpTfAtTm	<i>Corymbia paractia</i> , <i>C. greeniana</i> isolated clumps of trees over <i>Terminalia ferdinandiana</i> , <i>Lysiphyllum cunninghamii</i> over <i>Acacia colei</i> var. <i>colei</i> open shrubland over <i>Adriana tomentosa</i> var. <i>tomentosa</i> low open shrubland over <i>Triodia microstachya</i> open hummock grass.
		TpTmCc	<i>Terminalia petiolaris</i> low open woodland including <i>Terminalia ferdinandiana</i> low isolated trees over <i>Flueggea virosa</i> subsp. <i>melanthesoides</i> and <i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i> , tall open shrubs over <i>Corymbia ?paractia</i> , <i>Exocarpos latifolius</i> , and <i>Sersalisia sericea</i> isolated trees over <i>Triodia microstachya</i> , low hummock grassland * <i>Cenchrus ciliaris</i> low tussock grassland mosaic.

4.2.5.2 Flora of Other Conservation Significance

No other flora of conservation significance were identified during the survey.

4.2.6 Introduced Flora

A total of nine introduced species were recorded within the Survey Area, representing 13.8% of the total taxa recorded (Table 10). One species, **Azadirachta indica*, is listed as a Declared Pest under the BAM Act (Department of Primary Industries and Regional Development, 2021). No WoNS species as listed by the Department of Agriculture Water and the Environment (2021) were recorded.

Table 10: Introduced Flora Species within the Survey Area

Species	Common Name	Status under BAM Act	WONS
<i>*Azadirachta indica</i>	Neem tree	Declared Pest - s22(2)	No
<i>*Cenchrus ciliaris</i>	Buffel Grass	Permitted – s11	No
<i>*Cenchrus biflorus</i>	Gallon's Curse	Permitted – s11	No
<i>*Clitoria ternatea</i>	Butterfly Pea	Permitted – s11	No
<i>*Leucaena leucocephala</i>	Leucaena	Permitted – s11	No
<i>*Mesosphaerum suaveolens</i>	Pignut, Mintweed	Permitted – s11	No
<i>*Passiflora foetida</i>	Stinking Passion Flower	Permitted – s11	No
<i>*Passiflora foetida var. hispida</i>		Permitted – s11	No
<i>*Stylosanthes hamata</i>	Verano Stylo	Permitted – s11	No

4.2.7 Unconfirmed Flora

Nine specimens (13.8 % of the taxa recorded) could not be identified to species level, as the taxa were sterile at the time of the survey (Appendix D). Of these, two were identified to family level, one to genus level and six were tentatively identified to species level.

One unconfirmed flora taxa, *Corymbia ?paractia*, was analogous to the Priority 1 flora taxa identified within the survey area, and may represent one individual in addition to those confirmed within the Survey Area.

4.2.8 Vegetation Types

Seven vegetation types were described and mapped across one landform within the Survey Area (Table 11, Figure 7).

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

4.2.9 Vegetation Condition

Vegetation condition within the Survey Area predominantly ranged from Completely Degraded to Very Good (Figure 8), comprising:


- Completely Degraded (0.41 ha / 9.39 %)
- Degraded (0.03 ha / 0.68 %)
- Poor (0.65 ha / 14.76 %)
- Good (1.1 ha / 24.78 %)
- Very Good (0.31 ha / 6.98 %).

Completely Degraded areas include areas of parkland areas dominated by introduced species, and areas of planted trees (both endemic and non-endemic). Cleared areas comprising infrastructure such as carparks, storm basins and drains are not vegetated and therefore are not given a condition rating. Degraded areas were confined to a section of dune, impacted by human trampling and weeds. Areas classified as Poor included native vegetation adjacent to planted areas, where introduced species had encroached.

Table 11: Vegetation Types Occurring within the Survey Area

Vegetation Unit and Description*	Local Landform	Total Area (ha), Proportion of the Survey Area	Sites	Vegetation Condition	Photograph
<i>FaTpSs</i> : <i>Ficus aculeata</i> var. <i>indecora</i> low isolated trees over <i>Terminalia petiolaris</i> , <i>Grewia breviflora</i> low open woodland over <i>Sersalisia sericea</i> tall open shrubland and <i>Jasminum didymum</i> subsp. <i>didymum</i> , <i>Caesalpinia</i> major low open vineland	Dune Swale	0.36 ha	CB01	Very Good	
<i>TfSsLc</i> : <i>Terminalia ferdinandiana</i> , <i>Terminalia petiolaris</i> and <i>Sersalisia sericea</i> low woodland over <i>Lysiphyllum cunninghamii</i> , <i>Grewia breviflora</i> , and <i>Breynia cernua</i> isolated shrubs.	Dune Swale	0.01 ha	CBR05	Degraded	

Vegetation Unit and Description*	Local Landform	Total Area (ha), Proportion of the Survey Area	Sites	Vegetation Condition	Photograph
AiTmSh: <i>*Azadirachta indica</i> , <i>Terminalia ferdinandiana</i> , <i>Melaleuca ?nervosa</i> mid isolated trees over <i>Terminalia ferdinandiana</i> low woodland over <i>Lysiphyllum cunninghamii</i> tall shrubs over <i>Adriana tomentosa</i> var. <i>tomentosa</i> low open shrubland over <i>Triodia microstachya</i> hummock grassland over <i>*Stylosanthes hamata</i> open forbland.	Dune Swale	0.58 ha	CB03	Poor	
TpTmCc: <i>Terminalia petiolaris</i> low open woodland including <i>Terminalia ferdinandiana</i> low isolated trees over <i>Flueggea virosa</i> subsp. <i>melanthesoides</i> and <i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i> tall open shrubs over (<i>Corymbia ?paractia</i>), <i>Exocarpos latifolius</i> , and <i>Sersalisia sericea</i> isolated trees over <i>Triodia microstachya</i> , low hummock grassland <i>*Cenchrus ciliaris</i> low tussock grassland mosaic.	Dune Swale	0.25 ha	CB02	Good	

Vegetation Unit and Description*	Local Landform	Total Area (ha), Proportion of the Survey Area	Sites	Vegetation Condition	Photograph
CpTfAtTm: <i>Corymbia paractia</i> , <i>Corymbia greeniana</i> isolated clumps of trees over <i>Terminalia ferdinandiana</i> , <i>Lysiphyllum cunninghamii</i> over <i>Acacia colei</i> var. <i>colei</i> (<i>Acacia plectocarpa</i>) open shrubland over <i>Adriana tomentosa</i> var. <i>tomentosa</i> low open shrubland over <i>Triodia microstachya</i> open hummock grassland.	Dune swale	0.88 ha	CBr04	Good	
CrSl: <i>Canavalia rosea</i> vine over <i>Spinifex longifolius</i> closed hummock grassland.	Dune swale	0.03 ha	Mapping note	Good	Photo not available
Pl: Planted mixed native and non-endemic species	Dune swale	0.41 ha	Mapping note	Completely Degraded	Photo not available
Cleared	-	1.92 ha	Mapping note	-	-

*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 Significant Vegetation

4.2.10.1 Threatened and Priority Ecological Communities

Vegetation types FaTpSs and TfSsLc were considered analogous to the '*Monsoon vine thickets on the coastal sand dunes of Dampier Peninsula*' TEC (MVT, Figure 7), which has been previously recorded within the Survey Area (Focused Vision, 2019a). The proposed clearing within the Survey Area would avoid both of these MVT units.

The vegetation types CpTfAtTm and TpTmCc, both adjacent to the main drain were considered analogous to the Priority 1 ecological community '*Corymbia paractia dominated community on dunes*' (Cp, Figure 7) which was recorded by DBCA as occurring in the Survey Area. The proposed clearing will likely impact 0.476 ha and 0.07 ha of these two vegetation types, respectively.

4.2.10.2 Other Significant Vegetation

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

- 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.

No other vegetation types in the Survey Area were considered significant.

4.2.11 Groundwater Dependent Ecosystems

A significant number of overstory species that form part of the diagnostic characteristics of MVT may be dependent on shallow (< 10mbgl) regional ground water (DWER, 2017). The MVT species occurring in the Survey Area that fall into the above category include *Exocarpos latifolius*, *Grewia brevifolia*, *Lysiphyllum cunninghamii* and *Terminalia petiolaris*. The DWER (2017) states that MVT, is in some degree, ground water dependent, though it has been shown to be site specific; further study may be required to confirm the presence of GDE within the Survey Area.

The remainder of vegetation in the Survey Area comprised tropical and xerophytic species that have no interaction with groundwater. One facultative phreatophyte, *Eucalyptus camaldulensis*, was recorded from one vegetation type (TpTmCc) within the Survey Area. The presence of *Eucalyptus camaldulensis* is not dominant within the TpTmCc vegetation type and is unlikely to confirm the presence of a GDE.

4.2.12 Survey Adequacy

Three quadrats and two relevés were sampled across the Survey Area, with an additional 12 mapping notes. The flora and vegetation survey effort was in accordance with the scope of works, and in accordance with EPA guidelines for a detailed flora and vegetation survey in the Kimberley bioregion (Environmental Protection Authority, 2016).

4.3 Vertebrate Fauna

4.3.1 Database Searches

Database searches identified 90 significant terrestrial vertebrate fauna species potentially occurring within the Survey Area (Table 12), comprising:

- 69 bird species
- 14 mammal species
- Seven reptile species
- No amphibian species.

Key findings of the literature review are summarized in Appendix A. Database searches are displayed in their entirety in Appendix B and mapped in Figure 10.

4.3.2 Significant Fauna Likelihood of Occurrence

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

- One species was recorded in the Survey Area
- Four species had a high likelihood of occurrence
- 25 species had a medium likelihood of occurrence
- 60 species had a low likelihood of occurrence.

The results of the likelihood of occurrence assessment are presented in Table 12.

Species listed as Marine only under the EPBC Act identified by the desktop assessment, such as the Magpie-lark (*Grallina cyanoleuca*) and Oriental Dollarbird (*Eurystomus orientalis*) etc., as well as marine dependent species including Procellariiformes (tube-nosed) and pelagic seabirds, fish, sharks, dolphins, and sea turtles have been excluded from the likelihood table. For a complete list of the database searches including marine only and marine dependent species, see Appendix B.

Table 12: Significant Fauna Likelihood table.

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, EX – Extinct, CR – Critically Endangered, EN – Endangered, VU – Vulnerable, MI – Migratory, CD – Conservation Dependent fauna, OS – Other Specially Protected fauna, MA – Marine, P – Listed as Priority by DBCA.

Source: NM – NatureMap, PMST – EPBC Protected Matters Search Tool, DBCA – DBCA Threatened and Priority Fauna database search, Literature – returned from literature within 15 km of the Survey Area.

Family	Taxon	Common Name	Conservation Status		Source				Likelihood of Occurrence	Justification
			State	Federal	NM	PMST	DBCA	Literature		
AVIAN										
Accipitridae	<i>Elanus scriptus</i>	Letter-winged Kite	P4		x		2		Low	Two DBCA records within 40 km of the Survey Area, 3.7 and 8.7 km south in 1994. ¹ No suitable habitat present in the Survey Area (open country and grasslands of arid and semi-arid interior). ²
Accipitridae	<i>Erythrotriorchis radiatus</i>	Red Goshawk	VU	VU	x	x	1		Low	One DBCA record within 40 km of the Survey Area, 29.3 km north in 1976. ¹ Small amounts of marginal habitat present in the Survey Area (tropical and subtropical open-forests and woodlands dominated by eucalypts and paperbarks along streams and near wetlands). ²
Anatidae	<i>Spatula querquedula</i>	Garganey	MI	MI, MA	x		3		Low	Three DBCA records within 40 km of the Survey Area, 17.6 km north in 2001 and 17.6 km north in 1999. ¹ Small amounts of marginal habitat present in the Survey Area after heavy rain (freshwater swamps, open wetlands). ³
Apodidae	<i>Apus pacificus</i>	Pacific Swift	MI	MI, MA	x	x	88		High	A total of 88 DBCA records within 40 km of the Survey Area, including 2.8 km east in 2011 and 4.0 km south in 2015. ¹ Uses low to very high airspace over varied habitats. ⁴ May use the Survey Area, but unlikely to rely on habitats within the Survey Area.

Family	Taxon	Common Name	Conservation Status		Source				Likelihood of Occurrence	Justification
			State	Federal	NM	PMST	DBCA	Literature		
Apodidae	<i>Hirundapus caudacutus</i>	White-throated Needletail	MI	VU, MI, MA	x		1		Low	One DBCA record within 40 km of the Survey Area, 14.5 km southeast in 2000. ¹ Migratory to eastern Australia, rarely occurs in Western Australia. ²
Ardeidae	<i>Ixobrychus dubius</i>	Australian Little Bittern	P4		x		3		Low	Three DBCA records within 40 km of the Survey Area, including 17.6 km north in 2001. ¹ No suitable habitat present in the Survey Area (freshwater swamps, lakes and rivers with dense beds of <i>Baumea</i> , <i>Typha</i> , and other tall rushes). ³
Charadriidae	<i>Charadrius bicinctus</i>	Double-banded Plover	MI	MI, MA		x			Low	Only returned by PMST which searches by modelled distribution. ⁵ Suitable habitat present in the Survey Area after heavy rain (coastal and near coastal areas, freshwater wetlands). ²
Charadriidae	<i>Charadrius dubius</i>	Little Ringed Plover	MI	MI, MA	x		6		Low	Six DBCA records within 40 km of the Survey Area, including 3.9 km south in 2013 and 3.0 km southeast in 2007. ¹ Suitable habitat present in the Survey Area after heavy rain (freshwater wetlands, lakes, ponds). ⁴
Charadriidae	<i>Charadrius leschenaultii</i>	Greater Sand Plover	VU	VU, MI, MA	x	x	692	x	Low	A total of 692 DBCA records within 40 km of the Survey Area, including 0.6 km south in 2015 and 13.9 km southeast in 2017. ¹ No suitable habitat present in the Survey Area (tidal flats, beaches). ²
Charadriidae	<i>Charadrius mongolus</i>	Lesser Sand Plover	EN	EN, MI, MA	x	x	368		Low	A total of 368 DBCA records within 40 km of the Survey Area, including 8.8 km southeast in 2017 and 0.6 km south in 2014. ¹ No suitable habitat present in the Survey Area (tidal flats). ²

Family	Taxon	Common Name	Conservation Status		Source				Likelihood of Occurrence	Justification
			State	Federal	NM	PMST	DBCA	Literature		
Charadriidae	<i>Charadrius veredus</i>	Oriental Plover	MI	MI, MA	x	x	105		Medium	A total of 105 DBCA records within 40 km of the Survey Area, including 1.8 km southeast in 2015 and 1.8 km southeast in 2012. ¹ Suitable habitat present in the Survey Area (grasslands, thinly vegetated plains). ²
Charadriidae	<i>Pluvialis fulva</i>	Pacific Golden Plover	MI	MI, MA	x	x	319	x	Medium	A total of 319 DBCA records within 40 km of the Survey Area, including 0.4 km north in 2010 and 14.6 km southeast in 2017. ¹ Suitable habitat present in the Survey Area (coastal areas, short sparse grassland). ²
Charadriidae	<i>Pluvialis squatarola</i>	Grey Plover	MI	MI, MA	x	x	444	x	Low	A total of 444 DBCA records within 40 km of the Survey Area, including 0.6 km southwest in 2015 and 3.1 km southeast in 2011. ¹ No suitable habitat present in the Survey Area (strictly coastal areas, tidal flats). ²
Cuculidae	<i>Cuculus saturatus optatus</i>	Horsfield's Cuckoo, Oriental Cuckoo	MI	MI, MA	x	x	10		Medium	Ten DBCA records within 40 km of the Survey Area, including 4.0 km south in 2009 and 12.0 km east in 2015. ¹ Suitable habitat present in the Survey Area (open woodlands, gardens). ³
Estrildidae	<i>Chloebia gouldiae</i>	Gouldian Finch	P4	EN	x	x	2		Low	Two vouchered specimen DBCA records within 40 km of the Survey Area, 3.7 km southeast. ¹ No suitable habitat present in the Survey Area (grassy open forests and woodlands near drinkable water, stony hills with <i>Eucalyptus brevifolia</i> when breeding). ³

Family	Taxon	Common Name	Conservation Status		Source				Likelihood of Occurrence	Justification
			State	Federal	NM	PMST	DBCA	Literature		
Falconidae	<i>Falco hypoleucos</i>	Grey Falcon	VU	VU	x	x	10		Low	Ten DBCA records within 40 km of the Survey Area, including 14.6 km east in 2014 and 3.7 km south in 1997. ¹ Small amounts of marginal habitat present in the Survey Area (open plains with treed watercourses in arid inland). ²
Falconidae	<i>Falco peregrinus</i>	Peregrine Falcon	OS		x		29		Medium	A total of 29 DBCA records within 40 km of the Survey Area, including 2.2 km south in 2015 and 1.6 km south in 2005. ¹ Suitable habitat present in the Survey Area (most environments with suitable nest sites: commonly uses stick nests built by other species). ² May use the Survey Area for hunting.
Fregatidae	<i>Fregata ariel</i>	Lesser Frigatebird	MI	MI, MA	x	x	112	x	Low	One DBCA record within the Survey Area in 2015. A total of 111 DBCA records within 40 km of the Survey Area, including 0.04 km east in 2011 and 0.06 km east in 2018. ¹ No suitable habitat present in the Survey Area (oceanic). ³
Fregatidae	<i>Fregata minor</i>	Greater Frigatebird	MI	MI, MA	x	x	2		Low	Two DBCA records within 40 km of the Survey Area, 3.7 km southeast and 5.4 km southwest in 2012. ¹ No suitable habitat present in the Survey Area (oceanic). ³
Glareolidae	<i>Glareola maldivarum</i>	Oriental Pratincole	MI	MI, MA	x	x	76		Medium	A total of 76 DBCA records within 40 km of the Survey Area, including 0.5 km south in 2002 and 4.0 km south in 2015. ¹ Suitable habitat present in the Survey Area (open plains, wetlands). ⁴

Family	Taxon	Common Name	Conservation Status		Source				Likelihood of Occurrence	Justification
			State	Federal	NM	PMST	DBCA	Literature		
Hirundinidae	<i>Cecropis daurica</i>	Red-rumped Swallow	MI	MI, MA	x	x	11		Low	A total of 11 DBCA records within 40 km of the Survey Area, including 17.7 km southeast in 2015 and 14.3 km east in 2000. ¹ Non-breeding migrant to northern Australia, rarely occurs in Western Australia.
Hirundinidae	<i>Hirundo rustica</i>	Barn Swallow	MI	MI, MA	x	x	165	x	High	A total of 165 DBCA records within 40 km of the Survey Area, including 4.0 km south in 2015 and 1.4 km east in 2011. ¹ Suitable habitat present in the Survey Area (coastal areas, wetlands, urban areas near water). ² Forages over open country, often congregates in areas with high densities of flying insects.
Laridae	<i>Anous stolidus</i>	Common Noddy	MI	MI, MA	x	x	15		Low	A total of 15 DBCA records within 40 km of the Survey Area, including 7.9 km south in 2012 and 3.8 km south in 2000. ¹ No suitable habitat present in the Survey Area (oceanic). ⁴
Laridae	<i>Anous tenuirostris melanops</i>	Australian Lesser Noddy	EN	VU, MA		x			Low	Only returned by PMST which searches by modelled distribution. ⁵ Breeds on Abrolhos Island and Black Noddy on Ashmore Reef, infrequently storm-blown to coast of mainland WA. ²
Laridae	<i>Chlidonias leucopterus</i>	White-winged Black Tern	MI	MI, MA	x		191		Medium	A total of 191 DBCA records within 40 km of the Survey Area, including 0.3 km north in 2007 and 4.0 km south in 2015. ¹ Suitable habitat present in the Survey Area after heavy rain (fresh to saline wetlands, coastal areas, swamps). ^{2,3}

Family	Taxon	Common Name	Conservation Status		Source				Likelihood of Occurrence	Justification
			State	Federal	NM	PMST	DBCA	Literature		
Laridae	<i>Gelochelidon nilotica</i>	Gull-billed Tern	MI	MI, MA	x		282	x	Medium	A total of 282 DBCA records within 40 km of the Survey Area, including 8.8 km southeast in 2017 and 1.2 km south in 2003. ¹ Suitable habitat present in the Survey Area after heavy rain (coastal areas, tidal creeks, swamps). ³
Laridae	<i>Hydroprogne caspia</i>	Caspian Tern	MI	MI, MA	x		549		Medium	A total of 549 DBCA records within 40 km of the Survey Area, including 1.2 km south in 2003 and 8.8 km southeast in 2017. ¹ Suitable habitat present in the Survey Area after heavy rain (fresh to saline lakes, temporary wetlands, tidal creeks, brackish pools). ^{2,3}
Laridae	<i>Onychoprion anaethetus</i>	Bridled Tern	MI	MI, MA	x		10		Low	Ten DBCA records within 40 km of the Survey Area, including 4.3 km southeast in 2018 and 2.2 km southeast in 2014. ¹ No suitable habitat present in the Survey Area (tropical and subtropical seas). ⁴
Laridae	<i>Sterna dougallii</i>	Roseate Tern	MI	MI, MA	x		42		Low	A total of 42 DBCA records within 40 km of the Survey Area, including 5.3 km southwest in 2015 and 3.1 km west in 2001. ¹ No suitable habitat present in the Survey Area (tropical and subtropical seas and coastlines). ⁴
Laridae	<i>Sterna hirundo</i>	Common Tern	MI	MI, MA	x		140		Low	A total of 140 DBCA records within 40 km of the Survey Area, including 0.3 km north in 2007 and 4.5 km southwest in 2015. ¹ No suitable habitat present in the Survey Area (near-shore waters, beaches, coastal rock platforms). ³

Family	Taxon	Common Name	Conservation Status		Source				Likelihood of Occurrence	Justification
			State	Federal	NM	PMST	DBCA	Literature		
Laridae	<i>Sterna sumatrana</i>	Black-naped Tern	MI	MI, MA			1		Low	One DBCA record within 40 km of the Survey Area, 4.5 km east in 1981. ¹ No suitable habitat present in the Survey Area (oceanic). ³
Laridae	<i>Sternula albifrons</i>	Little Tern	MI	MI, MA	x	x	337		Low	A total of 337 DBCA records within 40 km of the Survey Area, including 5.2 km south in 2015 and 1.9 km north in 2003. ¹ No suitable habitat present in the Survey Area (sheltered coastal waters, beaches, sandbars, estuaries, mangroves, near-coastal saltworks). ^{2,3}
Laridae	<i>Thalasseus bergii</i>	Greater Crested Tern	MI	MI, MA	x		465	x	Medium	A total of 465 DBCA records within 40 km of the Survey Area, including 5.3 km southwest in 2018 and 0.2 km west in 2015. ¹ Suitable habitat present in the Survey Area after heavy rain (coastal areas, salt ponds and lakes, tidal creeks). ^{3,4}
Motacillidae	<i>Motacilla cinerea</i>	Grey Wagtail	MI	MI, MA	x	x	2		Low	Two DBCA records within 40 km of the Survey Area, 14.7 km southeast in 2015 and 18.4 km east in 2012. ¹ Suitable habitat present in the Survey Area (fresh sandy or rocky streams, mown grass). ⁴
Motacillidae	<i>Motacilla tschutschensis</i>	Eastern Yellow Wagtail	MI	MI, MA	x	x	3		Low	Three DBCA records within 40 km of the Survey Area, including 3.7 km southeast in 2003 and 2002. ¹ Suitable habitat present in the Survey Area (damp short grass flats, swamp edges, mowed grass). ³

Family	Taxon	Common Name	Conservation Status		Source				Likelihood of Occurrence	Justification
			State	Federal	NM	PMST	DBCA	Literature		
Pandionidae	<i>Pandion haliaetus</i>	Osprey	MI	MI, MA	x	x	457	x	High	One DBCA record within the Survey Area in 2015. A total of 456 DBCA records within 40 km of the Survey Area, including 5.3 km southwest in 2018 and 0.02 km northeast in 2013. ¹ Suitable habitat present in the Survey Area after heavy rain (coastal areas, wetlands, river pools). ^{3,4}
Phaethontidae	<i>Phaethon lepturus</i>	White-tailed Tropicbird	MI	MI, MA		x			Low	Only returned by PMST which searches by modelled distribution. ⁵ No suitable habitat present in the Survey Area (oceanic). ²
Psittaculidae	<i>Polytelis alexandrae</i>	Princess Parrot	P4	VU	x	x	1		Low	One DBCA record within 40 km of the Survey Area, 3.7 km southeast in 1999. ¹ No suitable habitat present in the Survey Area (spinifex with <i>Eucalyptus</i> , <i>Acacia</i> , desert oaks, <i>Hakeas</i> around salt lakes). ⁶
Rostratulidae	<i>Rostratula australis</i>	Australian Painted Snipe	EN	EN, MA	x	x	12		Low	A total of 12 DBCA records within 40 km of the Survey Area, including 19.5 km east in 2011 and 35.7 km east in 2017. ¹ Poor quality habitat present in the Survey Area after heavy rain (well vegetated surrounds and shallows of wetlands). ⁴
Scolopacidae	<i>Actitis hypoleucos</i>	Common Sandpiper	MI	MI, MA	x	x	558	x	Medium	A total of 558 DBCA records within 40 km of the Survey Area, including 0.6 km south in 2015 and 1.2 km south in 2003. ¹ Suitable habitat present in the Survey Area after heavy rain (coastal and interior wetlands, narrow muddy edges of billabongs, river pools). ^{3,4}

Family	Taxon	Common Name	Conservation Status		Source				Likelihood of Occurrence	Justification
			State	Federal	NM	PMST	DBCA	Literature		
Scolopacidae	<i>Arenaria interpres</i>	Ruddy Turnstone	MI	MI, MA	x	x	744	x	Low	A total of 744 DBCA records within 40 km of the Survey Area, including 0.4 km north in 2010 and 1.8 km southeast in 2015. ¹ No suitable habitat present in the Survey Area (coastal areas, tidal flats, beaches, rocky shorelines). ²
Scolopacidae	<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	MI	MI, MA	x	x	273		Medium	A total of 273 DBCA records within 40 km of the Survey Area, including 4.0 km south in 2015 and 0.3 km north in 2007. ¹ Suitable habitat present in the Survey Area after heavy rain (fresh and salt wetlands, lakes, soaks, temporary floodwaters). ⁴
Scolopacidae	<i>Calidris alba</i>	Sanderling	MI	MI, MA	x	x	114		Low	A total of 114 DBCA records within 40 km of the Survey Area, including 0.6 and 1.5 km south in 2015. ¹ No suitable habitat present in the Survey Area (beaches, sandy tidal flats). ²
Scolopacidae	<i>Calidris canutus</i>	Red Knot	EN	EN, MI, MA	x	x	650		Low	A total of 650 DBCA records within 40 km of the Survey Area, including 5.2 km south in 2015 and 0.6 km south in 2014. ¹ No suitable habitat present in the Survey Area (coastal areas, extensive firm tidal flats). ²
Scolopacidae	<i>Calidris falcinellus</i>	Broad-billed Sandpiper	MI	MI, MA	x	x	222		Medium	A total of 222 DBCA records within 40 km of the Survey Area, including 5.2 km south in 2015 and 4.0 km south in 2014. ¹ Suitable habitat present in the Survey Area after heavy rains (near-coastal salt lakes, drying freshwater lakes). ³

Family	Taxon	Common Name	Conservation Status		Source				Likelihood of Occurrence	Justification
			State	Federal	NM	PMST	DBCA	Literature		
Scolopacidae	<i>Calidris ferruginea</i>	Curlew Sandpiper	CR	CR, MI, MA	x	x	654	x	Medium	A total of 654 DBCA records within 40 km of the Survey Area, including 8.8 km southeast in 2017 and 1.8 km southeast in 2015. ¹ Suitable habitat present in the Survey Area after heavy rain (fresh to brackish wetlands,). ⁴
Scolopacidae	<i>Calidris melanotos</i>	Pectoral Sandpiper	MI	MI, MA	x	x	5		Low	Five DBCA records within 40 km of the Survey Area, including 18.3 km east in 2014 and 4.0 km south in 2009. ¹ Suitable habitat present in the Survey Area after heavy rain (coastal fresh to saline wetlands, inland permanent and temporary wetlands). ⁴
Scolopacidae	<i>Calidris pugnax</i>	Ruff	MI	MI, MA	x		11		Low	A total of 11 DBCA records within 40 km of the Survey Area, including 3.7 km southeast in 2000 and 18.3 km east in 2014. ¹ Suitable habitat present in the Survey Area after heavy rain (shallow wetlands, freshwater lakes, flood lands, dry grassland). ³
Scolopacidae	<i>Calidris ruficollis</i>	Red-necked Stint	MI	MI, MA	x	x	745	x	Medium	A total of 745 DBCA records within 40 km of the Survey Area, including 0.6 km south in 2015 and 8.8 km southeast in 2017. ¹ Suitable habitat present in the Survey Area after heavy rain (shallow wetlands, temporary floodwaters). ⁴
Scolopacidae	<i>Calidris subminuta</i>	Long-toed Stint	MI	MI, MA	x		51		Medium	A total of 51 DBCA records within 40 km of the Survey Area, including 3.5 km northeast in 2005 and 22.5 km east in 2015. ¹ Suitable habitat present in the Survey Area after heavy rain (muddy fringes of fresh wetlands). ²

Family	Taxon	Common Name	Conservation Status		Source				Likelihood of Occurrence	Justification
			State	Federal	NM	PMST	DBCA	Literature		
Scolopacidae	<i>Calidris tenuirostris</i>	Great Knot	CR	CR, MI, MA	x	x	813	x	Low	A total of 813 DBCA records within 40 km of the Survey Area, including 0.1 km north in 2010 and 4.3 km southeast in 2017. ¹ No suitable habitat present in the Survey Area (tidal flats, beaches). ²
Scolopacidae	<i>Gallinago megala</i>	Swinhoe's Snipe	MI	MI, MA	x	x	9		Low	Nine DBCA records within 40 km of the Survey Area, including 2.6 km southeast in 2004 and 14.6 km southeast in 2012. ¹ Suitable habitat present in the Survey Area after heavy rain (freshwater wetlands, streams). ³
Scolopacidae	<i>Gallinago stenura</i>	Pin-tailed Snipe	MI	MI, MA	x	x	3		Low	Three DBCA records within 40 km of the Survey Area, including 4.3 km east in 2011 and 2.6 km southeast in 2004. ¹ Suitable habitat present in the Survey Area after heavy rain (shallow freshwaters, river pools, floodwaters). ³
Scolopacidae	<i>Limnodromus semipalmatus</i>	Asian Dowitcher	MI	MI, MA	x	x	227		Low	A total of 227 DBCA records within 40 km of the Survey Area, including 4.3 km east in 2011 and 10.0 km southeast in 2015. ¹ No suitable habitat present in the Survey Area (beaches, mudflats, sewage ponds). ²
Scolopacidae	<i>Limosa lapponica</i>	Bar-tailed Godwit	MI	MI, MA	x	x	874	x	Low	A total of 874 DBCA records within 40 km of the Survey Area, including 13.7 km southeast in 2017 and 1.2 km south in 2003. ¹ No suitable habitat present in the Survey Area (coastal areas, tidal flats). ²

Family	Taxon	Common Name	Conservation Status		Source				Likelihood of Occurrence	Justification
			State	Federal	NM	PMST	DBCA	Literature		
Scolopacidae	<i>Limosa lapponica menzbieri</i>	Bar-tailed Godwit	CR	MI, MA, CR	x	x	12		Low	A total of 12 DBCA records within 40 km of the Survey Area, including 9.9 km east in 2009 and 3.7 km south in 2003. ¹ No suitable habitat present in the Survey Area (coastal tidal flats). ²
Scolopacidae	<i>Limosa limosa</i>	Black-tailed Godwit	MI	MI, MA	x	x	494	x	Medium	A total of 494 DBCA records within 40 km of the Survey Area, including 3.3 km southeast in 2007 and 13.7 km southeast in 2017. ¹ Suitable habitat present in the Survey Area after heavy rain (shallow inland wetlands). ²
Scolopacidae	<i>Numenius madagascariensis</i>	Eastern Curlew	CR	CR, MI, MA	x	x	618	x	Low	A total of 618 DBCA records within 40 km of the Survey Area, including 10.7 km southeast in 2017 and 3.3 km southeast in 2007. ¹ No suitable habitat present in the Survey Area (tidal flats, beaches, saltmarshes). ²
Scolopacidae	<i>Numenius minutus</i>	Little Curlew	MI	MI, MA	x	x	145		High	A total of 145 DBCA records within 40 km of the Survey Area, including 1.8 km southeast in 2015 and 17.0 km southeast in 2017. ¹ Suitable habitat present in the Survey Area (lawns, dry grassland, fresh wetlands). ²
Scolopacidae	<i>Numenius phaeopus</i>	Whimbrel	MI	MI, MA	x	x	907	x	Low	A total of 907 DBCA records within 40 km of the Survey Area, including 2.2 km southeast in 2014 and 4.3 km southeast in 2018. ¹ No suitable habitat present in the Survey Area (coastal areas, tidal flats, mangroves). ²

Family	Taxon	Common Name	Conservation Status		Source				Likelihood of Occurrence	Justification
			State	Federal	NM	PMST	DBCA	Literature		
Scolopacidae	<i>Phalaropus lobatus</i>	Red-necked Phalarope	MI	MI, MA	x		5		Low	Five DBCA records within 40 km of the Survey Area, including 18.4 and 31.8 km east in 1999. ¹ No suitable habitat present in the Survey Area (near-coastal salt lakes). ³
Scolopacidae	<i>Tringa brevipes</i>	Grey-tailed Tattler	MI, P4	MI, MA	x	x	769	x	Low	A total of 769 DBCA records within 40 km of the Survey Area, including 0.6 km southwest in 2014 and 8.8 km southeast in 2017. ¹ No suitable habitat present in the Survey Area (coastal areas, tidal flats, rocky shorelines). ²
Scolopacidae	<i>Tringa glareola</i>	Wood Sandpiper	MI	MI, MA	x	x	109		Medium	A total of 109 DBCA records within 40 km of the Survey Area, including 3.9 km south in 2015 and 2.6 km east in 2002. ¹ Low-quality habitat present in the Survey Area after heavy rains (freshwater wetlands with emergent sedges and taller fringing vegetation). ²
Scolopacidae	<i>Tringa nebularia</i>	Common Greenshank	MI	MI, MA	x	x	831	x	Medium	A total of 831 DBCA records within 40 km of the Survey Area, including 1.8 km southeast in 2015 and 8.8 km southeast in 2017. ¹ Suitable habitat present in the Survey Area after heavy rain (permanent and temporary wetlands, floodplains). ⁴
Scolopacidae	<i>Tringa stagnatilis</i>	Marsh Sandpiper	MI	MI, MA	x	x	205		Medium	A total of 205 DBCA records within 40 km of the Survey Area, including 12.0 km southeast in 2015 and 3.7 km southeast in 2009. ¹ Suitable habitat present in the Survey Area after heavy rain (shallow, fresh to brackish inland wetlands). ²

Family	Taxon	Common Name	Conservation Status		Source				Likelihood of Occurrence	Justification
			State	Federal	NM	PMST	DBCA	Literature		
Scolopacidae	<i>Tringa totanus</i>	Common Redshank	MI	MI, MA	x	x	98		Low	A total of 98 DBCA records within 40 km of the Survey Area, including 4.3 km southeast in 2008 and 8.7 km southeast in 2015. ¹ No suitable habitat present in the Survey Area (sheltered tidal flats). ²
Scolopacidae	<i>Xenus cinereus</i>	Terek Sandpiper	MI	MI, MA	x	x	551	x	Low	A total of 551 DBCA records within 40 km of the Survey Area, including 3.5 km northeast in 2005 and 8.8 km southeast in 2017. ¹ No suitable habitat present in the Survey Area (tidal flat, saltwork ponds). ²
Threskiornithidae	<i>Plegadis falcinellus</i>	Glossy Ibis	MI	MI, MA	x		124		Medium	A total of 124 DBCA records within 40 km of the Survey Area, including 2.4 km southeast in 2015 and 22.6 km east in 2017. ¹ Suitable habitat present in the Survey Area (shallow fresh waters, dry grasslands). ²
Tytonidae	<i>Tyto novaehollandiae kimberli</i>	Northern Masked Owl	P1	VU		x	1		Low	Three historical DBCA record within 40 km of the Survey Area, including 2.5 km southwest and southeast in 1909. ¹ No suitable habitat present in the Survey Area (eucalypt open forests with tree hollows for nesting and nearby closed monsoon forest for roosting). ²

Family	Taxon	Common Name	Conservation Status		Source				Likelihood of Occurrence	Justification
			State	Federal	NM	PMST	DBCA	Literature		
MAMMALIAN										
Dasyuridae	<i>Dasyurus hallucatus</i>	Northern Quoll	EN	EN	x		1		Low	One DBCA record within 40 km of the Survey Area, 3.0 km southeast in 2015. ¹ No suitable habitat present in the Survey Area (rocky escarpments, eucalypt forest and woodland). ⁷
Dasyuridae	<i>Phascogale tapoatafa kimberleyensis</i>	Kimberley Brush-tailed Phascogale	VU	VU	x		1		Low	One historical DBCA record within 40 km of the Survey Area, 31.3 km east. ¹ No suitable habitat present in the Survey Area (coastal and near coastal areas in the tropical north from Kalumburu to Broome). ⁸
Emballonuridae	<i>Saccolaimus saccolaimus nudiclunatus</i>	Bare-rumped Sheath-tailed Bat	P3	VU		x			Low	Only returned by PMST which searches by modelled distribution. ⁵ No suitable habitat present in the Survey Area (coastal eucalypt woodland with tree hollows). ⁷
Macropodidae	<i>Lagorchestes conspicillatus leichardti</i>	Spectacled Hare-wallaby	P4		x				Low	Ten NatureMap records within 50 km of the Survey Area. ⁹ No suitable habitat present in the Survey Area (tropical grasslands). ⁷
Megadermatidae	<i>Macroderma gigas</i>	Ghost Bat	VU	VU		x			Low	Only returned by PMST which searches by modelled distribution. ⁵ Suitable habitat present in the Survey Area (vine thickets). ^{7 10}
Molossidae	<i>Ozimops cobourgianus</i>	Northern Coastal Free-tailed Bat	P1		x		2		Medium	Two DBCA records within 40 km of the Survey Area, 0.7 km south and 9.4 km northeast in 2016. ¹ No suitable roosting habitat present in the Survey Area (<i>Avicennia marina</i> tree hollows). ¹⁰ May use the Survey Area for feeding.

Family	Taxon	Common Name	Conservation Status		Source				Likelihood of Occurrence	Justification
			State	Federal	NM	PMST	DBCA	Literature		
Muridae	<i>Hydromys chrysogaster</i>	Water Rat	P4		x		1		Low	One DBCA record within 40 km of the Survey Area, 7.7 km southeast in 1971. ¹ No suitable habitat present in the Survey Area (permanent fresh to brackish water bodies). ⁷
Muridae	<i>Mesembriomys macrurus</i>	Golden-backed Tree-rat	P4		x		1		Low	One historical DBCA record within 40 km of the Survey Area, 11.7 km north. ¹ Outside current known range Restricted to NW Kimberley, where it inhabits tropical woodlands, vine thickets and rainforest in rugged valleys. ¹⁰
Muridae	<i>Xeromys myoides</i>	Water Mouse		VU		x			Low	Only returned by PMST which searches by modelled distribution. ⁵ Outside range, restricted to the coastal Top End of the NT and the QLD coast from Gold Coast to Prosperine. ¹⁰
Peramelidae	<i>Isoodon auratus auratus</i>	Golden Bandicoot	VU	VU	x		1		Low	One historical DBCA record within 40 km of the Survey Area, 31.3 km east. ¹ No suitable habitat present in the Survey Area (sand-dune and sandplain country with spinifex formations in arid zone, sandplains with <i>Acacia</i> and eucalypt woodlands over tussock grasses in tropical semiarid zone, rugged sandstone-spinifex country and volcanic country in tropical, subhumid north-western Kimberley). ¹⁰

Family	Taxon	Common Name	Conservation Status		Source				Likelihood of Occurrence	Justification
			State	Federal	NM	PMST	DBCA	Literature		
Phalangeridae	<i>Trichosurus vulpecula arnhemensis</i>	Northern Brushtail Possum	VU (Kimberley)	VU	x	x	11	x	Medium	A total of 11 DBCA records within 40 km of the Survey Area, including 0.7 km south in 2016 and 3.7 km southeast in 2015. ¹ Habitat within the Survey Area is of low quality due to low density of hollows.
Phalangeridae	<i>Wyulda squamicaudata</i>	Scaly-tailed Possum	P4		x		1		Low	One DBCA record within 40 km of the Survey Area, 4.6 km southwest in 1970. ¹ Outside current known range. Patchily distributed in coastal NW Kimberley in low open woodland, riparian forest, and vine thickets where tumbled boulders provide shelter. ¹⁰
Potoroidae	<i>Bettongia lesueur graii</i>	Burrowing Bettong, Boodie	EX	EX	x		1		Low	Extinct on mainland Australia, <i>B. lesueur leseur</i> has been reintroduced to the mainland from Dorre and Barrow Island populations. ¹¹
Thylacomyidae	<i>Macrotis lagotis</i>	Greater Bilby, Dalgyte	VU	VU	x	x	231	x	Low	A total of 231 DBCA records within 40 km of the Survey Area, including 8.9 km northeast in 2018 and 3.8 km southeast in 2015. ¹ Limited suitable habitat present in the Survey Area (dunes, hummock grasslands, massive red earths with <i>Acacia</i> shrubland). ⁷

Family	Taxon	Common Name	Conservation Status		Source				Likelihood of Occurrence	Justification
			State	Federal	NM	PMST	DBCA	Literature		
REPTILIAN										
Crocodylidae	<i>Crocodylus johnstoni</i>	Freshwater Crocodile	OS	MA		x			Low	Only returned by PMST which searches by modelled distribution. ⁵ Suitable habitat present in the Survey Area after heavy rain (freshwater rivers and billabongs). ¹²
Crocodylidae	<i>Crocodylus porosus</i>	Saltwater Crocodile	MI	MI, MA		x			Recorded	One juvenile individual recorded in the Survey Area, likely to have originated from a nearby captive populations. Only returned by PMST which searches by modelled distribution. ⁵ Suitable habitat present in the Survey Area after heavy rain (coastal rivers, swamps, and inland along major drainage systems from western Pacific to Indian Ocean). ¹²
Elapidae	<i>Simoselaps minimus</i>	Dampierland Burrowing Snake	P2		x		1		Medium	One DBCA record within 40 km of the Survey Area, 4.9 km south in 2005. ¹ Suitable habitat present in the Survey Area (coastal dunes and sandy junction between dunes and adjacent <i>Acacia</i> shrubland). ¹²
Scincidae	<i>Ctenotus angusticeps</i>	Northwestern Coastal Ctenotus	P3		x		27		Low	A total of 27 DBCA records within 40 km of the Survey Area, including 5.1 and 5.6 km east in 2017. ¹ No suitable habitat present in the Survey Area Outside current known range. Patchily distributed along NW coast, between Airlie Island and just N of Broome. On the mainland it inhabits coastal mudflats vegetated with samphire. ¹²



Family	Taxon	Common Name	Conservation Status		Source				Likelihood of Occurrence	Justification
			State	Federal	NM	PMST	DBCA	Literature		
Scincidae	<i>Lerista separanda</i>	Dampierland Plain Slider	P2		x		3		Medium	Three DBCA records within 40 km of the Survey Area, 4.9 km south in 2005. ¹ Suitable habitat present in the Survey Area (sandy southwest Kimberley coast). ¹²
Scincidae	<i>Liopholis kintorei</i>	Great Desert Skink	VU	VU	x	x	1		Low	One historical DBCA record within 40 km of the Survey Area, 30.5 km southeast. ¹ Outside known range. Inhabits arid flats vegetated with spinifex in central WA. ¹²
Varanidae	<i>Varanus sparnus</i>	Dampierland Goanna	P1		x				Medium	Four NatureMap records within 50 km of the Survey Area. ⁹ Restricted to the Dampier Peninsular; pindan shrubland composed of low <i>Corymbia</i> over mixed <i>Acacia</i> shrubs and <i>Triodia</i> on reddish brown sandy loams. ¹²



1 (Department of Biodiversity Conservation and Attractions, 2022f), 2 (Menkhorst et al., 2017), 3 (Johnstone & Storr, 1998), 4 (Morcombe, 2003), 5 (Department of Agriculture Water and the Environment, 2022b), 6 (Pizzey & Knight, 2001), 7 (van Dyck & Strahan, 2008), 8 (Threatened Species Scientific Committee, 2017), 9 (Department of Biodiversity Conservation and Attractions, 2022c), 10 (Menkhorst & Knight, 2010), 11 (Department of Environment and Conservation, 2012), 12 (Wilson & Swan, 2017)


4.3.3 Fauna Habitat

Seven broad fauna habitats (excluding cleared areas) were identified and mapped within the Survey Area (Figure 11). Habitat condition ranged from Disturbed to Very Good throughout the Survey Area, with the most prolific disturbance being previous clearing for a stormwater drain. Evidence of erosion, litter, weeds, and walking tracks was also recorded. A description, extent within the Survey Area, and a representative photo is provided in Table 13. Small discrepancies in fauna habitat extents (i.e., not adding up to the exact area extent of the Survey Area) are due to rounding. Fauna habitat assessments are presented in Appendix F.

Table 13: Fauna Habitat Type Descriptions within the Survey Area

Fauna Habitat	Total Area, Proportion of the Survey Area	Habitat Description	Representative Photo
Drainage Line	1.06 ha, 24.1%	<p>A single linear drainage strip that travels the length of the Survey area in a North to South direction. This habitat lacks overstorey vegetation but contains isolated <i>Corymbia</i> sp. and <i>Acacia</i> spp. Ground cover is sparse, but typically contains <i>Triodia</i> hummocks on substrates ranging from sand to sandy-clay.</p> <p>After rainfall events it may provide both passerine birds and shorebirds with suitable habitat. The Osprey, Barn Swallow, and Peregrine Falcon may use this habitat for hunting.</p> <p>Microhabitats include woody debris, hummocks, rock crevices, leaf litter, large logs, and burrows.</p>	
Mixed Shrubland	1.45 ha, 32.8%	<p>Isolated <i>Corymbia</i> and <i>Terminalia</i> trees over mixed <i>Adriana</i>, <i>Acacia</i> and <i>Lysiphyllum</i> shrubs over <i>Triodia</i> hummocks. The vegetation was mostly in good condition, however, it was impacted by litter and walking tracks.</p> <p>Suitable good quality habitat for reptiles, mammals, and birds. The Northern Brushtail Possum, Dampierland Goanna, Dampierland Burrowing Snake, Dampierland Slider, Northern Free-tailed Bat, Osprey, and Peregrine Falcon may use this habitat for foraging and shelter.</p> <p>Peeling bark, spinifex hummocks, and woody debris provide shelter for small reptiles and mammals. Isolated trees provide shelter and foraging habitat for some mammals and birds.</p>	

Fauna Habitat	Total Area, Proportion of the Survey Area	Habitat Description	Representative Photo
Temporary Open Water	0.26 ha, 6.0%	<p>Open man-made area of loamy ground that fills with water after rainfall. Storm water drains lead into this area.</p> <p>The temporary open water habitat provides waterbirds and shorebirds with suitable habitat. All significant fauna taxa either recorded during the field survey or identified as having a high or medium likelihood of occurrence may use this habitat.</p> <p>When dry, this area provides limited value to native fauna species.</p>	
Vine Thicket	0.37 ha, 8.3%	<p>Isolated <i>Ficus aculeata</i> trees over <i>Terminalia</i> spp. and <i>Sersalisia sericea</i> low woodland over mixed shrubs.</p> <p>This habitat was generally in good condition and provides good quality habitat for passerine birds (perching birds and songbirds) and reptiles, most notable agamids (dragons) and skinks. The Northern Brushtail Possum, Horsfield's Cuckoo, and Northern Free-tailed Bat may use this habitat for foraging and shelter.</p> <p>Microhabitats include woody debris, peeling bark, leaf litter, hollow logs, and tree hollows.</p>	

Fauna Habitat	Total Area, Proportion of the Survey Area	Habitat Description	Representative Photo
Hummock Grassland	0.03 ha, 0.7%	<i>Canavalia rosea</i> vine over <i>Spinifex longifolius</i> closed hummock grassland. Suitable good quality habitat for reptiles. Limited habitat for mammals due to lack of shelter. Microhabitats include hummocks and leaf litter.	NA
Lawn	0.04 ha, 1.0%	Open grass area suitable for roosting and foraging by some birds and mammals.	NA
Planted Trees	0.59 ha, 13.4%	Introduced trees over mixed shrubs and/or cleared ground. Limited habitat for birds and arboreal mammals.	NA
Cleared Areas	0.60 ha, 13.6%	Cleared land for existing walking tracks, carparks, and storm water drain. Limited to no value to native fauna species.	

4.3.4 Fauna Assemblage

The terrestrial vertebrate fauna survey recorded a total of 42 fauna species from 25 families, including 34 bird species and eight reptile species. A full inventory of fauna species recorded during the field survey is provided in Appendix G.

Birds

A total of 34 bird species from 20 families were recorded during the field survey. The most recorded species was the Grey Babbler (*Pomatostomus temporalis*) followed by the Peaceful Dove (*Geopelia striata placida*) and the Brown Honeyeater (*Lichmera indistincta*). The most speciose bird family was the Meliphagidae (Honeyeaters) with five taxa.

Reptiles

A total of eight reptile species from five families were recorded during the field survey. The most recorded species was the Kimberley Ta-ta (*Lophognathus hornei*) followed by the Robust Striped Ctenotus (*Ctenotus robustus*). The most speciose reptile families were the Scincidae with four species.

One significant fauna species was observed in the Survey Area, a juvenile Saltwater Crocodile (*Crocodylus porosus*) listed as Migratory under the BC Act and Migratory and Marine under the EPBC Act.

One introduced reptile species was observed in the Survey Area, the Asian House Gecko (*Hemidactylus frenatus*).

Mammals

No mammals were recorded during the field survey.

Amphibians

No amphibians were recorded during the field survey.

4.3.5 Significant Fauna

One significant fauna species was observed in the Survey Area, a juvenile Saltwater Crocodile (*Crocodylus porosus*) listed as Other Specially Protected under the BC Act and Marine under the EPBC Act (Figure 11). This individual is likely to have originated from a captive population located approximately 15 kms northeast and washed into the Survey Area during recent flooding events.

No other significant fauna species (Threatened or Priority), or evidence of these species such as tracks, scats, nests, diggings, burrows, or direct sightings were recorded within the Survey Area.

The post survey results identified four significant taxa as having a high likelihood of occurrence within the Survey Area:

- Barn Swallow (*Hirundo rustica*) - MI (BC Act); MI, MA (EPBC Act)
- Little Curlew (*Numenius minutus*) - MI (BC Act); MI, MA (EPBC Act)
- Osprey (*Pandion haliaetus*) - MI (BC Act); MI, MA (EPBC Act)
- Pacific Swift (*Apus pacificus*) - MI (BC Act); MI, MA (EPBC Act).

A further 25 significant taxa had a medium likelihood of occurrence within the Survey Area:

- Northern Brushtail Possum (*Trichosurus vulpecula arnhemensis*) - VU (BC Act); VU (EPBC Act)
- Horsfield's Cuckoo, Oriental Cuckoo (*Cuculus saturatus optatus*) - MI (BC Act); MI, MA (EPBC Act)
- Peregrine Falcon (*Falco peregrinus*) - OS (BC Act)
- Dampierland Goanna (*Varanus sparnus*) - P1 (DBCA)
- Dampierland Burrowing Snake (*Simoselaps minimus*) - P2 (DBCA)
- Dampierland Plain Slider (*Lerista separanda*) - P2 (DBCA)
- Northern Free-tailed Bat (*Ozimops cobourgianus*) - P4 (DBCA).

Water and Shorebirds

- Curlew Sandpiper (*Calidris ferruginea*) - CR (BC Act); CR, MI, MA (EPBC Act)
- Black-tailed Godwit (*Limosa limosa*) - MI (BC Act); MI, MA (EPBC Act)
- Broad-billed Sandpiper (*Calidris falcinellus*) - MI (BC Act); MI, MA (EPBC Act)
- Caspian Tern (*Hydroprogne caspia*) - MI (BC Act); MI, MA (EPBC Act)
- Common Greenshank (*Tringa nebularia*) - MI (BC Act); MI, MA (EPBC Act)
- Common Sandpiper (*Actitis hypoleucos*) - MI (BC Act); MI, MA (EPBC Act)
- Glossy Ibis (*Plegadis falcinellus*) - MI (BC Act); MI, MA (EPBC Act)
- Greater Crested Tern (*Thalasseus bergii*) - MI (BC Act); MI, MA (EPBC Act)
- Gull-billed Tern (*Gelochelidon nilotica*) - MI (BC Act); MI, MA (EPBC Act)
- Long-toed Stint (*Calidris subminuta*) - MI (BC Act); MI, MA (EPBC Act)
- Marsh Sandpiper (*Tringa stagnatilis*) - MI (BC Act); MI, MA (EPBC Act)
- Oriental Plover (*Charadrius veredus*) - MI (BC Act); MI, MA (EPBC Act)
- Oriental Pratincole (*Glareola maldivarum*) - MI (BC Act); MI, MA (EPBC Act)

- Pacific Golden Plover (*Pluvialis fulva*) - MI (BC Act); MI, MA (EPBC Act)
- Red-necked Stint (*Calidris ruficollis*) - MI (BC Act); MI, MA (EPBC Act)
- Sharp-tailed Sandpiper (*Calidris acuminata*) - MI (BC Act); MI, MA (EPBC Act)
- White-winged Black Tern (*Chlidonias leucopterus*) - MI (BC Act); MI, MA (EPBC Act)
- Wood Sandpiper (*Tringa glareola*) - MI (BC Act); MI, MA (EPBC Act).

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 respective areas (Beard 1976) and aligns with the database search results obtained.

Floristic diversity was considered within the expected range for the bioregions for the timing of the survey undertaken. Despite the below-average rainfall recorded for the three months (October – December) prior to commencing the survey, a significant 3-day rainfall event resulted in 485.0 mm rain 11 days prior to the survey (4 – 6 January 2023).

Floristic diversity of annual and ephemeral species was considered low, and the quality of some specimen collections was poor due to perennial species being sterile at the time of the survey. This was expected due to the lower than average rainfall received in the eight weeks prior to the survey. Additional annual and ephemeral species may be recorded later in the wet season.

5.1.2 Survey Adequacy

The flora and vegetation survey effort was in accordance with the scope of works, and pursuant to EPA guidance, for a detailed flora and vegetation survey in the Kimberley region. The inventory of vascular flora, and records of significant flora and weed species was compiled using site data and opportunistic observations made while traversing between sites, and during systematic targeted searching within the proposed footprint area.

5.1.3 Significant Flora

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 Area.

Of the Priority flora identified by the desktop assessment, *Corymbia paractia* (P1) was recorded from the Survey Area. A description of this species and details of its occurrence in the Survey Area is provided below.

5.1.3.1 *Corymbia paractia* (P1)

Corymbia paractia (P1) is a deciduous tree in the dry season, up to 12 m high, flowering in April to May or October to December. *Corymbia paractia* is endemic to the Broome peninsula and surrounding Pindan plains, occurring on transition zone between coastal beach dunes and red pindan soils (Department of Biodiversity Conservation and Attractions, 2020).

A total of 49 individuals were positively identified and recorded in two vegetation types (TpTmCc and CpTfAtTm) within the Survey Area. *Corymbia paractia* co-occurs with the more common species *Corymbia greeniana*, which can often be mistaken if individuals lack fruiting material. However, the tessellated bark of *C. greeniana* and the flaky bark of the P1 *C. paractia* should allow for a confident field identification.

5.1.4 Introduced Flora

Of the nine weed species recorded in the Survey Area, **Azadirachta indica* (Neem Tree) is listed as a Declared Pest. **Azadirachta indica* occurred in three vegetation types: AiTmSh, FaTpSs and PI, covering approximately 1 % of the vegetation within those types. **Azadirachta indica* was recorded as planted individuals in the PI vegetation type, which has likely contributed to encroachment of **Azadirachta indica* into the adjacent AiTmSh and FaTpSs vegetation types.

None of the remaining eight weed species recorded in the Survey Area, (**Cenchrus biflorus*, **Cenchrus ciliaris*, **Clitoria ternatea*, **Leucaena leucocephala*, **Mesosphaerum suaveolens*, **Passiflora foetida*, **Passiflora foetida* var. *hispida* and **Stylosanthes hamata*) have a legal status of Permitted – s11, and do not have an assigned control category.

Weed species richness and abundance was greatest in previously cleared areas such as walking tracks. The weed species, **Leucaena leucocephala*, **Mesosphaerum suaveolens* and **Stylosanthes hamata* were also present in relatively high abundance in association with drains.

The survey was undertaken two weeks after a storm event which resulted in 485 mm of rain within three days. Due to a high volume of water moving through the drains, a significant amount of erosion had occurred, stripping topsoil and associated vegetation; therefore, at the time of the survey, the presence of weed species may have been reduced.

5.1.5 Vegetation Types

Two of the vegetation types in the Survey Area, FaTpSs and TfSsLc were considered analogous to the 'Monsoon vine thickets on the coastal sand dunes of Dampier Peninsula' TEC. Two additional vegetation types, CpTfAtTm and TpTmCc, were considered analogous to the *Corymbia paractia* dominated community on dunes (Priority 1). Conservation significant vegetation types will be discussed further in section 5.1.6 below.

Mapping reliability is considered to be very high across the Survey Area.

One landform (dune swale) is recorded within the Survey Area. Vegetation types identified within the Survey Area were representative of existing broad scale vegetation mapping for the area (Beard, 1976).

The Survey Area comprised of dune swales, with skeletal sandy soils and flat plains along the eastern banks of the drain. However approximately 53% of the survey area was cleared for infrastructure or planted with introduced trees and grasses and includes vegetation type, Pl. The dune swale landform in the northern portion of the survey area was characterised by patches of Vine thicket dominated by *Lysiphyllum cunninghamii*, *Terminalia ferdinandiana*, *Terminalia petiolaris* over or *Sersalisia sericea* with no understory. Generally, the southern portion of the Survey Area, adjacent to the drain was dominated by mixed low open woodland of *Corymbia paractia*, *Corymbia greeniana*, *Lysiphyllum cunninghamii* or *Terminalia petiolaris* over *Acacia colei* var. *colei*, *Grewia breviflora* or *Adriana tomentosa* var. *tomentosa* over *Triodia microstachya*, low hummock grassland, **Cenchrus ciliaris* low tussock grassland mosaic.

5.1.6 Significant Vegetation

The previous survey undertaken within the 2023 Survey Area (Focused Vision, 2019a) reported the presence of the 'Monsoon vine thickets on the coastal sand dunes of Dampier Peninsula' (MVT) TEC. Vegetation types FaTpSs and TfSsLc are considered analogous to the above TEC. To be considered the TEC, at least 50 % of the total canopy, mid layer and ground layer must comprise of native perennial species as detailed in the Approved Conservation Advice (DEE, 2018) (see Table 14 below).

The canopy and understory for vegetation types FaTpSs and TfSsLc include TEC indicators species, which comprise 50% of the cover in the tree canopy and mid layers. Although FaTpSs and TfSsLc both have low diversity understory, with *Caesalpinia major* and *Breynia cernua* being the only species present, they are indicator species for the MVT TEC (Table 14). The ground layer in FaTpSs did not include any indicator species, however the ground layer species present were confined to a single patch along the western boundary of the MVT and represent a separate vegetation unit too small to map. Vines and ground layer indicator species were absent from TfSsLc, however the presence of both is not necessary for the categorisation of MVT (DEE, 2018), provided that the tree canopy is comprised of indicator species as stated above. Proposed clearing within the survey area would avoid both occurrences of the MVT community (Figure 9).

The vegetation types CpTfAtTm and TpTmCc are considered to be analogous to the Priority 1 *Corymbia paractia* dominated community on dunes PEC. This PEC is described as occurring in the transition zone where coastal dunes merge with Pindan vegetation, particularly in the Broome region (S. Reynolds, 2018). The survey area is located within the above transition zone and *Corymbia paractia* occurs regularly in clusters adjacent to the main drain extending the length of the Survey Area.

Some specimen collections of *Corymbia paractia* were sterile at the time of the survey and could not be positively identified. However, *C. paractia* has been previously mapped in the Survey Area (S. Reynolds, 2018) and the vegetation type is therefore considered to be part of the PEC. Clearing within the Survey Area would impact 0.54 ha of vegetation analogous to the *Corymbia paractia* dominated community on dunes PEC (Figure 9). Observations of native vegetation to the east of the Survey Area extending out to Cable Beach Road, appeared to be representative of vegetation type CpTfAtTm.

Table 14. Assessment of vegetation types FaTpSs and TfSsLc against diagnostic criteria for Dampier Monsoon Vine Thicket (Department of the Environment and Energy, 2018)

Key diagnostic characteristics (Department of the Environment and Energy, 2018)	Vegetation type against key diagnostic criteria	
	FaTpSs	TfSsLc
Distribution occurs within the Dampierland bioregion – mostly in the Pindanland subregion DL2 (IBRA4).	Yes	Yes
The ecological community is mainly restricted to the deep white or grey calcareous sands of the coastal Holocene dunes of the Dampier Peninsula.	Yes	Yes
The ecological community mainly occurs within the swales and on the leeward side of the coastal dunes and occasionally on the crests of these dunes and other coastal landforms such as: beach fronts, sand-spit headlands and storm ridges with intertidal flats (Black et al. 2010).	Yes	Yes
Outliers may occur on different substrates within the DL2 subregion, e.g. on pindan soil the ecological community may establish following dispersal of key species by frugivores and where these patches are buffered from moisture loss and fire.	N/A (vegetation occurs in landforms mentioned above)	N/A (vegetation occurs in landforms mentioned above)
<p>The overstorey (canopy) typically shows the following features:</p> <ul style="list-style-type: none"> The overstorey typically ranges from three to nine metres tall and may consist of trees, tall shrubs and/or climbers/vines The tree canopy composition is variable but the most common species are typically one or more of the taxa <i>Lysiphyllum cunninghamii</i> (jigal, joomoo), <i>Celtis philippensis</i> (goolnji), <i>Diospyros humilis</i> (ebony wood), <i>Exocarpos latifolius</i> (jarnba, mistletoe tree), <i>Grewia breviflora</i> (goolmi, currant/coffee fruit), <i>Mallotus nesophilus</i> (yellow ball flower), <i>Mimusops elengi</i> (joongoon, mamajen), <i>Sersalisia sericea</i> (mangarr), <i>Terminalia ferdinandiana</i> (gabiny, gubinge, kabiny) and <i>Terminalia petiolaris</i> (blackberry tree, marool, narwulu). 	<p>Yes, overstorey ranges from 3 to 6 metres and consists of trees, tall shrubs, and vines/climbers.</p> <p>Tree canopy consists of several typical overstorey species: <i>Exocarpos latifolius</i>, <i>Grewia breviflora</i>, <i>Sersalisia sericea</i>, <i>Terminalia ferdinandiana</i>, and <i>T. petiolaris</i></p>	<p>Yes, overstorey ranges from 3 to 6 metres and consists of trees, tall shrubs, and vines/climbers.</p> <p><i>Grewia breviflora</i>, <i>Lysiphyllum cunninghamii</i> <i>Sersalisia sericea</i>, <i>Terminalia ferdinandiana</i>, <i>T. petiolaris</i></p>

Key diagnostic characteristics (Department of the Environment and Energy, 2018)	Vegetation type against key diagnostic criteria	
	FaTpSs	TfSsLc
<p>The understorey shows the following features:</p> <ul style="list-style-type: none"> Shrub and small tree species when present include: <i>Breynia cernua</i>, <i>Bridelia tomentosa</i>, <i>Caesalpinia major</i> (goolyi), <i>Croton habrophyllus</i> (ankoolmarr), <i>Dodonaea platyptera</i>, snowball bush and <i>Santalum lanceolatum</i>. The ground layer is generally sparse to absent but may contain a variety of herbaceous species depending on seasonal conditions, site characteristics and canopy density. Native grass species are uncommon but may occur on the edges of vine thicket patches or in open groves. When present they typically include annual species (Appendix E) such as <i>Perotis rara</i> (comet grass) and <i>Setaria apiculata</i> (pigeon grass). 	<p>Yes, understorey contains indicator species (<i>Caesalpinia major</i> and <i>Breynia cernua</i>)</p> <p>Yes, ground layer generally sparse.</p> <p>Native grasses uncommon to absent.</p>	<p>Yes, understorey contains indicator species (<i>Breynia cernua</i>)</p>
<p>Vines and creepers are often, but not always, present in the overstorey and/or understorey and when present include the following:</p> <ul style="list-style-type: none"> Crab's eye bean (<i>Abrus precatorius</i>), <i>Adenia heterophylla</i> subsp. <i>australis</i>, <i>Capparis lasiantha</i> (ngoorla, bush caper), <i>Jacquemontia paniculata</i>, <i>Jasminum didymum</i>, <i>Tinospora smilacina</i> (oondal, snake vine) and <i>Tylophora cinerascens</i> (oyster-catcher bill). 	<p>Indicator vines and creepers present including <i>Jasminum didymum</i> and <i>Abrus precatorius</i> subsp. <i>precatorius</i></p>	<p>No vines present</p>
<p>The following genera/species often present in other rainforest/vine thicket types in northern Australia, are typically absent or uncommon in the ecological community:</p> <ul style="list-style-type: none"> <i>Albizia lebbbeck</i>, <i>Bombax ceiba</i>, <i>Cryptocarya cunninghamii</i>, <i>Elaeodendron melanocarpum</i>, <i>Ganophyllum falcatum</i>, <i>Vitex acuminata</i> and <i>Ziziphus quadrilocularis</i>. The understorey of other northern vine thicket patches also contains shrub species that are absent from the ecological community, such as those from the genera <i>Alectryon</i>, <i>Denhamia</i>, <i>Micromelum</i>, <i>Murraya</i>, <i>Strychnos</i>, <i>Trema</i> and <i>Wrightia</i>. 	<p>Yes, species absent</p>	<p>Yes, species absent</p>

Key diagnostic characteristics (Department of the Environment and Energy, 2018)	Vegetation type against key diagnostic criteria	
	FaTpSs	TfSsLc
Condition thresholds	FaTpSs	TfSsLc
Canopy layer: 50 % or more of the total cover of the canopy comprises perennial native species	Yes, canopy cover comprises over 50 % perennial native species	Yes – all species recorded are native perennial species and MVT indicators.
Understorey: 50 % or more of the total vegetation cover in the ground and mid layers comprises perennial native species.	Yes, mid and ground layer cover is comprised of over 50 % perennial native species.	Yes, mid and ground layer cover is comprised of over 50 % perennial native species.

5.2 Vertebrate Fauna

5.2.1 Fauna Habitat

The eight fauna habitats identified within the Survey Area are typical of the Dampierland bioregion and consistent with the habitats identified by previous studies in the region (360 Environmental Pty Ltd, 2017; AECOM Australia Pty Ltd, 2017; Bamford Consulting, 2010; Docherty, 2019; Ecoscape (Australia) Pty Ltd, 2017; Focused Vision, 2019b; GHD, 2009, 2010, 2015, 2019; Spectrum Ecology, 2020). All habitats, bar the Vine Thicket habitat, are found in good quality and quantity in the surrounding area. The Temporary Open Water, Mixed Shrubland, and Vine Thicket habitats provide the most value to native fauna taxa.

After rainfall events, the Temporary Open Water habitat provides quality habitat to water and shore birds, however, local populations are unlikely to be reliant on it as much larger and better-quality naturally occurring foraging habitat exists within 20km of the Survey Area (Roebuck Bay RAMSAR wetland - 20 km southeast, Dampier Creek/Roebuck Bay mangroves and mudflats - 4 km east, and Willie Creek mangroves and mudflats - 18 km north). Local populations of small to medium mammals and reptiles may use this habitat as a water source. All significant fauna taxa, either recorded during the field survey or identified as having a high or medium likelihood of occurrence, may use this habitat.

The Mixed Shrubland habitat provides habitat for numerous native fauna species. The following significant fauna may use this habitat for foraging and shelter: Northern Brushtail Possum, Dampierland Goanna, Dampierland Burrowing Snake, Dampierland Slider, Northern Free-tailed Bat, Osprey, and Peregrine Falcon.

The Vine Thicket habitat is an important local vegetation unit and provides habitat for numerous native species. The following significant fauna may use this habitat for foraging and shelter: Northern Brushtail Possum, Horsfield's Cuckoo, and Northern Free-tailed Bat.

Habitat conditions varied throughout the Survey Area. The Temporary Open Water and Drainage Line habitats were Good to Disturbed in quality. Recent vegetation loss had occurred throughout the Drainage Line habitat, possibly from either human (drain/wet-season maintenance) or natural (heavy rain fall and/or flooding) events, there was also evidence of erosion, litter, and weeds. There were signs of clearing, erosion, litter, and weeds within the Temporary Open Water habitat. The mixed Shrubland and Vine Thicket habitats were Very Good to Good in quality, with some evidence of littering, and tracks.

5.2.2 Conservation significant fauna

5.2.2.1 Confirmed

Saltwater Crocodile (*Crocodylus porosus*) - OS (BC Act); MA (EPBC)

The Saltwater Crocodile (*Crocodylus porosus*) is a large, generally solitary, reptile that inhabits a wide variety of salt, brackish, and freshwater environments. Saltwater Crocodiles are found primarily along the coast from approximately Rockhampton, QLD to Broome, WA. Individuals are periodically documented south of these regions and inland (> 100 km) along major tributaries. The Saltwater Crocodile underwent large population declines in 1940s-1960s due to overhunting, however, since its protection in 1971, it has undergone rapid and widespread population increases across its entire range (Department of Agriculture Water and the Environment, 2021a).

A juvenile Saltwater Crocodile was observed on the boundary of the Survey Area within the Drainage Line habitat. There has been previous evidence (May 2021) of juvenile crocodiles being found in public areas around Cable Beach that have escaped from the Malcolm Douglas Crocodile Park (ABC, 2021). It is highly unlikely this individual is a permanent resident of the area and was likely washed into the Survey Area by flood waters (widespread flooding occurred in the Broome area two weeks prior to the field survey). The individual is a potential escapee from the old Broome Crocodile Park (located 250 m east of the Survey Area), which has occurred on several occasions, where Saltwater Crocodiles are still bred. The habitat within the Survey Area is very unfavourable for Saltwater Crocodiles as there is limited temporary water (< 10 cm) and no fringing vegetation.

5.2.2.2 High Likelihood

- **Barn Swallow (*Hirundo rustica*) - MI (BC Act); MI, MA (EPBC Act)**

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 recorded during the field survey. All habitats within the Survey Area may be used by this species.

- **Little Curlew (*Numenius minutus*) - MI (BC Act); MI, MA (EPBC Act)**

The Little Curlew is the smallest curlew, and generally spend the non-breeding season in northern Australia from Port Hedland in Western Australia to the Queensland coast. The Little Curlew is most often found feeding in short, dry grassland and sedgeland, including dry floodplains and black soil plains, which have scattered, shallow freshwater pools or areas seasonally inundated. Open woodlands with a grassy or burnt understorey, dry saltmarshes, coastal swamps, mudflats or sandflats of estuaries or beaches on sheltered coasts, mown lawns, gardens, recreational areas, ovals, racecourses and verges of roads, and airstrips are also used. Foraging sites are usually within 5 km of daytime roosting sites, as birds move between grassland and wetland, most feeding in drier grassland occurring during the first few hours after dawn and the late afternoon (Department of Agriculture Water and the Environment, 2022a).

- The Little Curlew was not recorded during the field survey. The Temporary Open Water and Lawn habitats within the Survey Area may be used by this species.
- **Osprey (*Pandion haliaetus*) - MI (BC Act); MI, MA (EPBC Act)**

The Eastern Osprey is considered to be moderately common in Australia (Olsen, 1998). The species is most abundant in northern Australia, where high population densities occur in remote areas (Johnstone & Storr, 1998). They require extensive areas of open fresh, brackish, or saline water for foraging (Marchant & Higgins, 1993). They are mostly found in coastal areas but occasionally travel inland along major rivers, particularly in northern Australia (Johnstone & Storr, 1998; P. Olsen, 1995). They frequent a variety of wetland habitats including inshore waters, reefs, bays, coastal cliffs, beaches, estuaries, mangrove swamps, broad rivers, reservoirs, and large lakes and waterholes (Johnstone & Storr, 1998; P. Olsen, 1995). Nests consist of a large platform of sticks lined with moss and grasses on stacks along rocky shores, in the fork of a large tree, and increasingly on man-made structures such as buildings and power poles.

- There is limited foraging and roosting habitat within the Survey Area, however, better quality and more abundant habitat exists in the surrounding areas and, as such, Ospreys are unlikely to be reliant on the habitats within the Survey Area.

- **Pacific Swift (*Apus pacificus*) - MI (BC Act); MI, MA (EPBC Act)**

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 (i.e. low to very high) over varied habitats, ranging from rainforests to semi-deserts (Morcombe, 2003).

The Pacific Swift was not recorded during the field survey. Although the species has the potential to occur in the airspace above the Survey Area, it will not be reliant on the terrestrial habitats of the Survey Area.

5.2.2.3 Medium Likelihood

- **Northern Brushtail Possum (*Trichosurus vulpecula arnhemensis*) - VU (BC Act); VU (EPBC Act)**

The Northern Brushtail Possum is known to occur discontinuously from the Gulf of Carpentaria hinterland near Borroloola, NT westward to the Kimberley, WA. It is a nocturnal semi-arboreal marsupial, occurring mainly in tall eucalypt open forests with large hollow-bearing trees, particularly where the understorey includes some shrubs that bear fleshy fruits but is also known to inhabit mangrove communities, rainforests, and semi-urban areas (Department of Agriculture and Environment, 2021; Menkhorst & Knight, 2010).

There were nine records returned from the DBCA database within 6 km of the Survey Area from 2009 to 2016. All records were certain in their identification. Bamford Consulting (2010) opportunistically recorded five instances of Northern Brushtail Possum scat under fig trees, below large hollows within fig trees, and on fig tree branches within Pindan vegetation in 2009. The closest of these records is 5.3 km south of the Survey Area.

Suitable habitat is present within the Survey Area, primarily in the Vine Thicket and Mixed Shrubland habitats. The regional population is unlikely to be dependent on habitats within the Survey Area as these habitats occur more widely in the region outside the Survey Area. The other habitats within the Survey Area do not contain suitable tree hollows or refuge and are therefore unlikely to be used by the species.

- **Horsfield's Cuckoo/Oriental Cuckoo (*Cuculus saturatus optatus*) - MI (BC Act); MI, MA (EPBC Act)**

The Horsfield's Cuckoo (Oriental Cuckoo) is a summer visitor between September and May to Northern and Eastern Australia. In the winter months, they migrate to northern Asia. They are an arboreal and unobtrusive species that is often seen singularly or occasionally in small groups. They use a wide range of habitats including open woodlands and forests, especially the edges of riparian forests; and occasionally seen in gardens (Menkhorst et al., 2017).

The Horsfield's Cuckoo was not recorded during the current survey. The Vine Thicket habitat within the Survey Area may be used by this species.

- **Peregrine Falcon (*Falco peregrinus*) - OS (DBCA)**

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 (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 (J. Olsen & Fuentes, 2008).

The Peregrine Falcon typically nests on cliff ledges or in refurbished nests built by other raptors or corvids (Pizzey and Knight, 2013), therefore is unlikely to use the Survey Area for nesting. All habitats within the Survey Area may be used for hunting.

- **Dampierland Goanna (*Varanus sparnus*) - P1 (DBCA)**

The Dampierland Goanna is probably restricted to Dampier Peninsula, Kimberley. It has been recorded from seasonally dry woodlands, grasslands, and pindan shrubland, featuring low *Corymbia* over mixed *Acacia* shrubs and *Triodia* on reddish brown sandy loam (Cogger, 2018; Wilson & Swan, 2021).

There is suitable habitat inside the Survey Area, particularly in the Mixed Shrubland and Vine Thicket habitats. However, larger areas of these habitat types are found immediately outside the Survey Area, therefore the species is unlikely to be reliant on the habitats within the Survey Area.

- **Dampierland Burrowing Snake (*Simoselaps minimus*) - P2 (DBCA)**

The Dampierland Burrowing Snake is known only from Dampier Land in the southwest Kimberley. It favours coastal dunes and sandy junctions between dunes and adjacent *Acacia* shrublands. This species is poorly known, however, it is presumed to be similar to other *Simoselaps* species and feeds almost entirely on skinks from the genus *Lerista* (Cogger, 2018; Wilson & Swan, 2021).

There is suitable habitat inside the Survey Area, particularly in the southern portion of the Mixed Shrubland habitat. There is suitable habitat outside the Survey Area, therefore, the species is unlikely to be reliant on the habitats within the Survey Area.

- **Dampierland Plain Slider (*Lerista separanda*) - P2 (DBCA)**

The Dampierland Plain Slider occurs along the southwest Kimberley coast between Kimbolton and Nita Downs. This species is poorly known but appears to favour consolidated sand dune habitats between these locations (Cogger, 2018; Wilson & Swan, 2021).

There is suitable habitat inside the Survey Area, particularly in the southern portion of the Mixed Shrubland habitat. There is suitable habitat outside the Survey Area, therefore, the species is unlikely to be reliant on the habitats within the Survey Area.

- **Northern Free-tailed Bat (*Ozimops cobourgiensis*) - P4 (DBCA)**

The Northern Free-tailed Bat is restricted to mangroves and adjacent coastal vegetation on two stretches of north Australian coastline, between Exmouth Gulf and Derby in WA, and from Wadeye to Wollongorag in the NT. This species is insectivorous, foraging in eucalypt or *Melaleuca* woodland and other coastal habitat and roosting in *Avicennia marina* hollows (Menkhorst & Knight, 2010).

There is suitable habitat inside the Survey Area, particularly within the Vine Thicket and Mixed Shrubland habitats. There is suitable habitat outside the Survey Area and is unlikely to be reliant on the habitat within the Survey Area.

Waterbirds and Shorebirds

Roebuck Bay (RAMSAR Site 33) and Eighty Mile Beach, which are located 20 km southeast and 150 km southwest, respectively, are amongst the most significant shorebird sites in Australia due to the very high numbers and species diversity of shorebirds recorded there (Bamford et al., 2008; Department of Sustainability Environment Water Population and Communities, 2012). Most of these species breed in the northern hemisphere and would only be likely to use habitats within the survey areas during migration or the non-breeding season.

The following birds are known from the area and are likely to use habitats within the Survey Area for roosting and foraging, particularly when the Temporary Open Water and Drainage Line habitats are inundated. Higher quality habitats occur in large stretches areas to the Survey Area; along the beach to the west, Roebuck Bay and Dampier Creek to the east, Willie Creek to the north, and 80 Mile Beach to the south, therefore, they are unlikely to be dependent on habitats within the Survey Area:

- **Curlew Sandpiper (*Calidris ferruginea*) - CR (BC Act); CR, MI, MA (EPBC Act):** Northern Australia is important for Curlew Sandpipers on their entry and exit into Australia (Bamford et al., 2008; Department of Sustainability Environment Water Population and Communities, 2012). The Curlew Sandpiper is a small, slim sandpiper that is most commonly found on large tidal flats, occasionally using brackish and freshwater wetland systems (Menkhorst et al., 2017).
- **Black-tailed Godwit (*Limosa limosa*) - MI (BC Act); MI, MA (EPBC Act):** Found in small flocks in shallow inland wetlands and on the coast especially before wet season rains begin (Menkhorst et al., 2017).
- **Broad-billed Sandpiper (*Calidris falcinellus*) - MI (BC Act); MI, MA (EPBC Act):** Gregarious and mainly coastal in Australia, foraging on tidal flats, near-coastal salt lakes, drying freshwater lakes and shallows (Menkhorst et al., 2017).
- **Caspian Tern (*Hydroprogne caspia*) - MI (BC Act); MI, MA (EPBC Act):** Caspian Terns are mostly found in sheltered coastal embayments, on near-coastal or inland terrestrial wetlands, lakes, near-coastal salt lakes, waterholes, reservoirs, rivers, and creeks (Higgins, 1999; Menkhorst et al., 2017).
- **Common Greenshank (*Tringa nebularia*) - MI (BC Act); MI, MA (EPBC Act):** Common Greenshanks are found in coastal areas, riverbanks and coastal to freshwater wetlands, where it wades in shallow water foraging for prey, often lunging or probing for fish and invertebrates (BirdLife International, 2016; Menkhorst et al., 2017; Pizzey & Knight, 2001).
- **Common Sandpiper (*Actitis hypoleucos*) - MI (BC Act); MI, MA (EPBC Act):** The Common Sandpiper is typically carnivorous, feeding on molluscs, crustaceans, and a variety of insects. It is a migratory species that uses varied coastal and interior wetlands including narrow muddy edges of billabongs, river pools, mangroves, among rocks and snags, reefs, or rocky beaches (Morcombe, 2003).
- **Glossy Ibis (*Plegadis falcinellus*)- MI (BC Act); MI, MA (EPBC Act):** The preferred foraging and breeding habitat of the Glossy Ibis includes freshwater marshes at the edges of lakes and rivers, lagoons, flood-plains, wet meadows, swamps, reservoirs, sewage ponds, rice-fields and cultivated areas under irrigation. They roost in trees near water (del Hoyo et al., 1992; Marchant & Higgins, 1990).

- **Greater Crested Tern (*Thalasseus bergii*) - MI (BC Act); MI, MA (EPBC Act):** The Greater Crested Tern inhabits tropical and subtropical coastlines, and forages in the shallow waters of lagoons, coral reefs, bays, harbours, inlets and estuaries; along sandy, rocky, coral or muddy shores; on rocky outcrops in open sea; in mangrove swamps; and in offshore and pelagic waters (Higgins & Davies, 1996).
- **Gull-billed Tern (*Gelochelidon nilotica*) - MI (BC Act); MI, MA (EPBC Act):** Gull-billed Terns inhabit estuaries, salt pans, lagoons, and inland sites such as large rivers, sewage ponds, reservoirs, and irrigation canals, and forage on the wing over shallow waters and grassy plains (BirdLife International, 2022; Johnstone & Storr, 1998; Menkhorst et al., 2017).
- **Long-toed Stint (*Calidris subminuta*) - MI (BC Act); MI, MA (EPBC Act):** The long-toed Stint is a regular in small numbers to the north and west of Australia, where it inhabits muddy fringes of fresh (often temporary) wetlands (Menkhorst et al., 2017).
- **Marsh Sandpiper (*Tringa stagnatilis*) - MI (BC Act); MI, MA (EPBC Act):** The Marsh Sandpiper lives in permanent or ephemeral wetlands of varying salinity, including swamps, lagoons, billabongs, salt pans, salt marshes, estuaries, pools on inundated floodplains, and intertidal mudflats and also regularly at sewage farms (Menkhorst et al., 2017).
- **Oriental Plover (*Charadrius veredus*) - MI (BC Act); MI, MA (EPBC Act):** The Oriental Plover typically prefers grasslands and thinly vegetated plains, and open areas such as recently burnt country and heavily grazed pastures. During the hottest times of the day large flocks can be found on areas of wet ground associated with wetlands (Menkhorst et al., 2017).
- **Oriental Pratincole (*Glareola maldivarum*) - MI (BC Act); MI, MA (EPBC Act):** 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).
- **Pacific Golden Plover (*Pluvialis fulva*) - MI (BC Act); MI, MA (EPBC Act):** Pacific golden plovers are found in estuaries, inter-tidal mudflats, salt marshes and in paddocks (Department of Sustainability Environment Water Population and Communities, 2012; Menkhorst et al., 2017).
- **Red-necked Stint (*Calidris ruficollis*) - MI (BC Act); MI, MA (EPBC Act):** The northwest of Australia is an important area for the species on their migration from the northwest to the southeast of Australia (Bamford et al., 2008; Department of Sustainability Environment Water Population and Communities, 2012). Red-necked Stints are found in coastal and inland areas, including tidal flats, brackish and freshwater wetlands, and beaches (Menkhorst et al., 2017).

- **Sharp-tailed Sandpiper (*Calidris acuminata*) - MI (BC Act); MI, MA (EPBC Act):** Sharp-tailed Sandpipers typically prefer muddy edges of shallow fresh or brackish wetlands, with inundated or emergent sedges, grass, saltmarsh, or other low vegetation (Pizzey & Knight, 2013).
- **White-winged Black Tern (*Chlidonias leucopterus*) - MI (BC Act); MI, MA (EPBC Act):** White-winged Black tern are common in northern Australia, where it occurs in or near a variety of coastal and inland fresh or saline wetlands, and grasslands (Menkhorst et al., 2017).
- **Wood Sandpiper (*Tringa glareola*) - MI (BC Act); MI, MA (EPBC Act):** The Wood Sandpiper is a small, thin wader that uses well-vegetated, shallow, freshwater wetlands such as swamps, billabongs, lakes, pools, and waterholes (Menkhorst et al., 2017).

6 Conclusion

Flora and Vegetation:

- Seven vegetation types were present within the Survey Area, across a one landform (Dune Swale)
- One DBCA listed Priority flora, was recorded in the Survey Area (*Corymbia paractia* Priority 1)
- No Threatened flora species pursuant to the EPBC Act 1999 and/or gazetted as Threatened/Declared Rare Flora pursuant to the BC Act 2016 were recorded during the survey
- Vegetation analogous to the state and federal listed TEC '*Monsoon vine thickets on the coastal sand dunes of Dampier Peninsula*', was recorded and confirmed from the diagnostic tool as being present within the Survey Area
- The state-listed PEC '*Corymbia paractia dominated community on dunes*', was recorded within the Survey Area
- Vegetation Condition ranged from Completely Degraded to Very Good.

Vertebrate Fauna:

- Eight fauna habitats were mapped, of which Temporary Open Water, Vine Thicket, and Mixed Shrubland habitats represent the most value to significant fauna and overall fauna assemblages.
- All habitats, bar the Vine Thicket habitat, are found in similar or better quality and quantity in the surrounding area.
- One significant fauna species was recorded during the fauna surveys, a juvenile Saltwater Crocodile (*Crocodylus porosus*) - OS (DBCA). This juvenile individual is likely to have originated from a nearby captive population.
- One introduced species were recorded during the survey, the Asian House Gecko (*Hemidactylus frenatus*).
- Four species were identified as having a high likelihood of occurrence within the Survey area, Barn Swallow, Little Curlew, Osprey and Pacific Swift. These species are unlikely to be dependent on resources within the Survey Area due to greater availability of better quality suitable habitat immediately outside the Survey Area.
- Twenty-five other significant fauna species were determined to have a medium likelihood of using the Survey Area for foraging but are unlikely to be dependent on resources within the Survey Area due to limited availability of habitat features required for nesting and roosting and better quality habitat of the same types in the vicinity of the Survey Area.

7 Report Disclaimer

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

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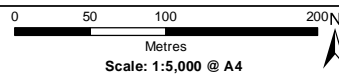
Figures

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Legend

-  Survey Area
-  Cadastre



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

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ENVIRONMAPS	BV	BV	0

Broome Shire Council
Cable Beach Broom, W.A.

Cable Beach Biological Assessment

Figure 1
Survey Area

- AERIAL PHOTOGRAPHY SOURCED LANDGATE

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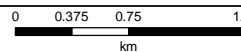
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Legend

- Survey Area
- Pindanland
- Watercourse - minor, non-perennial
- Area Subject to Inundation
- Coastal Waterline
- Earth Dam
- Marine Construction - wharf/jetty
- Rock Awash Offshore
- Reef Area

- AERIAL PHOTOGRAPHY SOURCED LANDGATE



Scale: 1:50,000 @ A4

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

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ENVIRONMAPS	BV	BV	0

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Cable Beach Biological Assessment

Figure 2
IBRA and Hydrography

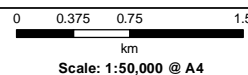
C:\GIS\Jobs\360\5698 - Cable Beach Biological Assessment\Figures\5698_F02 IBRA and Hydrography_230316.mxd

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Legend

- Survey Area
- Environmentally Sensitive Area
- Legislated Lands and Waters (DBCA)**
- Section 5(1)(g) Reserve
- Section 5(1)(h) Reserve
- Marine Park



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Broome Shire Council Cable Beach Broom, W.A.			
Cable Beach Biological Assessment			
Figure 3 ESAs and Conservation Areas			

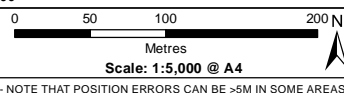
- AERIAL PHOTOGRAPHY SOURCED LANDGATE

C:\GIS\Jobs\360\5698 - Cable Beach Biological Assessment\Figures\5698_F03 ESAs and Conservation Areas_230316.mxd



Legend

- Survey Area
- Cadastre
- Survey Track
- Flora Quadrat
- Flora Relevé
- Fauna Habitat Assessment



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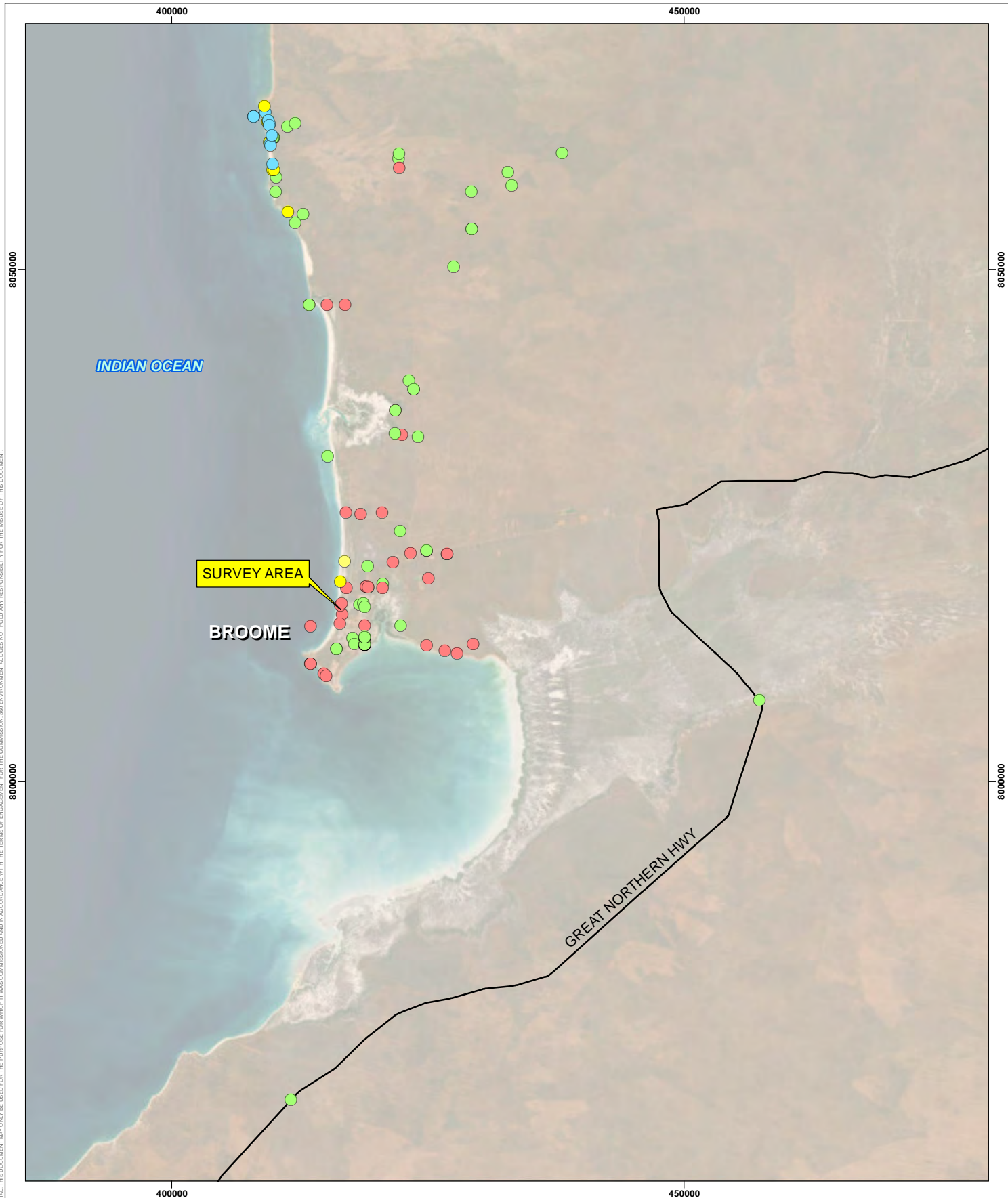
CREATED	CHECKED	APPROVED	REVISION
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Cable Beach Biological Assessment

Figure 4
Survey Effort

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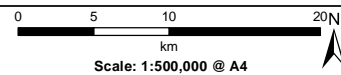


Legend

 Survey Area

Threatened and Priority Flora Locations

-  Priority 1
-  Priority 2
-  Priority 3
-  Priority 4



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

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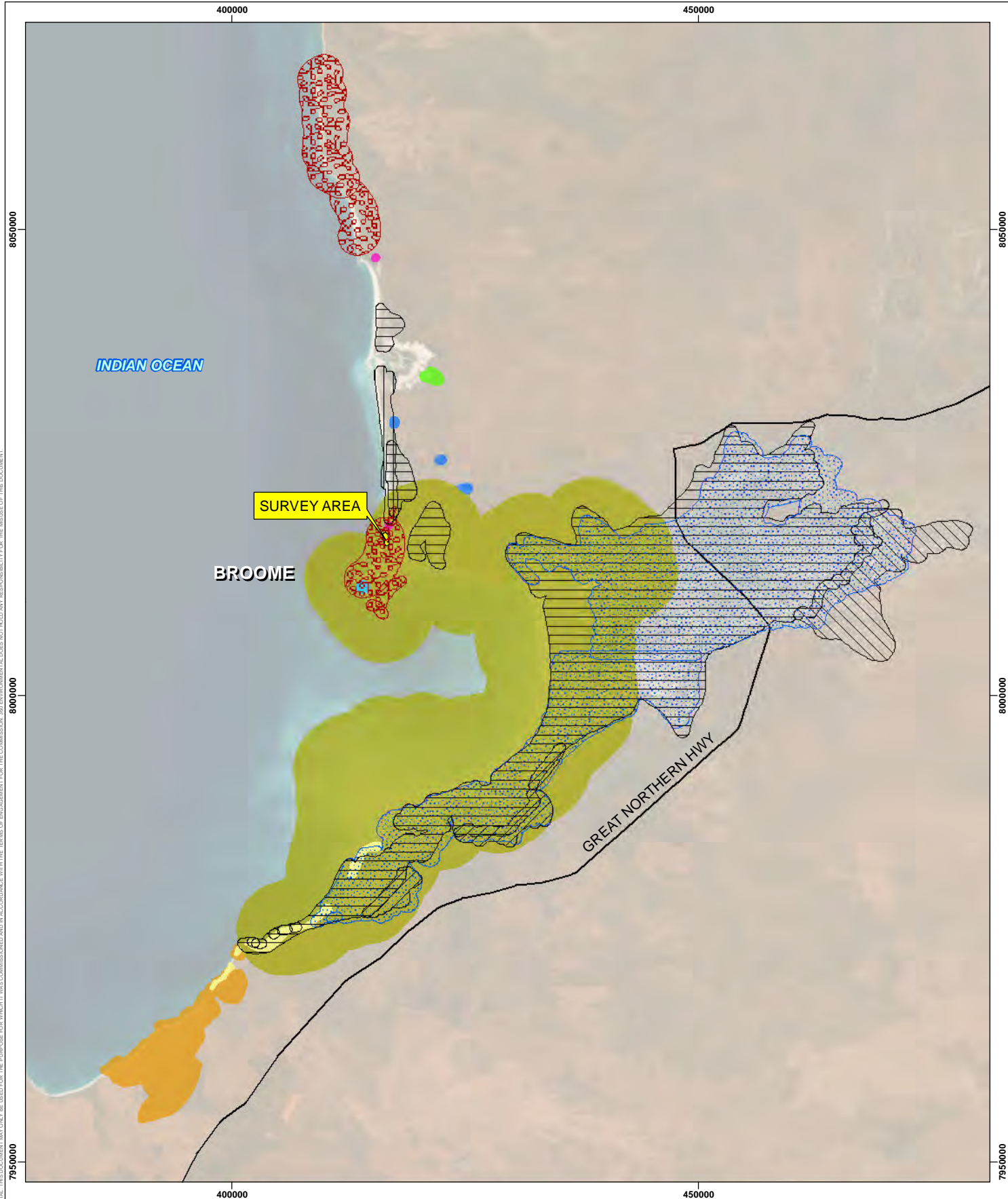
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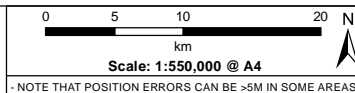
Figure 5
Threatened and Priority
Flora Locations Identified
by DBCA Database Searches

- AERIAL PHOTOGRAPHY SOURCED LANDGATE

C:\GIS\Jobs\360\5668 - Cable Beach Biological Assessment\Figures\5668_F05 Threatened and Priority Flora Locations Identified by DBCA Database Searches_230307.mxd



- | | |
|--|--------------------------|
| Survey Area | <i>Corymbia paractia</i> |
| Threatened and Priority Ecological Communities | Dwarf pindan heath |
| Roebuck LS | Eighty Mile Land System |
| Vegetation Association 37 | Gourdon Land System |
| Vegetation Association 67 | Mangarr (Minyjuru) |
| Vegetation Association 73 | Nimalarica Claypan |
| Vegetation Association 770 | Roebuck Bay mudflats |
| Vine thickets | |

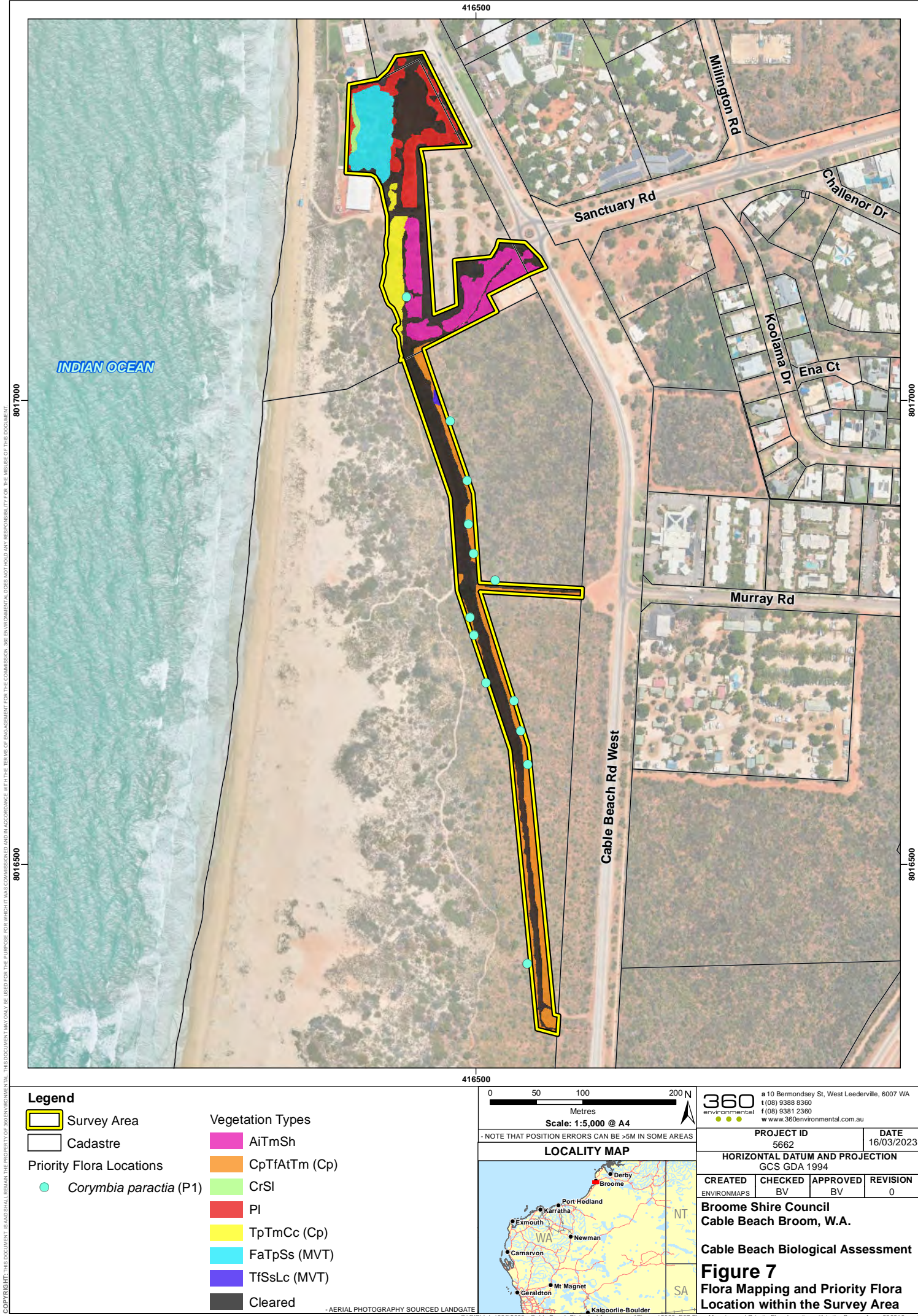


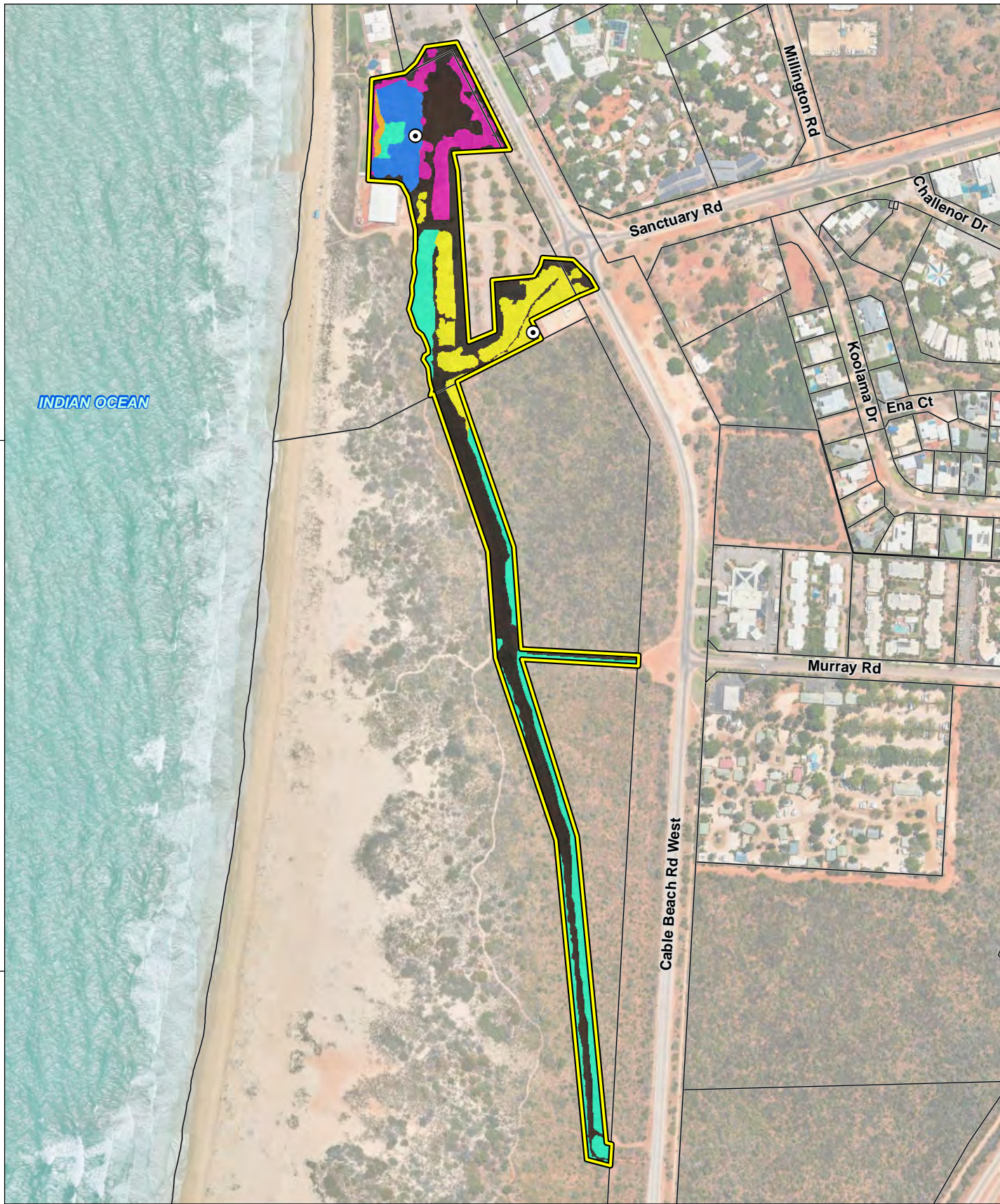
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CREATED ENVIRONMAPS	CHECKED BV	APPROVED BV	REVISION 0

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Cable Beach Biological Assessment

Figure 6
Threatened and Priority
Ecological Communities Identified
by DBCA Database Searches





Legend

Survey Area

Cadastre

Declared Plants

*Azadirachta indica

Vegetation Condition

Very Good

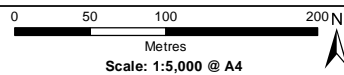
Good

Poor

Degraded

Completely Degraded

Cleared



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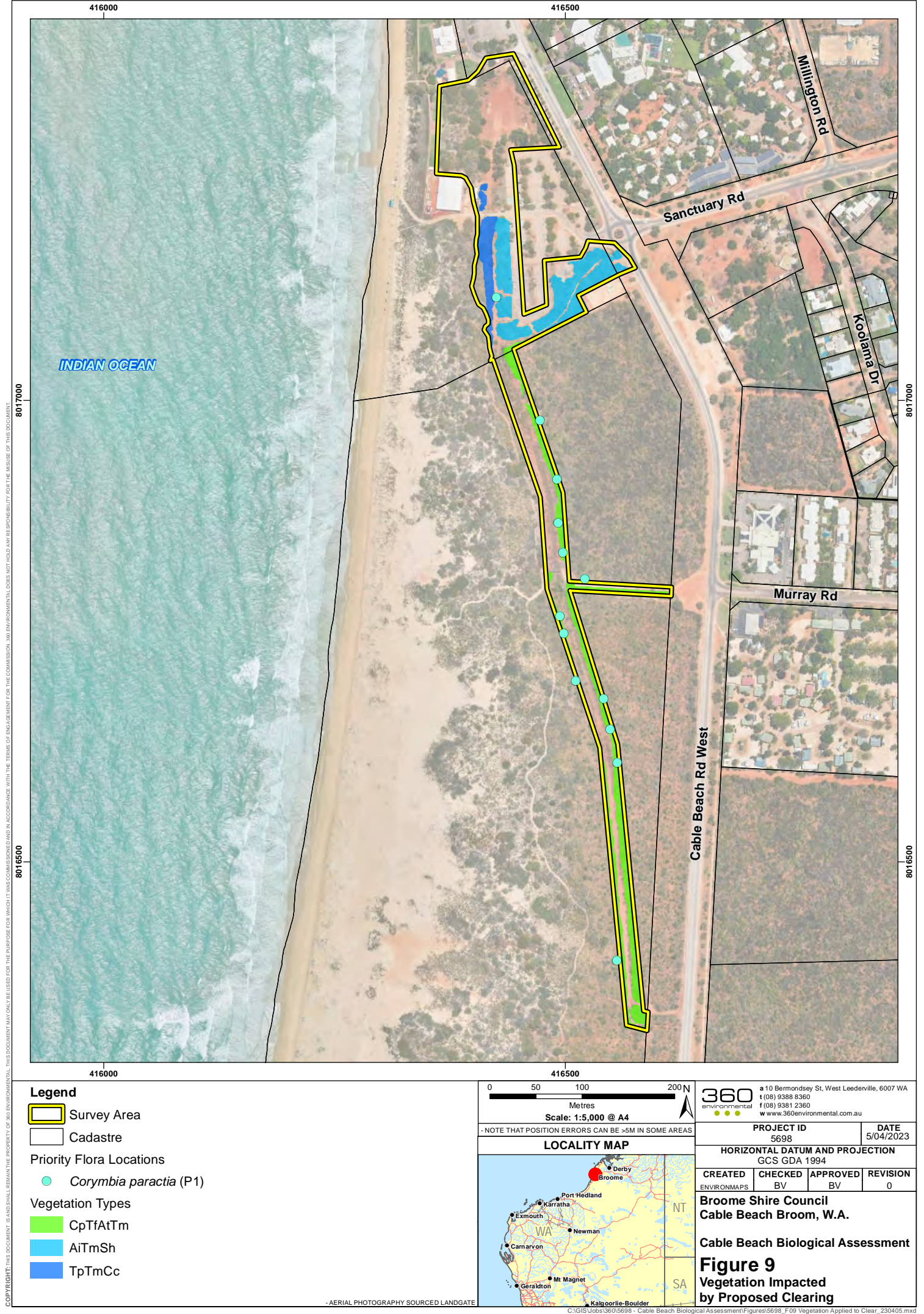
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GCS GDA 1994

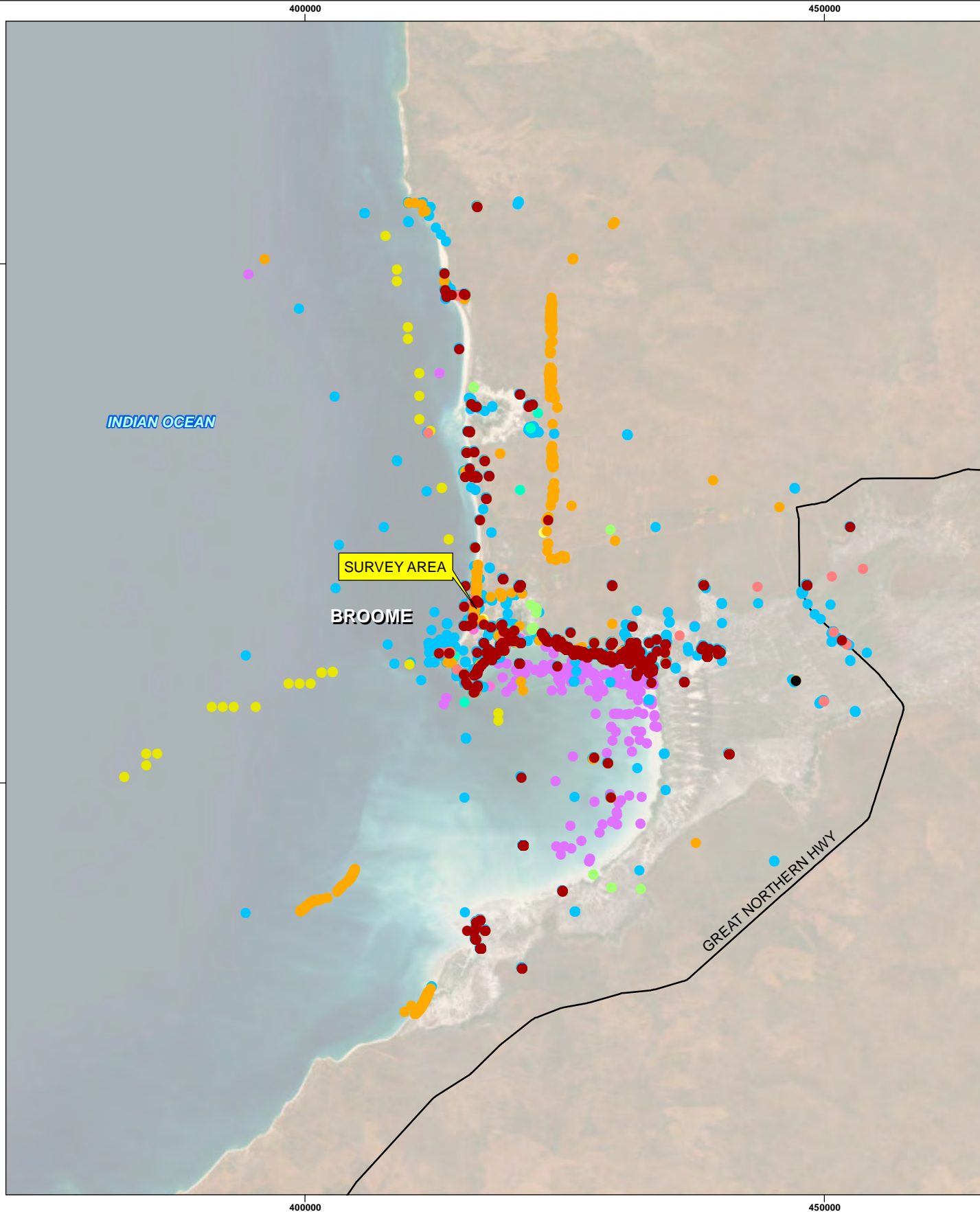
CREATED	CHECKED	APPROVED	REVISION
ENVIRONMAPS	BV	BV	0

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Figure 8
Vegetation Condition
within the Survey Area



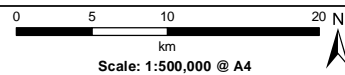


Legend

Survey Area

Threatened and Priority Fauna Records

- | | |
|-----------------------------------|---------------------------|
| Extinct | Priority 2 |
| Critically Endangered | Priority 3 |
| Endangered | Priority 4 |
| Vulnerable | Migratory |
| Conservation Dependent, Migratory | Migratory, Priority 3 |
| Priority 1 | Migratory, Priority 4 |
| | Other Specially Protected |



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ENVIRONMAPS	BV	BV	0

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Figure 10
Threatened and Priority
Fauna Locations Identified
by DBCA Database Searches



Legend

Survey Area

Cadastre

Conservation Significant Fauna Records

●

Saltwater Crocodile (*Crocodylus porosus*)

Fauna Habitat

Mixed Shrubland

Vine Thicket

Hummock Grassland

Lawn

Planted Trees

Temporary Open Water

Drainage Line

Cleared

0 50 100 200

Metres

Scale: 1:5,000 @ A4

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

LOCALITY MAP

PROJECT ID

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DATE

7/03/2023

HORIZONTAL DATUM AND PROJECTION

GCS GDA 1994

CREATED

CHECKED

APPROVED

REVISION

ENVIRONMAPS

BV

BV

0

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Figure 11

Fauna Habitat and Significant Fauna Records

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Aerial Photography Sourced Landgate

C:\GIS\Jobs\360\5698 - Cable Beach Biological Assessment\Figures\5698_F11 Fauna Habitat and Significant Fauna Records_230307.mxd

Appendices

Appendix A

Literature Review

Appendix A1: Flora Literature Review

Report	Project Area	Survey Timing	Survey Effort	Conservation Significant Ecological Communities	Conservation Significant Flora	Introduced Flora
Broome Regional Resource Recovery Facility, Reconnaissance Flora and Level 1 Fauna Survey (Spectrum Ecology, 2020)	10 km NE and 35 km NNE of Survey Area	Nov 2019	Reconnaissance Flora survey	None recorded	None recorded	None recorded
Flora, Vegetation and Fauna Survey, Broome Gold Redevelopment (Docherty, 2019)	5 km south of Survey Area	Dec 2018 & January 2019	Targeted Flora and Vegetation Survey	N/A	None recorded	<i>*Aerva javanica</i> <i>*Cenchrus ciliaris</i> <i>*Leucaena leucocephala</i> <i>*Macroptilium atropurpureum</i> <i>*Merremia dissecta</i> <i>*Stylosanthes hamata</i>
Report for Water Corporation - Mamabulanjin Orchard Flora and Fauna Survey, (GHD, 2019)	13 km NE of Broome	May 2019	Detailed and targeted flora and vegetation survey	None recorded	None recorded	None recorded
Nyamba Buru Yawuru Flora and Fauna Survey (Ecoscape (Australia) Pty Ltd, 2017)	45 km SE of Broome	April/May 2017	Level 2 survey	None recorded	<i>Triodia caelestialis</i> (P3)	<i>*Stylosanthes hamata</i>
Flora and Vegetation Assessment, Cable Beach Foreshore Adaptation Project (Focused Vision, 2019)	Within and adjacent to Survey Area	March 2019	Reconnaissance Flora and Vegetation Assessment	Yes – Monsoon vine thicket TEC	None recorded	<i>*Azadirachta indica</i> <i>*Casuarina obesa</i> <i>*Cenchrus ciliaris</i> <i>*Delonix regia</i> <i>*Passiflora foetida</i> var. <i>hispida</i>
Broome to Skuthorpe Line Extension, Flora and Fauna Survey (360 Environmental Pty Ltd, 2022)	19 km ENE of Survey Area	Nov 2021	Reconnaissance Flora Survey and Basic Fauna Survey	None recorded	<i>Terminalia kumpaja</i> (P3)	<i>*Aerva javanica</i> <i>*Amaranthus viridis</i> <i>*Azadirachta indica</i> <i>*Passiflora foetida</i> <i>*Sida cordifolia</i> <i>*Stylosanthes hamata</i>

Appendix A2: Fauna Literature Review

Report	Project Area	Survey Timing	Survey Effort	Significant Fauna Recorded	Fauna Habitats
Broome North: Southern Portion - Preliminary Environmental Impact Assessment and Biological Survey (GHD, 2009)	1 km east of the Survey Area	June 2008	Basic fauna survey	<ul style="list-style-type: none"> Rainbow Bee-eater (<i>Merops ornatus</i>) (conservation status has since been downgraded) 	<p>One fauna habitat was identified:</p> <ul style="list-style-type: none"> Pindan shrubland with scattered emergent tree species
Broome Regional Resource Recovery Park Reconnaissance Flora & Level 1 Fauna Survey (Spectrum Ecology, 2020)	9.2 km northeast and 34 km east of the Survey Area	November 2019	Basic fauna survey	NA	<p>One fauna habitat was identified:</p> <ul style="list-style-type: none"> Pindan shrubland, open to sparse <i>Acacia</i> shrubland over tussock grassland
Broome Road Industrial Area - Preliminary Environmental Impact Assessment and Biological Survey (GHD, 2010)	7.5 km northeast of the Survey Area	April/May 2010 August 2010	<p>Detailed fauna survey</p> <p>Targeted Greater Bilby survey (cage traps, camera traps, nocturnal searches)</p> <p>Targeted bat survey (AnaBat recorders)</p>	<ul style="list-style-type: none"> Northern Brushtail Possum (<i>Trichosurus arnhemensis</i>) Black-faced Cuckoo-shrike (<i>Coracina novaehollandiae</i>) (conservation status has since been downgraded) Magpie Goose (<i>Anseranas semipalmata</i>) (conservation status has since been downgraded) Pallid Cuckoo (<i>Cuculus pallidus</i>) (conservation status has since been downgraded) Rainbow Bee-eater (<i>Merops ornatus</i>) (conservation status has since been downgraded) Straw-necked Ibis (<i>Threskiomis spinicoffis</i>) (conservation status has since been downgraded) Whistling Kite (<i>Haliastur sphenurus</i>) (conservation status has since been downgraded) 	<p>Two fauna habitats were identified:</p> <ul style="list-style-type: none"> Damp pindan woodland Pindan woodland
Broome Road Subdivision Area - Conservation Significant Fauna Survey (GHD, 2015)	7.1 km northeast of the Survey Area	December 2014	Targeted ConSig fauna survey (walking transects, camera traps, funnel traps)	<ul style="list-style-type: none"> Rainbow Bee-eater (<i>Merops ornatus</i>) (conservation status has since been downgraded) 	<p>One fauna habitat was identified:</p> <ul style="list-style-type: none"> Pindan shrubland
Fauna Assessment of the Broome Port Area (Bamford Consulting, 2010)	5.8 km south of the Survey Area	October 2009	Basic fauna survey	<ul style="list-style-type: none"> Barn Swallow (<i>Hirundo rustica</i>) Black-tailed Godwit (<i>Limosa limosa</i>) Brown Booby (<i>Sula leucogaster</i>) Common Greenshank (<i>Tringa nebularia</i>) Common Sandpiper (<i>Actitis hypoleucos</i>) Curlew Sandpiper (<i>Calidris ferruginea</i>) Eastern Osprey (<i>Pandion haliaetus cristatus</i>) Far Eastern Curlew (<i>Numenius madagascariensis</i>) Great Knot (<i>Calidris tenuirostris</i>) 	<p>Nine fauna habitats were identified:</p> <ul style="list-style-type: none"> Beaches and mud flats Coastal shrubland on primary dunes Mangrove communities Minor rocky headlands. Monsoon thickets Pindan vegetation - Pindan 1 Pindan vegetation - Pindan 2 Tall dunes on the eastern margin of the peninsula

Appendix A2: Fauna Literature Review

Report	Project Area	Survey Timing	Survey Effort	Significant Fauna Recorded	Fauna Habitats
				<ul style="list-style-type: none"> • Greater Crested Tern (<i>Thalasseus bergii</i>) • Greater Sand Plover (<i>Charadrius leschenaultii</i>) • Grey Plover (<i>Pluvialis squatarola</i>) • Grey-tailed Tattler (<i>Tringa brevipes</i>) • Gull-billed Tern (<i>Gelochelidon nilotica</i>) • Lesser Frigatebird (<i>Fregata ariel</i>) • Northern Brushtail Possum (<i>Trichosurus arnhemensis</i>) • Pacific Golden Plover (<i>Pluvialis fulva</i>) • Red-necked Stint (<i>Calidris ruficollis</i>) • Ruddy Turnstone (<i>Arenaria interpres</i>) • Terek Sandpiper (<i>Xenus cinereus</i>) • Whimbrel (<i>Numenius phaeopus</i>) • Rainbow Bee-eater (<i>Merops ornatus</i>) (conservation status has since been downgraded) 	<ul style="list-style-type: none"> • Thickets and large shrubs of <i>Ficus aculeata</i> var. <i>indecora</i>
Flora, Vegetation and Fauna Assessment - Broome Asparagus Farm (AECOM Australia Pty Ltd, 2017)	23 km northeast of the Survey Area	May 2017	Basic fauna survey Targeted Greater Bilby survey (grid searches)	<ul style="list-style-type: none"> • Potential Greater Bilby (<i>Macrotis lagotis</i>) evidence (burrows, scats) • Rainbow Bee-eater (<i>Merops ornatus</i>) (conservation status has since been downgraded) 	<p>Three fauna habitats were identified:</p> <ul style="list-style-type: none"> • Cleared sand/red loam tracks • Open woodland and <i>Acacia</i> shrubland over spinifex hummock grassland • Open woodland over scattered acacia shrubland and thick <i>Sorghum</i> grassland
Flora, Vegetation and Fauna Survey Broome Golf Club Redevelopment (Docherty, 2019)	5.8 km south of the Survey Area	January 2019	Basic fauna survey	Nil	<p>Two fauna habitats were identified:</p> <ul style="list-style-type: none"> • Coastal shrubland on primary dunes • Monsoon vine thicket
Mamabulanjin Orchard Flora and Fauna Survey (GHD, 2019)	10.5 km northeast of the Survey Area	May 2019	Basic fauna survey Targeted Greater Bilby survey (walking transects)	<ul style="list-style-type: none"> • Greater Bilby (<i>Macrotis lagotis</i>) evidence (tracks, foraging evidence) 	<p>One fauna habitat was identified:</p> <ul style="list-style-type: none"> • Red sandy loam pindan plain supporting tall mixed <i>Acacia</i> shrubland
Nyamba Buru Yawuru Flora and Fauna Survey (Ecoscape (Australia) Pty Ltd, 2017)	46 km southeast of the Survey Area	May 2017	Detailed fauna survey Targeted Greater Bilby survey (grid searches, camera traps) Targeted Spectacled Hare-wallaby survey (grid searches, camera traps)	<ul style="list-style-type: none"> • Dampier Peninsula Goanna (<i>Varanus sparnus</i>) • Spectacled Hare-wallaby (<i>Lagorchestes conspicillatus</i>) • Rainbow Bee-eater (<i>Merops ornatus</i>) (conservation status has since been downgraded) 	<p>Two fauna habitats were identified:</p> <ul style="list-style-type: none"> • <i>Aristida</i> and <i>Chrysopogon</i> tussock grassland • Shrubland over mixed tussock grassland
Targeted Bilby Survey - Crab Creek Road, Broome (360 Environmental Pty Ltd, 2017)	7.6 km east of the Survey Area	April 2017	Targeted Greater Bilby survey (walking transects)	Nil	NA

Appendix B

Database Searches

Appendix B: NatureMap Search Results

TAXON	CLASS	WA CONS	KINGDOM
<i>Abrus precatorius</i>	DICOT		Plantae
<i>Abrus precatorius subsp. precatorius</i>	DICOT		Plantae
<i>Abutilon hannii</i>	DICOT		Plantae
<i>Abutilon indicum</i>	DICOT		Plantae
<i>Abutilon indicum var. australiense</i>	DICOT		Plantae
<i>Abutilon otocarpum</i>	DICOT		Plantae
<i>Acacia adoxa var. subglabra</i>	DICOT		Plantae
<i>Acacia adoxa x hippuroides</i>	DICOT		Plantae
<i>Acacia amplex</i>	DICOT		Plantae
<i>Acacia amplex x bivenosa</i>	DICOT		Plantae
<i>Acacia bivenosa</i>	DICOT		Plantae
<i>Acacia colei</i>	DICOT		Plantae
<i>Acacia colei var. colei</i>	DICOT		Plantae
<i>Acacia colei var. ileocarpa</i>	DICOT		Plantae
<i>Acacia eriopoda</i>	DICOT		Plantae
<i>Acacia eriopoda x monticola</i>	DICOT		Plantae
<i>Acacia eriopoda x tumida var. tumida</i>	DICOT		Plantae
<i>Acacia hippuroides</i>	DICOT		Plantae
<i>Acacia monticola</i>	DICOT		Plantae
<i>Acacia monticola x tumida var. kulparn</i>	DICOT	P3	Plantae
<i>Acacia platycarpa</i>	DICOT		Plantae
<i>Acacia plectocarpa subsp. plectocarpa</i>	DICOT		Plantae
<i>Acacia sp.</i>	DICOT		Plantae
<i>Acacia sp. Broome (B.R. Maslin 4918)</i>	DICOT		Plantae
<i>Acacia stigmatophylla</i>	DICOT		Plantae
<i>Acacia stipuligera</i>	DICOT		Plantae
<i>Acacia trachycarpa</i>	DICOT		Plantae
<i>Acacia translucens</i>	DICOT		Plantae
<i>Acacia tumida var. kulparn</i>	DICOT		Plantae
<i>Acacia tumida var. tumida</i>	DICOT		Plantae
<i>Acanthospermum hispidum</i>	DICOT		Plantae
<i>Achyranthes aspera</i>	DICOT		Plantae
<i>Acrachne racemosa</i>	MONOCOT		Plantae
<i>Acrostichum speciosum</i>	FERN		Plantae
<i>Adansonia gregorii</i>	DICOT		Plantae
<i>Adriana tomentosa var. tomentosa</i>	DICOT		Plantae
<i>Aegiceras corniculatum</i>	DICOT		Plantae
<i>Aerva javanica</i>	DICOT		Plantae
<i>Aeschynomene indica</i>	DICOT		Plantae
<i>Ageratum conyzoides</i>	DICOT		Plantae
<i>Albizia lebbeck</i>	DICOT		Plantae
<i>Alstonia linearis</i>	DICOT		Plantae
<i>Alternanthera brasiliana</i>	DICOT		Plantae
<i>Alternanthera pungens</i>	DICOT		Plantae
<i>Alyogyne pinoniana</i>	DICOT		Plantae
<i>Alysicarpus ovalifolius</i>	DICOT		Plantae

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<i>Amaranthus dubius</i>	DICOT		Plantae
<i>Amaranthus sp</i>	DICOT		Plantae
<i>Amaranthus undulatus</i>	DICOT		Plantae
<i>Ammannia baccifera</i>	DICOT		Plantae
<i>Amyema benthamii</i>	DICOT		Plantae
<i>Amyema bifurcata</i>	DICOT		Plantae
<i>Amyema conspicua</i>	DICOT		Plantae
<i>Amyema sanguinea</i> var. <i>sanguinea</i>	DICOT		Plantae
<i>Amyema thalassia</i>	DICOT		Plantae
<i>Androcalva loxophylla</i>	DICOT		Plantae
<i>Annona reticulata</i>	DICOT		Plantae
<i>Anodendron oblongifolium</i>	DICOT		Plantae
<i>Anodendron oblongifolium</i>	DICOT		Plantae
<i>Antigonon leptopus</i>	DICOT		Plantae
<i>Aphyllodium glossocarpum</i>	DICOT	P3	Plantae
<i>Aphyllodium parvifolium</i>	DICOT	P1	Plantae
<i>Aristida holathera</i> var. <i>holathera</i>	MONOCOT		Plantae
<i>Aristida holathera</i> var. <i>latifolia</i>	MONOCOT		Plantae
<i>Aristida hygrometrica</i>	MONOCOT		Plantae
<i>Aristida inaequiglumis</i>	MONOCOT		Plantae
<i>Asystasia gangetica</i> subsp. <i>gangetica</i>	DICOT		Plantae
<i>Atalaya hemiglauca</i>	DICOT		Plantae
<i>Atalaya variifolia</i>	DICOT		Plantae
<i>Avicennia marina</i>	DICOT		Plantae
<i>Azadirachta indica</i>	DICOT		Plantae
<i>Batis argillicola</i>	DICOT		Plantae
<i>Bauhinia cunninghamii</i>	DICOT		Plantae
<i>Bergia ammannioides</i>	DICOT		Plantae
<i>Bidens bipinnata</i>	DICOT		Plantae
<i>Blighia sapida</i>	DICOT		Plantae
<i>Blumea integrifolia</i>	DICOT		Plantae
<i>Blumea saxatilis</i>	DICOT		Plantae
<i>Blumea tenella</i>	DICOT		Plantae
<i>Boerhavia coccinea</i>	DICOT		Plantae
<i>Boerhavia dominii</i>	DICOT		Plantae
<i>Boerhavia gardneri</i>	DICOT		Plantae
<i>Boerhavia paludosa</i>	DICOT		Plantae
<i>Boerhavia sp.</i>	DICOT		Plantae
<i>Bonamia linearis</i>	DICOT		Plantae
<i>Bonamia media</i>	DICOT		Plantae
<i>Bonamia oblongifolia</i>	DICOT	P3	Plantae
<i>Bonamia pannosa</i>	DICOT		Plantae
<i>Bothriochloa bladhii</i>	MONOCOT		Plantae
<i>Bothriochloa pertusa</i>	MONOCOT		Plantae
<i>Brachychiton diversifolius</i> subsp. <i>diversifolius</i>	DICOT		Plantae
<i>Breynia cernua</i>	DICOT		Plantae
<i>Bridelia tomentosa</i>	DICOT		Plantae

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<i>Bruguiera exaristata</i>	DICOT		Plantae
<i>Buchnera asperata</i>	DICOT		Plantae
<i>Buchnera linearis</i>	DICOT		Plantae
<i>Buchnera ramosissima</i>	DICOT		Plantae
<i>Bulbostylis barbata</i>	MONOCOT		Plantae
<i>Butea monosperma</i>	DICOT		Plantae
<i>Byblis filifolia</i>	DICOT		Plantae
<i>Byblis liniflora</i>	DICOT		Plantae
<i>Byblis rorida</i>	DICOT		Plantae
<i>Caesalpinia major</i>	DICOT		Plantae
<i>Caesalpinia sp.</i>	DICOT		Plantae
<i>Cajanus marmoratus</i>	DICOT		Plantae
<i>Calandrinia quadrivalvis</i>	DICOT		Plantae
<i>Calandrinia strophiolata</i>	DICOT		Plantae
<i>Calandrinia tepperiana</i>	DICOT		Plantae
<i>Calliandra sp.</i>	DICOT		Plantae
<i>Callisia repens</i>	MONOCOT		Plantae
<i>Calotropis gigantea</i>	DICOT		Plantae
<i>Calytrix exstipulata</i>	DICOT		Plantae
<i>Camptostemon schultzei</i>	DICOT		Plantae
<i>Canavalia rosea</i>	DICOT		Plantae
<i>Capparis lasiantha</i>	DICOT		Plantae
<i>Capsicum annuum</i>	DICOT		Plantae
<i>Cardamine occulta</i>	DICOT		Plantae
<i>Cardamine sp.</i>	DICOT		Plantae
<i>Carissa lanceolata</i>	DICOT		Plantae
<i>Cartonema parviflorum</i>	MONOCOT		Plantae
<i>Caryota mitis</i>	MONOCOT		Plantae
<i>Cascabela thevetia</i>	DICOT		Plantae
<i>Cassia roxburghii</i>	DICOT		Plantae
<i>Cassytha capillaris</i>	DICOT		Plantae
<i>Cassytha filiformis</i>	DICOT		Plantae
<i>Catharanthus roseus</i>	DICOT		Plantae
<i>Celtis strychnoides</i>	DICOT		Plantae
<i>Cenchrus americanus</i>	MONOCOT		Plantae
<i>Cenchrus biflorus</i>	MONOCOT		Plantae
<i>Cenchrus ciliaris</i>	MONOCOT		Plantae
<i>Cenchrus echinatus</i>	MONOCOT		Plantae
<i>Cenchrus purpurascens</i>	MONOCOT		Plantae
<i>Cenchrus setiger</i>	MONOCOT		Plantae
<i>Centratherum punctatum</i>	DICOT		Plantae
<i>Centrosema molle</i>	DICOT		Plantae
<i>Centrosema pascuorum</i>	DICOT		Plantae
<i>Ceratophyllum demersum</i>	DICOT		Plantae
<i>Ceratopteris thalictroides</i>	FERN		Plantae
<i>Ceriops australis</i>	DICOT		Plantae
<i>Chamaecrista absus var. absus</i>	DICOT		Plantae

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<i>Chamaecrista moorei</i>	DICOT		Plantae
<i>Chamaecrista symonii</i>	DICOT		Plantae
<i>Chloris barbata</i>	MONOCOT		Plantae
<i>Chloris lobata</i>	MONOCOT		Plantae
<i>Chloris pumilio</i>	MONOCOT		Plantae
<i>Chloris virgata</i>	MONOCOT		Plantae
<i>Chrysopogon aciculatus</i>	MONOCOT		Plantae
<i>Chrysopogon pallidus</i>	MONOCOT		Plantae
<i>Cissus rotundifolia</i>	DICOT		Plantae
<i>Citrullus amarus</i>	DICOT		Plantae
<i>Cleome tetrandra</i> var. <i>tetrandra</i>	DICOT		Plantae
<i>Cleome viscosa</i>	DICOT		Plantae
<i>Clerodendrum floribundum</i>	DICOT		Plantae
<i>Clerodendrum floribundum</i> var. <i>coriaceum</i>	DICOT		Plantae
<i>Clerodendrum floribundum</i> var. <i>ovatum</i>	DICOT		Plantae
<i>Clerodendrum tomentosum</i> var. <i>mollissima</i>	DICOT		Plantae
<i>Clerodendrum tomentosum</i> var. <i>tomentosum</i>	DICOT		Plantae
<i>Clitoria ternatea</i>	DICOT		Plantae
<i>Coccinia grandis</i>	DICOT		Plantae
<i>Codonocarpus cotinifolius</i>	DICOT		Plantae
<i>Conyza bonariensis</i>	DICOT		Plantae
<i>Corchorus aestuans</i>	DICOT		Plantae
<i>Corchorus incanus</i> subsp. <i>incanus</i>	DICOT		Plantae
<i>Corchorus olitorius</i>	DICOT		Plantae
<i>Corchorus sidoides</i> subsp. <i>sidoides</i>	DICOT		Plantae
<i>Corchorus sidoides</i> subsp. <i>vermicularis</i>	DICOT		Plantae
<i>Corchorus tridens</i>	DICOT		Plantae
<i>Cordia sebestena</i>	DICOT		Plantae
<i>Corymbia bella</i>	DICOT		Plantae
<i>Corymbia dendromerinx</i>	DICOT		Plantae
<i>Corymbia flavescens</i>	DICOT		Plantae
<i>Corymbia greeniana</i>	DICOT		Plantae
<i>Corymbia greeniana</i> x <i>polycarpa</i>	DICOT		Plantae
<i>Corymbia greeniana</i> x <i>zygophylla</i>	DICOT		Plantae
<i>Corymbia opaca</i>	DICOT		Plantae
<i>Corymbia paractia</i>	DICOT	P1	Plantae
<i>Corymbia polycarpa</i>	DICOT		Plantae
<i>Corymbia zygophylla</i>	DICOT		Plantae
<i>Corynotheca micrantha</i>	MONOCOT		Plantae
<i>Corynotheca micrantha</i> var. <i>gracilis</i>	MONOCOT		Plantae
<i>Cressa australis</i>	DICOT		Plantae
<i>Crinum arenarium</i>	MONOCOT		Plantae
<i>Crotalaria brevis</i>	DICOT		Plantae
<i>Crotalaria crispata</i>	DICOT		Plantae
<i>Crotalaria cunninghamii</i>	DICOT		Plantae
<i>Crotalaria cunninghamii</i> subsp. <i>cunninghamii</i>	DICOT		Plantae
<i>Crotalaria medicaginea</i>	DICOT		Plantae

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<i>Crotalaria medicaginea</i> var. <i>neglecta</i>	DICOT		Plantae
<i>Crotalaria ramosissima</i>	DICOT		Plantae
<i>Crotalaria</i> sp.	DICOT		Plantae
<i>Croton habrophyllus</i>	DICOT		Plantae
<i>Cryptostegia madagascariensis</i>	DICOT		Plantae
<i>Cucumis anguria</i> var. <i>anguria</i>	DICOT		Plantae
<i>Cucumis maderaspatanus</i>	DICOT		Plantae
<i>Cucumis melo</i>	DICOT		Plantae
<i>Cucumis picrocarpus</i>	DICOT		Plantae
<i>Cullen corallum</i>	DICOT		Plantae
<i>Cullen martinii</i>	DICOT		Plantae
<i>Cullen pustulatum</i>	DICOT		Plantae
<i>Cuscuta campestris</i>	DICOT		Plantae
<i>Cuscuta chinensis</i>	DICOT		Plantae
<i>Cuscuta victoriana</i>	DICOT		Plantae
<i>Cyanostegia cyanocalyx</i>	DICOT		Plantae
<i>Cyanthillium cinereum</i> var. <i>cinereum</i>	DICOT		Plantae
<i>Cyanthillium cinereum</i> var. <i>lanatum</i>	DICOT		Plantae
<i>Cymbidium canaliculatum</i>	MONOCOT		Plantae
<i>Cymbopogon bombycinus</i>	MONOCOT		Plantae
<i>Cymbopogon procerus</i>	MONOCOT		Plantae
<i>Cymodocea angustata</i>	MONOCOT		Plantae
<i>Cynanchum pedunculatum</i>	DICOT		Plantae
<i>Cynanchum viminale</i> subsp. <i>australe</i>	DICOT		Plantae
<i>Cynodon convergens</i>	MONOCOT		Plantae
<i>Cynodon dactylon</i>	MONOCOT		Plantae
<i>Cyperus bifax</i>	MONOCOT		Plantae
<i>Cyperus blakeanus</i>	MONOCOT		Plantae
<i>Cyperus bulbosus</i>	MONOCOT		Plantae
<i>Cyperus compressus</i>	MONOCOT		Plantae
<i>Cyperus conicus</i>	MONOCOT		Plantae
<i>Cyperus rotundus</i>	MONOCOT		Plantae
<i>Cyperus scariosus</i>	MONOCOT		Plantae
<i>Cyperus squarrosus</i>	MONOCOT		Plantae
<i>Cyperus zollingeri</i>	MONOCOT		Plantae
<i>Dactyloctenium aegyptium</i>	MONOCOT		Plantae
<i>Dactyloctenium radulans</i>	MONOCOT		Plantae
<i>Datura metel</i>	DICOT		Plantae
<i>Dendrophthoe acacioides</i> subsp. <i>acacioides</i>	DICOT		Plantae
<i>Denhamia cunninghamii</i>	DICOT		Plantae
<i>Dentella misera</i>	DICOT		Plantae
<i>Desmodium filiforme</i>	DICOT		Plantae
<i>Desmodium tortuosum</i>	DICOT		Plantae
<i>Dichrostachys spicata</i>	DICOT		Plantae
<i>Digitaria bicornis</i>	MONOCOT		Plantae
<i>Digitaria brownii</i>	MONOCOT		Plantae
<i>Digitaria ciliaris</i>	MONOCOT		Plantae

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<i>Digitaria ctenantha</i>	MONOCOT		Plantae
<i>Digitaria radicata</i>	MONOCOT		Plantae
<i>Diospyros humilis</i>	DICOT		Plantae
<i>Distimake aegyptius</i>	DICOT		Plantae
<i>Distimake davenportii</i>	DICOT		Plantae
<i>Distimake dissectus</i> var. <i>dissectus</i>	DICOT		Plantae
<i>Dodonaea hispidula</i> var. <i>arida</i>	DICOT		Plantae
<i>Dodonaea hispidula</i> var. <i>phylloptera</i>	DICOT		Plantae
<i>Dolichandra unguis-cati</i>	DICOT		Plantae
<i>Dolichandrone occidentalis</i>	DICOT		Plantae
<i>Drosera broomensis</i>	DICOT		Plantae
<i>Drosera fragrans</i>	DICOT		Plantae
<i>Drosera serpens</i>	DICOT		Plantae
<i>Dysphania plantaginella</i>	DICOT		Plantae
<i>Echinochloa frumentacea</i>	MONOCOT		Plantae
<i>Eclipta platyglossa</i> subsp. <i>borealis</i>	DICOT		Plantae
<i>Eclipta prostrata</i>	DICOT		Plantae
<i>Ectrosia danesii</i>	MONOCOT		Plantae
<i>Ehretia saligna</i>	DICOT		Plantae
<i>Ehretia saligna</i> var. <i>saligna</i>	DICOT		Plantae
<i>Eleusine indica</i>	MONOCOT		Plantae
<i>Eleutheranthera ruderalis</i>	DICOT		Plantae
<i>Emilia</i> sp.	DICOT		Plantae
<i>Enneapogon pallidus</i>	MONOCOT		Plantae
<i>Enteropogon dolichostachyus</i>	MONOCOT		Plantae
<i>Epipremnum</i> sp.	MONOCOT		Plantae
<i>Eragrostis cilianensis</i>	MONOCOT		Plantae
<i>Eragrostis cumingii</i>	MONOCOT		Plantae
<i>Eragrostis eriopoda</i>	MONOCOT		Plantae
<i>Eragrostis falcata</i>	MONOCOT		Plantae
<i>Eragrostis minor</i>	MONOCOT		Plantae
<i>Eragrostis setifolia</i>	MONOCOT		Plantae
<i>Eragrostis</i> sp.	MONOCOT		Plantae
<i>Eragrostis tenuifolia</i>	MONOCOT		Plantae
<i>Eriachne ciliata</i>	MONOCOT		Plantae
<i>Eriachne melicacea</i>	MONOCOT		Plantae
<i>Eriachne obtusa</i>	MONOCOT		Plantae
<i>Eriachne pindanica</i>	MONOCOT		Plantae
<i>Eriachne pulchella</i> subsp. <i>dominii</i>	MONOCOT		Plantae
<i>Eruca sativa</i>	DICOT		Plantae
<i>Erythrina vespertilio</i>	DICOT		Plantae
<i>Erythrophleum chlorostachys</i>	DICOT		Plantae
<i>Eucalyptus jensenii</i>	DICOT		Plantae
<i>Eucalyptus microtheca</i>	DICOT		Plantae
<i>Eucalyptus tectifera</i>	DICOT		Plantae
<i>Eupatorium</i> sp.	DICOT		Plantae
<i>Euphorbia australis</i> var. <i>subtomentosa</i>	DICOT		Plantae

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<i>Euphorbia coghlanii</i>	DICOT		Plantae
<i>Euphorbia cyathophora</i>	DICOT		Plantae
<i>Euphorbia hassallii</i>	DICOT		Plantae
<i>Euphorbia heterophylla</i>	DICOT		Plantae
<i>Euphorbia hirta</i>	DICOT		Plantae
<i>Euphorbia maculata</i>	DICOT		Plantae
<i>Euphorbia mitchelliana</i>	DICOT		Plantae
<i>Euphorbia myrtilloides</i>	DICOT		Plantae
<i>Euphorbia schultzei</i>	DICOT		Plantae
<i>Euphorbia</i> sp.	DICOT		Plantae
<i>Euphorbia thymifolia</i>	DICOT		Plantae
<i>Euphorbia trigonosperma</i>	DICOT		Plantae
<i>Euphorbia vaccaria</i> var. <i>vaccaria</i>	DICOT		Plantae
<i>Evolvulus alsinoides</i> var. <i>decumbens</i>	DICOT		Plantae
<i>Evolvulus alsinoides</i> var. <i>villosicalyx</i>	DICOT		Plantae
<i>Exocarpos latifolius</i>	DICOT		Plantae
<i>Faidherbia albida</i>	DICOT		Plantae
<i>Ficus aculeata</i> var. <i>indecora</i>	DICOT		Plantae
<i>Fimbristylis ammobia</i>	MONOCOT		Plantae
<i>Fimbristylis caespitosa</i>	MONOCOT		Plantae
<i>Fimbristylis cymosa</i>	MONOCOT		Plantae
<i>Fimbristylis oxystachya</i>	MONOCOT		Plantae
<i>Fimbristylis schultzei</i>	MONOCOT		Plantae
<i>Fimbristylis sericea</i>	MONOCOT		Plantae
<i>Flaveria trinervia</i>	DICOT		Plantae
<i>Flueggea virosa</i>	DICOT		Plantae
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	DICOT		Plantae
<i>Frankenia ambita</i>	DICOT		Plantae
<i>Galactia tenuiflora</i>	DICOT		Plantae
<i>Gamochaeta pensylvanica</i>	DICOT		Plantae
<i>Gardenia pyrifolia</i>	DICOT		Plantae
<i>Gardenia pyrifolia</i> subsp. <i>keartlandii</i>	DICOT		Plantae
<i>Gardenia</i> sp.	DICOT		Plantae
<i>Glycine pindana</i>	DICOT	P3	Plantae
<i>Glycine tomentella</i>	DICOT		Plantae
<i>Glycosmis macrophylla</i>	DICOT		Plantae
<i>Glycosmis trifoliata</i>	DICOT		Plantae
<i>Gmelina philippensis</i>	DICOT		Plantae
<i>Gnaphalium polycaulon</i>	DICOT		Plantae
<i>Gomphrena canescens</i>	DICOT		Plantae
<i>Gomphrena canescens</i> subsp. <i>canescens</i>	DICOT		Plantae
<i>Gomphrena celosioides</i>	DICOT		Plantae
<i>Gomphrena flaccida</i>	DICOT		Plantae
<i>Gomphrena pusilla</i>	DICOT	P2	Plantae
<i>Gomphrena</i> sp.	DICOT		Plantae
<i>Gomphrena tenella</i>	DICOT		Plantae
<i>Gonocarpus leptothecus</i>	DICOT		Plantae

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<i>Goodenia armitiana</i>	DICOT		Plantae
<i>Goodenia byrnesii</i>	DICOT	P3	Plantae
<i>Goodenia lamprosperma</i>	DICOT		Plantae
<i>Goodenia scaevolina</i>	DICOT		Plantae
<i>Goodenia sepalosa</i> var. <i>sepalosa</i>	DICOT		Plantae
<i>Goodenia</i> sp.	DICOT		Plantae
<i>Gossypium australe</i>	DICOT		Plantae
<i>Gossypium hirsutum</i>	DICOT		Plantae
<i>Gossypium populifolium</i>	DICOT		Plantae
<i>Gossypium rotundifolium</i>	DICOT		Plantae
<i>Grevillea pyramidalis</i> subsp. <i>pyramidalis</i>	DICOT		Plantae
<i>Grevillea refracta</i>	DICOT		Plantae
<i>Grevillea refracta</i> subsp. <i>refracta</i>	DICOT		Plantae
<i>Grevillea wickhamii</i> subsp. <i>aprica</i>	DICOT		Plantae
<i>Grevillea wickhamii</i> subsp. <i>macrodonta</i>	DICOT		Plantae
<i>Grewia breviflora</i>	DICOT		Plantae
<i>Grewia retusifolia</i>	DICOT		Plantae
<i>Grewia</i> sp.	DICOT		Plantae
<i>Guaiacum officinale</i>	DICOT		Plantae
<i>Guilleminea densa</i>	DICOT		Plantae
<i>Gymnanthera oblonga</i>	DICOT		Plantae
<i>Gyrocarpus americanus</i>	DICOT		Plantae
<i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i>	DICOT		Plantae
<i>Gyrostemon tepperi</i>	DICOT		Plantae
<i>Hakea arborescens</i>	DICOT		Plantae
<i>Hakea macrocarpa</i>	DICOT		Plantae
<i>Halgania</i> sp. A Kimberley Flora (H.A. Johnson)	DICOT		Plantae
<i>Halodule pinifolia</i>	MONOCOT		Plantae
<i>Halodule</i> sp.	MONOCOT		Plantae
<i>Halodule uninervis</i>	MONOCOT		Plantae
<i>Halophila decipiens</i>	MONOCOT		Plantae
<i>Halophila minor</i>	MONOCOT		Plantae
<i>Halophila ovalis</i>	MONOCOT		Plantae
<i>Halophila</i> sp.	MONOCOT		Plantae
<i>Halophila spinulosa</i>	MONOCOT		Plantae
<i>Heliotropium curassavicum</i>	DICOT		Plantae
<i>Heliotropium foliatum</i>	DICOT		Plantae
<i>Heliotropium leptaleum</i>	DICOT		Plantae
<i>Heliotropium ovalifolium</i>	DICOT		Plantae
<i>Hemichroa diandra</i>	DICOT		Plantae
<i>Herissantia crispa</i>	DICOT		Plantae
<i>Heteropogon contortus</i>	MONOCOT		Plantae
<i>Hibiscus apodus</i>	DICOT		Plantae
<i>Hibiscus austrinus</i>	DICOT		Plantae
<i>Hibiscus austrinus</i> var. <i>austrinus</i>	DICOT		Plantae
<i>Hibiscus geranioides</i>	DICOT		Plantae
<i>Hibiscus leptocladus</i>	DICOT		Plantae

Appendix B: NatureMap Search Results

<i>Hibiscus panduriformis</i>	DICOT	P1	Plantae
<i>Hybanthus aurantiacus</i>	DICOT		Plantae
<i>Hydrilla verticillata</i>	MONOCOT		Plantae
<i>Hypoestes floribunda</i> var. <i>distans</i>	DICOT		Plantae
<i>Hypoestes floribunda</i> var. <i>varia</i>	DICOT		Plantae
<i>Ichnocarpus frutescens</i>	DICOT		Plantae
<i>Indigofera colutea</i>	DICOT		Plantae
<i>Indigofera haplophylla</i>	DICOT		Plantae
<i>Indigofera hirsuta</i>	DICOT		Plantae
<i>Indigofera linifolia</i>	DICOT		Plantae
<i>Indigofera linnaei</i>	DICOT		Plantae
<i>Indigofera monophylla</i>	DICOT		Plantae
<i>Indigofera oblongifolia</i>	DICOT		Plantae
<i>Indigofera trita</i>	DICOT		Plantae
<i>Ipomoea batatas</i>	DICOT		Plantae
<i>Ipomoea cairica</i>	DICOT		Plantae
<i>Ipomoea optica</i>	DICOT		Plantae
<i>Ipomoea muelleri</i>	DICOT		Plantae
<i>Ipomoea pes-caprae</i>	DICOT		Plantae
<i>Ipomoea pes-caprae</i> subsp. <i>brasiliensis</i>	DICOT		Plantae
<i>Ipomoea pes-caprae</i> subsp. <i>pes-caprae</i>	DICOT		Plantae
<i>Ipomoea pes-tigridis</i>	DICOT		Plantae
<i>Ipomoea polymorpha</i>	DICOT		Plantae
<i>Ipomoea triloba</i>	DICOT		Plantae
<i>Isotropis atropurpurea</i>	DICOT		Plantae
<i>Jacksonia aculeata</i>	DICOT		Plantae
<i>Jacquemontia paniculata</i>	DICOT		Plantae
<i>Jacquemontia</i> sp. <i>Broome</i> (A.A. Mitchell 3028)	DICOT	P1	Plantae
<i>Jacquinia pungens</i>	DICOT		Plantae
<i>Jasminum didymum</i>	DICOT		Plantae
<i>Jasminum didymum</i> subsp. <i>didymum</i>	DICOT		Plantae
<i>Jasminum didymum</i> subsp. <i>lineare</i>	DICOT		Plantae
<i>Jasminum molle</i>	DICOT		Plantae
<i>Jatropha gossypifolia</i>	DICOT		Plantae
<i>Josephinia eugeniae</i>	DICOT		Plantae
<i>Khaya anthotheca</i>	DICOT		Plantae
<i>Landoltia punctata</i>	MONOCOT		Plantae
<i>Lawsonia inermis</i>	DICOT		Plantae
<i>Lemna aequinoctialis</i>	MONOCOT		Plantae
<i>Leptochloa fusca</i> subsp. <i>fusca</i>	MONOCOT		Plantae
<i>Leptosema anomalum</i>	DICOT		Plantae
<i>Leucaena leucocephala</i> subsp. <i>leucocephala</i>	DICOT		Plantae
<i>Lithomyrtus retusa</i>	DICOT		Plantae
<i>Lobelia arnhemiaca</i>	DICOT		Plantae
<i>Lolium perenne</i>	MONOCOT		Plantae
<i>Lophostemon grandiflorus</i> subsp. <i>grandiflorus</i>	DICOT	P3	Plantae
<i>Lumnitzera racemosa</i>	DICOT		Plantae

Appendix B: NatureMap Search Results

<i>Lysiana spathulata</i>	DICOT		Plantae
<i>Lysiana spathulata</i> subsp. <i>parvifolia</i>	DICOT		Plantae
<i>Lysiana spathulata</i> subsp. <i>spathulata</i>	DICOT		Plantae
<i>Macroptilium atropurpureum</i>	DICOT		Plantae
<i>Mallotus nesophilus</i>	DICOT		Plantae
<i>Marsdenia angustata</i>	DICOT		Plantae
<i>Marsdenia viridiflora</i>	DICOT		Plantae
<i>Marsdenia viridiflora</i> subsp. <i>tropica</i>	DICOT		Plantae
<i>Marsilea hirsuta</i>	FERN		Plantae
<i>Mecardonia procumbens</i>	DICOT		Plantae
<i>Medicago polymorpha</i>	DICOT		Plantae
<i>Melaleuca alsophila</i>	DICOT		Plantae
<i>Melaleuca cajaputi</i> subsp. <i>cajaputi</i>	DICOT		Plantae
<i>Melaleuca cajuputi</i>	DICOT		Plantae
<i>Melaleuca cajuputi</i> subsp. <i>cajuputi</i>	DICOT		Plantae
<i>Melaleuca dealbata</i>	DICOT		Plantae
<i>Melaleuca nervosa</i>	DICOT		Plantae
<i>Melaleuca nervosa</i> subsp. <i>crosslandiana</i>	DICOT		Plantae
<i>Melaleuca viridiflora</i>	DICOT		Plantae
<i>Melhania oblongifolia</i>	DICOT		Plantae
<i>Melicope elleryana</i>	DICOT		Plantae
<i>Mesosphaerum suaveolens</i>	DICOT		Plantae
<i>Microstachys chamaelea</i>	DICOT		Plantae
<i>Miliusa brahei</i>	DICOT		Plantae
<i>Mimosa diplotricha</i>	DICOT		Plantae
<i>Mimusops elengi</i>	DICOT		Plantae
<i>Mitracarpus hirtus</i>	DICOT		Plantae
<i>Mitrasacme exserta</i>	DICOT		Plantae
<i>Mitrasacme hispida</i>	DICOT		Plantae
<i>Mnesithea formosa</i>	MONOCOT		Plantae
<i>Momordica balsamina</i>	DICOT		Plantae
<i>Moringa drouhardii</i>	DICOT		Plantae
<i>Muellerolimon salicorniaceum</i>	DICOT		Plantae
<i>Murdannia graminea</i>	MONOCOT		Plantae
<i>Myoporum montanum</i>	DICOT		Plantae
<i>Najas tenuifolia</i>	MONOCOT		Plantae
<i>Nauclea orientalis</i>	DICOT		Plantae
<i>Neobassia astrocarpa</i>	DICOT		Plantae
<i>Newcastelia cladotricha</i>	DICOT		Plantae
<i>Nicotiana heterantha</i>	DICOT		Plantae
<i>Notoleptopus decaisnei</i>	DICOT		Plantae
<i>Nymphaea violacea</i>	DICOT		Plantae
<i>Ocimum americanum</i>	DICOT		Plantae
<i>Ocimum basilicum</i>	DICOT		Plantae
<i>Oldenlandia corymbosa</i> var. <i>corymbosa</i>	DICOT		Plantae
<i>Oldenlandia mitrasacmoides</i>	DICOT		Plantae
<i>Oldenlandia mitrasacmoides</i> subsp. <i>mitrasac</i>	DICOT		Plantae

Appendix B: NatureMap Search Results

<i>Operculina aequisejala</i>	DICOT		Plantae
<i>Operculina brownii</i>	DICOT		Plantae
<i>Opilia amentacea</i>	DICOT		Plantae
<i>Owenia reticulata</i>	DICOT		Plantae
<i>Oxalis corniculata</i>	DICOT		Plantae
<i>Pachyrhizus erosus</i>	DICOT		Plantae
<i>Pandanus spiralis</i>	MONOCOT		Plantae
<i>Panicum decompositum</i>	MONOCOT		Plantae
<i>Panicum effusum</i>	MONOCOT		Plantae
<i>Panicum mindanaense</i>	MONOCOT		Plantae
<i>Panicum seminudum</i> var. <i>cairnsianum</i>	MONOCOT		Plantae
<i>Paspalidium rarum</i>	MONOCOT		Plantae
<i>Paspalum distichum</i>	MONOCOT		Plantae
<i>Paspalum vaginatum</i>	MONOCOT		Plantae
<i>Passiflora foetida</i>	DICOT		Plantae
<i>Passiflora foetida</i> var. <i>hispida</i>	DICOT		Plantae
<i>Pavetta kimberleyana</i>	DICOT		Plantae
<i>Peltophorum pterocarpum</i>	DICOT		Plantae
<i>Peperomia pellucida</i>	DICOT		Plantae
<i>Perotis rara</i>	MONOCOT		Plantae
<i>Persicaria hydropiper</i>	DICOT		Plantae
<i>Persoonia falcata</i>	DICOT		Plantae
<i>Phyla nodiflora</i>	DICOT		Plantae
<i>Phyla nodiflora</i> var. <i>nodiflora</i>	DICOT		Plantae
<i>Phyllanthus amarus</i>	DICOT		Plantae
<i>Phyllanthus eremicus</i>	DICOT		Plantae
<i>Phyllanthus exilis</i>	DICOT		Plantae
<i>Phyllanthus maderaspatensis</i>	DICOT		Plantae
<i>Phyllanthus reticulatus</i>	DICOT		Plantae
<i>Phyllanthus</i> sp.	DICOT		Plantae
<i>Phyllanthus</i> sp. C	DICOT		Plantae
<i>Phyllanthus tenellus</i>	DICOT		Plantae
<i>Phyllanthus urinaria</i>	DICOT		Plantae
<i>Physalis angulata</i>	DICOT		Plantae
<i>Pilea microphylla</i>	DICOT		Plantae
<i>Pistia stratiotes</i>	MONOCOT		Plantae
<i>Pittosporum moluccanum</i>	DICOT	P4	Plantae
<i>Planchonia careya</i>	DICOT		Plantae
<i>Pluchea ferdinandi-muelleri</i>	DICOT		Plantae
<i>Pluchea longiseta</i>	DICOT		Plantae
<i>Pluchea rubelliflora</i>	DICOT		Plantae
<i>Pluchea tetranthera</i>	DICOT		Plantae
<i>Polycarpaea corymbosa</i>	DICOT		Plantae
<i>Polycarpaea longiflora</i>	DICOT		Plantae
<i>Polygala tepperi</i>	DICOT		Plantae
<i>Polymeria ambigua</i>	DICOT		Plantae
<i>Polymeria</i> sp. <i>Broome</i> (K.F. Kenneally 9759)	DICOT	P3	Plantae

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<i>Portulaca bicolor</i>	DICOT		Plantae
<i>Portulaca filifolia</i>	DICOT		Plantae
<i>Portulaca napiformis</i>	DICOT		Plantae
<i>Portulaca oleracea</i>	DICOT		Plantae
<i>Portulaca pilosa</i>	DICOT		Plantae
<i>Portulaca sp.</i>	DICOT		Plantae
<i>Praxelis clematidea</i>	DICOT		Plantae
<i>Premna acuminata</i>	DICOT		Plantae
<i>Prosopis sp.</i>	DICOT		Plantae
<i>Psyrax attenuata</i> var. <i>tenella</i>	DICOT		Plantae
<i>Psyrax pendulina</i>	DICOT		Plantae
<i>Pterocaulon intermedium</i>	DICOT		Plantae
<i>Pterocaulon paradoxum</i>	DICOT		Plantae
<i>Pterocaulon serrulatum</i> var. <i>velutinum</i>	DICOT		Plantae
<i>Pterocaulon sphacelatum</i>	DICOT		Plantae
<i>Pterostylis sp. inland</i> (A.C. Beauglehole 1188)	MONOCOT		Plantae
<i>Ptilotus calostachyus</i>	DICOT		Plantae
<i>Ptilotus corymbosus</i>	DICOT		Plantae
<i>Ptilotus exaltatus</i>	DICOT		Plantae
<i>Ptilotus fusiformis</i>	DICOT		Plantae
<i>Ptilotus lanatus</i>	DICOT		Plantae
<i>Ptilotus polystachyus</i>	DICOT		Plantae
<i>Pupalia micrantha</i>	DICOT		Plantae
<i>Raphanus raphanistrum</i>	DICOT		Plantae
<i>Rhizophora stylosa</i>	DICOT		Plantae
<i>Rhynchosia australis</i>	DICOT		Plantae
<i>Rhynchosia minima</i>	DICOT		Plantae
<i>Ruellia sp.</i>	DICOT		Plantae
<i>Ruellia tuberosa</i>	DICOT		Plantae
<i>Salsola australis</i>	DICOT		Plantae
<i>Santalum album</i>	DICOT		Plantae
<i>Santalum lanceolatum</i>	DICOT		Plantae
<i>Sauropus trachyspermus</i>	DICOT		Plantae
<i>Scaevola parvifolia</i>	DICOT		Plantae
<i>Scaevola parvifolia</i> subsp. <i>parvifolia</i>	DICOT		Plantae
<i>Schenkia australis</i>	DICOT		Plantae
<i>Schinus terebinthifolia</i>	DICOT		Plantae
<i>Schizachyrium fragile</i>	MONOCOT		Plantae
<i>Schizachyrium pachyarthron</i>	MONOCOT		Plantae
<i>Schoenus falcatus</i>	MONOCOT		Plantae
<i>Scleria brownii</i>	MONOCOT		Plantae
<i>Scleria sp.</i>	MONOCOT		Plantae
<i>Scutellaria indica</i>	DICOT		Plantae
<i>Senna costata</i>	DICOT		Plantae
<i>Senna glutinosa</i> subsp. <i>glutinosa</i>	DICOT		Plantae
<i>Senna goniodes</i>	DICOT		Plantae
<i>Senna notabilis</i>	DICOT		Plantae

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<i>Senna occidentalis</i>	DICOT		Plantae
<i>Senna oligoclada</i>	DICOT		Plantae
<i>Senna planitiicola</i>	DICOT		Plantae
<i>Seringia exastia</i>	DICOT		Plantae
<i>Seringia katatona</i>	DICOT		Plantae
<i>Seringia nephrosperma</i>	DICOT		Plantae
<i>Sersalisia sericea</i>	DICOT		Plantae
<i>Sesbania cannabina</i>	DICOT		Plantae
<i>Sesbania erubescens</i>	DICOT		Plantae
<i>Sesbania formosa</i>	DICOT		Plantae
<i>Sesbania simpliciuscula</i> var. <i>fitzroyensis</i>	DICOT		Plantae
<i>Sesbania</i> sp.	DICOT		Plantae
<i>Sesuvium portulacastrum</i>	DICOT		Plantae
<i>Setaria apiculata</i>	MONOCOT		Plantae
<i>Setaria dielsii</i>	MONOCOT		Plantae
<i>Setaria surgens</i>	MONOCOT		Plantae
<i>Setaria verticillata</i>	MONOCOT		Plantae
<i>Sida cordifolia</i>	DICOT		Plantae
<i>Sida fibulifera</i>	DICOT		Plantae
<i>Sida hackettiana</i>	DICOT		Plantae
<i>Sida rohlenae</i> subsp. <i>occidentalis</i>	DICOT		Plantae
<i>Sida</i> sp.	DICOT		Plantae
<i>Sida</i> sp. Pindan (B.G. Thomson 3398)	DICOT		Plantae
<i>Sida spinosa</i>	DICOT		Plantae
<i>Solanum americanum</i>	DICOT		Plantae
<i>Solanum beaugleholei</i>	DICOT		Plantae
<i>Solanum cunninghamii</i>	DICOT		Plantae
<i>Solanum dioicum</i>	DICOT		Plantae
<i>Solanum dioicum</i> sens. lat.	DICOT		Plantae
<i>Solanum diversiflorum</i>	DICOT		Plantae
<i>Solanum esuriale</i>	DICOT		Plantae
<i>Solanum pseudocapsicum</i>	DICOT		Plantae
<i>Solanum torvum</i>	DICOT		Plantae
<i>Soliva sessilis</i>	DICOT		Plantae
<i>Sonchus asper</i> x <i>oleraceus</i>	DICOT		Plantae
<i>Sonchus oleraceus</i>	DICOT		Plantae
<i>Sorghum interjectum</i>	MONOCOT		Plantae
<i>Sorghum plumosum</i>	MONOCOT		Plantae
<i>Sorghum stipoideum</i>	MONOCOT		Plantae
<i>Sorghum timorense</i>	MONOCOT		Plantae
<i>Spermacoce breviflora</i>	DICOT		Plantae
<i>Spermacoce dolichosperma</i>	DICOT		Plantae
<i>Spermacoce hillii</i>	DICOT		Plantae
<i>Spermacoce occidentalis</i>	DICOT		Plantae
<i>Spermacoce</i> sp.	DICOT		Plantae
<i>Spinifex longifolius</i>	MONOCOT		Plantae
<i>Sporobolus australasicus</i>	MONOCOT		Plantae

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<i>Sporobolus mitchellii</i>	MONOCOT		Plantae
<i>Sporobolus virginicus</i>	MONOCOT		Plantae
<i>Stachytarpheta cayennensis</i>	DICOT		Plantae
<i>Stackhousia intermedia</i>	DICOT		Plantae
<i>Stemodia florulenta</i>	DICOT		Plantae
<i>Stemodia lathraia</i>	DICOT		Plantae
<i>Streptoglossa macrocephala</i>	DICOT		Plantae
<i>Streptoglossa odora</i>	DICOT		Plantae
<i>Striga curviflora</i>	DICOT		Plantae
<i>Strobilanthes alternata</i>	DICOT		Plantae
<i>Stylidium pindanicum</i>	DICOT	P3	Plantae
<i>Stylosanthes hamata</i>	DICOT		Plantae
<i>Stylosanthes scabra</i>	DICOT		Plantae
<i>Suaeda arbusculoides</i>	DICOT		Plantae
<i>Surreya diandra</i>	DICOT		Plantae
<i>Tamarindus indica</i>	DICOT		Plantae
<i>Tecticornia auriculata</i>	DICOT		Plantae
<i>Tecticornia halocnemoides</i>	DICOT		Plantae
<i>Tecticornia halocnemoides subsp. tenuis</i>	DICOT		Plantae
<i>Tecticornia indica subsp. indica</i>	DICOT		Plantae
<i>Tecticornia indica subsp. julacea</i>	DICOT		Plantae
<i>Tecticornia indica subsp. leiostachya</i>	DICOT		Plantae
<i>Tecticornia sp.</i>	DICOT		Plantae
<i>Tephrosia andrewii</i>	DICOT	P3	Plantae
<i>Tephrosia crocea</i>	DICOT		Plantae
<i>Tephrosia leptoclada</i>	DICOT		Plantae
<i>Tephrosia remotiflora</i>	DICOT		Plantae
<i>Tephrosia rosea</i>	DICOT		Plantae
<i>Tephrosia rosea var. rosea</i>	DICOT		Plantae
<i>Tephrosia simplicifolia</i>	DICOT		Plantae
<i>Tephrosia sp. D Kimberley Flora (R.D. Royce 1</i>	DICOT		Plantae
<i>Terminalia ferdinandiana</i>	DICOT		Plantae
<i>Terminalia grandiflora</i>	DICOT		Plantae
<i>Terminalia hadleyana</i>	DICOT		Plantae
<i>Terminalia hadleyana x petiolaris</i>	DICOT		Plantae
<i>Terminalia kumpaja</i>	DICOT	P3	Plantae
<i>Terminalia latipes</i>	DICOT		Plantae
<i>Terminalia petiolaris</i>	DICOT		Plantae
<i>Tetragonia coronata</i>	DICOT	P3	Plantae
<i>Thaumastochloa major</i>	MONOCOT		Plantae
<i>Thaumastochloa pubescens</i>	MONOCOT		Plantae
<i>Themeda quadrivalvis</i>	MONOCOT		Plantae
<i>Thespesia populneooides</i>	DICOT		Plantae
<i>Thespidium basiflorum</i>	DICOT	P1	Plantae
<i>Thrinax parviflora</i>	MONOCOT		Plantae
<i>Timonius timon</i>	DICOT		Plantae
<i>Tinospora smilacina</i>	DICOT		Plantae

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<i>Trachymene oleracea subsp. oleracea</i>	DICOT		Plantae
<i>Trianthema pilosum</i>	DICOT		Plantae
<i>Trianthema portulacastrum</i>	DICOT		Plantae
<i>Trianthema triquetrum</i>	DICOT		Plantae
<i>Trianthema turgidifolium</i>	DICOT		Plantae
<i>Tribulopsis angustifolia</i>	DICOT		Plantae
<i>Tribulus angustifolia</i>	DICOT		Plantae
<i>Tribulus cistoides</i>	DICOT		Plantae
<i>Tribulus occidentalis</i>	DICOT		Plantae
<i>Tribulus sp.</i>	DICOT		Plantae
<i>Tribulus terrestris</i>	DICOT		Plantae
<i>Trichodesma zeylanicum</i>	DICOT		Plantae
<i>Trichodesma zeylanicum var. latisepaleum</i>	DICOT		Plantae
<i>Tridax procumbens</i>	DICOT		Plantae
<i>Trifolium cernuum</i>	DICOT		Plantae
<i>Triodia caelestialis</i>	MONOCOT		Plantae
<i>Triodia epactia</i>	MONOCOT		Plantae
<i>Triodia microstachya</i>	MONOCOT		Plantae
<i>Triodia schinzii</i>	MONOCOT		Plantae
<i>Triphasia trifoliata</i>	DICOT		Plantae
<i>Triumfetta pentandra</i>	DICOT		Plantae
<i>Uraria lagopodioides</i>	DICOT		Plantae
<i>Urochloa argentea</i>	MONOCOT		Plantae
<i>Urochloa mosambicensis</i>	MONOCOT		Plantae
<i>Urochloa piligera</i>	MONOCOT		Plantae
<i>Urochloa praetervisa</i>	MONOCOT		Plantae
<i>Urochloa pubigera</i>	MONOCOT		Plantae
<i>Urochloa subquadripara</i>	MONOCOT		Plantae
<i>Velleia panduriformis</i>	DICOT		Plantae
<i>Ventilago viminalis</i>	DICOT		Plantae
<i>Verbesina encelioides</i>	DICOT		Plantae
<i>Verbesina encelioides var. encelioides</i>	DICOT		Plantae
<i>Vigna radiata var. sublobata</i>	DICOT		Plantae
<i>Vincetoxicum carnosum</i>	DICOT		Plantae
<i>Vincetoxicum cinerascens</i>	DICOT		Plantae
<i>Wahlenbergia sp.</i>	DICOT		Plantae
<i>Waltheria indica</i>	DICOT		Plantae
<i>Whiteochloa airoides</i>	MONOCOT		Plantae
<i>Whiteochloa cymbiformis</i>	MONOCOT		Plantae
<i>Wrightia saligna</i>	DICOT		Plantae
<i>Xerochloa barbata</i>	MONOCOT		Plantae
<i>Xerochloa imberbis</i>	MONOCOT		Plantae
<i>Xerochloa sp.</i>	MONOCOT		Plantae
<i>Yakirra australiensis</i>	MONOCOT		Plantae
<i>Yakirra australiensis var. intermedia</i>	MONOCOT		Plantae
<i>Yakirra pauciflora</i>	MONOCOT		Plantae
<i>Ziziphus mauritiana</i>	DICOT		Plantae

Appendix B: NatureMap Search Results

<i>Zornia albiflora</i>	DICOT		Plantae
<i>Zornia chaetophora</i>	DICOT		Plantae
<i>Zornia muelleriana</i> subsp. <i>congesta</i>	DICOT		Plantae
<i>Zornia prostrata</i> var. <i>prostrata</i>	DICOT		Plantae

Appendix B: Threatened and Priority Flora Database Search Results

Taxon	ConsStatus	WARank	PopNumber	Location	District	Vesting	CountDate	InFlower	HabNotes	SoilCondit	Landform	SoilType	SoilColor	AssSpecies
<i>Glycine pindanica</i>		3		1 Road Verge, Broome Road [ca. 1.5km E along Broome Rd from intersection with Broome-Cape Leveque Rd], Shire of Broome.	WEST KIMBERLEY	LGA	09-02-2005 0:00	Y	Road Verge, with old disturbed soil, bare area	MOIST		SAND	BROWN	
<i>Glycine pindanica</i>		3		3 Exact location unknown [UCL or private property (College)?], Broome townsite (corner of Port Drive and Guy Street), [3 Port Drive, Lot 949 or UCL], Shire of Broome.	WEST KIMBERLEY	UNKNOWN	15-03-1987 0:00	Y	In pindan (Acacia shrubland).					Acacia eriopoda
<i>Glycine pindanica</i>		3		4 Private/freehold. Lot 976 Gregory St [3 Gregory St, workshop/residence], Broome. Shire of Broome.	WEST KIMBERLEY	PRI	08-03-1986 0:00	N	Pindan.					
<i>Glycine pindanica</i>		3		5 Private/freehold. Broome caravan park [14 Wattle Dr, lot 1207], Broome. Shire of Broome.	WEST KIMBERLEY	PRI	15-04-1985 0:00	N	On pindan bu salt marsh. In Scrub.					Atalaya hemiglauca
<i>Gomphrena pusilla</i>		2		2 4 km north from Cable Beach Reserve parking area, Broome. Lot 259 Wattle Drive, Waterbank.	WEST KIMBERLEY	NON	18-04-1992 0:00	N	Behind fordune on fine beach sand. With Ipomoea		RI_DUNE	SAND		
<i>Goodenia byrnesii</i>		3		4 UCL, Broome Peninsular, [S of Gantheaume Point Rd and W of Port Dr], Shire of Broome.	WEST KIMBERLEY	NON	09-04-2008 0:00	Y	Open woodland over sparse shrubland, over granite		SLOPE	SAND	ORANGE	Corymbia dampieri,Corymbia zygophylla,Acacia colei var. colei,Acacia eriopoda
<i>Pittosporum moluccanum</i>		4		1 c.50km N of Broome. Pastoral lease- Waterbank station.	WEST KIMBERLEY	NON	05-01-1989 0:00	N	Coastal Vine Thicket	DRY	RI_DUNE	SAND	WHITE	Diospyros ferrea,Mimusops etelengi,CELITIS PHILIPPINENSIS,Terminalia petiolaris

Appendix B: Western Australian Herbarium Flora Database Search Results

Taxon	Cons_Code	Plant_Desc	Site	Vegetation	Frequency	Locality	Date
<i>Acacia monticola</i> x <i>tumida</i> var. <i>kulparn</i>		3 Flowering in abundance. No fruit set in 1983. T. Willing has been checking this plant for 2-3 years but fruit never seems to set.				A short way off Kavite road in near coastal bushland 5 of Riddell Beach, Broome.	07-06-1983
<i>Acacia monticola</i> x <i>tumida</i> var. <i>kulparn</i>		3 Semi-prostrate shrub. No fruit set in 1983. T. Willing has been checking this plant for 3-4 years but fruit never seems to set.	On exposed clifftop site.			Fringing POINT road on the seaward side between the lighthouse and the turf club, Broome, Dampier Peninsula	09-06-1983
<i>Acacia monticola</i> x <i>tumida</i> var. <i>kulparn</i>		3				Broome, near junction of Cable Beach Road and Gupungi Road	11-07-1981
<i>Acacia monticola</i> x <i>tumida</i> var. <i>kulparn</i>		3 Near prostrate shrub.				Gantheaume Point, Broome	14-03-1982
<i>Acacia monticola</i> x <i>tumida</i> var. <i>kulparn</i>		3 Bark grey, cracking on lower stems to reveal red-brown colour. Shrub has semi "minnie-ritchie" tendencies.				Cable Beach Road near junction with Gupungi Road, Broome	03-06-1981
<i>Acacia monticola</i> x <i>tumida</i> var. <i>kulparn</i>		3 Ascending shrub 4 m tall more or less infundibular with foliage concentrated towards the ends of the branches. Sparsely flowered. Bark grey and fibrous, either splitting in a herring bone fashion or peeling in strips not dissimilar to "Minnie Ritchie".				Junction of Cable Beach Road and Gupungi Road, Broome	19-06-1981
<i>Acacia monticola</i> x <i>tumida</i> var. <i>kulparn</i>		3 Large shrub; shy flowerer, pods not seen.			only one of its kind in this locality.	Broome, Point Road near junction with Gupungi Road	05-04-1981
<i>Acacia monticola</i> x <i>tumida</i> var. <i>kulparn</i>		3 Low sprawling, rather openly branched shrub c. 0.7 m tall. Flowers light golden. Phyllodes dark green, badly eaten. Branchlets reddish. Bark grey longitudinally cracked (not peeling in a "Minni Ritchi" manner)	Coastal cliffs.			Gantheaume Point, Broome	19-06-1981
<i>Aphyllodium glossocarpum</i>		3 Creeping subshrub, growing up to 0.4 m tall.	Margin of track in a pindan plain.	Disturbed <i>Acacia eriopoda</i> and <i>Corymbia greeniana</i> low woodland with a weedy understorey.	1 plant seen.	Track on outside of and on N side of the current Broome tip, ca. 10 km E of the centre of Broome, Kimberley Region	04-04-2017
<i>Aphyllodium glossocarpum</i>		3 Shrub 2 m tall with numerous slender stems arising from ground level. Flowers pale purple, arranged in terminal racemes. Branchlets fragile, breaking easily.				19.5 km from Beagle Bay Mission turn off on the road to Cape Leveque,	12-06-1981
<i>Aphyllodium parvifolium</i>		3 Leaflets complanate.				Near Barred Creek, 33 km N of Broome, Dampierland Peninsula	03-04-1988
		1 Spreading prostrate subshrub; leaves greyish green; flowers mauve with deeper mauve on keel.	In greyish pindan soil immediately adjacent to creek.				
<i>Bonamia oblongifolia</i>		3	Pindan sandplain.	Eucalyptus miniata, <i>Corymbia dampieri</i> , <i>C. greeniana</i> , <i>Terminalia ferdinandiana</i> scattered low trees over <i>Acacia eriopoda</i> (<i>Santalum lanceolatum</i>) tall open scrub over <i>Distichostemon hispidulus</i> var. <i>aridus</i> open shrubland. Associated Species: <i>Digitaria brownii</i>		James Price Point flora and vegetation survey, 45.2 km north north-west of Broome in the Kimberley region	10-03-2009
<i>Bonamia oblongifolia</i>		3		Lophostemon <i>grandiflorus</i> subsp. <i>grandiflorus</i> , <i>Melaleuca dealbata</i> low open woodland over <i>Acacia coleii</i> var. <i>coleii</i> open heath. Associated Species: <i>Capparis lasiantha</i> , <i>Acacia platycarpa</i> , <i>Abrus precatarius</i> , <i>Tephrosia rosea</i> var. <i>rosea</i> , <i>Cyperus bifax</i> .		James Price Point flora and vegetation survey, 49.2 km north north-west of Broome in the Kimberley region	12-03-2009
<i>Bonamia oblongifolia</i>		3 Decumbent herb, 0.15 m high. Flowers present, pale lilac colour.	Pindan plain gently sloping towards the coast. Pindan soil, red clayey sand.	<i>Acacia eriopoda</i> open to mid-dense tall shrubland, with other scattered tall shrubs (<i>Acacia coleii</i> var. <i>coleii</i> , <i>Grevillea refracta</i> subsp. <i>refracta</i> and <i>Grevillea pyramidalis</i> subsp. <i>pyramidalis</i>), with mixed medium shrubs and sparse tussock grasses. <i>Acacia mon</i>	scattered to uncommon in the vegetation.	James Price Point coastal area, c. 1 km inland, c. 50 km N of Broome, Dampier Peninsula, Kimberley region. Site of the proposed onshore state Browse LNG Precinct	22-11-2014
<i>Corymbia paractia</i>		1 Tree to 6 m, bark smooth, white with some scaly bark at base, upper limbs smooth, flowers white.	Behind beach.	On edge of coastal vine thicket.		Cable Beach, Broome, Dampierland	24-05-1986
<i>Corymbia paractia</i>		1 Tree very straggly to 4 m with some flaky rough bark to 0.4 m.				Near racecourse, Broome	17-10-1988
<i>Corymbia paractia</i>		1 "Mallee" 3 m tall with thin, flaky grey bark to 0.5 m; leaves smooth.		With <i>E. confertiflora</i> .		1 km E of Racecourse, Broome	17-10-1988
<i>Corymbia paractia</i>		1 Tree-mallee 5 m tall. Bark smooth, pale grey or white. Leaves more or less dull, green. Flowers white.	In red sand.	With <i>Corymbia dampieri</i> .		Cable Beach, Broome	12-10-1996
<i>Corymbia paractia</i>		1 Tree to 6 m, bark smooth, white with some scaly bark at base, upper limbs smooth white, flowers white.	Behind beach.	On edge of coastal vine thicket. Growing adjacent to KFK 9758, <i>Eucalyptus papuana</i> .		Cable Beach, Broome, Dampierland	24-05-1986
<i>Corymbia paractia</i>		1 Tree to 10 m; trunk stout, knobbly; bark often persistent on lower trunk; flowers white.				Paul's Nursery, behind Cable Beach Club, Cable Beach, Broome	/12/1993
<i>Corymbia paractia</i>		1 Tree, bark cream, flowers white.	In pindan sand.	In grassed woodland beside fresh water creek with <i>Terminalia ferdinandiana</i> , <i>Acacia eriopoda</i> , <i>A. holosericea</i> , and <i>Lysiophyllum cunninghamii</i> .		Barred Creek picnic ground, Cape Boileau, Dampierland Peninsula, W Kimberley,	15-12-1984
<i>Corymbia paractia</i>		1 Spreading 2-trunked tree 4 m tall, smooth bark.		With bloodwood.		6 km N of Broome P.O. [Post Office]	18-10-1988
<i>Corymbia paractia</i>		1				Roebuck Bay	/12/1889
<i>Corymbia paractia</i>		1 Multi-stemmed tree to 5 m; bark slightly tessellated becoming white and smooth; flowers white.				1.7 km towards Cable Beach from intersection of Port Drive and Cable Beach Road, Broome, Dampierland Peninsula	12-04-1988
<i>Corymbia paractia</i>		1 Tree 2 m. Flowers white.	Sandy pindan behind coastal dunes.	With <i>Terminalia ferdinandiana</i> , <i>T. petiolaris</i> , <i>Gyrocarpus americanus</i> <i>Planchonia careya</i> .		Kim Male's old beach house, Cable Beach, Broome, Dampierland Peninsula, W Kimberley	24-12-1984
<i>Corymbia paractia</i>		1 Small tree to 4 m, sprawling, spreading, weeping, green somewhat coarse foliage.	Fiat. Behind dunes. Red sand.	<i>Acacia coleii</i> and <i>Terminalia</i> species.		6.5 km along the Gantheume Point Track	12-12-2015
<i>Corymbia paractia</i>		1 Trunk smooth white, some persistent bark.		Growing with <i>Acacia coleii</i> , <i>Flueggea virosa</i> and <i>Myoporum montanum</i> .		E side of Crab Creek Road, immediately N of cliff-top T-junction, Broome	11-12-2015
<i>Corymbia paractia</i>		1 7 m twin-trunked ghost gum.	Red pindan.	Growing with <i>Acacia eriopoda</i> , <i>Abrus precatarius</i> , <i>Brachychiton diversifolius</i> and <i>Bridelia tomentosa</i> .		1.8 km E of T-junction on N (inland) side of Crab Creek Road, Broome	11-12-2015
<i>Corymbia paractia</i>		1 8 m twin-trunked ghost gum.	Red pindan.				
<i>Corymbia paractia</i>		1 Mallee to 6 m, bark rough on trunk becoming smooth and white on upper branches, leaves pendulous, flowers white.	In red pindan soil.	With <i>Terminalia ferdinandiana</i> .		Near Gantheaume Point, Broome	01-12-1992
<i>Corymbia paractia</i>		1		Growing with <i>Santalum lanceolatum</i> , <i>Acacia eriopoda</i> and <i>Brachychiton diversifolius</i> .		3 km E of T-junction on Crab Creek Road, between Crab Creek and Roebuck Bay cliff, Broome	11-12-2015
<i>Corymbia paractia</i>		1 5 m multi-stemmed ghost gum.	Red pindan.			W side of Broome Highway, near OTC building	11-12-2013
<i>Corymbia paractia</i>		1 6.5 m tree. Flowers and immature fruits.				E side of Waterbank Homestead Road near Coconut Well	06-12-2013
<i>Corymbia paractia</i>		1 9 m tree. Flowerbuds.					
<i>Corymbia paractia</i>		1 White trunked <i>Corymbia</i> .		Open forest of <i>Melaleuca cajuputi</i> over woodland of <i>Timonius timon</i> , over fernland of <i>Acrostichum</i> sp.		200m N of track running along the southern edge of Nimalarragun wetland, 1.4 km W of the Beagle Bay Broome Road, c. 20 km NNE of Broome townsite	10-05-2018
<i>Corymbia paractia</i>		1 White trunked <i>Corymbia</i> .		Low open woodland of <i>Corymbia opaca</i> , <i>Melaleuca alsophilum</i> and <i>Corymbia paractia</i> over low isolated clumps of <i>Bauhinia cunninghamii</i> and <i>Acacia coleii</i> over closed grassland of <i>Chrysopogon pallidus</i> and <i>Sorghum</i> sp. over sparse forbland of <i>Buchnera</i> spp., <i>Caland</i>		N of Nimalarragun wetland, 200 m upslope of tidal creek, c. 20 km N of Broome, c. 5 km E of Willie Creek Pearl Farm, 1.35 km to W along track that turns NW, 560 m along SW track off Manari Road, 200 m from the intersection of Beagle Bay- Broome Road and Broome, reserve opposite intersection of Gubinge Road and De Marchi Road	11-05-2018
<i>Corymbia paractia</i>		1 Tree to 5 m, bark rough for c. 0.5 m at the base then smooth and white.	In Pindan soil in a swale behind fore dunes.	In open <i>Corymbia</i> woodland with an <i>Acacia-Grevillea</i> understorey.	frequent.	Broome, reserve opposite intersection of Gubinge Road and De Marchi Road	29-05-2014
<i>Corymbia paractia</i>		1 Tree to 6 m, bark rough on trunk becoming smooth and white on upper branches, leaves pendulous, flowers white.	In transition zone between Holocene coastal dunes and red pindan soils.			Station Hill, Cable Beach, Broome	01-12-1992
<i>Corymbia paractia</i>		1 Tree to 6 m, bark rough on trunk becoming smooth and white on upper branches, leaves stiff, flowers white.	In red pindan soil.			Adjacent to Broome racecourse near Gantheaume Point	01-12-1992
<i>Corymbia paractia</i>		1 Multi-stemmed tree 3 m high. Smooth whitish bark.	Red sandy loam near coast.	<i>Acacia</i> heath, <i>Corymbia</i> <i>zygophylla</i> .	spasmodic.	On coastal track, between Gantheaume Point and Entrance Point, W of Broome, W Kimberley	12-06-2002
<i>Corymbia paractia</i>		1 Tree 30 - 35 ft, trunk 2 ft 9 inches. Bark smooth white with occasional rough grey flaky patches.	Red sand.			Broome	04-05-1944
<i>Corymbia paractia</i>		1 Mallee to 8 m, leaves large ovate, stiff, dark green. Trunks mottled, smoother above to creamy, in fruit.	Fiat. Red sand dunes.	<i>Acacia coleii</i> and <i>Terminalia</i> species.		Cable Beach near surf club entrance in Broome	11-12-2015
<i>Corymbia paractia</i>		1 Mallee to 8 m, leaves large ovate, stiff, dark green. Trunks mottled, smoother above to creamy, in fruit.	Fiat. Red sand dunes.	<i>Acacia coleii</i> and <i>Terminalia</i> species.		Cable Beach near surf club entrance in Broome	11-12-2015
<i>Glycine pindanica</i>		3 Scrambling herbaceous perennial up to 0.2m tall.	Disturbed pindan adjacent to road on top of a stony rise.	<i>Acacia eriopoda</i> woodland.		North of Broome on Quondong Point rd turn off to cut line 101 N opposite Black tank and continue to next rise past Nowhere Creek.	18-04-1993
<i>Glycine pindanica</i>		3 Perennial scrambling herbaceous herb with pink flowers.	Small drainage sump associated with gravel pit on pindan plain.	<i>Euc. jensenii</i> woodland.		About 60 km N of Broome on Beagle Bay rd on crest of pindan dune & on E side of road	03-06-1993
<i>Glycine pindanica</i>		3 Climbing pea.	Pindan.			Lot 976 Gregory Street, Broome	08-03-1986
<i>Glycine pindanica</i>		3 Leaves long and narrow in threes. Flowers mauve-purple, small, few.	In disturbed pindan soil of roadside edges.			Ca 42 km N of Broome along One Arm Point road	25-02-1994
<i>Glycine pindanica</i>		3 Prostrate creeping ground cover to 8 cm high. Flowers small, purplish mauve.	In red sand.	<i>Eucalyptus jensenii</i> woodland; under <i>Bloodwood</i> sp. and <i>Acacia holosericea</i> .	occasional.	53 km from Broome on road to Beagle Bay, Dampierland	14-04-1985
<i>Glycine pindanica</i>		3 Prostrate herb.	In regrowth in borrow pit.	A grove of <i>Eucalyptus jensenii</i> .		The New Roadhouse, along the Beagle Bay road, ca 60 km N of Broome	04-06-1993
<i>Glycine pindanica</i>		3 Pea creeper. Flowers blue.	On pindan bu salt marsh.	In scrub with <i>Atalaya hemiglauc</i> a.		Broome caravan park, Broome, Dampierland Peninsula, W Kimberley	/04/1985
<i>Glycine pindanica</i>		3 Prostrate with wiry, trailing branches. Pinnules subglaucous, complanate.	On roadside in red-brown sand.	Mixed woodland.		61.5 km N of Broome on the road to Beagle Bay Mission	20-06-1981
<i>Glycine pindanica</i>		3 Spreading prostrate creeper. Stems hairy. Leaves in threes, very long and thin, long taper to point. No flowers. Pods with 2-4 seed, also cleistagamous pods, white.	Disturbed sand bank of roadside, drainage ditch.	Mixed woodland.		40 km from Broome along road to Cape Leveque	30-05-1993
<i>Glycine pindanica</i>		3 Green and near ripe pods present.	In deep red sand on roadside verge. Freely drained, open site.	With woodland of <i>Eucalypt</i> and <i>Acacia</i> nearby.		44 km N of Broome Post Office towards Beagle Bay	29-09-1993
<i>Glycine pindanica</i>		3 Prostrate shrub growing to 0.05 m tall and 1.0 m in diameter.		Dense Thicket dominated by <i>Acacia</i> spp. growing to 4 m tall; over Dwarf Scrub with Open Low Grass (Muir 1977).	locally uncommon, 10 plants along 100 m road side.	Adjacent to Gubinge Road, 600 m W of Magabala Road, 1.2 km due W of Broome Road, 1.8 km SE of Station Hill, 2.8 km N of Broome (PO)	30-03-2005
<i>Glycine pindanica</i>		3 Prostrate shrub growing to 0.05 m tall and 1.0 m in diameter.		Dense Thicket dominated by <i>Acacia</i> spp. growing to 4 m tall; over Dwarf Scrub with Open Low Grass (Muir 1977).	locally uncommon, 10 plants along 100 m road side.	Adjacent to Gubinge Road, 200 m W of Magabala Road, 830 m due W of Broome Road, 2.1 km SE of Station Hill, 2.9 km N of Broome (PO)	30-03-2005
<i>Glycine pindanica</i>		3 Prostrate shrub growing to 0.1 m tall and 2.0 m in diameter.		Dense Thicket dominated by <i>Acacia</i> spp. growing to 4 m tall; over Dwarf Scrub with Open Low Grass (Muir 1977).	locally uncommon, 10 plants in 100 m diameter area.	SE corner of Fairway Drive and Magabala Road intersection 970 m due W of Broome Road, 2.4 km NE of Station Hill, 4.4 km N of Broome (PO)	22-02-2005
<i>Glycine pindanica</i>		3 Creeping perennial; leaves greyish green; flowers mauve.		In pindan (<i>Acacia</i> shrubland dominated by <i>A. eriopoda</i>).	common.	Broome townsite (corner of Port Drive and Guy Street)	15-03-1987
<i>Glycine pindanica</i>		3 Big thick taproot. Leaves in threes, very long. To 95 x 7 mm long, tapering both ends. Flowers not seen. Pods with only 2-4 black seeds.	Disturbed sand on roadside.	<i>Eucalyptus miniata</i> woodland.		Ca 0.5 km N of Nowhere Creek, Dampier Peninsula, W Kimberley	18-04-1993
<i>Glycine pindanica</i>		3 Shrub 0.10 m high and 2 m wide. Perennial, prostrate and compact. Violet flower.	Plain. Road verge. Brown wet sand with old disturbed soil.	Bare areas.	2-5 plants.	Broome-Derby Road, 6.2 km E of [Fairway Road]; Broome	09-02-2005
<i>Gomphrena pusilla</i>		2 15 cm high.	Coastal dune slope. Calcareous sand, sandstone.	<i>Crotalaria cunninghamii</i> subsp. <i>cunninghamii</i> , <i>Tephrosia rosea</i> scattered shrubs over <i>Indigofera linnaei</i> , <i>Gomphrena pusilla</i> scattered herbs over <i>Ipomoea pes-caprae</i> subsp. <i>brasilienis</i> , <i>Cassytha filiformis</i> , <i>Canavalia rosea</i> creepers. Condition very good, som		147.2 km SW of Cape Leveque, 53.1 km N of Broome and 159.5 km W of Derby in the Dampier Peninsula, Site 686_vou7.	05-05-2011
<i>Gomphrena pusilla</i>		2 20 cm high.		Mixed evergreen vine thicket and dune vegetation. <i>Terminalia petiolaris</i> , <i>Bauhinia cunninghamii</i> , <i>Diospyros humilis</i> , <i>Mimusops elengi</i> , <i>Celtis philippensis</i> low open forest over <i>Breynia cernua</i> , <i>Flueggea virosa</i> subsp. <i>melanthesoides</i> open shrubland with <i>Abrus p</i>		51.5 km N of Broome, 148.3 km SW of Cape Leveque and 159.2 km W of Derby in the Dampier Peninsula. Site 686_vou17.	29-04-2011
<i>Gomphrena pusilla</i>		2	Ridge of sand dune. Sandy area between vine thickets, see K. Kennally's transect A.	<i>Indigofera colutea</i> (<i>Tephrosia rosea</i> var. <i>rosea</i>) low open shrubland over <i>Enneapogon pallidus</i> very open tussock grassland. Associated Species: <i>Indigofera colutea</i> , <i>Boerhavia gardneri</i> , <i>Indigofera linifolia</i> , <i>Tephrosia rosea</i> var. <i>rosea</i> .		Along the W coast of the Dampier Peninsula, 51 km N of Broome, 132 km W-SW of Valentine Island, in the Kimberley region	23-03-2010
<i>Gomphrena pusilla</i>		2		<i>Indigofera colutea</i> (<i>Tephrosia rosea</i> var. <i>rosea</i>) low open shrubland over <i>Enneapogon pallidus</i> very open tussock grassland. Associated Species: <i>Indigofera colutea</i> , <i>Boerhavia gardneri</i> , <i>Indigofera linifolia</i> , <i>Tephrosia rosea</i> var. <i>rosea</i> .		Along the W coast of the Dampier Peninsula, 46 km N of Broome, 133 km W-SW of Valentine Island	23-03-2010

Appendix B: Western Australian Herbarium Flora Database Search Results

<i>Gomphrena pusilla</i>	2			Terminalia petiolaris low open woodland over Mimusops elengi, Grewia breviflora tall shrubland over Glycosmis trifoliata, Flueggea virosa subsp. melanthesoides scattered shrubs over Enneapogon pallidus scattered tussock grasses. Associated Species: Mimus		Along the west coast of the Dampier Peninsula, 51 km north of Broome, 132 km west-southwest of Valentine Island, in the Kimberley region	28-03-2010
<i>Gomphrena pusilla</i>	2		Deflation basin on crest of dune; pale tan sand over orange sand.			Along the west coast of the Dampier Peninsula, 46 km north of Broome, 133 km west-southwest of Valentine Island, in the Kimberley region	29-03-2010
<i>Gomphrena pusilla</i>	2		Primary dune; face and crest to back of dune (not swale).	Crotalaria cunninghamii, Tephrosia rosea var. rosea low shrubland over Spinifex longifolius open grassland with Canavalia rosea, Ipomoea pes-caprae subsp. brasiliensis trailing vines. Associated Species: Cullen martinii, Tinospora smilacina, Fimbristylis		James Price Point flora and vegetation survey, 41.8 km north north-west of Broome in the Kimberley region	07-03-2009
<i>Gomphrena pusilla</i>	2	Small herb to 15 cm high.	Behind foredune; fine beach sand.	With Ipomoea sp., Acacia sp. and Spinifex sp.	common.	4 km N from Cable Beach Reserve parking area, Broome,	18-04-1992
<i>Gomphrena pusilla</i>	2			Crotalaria cunninghamii open shrubland over Spinifex longifolius open hummock grassland. Associated Species: Spinifex longifolius, Crotalaria cunninghamii, Enneapogon pallidus, Tephrosia rosea var. rosea, Indigofera linnaei.	100+ in a 50 x 50 m area.	Along the west coast of the Dampier Peninsula, 49 km north of Broome, 132 km west-southwest of Valentine Island, in the Kimberley region	28-03-2010
<i>Gomphrena pusilla</i>	2	Sprawling herb, stems tinged maroon, flowers white, tinged mauve.				Barred Creek, 35 km N of Broome, Dampierland,	02-06-1986
<i>Goodenia byrnesii</i>	3		Orange brown silty sand.	Open woodland of Corymbia dampierii and Corymbia zygomphylla over sparse Shrub- land of Acacia coleii var. coleii and Acacia eriopoda over grassland dominated by Triodia acutispicula, Triodia microstachya or Triodia pungens on orange to red pindan soil on l		Broome Peninsula	09-04-2008
<i>Jacquemontia</i> sp. Broome (A.A. Mitchell 3028)	1	Creeping herb to 0.3 m.	Brown orange sand on plain.	Corymbia greeniana low open woodland with Bauhinia cunninghamii, Triodia acutispicula, Sorghum plumosum and Chrysopogon pallidus.		Proposed Temporary Workers' Accommodation Camp, ca 12 km NE of Broome	02-06-2011
<i>Jacquemontia</i> sp. Broome (A.A. Mitchell 3028)	1	Creeping herb to 0.3 m.	Brown orange sand on plain.	Corymbia greeniana low open woodland with Bauhinia cunninghamii, Triodia acutispicula, Sorghum plumosum and Chrysopogon pallidus.		Proposed Temporary Workers Accommodation Camp, ca 12 km NE of Broome	02-06-2011
<i>Jacquemontia</i> sp. Broome (A.A. Mitchell 3028)	1	Low spreading shrub to ca. 0.3 m.	Pindan plain. Red sand loam.	Acacia plectocarpa subsp. plectocarpa, Acacia tumida var. kulparn and Hakea macrocarpa shrubland with scattered Corymbia confertiflora and Corymbia greeniana trees over Dolichandrone occidentalis and Bauhinia cunninghamii sparse shrubland over Acacia ado	less than 2% cover.	Crab Creek Road, ca. 6 km NE of Broome, 3.05 km S of Broome Road, ca. 100 m E of Crab Creek Road	30-04-2019
<i>Jacquemontia</i> sp. Broome (A.A. Mitchell 3028)	1	Low shrub growing to 0.1 m tall and 1.0 m in diameter.		Dense thicket dominated by Acacia spp. growing to 4 m tall; over Dwarf Scrub with Open Low Grass (Muir 1977).	locally uncommon - 5 plants in 20 m diameter area.	100 m W of Fairway Drive and Magabala Road intersection, 1.2 km due W of Broome Road, 2.2 km NE of Station Hill, 4.4 km N of Broome (PO)	29-03-2005
<i>Jacquemontia</i> sp. Broome (A.A. Mitchell 3028)	1	Low shrub growing to 0.1 m tall and 1.0 m in diameter.		Dense Thicket dominated by Acacia spp. growing to 4 m tall; over Dwarf Scrub with Open Low Grass (Muir 1977).	locally uncommon - 10 plants in 20 m diameter area.	100 m W of Fairway Drive and Magabala Road intersection, 1.2 km due W of Broome Road, 2.2 km NE of Station Hill, 4.4 km N of Broome (PO)	30-03-2005
<i>Jacquemontia</i> sp. Broome (A.A. Mitchell 3028)	1	Low erect shrub growing to 0.1 m tall and 1.0 m in diameter.		Dense Thicket dominated by Acacia spp. growing to 4 m tall; over Dwarf Scrub with Open Low Grass (Muir 1977).	locally uncommon - 5 plants in 100 m diameter area.	SE corner of Fairway Drive and Magabala Road intersection, 970 m due W of Broome Road, 2.4 km NE of Station Hill, 4.4 km N of Broome (PO)	22-02-2005
<i>Jacquemontia</i> sp. Broome (A.A. Mitchell 3028)	1			Pindan woodland with Acacia eriopoda and Chrysopogon pallidus.		Corner of Cape Leveque and Broome Roads, Broome	04-02-2017
<i>Jacquemontia</i> sp. Broome (A.A. Mitchell 3028)	1	Scrambling herbaceous perennial up to 0.4 m tall with light mauve flowers.	Disturbed pindan.	Acacia eriopoda woodland.	sparse.	N of Broome on Quondong Point road turn off to cut line 101 N opposite Black tank and continue onto Nowhere Creek. Burrow pit in base of creek	18-04-1993
<i>Lophostemon grandiflorus</i> subsp. <i>grandiflorus</i>	3		Drainage basin. Salmon coloured sandy loam.	Melaleuca dealbata, Lophostemon grandiflorus subsp. grandiflorus low woodland over Acacia coleii var. coleii, Tephrosia rosea var. clementis shrubland over Abutilon otocarpum low open shrubland. Condition poor.		49.8 km N of Broome, 159 km W of Derby and 149.2 km SW of Cape Leveque on the Dampier Peninsula, Site 633_you2.	28-11-2010
<i>Lophostemon grandiflorus</i> subsp. <i>grandiflorus</i>	3			Semi-deciduous vine thicket. Corymbia bella, Lophostemon grandiflorus subsp. grandiflorus, Melaleuca dealbata low open forest of Diospyros humilis, Terminalia petiolaris tall open shrubland over Flueggea virosa subsp. melanthesoides scattered shrubs with		44.5 km N of Broome, 153.5 km SW of Cape Leveque and 159.6 km W of Derby in the Dampier Peninsula, Site 686_you16.	20-05-2011
<i>Lophostemon grandiflorus</i> subsp. <i>grandiflorus</i>	3	Tree to 6 m. Flowers pale yellow. Bark box-type.		Coastal vine thicket dominated by Lophostemon.		5 of James Price Point	14-11-2009
<i>Lophostemon grandiflorus</i> subsp. <i>grandiflorus</i>	3					Site 27, Manari Road, 5 of James Price Point, Dampier Peninsula, N of Broome	01-05-2011
<i>Paranotis halfordii</i>	3	Herb 50 cm, flowers pink, 4 petalled.	Growing near creek in grey sandy clay. On salt marsh with salt couch.	Sedgeland.	occasional.	Barred Creek, Dampierland Peninsula, W Kimberley	24-02-1985
<i>Pittosporum moluccanum</i>	4	Small tree to 5 m, dense, glossy leaves, orange fruits.	Hilly, white sand.	Vine thickets, woodland. With Celtis philippensis, Mimusops elengi, Eucalyptus spp.		2.2 km S of James Price Point on main road, then 50 m on track towards beach from old road deviation	29-08-2006
<i>Pittosporum moluccanum</i>	4		Sand dune. Pale orange beach sand with shell grit. Fire >12 years.	Mixed patch of evergreen vine thicket of Terminalia petiolaris, Bauhinia cunninghamii low open forest over Diospyros humilis, Croton habrophyllus, Grewia breviflora, Santalum lanceolatum, tall open scrub over Tephrosia aff. rosea, Euphorbia coghlani, Cr		148 km SW of Cape Leveque, 51.6 km N of Broome and 159.2 km W of Derby in the Dampier Peninsula. Site 686_you6.	29-04-2011
<i>Pittosporum moluccanum</i>	4		Coastal sand dune crest and swales. Calcareous pale orange sand.	Terminalia petiolaris, Mumusops elengi, Sersalsia sericea, Pittosporum moluccanum tall open scrub over Croton habrophyllus, Diospyros humilis, Tylophora cinerascens, Caesalpinia major open scrub over mixed herbs and grasses. Condition excellent.		151.4 km SW of Cape Leveque, 47.4 km N of Broome and 159.4 km W of Derby in the Dampier Peninsula, Site 686_you8.	12-05-2011
<i>Pittosporum moluccanum</i>	4		Vine thicket in coastal dune pocket (leeward side of dune).	Mimusops elengi, Diospyros humilis, Glycosmis trifoliata, Terminalia petiolaris low woodland over Enneapogon pallidus very open tussock grassland. Associated Species: Cymbopogon ambiguus, Santalum lanceolatum, Tephrosia rosea var. rosea, Grewia breviflor		James Price Point flora and vegetation survey, 50.5 km north north-west of Broome in the Kimberley region	11-03-2009
<i>Pittosporum moluccanum</i>	4				11 individual plants observed within the study area.	James Price Point on the Dampier Peninsula, c. 60 km N of Broome	05-05-2011
<i>Pittosporum moluccanum</i>	4				11 individual plants observed within the study area.	James Price Point on the Dampier Peninsula, c. 60 km N of Broome	05-05-2011
<i>Pittosporum moluccanum</i>	4	Small tree 6 m; flowers white, slightly scented.	In sand dune scrub in white sand.	Scrub with Celtis philippinensis.	occasional.	James Price Point, Dampierland Peninsula, W Kimberley	02-03-1985
<i>Pittosporum moluccanum</i>	4	Tree to 2 m, bark smooth, grey, fruits orange.	In secondary sand dune.			2 km S of Prices Point (200 m off track) on road to Broome, Dampier Peninsula	25-09-1984
<i>Pittosporum moluccanum</i>	4	Tree to 6 m. Leaves in terminal clusters; fruits orange, splitting to reveal seeds.	On lee side of primary sand dune in white sand.	With Lysiphylum cunninghamii, Celtis philippinensis and Terminalia petiolaris.		3 km S of James Price Point, Dampier Peninsula, W Kimberley	07-10-1984
<i>Pittosporum moluccanum</i>	4	Tree or shrub to 4 m, with well-formed rounded canopy, the leaves clustered at the ends of the branches, leaves upper surface glossy green, lower dull green, flowers white, fragrant.		In coastal vine thicket.		0.5 km W of Moorak Bore, 50 km due N of Broome, Dampierland Peninsula	14-08-1985
<i>Polymeria</i> sp. Broome (K.F. Kenneally 9759)	3		Poorly defined drainage line on a plain. Pale orange pindan sand.	Post-fire: Acacia eriopoda, A. monticola (Grevillea pyramidalis subsp. pyramidalis, Hakea macrocarpa) tall open shrubland over Distichostemon hispidula var. aridus open shrubland Pre-fire: Eucalyptus miniata tall open woodland over Acacia eriopoda (A. mo		Along the west coast of the Dampier Peninsula, 51 km north of Broome, 130 km west-southwest of Valentine Island, in the Kimberley region	27-03-2010
<i>Polymeria</i> sp. Broome (K.F. Kenneally 9759)	3		Near-coastal plain.	Acacia eriopoda shrubland over Gyrostemon tepperi low open shrubland over Eragrostis aff. eriopoda, Aristida holathera var. holathera, A. hygrometrica open tussock grassland. Associated Species: Hakea arborescens, Hakea macrocarpa, Santalum lanceolatum,		James Price Point flora and vegetation survey, 41.3 km north north-west of Broome in the Kimberley region	09-03-2009
<i>Polymeria</i> sp. Broome (K.F. Kenneally 9759)	3		Coastal plain.	Terminalia ferdinandiana scattered shrubs over *Cenchrus ciliaris, Heteropogon contortus tussock grassland. Associated Species: Hakea macrocarpa, Santalum lanceolatum, Carissa lanceolata, Cajanus marmoratus, Flueggea virosa subsp. melanthesoides.		James Price Point flora and vegetation survey, 40.4 km north north-west of Broome in the Kimberley region	06-03-2009
<i>Polymeria</i> sp. Broome (K.F. Kenneally 9759)	3	Trailing herb, leaves greyish green, flowers mauve.	In red pindan soil on road verge and in drain.			Corner Hunter & Clementson Streets, Broome, Dampierland	25-05-1986
<i>Stylidium pindanicum</i>	3	Annual herb to 25 cm. Flowers pink.	Clay flat.	Open woodland with Eucalyptus tectifica over grassland.	common.	E side of Cape Leveque Road behind Nimalaragun Stock Dam, Dampier Peninsula, NE of Broome	07-05-2011
<i>Stylidium pindanicum</i>	3			Low open woodland of Corymbia opaca, Melaleuca alsophilum and Corymbia paractia over low isolated clumps of Bauhinia cunninghamii and Acacia coleii over closed grassland of Chrysopogon pallidus and Sorghum sp., over sparse forbland of Buchnera sp., Caland		N of Nimalarragun wetland, 200 m upslope of tidal creek, c. 20 km N of Broome, c. 5 km E of Willie Creek Pearl Farm. 1.35 km to W along track that turns NW 560 m along SW track off Manari Road 200 m from the intersection of Beagle Bay Broome Road and Man	11-05-2018
<i>Stylidium pindanicum</i>	3	Annual herb to 20 cm. Flowers pink.	Clay flat.		locally common.	Head of creek on S side, c. 1 km W of Cape Leveque Road on small track opposite Nimalaragun Stock Dam, Dampier Peninsula, NE of Broome	04-05-2011
<i>Tephrosia andrewii</i>	3	Perennial rotund shrub with orange flowers up to 0.5m tall	Pindan	Tall shrubland	uncommon.	Where Barn Hill homestead track hits Great Northern Highway	06-04-1993
<i>Tephrosia valleculata</i>	3		Gravel pit.			Roebuck Plains Station, gravel pit off highway, 5 of Ram Bore	03-03-1992
<i>Terminalia kumpaja</i>	3	Tree to 6 m, bark brown, fissured, fruits (old) collected from ground.				Ponciana Well, Dampierland, N of Broome	11-09-1978
<i>Terminalia kumpaja</i>	3	Small tree to 3 m. Flowers white.	Pindan, sandy.	Scrub of Acacia holosericea and A. eriopoda.		Coconut Well road, 2.5 km from Beagle Bay Road, Dampier Peninsula	18-10-1984
<i>Terminalia kumpaja</i>	3	Tree to 4.5 m, bark deeply fissured and corky.				2 km N of Broome, on Broome-Derby Road, W Kimberley	18-06-1984
<i>Terminalia kumpaja</i>	3					Broome district	/01/1933
<i>Terminalia kumpaja</i>	3					Broome district	/01/1933
<i>Terminalia kumpaja</i>	3		Pindan plain. Light reddish brown sandy clay loam.	Bauhinia cunninghamii, Corymbia zygomphylla, C. greeniana scattered low trees to low open woodland over Acacia eriopoda, Ficus aculeata var. indecora tall shrubland over Dodonaea hispidula, Breynia cernua open shrubland over Corchorus sidoides subsp. sido	4 plants.	25 km NNE of Broome, 46 km W of Kito and 90 km SSW of Beagle Bay	02-05-2018
<i>Terminalia kumpaja</i>	3		Pindan plain. Light reddish brown sandy clay loam.	Bauhinia cunninghamii, Corymbia zygomphylla, C. greeniana scattered low trees to low open woodland over Acacia eriopoda, Ficus aculeata var. indecora tall shrubland over Dodonaea hispidula, Breynia cernua open shrubland over Corchorus sidoides subsp. sido	4 plants.	25 km NNE of Broome, 46 km W of Kito and 90 km SSW of Beagle Bay	02-05-2018
<i>Thespidium basiflorum</i>	1			forest Melaleuca		Coconut Well 15km N of Broome Dampier Peninsula	15-06-1985
<i>Thespidium basiflorum</i>	1		black soil with white sand	forest Melaleuca acacioides		Coconut Well N of Broome Dampier Peninsula	19-05-1985

Appendix B: Threatened and Priority Ecological Communities Database Search Results

COM_ID	COM_NAME	STATE_CATG	COMM_CATG	BUFFER
<i>Corymbia paractia</i>	Corymbia paractia dominated community on dunes	Priority 1		500
Dwarf pindan heath	Dwarf pindan heath community of Broome coast	Priority 1		750
Eighty Mile Land System	Eighty Mile Land System	Priority 3		200
Gourdon Land System	Gourdon Land System	Priority 3		500
Vegetation Association 37	Kimberley Vegetation Association 37	Priority 3		500
Vegetation Association 67	Kimberley Vegetation Association 67	Priority 3		500
Vegetation Association 73	Kimberley Vegetation Association 73	Priority 3		500
Vegetation Association 770	Kimberley Vegetation Association 770	Priority 1		500
Vine thickets	Monsoon (vine) thickets on coastal sand dunes of Dampier Peninsula	Vulnerable	Endangered	2000
Nimalarica Claypan	Nimalarica Claypan Community (previously Nimalaica)	Priority 4		500
Mangarr (Minyjuru)	Relict dune system dominated by extensive stands of Minyjuru (Mangarr) Sersalisia (formerly Pouteria) sericea.	Priority 1		500
Roebuck LS	Roebuck Land System	Priority 3		500
Roebuck Bay mudflats	Species-rich faunal community of the intertidal mudflats of Roebuck Bay	Vulnerable		5000

Appendix B2: Fauna Database Search Results

Conservation Status: State - Listed under Biodiversity Conservation Act 216 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, IA/MI - Migratory, CD - Conservation Dependent fauna, OS - Other Specially Protected fauna, MA - Marine, P - Listed as Priority by DBCA.

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

Literature (within 15 km of the Survey Area): A - Broome North: Southern Portion Preliminary Environmental Impact Assessment and Biological Survey (GHD, 2009), B - Broome Road Industrial Area Preliminary Environmental Impact Assessment and Biological Survey (GHD, 2010), C - Broome Road Subdivision Area Conservation Significant Fauna Survey (GHD, 2015), D - Fauna Assessment of the Broome Port Area (Bamford Consulting, 2010), E - Flora, Vegetation and Fauna Survey Broome Golf Club Redevelopment (Docherty, 2019), F - Mamabulanjin Orchard Flora and Fauna Survey (GHD, 2019).

Scientific Name	Common Name	Conservation Status		Source			Literature						
		State	Federal	NM	PMST	DBCA	A	B	C	D	E	F	
Amphibians													
<i>Cyclorana australis</i>	Giant Frog			X									
<i>Cyclorana longipes</i>	Long-footed Frog			X									
<i>Litoria caerulea</i>	Green Tree Frog			X						X			
<i>Litoria nasuta</i>	Striped Rocket Frog			X									
<i>Litoria rothii</i>	Northern Laughing Tree Frog			X									
<i>Litoria rubella</i>	Little Red Tree Frog			X					X				
<i>Notaden nichollsi</i>	Desert Spadefoot			X									
<i>Platyplectrum ornatum</i>	Ornate Burrowing Frog			X									
<i>Rhinella marina</i>	Cane Toad			X									
<i>Uperoleia aspera</i>	Derby Toadlet			X									
<i>Uperoleia mjobergii</i>	West Kimberley Toadlet			X									
<i>Uperoleia talpa</i>	Ratcheting Toadlet			X									
Arachnids													
<i>Eriophora biapicata</i>				X									
<i>Missulena occatoria</i>				X									
<i>Nephila edulis</i>				X									
Birds													
<i>Acanthagenys rufogularis</i>	Spiny-cheeked Honeyeater			X									
<i>Acanthiza apicalis</i>	Inland Thornbill			X									
<i>Accipiter cirrocephalus</i>	Collared Sparrowhawk			X				X					
<i>Accipiter cirrocephalus cirrocephalus</i>				X									
<i>Accipiter fasciatus</i>	Brown Goshawk		MA	X						X			
<i>Accipiter fasciatus didimus</i>			MA	X									
<i>Accipiter fasciatus fasciatus</i>			MA	X									
<i>Accipiter novaehollandiae</i>	Grey Goshawk			X									
<i>Acrocephalus australis</i>	Australian Reed Warbler		MA	X									
<i>Actitis hypoleucos</i>	Common Sandpiper	MI	MI, MA	X	X	X				X			
<i>Aegotheles cristatus</i>	Australian Owlet-nightjar			X									
<i>Anas castanea</i>	Chestnut Teal			X									
<i>Anas gracilis</i>	Grey Teal			X						X			
<i>Anas platyrhynchos domesticus</i>				X									

Appendix B2: Fauna Database Search Results

Scientific Name	Common Name	Conservation Status		Source			Literature					
		State	Federal	NM	PMST	DBCA	A	B	C	D	E	F
<i>Anas superciliosa</i>	Pacific Black Duck			X						X		
<i>Anhinga novaehollandiae</i>	Australasian Darter			X								
<i>Anous stolidus</i>	Common Noddy, Brown Noddy	MI	MI, MA	X	X	X						
<i>Anous stolidus pileatus</i>		MI	MI, MA	X								
<i>Anous tenuirostris melanops</i>	Australian Lesser Noddy	EN	VU, MA		X							
<i>Anseranas semipalmata</i>	Magpie Goose		MA	X	X			X				
<i>Anthus cervinus</i>	Red-throated Pipit		MA	X								
<i>Antigone rubicunda</i>	Brolga			X								
<i>Aprosmictus erythropterus</i>	Red-winged Parrot			X				X	X	X	X	X
<i>Apus pacificus</i>	Pacific Swift	MI	MI, MA	X	X	X						
<i>Apus pacificus pacificus</i>		MI	MI, MA	X								
<i>Aquila audax</i>	Wedge-tailed Eagle			X				X				
<i>Ardea alba</i>	Great Egret		MA	X								
<i>Ardea alba modesta</i>	Eastern Grey Egret		MA	X								
<i>Ardea intermedia</i>	Intermediate Egret		MA	X								
<i>Ardea intermedia intermedia</i>			MA	X								
<i>Ardea pacifica</i>	White-necked Heron			X								
<i>Ardea sumatrana</i>	Great-billed Heron			X								
<i>Ardenna pacifica</i>	Wedge-tailed Shearwater	MI	MI, MA	X		X						
<i>Ardenna tenuirostris</i>	Short-tailed Shearwater	MI	MI, MA	X		X						
<i>Ardeotis australis</i>	Australian Bustard			X				X				
<i>Arenaria interpres</i>	Ruddy Turnstone	MI	MI, MA	X	X	X				X		
<i>Arenaria interpres interpres</i>	Ruddy Turnstone	MI	MI, MA	X								
<i>Artamus cinereus</i>	Black-faced Woodswallow			X					X	X		
<i>Artamus cinereus melanops</i>				X				X				
<i>Artamus leucorhynchus</i>	White-breasted Woodswallow			X								
<i>Artamus leucorhynchus leucopygialis</i>				X				X				
<i>Artamus minor</i>	Little Woodswallow			X								
<i>Artamus personatus</i>	Masked Woodswallow			X								
<i>Artamus superciliosus</i>	White-browed Woodswallow			X								
<i>Aviceda subcristata</i>	Pacific Baza			X								
<i>Aythya australis</i>	Hardhead			X								
<i>Bubulcus coromandus</i>	Eastern Cattle Egret			X								
<i>Bubulcus ibis</i>	Cattle Egret		MA		X							
<i>Bulweria bulwerii</i>	Bulwer's Petrel	MI	MI, MA	X		X						
<i>Burhinus grallarius</i>	Bush Stone-curlew			X				X				
<i>Butorides striata</i>	Striated Heron Mangrove Heron			X						X		
<i>Butorides striata stagnatilis</i>				X								
<i>Cacatua galerita</i>	Sulphur-crested Cockatoo			X								
<i>Cacatua sanguinea</i>	Little Corella			X			X		X	X		
<i>Cacatua sanguinea sanguinea</i>				X				X				

Appendix B2: Fauna Database Search Results

Scientific Name	Common Name	Conservation Status		Source			Literature					
		State	Federal	NM	PMST	DBCA	A	B	C	D	E	F
<i>Cacomantis variolosus</i>	Brush Cuckoo			X					X			
<i>Cacomantis variolosus</i>				X								
<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	MI	MI, MA	X	X	X						
<i>Calidris alba</i>	Sanderling	MI	MI, MA	X	X	X						
<i>Calidris canutus</i>	Red Knot	EN	EN, MI, MA	X	X	X						
<i>Calidris canutus rogersi</i>		EN	EN, MI, MA	X								
<i>Calidris falcinellus</i>	Broad-billed Sandpiper	MI	MI, MA	X	X	X						
<i>Calidris falcinellus sibirica</i>		MI	MI, MA	X								
<i>Calidris ferruginea</i>	Curlew Sandpiper	CR	CR, MI, MA	X	X	X				X		
<i>Calidris melanotos</i>	Pectoral Sandpiper	MI	MI, MA	X	X	X						
<i>Calidris minuta</i>	Little Stint		MA	X								
<i>Calidris pugnax</i>	Ruff	MI	MI, MA	X		X						
<i>Calidris ruficollis</i>	Red-necked Stint	MI	MI, MA	X	X	X				X		
<i>Calidris subminuta</i>	Long-toed Stint	MI	MI, MA	X		X						
<i>Calidris tenuirostris</i>	Great Knot	CR	CR, MI, MA	X	X	X				X		
<i>Calonectris leucomelas</i>	Streaked Shearwater	MI	MI, MA	X	X	X						
<i>Calyptorhynchus banksii</i>	Red-tailed Black Cockatoo			X				X	X			
<i>Cecropis daurica</i>	Red-rumped Swallow	MI	MI, MA	X	X	X						
<i>Centropus phasianinus</i>	Pheasant Coucal			X						X		
<i>Centropus phasianinus highami</i>				X								
<i>Centropus phasianinus phasianinus</i>				X				X				
<i>Certhionyx variegatus</i>	Pied Honeyeater			X								
<i>Chalcites basalis</i>	Horsfield's Bronze Cuckoo		MA	X						X		
<i>Chalcites minutillus</i>	Little Bronze Cuckoo		MA	X					X			
<i>Chalcites minutillus minutillus</i>			MA	X								
<i>Chalcites osculans</i>	Black-eared Cuckoo		MA	X	X							
<i>Charadrius bicinctus</i>	Double-banded Plover	MI	MI, MA		X							
<i>Charadrius dubius</i>	Little Ringed Plover	MI	MI, MA	X		X						
<i>Charadrius leschenaultii</i>	Greater Sand Plover	VU	VU, MI, MA	X	X	X				X		
<i>Charadrius leschenaultii leschenaultii</i>		VU	VU, MI, MA	X								
<i>Charadrius mongolus</i>	Lesser Sand Plover	EN	EN, MI, MA	X	X	X						
<i>Charadrius mongolus mongolus</i>		EN	EN, MI, MA	X								
<i>Charadrius ruficapillus</i>	Red-capped Plover		MA	X	X					X		
<i>Charadrius veredus</i>	Oriental Plover	MI	MI, MA	X	X	X						
<i>Chenonetta jubata</i>	Australian Wood Duck			X								
<i>Cheramoeca leucosterna</i>	White-backed Swallow			X								
<i>Chlamydera nuchalis</i>	Great Bowerbird			X						X		
<i>Chlamydera nuchalis nuchalis</i>				X				X				
<i>Chlidonias hybrida</i>	Whiskered Tern		MA	X						X		
<i>Chlidonias hybrida javanicus</i>			MA	X								

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Scientific Name	Common Name	Conservation Status		Source			Literature					
		State	Federal	NM	PMST	DBCA	A	B	C	D	E	F
<i>Chlidonias leucopterus</i>	White-winged Black Tern	MI	MI, MA	X		X						
<i>Chloebeia gouldiae</i>	Gouldian Finch	P4	EN	X	X	X						
<i>Chroicocephalus novaehollandiae</i>	Silver Gull			X						X		
<i>Chroicocephalus novaehollandiae novaehollandiae</i>				X								
<i>Cincloramphus cruralis</i>	Brown Songlark			X								
<i>Cincloramphus mathewsi</i>	Rufous Songlark			X								
<i>Cincloramphus timoriensis</i>	Tawny Grassbird			X								
<i>Circus approximans</i>	Swamp Harrier		MA	X								
<i>Circus assimilis</i>	Spotted Harrier			X								
<i>Cissomela pectoralis</i>	Banded Honeyeater			X								
<i>Cisticola exilis</i>	Golden-headed Cisticola			X				X				
<i>Cladorhynchus leucocephalus</i>	Banded Stilt			X								
<i>Climacteris melanurus</i>	Black-tailed Treecreeper			X								
<i>Climacteris melanurus melanurus</i>				X								
<i>Colluricincla harmonica</i>	Grey Shrikethrush			X				X	X	X		X
<i>Colluricincla harmonica brunnea</i>	Grey Shrikethrush			X								
<i>Colluricincla harmonica kolichisi</i>	Grey Shrikethrush			X								
<i>Colluricincla harmonica rufiventris</i>	Grey Shrikethrush			X								
<i>Columba livia</i>	Domestic Pigeon			X								
<i>Conopophila rufogularis</i>	Rufous-throated Honeyeater			X				X		X		
<i>Coracina novaehollandiae</i>	Black-faced Cuckooshrike		MA	X			X	X	X	X	X	X
<i>Coracina novaehollandiae subpallida</i>			MA	X								
<i>Coracina papuensis</i>	White-bellied Cuckooshrike		MA	X								
<i>Corvus bennetti</i>	Little Crow			X								
<i>Corvus orru</i>	Torresian Crow			X			X	X	X	X		
<i>Corvus orru ceciliae</i>	Western Crow			X								
<i>Coturnix pectoralis</i>	Stubble Quail		MA	X								
<i>Cracticus nigrogularis</i>	Pied Butcherbird			X			X	X	X	X	X	X
<i>Cracticus torquatus</i>	Grey Butcherbird			X								
<i>Cracticus torquatus torquatus</i>				X								
<i>Cuculus saturatus</i>	Oriental Cuckoo	MI	MA	X								
<i>Cuculus saturatus optatus</i>	Horsfield's Cuckoo	MI	MI, MA	X	X	X						
<i>Cyanoptila cyanomelana</i>	Blue And White Flycatcher			X								
<i>Cygnus atratus</i>	Black Swan			X								
<i>Dacelo leachii</i>	Blue-winged Kookaburra			X					X	X		X
<i>Dacelo leachii leachii</i>				X				X				
<i>Daphoenositta chrysoptera</i>	Varied Sittella			X								
<i>Daphoenositta chrysoptera leucoptera</i>	Varied Sittella			X								

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Scientific Name	Common Name	Conservation Status		Source			Literature					
		State	Federal	NM	PMST	DBCA	A	B	C	D	E	F
<i>Dendrocygna arcuata</i>	Wandering Whistling Duck		MA	X						X		
<i>Dendrocygna eytoni</i>	Plumed Whistling Duck			X						X		
<i>Dicaeum hirundinaceum</i>	Mistletoebird			X					X	X		
<i>Dromaius novaehollandiae</i>	Emu			X								
<i>Ducula bicolor</i>	Pied Imperial Pigeon		MA	X								
<i>Egretta garzetta</i>	Little Egret		MA	X								
<i>Egretta novaehollandiae</i>	White-faced Heron			X								
<i>Egretta picata</i>	Pied Heron			X								
<i>Egretta sacra</i>	Eastern Reef Heron		MA	X						X		
<i>Elanus axillaris</i>	Black-shouldered Kite			X						X		
<i>Elanus scriptus</i>	Letter-winged Kite	P4		X		X						
<i>Elseyornis melanops</i>	Black-fronted Dotterel			X								
<i>Emblema pictum</i>	Painted Finch			X								
<i>Eolophus roseicapilla</i>	Galah			X								
<i>Ephippiorhynchus asiaticus</i>	Black-necked Stork			X								
<i>Epthianura albifrons</i>	White-fronted Chat			X								
<i>Epthianura aurifrons</i>	Orange Chat			X								
<i>Epthianura crocea</i>	Yellow Chat			X								
<i>Epthianura tricolor</i>	Crimson Chat			X								
<i>Erythronys cinctus</i>	Red-kneed Dotterel			X								
<i>Erythroriorchis radiatus</i>	Red Goshawk	VU	VU	X	X	X						
<i>Esacus magnirostris</i>	Beach Stone-curlew		MA	X								
<i>Eurostopodus argus</i>	Spotted Nightjar		MA	X								
<i>Eurystomus orientalis</i>	Oriental Dollarbird		MA	X					X	X		
<i>Eurystomus orientalis pacificus</i>			MA	X								
<i>Falco berigora</i>	Brown Falcon			X				X	X			
<i>Falco berigora berigora</i>	Brown Falcon			X								
<i>Falco cenchroides</i>	Nankeen Kestrel		MA	X				X		X		
<i>Falco cenchroides cenchroides</i>	Nankeen Kestrel		MA	X								
<i>Falco hypoleucos</i>	Grey Falcon	VU	VU	X	X	X						
<i>Falco longipennis</i>	Australian Hobby			X								
<i>Falco longipennis longipennis</i>				X								
<i>Falco peregrinus</i>	Peregrine Falcon	OS		X		X						
<i>Falco peregrinus macropus</i>		OS		X								
<i>Falco subniger</i>	Black Falcon			X								
<i>Fregata ariel</i>	Lesser Frigatebird	MI	MI, MA	X	X	X				X		
<i>Fregata minor</i>	Greater Frigatebird	MI	MI, MA	X	X	X						
<i>Fulica atra</i>	Eurasian Coot			X								
<i>Gallinago megala</i>	Swinhoe's Snipe	MI	MI, MA	X	X	X						
<i>Gallinago stenura</i>	Pin-tailed Snipe	MI	MI, MA	X	X	X						
<i>Gavicalis virescens</i>	Singing Honeyeater			X				X	X	X		X

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Scientific Name	Common Name	Conservation Status		Source			Literature					
		State	Federal	NM	PMST	DBCA	A	B	C	D	E	F
<i>Gelochelidon macrotarsa</i>	Australian Gull-billed Tern			X								
<i>Gelochelidon nilotica</i>	Gull-billed Tern	MI	MI, MA	X		X				X		
<i>Geopelia cuneata</i>	Diamond Dove			X			X	X	X		X	X
<i>Geopelia humeralis</i>	Bar-shouldered Dove			X				X	X	X		
<i>Geopelia striata</i>	Zebra Dove			X					X			
<i>Geopelia striata placida</i>	Peaceful Dove			X				X		X		
<i>Geophaps plumifera</i>	Spinifex Pigeon			X								
<i>Gerygone fusca</i>	Western Gerygone			X								
<i>Gerygone levigaster</i>	Mangrove Gerygone			X								
<i>Gerygone levigaster levigaster</i>				X								
<i>Gerygone olivacea</i>	White-throated Gerygone			X				X	X	X		X
<i>Gerygone olivacea rogersi</i>				X								
<i>Gerygone tenebrosa</i>	Dusky Gerygone			X						X		
<i>Glareola maldivarum</i>	Oriental Pratincole	MI	MI, MA	X	X	X						
<i>Grallina cyanoleuca</i>	Magpie-lark		MA	X			X	X		X	X	
<i>Gymnorhina tibicen</i>	Australian Magpie			X				X	X			
<i>Haematopus fuliginosus</i>	Sooty Oystercatcher			X								
<i>Haematopus longirostris</i>	Pied Oystercatcher			X						X		
<i>Haliaeetus leucogaster</i>	White-bellied Sea-eagle		MA	X	X					X		
<i>Haliastur indus</i>	Brahminy Kite		MA	X					X	X	X	
<i>Haliastur indus girrenera</i>			MA	X								
<i>Haliastur spheonurus</i>	Whistling Kite		MA	X			X	X	X	X		X
<i>Hamirostra melanosternon</i>	Black-breasted Buzzard			X								
<i>Heteromunia pectoralis</i>	Pictorella Mannikin			X								
<i>Heteroscenes pallidus</i>	Pallid Cuckoo		MA	X				X	X			
<i>Hieraaetus morphnoides</i>	Little Eagle			X				X				
<i>Himantopus himantopus</i>	Black-winged Stilt		MA	X	X					X		
<i>Himantopus himantopus leucocephalus</i>	Pied Stilt		MA	X								
<i>Hirundapus caudacutus</i>	White-throated Needletail	MI	VU, MI, MA	X		X						
<i>Hirundo neoxena</i>	Welcome Swallow		MA	X								
<i>Hirundo rustica</i>	Barn Swallow	MI	MI, MA	X	X	X				X		
<i>Hydroprogne caspia</i>	Caspian Tern	MI	MI, MA	X		X						
<i>Hypotaenidia philippensis</i>	Buff-banded Rail		MA	X								
<i>Hypotaenidia philippensis mellori</i>				X								
<i>Irediparra gallinacea</i>	Comb-crested Jacana			X								
<i>Ixobrychus dubius</i>	Australian Little Bittern	P4		X		X						
<i>Ixobrychus flavicollis</i>	Black Bittern			X								
<i>Ixobrychus flavicollis australis</i>				X								
<i>Ixobrychus minutus</i>	Little Bittern			X								
<i>Lalage tricolor</i>	White-winged Triller			X				X				

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Scientific Name	Common Name	Conservation Status		Source			Literature					
		State	Federal	NM	PMST	DBCA	A	B	C	D	E	F
<i>Larus fuscus</i>	Lesser Black-backed Gull			X								
<i>Lichmera indistincta</i>	Brown Honeyeater			X						X		X
<i>Lichmera indistincta indistincta</i>				X				X				
<i>Limnodromus semipalmatus</i>	Asian Dowitcher	MI	MI, MA	X	X	X						
<i>Limosa lapponica</i>	Bar-tailed Godwit	MI	MI, MA	X	X	X				X		
<i>Limosa lapponica menzbieri</i>	Bar-tailed Godwit	CR	CR	X	X	X						
<i>Limosa limosa</i>	Black-tailed Godwit	MI	MI, MA	X	X	X				X		
<i>Limosa limosa melanuroides</i>		MI	MI, MA	X								
<i>Lonchura castaneothorax</i>	Chestnut-breasted Mannikin			X								
<i>Lophochroa leadbeateri</i>	Major Mitchell's Cockatoo			X								
<i>Lophoictinia isura</i>	Square-tailed Kite			X				X				
<i>Macronectes halli</i>	Northern Giant Petrel	MI	VU, MI, MA	X		X						
<i>Malacorhynchus membranaceus</i>	Pink-eared Duck			X								
<i>Malurus assimilis</i>	Purple-backed Fairywren	VU		X						X		X
<i>Malurus assimilis bernieri</i>	Shark Bay Purple-backed Fairywren	VU		X								
<i>Malurus assimilis rogersi</i>	Lavender-flanked Fairywren			X								
<i>Malurus elegans</i>	Red-winged Fairywren			X								
<i>Malurus leucopterus</i>	White-winged Fairywren			X								
<i>Malurus melanocephalus</i>	Red-backed Fairywren			X					X	X		
<i>Malurus melanocephalus cruentatus</i>				X				X				
<i>Manorina flavigula</i>	Yellow-throated Miner			X								
<i>Melanodryas cucullata</i>	Hooded Robin			X								
<i>Melanodryas cucullata</i>	Hooded Robin			X								
<i>Melithreptus albogularis</i>	White-throated Honeyeater			X							X	
<i>Melithreptus gularis</i>	Black-chinned Honeyeater			X					X	X		
<i>Melithreptus gularis laetior</i>				X								
<i>Melopsittacus undulatus</i>	Budgerigar			X								
<i>Merops ornatus</i>	Rainbow Bee-eater		MA	X	X		X	X	X	X	X	X
<i>Microcarbo melanoleucos</i>	Little Pied Cormorant			X								
<i>Microeca fascinans</i>	Jacky Winter			X				X				
<i>Microeca flavigaster</i>	Lemon-breasted Flycatcher			X					X			
<i>Microeca flavigaster tormenti</i>	Kimberley Flycatcher			X								
<i>Milvus migrans</i>	Black Kite			X					X	X	X	X
<i>Milvus migrans affinis</i>				X				X				
<i>Mirafra javanica</i>	Horsfield's Bush Lark			X								
<i>Mirafra javanica horsfieldii</i>				X				X				
<i>Motacilla alba</i>	White Wagtail		MA	X								
<i>Motacilla cinerea</i>	Grey Wagtail	MI	MI, MA	X	X	X						
<i>Motacilla tschutschensis</i>	Eastern Yellow Wagtail	MI	MI, MA	X	X	X						
<i>Myiagra alecto</i>	Shining Flycatcher			X								
<i>Myiagra inquieta</i>	Restless Flycatcher			X						X		

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Scientific Name	Common Name	Conservation Status		Source			Literature					
		State	Federal	NM	PMST	DBCA	A	B	C	D	E	F
<i>Myiagra inquieta inquieta</i>				X								
<i>Myiagra inquieta nana</i>	Paperbark Flycatcher			X								
<i>Myiagra rubecula</i>	Leaden Flycatcher			X								
<i>Myiagra rubecula concinna</i>				X								
<i>Myiagra ruficollis</i>	Broad-billed Flycatcher			X						X		
<i>Myiagra ruficollis mimikae</i>				X								
<i>Myzomela erythrocephala</i>	Red-headed Honeyeater			X								
<i>Myzomela erythrocephala erythrocephala</i>				X								
<i>Neochmia phaeton</i>	Crimson Finch			X								
<i>Neochmia ruficauda</i>	Star Finch			X								
<i>Neochmia ruficauda clarescens</i>				X								
<i>Nettapus pulchellus</i>	Green Pygmy Goose		MA	X								
<i>Ninox boobook boobook</i>	Southern Boobook		MA	X					X			
<i>Ninox connivens</i>	Barking Owl			X								
<i>Ninox connivens connivens</i>				X		X						
<i>Ninox novaeseelandiae</i>	Morepork							X				
<i>Numenius madagascariensis</i>	Far Eastern Curlew	CR	CR, MI, MA	X	X	X				X		
<i>Numenius minutus</i>	Little Curlew	MI	MI, MA	X	X	X						
<i>Numenius phaeopus</i>	Whimbrel	MI	MI, MA	X	X	X				X		
<i>Nycticorax caledonicus</i>	Nankeen Night Heron		MA	X								
<i>Nycticorax caledonicus australasiae</i>			MA	X								
<i>Nymphicus hollandicus</i>	Cockatiel			X								
<i>Oceanites oceanicus</i>	Wilson's Storm Petrel	MI	MI, MA	X		X						
<i>Oceanodroma leucorhoa</i>	Leach's Storm Petrel			X								
<i>Ocyphaps lophotes</i>	Crested Pigeon			X			X	X	X	X	X	
<i>Onychoprion anaethetus</i>	Bridled Tern	MI	MI, MA	X		X						
<i>Onychoprion anaethetus anaethetus</i>		MI	MI, MA	X								
<i>Onychoprion fuscatus</i>	Sooty Tern		MA	X								
<i>Oreoica gutturalis</i>	Crested Bellbird			X								
<i>Oriolus sagittatus</i>	Olive-backed Oriole			X								
<i>Pachycephala lanioides</i>	White-breasted Whistler			X								
<i>Pachycephala melanura</i>	Mangrove Golden Whistler			X						X		
<i>Pachycephala melanura melanura</i>				X								
<i>Pachycephala rufiventris</i>	Rufous Whistler			X				X	X	X		X
<i>Pachycephala rufiventris rufiventris</i>				X								
<i>Pandion haliaetus</i>	Osprey	MI	MI, MA	X	X	X						
<i>Pandion haliaetus cristatus</i>	Eastern Osprey	MI	MI, MA	X						X		
<i>Papasula abbotti</i>	Abbott's Booby		EN, MA	X	X							
<i>Pardalotus punctatus punctatus</i>				X								
<i>Pardalotus rubricatus</i>	Red-browed Pardalote			X								

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Scientific Name	Common Name	Conservation Status		Source			Literature					
		State	Federal	NM	PMST	DBCA	A	B	C	D	E	F
<i>Pardalotus striatus</i>	Striated Pardalote			X				X				
<i>Pardalotus striatus murchisoni</i>				X								
<i>Pardalotus striatus uropygialis</i>				X								
<i>Pardalotus striatus westraliensis</i>				X								
<i>Passer montanus</i>	Eurasian Tree Sparrow			X								
<i>Pavo cristatus</i>	Common Peafowl			X								
<i>Pelecanoides urinatrix exsul</i>			MA	X								
<i>Pelecanus conspicillatus</i>	Australian Pelican		MA	X								
<i>Petrochelidon ariel</i>	Fairy Martin			X								
<i>Petrochelidon nigricans</i>	Tree Martin		MA	X						X		X
<i>Petroica goodenovii</i>	Red-capped Robin			X								
<i>Phaethon lepturus</i>	White-tailed Tropicbird	MI	MI, MA		X							
<i>Phalacrocorax carbo</i>	Great Cormorant			X								
<i>Phalacrocorax carbo novaehollandiae</i>				X								
<i>Phalacrocorax sulcirostris</i>	Little Black Cormorant			X								
<i>Phalacrocorax varius</i>	Pied Cormorant			X								
<i>Phalaropus lobatus</i>	Red-necked Phalarope	MI	MI, MA	X		X						
<i>Phaps chalcoptera</i>	Common Bronzewing			X								
<i>Phaps histrionica</i>	Flock Bronzewing			X								
<i>Philemon argenticeps</i>	Silver-crowned Friarbird			X					X			
<i>Philemon citreogularis</i>	Little Friarbird			X				X	X	X		X
<i>Philemon citreogularis citreogularis</i>				X								
<i>Pitta moluccensis</i>	Blue-winged Pitta			X								
<i>Platalea flavipes</i>	Yellow-billed Spoonbill			X								
<i>Platalea regia</i>	Royal Spoonbill			X								
<i>Plegadis falcinellus</i>	Glossy Ibis	MI	MI, MA	X		X						
<i>Pluvialis fulva</i>	Pacific Golden Plover	MI	MI, MA	X	X	X				X		
<i>Pluvialis squatarola</i>	Grey Plover	MI	MI, MA	X	X	X				X		
<i>Podargus strigoides</i>	Tawny Frogmouth			X					X	X		X
<i>Podargus strigoides brachypterus</i>				X								
<i>Podargus strigoides phalaenoides</i>				X								
<i>Podiceps cristatus</i>	Great Crested Grebe			X								
<i>Poephila acuticauda</i>	Long-tailed Finch			X				X	X			
<i>Poliocephalus poliocephalus</i>	Hoary-headed Grebe			X								
<i>Poliolimnas cinereus</i>	White-browed Crake			X								
<i>Polytelis alexandrae</i>	Princess Parrot	P4	VU	X	X	X						
<i>Pomatostomus temporalis</i>	Grey-crowned Babbler			X					X	X		X
<i>Pomatostomus temporalis rubeculus</i>				X				X				
<i>Poodytes gramineus</i>	Little Grassbird			X								
<i>Porphyrio melanotus</i>	Australasian Swamphen		MA	X								

Appendix B2: Fauna Database Search Results

Scientific Name	Common Name	Conservation Status		Source			Literature					
		State	Federal	NM	PMST	DBCA	A	B	C	D	E	F
<i>Porzana fluminea</i>	Australian Spotted Crane			X								
<i>Psitteuteles versicolor</i>	Varied Lorikeet			X								
<i>Ptilinopus regina ewingii</i>				X								
<i>Ptilotula flavescens</i>	Yellow-tinted Honeyeater			X						X		
<i>Ptilotula flavescens flavescens</i>				X								
<i>Ptilotula keartlandi</i>	Grey-headed Honeyeater			X								
<i>Puffinus huttoni</i>	Hutton's Shearwater	EN	MA	X		X						
<i>Purnella albifrons</i>	White-fronted Honeyeater			X								
<i>Radjah radjah</i>	Radjah Shelduck			X								
<i>Rallina fasciata</i>	Red-legged Crane		MA	X								
<i>Recurvirostra novaehollandiae</i>	Red-necked Avocet		MA	X	X							
<i>Rhipidura albiscapa</i>	Grey Fantail			X								
<i>Rhipidura fuliginosa</i>	Grey Fantail			X								
<i>Rhipidura leucophrys</i>	Willie Wagtail			X				X	X	X	X	
<i>Rhipidura leucophrys leucophrys</i>				X								
<i>Rhipidura phasiana</i>	Mangrove Grey Fantail			X								
<i>Rhipidura rufiventris</i>	Northern Fantail			X								
<i>Rhipidura rufiventris isura</i>				X								
<i>Rostratula australis</i>	Australian Painted Snipe	EN	EN, MA	X	X	X						
<i>Scythrops novaehollandiae</i>	Channel-billed Cuckoo		MA	X								
<i>Smicromnis brevirostris</i>	Weebill			X				X				
<i>Spatula querquedula</i>	Garganey	MI	MI, MA	X		X						
<i>Spatula rhynchotis</i>	Australasian Shoveler			X								
<i>Sphecotheres vieilloti</i>	Australasian Figbird			X								
<i>Stercorarius parasiticus</i>	Arctic Skua	MI	MI, MA	X		X						
<i>Sterna dougallii</i>	Roseate Tern	MI	MI, MA	X		X						
<i>Sterna dougallii gracilis</i>		MI	MI, MA	X								
<i>Sterna hirundo</i>	Common Tern	MI	MI, MA	X		X						
<i>Sterna hirundo longipennis</i>		MI	MI, MA	X								
<i>Sterna sumatrana</i>	Black-naped Tern	MI	MI, MA			X						
<i>Sternula albifrons</i>	Little Tern	MI	MI, MA	X	X	X						
<i>Sternula albifrons sinensis</i>	White-shafted Little Tern	MI	MI, MA	X	X							
<i>Sternula nereis</i>	Fairy Tern		MA	X								
<i>Stictonetta naevosa</i>	Freckled Duck			X								
<i>Stiltia isabella</i>	Australian Pratincole		MA	X								
<i>Stizoptera bichenovii</i>	Double-barred Finch			X								X
<i>Stizoptera bichenovii annulosa</i>				X								
<i>Stomiopera unicolor</i>	White-gaped Honeyeater			X								
<i>Sturnus vulgaris</i>	Common Starling			X								
<i>Sugomel niger</i>	Black Honeyeater			X								
<i>Sula leucogaster</i>	Brown Booby	MI	MI, MA	X	X	X				X		

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Scientific Name	Common Name	Conservation Status		Source			Literature					
		State	Federal	NM	PMST	DBCA	A	B	C	D	E	F
<i>Sula leucogaster plotus</i>		MI	MI, MA	X								
<i>Synoicus ypsilophorus</i>	Brown Quail			X				X				
<i>Synoicus ypsilophorus australis</i>				X								
<i>Tachybaptus novaehollandiae</i>	Australasian Grebe			X								
<i>Tachybaptus novaehollandiae novaehollandiae</i>				X								
<i>Tachybaptus ruficollis</i>	Little Grebe			X								
<i>Tadorna tadornoides</i>	Australian Shelduck, Mountain Duck			X								
<i>Taeniopygia castanotis</i>	Australian Zebra Finch			X						X		
<i>Thalasseus bengalensis</i>	Lesser Crested Tern		MA	X								
<i>Thalasseus bergii</i>	Greater Crested Tern	MI	MI, MA	X		X				X		
<i>Threskiornis molucca</i>	Australian White Ibis		MA	X						X		
<i>Threskiornis spinicollis</i>	Straw-necked Ibis		MA	X			X	X				
<i>Todiramphus chloris</i> (Wallacea transition point from <i>T. sordidus</i>)	Collared Kingfisher			X								
<i>Todiramphus pyrrhopygius</i>	Red-backed Kingfisher			X								
<i>Todiramphus sanctus</i>	Sacred Kingfisher		MA	X					X	X		
<i>Todiramphus sanctus sanctus</i>			MA	X								
<i>Todiramphus sordidus</i> (Wallacea transition point from <i>T. chloris</i>)	Torresian Kingfisher			X								
<i>Tribonyx ventralis</i>	Black-tailed Native-hen			X								
<i>Trichoglossus moluccanus</i>	Rainbow Lorikeet			X						X		
<i>Trichoglossus rubritorquis</i>	Red-collared Lorikeet			X				X				
<i>Tringa brevipes</i>	Grey-tailed Tattler	MI, P4	MI, MA	X	X	X				X		
<i>Tringa glareola</i>	Wood Sandpiper	MI	MI, MA	X	X	X						
<i>Tringa nebularia</i>	Common Greenshank	MI	MI, MA	X	X	X				X		
<i>Tringa stagnatilis</i>	Marsh Sandpiper	MI	MI, MA	X	X	X						
<i>Tringa totanus</i>	Common Redshank	MI	MI, MA	X	X	X						
<i>Turnix castanotus</i>	Chestnut-backed Buttonquail			X								
<i>Turnix maculosus</i>	Red-backed Buttonquail			X								
<i>Turnix maculosus melanotus</i>				X								
<i>Turnix pyrrhothorax</i>	Red-chested Buttonquail			X								
<i>Turnix velox</i>	Little Buttonquail			X				X				
<i>Tyto javanica delicatula</i>				X								
<i>Tyto longimembris</i>	Eastern Grass Owl			X								
<i>Tyto novaehollandiae kimberli</i>		P1	VU		X	X						
<i>Tyto novaehollandiae novaehollandiae</i>		P3		X		X						
<i>Vanellus miles</i>	Masked Lapwing			X						X		
<i>Vanellus miles miles</i>				X								

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Scientific Name	Common Name	Conservation Status		Source			Literature					
		State	Federal	NM	PMST	DBCA	A	B	C	D	E	F
<i>Vanellus tricolor</i>	Banded Lapwing			X								
<i>Xema sabini</i>	Sabine's Gull		MA	X								
<i>Xenus cinereus</i>	Terek Sandpiper	MI	MI, MA	X	X	X				X		
<i>Zapornia pusilla</i>	Baillon's Crake		MA	X								
<i>Zapornia tabuensis</i>	Spotless Crake		MA	X								
<i>Zosterops lateralis</i>	Grey-breasted White-eye		MA	X								
<i>Zosterops luteus</i>	Yellow White-eye			X								
Fish												
<i>Abudefduf bengalensis</i>				X								
<i>Acanthopagrus latus</i>				X								
<i>Acanthopagrus palmaris</i>				X								
<i>Acanthurus dussumieri</i>				X								
<i>Acanthurus grammoptilus</i>				X								
<i>Acentrogobius gracilis</i>				X								
<i>Acentrogobius nebulosus</i>				X								
<i>Acentrogobius viridipunctatus</i>				X								
<i>Alectis indica</i>				X								
<i>Alionematichthys piger</i>				X								
<i>Ambassis vachellii</i>				X								
<i>Amniataba caudavittata</i>				X								
<i>Amphiprion rubrocinctus</i>				X								
<i>Anguilla bicolor</i>				X								
<i>Anoxypristis cuspidata</i>		MI	MI		X							
<i>Apogon cookii</i>				X								
<i>Apogon doederleini</i>				X								
<i>Apogon pallidofasciatus</i>				X								
<i>Apogon rueppellii</i>				X								
<i>Archamia biguttata</i>				X								
<i>Arothron hispidus</i>				X								
<i>Arothron manilensis</i>				X								
<i>Arrhamphus sclerolepis</i>				X								
<i>Atherinomorus endrachtensis</i>				X								
<i>Bathygobius fuscus</i>				X								
<i>Bathygobius parvus</i>				X								
<i>Batrachomoeus dahli</i>				X								
<i>Batrachomoeus occidentalis</i>				X								
<i>Blennodesmus scapularis</i>				X								
<i>Boleophthalmus caeruleomaculatus</i>				X								
<i>Brachysomophis cirrocheilos</i>				X								
<i>Butis butis</i>				X								
<i>Campichthys tricarinatus</i>			MA		X							

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Scientific Name	Common Name	Conservation Status		Source			Literature					
		State	Federal	NM	PMST	DBCA	A	B	C	D	E	F
<i>Caranx bucculentus</i>				X								
<i>Caranx ignobilis</i>				X								
<i>Caranx sexfasciatus</i>				X								
<i>Carcharhinus longimanus</i>	Oceanic Whitetip Shark		MI		X							
<i>Carcharodon carcharias</i>	Grey Nurse Shark	VU	VU, MI		X							
<i>Centriscus scutatus</i>				X								
<i>Centrogenys vaigiensis</i>				X								
<i>Cephalopholis boenak</i>				X								
<i>Chaetodon aureofasciatus</i>				X								
<i>Chaetodontoplus duboulayi</i>				X								
<i>Chanos chanos</i>				X								
<i>Chelmon marginalis</i>				X								
<i>Chelmon muelleri</i>				X								
<i>Chelmon rostratus</i>				X								
<i>Chelonodon patoca</i>				X								
<i>Chiloscyllium punctatum</i>				X								
<i>Chirocentrus dorab</i>				X								
<i>Choerodon cyanodus</i>				X								
<i>Choerodon schoenleinii</i>				X								
<i>Choeroichthys brachysoma</i>			MA		X							
<i>Choeroichthys suillus</i>	Pignout Pipefish				X							
<i>Chromileptes altivelis</i>				X								
<i>Conger cinereus</i>				X								
<i>Congrogadus subducens</i>				X								
<i>Corythoichthys flavofasciatus</i>			MA		X							
<i>Cosmocampus banneri</i>			MA		X							
<i>Craterocephalus capreoli</i>				X								
<i>Craterocephalus pauciradiatus</i>				X								
<i>Cyclichthys orbicularis</i>				X								
<i>Cymbacephalus nematophthalmus</i>				X								
<i>Dampierosa daruma</i>				X								
<i>Doryrhamphus dactyliophorus</i>			MA		X							
<i>Doryrhamphus excisus</i>			MA		X							
<i>Doryrhamphus janssi</i>			MA		X							
<i>Drepane punctata</i>				X								
<i>Drombus triangularis</i>				X								
<i>Echeneis naucrates</i>				X								
<i>Elates ransonnetii</i>				X								
<i>Eleutheronema tetradactylum</i>				X								
<i>Elops hawaiiensis</i>				X								
<i>Enneapterygius gracilis</i>				X								

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Scientific Name	Common Name	Conservation Status		Source			Literature					
		State	Federal	NM	PMST	DBCA	A	B	C	D	E	F
<i>Enneapterygius larsonae</i>				X								
<i>Epinephelus areolatus</i>				X								
<i>Epinephelus bleekeri</i>				X								
<i>Epinephelus coioides</i>				X								
<i>Epinephelus corallicola</i>				X								
<i>Epinephelus fasciatus</i>				X								
<i>Epinephelus homosinensis</i>				X								
<i>Epinephelus malabaricus</i>				X								
<i>Epinephelus quoyanus</i>				X								
<i>Epinephelus tauvina</i>				X								
<i>Eusurculus pistillum</i>				X								
<i>Eviota bimaculata</i>	Twospot Eviota			X								
<i>Eviota queenslandica</i>				X								
<i>Feroxodon multistriatus</i>				X								
<i>Filicampus tigris</i>			MA	X	X							
<i>Fistularia petimba</i>				X								
<i>Fowleria aurita</i>				X								
<i>Gerres subfasciatus</i>				X								
<i>Gymnothorax favagineus</i>				X								
<i>Gymnothorax pseudothyroideus</i>				X								
<i>Gymnothorax pseudothyroideus</i>				X								
<i>Gymnothorax undulatus</i>				X								
<i>Halicampus brocki</i>	Tasselled Pipefish		MA		X							
<i>Halicampus grayi</i>			MA		X							
<i>Halicampus nitidus</i>			MA		X							
<i>Halicampus spinirostris</i>			MA		X							
<i>Halichoeres melanochir</i>				X								
<i>Halichoeres nigrescens</i>				X								
<i>Haliichthys taeniophorus</i>			MA		X							
<i>Halophryne diemensis</i>				X								
<i>Halophryne ocellatus</i>				X								
<i>Hapalogenys kishinouyei</i>				X								
<i>Hemiramphus robustus</i>				X								
<i>Hemiscyllium trispeculare</i>				X								
<i>Herklotsichthys blackburni</i>				X								
<i>Himantura uarnak</i>				X								
<i>Hippichthys gazella</i>				X								
<i>Hippichthys penicillus</i>			MA	X	X							
<i>Hippocampus angustus</i>	Western Spiny Seahorse		MA	X	X							
<i>Hippocampus histrix</i>			MA		X							
<i>Hippocampus kuda</i>			MA		X							

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Scientific Name	Common Name	Conservation Status		Source			Literature					
		State	Federal	NM	PMST	DBCA	A	B	C	D	E	F
<i>Hippocampus planifrons</i>			MA		X							
<i>Hippocampus spinosissimus</i>			MA		X							
<i>Hippocampus trimaculatus</i>			MA		X							
<i>Hypoatherina temminckii</i>				X								
<i>Ichthyoscopus insperatus</i>				X								
<i>Ichthyoscopus spinosus</i>				X								
<i>Istigobius decoratus</i>				X								
<i>Istigobius diadema</i>				X								
<i>Istigobius nigroocellatus</i>				X								
<i>Istigobius ornatus</i>				X								
<i>Isurus oxyrinchus</i>		MI	MI		X							
<i>Isurus paucus</i>		MI	MI		X							
<i>Johnius amblycephalus</i>				X								
<i>Labracinus lineatus</i>				X								
<i>Lactoria cornuta</i>	Longhorn Cowfish			X								
<i>Lactoria diaphana</i>				X								
<i>Laiphognathus multimaculatus</i>	Manyspot Blenny			X								
<i>Leiognathus equulus</i>				X								
<i>Leptobrama muelleri</i>				X								
<i>Lethrinus laticaudis</i>				X								
<i>Lethrinus punctulatus</i>				X								
<i>Liza alata</i>				X								
<i>Liza subviridis</i>				X								
<i>Liza vaigiensis</i>				X								
<i>Lophiocharon hutchinsi</i>				X								
<i>Lophiocharon trisignatus</i>				X								
<i>Lutjanus carponotatus</i>				X								
<i>Lutjanus erythropterus</i>				X								
<i>Lutjanus lemniscatus</i>				X								
<i>Lutjanus malabaricus</i>				X								
<i>Lutjanus quinquelineatus</i>				X								
<i>Lutjanus russellii</i>				X								
<i>Lutjanus vitta</i>				X								
<i>Marilyna meraukensis</i>				X								
<i>Megalops cyprinoides</i>				X								
<i>Micrognathus micronotopterus</i>			MA	X	X							
<i>Mobula alfredi</i>	Manta Ray	MI	MI		X							
<i>Mobula birostris</i>	Giant Oceanic Manta Ray	MI	MI		X							
<i>Monacanthus chinensis</i>				X								
<i>Mugil cephalus</i>				X								
<i>Nematalosa come</i>				X								

Appendix B2: Fauna Database Search Results

Scientific Name	Common Name	Conservation Status		Source			Literature					
		State	Federal	NM	PMST	DBCA	A	B	C	D	E	F
<i>Nematalosa vlaminghi</i>				X								
<i>Neosilurus hyrtlii</i>				X								
<i>Netuma proxima</i>				X								
<i>Nibea microgenys</i>				X								
<i>Notograptus guttatus</i>				X								
<i>Omobranchus ferox</i>				X								
<i>Omobranchus lineolatus</i>				X								
<i>Omobranchus rotundiceps</i>				X								
<i>Omobranchus verticalis</i>				X								
<i>Onuxodon fowleri</i>				X								
<i>Onuxodon margaritiferae</i>				X								
<i>Ophichthus rutidoderma</i>				X								
<i>Ophieleotris aporos</i>				X								
<i>Ophiocara porocephala</i>				X								
<i>Opistognathus darwiniensis</i>				X								
<i>Opistognathus inornatus</i>				X								
<i>Opistognathus reticulatus</i>				X								
<i>Orectolobus wardi</i>				X								
<i>Ostracion rhinorhynchos</i>				X								
<i>Pantolabus radiatus</i>				X								
<i>Parablennius tasmanianus</i>				X								
<i>Paracentropogon vespa</i>				X								
<i>Paradiplogrammus enneactis</i>				X								
<i>Paramonacanthus choirocephalus</i>				X								
<i>Paraplagusia sinerama</i>				X								
<i>Paraploactis pulvinus</i>				X								
<i>Paraplotosus albilabris</i>				X								
<i>Paraplotosus butleri</i>				X								
<i>Parascorpaena picta</i>				X								
<i>Pardachirus pavoninus</i>				X								
<i>Parupeneus indicus</i>				X								
<i>Pempheris ypsilychnus</i>				X								
<i>Pentapodus emeryii</i>				X								
<i>Pentapodus porosus</i>				X								
<i>Periophthalmus argentilineatus</i>				X								
<i>Periophthalmus koelreuteri</i>				X								
<i>Pisodonophis cancrivorus</i>				X								
<i>Platybelone argalus</i>				X								
<i>Platycephalus indicus</i>				X								
<i>Plotosus lineatus</i>				X								
<i>Polydactylus macrochir</i>				X								

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Scientific Name	Common Name	Conservation Status		Source			Literature					
		State	Federal	NM	PMST	DBCA	A	B	C	D	E	F
<i>Polydactylus multiradiatus</i>				X								
<i>Polydactylus sheridani</i>				X								
<i>Pomacanthus sexstriatus</i>				X								
<i>Pomacentrus milleri</i>	Miller's Damsel			X								
<i>Pomadasys argenteus</i>				X								
<i>Priolepis nuchifasciata</i>				X								
<i>Prionobutis microps</i>				X								
<i>Pristis clavata</i>	Dwarf Sawfish	MI, P1	VU, MI		X							
<i>Pristis pristis</i>	Freshwater Sawfish	MI, P3	VU, MI	X	X	X						
<i>Pristis zijsron</i>	Green Sawfish	VU	VU, MI	X	X	X						
<i>Psammoperca waigiensis</i>				X								
<i>Pseudochromis fuscus</i>				X								
<i>Pseudochromis wilsoni</i>	Yellowfin Dottyback			X								
<i>Pseudomonacanthus peroni</i>				X								
<i>Pseudomugil cyanodorsalis</i>				X								
<i>Pterois antennata</i>				X								
<i>Remora remora</i>				X								
<i>Rhina ancylostoma</i>				X								
<i>Rhincodon typus</i>	Whale Shark	MI	VU, MI		X							
<i>Rhizoprionodon acutus</i>				X								
<i>Salarias sexfilum</i>				X								
<i>Sargocentron rubrum</i>				X								
<i>Scaevius milii</i>				X								
<i>Scartelaos histophorus</i>				X								
<i>Scarus ghobban</i>				X								
<i>Scolecenchelys macroptera</i>				X								
<i>Scolopsis monogramma</i>				X								
<i>Scomberoides commersonnianus</i>				X								
<i>Scomberoides lysan</i>				X								
<i>Scomberomorus semifasciatus</i>				X								
<i>Scorpaenopsis neglecta</i>				X								
<i>Selaroides leptolepis</i>				X								
<i>Selenotoca multifasciata</i>				X								
<i>Sillago analis</i>				X								
<i>Sillago burrus</i>				X								
<i>Sillago sihama</i>				X								
<i>Solegnathus hardwickii</i>			MA		X							
<i>Solegnathus lettiensis</i>	Gunther's Pipehorse		MA		X							
<i>Solenostomus cyanopterus</i>			MA		X							
<i>Sphyræna putnamae</i>				X								
<i>Sphyrna lewini</i>	Scalloped Hammerhead		CD		X							

Appendix B2: Fauna Database Search Results

Scientific Name	Common Name	Conservation Status		Source			Literature					
		State	Federal	NM	PMST	DBCA	A	B	C	D	E	F
<i>Spratelloides delicatulus</i>				X								
<i>Spratelloides robustus</i>				X								
<i>Strongylura strongylura</i>				X								
<i>Synanceia horrida</i>				X								
<i>Syngnathoides biaculeatus</i>	Doubleend Pipehorse		MA		X							
<i>Synodus jaculum</i>				X								
<i>Synodus sageneus</i>				X								
<i>Taeniura lymma</i>				X								
<i>Terapon jarbua</i>	Crescent Grunter			X								
<i>Terapon puta</i>				X								
<i>Terapon theraps</i>				X								
<i>Thryssa aestuaria</i>				X								
<i>Thunnus maccoyii</i>	Southern Bluefin Tuna		CD		X							
<i>Toxotes chatareus</i>				X								
<i>Trachinocephalus myops</i>				X								
<i>Trachyrhamphus bicoarctatus</i>			MA		X							
<i>Trachyrhamphus longirostris</i>			MA		X							
<i>Tragulichthys jaculiferus</i>				X								
<i>Trichiurus lepturus</i>				X								
<i>Trichonotus setiger</i>				X								
<i>Urogymnus asperrimus</i>				X								
<i>Valamugil cunnesius</i>				X								
<i>Yongeichthys nebulosus</i>				X								
Invertebrates												
<i>Amblyomma moreliae</i>				X								
<i>Arthrorhabdus paucispinus</i>				X								
<i>Austracantha minax</i>				X								
<i>Backobourkia collina</i>				X								
<i>Buddelundia sp. 1</i>				X								
<i>Cosmophasis baehrae</i>				X								
<i>Cyclosa camelodes</i>				X								
<i>Gea theridioides</i>				X								
<i>Heteropoda renibulbis</i>				X								
<i>Hogna crispipes</i>				X								
<i>Isometrus maculatus</i>				X								
<i>Latrodectus geometricus</i>				X								
<i>Latrodectus hasseltii</i>				X								
<i>Lychas annulatus</i>				X								
<i>Lychas jpp</i>				X								
<i>Lychas multipunctatus</i>				X								
<i>Mopsus mormon</i>				X								

Appendix B2: Fauna Database Search Results

Scientific Name	Common Name	Conservation Status		Source			Literature					
		State	Federal	NM	PMST	DBCA	A	B	C	D	E	F
<i>Neoscona theisii</i>				X								
<i>Oecobius marathaus</i>				X								
<i>Pilbarascutigera incola</i>				X								
<i>Plbarascutigera incola</i>				X								
<i>Rhagada bulgana</i>				X								
<i>Scolopendra laeta</i>				X								
<i>Scolopendra morsitans</i>				X								
<i>Thereuopoda lesueurii</i>				X								
<i>Urodacus granifrons</i>				X								
<i>Urodacus hoplurus</i>				X								
<i>Urodacus koolanensis</i>				X								
<i>Urodacus yaschenkoi</i>				X								
Mammals												
<i>Balaenoptera acutorostrata</i>	Dwarf Minke Whale			X								
<i>Balaenoptera borealis schlegelii</i>	Sei Whale	EN	VU, MI		X							
<i>Balaenoptera edeni</i>	Bryde's Whale	MI	MI		X							
<i>Balaenoptera musculus</i>	Blue Whale				X							
<i>Balaenoptera physalus quoyi</i>	Fin Whale	EN	VU, MI		X							
<i>Bettongia lesueur graii</i>	Burrowing Bettong	EX	EX	X		X						
<i>Bos primigenius taurus</i>	European Cattle			X				X				X
<i>Camelus dromedarius</i>	Dromedary Camel			X								
<i>Canis lupus</i>	Dingo / Dog			X			X	X	X			X
<i>Chaerephon jobensis colonicus</i>	Greater Northern Free-tailed Bat			X						X		
<i>Chalinolobus gouldii</i>	Gould's Wattled Bat			X				X				
<i>Chalinolobus nigrogriseus rogersi</i>	Hoary Wattled Bat			X								
<i>Dasyurus hallucatus</i>	Northern Quoll	EN	EN	X		X						
<i>Delphinus delphis</i>	Common Dolphin				X							
<i>Dugong dugon</i>	Dugong	MI	MI, MA	X	X	X						
<i>Equus ferus caballus</i>	Horse			X								
<i>Felis catus</i>	Cat			X				X	X			X
<i>Grampus griseus</i>	Risso's Dolphin				X							
<i>Hydromys chrysogaster</i>	Water Rat	P4		X		X						
<i>Isodon auratus auratus</i>	Golden Bandicoot	VU	VU	X		X						
<i>Lagorchestes conspicillatus</i>				X								
<i>Lagorchestes conspicillatus leichardti</i>	Spectacled Hare-wallaby	P4		X								
<i>Macroderma gigas</i>	Ghost Bat	VU	VU		X							
<i>Macrotis lagotis</i>	Bilby, Dalgyte	VU	VU	X	X	X						X
<i>Megaptera novaeangliae australis</i>	Humpback Whale	MI, CD	MI	X	X	X						
<i>Mesembriomys macrurus</i>	Goldenbacked Tree-rat	P4		X		X						
<i>Miniopterus schreibersii</i>				X								

Appendix B2: Fauna Database Search Results

Scientific Name	Common Name	Conservation Status		Source			Literature					
		State	Federal	NM	PMST	DBCA	A	B	C	D	E	F
<i>Mus musculus</i>	House Mouse			X				X				
<i>Notamacropus agilis nigrescens</i>	Agile Wallaby			X			X	X	X	X	X	X
<i>Nyctophilus arnhemensis</i>	Arnhem Long-eared Bat			X								
<i>Nyctophilus daedalus</i>	Pallid Long-eared Bat			X								
<i>Nyctophilus geoffroyi geoffroyi</i>	Lesser Long-eared Bat			X								
<i>Onychogalea unguifera unguifera</i>	Northern Nailtail Wallaby			X								
<i>Orcaella heinsohni</i>	Australian Snubfin Dolphin	MI, P4	MI	X	X	X						
<i>Orcinus orca</i>	Killer Whale	MI	MI		X							
<i>Osphranter robustus</i>	Common Wallaroo			X								
<i>Osphranter rufus</i>	Red Kangaroo, Marlu			X				X				
<i>Ozimops cobourgianus</i>	Northern Coastal Free-tailed Bat	P1		X		X						
<i>Ozimops lumsdenae</i>	Northern Free-tailed Bat			4								
<i>Phascogale tapoatafa kimberleyensis</i>	Kimberley Brush-tailed Phascogale	VU	VU	X		X						
<i>Physeter macrocephalus</i>	Sperm Whale	VU	MI	X								
<i>Pipistrellus westralis</i>	Northern Pipistrelle			X								
<i>Planigale ingrami</i>	Long-tailed Planigale			X								
<i>Planigale maculata</i>	Common Planigale			X								
<i>Pseudomys delicatulus</i>	Delicate Mouse			X				X	X			
<i>Pseudomys hermannsburgensis</i>	Sandy Inland Mouse			X								
<i>Pseudomys nanus nanus</i>	Western Chestnut Mouse			X								
<i>Pseudorca crassidens</i>	False Killer Whale			X	X							
<i>Pteropus alecto gouldii</i>	Black Flying-fox			X						X		
<i>Pteropus scapulatus</i>	Little Red Flying-fox			X								
<i>Rattus rattus</i>	Black Rat			X								
<i>Saccolaimus flaviventris</i>	Yellow-bellied Sheath-tailed Bat			X				X		X		
<i>Saccolaimus saccolaimus nudicluniatus</i>	Bare-rumped Sheath-tailed Bat	P3	VU	X	X							
<i>Scotorepens greyii</i>	Little Broad-nosed Bat			X				X				
<i>Scotorepens sanborni</i>	Northern Broad-nosed Bat			X								
<i>Sminthopsis youngsoni</i>	Lesser Hairy-footed Dunnart			X								
<i>Sousa sahalensis</i>	Indo-pacific Humpback Dolphin	MI, P4	MI	X	X							
<i>Stenella attenuata</i>	Spotted Dolphin	MI	MI		X							
<i>Stenella longirostris roseiventris</i>	Spinner Dolphin	MI, P4	MI	X		X						
<i>Tachyglossus aculeatus acanthion</i>	Short-beaked Echidna			X					X			
<i>Trichosurus vulpecula arnhemensis</i>	Northern Brushtail Possum	VU	VU	X	X	X		X		X		
<i>Tursiops aduncus</i>	Indo-pacific Bottlenose Dolphin	MI	MI	X	X							
<i>Tursiops truncatus truncatus</i>	Bottlenose Dolphin			X	X							
<i>Wyulda squamicaudata</i>	Scaly-tailed Possum	P4		X		X						
<i>Xeromys myoides</i>	Water Mouse		VU		X							
Reptiles												

Appendix B2: Fauna Database Search Results

Scientific Name	Common Name	Conservation Status		Source			Literature					
		State	Federal	NM	PMST	DBCA	A	B	C	D	E	F
<i>Acanthophis pyrrhus</i>	Desert Death Adder			X								
<i>Aipysurus apraefrontalis</i>		CR	CR, MA	X	X	X						
<i>Aipysurus duboisii</i>			MA		X							
<i>Aipysurus eydouxii</i>			MA		X							
<i>Aipysurus foliosquama</i>		CR	CR, MA		X							
<i>Aipysurus laevis</i>			MA	X	X							
<i>Aipysurus mosaicus</i>	Mosaic Sea Snake			X								
<i>Aipysurus tenuis</i>			MA	X	X							
<i>Amalosia rhombifer</i>				X								
<i>Anilius braminus</i>				X								
<i>Anilius diversus</i>				X				X				
<i>Anilius grypus</i>	Long-beaked Blind Snake			X								
<i>Antaresia childreni</i>	Children's Python			X					X			
<i>Aspidites melanocephalus</i>	Black-headed Python			X				X				
<i>Brachyuophis roperi</i>				X				X	X			
<i>Caretta caretta</i>	Loggerhead Turtle	EN	EN, MI, MA		X							
<i>Carlia amax</i>				X				X				
<i>Carlia munda</i>	Shaded-litter Rainbow-skink			X				X	X			
<i>Carlia rufilatus</i>				X								X
<i>Carlia triacantha</i>	Desert Rainbow Skink			X				X				
<i>Chelodina burrungandjii</i>	Northern Long-necked Turtle			X								
<i>Chelonia mydas</i>	Green Turtle	VU	VU, MI, MA	X	X	X						
<i>Chlamydosaurus kingii</i>	Frill-necked Lizard			X					X			
<i>Crenadactylus ocellatus</i>	South-western Clawless Gecko			X					X			
<i>Crocodylus johnstoni</i>	Freshwater Crocodile	OS	MA		X							
<i>Crocodylus porosus</i>	Saltwater Crocodile	MI	MI, MA		X							
<i>Cryptoblepharus metallicus</i>				X								
<i>Cryptoblepharus ruber</i>				X						X		
<i>Cryptoblepharus tythos</i>				X				X	X			
<i>Ctenophorus caudicinctus</i>	Western Ring-tailed Dragon			X								
<i>Ctenophorus isolepis</i>	Central Military Dragon			X								
<i>Ctenophorus isolepis isolepis</i>	Central Military Dragon			X								
<i>Ctenophorus nuchalis</i>	Central Netted Dragon			X								
<i>Ctenotus angusticeps</i>		P3		X		X						
<i>Ctenotus colletti</i>				X								
<i>Ctenotus inornatus</i>				X				X		X		
<i>Ctenotus pantherinus</i>	Leopard Ctenotus			X					X			
<i>Ctenotus robustus</i>	Robust Striped Ctenotus			X								
<i>Ctenotus saxatilis</i>	Rock Ctenotus			X				X	X			
<i>Ctenotus serventyi</i>	North-western Sandy-loam Ctenotus			X				X				

Appendix B2: Fauna Database Search Results

Scientific Name	Common Name	Conservation Status		Source			Literature					
		State	Federal	NM	PMST	DBCA	A	B	C	D	E	F
<i>Delma borea</i>				X								
<i>Delma desmosa</i>				X								
<i>Delma tincta</i>	Excitable Delma			X								
<i>Demansia angusticeps</i>				X								
<i>Demansia olivacea</i>	Olive Whipsnake			X								
<i>Dermochelys coriacea</i>	Leatherback Turtle	VU	EN, MI, MA		X							
<i>Diplodactylus conspicillatus</i>	Variable Fat-tailed Gecko			X				X				
<i>Diporiphora pindan</i>	Pindan Dragon			X				X	X	X		X
<i>Diporiphora winneckeii</i>				X				X				
<i>Emydocephalus annulatus</i>			MA		X							
<i>Ephalophis greyae</i>			MA	X	X							
<i>Eremiascincus isolepis</i>				X				X	X	X		
<i>Eretmochelys imbricata</i>	Hawksbill Turtle	VU	VU, MI, MA	X	X	X						
<i>Fordonia leucobalia</i>	White-bellied Mangrove Snake			X								
<i>Furina ornata</i>	Moon Snake			X								
<i>Gehyra australis</i>				X						X		
<i>Gehyra kimberleyi</i>	Robust Termitaria Gecko			X								X
<i>Gehyra pilbara</i>	Pilbara Dtella			X				X	X			
<i>Gehyra purpurascens</i>				X								
<i>Gehyra variegata</i>	Variegated Gehyra			X								
<i>Gowidon longirostris</i>	Long-nosed Dragon								X			
<i>Hemidactylus frenatus</i>	Asian House Gecko			X						X		
<i>Heteronotia binoei</i>	Bynoe's Gecko			X								X
<i>Hydrelaps darwiniensis</i>			MA	X	X							
<i>Hydrophis curtus</i>					X							
<i>Hydrophis elegans</i>	Elegant Seasnake		MA	X	X							
<i>Hydrophis kingii</i>	Spectacled Seasnake		MA	X	X							
<i>Hydrophis macdowelli</i>			MA		X							
<i>Hydrophis major</i>			MA	X	X							
<i>Hydrophis ocellatus</i>				X								
<i>Hydrophis ornatus</i>					X							
<i>Hydrophis peronii</i>			MA	X	X							
<i>Hydrophis platurus platurus</i>	Yellow-bellied Sea-snake		MA		X							
<i>Hydrophis stokesii</i>			MA	X	X							
<i>Lepidochelys olivacea</i>	Olive Ridley Turtle	EN	EN, MI, MA	X		X						
<i>Lerista apoda</i>				X				X				
<i>Lerista bipes</i>	North-western Sandslider			X				X				
<i>Lerista griffini</i>				X				X	X			X
<i>Lerista labialis</i>				X				X				
<i>Lerista separanda</i>		P2		X		X						
<i>Lialis burtonis</i>	Burton's Snake-lizard			X				X	X			

Appendix B2: Fauna Database Search Results

Scientific Name	Common Name	Conservation Status		Source			Literature					
		State	Federal	NM	PMST	DBCA	A	B	C	D	E	F
<i>Liasis fuscus</i>	Water Python			X								
<i>Liopholis kintorei</i>	Great Desert Skink	VU	VU	X	X	X						
<i>Lophognathus gilberti</i>	Top End Ta-ta Dragon			X			X	X	X	X	X	
<i>Lucasium stenodactylus</i>	Sand-plain Gecko			X				X				
<i>Menetia greyii</i>	Common Dwarf Skink			X				X				
<i>Menetia maini</i>				X				X	X			
<i>Menetia surda</i>	Western Dwarf Skink								X			
<i>Morethia ruficauda</i>	Lined Fire-tailed Skink								X			
<i>Morethia ruficauda ruficauda</i>	Lined Fire-tailed Skink			X				X				
<i>Morethia storri</i>				X				X				
<i>Natator depressus</i>	Flatback Turtle	VU	VU, MI, MA	X	X	X						
<i>Notoscincus ornatus</i>	Ornate Soil-crevice Skink			X								
<i>Pogona minor</i>	Dwarf Bearded Dragon			X								
<i>Pogona minor minor</i>	Western Bearded Dragon			X				X	X			
<i>Pogona minor mitchelli</i>				X								
<i>Proablepharus tenuis</i>				X					X			
<i>Pseudechis australis</i>	Mulga Snake			X								
<i>Pseudonaja mengdeni</i>	Western Brown Snake			X								
<i>Pseudonaja nuchalis</i>	Gwardar			X								
<i>Pygopus nigriceps</i>	Western Hooded Scaly-foot			X				X				
<i>Rhynchoedura ornata</i>	Western Beaked Gecko			X								
<i>Simoselaps anomalus</i>	Desert Banded Snake			X								
<i>Simoselaps minimus</i>		P2		X		X						
<i>Strophurus ciliaris aberrans</i>				X				X	X			
<i>Strophurus ciliaris ciliaris</i>				X								
<i>Suta punctata</i>	Spotted Snake			X								
<i>Tiliqua multifasciata</i>	Central Blue-tongue			X				X				
<i>Tiliqua scincoides</i>	Eastern Blue-tongue			X						X		
<i>Tiliqua scincoides intermedia</i>				X				X	X			
<i>Varanus acanthurus</i>	Spiny-tailed Goanna			X								
<i>Varanus brevipcauda</i>	Short-tailed Pygmy Goanna			X								
<i>Varanus eremius</i>	Pygmy Desert Goanna			X								
<i>Varanus gouldii</i>	Bungarra Or Sand Goanna			X				X	X	X		
<i>Varanus panoptes</i>				X								
<i>Varanus panoptes panoptes</i>	Yellow-Spotted Monitor			X								
<i>Varanus sparnus</i>	Dampierland Goanna	P1		X								
<i>Varanus tristis</i>	Racehorse Goanna			X					X	X		

Appendix C

Flora Likelihood Assessment

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

Distance to Nearest Record from the Survey Area is based on a distance analysis undertaken against 2022 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. 1: Department of the Environment (2021). SPRAT EPBC Threatened Flora in Species Profile and Threats Database, Department of the Environment, Canberra. Available from: <http://www.environment.gov.au/sprat>. 2: Department of Biodiversity, Conservation and Attractions (2023). FloraBase - TheWestern Australian Flora. <https://florabase.dpaw.wa.gov.au/>

Species	Conservation Status		Source			Distance to Nearest Record (km)	Flowering Period	Prefered Habitat	Pre-Survey Likelihood of Occurrence	Habitat occurs within the Survey Area	Post-Survey Likelihood of Occurrence
	DBCA	EPBC	NatureMap	PMST	DBCA						
Priority 1											
<i>Aphyllodium parvifolium</i>	P1		✓		✓	30.24	April or July	Sand. Sandhills. ¹	Low	Yes	Low
<i>Corymbia paractia</i>	P1		✓		✓	In Survey Area	Apr - May or Oct - Dec	Skeletal soils. In transition zone between coastal beach dunes and pindan soils. ¹	Recorded	Yes	Recorded
<i>Hibiscus panduriformis</i>	P1		✓			75	May - Jul	Black cracking clay. ¹	Low	No	Low
<i>Jacquemontia</i> sp. Broome (A.A. Mitchell 3028)	P1		✓		✓	3.57	April	Pindan plain. Light reddish brown sandy clay loam. ¹	High	No	Low
<i>Thespidium basiflorum</i>	P1		✓		✓	8.88	May - Aug	Sandy soils. Creeks. ¹	High	Yes	Low
Priority 2											
<i>Gomphrena pusilla</i>	P2		✓		✓	3.19	Mar - Apr	Fine beach sand. Behind foredune, on limestone. ¹	High	No	Medium
Priority 3											
<i>Acacia monticola</i> x <i>tumida</i> var. <i>kulparn</i>	P3		✓		✓	3.16 km	Mar - Jun or Aug	Grows with <i>Acacia tumida</i> . ¹	High	Yes	Low
<i>Aphyllodium glossocarpum</i>	P3		✓		✓	5.33 km	Apr - Oct	Sand. Pindan. ¹	Medium	No	Low
<i>Bonamia oblongifolia</i>	P3		✓		✓	43.15	Feb	Sand or gravelly soils. ¹	Low	Yes	Low
<i>Glycine pindanica</i>	P3		✓		✓	1.97	Feb - Mar or June	Pindan soils. ¹	High	No	Low
<i>Goodenia byrnesii</i>	P3		✓		✓	3.45	Jan - Feb	Sand. Edge of creek. ¹	High	No	Low
<i>Lophostemon grandiflorus</i> subsp. <i>grandiflorus</i>	P3		✓		✓	41.77	Jan - Dec	Damp habitats (swamps, seepages). ¹	Low	Yes	Low
<i>Paranotis halfordii</i>	P3				✓	30	Feb - June	Rocky soil, sandstone, cliff tops. Also near crees, sandy clay, salt marsh. ¹	Low	No	Low
<i>Polymeria</i> sp. Broome (K.F. Kenneally 9759)	P3		✓		✓	3.72	May, Nov	Pindan plain. Light reddish-brown sandy clay loam. ¹	High	No	Low
<i>Stylidium pindanicum</i>	P3		✓		✓	18.85	May - Jun, Aug - Sept	Sandy clay, clay flat, seasonal swamps. ¹	Low	No	Low

¹ Western Australian Herbarium (2023)

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

<i>Tephrosia andrewii</i>	P3		✓		✓	47.7	April or October	Sand, pindan country. ¹	Low	No	Low
<i>Tephrosia valleculata</i>	P3				✓	41.63	Apr - Sep	Sandy, often shallow soil around sandstone. Rock outcrops. ¹	Low	No	Low
<i>Terminalia kumpaja</i>	P3		✓		✓	2.33	Sep - Oct, Dec	Red aeolian sand dune. ¹	High	No	Low
<i>Tetragonia coronata</i>	P3		✓			10.3	Jul	Red clay loam. Calcrete outcrops. ¹	Medium	No	Low
Priority 4											
<i>Pittosporum moluccanum</i>	P4		✓		✓	44.48	Feb - Aug	White sand, sand dunes. ¹	Low	Yes	Low

¹ Western Australian Herbarium (2023)

Appendix D

Flora Inventory

Appendix D: Flora Inventory

Family	Taxa	Status
Apocynaceae	<i>Carissa lanceolata</i>	
	<i>Vincetoxicum cinerascens</i>	
Boraginaceae	<i>Ehretia saligna</i> var. <i>saligna</i>	
	<i>Euploca leptalea</i>	
	<i>Trichodesma zeylanicum</i>	
Combretaceae	<i>Terminalia ferdinandiana</i>	
	<i>Terminalia petiolaris</i>	
Convolvulaceae	<i>Convolvulaceae</i> sp.	
	<i>Ipomoea pes-caprae</i> subsp. <i>brasiliensis</i>	
Euphorbiaceae	<i>Adriana tomentosa</i> var. <i>tomentosa</i>	
Fabaceae	<i>Abrus precatorius</i> subsp. <i>precatorius</i>	
	<i>Acacia bivenosa</i>	
	<i>Acacia colei</i> var. <i>colei</i>	
	<i>Acacia eriopoda</i>	
	<i>Acacia eriopoda</i> x <i>tumida</i> var. <i>tumida</i>	
	<i>Acacia monticola</i>	
	<i>Acacia plectocarpa</i> subsp. <i>plectocarpa</i>	
	<i>Aphyllodium glossocarpum</i>	
	<i>Caesalpinia major</i>	
	<i>Canavalia rosea</i>	
	* <i>Clitoria ternatea</i>	Weed
	<i>Crotalaria medicaginea</i>	
	<i>Crotalaria medicaginea</i> var. <i>neglecta</i>	
	<i>Cullen martinii</i>	
	<i>Glycine tomentella</i>	
	* <i>Leucaena leucocephala</i>	Weed
	<i>Lysiphyllum cunninghamii</i>	
	<i>Senna notabilis</i>	
	* <i>Stylosanthes hamata</i>	Weed
	<i>Tephrosia ?rosea</i> var. <i>rosea</i>	
	<i>Tephrosia remotiflora</i>	
Gyrostemonaceae	<i>Gyrostemon tepperi</i>	
Hernandiaceae	<i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i>	
Lamiaceae	* <i>Mesosphaerum suaveolens</i>	Weed
Lauraceae	<i>Cassytha filiformis</i>	
Lecythidaceae	<i>Planchonia careya</i>	
Malvaceae	<i>Abutilon australiense</i>	
	<i>Abutilon otocarpum</i>	
	<i>Corchorus ?sidoides</i> subsp. <i>sidoides</i>	
	<i>Grewia brevifolia</i>	
	<i>Grewia pindanica</i>	
	<i>Waltheria indica</i>	
Meliaceae	* <i>Azadirachta indica</i>	Declared Pest
Moraceae	<i>Ficus aculeata</i> var. <i>indecora</i>	

Appendix D: Flora Inventory

Family	Taxa	Status
Myrtaceae	<i>Corymbia ?paractia</i>	
	<i>Corymbia greeniana</i>	
	<i>Corymbia paractia</i>	
	<i>Corymbia sp.</i>	
	<i>Eucalyptus camaldulensis subsp. ?obtusa</i>	
Myrtaceae	<i>Melaleuca ?nervosa</i>	
Oleaceae	<i>Jasminum didymum subsp. didymum</i>	
Passifloraceae	<i>Passiflora foetida</i>	
	<i>*Passiflora foetida var. hispida</i>	Weed
Phyllanthaceae	<i>Breynia cernua</i>	
	<i>Flueggea virosa subsp. melanthesioides</i>	
Poaceae	<i>*Cenchrus biflorus</i>	Weed
	<i>*Cenchrus ciliaris</i>	Weed
	<i>Poaceae sp.</i>	
	<i>Spinifex longifolius</i>	
	<i>Triodia microstachya</i>	
Proteaceae	<i>Grevillea pyramidalis</i>	
Santalaceae	<i>Exocarpos latifolius</i>	
	<i>Santalum lanceolatum</i>	
Sapindaceae	<i>Atalaya hemiglauca</i>	
	<i>Dodonaea hispidula var. ?arida</i>	
Sapotaceae	<i>Sersalisia sericea</i>	
Zygophyllaceae	<i>Tribulus sp.</i>	

Appendix E

Flora Site Sheets

FLORA SITE SHEET

Project Name Cable Beach Biological Surveys
Site: CB01
Location MGA 51 § 416387 mE 8017272

Described by: BV
Date: 17-01-2023
Type: QUADRAT

Landform: Dune swale
Slope: East
Rock Type:
Soil Type: Sand
Soil Colour: Beige



Vegetation: *Ficus aculeata* var. *indecora* low isolated trees over *Terminalia petiolaris* and *Grewia brevifolia* low open woodland over *Sersalisia sericea* open isolated tall shrubs, including *Jasminum didymum* subsp. *Didymum*, *Caesalpinia major* vines.

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

SPECIES LIST

Taxon	Height (cm)	Cover (%)	Notes
<i>Abrus precatorius</i> subsp. <i>precatorius</i>	100	1	
<i>Atalaya hemiglauc</i>	250	1	
* <i>Azadirachta indica</i>	400	1	
<i>Breynia cernua</i>	100	2	MVT indicator species
<i>Caesalpinia major</i>	50	10	MVT indicator species
<i>Canavalia rosea</i>	200	1	
<i>Carissa lanceolata</i>	20	0.1	
<i>Crotalaria medicaginea</i> var. <i>neglecta</i>	30	15	
<i>Exocarpos latifolius</i>	200	0.1	MVT indicator species
<i>Ficus aculeata</i> var. <i>indecora</i>	500	1	
<i>Flueggea virosa</i> subsp. <i>melanthesioides</i>	150	10	
<i>Grewia brevifolia</i>	350	30	MVT indicator species
<i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i>	250	30	
<i>Ipomoea pes-caprae</i> subsp. <i>Brasiliensis</i>	150	1	
<i>Jasminum didymum</i> subsp. <i>didymum</i>	200	10	MVT indicator species
* <i>Leucaena leucocephala</i>	550	10	
<i>Lysiphyllum cunninghamii</i>	100	1	MVT indicator species
* <i>Mesosphaerum suaveolens</i>	30	1	
* <i>Passiflora foetida</i>	200	0.1	
<i>Poaceae</i> sp.	40	0.1	
<i>Sersalisia sericea</i>	300	10	MVT indicator species
<i>Terminalia ferdinandiana</i>	350	5	MVT indicator species
<i>Terminalia petiolaris</i>	400	10	MVT indicator species
<i>Trichodesma zeylanicum</i>	40	5	
<i>Vincetoxicum cinerascens</i>	100	1	MVT indicator species

FLORA SITE SHEET

Project Name Cable Beach Biological Surveys
Site: CB02
Location MGA 51 416412 mE 8017192

Described by: BV
Date: 18-01-2023
Type: QUADRAT

Landform: Dune swale
Slope: Flat
Rock Type:
Soil Type: Sand
Soil Colour: Beige



Vegetation: *Terminalia petiolaris* low open woodland including *Terminalia ferdinandiana* low isolated trees over *Flueggea virosa* subsp. *Melanthesioides* and *Gyrocarpus americanus* subsp. *Pachyphyllus*, tall open shrubs over *Corymbia* ? *paractia*, *Exocarpos latifolius*, and *Sersalisia sericea* isolated trees over *Triodia microstachya*, low hummock grassland **Cenchrus ciliaris* low tussock grassland mosaic.

Condition: Good **Disturbance Type:** Litter, historical clearing, tracks
Fire Age: #N/A

SPECIES LIST

Taxon	Height (cm)	Cover (%)	Notes
<i>Abrus precatorius</i> subsp. <i>precatorius</i>	50	1	
<i>Abutilon otocarpum</i>	250	0.1	
<i>Acacia bivenosa</i>	100	2	
<i>Acacia colei</i> var. <i>colei</i>	250	2	
<i>Adriana tomentosa</i> var. <i>tomentosa</i>	100	0.1	
<i>Atalaya hemiglauc</i>	120	1	
<i>Breynia cernua</i>	50	1	MVT indicator species
<i>Carissa lanceolata</i>	50	1	
* <i>Cenchrus ciliaris</i>	40	20	
* <i>Clitoria ternatea</i>	80	0.1	
<i>Convolvulaceae</i> sp.	50	1	
<i>Corchorus</i> ? <i>sidoides</i> subsp. <i>sidoides</i>	30	0.1	
<i>Corymbia</i> ? <i>paractia</i>	300	1	
<i>Crotalaria medicaginea</i> var. <i>neglecta</i>	50	1	
<i>Crotalaria medicaginea</i>	50	1	
<i>Cullen martinii</i>	40	0.1	
<i>Exocarpos latifolius</i>	250	1	MVT indicator species
<i>Flueggea virosa</i> subsp. <i>melanthesioides</i>	300	10	
<i>Glycine tomentella</i>	40	1	
<i>Grewia brevifolia</i>	100	1	MVT indicator species
<i>Grewia pindanica</i>	75	2	
<i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i>	300	10	
<i>Ipomoea pes-caprae</i> subsp. <i>brasiliensis</i>	150	0.1	
<i>Lysiphyllum cunninghamii</i>	350	1	MVT indicator species
* <i>Mesosphaerum suaveolens</i>	40	1	
* <i>Passiflora foetida</i> var. <i>hispida</i>	200	0.1	
<i>Santalum lanceolatum</i>	150	0.1	MVT indicator species
<i>Sersalisia sericea</i>	250	1	MVT indicator species
* <i>Stylosanthes hamata</i>	10	1	
<i>Tephrosia</i> ? <i>rosea</i> var. <i>rosea</i>	30	0.1	
<i>Terminalia ferdinandiana</i>	400	5	MVT indicator species
<i>Terminalia petiolaris</i>	400	20	MVT indicator species
<i>Triodia microstachya</i>	40	30	
<i>Waltheria indica</i>	30	1	

FLORA SITE SHEET

Project Name Cable Beach Biological Surveys
Site: CB03
Location MGA 51 416493 mE 8017110

Described by: BV
Date: 18-01-2023
Type: QUADRAT

Landform: Dune swale
Slope: Flat
Rock Type:
Soil Type: Loam, Sand
Soil Colour: Orange, Red



Vegetation: *Azadirachta indica, Terminalia ferdinandiana, Melaleuca ? Nervosa mid isolated trees over Terminalia ferdinandiana low woodland over Lysiphyllum cunninghamii tall shrubs over Adriana tomentosa var. tomentosa low open shrubland over Triodia microstachya hummock grass over *Stylosanthes hamata open forland.

Condition: Poor **Disturbance Type:** Weeds, litter, historical clearing, infrastructure
Fire Age: > 15 years

SPECIES LIST

Taxon	Height (cm)	Cover (%)	Notes
Abutilon australiense	30	0.1	
Acacia colei var. colei	200	1	
Acacia monticola	150	0.1	
Acacia plectocarpa subsp. plectocarpa	300	1	
Adriana tomentosa var. tomentosa	100	0.1	
*Azadirachta indica	450	1	
Breynia cernua	150	1	MVT indicator species
Carissa lanceolata	100	0.1	
Cassipouera filiformis	200	0.1	
Cenchrus biflorus	50	2	
Corymbia ?paractia	350	2	
Crotalaria medicaginea var. neglecta	50	0.1	
Cullen martinii	50	0.1	
Dodonaea hispidula var. ?arida	50	0.1	
Ehretia saligna var. saligna	300	1	
Eucalyptus ?camaldulensis subsp. obtusa	450	1	
Ficus aculeata var. indecora	300	1	
Grevillea pyramidalis	200	10	
Ipomoea pes-caprae subsp. brasiliensis	200	1	
Lysiphyllum cunninghamii	300	5	MVT indicator species
Melaleuca ?nervosa	450	1	
*Mesosphaerum suaveolens	30	0.1	
Planchonia careya	300	1	
Santalum lanceolatum	200	1	MVT indicator species
Senna notabilis	30	0.1	
*Stylosanthes hamata	15	1	
Tephrosia remotiflora	50	0.1	
Terminalia ferdinandiana	350	15	MVT indicator species
Tribulus sp.	200	0.1	
Trichodesma zeylanicum	100	0.1	
Triodia microstachya	50	70	

FLORA SITE SHEET

Project Name Cable Beach Biological Surveys
Site: CBR04
Location MGA 51 416565 mE 8016329

Described by: BV
Date: 18-01-2023
Type: RELEVÉ

Landform: Swale
Slope: Flat
Rock Type:
Soil Type: Loam
Soil Colour: Brown, Orange



Vegetation: *Corrimbia praticata*, *Corymbia greeniana* isolated clumps of trees over *Terminalia ferdinandiana*, *Lysiphyllum cunninghamii* over *Acacia colei* var. *colei* (*Acacia plectocarpa*) open shrubland over *Adriana tomentosa* var. *tomentosa* low open shrubland over *Triodia microstachya* open hummock grass.

Condition: Good **Disturbance Typ** None
Fire Age: >10 years

SPECIES LIST

Taxon	Height (cm)	Cover (%)	Notes
<i>Adriana tomentosa</i> var. <i>tomentosa</i>	150	10	
<i>Ficus aculeata</i> var. <i>indecora</i>	250	1	
<i>Grevillea pyramidalis</i>	200	2	
<i>Triodia microstachya</i>	30	50	

FLORA SITE SHEET

Project Name Cable Beach Biological Surveys
Site: CBR05
Location MGA 51 416457 mE 8017011 mN

Described by: BV
Date: 20-01-2023
Type: RELEVE

Landform: Dune swale
Slope: Flat
Rock Type:
Soil Type: Loam, Sand
Soil Colour: Light Brown



Vegetation: *Terminalia ferdinandiana*, *Terminalia petiolaris*, and *Sersalisia sericea* low woodland over *Lysiphyllum cunninghamii* isolated shrubs over *Grewia breviflora* *Breynia cernua* isolated shrubs.

Condition: Degraded
Fire Age: >10 years
Disturbance Type: Litter, human access

SPECIES LIST

Taxon	Height (cm)	Cover (%)	Notes
<i>Breynia cernua</i>	100	1	MVT indicator species
<i>Grewia brevifolia</i>	100	1	MVT indicator species
<i>Lysiphyllum cunninghamii</i>	100	1	MVT indicator species
<i>Sersalisia sericea</i>	250	1	MVT indicator species
<i>Terminalia ferdinandiana</i>	400	10	MVT indicator species
<i>Terminalia petiolaris</i>	400	5	MVT indicator species

Appendix F

Fauna Habitat Assessments

5662-HAB-01-JE

Project:	Cable Beach Biological Survey				
Date	17-01-2023		Sample Type	Terrestrial vertebrate fauna	
Zone	50	Easting	1052437.369	Northing	8009702
Landform and Soil			Rock		
Landform	Dune swale		Rock type/s	None	
Aspect	East		Surface stone cover	0 - 5%	
Soil type	Sand		Surface stone size classes present	Pebbles (<0.6 cm)	
Soil colour	White				
Condition			Habitat Features		
Quality	Good		Water Source	Present	
Fire History	Little or no fire evidence (>5 years)		Microhabitats	Hollows - logs, Hollows - trees, Leaf litter, Woody debris	
Disturbance	Clearing, Litter, Weeds				
Introduced fauna	None observed		Ground Cover	11-25%	
Vegetation					
Upper stratum	Low (<10 m)	Woodland (20-50%)			
Mid stratum	Mid (1-2 m)	Open shrubland and/or heathland (20-50%)			
Ground stratum	Mid (0.5-1 m)				



Fulcrum photo ID a1f89b97-35a7-4056-9042-38cd0c05a9d9, 8c9814e9-d2c9-449e-a8e8-05bdd5f49873

5662-HAB-02-JE

Project:	Cable Beach Biological Survey				
Date	17-01-2023		Sample Type	Terrestrial vertebrate fauna	
Zone	50	Easting	1052512.104	Northing	8009733
Landform and Soil			Rock		
Landform	Dune swale		Rock type/s	Calcrete	
Aspect	East		Surface stone cover	5 - 25%	
Soil type	Loam		Surface stone size classes present	Small Stones (0.6 - 2 cm)	
Soil colour	Red				
Condition			Habitat Features		
Quality	Disturbed		Water Source	Present	
Fire History	Unknown		Microhabitats	Leaf litter	
Disturbance	Clearing, Erosion, Litter, Weeds				
Introduced fauna	None observed		Ground Cover	26-50%	
Vegetation					
Upper stratum	Mid (10-30 m)	Open woodland (0.25-20%)			
Mid stratum	Mid (1-2 m)	Isolated shrubs and/or heath shrubs (<0.25%)			
Ground stratum	Absent				



Fulcrum photo ID 1917a88d-b051-4529-a464-62fb8484e5b2, 86fb19bb-926d-42e7-b24c-254b12f6fd5f, 194a2965-9657-4752-beb0-463fa3a17d79

5662-HAB-03-JE

Project:		Cable Beach Biological Survey			
Date		17-01-2023		Sample Type	Terrestrial vertebrate fauna
Zone	50	Easting	1052450.079	Northing	8009754
Landform and Soil			Rock		
Landform	Dune swale		Rock type/s	None	
Aspect	East		Surface stone cover	0 - 5%	
Soil type	Loam		Surface stone size classes present	Pebbles (<0.6 cm)	
Soil colour	Brown				
Condition			Habitat Features		
Quality	Good		Water Source	Present	
Fire History	Unknown		Microhabitats	Hollows - trees, Leaf litter, Peeling bark, Woody debris	
Disturbance	Litter				
Introduced fauna	None observed		Ground Cover	76-100%	
Vegetation					
Upper stratum	Mid (10-30 m)	Closed forest (>80%)			
Mid stratum	Mid (1-2 m)				
Ground stratum	Mid (0.5-1 m)				



Fulcrum photo ID 1ccd5ea0-8854-4aaa-873d-8c187b52fb83, 1b30f958-5578-4568-88f8-7f69ed1e345f, a3f8463b-c5e7-4b84-a1db-c30d1697f64f

5662-HAB-04-JE

Project:		Cable Beach Biological Survey				
Date		17-01-2023		Sample Type	Terrestrial vertebrate fauna	
Zone	50	Easting	1052511.283		Northing	8009309
Landform and Soil			Rock			
Landform	Drainage line		Rock type/s	None		
Aspect	South		Surface stone cover	0 - 5%		
Soil type	Sandy loam		Surface stone size classes present	Pebbles (<0.6 cm)		
Soil colour	Red					
Condition			Habitat Features			
Quality	Good		Water Source	Present		
Fire History	Unknown		Microhabitats	Hummocks, Leaf litter, Woody debris		
Disturbance	Erosion, Litter, Weeds					
Introduced fauna	None observed		Ground Cover	11-25%		
Vegetation						
Upper stratum	Low (<10 m)	Open woodland (0.25-20%)				
Mid stratum	Low (0.5-1 m)	Sparse shrubland and/or heathland (0.25-20%)				
Ground stratum	Low (>0.5 m)	Open hummock grassland (20-50%)				



Fulcrum photo ID 1d9355e2-f604-442b-a46b-22f2a71e07c6, ef3ad5df-a1df-4bb5-9281-180e1ba87940

5662-HAB-05-JE

Project:		Cable Beach Biological Survey				
Date		18-01-2023		Sample Type	Terrestrial vertebrate fauna	
Zone	50	Easting	1052530.445		Northing	8009231
Landform and Soil				Rock		
Landform	Drainage line		Rock type/s	Quartz		
Aspect	South		Surface stone cover	5 - 25%		
Soil type	Sandy loam		Surface stone size classes	Pebbles (<0.6 cm)		
Soil colour	Red		present			
Condition			Habitat Features			
Quality	Disturbed		Water Source	Present		
Fire History	Unknown		Microhabitats	Hummocks, Leaf litter, Woody debris		
Disturbance	Clearing, Infrastructure, Litter, Weeds					
Introduced fauna	None observed		Ground Cover	26-50%		
Vegetation						
Upper stratum	Low (<10 m)	Open woodland (0.25-20%)				
Mid stratum	Mid (1-2 m)	Sparse shrubland and/or heathland (0.25-20%)				
Ground stratum	Low (>0.5 m)	Sparse hummock grassland (0.25-20%)				



Fulcrum photo ID c2aaf7f5-06b1-4842-879f-f26068e2c8d0, cfe57342-fc50-45a1-a800-1e13c3e14f2e

5662-HAB-06-JE

Project:		Cable Beach Biological Survey				
Date		18-01-2023		Sample Type	Terrestrial vertebrate fauna	
Zone	50	Easting	1052504.453		Northing	8009395
Landform and Soil			Rock			
Landform	Drainage line		Rock type/s	None		
Aspect	South		Surface stone cover	0 - 5%		
Soil type	Sandy loam		Surface stone size classes present	Pebbles (<0.6 cm)		
Soil colour	Red					
Condition			Habitat Features			
Quality	Good		Water Source	Absent		
Fire History	Unknown		Microhabitats	Hummocks, Leaf litter, Woody debris		
Disturbance	Erosion, Litter					
Introduced fauna	None observed		Ground Cover	11-25%		
Vegetation						
Upper stratum	Low (<10 m)	Open woodland (0.25-20%)				
Mid stratum	Mid (1-2 m)	Sparse shrubland and/or heathland (0.25-20%)				
Ground stratum	Low (>0.5 m)	Sparse hummock grassland (0.25-20%)				



Fulcrum photo ID b09152f4-0b5c-4600-8145-e5244e1c66cd, b5e44ac8-70b4-4087-a392-5c7c3ca656a2

5662-HAB-07-JE

Project:	Cable Beach Biological Survey		
Date	18-01-2023	Sample Type	Terrestrial vertebrate fauna
Zone	50	Easting	1052481.724
		Northing	8009492
Landform and Soil		Rock	
Landform	Drainage line	Rock type/s	Calcrete
Aspect	East	Surface stone cover	25 - 50%
Soil type	Sandy clay	Surface stone size classes present	Small Rocks (6 - 20 cm)
Soil colour	Red		
Condition		Habitat Features	
Quality	Good	Water Source	Absent
Fire History	Unknown	Microhabitats	Hummocks, Leaf litter, Rock crevices, Woody debris
Disturbance	Litter		
Introduced fauna	None observed	Ground Cover	
Vegetation			
Upper stratum	Mid (10-30 m)	Isolated trees (<0.25%)	
Mid stratum	Mid (1-2 m)	Open shrubland and/or heathland (20-50%)	
Ground stratum	Low (>0.5 m)	Open hummock grassland (20-50%)	



Fulcrum photo ID 8ccd52bc-c1e7-4245-be0c-d7047367be6b, 77f511b9-100f-4971-b939-75ff90df9671

5662-HAB-08-JE

Project:	Cable Beach Biological Survey		
Date	18-01-2023	Sample Type	Terrestrial vertebrate fauna
Zone	50	Easting	1052544.535
		Northing	8009524
Landform and Soil		Rock	
Landform	Drainage line	Rock type/s	None
Aspect	East	Surface stone cover	NA
Soil type	Sandy clay	Surface stone size classes present	NA
Soil colour	Red		
Condition		Habitat Features	
Quality	Good	Water Source	Absent
Fire History	Unknown	Microhabitats	Hummocks, Leaf litter, Logs > 10 cm, Woody debris
Disturbance	None observed		
Introduced fauna	None observed	Ground Cover	51-75%
Vegetation			
Upper stratum	Low (<10 m)	Open woodland (0.25-20%)	
Mid stratum	Mid (1-2 m)	Open shrubland and/or heathland (20-50%)	
Ground stratum	Low (>0.5 m)	Hummock grassland (50-80%)	



Fulcrum photo ID 5136a804-c62e-4623-a885-7d2d508c3d7e, b79c1673-7a29-46f5-9966-796d889c0e1c

5662-HAB-09-JE

Project:		Cable Beach Biological Survey				
Date		18-01-2023		Sample Type	Terrestrial vertebrate fauna	
Zone	50	Easting	1052570.694		Northing	8009567
Landform and Soil				Rock		
Landform	Drainage line		Rock type/s	None		
Aspect	East		Surface stone cover	NA		
Soil type	Sandy clay		Surface stone size classes	NA		
Soil colour	Red		present			
Condition			Habitat Features			
Quality	Good		Water Source	Present		
Fire History	Unknown		Microhabitats	Hummocks, Leaf litter, Logs > 10 cm, Peeling bark, Woody debris		
Disturbance	Erosion, Litter					
Introduced fauna	None observed		Ground Cover	51-75%		
Vegetation						
Upper stratum	Low (<10 m)	Isolated trees (<0.25%)				
Mid stratum	Tall (>2 m)	Sparse shrubland and/or heathland (0.25-20%)				
Ground stratum	Low (>0.5 m)	Open hummock grassland (20-50%)				



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5662-HAB-10-JE

Project:		Cable Beach Biological Survey				
Date		18-01-2023		Sample Type	Terrestrial vertebrate fauna	
Zone	50	Easting	1052465.782		Northing	8009577
Landform and Soil				Rock		
Landform	Drainage line			Rock type/s	None	
Aspect	South			Surface stone cover	NA	
Soil type	Sandy loam			Surface stone size classes present	NA	
Soil colour	Orange					
Condition				Habitat Features		
Quality	Good			Water Source	Absent	
Fire History	Unknown			Microhabitats	Hummocks, Leaf litter, Woody debris	
Disturbance	Litter					
Introduced fauna	None observed			Ground Cover	26-50%	
Vegetation						
Upper stratum	Low (<10 m)	Isolated trees (<0.25%)				
Mid stratum	Tall (>2 m)	Sparse shrubland and/or heathland (0.25-20%)				
Ground stratum	Low (>0.5 m)	Open hummock grassland (20-50%)				



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5662-HAB-11-JE

Project:		Cable Beach Biological Survey				
Date		18-01-2023		Sample Type	Terrestrial vertebrate fauna	
Zone	50	Easting	1052558.069		Northing	8009079
Landform and Soil				Rock		
Landform	Drainage line		Rock type/s	None		
Aspect	South		Surface stone cover	NA		
Soil type	Sandy loam		Surface stone size classes	NA		
Soil colour	Brown		present			
Condition			Habitat Features			
Quality	Good		Water Source	Absent		
Fire History	Unknown		Microhabitats	Hummocks, Leaf litter, Logs > 10 cm, Woody debris		
Disturbance	Litter					
Introduced fauna	None observed		Ground Cover	26-50%		
Vegetation						
Upper stratum	Low (<10 m)	Isolated trees (<0.25%)				
Mid stratum	Tall (>2 m)	Sparse shrubland and/or heathland (0.25-20%)				
Ground stratum	Mid (0.5-1 m)	Open hummock grassland (20-50%)				



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5662-HAB-12-JE

Project:		Cable Beach Biological Survey				
Date		18-01-2023		Sample Type	Terrestrial vertebrate fauna	
Zone	50	Easting	1052587.511		Northing	8008988
Landform and Soil				Rock		
Landform	Dune swale		Rock type/s	None		
Aspect	East		Surface stone cover	NA		
Soil type	Sandy loam		Surface stone size classes present	NA		
Soil colour	Red					
Condition			Habitat Features			
Quality	Good		Water Source	Absent		
Fire History	Burnt (1-5 years)		Microhabitats	Burrows, Hummocks, Leaf litter, Logs > 10 cm, Woody debris		
Disturbance	Litter					
Introduced fauna	None observed		Ground Cover			
Vegetation						
Upper stratum	Absent					
Mid stratum	Tall (>2 m)	Sparse shrubland and/or heathland (0.25-20%)				
Ground stratum	Mid (0.5-1 m)	Open hummock grassland (20-50%)				



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5662-HAB-13-JE

Project:		Cable Beach Biological Survey				
Date		18-01-2023		Sample Type	Terrestrial vertebrate fauna	
Zone	50	Easting	1052575.432		Northing	8008854
Landform and Soil				Rock		
Landform	Dune swale		Rock type/s	None		
Aspect	East		Surface stone cover	NA		
Soil type	Sandy clay		Surface stone size classes present	NA		
Soil colour	Brown					
Condition			Habitat Features			
Quality	Good		Water Source	Absent		
Fire History	Little or no fire evidence (>5 years)		Microhabitats	Hummocks, Leaf litter, Logs > 10 cm, Woody debris		
Disturbance	None observed					
Introduced fauna	None observed		Ground Cover	76-100%		
Vegetation						
Upper stratum	Mid (10-30 m)	Isolated trees (<0.25%)				
Mid stratum	Tall (>2 m)	Shrubland and/or heathland (50-80%)				
Ground stratum	Low (>0.5 m)	Open hummock grassland (20-50%)				



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5662-HAB-14-JE

Project:		Cable Beach Biological Survey				
Date		18-01-2023		Sample Type	Terrestrial vertebrate fauna	
Zone	50	Easting	1052588.042		Northing	8008754
Landform and Soil				Rock		
Landform	Drainage line			Rock type/s	Laterite	
Aspect	South			Surface stone cover	5 - 25%	
Soil type	Sandy loam			Surface stone size classes present	Stones (2 - 6 cm)	
Soil colour	Orange					
Condition				Habitat Features		
Quality	Good			Water Source	Absent	
Fire History	Burnt (1-5 years)			Microhabitats	Hummocks, Leaf litter, Woody debris	
Disturbance	Erosion, Litter					
Introduced fauna	None observed			Ground Cover	26-50%	
Vegetation						
Upper stratum	Absent					
Mid stratum	Tall (>2 m)		Open shrubland and/or heathland (20-50%)			
Ground stratum	Mid (0.5-1 m)		Open hummock grassland (20-50%)			



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5662-HAB-15-JE

Project:	Cable Beach Biological Survey				
Date	18-01-2023		Sample Type	Terrestrial vertebrate fauna	
Zone	50	Easting	1052607.651	Northing	8009218
Landform and Soil			Rock		
Landform	Plain		Rock type/s	Calcrete	
Aspect	East		Surface stone cover	5 - 25%	
Soil type	Clay loam		Surface stone size classes present	Small Stones (0.6 - 2 cm)	
Soil colour	Orange				
Condition			Habitat Features		
Quality	Very good		Water Source	Absent	
Fire History	Little or no fire evidence (>5 years)		Microhabitats	Hummocks, Leaf litter, Woody debris	
Disturbance	Infrastructure, Litter				
Introduced fauna	None observed		Ground Cover	76-100%	
Vegetation					
Upper stratum	Low (<10 m)	Isolated trees (<0.25%)			
Mid stratum	Tall (>2 m)	Shrubland and/or heathland (50-80%)			
Ground stratum	Mid (0.5-1 m)	Hummock grassland (50-80%)			



Fulcrum photo ID

35e06bf1-511d-4e15-9cfb-d7e874e32f51, 2d1eb81a-06af-44e0-85da-8989c7553484

Appendix G

Fauna Inventory

Appendix G: Cable Beach Fauna Inventory

Family	Scientific name	Common Name	State	Federal	Total
Accipitridae	<i>Accipiter fasciatus</i>	Brown Goshawk		MA	1
	<i>Aquila audax</i>	Wedge-tailed Eagle			2
	<i>Haliastur indus</i>	Brahminy Kite		MA	1
	<i>Milvus migrans</i>	Black Kite			2
Alcedinidae	<i>Dacelo leachii</i>	Blue-winged Kookaburra			2
Anatidae	<i>Dendrocygna eytoni</i>	Plumed Whistling Duck			2
Artamidae	<i>Cracticus nigrogularis</i>	Pied Butcherbird			1
Campephagidae	<i>Coracina novaehollandiae</i>	Black-faced Cuckooshrike		MA	7
Columbidae	<i>Geopelia humeralis</i>	Bar-shouldered Dove			5
	<i>Geopelia striata placida</i>	Peaceful Dove			15
	<i>Ocyphaps lophotes</i>	Crested Pigeon			1
	<i>Spilopelia senegalensis</i>	Laughing Turtle Dove			3
Coraciidae	<i>Eurystomus orientalis</i>	Oriental Dollarbird		MA	4
Cuculidae	<i>Centropus phasianinus</i>	Pheasant Coucal			2
	<i>Chalcites basalis</i>	Horsfield's Bronze Cuckoo		MA	2
	<i>Scythrops novaehollandiae</i>	Channel-billed Cuckoo		MA	1
Estrildidae	<i>Stizoptera bichenovii</i>	Double-barred Finch			2
Laridae	<i>Larus novaehollandiae</i>	Silver Gull		MA	1
Maluridae	<i>Malurus assimilis</i>	Purple-backed Fairywren			8
	<i>Malurus melanocephalus</i>	Red-backed Fairywren			4
Meliphagidae	<i>Conopophila rufogularis</i>	Rufous-throated Honeyeater			2
	<i>Gavicalis virescens</i>	Singing Honeyeater			8
	<i>Lichmera indistincta</i>	Brown Honeyeater			11
	<i>Philemon citreogularis</i>	Little Friarbird			5
	<i>Stomiopera unicolor</i>	White-gaped Honeyeater			2
Monarchidae	<i>Grallina cyanoleuca</i>	Magpie-lark		MA	1
Oriolidae	<i>Oriolus sagittatus</i>	Olive-backed Oriole			3
Pachycephalidae	<i>Colluricincla harmonica</i>	Grey Shrikethrush			2
Pomatostomidae	<i>Pomatostomus temporalis</i>	Grey-crowned Babbler			20
Psittaculidae	<i>Aprosmictus erythropterus</i>	Red-winged Parrot			2
	<i>Trichoglossus rubritorquis</i>	Red-collared Lorikeet			6
Ptilonorhynchidae	<i>Chlamydera nuchalis</i>	Great Bowerbird			3
Rhipiduridae	<i>Rhipidura leucophrys</i>	Willie Wagtail			1
Threskiornithidae	<i>Threskiornis molucca</i>	Australian White Ibis		MA	1
Agamidae	<i>Lophognathus horneri</i>	Kimberley Ta-ta Dragon			1
Crocodylidae	<i>Crocodylus porosus</i>	Saltwater Crocodile	MI	MI, MA	1
Gekkonidae	<i>Hemidactylus frenatus</i>	Asian House Gecko			1
Scincidae	<i>Cryptoblepharus metallicus</i>				1
	<i>Cryptoblepharus tythos</i>				1
	<i>Ctenotus robustus</i>	Robust Striped Ctenotus			5
	<i>Eremiascincus isolepis</i>				2
Varanidae	<i>Varanus gouldii</i>	Bungarra, Sand Goanna			3



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Appendix C

PMST database search results



Australian Government

Department of Climate Change, Energy,
the Environment and Water

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. Please see the caveat for interpretation of information provided here.

Report created: 24-Feb-2023

[Summary](#)

[Details](#)

[Matters of NES](#)

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

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

Summary

Matters of National Environment 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 (Ramsar	1
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	1
Listed Threatened Species:	31
Listed Migratory Species:	48

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 <https://www.dcceew.gov.au/parks-heritage/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 Lands:	3
Commonwealth Heritage Places:	None
Listed Marine Species:	83
Whales and Other Cetaceans:	12
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	1

Extra Information

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

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	None
Key Ecological Features (Marine):	None
Biologically Important Areas:	13
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

National Heritage Places			[Resource Information]
Name	State	Legal Status	Buffer Status
Natural			
The West Kimberley	WA	Listed place	In buffer area only

Wetlands of International Importance (Ramsar Wetlands)		[Resource Information]
Ramsar Site Name	Proximity	Buffer Status
Roebuck bay	Within 10km of Ramsar site	In feature area

Listed Threatened Ecological Communities			[Resource Information]
For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps. Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.			
Community Name	Threatened Category	Presence Text	Buffer Status
Monsoon vine thickets on the coastal sand dunes of Dampier Peninsula	Endangered	Community likely to occur within area	In feature area

Listed Threatened Species			[Resource Information]
Status of Conservation Dependent and Extinct are not MNES under the EPBC Act. Number is the current name ID.			
Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area	In feature area
Erythroriorchis radiatus Red Goshawk [942]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area	In feature 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	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Papasula abbotti Abbott's Booby [59297]	Endangered	Species or species habitat may occur within area	In feature area
Polytelis alexandrae Princess Parrot, Alexandra's Parrot [758]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
Tyto novaehollandiae kimberli Masked Owl (northern) [26048]	Vulnerable	Species or species habitat may occur within area	In feature area
FISH			
Thunnus maccoyii Southern Bluefin Tuna [69402]	Conservation Dependent	Species or species habitat likely to occur within area	In buffer area only
MAMMAL			
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Macroderma gigas Ghost Bat [174]	Vulnerable	Species or species habitat may occur within area	In feature area
Macrotis lagotis Greater Bilby [282]	Vulnerable	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Saccolaimus saccolaimus nudicluniatus Bare-rumped Sheath-tailed Bat, Bare-rumped Sheathtail Bat [66889]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Trichosurus vulpecula arnhemensis Northern Brushtail Possum [83091]	Vulnerable	Species or species habitat known to occur within area	In feature area
PLANT			
Seringia exastia Fringed Fire-bush [88920]	Critically Endangered	Species or species habitat may occur within area	In feature area
REPTILE			
Aipysurus apraefrontalis Short-nosed Seasnake [1115]	Critically Endangered	Species or species habitat likely to occur within area	In buffer area only
Aipysurus foliosquama Leaf-scaled Seasnake [1118]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding known to occur within area	In feature area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In feature area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Breeding likely to occur within area	In feature area
Natator depressus Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area	In feature area
SHARK			
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pristis clavata Dwarf Sawfish, Queensland Sawfish [68447]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Pristis pristis Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pristis zijsron Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Breeding likely to occur within area	In buffer area only
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Sphyrna lewini Scalloped Hammerhead [85267]	Conservation Dependent	Species or species habitat likely to occur within area	In buffer area only

Listed Migratory Species	[Resource Information]		
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area	In feature area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Calonectris leucomelas Streaked Shearwater [1077]		Species or species habitat known to occur within area	In buffer area only
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat known to occur within area	In feature area
Fregata minor Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat known to occur within area	In feature area
Phaethon lepturus White-tailed Tropicbird [1014]		Species or species habitat likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Sternula albifrons Little Tern [82849]		Foraging, feeding or related behaviour known to occur within area	In feature area
Migratory Marine Species			
Anoxypristis cuspidata Narrow Sawfish, Knifetooth Sawfish [68448]		Species or species habitat likely to occur within area	In buffer area only
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area	In buffer area only
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat likely to occur within area	In buffer area only
Carcharhinus longimanus Oceanic Whitetip Shark [84108]		Species or species habitat may occur within area	In buffer area only
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding known to occur within area	In feature area
Crocodylus porosus Salt-water Crocodile, Estuarine Crocodile [1774]		Species or species habitat likely to occur within area	In feature area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In feature area
Dugong dugon Dugong [28]		Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Breeding likely to occur within area	In feature area
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat known to occur within area	In buffer area only
Mobula alfredi as Manta alfredi Reef Manta Ray, Coastal Manta Ray [90033]		Species or species habitat may occur within area	In buffer area only
Mobula birostris as Manta birostris Giant Manta Ray [90034]		Species or species habitat may occur within area	In buffer area only
Natator depressus Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area	In feature area
Orcaella heinsohni Australian Snubfin Dolphin [81322]		Breeding known to occur within area	In buffer area only
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area	In buffer area only
Pristis clavata Dwarf Sawfish, Queensland Sawfish [68447]	Vulnerable	Species or species habitat known to occur within area	In buffer area only
Pristis pristis Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Pristis zijsron Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Breeding likely to occur within area	In buffer area only
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Sousa sahalensis as Sousa chinensis Australian Humpback Dolphin [87942]		Breeding known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Tursiops aduncus (Arafura/Timor Sea populations) Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat known to occur within area	In buffer area only
Migratory Terrestrial Species			
Cecropis daurica Red-rumped Swallow [80610]		Species or species habitat may occur within area	In feature area
Cuculus optatus Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat known to occur within area	In feature area
Hirundo rustica Barn Swallow [662]		Species or species habitat known to occur within area	In feature area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat known to occur within area	In feature area
Migratory Wetlands Species			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area	In feature area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area	In feature area
Glareola maldivarum Oriental Pratincole [840]		Species or species habitat may occur within area	In feature area
Limnodromus semipalmatus Asian Dowitcher [843]		Species or species habitat likely to occur within area	In feature area
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Pandion haliaetus Osprey [952]		Breeding known to occur within area	In feature area
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area	In feature area

Other Matters Protected by the EPBC Act

Commonwealth Lands		[Resource Information]
<p>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.</p>		
Commonwealth Land Name	State	Buffer Status
Unknown		
Commonwealth Land - [51807]	WA	In buffer area only
Commonwealth Land - [51067]	WA	In feature area
Commonwealth Land - [51808]	WA	In buffer area only

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat known to occur within area	In feature area
Anous stolidus Common Noddy [825]		Species or species habitat likely to occur within area	In feature area
Anseranas semipalmata Magpie Goose [978]		Species or species habitat may occur within area overfly marine area	In feature area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]		Species or species habitat known to occur within area	In feature area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Calonectris leucomelas Streaked Shearwater [1077]		Species or species habitat known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Cecropis daurica as Hirundo daurica Red-rumped Swallow [80610]		Species or species habitat may occur within area overfly marine area	In feature area
Chalcites osculans as Chrysococcyx osculans Black-eared Cuckoo [83425]		Species or species habitat known to occur within area overfly marine area	In feature area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat known to occur within area	In feature area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area overfly marine area	In feature area
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat known to occur within area	In feature area
Fregata minor Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat known to occur within area	In feature area
Glareola maldivarum Oriental Pratincole [840]		Species or species habitat may occur within area overfly marine area	In feature area
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area	In feature area
Hirundo rustica Barn Swallow [662]		Species or species habitat known to occur within area overfly marine area	In feature area
Limnodromus semipalmatus Asian Dowitcher [843]		Species or species habitat likely to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In feature area
Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla cinerea Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area	In feature area
Motacilla flava Yellow Wagtail [644]		Species or species habitat known to occur within area overfly marine area	In feature area
Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area	In feature area
Pandion haliaetus Osprey [952]		Breeding known to occur within area	In feature area
Papasula abbotti Abbott's Booby [59297]	Endangered	Species or species habitat may occur within area	In feature area
Phaethon lepturus White-tailed Tropicbird [1014]		Species or species habitat likely to occur within area	In buffer area only
Rostratula australis as Rostratula benghalensis (sensu lato) Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
Sternula albifrons as Sterna albifrons Little Tern [82849]		Foraging, feeding or related behaviour known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat likely to occur within area overfly marine area	In feature area
Fish			
Campichthys tricarinatus Three-keel Pipefish [66192]		Species or species habitat may occur within area	In buffer area only
Choeroichthys brachysoma Pacific Short-bodied Pipefish, Short-bodied Pipefish [66194]		Species or species habitat may occur within area	In buffer area only
Choeroichthys suillus Pig-snouted Pipefish [66198]		Species or species habitat may occur within area	In buffer area only
Corythoichthys flavofasciatus Reticulate Pipefish, Yellow-banded Pipefish, Network Pipefish [66200]		Species or species habitat may occur within area	In buffer area only
Cosmocampus banneri Roughridge Pipefish [66206]		Species or species habitat may occur within area	In buffer area only
Doryrhamphus excisus Bluestripe Pipefish, Indian Blue-stripe Pipefish, Pacific Blue-stripe Pipefish [66211]		Species or species habitat may occur within area	In buffer area only
Doryrhamphus janssi Cleaner Pipefish, Janss' Pipefish [66212]		Species or species habitat may occur within area	In buffer area only
Filicampus tigris Tiger Pipefish [66217]		Species or species habitat may occur within area	In buffer area only
Halicampus brocki Brock's Pipefish [66219]		Species or species habitat may occur within area	In buffer area only
Halicampus grayi Mud Pipefish, Gray's Pipefish [66221]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Halicampus nitidus Glittering Pipefish [66224]		Species or species habitat may occur within area	In buffer area only
Halicampus spinirostris Spiny-snout Pipefish [66225]		Species or species habitat may occur within area	In buffer area only
Haliichthys taeniophorus Ribboned Pipehorse, Ribboned Seadragon [66226]		Species or species habitat may occur within area	In buffer area only
Hippichthys penicillus Beady Pipefish, Steep-nosed Pipefish [66231]		Species or species habitat may occur within area	In buffer area only
Hippocampus histrix Spiny Seahorse, Thorny Seahorse [66236]		Species or species habitat may occur within area	In buffer area only
Hippocampus kuda Spotted Seahorse, Yellow Seahorse [66237]		Species or species habitat may occur within area	In buffer area only
Hippocampus planifrons Flat-face Seahorse [66238]		Species or species habitat may occur within area	In buffer area only
Hippocampus spinosissimus Hedgehog Seahorse [66239]		Species or species habitat may occur within area	In buffer area only
Hippocampus trimaculatus Three-spot Seahorse, Low-crowned Seahorse, Flat-faced Seahorse [66720]		Species or species habitat may occur within area	In buffer area only
Micrognathus micronotopterus Tidepool Pipefish [66255]		Species or species habitat may occur within area	In buffer area only
Solegnathus hardwickii Pallid Pipehorse, Hardwick's Pipehorse [66272]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Solegnathus lettiensis Gunther's Pipehorse, Indonesian Pipefish [66273]		Species or species habitat may occur within area	In buffer area only
Solenostomus cyanopterus Robust Ghostpipefish, Blue-finned Ghost Pipefish, [66183]		Species or species habitat may occur within area	In buffer area only
Syngnathoides biaculeatus Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area	In buffer area only
Trachyrhamphus bicoarctatus Bentstick Pipefish, Bend Stick Pipefish, Short-tailed Pipefish [66280]		Species or species habitat may occur within area	In buffer area only
Trachyrhamphus longirostris Straightstick Pipefish, Long-nosed Pipefish, Straight Stick Pipefish [66281]		Species or species habitat may occur within area	In buffer area only
Mammal			
Dugong dugon Dugong [28]		Species or species habitat known to occur within area	In buffer area only
Reptile			
Acalyptophis peronii Horned Seasnake [1114]		Species or species habitat may occur within area	In buffer area only
Aipysurus apraefrontalis Short-nosed Seasnake [1115]	Critically Endangered	Species or species habitat likely to occur within area	In buffer area only
Aipysurus duboisii Dubois' Seasnake [1116]		Species or species habitat may occur within area	In buffer area only
Aipysurus eydouxii Spine-tailed Seasnake [1117]		Species or species habitat may occur within area	In buffer area only
Aipysurus foliosquama Leaf-scaled Seasnake [1118]	Critically Endangered	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Aipysurus laevis Olive Seasnake [1120]		Species or species habitat may occur within area	In buffer area only
Aipysurus tenuis Brown-lined Seasnake [1121]		Species or species habitat may occur within area	In buffer area only
Astrotia stokesii Stokes' Seasnake [1122]		Species or species habitat may occur within area	In buffer area only
Caretta caretta Loggerhead Turtle [1763]	Endangered	Foraging, feeding or related behaviour known to occur within area	In feature area
Chelonia mydas Green Turtle [1765]	Vulnerable	Breeding known to occur within area	In feature area
Chitulia ornata as Hydrophis ornatus Spotted Seasnake, Ornate Reef Seasnake [87377]		Species or species habitat may occur within area	In buffer area only
Crocodylus johnstoni Freshwater Crocodile, Johnston's Crocodile, Johnstone's Crocodile [1773]		Species or species habitat may occur within area	In feature area
Crocodylus porosus Salt-water Crocodile, Estuarine Crocodile [1774]		Species or species habitat likely to occur within area	In feature area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area	In feature area
Disteira kingii Spectacled Seasnake [1123]		Species or species habitat may occur within area	In buffer area only
Disteira major Olive-headed Seasnake [1124]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Emydocephalus annulatus Turtle-headed Seasnake [1125]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Ephalophis greyi North-western Mangrove Seasnake [1127]		Species or species habitat may occur within area	In buffer area only
Eretmochelys imbricata Hawksbill Turtle [1766]		Breeding likely to occur within area	In feature area
Hydrelaps darwiniensis Black-ringed Seasnake [1100]		Species or species habitat may occur within area	In buffer area only
Hydrophis elegans Elegant Seasnake [1104]		Species or species habitat may occur within area	In buffer area only
Hydrophis macdowelli as Hydrophis mcdowelli Small-headed Seasnake [75601]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Lapemis curtus as Lapemis hardwickii Spine-bellied Seasnake [83554]		Species or species habitat may occur within area	In buffer area only
Natator depressus Flatback Turtle [59257]		Breeding known to occur within area	In feature area
Pelamis platurus Yellow-bellied Seasnake [1091]		Species or species habitat may occur within area	In buffer area only

Whales and Other Cetaceans		[Resource Information]	
Current Scientific Name	Status	Type of Presence	Buffer Status
Mammal			
Balaenoptera edeni Bryde's Whale [35]	Endangered	Species or species habitat may occur within area	In buffer area only
Balaenoptera musculus Blue Whale [36]		Species or species habitat likely to occur within area	In buffer area only

Current Scientific Name	Status	Type of Presence	Buffer Status
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area	In buffer area only
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area	In buffer area only
Megaptera novaeangliae Humpback Whale [38]		Species or species habitat known to occur within area	In buffer area only
Orcaella heinsohni as Orcaella brevirostris Australian Snubfin Dolphin [81322]		Breeding known to occur within area	In buffer area only
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area	In buffer area only
Sousa sahalensis as Sousa chinensis Australian Humpback Dolphin [87942]		Breeding known to occur within area	In buffer area only
Stenella attenuata Spotted Dolphin, Pantropical Spotted Dolphin [51]		Species or species habitat may occur within area	In buffer area only
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area	In buffer area only
Tursiops aduncus (Arafura/Timor Sea populations) Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat known to occur within area	In buffer area only
Tursiops truncatus s. str. Bottlenose Dolphin [68417]		Species or species habitat may occur within area	In buffer area only
Habitat Critical to the Survival of Marine Turtles			
Scientific Name	Behaviour	Presence	Buffer Status
Aug - Sep			
Natator depressus Flatback Turtle [59257]	Nesting	Known to occur	In buffer area only

Scientific Name	Behaviour	Presence	Buffer Status
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Extra Information

Biologically Important Areas			
Scientific Name	Behaviour	Presence	Buffer Status
Dolphins			
Orcaella heinsohni Australian Snubfin Dolphin [81322]	Breeding	Known to occur	In buffer area only
Orcaella heinsohni Australian Snubfin Dolphin [81322]	Calving	Known to occur	In buffer area only
Orcaella heinsohni Australian Snubfin Dolphin [81322]	Foraging (high density prey)	Known to occur	In buffer area only
Sousa chinensis Indo-Pacific Humpback Dolphin [50]	Breeding	Known to occur	In buffer area only
Sousa chinensis Indo-Pacific Humpback Dolphin [50]	Calving	Known to occur	In buffer area only
Sousa chinensis Indo-Pacific Humpback Dolphin [50]	Foraging (high density prey)	Known to occur	In buffer area only
Tursiops aduncus Indo-Pacific/Spotted Bottlenose Dolphin [68418]	Breeding	Known to occur	In buffer area only
Tursiops aduncus Indo-Pacific/Spotted Bottlenose Dolphin [68418]	Calving	Known to occur	In buffer area only

Scientific Name	Behaviour	Presence	Buffer Status
Tursiops aduncus Indo-Pacific/Spotted Bottlenose Dolphin [68418]	Foraging	Known to occur	In buffer area only
Dugong			
Dugong dugon Dugong [28]	Foraging	Likely to occur	In buffer area only
Seabirds			
Sternula albifrons sinensis Little Tern [82850]	Breeding	Known to occur	In feature area
Whales			
Balaenoptera musculus brevipinna Pygmy Blue Whale [81317]	Distribution	Known to occur	In buffer area only
Megaptera novaeangliae Humpback Whale [38]	Migration (north and south)	Known to occur	In buffer area only

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and 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

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

Where little information is available for a 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 detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

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

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

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

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

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](#)
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- [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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