ECO SOLUTIONS
& MANAGEMENT

BOYNE TANNUM AQUATIC RECREATION CENTRE MNES ASSESSMENT REPORT

November 2022

ecosm.com.au
contact.team@ecosm.com.au

Disclaimer

The preparation of this report has been in accordance with the brief provided by the Client and relies upon data collected under limitations, as specified within the report. All findings, conclusions or recommendations contained within the report are based on the aforementioned circumstances and represent the professional opinions of Eco Solutions & Management. The report has been prepared for use by the Client and no responsibility for its use by other parties is accepted by Eco Solutions & Management.

If a third party relies upon the facts, content, opinions or subject matter contained in this report without the prior consent of Eco Solutions & Management, the third party assumes all risk and releases and indemnifies Eco Solutions & Management from any loss, damage, claim or liability arising directly or indirectly from the use of or reliance upon this report.

Document History and Status

Document version:	22040 Rpt01a
Author(s):	Meredith Watherston
Reviewed by:	Steve Marston
Approved by:	Steve Marston
Signed :	
Date issued:	16 November 2022

Contents

List of Tables

List of Figures

Appendices

Symbols and Abbreviations

*	(Preceding a plant species name) plant species not native to Australia
±	With or without, more or less
Biosecurity Act	(Queensland) Biosecurity Act 2014
BoM	Bureau of Meteorology
CEMP	Construction Environmental Management Plan
DAWE	(Commonwealth) Department of Agriculture, Water and the Environment
DCCEEW	(Commonwealth) Department of Climate Change, Energy, the Environment and Water
DES	(Queensland) Department of Environment and Science
DotE	Former (Commonwealth) Department of the Environment
EDL	Ecologically Dominant Layer
EPBC Act	(Commonwealth) Environment Protection and Biodiversity Conservation Act 1999
GDE	Groundwater dependent ecosystem
GPS	Global positioning system
ha	Hectares
HRA	High risk area
km	Kilometres
MNES	Matters of national environmental significance (EPBC Act)
MSES	Matters of state environmental significance (Queensland *Environmental Offsets Act 2014*)
NRM	Former (Queensland) Department of Natural Resources and Mines
RE	Regional Ecosystem as defined under the Queensland Vegetation Management Regulation 2000
REDD	Regional Ecosystem Description Database
SPRAT	Species Profile and Threats Database
TEC	Threatened Ecological Community
TSSC	Threatened Species Scientific Committee

Glossary

Term	Definition
Bioregion	A geographically distinct biological region, which is a reporting unit for assessing the status of native ecosystems and their level of protection. Australia is divided into 89 bioregions. Bioregions form part of the regional ecosystem classification code system. The study area is located in the Burnett – Curtis Hills and Ranges sub-region of the Southeast Queensland Bioregion.
EPBC Act conservation status	The *Environment Protection and Biodiversity Conservation Act 1999* lists species and communities: Extinct in the wild: ▪ It is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or ▪ It has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a timeframe appropriate to its life cycle and form. Critically Endangered: ▪ It is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria. Endangered: ▪ It is not critically endangered; and it is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria. Vulnerable: ▪ It is not critically endangered or endangered; and ▪ It is facing a high risk of extinction in the wild in the medium term future, as determined in accordance with the prescribed criteria. Migratory: ▪ Migratory species which are native to Australia and are included in the appendices to the Bonn Convention (Convention on the Conservation of Migratory Species of Wild Animals Appendices I and II); ▪ Migratory species included in annexes established under the Japan-Australia Migratory Bird Agreement (JAMBA) and the Chine-Australia Migratory Bird Agreement (CAMBA); ▪ Native, migratory species identified in a list established under, or an instrument made under, an international agreement approved by the Minister, such as the Republic of Korea-Australia Migratory Bird Agreement (ROKAMBA).
NC Act conservation status	Under the *Nature Conservation Act 1992*, native wildlife may be prescribed as: Extinct: ▪ There is no reasonable doubt the last member of the species had died.

Term	Definition
	Extinct in the wild: ▪ The wildlife is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or ▪ The wildlife is not known to survive in its known or expected habitat, in its past range, over a period appropriate for the life cycle or form of the wildlife. Critically endangered: ▪ The wildlife has undergone or is suspected to have undergone a very large reduction in numbers; or ▪ It is likely that a very large reduction in the wildlife's numbers is imminent; or ▪ The wildlife's geographic distribution is precarious for the survival of the wildlife and very restricted; or ▪ The estimated total number of mature individuals is very low and it is likely the number will continue to decline at a very high rate, or continue to decline, and its geographic distribution is precarious for the survival of the wildlife; or ▪ The estimated total number of mature individuals is extremely low; or ▪ The probability of the wildlife's extinction in the wild is at least 50% in the immediate future. Endangered: ▪ There have not been thorough searches conducted for the wildlife and the wildlife has not been seen in the wild over a period that is appropriate for the life cycle or form of the wildlife; or ▪ The habitat or distribution of the wildlife has been reduced to an extent that the wildlife may be in danger of extinction; or ▪ The population size of the wildlife has declined, or is likely to decline, to an extent that the wildlife may be in danger of extinction; or ▪ The survival of the wildlife in the wild is unlikely if a threatening process continues. Vulnerable: ▪ The population is decreasing because of threatening processes; or ▪ The population has been seriously depleted and its protection is not secured; or ▪ The population, while abundant, is at risk because of threatening processes; or ▪ The population is low or localised or depends on limited habitat that is at risk because of threatening processes. Near Threatened: ▪ The population size or distribution of the wildlife is small and may become smaller; or ▪ The population size of the wildlife has declined, or is likely to decline, at a rate higher than the usual rate for population changes for the wildlife; or

Term	Definition
	▪ The survival of the wildlife in the wild is affected to an extent that the wildlife is in danger of becoming vulnerable. Least Concern: ▪ The Wildlife is common or abundant and is likely to survive in the wild. Special least concern, for an animal, is defined under the Queensland *Nature Conservation (Animal) Regulation 2020*, as: ▪ The echidna (*Tachyglossus aculeatus*) ▪ The platypus (*Ornithorhynchus anatinus*) ▪ A least concern bird to which any of the following apply – o Agreement Between the Government of Australia and the Government of Japan for the Protection of Migratory Birds and Birds in Danger of Extinction and their Environment (JAMBA) o Agreement Between the Government of Australia and the Government of the People's Republic of China for the Protection of Migratory Birds and their Environment (CAMBA) o Agreement between the Government of Australia and the Government of the Republic of Korea on the Protection of Migratory Birds and Exchanges of Notes (ROKAMBA) o Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention). Special least concern, for a plant, is defined under the Queensland *Nature Conservation (Plants) Regulation 2020*, as plants of families listed under Schedule 2.
Matters of national environmental significance (MNES)	A matter protected under the EPBC Act, including: ▪ World heritage properties ▪ National heritage places ▪ Wetlands of international importance ▪ Listed threatened species and ecological communities ▪ Migratory species ▪ Commonwealth marine areas ▪ The Great Barrier Reef Marine Park ▪ Nuclear actions ▪ A water resource, in relation to coal seam gas development and large coal mining development.
Region	The local area surrounding the study area, including the landscape within 10 km of the study area.
Regional ecosystem	A vegetation community within a bioregion that is consistently associated with a particular combination of geology, landform and soils.
Remnant vegetation	Defined under the Queensland *Vegetation Management Act 1999* as, woody vegetation that has not been cleared or vegetation that has been cleared but where the dominant canopy has >70% of the height and >50% of the cover relative to the undisturbed height and cover

Term	Definition
	of that stratum and is dominated by species characteristic of the vegetation's undisturbed canopy.
Study Area	An area defined for the purposes of this study and shown on Figure 1 and which comprises Lot 900 on SP152499.
Threatened ecological community	A community listed under the provisions of the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.
Vegetation management Act status	This is a statutory classification under the Queensland *Vegetation Management Act 1999*. A regional ecosystem is listed as 'endangered' if: ▪ Remnant vegetation for the regional ecosystem is less than 10% of its pre-clearing extent across the bioregion; or 10-30% of its pre-clearing extent remains and the remnant vegetation for the regional ecosystem is less than 10,000 ha. A regional ecosystem is listed as 'of concern' if: ▪ Remnant vegetation for the regional ecosystem is 10-30% of its pre-clearing extent across the bioregion; or more than 30% of its pre-clearing extent remains and the remnant vegetation extent for the regional ecosystem is less than 10,000 ha. A regional ecosystem is listed 'least concern' if: ▪ Remnant vegetation for the regional ecosystem is over 30% of its pre-clearing extent across the bioregion, and the remnant vegetation area for the regional ecosystem is greater than 10,000 ha.

1 Introduction

Eco Solutions & Management was engaged by PSA Consulting on behalf of Gladstone Regional Council to assess the proposed Boyne Tannum Aquatic Recreation Centre (the project) in relation to matters of national environmental significance (MNES) under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

1.1 Project description

The project is proposed to be located on the edge of urbanised areas at Tannum Sands, which is a seaside township located approximately 13 km south-east of Gladstone in central Queensland (Figure 1). The study area involves Lot 900 on SP152499 and covers a vegetated area of approximately 9.9 ha in which a community aquatic centre is proposed to be constructed within an approximate 1.7 ha footprint at the front of the allotment (Figure 2). The project will involve development of a community aquatic centre, comprising a 50 m heated pool, splash pad and water slide with associated seating, change rooms, administration building and car parking.

1.2 Study area description

The study area is located near the crest of a low rise and slopes gently towards the north and west. Regrowth native vegetation occurs throughout the study area, which is bordered to the south, west and north by residential dwellings. Coronation Drive borders the southern boundary of the study area. Native vegetation within the study area extends a little way to the east, and forms part of a large tract of remnant communities further east of the study area, and which wraps around to the south-east and further south of the study area, beyond Tannum Sands Road and the residential dwellings to the south (Figure 1).

1.3 Scope of works

This report will:

- review existing desktop information about the study area and surrounding areas, including Queensland Government mapping, aerial photography and database records
- identify and describe the vegetation and habitat values in of the study area in relation to MNES based on the desktop information and field assessment
- determine the potential for MNES to occur in the study area
- assess the potential impacts of the project on MNES in accordance with the EPBC Act Significant Impact Guidelines (DotE, 2013).

2 Regulatory framework

This report has been prepared specifically to address MNES that occur or are likely to occur within the study area and have the potential to be impacted by the project. Therefore, the key piece of legislation considered in the preparation of this report is the Commonwealth EPBC Act. Other matters of environmental significance (i.e. matters of state environmental significance (MSES)) will be referenced where relevant to provide the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) with sufficient information regarding the ecological values of the study area. relevant pieces of legislation are further described below.

2.1 Environment Protection and Biodiversity Conservation Act 1999

The EPBC Act is the Commonwealth Government's principal piece of environmental legislation, and is administered by the DCCEEW. It is designed to protect national environmental assets; known as MNES, which include threatened species of flora and fauna, threatened ecological communities (TECs), migratory species as well as other protected matters. Among other things, it defines the categories of threat for threatened flora and fauna, identifies key threatening processes to their survival and provides for the preparation of recovery plans for threatened flora and fauna.

Approval is required under the EPBC Act for any action (which includes a development, project or activity) that is likely to have a significant impact on MNES (including TECs, threatened species and listed migratory species).

2.1.1 International treaty obligations on migratory species

Australia is signatory to several agreements relating to migratory species. Migratory species listed under the following agreements and conventions are protected in Australia through being listed as MNES (Migratory Controlling Provision) under the EPBC Act:

- China–Australia Migratory Bird Agreement (CAMBA)
- Japan–Australia Migratory Bird Agreement (JAMBA)
- Republic of Korea–Australia Migratory Bird Agreement (ROKAMBA)
- Convention on the conservation of migratory species of wild animals (Bonn Convention).

The JAMBA, CAMBA and ROKAMBA agreements list terrestrial, water and shorebird species which migrate between Australia and the respective countries. In all cases, the majority of listed species are shorebirds (DCCEEW, 2022s).

All agreements require the parties to protect migratory birds by:

- limiting the circumstances under which migratory birds are taken or traded
- protecting and conserving important habitats
- exchanging information
- building cooperative relationships.

The JAMBA agreement also includes provisions for cooperation on the conservation of threatened birds.

Australian Government and non-government representatives meet every two years with Japanese and Chinese counterparts to review progress in implementing the agreements and to explore new initiatives to conserve migratory birds (DCCEEW, 2022s).

The ROKAMBA formalises Australia's relationship with the Republic of Korea in respect to migratory bird conservation and provides a basis for collaboration on the protection of migratory shorebirds and their habitat (DCCEEW, 2022s).

In addition to these bilateral agreements, Australia is also a signatory of the Bonn Convention. This convention aims to conserve terrestrial, aquatic and avian migratory species throughout their range (CMS, 2022).

2.1.2 Commonwealth Environmental Offsets Policy

Under the EPBC Act Environmental Offsets Policy 2012 (EPBC Act Environmental Offsets Policy), environmental offsets are actions taken to counterbalance significant residual impacts on MNES. Offsets are used as a last resort in instances where an action will give rise to significant residual impacts, even after the application of management measures.

The EPBC Act Environmental Offsets Policy came into force in October 2012 and provides guidance on the role of offsets in environmental impact assessments and how DCCEEW considers the suitability of a proposed offset package (SEWPaC, 2012).

According to the policy, an offsets package is a "suite of actions that a proponent undertakes in order to compensate for the residual significant impact of a project" (SEWPaC, 2012). It can comprise a combination of direct offsets and other compensatory measures.

3 Methods

The current ecological values of the study area were assessed through a combination of a desktop review and field assessment, as detailed in the following sections.

3.1 Desktop assessment

The following desktop sources were used to review the ecological values of the study area:

- Commonwealth EPBC Act Protected Matters Search Tool (PMST) (DCCEEW, 2022w)
- Queensland Government's:
  - Vegetation management regulated vegetation management map – version 6.02 (DR, 2022)
  - Biodiversity status of 2019 remnant regional ecosystems – Queensland (DES, 2022a)
  - Vegetation management essential habitat map (no attribute) - version 11.02
  - Flora Survey Trigger Map for Clearing Protected Plants in Queensland – version 9.0 (DES, 2022b)
  - Wildlife Online database (DES, 2022d)
  - 1:100,000 geology mapping (NRM, 2011)
- Non-government resources:
  - Atlas of Living Australia (ALA) database (CSIRO, 2022)
  - aerial photography of the study area.

A search area within 10 km of the study area was used for the PMST and Wildlife Online databases. Outputs from these database searches and the protected plants flora survey trigger map are provided in Appendix A.

3.2 Field assessment

Field-validation of the vegetation, flora and fauna values of the study area was undertaken as part of this assessment, over two days and one night on 28 and 29 October 2022.

Conditions were clear and warm during the field assessment with temperatures ranging from 20.4°C to 33°C over the two days as recorded at Gladstone Radar weather station (#039123) approximately15 km north-west of the study area. the location experienced a storm event on the afternoon prior to the field assessment, however, no rainfall was experienced in the study area during the field assessment.

The field assessment was conducted by one ecologist, whereby vegetation assemblages and structure was assessed and active searching techniques were employed, including spotlighting, to establish the regional ecosystems (REs) and habitat values present. Random meander searches were undertaken for threatened plant species, all of which that occur in the area are distinctive and readily detectable. Two nights of spotlighting was conducted with one person hour

per night spent traversing the entire study area to identify nocturnal fauna. Searches for scats were also conducted at the base of the majority of eucalypt trees within the proposed project disturbance footprint.

3.3 Likelihood of occurrence assessment

The likelihood of occurrence assessment evaluates the potential for a given species to occupy habitats in the study area at the time this assessment was conducted, but which may not have been detected or evidence not observed at the time of the field assessment. This approach ensures that species are not discounted as potentially being impacted by a project based solely on their presence or absence, as survey intensity, seasonal variability and the ecology of more cryptic species will influence the use or presence of a species within a particularly location at any given time.

3.3.1 Ecological communities

The flora assessment was conducted across the study area at a scale and intensity commensurate with the size of the study area and complexity of the vegetation assemblages present. This allowed for the determination of the presence or absence of TECs in accordance with the diagnostic criteria in the relevant conservation advice, listing advice or species profile and threats (SPRAT) profile.

3.3.2 Significant species

Database searches identified significant species that potentially occur within the study area and/or surrounds. The likelihood of such species occurring was assessed based on the results of the desktop review and field assessment. The likelihood of species occurring within the study area was classified using the criteria presented in Table 1. The assessment was based on the species' known ranges, habitat preferences and distribution of published records and which were then evaluated based on characteristics of the study area observed during the field assessment.

Table 1: Criteria to assess potential for threatened or migratory species to occur in the study area

Likelihood to occur	Definition
Present	The species was recorded within the study area during the field assessment.
High	The species was not recorded within the study area during the field assessment, but is known to occur within the surrounding area/region, and habitat of suitable quality exists, within the study area.
Moderate	The species was not recorded within the study area during the field assessment, although it is known to occur in the wider region. Habitat was identified for the species in the study area during the field assessment, however, it is marginal, fragmented and/or small in size, or degraded.
Low	The species was not recorded within the study area during the field assessment. The species is either:

Likelihood to occur	Definition
	Unlikely to occur in the wider region and due to the lack of or due to poor quality habitat in the study area, the species is not expected to occur within the study area In the case of fauna, may forage periodically in the wider region and may overfly the study area, but the habitat in the study area is generally not suitable.

3.4 Limitations

The purpose of the field assessment was to identify the on-ground ecological features of the study area and extrapolate the potential habitat values present in relation the MNES. It was not the intent of the field assessment to record all species of flora and fauna species present.

4 Matters of national environmental significance

MNES identified within and adjacent to the study area a s results of the desktop review and field assessment are illustrated in Figure 4 and are discussed in the following sections. The PMST report did not identify any of the following MNES within 10 km of the study area:

- Commonwealth lands
- Commonwealth Heritage Places
- Critical habitats
- Australian Marine Parks
- Wetlands of International Importance
- Commonwealth marine areas.

Consideration of threatened and migratory fauna likely to occur within the study area excluded oceanic species (i.e. pelagic species such as whales, turtles, oceanic birds etc.) given the study area does not encompass any open marine or fresh waters. Similarly species listed solely as marine under the EPBC Act were not considered as part of this assessment as the study area is not located within or adjacent to a Commonwealth marine area.

4.1 Threatened ecological communities

4.1.1 Desktop results

The following TECs listed under the EPBC Act were returned from database searches (Appendix A):

- Coastal Swamp Oak (*Casuarina glauca*) Forest of New South Wales and South East Queensland ecological community - endangered
- Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland - endangered
- Littoral Rainforest and Coastal Vine Thickets of Eastern Australia – critically endangered
- Lowland Rainforest of Subtropical Australia – critically endangered
- Poplar Box Grassy Woodland on Alluvial Plains - endangered
- Subtropical and Temperate Coastal Saltmarsh - vulnerable
- Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions - endangered
- Weeping Myall Woodlands - endangered.

4.1.2 Field results

The majority of remnant REs mapped by the Queensland Government within 500 m of the study area are not representative of any of the TECs returned from the PMST and listed above in Section 4.1.1. However, one RE 12.1.2 – mapped to the north-west and west of the study area in association with the Boyne River - may be representative of the 'Subtropical and Temperate Coastal Saltmarsh' TEC. The study area is mapped by the Queensland Government as supporting remnant

RE 12.11.6, which is described as 'Spotted Gum (*Corymbia citriodora* subsp. *variegata*), Narrow-leaved Red Ironbark (*Eucalyptus crebra*) woodland on metamorphics +/- interbedded volcanics' (Queensland Herbarium, 2021). Similar REs are mapped to the south-east of the study area (Figure 3).

The vegetation within the study area is characterised below:

- ***Canopy:*** The canopy comprised mid-mature Spotted Gum and Narrow-leaved Red Ironbark with occasional Pink Bloodwood (*Corymbia intermedia*) and Queensland Peppermint (*Eucalyptus exserta*) and scattered Swamp Box (*Lophostemon suaveolens*). The estimated canopy cover range is from 15 to 30% cover with a height of 7 to 12 m. The great majority of trees have a diameter at breast height (DBH) of 15 to 25 cm with very scattered larger trees to 45 cm DBH. No hollow-bearing trees were observed in the study area.
- ***Understory:*** The dense to very dense shrub layer is dominated by Crowded-leaf Wattle (*Acacia conferta*) and *Acacia julifera* (no common name) with less prominent species including Bitter Bark (*Petalostigma pubescens*), Red Ash (*Alphitonia* excelsa), Medicine Bush (*Coelospermum reticulatum*), Common Lantana (**Lantana camara*), Coffee Bush (*Breynia oblongifolia*) and very occasional Forest She-oak (*Allocasuarina torulosa*). The shrub layer ranged in height from 1.5 to 6 m with a cover of 60 to 80%.
- ***Ground layer:*** The groundcover was dominated by native species such as Wiry Panic (*Entolasia stricta*), Kangaroo Grass (*Themedia triandra*), Black Spear Grass (*Heteropogon contortus*), *Goodenia* sp. (Mt Castletower), Rock Fern (*Cheilanthes sieberi*), Rough Saw-Sedge (*Gahnia aspera*) and Blue-flax lily (*Dianella caerulea*). The most common exotic species observed was Shrubby Stilo (**Stylosanthes scabra*) with other less prominent species including Thatch Grass (**Hyparrhenia rufa*), Flannel Weed (**Sida cordifolia*) and Snake Weed (**Stachytarpheta cayennensis*).

This vegetation does not represent any TECs listed under the EPBC Act that are known to occur in the region. Furthermore, the study area does not adjoin any communities that would meet diagnostic characteristics of any TECs. Therefore, TECs will not be considered further in this assessment.

4.2 Threatened flora

4.2.1 Desktop results

The following 10 threatened flora species were returned from database searches for the search area (Appendix A):

- Black Ironbox (*Eucalyptus raveretiana*) – vulnerable
- Cossinia (*Cossinia australiana*) – endangered
- *Cycas megacarpa* (no common name) – endangered
- *Dichanthium setosum* (no common name) – vulnerable
- *Fontainea venosa* (no common name) – vulnerable
- Macadamia Nut (*Macadamia integrifolia*) – vulnerable
- Marlborough Blue (*Cycas ophiolitica*) – endangered

- Quassia (*Samadera bidwillii*) – vulnerable
- Three-leaved Bosistoa (*Bosistoa transversa*) – vulnerable
- Wedge-leaf Tuckeroo (*Cupaniopsis shirleyana*) – vulnerable.

4.2.2 Field results

No threatened flora species were recorded in the study area during the field assessment. Based on a review of the database search results and habitat identified within the study area, an assessment of the likelihood of other EPBC Act listed threatened species occurring in the study area has been undertaken and is provided in Appendix B. This assessment concluded that no threatened flora species listed under the EPBC Act are likely to occur within the study area due to the absence of suitable habitat, particularly rainforest, wetland and vine forest communities and underlying geology.

4.3 Threatened fauna

4.3.1 Desktop results

The following 21 threatened fauna species were returned from database searches for the search area (Appendix A):

- Birds -
  - Australian Painted Snipe (*Rostratula australis*) – endangered
  - Black-breasted Button-quail (*Turnix melanogaster*) – vulnerable
  - Capricorn Yellow Chat (*Ephthianura crocea macgregori*) – critically endangered
  - Coxen's Fig-parrot (*Cyclopsitta diophthalma coxeni*) – endangered
  - Grey Falcon (*Falco hypoleucos*) – vulnerable
  - Red Goshawk (*Erythrotriorchis radiatus*) – vulnerable
  - South-eastern Glossy Black-cockatoo (*Calyptorhynchus lathami lathami*) – vulnerable
  - Squatter Pigeon (southern) (*Geophaps scripta scripta*) – vulnerable
  - Star Finch (eastern) (*Neochmia ruficauda ruficauda*) – endangered
  - White-throated Needletail (*Hirundapus caudacutus*) – vulnerable
- Mammals -
  - Ghost Bat (*Macroderma gigas*) – vulnerable
  - Greater Glider (southern and central) (*Petauroides volans*) – endangered
  - Grey-headed Flying-fox (*Pteropus policocephalus*) – vulnerable
  - Koala (*Phascolarctos cinereus*) – endangered
  - Northern Quoll (*Dasyurus hallucatus*) – endangered
  - Water Mouse (*Xeromys myoides*) – vulnerable

- Yellow-bellied Glider (south-eastern) (*Petaurus australis australis*) – vulnerable

- Reptiles -
  - Collared Delma (*Delma torquata*) – vulnerable
  - Dunmall's Snake (*Furina dunmalli*) – vulnerable
  - Grey Snake (*Hemiaspis damelii*) – endangered
  - Yakka Skink (*Egernia rugosa*) – vulnerable.

A number of oceanic species, i.e. oceanic birds, wader and shorebirds, cetaceans, sharks and turtles, were also returned from the database searches (Appendix A). However, this assessment considers terrestrial species only as the study area does not support oceanic or aquatic habitat suitable for these species.

4.3.2 Field results

No threatened fauna species were detected in the study area during the field assessment. The study area lacks a number of broad and micro-habitat features that are required by the majority of species returned from database searches, in particular, closed rainforest associations, wetland habitats, rocky or dense leaf litter in the ground layer and hollow-bearing trees. Based on the database search results and the habitat present within the study area the assessment of likelihood for EPBC Act threatened fauna to occur within the study area concluded that two species, the Koala and White-throated needletail, have a moderate likelihood to occur or overfly the study area, respectively (Appendix B). These species are discussed in further detail in the following sections.

Koala

Species overview

The Koala is listed as endangered under the EPBC Act. It is widespread in sclerophyll forest and woodland on foothills and plains on both sides of the Great Dividing Range from about Chillagoe, Queensland to Mt Lofty Ranges in South Australia (Menkhorst & Knight, 2011). In Queensland the species is thought to occur in eight bioregions; Einasleigh Uplands, Wet Tropics, Desert Uplands, Central Mackay Coast, Mitchell Grass Downs, Mulga Lands, Brigalow Belt North and Brigalow Belt South. In many locations Koalas occur as widespread, low density and fragmented populations (DAWE, 2022b).

Koalas in Queensland use a range of habitats, including moist coastal forests, southern and central western sub-humid woodlands, and a number of eucalypt woodlands adjacent to waterbodies in the semi-arid western parts of the state (DAWE, 2022b). The diet of this species is restricted to the foliage of *Eucalyptus*, *Corymbia* and *Angophora* species, and may comprise as few as two preferred tree species in any given location (DAWE, 2022b). The abundance of primary food trees is thought to influence the density of Koalas in a population (Phillips & Callaghan, 2011).

Home ranges for this species have been found to be highly variable and dependant on life history stage, soil fertility, habitat quality and nutritional requirements whereby home ranges can vary between 3 and 500 ha in different locations (DAWE, 2022b).

Habitat modelling, described in the Conservation Advice for *Phascolarctos cinereus* (Koala) combined populations of Queensland, New South Wales and the Australian Capital Territory (Koala Conservation Advice), has shown that habitats for this species occur where the mean maximum summer temperatures are 23-26°C and mean annual rainfall between 700 and 1500 mm. Modelling also showed that Koala occupancy is strongly dependent on annual rainfall and the distance to water features (DAWE, 2022b). The DAWE describes refuge habitat as patches that are resilient to drying conditions due to favourable hydrological systems, e.g. drainage lines and riparian zones (DAWE, 2022b).

Likelihood of occurrence in the study area

Moderate (Appendix B)

Potential habitat in the study area

This species was not recorded during the field assessment and no evidence of this species, in the form of scats or scratches were identified in the study area. Koalas have been recorded sporadically in the region and more commonly in the broader region. Although there are only a handful of published records within 25 km of the study area and few are recent (i.e. within the last 10 years) (CSIRO, 2022). The primary habitat corridor potentially providing for Koala dispersal to and from the study area appears to be via remnant vegetation communities to the south as the Boyne River presents a barrier to the west and marine environments are located to the north and east. Although, connectivity of the study area with surrounding habitats and habitat corridors to the south is somewhat tenuous, as many roads and other infrastructure easements fragment the habitat and present a barrier to dispersal for this species, to some degree. The nearest published record for this species, within this primary habitat corridor (i.e. east of the Bruce Highway and south of the study area), is more than 40 km to the south-south-east (CSIRO, 2022).

Nonetheless, the study area supports marginally suitable habitat in the form of *Eucalyptus* and *Corymbia* communities containing Koala habitat trees and the study area is within the known distribution of the Koala. For this reason, it is considered to have a moderate likelihood to use the study area.

A 2021 review of Koala habitat assessment criteria and methods by the Australian National University (ANU) lists locally important and ancillary habitat trees for the Koala by region (closely aligned with bioregions in Queensland). Spotted Gum, Narrow-leaved Red Ironbark, Queensland Peppermint, Pink Bloodwood, Swamp Box and Forest She-oak recorded in the study area (refer Section 4.1.2) have been listed as either locally important or ancillary Koala habitat trees in the South East Queensland bioregion within the review (Youngentob et al., 2021).

All vegetated areas within the study area provide potential habitat as preferred habitat trees. This habitat equates to approximately 9.9 ha of potential habitat for the Koala (Figure 4).

White-throated Needletail

Species overview

This species is almost exclusively aerial and occurs over forests, woodlands, farmlands, plains, lakes and towns (Pizzey et al., 2012). It is known from above

mainly wooded areas, and larger tracts of vegetation, particularly forest. The species roosts in tree hollows in tall trees on ridge-tops, on bark or rock faces (DCCEEW, 2022q; DotE, 2015).

Likelihood of occurrence in the study area

Moderate (Appendix B)

Potential habitat in the study area

This species was not recorded during the field assessment. There is a moderate likelihood that the White-throated Needletail could overfly the study area as part of wider foraging movements. There is no evidence of traditional roost sites within the study area or surrounding area and therefore it is unlikely that the study area provides important habitat for this species.

Nonetheless, areas of remnant vegetation, within the study area are considered to provide potential foraging habitat for this species as an extension of forests habitats to the south. A total of 9.9 ha of potential foraging habitat for the White-throated Needletail has been mapped in the study area (Figure 4).

4.4 Migratory species

4.4.1 Desktop results

Database searches identified an additional 11 bird species listed as migratory under the migratory provisions of the EPBC Act, as potentially occurring within the search area (Appendix A). A number of oceanic and shorebird birds, sharks, turtles, rays and fish, were also returned from the database searches. However, this assessment considers terrestrial species only as the study area does not support oceanic or aquatic habitats suitable for these species.

4.4.2 Field results

An assessment about the likelihood for migratory birds to use habitats within the study area is provided in Appendix B. This assessment concluded that due to lack of moist, dense forest, aquatic, marine and wetland habitats, all but the Fork-tailed Swift (*Apus pacificus*), Oriental Cuckoo (*Cuculus optatus*) and Osprey (*Pandion haliaetus*) are unlikely to use habitats in the study area. The Oriental Cuckoo may occasionally use habitats within the study area and the Fork-tailed Swift and Osprey may overfly the study area as part of broader foraging ranges.

4.5 Great Barrier Reef Marine Park

The study area is located approximately 850 m to the west of the Great Barrier Reef Marine Park. However, due to the distance from the coastline, the study area is located within the buffer area only of this marine park. The Great Barrier Reef Marine Park is listed as a World Heritage Property and National Heritage Place and is included as MNES under the EPBC Act.

4.6 Wetlands of national importance

While the study area does not contain or sit adjacent to wetland environments, the PMST results indicate that it is located within the buffer area of the following wetlands of national importance:

- Colosseum Inlet - Rodds Bay
- Great Barrier Reef Marine Park
- Port Curtis.

Wetlands of national importance are not protected MNES under the EPBC Act, however, they support a number of plant and animal communities that are listed MNES.

5 Impact assessment

This section presents an assessment of the likely impacts of the project on the MNES considered to potentially occur in the study area.

5.1 Direct impacts

Vegetation clearing and landform modification is required in order to construct the project. For the purposes of this assessment, it has been assumed that the extent of disturbance will be limited to the area identified on Figure 2, which includes all earthworks, fill batters, access and infrastructure associated with construction and operation of the project.

Vegetation clearing for the project will involve impacts to 1.7 ha of the study area. It is noted that there may be further opportunities to reduce the impact footprint, particularly at the front (southern) edge of the study area. The construction environmental management plan (CEMP) outlined in Section 5.3.2, will include measures to minimise the risk of accidental clearing outside the proposed project footprint.

Table 2: Impacts to MNES potentially occurring within the study area

Matter of national environmental significance	Status[1]	Likelihood of occurrence	Study area (ha)	Footprint (ha)
Koala habitat	E	Moderate	9.9	1.7
White-throated Needletail overfly habitat	V	Moderate	9.9 (overfly)	1.7 (overfly)
Fork-tailed Swift habitat	M	Moderate	9.9 (overfly)	1.7 (overfly)
Oriental Cuckoo habitat	M	Moderate	9.9	1.7
Osprey habitat	M	Moderate	9.9	1.7

[1] E = endangered, V = vulnerable, M = migratory under the EPBC Act

5.2 Indirect impacts

Indirect impacts associated with construction and/or operation of the project, if unaddressed, potentially include noise and light pollution, erosion and sedimentation of drainage lines and flow paths, and the introduction of spread of invasive flora species. However, these types of impacts are unlikely to occur beyond the construction phase of the project and therefore, would be temporary, and similar to those already experienced in the surround built up urban areas. New types or substantial increases in threatening processes, on MNES are unlikely to occur as a result of the project in the local area. Nonetheless, industry accepted measures, such as watering, normal day time construction hours, installation of sediment and erosion controls during construction and maintained landscaping will be implemented to minimise and manage indirect impacts.

5.3 Impact mitigation

5.3.1 Measures to avoid impacts

Design of the project has been influenced largely by landform elevations and access, as there are no specific ecological features within the study area that have influenced the siting of the project. Nonetheless, the footprint has been reduced to the smallest area practical, due to economic and functional drivers, but which has the added benefit of reducing earthworks, vegetation clearance and the overall ecological disturbance footprint.

5.3.2 Measures to manage indirect impacts during the construction phase of the project

A construction environmental management plan (CEMP) will be prepared for the project that will require the following measures to indirect manage impacts during the vegetation clearing stage of the project:

- delineation of the limits of disturbance and vegetation clearing, direction of clearing and sensitive clearing methods
- the preparation of a species management plan (SMP) in accordance with the Queensland *Nature Conservation Act 1992*, including the use of a spotter/catcher during vegetation disturbance phases of the project who will:
    - identify roosting and nesting fauna/places and relocate the animal/place to another suitable location (ideally within close proximity to the removal site)
    - identify Koalas that may move into the area and ensure these are left undisturbed (i.e. leave the tree the animal occupies and connective trees to adjacent habitat to be retained) until it has moved away from the impact area on their own accord
    - establish additional/alternative micro-habitat features (e.g. logs, hollows trees) in the final landscaping where necessary.

Industry accepted measures, such as watering, normal day time construction hours, installation of sediment and erosion controls during construction, weed management and maintained landscaping will be implemented to minimise and manage indirect impacts.

5.4 Significance of impacts

Offsets are required under the EPBC Act if an action is likely to give rise to a significant residual impact on MNES. The *EPBC Act Environmental Offsets Policy* (SEWPaC, 2012) details requirements under the EPBC Act in relation to biodiversity offsets. The *Significant Impact Guidelines 1.1: Matters of National Environmental Significance* (Significant Impact Guidelines) (DotE, 2013) provides guidance to assist with determining whether an impact is considered significant.

The following sections outline the potential significant residual impacts to MNES considered to have a moderate likelihood of occurrence in the study area. TECs were not identified within or adjacent to the study area and it is unlikely that threatened flora occur within or adjacent to the study area. Therefore, this section addresses potential impacts to threatened fauna and migratory birds considered.

5.4.1 Impacts to threatened fauna

This assessment has found that there is potential for two threatened fauna species to use the study area, namely the Koala and White-throated Needletail.

The assessment of significance of impacts to these species provided in the following sections, considers that while it is unlikely the project would significantly impact the White-throated Needletail, the DCCEEW may consider impacts to 1.7 ha of potential Koala habitat as significant given the endangered status of this species under the EPBC Act.

Koala

Presence in the study area

Approximately 9.9 ha of potential habitat is present in the study area. This habitat comprises locally important and ancillary Koala habitat trees as identified by Youngentob et al., 2021. However, the study area is flanked on three sides by urban residential development and does not provide connectivity of habitat between more extensive remnant habitats to the south and any other habitat areas in the region. The study area essentially forms a 'dead end' for Koalas in the region (Figure 1). A number of constraints to movement occur to the west and south-west of the study area (i.e. Boyne River to the west, Bruce Highway to the south-west, estuarine marine habitats, including Wild Cattle Creek to the south-east and east, urban development in an arc to the north), which possibly limits the contribution and value of the study area to habitat for this species in the landscape. The lack of records in the region may be an artefact of this in combination with the urbanised pressures that would face the Koala where the study area is located.

No evidence of Koalas was identified in the study area during the field assessment. There are only two records within 10 km of the study area (one undated) and there is little evidence of this species within the broader region (i.e. within 25 km of the study area) in the last 30 years (CSIRO, 2022). There are many more records of this species in the subregion to the west of the Bruce Highway, which is 6 km south-west of the study area.

Proposed impacts

The 2019 remnant vegetation cover for the Burnett - Curtis Hills and Ranges subregion (Accad et al., 2022) was reviewed to gain an understanding of the potential extent of Koala habitat in the subregion. The data was filtered to show the extent of REs supporting potential Koala habitat trees (i.e. species from the genera *Eucalyptus*, *Corymbia*, *Melaleuca*, *Lophostemon*, *Casuarina* and *Allocasuarina*) that occur within the protected area estate (i.e. national parks, timber reserves and state forests) in Queensland. This analysis indicates there is 143,625 ha of potential habitat supporting Koala food trees within protected areas in the subregion. Additional areas of habitat occur outside this protected area, on freehold and leasehold lands.

The proposed clearing of 1.7 ha of potential habitat for the project accounts for less than 0.001% of potential protected habitat in the subregion.

Current known threats

Current known and potential future threats to the Koala include:

- loss of climatically suitable habitat
- increased intensity and frequency of droughts and heatwaves
- increased intensity and frequency of bushfire
- declining nutritional value of foliage
- clearing and degradation of Koala habitat
- encounter mortality with vehicles and dogs
- Koala retrovirus (KoRV) and Chlamydia (*Chlamydia percorum*) (DAWE, 2022b).

Avoidance, mitigation and management measures

Impacts to potential Koala habitat within the project footprint cannot be avoided due to the nature of the proposed facility that requires clearing of the vegetation present. However, the footprint has been located in consideration of landform to reduce the extent of earthworks required and therefore minimise the amount of vegetation clearing. In addition, the location of the aquatic centre at the front of the allotment adjacent to Coronation Drive minimises fragmentation of habitat in the study area and minimises potential for conflict with vehicles. These measures have resulted in a scaling down of the overall extent of vegetation clearing required.

Plans and procedures will be developed for the construction phase of the project to manage and monitor impacts to flora and fauna, including and CEMP and SMP. Combined, these plans will set out the protocols for vegetation clearing and earthworks to minimise harm to individuals and protect habitat to be retained.

Significance of residual impacts

Table 3 provides an assessment of the significance of potential impact to the Koala against the Commonwealth Significance Impact Guidelines.

Table 3: Assessment of significance of impacts for the Koala

Significance criteria	Assessment of significance
An action is likely to have a significant impact on an endangered species if there is a real chance or possibility that it will:	
lead to a long-term decrease in the size of a population	Given the lack of records of this species in the region in the last few decades and absence of evidence of this species in the study area, it is unlikely that the study area is used frequently or consistently by Koalas. Therefore, the proposed clearing of 1.7 ha of potential habitat is unlikely to reduce the size of a population in the region as the clearing represents a very small proportion of habitat that will remain in the region and it would not provide refuge habitat for this species.
reduce the area of occupancy of the species	Potential similar habitat, if not better quality, occurs commonly in the surrounding region, particularly in ranges to the west and the habitat in the study area is not considered to be unique or particularly significant for the

Significance criteria	Assessment of significance
An action is likely to have a significant impact on an endangered species if there is a real chance or possibility that it will:	
	Koala. It is unlikely this species uses habitats within the study area consistently or is reliant on these habitats. Due to the availability of similar habitat that will remain within the study area and the broader region, as well as the mobility of the Koala, the clearing of 1.7 ha is considered unlikely to affect the area of occupancy of this species in the region. The Koala will be able to continue to occupy and move through the landscape, as the study area is unlikely to form part of an important movement corridor or provide refuge habitat for this species.
fragment an existing population into two or more populations	Connectivity of habitat will not be compromised as a result of the project. Coronation Drive already presents a constraint to movement between the study area and adjacent areas to some extent. Vegetation along the southern edge of the study area will be maintained either side of the proposed footprint (Figure 4).
adversely affect habitat critical to the survival of a species	The study area is unlikely to be critical to the survival of the Koala, because the potential habitat present is unlikely to provide: ▪ seasonal or climate refugia resources, due to lack of waterways, or persistent moist conditions ▪ important movement/dispersal opportunities between larger patches ▪ safe access, shelter and avoidance of threats (e.g. predation by domestic dogs and foxes and collision with vehicles), given the extent of urbanised areas surrounding the study area.
disrupt the breeding cycle of a population	It is not known if the Koala breeds within the study area. It is possible, although unlikely given the few records in the region (and therefore number of Koalas in the region), lack of refugia and the built up nature of surrounding areas. Nonetheless, the clearing of 1.7 ha of potential habitat, over a relatively short period of time, is unlikely to disrupt the breeding cycle of a population. Standard industry recognised measures will be employed during vegetation clearing activities to minimise harm and disruption to animals and breeding places in accordance with the Queensland Species Management Plan. This will reduce the risk and extent of disruption to the breeding cycle of Koalas that potentially use the study area.
modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that	The project will require the clearing of potential habitat. However, this is a very small proportion of habitat that potentially occurs in the broader region, any tenuous habitat connectivity provided by the study area will be maintained and larger tracts of likely better quality habitat

Significance criteria	Assessment of significance
An action is likely to have a significant impact on an endangered species if there is a real chance or possibility that it will:	
the species is likely to decline	occurs throughout the landscape to the west of the study area. Therefore, it is unlikely the impacts to 1.7 ha of potential habitat will cause the species to decline.
result in invasive species that are harmful to an endangered species becoming established in the endangered species' habitat	The study area is located within a peri-urban landscape where introduced plants and feral predators are already present, e.g. feral and domestic cats and feral and domestic dogs, and foxes. These types of predatory species are drawn to areas of disturbance to prey upon animals moving away from the area of disturbance. Therefore, the risk of predation by feral animals may be slightly elevated during and immediately after clearing activities. However, the clearing required will not result in new invasive species becoming established in Koala habitat, as these species are already established throughout the landscape and the risk of predation during the clearing phase of the project will be managed through the SMP.
introduce disease that may cause the species to decline, or	Three viruses are known to affect Koalas in the wild, Chlamydia and Koala Retrovirus (KoRV-A and KoRV-B). Studies have shown that potentially 100% of Koalas in the wild in Queensland and New South Wales have the Retrovirus, and the majority of Queensland and New South Wales populations are infected with Chlamydia (Hanger & Loader, 2009). While a large proportion of the Koala population in any given area may be infected with these diseases, not all show outward signs of the diseases. Chronic stress, such as habitat loss, disturbance, degradation, heat-stress and poor nutrition, has been suggested to trigger development of the disease in infected Koalas (Youngentob et al., 2021). However, the proposed project does not present a significant mechanism whereby the clearing of a small area of potential habitat would result in the introduction or increase the prevalence of these diseases in a local Koala population. This is because large areas of potential refuge habitat will remain in the landscape and use of the study area is likely to be infrequent given lack of records in the region and the already built up nature of the region.
interfere with the recovery of the species.	The project will result in the clearing of 1.7 ha of potential habitat for this species. The extent of clearing is considered unlikely to interfere substantially with the recovery of the Koala as: ▪ extensive similar, if not better quality, habitat areas occur elsewhere in the local and regional landscape ▪ potential habitat is unlikely to be relied upon by this species due to the proximity to built up areas, and

Significance criteria	Assessment of significance
An action is likely to have a significant impact on an endangered species if there is a real chance or possibility that it will:	
	associated threats to this species (predation by dogs, cats and foxes, and vehicle mortality) ▪ there is a lack of connectivity on three sides ▪ the study area lacks refuge habitat. Indirect impacts associated with the project, such as noise, dust, light, weeds and pest animals are unlikely to interfere with the recovery of this species as these types of threats are already acting on habitat in the study area. Indirect impacts will be managed to the extent that they are unlikely to have a significant effect on the Koala. Therefore, it is considered unlikely the project will interfere substantially with the recovery of the Koala.
Conclusion	*The project will clear 1.7 ha of potential Koala habitat, although this habitat is unlikely to be critical to the survival of the species and doesn't appear to be used at present or contribute to a larger home range of a population given the lack of recent records for the region directly connected within the study area. While it is considered unlikely that the clearing for the project would interfere substantially with the recovery of the Koala, recent conservation advice published by the DCCEEW indicates that very few actions would not result in a significant impact to the Koala, e.g. clearing of individual or small groups (less than 10) of paddock trees* (DCCEEW, 2022y). *Therefore, there is potential for DCCEEW to determine the project to have a significant impact on the Koala.*

White-throated Needletail

Presence in the study area

There is a moderate likelihood that the White-throated Needletail could overfly the study area as part of wider foraging movements, as there are a number of records for the region.

However, this is an almost exclusively aerial species, which is unlikely to use the study area for roosting due to the unremarkable nature and relatively low growth of the vegetation present. No evidence of roosting of by this type of species was observed in the study area during the field assessment. All vegetated areas (i.e. 9.9 ha) may provide potential overfly habitat for this species (Figure 4).

Proposed impacts

Approximately 1.7 ha of potential overfly habitat is proposed to be cleared for the project. This is a very small proportion of potential habitat available to this species in the subregion, of which approximately 237,866 ha of potential habitat (in the

form of remnant wooded vegetation) is within the protected area estate in the Burnett – Curtis Hills and Ranges subregion (Accad et al., 2022). Much more potential habitat occurs outside this protected area and this species will overfly cleared and otherwise disturbed areas as part of foraging movements.

Importance of the population

The population of White-throated Needletail that are likely to overfly study area is unlikely to be an important population as follows:

- Key source populations either for breeding or dispersal

This species does not breed in Australia, being a spring/summer migrant to the southern hemisphere. Large numbers of this species were not recorded in the vicinity of the study area and therefore it is considered unlikely that the population that may overfly the study area at any given time is ecologically significant or forms part of a key source population.

- Populations that are necessary for maintaining genetic diversity, and/or

The population that migrates to Australia is not specifically necessary for maintaining genetic diversity. Large numbers of this species were not recorded in the vicinity of the study area and therefore it is considered unlikely that the population that may overly the study area at any given time is ecologically significant and therefore unlikely to be necessary for maintaining genetic diversity.

- Populations that are near the limit of the species range.

The study area is not at the limit of this species' distribution in Australia.

Current known threats

Known and potential threats to the White-throated Needletail in Australia are listed as:

- collision with wind turbines, overhead wires, windows and lighthouses (DCCEEW, 2022q; TSSC, 2019)
- loss of forest and woodland habitats resulting in reduction in invertebrate prey and potentially roosting habitats (TSSC, 2019)
- the use of insecticides, particularly organochlorines, potentially causing decline in abundance of invertebrate food resources and/or causing secondary accumulated poisoning from insects (TSSC, 2019).

Avoidance, mitigation and management measures

Impacts to potential White-throated Needletail habitat within the project footprint cannot be avoided due to the nature of the proposed facility that requires clearing of the vegetation present. However, the footprint has been located in consideration of landform to reduce the extent of earthworks required and therefore minimise the amount of vegetation clearing. In addition, the location of the aquatic centre at the front of the allotment adjacent to Coronation Drive minimises fragmentation of habitat in the study area and minimises potential for conflict with vehicles. These measures have resulted in a scaling down of the overall extent of vegetation clearing required.

Plans and procedures will be developed for the construction phase of the project to manage and monitor impacts to flora and fauna, including and CEMP and SMP.

Combined, these plans will set out the protocols for vegetation clearing and earthworks to minimise harm to individuals and protect habitat to be retained.

Significance of residual impacts

Table 3 provides an assessment of the significance of potential impact to the Koala against the Commonwealth Significance Impact Guidelines.

Table 4: Assessment of significance of impacts for the White-throated Needletail

Significance criteria	Assessment against criteria
An action is likely to have a significant impact on a vulnerable species if there is a real chance or possibility that it will:	
Lead to a long-term decrease in the size of an important population of a species	It is considered unlikely that the population that potentially overflies the study area is an important population.
Reduce the area of occupancy of an important population	It is considered unlikely that the population that potentially overflies the study area is an important population.
Fragment an existing important population into two or more populations	It is considered unlikely that the population that potentially overflies the study area is an important population.
Adversely affect habitat critical to the survival of a species	Habitat critical to the survival of this species has not been defined within the relevant EPBC Act Plans, nor is there any habitat listed on the Register of Critical Habitat for this species. The study area does not support unique or important habitat for this species. Therefore, habitat to the survival of this species is not proposed to be impacted as a result of the project.
Disrupt the breeding cycle of an important population	This species does not breed in Australia; therefore, the project will not disrupt the breeding cycle of a population.
Modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline	The proposed vegetation clearing will not impact habitat for this species to the extent that the species is likely to decline. This is because the species is unlikely to use the vegetation within the study area specifically for feeding or roosting, as it is an almost exclusively aerial species, is highly mobile and is known to forage and migrate over large distances. As the proposed clearing will be minimal (i.e. 1.7 ha) and the species is known to forage above vegetated and disturbed areas, it is unlikely that aerial feeding habitat will be significantly disturbed by the project. Furthermore, the clearing of overfly habitat accounts for a very small proportion of the potential vegetated overfly habitat in the subregion, as outlined above. Therefore, overall, the project is unlikely to impact potential overfly habitat for this species to the extent that the species

Significance criteria	Assessment against criteria
	is likely to decline nor would it contribute to significant adverse cumulative impacts on this species.
Result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat	This is an almost exclusively aerial species. Therefore, the invasive terrestrial plants and feral animals known to already occur in the area surrounding the study area are unlikely to pose a threat to this species. It is highly unlikely that the project would result in invasive species becoming established in White-throated Needletail habitat.
Introduce disease that may cause the species to decline, or	Disease is not a known threat to this species. Therefore, the project is unlikely to introduce any disease that may cause the White-throated Needletail to decline.
Interfere substantially with the recovery of the species.	The project is considered unlikely to substantially interfere with the feeding or migratory behaviour of the White-throated Needletail that occur in the region as it will not impact the aerial habitat for this species, vegetation clearing will be minimal, and the vegetated overfly habitat accounts for a very small proportion of potential overfly habitat in the subregion.
Conclusion	*The project is unlikely to cause a significant impact to the White-throated Needletail as this species is almost exclusively aerial, is known to forage over disturbed areas, and the species does not breed in Australia. In addition, it is considered unlikely that the population that is likely to overfly the ecology study area is an important population. Furthermore, the extent of clearing proposed is likely to be insignificant for this species in the broader landscape.*

5.4.2 Impacts to migratory birds

In addition to the species discussed in Section 5.4.1, three terrestrial migratory birds listed under the EPBC Act are considered to potentially to use habitats in the study area, namely:

- Fork-tailed Swift
- Oriental Cuckoo
- Osprey.

The *Draft EPBC Act referral guidelines for 14 birds listed as migratory under the EPBC Act* (Referral guideline for 14 migratory species) has been used to assess the potential significance of impacts to these birds, as these are specifically listed in this guideline.

The purpose of this guideline is to assist in determining the level of risk of a significant impact to the 14 migratory species listed in the guideline. The guideline presents a decision making flowchart that steps through three key considerations. The following addresses each of these key considerations in relation to these three migratory species that are considered to potentially use habitats within the study area.

Is the activity within the range of any of the 14 migratory species?

Using the modelled distribution maps for each of the species within the Referral guideline for 14 migratory species, the study area is within the core range of the Fork-tailed Swift and Osprey and core non-breeding range of the Oriental Cuckoo.

Is the activity likely to substantially modify, destroy or isolate an area of important habitat for any of the 14 migratory species?

As defined in the Referral guideline for 14 migratory species, important habitat may be present in the study area for the Oriental Cuckoo, although is unlikely to be present for the Fork-tailed Swift as they are an exclusively aerial species and Osprey is likely to be limited to waterways, waterbodies and coastal wetland habitats.

Approximately 1.7 ha of potentially important habitat for the Oriental Cuckoo is proposed to be cleared. The extent of proposed clearing is the same for the Fork-tailed Swift and Osprey (Figure 4).

This impact does not near the impact area thresholds described in the Referral guideline for 14 migratory species outlined in Table 5 below. The proposed impacts to migratory species' important habitat is summarised in Table 5 in relation to the maximum impact area thresholds outlined in the Referral guideline for 14 migratory species.

Table 5: Impact area and ecologically significant proportion of a population thresholds

Migratory species	Within the range?	Impact area thresholds (ha)		Ecologically significant proportion of a population (individuals)	
		1%	0.1%	1%	0.1%
Fork-tailed Swift	Yes (core)	*	*	1,000	100
Oriental Cuckoo	Yes (core non-breeding)	250,000	25,000	10,000	1,000
Osprey	Yes (core)	840 km coastline	84 km coastline	240	24

Source: (DotE, 2015)
Note: Thresholds of 1% are considered internationally significant and thresholds of 0.1% are considered nationally significant.
* No threshold area can be determined at this time given lack of knowledge or rarity (DotE, 2015).

Is the activity likely to seriously disrupt the lifecycle of an ecologically significant proportion of a population of one or more of the 14 migratory species (DotE, 2015)?

The migratory species listed in Table 5, which potentially occur in or overfly the study area, are not considered threatened in Australia, have a least concern global listing status (BirdLife International, 2022) and are relatively common and widespread. However, there is no evidence of large populations of these species occurring within or in close proximity to the study area and given the built up

nature of the surrounding region, such large populations would be recognised. Therefore, the project is considered highly unlikely to seriously disrupt the lifecycle of an ecologically significant proportion of a population of any of these migratory bird species.

In addressing each of the key questions in the Referral guideline for 14 migratory species and listed above, it is considered there is a low risk of significant impacts to the Fork-tailed Swift, Oriental Cuckoo and Osprey as a result of the project.

5.5 Residual impacts and offset liability

Biodiversity offsets are required under the EPBC Act if an action is likely to give rise to a significant residual impact on MNES. The EPBC Act Environmental Offsets Policy (SEWPaC, 2012) details requirements under the EPBC Act in relation to biodiversity offsets. The Commonwealth Significant Impact Guidelines (DotE, 2013) provides guidance to assist with determining whether an impact is considered significant. For some species, there are also species-specific guidelines available to assist with determining whether an impact is considered to be significant (e.g. Referral Guideline for 14 Migratory Species (DotE, 2015)).

The assessments of significance, provided in the previous sections, concluded that given the proposed extent of clearing (approximately 1.7 ha of potential habitat) and absence of important habitat and important populations it is unlikely that the project would result in a significant impact to the vulnerable White-throated Needletail or migratory Fork-tailed Swift, Oriental Cuckoo or Osprey.

With regard to the Koala, the study area is considered unlikely to support a consistent population of this species and potential habitat is of marginal quality within the study area, due to the lack of connectivity and refuge habitat, presence of threats due to surrounding urban land uses and minimal records of this species in the region. However, despite the small area of proposed impact to marginal habitat, the DCCEEW may consider any impacts to potential habitat for the Koala significant under the guidelines.

6 References

Accad, A., Kelley, J.A.R., Richter, D., Neldner, V.J. & Li, J. (2022) *Remnant Regional Ecosystem Vegetation in Queensland (Version 12.2), Analysis 1997 - 2019*. Department of Environment and Science, Queensland Government, Brisbane.

BirdLife International (2022) *The IUCN Red List of Threatened Species*. International Union for Conservation of Nature and Natural Resources, United Kingdom. https://www.iucnredlist.org/.

Brooker, M.I.A. & Kleinig, D.A. (2008) *Field Guide to Eucalypts: Northern Australia*. Field Guide to Eucalypts. Bloomings Books, Melbourne.

Chapple, D.G. (2003) Ecology, life-history, and behavior in the Australian scincid genus Egernia, with comments on the evolution of complex sociality in lizards. *Herpetological Monographs*. 17 (1), 145–180.

Churchill, S. (2009) *Australian Bats*. Allen & Unwin, Crows Nest.

CMS (2022) *Convention on the Conservation of Migratory Species of Wild Animals*. The Convention on Migratory Species, Bonn, Germany. http://www.cms.int/.

Cogger, H.G. (2000) *Reptiles and amphibians of Australia*. Ralph Curtis Books, Melbourne.

CSIRO (2022) *Atlas of Living Australia*. Global Biodiversity Information Facility, Canberra. . https://spatial.ala.org.au.

DAWE (2022a) *Conservation Advice for Petaurus australis australis (yellow-bellied glider (south-eastern))*. Department of Climate Change, Energy, the Environment and Water. Australian Government, Canberra. https://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=87600.

DAWE (2022b) *Conservation Advice for Phascolarctos cinereus (Koala) combined populations of Queensland, New South Wales and the Australian Capital Territory*. Department of Agriculture, Water and the Environment, Australian Government, Canberra.

DAWE (2021) *Conservation Advice for Xeromys myoides (Water Mouse)*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. http://www.environment.gov.au/biodiversity/threatened/species/pubs/66-conservation-advice-29092021.pdf.

DAWE (2022c) *Cycas megacarpa SPRAT profile*. Department of Agirculture, Water and the Environment, Australian Government, Canberra. https://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=55794.

DAWE (2022d) *Cycas ophiolitica SPRAT Profile*. Department of Agirculture, Water and the Environment, Australian Government, Canberra. https://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=55797.

DAWE (2022e) *National Flying-fox monitoring viewer*. Department of Agirculture, Water and the Environment, Australian Government, Canberra. https://www.environment.gov.au/webgis-framework/apps/ffc-wide/ffc-

wide.jsf.

DAWE (2022f) *Pandion haliaetus - Osprey SPRAT Profile*. Department of Agriculture, Water and the Environment, Australian Government, Canberra. https://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=952.

DCCEEW (2022a) *Apus pacificus - Fork-tailed Swift SPRAT Profile*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. https://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=678.

DCCEEW (2022b) *Conservation Advice for Calyptorhynchus lathami lathami (South-eastern Glossy Black Cockatoo)*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. http://www.environment.gov.au/biodiversity/threatened/species/pubs/67036-conservation-advice-10082022.pdf.

DCCEEW (2022c) *Conservation Advice for Hemiaspis damelii (grey snake)*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. http://www.environment.gov.au/biodiversity/threatened/species/pubs/1179-conservation-advice-05102022.pdf.

DCCEEW (2022d) *Conservation Advice for Petauroides volans (greater glider (southern and central))*. Department of Climate Change, Energy, the Environment and Water. https://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=254.

DCCEEW (2022e) *Cupaniopsis shirleyana - Wedge-leaf Tuckeroo SPRAT Profile*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. https://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=3205.

DCCEEW (2022f) *Dasyurus hallucatus - Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu] SPRAT Profile*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=331.

DCCEEW (2022g) *Delma torquata - Adorned Delma, Collared Delma SPRAT Profile*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=1656.

DCCEEW (2022h) *Dichanthium setosum - bluegrass SPRAT Profile*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=14159.

DCCEEW (2022i) *Egernia rugosa - Yakka Skink SPRAT Profile*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=1420.

DCCEEW (2022j) *Epthianura crocea macgregori - Capricorn Yellow Chat, Yellw Chat (Dawson) SPRAT Profile*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra.

http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=67090.

DCCEEW (2022k) *Erythrotriorchis radiatus - Red Goshawk SPRAT Profile*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. https://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=942.

DCCEEW (2022l) *Eucalyptus raveretiana - Black Ironbox SPRAT Profile*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. https://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=16344.

DCCEEW (2022m) *Furina dunmalli - Dunmall's Snake SPRAT Profile*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=59254.

DCCEEW (2022n) *Gallinago megala - Swinhoe's Snipe SPRAT Profile*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=864.

DCCEEW (2022o) *Gallinago stenura - Pin-tailed Snipe SPRAT Profile*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=841.

DCCEEW (2022p) *Geophaps scripta scripta - Squatter Pigeon (southern) SPRAT Profile*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=64440.

DCCEEW (2022q) *Hirundapus caudacutus - White-throated Needletail SPRAT Profile*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. https://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=682.

DCCEEW (2022r) *Macadamia integrifolia - Macadamia Nut, Queensland Nut Tree, SMooth-shelled Macadamia, Bush Nut, Nut Oak SPRAT Profile*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. https://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=7326.

DCCEEW (2022s) *Migratory birds International cooperation*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. https://www.dcceew.gov.au/environment/biodiversity/migratory-species/migratory-birds#toc_1.

DCCEEW (2022t) *Monarcha melanopsis - Black-faced Monarch SPRAT Profile*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. https://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=609.

DCCEEW (2022u) *Neochmia ruficauda ruficauda - Star Finch (eastern), Star Finch (southern) SPRAT Profile*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. http://www.environment.gov.au/cgi-

bin/sprat/public/publicspecies.pl?taxon_id=26027.

DCCEEW (2022v) *Pandion haliaetus - Osprey SPRAT Profile*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. https://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=952.

DCCEEW (2022w) *Protected Matters Search Tool*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. https://www.dcceew.gov.au/environment/epbc/protected-matters-search-tool.

DCCEEW (2022x) *Pteropus poliocephalus - Grey-headed Flying-fox SPRAT Profile*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=186.

DCCEEW (2022y) *Referral guidance for the endangered koala*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. https://www.dcceew.gov.au/environment/biodiversity/threatened/publications/referral-guidelines-endangered-koala.

DCCEEW (2022z) *Rostratula australis - Australian Painted Snipe SPRAT Profile*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=77037.

DCCEEW (2022aa) *Samadera bidwillii - Quassia SPRAT Profile*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. https://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=29708.

DCCEEW (2022ab) *Turnix melanogaster - Black-breasted Button-quail SPRAT Profile*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=923.

DES (2022a) *Biodiversity status of 2019 remnant regional ecosystems - Queensland, Version 12.2*. Department of Environment and Science, Queensland Government, Brisbane.

DES (2022b) *Flora Survey Trigger Map for Clearing Protected Plants in Queensland - version 9.0*. Department of Environment and Science, Queensland Government, Brisbane.

DES (2022c) *Species profile - Cossinia australiana*. Department of Environment and Science, Queensland Government, Brisbane. https://apps.des.qld.gov.au/species-search/details/?id=13684.

DES (2022d) *Wildlife Online Extract*. Department of Environment and Science, Queensland Government, Brisbane. https://apps.des.qld.gov.au/report-request/species-list/.

DEWHA (2008a) *Approved Conservation Advice for Cossina australiana (Cossinia)*. Department of Agriculture, Water and the Environment, Australian Government, Canberra. https://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=3066.

DEWHA (2008b) *Approved Conservation Advice for Fontainea venosa*. Department of Climate Change, Energy, the Environment and Water, Australian Government, Canberra. http://www.environment.gov.au/biodiversity/threatened/species/pubs/24040-conservation-advice.pdf.

DoEE (2019) *Cyclopsitta diophthalma coxeni — Coxen's Fig-Parrot SPRAT Profile*. Department of the Environment and Energy, Australian Government, Canberra. http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=59714.

DotE (2015) *Referral guideline for 14 birds listed as migratory species under the EPBC Act*. Department of the Environment, Australian Government, Canberra. https://www.environment.gov.au/biodiversity/threatened/publications/epbc-act-referral-guidelines-migratory-birds.

DotE (2016) *Rostratula australis - Australian Painted Snipe SPRAT Profile*. Department of the Environment, Australian Government, Canberra. http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=77037.

DotE (2013) *Significant Impact Guidelines 1.1: Matters of National Environmental Significance*. Department of the Environment, Australian Government, Canberra.

DR (2022) *Vegetation management regulated vegetation management map - version 6.02*. Department of Resources, Queensland Government, Brisbane.

van Dyck, S., Gynther, I. & Baker, A. (2013) *Field Companion to The Mammals Of Australia*. New Holland Publishers, Chatswood.

van Dyck, S. & Strahan, R. (2008) *The Mammals of Australia*. New Holland Publishers, Sydney.

Garnett, S.T., Szabó, J. & Dutson, G. (2011) *The Action Plan for Australian Birds 2010*. CSIRO Publishing, Collingwood, Victoria.

Glossy Black Conservancy (2010) *Glossy black-cockatoo Conservation Guidelines for South-Eastern Queensland and far North-Eastern New South Wales*. Glossy Black Conservancy.

Hanger, J. & Loader, J. (2009) *Infectious disease in koalas: Implications for conservation. In: Koala Conservation Conference.* Friends of the Koala, Lismore.

Harden, G.J., McDonald, B., McDonald, W.J. & Williams, J.B. (2006) *Rainforest Trees and Shrubs: A Field Guide to Their Identification in Victoria, New South Wales and Subtropical Queensland Using Vegetative Features*. Gwen Harden Publishing, Nambucca Heads, New South Wales.

Higgins, P. & Davies, S.J.J.F. (eds.) (1996) *Handbook of Australian, New Zealand and Antarctic Birds. Volume 3 Snipe to Pigeons*. Oxford University Press, Melbourne.

Higgins, P.J., Peter, J.M. & Cowling, S.J. (eds.) (2006) *Handbook of Australian, New Zealand and Antarctic Birds. Volume 7 Boatbill to Starlings*. Oxford University Press, Melbourne.

Marchant S. & Higgins, P. (1993) *Handbook of Australian, New Zealand & Antarctic*

Birds, Volume 2 Raptors to Lapwings. S. Marchant & P.J. Higgins (eds.). Oxford University Press, Melbourne.

Marchant, S. & Higgins, P. (eds.) (1994) *The Handbook of Australian, New Zealand and Antarctic Birds: Volumes 1 & 2*. Oxford University Press, Melbourne.

McGregor, D.C., Padovan, A., Georges, A., Krockenberger, A., Yoon, H. & Youngentob, K.N. (2020) Genetic evidence supports three previously described species of greater glider, Petauroides volans, P. minor, and P. armillatus. *Nature Research*. 10 (19284), 1–11.

Melzer, R., Plumb, J. & (Qld.), C.C.C. (2007) *Plants of Capricornia*. Capricorn Conservation Council, Rockhampton.

Menkhorst, P. & Knight, F. (2011) *Field Guide to Mammals of Australia*. Oxford University Press, Melbourne.

NRM (2011) *Geological Survey of Queensland*. Department of Natural Resources and Mines, Queensland Government, Brisbane.

Phillips, S. & Callaghan, J. (2011) The Spot Assessment Technique: a tool for determining localised levels of habitat use by Koalas Phascolarctos cincereus. *Australian Zoologist*. 33 (3), 774–780.

Pizzey, G., Knight, F. & Pizzey, S. (2012) *The Field Guide to the Birds of Australia*. 9th edition. HarperCollins Publishers, Sydney.

Queensland Herbarium (2007) *National Multi-species Recovery Plan for the cycads, Cycas megacarpa, Cycas ophiolitica, Macrozamia cranei, Macrozamia lomandroides, Macrozamia pauli-guilielmi and Macrozamia platyrachis*. Prepared for the Commonwealth Department of Environment and Water Resources, Environmental Protection Agency, Queensland Government, Brisbane. http://www.environment.gov.au/biodiversity/threatened/publications/cycads.html.

Queensland Herbarium (2021) *Regional Ecosystem Description Database (REDD) Version 12.1 (December 2021)*. Department of Environment and Science, Queensland Government, Brisbane.

SEWPaC (2012) *Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy (October 2012)*. Department of Sustainability, Environment, Water, Population and Communities, Australian Government, Canberra. http://www.environment.gov.au/epbc/publications/pubs/offsets-policy.pdf.

TSSC (2016) *Approved Conservatino Advice for Ghost Bat (Macrodrma gigas)*. Department of the Environment, Australian Government, Canberra. http://www.environment.gov.au/biodiversity/threatened/species/pubs/174-conservation-advice-05052016.pdf.

TSSC (2008a) *Approved Conservation Advice for Bosistoa transversa s. lat. (Three-leaved Bosistoa)*. Department of the Environment, Australian Government, Canberra. http://www.environment.gov.au/biodiversity/threatened/species/pubs/78841-conservation-advice.pdf.

TSSC (2008b) *Approved Conservation Advice for Cupaniopsis shirleyana (Wedge-leaf Tuckeroo)*. Department of the Environment, Australian Government,

Canberra. http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=3205.

TSSC (2008c) *Approved Conservation Advice for Eucalyptus raveretiana (Black Ironbox)*. Department of the Environment, Australian Government, Canberra. http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=16344.

TSSC (2008d) *Approved Conservation Advice for Quassia bidwillii (Quassia)*. Department of the Environment, Australian Government, Canberra.

TSSC (2005) *Commonwealth Listing Advice on Northern Quoll (Dasyurus hallucatus)*. Department of the Environment, Australian Government, Canberra.

TSSC (2013) *Commonwealth Listing Advice on Rostratula australis (Australian Painted Snipe)*. Department of the Environment, Australian Government, Canberra.

TSSC (2020) *Conservation Advice Falco hypoleucos Grey Falcon*. Department of Agriculture, Water and the Environment, Commonwealth Government, Canberra.

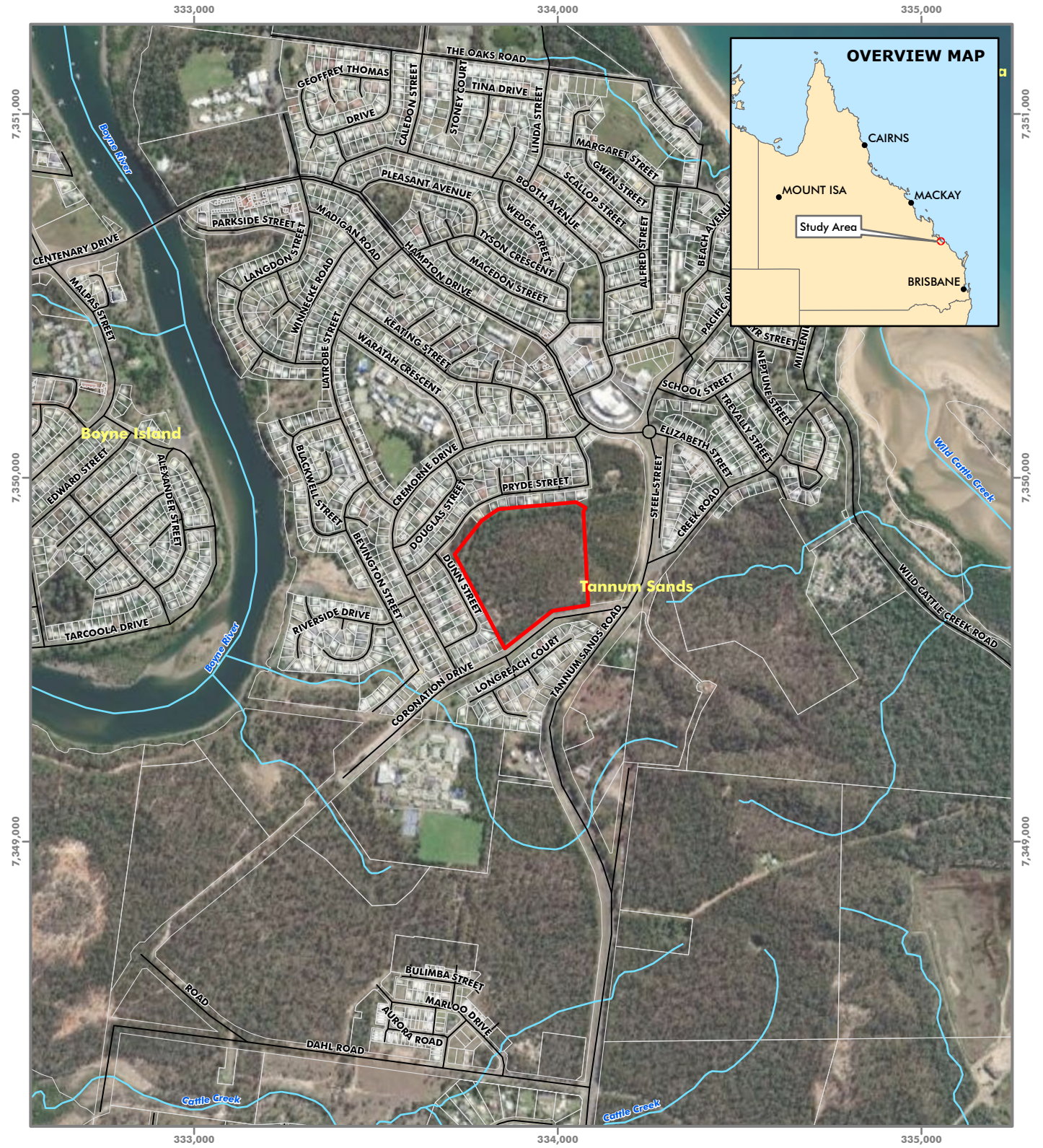
TSSC (2019) *Conservation Advice Hirundapus caudacutus White-throated needletail*. Department of the Environment and Energy, Australian Government, Canberra. http://www.environment.gov.au/biodiversity/threatened/species/pubs/682-conservation-advice-04072019.pdf.

Wilson, S. (2005) *A Field Guide to Reptiles of Queensland*. New Holland, Sydney.

Woinarski, J.C.Z., Oakwood, M., Winter, J., Burnett, S., Milne, D., Foster, P., Myles, H. & B, H. (2008) *Surviving the toads: patterns of persistence of the northern quoll Dasyurus hallucatus in Queensland*. Report to the Australian Government's Natural Heritage Trust, Australian Government, Northern Territory Government. http://lrm.nt.gov.au/__data/assets/pdf_file/0015/17502/qld_quolls_finalreport.pdf.

Youngentob, K.N., Marsh, K.F. & Skewes, J.A. (2021) *A review of koala habitat assessment criteria and methods*. Austraian National University, Report prepared for the Department of Agriculture, Water and the Environment, Canberra.

Figures



Legend

- Study Area
- Road
- Vegetation Management Act watercourse
- Cadastral boundary

Figure 1 : Location of the study area

Boyne Tannum Sands Aquatic Centre

Map Number: 22040_01_B
Date: 15 November 2022
Map Projection: GDA2020 MGA Zone 56
Imagery: (c) Digital Globe
Data: Roads, Rail, Watercourse, DCDB - (c)DNRM 2022

0 100 200 400 600
Metres

N

ECO SOLUTIONS & MANAGEMENT

Legend

- Study Area
- Development footprint - edge of earthworks
- Development footprint
- Road
- Cadastral boundary

Figure 2 : Proposed disturbance footprint

Boyne Tannum Sands Aquatic Centre

Map Number: 22040_02_C
Date: 15 November 2022
Map Projection: GDA2020 MGA Zone 56
Imagery: (c) Digital Globe
Data: Roads, Rail, Watercourse, DCDB - (c)DNRM 2022

0 25 50 100
Metres

N

ECO SOLUTIONS & MANAGEMENT

Legend

- Study Area
- Development footprint - edge of earthworks
- Road
- Cadastral boundary
- Vegetation Management Essential Habitat - V11.0

Vegetation Management Regional Ecosystem Map - V12.02

- Category A or B that is of least concern
- Category C or R that is of least concern

Figure 3 : Queensland regional ecosystem mapping for the study area

Boyne Tannum Sands Aquatic Centre

Map Number: 22040_03_C
Date: 15 November 2022
Map Projection: GDA2020 MGA Zone 56
Imagery: (c) Digital Globe
Data: Roads, Rail, Watercourse, DCDB - (c)DNRM 2022

0 25 50 100
Metres

N

ECO SOLUTIONS & MANAGEMENT

Legend

- Study Area
- Development footprint - edge of earthworks
- Road
- Cadastral boundary

Habitat mapping

- Koala (*Phascolarctos cinereous*) - endangered
- White-throated Needletail (*Hirundapus caudacutus*) - vulnerable
- Fork-tailed Swift (*Apus padificus*) - migratory
- Oriental Cuckoo (*Cuculus optatus*) - migratory
- Osprey (*Pandion haliaeteus*) - migratory

Figure 4 : Potential habitat mapping

Boyne Tannum Sands Aquatic Centre

Map Number: 22040_04_E
Date: 16 November 2022
Map Projection: GDA2020 MGA Zone 56
Imagery: (c) Digital Globe
Data: Roads, Rail, Watercourse, DCDB - (c)DNRM 2022

0 25 50 100
Metres

N

ECO SOLUTIONS & MANAGEMENT

Appendix A

Database search results

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: 02-Nov-2022

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:	1
National Heritage Places:	1
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	2
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	8
Listed Threatened Species:	60
Listed Migratory Species:	68

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:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	109
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:	6
Regional Forest Agreements:	None
Nationally Important Wetlands:	3
EPBC Act Referrals:	14
Key Ecological Features (Marine):	None
Biologically Important Areas:	8
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

World Heritage Properties [Resource Information]

Name	State	Legal Status	Buffer Status
Great Barrier Reef	QLD	Declared property	In feature area

National Heritage Places [Resource Information]

Name	State	Legal Status	Buffer Status
Natural			
Great Barrier Reef	QLD	Listed place	In feature area

Great Barrier Reef Marine Park [Resource Information]

Zone Type	Zone ID	IUCN	Buffer Status
General Use	GU-21-6016	VI	In buffer area only
Habitat Protection	HP-23-5369	VI	In buffer area only

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
Coastal Swamp Oak (Casuarina glauca) Forest of New South Wales and South East Queensland ecological community	Endangered	Community likely to occur within area	In feature area
Coastal Swamp Sclerophyll Forest of New South Wales and South East Queensland	Endangered	Community may occur within area	In feature area
Littoral Rainforest and Coastal Vine Thickets of Eastern Australia	Critically Endangered	Community likely to occur within area	In buffer area only
Lowland Rainforest of Subtropical Australia	Critically Endangered	Community may occur within area	In feature area
Poplar Box Grassy Woodland on Alluvial Plains	Endangered	Community likely to occur within area	In feature area
Subtropical and Temperate Coastal Saltmarsh	Vulnerable	Community likely to occur within area	In feature area
Subtropical eucalypt floodplain forest and woodland of the New South Wales North Coast and South East Queensland bioregions	Endangered	Community likely to occur within area	In feature area

Community Name	Threatened Category	Presence Text	Buffer Status
Weeping Myall Woodlands	Endangered	Community may occur within area	In buffer area only

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
Calidris tenuirostris Great Knot [862]	Critically Endangered	Roosting known to occur within area	In buffer area only
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area	In buffer area only
Cyclopsitta diophthalma coxeni Coxen's Fig-Parrot [59714]	Endangered	Species or species habitat may occur within area	In feature area
Epthianura crocea macgregori Capricorn Yellow Chat, Yellow Chat (Dawson) [67090]	Critically Endangered	Species or species habitat may occur within area	In buffer area only
Erythrotriorchis radiatus Red Goshawk [942]	Vulnerable	Species or species habitat known to occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Fregetta grallaria grallaria White-bellied Storm-Petrel (Tasman Sea), White-bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Geophaps scripta scripta Squatter Pigeon (southern) [64440]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area
Limosa lapponica baueri Nunivak Bar-tailed Godwit, Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat known to occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Neochmia ruficauda ruficauda Star Finch (eastern), Star Finch (southern) [26027]	Endangered	Species or species habitat likely 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
Pachyptila turtur subantarctica Fairy Prion (southern) [64445]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Pterodroma neglecta neglecta Kermadec Petrel (western) [64450]	Vulnerable	Foraging, feeding or related behaviour may occur within area	In buffer area only
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Thalassarche cauta Shy Albatross [89224]	Endangered	Species or species habitat may occur within area	In buffer area only
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Turnix melanogaster Black-breasted Button-quail [923]	Vulnerable	Species or species habitat known to occur within area	In feature area
FISH			
Hippocampus whitei White's Seahorse, Crowned Seahorse, Sydney Seahorse [66240]	Endangered	Species or species habitat may occur within area	In buffer area only
MAMMAL			
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat may occur within area	In buffer area only
Dasyurus hallucatus Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu] [331]	Endangered	Species or species habitat likely to occur within area	In feature area
Macroderma gigas Ghost Bat [174]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Petauroides volans Greater Glider (southern and central) [254]	Endangered	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Petaurus australis australis](#)			
Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat may occur within area	In feature area
[Phascolarctos cinereus (combined populations of Qld, NSW and the ACT)](#)			
Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat likely to occur within area	In feature area
[Pteropus poliocephalus](#)			
Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour may occur within area	In feature area
[Xeromys myoides](#)			
Water Mouse, False Water Rat, Yirrkoo [66]	Vulnerable	Species or species habitat known to occur within area	In feature area
PLANT			
[Bosistoa transversa](#)			
Three-leaved Bosistoa, Yellow Satinheart [16091]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Cossinia australiana](#)			
Cossinia [3066]	Endangered	Species or species habitat may occur within area	In buffer area only
[Cupaniopsis shirleyana](#)			
Wedge-leaf Tuckeroo [3205]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Cycas megacarpa](#)			
[55794]	Endangered	Species or species habitat may occur within area	In buffer area only
[Cycas ophiolitica](#)			
[55797]	Endangered	Species or species habitat may occur within area	In feature area
[Dichanthium setosum](#)			
bluegrass [14159]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Eucalyptus raveretiana](#)			
Black Ironbox [16344]	Vulnerable	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Fontainea venosa [24040]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Macadamia integrifolia Macadamia Nut, Queensland Nut Tree, Smooth-shelled Macadamia, Bush Nut, Nut Oak [7326]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Samadera bidwillii Quassia [29708]	Vulnerable	Species or species habitat may occur within area	In feature area
REPTILE			
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
Delma torquata Adorned Delma, Collared Delma [1656]	Vulnerable	Species or species habitat may occur within area	In feature area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat known to occur within area	In feature area
Egernia rugosa Yakka Skink [1420]	Vulnerable	Species or species habitat may occur within area	In feature area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area	In feature area
Furina dunmalli Dunmall's Snake [59254]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Hemiaspis damelii Grey Snake [1179]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Lepidochelys olivacea Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	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 known to occur within area	In buffer area only
Pristis zijsron Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Breeding may occur within area	In feature area
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 feature area

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 known 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
Ardenna carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat likely to occur within area	In feature area
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat likely to occur within area	In feature area
Fregata minor Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area
Phaethon lepturus White-tailed Tropicbird [1014]		Species or species habitat may occur within area	In feature area
Phoebetria fusca Sooty Albatross [1075]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Sternula albifrons Little Tern [82849]		Species or species habitat may occur within area	In buffer area only
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche cauta Shy Albatross [89224]	Endangered	Species or species habitat may occur within area	In buffer area only
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche steadi White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Migratory Marine Species			
Anoxypristis cuspidata Narrow Sawfish, Knifetooth Sawfish [68448]		Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
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 may 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 known to 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	Species or species habitat known to occur within area	In feature area
Dugong dugon Dugong [28]		Species or species habitat known to occur within area	In buffer area only
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area	In feature area
Lamna nasus Porbeagle, Mackerel Shark [83288]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Lepidochelys olivacea Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	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 likely to occur within area	In feature area
Mobula birostris as Manta birostris Giant Manta Ray [90034]		Species or species habitat likely to occur within area	In feature area
Natator depressus Flatback Turtle [59257]	Vulnerable	Breeding known to occur within area	In feature area
Orcaella heinsohni Australian Snubfin Dolphin [81322]		Species or species habitat 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 zijsron Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Breeding may occur within area	In feature area
Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Sousa sahulensis as Sousa chinensis Australian Humpback Dolphin [87942]		Breeding known to occur within area	In buffer area only
Migratory Terrestrial Species			
Cuculus optatus Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat may occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Monarcha melanopsis](#) Black-faced Monarch [609]		Species or species habitat known to occur within area	In feature area
[Myiagra cyanoleuca](#) Satin Flycatcher [612]		Species or species habitat known to occur within area	In feature area
[Rhipidura rufifrons](#) Rufous Fantail [592]		Species or species habitat known to occur within area	In feature area
[Symposiachrus trivirgatus as Monarcha trivirgatus](#) Spectacled Monarch [83946]		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
[Arenaria interpres](#) Ruddy Turnstone [872]		Roosting known to occur within area	In buffer area only
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]		Roosting 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
[Calidris ruficollis](#) Red-necked Stint [860]		Roosting known to occur within area	In buffer area only
[Calidris tenuirostris](#) Great Knot [862]	Critically Endangered	Roosting known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area	In buffer area only
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat likely to occur within area	In feature area
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area	In buffer area only
Gallinago stenura Pin-tailed Snipe [841]		Roosting likely to occur within area	In buffer area only
Limnodromus semipalmatus Asian Dowitcher [843]		Species or species habitat may occur within area	In buffer area only
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
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area	In buffer area only
Numenius phaeopus Whimbrel [849]		Roosting known to occur within area	In buffer area only
Pandion haliaetus Osprey [952]		Species or species habitat known to occur within area	In feature area
Pluvialis fulva Pacific Golden Plover [25545]		Roosting known to occur within area	In buffer area only
Pluvialis squatarola Grey Plover [865]		Roosting known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Tringa brevipes Grey-tailed Tattler [851]		Roosting known to occur within area	In buffer area only
Tringa nebularia Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area	In buffer area only
Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area	In buffer area only
Xenus cinereus Terek Sandpiper [59300]		Roosting known to occur within area	In buffer area only

Other Matters Protected by the EPBC Act

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 known 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
Ardenna carneipes as Puffinus carneipes Flesh-footed Shearwater, Fleshy-footed Shearwater [82404]		Species or species habitat likely to occur within area	In feature area
Arenaria interpres Ruddy Turnstone [872]		Roosting known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
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]		Roosting 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
Calidris ruficollis Red-necked Stint [860]		Roosting known to occur within area overfly marine area	In buffer area only
Calidris tenuirostris Great Knot [862]	Critically Endangered	Roosting known to occur within area overfly marine area	In buffer area only
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Charadrius mongolus Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area	In buffer area only
Charadrius ruficapillus Red-capped Plover [881]		Roosting known to occur within area overfly marine area	In buffer area only
Fregata ariel Lesser Frigatebird, Least Frigatebird [1012]		Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Fregata minor Great Frigatebird, Greater Frigatebird [1013]		Species or species habitat likely to occur within area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat likely to occur within area overfly marine area	In feature area
Gallinago megala Swinhoe's Snipe [864]		Roosting likely to occur within area overfly marine area	In buffer area only
Gallinago stenura Pin-tailed Snipe [841]		Roosting likely to occur within area overfly marine area	In buffer area only
Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat known to occur within area	In feature area
Himantopus himantopus Pied Stilt, Black-winged Stilt [870]		Roosting known to occur within area overfly marine area	In buffer area only
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area	In feature area
Limnodromus semipalmatus Asian Dowitcher [843]		Species or species habitat may occur within area overfly marine area	In buffer area only
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area	In feature area
Macronectes giganteus Southern Giant-Petrel, Southern Giant Petrel [1060]	Endangered	Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Merops ornatus](#) Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
[Monarcha melanopsis](#) Black-faced Monarch [609]		Species or species habitat known to occur within area overfly marine area	In feature area
[Myiagra cyanoleuca](#) Satin Flycatcher [612]		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
[Numenius minutus](#) Little Curlew, Little Whimbrel [848]		Roosting likely to occur within area overfly marine area	In buffer area only
[Numenius phaeopus](#) Whimbrel [849]		Roosting known to occur within area	In buffer area only
[Pachyptila turtur](#) Fairy Prion [1066]		Species or species habitat likely to occur within area	In feature area
[Pandion haliaetus](#) Osprey [952]		Species or species habitat known to occur within area	In feature area
[Phaethon lepturus](#) White-tailed Tropicbird [1014]		Species or species habitat may occur within area	In feature area
[Phoebetria fusca](#) Sooty Albatross [1075]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Pluvialis fulva](#) Pacific Golden Plover [25545]		Roosting known to occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pluvialis squatarola Grey Plover [865]		Roosting known to occur within area overfly marine area	In buffer area only
Recurvirostra novaehollandiae Red-necked Avocet [871]		Roosting known to occur within area overfly marine area	In buffer area only
Rhipidura rufifrons Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area	In feature area
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]		Species or species habitat may occur within area	In buffer area only
Symposiachrus trivirgatus as Monarcha trivirgatus Spectacled Monarch [83946]		Species or species habitat known to occur within area overfly marine area	In feature area
Thalassarche carteri Indian Yellow-nosed Albatross [64464]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche cauta Shy Albatross [89224]	Endangered	Species or species habitat may occur within area	In buffer area only
Thalassarche impavida Campbell Albatross, Campbell Black-browed Albatross [64459]	Vulnerable	Species or species habitat may occur within area	In feature area
Thalassarche melanophris Black-browed Albatross [66472]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thalassarche salvini Salvin's Albatross [64463]	Vulnerable	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Thalassarche steadi](#) White-capped Albatross [64462]	Vulnerable	Species or species habitat may occur within area	In buffer area only
[Tringa brevipes as Heteroscelus brevipes](#) Grey-tailed Tattler [851]		Roosting known to occur within area	In buffer area only
[Tringa nebularia](#) Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area overfly marine area	In buffer area only
[Tringa stagnatilis](#) Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area overfly marine area	In buffer area only
[Xenus cinereus](#) Terek Sandpiper [59300]		Roosting known to occur within area overfly marine area	In buffer area only
Fish			
[Acentronura tentaculata](#) Shortpouch Pygmy Pipehorse [66187]		Species or species habitat may occur within area	In buffer area only
[Campichthys tryoni](#) Tryon's Pipefish [66193]		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
[Corythoichthys amplexus](#) Fijian Banded Pipefish, Brown-banded Pipefish [66199]		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
[Corythoichthys haematopterus](#) Reef-top Pipefish [66201]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Corythoichthys intestinalis Australian Messmate Pipefish, Banded Pipefish [66202]		Species or species habitat may occur within area	In buffer area only
Corythoichthys ocellatus Orange-spotted Pipefish, Ocellated Pipefish [66203]		Species or species habitat may occur within area	In buffer area only
Corythoichthys paxtoni Paxton's Pipefish [66204]		Species or species habitat may occur within area	In buffer area only
Corythoichthys schultzi Schultz's Pipefish [66205]		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
Festucalex cinctus Girdled Pipefish [66214]		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 dunckeri Red-hair Pipefish, Duncker's Pipefish [66220]		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
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

Scientific Name	Threatened Category	Presence Text	Buffer Status
Hippichthys cyanospilos Blue-speckled Pipefish, Blue-spotted Pipefish [66228]		Species or species habitat may occur within area	In buffer area only
Hippichthys heptagonus Madura Pipefish, Reticulated Freshwater Pipefish [66229]		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 bargibanti Pygmy Seahorse [66721]		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 whitei White's Seahorse, Crowned Seahorse, Sydney Seahorse [66240]	Endangered	Species or species habitat may occur within area	In buffer area only
Hippocampus zebra Zebra Seahorse [66241]		Species or species habitat may occur within area	In buffer area only
Lissocampus runa Javelin Pipefish [66251]		Species or species habitat may occur within area	In buffer area only
Micrognathus andersonii Anderson's Pipefish, Shortnose Pipefish [66253]		Species or species habitat may occur within area	In buffer area only
Micrognathus brevirostris thorntail Pipefish, Thorn-tailed Pipefish [66254]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Nannocampus pictus Painted Pipefish, Reef Pipefish [66263]		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
Solenostomus cyanopterus Robust Ghostpipefish, Blue-finned Ghost Pipefish, [66183]		Species or species habitat may occur within area	In buffer area only
Solenostomus paradoxus Ornate Ghostpipefish, Harlequin Ghost Pipefish, Ornate Ghost Pipefish [66184]		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
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 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 laevis Olive Seasnake [1120]		Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
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
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	Species or species habitat known 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
Emydocephalus annulatus Turtle-headed Seasnake [1125]		Species or species habitat may occur within area	In buffer area only
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Species or species habitat known to occur within area	In feature area
Hydrophis elegans Elegant Seasnake [1104]		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

Scientific Name	Threatened Category	Presence Text	Buffer Status
Laticauda colubrina a sea krait [1092]		Species or species habitat may occur within area	In buffer area only
Laticauda laticaudata a sea krait [1093]		Species or species habitat may occur within area	In buffer area only
Lepidochelys olivacea Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Breeding likely to occur within area	In feature area
Natator depressus Flatback Turtle [59257]	Vulnerable	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 acutorostrata Minke Whale [33]		Species or species habitat may 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 may occur within area	In buffer area only
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

Current Scientific Name	Status	Type of Presence	Buffer Status
Orcaella heinsohni as Orcaella brevirostris			
Australian Snubfin Dolphin [81322]		Species or species habitat 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 sahulensis 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 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

Extra Information

State and Territory Reserves			[Resource Information]
Protected Area Name	Reserve Type	State	Buffer Status
Boyne Island	Conservation Park	QLD	In buffer area only
Colosseum Inlet	Fish Habitat Area (A)	QLD	In buffer area only
Colosseum Inlet	Fish Habitat Area (B)	QLD	In buffer area only
Great Barrier Reef Coast	Marine Park	QLD	In buffer area only
Port of Gladstone - Rodds Bay	Dugong Protection Area (B)	QLD	In feature area
Wild Cattle Island	National Park	QLD	In buffer area only

Nationally Important Wetlands

[Resource Information]

Wetland Name	State	Buffer Status
Colosseum Inlet - Rodds Bay	QLD	In buffer area only
Great Barrier Reef Marine Park	QLD	In buffer area only
Port Curtis	QLD	In buffer area only

EPBC Act Referrals

[Resource Information]

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Controlled action				
Aluminium Smelter Expansion.	2001/477	Controlled Action	Post-Approval	In buffer area only
Clinton Vessel Interaction Project - Clinton Widening, Qld	2017/7976	Controlled Action	Post-Approval	In buffer area only
Hummock Hill Island Development	2005/2502	Controlled Action	Completed	In buffer area only
Pacificus Tourism Project	2012/6643	Controlled Action	Post-Approval	In buffer area only
Port of Gladstone Gatcombe & Golding Cutting Channel Duplication Project	2012/6558	Controlled Action	Post-Approval	In feature area
Queensland Curtis LNG Project - LNG Marine Facilities	2008/4401	Controlled Action	Post-Approval	In buffer area only
Queensland Curtis LNG Project - Swing Basin and Channel Dredging	2008/4406	Controlled Action	Completed	In buffer area only
Shipping Activities Associated with the QLD Curtis LNG Project	2008/4405	Controlled Action	Post-Approval	In buffer area only
Talisman Saber 2005 Military Exercise	2004/1819	Controlled Action	Post-Approval	In buffer area only
Not controlled action				
'The Sands' Development, Tannum Sands	2012/6554	Not Controlled Action	Completed	In buffer area only
Expansion of Red Mud storage facility	2006/2928	Not Controlled Action	Completed	In buffer area only
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area
Riverstone Rise residential, commercial & industrial development, Benaraby, Qld	2013/6857	Not Controlled Action	Completed	In buffer area only
Referral decision				

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Referral decision				
Glen Eden residential estate development, Glen Eden, Qld	2013/6925	Referral Decision	Completed	In buffer area only

Biologically Important Areas

Scientific Name	Behaviour	Presence	Buffer Status
Dolphins			
Sousa chinensis Indo-Pacific Humpback Dolphin [50]	Breeding	Known to occur	In buffer area only
Tursiops aduncus Indo-Pacific/Spotted Bottlenose Dolphin [68418]	Breeding	Likely to occur	In buffer area only
Seabirds			
Anous minutus Black Noddy [824]	Foraging	Likely to occur	In buffer area only
Ardenna pacifica Wedge-tailed Shearwater [84292]	Foraging	Likely to occur	In buffer area only
Sterna sumatrana Black-naped Tern [800]	Breeding	Known to occur	In buffer area only
Sula sula Red-footed Booby [1023]	Foraging	Likely to occur	In buffer area only
Sharks			
Carcharias taurus Grey Nurse Shark [64469]	Foraging	Known to occur	In buffer area only
Whales			
Megaptera novaeangliae Humpback Whale [38]	Breeding and calving	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
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

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

Please feel free to provide feedback via the Contact us page.

Department of Climate Change, Energy, the Environment and Water
GPO Box 3090
Canberra ACT 2601 Australia
+61 2 6274 1111

Queensland Government

WildNet species list

Search Criteria: Species List for a Specified Point
Species: All
Type: All
Queensland status: All
Records: All
Date: All
Latitude: -23.9563
Longitude: 151.3687
Distance: 10
Email: steve.marston@ecosm.com.au
Date submitted: Friday 28 Oct 2022 16:39:59
Date extracted: Friday 28 Oct 2022 16:40:02

The number of records retrieved = 1145

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Bufonidae	*Rhinella marina*	cane toad	Y			10
animals	amphibians	Hylidae	*Litoria caerulea*	common green treefrog		C		11
animals	amphibians	Hylidae	*Litoria fallax*	eastern sedgefrog		C		9
animals	amphibians	Hylidae	*Litoria inermis*	bumpy rocketfrog		C		4
animals	amphibians	Hylidae	*Litoria nasuta*	striped rocketfrog		C		4
animals	amphibians	Hylidae	*Litoria rothii*	northern laughing treefrog		C		1
animals	amphibians	Hylidae	*Litoria rubella*	ruddy treefrog		C		10
animals	amphibians	Limnodynastidae	*Limnodynastes peronii*	striped marshfrog		C		5
animals	amphibians	Limnodynastidae	*Limnodynastes tasmaniensis*	spotted grassfrog		C		4
animals	amphibians	Limnodynastidae	*Limnodynastes terraereginae*	scarlet sided pobblebonk		C		2
animals	amphibians	Limnodynastidae	*Platyplectrum ornatum*	ornate burrowing frog		C		5
animals	amphibians	Myobatrachidae	*Crinia deserticola*	chirping froglet		C		2
animals	amphibians	Myobatrachidae	*Pseudophryne major*	great brown broodfrog		C		1
animals	amphibians	Myobatrachidae	*Pseudophryne raveni*	copper backed broodfrog		C		1
animals	amphibians	Myobatrachidae	*Uperoleia rugosa*	chubby gungan		C		1
animals	birds	Acanthizidae	*Acanthiza lineata*	striated thornbill		C		2
animals	birds	Acanthizidae	*Acanthiza nana*	yellow thornbill		C		5
animals	birds	Acanthizidae	*Acanthiza pusilla*	brown thornbill		C		3
animals	birds	Acanthizidae	*Gerygone levigaster*	mangrove gerygone		C		9
animals	birds	Acanthizidae	*Gerygone olivacea*	white-throated gerygone		C		3
animals	birds	Acanthizidae	*Gerygone palpebrosa*	fairy gerygone		C		6
animals	birds	Acanthizidae	*Sericornis frontalis*	white-browed scrubwren		C		5
animals	birds	Acanthizidae	*Smicrornis brevirostris*	weebill		C		1
animals	birds	Accipitridae	*Accipiter cirrocephalus*	collared sparrowhawk		C		20
animals	birds	Accipitridae	*Accipiter fasciatus*	brown goshawk		C		9
animals	birds	Accipitridae	*Aquila audax*	wedge-tailed eagle		C		7
animals	birds	Accipitridae	*Aviceda subcristata*	Pacific baza		C		11
animals	birds	Accipitridae	*Circus assimilis*	spotted harrier		C		2
animals	birds	Accipitridae	*Elanus axillaris*	black-shouldered kite		C		4
animals	birds	Accipitridae	*Erythrotriorchis radiatus*	red goshawk		E	V	1
animals	birds	Accipitridae	*Haliaeetus leucogaster*	white-bellied sea-eagle		C		49
animals	birds	Accipitridae	*Haliastur indus*	brahminy kite		C		79
animals	birds	Accipitridae	*Haliastur sphenurus*	whistling kite		C		105
animals	birds	Accipitridae	*Lophoictinia isura*	square-tailed kite		C		2
animals	birds	Accipitridae	*Milvus migrans*	black kite		C		15
animals	birds	Accipitridae	*Pandion cristatus*	eastern osprey		SL		26
animals	birds	Acrocephalidae	*Acrocephalus australis*	Australian reed-warbler		C		6
animals	birds	Aegothelidae	*Aegotheles cristatus*	Australian owlet-nightjar		C		6
animals	birds	Alaudidae	*Mirafra javanica*	Horsfield's bushlark		C		1
animals	birds	Alcedinidae	*Ceyx azureus*	azure kingfisher		C		2
animals	birds	Anatidae	*Anas castanea*	chestnut teal		C		54
animals	birds	Anatidae	*Anas gracilis*	grey teal		C		93
animals	birds	Anatidae	*Anas superciliosa*	Pacific black duck		C		109
animals	birds	Anatidae	*Aythya australis*	hardhead		C		14
animals	birds	Anatidae	*Chenonetta jubata*	Australian wood duck		C		37
animals	birds	Anatidae	*Cygnus atratus*	black swan		C		34

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Anatidae	*Dendrocygna arcuata*	wandering whistling-duck		C		1
animals	birds	Anatidae	*Dendrocygna eytoni*	plumed whistling-duck		C		14
animals	birds	Anatidae	*Malacorhynchus membranaceus*	pink-eared duck		C		1
animals	birds	Anatidae	*Nettapus coromandelianus*	cotton pygmy-goose		C		2
animals	birds	Anatidae	*Radjah radjah*	radjah shelduck		C		1
animals	birds	Anatidae	*Spatula rhynchotis*	Australasian shoveler		C		2
animals	birds	Anhingidae	*Anhinga novaehollandiae*	Australasian darter		C		13
animals	birds	Anseranatidae	*Anseranas semipalmata*	magpie goose		C		7
animals	birds	Apodidae	*Apus pacificus*	fork-tailed swift		SL		1
animals	birds	Apodidae	*Hirundapus caudacutus*	white-throated needletail		V	V	3
animals	birds	Ardeidae	*Ardea alba modesta*	eastern great egret		C		83
animals	birds	Ardeidae	*Ardea intermedia*	intermediate egret		C		65
animals	birds	Ardeidae	*Ardea pacifica*	white-necked heron		C		11
animals	birds	Ardeidae	*Bubulcus ibis*	cattle egret		C		7
animals	birds	Ardeidae	*Butorides striata*	striated heron		C		14
animals	birds	Ardeidae	*Egretta garzetta*	little egret		C		103
animals	birds	Ardeidae	*Egretta novaehollandiae*	white-faced heron		C		114
animals	birds	Ardeidae	*Egretta sacra*	eastern reef egret		C		3
animals	birds	Ardeidae	*Ixobrychus flavicollis*	black bittern		C		1
animals	birds	Ardeidae	*Nycticorax caledonicus*	nankeen night-heron		C		2
animals	birds	Artamidae	*Artamus cinereus*	black-faced woodswallow		C		1
animals	birds	Artamidae	*Artamus cyanopterus*	dusky woodswallow		C		2
animals	birds	Artamidae	*Artamus leucorynchus*	white-breasted woodswallow		C		14
animals	birds	Artamidae	*Artamus superciliosus*	white-browed woodswallow		C		3
animals	birds	Artamidae	*Cracticus nigrogularis*	pied butcherbird		C		59
animals	birds	Artamidae	*Cracticus torquatus*	grey butcherbird		C		20
animals	birds	Artamidae	*Gymnorhina tibicen*	Australian magpie		C		65
animals	birds	Artamidae	*Strepera graculina*	pied currawong		C		19
animals	birds	Artamidae	*Strepera graculina graculina*	pied currawong (eastern Australia)		C		1
animals	birds	Burhinidae	*Burhinus grallarius*	bush stone-curlew		C		14
animals	birds	Burhinidae	*Esacus magnirostris*	beach stone-curlew		V		19
animals	birds	Cacatuidae	*Cacatua galerita*	sulphur-crested cockatoo		C		8
animals	birds	Cacatuidae	*Calyptorhynchus banksii*	red-tailed black-cockatoo		C		34
animals	birds	Cacatuidae	*Calyptorhynchus banksii banksii*	red-tailed black-cockatoo (Cape York & Eastern Aust)		C		2
animals	birds	Cacatuidae	*Calyptorhynchus funereus*	yellow-tailed black-cockatoo		C		1
animals	birds	Cacatuidae	*Calyptorhynchus lathami*	glossy black-cockatoo		V		1
animals	birds	Cacatuidae	*Calyptorhynchus lathami erebus*	glossy black-cockatoo (northern)		V		3
animals	birds	Cacatuidae	*Eolophus roseicapilla*	galah		C		46
animals	birds	Campephagidae	*Coracina novaehollandiae*	black-faced cuckoo-shrike		C		54
animals	birds	Campephagidae	*Coracina papuensis*	white-bellied cuckoo-shrike		C		8
animals	birds	Campephagidae	*Edolisoma tenuirostre*	common cicadabird		C		3
animals	birds	Campephagidae	*Lalage leucomela*	varied triller		C		21
animals	birds	Campephagidae	*Lalage tricolor*	white-winged triller		C		3
animals	birds	Caprimulgidae	*Caprimulgus macrurus*	large-tailed nightjar		C		1
animals	birds	Charadriidae	*Charadrius leschenaultii*	greater sand plover		V	V	3

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Charadriidae	*Charadrius mongolus*	lesser sand plover		E	E	22
animals	birds	Charadriidae	*Charadrius ruficapillus*	red-capped plover		C		174
animals	birds	Charadriidae	*Elseyornis melanops*	black-fronted dotterel		C		83
animals	birds	Charadriidae	*Erythrogonys cinctus*	red-kneed dotterel		C		19
animals	birds	Charadriidae	*Pluvialis fulva*	Pacific golden plover		SL		37
animals	birds	Charadriidae	*Pluvialis squatarola*	grey plover		SL		2
animals	birds	Charadriidae	*Vanellus miles*	masked lapwing		C		106
animals	birds	Charadriidae	*Vanellus miles novaehollandiae*	masked lapwing (southern subspecies)		C		19
animals	birds	Ciconiidae	*Ephippiorhynchus asiaticus*	black-necked stork		C		4
animals	birds	Cisticolidae	*Cisticola exilis*	golden-headed cisticola		C		6
animals	birds	Cisticolidae	*Cisticola juncidis laveryi*	zitting cisticola		C		3
animals	birds	Climacteridae	*Climacteris picumnus*	brown treecreeper		C		1
animals	birds	Climacteridae	*Cormobates leucophaea metastasis*	white-throated treecreeper (southern)		C		4
animals	birds	Columbidae	*Chalcophaps longirostris*	Pacific emerald dove		C		1
animals	birds	Columbidae	*Columba livia*	rock dove	Y			3
animals	birds	Columbidae	*Geopelia cuneata*	diamond dove		C		1
animals	birds	Columbidae	*Geopelia humeralis*	bar-shouldered dove		C		53
animals	birds	Columbidae	*Geopelia placida*	peaceful dove		C		59
animals	birds	Columbidae	*Leucosarcia melanoleuca*	wonga pigeon		C		1
animals	birds	Columbidae	*Lopholaimus antarcticus*	topknot pigeon		C		2
animals	birds	Columbidae	*Ocyphaps lophotes*	crested pigeon		C		48
animals	birds	Columbidae	*Phaps chalcoptera*	common bronzewing		C		3
animals	birds	Columbidae	*Ptilinopus regina*	rose-crowned fruit-dove		C		1
animals	birds	Columbidae	*Streptopelia chinensis*	spotted dove	Y			3
animals	birds	Coraciidae	*Eurystomus orientalis*	dollarbird		C		26
animals	birds	Corcoracidae	*Corcorax melanorhamphos*	white-winged chough		C		8
animals	birds	Corvidae	*Corvus coronoides*	Australian raven		C		3
animals	birds	Corvidae	*Corvus orru*	Torresian crow		C		71
animals	birds	Corvidae	*Corvus sp.*			C		2
animals	birds	Cuculidae	*Cacomantis flabelliformis*	fan-tailed cuckoo		C		7
animals	birds	Cuculidae	*Cacomantis pallidus*	pallid cuckoo		C		3
animals	birds	Cuculidae	*Cacomantis variolosus*	brush cuckoo		C		1
animals	birds	Cuculidae	*Centropus phasianinus*	pheasant coucal		C		29
animals	birds	Cuculidae	*Chalcites minutillus barnardi*	Eastern little bronze-cuckoo		C		2
animals	birds	Cuculidae	*Eudynamys orientalis*	eastern koel		C		29
animals	birds	Cuculidae	*Scythrops novaehollandiae*	channel-billed cuckoo		C		19
animals	birds	Dicruridae	*Dicrurus bracteatus*	spangled drongo		C		43
animals	birds	Dicruridae	*Dicrurus bracteatus bracteatus*	spangled drongo (eastern Australia)		C		2
animals	birds	Estrildidae	*Lonchura castaneothorax*	chestnut-breasted mannikin		C		1
animals	birds	Estrildidae	*Lonchura punctulata*	nutmeg mannikin	Y			10
animals	birds	Estrildidae	*Lonchura sp.*			C		1
animals	birds	Estrildidae	*Neochmia temporalis*	red-browed finch		C		2
animals	birds	Estrildidae	*Taeniopygia bichenovii*	double-barred finch		C		41
animals	birds	Estrildidae	*Taeniopygia guttata*	zebra finch		C		2
animals	birds	Eurostopodidae	*Eurostopodus mystacalis*	white-throated nightjar		C		4
animals	birds	Falconidae	*Falco berigora*	brown falcon		C		4

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Falconidae	*Falco cenchroides*	nankeen kestrel		C		23
animals	birds	Falconidae	*Falco longipennis*	Australian hobby		C		12
animals	birds	Falconidae	*Falco peregrinus*	peregrine falcon		C		10
animals	birds	Haematopodidae	*Haematopus fuliginosus*	sooty oystercatcher		C		26
animals	birds	Haematopodidae	*Haematopus longirostris*	Australian pied oystercatcher		C		153
animals	birds	Halcyonidae	*Dacelo leachii*	blue-winged kookaburra		C		16
animals	birds	Halcyonidae	*Dacelo novaeguineae*	laughing kookaburra		C		57
animals	birds	Halcyonidae	*Todiramphus macleayii*	forest kingfisher		C		15
animals	birds	Halcyonidae	*Todiramphus sanctus*	sacred kingfisher		C		14
animals	birds	Halcyonidae	*Todiramphus sordidus*	Torresian kingfisher		C		26
animals	birds	Hirundinidae	*Hirundo neoxena*	welcome swallow		C		47
animals	birds	Hirundinidae	*Petrochelidon ariel*	fairy martin		C		25
animals	birds	Hirundinidae	*Petrochelidon nigricans*	tree martin		C		4
animals	birds	Jacanidae	*Irediparra gallinacea*	comb-crested jacana		C		5
animals	birds	Laridae	*Chlidonias hybrida*	whiskered tern		C		1
animals	birds	Laridae	*Chroicocephalus novaehollandiae*	silver gull		C		52
animals	birds	Laridae	*Gelochelidon nilotica*	gull-billed tern		SL		65
animals	birds	Laridae	*Hydroprogne caspia*	Caspian tern		SL		75
animals	birds	Laridae	*Sterna hirundo*	common tern		SL		20
animals	birds	Laridae	*Sternula albifrons*	little tern		SL		20
animals	birds	Laridae	*Thalasseus bengalensis*	lesser crested tern		C		1
animals	birds	Laridae	*Thalasseus bergii*	crested tern		SL		26
animals	birds	Maluridae	*Malurus cyaneus*	superb fairy-wren		C		3
animals	birds	Maluridae	*Malurus lamberti*	variegated fairy-wren		C		3
animals	birds	Maluridae	*Malurus melanocephalus*	red-backed fairy-wren		C		18
animals	birds	Megaluridae	*Cincloramphus timoriensis*	tawny grassbird		C		6
animals	birds	Megapodiidae	*Alectura lathami*	Australian brush-turkey		C		18
animals	birds	Meliphagidae	*Acanthorhynchus tenuirostris*	eastern spinebill		C		1
animals	birds	Meliphagidae	*Anthochaera chrysoptera*	little wattlebird		C		1
animals	birds	Meliphagidae	*Caligavis chrysops*	yellow-faced honeyeater		C		4
animals	birds	Meliphagidae	*Entomyzon cyanotis*	blue-faced honeyeater		C		57
animals	birds	Meliphagidae	*Gavicalis fasciogularis*	mangrove honeyeater		C		8
animals	birds	Meliphagidae	*Gavicalis virescens*	singing honeyeater		C		1
animals	birds	Meliphagidae	*Lichmera indistincta*	brown honeyeater		C		55
animals	birds	Meliphagidae	*Manorina melanocephala*	noisy miner		C		52
animals	birds	Meliphagidae	*Meliphaga lewinii*	Lewin's honeyeater		C		53
animals	birds	Meliphagidae	*Melithreptus albogularis*	white-throated honeyeater		C		37
animals	birds	Meliphagidae	*Melithreptus lunatus*	white-naped honeyeater		C		5
animals	birds	Meliphagidae	*Myzomela obscura*	dusky honeyeater		C		14
animals	birds	Meliphagidae	*Myzomela sanguinolenta*	scarlet honeyeater		C		21
animals	birds	Meliphagidae	*Philemon citreogularis*	little friarbird		C		55
animals	birds	Meliphagidae	*Philemon corniculatus*	noisy friarbird		C		34
animals	birds	Meliphagidae	*Plectorhyncha lanceolata*	striped honeyeater		C		2
animals	birds	Meliphagidae	*Ptilotula fusca*	fuscous honeyeater		C		1
animals	birds	Meliphagidae	*Purnella albifrons*	white-fronted honeyeater		C		1
animals	birds	Meropidae	*Merops ornatus*	rainbow bee-eater		C		49

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Monarchidae	*Carterornis leucotis*	white-eared monarch		C		2
animals	birds	Monarchidae	*Grallina cyanoleuca*	magpie-lark		C		62
animals	birds	Monarchidae	*Monarcha melanopsis*	black-faced monarch		SL		6
animals	birds	Monarchidae	*Myiagra cyanoleuca*	satin flycatcher		SL		3
animals	birds	Monarchidae	*Myiagra inquieta*	restless flycatcher		C		1
animals	birds	Monarchidae	*Myiagra rubecula*	leaden flycatcher		C		17
animals	birds	Monarchidae	*Symposiachrus trivirgatus*	spectacled monarch		SL		2
animals	birds	Motacillidae	*Anthus novaeseelandiae*	Australasian pipit		C		9
animals	birds	Motacillidae	*Motacilla flava sensu lato*	yellow wagtail		SL		1
animals	birds	Nectariniidae	*Cinnyris jugularis*	olive-backed sunbird		C		11
animals	birds	Nectariniidae	*Dicaeum hirundinaceum*	mistletoebird		C		17
animals	birds	Neosittidae	*Daphoenositta chrysoptera*	varied sittella		C		1
animals	birds	Oriolidae	*Oriolus sagittatus*	olive-backed oriole		C		11
animals	birds	Oriolidae	*Sphecotheres vieilloti*	Australasian figbird		C		50
animals	birds	Pachycephalidae	*Colluricincla harmonica*	grey shrike-thrush		C		28
animals	birds	Pachycephalidae	*Colluricincla megarhyncha*	little shrike-thrush		C		11
animals	birds	Pachycephalidae	*Pachycephala pectoralis*	golden whistler		C		5
animals	birds	Pachycephalidae	*Pachycephala rufiventris*	rufous whistler		C		22
animals	birds	Pardalotidae	*Pardalotus punctatus*	spotted pardalote		C		3
animals	birds	Pardalotidae	*Pardalotus striatus*	striated pardalote		C		45
animals	birds	Passeridae	*Passer domesticus*	house sparrow	Y			10
animals	birds	Pelecanidae	*Pelecanus conspicillatus*	Australian pelican		C		75
animals	birds	Petroicidae	*Eopsaltria australis*	eastern yellow robin		C		4
animals	birds	Petroicidae	*Microeca fascinans*	jacky winter		C		2
animals	birds	Petroicidae	*Petroica goodenovii*	red-capped robin		C		1
animals	birds	Phalacrocoracidae	*Microcarbo melanoleucos*	little pied cormorant		C		71
animals	birds	Phalacrocoracidae	*Phalacrocorax carbo*	great cormorant		C		2
animals	birds	Phalacrocoracidae	*Phalacrocorax sulcirostris*	little black cormorant		C		49
animals	birds	Phalacrocoracidae	*Phalacrocorax varius*	pied cormorant		C		29
animals	birds	Phasianidae	*Coturnix pectoralis*	stubble quail		C		1
animals	birds	Phasianidae	*Gallus gallus*	red junglefowl	Y			1
animals	birds	Phasianidae	*Synoicus ypsilophorus*	brown quail		C		9
animals	birds	Pittidae	*Pitta versicolor*	noisy pitta		C		1
animals	birds	Podargidae	*Podargus strigoides*	tawny frogmouth		C		10
animals	birds	Podicipedidae	*Tachybaptus novaehollandiae*	Australasian grebe		C		10
animals	birds	Pomatostomidae	*Pomatostomus temporalis*	grey-crowned babbler		C		37
animals	birds	Procellariidae	*Ardenna tenuirostris*	short-tailed shearwater		SL		1
animals	birds	Psittacidae	*Alisterus scapularis*	Australian king-parrot		C		10
animals	birds	Psittacidae	*Aprosmictus erythropterus*	red-winged parrot		C		12
animals	birds	Psittacidae	*Glossopsitta concinna*	musk lorikeet		C		3
animals	birds	Psittacidae	*Parvipsitta pusilla*	little lorikeet		C		8
animals	birds	Psittacidae	*Platycercus adscitus*	pale-headed rosella		C		43
animals	birds	Psittacidae	*Platycercus adscitus palliceps*	pale-headed rosella (southern form)		C		2
animals	birds	Psittacidae	*Trichoglossus chlorolepidotus*	scaly-breasted lorikeet		C		50
animals	birds	Psittacidae	*Trichoglossus moluccanus*	rainbow lorikeet		C		74
animals	birds	Psophodidae	*Psophodes olivaceus*	eastern whipbird		C		1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Ptilonorhynchidae	*Sericulus chrysocephalus*	regent bowerbird		C		1
animals	birds	Rallidae	*Fulica atra*	Eurasian coot		C		1
animals	birds	Rallidae	*Gallinula tenebrosa*	dusky moorhen		C		16
animals	birds	Rallidae	*Gallirallus philippensis*	buff-banded rail		C		24
animals	birds	Rallidae	*Porphyrio melanotus*	purple swamphen		C		44
animals	birds	Rallidae	*Tribonyx ventralis*	black-tailed native-hen		C		1
animals	birds	Recurvirostridae	*Himantopus himantopus*	black-winged stilt		C		50
animals	birds	Recurvirostridae	*Recurvirostra novaehollandiae*	red-necked avocet		C		9
animals	birds	Rhipiduridae	*Rhipidura albiscapa*	grey fantail		C		29
animals	birds	Rhipiduridae	*Rhipidura leucophrys*	willie wagtail		C		41
animals	birds	Rhipiduridae	*Rhipidura leucophrys leucophrys*	willie wagtail (southern)		C		1
animals	birds	Rhipiduridae	*Rhipidura rufifrons*	rufous fantail		SL		7
animals	birds	Scolopacidae	*Actitis hypoleucos*	common sandpiper		SL		3
animals	birds	Scolopacidae	*Arenaria interpres*	ruddy turnstone		SL		5
animals	birds	Scolopacidae	*Calidris acuminata*	sharp-tailed sandpiper		SL		38
animals	birds	Scolopacidae	*Calidris ferruginea*	curlew sandpiper		CR	CE	27
animals	birds	Scolopacidae	*Calidris melanotos*	pectoral sandpiper		SL		2
animals	birds	Scolopacidae	*Calidris ruficollis*	red-necked stint		SL		71
animals	birds	Scolopacidae	*Calidris tenuirostris*	great knot		CR	CE	2
animals	birds	Scolopacidae	*Gallinago hardwickii*	Latham's snipe		SL		5
animals	birds	Scolopacidae	*Limosa lapponica baueri*	Western Alaskan bar-tailed godwit		V	V	71
animals	birds	Scolopacidae	*Limosa limosa*	black-tailed godwit		SL		2
animals	birds	Scolopacidae	*Numenius madagascariensis*	eastern curlew		E	CE	157
animals	birds	Scolopacidae	*Numenius phaeopus*	whimbrel		SL		112
animals	birds	Scolopacidae	*Tringa brevipes*	grey-tailed tattler		SL		16
animals	birds	Scolopacidae	*Tringa nebularia*	common greenshank		SL		15
animals	birds	Scolopacidae	*Tringa stagnatilis*	marsh sandpiper		SL		5
animals	birds	Scolopacidae	*Xenus cinereus*	terek sandpiper		SL		7
animals	birds	Strigidae	*Ninox boobook*	southern boobook		C		13
animals	birds	Strigidae	*Ninox connivens*	barking owl		C		23
animals	birds	Sulidae	*Morus serrator*	Australasian gannet		C		1
animals	birds	Sulidae	*Sula leucogaster*	brown booby		SL		1/1
animals	birds	Threskiornithidae	*Platalea flavipes*	yellow-billed spoonbill		C		10
animals	birds	Threskiornithidae	*Platalea regia*	royal spoonbill		C		48
animals	birds	Threskiornithidae	*Plegadis falcinellus*	glossy ibis		SL		5
animals	birds	Threskiornithidae	*Threskiornis molucca*	Australian white ibis		C		92
animals	birds	Threskiornithidae	*Threskiornis spinicollis*	straw-necked ibis		C		30
animals	birds	Timaliidae	*Zosterops lateralis*	silvereye		C		15
animals	birds	Timaliidae	*Zosterops lateralis cornwalli*	silvereye (eastern)		C		1
animals	birds	Turnicidae	*Turnix melanogaster*	black-breasted button-quail		V	V	13
animals	birds	Turnicidae	*Turnix pyrrhothorax*	red-chested button-quail		C		1
animals	birds	Tytonidae	*Tyto javanica*	eastern barn owl		C		1
animals	insects	Lycaenidae	*Arhopala eupolis*	purple oak-blue				2
animals	insects	Lycaenidae	*Candalides erinus erinus*	small dusky-blue				1
animals	insects	Lycaenidae	*Zizina otis labradus*	common grass-blue (Australian subspecies)				1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	insects	Nymphalidae	*Acraea andromacha andromacha*	glasswing				5
animals	insects	Nymphalidae	*Charaxes sempronius sempronius*	tailed emperor				1
animals	insects	Nymphalidae	*Cupha prosope*					1
animals	insects	Nymphalidae	*Cupha prosope prosope*	bordered rustic (Australian subspecies)				2
animals	insects	Nymphalidae	*Danaus affinis affinis*	swamp tiger				2
animals	insects	Nymphalidae	*Danaus plexippus*	monarch	Y			5
animals	insects	Nymphalidae	*Euploea corinna*	common crow				1
animals	insects	Nymphalidae	*Euploea tulliolus tulliolus*	purple crow				1
animals	insects	Nymphalidae	*Hypocysta adiante adiante*	orange ringlet				1
animals	insects	Nymphalidae	*Hypolimnas bolina nerina*	varied eggfly				2
animals	insects	Nymphalidae	*Junonia orithya albicincta*	blue argus				1
animals	insects	Nymphalidae	*Junonia villida villida*	meadow argus				1
animals	insects	Nymphalidae	*Melanitis leda bankia*	evening brown				3
animals	insects	Nymphalidae	*Phaedyma shepherdi shepherdi*	white-banded plane (southern subspecies)				1
animals	insects	Nymphalidae	*Tirumala hamata hamata*	blue tiger				5
animals	insects	Papilionidae	*Papilio aegeus*					1
animals	insects	Papilionidae	*Papilio aegeus aegeus*	orchard swallowtail (Australian subspecies)				3
animals	insects	Pieridae	*Appias paulina ega*	yellow albatross				2
animals	insects	Pieridae	*Belenois java teutonia*	caper white				2
animals	insects	Pieridae	*Catopsilia pomona*	lemon migrant				2
animals	insects	Pieridae	*Cepora perimale*					1
animals	insects	Pieridae	*Delias argenthona argenthona*	scarlet jezebel				1
animals	insects	Pieridae	*Eurema hecabe*	large grass-yellow				4
animals	insects	Pieridae	*Eurema smilax*	small grass-yellow				1
animals	malacostracans	Parastacidae	*Cherax quadricarinatus*	redclaw				1
animals	mammals	Canidae	*Canis familiaris*	dog	Y			8
animals	mammals	Canidae	*Vulpes vulpes*	red fox	Y			5
animals	mammals	Delphinidae	*Sousa sahulensis*	Australian humpback dolphin		V		5
animals	mammals	Emballonuridae	*Saccolaimus flaviventris*	yellow-bellied sheathtail bat		C		5
animals	mammals	Felidae	*Felis catus*	cat	Y			4
animals	mammals	Leporidae	*Lepus europaeus*	European brown hare	Y			6
animals	mammals	Leporidae	*Oryctolagus cuniculus*	rabbit	Y			4
animals	mammals	Macropodidae	*Macropus giganteus*	eastern grey kangaroo		C		7
animals	mammals	Macropodidae	*Notamacropus parryi*	whiptail wallaby		C		3
animals	mammals	Macropodidae	*Wallabia bicolor*	swamp wallaby		C		4
animals	mammals	Miniopteridae	*Miniopterus australis*	little bent-wing bat		C		3
animals	mammals	Miniopteridae	*Miniopterus schreibersii oceanensis*	eastern bent-wing bat		C		2
animals	mammals	Molossidae	*Austronomus australis*	white-striped freetail bat		C		1
animals	mammals	Molossidae	*Chaerephon jobensis*	northern freetail bat		C		1
animals	mammals	Molossidae	*Mormopterus lumsdenae*	northern free-tailed bat		C		1
animals	mammals	Molossidae	*Mormopterus norfolkensis*	east coast freetail bat		C		2
animals	mammals	Molossidae	*Mormopterus ridei*	eastern free-tailed bat		C		2
animals	mammals	Muridae	*Melomys cervinipes*	fawn-footed melomys		C		1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	mammals	Muridae	*Mus musculus*	house mouse	Y			4
animals	mammals	Peramelidae	*Isoodon macrourus*	northern brown bandicoot		C		8
animals	mammals	Peramelidae	*Perameles nasuta*	long-nosed bandicoot		C		1
animals	mammals	Petauridae	*Petaurus norfolcensis*	squirrel glider		C		1
animals	mammals	Petauridae	*Petaurus notatus*	Krefft's glider		C		2
animals	mammals	Phalangeridae	*Trichosurus vulpecula*	common brushtail possum		C		5
animals	mammals	Phascolarctidae	*Phascolarctos cinereus*	koala		E	E	2
animals	mammals	Potoroidae	*Aepyprymnus rufescens*	rufous bettong		C		2
animals	mammals	Pteropodidae	*Pteropus alecto*	black flying-fox		C		6
animals	mammals	Suidae	*Sus scrofa*	pig	Y			3
animals	mammals	Tachyglossidae	*Tachyglossus aculeatus*	short-beaked echidna		SL		9
animals	mammals	Vespertilionidae	*Chalinolobus gouldii*	Gould's wattled bat		C		2
animals	mammals	Vespertilionidae	*Chalinolobus morio*	chocolate wattled bat		C		1
animals	mammals	Vespertilionidae	*Chalinolobus nigrogriseus*	hoary wattled bat		C		1
animals	mammals	Vespertilionidae	*Myotis macropus*	large-footed myotis		C		2
animals	mammals	Vespertilionidae	*Nyctophilus sp.*			C		1
animals	mammals	Vespertilionidae	*Scoteanax rueppellii*	greater broad-nosed bat		C		1
animals	mammals	Vespertilionidae	*Scotorepens greyii*	little broad-nosed bat		C		2
animals	ray-finned fishes	Ambassidae	*Ambassis agassizii*	Agassiz's glassfish				2
animals	ray-finned fishes	Ambassidae	*Ambassis sp.*					2
animals	ray-finned fishes	Anguillidae	*Anguilla reinhardtii*	longfin eel				1
animals	ray-finned fishes	Ariidae	*Neoarius graeffei*	blue catfish				1
animals	ray-finned fishes	Atherinidae	*Craterocephalus stercusmuscarum*	flyspecked hardyhead				2
animals	ray-finned fishes	Eleotridae	*Hypseleotris klunzingeri*	western carp gudgeon				2
animals	ray-finned fishes	Eleotridae	*Mogurnda adspersa*	southern purplespotted gudgeon				1
animals	ray-finned fishes	Leiognathidae	*Leiognathus equulus*	common ponyfish				3
animals	ray-finned fishes	Melanotaeniidae	*Melanotaenia duboulayi*	crimsonspotted rainbowfish				3
animals	ray-finned fishes	Mugilidae	*Mugil cephalus*	sea mullet				4
animals	ray-finned fishes	Plotosidae	*Porochilus rendahli*	Rendahl's catfish				1
animals	ray-finned fishes	Poeciliidae	*Gambusia holbrooki*	mosquitofish	Y			1
animals	ray-finned fishes	Pseudomugilidae	*Pseudomugil signifer*	Pacific blue eye				3
animals	ray-finned fishes	Scatophagidae	*Scatophagus argus*	spotted scat				1
animals	ray-finned fishes	Sparidae	*Acanthopagrus australis*	yellowfin bream				1
animals	ray-finned fishes	Sparidae	*Acanthopagrus pacificus*	pikey bream				1
animals	ray-finned fishes	Terapontidae	*Amniataba percoides*	barred grunter				2
animals	ray-finned fishes	Terapontidae	*Terapon jarbua*	crescent grunter				1
animals	reptiles	Agamidae	*Diporiphora australis*	tommy roundhead		C		1
animals	reptiles	Agamidae	*Diporiphora nobbi*	nobbi		C		3
animals	reptiles	Agamidae	*Intellagama lesueurii*	eastern water dragon		C		3
animals	reptiles	Agamidae	*Pogona barbata*	bearded dragon		C		9
animals	reptiles	Boidae	*Antaresia maculosa*	spotted python		C		1
animals	reptiles	Boidae	*Morelia spilota*	carpet python		C		6
animals	reptiles	Cheloniidae	*Natator depressus*	flatback turtle		V	V	1
animals	reptiles	Colubridae	*Boiga irregularis*	brown tree snake		C		3
animals	reptiles	Colubridae	*Dendrelaphis punctulatus*	green tree snake		C		5
animals	reptiles	Colubridae	*Tropidonophis mairii*	freshwater snake		C		2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	reptiles	Diplodactylidae	*Amalosia rhombifer*	zig-zag gecko		C		4/1
animals	reptiles	Diplodactylidae	*Diplodactylus vittatus*	wood gecko		C		2
animals	reptiles	Elapidae	*Cacophis harriettae*	white-crowned snake		C		1
animals	reptiles	Elapidae	*Cryptophis boschmai*	Carpentaria whip snake		C		1
animals	reptiles	Elapidae	*Demansia psammophis*	yellow-faced whipsnake		C		2
animals	reptiles	Elapidae	*Demansia vestigiata*	lesser black whipsnake		C		1
animals	reptiles	Elapidae	*Furina diadema*	red-naped snake		C		1
animals	reptiles	Elapidae	*Hoplocephalus bitorquatus*	pale-headed snake		C		1
animals	reptiles	Elapidae	*Microcephalophis gracilis*	slender sea snake		C		1/1
animals	reptiles	Elapidae	*Pseudechis porphyriacus*	red-bellied black snake		C		1
animals	reptiles	Elapidae	*Pseudonaja textilis*	eastern brown snake		C		3
animals	reptiles	Elapidae	*Vermicella annulata*	bandy-bandy		C		1
animals	reptiles	Gekkonidae	*Gehyra dubia*	dubious dtella		C		5
animals	reptiles	Gekkonidae	*Heteronotia binoei*	Bynoe's gecko		C		10
animals	reptiles	Pygopodidae	*Lialis burtonis*	Burton's legless lizard		C		5
animals	reptiles	Pygopodidae	*Paradelma orientalis*	brigalow scaly-foot		C		9
animals	reptiles	Scincidae	*Anomalopus verreauxii*	three-clawed worm-skink		C		1
animals	reptiles	Scincidae	*Bellatorias frerei*	major skink		C		1
animals	reptiles	Scincidae	*Carlia munda*	shaded-litter rainbow-skink		C		2
animals	reptiles	Scincidae	*Carlia pectoralis*	open-litter rainbow skink		C		3
animals	reptiles	Scincidae	*Carlia pectoralis sensu lato*			C		8/5
animals	reptiles	Scincidae	*Carlia schmeltzii*	robust rainbow-skink		C		11/4
animals	reptiles	Scincidae	*Carlia vivax*	tussock rainbow-skink		C		6/1
animals	reptiles	Scincidae	*Concinnia tenuis*	bar-sided skink		C		1
animals	reptiles	Scincidae	*Cryptoblepharus pulcher pulcher*	elegant snake-eyed skink		C		1
animals	reptiles	Scincidae	*Cryptoblepharus sp.*			C		1
animals	reptiles	Scincidae	*Cryptoblepharus virgatus sensu lato*			C		3
animals	reptiles	Scincidae	*Ctenotus spaldingi*	straight-browed ctenotus		C		11/1
animals	reptiles	Scincidae	*Ctenotus taeniolatus*	copper-tailed skink		C		6/1
animals	reptiles	Scincidae	*Lampropholis delicata*	dark-flecked garden sunskink		C		2
animals	reptiles	Scincidae	*Lygisaurus foliorum*	tree-base litter-skink		C		8/4
animals	reptiles	Scincidae	*Menetia greyii*	common dwarf skink		C		2/1
animals	reptiles	Scincidae	*Morethia boulengeri*	south-eastern morethia skink		C		1
animals	reptiles	Scincidae	*Morethia taeniopleura*	fire-tailed skink		C		7/2
animals	reptiles	Scincidae	*Pygmaeascincus timlowi*	dwarf litter-skink		C		1
animals	reptiles	Typhlopidae	*Anilios unguirostris*	claw-snouted blind snake		C		1
animals	reptiles	Varanidae	*Varanus gouldii*	sand monitor		C		4
animals	reptiles	Varanidae	*Varanus varius*	lace monitor		C		1
animals	uncertain	Indeterminate	*Indeterminate*	Unknown or Code Pending				7
chromists	brown algae	Scytosiphonaceae	*Rosenvingea orientalis*			C		1/1
fungi	arthoniomycetes	Roccellaceae	*Chiodecton*					1/1
fungi	arthoniomycetes	Roccellaceae	*Roccella montagnei*			C		3/3
fungi	dothideomycetes	Monoblastiaceae	*Anisomeridium*					1/1
fungi	eurotiomycetes	Pyrenulaceae	*Pyrenula concatervans*			C		1/1
fungi	eurotiomycetes	Verrucariaceae	*Polyblastia*					1/1
fungi	lecanoromycetes	Caliciaceae	*Buellia*					3/3

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
fungi	lecanoromycetes	Caliciaceae	*Buellia bahiana*			C		1/1
fungi	lecanoromycetes	Caliciaceae	*Buellia demutans*			C		1/1
fungi	lecanoromycetes	Caliciaceae	*Buellia subdisciformis var. subdisciformis*			C		1/1
fungi	lecanoromycetes	Caliciaceae	*Dirinaria confluens*			C		3/3
fungi	lecanoromycetes	Caliciaceae	*Dirinaria picta*			C		1/1
fungi	lecanoromycetes	Caliciaceae	*Pyxine australiensis*			C		2/2
fungi	lecanoromycetes	Caliciaceae	*Pyxine cocoes*			C		1/1
fungi	lecanoromycetes	Candelariaceae	*Candelaria concolor*			C		1/1
fungi	lecanoromycetes	Coccocarpiaceae	*Coccocarpia palmicola*			C		2/2
fungi	lecanoromycetes	Graphidaceae	*Glyphis cicatricosa*			C		1/1
fungi	lecanoromycetes	Haematommataceae	*Haematomma persoonii*			C		1/1
fungi	lecanoromycetes	Lecanoraceae	*Lecanora*					2/2
fungi	lecanoromycetes	Lecanoraceae	*Lecanora achroa*			C		1/1
fungi	lecanoromycetes	Lecanoraceae	*Lecanora austrotropica*			C		1/1
fungi	lecanoromycetes	Lecanoraceae	*Lecanora flavidofusca*			C		1/1
fungi	lecanoromycetes	Lecanoraceae	*Lecanora helva*			C		1/1
fungi	lecanoromycetes	Lecanoraceae	*Lecanora interjecta*			C		1/1
fungi	lecanoromycetes	Lecanoraceae	*Lecanora tropica*			C		1/1
fungi	lecanoromycetes	Lecanoraceae	*Maronina australiensis*			C		1/1
fungi	lecanoromycetes	Lecideaceae	*Lecidea*					1/1
fungi	lecanoromycetes	Ochrolechiaceae	*Ochrolechia*					1/1
fungi	lecanoromycetes	Pannariaceae	*Physma*					1/1
fungi	lecanoromycetes	Parmeliaceae	*Austroparmelina conlabrosa*			C		1/1
fungi	lecanoromycetes	Parmeliaceae	*Parmotrema crinitum*			C		2/2
fungi	lecanoromycetes	Parmeliaceae	*Parmotrema norsticticatum*			C		1/1
fungi	lecanoromycetes	Parmeliaceae	*Parmotrema parahypotropum*			C		5/5
fungi	lecanoromycetes	Parmeliaceae	*Parmotrema robustum*			C		6/6
fungi	lecanoromycetes	Parmeliaceae	*Relicina amphithrix*			C		1/1
fungi	lecanoromycetes	Parmeliaceae	*Usnea baileyi*			C		1/1
fungi	lecanoromycetes	Parmeliaceae	*Usnea dasaea*			C		1/1
fungi	lecanoromycetes	Parmeliaceae	*Usnea nidifica*			C		6/6
fungi	lecanoromycetes	Pertusariaceae	*Pertusaria*					2/2
fungi	lecanoromycetes	Pertusariaceae	*Pertusaria pustulata*			C		2/2
fungi	lecanoromycetes	Pertusariaceae	*Pertusaria thiospoda*			C		2/2
fungi	lecanoromycetes	Physciaceae	*Heterodermia obscurata*			C		1/1
fungi	lecanoromycetes	Physciaceae	*Hyperphyscia adglutinata*			C		1/1
fungi	lecanoromycetes	Ramalinaceae	*Ramalina confirmata*			C		2/2
fungi	lecanoromycetes	Ramalinaceae	*Ramalina luciae*			C		5/5
fungi	lecanoromycetes	Ramalinaceae	*Ramalina nervulosa*			C		2/2
fungi	lecanoromycetes	Ramalinaceae	*Ramalina pacifica*			C		3/3
fungi	lecanoromycetes	Ramalinaceae	*Ramalina peruviana*			C		2/2
fungi	lecanoromycetes	Ramalinaceae	*Ramalina subfraxinea var. norstictica*			C		3/3
fungi	lecanoromycetes	Teloschistaceae	*Caloplaca bassiae*			C		1/1
fungi	lecanoromycetes	Teloschistaceae	*Teloschistes flavicans*			C		1/1
fungi	lecanoromycetes	Tephromelataceae	*Tephromela atra*			C		1/1
fungi	lecanoromycetes	Thelenellaceae	*Polyblastiopsis*					2/2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	Florideophyceae	Callithamniaceae	*Callithamnion*					1/1
plants	Florideophyceae	Caulacanthaceae	*Catenella nipae*			C		1/1
plants	Florideophyceae	Ceramiaceae	*Antithamnion*					1/1
plants	Florideophyceae	Ceramiaceae	*Centroceras clavulatum*			C		1/1
plants	Florideophyceae	Champiaceae	*Champia parvula*			C		1/1
plants	Florideophyceae	Corallinaceae	*Jania ungulata*			C		1/1
plants	Florideophyceae	Corallinaceae	*Jania verrucosa*			C		1/1
plants	Florideophyceae	Cystocloniaceae	*Hypnea musciformis*			C		1/1
plants	Florideophyceae	Cystocloniaceae	*Hypnea spinella*			C		1/1
plants	Florideophyceae	Dasyaceae	*Heterosiphonia*					1/1
plants	Florideophyceae	Dasyaceae	*Heterosiphonia crispella*			C		1/1
plants	Florideophyceae	Gelidiaceae	*Gelidium crinale*			C		1/1
plants	Florideophyceae	Lomentariaceae	*Gelidiopsis variabilis*			C		2/2
plants	Florideophyceae	Phyllophoraceae	*Ahnfeltiopsis pygmaea*			C		1/1
plants	Florideophyceae	Rhodomelaceae	*Bostrychia tenella subsp. tenella*			C		1/1
plants	Florideophyceae	Rhodomelaceae	*Chondria*					1/1
plants	Florideophyceae	Rhodomelaceae	*Digenea simplex*			C		1/1
plants	Florideophyceae	Rhodomelaceae	*Laurencia filiformis*			C		2/2
plants	Florideophyceae	Rhodomelaceae	*Laurencia gracilis*			C		1/1
plants	Florideophyceae	Rhodomelaceae	*Laurencia nidifica*			C		1/1
plants	Florideophyceae	Rhodomelaceae	*Laurencia papillosa*			C		1/1
plants	Florideophyceae	Rhodomelaceae	*Laurencia rigida*			C		1/1
plants	Florideophyceae	Rhodomelaceae	*Leveillea jungermannioides*			C		1/1
plants	Florideophyceae	Rhodomelaceae	*Osmundaria fimbriata*			C		1/1
plants	Florideophyceae	Rhodomelaceae	*Polysiphonia scopulorum*			C		2/2
plants	Florideophyceae	Rhodomelaceae	*Pterosiphonia*					1/1
plants	Florideophyceae	Rhodomelaceae	*Symphyocladia marchantioides*			C		1/1
plants	Florideophyceae	Scinaiaceae	*Scinaia tsinglanensis*			C		1/1
plants	Florideophyceae	Spyridiaceae	*Spyridia filamentosa*			C		1/1
plants	Florideophyceae	Wrangeliaceae	*Wrangelia velutina*			C		1/1
plants	Ulvophyceae	Bryopsidaceae	*Bryopsis lubrica*			C		1/1
plants	Ulvophyceae	Caulerpaceae	*Caulerpa fastigiata*			C		1/1
plants	Ulvophyceae	Caulerpaceae	*Caulerpa racemosa var. laetevirens*			C		1/1
plants	Ulvophyceae	Caulerpaceae	*Caulerpa sertularioides*			C		1/1
plants	Ulvophyceae	Caulerpaceae	*Caulerpa taxifolia*			C		1/1
plants	Ulvophyceae	Cladophoraceae	*Cladophora crinalis*			C		1/1
plants	Ulvophyceae	Cladophoraceae	*Cladophora prolifera*			C		1/1
plants	Ulvophyceae	Polyphysaceae	*Acetabularia calyculus*			C		1/1
plants	Ulvophyceae	Udoteaceae	*Udotea argentea*			C		1/1
plants	Ulvophyceae	Udoteaceae	*Udotea flabellum*			C		1/1
plants	Ulvophyceae	Udoteaceae	*Udotea orientalis*			C		1/1
plants	land plants	Acanthaceae	*Avicennia marina*			C		3/1
plants	land plants	Acanthaceae	*Avicennia marina subsp. australasica*			C		1/1
plants	land plants	Acanthaceae	*Avicennia marina subsp. eucalyptifolia*			C		1/1
plants	land plants	Acanthaceae	*Brunoniella acaulis*			C		1
plants	land plants	Acanthaceae	*Brunoniella australis*	blue trumpet		C		1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Acanthaceae	*Pseuderanthemum variabile*	pastel flower		C		1
plants	land plants	Acanthaceae	*Rostellularia adscendens*			C		1
plants	land plants	Acanthaceae	*Rostellularia adscendens var. hispida*			C		1/1
plants	land plants	Agavaceae	*Agave americana*		Y			1
plants	land plants	Agavaceae	*Agave americana var. americana*		Y			1
plants	land plants	Agavaceae	*Agave angustifolia*		Y			1/1
plants	land plants	Agavaceae	*Furcraea selloa*		Y			1/1
plants	land plants	Aizoaceae	*Carpobrotus glaucescens*	pigface		C		1
plants	land plants	Aizoaceae	*Sesuvium portulacastrum*	sea purslane		C		5
plants	land plants	Aizoaceae	*Sesuvium portulacastrum subsp. portulacastrum*			C		1/1
plants	land plants	Aizoaceae	*Tetragonia tetragonoides*	New Zealand spinach		C		4/1
plants	land plants	Aizoaceae	*Trianthema portulacastrum*	black pigweed	Y			1/1
plants	land plants	Amaranthaceae	*Achyranthes aspera*			C		3
plants	land plants	Amaranthaceae	*Alternanthera*					1
plants	land plants	Amaranthaceae	*Alternanthera brasiliana*		Y			2/1
plants	land plants	Amaranthaceae	*Alternanthera pungens*	khaki weed	Y			1/1
plants	land plants	Amaranthaceae	*Gomphrena celosioides*	gomphrena weed	Y			2
plants	land plants	Amaryllidaceae	*Crinum*					1
plants	land plants	Amaryllidaceae	*Crinum flaccidum*	Murray lily		SL		1
plants	land plants	Anacardiaceae	*Euroschinus falcatus*			C		20
plants	land plants	Anacardiaceae	*Pleiogynium timorense*	Burdekin plum		C		38/1
plants	land plants	Anacardiaceae	*Schinus terebinthifolius*		Y			6/5
plants	land plants	Annonaceae	*Huberantha nitidissima*			C		16/1
plants	land plants	Annonaceae	*Melodorum leichhardtii*			C		17
plants	land plants	Apiaceae	*Centella asiatica*			C		2
plants	land plants	Apocynaceae	*Alstonia constricta*	bitterbark		C		1
plants	land plants	Apocynaceae	*Alyxia ruscifolia*			C		31/2
plants	land plants	Apocynaceae	*Asclepias curassavica*	red-head cottonbush	Y			3
plants	land plants	Apocynaceae	*Carissa ovata*	currantbush		C		25
plants	land plants	Apocynaceae	*Cascabela thevetia*	yellow oleander	Y			1/1
plants	land plants	Apocynaceae	*Catharanthus roseus*	pink periwinkle	Y			3/1
plants	land plants	Apocynaceae	*Cryptostegia grandiflora*	rubber vine	Y			18
plants	land plants	Apocynaceae	*Cynanchum viminale*			C		1
plants	land plants	Apocynaceae	*Cynanchum viminale subsp. australe*			C		1
plants	land plants	Apocynaceae	*Cynanchum viminale subsp. brunonianum*			C		2
plants	land plants	Apocynaceae	*Gomphocarpus physocarpus*	balloon cottonbush	Y			5
plants	land plants	Apocynaceae	*Gymnanthera oblonga*			C		3/1
plants	land plants	Apocynaceae	*Hoya australis*			C		10
plants	land plants	Apocynaceae	*Nerium oleander*	oleander	Y			1/1
plants	land plants	Apocynaceae	*Parsonsia*					1
plants	land plants	Apocynaceae	*Parsonsia straminea*	monkey rope		C		6
plants	land plants	Apocynaceae	*Parsonsia velutina*	hairy silkpod		C		5
plants	land plants	Apocynaceae	*Secamone elliptica*			C		16
plants	land plants	Apocynaceae	*Vincetoxicum carnosum*			C		2/1
plants	land plants	Apocynaceae	*Vincetoxicum ovatum*			C		1
plants	land plants	Araliaceae	*Heptapleurum actinophyllum*			C		3/1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Araliaceae	*Polyscias elegans*	celery wood		C		11
plants	land plants	Aristolochiaceae	*Aristolochia thozetii*			C		1/1
plants	land plants	Asparagaceae	*Asparagus aethiopicus*	ground asparagus	Y			2/2
plants	land plants	Asparagaceae	*Asparagus africanus*	ornamental asparagus	Y			1
plants	land plants	Asparagaceae	*Asparagus plumosus*	feathered asparagus fern	Y			2/2
plants	land plants	Asteraceae	*Acanthospermum hispidum*	star burr	Y			1/1
plants	land plants	Asteraceae	*Ageratum houstonianum*	blue billygoat weed	Y			3/1
plants	land plants	Asteraceae	*Baccharis halimifolia*	groundsel bush	Y			3
plants	land plants	Asteraceae	*Bidens bipinnata*	bipinnate beggar's ticks	Y			2/1
plants	land plants	Asteraceae	*Bidens pilosa*		Y			5
plants	land plants	Asteraceae	*Calotis cuneifolia var. glabrescens*			C		1
plants	land plants	Asteraceae	*Calyptocarpus vialis*	creeping cinderella weed	Y			1/1
plants	land plants	Asteraceae	*Centipeda minima subsp. minima*			C		1/1
plants	land plants	Asteraceae	*Chrysocephalum apiculatum*	yellow buttons		C		2
plants	land plants	Asteraceae	*Cirsium vulgare*	spear thistle	Y			1
plants	land plants	Asteraceae	*Coronidium lanuginosum*			C		1/1
plants	land plants	Asteraceae	*Crassocephalum crepidioides*	thickhead	Y			1
plants	land plants	Asteraceae	*Cyanthillium cinereum*			C		5/3
plants	land plants	Asteraceae	*Eclipta prostrata*	white eclipta	Y			3/1
plants	land plants	Asteraceae	*Emilia sonchifolia*		Y			4
plants	land plants	Asteraceae	*Erigeron bonariensis*		Y			1/1
plants	land plants	Asteraceae	*Erigeron sumatrensis*		Y			1/1
plants	land plants	Asteraceae	*Gamochaeta pensylvanica*		Y			1/1
plants	land plants	Asteraceae	*Glossocardia bidens*	native cobbler's pegs		C		1
plants	land plants	Asteraceae	*Peripleura bicolor*			C		1
plants	land plants	Asteraceae	*Peripleura diffusa*			C		1
plants	land plants	Asteraceae	*Praxelis*		Y	C		1
plants	land plants	Asteraceae	*Praxelis clematidea*		Y			1/1
plants	land plants	Asteraceae	*Pterocaulon*					1
plants	land plants	Asteraceae	*Pterocaulon redolens*			C		4
plants	land plants	Asteraceae	*Sigesbeckia orientalis*	Indian weed		C		2
plants	land plants	Asteraceae	*Sonchus oleraceus*	common sowthistle	Y			1
plants	land plants	Asteraceae	*Sphaeromorphaea australis*			C		3
plants	land plants	Asteraceae	*Sphaeromorphaea subintegra*			C		1/1
plants	land plants	Asteraceae	*Tridax procumbens*	tridax daisy	Y			9
plants	land plants	Asteraceae	*Verbesina encelioides*	crownbeard	Y			1
plants	land plants	Asteraceae	*Verbesina encelioides var. encelioides*		Y			1/1
plants	land plants	Asteraceae	*Xanthium occidentale*		Y			1
plants	land plants	Bignoniaceae	*Pandorea pandorana*	wonga vine		C		10
plants	land plants	Bignoniaceae	*Tecoma stans*	tecoma	Y			1
plants	land plants	Bignoniaceae	*Tecoma stans var. stans*		Y			2/2
plants	land plants	Boraginaceae	*Heliotropium amplexicaule*	blue heliotrope	Y			2/2
plants	land plants	Boraginaceae	*Heliotropium indicum*		Y			2/1
plants	land plants	Brassicaceae	*Lepidium bonariense*	Argentine peppercress	Y			1/1
plants	land plants	Byblidaceae	*Byblis liniflora*			SL		2/1
plants	land plants	Cactaceae	*Opuntia*					1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Cactaceae	*Opuntia stricta*		Y			15/1
plants	land plants	Campanulaceae	*Lobelia*					1
plants	land plants	Campanulaceae	*Lobelia browniana*			SL		1/1
plants	land plants	Campanulaceae	*Lobelia gibbosa*	native lobelia		SL		1
plants	land plants	Campanulaceae	*Lobelia stenophylla*			SL		1/1
plants	land plants	Campanulaceae	*Wahlenbergia gracilis*	sprawling bluebell		SL		1
plants	land plants	Cannabaceae	*Aphananthe philippinensis*			C		1
plants	land plants	Cannabaceae	*Celtis paniculata*	native celtis		C		12
plants	land plants	Cannabaceae	*Celtis sinensis*	Chinese elm	Y			1/1
plants	land plants	Cannabaceae	*Trema tomentosa*			C		1
plants	land plants	Cannabaceae	*Trema tomentosa var. aspera*			C		1
plants	land plants	Capparaceae	*Capparis*					5
plants	land plants	Capparaceae	*Capparis arborea*	brush caper berry		C		2
plants	land plants	Capparaceae	*Capparis canescens*			C		5
plants	land plants	Capparaceae	*Capparis lucida*			C		1
plants	land plants	Capparaceae	*Capparis ornans*			C		4
plants	land plants	Casuarinaceae	*Allocasuarina littoralis*			C		2
plants	land plants	Casuarinaceae	*Allocasuarina luehmannii*	bull oak		C		3
plants	land plants	Casuarinaceae	*Allocasuarina torulosa*			C		8/1
plants	land plants	Casuarinaceae	*Casuarina equisetifolia*			C		7
plants	land plants	Casuarinaceae	*Casuarina glauca*	swamp she-oak		C		19/3
plants	land plants	Celastraceae	*Denhamia disperma*			C		24/1
plants	land plants	Celastraceae	*Elaeodendron melanocarpum*			C		16
plants	land plants	Celastraceae	*Hippocratea barbata*	knotvine		C		4
plants	land plants	Chenopodiaceae	*Atriplex semibaccata var. biformis*			C		1
plants	land plants	Chenopodiaceae	*Chenopodium album*	fat-hen	Y			1/1
plants	land plants	Chenopodiaceae	*Dysphania littoralis*	red crumbweed		C		2/1
plants	land plants	Chenopodiaceae	*Einadia hastata*			C		2
plants	land plants	Chenopodiaceae	*Enchylaena tomentosa*			C		3
plants	land plants	Chenopodiaceae	*Salsola australis*			C		6
plants	land plants	Chenopodiaceae	*Suaeda arbusculoides*			C		1
plants	land plants	Chenopodiaceae	*Suaeda australis*			C		5/1
plants	land plants	Chenopodiaceae	*Tecticornia indica*			C		1
plants	land plants	Chenopodiaceae	*Tecticornia indica subsp. leiostachya*			C		2/2
plants	land plants	Chenopodiaceae	*Tecticornia pergranulata*			C		1
plants	land plants	Colchicaceae	*Iphigenia indica*			C		5/1
plants	land plants	Combretaceae	*Lumnitzera racemosa*			C		4/1
plants	land plants	Combretaceae	*Terminalia catappa*			C		1/1
plants	land plants	Combretaceae	*Terminalia porphyrocarpa*			C		1
plants	land plants	Commelinaceae	*Commelina ensifolia*	scurvy grass		C		1/1
plants	land plants	Commelinaceae	*Murdannia graminea*	murdannia		C		7/1
plants	land plants	Convolvulaceae	*Evolvulus alsinoides*			C		1
plants	land plants	Convolvulaceae	*Evolvulus alsinoides var. decumbens*			C		1
plants	land plants	Convolvulaceae	*Ipomoea cairica*		Y			2
plants	land plants	Convolvulaceae	*Ipomoea pes-caprae subsp. brasiliensis*	goatsfoot		C		6
plants	land plants	Convolvulaceae	*Ipomoea plebeia*	bellvine		C		1/1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Crassulaceae	*Bryophyllum delagoense*		Y			5/3
plants	land plants	Cyperaceae	*Bulbostylis barbata*			C		1
plants	land plants	Cyperaceae	*Cyperus*					12
plants	land plants	Cyperaceae	*Cyperus bifax*	western nutgrass		C		1/1
plants	land plants	Cyperaceae	*Cyperus brevifolius*	Mullumbimby couch	Y			1
plants	land plants	Cyperaceae	*Cyperus eglobosus*			C		1/1
plants	land plants	Cyperaceae	*Cyperus enervis*			C		6
plants	land plants	Cyperaceae	*Cyperus exaltatus*	tall flatsedge		C		1
plants	land plants	Cyperaceae	*Cyperus haspan*			C		1
plants	land plants	Cyperaceae	*Cyperus haspan subsp. juncoides*			C		1/1
plants	land plants	Cyperaceae	*Cyperus javanicus*			C		1/1
plants	land plants	Cyperaceae	*Cyperus polystachyos*			C		2
plants	land plants	Cyperaceae	*Cyperus polystachyos var. polystachyos*			C		1/1
plants	land plants	Cyperaceae	*Cyperus rotundus*	nutgrass	Y			1
plants	land plants	Cyperaceae	*Cyperus tetracarpus*			C		3/2
plants	land plants	Cyperaceae	*Eleocharis equisetina*			C		1/1
plants	land plants	Cyperaceae	*Fimbristylis*					11
plants	land plants	Cyperaceae	*Fimbristylis cinnamometorum*			C		3/2
plants	land plants	Cyperaceae	*Fimbristylis dichotoma*	common fringe-rush		C		5/2
plants	land plants	Cyperaceae	*Fimbristylis ferruginea*			C		4/1
plants	land plants	Cyperaceae	*Fimbristylis polytrichoides*			C		2/1
plants	land plants	Cyperaceae	*Fimbristylis tristachya*			C		2/1
plants	land plants	Cyperaceae	*Fuirena ciliaris*			C		1
plants	land plants	Cyperaceae	*Gahnia aspera*			C		16
plants	land plants	Cyperaceae	*Rhynchospora heterochaeta*			C		2/1
plants	land plants	Cyperaceae	*Schoenus brevifolius*			C		1/1
plants	land plants	Cyperaceae	*Scleria mackaviensis*			C		2/1
plants	land plants	Cyperaceae	*Scleria rugosa*			C		2/1
plants	land plants	Dicksoniaceae	*Calochlaena dubia*			C		1
plants	land plants	Dilleniaceae	*Hibbertia scandens*			C		3/1
plants	land plants	Dilleniaceae	*Hibbertia stricta var. hirtiflora*			C		2/1
plants	land plants	Dilleniaceae	*Hibbertia vestita var. vestita*			C		1
plants	land plants	Dioscoreaceae	*Dioscorea transversa*	native yam		C		4
plants	land plants	Droseraceae	*Drosera*					4
plants	land plants	Droseraceae	*Drosera burmanni*			SL		1/1
plants	land plants	Droseraceae	*Drosera finlaysoniana*			SL		1/1
plants	land plants	Droseraceae	*Drosera lunata*			SL		2/2
plants	land plants	Droseraceae	*Drosera spatulata*			SL		3
plants	land plants	Ebenaceae	*Diospyros australis*	black plum		C		13
plants	land plants	Ebenaceae	*Diospyros fasciculosa*	grey ebony		C		18/1
plants	land plants	Ebenaceae	*Diospyros geminata*	scaly ebony		C		32/2
plants	land plants	Elaeocarpaceae	*Elaeocarpus obovatus*	blueberry ash		C		4
plants	land plants	Ericaceae	*Melichrus*					1
plants	land plants	Ericaceae	*Melichrus adpressus*			C		3/1
plants	land plants	Ericaceae	*Styphelia leptospermoides*			C		1/1
plants	land plants	Euphorbiaceae	*Alchornea ilicifolia*	native holly		C		3

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Euphorbiaceae	*Alchornea thozetiana*			C		2
plants	land plants	Euphorbiaceae	*Euphorbia*					2
plants	land plants	Euphorbiaceae	*Euphorbia cyathophora*	dwarf poinsettia	Y			3/2
plants	land plants	Euphorbiaceae	*Euphorbia hirta*		Y			1
plants	land plants	Euphorbiaceae	*Euphorbia ophthalmica*		Y			1/1
plants	land plants	Euphorbiaceae	*Euphorbia tannensis*			C		4
plants	land plants	Euphorbiaceae	*Excoecaria agallocha*	milky mangrove		C		2
plants	land plants	Euphorbiaceae	*Mallotus claoxyloides*	green kamala		C		2
plants	land plants	Euphorbiaceae	*Mallotus discolor*	white kamala		C		27/1
plants	land plants	Euphorbiaceae	*Mallotus philippensis*	red kamala		C		18/1
plants	land plants	Euphorbiaceae	*Ricinus communis*	castor oil bush	Y			3/2
plants	land plants	Gentianaceae	*Centaurium*					1
plants	land plants	Goodeniaceae	*Brunonia australis*	blue pincushion		SL		1
plants	land plants	Goodeniaceae	*Goodenia mystrophylla*			C		3/1
plants	land plants	Goodeniaceae	*Goodenia rotundifolia*			C		4
plants	land plants	Goodeniaceae	*Goodenia sp. (Mt Castletower M.D.Crisp 2753)*			C		1/1
plants	land plants	Haloragaceae	*Gonocarpus chinensis subsp. verrucosus*			C		2/1
plants	land plants	Hemerocallidaceae	*Dianella*					5
plants	land plants	Hemerocallidaceae	*Dianella brevipedunculata*			C		1
plants	land plants	Hemerocallidaceae	*Dianella caerulea*			C		15
plants	land plants	Hemerocallidaceae	*Dianella longifolia*			C		7/2
plants	land plants	Hemerocallidaceae	*Dianella revoluta*			C		2
plants	land plants	Hemerocallidaceae	*Geitonoplesium cymosum*	scrambling lily		C		16
plants	land plants	Hypoxidaceae	*Hypoxis pratensis*			C		1
plants	land plants	Hypoxidaceae	*Hypoxis pratensis var. pratensis*			C		1/1
plants	land plants	Johnsoniaceae	*Tricoryne*					1
plants	land plants	Johnsoniaceae	*Tricoryne elatior*	yellow autumn lily		C		2
plants	land plants	Juncaceae	*Juncus*					2
plants	land plants	Juncaceae	*Juncus continuus*			C		2/1
plants	land plants	Juncaceae	*Juncus polyanthemus*			C		2/1
plants	land plants	Juncaceae	*Juncus usitatus*			C		1
plants	land plants	Juncaginaceae	*Cycnogeton procerus*			SL		2
plants	land plants	Juncaginaceae	*Triglochin*					1/1
plants	land plants	Lamiaceae	*Clerodendrum floribundum*			C		8/1
plants	land plants	Lamiaceae	*Clerodendrum inerme*	coastal lolly bush		C		1
plants	land plants	Lamiaceae	*Clerodendrum tomentosum*			C		1
plants	land plants	Lamiaceae	*Glossocarya hemiderma*			C		1
plants	land plants	Lamiaceae	*Leonotis nepetifolia*		Y			1/1
plants	land plants	Lamiaceae	*Salvia coccinea*	red salvia	Y			9/2
plants	land plants	Lamiaceae	*Vitex rotundifolia*			C		1
plants	land plants	Lamiaceae	*Vitex trifolia*			C		6
plants	land plants	Lamiaceae	*Vitex trifolia var. trifolia*			C		2/2
plants	land plants	Lauraceae	*Cassytha*					19
plants	land plants	Lauraceae	*Cassytha filiformis*	dodder laurel		C		2
plants	land plants	Lauraceae	*Cassytha pubescens*	downy devil's twine		C		9
plants	land plants	Lauraceae	*Cryptocarya bidwillii*	yellow laurel		C		4

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Lauraceae	*Cryptocarya triplinervis*			C		8
plants	land plants	Lauraceae	*Cryptocarya triplinervis var. triplinervis*			C		1/1
plants	land plants	Laxmanniaceae	*Eustrephus latifolius*	wombat berry		C		15
plants	land plants	Laxmanniaceae	*Eustrephus latifolius subforma fimbriatus*			C		1
plants	land plants	Laxmanniaceae	*Laxmannia gracilis*	slender wire lily		C		3/1
plants	land plants	Laxmanniaceae	*Lomandra*					5
plants	land plants	Laxmanniaceae	*Lomandra filiformis subsp. filiformis*			C		1
plants	land plants	Laxmanniaceae	*Lomandra leucocephala*			C		1
plants	land plants	Laxmanniaceae	*Lomandra leucocephala subsp. leucocephala*			C		1/1
plants	land plants	Laxmanniaceae	*Lomandra longifolia*			C		4
plants	land plants	Laxmanniaceae	*Lomandra multiflora subsp. multiflora*			C		6/1
plants	land plants	Laxmanniaceae	*Thysanotus tuberosus*			C		2
plants	land plants	Lecythidaceae	*Planchonia careya*	cockatoo apple		C		17
plants	land plants	Leguminosae	*Acacia*					1
plants	land plants	Leguminosae	*Acacia amblygona*	fan-leaf wattle		C		4/2
plants	land plants	Leguminosae	*Acacia aulacocarpa*			C		52
plants	land plants	Leguminosae	*Acacia conferta*			C		28/4
plants	land plants	Leguminosae	*Acacia crassa*			C		1
plants	land plants	Leguminosae	*Acacia crassa subsp. longicoma*			C		2/2
plants	land plants	Leguminosae	*Acacia decora*	pretty wattle		C		7
plants	land plants	Leguminosae	*Acacia disparrima subsp. disparrima*			C		12/4
plants	land plants	Leguminosae	*Acacia falciformis*	broad-leaved hickory		C		10/3
plants	land plants	Leguminosae	*Acacia fasciculifera*	scaly bark		C		10
plants	land plants	Leguminosae	*Acacia flavescens*	toothed wattle		C		2/1
plants	land plants	Leguminosae	*Acacia hemsleyi*			C		1/1
plants	land plants	Leguminosae	*Acacia holosericea*			C		3
plants	land plants	Leguminosae	*Acacia julifera*			C		2
plants	land plants	Leguminosae	*Acacia julifera subsp. julifera*			C		4/3
plants	land plants	Leguminosae	*Acacia leiocalyx*			C		14
plants	land plants	Leguminosae	*Acacia leiocalyx subsp. leiocalyx*			C		2/2
plants	land plants	Leguminosae	*Acacia leptocarpa*	north coast wattle		C		12/6
plants	land plants	Leguminosae	*Acacia macradenia*	zig-zag wattle		C		1
plants	land plants	Leguminosae	*Acacia maidenii*	Maiden's wattle		C		3
plants	land plants	Leguminosae	*Acacia podalyriifolia*	Queensland silver wattle		C		1
plants	land plants	Leguminosae	*Acacia salicina*	doolan		C		3
plants	land plants	Leguminosae	*Acacia spectabilis*	pilliga wattle		C		1/1
plants	land plants	Leguminosae	*Austrosteenisia blackii*	bloodvine		C		2
plants	land plants	Leguminosae	*Canavalia papuana*	wild jack bean		C		1/1
plants	land plants	Leguminosae	*Canavalia rosea*	coastal jack bean		C		3/1
plants	land plants	Leguminosae	*Chamaecrista nomame var. nomame*			C		1
plants	land plants	Leguminosae	*Chamaecrista rotundifolia var. rotundifolia*		Y			2/1
plants	land plants	Leguminosae	*Chorizema parviflorum*	eastern flame pea		C		2/1
plants	land plants	Leguminosae	*Crotalaria brevis*			C		1/1
plants	land plants	Leguminosae	*Crotalaria goreensis*	gambia pea	Y			1
plants	land plants	Leguminosae	*Crotalaria medicaginea*	trefoil rattlepod		C		6
plants	land plants	Leguminosae	*Crotalaria medicaginea var. neglecta*			C		3/3

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Leguminosae	*Crotalaria montana*			C		3
plants	land plants	Leguminosae	*Crotalaria montana var. angustifolia*			C		2/1
plants	land plants	Leguminosae	*Crotalaria pallida*		Y			8
plants	land plants	Leguminosae	*Crotalaria pallida var. obovata*		Y			1/1
plants	land plants	Leguminosae	*Delonix regia*	poinciana	Y			1/1
plants	land plants	Leguminosae	*Desmodium*					1
plants	land plants	Leguminosae	*Desmodium rhytidophyllum*			C		2
plants	land plants	Leguminosae	*Desmodium tortuosum*	Florida beggar-weed	Y			1/1
plants	land plants	Leguminosae	*Erythrina vespertilio*			C		3
plants	land plants	Leguminosae	*Glycine*					2
plants	land plants	Leguminosae	*Glycine clandestina*			C		1
plants	land plants	Leguminosae	*Glycine tomentella*	woolly glycine		C		1
plants	land plants	Leguminosae	*Guilandina bonduc*			C		3
plants	land plants	Leguminosae	*Hardenbergia violacea*			C		4
plants	land plants	Leguminosae	*Indigofera hirsuta*	hairy indigo		C		3/1
plants	land plants	Leguminosae	*Indigofera tinctoria*		Y			1/1
plants	land plants	Leguminosae	*Jacksonia scoparia*			C		14
plants	land plants	Leguminosae	*Leucaena leucocephala*		Y			2
plants	land plants	Leguminosae	*Leucaena leucocephala subsp. glabrata*		Y			3/3
plants	land plants	Leguminosae	*Macroptilium atropurpureum*	siratro	Y			8
plants	land plants	Leguminosae	*Macroptilium lathyroides var. semierectum*		Y			1
plants	land plants	Leguminosae	*Neptunia*					1
plants	land plants	Leguminosae	*Neptunia gracilis forma gracilis*			C		1
plants	land plants	Leguminosae	*Peltophorum pterocarpum*	yellow poinciana	Y			1/1
plants	land plants	Leguminosae	*Pycnospora lutescens*	pycnospora		C		3/2
plants	land plants	Leguminosae	*Rhynchosia acuminatissima*			C		3/1
plants	land plants	Leguminosae	*Rhynchosia minima*			C		1
plants	land plants	Leguminosae	*Senna gaudichaudii*			C		2/1
plants	land plants	Leguminosae	*Senna pendula var. glabrata*	Easter cassia	Y			3/2
plants	land plants	Leguminosae	*Sesbania cannabina*			C		4
plants	land plants	Leguminosae	*Sesbania cannabina var. cannabina*			C		1
plants	land plants	Leguminosae	*Sophora tomentosa subsp. australis*			C		3
plants	land plants	Leguminosae	*Stylosanthes guianensis var. intermedia*		Y			1/1
plants	land plants	Leguminosae	*Stylosanthes humilis*	Townsville stylo	Y			1
plants	land plants	Leguminosae	*Stylosanthes scabra*		Y			5/3
plants	land plants	Leguminosae	*Stylosanthes viscosa*		Y			2/2
plants	land plants	Leguminosae	*Swainsona phacoides*	dwarf swainsona		C		1/1
plants	land plants	Leguminosae	*Tephrosia filipes subsp. filipes*			C		2/1
plants	land plants	Leguminosae	*Tephrosia juncea*			C		1
plants	land plants	Leguminosae	*Tephrosia leptoclada*			C		1/1
plants	land plants	Leguminosae	*Tephrosia noctiflora*		Y			1/1
plants	land plants	Leguminosae	*Tipuana tipu*	tipuana	Y			1/1
plants	land plants	Leguminosae	*Vachellia bidwillii*			C		5/1
plants	land plants	Leguminosae	*Vigna marina*	dune bean		C		4/1
plants	land plants	Leguminosae	*Vigna vexillata*			C		1
plants	land plants	Leguminosae	*Zornia*					1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Leguminosae	*Zornia dyctiocarpa*			C		1
plants	land plants	Leguminosae	*Zornia dyctiocarpa var. filifolia*			C		2/1
plants	land plants	Leguminosae	*Zornia floribunda*			C		2/2
plants	land plants	Linderniaceae	*Torenia crustacea*			C		2/2
plants	land plants	Loganiaceae	*Mitrasacme pygmaea*			C		2/1
plants	land plants	Loganiaceae	*Strychnos psilosperma*	strychnine tree		C		3
plants	land plants	Loranthaceae	*Amyema conspicua subsp. conspicua*			C		3/2
plants	land plants	Loranthaceae	*Amyema mackayensis*			C		1
plants	land plants	Loranthaceae	*Lysiana subfalcata*			C		2/1
plants	land plants	Malvaceae	*Abutilon*					1
plants	land plants	Malvaceae	*Abutilon auritum*	Chinese lantern		C		3/1
plants	land plants	Malvaceae	*Hibiscus*					3
plants	land plants	Malvaceae	*Hibiscus heterophyllus*			C		2
plants	land plants	Malvaceae	*Hibiscus meraukensis*	Merauke hibiscus		C		5/1
plants	land plants	Malvaceae	*Hibiscus tiliaceus*	cotton tree		C		2
plants	land plants	Malvaceae	*Sida*					1
plants	land plants	Malvaceae	*Sida acuta*	spinyhead sida	Y			1/1
plants	land plants	Malvaceae	*Sida cordifolia*		Y			12/1
plants	land plants	Malvaceae	*Sida hackettiana*			C		7
plants	land plants	Malvaceae	*Sida hackettiana subsp. (Gayndah P.Grimshaw+ PG2388)*			C		2
plants	land plants	Malvaceae	*Sida rhombifolia*		Y			2
plants	land plants	Malvaceae	*Urena lobata*	urena weed	Y			3/1
plants	land plants	Meliaceae	*Melia azedarach*	white cedar		C		8
plants	land plants	Meliaceae	*Turraea pubescens*	native honeysuckle		C		21/1
plants	land plants	Menispermaceae	*Pleogyne australis*	wiry grape		C		22/1
plants	land plants	Menispermaceae	*Stephania japonica*			C		11
plants	land plants	Menyanthaceae	*Nymphoides indica*	water snowflake		SL		1
plants	land plants	Moraceae	*Ficus*					9
plants	land plants	Moraceae	*Ficus obliqua*			C		4
plants	land plants	Moraceae	*Ficus opposita*			C		16
plants	land plants	Moraceae	*Ficus racemosa var. racemosa*			C		4
plants	land plants	Moraceae	*Ficus rubiginosa*	Port Jackson fig		C		2
plants	land plants	Moraceae	*Ficus rubiginosa forma rubiginosa*			C		3/3
plants	land plants	Moraceae	*Streblus brunonianus*	whalebone tree		C		4
plants	land plants	Moraceae	*Trophis scandens subsp. scandens*			C		31
plants	land plants	Myrsinaceae	*Aegiceras corniculatum*	river mangrove		C		4/3
plants	land plants	Myrsinaceae	*Embelia australiana*	embelia		C		4
plants	land plants	Myrsinaceae	*Myrsine variabilis*			C		16
plants	land plants	Myrtaceae	*Angophora floribunda*	rough-barked apple		C		1
plants	land plants	Myrtaceae	*Angophora leiocarpa*	rusty gum		C		1
plants	land plants	Myrtaceae	*Corymbia citriodora*	spotted gum		C		12
plants	land plants	Myrtaceae	*Corymbia citriodora subsp. citriodora*			C		13
plants	land plants	Myrtaceae	*Corymbia clarksoniana*			C		19/1
plants	land plants	Myrtaceae	*Corymbia erythrophloia*	variable-barked bloodwood		C		5
plants	land plants	Myrtaceae	*Corymbia intermedia*	pink bloodwood		C		9

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Myrtaceae	*Corymbia tessellaris*	Moreton Bay ash		C		30
plants	land plants	Myrtaceae	*Eucalyptus*					5
plants	land plants	Myrtaceae	*Eucalyptus crebra*	narrow-leaved red ironbark		C		34/1
plants	land plants	Myrtaceae	*Eucalyptus exserta*	Queensland peppermint		C		35
plants	land plants	Myrtaceae	*Eucalyptus moluccana*	gum-topped box		C		5
plants	land plants	Myrtaceae	*Eucalyptus populnea*	poplar box		C		1/1
plants	land plants	Myrtaceae	*Eucalyptus tereticornis*			C		20
plants	land plants	Myrtaceae	*Eucalyptus tereticornis subsp. tereticornis*			C		4
plants	land plants	Myrtaceae	*Gossia bidwillii*			C		5
plants	land plants	Myrtaceae	*Lophostemon confertus*	brush box		C		7
plants	land plants	Myrtaceae	*Lophostemon suaveolens*	swamp box		C		18
plants	land plants	Myrtaceae	*Melaleuca*					8
plants	land plants	Myrtaceae	*Melaleuca dealbata*	swamp tea-tree		C		11
plants	land plants	Myrtaceae	*Melaleuca decora*			C		2
plants	land plants	Myrtaceae	*Melaleuca fluviatilis*			C		4
plants	land plants	Myrtaceae	*Melaleuca linariifolia*	snow-in summer		C		2
plants	land plants	Myrtaceae	*Melaleuca nervosa*			C		17/4
plants	land plants	Myrtaceae	*Melaleuca quinquenervia*	swamp paperbark		C		4/1
plants	land plants	Myrtaceae	*Melaleuca viridiflora var. viridiflora*			C		1
plants	land plants	Myrtaceae	*Osbornia octodonta*	myrtle mangrove		C		3/1
plants	land plants	Myrtaceae	*Psidium guajava*	guava	Y			3/2
plants	land plants	Myrtaceae	*Syzygium australe*	scrub cherry		C		3/1
plants	land plants	Nelumbonaceae	*Nelumbo nucifera*	pink waterlily		SL		2/2
plants	land plants	Nephrolepidaceae	*Nephrolepis cordifolia*	fishbone fern		C		1
plants	land plants	Nyctaginaceae	*Boerhavia*					1
plants	land plants	Nyctaginaceae	*Pisonia aculeata*	thorny pisonia		C		1
plants	land plants	Nymphaeaceae	*Nymphaea caerulea*		Y			1
plants	land plants	Oleaceae	*Jasminum didymum subsp. didymum*			C		18
plants	land plants	Oleaceae	*Jasminum didymum subsp. racemosum*			C		2/1
plants	land plants	Oleaceae	*Jasminum simplicifolium*			C		24
plants	land plants	Oleaceae	*Jasminum simplicifolium subsp. australiense*			C		3
plants	land plants	Oleaceae	*Ligustrum australianum*			C		6
plants	land plants	Oleaceae	*Notelaea longifolia*			C		1/1
plants	land plants	Oleaceae	*Olea paniculata*			C		10
plants	land plants	Onagraceae	*Ludwigia*					4
plants	land plants	Onagraceae	*Ludwigia octovalvis*	willow primrose		C		2
plants	land plants	Orchidaceae	*Caladenia carnea*			SL		2/1
plants	land plants	Orchidaceae	*Cymbidium canaliculatum*			SL		5
plants	land plants	Orchidaceae	*Dendrobium*					6
plants	land plants	Orchidaceae	*Dockrillia bowmanii*	scrub pencil orchid		SL		4/1
plants	land plants	Orchidaceae	*Geodorum densiflorum*	pink nodding orchid		SL		3
plants	land plants	Orchidaceae	*Pterostylis ophioglossa*			SL		2/1
plants	land plants	Orchidaceae	*Saccolabiopsis armitii*			SL		1/1
plants	land plants	Orobanchaceae	*Buchnera urticifolia*			C		1/1
plants	land plants	Passifloraceae	*Passiflora edulis*		Y			1
plants	land plants	Passifloraceae	*Passiflora foetida*		Y			13/1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Passifloraceae	*Passiflora pallida*		Y			1/1
plants	land plants	Passifloraceae	*Passiflora suberosa*	corky passion flower	Y			37
plants	land plants	Passifloraceae	*Passiflora suberosa subsp. litoralis*		Y			1
plants	land plants	Petiveriaceae	*Rivina humilis*		Y			9/1
plants	land plants	Philydraceae	*Philydrum lanuginosum*	frogsmouth		C		4/1
plants	land plants	Phyllanthaceae	*Breynia oblongifolia*			C		39/2
plants	land plants	Phyllanthaceae	*Bridelia*					3
plants	land plants	Phyllanthaceae	*Bridelia leichhardtii*			C		6
plants	land plants	Phyllanthaceae	*Glochidion lobocarpum*			C		25/3
plants	land plants	Phyllanthaceae	*Glochidion sumatranum*	umbrella cheese tree		C		1/1
plants	land plants	Phyllanthaceae	*Phyllanthus*					2/1
plants	land plants	Phyllanthaceae	*Phyllanthus carpentariae*			C		1/1
plants	land plants	Phyllanthaceae	*Phyllanthus fuernrohrii*			C		3
plants	land plants	Phyllanthaceae	*Phyllanthus virgatus*			C		3
plants	land plants	Phyllanthaceae	*Synostemon hirtellus*			C		1/1
plants	land plants	Picrodendraceae	*Petalostigma pubescens*	quinine tree		C		33/1
plants	land plants	Piperaceae	*Peperomia*					2
plants	land plants	Pittosporaceae	*Auranticarpa rhombifolia*			C		2
plants	land plants	Pittosporaceae	*Pittosporum ferrugineum*			C		10
plants	land plants	Pittosporaceae	*Pittosporum revolutum*	yellow pittosporum		C		9
plants	land plants	Pittosporaceae	*Pittosporum spinescens*			C		2
plants	land plants	Pittosporaceae	*Pittosporum tinifolium*			C		2/2
plants	land plants	Pittosporaceae	*Pittosporum undulatum*	sweet pittosporum		C		1
plants	land plants	Pittosporaceae	*Pittosporum venulosum*			C		1
plants	land plants	Plantaginaceae	*Mecardonia procumbens*		Y			1/1
plants	land plants	Plantaginaceae	*Scoparia dulcis*	scoparia	Y			1
plants	land plants	Plumbaginaceae	*Aegialitis annulata*	club mangrove		C		4/1
plants	land plants	Plumbaginaceae	*Limonium solanderi*			C		6/3
plants	land plants	Poaceae	*Alloteropsis semialata*	cockatoo grass		C		9/1
plants	land plants	Poaceae	*Ancistrachne uncinulata*	hooky grass		C		11
plants	land plants	Poaceae	*Aristida*					16
plants	land plants	Poaceae	*Aristida calycina*			C		3
plants	land plants	Poaceae	*Aristida lazaridis*			C		1/1
plants	land plants	Poaceae	*Aristida queenslandica*			C		1
plants	land plants	Poaceae	*Aristida queenslandica var. dissimilis*			C		5/3
plants	land plants	Poaceae	*Axonopus compressus*		Y			1
plants	land plants	Poaceae	*Bothriochloa*					1
plants	land plants	Poaceae	*Bothriochloa bladhii*			C		1
plants	land plants	Poaceae	*Bothriochloa decipiens var. decipiens*			C		1
plants	land plants	Poaceae	*Bothriochloa insculpta*		Y			1
plants	land plants	Poaceae	*Bothriochloa pertusa*		Y			1
plants	land plants	Poaceae	*Capillipedium spicigerum*	spicytop		C		6/1
plants	land plants	Poaceae	*Cenchrus ciliaris*		Y			1
plants	land plants	Poaceae	*Cenchrus echinatus*	Mossman River grass	Y			12/2
plants	land plants	Poaceae	*Chloris*					3
plants	land plants	Poaceae	*Chloris gayana*	rhodes grass	Y			5/1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Poaceae	*Chloris inflata*	purpletop chloris	Y			2
plants	land plants	Poaceae	*Chloris virgata*	feathertop rhodes grass	Y			1
plants	land plants	Poaceae	*Chrysopogon fallax*			C		3
plants	land plants	Poaceae	*Cymbopogon*					1/1
plants	land plants	Poaceae	*Cymbopogon bombycinus*	silky oilgrass		C		4
plants	land plants	Poaceae	*Cymbopogon refractus*	barbed-wire grass		C		9
plants	land plants	Poaceae	*Cynodon*					2
plants	land plants	Poaceae	*Cynodon dactylon var. dactylon*		Y			5/1
plants	land plants	Poaceae	*Dactyloctenium aegyptium*	coast button grass	Y			1
plants	land plants	Poaceae	*Digitaria ammophila*	silky umbrella grass		C		1/1
plants	land plants	Poaceae	*Digitaria brownii*			C		1
plants	land plants	Poaceae	*Digitaria didactyla*	Queensland blue couch	Y			2
plants	land plants	Poaceae	*Digitaria divaricatissima*	spreading umbrella grass		C		1/1
plants	land plants	Poaceae	*Digitaria fumida*			C		1/1
plants	land plants	Poaceae	*Digitaria gibbosa*			C		1/1
plants	land plants	Poaceae	*Digitaria parviflora*			C		7
plants	land plants	Poaceae	*Dinebra decipiens var. decipiens*			C		1/1
plants	land plants	Poaceae	*Elionurus citreus*	lemon-scented grass		C		1/1
plants	land plants	Poaceae	*Enneapogon intermedius*			C		1/1
plants	land plants	Poaceae	*Enneapogon lindleyanus*			C		2
plants	land plants	Poaceae	*Entolasia stricta*	wiry panic		C		9/1
plants	land plants	Poaceae	*Eragrostis*					7
plants	land plants	Poaceae	*Eragrostis brownii*	Brown's lovegrass		C		2/1
plants	land plants	Poaceae	*Eragrostis curvula*		Y			8/7
plants	land plants	Poaceae	*Eragrostis elongata*			C		3/1
plants	land plants	Poaceae	*Eragrostis interrupta*			C		7/2
plants	land plants	Poaceae	*Eragrostis sororia*			C		1
plants	land plants	Poaceae	*Eragrostis spartinoides*			C		1/1
plants	land plants	Poaceae	*Eragrostis tenuifolia*	elastic grass	Y			2/2
plants	land plants	Poaceae	*Eremochloa bimaculata*	poverty grass		C		1
plants	land plants	Poaceae	*Eriachne*					1
plants	land plants	Poaceae	*Eriachne pallescens var. pallescens*			C		1
plants	land plants	Poaceae	*Eriachne rara*			C		1/1
plants	land plants	Poaceae	*Eriachne triseta*			C		2/2
plants	land plants	Poaceae	*Eriochloa crebra*	spring grass		C		1
plants	land plants	Poaceae	*Heteropogon contortus*	black speargrass		C		23
plants	land plants	Poaceae	*Heteropogon triticeus*	giant speargrass		C		3
plants	land plants	Poaceae	*Hymenachne amplexicaulis 'Olive'*		Y			1/1
plants	land plants	Poaceae	*Hyparrhenia hirta*	coolati grass	Y			1
plants	land plants	Poaceae	*Hyparrhenia rufa*		Y			3
plants	land plants	Poaceae	*Hyparrhenia rufa subsp. rufa*		Y			6/1
plants	land plants	Poaceae	*Imperata cylindrica*	blady grass		C		11
plants	land plants	Poaceae	*Ischaemum*					1
plants	land plants	Poaceae	*Megathyrsus maximus*		Y			10
plants	land plants	Poaceae	*Megathyrsus maximus var. maximus*		Y			10
plants	land plants	Poaceae	*Megathyrsus maximus var. pubiglumis*		Y			2/2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Poaceae	*Melinis minutiflora*	molasses grass	Y			2/1
plants	land plants	Poaceae	*Melinis repens*	red natal grass	Y			19
plants	land plants	Poaceae	*Microlaena stipoides var. stipoides*			C		2
plants	land plants	Poaceae	*Oplismenus*					6
plants	land plants	Poaceae	*Oplismenus aemulus*	creeping shade grass		C		1/1
plants	land plants	Poaceae	*Panicum*					1
plants	land plants	Poaceae	*Panicum effusum*			C		9/2
plants	land plants	Poaceae	*Panicum effusum var. hispidissimum*			C		1
plants	land plants	Poaceae	*Paspalidium*					5
plants	land plants	Poaceae	*Paspalidium gracile*	slender panic		C		1/1
plants	land plants	Poaceae	*Paspalum*					4
plants	land plants	Poaceae	*Paspalum notatum*	bahia grass	Y			3/3
plants	land plants	Poaceae	*Paspalum vaginatum*	saltwater couch	Y			1/1
plants	land plants	Poaceae	*Phalaris canariensis*	canary grass	Y			1
plants	land plants	Poaceae	*Phragmites australis*	common reed		C		1
plants	land plants	Poaceae	*Sacciolepis indica*	Indian cupscale grass		C		2/1
plants	land plants	Poaceae	*Schizachyrium fragile*	firegrass		C		1/1
plants	land plants	Poaceae	*Setaria pumila subsp. subtesselata*		Y			1/1
plants	land plants	Poaceae	*Setaria sphacelata*		Y			4/3
plants	land plants	Poaceae	*Setaria surgens*			C		3/2
plants	land plants	Poaceae	*Sorghum arundinaceum*	Rhodesian Sudan grass	Y			1
plants	land plants	Poaceae	*Spinifex sericeus*	beach spinifex		C		5
plants	land plants	Poaceae	*Sporobolus australasicus*			C		1
plants	land plants	Poaceae	*Sporobolus creber*			C		1/1
plants	land plants	Poaceae	*Sporobolus jacquemontii*		Y			6/5
plants	land plants	Poaceae	*Sporobolus natalensis*		Y			1/1
plants	land plants	Poaceae	*Sporobolus pyramidalis*		Y			6/3
plants	land plants	Poaceae	*Sporobolus virginicus*	sand couch		C		6
plants	land plants	Poaceae	*Themeda quadrivalvis*	grader grass	Y			1/1
plants	land plants	Poaceae	*Themeda triandra*	kangaroo grass		C		19/1
plants	land plants	Poaceae	*Urochloa mosambicensis*	sabi grass	Y			2/1
plants	land plants	Poaceae	*Urochloa piligera*			C		1/1
plants	land plants	Polygalaceae	*Polygala triflora*			C		1/1
plants	land plants	Polygonaceae	*Persicaria attenuata*			C		1/1
plants	land plants	Polygonaceae	*Persicaria decipiens*	slender knotweed		C		1/1
plants	land plants	Polygonaceae	*Persicaria subsessilis*	hairy knotweed		C		1
plants	land plants	Polypodiaceae	*Drynaria rigidula*			SL		1
plants	land plants	Polypodiaceae	*Microsorum punctatum*			SL		8
plants	land plants	Portulacaceae	*Portulaca bicolor*			C		1
plants	land plants	Portulacaceae	*Portulaca oleracea*	pigweed	Y			1
plants	land plants	Portulacaceae	*Portulaca pilosa*		Y			2/1
plants	land plants	Proteaceae	*Grevillea robusta*			C		2
plants	land plants	Pteridaceae	*Acrostichum speciosum*	mangrove fern		SL		3
plants	land plants	Pteridaceae	*Adiantum aethiopicum*			SL		12
plants	land plants	Pteridaceae	*Adiantum atroviride*			SL		1/1
plants	land plants	Pteridaceae	*Adiantum hispidulum*			SL		10

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Pteridaceae	*Adiantum hispidulum var. hispidulum*			SL		1/1
plants	land plants	Pteridaceae	*Cheilanthes distans*	bristly cloak fern		C		2/1
plants	land plants	Pteridaceae	*Cheilanthes sieberi*			C		9
plants	land plants	Pteridaceae	*Cheilanthes sieberi subsp. sieberi*			C		2/1
plants	land plants	Pteridaceae	*Cheilanthes tenuifolia*	rock fern		C		2/1
plants	land plants	Pteridaceae	*Doryopteris concolor*			SL		5/1
plants	land plants	Putranjivaceae	*Drypetes deplanchei*	grey boxwood		C		43
plants	land plants	Rhamnaceae	*Alphitonia excelsa*	soap tree		C		46/1
plants	land plants	Rhamnaceae	*Rhamnella vitiensis*			C		5/2
plants	land plants	Rhizophoraceae	*Ceriops australis*			C		1/1
plants	land plants	Rhizophoraceae	*Ceriops tagal*	yellow mangrove		C		5/1
plants	land plants	Rhizophoraceae	*Rhizophora stylosa*	spotted mangrove		C		4/2
plants	land plants	Rubiaceae	*Aidia racemosa*			C		12
plants	land plants	Rubiaceae	*Coelospermum reticulatum*			C		29
plants	land plants	Rubiaceae	*Cyclophyllum coprosmoides*			C		14
plants	land plants	Rubiaceae	*Cyclophyllum coprosmoides var. coprosmoides*			C		1/1
plants	land plants	Rubiaceae	*Dentella repens*	dentella		C		1/1
plants	land plants	Rubiaceae	*Ixora queenslandica*			C		15/1
plants	land plants	Rubiaceae	*Paranotis mitrasacmoides subsp. trachymenoides*			C		2/2
plants	land plants	Rubiaceae	*Pavetta australiensis*			C		7
plants	land plants	Rubiaceae	*Pavetta australiensis var. australiensis*			C		2
plants	land plants	Rubiaceae	*Psychotria daphnoides*			C		3/1
plants	land plants	Rubiaceae	*Psychotria loniceroides*	hairy psychotria		C		7
plants	land plants	Rubiaceae	*Psydrax odorata*			C		13
plants	land plants	Rubiaceae	*Psydrax oleifolia*			C		4
plants	land plants	Rubiaceae	*Richardia brasiliensis*	white eye	Y			2/1
plants	land plants	Rubiaceae	*Spermacoce*					1
plants	land plants	Rubiaceae	*Spermacoce brachystema*			C		3/2
plants	land plants	Rubiaceae	*Spermacoce multicaulis*			C		1
plants	land plants	Rutaceae	*Acronychia imperforata*	beach acronychia		C		12
plants	land plants	Rutaceae	*Acronychia laevis*	glossy acronychia		C		10
plants	land plants	Rutaceae	*Geijera salicifolia*	brush wilga		C		14
plants	land plants	Rutaceae	*Glycosmis trifoliata*			C		1/1
plants	land plants	Rutaceae	*Micromelum minutum*	clusterberry		C		15
plants	land plants	Rutaceae	*Murraya paniculata 'Exotica'*		Y			8/2
plants	land plants	Salicaceae	*Scolopia braunii*	flintwood		C		6
plants	land plants	Santalaceae	*Exocarpos latifolius*			C		28
plants	land plants	Sapindaceae	*Alectryon connatus*	grey birds-eye		C		34/1
plants	land plants	Sapindaceae	*Alectryon subdentatus*			C		17
plants	land plants	Sapindaceae	*Alectryon tomentosus*			C		6
plants	land plants	Sapindaceae	*Arytera divaricata*	coogera		C		8
plants	land plants	Sapindaceae	*Cupaniopsis anacardioides*	tuckeroo		C		47
plants	land plants	Sapindaceae	*Cupaniopsis wadsworthii*			C		2
plants	land plants	Sapindaceae	*Dodonaea lanceolata var. subsessilifolia*			C		5/1
plants	land plants	Sapindaceae	*Dodonaea viscosa*			C		2
plants	land plants	Sapindaceae	*Dodonaea viscosa subsp. burmanniana*			C		3/2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Sapindaceae	*Elattostachys xylocarpa*	white tamarind		C		11/1
plants	land plants	Sapindaceae	*Harpullia hillii*			C		7/1
plants	land plants	Sapindaceae	*Harpullia pendula*			C		6
plants	land plants	Sapindaceae	*Jagera pseudorhus*			C		27
plants	land plants	Sapindaceae	*Jagera pseudorhus var. pseudorhus*			C		2
plants	land plants	Sapindaceae	*Mischocarpus anodontus*	veiny pearfruit		C		2
plants	land plants	Sapindaceae	*Rhysotoechia bifoliolata*			C		2
plants	land plants	Sapotaceae	*Sersalisia sericea*			C		23
plants	land plants	Scrophulariaceae	*Eremophila debilis*	winter apple		C		1
plants	land plants	Scrophulariaceae	*Myoporum acuminatum*	coastal boobialla		C		6
plants	land plants	Smilacaceae	*Smilax australis*	barbed-wire vine		C		14
plants	land plants	Solanaceae	*Physalis*		Y			1
plants	land plants	Solanaceae	*Physalis angulata*		Y			2/2
plants	land plants	Solanaceae	*Physalis peruviana*		Y			1
plants	land plants	Solanaceae	*Solanum*					1
plants	land plants	Solanaceae	*Solanum americanum*		Y			2
plants	land plants	Solanaceae	*Solanum capsicoides*	devil's apple	Y			1
plants	land plants	Solanaceae	*Solanum ellipticum*	potato bush		C		1/1
plants	land plants	Solanaceae	*Solanum insanum*		Y			1/1
plants	land plants	Solanaceae	*Solanum seaforthianum*	Brazilian nightshade	Y			9
plants	land plants	Solanaceae	*Solanum torvum*	devil's fig	Y			5/1
plants	land plants	Sparrmanniaceae	*Grewia latifolia*	dysentery plant		C		1
plants	land plants	Sparrmanniaceae	*Triumfetta repens*			C		2/1
plants	land plants	Sparrmanniaceae	*Triumfetta rhomboidea*	chinese burr	Y			1
plants	land plants	Stackhousiaceae	*Stackhousia monogyna*	creamy candles		C		1/1
plants	land plants	Sterculiaceae	*Sterculia quadrifida*	peanut tree		C		14
plants	land plants	Stylidiaceae	*Stylidium eglandulosum*			SL		5/3
plants	land plants	Stylidiaceae	*Stylidium schizanthum*			SL		1
plants	land plants	Stylidiaceae	*Stylidium tenerum*			SL		1/1
plants	land plants	Thelypteridaceae	*Cyclosorus interruptus*			SL		1
plants	land plants	Thymelaeaceae	*Pimelea cornucopiae*			C		2/1
plants	land plants	Typhaceae	*Typha*					4
plants	land plants	Typhaceae	*Typha orientalis*	broad-leaved cumbungi		C		1
plants	land plants	Urticaceae	*Urtica urens*	small nettle	Y			1/1
plants	land plants	Verbenaceae	*Lantana camara*	lantana	Y			32/1
plants	land plants	Verbenaceae	*Lantana montevidensis*	creeping lantana	Y			19/1
plants	land plants	Verbenaceae	*Phyla nodiflora*	carpetweed		C		2
plants	land plants	Verbenaceae	*Stachytarpheta jamaicensis*	Jamaica snakeweed	Y			7
plants	land plants	Violaceae	*Pigea enneasperma*			C		3/1
plants	land plants	Violaceae	*Pigea monopetala*			C		1
plants	land plants	Violaceae	*Pigea stellarioides*			C		2/1
plants	land plants	Vitaceae	*Cissus oblonga*			C		16
plants	land plants	Vitaceae	*Tetrastigma nitens*	shining grape		C		10
plants	land plants	Xanthorrhoeaceae	*Xanthorrhoea*					2
plants	land plants	Xanthorrhoeaceae	*Xanthorrhoea johnsonii*			SL		2/1
plants	land plants	Xanthorrhoeaceae	*Xanthorrhoea latifolia subsp. latifolia*			SL		14/1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
plants	land plants	Xyridaceae	*Xyris complanata*	yellow-eye		C		3/1

CODES

I - Y indicates that the taxon is introduced to Queensland and has naturalised.

Q - Indicates the Queensland conservation status of each taxon under the *Nature Conservation Act 1992.*
The codes are Extinct (EX), Extinct in the Wild (PE), Critically Endangered (CR), Endangered (E), Vulnerable (V), Near Threatened (NT), Special Least Concern (SL) and Least Concern (C).

A - Indicates the Australian conservation status of each taxon under the *Environment Protection and Biodiversity Conservation Act 1999.*
The values of EPBC are Extinct (EX), Extinct in the Wild (XW), Critically Endangered (CE), Endangered (E), Vulnerable (V) and Conservation Dependent (CD).

Records - The first number indicates the total number of records of the taxon (wildlife records and species listings for selected areas).
This number is output as 99999 if it equals or exceeds this value. A second number located after a / indicates the number of specimen records for the taxon.
This number is output as 999 if it equals or exceeds this value.

Appendix B

Likelihood of occurrence assessments

Table B1: Likelihood for threatened flora to occur in the study area

Common name (Species name)	Status		Record source[3]	Habitat preferences	Likelihood to occur
	EPBC Act[1]	NC Act[2]			
Black Ironbox (*Eucalyptus raveretiana*)	V	LC	PMST	***Distribution:*** This species occurs as scattered and disjunct populations in central coastal and sub-coastal Queensland, from Dipperu National Park southwest of Mackay, north to Charters Towers, Bowen and Ayr, in and 100 km around Rockhampton and near the Mackenzie River north of Duaringa. It is known from 23 main locations and there are many more sub-populations (Brooker & Kleinig, 2008; DCCEEW, 2022l). ***Habitat preferences:*** This eucalypt occurs on the banks of rivers, creeks and moderate sized watercourses on clayey or sandy loam and is often associated with White Paperbark (*Melaleuca leucadendra*) and/or Weeping Paperbark (*M. fluviatilis*) fringing open forest in coastal streams where it tends to displace Queensland Blue Gum (*E. tereticornis*) as the emergent eucalypt species (TSSC, 2008c). It is known to occur at an altitudinal range between 1-300 m in areas with annual rainfall between 650-1100 m (DCCEEW, 2022l). ***Notable features:*** This is a large eucalypt with the smallest fruit of any eucalypt (DCCEEW, 2022l). ***Dispersal mode:*** Gravity, wind and/or water dispersed – no specific morphological features that aid secondary dispersal. Ants may also disperse seeds. ***Nearest record:*** The nearest published records for this species are at least 100 km north-west of the study area near Rockhampton and further north (CSIRO, 2022).	Low: Preferred waterway habitat is not present in the study area for this species. This is a highly distinctive species with easily distinguishable fruiting bodies and was not detected during the field assessment. The study area is most likely outside the known distribution of this species.
Cossinia (*Cossinia australiana*)	E	E	PMST	***Distribution:*** Cossinia occurs in scattered and disjunct populations in central Queensland, where its distribution is from Rockhampton to Kingaroy east of	Low: Preferred dry rainforest habitat, underlying soils and geology and

Common name (Species name)	Status		Record source[3]	Habitat preferences	Likelihood to occur
	EPBC Act[1]	NC Act[2]			
				the Great Dividing Range (DES, 2022c; DEWHA, 2008a). ***Habitat preferences:*** This small tree occurs at altitudes of between 20 and 520 m in ecotones and dry rainforest edges as well as in araucarian microphyll vine forest and fragmented relict Araucarian vine thicket on fertile soils, including red volcanic soils and black loams (DES, 2022c; DEWHA, 2008a). Species that occur in association with Cossinia often include: Chain Fruit (*Alyxia ruscifolia*), Brush Caper Berry (*Capparis arborea*), Yellow Tulip (*Drypetes deplanchei*), Crow's Ash (*Flindersia australis*), Crow's Apple (*Owenia* venosa) and Ivory Wood (*Siphonodon australis*) (DES, 2022c). ***Notable features:*** Flowering occurs from October to January, with fruiting recorded in February (DES, 2022c). ***Nearest record:*** There are numerous records of this species in the ranges to the west of the study area, the nearest of which is approximately 50 km south-south-west of the study area (CSIRO, 2022).	higher altitudes are not present within the study area.
Cycas megacarpa (no common name)	E	E	PMST	***Distribution:*** *Cycas megacarpa* occurs from as far south as Woolooga to Bouldercombe in the north (DAWE, 2022c). ***Habitat preferences:*** This species occurs within an altitudinal range of 40–680 m, in woodland or open woodland dominated by eucalypts, particularly Lemon-scented Gum (*Corymbia citriodora*) and Narrow-leaved Red Ironbark (*Eucalyptus crebra*), but also Red Bloodwood (*C. erythrophloia*), Silver-leaved Ironbark (*E. melanophloia*) and Brush Box (*Lophostemon confertus*). The substrate is usually rocky and derived from acid volcanics, ironstone or mudstone, rarely from alluvium (Queensland Herbarium, 2007). There are also reports that it can	Low: The study area is within the distribution of this species, which is relatively restricted. However, suitable vegetation assemblages and elevations are not present within the study area and this is a distinctive plant that was not identified in the study area during the site assessment.

Common name (Species name)	Status		Record source[3]	Habitat preferences	Likelihood to occur
	EPBC Act[1]	NC Act[2]			
				be found in or on the edge of rainforest habitat (DAWE, 2022c). ***Notable features:*** *This species* visually similar to Zamia Palm (*Cycas media*) but *C. megacarpa* can be distinguished by the larger seeds, smaller leaves, as well as possessing a more slender trunk (DAWE, 2022c). This species can be distinguished from Marlborough Blue (*C. ophiolitica*) by the green new growth and larger seeds (Queensland Herbarium, 2007). ***Dispersal mode:*** Gravity dispersed; some evidence of dispersal by vertebrates, but seeds are toxic (Queensland Herbarium, 2007). ***Nearest record:*** Most published records occur in the ranges to the west of the study greater than 35 km away. A handful of more coastal records are located to the south-east, the nearest being approximately 25 km east-south-east of the study area at Rodds Peninsula (CSIRO, 2022).	
Dichanthium setosum (no common name)	V	LC	PMST	***Distribution:*** This grass species is known from inland New South Wales and Queensland. In Queensland the species has been recorded in the Leichardt, Morton, North Kennedy and Port Curtis regions (DCCEEW, 2022h). ***Habitat preferences:*** It grows on heavy basaltic black soils and red-brown loams with clay subsoil. It is often found in moderately disturbed areas such as cleared woodland, grassy roadside remnant and highly disturbed pasture (DCCEEW, 2022h). ***Notable features:*** This is a perennial grass that commences growing in spring, flowers in summer and becomes dormant in late autumn (DCCEEW, 2022h).	Low: The study area does not support natural grasslands or grassy woodlands on heavy black soils. This species is not known from coastal regions.

Common name (Species name)	Status		Record source[3]	Habitat preferences	Likelihood to occur
	EPBC Act[1]	NC Act[2]			
				Dispersal mode: Wind and mammal dispersed – awned seeds assist with wind movement and attachment to mammals. ***Nearest record:*** There are no published records of this species within 100 km of the study area (CSIRO, 2022).	
Fontainea venosa (no common name)	V	V	PMST	***Distribution:*** This shrub or small tree has a relatively restricted distribution, occurring across five populations between approximately Beenleigh near Brisbane, and Boyne Valley west of Miriam Vale in Queensland (DEWHA, 2008b). ***Habitat preferences:*** The species grows in Araucarian microphyll vine forest on alluvial soils along creeks, in areas with a mean annual rainfall of 1,000 mm. It has been associated with Lemon Myrtle (*Backhousia citriodora*), Actephila (*Actephila lindleyi*) and Northern Bosistoa (*Bosistoa medicinalis*) (DEWHA, 2008b). ***Notable features:*** There are only approximately 200 plants known to occur across its distribution (DEWHA, 2008b). ***Nearest record:*** The study area is approximately 50 km north of the known distribution of this species (CSIRO, 2022).	Low: Preferred Araucarian microphyll vine forest habitat is not present and the underlying geology is not suitable for this species in the study area.
Macadamia Nut (*Macadamia integrifolia*)	V	V	PMST	***Distribution:*** This species is known from remnant rainforest in northern New South Wales and south-east Queensland (from Mt Bauple, north of Gympie to the Currumbin Valley in the Gold Coast hinterland) (DCCEEW, 2022r). ***Habitat preferences:*** This species occurs in complex notophyll mixed forest, extremely tall closed forest, simple notophyll mixed very tall closed forest to simple microphyll-notophyll mixed mid-high closed forest with *Araucaria* and *Argyrodendron* emergents	Low: The study area does not support or adjoin preferred habitat of this species in the form of tall open forest or rainforest. This species is not known from the region and this distinctive species was not recorded during the field assessment.

Common name (Species name)	Status		Record source[3]	Habitat preferences	Likelihood to occur
	EPBC Act[1]	NC Act[2]			
				as well as partially open areas along the edges of remnant rainforest. The species will grow on a wide range of landforms from hill crests to gullies with level to steep surfaces. Soils are typically well drained, high nutrient alluvial and volcanics of varying texture and often with considerable exposure of rock fragments or substrate, often basalt and diorite (DCCEEW, 2022r). ***Notable features:*** The species has been recorded flowering in January, March and from June to November, with fruits recorded from November to January and March to April (DCCEEW, 2022r). ***Dispersal mode:*** Seeds (nut) are typically eaten by mammals and dispersed by stream (DCCEEW, 2022r). ***Nearest record:*** There are no published records within 100 km of the study area (CSIRO, 2022).	
Marlborough Blue (*Cycas ophiolitica*)	E	E	PMST	***Distribution:*** This species occurs from Marlborough to Rockhampton and Mt Morgan (DAWE, 2022d). ***Habitat preferences:*** This species occurs on hills and slopes in open forests and woodlands at altitudes between 80-400 m above sea level. It grows on a range of soils but appears to grow best on red clay soils derived from serpentinite (DAWE, 2022d; Melzer et al., 2007). Associated species include Dallachy's Gum (*Corymbia dallachiana*), Red Bloodwood (*C. erythrophloia*), Glen Geddes Bloodwood (*C. xanthope*) and Red Ironbark (*Eucalyptus fibrosa*). This species has also been recorded with Dallachy's Gum, Red Ironbark and Narrow-leaved Red Ironbark (*E. crebra*) on mudstone and with Pink Bloodwood (*Corymbia intermedia*), Narrow-leaved Ironbark (*E. drepanophylla*) and Queensland Blue Gum (*E. tereticornis*) on alluvial loams (DAWE, 2022d).	Low: Landform and elevation of the study area is not typical for this species. This is a distinctive cycad that was not identified in the study area during the site assessment. This species is not known from the region.

Common name (Species name)	Status		Record source[3]	Habitat preferences	Likelihood to occur
	EPBC Act[1]	NC Act[2]			
				Notable features: This is a large distinctive cycad species. This cycad has a broad, crowded crown and bluish leaflets (DAWE, 2022d). ***Seed dispersal:*** This is limited for this species and mainly through mammals such as possums, rodents or fruit bats (DAWE, 2022d). ***Dispersal mode:*** Gravity dispersed; some evidence of dispersal by vertebrates, but seeds are toxic (Queensland Herbarium, 2007). ***Nearest record:*** This species is not known from the region, but occurs approximately 80 km north of the study area (CSIRO, 2022).	
Quassia (*Samadera bidwillii*)	V	V	PMST	***Distribution:*** This species is known from a number of locations between Scawfell Island, near Mackay and Goomboorian, north of Gympie. It occurs in the Burnett Mary, Fitzroy, Mackay Whitsunday and Burdekin Natural Resource Management regions (TSSC, 2008d). ***Habitat preferences:*** It occurs in lowland rainforest or on rainforest margins as well as open forest and woodland communities. It is often found adjacent to temporary or permanent watercourses up to 510 m in altitude. A number of eucalypts are commonly associated with this species namely Lemon-scented Gum (*Corymbia citriodora*), Pink Bloodwood (*C. intermedia*), Small-fruited Grey Gum (*Eucalyptus propinqua*), White Mahogany (*E. acmenoides*), Queensland Blue Gum (*E. tereticornis*), Northern Grey Ironbark (*E. siderophloia*), Gum-topped Box (*E. moluccana*), Gympie Messmate (*E cloeziana*) and Red Ironbark (*E. fibrosa*) (TSSC, 2008d). It grows on lithosols, skeletal soils, loam soils, sands, silts and sands with clay subsoils (DCCEEW, 2022aa).	Low**:** There are no areas of preferred habitat in the form of lowland rainforest within or adjacent to the study area. Although this species has a broad distributional range and potentially broad habitat preference, it is a highly distinctive species that would have been detectable during the field assessment.

Common name (Species name)	Status		Record source[3]	Habitat preferences	Likelihood to occur
	EPBC Act[1]	NC Act[2]			
				Notable features: It bears red fruits and flowers from November to March (TSSC, 2008d). ***Dispersal mode:*** Gravity, wind and/or water dispersed – no specific morphological features that aid secondary dispersal. Ants may also disperse seeds. ***Nearest record:*** There are records for this species at Mt Larcom in the Larcom Range, approximately 30 km north-west of the study area (CSIRO, 2022).	
Three-leaved Bosistoa (*Bosistoa transversa*)	V	LC	PMST	***Distribution:*** This small to medium tree is known from Mullumbimby, NSW, to Mt Larcom near Gladstone, Queensland. Occurs in wet sclerophyll forest, dry sclerophyll forest and rainforest up to 300 m in altitude (Harden et al., 2006; TSSC, 2008a). ***Habitat preferences:*** This species grows in wet sclerophyll forest, dry sclerophyll forest and rainforest up to 300 m in altitude. Associated vegetation includes White Booyojng (*Argyrodendron trifoliolatum*), Smooth-bark Rose Apple (*Syzygium hodgkinsoniae*), Hairy Walnut (*Endiandra pubens*), Shiny-leaved Stinging Tree (*Dendrocnide photinophylla*), Southern Satinash (*Acmena ingens*), Native Tamarind (*Diploglottis australis*) and Red-fruited Ebony (*Diospyros mabacea*) (TSSC, 2008a). ***Nearest record:*** There are records to the north-west and south of the study area, the nearest being approximately 25 km south-south-east (CSIRO, 2022).	Low: This species is known from elevated areas in the region, which is not characteristic of the study area. Vegetation assemblages in the study area are not ideal for this species.
Wedge-leaf Tuckeroo (*Cupaniopsis shirleyana*)	V	V	PMST	***Distribution:*** This small tree is found from south-eastern and central Queensland, between Brisbane and Curtis Island (TSSC, 2008b). ***Habitat preferences:*** The species prefers dry rainforest communities, including vine thickets and scrubby urbanised areas on moderate to very steep	Low: The study area does not support or adjoin preferred habitat of this species in the form of dry rainforest communities. This distinctive species was not recorded during field assessment.

Common name (Species name)	Status		Record source[3]	Habitat preferences	Likelihood to occur
	EPBC Act[1]	NC Act[2]			
				slopes, gullies and rocky stream channels between 60-550 m above sea level (TSSC, 2008b). It grows in dark brown sandy loams and sandy clay loams and rocky scree slopes, often derived from volcanic parent materials (i.e. granites, granodiorites, basalt and andesitic flows, pyroclastics) (DCCEEW, 2022e). Vegetation assemblages in which this species has been recorded includes mostly simple microphyll closed forests to tall closed forest, often with Hoop Pine (*Araucaria cunninghamii*) and sometimes simple notophyll vine forest (DCCEEW, 2022e). ***Notable features:*** This tree flowers from April to June and fruits late June (DCCEEW, 2022e). ***Nearest record:*** There are records of this species to the north-west and south-east, the nearest being approximately 30 km from the study area (CSIRO, 2022).	

[1]Status:
- Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*: CE = Critically endangered, E = Endangered; V = Vulnerable
- Queensland *Nature Conservation Act 1992*: E, Endangered; V = Vulnerable; LC = Least concern

[2] - PMST – Protected Matters Search Tool (refer to PMST database results contained in Appendix A)

Table B2: Likelihood for threatened fauna to occur in the study area

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
Birds					
Australian Painted Snipe (*Rostratula australis*)	E	E	PMST	***Distribution:*** The Australian Painted Snipe has been recorded at wetlands in all states of Australia. It is most common in eastern Australia, where it has been recorded at scattered locations throughout much of Queensland, New South Wales, Victoria and south-eastern South Australia. This population is considered to occur as a single, contiguous breeding population (DCCEEW, 2022z). The Fitzroy Basin of Central Queensland is considered an important area for the species (TSSC, 2013). ***General habitat preferences:*** This secretive, cryptic, crepuscular (active at dawn, dusk and during the night) species occurs in terrestrial shallow wetlands, both ephemeral and permanent, usually freshwater but occasionally brackish. They also use inundated grasslands, salt-marsh, dams, rice crops, sewage farms and bore drains with rank emergent tussocks of grass, sedges, rushes or reeds or samphire, and often with scattered clumps of Lignum (*Muehlenbeckia florulenta*), canegrass or sometimes tea trees. It has been known to use areas lined with trees, or that have some scattered fallen or washed-up timber (DCCEEW, 2022z). ***Foraging habitat:*** The species feeds on vegetation, seeds, and invertebrates including crustaceans and molluscs as well as insects, worms and other invertebrates (Marchant & Higgins, 1994; DotE, 2016). Foraging habitats are not well understood (DCCEEW, 2022z). ***Breeding habitat:*** Requirements are specific and include shallow wetlands with areas of bare wet mud and both upper and canopy cover nearby. Almost all	Low: Suitable vegetated wetland habitat is not present within or adjacent to the study area.

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
				records of nests occur on or near small islands in freshwater wetlands characterised by a combination of very shallow water, exposed mud, dense low cover and sometimes some tall dense cover. Although this species uses modified habitat, it doesn't necessarily breed in these habitats. It most likely breeds in response to wetland conditions rather than during a particular season (DCCEEW, 2022z). ***Nearest record:*** There is one published record within 50 km of the study area, approximately 13 km north-west of the study area near Parsons Point (CSIRO, 2022).	
Black-breasted Button-quail (*Turnix melanogaster*)	V	V	PMST, Wildlife Online	***Distribution:*** Endemic to eastern Australia, this species is restricted to coastal and near-coastal regions of south-eastern Queensland and north-eastern New South Wales. The main populations occur within south-east Queensland, where the current known distribution extends from near Byfield in the north, south to the New South Wales border and westwards to Palm Grove National Park and Barakula State Forest. The most significant populations appear to be in the Yarraman-Nanango, Jimna-Conondale and Great Sandy regions (DCCEEW, 2022ab). ***General habitat preferences:*** This species is most commonly associated with vine thicket rainforest with greater than 800 mm rainfall, deep leaf litter and a closed canopy but also occur in softwood scrubs in the Brigalow Belt, vine scrub regrowth and mature Hoop Pine (*Araucaria cunninghamii*) particularly with a Common Lantana (**Lantana camara*) understorey. They also occur in dry sclerophyll forest adjacent to rainforest and *Acacia* and *Austromyrtus* scrubs on sandy coastal sols (Inskip Point) (Garnett et al., 2011).	Low: This species is known from coastal habitats in the region. However, the vegetation assemblages within the study area are not suitable for this species (i.e. the species prefers large areas of vine thicket or rainforest habitat with extensive deep litter) and no evidence, in the form of platelets (shallow disks), were identified during the fauna assessment.

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
				Foraging habitat: An extensive dense leaf-litter layer is required for foraging. As such, optimum habitat is often associated with highly fertile soils. It is believed that the highly fertile soils promote rapid leaf growth on plants, which dropped to the ground during dry periods thus maintaining the deep leaf litter layer which is crucial to the foraging requirements of the species. In Googa State Forest, south-eastern Queensland, birds are most commonly associated with remnant microphyll vine forest with no lantana in the understorey, but lantana is often used for diurnal foraging and nocturnal roosting (DCCEEW, 2022ab). ***Breeding habitat:*** Nests consist of a scrape in the ground, lined with leaves, grass or moss. Fallen logs and a dense, heterogeneously distributed shrub layers are also considered to be important habitat characteristics for shelter and breeding. Nests are often in areas where the common understory plants include species such as Bracken (*Pteridium esculentum*), Rasp Fern (*Doodia aspera*) and Lantana (*Lantana camara*) and are often placed in the buttress root of a tree or sapling, the base of a fern or under a low bush or grass tussock (DCCEEW, 2022ab). ***Notable features:*** Black-breasted Button quail are commonly seen in pairs or occasionally in small groups. Being territorial, females are occasionally seen singly (Marchant & Higgins 1993). This species is cryptic in nature and direct observation can be difficult. One of the key methods of detecting the presence of birds in an area is the presence of feeding traces (platelets) (DCCEEW, 2022ab). ***Nearest record:*** This species has been recorded at a number of locations within 10 km of the study area, primarily to the north-west, although the nearest	

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
				record is located 1 m to the north-east of the study area near Wild Cattle Beach (CSIRO, 2022).	
Capricorn Yellow Chat (*Epthianura crocea macgregori*)	CE	E	PMST	***Distribution:*** This species is thought to only occur at only a few locations in the coastal zone between Gladstone and Saint Lawrence in central Queensland; at Torilla Plain, the Fitzroy River Delta, Curtis Island and Saint Lawrence (DCCEEW, 2022j). It is not known if populations are isolated from one another, or whether some occasional interbreeding takes places (DCCEEW, 2022j). ***General/foraging/shelter habitat preferences:*** The Capricorn Yellow Chat inhabits marine plain wetlands subject to extensive seasonal inundation of both fresh and salt water (tidal). The species favours habitats with a wetland mosaic of low vegetation (e.g. grasslands dominated by Marine Couch (*Sporobolus virginicus*) and/or Water Couch (*Paspalum distichum*), Club Rush (*Schoenoplectus litoralis*) or *Cyperus alopecuroides* (no common name) or samphires (*Halosarcia* spp.)), areas of bare mud, shallow water and networks of shallow drainage channels and depressions. Occasional Grey Mangrove (*Avicennia marina*) and Yellow Mangrove (*Ceriops tagal)* may occur (DCCEEW, 2022j). The species feeds on insects usually from the ground or the from the surface of shallow water or basal stems of rushes, grasses and samphire plants or low shrubs (DCCEEW, 2022j). ***Breeding habitat:*** This species breeds in grasslands and dense beds of rush and sedges, where it builds a small cup-shaped nest close to the ground amongst this vegetation (DCCEEW, 2022j). ***Nearest record:*** There are no published records of this species within 50 km of the study area. The	Low: Although located in the region and a short distance from the study area, preferred wetland habitat and intertidal environments are not present within or adjacent to the study area.

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
				nearest record is approximately 60 km to the north-west of the study area near Raglan (CSIRO, 2022)	
Coxen's Fig-parrot (*Cyclopsitta diophthalma coxeni*)	E	E	PMST	***Distribution:*** The distribution of Coxen's Fig-Parrot is poorly known. Based on accepted records, the core distribution extends from Gympie in south-eastern Queensland to the Richmond River in north-eastern New South Wales, and west to the Bunya Mountains, Main Range and Koreelah Range (DoEE, 2019). In Queensland, the most recent reliable records of Coxen's Fig-Parrot are from near Imbil, Kin Kin Creek, Upper Pinbarren Creek, Montville, the Maleny area, Mount Glorious, Main Range National Park and Lamington National Park (DoEE, 2019). ***General habitat preferences:*** Coxen's Fig-Parrot occupies habitats that occur from sea level to approximately 900 m above sea level (DoEE, 2019). Coxen's Fig-Parrot occurs in rainforest habitats including subtropical rainforest, dry rainforest, littoral and developing littoral rainforest, and vine forest (DoEE, 2019). Most recent records of the fig-parrot have been from small stands of remnant native vegetation, at forest edges, and in thin tracts of gallery forest (at edges of rivers or streams). Coxen's Fig-Parrot has also been recorded in other habitat types including sub-littoral mixed scrub; corridors of riparian vegetation in woodland, open woodland or other types of cleared or partially-cleared habitat; and isolated stands of fig or other trees on urban, agricultural or cleared land (DoEE, 2019). ***Breeding habitat:*** Nests of Coxen's Fig-Parrot have been recorded in subtropical rainforest and dry rainforest, and in the ecotone (i.e. the zone of transition) between subtropical rainforest and sclerophyll forest (DoEE, 2019).	Low: The study area does not support rainforest habitat that is preferred by this species and there are no individual fruiting trees within the study area that may attract this species.

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
				Nearest record: There are no published records for this species within 50 km of the study area. The nearest record is from 1970 in Bulburin National Park, 65 km south of the study area (CSIRO, 2022).	
Grey Falcon (*Falco hypoleucos)*	V	V	PMST	***Distribution:*** This species occurs in low densities across arid and semi-arid Australia, including the Murray-Darling Basin, Eyre Basin, central Australia and Western Australia (Marchant S. & Higgins, 1993; TSSC, 2020). The species is mainly found where annual rainfall is less than 500 mm, except when wet years are followed by drought, when the species might become marginally more widespread, although it is essentially confined to the arid and sei-arid zones at all times. In Queensland, the species is generally absent from the Cape York Peninsula and areas east of the Great Dividing Range (TSSC, 2020). ***General habitat preferences:*** The Grey Falcon is typically associated with timbered lowland plains, particularly *Acacia* shrublands that are crossed by tree-lined water courses. The species has been observed hunting in treeless areas and frequents tussock grassland and open woodland, especially in winter (TSSC, 2020). ***Breeding habitat:*** This species breeds in old nests of other birds, particularly those of other raptors or corvids. The nests chosen are usually in the tallest trees along watercourses, particularly Rive Red Gum (*Eucalyptus camaldulensis*) and Coolibah (*E. coolabah*). Falcons also nest in telecommunication tows (TSSC, 2020). ***Nearest record:*** There are no published records of this species within 50 km of the study area. There is one undated record located in Rockhampton (CSIRO, 2022).	Low: The species is typically associated with more arid areas of Queensland. The species is a rare vagrant closer to the coast when wet years in arid and semi-arid areas are followed by drought. Furthermore, this species has not been recorded within 50 km of the study area.

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
Red Goshawk (*Erythrotriorchis radiatus*)	V	E	PMST, Wildlife Online	***Distribution:*** This species is sparsely dispersed across coastal and sub-coastal Australia from western Kimberly Division to north-eastern New South Wales and occasionally on continental islands (DCCEEW, 2022k). ***General habitat preferences:*** This species occurs in woodlands and forests, ideally with a mosaic of vegetation types, large prey populations (birds) and permanent water, particularly riverine forests. Vegetation ty pes include eucalypt woodland, open forest, tall open forest, gallery rainforest, swamp sclerophyll forest and rainforest margins (DCCEEW, 2022k). The species avoids both very dense and very open habitats. They are solitary and secretive birds and hunt mainly from ambush. Their prey is mostly birds, but also mammals, reptiles and insects (Marchant & Higgins, 1994). ***Breeding habitat:*** Nests are restricted to trees taller than 20 m and within 1 km of a watercourse or wetland. It is thought to rarely breed in areas with fragmented native vegetation (Garnett et al., 2011). Home ranges of 120 km^2 and 200 km^2 for females and males, respectively have been recorded (Marchant & Higgins, 1994). ***Nearest record:*** There are no published records of this species within 25 km of the study area, although there are a handful of records in the broader region within 50 km near Miriam Vale to the south-east and Camp Island to the north-west (CSIRO, 2022).	Low**:** Large remnant forest mosaics are not present in close proximity to the study area, due to the built up nature of the Tannum Sands region. This species hasn't been recorded within the region in which the study area is located.
South-eastern Glossy Black-cockatoo (*Calyptorhynchus lathami lathami*)	V	V	Essential habitat, Wildlife Online	***Distribution:*** This subspecies occurs found from Mitchell, Queensland, through eastern New South Wales to East Gippsland, Victoria. ***Foraging habitat:*** This species occurs in eucalypt woodlands with an understorey or sub-canopy of She-	Low: The study area supports a very small number of preferred food trees - Forest Sheoak (*Allocasuarina torulosa*). However, there are no old hollow-bearing trees that could provide potential nesting opportunities for this species and no

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
				oaks (*Casuarina* or *Allocasuarina* spp.) on the seeds of which its diet is based (Garnett et al., 2011). ***Breeding habitat:*** An obligate hollow nester, Glossy Black-cockatoos require large old trees (living or dead), usually eucalypts, for breeding (Garnett et al., 2011). ***Notable features:*** Glossy black-cockatoo presence can be reliably indicated from foraging signs. Discarded, chewed she-oak seed cones have a characteristic appearance and litter the ground beneath *Casuarina* or *Allocasuarina* trees (Glossy Black Conservancy, 2010). ***Nearest record:*** There are many records for Glossy Black-cockatoos in the region in which the study area is located. While some of these recoreds are attributed to the central subspecies - *C. lathami erebus* - some are not identified to subspecies. Nonetheless, it is most likely that all birds in the region are of the central subspecies, as the distribution of the south-eastern subspecies - C*. athami lathami* - is thought to occur south of the latitude of Fraser Island (DCCEEW, 2022b; CSIRO, 2022).	foraging signs of this species in the study area. Furthermore, the Glossy Black-cockatoo records from the region are almost all the central subspecies, and the study area is likely to be beyond the northern distribution of the southern sub-species.
Squatter Pigeon (southern) (*Geophaps scripta scripta*)	V	V	PMST	***Distribution:*** The southern sub-species for the Squatter Pigeon (southern subspecies) is described as occurring south of the Burdekin River-Lynd divide in the southern region of Cape York Peninsula to the Border Rivers region of northern New South Wales, and from the east coast to Hughenden, Longreach and Charleville (Higgins & Davies, 1996). The known distribution of the southern sub-species overlaps with the known distribution of the northern subspecies (DCCEEW, 2022p). ***General habitat preferences:*** This species is known from tropical dry, open sclerophyll woodlands and	Low: This species may occur as an occasional visitor to the region in which the study area is located. However, the coastal and built up nature of the local area surrounding the study area may explain why there are few records east of the Bruce Highway in this location around Tannum Sands.

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
				sometimes savannah with *Eucalyptus*, *Corymbia*, *Acacia* or *Callitris* species in the overstorey. The groundcover layer is patchy consisting of native, perennial tussock grasses or a mix of grasses and low shrubs or forbs. However, the groundcover layer rarely exceeds 33% of the ground area. It appears to favour sandy soil dissected with low gravely ridges and is less common on heavier soils with dense grass cover. It is nearly always found in close association i.e. within 3 km, with permanent water. While the species is unlikely to move far from woodland trees, where scattered trees still occur and the distance of cleared land between remnant trees or patches of habitat does not exceed 100 m, individuals may be found foraging in, or moving across modified or degraded environments (DCCEEW, 2022p). ***Foraging habitat:*** This occurs in any remnant or regrowth open-forest to sparse, open woodland or scrub dominated by *Eucalyptus*, *Corymbia*, *Acacia* or *Callitris* species, on sandy or gravelly soils. It feeds primarily on seeds of grasses, herbs and shrubs (DCCEEW, 2022p). ***Breeding habitat:*** This occurs on well-draining, stony rises occurring on sandy or gravelly soils or on low 'jump-ups' and escarpments (i.e. land zones 5 and 7), within 1 km of a suitable, permanent waterbody (DCCEEW, 2022p). ***Dispersal habitat:*** This can be any forest or woodland occurring between patches of foraging or breeding habitat, and suitable waterbodies and may include denser patches of vegetation not suitable for foraging or breeding (DCCEEW, 2022p). ***Nearest record:*** This species has been recorded extensively in the region to the west, an only two undated records within 10 km of the study area. the	

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
				majority of records are located more than 20 km to the north-west and south-west (CSIRO, 2022).	
Star Finch (eastern) (*Neochmia ruficauda ruficauda*)	E	E	PMST	***Distribution:*** The distribution of the Star Finch is poorly known. It is thought to occur between Bowen in the north, Winton in the west and Wowan in the south (DCCEEW, 2022u). However, this species' range has largely contracted to southern Cape York. There have not been any confirmed records from the Cairns to Townsville region for some time and none were recorded during the Birds Australia Atlas project. Recent records around Rockhampton are thought likely to be aviary escapees (Higgins et al., 2006). ***General habitat preferences:*** This species usually inhabits low dense damp grasslands bordering wetlands and waterways and also open savannah woodlands near water or subject to inundation but is absent from expanses of open country and uplands, usually occurring in valleys (Higgins et. al. 2006). It also occurs in cleared or suburban areas. Woodland communities in which it occurs include *Eucalyptus coolabah*, *E. tereticornis*, *E. tessellaris*, *Melaleuca leucadendra*, *E. camaldulensis* and *Casuarina cunninghamii* (DCCEEW, 2022u). ***Foraging habitat:*** It feeds on grass and shrub seeds, most likely from *Arundinella*, *Brachyachne*, Chloris, *Chrysopogon*, *Digitaria*, *Echinochloa*, *Heterachne*, *Iseilema*, *Oryza*, *Panicum*, *Setaria*, *Sorghum*, *Themeda*, *Urochloa*, *Casuarina*, *Fimbristylis* and *Tridax* species. It also feeds on insects (DCCEEW, 2022u). It has been recorded foraging, in the shade of eucalypt species, on the ground. ***Breeding habitat:*** Nests are thought to be bottle-shaped and placed in trees, amongst grass, sedges or	Low: Suitable habitat in the form of wetlands and dense damp grasslands are not present within the study area. Available species records and habitat modelling (CSIRO, 2022) indicates the study area is outside the known range of this species.

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
				reeds, at heights of approximately 3-9 m above the ground (DCCEEW, 2022u). ***Nearest record:*** There is one terrestrial record from 1860 1 km north of the study area in what is now urban residual allotments and another undated and located 6 km offshore in the ocean. There are records at Rockhampton, although no records within 50 km of the study area (CSIRO, 2022).	
White-throated Needletail (*Hirundapus caudacutus*)	V	V	PMST, Wildlife Online	***Distribution:*** This species is widespread in eastern and south-eastern Australia, occurring as non-breeding vagrants in the Northern Territory and Western Australia. It occurs in all coastal regions of eastern Queensland and New South Wales, extending inland onto the western slopes of the Great Divide and occasionally on to inland plains (TSSC, 2019). ***General habitat preferences:*** This is an aerial species that occurs over forests, woodlands, farmlands, plains, lakes and towns (Pizzey et al., 2012). It is known from above mainly wooded areas, and larger tracts of vegetation, particularly forest. When flying above farmland, they are more often recorded above partly cleared pasture, plantations or remnant vegetation at the edge of paddocks (TSSC, 2019). Large tracts of native forest vegetation may be considered important in Australia (DotE, 2015). ***Foraging habitat:*** This species forages aerially, from just above the ground to heights up to 'cloud level' over forested and open areas. They have been recorded above disturbed areas, e.g. in the vicinity of bushfires or slashed paddocks, in areas of updraughts or in whirlwinds and often along the edges of low-pressure systems (DCCEEW, 2022q). ***Roosting habitat:*** The species roosts in tree hollows in tall trees on ridge-tops, on bark or rock faces and	**Moderate:** This species was not recorded in the study area, although, it has been recorded in the region. This species will potentially overfly the study area. However, as it is an almost exclusively aerial species it is unlikely to use the study area for roosting due to the unremarkable nature and relatively low growth of the vegetation present. All vegetated areas may provide potential overfly habitat for this species (Figure 4).

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
				its thought to have traditional roost sites (DotE, 2015). This species has been recorded roosting in trees in foliage and hollows in forests and woodlands, although this is probably uncommon. It is thought to also roost aerially. They possibly alight or take refuge during adverse conditions (DCCEEW, 2022q). ***Breeding habitat:*** The species does not breed in Australia (TSSC, 2019). ***Nearest record:*** There are a number of records of this species form the region (CSIRO, 2022).	
Mammals					
Ghost Bat (*Macroderma gigas*)	V	E	PMST	***Distribution:*** It is predicted, based on analysis of historic climatic data, fossils, and modelling that the Ghost Bat is a geographically relictual species in southern, arid landscapes, present only because caves provide suitable roost microclimates (TSSC, 2016). Although this species is thought to once occupy much of Australia, its current range is discontinuous across northern Australia, with colonies known in the Pilbara, Kimberly, northern Northern Territory, the Gulf of Carpentaria, coastal and near coastal eastern Queensland from Cape York to near Rockhampton and the Riversleigh and Camooweal districts in western Queensland and occupying both arid and lush rainforest habitats (TSSC, 2016; van Dyck & Strahan, 2008). ***General habitat preferences:*** Habitat is comprised of thicket, open woodland, and spinifex and black soil grasslands (van Dyck & Strahan, 2008; van Dyck et al., 2013). Monsoon forests, open savannah woodland, tall open forest, deciduous vine forest and tropical rainforest is also used (Churchill, 2009). Cave habitat is important for roosting and breeding (van Dyck &	Low: The study area does not support preferred habitat for this species in the form of mountainous cave and escarpment features. Furthermore, there are no ranges located within 2 km of the study area that would potentially provide cave habitat, placing the study area out of the known foraging range of this species.

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
				Strahan, 2008). Ghost bats usually require a number caves to move between seasonally (TSSC, 2016). ***Foraging habitat:*** This species feeds on frogs, lizards, birds, small mammals and sometimes other bats (van Dyck & Strahan, 2008; TSSC, 2016). It captures prey on the ground and then returns to an established feeding site, e.g. rock overhang or small cave, to feed (van Dyck & Strahan, 2008). It is known to forage up to 2 km from the roost cave and will use the same foraging area each night. Foraging areas are approximately 60 ha in size (Churchill, 2009; TSSC, 2016). ***Roosting habitat:*** Caves provide suitable roost microclimates and it is known to rest during the day in large sandstone or limestone caves, boulder piles, shallow escarpments or deep rock fissures and mines (TSSC, 2016; van Dyck & Strahan, 2008; Churchill, 2009). This species appears to require caves with specific temperature and humidity ranges (TSSC, 2016). Groups of greater than 100 individuals is unusual (van Dyck & Strahan, 2008). ***Breeding habitat:*** Breeding is likely to occur in July or August with young being born between September and November. Nursery colonies are formed separately to males (van Dyck & Strahan, 2008). Only 14 breeding sites are currently known (TSSC, 2016). Young are fully weaned by about March each year but may be left in nurseries or forage with the mother up until this age (Churchill, 2009). There is a tendency for breeding caves to have multiple entrances (TSSC, 2016). ***Nearest record:*** There is a 1985 record for this species approximately 35 km north-west of the study area (CSIRO, 2022).	

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
Greater Glider (southern and central) (*Petauroides volans*[3])	E	E	PMST	***Distribution:*** This species is restricted to eastern Australia, between Proserpine in north Queensland and Wombat State Forest in central Victoria. It occurs from sea level up to 1,200 m above sea level (DCCEEW, 2022d). ***General habitat preferences:*** The Greater Glider (central) occurs in a range of eucalypt-dominated habitats, including low open forests on the coast to tall forests in the ranges and low woodland westwards of the Dividing Range. It does not use rainforest habitats (van Dyck & Strahan, 2008; van Dyck et al., 2013). This species typically occurs in taller, montane, moist eucalypt forests with relatively old trees and abundant hollows and a diversity of eucalypt species (DCCEEW, 2022d). ***Foraging habitat:*** The Greater Glider has an almost exclusive diet of eucalypt leaves and occasionally flowers or buds (van Dyck & Strahan, 2008; DCCEEW, 2022d). Although the species is known to feed on a range of eucalypt species, in any particular area it is likely to only forage on one or two species (van Dyck & Strahan, 2008). ***Breeding habitat:*** Breeding occurs between March and June and a single young is born each year (van Dyck & Strahan, 2008; DCCEEW, 2022d). The young stays with the mother or is left in the nest and becomes independent at about 9 months (Menkhorst & Knight, 2011). ***Notable features:*** This species appears to have low dispersal ability and typically small home ranges of 1-4 ha. It may glide over distances of up to 100 m (van Dyck & Strahan, 2008; DCCEEW, 2022d). ***Nearest record:*** There are two published records within 50 km of the study area, one is undated and the other is from 1976. Otherwise there are numerous	Low: There is no suitable habitat within the study area, in the form of hollow-bearing trees. No gliders or evidence of gliders were observed in the study area during the field assessment.

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
				records greater than 50 km to the south-west at Kroombit Tops National Park and further north and south inland from the coast (CSIRO, 2022).	
Grey-headed Flying-fox (*Pteropus poliocephalus*)	V	LC	PMST	***Distribution:*** This species is endemic to Australia and occurs in the coastal belt between Rockhampton in central Queensland and Melbourne in Victoria. It moves throughout its range in response to availability of foraging resources (DCCEEW, 2022x). ***General habitat preferences:*** This species is a canopy-feeding frugivore and nectarivore, usually feeding on rainforest, open forest, closed and open woodland communities as well as *Melaleuca* swamps and *Banksia* woodlands. It will also feed on fruit crops and other introduced tree species. Its primary food source is *Eucalyptus* (and related genera) blossom (DCCEEW, 2022x). ***Camps/roosts:*** Camps are generally in rainforest patches, stands of *Melaleuca*, mangroves and riparian vegetation located near water, such as lakes, rivers or the coast (DCCEEW, 2022x). ***Breeding:*** Mating occurs in early autumn with young usually born in October (DCCEEW, 2022x). ***Nearest record:*** This species is known from the area, with the nearest records located approximately 3 km north and south of the study area (CSIRO, 2022). There are a number of Flying-fox camps located approximately 1 km to the north-west of the study area in close proximity to the Boyne River. None supported Grey-headed Flying-fox in the most recent 2022 survey, however, between 1 and 500 Grey-headed Flying-fox individuals were recorded at one camp during a survey in August 2019 (DAWE, 2022e).	Low: Although this species is known from the area and a nearby roost is likely to be used sporadically by this species, there are limited fruiting and flowering feed trees that would attract this species to the study area.
Koala (*Phascolarctos cinereus*)	E	E	PMST, Essential	***Distribution:*** This species is widespread in sclerophyll forest and woodlands on foothills and plains on both	**Moderate:** The Koala is known from the broader region, although there are only one

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
			habitat, Wildlife Online	sides of the Great Dividing Range from about Chillagoe, Queensland to Mt Lofty Ranges in South Australia (Menkhorst & Knight, 2011). In Queensland the species is thought to occur in eight bioregions; Einasleigh Uplands, Wet Tropics, Desert Uplands, Central Mackay Coast, Mitchell Grass Downs, Mulga Lands, Brigalow Belt North and Brigalow Belt South. In many locations Koalas are of low density, widespread and fragmented (DAWE, 2022b). ***General habitat preferences:*** Koalas in Queensland use a range of habitats (typically dominated by *Eucalyptus* species), including moist coastal forests, southern and central western sub-humid woodlands and a number of eucalypt woodlands adjacent to waterbodies in the semi-arid western parts of the state (DAWE, 2022b). These habitats may include forests or woodlands, road-side and rail vegetation and paddock trees, safe intervening ground matrix for travelling between trees and patches (DAWE, 2022b). In north-west of Queensland, studies have found that Koalas are patchily distributed, associated with creek-lines, areas of higher tree species richness and with higher abundance correlating with leaf-moisture content (DAWE, 2022b). ***Foraging habitat:*** The diet of the Koala is highly specialised and relies on species of the Eucalyptus, Corymbia and Angophora genera. While the Koala may use more than 400 species of tree for their food and habitat requirements, preferred tree species will vary by habitat type and location across their range, with primary food species varying in different habits and potentially comprising as few as two species in any given location (DAWE, 2022b). ***Refuge habitat:*** Areas where microclimates provide refuge from heat, and perennial water results in leaf-	or two recent records from within 25 km of the study area and no evidence of this species in the form of scats or scratches was observed within the study area during the field assessment. There is potentially suitable habitat in the form of occasional feed trees within the study area and to the south-east into which this species could disperse from the west. However, there are a number of potential barriers between the study area and occupied habitats to the west, including cleared transmission line easements, the Bruce Highway and the Boyne River. Nonetheless, use of the study area by Koalas cannot be ruled out, although it is unlikely to be important habitat for this species due to the limited availability of habitat trees, urban pressures surrounding the study area and lack of refuge habitat. Figure 4 illustrates potential habitat mapping for this species in the study area.

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
				water content remaining high, e.g. deep gullies, caves, cliffs or dense vegetation. Climate refugia for this species includes drainage lines, riparian zones and patches that are resilient to drying conditions due to favourable hydrological systems (DAWE, 2022b). ***Nearest record:*** There are numerous records of this species some distance to the west of the Bruce Highway. However, there are only a handful of records within 25 km of the study area and most of these are more than 30 years old. There is one record from 2018 approximately 8 km to the south-west that appears to be located on the edge of extensive bushland associated with the Boyne Range further to the north-west. Another undated record is located approximately 3 km to the north-west at the Wyndham Park Heritage Site (CSIRO, 2022).	
Northern Quoll (*Dasyurus hallucatus*)	E	LC	PMST	***Distribution:*** The Northern Quoll was historically common across northern Australia, occurring almost continuously from the Pilbara, Western Australia, to near Brisbane, Queensland. The species now occurs in five regional populations across Queensland, the Northern Territory and Western Australia both on the mainland and on offshore islands. In Queensland the Northern Quoll is known to occur as far south as Gracemere and Mt Morgan, south of Rockhampton, sometimes as far south as Maleny on the Sunshine Coast, and as far north as Weipa in Queensland and extends as far west into central Queensland to the vicinity of Carnarvon Range National Park (DCCEEW, 2022f). ***General habitat preferences:*** This species is usually associated with dissected rocky escarpments but also known from Eucalypt forest and woodlands, around human settlement and occasionally rainforest. Some form of rocky area surrounded by vegetated habitat is	Low**:** Suitable habitat (i.e. rocky escarpments) is not present within or adjacent to the study area. There was no evidence of this species in the study area, and the urban nature of the surrounding area is likely to make the study area generally unsuitable for this species.

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
				usually required for denning purposes (DCCEEW, 2022f). In the Northern Territory Northern Quoll populations are becoming extinct within one year of the arrival of the Cane Toad (*_Bufo marinus_), although in Queensland some remnant quoll populations persist in areas where Cane Toads have long been present (van Dyck & Strahan, 2008). The areas where the quoll persists in Queensland tend to be steep, rocky areas, close to water that have not been recently burnt. They appear to have become extinct in many lowland habitats formerly occupied (Woinarski et al., 2008). ***Foraging habitat:*** Northern Quolls are opportunistic omnivores (feeding on plants and animals). Their diet is varied and includes fruits, eucalypt nectar, grevillea flowers, invertebrates, ground-dwelling and arboreal mammals, birds and their eggs, reptiles and frogs. They have also been known to prey on Cane Toads (DCCEEW, 2022f). ***Breeding habitat:*** Dens are made in rock crevices, tree hollows or occasionally termite mounds (TSSC, 2005). Breeding success is higher in animals that have a den near a creek line (TSSC, 2005). ***Nearest record:*** There are two 2009 records of this species 13 km north-west of the study area in Gladstone. Other records exist further inland associated with the Mt Larcom, Boyne and Bobby Ranges (CSIRO, 2022).	
Water Mouse (*Xeromys myoides*)	V	V	PMST	***Distribution:*** This species occurs in coastal areas in the Northern Territory and central and south-eastern Queensland. In Queensland the species is known from the Gold Coast and Moreton Bay north to the Mackay and Cannonvale regions, with one record known from Cairns (DAWE, 2021). The Water Mouse is considered	Low: Although this species is known from the region, coastal wetland communities such as mangroves, saltmarsh, samphire and other saline habitats are not present within or immediately adjacent to the study area.

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
				to comprise one single, nationally important population (DAWE, 2021). ***General habitat preferences:*** The species is known to occur in coastal mangroves, saltmarsh, sedgelands, samphire shrublands, saline reed beds and grasslands, claypans, wet heathlands and freshwater wetlands (DAWE, 2021). Specific habitat features include: ▪ "intact hydrology ▪ prey resources (crustaceans, polyclad worms, pulmonated snails and bivalves ▪ a defined supralittoral bank (enabling construction of nest burrows above the high tide level); and ▪ structures (tidal pools, channels, crab holes, pneumatophores, crevices in bark and around roots, hollows in standing and fallen timber/mangroves, suspended drifts of twigs and leaves and driftwood)" water mouse (DAWE, 2021). ***Breeding habitat:*** The species constructs unique and varied permanent mud-based nests for refuge and breeding above the high tide mark and which may include: ▪ "freestanding mounds ▪ island nests ▪ supralittoral bank nests ▪ tree trunk nests ▪ spoil heap nests" (DAWE, 2021). ***Nearest record***: There are records of this species in coastal and estuarine environments in the region around the study area, the closest of which is from 2012 approximately 4 km to the north-west of the study area (CSIRO, 2022).	

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
Yellow-bellied Glider (south-eastern) (*Petaurus australis australis*)	V	V	PMST	***Distribution:*** This glider occurs at altitudes between sea level and 1,400 m above sea level, in forests along the coast between south-eastern Queensland to far south-eastern South Australia, although it can occur inland to the western slopes of the Great Dividing Range (DAWE, 2022a). Known important populations in Queensland occur in the Carnarvon Range and at Blackdown Tableland (DAWE, 2022a). ***General habitat preferences:*** The species occurs in eucalypt-dominated woodlands and forests, including wet and dry sclerophyll forests. However, the species prefers large patches of mature old growth forest with a high proportion of winter-flowering and smooth-barked eucalypts as well as some floristic diversity of tree species within the forest. The presence of living, large (i.e. at least 50 cm in diameter), old hollow-bearing trees is a critical habitat feature for this species (DAWE, 2022a). ***Nearest record:*** This species has been recorded at numerous records within between 25 and 50 km of the study area, although there is only one undated record within 10 km and one other within 25 km of the study area (CSIRO, 2022).	Low: The study area does not support any hollow-bearing trees or the mature old growth forest habitat preferred by this species.
Reptiles					
Collared Delma (*Delma torquata*)	V	V	PMST	***Distribution***: The species has been recorded within the Bunya Mountains, Blackdown Tablelands National Park, Expedition National Park (Central Queensland), Western Creek, near Millmerran and the Toowoomba Range. A large concentration of records are from the western suburbs of Brisbane (DCCEEW, 2022g). ***General habitat preferences:*** This species is predominantly associated with open rocky terrain although it has also been found in eucalypt woodlands and brigalow with little surface rock (Wilson, 2005). It	Low: There is no suitable open rocky habitat or eucalypt woodland supporting course woody debris and leaf litter in the study area. This species is not known from the region.

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
				is most likely to inhabit eucalypt-dominated woodland and open forests on land zones 3, 9 and 10, particularly REs 11.3.2, 11.9.2, 11.10.1 and 11.10.4. The presence of rocks, logs, bark and other coarse woody debris, and mats of leaf litter typically 30-100 mm thick) appear to be essential characteristics of Collared Delma microhabitat, which may be a limiting factor for recolonising recently burnt areas (DCCEEW, 2022g). In the eastern parts of its range, this species occurs in areas with exposed rocky outcrops on ridges or slopes in vegetation dominated by narrow-leafed Ironbark (*Eucalyptus crebra*) and Lemon-scented Gum (*Corymbia citriodora*). Other canopy species may include Silver-leaved Ironbark (*E. melanophloia*), Moreton Bay Ash (*C. tessellaris*), Gum Top Box (*E. moluccana*), Tallowwood (*E. microcorys*) and Queensland Blue Gum (*E. tereticornis*). In the western parts of its range it has been recorded in Poplar Box (E. populnea) open woodland on alluvial plains. It has been record from a range of soils types including, sandy loams grey and black cracking clays, stony lithosols an basalt derived Podzolics (DCCEEW, 2022g). ***Nearest record*:** There are no published records of this species within 50 km of the study area. There are only a handful of records in the ranges to the west, e.g. Kroombit Tops National Park (CSIRO, 2022).	
Dunmall's Snake (*Furina dunmalli*)	V	V	PMST	***Distribution:*** This snake occurs in the Brigalow Belt South and Nandewar bioregions from near the Queensland border south to Ashford in New South Wales (DCCEEW, 2022m). ***General habitat preferences:*** Dunmall's Snake has been found in a broad range of habitats between 200-500 m above sea level. Habitats including forests and woodlands on clay or clay loam soils dominated by	Low: Although vegetation assemblages and underlying geology may be suitable for this species, it is not known from the region as there are very few recent records within 50 km of the study area. The height above sea level of the study area is unlikely to be suitable for this species.

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
				Brigalow (*Acacia harpophylla*), other wattles such as *A. burrowii*, *A. deanii*, *A. leiocalyx*, native Cypress (*Callitris spp.*) or Bull Oak and various Spotted Gum (*Corymbia citriodora ssp. variegata*), Ironbark (*Eucalyptus crebra* and *E. melanophloia*), White Cypress Pine (*Callitris glaucophylla*) and Bull Oak open forest and woodland associations on sandstone derived soils. It has rarely been found on the edge of dry vine scrub and in hard ironstone country. It shelters under fallen timber and ground litter and may use cracks in alluvial clay soils. The Dunmall's Snake feeds on small skinks and geckos (DCCEEW, 2022m). ***Notable features:*** This is a very secretive snake with few known records. The high number of mid-body scales (21) and small yellow flecks over the temporal region and lips will generally distinguish this snake from other similar species (DCCEEW, 2022m). ***Nearest record:*** There is one undated record approximately 3 km north of the study area and only one other record within 50 km of the study area (CSIRO, 2022).	
Grey Snake (*Hemiaspis damelii*)	E	E	PMST	***Distribution:*** This species occurs from southern New South Wales to south-eastern Queensland. In Queensland most records are along the Macintyre and Condamine river and associated floodplains of the southern Brigalow Belt between Goondiwindi and Dalby, west to Glenmorgan on the Darling Downs and western Lockyer Valley, near Rockhampton on the central Queensland coast. It is also known from the from the Darling Riverine Plains near Currawinya in south-western Queensland (DCCEEW, 2022c). It has been recorded at elevations from 70 m above sea level to 540 m on elevated floodplains, although most records are from below 300 m above sea level (DCCEEW, 2022c).	Low: Preferred wetland habitat and cracking clay soils that provide foraging and shelter habitat for this species are not present in the study area. It is not known from the region in which the study area is located.

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
				General habitat preferences: Preferred habitat includes: Brigalow (*Acacia harpophylla*) and Belah (*Casuarina cristata*) woodland on heavy, dark brown to black cracking clay soils, often in association with water bodies, areas with small gullies and ditches, and floodplain environments; as well as Queensland Bluegrass (*Dichanthium sericeum)* and/or Mitchell Grass (*Astrebla* spp.) grassland on alluvial plains with cracking clay soils. The species is strongly associated with red sodosol soils, with a strong texture contrast between the A horizon and sodic B horizon, which are quite dense and coarsely structured. This snake shelters beneath logs, rocks and soil cracks (DCCEEW, 2022c). Key habitat attributes for this species include the floodplains and ephemeral wetlands that provide habitat for it's prey, and heavy cracking clay soils that provide shelter (DCCEEW, 2022c). ***Notable features:*** Predominantly active at dusk or night and shelters under cover or in soil cracks during the day. feeds on ground-dwelling frogs, although occasionally on arboreal frog species and skinks. A study found that the species forages within 30 m of the of the water edge of wetlands rather than in adjacent wooded vegetation (DCCEEW, 2022c). ***Nearest record:*** There are no published records of this species within 70 km of the study area. There are a number of undated and 45 year old records from around Rockhampton (CSIRO, 2022).	
Yakka Skink (*Egernia rugosa*)	V	V	PMST	***Distribution:*** The distribution of this species is highly fragmented. It extends from the coast to the hinterland of sub-humid to semi-arid eastern Queensland. It has been recorded between the Queensland/New South Wales border to Oyala Thumotang National Park on Cape York Peninsula, and from Bundaberg and the region west of Gympie to	Low: The habitats within the study area lack rocky areas or areas with abundant fallen timber to provide suitable habitat for this species and there are no records of this species within 50 km of the study area. No evidence of this species, such as defecation

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
				Mariala National Park west of Charleville (DCCEEW, 2022i). ***General habitat preferences:*** This species occurs in woodland and open forest habitats, wet/dry sclerophyll forest and ecotonal rainforest habitats. This species is commonly found in cavities under and between partly buried rocks, logs or tree stumps, root cavities and abandoned animal burrows. The species often takes refuge in large hollow logs and has been known to excavate deep burrow systems, sometimes under dense ground vegetation (Wilson, 2005; Cogger, 2000; DCCEEW, 2022i). In cleared habitat, this species can persist where there are shelter sites such as raked log piles, deep gullies, tunnel erosion/sinkholes and rabbit warrens. The species has also been found sheltering under sheds and loading ramps. This species is not generally found in trees or rocky habitats (Chapple, 2003). The species occurs in a range of land zones within Queensland, including land zones 3, 4, 5, 7, 9 and 10, although land zone 8 is not thought to be representative of core habitat for the species. Common vegetation types in which the species occurs includes; Brigalow (*Acacia harpophylla*), Mulga (*A. aneura*), Bendee (*A. catenulata*), Lancewood (*A. shirleyi*), Belah (*Casuarina cristata*), Poplar Box (*Eucalyptus populnea*), Ironbark (*Eucalyptus* spp.) and White Cypress Pine (*Callitris glaucophylla*) (DCCEEW, 2022i). ***Feeding habitat:*** This species burrows and feeds on soft plant material and fruits as well as a variety of invertebrates that venture into or near the burrow entrance (DCCEEW, 2022i). ***Nearest record:*** There are no published records for this species within 50 km of the study area. There is	sites, were identified in the study area during the field assessment.

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
				one undated record 50 km north-west of the study area (CSIRO, 2022).	
Migratory Birds					
Black-faced Monarch (*Monarcha melanopsis*)	M	SLC(M)	PMST, Wildlife Online	***Distribution/Habitat preferences:*** Rainforest, eucalypt woodlands and forest (mainly wet sclerophyll), coastal scrubs, rainforest gullies with a dense understorey of ferns and/or shrubs. These habitat are recognised as important habitat for this species under the EPBC Act (DotE, 2015). In Queensland this species occurs on the eastern slopes of the Great Divide. Also occasionally occurs further inland (DCCEEW, 2022t). ***Nearest record:*** There are a number of records of this species within 10 km of the study area, the nearest of which is 1 km to the south-east (CSIRO, 2022).	Low: Open eucalypt and wattle communities in the study area are unlikely to provide preferred habitat for this species.
Fork-tailed Swift (*Apus pacificus*)	M	SLC(M)	PMST, Wildlife Online	***Distribution/Habitat preferences:*** Aerial species that flies over open habitat sometimes over forests and cities (Pizzey et al., 2012). Sometimes occurs above rainforests, wet sclerophyll forest or pine plantations. It occurs in a range of habitat from inland open plains to wooded areas, where it is exclusively aerial (DCCEEW, 2022a). ***Nearest record:*** There are a handful of records of this species within 10 km of the study area, the nearest of which is 1 km to the north-west (CSIRO, 2022).	**Moderate:** This species was not recorded in the study area, although, it has been recorded in the region. This species will potentially overfly the study area. However, as it is an almost exclusively aerial species it is unlikely to use the study area for roosting due to the unremarkable nature and relatively low growth of the vegetation present. All vegetated areas may provide potential overfly habitat for this species (Figure 4).
Latham's Snipe (*Gallinago hardwickii*)	M	SLC(M)	PMST, Wildlife Online	***Distribution/Habitat preferences:*** Soft, wet ground or shallow water with tussocks, wet paddocks, seepage below dams, irrigated areas, scrub or open woodland (Pizzey et al., 2012).	Low: This species is not known from the region and there is not suitable wetland habitat within or adjacent to the study area.

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
				Nearest record: There is one record for this species within 10 km of the study area, located 3 km to the north-west (CSIRO, 2022).	
Oriental Cuckoo (*Cuculus optatus*)	M	SLC(M)	PMST	***Distribution/Habitat preferences:*** Non-breeding habitat occurs in Australia and is characterised by monsoonal rainforest, vine thickets, wet sclerophyll forest or open *Casuarina*, *Acacia* or *Eucalyptus* woodlands. Frequently in ecotones between habitats. This habitat is considered important under the EPBC Act (DotE, 2015). ***Nearest record:*** There are a few records of this species between 10 and 25 km of the study area, primarily to the north-west towards Gladstone (CSIRO, 2022).	**Moderate:** Potentially suitable, although marginal, habitat is present in the study area in the form of open *Eucalyptus* and *Acacia* forest. Although this species is not common in the region.
Osprey (*Pandion haliaetus and cristatus*)	M	SLC(M)	PMST, Wildlife Online	***Distribution/Habitat preferences:*** This species occurs in littoral and coastal habitats and terrestrial wetlands of tropical and temperate Australia and offshore islands. The Osprey has been occasionally observed further inland along major rivers. This species requires extensive areas of fresh, brackish or saline waters for foraging (DAWE, 2022f; DCCEEW, 2022v). Important habitat under the EPBC Act is considered to be bays, estuaries, along tidal stretches of large coastal rivers, mangrove swamps, coral and rock reefs, terrestrial wetlands and coastal lands of tropical and temperate Australia and offshore islands. They are generally found on or near the coast but also range inland along large rivers, mainly in northern Australia. They nest in trees that are usually dead or with dead tops, rocky coastlines and on artificial structures (DotE, 2015). ***Nearest record:*** There are numerous records of Osprey within 10 km of the study area, the nearest of which is within 500 m to the north (CSIRO, 2022).	**Moderate:** This species may overfly the study area as part of broader foraging activities along the coast, which is located only 1 km to the east of the study area, or along the Boyne River, which is located approximately 500 m to the west of the study area (Figure 3).

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
Pin-tailed Snipe (*Gallinago stenura*)	M	SLC(M)	PMST	***Distribution/Habitat preferences:*** Although the distribution of this species is not well understood, it has been recorded along the eastern and south-eastern coast of Australia, in the Gulf of Carpentaria and sporadically along the coasts of Western and South Australia (DCCEEW, 2022o). This is a non-breeding visitor to Australia, preferring habitats at the edges of shallow freshwater swamps, ponds and lakes with emergent grasses/sedges or other vegetation of varying density, although not normally in saline or inter-tidal wetlands. It can also be found in drier, more open wetlands, in more arid parts of its range (DCCEEW, 2022o). ***Nearest record:*** There are no published records of this species within 50 km of the study area (CSIRO, 2022).	Low: This species is not known from the region and there is not suitable wetland habitat within or adjacent to the study area.
Rufous Fantail (*Rhipidura rufifrons*)	M	SLC(M)	PMST, Wildlife Online	***Distribution/Habitat preferences:*** Rainforest, wet eucalypt forests, monsoon forests, paperbarks, sub-inland and coastal scrubs, mangroves, watercourses, parks (Pizzey et al., 2012). ***Nearest record:*** There are a number of records for this species within 10 km of the study area, the nearest of which is 1 km to the north east (CSIRO, 2022).	Low: Open eucalypt and wattle communities in the study area are unlikely to provide preferred habitat for this species.
Satin Flycatcher (*Myiagra cyanoleuca*)	M	SLC(M)	PMST, Wildlife Online	***Distribution/Habitat preferences:*** Heavily vegetated gullies in forests and taller woodlands. During migration, this species prefers coastal forests, woodlands, mangroves, gardens and open country (Pizzey et al., 2012). More common in tall wet sclerophyll forest, often in gullies or along water courses. In woodlands this species prefers open, grassy habitats. Habitat becomes more varied during migration and includes most wooded habitats except rainforests, although wintering birds may use	Low: Open eucalypt and wattle communities in the study area are unlikely to provide preferred habitat for this species.

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
				rainforests in northern Queensland. All habitats are considered important under the EPBC Act (DotE, 2015). ***Nearest record:*** There are a few records within 10 km of the study area, the nearest of which is 1 km to the north-north-east (CSIRO, 2022).	
Spectacled Monarch (*Symposiachrus trivirgatus*)	M	SLC(M)	PMST, Wildlife Online	***Distribution / Habitat references:*** Rainforest, thickly wooded gullies, waterside vegetation (Pizzey et al. 2012). Dense vegetation, mainly in rainforest but also in moist forest or wet sclerophyll and occasionally in other dense vegetation such as mangroves, drier forest and woodlands is considered important habitat for this migratory species (DotE, 2015). ***Nearest record:*** There are two records of this species within 10 km of the study area, the nearest of which is1.5 km to the north (CSIRO, 2022).	Low: Open eucalypt and wattle communities in the study area are unlikely to provide preferred habitat for this species.
Swinhoe's Snipe (*Gallinago megala*)	M	SLC(M)	PMST	***Distribution/Habitat preferences:*** This species has been recorded along the eastern and south-eastern coast of Australia, in the Gulf of Carpentaria and sporadically along the coasts of Western and South Australia (DCCEEW, 2022n). This species does not breed in Australia. It occurs at the edges of wetlands, with dense clumps of grass and rushes around the edges of fresh and brackish wetlands, including swamps, billabongs, river pools, small streams, sewage ponds, grasslands and drier cultivates areas (DCCEEW, 2022n). ***Nearest record:*** There are no published records of this species within 50 km of the study area (CSIRO, 2022).	Low: This species is not known from the region and there is not suitable wetland habitat within or adjacent to the study area.
Yellow Wagtail (*Motacilla flava*)	M	SLC(M)	Wildlife Online	***Distribution/Habitat preferences:*** Non-breeding habitat occurs in Australia and is characterised by mostly well-watered open grasslands and the fringes of wetlands. Roosts in mangrove and other dense	Low: The study area does not support suitable grassland, wetland, mangrove or

Common name (Species name)	Status[1]		Record source[2]	Habitat preferences	Likelihood to occur in the exploration tenements
	EPBC Act	NC Act			
				vegetation (DotE, 2015). Well-watered open grasslands and the fringes of wetlands as well as roosting habitat in mangroves and other dense vegetation is considered important habitat for this species in Australia (DotE, 2015). ***Nearest record:*** There is one record for this species from 2016 approximately 6.5 km to the north-west of the study area (CSIRO, 2022).	other dense vegetation preferred by this species.

[1]– EPBC Act Status: E = Endangered, V = Vulnerable, M = Migratory, NL = Not listed
[2] – NC Act Status: E = Endangered, V = Vulnerable, NT = Near threatened, LC = Least concern, SLC = Special least concern, M = Migratory
- PMST – Protected Matters Search Tool (refer to PMST database results contained in Appendix B)
- Wildlife Online (refer to Wildlife Online database results contained in Appendix B)
[3] Recent taxonomic revision of the Greater Glider (*Petauroides* spp.) has revealed three distinct species, i.e. being the northern (*P. minor*), central (*P. armillatus*) and southern (*P. volans*), species (McGregor et al., 2020). Central and southern species are still both recognized as *P. volans* under the EPBC Act and NC Act
Due to the close proximity of the study area to the coastline, wader birds, shorebirds, marine and aquatic species, such as turtles, marine birds, sharks and the Estuarine Crocodile, were returned from desktop searches for the search area. This assessment considers terrestrial species only and no marine areas are located within or adjacent to the study area.