Central Queensland Coal Project

Appendix 9d – MNES and MSES Supplementary Impact Assessments

Central Queensland Coal

CQC SEIS, Version 3

October 2020

MNES and MSES Fauna – Supplementary Impact Assessments

Central Queensland Coal Project

Prepared for: **Orange Environmental on behalf of Central Queensland Coal Pty Ltd**
Prepared by: **Lindsay Agnew, Austecology**
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1. Introduction

1.1. Background and Purpose

Central Queensland Coal Pty Ltd and Fairway Coal Pty Ltd, both wholly-owned subsidiaries of Mineralogy Pty Ltd, are the proponents for development of a greenfield open-cut coal mine and associated project infrastructure within the Styx Basin, in central eastern Queensland. The project would involve the extraction of up to ten million tonnes per annum (Mtpa) of product thermal and coking coal for the export market over a life of 20 years. The project also includes development of a train loadout facility (**Figure 1-1**).

The proposed mine is located within the southern part of the Styx Basin, approximately 130 kilometres north-west of Rockhampton and approximately 25 Km north-west of Marlborough. The proposed project is to be located within Mining Lease Applications 80187 and 700022, covering an area of 2,661.3 hectares.

On 27 January 2017 the Queensland Government approved an application for the proponents to voluntarily prepare an Environmental Impact Statement (EIS) for the proposed project under the *Environmental Protection Act 1994* (EP Act). On 3 February 2017 the proposed project was determined to be a controlled action (EPBC 2016/7851) under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*[1] (hitherto referred to as the EPBCA). The project is being assessed under the bilateral agreement between the Commonwealth and the State of Queensland (section 45 of the EPBC Act).

The proponent has prepared an Environmental Impact Statement (November 2017), a Supplementary Environmental Impact Statement – Version 1 (May 2018), and a Supplementary Environmental Impact Statement – Version 2 (December 2018) for the proposed project under the *Environmental Protection Act 1994*.

This report provides further information in regard to Koala *Phascolarctos cinereus*, Greater Glider Petauroides volans, Squatter Pigeon (southern) *Geophaps scripta scripta*, and Collared Delma *Delma torquate*, as requested by the then Commonwealth Department of Environment and Energy (now Department of Agriculture, Water and the Environment) and Queensland Department of Environment and Science (DES).

1.2. Terminology, Nomenclature and Acronyms

The **project area** is located within Mining Lease Applications 80187 and 700022 (**Figure 1-1**). The project area is centred on 'Mamelon Station', a grazing property intersected by the Bruce Highway, 25 Km north-west of Marlborough[2]. The train loading facility servicing the proposed mine is located on the adjoining 'Strathmuir' property[3], while a section of the haul road to the train loading facility is located on the 'Brussels' property[4].

The **surrounding area** refers generally to the lands within approximately 100 Km of the project area, including the townships of Ogmore to the north and Marlborough in the south. **Near surrounds** refers to land (particularly relevant habitat) adjacent to, or within, approximately 3 Km of the project area, which has

[1] The controlling provision relevant to this report are sections 18 and 18A (listed threatened species and communities).
[2] 'Mamelon' property described as real property Lot 9 on CP MC496, Lot 10 on CP MC493, Lot 11 on CP MC23 and leasehold interest RL 35/3001 over Lot 1 on CP RL3001, is currently owned by QNI Metals Pty Ltd. The total area of Mamelon is 60.5 Km².
[3] The 'Strathmuir' property, described as real property Lot 9 on MC230.
[4] The 'Brussels' property described as real property Lot 85 on SP164785.

relevance from a biological perspective in regard to considering local population context for mobile taxa relevant to this report.

Nomenclature used for this study follows Bostock & Holland (2010) for flora, Van Dyck and Strahan (2008) for non-flying mammals, Churchill (2008) and Reardon *et al.* (2008) for bats, Christidis and Boles (2008) for birds, Cogger (2000) for amphibians, and Wilson (2009) for reptiles. The common names for frogs follow the nomenclature of Ingram *et al*. (1993).

The **conservation status** of a species is described in accordance with the Commonwealth EPBCA (e.g. *Endangered, Vulnerable,* or *Migratory*) and, for completeness where relevant, the Queensland *Nature Conservation Act 1992* (NCA) and its regulations and amendments (e.g. *Endangered, Vulnerable, Regionally Vulnerable, Near Threatened*[5] or *Least Concern*).

The definition of a **Regional Ecosystem** (RE) follows that provided by Sattler and Williams (1999), *i.e.*, a vegetation community in a bioregion that is consistently associated with a particular combination of geology, landform and soil. This definition forms the basis of the Queensland *Vegetation Management Act 1999* (VMA[6]), which also defines the '*pre-clearing extent*' of a regional ecosystem as the extent of the regional ecosystem before it was cleared. *Regrowth vegetation* means woody vegetation that is not remnant as defined under the VMA.

The conservation status (under the VMA) of REs follows that of the Regional Ecosystem Description Database (REDD) published and maintained by Queensland Herbarium (2019). Each RE is assigned status under the VMA as *Endangered*, *Of Concern* or *Least Concern*. The status of all REs mapped for Queensland is provided in the VMA Vegetation Management Regulation 2000 (VMR): VMR Schedule 1 - *Endangered* Regional Ecosystems; VMR Schedule 2 - *Of Concern* Regional Ecosystems; and VMR Schedule 3 - *Least Concern* Regional Ecosystems.

Acronyms and Terms used in this report are provided in **Tables 1-1 and 1-2.**

[5] Previous reports referred to in this report have included reference to *Rare* species. This conservation status was superseded by the status *Near Threatened* with the introduction of the *Nature Conservation (Wildlife) Amendment Regulation (No. 1) 2010*.

[6] Under the VMA, remnant vegetation is defined as 'vegetation that had at least 70% of the height and 50% of the cover of the dominant stratum, relative to the undisturbed height and cover of that stratum and was dominated by species characteristic of the vegetation's undisturbed canopy' (Wilson *et al.* 2002). Only vegetation that falls within this definition is mapped as a regional ecosystem in Queensland. Mapped regional ecosystems thus include 'vegetation that has not been cleared or has been lightly thinned or vegetation that has been cleared or heavily thinned but substantially regrown' (Wilson *et al.* 2002).

Table 1-1 Report Acronyms

Acronym	Name, Term or Expression
ALA	Atlas of Living Australia
ANZECC	Australian and New Zealand Environment and Conservation Council
BPA	Biodiversity Planning Assessment
BoM	Bureau of Meteorology (Queensland)
DAF	Queensland Department of Agriculture and Fisheries
DAWE	Commonwealth Department of Agriculture, Water and the Environment
DE	Former Commonwealth Department of the Environment
DEE	Former Commonwealth Department of the Environment and Energy
DEHP	Former Queensland Department of Environment and Heritage Protection
DERM	Former Queensland Department of Environment and Resource Management
DES	Queensland Department of Environment and Science
DEWHA	Former Commonwealth Department of Environment, Water, Heritage and the Arts
BBR	Brigalow Belt Bioregion
EHP	Queensland Department of Environment and Heritage Protection
EIS	Environment Impact Statement
EMP	Environmental Management Plan
EPBCA	Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*
Ha	Hectares
Km	Kilometre
LPA	Queensland *Land Protection (Pest and Stock Route Management) Act 2002*
LPR	Queensland *Land Protection (Pest and Stock Route Management) Regulation 2002*
ML	Mining Lease
MNES	Matter of National Environmental Significance (as defined under the EPBCA)
MSES	Matter of State Environmental Significance (as defined under the SPP)
NCA	Queensland *Nature Conservation Act 1992*
NP	National Park
RE	Regional Ecosystem (as defined under the VMA)
REDD	Regional Ecosystem Description Database
SEWPaC	Former Commonwealth Department of Sustainability, Environment, Water, Population & Communities
SEIS	Supplementary Environment Impact Statement
sp.	Species (singular)
spp.	Species (plural)
SPP	Queensland State Planning Policy
VMA	Queensland *Vegetation Management Act 1999*
WoN	Weed of National Significance as listed by the Australian Weeds Committee 2012

Table 1-2 Selected Report Terms

Term	Description
Carrying capacity	The maximum population size of the species that an environment can sustain indefinitely, given the availability of food, habitat, water, and other important resources (e.g., nest and shelter sites). In population biology, carrying capacity is defined as the maximum number of animals (of one or more species) an area of habitat can support in the long-term (after Hui 2006).
Declared plant	Refers to a species declared under the Queensland LPR.
Ecology	The totality or pattern of relations between organisms and their environment. Note that ecology is the study and the science of the interrelations between living organisms and their environment. The term ecology is now frequently misused, usually as "the ecology", when what is meant is a particular ecosystem, a set of ecosystems or the environment.
Ecosystem	A community of living things and the non-living environment functioning together as a system - an ecological system.
Ecosystem resilience	The capacity of an ecosystem to cope with disturbances, such as drought, fire or grazing, without shifting into a qualitatively different state.
Endemic	Native to a particular area and found nowhere else in the wild.
Environmental weed	Refers to any plant that survives in a natural area where its presence is undesirable, harmful or troublesome to native biodiversity.
Invasive species	A species spreading beyond its accepted normal distribution and which threatens valued environmental, agricultural or personal resources by the disruption it causes.
Land zone	A geomorphic category that describes the major geology and associated landform and soils and takes account of their origin and function.
Threatened	A common use term to collectively describe species listed as Critically Endangered, Endangered or Vulnerable species under Commonwealth EPBCA and/or the Queensland VCA.
Threatened ecological community	A threatened ecological community (TEC) is a naturally occurring ecological community listed under section 181 of the *Environment Protection and Biodiversity Conservation Act 1999*. Categories for listing TECs under the EPBCA are: critically endangered; endangered; or vulnerable.

1.3. Project Area Characteristics

The project area is located approximately 25 Km north-west of Marlborough, about 23 Km inland from the central Queensland coast. The project area is bisected by the Bruce Highway and a railway line transects the eastern most part of the project area (**Figure 1-1**).

The project area is representative of the wider region and landscape with over 79% of the project area cleared and currently mapped as non-remnant (CDM Smith 2018). Cattle grazing remains the dominant land use within the project area and surrounding lands. Remnant vegetation is largely confined to the south and western portions of the project area (CDM Smith 2018). The majority of remnant vegetation within the project area comprises communities listed as *Of Concern* and *Least Concern* under the VMA (CDM Smith 2018).

The majority of the project area lies within the Styx River catchment, east of the Connors and Broadsound Ranges. The Styx River and its tributaries (including Deep, Barrack, and Tooloombah Creeks) flow into the Broad Sound, to the north-east of the project area.

The project area lies within the Marlborough Plains subregion of the Brigalow Belt North bioregion. Vegetation within the Marlborough Plains subregion is dominated by alluvial plains and colluvial slopes, usually supporting eucalypt woodlands to open forests characterised by Poplar Gum *Eucalyptus platyphylla*, Ghost Gum *Corymbia dallachiana*, Forest Red Gum *Eucalyptus tereticornis*, and paperbarks (*Melaleuca spp.*) with low rises supporting Narrow-leaved Ironbark *Eucalyptus crebra* (DES 2018).

DES (2018) describes two areas of special fauna biodiversity value, one to the north-east and the other to the west of the project area. The *Torilla Plain and Broadsound* is located approximately 20 Km downstream of the project area. This area is regarded as a nationally important wetland system which supports substantial populations of waterbirds, including migratory shorebirds (DES 2018).

The *Southern Connors / Broadsound Range* is located approximately 20 Km west of the project area. DES (2018) notes that the *Southern Connors / Broadsound Range* supports a high density and size range of hollow-bearing trees which are an important feature of this area for both the Greater Glider *Petauroides volans* and Yellow-bellied Glider *Petaurus australis*. Other threatened or priority taxa[7] include the Squatter Pigeon *Geophaps s. scripta* and Koala *Phascolarctos cinereus*.

1.4. Fauna Surveys and Habitat Assessments

The project area has been subject to a variety of fauna assessments since 2011, including:

1. A fauna assessment of (Exploration Permit for Coal [EPC] 1029) was carried out under summer-season conditions over five days in March 2011 (Meyer 2011a). A wide variety of methodologies were used to sample the diversity of fauna potentially present.
2. A fauna assessment of EPC 1029 was also carried out under early spring (dry season) conditions over five days in September 2011 (Meyer 2011b). Again, a wide variety of standardised and non-standardised methodologies were employed to sample a diversity of fauna potentially present.
3. The fauna surveys in February 2012 used a variety of survey methods designed to target conservation significant fauna species (listed under NCA and/or EPBCA) throughout EPC 1029 (Meyer 2012).
4. A baseline fauna assessment program focusing on the project area and staged throughout 2017 (CDM Smith 2018).
5. A series of surveys throughout the project area in 2018 using a variety of survey methods designed to target threatened fauna species (listed under NCA and/or EPBCA) (CDM Smith 2018).

[7] Priority taxa are non-EVNT species that are considered to be of particular conservation significance in the bioregion. The rationale for inclusion is based upon the eligibility criteria described in DES (2018).

6. A series of surveys targeting Koala and Greater Glider, threatened microbats, and other relevant threatened fauna species within the eastern part of the project area, and particularly Deep Creek during November 2019 (Austecology 2019).
7. Habitat suitability assessments and target species surveys within the western parts of the project area during December 2019 (Austecology 2019).

All of these survey programs and events have taken into account the potential presence of a variety of threatened fauna. The design and implementation of the surveys was informed by previous experience in practices which provide consistency with recognised survey guidelines and best practice guidelines, i.e. DEWHA 2010a, DEWHA 2010b, DEWHA 2011; SEWPaC 2011a, SEWPaC 2011b, SEWPaC 2011c, Eyre *et al.* 2012, and. DE 2014.

Surveys have included pitfall and funnel trapping, Elliott and cage trapping, camera trap surveys, active diurnal hand searches (reptiles), area searches (birds), nocturnal spotlight searches, ultrasonic call detection surveys, water body point surveys (birds), predator and owl pellet analysis, camera traps, hair sampling devices, flushing methods (cryptic birds), and scat searches (see Meyer 2011 a & b; Meyer 2012; CDM Smith 2018; and Austecology 2019).

Styx Coal Project

Figure 1-1

Project Area

austecology

ML 80187

ML 700022

BRUCE HIGHWAY

KOOLTANDRA ROAD

North Coast Line

Deep Creek

Barrack Creek

Mining Lease

Disturbance Area

Remnant Vegetation – Regional Ecosystems

SOURCE:
DCDB: DNRME 2019
Mining Leases: DNRME 2019
Vegetation: 3D Environmental 2019 (site) and © State of Queensland (Department of Natural Resources, Mines and Energy), 2019 (for the surrounds)

N
W
E
S

0 500 1,000 1,500
Meters

A3 Scale: 1:30,000

File:STYX-Fig1-1-ProjectArea-200709 Date: 9/07/2020

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1.5. Impact Assessment, Mitigation, Management and Monitoring

1.5.1. Relevant Project Management Plans

Within this report, recommended measures and strategies to mitigate potential impacts of the project on MNES and MSES may be in part, or wholly reliant upon, other project management plans. Other project associated management plans which may overlap and / or assist with the mitigation and recovery from any impacts identified in this document, include:

- **Environmental Management Plan** (EMP) – which includes – Land Use Management Plan (LUMP), Noise and Vibration Management Plan, Waste Management Plan, Water Management Plan, and Groundwater Management and Monitoring Plan. The LUMP consists of the following: Biodiversity Management Strategies, Weed and Pest Management Plan (WPMP), and Bushfire Management Plan (BfMP).
- **Groundwater Dependent Ecosystem Monitoring and Management Plan** (GDEMMP) - which describes the program for monitoring Groundwater Dependent Ecosystems (GDEs), including stygofauna, groundwater fed pools and associated aquatic habitats, riparian vegetation, and their associated groundwater resources. Triggers are outlined which will be evaluated, with corrective actions identified for implementation in response to the monitoring results.
- **Receiving Environment Monitoring Program** (REMP) – to monitor the health of wetlands, streams and riparian vegetation adjacent to the Project for indirect impacts such as water level reductions (in permanent waterholes), dust and surface water contamination;
- **Rehabilitation Management and Closure Plan** (RMP) – detailing all aspects of the progressive rehabilitation of the Project's mining areas including landforms, rehabilitation schedule, plant species selections, goals and objectives, and rehabilitation monitoring;
- **Erosion and Sediment Control Plan** (ESCP) – detailing approach to managing erosive soils and potential water quality contamination resulting from exposed soils during construction and operation; and
- **Offset Area Management Plan** (OAMP) – details approach to land use management of proposed offset sites which includes the surrounding Mamelon property which encompasses the Project footprint.

1.5.2. Impact Assessment

The assessments provided in this report are those of experienced ecologists with first-hand knowledge of habitats of the project area, species occurrence within the project area and surrounding area, and of the biology and ecology of those species elsewhere throughout their distribution.

Within this report, the assessment of whether the action is likely to have a significant impact on a MNES protected by the EPBCA has been undertaken in accordance with the overarching guidance provided in the *Significant Impact Guidelines 1.1 - Matters of National Environmental Significance* (DEWHA 2013).

Where other adopted documents (e.g. recovery plans or policy statements) were available to provide guidance to determine whether a proposed action may have a significant impact with respect to a particular species, these were used in the assessments.

All fauna species considered in this report are listed as vulnerable species under the EPBCA. In accordance with DEWHA (2013), the proposed action has been assessed against the following significant impact criteria. i.e., whether the 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;
- reduce the area of occupancy of an important population;
- fragment an existing important population into two or more populations;

- adversely affect habitat critical to the survival of a species;
- disrupt the breeding cycle of an important population;
- modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline;
- result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat;
- introduce disease that may cause the species to decline; or
- interfere with the recovery of the species.

Definitions which underpin key terms and concepts in the significant impact criteria have been considered in the assessments are as follows:

- A *population of a species* is an occurrence of the species in a particular area. In relation to critically endangered, endangered or vulnerable threatened species, occurrences include but are not limited to:
  - a geographically distinct regional population, or collection of local populations; or
  - a population, or collection of local populations that occurs within a particular bioregion.
- An *important population* is a population that is necessary for a species' long-term survival and recovery. This may include populations identified as such in recovery plans, and/or that are:
  - key source populations either for breeding or dispersal;
  - populations that are necessary for maintaining genetic diversity, and/or
  - populations that are near the limit of the species range.
- *Habitat critical to the survival of a species or ecological community*[8] refers to areas that are necessary:
  - for activities such as foraging, breeding, roosting, or dispersal; or
  - for the long-term maintenance of the species or ecological community (including the maintenance of species essential to the survival of the species or ecological community, such as pollinators); or
  - to maintain genetic diversity and long-term evolutionary development, or
  - for the reintroduction of populations or recovery of the species or ecological community.

1.5.3. Mitigation, Management and Monitoring

The mitigation, management, and monitoring strategies provided in this report are those prepared by experienced ecologists with direct knowledge of project area's habitats, of the species occurrence within the project area and surrounding area, and the biology and ecology of those species elsewhere throughout their distribution. All strategies are based on the broad practical experience of ecologists who have previously developed and implemented such strategies for the species considered in this report. The development of those strategies has guided by legislative requirements, relevant species recovery plans, and best-practice approaches to species management and monitoring.

While individual species may require implementation of specific mitigation measures to reduce project-related impacts, there are a variety of mitigation measures that are generic and relevant to all species - including other species and species groups not specifically referred to herein. For example, pre-clearance surveys will provide information on the composition and area of vegetation and habitat to be disturbed prior to construction works, mitigating the risk of disturbing environmental values that were not identified during the EIS process.

A description of the suite of generic mitigation measures which are applicable to all species and their habitats is provided in **Attachment A**. Where mitigation measures are applicable to an individual species, these are provided elsewhere in this report as relevant. Many mitigation measures are derived from those

[8] Such habitat may be, but is not limited to: habitat identified in a recovery plan for the species or ecological community as habitat critical for that species or ecological community; and/or habitat listed on the Register of Critical Habitat maintained by the minister under the EPBCA.

developed within other environmental management plans or are reliant on other project management plans. A summary of project environmental management plans is provided in the preceding section.

2. Koala *Phascolarctos cinereus*

2.1. Background and Description

The Koala *Phascolarctos cinereus* was listed as *Vulnerable* under the EPBCA in May 2012. The listing status of the Koala in Queensland is Vulnerable under the NCA. The Koala is listed as Vulnerable on the IUCN Red List for Threatened Species.

There is no Commonwealth or State recovery plan for the Koala (DE 2020a; DES 2020). DE (2014) describe the following as 'interim recovery objectives' for Koalas within the 'Coastal' habitat context:

- Protect and conserve large, connected areas of koala habitat, particularly large, connected areas that support koalas that are: of sufficient size to be genetically robust / operate as a viable sub-population; or free of disease or have a very low incidence of disease; or that support breeding animals.
- Maintain corridors and connective habitat that allow movement of koalas between large areas of habitat.

No Threat Abatement Plan has been identified as being relevant for this species (DE 2020a).

The following summarises key aspects of the Koala's biology and ecology as described within Melzer & Tucker 2011, SEWPaC 2012, Flint & Melzer 2013, Melzer *et al.* 2014 & 2018, Ellis *et al.* 2018, DE 2020a, and research referred to therein:

- The Koala is a folivore, with a diet restricted mainly to leaves of *Eucalyptus* spp. and related genera (including *Corymbia* spp., *Angophora* spp. and *Lophostemon* spp.).
- The diet of individual Koalas is usually limited to one or a few of the species present at a site. Dietary preferences (i.e. preferred tree species) can vary between regions or seasons.
- In areas of suitable habitat, Koalas also show strong preferences for individual trees.
- In humid tropical woodlands/forests of the Central Queensland Coast Bioregion, higher Koala densities have been associated with communities where *Eucalyptus tereticornis*, *E. platyphylla*, *E. drepanophylla*, and / or *Corymbia clarksoniana* have been abundant. Within the Brigalow Belt North bioregion, tree species thought to be favoured in subhumid tropical woodland / forests include *E. coolabah*, *E. tereticornis*, *E. populnea*, and *E. crebra*. A study within the Clarke Connors Range (134 observational records and analysis of faecal samples) suggest a preference for *E. tereticornis*, with *E. drepanophylla / E. crebra* also forming part of the diet of Koalas in this area.
- Research in part of the Central Queensland Coast (CQC) Bioregion (around St. Lawrence) indicates that eucalypt forests and woodlands in lower-lying, better-watered parts of the landscape are the main koala habitat in this region. Vegetation communities ranked with the highest likelihood for Koala occurrence were REs 11.3.4[9], 11.3.25[10], and 11.3.29[11].
- The Koala is not territorial and individual home ranges extensively overlap. Individuals tend to use the same set of trees, but generally not at the same time.
- Individual home ranges are variable, with animals in 'poorer' habitats having larger home ranges than animals in areas of higher quality habitat[12]. On average, males usually have larger home ranges than female Koalas. Koalas are known to increase movement and home range size during the breeding season between September and March.

[9] *Eucalyptus tereticornis* and/or *Eucalyptus* spp. tall woodland on alluvial plains.
[10] *Eucalyptus tereticornis* or *E. camaldulensis* woodland fringing drainage lines.
[11] *Eucalyptus crebra*, *E. exserta*, *Melaleuca* spp. woodland on alluvial plains.
[12] Ellis *et al.* (2018) assessed radio-tracking data for Koalas throughout parts of the Clarke Connors Range and considered home ranges in the order of 3-10 Ha as standard in woodlands of central Queensland (though also noting considerable variation between individuals), compared to larger ranges of up to 100 Ha observed further inland (e.g. Blair Athol; Ellis *et al.* 2002b).

- Female Koalas can potentially produce up to one offspring each year (with an average of 0.3 - 0.8 offspring per year), with births occurring between October and May. Young Koalas are independent from 12 months of age.
- Longevity in the wild is >15 years for females and >12 years for males. Generation length has been estimated to be 6-8 years.
- Average Koala densities within the Brigalow Belt North Bioregion have been variously estimated at 0.155 and 0.01 to 0.005 Koalas / Ha. A study conducted approximately 45 Km to the north of the study site provided an estimated density of 0.12 koalas / Ha (based on 64 Km of linear transect surveyed in woodland near St. Lawrence).
- The key identified threats to Koalas are habitat loss and fragmentation, vehicle strike, disease, and predation by dogs. Drought and extreme heat are also known to cause significant mortality amongst Koalas, and post-drought recovery may be substantially impaired by other threatening factors.
- Loss of habitat, attrition of populations due to mortality of animals on roads and rail lines and increasing development along resource corridors have been identified as key threats to Koala populations in central Queensland.

2.2. Occurrence – Project Area and Surrounding Area

Koalas have previously been recorded within the southern part and north-west corner of the of the project area during surveys in 2017 and 2018 (CDM Smith 2018). On these surveys, evidence was recorded from Poplar Box (*Eucalyptus populnea*) woodland (RE11.4.2), and Poplar Gum (*Eucalyptus platyphylla*) woodland (RE11.5.8a). CDM Smith (2018) considered Forest Red Gum communities along creeks were likely the most favoured habitat for Koala, with a low population density throughout the area (**Figure 2-1**).

The 2019 surveys provided widespread evidence of Koala presence, including observations of eight individual Koalas, as well as an adult female with joey (Austecology 2019). Whilst these surveys provided a primary focus on Deep Creek and associated habitats, records of Koalas and evidence of their occurrence were drawn from a variety of vegetation communities, including woodlands dominated by Gum-topped box (*Eucalyptus moluccana*), Clarkson's Bloodwood (*Corymbia clarksoniana*), Carbeen (*C. tessellaris*) and Narrow-leaved Ironbark (**Figure 2-1**).

Searches of the Queensland Government Wildlife Online show that there is one record within 1 to 2 Km and a further three records within 4 to 5 Km of the centre of the project area. It is presumed that these are the records as described by CDM Smith (2018). There are a further 11 records between 20 to 30 Km of the centre of the investigation area (see **Attachment B**).

There were no records for Bukkulla Conservation Park, Tooloombah Creek Conservation Park, Marlborough State Forest, Eugene State Forest, or Mount Buffalo State Forest (see **Attachment B**). Searches of the Atlas of Living Australia database did not provide any records additional to the above. Whether the paucity of Koala records in these areas reflects limited survey effort/coverage or a patchy/sparse distribution in the region is unclear.

Melzer *et al.* (2018) describe a series of Koala records extending north approximately 25 to 45 Km north of the study site[13], as well as scattered Koala records to the near west of Mount Buffalo State Forest, approximately 35 Km north-west of the project area.

[13] Melzer & Tucker (2011) systematically surveyed forest and woodlands near the Bruce Highway from the St Lawrence Connection Road south to Granite Creek. In this area, koalas were associated with alluvial and gently undulating plains where associated low hills and rises support woodlands with *Eucalyptus crebra*, *E. platyphylla*, and *E. exserta*, as well as *E. tereticornis*.

Mining Lease

10km Buffer from ML Centroid

Disturbance Area

Roads

Railway

Watercourse

Koala Record - Surveys 2011 to 2019.

Remnant Vegetation – Regional Ecosystems

ML 80187

ML 700022

COOPERS ROAD

OGMORE ROAD

STYX ROAD

CHARONS FERRY ROAD

KOOLTANDRA ROAD

North Coast Line

BRUCE HIGHWAY

MOUNT BISON ROAD

ANGLEWOOD ROAD

HARDWICKS ROAD

TOOLOOMBAH ROAD

NEERIM ROAD

SAINT LAWRENCE ROAD

FERRIS ROAD

KOOLTANDRA ROAD

STOODLEIGH ROAD

TRACK

Styx Coal Project

Figure 2-1

Koala Records for the Project Area and Surrounds

austecology

SOURCE:
DCDB: DNRME 2019
Mining Leases: DNRME 2019
Vegetation: 3D Environmental 2019 (site) and © State of Queensland (Department of Natural

N W E S

0 1 2 3 4
Kilometers

A3 Scale: 1:80,000

File:STYX-Fig2-1-KoalaRecords80K-200709 Date: 9/07/2020

GEOVIEW MAPPING & GIS
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2.3. Habitat Assessment and Definition

Koala habitat has been broadly defined as any forest or woodland containing species that are known koala food trees, or shrubland with emergent food trees (DE 2020a). This can include remnant and non-remnant vegetation in natural, agricultural, urban and peri-urban environments (DE 2014). Koala habitat is defined by the vegetation community present and the vegetation structure, and Koalas do not necessarily have to be present (DE 2014).

A total of 11 ground-truthed Regional Ecosystems (REs) have been mapped across the project area, including eight REs which are assessed as suitable habitat for Koalas[14] (**Table 2-1**). These REs include regionally known Koala food tree species, e.g. *Eucalyptus tereticornis*, *E. camaldulensis*, *E. platyphylla, E. crebra*, *E. exserta*, *Corymbia clarksoniana*, and *C. intermedia* (Ellis *et al.* 2018; L. Agnew pers obs.). Melzer & Tucker (2011) ranked three of those REs (11.3.25, 11.5.8a, and 11.11.15a) within the moderate to high rankings for predicted likelihood of Koala occurrence for their St Lawrence study area, to the north of the project area.

For the purposes of this report, it should be noted that favoured, breeding and / or foraging habitat for Koalas are typically the same, and may only be potentially discernible as a result of long-term site-specific studies. As a result, favoured, breeding and / or foraging habitat for Koalas have not been separately assessed herein.

Given the highly mobile nature of this species[15], and that they are not averse to dispersing over cleared land between suitable habitat[16], only treed remnant vegetation patches which do not support foraging habitat have been mapped as potential dispersal habitat (while noting that areas of suitable foraging / breeding habitat may also be used for dispersal).

Figure 2-2 describes the extent of known or potentially suitable Koala habitat within the project area. The majority of the mapped Koala habitat is 'remnant vegetation" (mapped REs), though also includes small areas of treed habitat (non-remnant / not a mapped RE) where known food tree species occur and evidence of Koala occurrence was recorded (mainly faecal pellets).

Figure 2-3 provides mapping of known or potentially suitable Koala habitat within 10km of the project area to assist in contextualising Koala habitat values within the project area[17].

The *EPBC Act Referral Guidelines for the vulnerable Koala* (DE 2014) provides the following to clarify the habitat description framework for the assessment of the Koala.

- **Koala habitat**: any forest or woodland containing species that are known koala food trees, or shrubland with emergent food trees. This can include remnant and non- remnant vegetation in natural, agricultural, urban and peri-urban environments. Koala habitat is defined by the vegetation community present and the vegetation structure; koalas do not necessarily have to be present.
- **Habitat critical to the survival of the koala**: Koala habitat that is considered to be important for the species' long-term survival and recovery. An impact area that scores five or more using the habitat assessment tool for the koala in Table 4 of these guidelines is highly likely to contain habitat critical to the survival of the koala.

[14] These REs, also form the basis of the assessment of assessable Koala habitat within the near surrounds of the project area and surrounding area.
[15] e.g. in 4 months, 'Possum' (Koala 13210) moved over 10 Km in the Clarke-Connors Range study (Ellis *et al.* 2018).
[16] e.g. within 3 weeks, 'Kevin' a young male Koala had moved over 4 Km across open grazing land and largely cleared rural residential properties (L. Agnew, unpub. radio tracking data; Yarrabilba Koala Monitoring Program.
[17] Both habitat categories have been determined using that same decision rules as applicable to the assessment of habitat on the project area.

- **Food tree**: Species of tree whose leaves are consumed by koalas. Koala food trees can generally be considered to be those of the following genus: *Angophora*, *Corymbia*, *Eucalyptus*, *Lophostemon* and *Melaleuca*. Note that food tree species may vary spatially and temporally and information specific to the local area is likely to be most accurate.

The referral guidelines (DE 2014) also provides a habitat assessment tool for determining 'habitat critical to the survival of the Koala'. The habitat assessment tool categorises five primary koala habitat attributes, being: koala occurrence; vegetation composition; habitat connectivity; existing threats; and recovery value. The first two attributes account for the importance of the habitat where a koala occurs. The remaining three attributes account for the value of the habitat from both a regional and recovery planning perspective.

Table 2-2 provides an appraisal of the habitat within the project area and near surrounds. The result of that appraisal confirms that 'Habitat critical to the survival of the koala' occurs within the project area and near surrounds.

Table 2-1 Regional Ecosystems (Koala Habitat) within the Project Area

Regional Ecosystem	Short Description (Queensland Herbarium 2019)
11.3.4	*Eucalyptus tereticornis* and / or *Eucalyptus spp.* woodland on alluvial plains.
11.3.25	*Eucalyptus tereticornis* or *E. camaldulensis* woodland fringing drainage lines.
11.3.27	Freshwater wetlands - Palustrine or Lacustrine wetland (e.g. vegetated swamp or lake).
11.3.35	*Eucalyptus platyphylla*, *Corymbia clarksoniana* woodland on alluvial plains.
11.4.2	*Eucalyptus spp.* and/or *Corymbia spp.* grassy or shrubby woodland on Cainozoic clay plains.
11.5.8	*Eucalyptus platyphylla*, *Corymbia intermedia*, *Lophostemon suaveolens* +/- *Eucalyptus tereticornis* woodland. Occurs on rises and low hills.
11.11.1	*Eucalyptus crebra* +/- *Acacia rhodoxylon* woodland on old sedimentary rocks with varying degrees of metamorphism and folding.
11.11.15	*Eucalyptus crebra* woodland on deformed and metamorphosed sediments and interbedded volcanics.

Table 2-2 Koala Habitat Appraisal - EPBC Act Habitat Assessment Tool

Attribute	Score	Habitat Appraisal
Koala occurrence	+2 (high)	Evidence of one or more koalas within the last 2 years. Surveys have provided evidence of koala occurrence with the project area since 2017.
Vegetation composition	+2 (high)	Has forest or woodland with 2 or more known koala food tree species, OR 1 food tree species that alone accounts for >50% of the vegetation in the relevant strata. There is a variety of known food tree species occurring within the project area. In addition, there are vegetation communities where a food tree species accounts for >50% of the vegetation (e.g. *E. crebra*).
Habitat connectivity	+2 (high)	Area is part of a contiguous landscape ≥ 500 ha. Western parts of the project area comprise part of a larger area of open forest and woodland of > 500 ha.
Key existing threats	+2 (high)	There is little or no evidence of Koala mortality from vehicle strike or dog attack in the area. This attribute is rated 2 based on the lack of evidence of Koala mortality.
Recovery value	+1 (medium)	Uncertain whether the habitat is important for achieving the interim recovery objectives for the relevant context, as outlined in Table 1 (DE 2014). Open forest and woodland within the western part of the project area contributes to a larger area of open forest and woodland (> 500 ha) which is likely to be important for koalas within the local area.

Styx Coal Project

Figure 2-2

Koala Habitat within the Project Area

austecology

ML 80187

ML 700022

Tooloombah Creek

Stoodleigh Creek

Deep Creek

Barrack Creek

KOOLTANDRA ROAD

BRUCE HIGHWAY

- Project Area - Mining Lease Application Area
- Disturbance Area
- Known Habitat within Project Area - Remnant
- Potential Dispersal Habitat - Remnant
- Known or Potential Habitat - Non-Remnant

SOURCE:
DCDB: Orange Environmental 2020
Mining Leases: Orange Environmental 2020
Habitat: Austecology 2020

N
W E
S

0 500 1,000 1,500
Meters

A3 Scale: 1:30,000

File:STYX-Fig2-2-Habitat-Koala-ProjectArea-200709 Date: 9/07/2020

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Email: info@geoview.com.au
Mobile: 0409 481647
Address: 3/18 Jacaranda Dr Byron Bay NSW Australia 2481
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Project Area - Mining Lease Application Area

10km Buffer from ML Centroid

Disturbance

Roads

Railway

Watercourse

Known Habitat within Project Area - Remnant

Potential Habitat - Remnant

Potential Dispersal Habitat - Remnant

Known or Potential Habitat - Non-Remnant

ML 80187

ML 700022

COOPERS ROAD

STYX ROAD

CHARONS FERRY ROAD

OGMORE ROAD

KOOLTANDRA ROAD

North Coast Line

STOODLEIGH ROAD

TRACK

BRUCE HIGHWAY

MOUNT BISON ROAD

ANGLEWOOD ROAD

HARDWICKS ROAD

TOOLOOMBAH ROAD

NEERIM ROAD

FERRIS ROAD

SAINT LAWRENCE ROAD

KOOLTANDRA ROAD

Styx Coal Project

Figure 2-3

Koala Habitat within 10km of the Project Area

austecology

SOURCE:
DCDB: Orange Environmental 2020
Mining Leases: Orange Environmental 2020
Habitat: Austecology 2020

N
W E
S

0 1 2 3 4
Kilometers

A3 Scale: 1:80,000

File:STYX-Fig2-3-Habitat-Koala-within10km-200709 Date: 9/07/2020

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Web: www.geoview.com.au
Email: info@geoview.com.au
Mobile: 0409 481147
Address: 3/18 Jacaranda Dr Byron Bay NSW Australia 2481
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2.4. Assessment of Potential Impacts

2.4.1. Habitat Loss and Fragmentation

The *EPBC Act Referral Guidelines for the vulnerable Koala* (DE 2014) provide a habitat assessment tool for determining 'habitat critical to the survival of the Koala' and the likelihood of a significant impact on this species. **Table 2-2** provides an appraisal of the habitat within the project area and surrounds. The result of that appraisal confirms that 'habitat critical to the survival of the koala' occurs within the project area and surrounds.

The habitat assessment tool categorises five primary koala habitat attributes: koala occurrence, vegetation composition, habitat connectivity, existing threats and recovery value. The attributes habitat connectivity, existing threats and recovery value, account for the value of the habitat from both a regional and recovery planning perspective.

DE (2014) describe the following as 'interim recovery objectives' for Koalas within the 'Coastal' habitat context[18]:

- Protect and conserve large[19], connected areas of koala habitat; and
- Maintain corridors and connective habitat that allow movement of koalas between large areas of habitat.

Relevant to the Koala, habitat areas within the near surrounds and extending into the surrounding area appear well connected and supports approximately 8,326 Ha of remnant vegetation suitable as Koala habitat[20]. There are large contiguous patches of habitat extending to the north-west, west, and south of the project area (**Figure 2-3**).

A smaller habitat area is located along the north-west flank of the mining lease. The project's disturbance footprint extends across the eastern edge of this habitat area. Proposed habitat clearing involves a relatively small area of habitat, and would not result in fragmentation of the larger habitat patch, as habitat removal is along the edge of that larger contiguous habitat patch (**Figures 2-2** and **2-3**).

To the north of the Bruce Highway, areas of comparatively higher habitat value to Koalas are associated with Deep Creek (mostly Land Zone 3). The majority of this habitat will be retained, save for a linear strip of riparian habitat being cleared for the proposed access road. It is highly likely that Koalas disperse under the Bruce Highway bridge to access Deep Creek riparian habitat on either side, and with suitable design strategies, it is expected that the movement opportunities can be facilitated at the location of the access road crossing across Deep Creek.

Within that part of the project area to the north of the Bruce Highway, small areas of habitat (Land zone 4) are proposed to be cleared (**Figure 2-2**). The proposed clearing compromises patches of mapped RE 11.4.2 (20 to 60 Ha) and three small (≤ 5 Ha) isolated areas of treed regrowth. These patches are not well connected from an ecological perspective. Other areas of RE 11.4.2 (6 to 40 Ha) and larger areas of treed regrowth (4 to 23 Ha) within the eastern part of the project area are outside the project's disturbance

[18] For the purposes of determining significant impacts under the EPBC Act, the referral guidelines (DE 2014), the listed koala's distribution has been split into two contexts: the inland and the coastal. Habitat critical to the survival of the koala is defined differently in these contexts because of their different climatic and ecological attributes.

[19] Large areas are more likely to support high numbers of koalas and koalas that are less exposed to anthropogenic threats. Large areas may contain a greater diversity of foraging resources and refugia, more readily able to facilitate dispersal and promote genetic exchange.

[20] That remnant vegetation cover includes all of the RE types regarded as known or potential Koala habitat within the project area.

footprint. These areas will be retained and support comparatively higher ecological connectivity values in contributing to the network of habitats associated with Deep Creek (**Figure 2-3**).

Table 2-3 summarises the characteristics and quantum of assessable Koala habitat proposed to be cleared. This table shows that approximately 141.3 Ha of remnant habitat and 18.1 Ha of non-remnant habitat is proposed to be cleared. The proposed clearing represents approximately 32.7% of assessable Koala habitat within the project area.

The proposed clearing of assessable remnant Koala habitat within the project area represents approximately 1.4% of assessable remnant Koala habitat within 10 Km of the project area (**Figure 2-3**)[21].

Table 2-3 Retention and Removal of Koala Habitat within the Project Area

Habitat Category	Inside Disturbance Area Remnant (Ha)	Inside Disturbance Area Non-Remnant (Ha)	Outside Disturbance Area Remnant (Ha)	Outside Disturbance Area Non-Remnant (Ha)
Known Habitat	138.9		261.4	
Known or Potential Habitat		18.1		54.8
Potential Dispersal Habitat	2.4		11.2	

2.4.2. Other Potential Threats

The Conservation Advice for the Koala (SEWPaC 2012) notes that the status of, and threats to, individual Koala populations vary over their range. Apart from loss and fragmentation of habitat, other widely accepted threats to the Koala include vehicle strike, disease, predation by dogs, and fire (DE 2020a). Drought and incidences of extreme heat are also known to cause very significant mortality, and post-drought recovery may be substantially impaired by the range of other threatening factors (SEWPaC 2012).

Melzer & Tucker (2011) report that 'There is a long history of koala mortality due to collision with motor vehicles on the St Lawrence stretch of the Bruce Highway. Koala warning signs have been in place for many years. However, in recent years (2008 – 2009) there has been a reported increase in the number of animals being killed and local public concern is increasing'. The area referred to is to the near north of the project area, and the Bruce Highway bisects the project area.

Melzer & Tucker (2011) hypothesise that the higher level of Koala mortality is linked to a high volume of heavy commercial vehicles travelling at highway speeds, where such vehicle under such conditions cannot safely avoid a small slow-moving Koala. Further, Koalas do not exhibit any high-speed avoidance responses to oncoming vehicles, and as a result, fatal impacts with vehicles are inevitable.

DE (2020a) identify impact mitigation recommendations for major roads, though opportunities to implement these in regard to the Bruce Highway are the responsibility of State Government agencies, and not the proponent of the proposed action. The action will not create a 'high speed' environment and there is a

[21] Assessable remnant Koala habitat has been determined using that same decision rules as applicable to the assessment of habitat for the project area.

suite of best practice measures which can be implemented to minimise the potential for vehicle strike, e.g. access and internal road speed limits, locating specific treatments such as 'slow zones', and user awareness strategies to alert drivers of the potential to encounter Koalas.

Furthermore, to minimise koala habitat fragmentation and to facilitate Koala movements and reduce vehicle related Koala injury / mortality, dedicated road crossing treatments will be implemented where the proposed access road transects the Deep Creek riparian habitats. Consistent with best-practice approaches (DE 2020a), a suite of treatments will include grade-separated crossings with dedicated fauna movement underpasses (including underpass 'furniture') and specific roadside treatments (e.g. Koala directional and exclusion fencing, refuge poles, and vegetation management).

Domestic dogs have a significant and preventable impact on Koala populations. Attacks from domestic dogs represent the third most significant known cause of mortality (after habitat clearing and vehicle strikes) within parts of Queensland (e.g. the Koala Coast; QEPA 2006a). Domestic dogs will be prohibited within the project area during both construction and operational phases.

In south-east Queensland, Beyer *et al.* (2018) in their study of factors in the morality of over 500 Koalas over a four-year period found that predation accounted for 63% of mortality, with wild dogs (dingoes or dingo-hybrids) accounting for 82% and domestic dogs accounting for 4% of confirmed predation mortalities. This work also identifies wild dogs as a major threat to Koalas. Wild dog control will be incorporated within the suite of feral animal management strategies to be implemented within the project area during both construction and operational phases.

The National Koala Conservation Strategy (ANZECC 1998) identifies wildfires as one of the major threatening processes of wild Koala populations. Fire is a direct threat to koalas and can deplete some plant species and favour others that are highly flammable and contribute to the fuel load. Very hot fires that extend into the canopy (crown fires) can kill koalas. The action has the potential to result in fire within adjacent Koala habitat, though unlikely to significantly increase the risk of high-intensity fire in that habitat.

Effective fire management strategies can help reduce the chance of high-intensity fires and impacts to Koalas (Melzer *et al.* 2000). The risk of high-intensity fires within adjacent Koala habitat should be addressed through the adoption of a fire management plan which is implemented for the life of the action. The Project's fire management strategy should provide consistency with best practice and regional approaches (e.g. QPWS 2012).

2.5. Avoidance, Mitigation and/or Management Measures

The following measures and strategies are proposed in order to directly reduce the scale and intensity of the potential impacts of the proposed action on the Koala.

In regard to impact mitigation options to reduce risks to Koalas during habitat clearing operations:

- The extent of vegetation clearing should be clearly identified on construction plans and in the field.
- Vegetation clearing will need to be undertaken in a sequential manner that ensures Koalas within the area being cleared have enough time to move out of the clearing site without human intervention. This procedure, and others associated with habitat clearing (e.g. pre-clearance surveys) are to be consistent with *Nature Conservation (Koala) Conservation Plan 2017*[22].
- No clearing of mapped Koala habitat is to commence without the presence of a suitably qualified Koala spotter.

[22] Part 3 Clearing in particular areas. Nature Conservation (Koala) Conservation Plan 2017. Current as at 7 February 2020.

In regard to impact mitigation options to reduce the risk of vehicle strike:

- For areas outside the disturbance footprint, establish an enforceable maximum vehicle speed limit of 60 km per hour.
- For the crossing of Deep Creek, set an enforceable maximum vehicle speed limit of 50 km per hour between 1900hrs and 0500hrs.
- For the section of Mount Bison Road and haul road connecting to the Bruce Highway, set an enforceable maximum vehicle speed limit of 50 km per hour between 1900hrs and 0500hrs.
- Increase awareness with road signage to alert drivers to the fact that Koalas may cross the roadway in the area (even though other measures will be implemented to prevent this from occurring). Strategic locations for signage include:
  - on approaches to the crossing of Deep Creek;
  - on approaches along Mount Bison Road to remnant vegetation on the western side of the project area; and
  - along the haul road which continues north from Mount Bison Road to the Bruce Highway (western side of project area).
- Design a suite of dedicated road crossing treatments to be implemented where the proposed access road transects the Deep Creek riparian habitats. Treatments to include grade-separated crossings with dedicated fauna movement underpasses (including underpass 'furniture') and specific roadside treatments (e.g. Koala directional and exclusion fencing, refuge poles, and kerb-side vegetation management).

In regard to impact mitigation options to reduce the risk of dog attack:

- Domestic dogs are to be prohibited within the project area during both construction and operational phases.
- Wild dog control is to be incorporated within the suite of feral animal management strategies to be implemented within the project area during both construction and operational phases.

In regard to impact mitigation options to reduce impacts to retained habitats:

- The risk of high-intensity fires within retained Koala habitat is to be addressed through the adoption of a fire management plan which is implemented for the life of the action, and best practice and regional approaches (e.g. QPWS 2012).
- Control of invasive weeds should be implemented through an integrated approach that uses a variety of control methods to maximise potential of control of lantana infestations, e.g. herbicides, mechanical removal, fire, biological control and revegetation.
- Specific hygiene procedures designed to prevent the introduction / spread of *P. cinnamomi* are to be prepared for land management works within remnant vegetation areas retained outside the project disturbance area (e.g. vehicle washdown stations, and footwear cleaning stations) and consistent with best practice guidelines (e.g. DE 2015a).
- Where fencing is required within or adjacent to retained habitats, it is to be designed such that Koalas can move through it, excluding those instances where fenced areas seek to protect fauna from threats (e.g. Koala exclusion fencing).

2.6. Significant Impact Assessment

The *Significant Impact Guidelines 1.1 - Matters of National Environmental Significance* (DEWHA 2013) state that a 'significant impact' is an impact which is important, notable, or of consequence, having regard to its context or intensity.

The significant impact guidelines (DEWHA 2013) state that actions are likely to have a significant impact on a vulnerable species if they adversely affect habitat critical to the survival of the species. The referral guidelines (DE 2014) state that habitat destruction is recognised as the primary adverse effect on habitat critical to the survival of the koala. Whether or not there are other impacts, the loss of habitat critical to the survival of the koala can be sufficient to trigger a significant impact.

Figure 2 of the referral guidelines (DE 2014) is intended to be used in investigating whether the habitat loss associated with the action is likely to adversely affect critical habitat. In following the processes set out in the referral guidelines[23], the outcome is that the proposed clearing of habitat would be described as an 'adverse effect on habitat critical to the survival of the koala'.

In addition to considering adverse effects on habitat critical to the survival of the koala, the referral guidelines (DE 2014) require consideration of the potential for the action to interfere substantially with the recovery of the koala. Impacts which are likely to substantially interfere with the recovery of the koala may include one or more of the following:

- Increasing koala fatalities in habitat critical to the survival of the koala due to dog attacks to a level that is likely to result in multiple, ongoing mortalities.
- Increasing koala fatalities in habitat critical to the survival of the koala due to vehicle-strikes to a level that is likely to result in multiple, ongoing mortalities.
- Facilitating the introduction or spread of disease or pathogens for example Chlamydia or *Phytophthora cinnamomi*, to habitat critical to the survival of the koala, that are likely to significantly reduce the reproductive output of koalas or reduce the carrying capacity of the habitat.
- Creating a barrier to movement to, between or within habitat critical to the survival of the koala that is likely to result in a long-term reduction in genetic fitness or access to habitat critical to the survival of the koala.

Where such impacts are likely to occur, avoidance and mitigation measures should be put in place to minimise the residual impact of the action.

The significant impact guidelines (DEWHA 2013) describe nine significant impact criteria against which an action should be assessed to determine whether an action is likely to have a significant impact on a vulnerable species. Several of the significant impact criteria refer to 'an important population' of a species.

The significant impact guidelines (DEWHA 2013) state that an 'important population' is a population that is necessary for a species' long-term survival and recovery. This may include populations identified as such in recovery plans, and/or that are:

- key source populations either for breeding or dispersal
- populations that are necessary for maintaining genetic diversity, and/or
- populations that are near the limit of the species range.

There is no Commonwealth or State recovery plan for the Koala (DE 2020a; DES 2020). DE (2014) describe the following as 'interim recovery objectives' for Koalas within the 'Coastal' habitat context:

- Protect and conserve large, connected areas of koala habitat, particularly large, connected areas that support koalas that are: of sufficient size to be genetically robust / operate as a viable sub-population; or free of disease or have a very low incidence of disease; or breeding; and
- Maintain corridors and connective habitat that allow movement of koalas between large areas of habitat.

DE (2020a) does not identify / describe any 'important populations' within the bioregion or broader area surrounding the project area. There are no published estimates of Koala population size or density for the bioregion or broader area surrounding the project area (DE 2020a). Excluding the Mulga Lands, Koala Coast and Pine Rivers areas, population densities of 0.005–0.2 Koalas/ha may be relevant across the remainder of Koala's distribution in Queensland (DE 2020a).

Table 2-4 provides an assessment of the action based on the above for each of the nine significant impact criteria described in DEWHA (2013).

[23] Table 4 (Koala habitat assessment tool) and Figure 2 (Assessing adverse effects on habitat critical to the survival of the koala).

It is concluded that the action would have 'adverse effect on habitat critical to the survival of the koala' and thus, result in a 'significant' impact to Koalas within the project area. With the application of the proposed impact mitigation measures and strategies to directly reduce the intensity of the potential impacts of the proposed action, it is concluded that the action is likely to result in a significant residual impact to Koalas within the project area. It is also concluded that the action is unlikely to result in a significant residual impact to Koalas within the surrounding area.

Table 2-4 Significant Impact Assessment - Koala

Significant Impact Assessment Criteria	Assessment
Will the action: *lead to a long-term decrease in the size of an important population of a species*	DE (2020a) does not identify / describe any 'important populations' within the bioregion or broader area surrounding the project area. There are no published estimates of Koala population size or density for the bioregion or broader area surrounding the project area (DE 2020a). Evidence indicates that Koalas appear to be widespread in the landscape of the surrounding area (L. Agnew. pers obs.) and habitat suitability assessments conclude that the surrounding area supports approximately 8,326 Ha of remnant vegetation suitable as Koala habitat. The action will not create a significant impediment to on-going movement opportunities between local Koala habitats – noting that the Bruce Highway bisects the project area and represents a potentially significant threat to Koalas of the local area. Given this, and that there is no important population present (DE 2020a), it is concluded that the action would not lead to the long-term decrease in the size of an important population of Koala.
Will the action: *reduce the area of occupancy of an important population*.	There is no 'important population' described for the region (DE 2020a). Evidence indicates that Koalas and suitable habitat appear to be widespread in the landscape of the surrounding area (L. Agnew. pers obs.). The scale of habitat loss and the nature / location of habitat proposed to be cleared is not considered to represent a significant reduction in the area of occupancy of Koalas within the wider landscape context (i.e. surrounding area). Given this, and that there is no important population present (DE 2020a), it is concluded that the action would not reduce the area of occupancy of an important population of Koala.
Will the action: *fragment an existing important population into two or more populations*.	There is no 'important population' described for the region (DE 2020a). The action will not create a significant disconnection or fragmentation of local Koala habitats – noting that the Bruce Highway bisects the project area, and generates on-going threats / impacts to Koalas within the landscape (surrounding area). The action will not significantly impact on the ecological functionality of the large contiguous patches of Koala habitat to the west and south of the project area. Ecological connectivity to those habitat areas along Deep Creek from the southern part of the project area will not be altered. Implementation of a suite of design and management strategies will need to be incorporated within the access road crossing of Deep Creek to facilitate safe and on-going Koala movements to and from habitats downstream of the project area, i.e. downstream habitats to the north-east and east of the project area (outside of the mining leases). Given this, and that there is no important population present (DE 2020a), it is concluded that the action would not fragment an existing an important population of Koala into two or more populations.
Will the action: *adversely affect habitat critical to the survival of a species*.	DE (2014) provides a habitat assessment tool for identifying critical habitat. DE (2014) state that assessment outcomes with a score ≥5 results in the determination that 'habitat critical to the survival of the Koala' occurs on a site. The assessment was completed over all areas of potential habitat on the project area and that 'habitat critical to the survival of the Koala' occurs on the project area, and as such, the action will result in removal of (adversely affect) such habitat. As such, it must be determined that the action will adversely affect habitat critical to the survival of a species, and therefore that the project constitutes a significant impact to Koala.

Significant Impact Assessment Criteria	Assessment
Will the action: *disrupt the breeding cycle of an important population.*	Given the action has been designed to minimise disturbance to habitats of comparatively higher value to Koalas where the majority of Koala records exist - large contiguous habitat patches with the southern part of the project area (though also habitat within the north-west), and Deep Creek riparian habitats to the south and east - it is unlikely that the action would disrupt the breeding cycle of an important population if it were to occur. DE (2020a) does not identify / describe any 'important populations' within the bioregion or broader area surrounding the project area. As such, there is no potential to disrupt the breeding cycle of an important population of Koala.
Will the action: *modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline.*	The action will result in the modification, destruction and removal of habitat for this species. However, the quantum of habitat loss, and the nature / location of habitat proposed to be cleared, in the context of habitat to be retained, and within a wider landscape context, is not considered to be an adverse impact to the species. As such, it is not believed that the action would modify, destroy or remove habitat to the extent that the species is likely to decline. The action will not significantly impact on the ecological functionality of the large contiguous patches of Koala habitat to the south and west of the project area. Ecological connectivity to those habitat areas along Deep Creek from the southern part of the project area will not be impacted - though noting that the Bruce Highway bisects the project area, and its operation generates on-going threats / impacts to Koalas within the landscape. Implementation of a suite of design and management strategies will need be incorporated within the access road crossing of Deep Creek to facilitate safe and on-going Koala movements to and from habitats downstream of the project area, i.e. downstream habitats to the north-east and east of the project area (outside of the mining leases). Given this, it is concluded that the action would not isolate habitat or decrease the quality of habitat to the extent that the species is likely to decline.
Will the action: *result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat.*	There is potential for introduction and spread of invasive flora and feral animals as a result of the action. It is highly unlikely that the action will contribute a significant further change to existing threats given the current land use history for the project area and surrounding area (long history of pastoralism) and the implementation of supporting plans for land use management and control of invasive species. Both wild dogs and domestic dogs have been identified as posing direct threats to the Koala. During both the construction and operational phases of the project, control measures will need be implemented so as to ensure the action does not contribute to this threat. Domestic dogs should be prohibited within the project area and wild dog control will be implemented during both construction and operational phases. The potential introduction and spread of invasive weeds will need to be addressed through a comprehensive suite of best-practice prevention and control strategies. Therefore, with the appropriate management measures in place, it is considered unlikely that the action will result in new or increased levels of invasive species that are harmful to Koala becoming established in their habitat. In fact, with appropriate management measures in place the action has the potential to reduce weed and feral animal species harmful to Koala within the project area.

Significant Impact Assessment Criteria	Assessment
Will the action: *introduce disease that may cause the species to decline.*	Koala populations are threatened by at least two diseases: chlamydia and Koala retrovirus (KoRV). KoRV is estimated to infect up to 100% of Koalas in Queensland (DE 2020a). It is possible that both these diseases already occur in the populations found on and around the project area (latent or otherwise). The action does not include activities that would result in the spread of such diseases as to cause the species to decline. Tree dieback caused by the root-rot fungus *Phytophthora cinnamomi* is a threat to Koala habitat within parts of the species' distribution, though the status of *P. cinnamomi* within the region is unknown. Environmental conditions which prevail within the region do not appear to provide the optimum climate for disease expression. Nonetheless, specific hygiene procedures will be prepared / implemented to prevent the introduction / spread of *P. cinnamomi* will be prepared for land management works within remnant vegetation areas retained outside the project disturbance area. As such, the action is unlikely to introduce disease that may cause the species to decline.
Will the action: *interfere substantially with the recovery of the species.*	The interim recovery objectives described by DE (2014) are to protect and conserve large, connected areas of koala habitat and maintain corridors and connective habitat that allow movement of Koalas between such habitat. The action would not significantly impact on the achievement of these recovery objectives. The action will not significantly impact on the ecological functionality of the large contiguous habitat patches to the south and west of the project area. Habitat connectivity to the southern habitat patch along Deep Creek from the southern part of the project area will not be impacted - though noting that the Bruce Highway bisects the project area, and associated on-going threats / impacts to Koalas within the landscape. Implementation of a suite of design and management strategies will need to be incorporated within the access road crossing of Deep Creek to facilitate safe and on-going Koala movements to and from habitats downstream of the project area, i.e. downstream habitats to the north-east and east of the project area (outside of the mining leases). Given the above, the action is considered unlikely to interfere substantially with the recovery of the species.

3. Greater Glider *Petauroides volans*

3.1. Background and Description

The Greater Glider *Petauroides volans* was listed as Vulnerable under the EPBCA in May 2016. The listing status of the Greater Glider in Queensland is Vulnerable under the NCA. The Greater Glider is listed as Vulnerable on the IUCN Red List for Threatened Species.

There is no Commonwealth or State recovery plan for the Greater Glider (DE 2020b; DES 2020). No Threat Abatement Plan has been identified as being relevant for this species (DE 2020b).

The following summarises key aspects of the Greater Glider's biology and ecology as cited in Kehl & Boorsboom 1984, Eyre 2006, Smith *et al.* 2007, Woinarski *et al.* 2014, TSSC 2016, Burbidge & Woinarski 2016, and research referred to therein:

- Although broad in its distributional range, the Greater Glider is an ecological specialist.
- The Greater Glider is restricted to eastern Australia, occurring from the Windsor Tableland in north Queensland through to central Victoria, with an elevational range from sea level to 1200 m above sea level. An isolated inland subpopulation occurs in the west of Townsville (Gregory Range), and another in the Einasleigh Uplands. Greater Gliders are typically found in highest abundance in taller, montane, moist eucalypt forests with relatively old trees and abundant hollows.
- Forest stand and landscape scale habitat selection was investigated at 506 survey sites sampling a variety of forest types in southern Queensland. That work found that while Greater Gliders were detected in a wide range of forest types, they were most abundant in the more productive, tall eucalypt forests. The generated model predicted that *Corymbia citriodora* and *Eucalyptus tereticornis* were important in greater glider habitat selection, as were live hollow-bearing trees.
- The Greater Glider is arboreal and nocturnal, largely restricted to eucalypt forests and woodlands.
- The Greater Glider is primarily folivorous, with a diet mostly comprising eucalypt leaves, selecting young leaves with higher concentrations of nitrogen and lower ligno-cellulose content than mature leaves. They favour forests with a diversity of eucalypt species, due to seasonal variation in its preferred tree species. Distribution may be patchy even in suitable habitat.
- Greater Gliders shelter in tree hollows by day; favours large hollows in large, old trees. Abundance of Greater Gliders has been strongly linked to relative abundance of tree hollows.
- The species requires a variety of den trees which are used at different times within habitat occupied. Research within the drier inland of southern Queensland found that large (dbh >50 cm) and old living trees (in deteriorating and senescent condition: 'late mature' and 'over-mature' categories) were primarily used as den trees, with individual gliders utilising 4–20 den trees. Females utilised more den trees per unit area of home range (3.8 den trees / Ha, maximum) than males (0.9 den trees / Ha, maximum). Greater Gliders used older living "over mature' trees more than expected by their availability (scarce in study forest), presumably because of the hollows they contained.
- The Greater Glider has one of the highest known demands for hollows of any of the arboreal marsupial species that inhabit the sclerophyll forests of eastern Australia, utilising up to 20 hollows per 2 Ha of home range.
- Home ranges are typically relatively small (1 to 4 Ha) but are larger in lower productivity forests and more open woodlands (up to 16 Ha). In a study forest of the drier inland of southern Queensland, mean home range areas varied from 3.3 to 11.5 Ha for males and females respectively (population density of 1.6 to 2.3 individuals Ha^{-1}). This contrasts with the findings within coastal lowland forest in south-east Queensland with mean home range areas of 2.6 Ha (males) and 2.5 Ha (females), with a population density of 1.6 to 2.3 individuals Ha^{-1}.
- Sexual maturity is reached in the second year, and females give birth to single young, from about March to June.

- Greater Gliders are considered to be poor dispersers across open / cleared areas and vegetation that is not native forest.
- They are sensitive to forest clearance, habitat fragmentation and wildfire, and have relatively low persistence in small forest fragments.
- Low reproductive rate (with generation length likely to be 7-8 years) may render small isolated populations in small remnants prone to extinction.
- Modelling suggests that they need native forest patches of at least 160 Km^2 to maintain viable populations.
- Key threats to the Greater Glider include habitat loss and fragmentation, intense or frequent fires (and destruction of senescent trees due to prescribed burning), entanglement in barbed wire fencing, competition for hollows with species which are increasing in abundance (e.g. sulphur-crested cockatoos). The cumulative effects of clearing and logging activities, current burning regimes and the impacts of climate change are a major threat to large hollow-bearing trees on which the species relies.

3.2. Occurrence – Project Area and Surrounding Area

Greater Gliders were recorded in 2011 and 2017 surveys within riparian habitat (RE11.3.25) along Deep Creek and nearby woodland within the southern and south-western parts of the project area (CDM Smith 2018). CDM Smith (2018) considered that REs 11.3.4, 11.3.25, and 11.11.15 constituted potentially suitable habitat, provided large mature trees with large tree hollows were present in suitable abundance.

The 2019 survey program provided records for 21 individual Greater Gliders (Austecology 2019). The majority of these records were from riparian vegetation fringing Deep Creek on the eastern side of the project area – downstream of the Bruce Highway (**Figure 3-1**). A high proportion of the records were of gliders observed within *Corymbia tessellaris* (Carbeen), a feed tree species which is common along Deep Creek. Other glider records were mostly of animals observed in large, hollow-bearing *Eucalyptus tereticornis* (Forest Red Gum) which were relatively common along Deep Creek. In addition to the animals recorded from riparian habitat, several Greater Gliders were also recorded in woodland extending west from the central section of Deep Creek (**Figure 3-1**)

The 2019 surveys also indicated that remnant woodland within the northern part of the project area (adjacent to Tooloombah Creek) and within the southern part of the project area (adjacent to Deep Creek) appear to support potentially suitable habitat for Greater Gliders (Austecology 2019; **Figures 3-2** and **3-3**).

Searches of the Queensland Government's Wildlife Online database show that there are seven records between 30 to 50 Km of the centre of the project area (DSITIA 2019; see **Attachment B**). There were no records for Bukkulla Conservation Park, Tooloombah Creek Conservation Park, Marlborough State Forest, Eugene State Forest, or Mount Buffalo State Forest (DSITIA 2019; **Attachment B**). Searches of the Atlas of Living Australia database did not provide any records additional to the above.

Whether the paucity of previous records from these areas is due to limited survey effort/coverage or reflects a patchy/sparse distribution in the region is not known.

Investigations undertaken by Austecology (2019) provided evidence that areas of riparian habitat outside of the project area (whilst not assessed in detail) support suitable habitat for Greater Glider, i.e. further downstream (Deep Creek), adjacent and to the near north (Tooloombah Creek), and upstream (Barrack Creek) of the project area.

Mining Lease
10km Buffer from ML Centroid
Disturbance
Roads
Railway
Watercourse
Greater Glider Record - Surveys 2011 to 2019
Remnant Vegetation – Regional Ecosystems

ML 80187
ML 700022

COOPERS ROAD
OGMORE ROAD
STYX ROAD
CHARONS FERRY ROAD
KOOLTANDRA ROAD
North Coast Line
BRUCE HIGHWAY
STOODLEIGH ROAD
TRACK
MOUNT BISON ROAD
ANGLEWOOD ROAD
HARDWICKS ROAD
TOOLOOMBAH ROAD
NEERIM ROAD
FERRIS ROAD
SAINT LAWRENCE ROAD

Styx Coal Project

Figure 3-1

Greater Glider Records for the Project Area and Surrounds

austecology

SOURCE:
DCDB: DNRME 2019
Mining Leases: DNRME 2019
Vegetation: 3D Environmental 2019 (site) and © State of Queensland (Department of Natural

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0 1 2 3 4
Kilometers

A3 Scale: 1:80,000

File:STYX-Fig3-1-GliderRecords80K-200709 Date: 9/07/2020

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3.3. Habitat Assessment and Definition

Greater Glider habitat has been broadly defined as open forest or woodland with a diversity of myrtaceous trees for foraging. In these habitats, living 'old growth' trees (including 'over mature' trees) and dead stags which support hollows are essential denning habitat resources for Greater Gliders. Favoured tree species vary depending on stand composition, but gliders appear to prefer myrtaceous species that have relatively higher concentrations of foliar nutrients.

A total of 11 ground-truthed Regional Ecosystems (REs) have been mapped across the project area, of which eight REs support suitable habitat for Greater Gliders[24] (**Table 3-1**). These REs include either tree species in which gliders were assumed to be browsing during site surveys, and / or tree species regarded by other studies as known feed tree species in Queensland, e.g. *Eucalyptus tereticornis*, *E. tessellaris, E. crebra*, *E. moluccana, Angophora floribunda, Corymbia citriodora*, and *C. intermedia* (Kehl & Boorsboom 1984, Smith *et al.* 2007, L. Agnew pers obs.).

For the purposes of this report, it should be noted that favoured, breeding and / or foraging habitat for Greater Gliders may only be potentially discernible as a result of long-term site-specific studies. As a result, favoured, breeding and / or foraging habitat for Greater Gliders have not been separately defined herein.

In addition, given that Greater Gliders are widely considered to be very poor dispersers across open / cleared areas and vegetation that is not native forest[25], only larger areas of mapped regional ecosystems which are contiguous with known or potential Greater Glider habitat are regarded as potentially suitable as dispersal habitat.

Figure 3-2 describes the extent of known or potentially suitable Greater Glider habitat within the project area. The majority of the mapped Greater Glider habitat is 'remnant vegetation" (mapped REs), though also includes small areas of treed habitat (non-remnant / not a mapped RE) where known food tree species occur and evidence of Greater Glider occurrence was recorded (faecal pellets).

Figure 3-3 provides mapping of known or potentially suitable Greater Glider habitat within 10km of the project area to assist in contextualising Greater Glider habitat values within the project area. That assessment concludes that there is approximately 9,191.2 Ha of potential habitat (foraging and / or breeding habitat), though also approximately 383 Ha of potentially suitable dispersal habitat[26].

[24] These REs, also form the basis of the assessment of potentially suitable habitat for Greater Gliders within the near surrounds of the project area and surrounding area.
[25] The species is absent from cleared areas, and has little dispersal ability to move between fragments through cleared areas (TSSC 2016).
[26] Habitat categories have been determined using that same decision rules as applicable to the assessment of habitat on the project area.

Table 3-1 Greater Glider Habitat Descriptions - Project Area

Regional Ecosystem	Short Description (Queensland Herbarium 2019)
11.3.4	*Eucalyptus tereticornis* and / or *Eucalyptus spp.* woodland on alluvial plains.
11.3.25	*Eucalyptus tereticornis* or *E. camaldulensis* woodland fringing drainage lines.
11.3.27	Freshwater wetlands - Palustrine or Lacustrine wetland (e.g. vegetated swamp or lake).
11.3.35	*Eucalyptus platyphylla*, *Corymbia clarksoniana* woodland on alluvial plains.
11.4.2	*Eucalyptus spp.* and/or *Corymbia spp.* grassy or shrubby woodland on Cainozoic clay plains.
11.5.8	*Eucalyptus platyphylla*, *Corymbia intermedia*, *Lophostemon suaveolens* +/- *Eucalyptus tereticornis* woodland. Occurs on rises and low hills.
11.11.1	*Eucalyptus crebra* +/- *Acacia rhodoxylon* woodland on old sedimentary rocks with varying degrees of metamorphism and folding.
11.11.15	*Eucalyptus crebra* woodland on deformed and metamorphosed sediments and interbedded volcanics.

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Figure 3-2

Greater Glider Habitat within the Project Area

austecology

ML 80187

ML 700022

KOOLTANDRA ROAD

BRUCE HIGHWAY

Tooloombah Creek

Deep Creek

Barrack Creek

Stoodleigh Creek

- Mining Lease
- Disturbance Area
- Known Habitat within Project Area - Remnant
- Potential Dispersal Habitat - Remnant
- Potential Habitat - Non-Remnant

SOURCE:
DCDB: Orange Environmental 2020
Mining Leases: Orange Environmental 2020
Habitat: Austecology 2020

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0 500 1,000 1,500
Meters

A3 Scale: 1:30,000

File:STYX-Fig3-2-Habitat-Glider-ProjectArea-200709 Date: 9/07/2020

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Mining Lease
10km Buffer from ML Centroid
Disturbance Area
Roads
Railway
Watercourse
Known Habitat within Project Area - Remnant
Potential Habitat - Remnant
Potential Dispersal Habitat - Remnant
Potential Habitat - Non-Remnant

ML 80187
ML 700022

COOPERS ROAD
OGMORE ROAD
STYX ROAD
CHARONS FERRY ROAD
KOOLTANDRA ROAD
North Coast Line
BRUCE HIGHWAY
MOUNT BISON ROAD
ANGLEWOOD ROAD
HARDWICKS ROAD
TOOLOOMBAH ROAD
NEERIM ROAD
STOODLEIGH ROAD
FERRIS ROAD
SAINT LAWRENCE ROAD
TRACK

Styx Coal Project

Figure 3-3

Greater Glider Habitat within 10km of the Project Area

austecology

SOURCE:
DCDB: Orange Environmental 2020
Mining Leases: Orange Environmental 2020
Habitat: Austecology 2020

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W E
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0 1 2 3 4
Kilometers

A3 Scale: 1:80,000

File:STYX-Fig3-3-Habitat-Glider-within10km-200709 Date: 9/07/2020

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Email: info@geoview.com.au
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3.4. Assessment of Potential Impacts

3.4.1. Habitat Loss and Fragmentation

Patches of potentially suitable habitat for the Greater Glider appears widespread within the area surrounding the project area (**Figure 3-3**). There is a large contiguous patch of habitat adjacent to the west and south of the project area. The largest areas of Greater Glider habitat which are within the project's mining leases are located within the western and eastern parts. The eastern habitat patches are largely outside the project's disturbance footprint, with the primary loss of habitat occurring within the north and north-west of the project's disturbance footprint (**Figure 3-3**).

The Bruce Highway bisects the mining leases (**Figure 3-2**). Within the northern part of the mining leases, the Bruce Highway creates a minimum cleared gap of 45 to 50 m between treed habitat which adjoins either side of the highway easement (road easement is approximately 60 to 65 m wide). Along much of the remaining section of the Bruce Highway which interfaces with the mining leases, adjacent woodland is absent and typically where trees may occur on one side of the highway, they are absent on the corresponding opposite side of the highway. Thus, the Bruce Highway and cleared easement represents a significant challenge for safe and on-going Greater Glider movement between habitats to its east and west.

The gap width created by the Bruce Highway corridor would be too wide for a Greater Glider to successfully volplane across. Using data from the research literature in regard to glide angles for Greater Glider[27], the launch height required to traverse across the gap in a single crossing would be at least 35 m (range 35.6 to 44 m). This is well in excess of the typical canopy height of the vegetation within this area (J. Cousin unpub. data[28] for the site; Queensland Herbarium 2019). As there is no median strip along this section of the Bruce Highway, there is no opportunity to install wooden poles, such as those used to reconnect habitat for other glider species where a gap in habitat exceeds its gliding capability (e.g. Ball & Goldingay 2008).

It is possible that dispersal / movement opportunities for Greater Gliders may exist under the Bruce Highway where it is bridged across Deep Creek (to the south of the mining leases) and Tooloombah Creek (on the northern side of the mining leases) (**Figure 3-1**). Such movements would probably need to involve, in part, movement across the ground due to a combination of factors, e.g. the sparse nature of tree cover, tree height which limits glide distance, etc. It is possible that the installation of wooden poles under both bridges, such as those used elsewhere to reconnect habitat (e.g. Ball & Goldingay 2008) may be beneficial.

To the north of the Bruce Highway, areas of comparatively higher habitat value for Greater Gliders are associated with Deep Creek (mostly Land Zone 3). The majority of this habitat will be retained, save for a linear clearing across riparian habitat for the proposed access road (**Figure 3-2**). Within the western part of the project area, either side of the Bruce Highway, two areas of potentially suitable habitat (Land zone 4) are proposed to be cleared. In addition, a sparsely treed minor watercourse within the north-eastern part of the project area is also proposed to be cleared (**Figure 3-2**).

The proposed action includes a linear crossing of Deep Creek for the purposes of establishing a road. This will necessitate clearing of habitat known to be used by Greater Gliders. There is ample evidence that linear clearings inhibit wildlife movement, and potentially, increase the risk of population subdivision where the clearing acts as a barrier to movement (Lindemayer 2002). For Greater Gliders, and other glider fauna, the distance between trees is crucial to maintain movements, and when the distance between trees

[27] i.e. generally agreed that the glide angle for Greater Glider is 40°; Wakefield (1970), Jackson (1999), and Taylor & Goldingay (2009).
[28] Mean canopy height for RE 11.4.2 in this part of the project area is 19.2m ±1.5 m (n = 13).

exceeds the distance that Greater Gliders can glide, the clearing can act as a barrier to movement resulting in fragmentation of the population[29].

Amongst a suite of measures and strategies used to mitigate the barrier effect of clearings (including roads), there is evidence to suggest that tall wooden poles may be used to facilitate gap-crossing for a variety of glider species[30] and should be installed as a general management technique to link habitat for a range of gliding mammal species (Ball & Goldingay 2008; Asari *et al.* 2010; Goldingay *et al.* 2011; Soanes *et al.* 2015; and Goldingay *et al.* 2018). Results of modelling the potential for road-crossing structures to improve population viability for gliders, including Greater Glider, Taylor and Goldingay (2009) found that even low levels of dispersal may be effective to maintain persistence.

The body of applied research shows that key elements in deploying glide poles are:

- to ensure that the spacing of poles does not exceed the ability of animals to glide from one pole to another (Goldingay *et al.* 2011; Soanes *et al.* 2015); and
- that higher levels of dispersal will result if crossing structures are installed at multiple locations, and that structures not be limited to a single location between adjoining remnants (Taylor & Goldingay 2009).

To minimise the effect of habitat fragmentation and to facilitate Greater Glider movements, dedicated road crossing treatments will need to be implemented where the proposed haul road transects the Deep Creek riparian habitats. Consistent with best-practice approaches, a suite of treatments should include minimising the design width of the road (minimising canopy gap width) and the inclusion of suitably sized and located wooden glide poles at intervals along the length of the riparian habitat edge corresponding with the road crossing.

Table 3-2 summarises the characteristics and quantum of Greater Glider habitat proposed to be cleared. That summary identifies that approximately 115.8 Ha of known or potentially suitable habitat for Greater Gliders is proposed to be cleared. The proposed clearing represents approximately 27.9% of the known or potentially suitable habitat for Greater Gliders within the project area.

The proposed clearing of known or potentially suitable habitat for Greater Gliders within the project area (**Figure 3-3**), represents approximately 1.2% of the equivalent habitat within 10 km of the project area[31].

[29] Australian arboreal mammals as a group show a varied response to canopy gaps resulting from habitat fragmentation. Australian gliding mammals appear reluctant to move along the ground (Lindemayer 2002), *cf.* species such as the Koala, common brushtail possum and common ringtail possum which readily cross open areas along the ground, including roads.

[30] i.e. sugar glider *Petaurus breviceps*, squirrel glider *Petaurus norfolcensis*, feathertail glider *Acrobates frontalis*, and yellow-bellied glider *Petaurus australis* (after Goldingay *et al.* 2018).

[31] Both habitat categories have been determined using that same decision rules as applicable to the assessment of habitat on the project area.

Table 3-2 Retention and Removal of Greater Glider Habitat within the Project Area

Habitat Category	Inside Disturbance Area Remnant (Ha)	Inside Disturbance Area Non-Remnant (Ha)	Outside Disturbance Area Remnant (Ha)	Outside Disturbance Area Non-Remnant (Ha)
Known Habitat	115.7		261.3	
Potential Habitat		0.1		34
Potential Dispersal Habitat			4.2	

3.4.2. Other Potential Threats

TSSC (2016) describe the following as additional key threats to the Greater Glider:

- intense or frequent fires - and destruction of senescent trees due to prescribed burning; and
- timber production and forestry practices - prime habitat coincides largely with areas suitable for logging.

The action will not involve forestry or timber production. The action is not inherently likely to cause fires and thus, unlikely to significantly increase the threat of intense or frequent fires.

Nonetheless, strategies for fire management will need to be developed and should include, amongst other measures and strategies, the provision of appropriate buffer distances between the project area and surrounding bushland and managing vegetation within the buffer areas to maintain safe fuel loads. Fire management across the surrounding area within the Mamelon property will need to be carried out and should include reduction of fuel loads and in particular, strategies to assist in the removal / control of invasive weeds.

Control of invasive weeds will be important to maintaining / improving habitat values for Greater Gliders. Of particular concern is the presence of the invasive shrub Lantana (*Lantana camara*) which has the potential to significantly alter fire regimes (QPWS 2012). Very dense thickets (up to 4m in height) have established along sections of Deep Creek (adjacent to the project area, though within the mining leases). Similar conditions have developed within riparian habitat of the nearby Tooloombah Creek (northern side of the mining leases).

These extensive thickets have the potential to draw fire into riparian areas which supports large over mature eucalypts and provide essential habitat for Greater Gliders[32]. An integrated approach that uses a variety of control methods will maximise potential to control lantana infestations, e.g. herbicides, mechanical removal, fire, biological control and revegetation.

Fire characteristics can also be altered significantly where exotic grasses have been established (e.g. Buffel Grass *Pennisetum ciliare* and Green Panic *Megathyrsus maximus*). These species can invade patchy remnants creating a heavy ground fuel load with a potential to feed intense fires, and can be a particular problem in fragmented landscapes such as those on the mining leases and surrounds (Butler 2007; QPWS 2012). The implementation of controlled livestock grazing regimes could encourage suppression of exotic

[32] The growing habit of lantana shades-out regeneration of native species and in particular grass, which in turn inhibits low-severity planned burns, but at the same time carries wildfire (Williams 2008). Where it occurs along riparian habitat edges, it increases the severity of fire against this edge, impacting on fire sensitive ecosystems (QPWS 2012).

pasture grasses, assist in fuel management to avoid high intensity bushfires, and assist natural regeneration of foraging trees and prevent further degradation of habitat.

The following are considered to be within the suite of threats to Greater Gliders, though of a minor to moderate consequence for the species as a whole (after TSSC 2016):

- Phytophthora root fungus – a fungus known to impact on the health of myrtaceous trees;
- entanglement in barbed wire fencing; and
- competition for hollows with species which are increasing in abundance, e.g. sulphur-crested cockatoos.

Dieback caused by the root-rot fungus *Phytophthora cinnamomi* is listed as a key threatening process under the Commonwealth EPBCA, and a national threat abatement plan (TAP) has been produced (DEE 2018). *P. cinnamomi* is a microscopic soil-borne organism that attacks the roots of susceptible plants. The greatest disease impact is apparent in areas combining conducive soils (warm, wet soils, especially those with impeded drainage), susceptible hosts, and ideal climate for disease expression (warm and wet winter/spring, followed by dry summer). *P. cinnamomi* occurs in coastal Queensland, although it is considered to be restricted to the wet coastal forests (DEE 2018) on sites that have the following characteristics: elevation >750m; notophyll dominant vegetation; and acid-igneous geology (O'Gara *et al.* 2005).

The potential for active spread of *P. cinnamomi* is variable and so is the ability to control it (O'Gara *et al.* 2005). Active spread by native and feral animals is difficult and prohibitively expensive to control. *P. cinnamomi* can be readily spread in the landscape through the movement of soil, plant material and water that is infested with the invisible pathogen. Humans have the potential to spread *P. cinnamomi* faster and further than any other vector (O'Gara *et al.* 2005). Fortunately, however, human activities and behaviours can successfully be modified and are thus the primary focus of current management approaches.

Specific hygiene procedures designed to prevent the introduction / spread of *P. cinnamomi* should be prepared for land management works within remnant vegetation areas retained outside the project area (e.g. vehicle washdown stations, footwear cleaning stations, etc.).

There is widespread evidence of glider entanglement in barbed wire fencing, including Greater Gliders (e.g. van der Ree 1999; Booth 2007). Any new fencing within 100 m of retained Greater Glider habitat should avoid the use of barbed wire on the top strand where possible, in discussion with adjacent landholders. In practical reality, there is an almost negligible potential for the action to create circumstances which create or control issues associated with increased competition for hollows with species such as sulphur-crested cockatoos.

There is increasing evidence that artificial light affects a number of biological processes (IDSA 1996; Longcore *et al.* 2017; DEE 2019). Whilst there is evidence that artificial light at night can result in changes in behaviours and habitat usage in a variety of wildlife (Rich & Longcore 2006), there are few studies for Australian fauna[33], and little information overall on potential thresholds that may initiate behavioural responses or the extent that habituation might change those thresholds.

Numerous studies have investigated fauna responses to artificial light within controlled environments, as was the study by Barber-Meyer (2007). That study investigated responses of captive Sugar Gliders (*Petaurus breviceps*) to 12 Hr cycles with treatments simulating ambient low or high luminosity (7 and 12 Lux respectively)[34]. That work found decreases in the time spent foraging and overall activity levels under

[33] Australian examples include: insectivorous bats (Adams *et al.* 2005; Linley 2017); and marine turtles (Berry *et al.* 2013; Kamrowski *et al.* 2014; Roberston *et al.* 2016).

[34] Lux values were chosen to simulate minimum and average streetlighting levels (after IDSA 1996).

the low luminosity treatment (7 Lux)[35], and a substantial decrease in the amount of time spent foraging and cessation of other activities under the high luminosity treatment (>7 Lux to <12 Lux). The author noted that caution was required in interpreting these results and their relevance as captive sugar gliders may not behave as wild sugar gliders do, and that there is no satisfactory information relevant to the ability of this species to adapt to consistent photopollution over time.

Longcore *et al.* (2017) conclude that the impacts of artificial lighting to wildlife can be reduced in five ways, i.e.: avoiding use of lighting that is not needed; controlling colour spectrum; limiting light intensity; managing the direction of light emissions; and limiting the duration of light output. In regard to the use of spectrum, Longcore *et al.* (2017) notes the following: the choice of colour significantly affects the degree of biological disruption, and should influence all project night lighting adjacent to Greater Glider habitat; narrow spectrum lights are preferable to broad-spectrum sources (i.e. white light); ultraviolet light should be avoided; and emissions in blue[36] and shorter wavelengths generally should be avoided[37,38]. Shielding lights is a common mitigation measure to reduce light spill impacts on adjacent wildlife values (DEE 2019b).

The Infrastructure Council of Australia adopts the International Dark-Sky Association's criterion for no direct light above the horizontal (IDSA 2018). Best practice and best available technology to meet the above should be implemented to minimize the project's artificial lighting impact adjacent Greater Glider habitat.

3.5. Avoidance, Mitigation, and Management Strategies

The following measures and strategies are proposed in order to directly reduce the scale and intensity of the potential impacts of the proposed action.

In regard to impact mitigation options to reduce risks to Greater Gliders during habitat clearing operations:

- The extent of vegetation clearing should be clearly identified on construction plans and in the field.
- Vegetation clearing is to be undertaken in a sequential manner that ensures Greater Gliders within the area being cleared have enough time to move out of the clearing site without human intervention.
- Strict adherence to protocols for activities involving the removal of any hollow-bearing habitat tree within Greater Glider habitat. These should include, under the supervision of an ecologist, strategies for pre-clearing, pre-felling[39], felling[40], and post-felling[41].
- No clearing of mapped Greater Glider habitat is to commence without the presence of a suitably qualified and experienced ecologist.

[35] The radiation reflected from the full moon towards Earth varies depending on its position in the sky (e.g. near-zenith or near-horizontal) and variously reported to be within the range of 0.25 Lux to ~ 1 Lux (Kyba *et al.* 2017). For comparison, the following light levels are relevant: twilight (~ 10 Lux), deep twilight (~ 1.08 Lux), ¼ moon (~ 0.01 Lux), and overcast night (~0.0001 Lux) (NOAO 2019).

[36] All animals studied to date (including humans) are affected by blue wavelength light, regardless of the wavelength to which they are most sensitive. It is the single common vision characteristic in all species independent of eye physiology and irrespective of adaptive nocturnal behaviours (DEE 2019b).

[37] Blue light contains the most biologically active wavelengths for physiological processes (Brainard *et al.* 2015).

[38] Use only lighting with a colour temperature of 3,000 K and below to reduce the blue (cool) light that is more harmful to many animal species (International Dark-Sky Association 2018).

[39] e.g. tree to be mechanically shaken or agitated prior to felling to encourage any remaining animals to either leave the tree or show themselves and subsequently be removed prior to felling.

[40] e.g. felling should involve gently pushing the tree and lowering or felling using a forestry harvester (or similar, though not a bulldozer) to avoid sudden falling as this is likely to injure wildlife.

[41] e.g. felled habitat trees are to be left overnight (in an adjacent habitat area if required) to allow any undetected individuals further opportunity to escape.

In regard to impact mitigation options to reduce the risk of impediment to movement:

- Design a suite of dedicated road crossing treatments to be implemented where the proposed haul road transects the Deep Creek riparian habitats. Treatments to include installation of wooden poles of sufficient height and located along the full extent of the riparian habitat edge on either side of the clearing for the road crossing.

In regard to impact mitigation options to reduce the impact of project night lighting on habitat:

- In working areas adjacent to habitat, lights should be shielded beyond full cut-off to ensure that light falls only on the intended surfaces, and minimise direct light above the horizontal and minimise light spill (e.g. < 8 Lux) along habitat edges.
- Lighting adjacent to habitat is to be designed to avoid the use of ultraviolet light and adjacent short wavelengths. LED lights have no ultraviolet emissions, *c.f.* mercury vapour lamps, though also metal halide. Where full-spectrum lighting is an essential requirement, then the lowest possible colour temperature should be employed.
- Design of lighting for the road crossing over Deep Creek and roads within remnant habitat on the western side of the project area should be restricted to the minimum necessary to meet safety standards (e.g. <50 Lux). Within these areas, consideration should be given to the use of red light as it appears to have the least effect on other nocturnal mammals.
- Lighting design to minimise impact to Greater Gliders and their habitat should be consistent with best practice and best available technology (e.g. Longcore *et al.* 2017; ISDA 2018; DEE 2019b).

In regard to impact mitigation options to reduce impacts to retained habitats:

- The risk of high-intensity fires within retained habitat should be addressed through the adoption of a fire management plan which is implemented for the life of the action, and best practice and regional approaches (e.g. QPWS 2012).
- Control of invasive weeds should be implemented through an integrated approach that uses a variety of control methods to maximise potential to control lantana infestations, e.g. herbicides, mechanical removal, fire, biological control and revegetation.
- Specific hygiene procedures designed to prevent the introduction / spread of *P. cinnamomi* will need to be prepared for land management works within remnant vegetation areas retained outside the project disturbance area (e.g. vehicle washdown stations, and footwear cleaning stations) and consistent with best practice guidelines (e.g. DE 2015a).
- All new fencing within or adjacent to retained habitats should exclude barbed wire. In places where existing fences are required for stock control, as a minimum, the top one or two strands should be replaced with high tensile plain wire. For short sections of existing barbed wire fencing, particularly in entanglement 'hot spots', interim alternatives are either to make the fence more obvious is by installing metal tags at 30 cm intervals along the top wire strand, or cover barbs of the top strand with lengths of split poly pipe.

3.6. Significant impact Assessment

The *Significant Impact Guidelines 1.1 - Matters of National Environmental Significance* (DEWHA 2013) state that a 'significant impact' is an impact which is important, notable, or of consequence, having regard to its context or intensity.

The significant impact guidelines (DEWHA 2013) state that actions are likely to have a significant impact on a vulnerable species if they adversely affect habitat critical to the survival of the species. *Habitat critical to the survival of a species or ecological community*[42] refers to areas that are necessary:

[42] Such habitat may be, but is not limited to: habitat identified in a recovery plan for the species or ecological community as habitat critical for that species or ecological community; and/or habitat listed on the Register of Critical Habitat maintained by the minister under the EPBCA.

- for activities such as foraging, breeding, roosting, or dispersal; or
- for the long-term maintenance of the species or ecological community (including the maintenance of species essential to the survival of the species or ecological community, such as pollinators); or
- to maintain genetic diversity and long-term evolutionary development, or
- for the reintroduction of populations or recovery of the species or ecological community.

Where such impacts are likely to occur, avoidance and mitigation measures should be put in place to minimise the residual impact of the action.

In preparing this assessment, the following is noted:

- There is no Commonwealth or State recovery plan for the Greater Glider (DE 2020b; DES 2020).
- TSSC (2016) recommends that there should be a national recovery plan, and notes that in Queensland, there are no species-specific management actions currently in place for the Greater Glider.
- There is no reliable estimate of population size (TSSC 2016). No 'important populations, have been described in either TSSC (2016) or DE (2020b).
- There are no published estimates of Greater Glider population size or density for the bioregion or broader area surrounding the project area (DE 2020b)[43].

Table 3-3 provides and assessment of the action based on the above for each of the nine significant impact criteria described in DEWHA (2013).

It is concluded that the action is likely to have an adverse effect on 'habitat critical to the survival of a species' as there are areas of the site that are necessary for activities such as 'foraging, breeding, roosting, or dispersal' for the Greater Glider, and as such, this would result in a 'significant' impact to the species within the project area. Taking into account a suite of proposed impact mitigation measures and strategies to directly reduce the intensity of the potential impacts of the proposed action, it is concluded that the action is likely to result in a significant residual impact to Greater Gliders within the project area, though unlikely to result in a significant residual impact to the species within the surrounding area.

[43] Excluding Victoria, population density estimates throughout the remainder of its distribution range from 0.01 to 5 individuals per hectare (TSSC 2016).

Table 3-3 Significant Impact Assessment – Greater Glider

Significant Impact Assessment Criteria	Assessment
Will the action: *lead to a long-term decrease in the size of an important population of a species*	DE (2020b) does not identify / describe any 'important populations' within the bioregion or broader area surrounding the project area. There are no published estimates of Greater Glider population size or density for the bioregion or broader area surrounding the project area (TSSC 2016; DE 2020b). Evidence indicates that Greater Gliders occur within the landscape surrounding the project area (L. Agnew. pers obs.; Figure 3-3). The action has been designed to minimise disturbance to habitats of potentially higher value to Greater Gliders - the large contiguous habitat patches on the western side of the project area and southern part of the project area. Ecological connectivity to those habitat areas along Deep Creek from the southern part of the project area will not be impacted – though noting that the Bruce Highway bisects the project area and that it represents an existing significant threat to Greater Gliders of the local area. Given this, and that there is no important population present (DE 2020b), it is concluded that the action would not lead to the long-term decrease in the size of an important population of Greater Glider.
Will the action: *reduce the area of occupancy of an important population*.	There is no 'important population' described for the region (DE 2020b). Habitat suitability assessments demonstrate that there is 4,609 Ha of potentially suitable habitat (foraging and breeding) for Greater Gliders within for the surrounding area (10 Km buffer to the project area). The quantum of habitat loss and the nature / location of habitat proposed to be cleared is not considered to be a significant reduction in the area of occupancy of Greater Gliders within the wider landscape context (Figure 3-3). The action has been designed to minimise disturbance habitats of comparatively higher value to Greater Gliders, i.e. the large contiguous habitat patches on the western side of the project area and southern part of the mining leases, and Deep Creek riparian habitats to the south. The action will incorporate a comprehensive set of road crossing treatments to support movement in the area where the haul road crosses Deep Creek in the east. Given this, and that there is no important population present (DE 2020b), it is concluded that the action would not lead to the long-term decrease in the size of an important population of Greater Glider.

Significant Impact Assessment Criteria	Assessment
Will the action: *fragment an existing important population into two or more populations*.	There is no 'important population' described for the region (DE 2020b). The project area is bisected by the Bruce Highway which would have already significantly diminished movement opportunities between Greater Glider habitats to the east and west. The action will not significantly impact on the ecological functionality of the large contiguous patch of Greater Glider habitat within the south part of the project area, or the large patch to the west. Ecological connectivity to those habitat areas along Deep Creek from the southern part of the project area will not be altered by the action. The action does not necessitate any clearing of habitat along Tooloombah Creek (northern side of the mining leases) which is likely to support Greater Gliders and habitat important for local movement / dispersal. The action does require clearing of a section of riparian habitat on Deep Creek (known Greater Glider habitat). This clearing, without impact management intervention, could create an impediment to movement for Greater Gliders along Deep Creek, thus fragmenting the local population. Implementation of a suite of road crossing treatments will be incorporated within the clearing for haul road crossing of Deep Creek to support Greater Glider movements to and from habitats downstream of the project area, i.e. downstream habitats to the north-east and east of the project area (outside of the mining leases). Whilst the loss of the treed minor watercourse in the north-east part of the project area will result in removal of habitat potentially used for dispersal, the primary movement opportunities within the landscape will remain, i.e. riparian habitat along Deep Creek and Tooloombah Creek. Given this, and that there is no important population present (DE 2020a), it is concluded that the action would not fragment an existing an important population of Greater Glider into two or more populations.
Will the action: *adversely affect habitat critical to the survival of a species*.	There is no recovery plan for the species which identifies habitat critical for Greater Glider, and there is no habitat listed on the Register of Critical Habitat maintained by the minister under the EPBCA. However, the action will result in the loss of habitat required for foraging, breeding, and / or dispersal, which by definition of the significant impact guidelines (DEWHA 2013) is considered to be habitat critical to the survival of the species. As such, it must be determined that the action will adversely affect habitat critical to the survival of a species, and therefore that the project constitutes a significant impact to Greater Glider. However, it must be noted that in assessing the quantum of habitat loss and the nature / location of habitat proposed to be cleared in the context of habitat to be retained, and within a wider landscape context, the outcome is not considered to be an adverse impact to the survival of the species.
Will the action: *disrupt the breeding cycle of an important population.*	DE (2020b) does not identify / describe any 'important populations' within the bioregion or broader area surrounding the project area. The action has been designed to minimise disturbance to habitats of comparatively higher value to Greater Gliders, i.e. the large contiguous habitat patch on the western side of the project area and southern part of the mining leases, and connectivity via Deep Creek riparian habitats to the east. Given this, and that there is no important population present (DE 2020a), it is concluded that the action would not disrupt the breeding cycle of an 'important population' if it were to occur.

Significant Impact Assessment Criteria	Assessment
Will the action: *modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline.*	The action will result in the modification, destruction and removal of habitat for this species. However, the quantum of habitat loss, and the nature / location of habitat proposed to be cleared, in the context of habitat to be retained, and within a wider landscape context, is not considered to be an adverse impact to the species. As such, it is not believed that the action would modify, destroy or remove habitat to the extent that the species is likely to decline. The action will not significantly impact on the ecological functionality of the large contiguous patches of Greater Glider habitat to the south and west of the project area. Ecological connectivity to those habitat areas along Deep Creek from the southern part of the project area will not be impacted - though noting that the Bruce Highway bisects the project area, and its operation generates on-going threats / impacts to Greater Gliders within the landscape. The action does require clearing of a section of riparian habitat on Deep Creek (known Greater Glider habitat). This clearing, without impact management intervention, could create an impediment to movement for Greater Gliders along Deep Creek, thus fragmenting the local population. Implementation of a suite of road crossing treatments will be incorporated within the clearing for haul road crossing of Deep Creek to support Greater Glider movements to and from habitats downstream of the project area, i.e. downstream habitats to the north-east and east of the project area (outside of the mining leases). In this regard, it is concluded that the action would not isolate habitat or decrease the quality of habitat to the extent that the species is likely to decline.
Will the action: *result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat.*	There is potential for introduction and spread of invasive species as a result of the action. It is highly unlikely that action will contribute any significant further change to existing threats given the current land use context for the project area and surrounding area (long history of pastoralism) and as a result of the implementation of a supporting plan for land use management and control of invasive species and rehabilitate retained habitat. The potential introduction and spread of invasive weeds will need to be addressed through a comprehensive suite of best-practice prevention and control strategies. Therefore, with the appropriate management measures in place, it is considered unlikely that the action will result in new or increased levels of invasive species that are harmful to Greater Glider becoming established in their habitat.
Will the action: *introduce disease that may cause the species to decline.*	Tree dieback caused by the root-rot fungus *Phytophthora cinnamomi* is a threat to Greater Glider habitat within parts of the species' distribution, though the status of *P. cinnamomi* within the region is unknown. It is possible that this fungus already occurs in the region, though environmental conditions which prevail within the region do not appear to provide the optimum climate for disease expression. Specific hygiene procedures designed to prevent the introduction / spread of *P. cinnamomi* should be prepared for land management works within remnant vegetation areas retained outside the project area (e.g. vehicle washdown stations, footwear cleaning stations; DE 2015a). Given this, it is concluded that the action is unlikely to introduce disease that may cause the species to decline.

Significant Impact Assessment Criteria	Assessment
Will the action: *interfere substantially with the recovery of the species.*	There is no Commonwealth or State recovery plan for the Greater Glider (DE 2020b). TSSC (2016) recommends that there should be a national recovery plan, and notes that in Queensland, there are no species-specific management actions currently in place for the Greater Glider. In the absence of a recovery plan, the TSSC (2016) identifies the following primary conservation actions: reduce the frequency and intensity of prescribed burns; identify appropriate levels of patch retention, habitat tree retention, and logging rotation in hardwood production; and protect and retain hollow-bearing trees, suitable habitat and habitat connectivity. The action has been designed to minimise disturbance habitats of comparatively higher value to Greater Gliders (i.e. large contiguous habitat patches on the western side of the project area and southern part of the mining leases; and connectivity through riparian habitat along Deep Creek), and will implement measures and strategies to protect and retain hollow-bearing trees. The action does require clearing of a section of riparian habitat on Deep Creek (known Greater Glider habitat), though implementation of a suite of design and management strategies will be incorporated within the haul road crossing of Deep Creek to support Greater Glider movements to and from habitats downstream of the project area, i.e. downstream habitats to the north-east and east of the project area (outside of the mining leases).). Given the above, the action is considered unlikely to interfere substantially with the recovery of the species.

4. Squatter Pigeon (southern) *Geophaps scripta scripta*

4.1. Background and Description

The Squatter Pigeon (southern) *Geophaps scripta scripta* is listed as Vulnerable under the Commonwealth's EPBCA and Queensland's NCA. The Squatter Pigeon (southern) is listed as Least Concern on the IUCN Red List for Threatened Species.

In 2000, the Action Plan for Australian Birds described the disappearance of the Squatter Pigeon (southern) in New South Wales, though present throughout its range in eastern Queensland (Garnett *et al.* 2000). The updated Action Plan did not list this subspecies, citing the reason being "no recent declines and persists at numerous sites across a broad distribution." (Garnett *et al.* 2011). The subspecies is listed as Least Concern under the Action Plan for Australian Birds 2010.

There is no Commonwealth or State recovery plan for the Squatter Pigeon (southern) (DE 2020c; DES 2020). DE (2020c) identifies the following Threat Abatement Plans are identified as relevant to the Squatter Pigeon (southern):

- Threat abatement plan for predation by feral cats (DE 2015b);
- Threat abatement plan for competition and land degradation by rabbits (DEE 2016); and
- Threat abatement plan for predation by the European red fox (DEWHA 2008).

Whist the subspecies seems fairly abundant in the central and northern parts of its range in Queensland, populations south of the Carnarvon Ranges are highly fragmented as a result of extensive land clearing (Squatter Pigeon Workshop 2011). All relatively small, isolated and sparsely distributed sub-populations occurring south of the Carnarvon Ranges in Central Queensland are considered to be important sub-populations of the subspecies (DE 2020c). The subspecies remains common north of the Carnarvon Ranges in Central Queensland and is considered to be distributed as a single, continuous (i.e. inter-breeding) sub-population (DE 2020c).

The southern subspecies typically occurs in dry grassy open forests to sparse eucalypt woodlands, on free draining soils, often sandy, or gravelly (Squatter Pigeon Workshop 2011). Soil type is thought to be a useful predicator of where the subspecies occurs naturally (Agnew 2007). A patchy cover of native perennial tussock grasses contributing to about 30% foliage projective cover, is considered to be important as suitable foraging habitat (Agnew 2007; DE 2020c). As a granivore, daily access to water to drink is essential, thus proximity to water is also a useful predictor of occurrence within the landscape (Agnew 2007; Squatter Pigeon Workshop 2011).

The Squatter Pigeon (southern) remains common in much of central Queensland, in both cleared and relatively intact landscapes, though less common where Buffel Grass *Cenchrus ciliaris* dominates the grass cover (Reis 2012; L. Agnew, unpub. data.). Disturbed areas where the sub-species has been recorded foraging include cattle yards, road and railway easements, and sown pastures with scattered trees (Squatter Pigeon Workshop 2011).

Squatter Pigeons (southern) tend to be found in small flocks, pairs, or family groups (Reis 2012). In central Queensland, the average flock size for one data set analysed (n = 348) was about 3 birds per record (Agnew 2007).

Larger scale movements and/or dispersal are not well understood, with the subspecies thought to be locally dispersive in response to changes in reliable water sources during the dry season, and droughts, though otherwise relatively sedentary (Squatter Pigeon Workshop 2011; L. Agnew, pers obs.). No long-distance seasonal movements have been recorded (Higgins & Davies 1996).

There are significant knowledge gaps with regards to the characteristics of breeding habitats and the feeding ecology of the subspecies within modified habitats (Squatter Pigeon Workshop 2011). There are few published nesting records within the scientific literature, though it is widely accepted that breeding habitat occurs on stony rises occurring on sandy or gravelly soils, within 1 km of a suitable, permanent waterbody (Squatter Pigeon Workshop 2011 in DE 2020c). The nest is a shallow depression scraped into the ground beneath a tussock of grass (L. Agnew, pers obs.), bush, fallen tree or log and sparsely lined with grass (Higgins & Davies 1996).

Current threats to Squatter Pigeon (southern) include ongoing vegetation clearance and fragmentation, overgrazing of habitat by livestock and feral herbivores such as rabbits (*Oryctolagus cuniculus*), introduction of weeds, inappropriate fire regimes, thickening of understorey vegetation, predation by feral cats (*Felis catus*) and foxes (*Vulpes vulpes*), trampling of nests by domestic stock (TSSC 2015).

4.2. Occurrence – Project Area and Surrounding Area

The Squatter Pigeon (southern) has been recorded during most surveys within the project area (2011-2019; **Figure 4-1**). The majority of those records derive from the central southern part of the project area (either side of the Bruce Highway). This part of the project area has been cleared and is grazed by cattle, though dams are present.

Given that the presence of water would attract Squatter Pigeons, that birds are easier to detect in these open grazed pastures and often close to tracks, and that these areas are the main entry / exit points to the project area for survey personnel, it is not surprising that there is a concentration of records within this part of the project area. Similar circumstances may also help to explain a 'concentration' of records along Kooltandra Road which is adjacent to the eastern side of the project area (**Figure 4-1**).

The abovementioned habitat within the central southern part of the project area, does not support the combination of habitat conditions or resources which are consistent with where Squatter Pigeons have been observed to nest, i.e. woodland on stony rises occurring on sandy or gravelly soils, within about 1 km of a suitable, permanent waterbody (Squatter Pigeon Workshop 2011 in DE 2020c; L. Agnew unpub. data).

Squatter Pigeons have also been recorded within remnant vegetation throughout the project area, including RE 11.3.35, RE 11.4.2, RE 11.5.8a, and RE 11.11.15a. In areas of remnant vegetation adjacent to the project area, Squatter Pigeons have been recorded in RE 11.5.8 / 11.7.2 and RE 11.11.15a (**Figure 4-1**).

Habitat suitability assessments indicate that the largest patch of comparatively higher quality habitat for Squatter Pigeon (southern) is located within the southern part of the project area (**Figure 4-2**). This habitat forms part of a much larger, contiguous area of remnant woodland which extends to the south-west and south through to the upper section of Deep Creek (**Figure 4-3**).

Habitat within this area includes important areas of open woodland on low rises with gravelly to stony soils (e.g. RE 11.11.15a; Queensland Herbarium 2019) and generally consistent with the information on habitat where Squatter Pigeons nesting has been recorded (Squatter Pigeon Workshop 2011 in DE 2020c; L. Agnew unpub. data). There are also a variety of locations (<1 Km of potential nesting habitat), where water would be locally available throughout the year, i.e. a combination of dams and standing water within the upper sections of Deep Creek.

Searches of the Queensland Government's Wildlife Online database show that there are seven records within 4 Km of the centre of the project area (DSITIA 2019; see **Attachment B**). It is presumed that these are survey records derived from project-related investigations throughout the wider area (i.e. records along Kooltandra Road by Meyer 2011 and 2012). There are a further four records between 10 to 20 Km and 10 records between 20 to 30 Km of the centre of the project area (DSITIA 2019; see **Attachment B**). The majority of these appear to be the result surveys of EPC 1029 conducted by Meyer in 2011 and 2012.

There is one record of Squatter Pigeon (southern) from Marlborough State Forest, though no additional records for Bukkulla Conservation Park, Tooloombah Creek Conservation Park, Eugene State Forest, or Mount Buffalo State Forest (DSITIA 2019; **Attachment B**). Whether the lack of previous records from these areas is due to limited survey effort is not known. Searches of the Atlas of Living Australia database did not provide any records additional to the above.

4.3. Habitat Assessment and Definition

The following has been provided in correspondence by the Commonwealth Department of Environment and Energy (DEE 2019c) to clarify the habitat description framework for the assessment of the Squatter Pigeon (southern). These habitat categories have been taken into account in completing the habitat assessment for the project area.

In regard to **Breeding Habitat**:

- Land Zones 5 and 7, and Land Zone 3 when embedded in Land Zones 5 and/or 7.
- Remnant or regrowth open-forest to sparse, open-woodland or low-woodland dominated by *Eucalyptus*, *Corymbia*, *Acacia* or *Callitris* species within one kilometre of a suitable, permanent or seasonal waterbody. It is distinguished by ground-layer vegetation that:
    - consists of patchy, native, perennial tussock grasses, or a mix of perennial tussock grasses and low shrubs or forbs; and
    - does not cover more than 33% of the ground.
- These preferred ground-layer vegetation conditions tend to occur on well-draining, sandy or gravelly soils low, gently sloping, flat to undulating plains and foothills, lateritic (duplex) soils on low 'jump-ups' and escarpments.

In regard to **Foraging Habitat**:

- Land Zones 5 and 7, and Land Zone 3 when embedded in Land Zones 5 and/or 7.
- Remnant or regrowth open-forest to sparse, open-woodland or low-woodland dominated by *Eucalyptus*, *Corymbia*, *Acacia* or *Callitris* species within three kilometres of a suitable, permanent or seasonal waterbody. It is distinguished by ground-layer vegetation that:
    - consists of patchy, native, perennial tussock grasses, or a mix of perennial tussock grasses and low shrubs or forbs; and
    - does not cover more than 33% of the ground.
- These preferred ground-layer vegetation conditions tend to occur on well-draining, sandy or gravelly soils low, gently sloping, flat to undulating plains and foothills, lateritic (duplex) soils on low 'jump-ups' and escarpments.

In regard to **Dispersal Habitat**:

- Dispersal habitat is any forest or woodland occurring between patches of foraging or breeding habitat which facilitates movement between patches of foraging habitat, breeding habitat and/or waterbodies.
- Dispersal habitat includes vegetation where the groundcover layer has been thinned through current land-use practices in a way that suits the species (e.g. light cattle grazing). The species does disperse into highly modified or degraded habitats, including cleared areas which are within 100 metres of remnant trees or patches of habitat.

The author is aware of current unpublished data from a variety of biologists (including the author) which shows that the Squatter Pigeon (southern) is not restricted to nesting on Land Zones 5 and 7. That unpublished data provides evidence that the Squatter Pigeon (southern) also nests within Land Zones 8, 9, and 10 (16 of 28 nest records). There is also evidence current unpublished data from a variety of

biologists which shows that the Squatter Pigeon (southern) has been recorded within a variety of Land Zones, i.e. Land Zones 3, 4, 5, 7, 8, 9, 10, 11, and 12 (n = 436 records from three data sets; unpublished data from Austecology, BAAM & Patterson). This would suggest that foraging habitat for the Squatter Pigeon (southern) is not limited to Land Zones 5 and 7.

Table 4-1 provides an excerpt from DE (2020c) which describes Squatter Pigeon (southern) habitat. That information has also been taken into account in completing the habitat assessment for the project area.

Figure 4-2 describes the extent of known or potentially suitable habitat for the Squatter Pigeon (southern) within the project area. The majority of the mapped habitat is 'remnant vegetation" (mapped REs), though also includes cleared (non-remnant / not a mapped RE) where a combination of conditions and resources are thought to be linked to the records of Squatter Pigeons (e.g. presence of sparsely treed pastures in close proximity to stock dams, where grass cover is patchy and where fallen timber is not uncommon, and where tracks provide suitable dust bathing opportunities).

Figure 4-3 provides mapping of known or potentially suitable Squatter Pigeon (southern) habitat within 10 Km of the project area to assist in contextualising habitat values within the project area.

Figure 4-4 provides a categorisation of habitat (breeding, foraging and dispersal) consistent with the habitat description framework provided by the Commonwealth Department of Environment and Energy (DEE 2019c).

Table 4-1 Squatter Pigeon Habitat Conditions and Resources (after DE 2020c)

Foraging and Breeding Habitat

Soil landscapes are good indicators of where natural, foraging and breeding habitats for the Squatter Pigeon (southern) occur (Squatter Pigeon Workshop 2011). Well-draining, gravelly, sandy or loamy soils support the open-forest to woodland communities with patchy, tussock-grassy understories that support the subspecies' foraging and breeding requirements. Given that the subspecies nests in shallow depressions in the ground, it requires well-draining soils. The subspecies also prefers to forage and dust-bathe on bare ground under an open canopy of trees (Squatter Pigeon Workshop 2011).

Natural foraging habitat for the Squatter Pigeon (southern) is 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, within 3 km of a suitable, permanent or seasonal waterbody (Squatter Pigeon Workshop 2011).

Breeding habitat occurs on stony rises occurring on sandy or gravelly soils, within 1 km of a suitable, permanent waterbody (Squatter Pigeon Workshop 2011).

Typically, the ground covering vegetation layer in foraging and breeding habitat is considerably patchy consisting of native, perennial tussock grasses or a mix of perennial tussock grasses and low shrubs or forbs. This patchy, ground layer of vegetation rarely exceeds 33% of the ground area. The remaining ground surface consisting of bare patches of gravelly or dusty soil and areas lightly covered in leaf litter and coarse, woody debris (e.g. fallen trees, logs and smaller debris). The patchiness of the ground layer vegetation in patches of foraging and breeding habitats tends to be variable over a given area (Squatter Pigeon Workshop 2011).

In Queensland, Squatter Pigeon (southern) foraging and breeding habitat is known to occur on well-draining, sandy or loamy soils on low, gently sloping, flat to undulating plains and foothills (i.e. Queensland Regional Ecosystem Land Zone 5), and lateritic (duplex) soils on low 'jump-ups' and escarpments (i.e. Queensland Regional Ecosystem Land Zone 7) (Squatter Pigeon Workshop 2011).

In New South Wales, the subspecies' foraging and breeding habitat occurs on the same soil types as occur in Queensland, and may occur in open-forests and woodlands on black clay soils in the more temperate regions of the subspecies' range in NSW (Squatter Pigeon Workshop 2011).

Dispersal Habitat

Squatter Pigeon (southern) dispersal habitat is any forest or woodland occurring between patches of foraging or breeding habitat, and suitable waterbodies. Such patches of vegetation tend not to be suitable for the subspecies' foraging or breeding, but facilitate the local movement of the subspecies between patches of foraging habitat, breeding habitat and/or waterbodies, or the wider dispersal of individuals in search of reliable water sources during the dry season or during droughts (Squatter Pigeon Workshop 2011).

Clay soils usually support denser vegetation types which the Squatter Pigeon (southern) is unlikely to use as foraging or breeding habitat. However, given that clay soil types tend to form in lower lying areas where the drainage and storage of water naturally occurs in the landscape, the subspecies is known to utilise forests or woodlands occurring on these soils to move between patches of foraging or breeding habitat and suitable waterbodies (Squatter Pigeon Workshop 2011).

The Squatter Pigeon (southern) is only likely to occur in vegetation on non-alluvial clays (equivalent to Queensland Regional Ecosystem Land Zone 4) where the ground covering vegetation layer has been thinned through current land-use practices in a way that suits the subspecies, for example through a light cattle grazing regime (Squatter Pigeon Workshop 2011).

The Squatter Pigeon (southern) has been recorded in sown pastures with scattered remnant trees (Leach 1988; Squatter Pigeon Workshop 2011). The subspecies often moves into adjacent natural grasslands and highly modified or degraded habitats, such as pastures, stockyards, road reserves, railway easements and settlements, to forage for seed on the ground, drink from stock troughs or dams with gently sloping banks, and dust-bathe on bare, dusty ground (Longmore 1976; Lord 1956; Squatter Pigeon Workshop 2011).

The subspecies is unlikely to move far from woodland trees which provide protection from predatory birds (Squatter Pigeon Workshop 2011). 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 (Squatter Pigeon Workshop 2011).

Water Resources

The Squatter Pigeon (southern) is known to access suitable waterbodies to drink on a daily basis. Waterbodies suitable for the subspecies include permanent or seasonal rivers, creeks, lakes, ponds and waterholes, and artificial dams. The subspecies prefers to drink where there is gently sloping, bare ground on which to approach and stand at the water's edge. While patchy to moderate ground covering vegetation may occur along the banks of suitable water bodies, a small patch (less than a square metre) of bare ground at the water's edge is all that the bird requires (Squatter Pigeon Workshop 2011).

Waterbodies that are suitable for the subspecies occur on the lower, gentle slopes and plateaus of sandstone ranges (equivalent to Queensland Regional Ecosystem Land Zone 10), alluvial clay soils on river or creek flats (represented by Queensland Regional Ecosystem Land Zone 3) or non-alluvial clay soils on flats or plains which are not associated with current alluvial deposits (represented by Queensland Regional Ecosystem Land Zone 4). Hence, where natural foraging or breeding habitat occurs (i.e. on Queensland Regional Ecosystem Land Zones 5 and 7), the Squatter Pigeon (southern) may be found in vegetation types growing on the above soil types.

Mining Lease

10km Buffer from ML Centroid

Disturbance Area

Roads

Railway

Watercourse

Squatter Pigeon (southern) Record - Surveys 2011 to 2019

Remnant Vegetation – Regional Ecosystems

ML 80187

ML 700022

COOPERS ROAD

OGMORE ROAD

STYX ROAD

CHARONS FERRY ROAD

KOOLTANDRA ROAD

North Coast Line

STOODLEIGH ROAD

TRACK

BRUCE HIGHWAY

MOUNT BISON ROAD

ANGLEWOOD ROAD

HARDWICKS ROAD

TOOLOOMBAH ROAD

NEERIM ROAD

FERRIS ROAD

SAINT LAWRENCE ROAD

KOOLTANDRA ROAD

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Figure 4-1

Squatter Pigeon (southern) Records for the Project Area and Surrounds

austecology

SOURCE:
DCDB: DNRME 2019
Mining Leases: DNRME 2019
Vegetation: 3D Environmental 2019 (site) and © State of Queensland (Department of Natural

N W E S

0 1 2 3 4
Kilometers

A3 Scale: 1:80,000

File:STYX-Fig4-1-PigeonRecords80K-200709 Date: 9/07/2020

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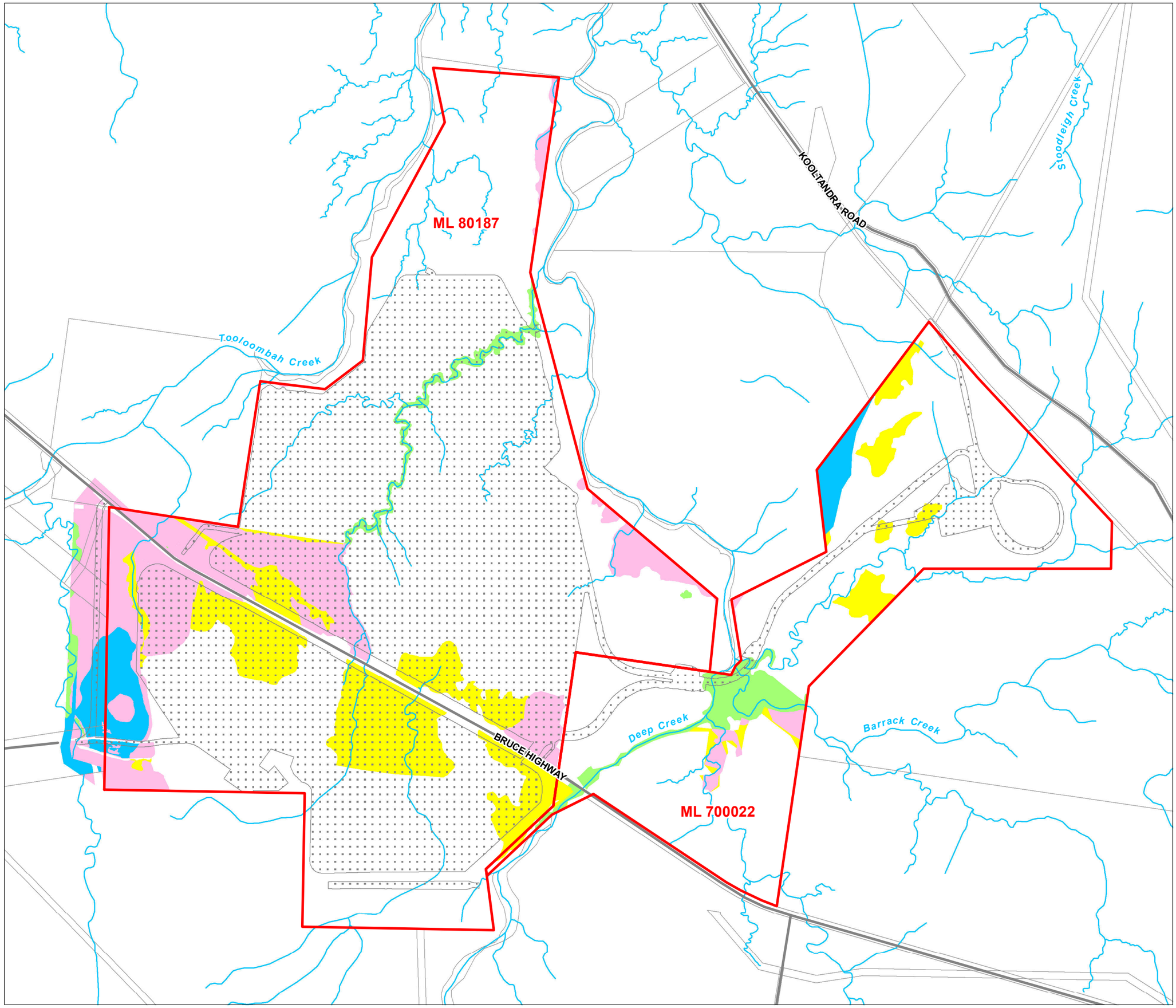
Figure 4-2

Squatter Pigeon (southern) Habitat within the Project Area



austecology

- Mining Lease
- Disturbance Area
- Known or Potential Habitat within Project Area - Remnant
- Potential Breeding Habitat - Remnant
- Known or Potential Habitat within Project Area - Non-Remnant
- Potential Dispersal Habitat - Remnant

SOURCE:
DCDB: Orange Environmental 2020
Mining Orange Environmental 2020
Habitat: Austecology 2020

N W E S

0 500 1,000 1,500
Meters

A3 Scale: 1:30,000

File:STYX-Fig4-2-Habitat-Pigeon-ProjectArea-200709 Date: 9/07/2020

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Mining Lease
10km Buffer from ML Centroid
Disturbance Area
Roads
Railway
Watercourse
Known or Potential Habitat within Project Area - Remnant
Known or Potential Habitat outside Project Area - Remnant
Known or Potential Habitat within Project Area - Non-Remnant
Potential Dispersal Habitat - Remnant

ML 80187
ML 700022
North Coast Line
BRUCE HIGHWAY
COOPERS ROAD
STYX ROAD
CHARONS FERRY ROAD
OGMORE ROAD
KOOLTANDRA ROAD
STOODLEIGH ROAD
TRACK
MOUNT BISON ROAD
ANGLEWOOD ROAD
HARDWICKS ROAD
TOOLOOMBAH ROAD
NEERIM ROAD
FERRIS ROAD
SAINT LAWRENCE ROAD
KOOLTANDRA ROAD

Styx Coal Project

Figure 4-3

Squatter Pigeon (southern) Habitat within 10km of the Project Area

austecology

SOURCE:
DCDB: DNRME 2019
Mining Leases: DNRME 2019
Vegetation: 3D Environmental 2019 (site) and © State of Queensland (Department of Natural

N
W E
S

0 1 2 3 4
Kilometers

A3 Scale: 1:80,000

File:STYX-Fig4-3-Habitat-Pigeon-within10km-200707 Date: 9/07/2020

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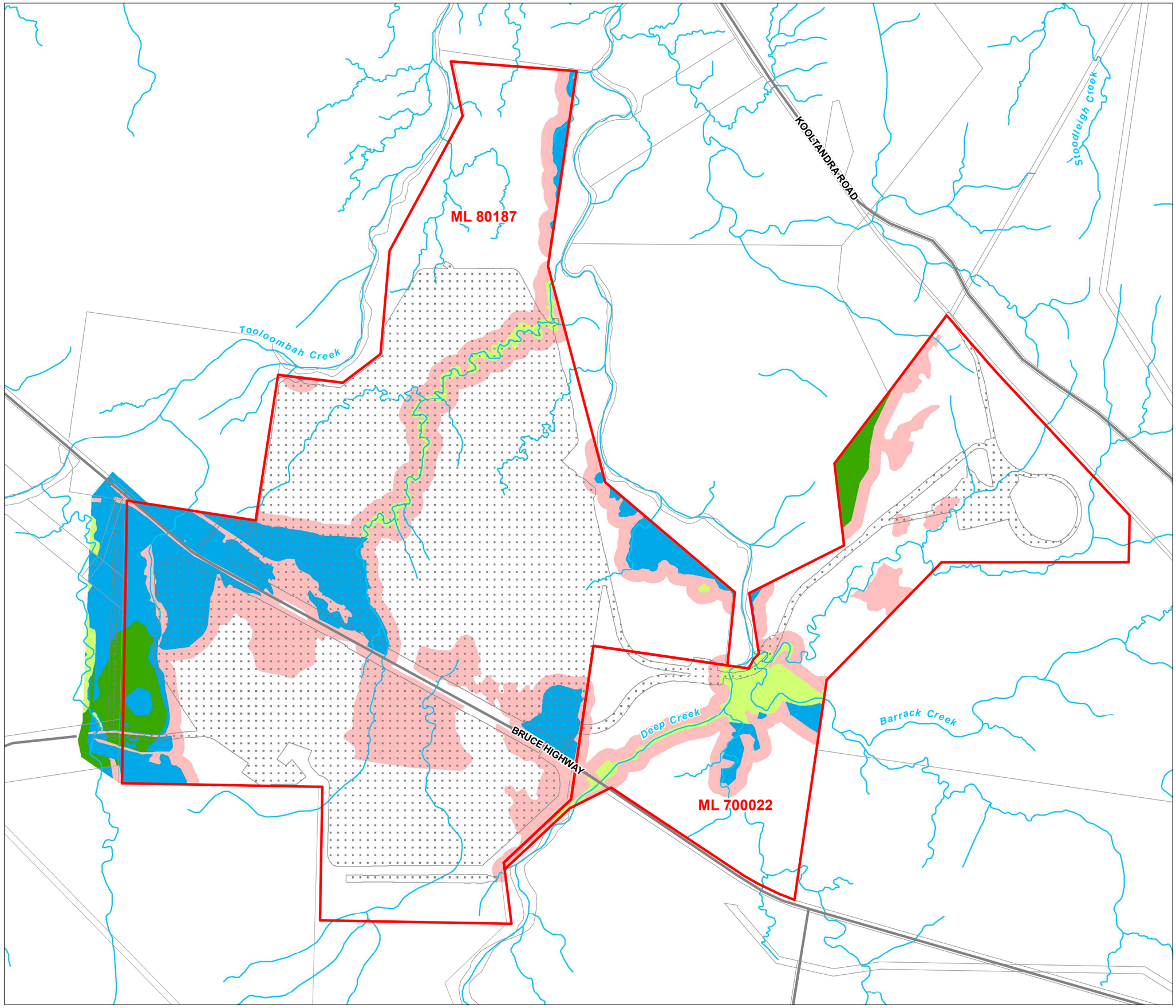
Figure 4-4

Squatter Pigeon (southern) Habitat Categorisation for the Project Area



austecology

- Mining Lease
- Disturbance
- Potential Breeding Habitat - Remnant
- Known or Potential Foraging Habitat - Remnant
- Potential Dispersal Habitat – Remnant
- Known or Potential Foraging Habitat – Non-Remnant

SOURCE:
DCDB: Orange Environmental 2020
Mining Leases: Orange Environmental 2020
Habitat: Austecology 2020

N W E S

0 500 1,000 1,500
Meters

A3 Scale: 1:30,000

File:STYX-Fig4-4-Habitat-Pigeon-Categorisation-200713 Date: 13/07/2020

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4.4. Assessment of Potential Impacts

4.4.1. Habitat Loss and Fragmentation

The largest, contiguous area of remnant woodland habitat for Squatter Pigeon within the landscape, is located adjacent to the western and southern sides of the project area (~ 5,500 Ha; **Figure 4-3**). Habitat within the western part of the project area forms the largest contribution to this extensive area of habitat (~ 100 Ha; **Figure 4-2**). It is within these habitats (on-site and adjacent habitat) where the majority of survey records within remnant habitats within the project area have occurred (**Figure 4-1**).

The project's disturbance footprint extends into the eastern edge of the abovementioned habitat area (**Figure 4-2**). The proposed habitat clearing is located on the edge of the larger contiguous habitat patch, and would not result in fragmentation of this habitat patch (**Figure 4-3**). Two small wetlands (REs 11.3.12 and 11.3.27) are located within remnant habitat and are outside the disturbance footprint.

To the east of the Bruce Highway, an isolated patch of RE 11.4.2 (central south) and part of a larger area of RE 11.4.2 (north west) coincide with the disturbance footprint. Along the eastern flank of the project area, there is an area of remnant woodland suitable for Squatter Pigeons which will be retained (**Figure 4-2**). This remnant woodland forms part of the habitat mosaic associated with Deep Creek (**Figure 4-3**).

Table 4-2 summarises the characteristics and quantum of known or potentially suitable habitat for Squatter Pigeon (southern) which is proposed to be cleared. The characteristics of the proposed habitat clearing are described and contextualised as follows:

- 118.6 Ha of known or potential remnant habitat for Squatter Pigeon will be removed, and represents approximately 28.7% of remnant habitat for Squatter Pigeon within the project area.
- The removal of remnant habitat for Squatter Pigeon on the project area, represents approximately 1.2% of remnant habitat for Squatter Pigeon within the surrounding area (within 10 Km of the project area).
- In regard to potentially suitable non-remnant habitat (mainly grazing pasture), 168.8 Ha is proposed to be removed. That represents approximately 70% of that assessed habitat type within the project area.
- The removal of non-remnant habitat for Squatter Pigeon (mainly grazing pasture), represents approximately 0.8% of similar habitat within the surrounding area (within 10 Km of the project area).
- In regard to potential dispersal habitat, the removal 22.7 Ha represents about 48% of that which has been mapped within the project area.
- Habitat to be removed on the project area represents approximately < 0.5% of that habitat type within the surrounding area (within 10 Km of the project area).

Table 4-3 summarises habitat removal and retention consistent with the habitat categorisation described by the Commonwealth Department of Energy and Environment (DEE 2019c)[44]. Whilst potential breeding habitat (5.2 Ha) is defined (according to decision rules within DEE 2019c), the overall quantum of remnant habitat proposed to be cleared or retained does not change. The key difference is the overall quantum of potential 'dispersal habitat' calculated for within the disturbance footprint and that outside the footprint (but within the project area). This increase is comprised of the non-remnant habitat (cleared grazing land) which provides the 100m buffer to remnant habitat as per the DEE 2019c habitat categorisation.

[44] Provided in correspondence by the DEE 2019c to clarify the habitat description framework for the assessment of the Squatter Pigeon (southern).

Table 4-2 Retention and Removal Squatter Pigeon (southern) Habitat within the Project Area

Habitat Category	Inside Disturbance Area Remnant (Ha)	Inside Disturbance Area Non-Remnant (Ha)	Outside Disturbance Area Remnant (Ha)	Outside Disturbance Area Non-Remnant (Ha)
Known or Potential Habitat	118.6	168.8	225.3	70.1
Potential Dispersal Habitat	22.7		47	

Table 4-3 Squatter Pigeon Habitat Retention and Removal (after DEE 2019c)

Habitat Category	Inside Disturbance Area Remnant (Ha)	Inside Disturbance Area Non-Remnant (Ha)	Outside Disturbance Area Remnant (Ha)	Outside Disturbance Area Non-Remnant (Ha)
Known or Potential Foraging Habitat	113.4	168.8	167.6	70.1
Potential Breeding Habitat	5.2		57.7	
Potential Dispersal Habitat	22.7	107.3	47	168.4

4.4.2. Other Potential Threats

In addition to ongoing vegetation clearance and fragmentation, the TSSC (2015) cite the following as current threats to the Squatter Pigeon (southern):

- overgrazing of habitat by livestock and feral herbivores such as rabbits (*Oryctolagus cuniculus*);
- introduction of weeds;
- inappropriate fire regimes;
- thickening of understorey vegetation;
- predation by feral cats (*Felis catus*) and foxes (*Vulpes vulpes*); and
- trampling of nests by domestic stock.

Under existing land use context, all of the abovementioned threats could, in varying degrees, currently apply to Squatter Pigeons across land relevant to the project. The action is not inherently likely to increase any of those recognised threats to the Squatter Pigeon (southern).

Fire management within the project area and immediate surrounds will be carried out under the project's Environment Management Plan. This will include, amongst other strategies, the provision of appropriate buffer distances between the disturbance area and surrounding bushland and manage vegetation within the buffer areas to maintain safe fuel loads. Fire management across the surrounding area within the Mamelon property will be carried out under the Project's Offset Management Plan. Key strategies for both plans will include control strategies for invasive weeds and animals, including rabbits, feral cats, and foxes.

Fire characteristics can also be altered significantly where exotic grasses have been established (e.g. Buffel Grass *Pennisetum ciliare* and Green Panic *Megathyrsus maximus*). The implementation of controlled livestock grazing regimes could encourage suppression of exotic pasture grasses, assist in fuel management to avoid high intensity bushfires, and assist natural regeneration of foraging trees and prevent further degradation of habitat. The presence of livestock will need to subject to further control / seasonal exclusion within habitat of which is assessed as supporting higher value for nesting. The balance of these demands will need to be addressed within the project's Environment Management Plan.

4.5. Avoidance, Mitigation, and Management Strategies

The following measures and strategies are proposed in order to directly reduce the scale and intensity of the potential impacts of the proposed action on Squatter Pigeon (southern).

In regard to impact mitigation options to reduce risks during habitat clearing operations:

- The extent of vegetation clearing should be clearly identified on construction plans and in the field.
- Vegetation clearing is to be undertaken in a sequential manner that ensures Squatter Pigeons within the area being cleared have enough time to move out of the clearing site without human intervention.
- No clearing of mapped potentially suitable breeding habitat is to commence without a targeted pre-clearing survey being completed, and throughout clearing operations, the presence of a suitably qualified and experienced ecologist.

In regard to impact mitigation options to reduce impacts to retained habitats:

- The risk of high-intensity fires within retained habitat should be addressed through the adoption of a fire management plan which is implemented for the life of the action, and best practice and regional approaches (e.g. QPWS 2012).
- Control of invasive exotic grasses and woody weeds should be implemented through an integrated approach that uses a variety of methods to maximise control of lantana infestations, e.g. herbicides, mechanical removal, fire, biological control and revegetation.
- The implementation of controlled livestock grazing regimes could encourage suppression of exotic pasture grasses, assist in fuel management to avoid high intensity bushfires, and assist natural regeneration of foraging trees and prevent further degradation of habitat. The strategy of including controlled livestock grazing may be considered as part of the balance of benefits for all threatened fauna species which may use the same habitat.
- Specific hygiene procedures designed to prevent the introduction / spread of *P. cinnamomi* will need to be prepared for land management works within remnant vegetation areas retained outside the project disturbance area (e.g. vehicle washdown stations, and footwear cleaning stations) and consistent with best practice guidelines (e.g. DE 2015a).
- All new fencing within or adjacent to retained habitats should exclude barbed wire. In places where existing fences are required for stock control, as a minimum, the top one or two strands should be replaced with high tensile plain wire.

In regard to impact mitigation options to reduce the risk of predation by feral mammals:

- Feral cat, fox, and pig controls will be incorporated within the suite of feral animal management strategies to be implemented within the project area during both construction and operational phases.

4.6. Significant Impact Assessment

The *Significant Impact Guidelines 1.1 - Matters of National Environmental Significance* (DEWHA 2013) state that a 'significant impact' is an impact which is important, notable, or of consequence, having regard to its context or intensity.

The significant impact guidelines (DEWHA 2013) state that actions are likely to have a significant impact on a vulnerable species if they adversely affect habitat critical to the survival of the species. There is no Commonwealth or State recovery plan for the Squatter Pigeon (southern) which identifies habitat critical for Squatter Pigeon (southern), and there is no habitat listed on the Register of Critical Habitat maintained by the minister under the EPBCA (DE 2020c; DES 2020).

The significant impact guidelines (DEWHA 2013) state that actions are likely to have a significant impact on a vulnerable species if they adversely affect habitat critical to the survival of the species. *Habitat critical to the survival of a species or ecological community*[45] refers to areas that are necessary:

- for activities such as foraging, breeding, roosting, or dispersal; or
- for the long-term maintenance of the species or ecological community (including the maintenance of species essential to the survival of the species or ecological community, such as pollinators); or
- to maintain genetic diversity and long-term evolutionary development, or
- for the reintroduction of populations or recovery of the species or ecological community.

The significant impact guidelines (DEWHA 2013) describe nine significant impact criteria against which an action should be assessed to determine whether an action is likely to have a significant impact on a vulnerable species. Several of the significant impact criteria refer to 'an important population' of a species. DEWHA (2013) states that an 'important population' is a population that is necessary for a species' long-term survival and recovery. This may include populations identified as such in recovery plans, and/or that are:

- key source populations either for breeding or dispersal
- populations that are necessary for maintaining genetic diversity, and/or
- populations that are near the limit of the species range.

DE (2020c) describe important sub-populations of the subspecies as those relatively small, isolated and sparsely distributed sub-populations occurring south of the Carnarvon Ranges in Central Queensland. The project area is not within the spatial area described. DE (2020c) conclude that, for the region relevant to the project area, that the subspecies remains common and is considered to be distributed as a single, continuous (i.e. inter-breeding) sub-population.

DE (2020c) identifies the following threats as relevant to the Squatter Pigeon (southern): predation by feral cats; competition and land degradation by rabbits; and predation by the European red fox. TSSC (2015) describe the following as threats to Squatter Pigeon (southern): overgrazing of habitat by livestock and feral herbivores such as rabbits (*Oryctolagus cuniculus*); introduction of weeds; inappropriate fire regimes; thickening of understorey vegetation; and trampling of nests by domestic stock.

Table 4-3 provides and assessment of the action based on the above for each of the nine significant impact criteria described in DEWHA (2013).

[45] Such habitat may be, but is not limited to: habitat identified in a recovery plan for the species or ecological community as habitat critical for that species or ecological community; and/or habitat listed on the Register of Critical Habitat maintained by the minister under the EPBCA.

Despite the different approaches to habitat categorisation to assess potential impacts in this report, it is concluded that the action is likely to have an adverse impact on 'habitat critical to the survival of the species' and thus, result in a 'significant' impact to the subspecies within the project area.

Taking into account a suite of proposed impact mitigation measures and strategies to directly reduce the intensity of the potential impacts of the proposed action, it is concluded that the action is likely to result in a significant residual impact to the Squatter Pigeon (southern) within the project area, however, the action would not result in a significant residual impact to the species within the surrounding area.

The scale of the impact of removing non-remnant habitat (grazed pasture), including that depicted on **Figure 4-4** as 'potential dispersal habitat', would not result in a significant impact to the Squatter Pigeon (southern). In the context of the availability of similar non-remnant habitat across the surrounding area, the potential impact of the removal on the project area is regarded as negligible.

Table 4-4 Significant Impact Assessment – Squatter Pigeon (southern)

Significant Impact Assessment Criteria	Assessment
Will the action: *lead to a long-term decrease in the size of an important population of a species*	DE (2020c) does not identify / describe any 'important populations' within the region relevant to the project area, i.e. north of the Carnarvon Ranges in Central Queensland. DE (2020c) concludes that the Squatter Pigeon (southern) remains common north of the Carnarvon Ranges in Central Queensland and is considered to be distributed as a single, continuous (i.e. inter-breeding) sub-population. Evidence indicates that Squatter Pigeons occur throughout the landscape surrounding the project area and that potentially suitable remnant woodland habitat is widespread (L. Agnew. pers obs.; Figure 4-3). There are numerous records of Squatter Pigeons within cleared and grazed landscapes throughout the wider area and that non-remnant habitat is widespread within the landscape surrounding the project area (L. Agnew. pers obs.; Figure 4-3). Given this, and that there is no important population present (DE 2020c), it is concluded that the action would not lead to the long-term decrease in the size of an important population, or the single, continuous sub-population north of the Carnarvon Ranges as described in DE (2020c).
Will the action: *reduce the area of occupancy of an important population*.	There is no 'important population' described for the region (DE 2020c). The quantum of habitat loss and the nature / location of habitat proposed to be cleared is not considered to be significant reduction in the area of occupancy of Squatter Pigeons within the area north of the Carnarvon Ranges in Central Queensland, or within the landscape surrounding the project area. Given this, and as there is no important population present, the action will not reduce the area of occupancy of an important population.
Will the action: *fragment an existing important population into two or more populations*.	DE (2020c) does not identify / describe any 'important populations' within the region relevant to the project area, i.e. north of the Carnarvon Ranges in Central Queensland. The action will be largely contained within cleared pastoral lands, though will include clearing of areas of remnant woodland. The proposed clearing, whether on cleared pastoral lands or remnant woodland, will not be of the extent or location which will create fragmentation of the Squatter Pigeon sub-population within the area of known occupancy north of the Carnarvon Ranges in Central Queensland, or within the landscape surrounding the project area. Given this, and as there is no important population present, the action will not fragment an important population into two or more populations.
Will the action: *adversely affect habitat critical to the survival of a species*.	There is no Commonwealth or State recovery plan which identifies habitat critical to the survival of Squatter Pigeon (southern), and there is no habitat listed on the Register of Critical Habitat maintained by the minister under the EPBCA. DEE (2019) provides a habitat categorisation to inform the assessment of 'key habitat requirements' for the species. This includes definitions for breeding, foraging and dispersal habitat. Implementing an assessment based on that information it must be determined that the action will adversely affect habitat for breeding, foraging and dispersal, and as such habitat critical for the survival of the species. Therefore, it must be determined that the project constitutes a significant impact to Squatter Pigeon (southern) within the project area. However, neither the quantum of habitat loss nor the nature / location of habitat proposed to be cleared would result in an adverse effect on habitat for the Squatter Pigeon sub-population within the area of known occupancy north of the Carnarvon Ranges in Central Queensland, or within the landscape surrounding the project area.

Significant Impact Assessment Criteria	Assessment
Will the action: *disrupt the breeding cycle of an important population.*	DE (2020c) does not identify / describe any 'important populations' within the region relevant to the project area, i.e. north of the Carnarvon Ranges in Central Queensland. DE (2020c) concludes that the Squatter Pigeon (southern) remains common north of the Carnarvon Ranges in Central Queensland and is considered to be distributed as a single, continuous (i.e. inter-breeding) sub-population. A large area of remnant woodland habitat, of comparatively higher value as breeding habitat for to Squatter Pigeons, will be retained within the southern part of the project area. Smaller areas within the north-west and north-east parts of the project area will also be retained. The scale of the habitat clearing within the project's disturbance footprint is unlikely to have any impact on the breeding cycles of Squatter Pigeons within the larger tracts of woodland habitat adjacent to the project area. Given this, and that there is no 'important population' present (DE 2020c), it is concluded that the action would not disrupt the breeding cycle of an important population.
Will the action: *modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline.*	The scale of the proposed habitat clearing (both remnant vegetation and grazing pastures) within the project's disturbance footprint is unlikely to have an impact to the extent that would result in a decline of the Squatter Pigeon. Various land and habitat management strategies for the project area will be designed to result in positive outcomes for Squatter Pigeons and prevent further degradation of retained and adjacent habitat (e.g. buffering and rehabilitation retained woodland habitat, control strategies for feral plants and animals, and management of bushfire fuel loads). As a result, the action is highly unlikely to modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline.
Will the action: *result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat.*	There is potential for introduction and spread of invasive species as a result of the action. It is highly unlikely that action will contribute any significant change to existing threats (e.g. weeds, cats, and foxes) given the current land use context for the project area and surrounding area (long history of pastoralism) and as a result of the implementation of supporting plans for control of invasive species and management of retained habitats. The potential introduction and spread of invasive weeds and feral animals will be addressed through a comprehensive suite of best-practice prevention and control strategies. Therefore, with the appropriate management measures in place, it is considered highly unlikely that the action will result in new or increased levels of invasive species becoming established within Squatter Pigeon habitat.
Will the action: *introduce disease that may cause the species to decline.*	There is a negligible potential for the action to introduce disease that may cause the species to decline.
Will the action: *interfere substantially with the recovery of the species.*	There is no Commonwealth or State recovery plan for the Squatter Pigeon (southern) though current threats to Squatter Pigeon (southern) include, after TSSC (2015): ongoing vegetation clearance and fragmentation; overgrazing of habitat by livestock and feral herbivores such as rabbits; introduction of weeds; inappropriate fire regimes; thickening of understorey vegetation; predation by feral cats and foxes; and trampling of nests by domestic stock (TSSC 2015). The action is unlikely to interfere substantially with the recovery of the Squatter Pigeon as: the scale of the proposed vegetation clearing is relatively small and the location of such clearing will not fragment habitats; areas of comparatively higher value habitat will be retained, buffered, and subject to land management practices to maintain / improve habitat values; control strategies for feral plants and animals will be implemented; and management strategies developed to minimise the threat of high-intensity fires. Given the above, the action is considered unlikely to interfere substantially with the recovery of the species.

5. Collared Delma *Delma torquata*

5.1. Background and Description

The Collared Delma *Delma torquata* is listed as *Vulnerable* under the Commonwealth EPBCA. The listing status of the Collared Delma in Queensland is Vulnerable under the NCA. The Collared Delma is listed as Least Concern on the IUCN Red List for Threatened Species.

There is no Commonwealth or State recovery plan for the Collared Delma (DE 2020d; DES 2020). No Threat Abatement Plan has been identified as being relevant for this species (DE 2020d).

The following summarises key aspects of the Collared Delma's biology and ecology as cited in Porter 1998, Hines *et al.* 2000, Porter 2006, QEPA 2006b, BBRW 2010, Peck 2012, Sanderson *et al.* 2018, DE 2020e, and research referred to therein:

- The Collared Delma is endemic to Queensland, with highly restricted, disjunct populations extending from the outer Brisbane western suburbs north to near Blackwater (Blackdown Tablelands NP) and west to Roma, central Queensland. The total number of known localities for this species has increased with surveys (since ~ 2000) but population sizes are unknown.
- The Collared Delma is regarded as a cryptic reptile, typically associated with rocky sloped or ridge-top areas, often westerly-facing, in eucalypt and acacia dominated woodland with ground cover comprising native grasses, thick leaf litter, and an abundance of loose surface rocks.
- Within this habitat the Collared Delma can be located under weathered loose rocks, flattish bedrock outcroppings, logs or mats of leaf litter, or in cracks and crevices among tussock grasses.
- Collared Delmas have been recorded from a variety of soil types, though the presence of rocks, logs, bark and other coarse woody debris, and mats of leaf litter (typically 30–100 mm thick) are thought to be essential microhabitat characteristics and always present where the species occurs.
- The Collared Delma has also been recorded from eucalypt-dominated woodlands and open forests on alluvium of river and creek flats, and brigalow communities on cracking clay soils in low lying areas.
- Key factors that may contribute to the decline of the Collared Delma include: land clearing for agriculture, pastoralism, urban development, and resource extraction; overgrazing (compacting soil, making it difficult to find suitable shelter); removal of rocks, logs and timber (reduction in available shelter); inappropriate fire regimes (impact to invertebrate prey populations; and removal of the understorey layer (particularly leaf litter and woody debris); and weed invasion (e.g. *Lantana montevidensis*).

5.2. Occurrence – Project Area and Surrounding Area

The Collared Delma has not been recorded within the project area. Specific target species searches (active ground searches) were included in the 2012 fauna surveys for Collared Delma (Meyer 2012). Target surveys were implemented in what was considered to be potentially suitable habitat within the elevated areas of Mamelon Station.

The habitat was described as a rocky hill slope with remnant mixed eucalypt woodland with abundant loose rock, leaf litter and fallen timber in the west of Mamelon station. Meyer (2012) concluded that the area appeared highly suitable for the Collared Delma. The surveyed habitat is located with the southern part of the project area.

Searches of the Queensland Government Wildlife Online show that there are no records within 100 Km of the centre of the project area (**Attachment B**). There were no records for Bukkulla Conservation Park, Tooloombah Creek Conservation Park, Marlborough State Forest, Eugene State Forest, or Mount Buffalo State Forest (see **Attachment B**). A search of the Queensland Government Wildlife Online database for

'confirmed' records of threatened fauna for Blackdown Tableland National Park does not include any record for the Collared Delma (**Attachment B**).

Searches of the Atlas of Living Australia database list a single record from Blackdown Tableland National Park (SEQ Comprehensive Regional Assessment Fauna Survey, 24/11/1997). Blackdown Tableland National Park is approximately 130 Km to the south-west of the project area, and represents the closest record of Collared Delma.

5.3. Habitat Assessment and Definition

DE (2020e) notes that 'Given the difficulty in detecting this species, the Commonwealth environment department considers that an occurrence of important habitat for the Collared Delma is a surrogate for an 'important population' of the species. For a description of important habitat for the Collared Delma, refer to the *Draft referral guidelines for the nationally listed Brigalow Belt reptiles*.'

The Draft referral guidelines (SEWPaC 2011) describes 'important habitat' (and accompanying comments) for Collared Delma as:

- Suitable habitat within the Known / Likely-to-occur distribution of the species and the Toowoomba Range.
- Suitable habitat between grazed or cropped areas, along road reserves, and travelling stock routes, especially the Donnybrook Stock Route region.

The DE (2020e) 'Species May Occur' modelled distribution for Collared Delma may extend over the south-western part of the project area. The closest area mapped as 'Species Known/Likely to Occur' is the Blackdown Tableland National Park, approximately 130 km to the south-west of the project area.

The Draft referral guidelines (SEWPaC 2011) describes 'suitable habitat' for Collared Delma as: 'Open-forests, woodlands and adjacent exposed rocky areas in QLD RE Land Zones 3, 9 and 10.' Habitat suitability assessments across the Project area demonstrate that Land Zone 3 habitats do not support suitable conditions or resources for Collared Delma (L. Agnew & E. Meyer, December 2019, unpub. data)[46].

Conversely, those assessments indicate that potentially suitable habitat occurs offsite, and south-west of the Project area, i.e. RE 11.10.7. Habitat within RE 11.10.7 includes the habitat searched by Meyer (2012) and described then as highly suitable for the Collared Delma. These habitats do not appear to have been subjected to low stock grazing pressure and weeds are uncommon (S. Danielsen, 2019 *pers comm.*). It should be noted that there is no habitat which occurs on Land Zone 9 within the project area.

The Draft referral guidelines (SEWPaC 2011) describes 'suitable habitat' for Collared Delma as: 'Open-forests, woodlands and adjacent exposed rocky areas in QLD RE Land Zones 3, 9 and 10.'

Figure 5-1 describes the extent of potentially suitable habitat for the Collared Delma within the project area, though also outlines potentially suitable habitat within 10Km of the project area.

[46] Essential microhabitat characteristics which are either absent or in such depauperate states due to unsuitable geology and / or a long history of land degradation, include: rock slabs; logs; and mats of leaf litter (3 to 10 cm thick). Further, cattle grazing has resulted in soil compaction, degraded understorey characteristics (i.e. native tussock grass ground cover, leaf litter and woody debris), and invasion of weeds (invasive grasses and woody weeds).

Styx Coal Project

Figure 5-1

Collared Delma Habitat within the Project Area and Surrounding Area

austecology

ML 80187

ML 700022

Stoodleigh Creek

Deep Creek

Barrack Creek

Tooloombah Creek

Mamelon Creek

KOOLTANDRA ROAD

MOUNT BISON ROAD

BRUCE HIGHWAY

NEERIM ROAD

NEERIM ROAD

TOOLOOMBAH ROAD

Mining Lease

Disturbance Area

Potential Habitat – Adjacent Areas

SOURCE:
DCDB: DNRME 2019
Mining Leases: DNRME 2019
Habitat: Austecology 2020

N
W E
S

0 500 1,000 1,500 2,000
Meters

A3 Scale: 1:40,000

File:STYX-Fig5-1-Collared-Delma-Habitat-200619 Date: 19/06/2020

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Email: info@geoview.com.au
Mobile: 0409 481147
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5.4. Assessment of Potential Impacts

The Draft referral guidelines (SEWPaC 2011) identify the following as examples of high-risk significant impacts to the Collared Delma:

- The loss, fragmentation or change in the ecological character or function of important habitat which is likely to adversely affect the recovery of the species.
- The fragmentation of important habitat or landscape corridors through the introduction of a barrier to dispersal.
- The introduction of invasive weeds, including the deliberate or accidental sowing of pasture grasses, within 30 m of important reptile habitat without appropriate and ongoing control measures.
- Enabling the access of animal pests, including cats, pigs and cane toads, to important reptile habitat without appropriate and ongoing control measures.
- Cattle grazing activities resulting in the degradation of microhabitat features within important habitat patches.
- Clearing two or more hectares of important habitat.

There is a low potential for the project to impact on, or support threats to, habitat identified as potentially suitable for the Collared Delma.

Potentially suitable habitat for Collared Delma is located adjacent to the southern part of the project area. None of that habitat will be cleared and is well beyond the disturbance footprint. Surrounding remnant vegetation provides a significant ecological buffer.

5.5. Avoidance, Mitigation, and Management Strategies

The following measures and strategies are proposed in order to directly reduce the scale and intensity of the potential impacts of the proposed action:

- The risk of high-intensity fires within retained habitat should be addressed through the adoption of a fire management plan which is implemented for the life of the action, and best practice and regional approaches (e.g. QPWS 2012).
- Control of invasive weeds will be implemented through an integrated approach that uses a variety of control methods to maximise potential control of lantana infestations, e.g. herbicides, mechanical removal, fire, biological control and revegetation.

5.6. Significant impact Assessment

The *Significant Impact Guidelines 1.1 - Matters of National Environmental Significance* (DEWHA 2013) state that a 'significant impact' is an impact which is important, notable, or of consequence, having regard to its context or intensity. The significant impact guidelines (DEWHA 2013) state that actions are likely to have a significant impact on a vulnerable species if they adversely affect habitat critical to the survival of the species.

Whilst there is no Commonwealth or State recovery plan for the Collared Delma (DE 2020d; DES 2020), DEWHA (2011) describe important habitat as: suitable habitat within the 'Known / Likely-to-occur distribution of the species' and the Toowoomba Range; and suitable habitat between grazed or cropped areas, along road reserves, and travelling stock routes, especially the Donnybrook Stock Route region.

DE (2020d) provides a map of the species distribution[47]. Based on this mapping, the south-western extent of the Project Site is within the 'species or species habitat 'may occur' modelled distribution.

The significant impact guidelines (DEWHA 2013) describe nine significant impact criteria against which an action should be assessed to determine whether an action is likely to have a significant impact on a vulnerable species. Several of the significant impact criteria refer to 'an important population' of a species. DEWHA (2013) state that an 'important population' is a population that is necessary for a species' long-term survival and recovery. This may include populations identified as such in recovery plans, and/or that are:

- key source populations either for breeding or dispersal;
- populations that are necessary for maintaining genetic diversity; and / or
- populations that are near the limit of the species range.

It is possible that the record of Collared Delma within the Blackdown Tableland National Park may indicate the presence of an important population. Blackdown Tableland National Park is approximately 130 km to the south-west of the project area.

Table 5-1 provides an assessment of the action based on the above for each of the nine significant impact criteria described in DEWHA (2013).

It is concluded that the action would not result in a significant impact to the Collared Delma.

[47] 'The distribution shown is generalised from the Departments Species of National Environmental Significance dataset. This is an indicative distribution map of the present distribution of the species based on best available knowledge.' (DE 2020c).

Table 5-1 Significant Impact Assessment – Collared Delma

Significant Impact Assessment Criteria	Assessment
Will the action: *lead to a long-term decrease in the size of an important population of a species*	DE (2020e) does not identify / describe any 'important populations' as such. The closest area mapped as known habitat is the Blackdown Tableland National Park, approximately 130 km to the south-west of the project area. Within the project area, disturbance footprint is well separated from the area identified as potentially suitable habitat for Collared Delma. Remnant vegetation surrounding that habitat will be retained and will provide a suitable ecological buffer. Given this, the action would not lead to a long-term decrease in the size of an important population of a species, even if it were to occur within the project area.
Will the action: *reduce the area of occupancy of an important population*.	There is no 'important population' described for the region (SEWPaC 2011; DE 2020e). The action will not result in any clearing of potentially suitable habitat for Collared Delma, or the surrounding remnant vegetation which may act as a buffer to such habitat. Thus, the action will not reduce the area of occupancy of an important population, even if it were to occur within the project area.
Will the action: *fragment an existing important population into two or more populations*.	There is no 'important population' described for the region (SEWPaC 2011; DE 2020e). The action will not result in any clearing of potentially suitable habitat for Collared Delma, or the surrounding remnant vegetation which may provide dispersal opportunities. Thus, the action will not fragment an existing important population into two or more populations, even if it were to occur within the project area.
Will the action: *adversely affect habitat critical to the survival of a species.*	DE (2020e) does not identify habitat critical to the survival of Collared Delma, and there is no habitat listed on the Register of Critical Habitat maintained by the minister under the EPBCA. The action will not result in any clearing of potentially suitable habitat for Collared Delma, or the surrounding remnant vegetation. The action will not result in any clearing of any potential 'important habitat'. Thus, the action will not adversely affect habitat critical to the survival of a species, even if it were to occur within the project area.
Will the action: *disrupt the breeding cycle of an important population.*	There is no 'important population' described for the region (SEWPaC 2011; DE 2020e). The action will not result in any clearing of potentially suitable habitat for Collared Delma, or the surrounding remnant vegetation which may act as a buffer to such habitat. Thus, the action will not disrupt the breeding cycle of an important population.
Will the action: *modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline.*	The action will not result in any clearing of potentially suitable habitat for Collared Delma, or the surrounding remnant vegetation. The implementation of the management strategies in regard to control of invasive plants and pest animals, fire management, and grazing exclusion are likely to produce positive outcomes within potentially suitable habitat for Collared Delma. Thus, the action will not modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline.

Significant Impact Assessment Criteria	Assessment
Will the action: *result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat.*	There is potential for introduction and spread of invasive species as a result of the action, though it highly unlikely that action will contribute any significant further change to existing threats given the current land use context for the project area and surrounding area (long history of pastoralism). The implementation of the management strategies in regard to control of invasive plants and pest animals are likely to produce positive outcomes within potentially suitable habitat for Collared Delma. Thus, the action is unlikely to result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat.
Will the action: *introduce disease that may cause the species to decline.*	There is a negligible potential for the action to introduce disease that may cause the species to decline.
Will the action: *interfere substantially with the recovery of the species.*	There is no Commonwealth or State recovery plan for the Collared Delma (DE 2020e). SEWPaC (2011) identifies a variety of factors implicated in the decline of the Collared Delma. The action provides for the retention, ecological buffering, and management of all potentially suitable habitat for Collared Delma within the project area. Thus, the action will not interfere substantially with the recovery of the species.

6. Off-Site Indirect Impacts

The Project may result in changes to the surface water hydrology and quality, as well as a reduction in groundwater availability, which in turn, has the potential to affect habitat and / or resources for threatened fauna described in this report. These changes may occur off the Mining Leases and hence these potential impacts are referred to as 'off-site indirect impacts'.

The project area is located within the lower part of the Styx River catchment. Two major tributaries of the Styx River occur adjacent to the mining lease area, being Tooloombah Creek to the west and Deep Creek to the east. Tooloombah Creek and Deep Creek are non-perennial or ephemeral, and only flow following significant rainfall events. The confluence of these creeks, which forms the Styx River, is located 2.3 kilometres downstream of the northern extent of the project area. The upper reaches of Tooloombah and Deep Creeks extend west to the Broadsound Range which is characterised by steep topography with grades of approximately 10% (WRM 2020). The majority of the lower reaches of the catchment where the Project is located are characterised by generally flat terrain with slopes less than 0.5% (WRM 2020).

Assessments of potential impacts of the Project on surface water hydrology and quality and groundwater dependent ecosystems have focused on the two major tributaries of the Styx River adjacent to the mining lease area, being Tooloombah and Deep Creeks and surrounding land (WRM 2020, 3D Environmental 2020, ELA 2020, Engeny 2020 a & b).

Habitats associated with Tooloombah and Deep Creeks and surrounding land support known or potentially suitable habitat for Koalas, Greater Gliders, and Squatter Pigeons (CDM Smith 2018, Austecology 2019). Habitat values associated with Tooloombah and Deep Creeks can be summarised as follows (though see previous reporting on habitat assessments and definitions):

- In regard to Koalas (see Section 2):
  - Koalas have been recorded within habitats associated with Deep Creek (**Figure 2-1**) and could be expected within habitats associated with Tooloombah Creek.
  - Remnant vegetation supports regionally known Koala food tree species, e.g. *Eucalyptus tereticornis*, *E. camaldulensis*, *E. platyphylla, E. crebra*, *E. exserta*, *Corymbia clarksoniana*, and *C. intermedia.*
  - Apart from foraging habitat values, habitat is likely to support breeding and dispersal.
  - Habitat is consistent with that described in DE (2014) as *habitat critical to the survival of the koala*.
- In regard to Greater Gliders (see Section 3):
  - Greater Gliders have been recorded within habitats associated with Deep Creek (**Figure 3-1**) and could be expected within habitats associated with Tooloombah Creek.
  - Remnant vegetation supports known feed tree species in Queensland, e.g. *Eucalyptus tereticornis*, *E. tessellaris, E. crebra*, *E. moluccana, Angophora floribunda, Corymbia citriodora*, and *C. intermedia*.
  - Remnant vegetation supports living 'old growth' trees (including 'over mature' trees) and dead stags which support hollows that are essential denning habitat resources.
  - Habitat supports values for foraging, refuge, breeding, and dispersal.
  - Habitat is consistent with that described in DEWHA (2013) as *habitat critical to the survival of a species*.
- In regard to Squatter Pigeons (see Section 4):
  - There are no survey records for Squatter Pigeon associated with Tooloombah and Deep Creeks, though could be expected to use such habitats. Squatter Pigeons have been recorded within the project area and adjacent surrounding area (**Figure 4-1**).
  - Habitat supports surface water which could be used for drinking – Squatter Pigeons are reliant on daily access to drinking water.

- Habitat is consistent with that described by DE (2020c) as 'dispersal habitat', being any forest or woodland occurring between patches of foraging or breeding habitat which facilitates movement between patches of foraging habitat, breeding habitat and / or waterbodies.
- Habitat is consistent with that described in DEWHA (2013) as *habitat critical to the survival of a species*.

Potentially suitable habitat for Collared Delma is located adjacent to the south-western part of the project area, within elevated, steep topography (see Section 5 of this report). None of that habitat is associated with any potential areas of offsite indirect impact. There is no potential that any changes to the surface water hydrology and quality, and / or reduction in groundwater availability, will impact on the Collared Delma.

6.1. Potential Impacts

6.1.1. Surface Water Hydrology

The Project will involve the construction of structures and diversion systems which will modify surface water flows, and potentially surface water quality. The potential impacts of these may manifest during both the construction and operation phase of the Project.

The impacts of the Project on receiving water quality and quantity will be managed through the implementation of a site water management system, applicable during both construction and operational phases (WRM 2020). The site water management system aims to contain water affected by mining operations within the Project area, with releases only occurring during wet conditions when receiving watercourses are flowing. Where possible, catchment runoff from undisturbed areas will be diverted around the mine.

The site water management system includes the following components:

- A large (2,783 ML) mine water dam (Dam 1) which is the main storage for runoff from active mining areas and groundwater inflows to the open cut pits. Dam 1 will also collect undisturbed catchment runoff in the early stages of the Project to provide water supply for mining operations.
- A controlled release system from Dam 1 to Deep Creek. The controlled release system will enable site water volumes to be managed during wet periods when significant inflows to the site water management system are expected. Releases will only occur during flow events in Deep Creek.
- Sediment dams to collect and treat runoff from overburden emplacements.
- Environmental dams to collect and contain runoff from the haul road and rail loop.

WRM (2020) found that the results of their flood modelling study show that the predicted impacts along Tooloomba and Deep Creeks were generally minor, with flooding patterns predicted to remain largely unchanged with the majority of the flood extent continuing to be confined within the banks of Deep and Tooloomba Creeks. Impacts of the Project on flow velocities in the creeks are also very small. The WRM (2020) study also found that there is only a very small (around 1%) risk of an overflow from main storage dam or the environmental dams.

The proposed mine water management system has been designed to contain runoff from mining disturbance within the Project area. Water captured on the site will be used to supply site water demands. During wet climatic conditions, releases from the mine water management system to Deep Creek may be required to manage site water inventory. Suitable release rules have been developed to ensure that receiving water quality is not adversely affected. The results of the water balance model show that releases from Dam 1 to Deep Creek will have a small impact on downstream water quality (WRM 2020). With the proposed releases, downstream water quality is expected to be within the range of natural variability (WRM 2020). As a result, it is concluded that no offsite indirect impact to aquatic habitat suitable for significant species is considered likely.

6.1.2. Sedimentation of Waterways

Erosion and sediment generation is a natural geomorphological function and occurs currently within the catchments of the proposed Project. The rate of erosion and sediment generation is a function of many factors including (but not limited to) rainfall intensity, soil types, topography, slopes and vegetation. The existing (baseline) sediment generation from the proposed Project area is therefore heavily influenced by the current land use of grazing which occurs throughout the majority of the Mamelon property (Engeny 2020a).

Grazing of cattle can increase erosion and sediment generation through:
1. Decrease of ground coverage i.e. grasses (through grazing or compaction).
2. Increased soil disturbance from movement of the cattle in riparian zones (i.e. slopes of waterway banks) (BRS 2001).

During construction and operation, sediment can be mobilised and transported by surface water during rainfall events ultimately discharging into drainage lines which can result in negative impacts on water quality

Vegetation clearing, mining operations and earthworks required during both construction and operation of the mine activities will expose the land to varying levels of erosion due to the combined effects of key factors such as soil type, surface slopes and extent of ground coverage, runoff potential and rainfall intensity (Engeny 2020b). The risk of erosion and consequent loss of sediment has been calculated for the Project for both the existing pre-mine condition (baseline) and operationally which accounts for waste rock material, mine water management and the layout of the proposed Mine (Enegny 2020b).

The conceptual Erosion and Sediment Control Plan (ESCP) describes the proposed general strategies and controls for management of erosion and sediment based on the site conditions, proposed mine features, seasonal influences, management controls and mitigation measures (Enegny 2020b). This is informed by sediment generation modelling which has been has been calculated separately for the entire Mamelon Property, the two MLs and the proposed Project Disturbance Area Footprint (Enegny 2020a).

The assessment results show that the proposed water storages under average climatic conditions in addition to the destocking of the undisturbed MLs and Mamelon offset areas will reduce the estimated baseline sediment generation rate of 5,037 t/year to approximately 2,297 t/year (Engeny 2020a). Furthermore, that an assessment against the Reef 2050 Water Quality Targets indicate that the Project will result in a positive contribution through the expected reduction in sediment load reporting to Tooloombah Creek and Deep Creek associated with the cessation of grazing activities and subsequent managed regeneration of native vegetation on the majority of the Mamelon property (Engeny 2020b). As a result, it is concluded that no offsite indirect impact to aquatic habitat suitable for significant species is considered likely.

6.1.3. Changes to Surface Water Quality

Changes to surface water quality may also occur due to runoff from the haul road, waste rock stockpile areas, coal stockpiles, coal conveyor and other infrastructure elements such as environmental dams. Coal mine water collected in dewatering and sediment dams may contain a range of elements (depending on the source material) such as hydrocarbons and heavy metals. The release of such elements into the surrounding environment and waterways has the potential to cause degradation of habitat used by significant species covered under this impact assessment, degrade stream habitat quality near the Project and with a much lesser likelihood, adversely impact downstream estuarine and marine waters.

Without mitigation, potential exists for several potential contaminants to enter waterways including: contaminated mine dewatering runoff; contaminated runoff from waste rock stockpiles; aqueous waste streams including oily waste water (from heavy equipment cleaning); contaminated runoff from chemical storage areas; potentially contaminated drainage from fuel oil storage areas; and general washdown water.

The potential impact of controlled releases and uncontrolled overflows from the proposed water management system storages has been assessed for each of the six modelled parameters (WRM 2020). That assessment was been undertaken by selecting a number of scenarios based on the total volume of controlled releases over the 18-year model period, and statistically analysing the daily modelled receiving water quality as a series of percentile plots.

Three scenarios were chosen to represent the performance of the system (i.e. modelled controlled release volumes) under varying climatic conditions, being:

- Scenario 2: represents the 1%ile (very wet) climatic conditions over an 18-year period (1890-1907);
- Scenario 50: represents the 10%ile (wet) climatic conditions over an 18-year period (1938-1955); and
- Scenario 82: represents the 50%ile (median) climatic conditions over an 18-year period (1970-1987).

For each of these three scenarios, the modelled water quality of the receiving waters (Tooloombah Creek, Deep Creek and downstream of the Tooloombah/Deep Creek confluence) on each day that a controlled release or uncontrolled overflow occurs was statistically analysed. The days for which there was no release of water from the water management system (i.e. the majority of the time) was ignored in this analysis. Modelling included assessment of electrical conductivity (EC), arsenic (As), molybdenum (Mo), selenium (Se), sulphate (SO_4), and vanadium (V) in Deep Creek, Tooloombah Creek and downstream of the Tooloombah / Deep Creek confluence.

WRM (2020) concluded that for each of the three scenarios, EC, As, Mo, Se, SO_4, and V in the downstream waterways was well within the range of the typical historical receiving water concentrations, and below limit of reporting. As a result, it is concluded that no indirect impact to water resources that may be utilised by the significant species assessed within this report, is considered likely.

6.1.4. Groundwater Drawdown

6.1.4.1. Groundwater Dependent Ecosystem Assessment

3D Environmental (2020) undertook an assessment to determine the source and nature of moisture utilised by vegetation within areas identified as potential groundwater dependent ecosystems (GDEs) and to identify the degree of dependence of vegetation communities on groundwater for survival and sustenance through periods of drought within the area of potential groundwater drawdown by the Project. Multiple lines of evidence including analysis of leaf water potential, core drilling, soil moisture potential and stable isotope analysis of twig xylem, soil moisture, surface water and groundwater were applied with a primary aim of identifying if vegetation within and surrounding the project area is likely to access and utilise groundwater for transpiration, either permanently or intermittently, consistent with the definition of a GDE.

3D Environmental (2020) concluded that watercourses of both Tooloombah and Deep Creeks are consistent with the definition of an aquatic GDE due to the potential for baseflow of groundwater into both drainage systems, to varying extents. Throughout the wet season groundwater represents a minor contribution to baseflow into Tooloombah and Deep Creeks. As the creeks dry following wet season rain events, groundwater is expressed within some sections of Tooloombah and, to a lesser extent, Deep Creek as isolated pools, few of which persist throughout the entire dry season.

These studies also found that weeping paperbark trees occurring along the riparian fringe of Deep Creek and Tooloombah Creek, and near groundwater-fed pools, are consistent with the definition of an Aquatic GDE, as they are shallow rooted and utilising groundwater fed stream pools and fluvial sands.

3D Environmental (2020) also found that the riparian fringes and associated emergent forest red gum (*Eucalyptus tereticornis*) are likely to represent a terrestrial GDE that is dependent on groundwater contained within the shallow coal measures and the associated alluvial unconformity.
The investigation by 3D Environmental (2020) of the Tooloombah Creek and Deep Creek GDEs demonstrates that forest red gum (*Eucalyptus tereticornis*) on the upper terraces are accessing a saturated moisture source and this water is inferred to be held at or near the alluvial unconformity with the weathered Styx Coal Measures.

3D Environmental (2020) observed that the surrounds of both the Tooloombah and Deep Creeks GDE investigation areas were characterised by the presence of forest red gum (*Eucalyptus tereticornis*) typically on river banks, terraces and levees, and poplar box (*Eucalyptus populnea*), poplar gum (*Eucalyptus platyphylla*), moreton bay ash (*Eucalyptus tessellaris*) and ironbark (*Eucalyptus crebra*) on elevated areas distal to the stream channel. Except for *Eucalyptus crebra* which has an extremely shallow rooting system, all eucalyptus species are potential users of groundwater.

All of the abovementioned eucalypt species are known, or are likely to be, used by both Koalas and Greater Gliders as forage trees.

6.1.4.2. Potential Impacts to Threatened Fauna

Potential impacts of groundwater drawdown have been identified through a review of available literature addressing:
1) diet and ecology;
2) threats, including increased drought and heatwaves related to climate change;
3) the potential impacts of water stress on habitat trees; and
4) the influence of groundwater on the ecophysiology of vegetation communities.

6.1.4.2.1. Reduced access to drinking water

Groundwater drawdown may reduce the availability of surface water along intermittent creeks / streams, including the persistence of pools during dry periods (Andersen *et al.* 2016). This could pose a significant threat to Koalas during heatwaves and / or periods of drought, when animals require access to free-standing water in order to maintain water balance (Mella *et al.* 2019).

A reduction in surface water availability could force Koalas to travel more widely in search of drinking water, potentially increasing their exposure to predators, especially if animals are forced to travel over land in search of water (as is likely in areas with sparse and / or patchy tree cover). With less available drinking water, predators may also be concentrated around sources of drinking water used by Koalas, potentially increasing the risk of predation (Mella *et al.* 2019). As a granivore, Squatter Pigeons drink daily (Frith 1982), thus surface water represents a key component of habitat critical to the survival of the Squatter Pigeon.

6.1.4.2.2. Loss of shelter / shade due to canopy thinning and / or mortality of shelter trees

Drawdown of groundwater may affect a tree's ability to access groundwater causing water stress (Andersen *et al.* 2016). The resulting water deficit / stress could lead to increased leaf abscission and, under extreme conditions, tree mortality as well due to cavitation or air bubble formation in the xylem of trees, carbon starvation, and increased susceptibility of trees to insect / pathogen attack (Matusick *et al.* 2013; Low 2011 and references therein).

Canopy thinning (due to leaf abscission) and / or the death of habitat trees, may limit available shade leaving Koalas more vulnerable to heat stress during warm / hot weather. This includes not only feed trees

(e.g. eucalypt species), but also non-feed trees used for shelter under hot or heatwave conditions (Ellis *et al.* 2010).

The susceptibility and response of vegetation to groundwater decline will depend on a range of factors, including (but not limited to)[48]:

- the reliance of plant / tree species on groundwater;
- groundwater accessibility;
- soil type and available soil moisture above the groundwater table; and
- the ability of plant species to tolerate periods of water stress or water deficit.

Research by Froend and Summer (2010) suggests the rate of groundwater drawdown may also be important in this regard, with rapid drawdown having a more marked impact on vegetation communities than a gradual reduction in groundwater levels. Predicting the response of plants / trees to groundwater drawdown is therefore difficult (see Andersen *et al.* 2016 for a more detailed discussion).

Habitat along both Deep and Tooloombah Creeks may be used as dispersal habitat for Squatter Pigeons, with such habitat facilitating local movement of the subspecies between patches of foraging habitat, breeding habitat and / or waterbodies, or the wider dispersal of individuals in search of reliable water sources during the dry season or during droughts (Squatter Pigeon Workshop 2011). Significant reduction in canopy cover is likely to reduce values for Squatter Pigeons in regard to cover for dispersal. Groundwater drawdown which leads to tree canopy thinning, in turn may lead to conditions favourable for the thickening of understory vegetation (ground cover and shrub layer; native flora, though also invasive weeds). The degradation of habitat through thickening of understory vegetation is regarded as a key threatto the Squatter Pigeon (TSSC 2015).

6.1.4.2.3. Reduction in available forage

Zolfaghar (2013) studied the ecophysiology of eucalypt woodlands along a depth-to-groundwater gradient and found the productivity and leaf area of eucalypts was greater in areas of shallow ground water (<5.5 m below ground level [BGL]) compared with areas of deeper groundwater (>9.8 m BGL). This suggests groundwater drawdown could affect the amount of forage available to Koala and Greater Glider (both obligate folivores).

For plant / tree species reliant on groundwater, lowering of the groundwater table may also result in water stress leading to leaf abscission and / or reduced shoot growth, particularly under drought conditions (Low, 2011 and references therein; Atwell *et al.* 2007). The loss of foliage from Koala and Greater Glider feed trees could reduce the availability of forage for these species, affecting not only nutrition but also water balance, since both species obtain a significant proportion (upwards of 60%) of their daily water needs from the foliage of feed trees (Nagy & Martin 1985; Foley *et al.* 1990). A reduction in eucalypt shoot growth could also impact significantly on the nutrition of Greater Gliders and Koala, with both species showing an apparent preference for younger leaves where available[49].

As well as affecting the nutrition and water balance of Koalas, the shortage of forage may force Koalas to travel more widely in search of food, increasing their exposure to terrestrial predators such as foxes and dogs / dingos.

[48] After Andersen *et al.* 2016 and references therein; see also Froend & Sommer 2010.
[49] Jensen *et al.* 2014 and references therein; Maloney 2007 and references therein; Pahl & Hume 1990 cited in Moore & Foley 2000; Ullrey *et al.* 1981 cited in Moore & Foley, 2000; see also Moore & Foley 2000.

6.1.4.2.4. Reduction in leaf (foliar) water content

Both the Koala and Greater Glider obtain a significant proportion of their water (upwards of 60%) from the foliage of feed trees (Nagy & Martin 1985; Foley *et al.* 1990). The ability of these species to maintain water balance may therefore be determined by foliar water content, particularly under hot / dry conditions or in drought affected areas where free water is scarce[50]. Highlighting the importance of leaf moisture to Koalas, a number of studies have proposed threshold requirements for leaf water content, ranging from 51 to 65% of wet mass[51]. Where leaf moisture levels fall below these thresholds, Koalas may succumb to heat stress and / or dehydration, as evidenced by the catastrophic mortality of Koalas on St Bees Island, when foliar moisture fell below 51% fresh weight during a prolonged drought (Clifton 2010).

Thresholds for leaf moisture content in Greater Gliders are unknown, but given their reliance on foliar water, significant reductions in foliar water content could also pose a threat to this species, particularly under very hot and dry conditions.

Data from field (e.g. Clifton 2010) and laboratory studies (e.g. Merchant *et al.* 2007) show a significant reduction in leaf water content of eucalypt trees exposed to drought / water stress. Thus, by limiting the amount of soil water available to trees, groundwater drawdown could potentially reduce the leaf water content of Koala and Greater Glider feed trees to the possible detriment of these species.

McKiernan *et al.* (2014) found water availability had little impact on overall plant secondary metabolite levels in eucalypt foliage and that levels of antifeedants (chemicals affecting the digestibility and assimilation of nutrients, including formylated phloroglucinol compounds and tannins) were unaffected by changes in water availability. The drawdown of groundwater and any resulting reduction in available water is therefore unlikely to affect the concentration of antifeedant chemicals in the foliage of affected trees. Any impact these chemicals might have on the digestibility and assimilation of nutrients in Koala or Greater Glider is therefore unlikely to change with reduced availability of groundwater.

6.1.4.2.5. Increased physiological stress due to reduced availability of food / water and shelter

In Koalas, reduced availability of food and water during drought may result in significant increases in the secretion of the stress hormone cortisol (Davies *et al.* 2014). Sustained increases in cortisol levels may compromise the immune function of Koalas increasing their susceptibility to disease (Narayan 2019). A reduction in the availability of food, water and shelter due to groundwater drawdown could therefore increase the susceptibility Koalas to diseases such as Chlamydia, which can lead to reduced fertility, increased blindness and increased mortality of Koalas.

6.2. Avoidance, Mitigation, and Management Strategies

The previous sections have identified a number of potential adverse impacts. Mitigation and management measures are to be implemented during Project construction, operation and decommissioning to avoid or minimise impacts on ecological values. In regard to those impacts, measures and strategies to mitigate potential impacts of the project on MNES and MSES described in this report are largely reliant upon the successful implementation of other project management plans. The following measures and strategies are proposed in order to directly reduce the scale and intensity of the potential impacts of the proposed project.

[50] Wu *et al.* 2012; Wu 2017; Ellis *et al.* 1995; Ellis *et al.* 2010; Davies *et al.* 2014; Moore & Foley 2000 & references therein.

[51] Pahl & Hume 1990; Hume & Esson 1990; and Melzer 1995 cited in Moore & Foley 2000.

A variety of documents have been prepared to provide mitigation and management measures to address a variety of potential impacts associated with the Project. An overarching **Environmental Management Plan** (EMP) has been developed to provide best practice procedures to avoid and reduce impacts to key environmental values. In addition, the following plans are relevant to this assessment:

- **Receiving Environment Monitoring Program** (REMP). The REMP describes the rationale and salient aspects of a monitoring program for the receiving environment surrounding the project area, including the location of monitoring sites, monitoring frequency and parameters. The REMP is designed to evaluate changes in the quality of the receiving environment, with a focus on a variety of parameters - including surface water quality, sediment quality, and habitat quality.
- **Water Management Plan** (WMP). The WMP describes the procedures that will be implemented to manage water within the project area, to provide sufficient water for construction and operation of the mine, while also outlining how excess water will be managed, sourced from rainfall or from groundwater seepage into the mine pits.
- **Erosion and Sediment Control Plan** (ESCP). The ESCP describes the approach to managing the risk of erosion at within the project area, and the methods that will be used to capture and manage sediment, to reduce discharges to the receiving environment.
- **GDE Management and Monitoring Plan** (GDEMMP). The GDEMMP describes the mitigation and monitoring measures that will be implemented to manage the impacts of the Project on GDEs. A series of triggers and corrective actions have been developed for each GDE, to facilitate an assessment of the impacts of the Project during various development stages, and to inform an assessment of the suitability of mitigation measures to manage impacts. An adaptive management approach will be implemented, with the results of monitoring relevant indicators for each GDE informing the ongoing re-evaluation of Project impacts and associated mitigation measures.
- **Rehabilitation Management and Closure Plan** (RMP) – The RMP details all aspects of the progressive rehabilitation of the Project's mining areas including landforms, rehabilitation schedule, plant species selections, goals and objectives, and rehabilitation monitoring. A rehabilitation framework has been developed to describe how final landforms associated with the Project will be rehabilitated after the completion of mining activities. Runoff from disturbed areas has the potential to reduce water quality in the receiving environment, with rehabilitation a key management measure to address this in the long term.
- **Offset Area Management Plan** (OAMP) – The OAMP details the approach to land use management of proposed offset sites which includes the surrounding Mamelon property which encompasses the Project footprint.

Mitigation and management measures to be implemented are classified, based on the mitigation hierarchy, which places mitigation and management measures in the following order of importance:

- Avoid – impacts are completely avoided;
- Minimise – where impacts are unavoidable, the extent of the impacts (duration, intensity) are minimised;
- Rehabilitate – where impacts cannot be avoided or minimised, the environmental values that have been impacted are restored through rehabilitation methods; and
- Offset – where an impact results in a significant residual impact to an environmental value, offsetting is required to counteract this impact.

The mitigation and management measures that will be implemented for the Project are outlined in the in reference to the mitigation hierarchy. As highlighted previously, measures and management strategies to mitigate potential impacts of the project on MNES and MSES in regard to the abovementioned 'off-site indirect impacts' are largely reliant upon the successful implementation of other project management plans.

The design and construction planning of the Project has allowed for the avoidance of impacts to environmental values through the following measures:

- Project design has been optimised and refined to avoid some areas of remnant vegetation and high ecological value.
- Construction will be completed during the dry season where possible to eliminate the need to divert water around the construction area and to minimise risks to instream environmental values.
- Construction works along waterways have been located to avoid impacts to permanent water sources within creeks (permanent pools).
- Wash-down areas for machinery will be clearly marked and located in areas that will prevent contaminated water leaching into soils or flowing into waterways.

Where impacts to environmental values cannot be avoided, minimisation of these impacts will be implemented through a variety of measures, including the following:

- Project design elements will ensure that the minimum amount of land required for operation will be disturbed and ensure that surface water flows into creeks represent natural conditions as much as possible.
- Construction activities will be completed during the dry season where possible, to reduce the potential of construction-related scour and erosion.
- Post-construction waterway bank stabilisation will be implemented as necessary to allow for revegetation and to reduce scour potential.
- In regard to waterway crossings: maximising culvert aperture width (>2.4 m) and internal height (>3 m above the 'commence of flow' water level) across the entire channel width, thereby reducing impacts on environmental flows; design of culvert gradient less than natural waterway bed gradient, and crossing infrastructure with apron and stream bed scour protection.
- Mine dams to be constructed to contain mine groundwater pumped from the open cut pit throughout the life of the project, with construction of mine dams and water storage facilities to be developed to allow for the collection of water from disturbed areas within initial stage of development.
- A site water catchment system will be in place to capture rainfall runoff from the mine site including the train loading facility and waste rock stockpile areas, with captured water to be treated to minimise the amount of sediment and concentration of contaminants. Environmental dams (sediment and detention basins) will be established to collect run-off which will be transferred to the main site dams.
- Water quality release limits to be set for mine-affected water in accordance with the water quality objectives for the Styx Basin (DEHP 2014).
- Baseline water quality to be monitored at the mine dam, discharge locations and locations both upstream and downstream of the Project area. Water will only be discharged from the mine dam during flow trigger events (during / immediately after high rainfall events when creek flow is high) and only if the water quality parameters meet the water quality release limits outlined in the Environmental Authority.
- Roads to be designed and located to minimise the amount of run-off into waterways, with retention basins to be used to allow for pre-treatment of water prior to discharge to waterways.
- Landforms such as waste rock stockpiles will be constructed using erosion-resistant materials and with low batter slope angles to reduce the level of erosion. Removed topsoil will be placed in designated rehabilitation zones and seeded to minimise erosion. Sediment fences will be installed on the downslope of disturbed areas.
- A network of diversion drains to be installed in order for clean water to be diverted around disturbed areas to avoid the mobilisation of additional sediment and contaminants.
- Earthmoving activities will be minimised during rainfall events to limit sediment and contaminant runoff.
- Storage and handling of oil and chemicals will be in accordance with relevant Australian Standards to minimise the risk of accidental spills and leaks. Spill control materials will be retained on site for use in the event that a substance is spilled into a surrounding waterway.
- Rehabilitation to create vegetation buffers to reduce sediment and nutrient run-off through:
    - increased capture of sediment and nutrient run-off from the property.

- reduction of erosion as a result of vegetation restoration reducing the amount of sediment entering waterways during surface water flows.
- removal of cattle (destocking) will reduce the level of erosion and land degradation, as well as removing a source of nutrient in-put into surrounding waterways.
- vegetation regeneration and stock exclusion will continue post-operation, resulting in a permanent reduction of sediment run-off.

Where impacts do occur, environmental values will be restored if possible, through the following measures:

- Any areas of vegetation impacted by hydrological changes will be revegetated and actively managed. Species representative of the RE(s) affected will be used in this revegetation. Particular attention / priority to be given to those tree species which represent key fodder trees for both Koala and Greater Gliders, including non-groundwater dependent tree species (e.g. *Eucalyptus crebra*).
- Installation of refuge / nest boxes suitable for Greater Gliders throughout potentially impacted areas.
- The Mining Lease area will be destocked in the northern part during operations years 1 to 9, comprising an area of over 2,000 ha. Cattle will be removed from Mamelon South, in southern parts of the Mining Lease, during years 10 to 19 (674 ha).
- Management of destocked land on the property (presently mostly cleared) to allow for regeneration of the vegetation and restoration of habitat, focussing on riparian zones along Deep Creek and Tooloombah Creek.
- Grazing will also be removed from offset areas (approximately 2,000 ha), unless light grazing is required for fuel load and weed management.
- Progressive rehabilitation of disturbed areas will occur where possible to reduce the time between disturbance and rehabilitation.

The Project is expected to result in significant residual adverse impacts to some environmental values that cannot be otherwise avoided, minimised or rehabilitated; and as such offsetting will occur. Offsets will be delivered in accordance with the Commonwealth Environmental Offset Policy (2012) and Queensland *Environmental Offsets Act 2014* and Offsets Policy (2018). Offset requirements and modes of delivery are addressed in detail in the Biodiversity Offset Strategy (C02 Australia 2020).

Compliance with the requirements, agreed procedures, locations and extent of clearance in approval conditions and relevant management plans will be monitored, documented and be subject to compliance audits. A reporting schedule will be prepared and included in the management plans for both routine documentation (e.g. planned clearing) as well as incident reporting (e.g. spills, fauna mortality). If any mitigation or management measures are ineffective, corrective actions will be implemented. These procedures are described within the relevant management plan (e.g. EMP, GDEMMP).

6.3. Impact Assessment

The impacts on habitat and / or resources for Squatter Pigeon, Greater Glider, and Koala[52] as a result of the potential off-site indirect impacts described above are presented in the following sections.

The Project will result in changes to the surface water hydrology and quality, as well as a reduction in groundwater availability, which in turn, has the potential to affect habitat and / or resources for Squatter Pigeon, Greater Glider, and Koala[53].

[52] There is no potential that any changes to the surface water hydrology and quality, and / or reduction in groundwater availability, will impact on the Collared Delma. Potentially suitable habitat for Collared Delma is located adjacent to the southern part of the project area. None of that habitat is associated with any potential areas of offsite indirect impact.
[53] There is no potential that any changes to the surface water hydrology and quality, and / or reduction in groundwater availability, will impact on the Collared Delma. Potentially suitable habitat for Collared Delma is located adjacent to the southern part of the project area. None of that habitat is associated with any potential areas of offsite indirect impact.

6.3.1. Changes to surface water hydrology and quality

The impact of changes to surface water hydrology and quality, subject to the abovementioned mitigation and management strategies, are not considered to represent a significant threat to these species, for the reasons discussed previously.

6.3.2. Groundwater Drawdown

3D Environmental (2020) concluded that watercourses of both Tooloombah and Deep Creeks are consistent with the definition of an aquatic GDE due to the potential for input of groundwater into both drainage systems, to varying extents. Throughout the wet season groundwater represents a minor contribution to baseflow into Tooloombah and Deep Creeks. As the creeks dry following wet season rain events, groundwater is expressed within some sections of Tooloombah and, to a lesser extent, Deep Creek as isolated pools, few of which persist throughout the entire dry season.

3D Environmental (2020) also found that the riparian fringes and associated emergent forest red gum (*Eucalyptus tereticornis*) are likely to represent a terrestrial GDE that is dependent on groundwater contained within the shallow coal measures and the associated alluvial unconformity.

For aquatic GDEs the reduction or elimination of groundwater inputs during dry periods may reduce the timeframes over which the pools persist and reduce the salinity of water in the pools, in the absence of saline groundwater inputs (ELA 2020). However, the impact on each pool will vary depending on a range of factors including size, the amount of predicted groundwater drawdown in that specific location and the current degree to which groundwater supports the pool during dry periods. ELA (2020) conclude that the impacts of groundwater drawdown on aquatic GDEs is expected to the relatively minor because:

- Drawdown at Tooloombah Creek is relatively small (<4 m) and the sediments in these locations have a low permeability to water (reducing the potential for enhanced leakage).
- Permanent pools are likely to still persist throughout most of the dry season, even under the worst-case scenario, with improvements in water quality (less variation in salinity) that will make them suitable for colonisation by a wider variety of aquatic taxa.
- Ephemeral pools are likely to dry up more quickly and for longer than under existing baseline conditions, especially in the middle reaches of Deep Creek. However, these pools experience a natural cycle of drying under existing baseline conditions, and the aquatic and terrestrial ecosystem is adapted to these cycles.
- Recolonisation of pools will occur naturally as it does under existing baseline conditions following rainfall, once the creeks begin flowing again. This occurs approximately 21% of the time and will not be affected by the Project (WRM 2020).

Utilising a risk assessment approach, ELA (2020) assessed the indirect impacts of groundwater drawdown on terrestrial GDEs along Tooloombah and Deep Creeks. A scaled system was developed to assess the impacts on the different stream reaches, ranging from low to extreme. At the lower end of the scale, groundwater drawdown may have minimal impacts on vegetation resulting in a small decline in vegetation characteristics such as canopy cover and height during drier years. Whilst at the extreme end of the scale impacts caused by groundwater drawdown may include widespread vegetation loss and the loss of ecosystem services. In between these two extremes classifications included moderate, high or very high (ELA 2020).

If there was determined to be a high (or above) likelihood of there being a moderate impact on vegetation within the stream reach, then there was considered to be an impact on groundwater dependent vegetation for that stream reach. Separate assessments were recommended to be undertaken to determine whether this impact is considered to be a significant residual impact, by consideration of relevant MNES and MSES significant impact criteria.

Of the eight stream reaches assessed along Tooloombah and Deep Creek, it was concluded that groundwater drawdown would result in at least a high chance of a moderate impact on vegetation within three of the stream reaches along Deep Creek, meaning that in these areas BioCondition scores, canopy cover and canopy height could be expected to decline over time. However, the impacts are not expected to commence until approximately 10 to 20 years after Project commencement. The detailed results of this assessment are discussed in ELA (2020).

ELA (2020) note that impacts are likely to be manifest through a reduction in the condition of structural elements of the vegetation communities, such as Forest Red Gums and Melaleuca trees. Based on the results of this analysis, and a worst-case scenario assessment for terrestrial GDEs, the area predicted to be affected comprises 165.23 ha of riparian vegetation, comprising Regional Ecosystems 11.3.25, 11.3.27, 11.3.35, and 11.3.4. These areas represent habitat for Koalas, Greater Gliders, and Squatter Pigeons as presented in **Table 6-1.**

Table 6-1 Habitat area expected to be affected by groundwater drawdown

Koala	Extent of habitat area expected to be affected (ha)
Known Habitat (Remnant)	40.88
Potential Habitat (Remnant)	124.34
Greater Glider	**Extent of habitat area expected to be affected (ha)**
Known Habitat (Remnant)	40.82
Potential Habitat (Remnant)	124.39
Squatter Pigeon	**Extent of habitat area expected to be affected (ha)**
Known or Potential Habitat (Remnant)	38.29
Potential Dispersal Habitat (Remnant)	126.92

The *Significant Impact Guidelines 1.1 - Matters of National Environmental Significance* (DEWHA 2013) require consideration of all adverse impacts which result from an action, including indirect and offsite impacts. DEWHA (2013) notes that indirect impacts are relevant where they are sufficiently close to the proposed action to be said to be a consequence of the action.

The significant impact guidelines (DEWHA 2013) state that actions are likely to have a significant impact on a vulnerable species if they adversely affect habitat critical to the survival of the species. *Habitat critical to the survival of a species or ecological community*[54] refers to areas that are necessary:

- for activities such as foraging, breeding, roosting, or dispersal; or
- for the long-term maintenance of the species or ecological community (including the maintenance of species essential to the survival of the species or ecological community, such as pollinators); or
- to maintain genetic diversity and long-term evolutionary development; or
- for the reintroduction of populations or recovery of the species or ecological community.

The significant impact guidelines (DEWHA 2013) describe nine significant impact criteria against which an action should be assessed to determine whether an action is likely to have a significant impact on a vulnerable species. Several of the significant impact criteria refer to 'an important population' of a species. DEWHA (2013) states that an 'important population' is a population that is necessary for a species' long-term survival and recovery. This may include populations identified as such in recovery plans, and / or that are:

- key source populations either for breeding or dispersal;

[54] Such habitat may be, but is not limited to: habitat identified in a recovery plan for the species or ecological community as habitat critical for that species or ecological community; and/or habitat listed on the Register of Critical Habitat maintained by the minister under the EPBCA.

- populations that are necessary for maintaining genetic diversity, and/or
- populations that are near the limit of the species range.

In regard to the Koala, the *EPBC Act Referral Guidelines for the vulnerable Koala* (DE 2014) provide a habitat assessment tool for determining 'habitat critical to the survival of the Koala' and the likelihood of a significant impact on this species. Table 2-2 provides an appraisal of the habitat within the project area and surrounds. The result of that appraisal confirms that 'habitat critical to the survival of the koala' occurs within the project area and surrounds.

In regard to the Greater Glider, there is no Commonwealth or State recovery plan for the Greater Glider (DE 2020b; DES 2020). TSSC (2016) recommends that there should be a national recovery plan, and notes that in Queensland, there are no species-specific management actions currently in place for the Greater Glider. There is no reliable estimate of population size (TSSC 2016). No 'important populations, have been described in either TSSC (2016) or DE (2020b). There are no published estimates of Greater Glider population size or density for the bioregion or broader area surrounding the project area (DE 2020b)[55]. Habitat assessments undertaken for this report (Section 3) demonstrate that habitat is consistent with that described in DEWHA (2013) as *habitat critical to the survival of a species*.

In regard to the Squatter Pigeon (southern), there is no Commonwealth or State recovery plan for the Squatter Pigeon (southern) which identifies habitat critical for Squatter Pigeon (southern), and there is no habitat listed on the Register of Critical Habitat maintained by the minister under the EPBCA (DE 2020c; DES 2020). Table 4-1 provides an excerpt from DE (2020c) which describes Squatter Pigeon (southern) habitat. That information has been taken into account in completing the habitat assessment undertaken for this report (Section 2) and that work demonstrates that habitat is consistent with that described in DEWHA (2013) as *habitat critical to the survival of a species*.

Based on the impact assessment presented above, predicted declines in habitat characteristics as a result of groundwater drawdown for GDEs along the identified sections of Deep Creek have the potential to generate an adverse effect on *habitat critical to the survival of Koalas and Greater Gliders*, and thus, would represent a significant impact to both species[56]. These potential impacts include:

- Reduced access to drinking water available to Koalas along intermittent creeks / streams, including the persistence of pools during dry periods.
- Loss of shelter / shade available to Koalas due to canopy thinning and / or mortality of shelter trees.
- Reduction in the availability of leaf forage, including eucalypt shoot growth, for both Koala and Greater Glider, affecting not only nutrition but also water balance, since both species obtain a significant proportion (upwards of 60%) of their daily water needs from the foliage of feed trees.
- Reduction in leaf (foliar) water content affecting the ability of both species to maintain water balance, particularly under hot / dry conditions or in drought affected areas where free water is scarce.
- Increased physiological stress due to reduced availability of food / water and shelter may potentially increase the susceptibility Koalas to diseases such as Chlamydia, which can lead to reduced fertility, increased blindness and increased mortality of Koalas.

In regard to Squatter Pigeon (southern), the areas affected by groundwater drawdown have been mapped in this report as 'known or potential remnant habitat' (approximately 38 Ha) and the remainder being classified as potential dispersal remnant habitat (approximately 126 Ha). Groundwater drawdown may reduce the persistence of surface water in pools throughout dry periods and lead to tree canopy thinning (see earlier reviews). Canopy thinning may lead to conditions favourable for the thickening of understory

[55] Excluding Victoria, population density estimates throughout the remainder of its distribution range from 0.01 to 5 individuals per hectare (TSSC 2016).

[56] DEWHA (2013) state that a 'significant impact' is an impact which is important, notable, or of consequence, having regard to its context or intensity.

vegetation (ground cover and shrub layer; native flora, though also invasive weeds). Surface water represents a key component of habitat critical to the survival of the granivorous Squatter Pigeon (southern). The degradation of habitat through thickening of understory vegetation is regarded as a key threat (TSSC 2015).

Given the spectrum of habitat conditions and resources that Squatter Pigeons are known to use, there is a comparatively higher level of uncertainty as to the nature and magnitude of potential impacts of groundwater drawdown, and thus, the significance of the impacts to Squatter Pigeons. Under such circumstances, DEWHA (2013) notes that "… where there is a risk of serious or irreversible damage, a lack of scientific certainty about the potential impacts of an action will not itself justify a decision that the action is not likely to have a significant impact on a matter of national environmental significance." In keeping with a precautionary approach, this assessment must conclude that the predicted declines in habitat characteristics as a result of groundwater drawdown for GDEs have the potential to generate an adverse effect on habitat critical to the survival of the Squatter Pigeon (southern), and thus, represents a significant impact to Squatter Pigeon (southern).

Table 6-2 Significant Impact Assessment - Koala

Significant Impact Assessment Criteria	Assessment
Will the action: *lead to a long-term decrease in the size of an important population of a species*	DE (2020a) does not identify / describe any 'important populations' within the bioregion or broader area surrounding the project area. There are no published estimates of Koala population size or density for the bioregion or broader area surrounding the project area (DE 2020a). Evidence indicates that Koalas appear to be widespread in the landscape of the subject land (L. Agnew. pers obs.) and habitat suitability assessments conclude that the wider area supports approximately 8,326 Ha of remnant vegetation suitable as Koala habitat. The action will not create a significant impediment to on-going movement opportunities between local Koala habitats – noting that the Bruce Highway bisects local habitat and represents a potentially significant threat to Koalas of the local area. Given this, and that there is no 'important population' present (DE 2020a), it is concluded that the action would not lead to the long-term decrease in the size of an important population of Koala.
Will the action: *reduce the area of occupancy of an important population*.	There is no 'important population' described for the region (DE 2020a). Evidence indicates that Koalas and suitable habitat appear to be widespread in the landscape of the subject land (L. Agnew. pers obs.). The scale of potential habitat degradation (resulting in a reduction of available habitat) which is predicted over considerable time frames (10-20 years following Project commencement) is not considered to represent a significant reduction in the area of occupancy of Koalas within the wider landscape context. Given this, and that there is no 'important population' present (DE 2020a), it is concluded that the action would not reduce the area of occupancy of an important population of Koala.
Will the action: *fragment an existing important population into two or more populations*.	There is no 'important population' described for the region (DE 2020a). The action will not create a significant disconnection or fragmentation of local Koala habitats – noting that the Bruce Highway bisects local habitat and represents a potentially significant threat to Koalas of the local area. The scale of potential habitat degradation (resulting in a reduction of available habitat) which is predicted over considerable time frames (10-20 years following Project commencement) will not significantly impact on the ecological functionality of the large contiguous patches of Koala habitat to the west and south of the project area. Implementation of a suite of measures, including revegetation and active habitat management, to respond to potential habitat degradation resulting from hydrological changes will support maintenance of the land's contribution to on-going Koala movements through riparian habitats of Deep Creek and Tooloombah Creek. Given this, and that there is no important population present (DE 2020a), it is concluded that the action would not fragment an existing an important population of Koala into two or more populations.
Will the action: *adversely affect habitat critical to the survival of a species.*	DE (2014) provides a habitat assessment tool for identifying critical habitat. Habitat assessments demonstrate that habitat within the impact area is consistent with that described in DE (2014) as 'habitat critical to the survival of the Koala'. Potential habitat degradation (resulting in a reduction of available habitat), whilst predicted over considerable time frames (10-20 years following Project commencement), has the potential to adversely affect habitat critical to the survival of a species, and therefore that the project constitutes a significant impact to Koala.

Significant Impact Assessment Criteria	Assessment
Will the action: *disrupt the breeding cycle of an important population.*	Habitat of comparatively higher value to Koalas for foraging and breeding (and where the majority of Koala records exist) comprise a set of large contiguous habitat patches to the north-west, west, and south of the project area. It is highly unlikely that the any potential changes to habitat within the subject land (at distance and to the east beyond the Bruce Highway) would disrupt the breeding cycle of an important population if it were to occur. DE (2020a) does not identify / describe any 'important populations' within the bioregion or broader area surrounding the project area. As such, there is no potential to disrupt the breeding cycle of an important population of Koala.
Will the action: *modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline.*	Changes to groundwater characteristics have the potential decrease the quality of habitat within the predicted impact area. However, the limited spatial extent of potentially impacted habitat, in the context of habitat to be retained, and within a wider landscape context, is not considered to be an adverse impact to the species. Implementation of a suite of measures, including revegetation and active habitat management, to respond to potential habitat degradation resulting from hydrological changes will assist in reducing the potential impact. Given this, it is concluded that the action would not modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline.
Will the action: *result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat.*	There is potential for introduction and spread of invasive flora and feral animals as a result of the action. It is highly unlikely that the action will contribute a significant further change to existing threats given the current land use history for the project area and surrounding area (long history of pastoralism) and the implementation of supporting plans for land use management and control of invasive species. The potential introduction and spread of invasive weeds will need to be addressed through a comprehensive suite of best-practice prevention and control strategies. Implementation of a suite of measures (including weed control, revegetation with native flora, and active habitat management) to respond to potential habitat degradation resulting from hydrological changes will assist in reducing the potential impact of habitat degradation resulting from non-native past plants. Both wild dogs and domestic dogs have been identified as posing direct threats to the Koala, and control measures will need be implemented so as to ensure the action does not contribute to this threat. Domestic dogs will be prohibited within the project area and wild dog control will be implemented during both construction and operational phases. Therefore, with the appropriate management measures in place, it is considered unlikely that the action will result in new or increased levels of invasive species that are harmful to Koala becoming established in their habitat.
Will the action: *introduce disease that may cause the species to decline.*	Koala populations are threatened by at least two diseases: chlamydia and Koala retrovirus (KoRV). KoRV is estimated to infect up to 100% of Koalas in Queensland (DE 2020a). It is possible that both these diseases already occur in the populations found on and around the project area (latent or otherwise). Increased physiological stress due to reduced availability of food / water and shelter may potentially increase the susceptibility Koalas to diseases such as Chlamydia. Implementation of a suite of measures, including revegetation and active habitat management, to respond to potential habitat degradation resulting from hydrological changes may assist in reducing the potential impact. The action does not include activities that would result in the spread of such diseases as to cause the species to decline. Tree dieback caused by the root-rot fungus *Phytophthora cinnamomi* is a threat to Koala habitat within parts of the species' distribution, though the status of *P. cinnamomi* within the region is unknown. Environmental conditions which prevail within the region do not appear to provide the optimum climate for disease expression. Nonetheless, specific hygiene procedures will be prepared / implemented to prevent the introduction / spread of *P. cinnamomi* will be prepared for land management works within remnant vegetation areas retained outside the project disturbance area. As such, the action is unlikely to introduce disease that may cause the species to decline.

Significant Impact Assessment Criteria	Assessment
Will the action: *interfere substantially with the recovery of the species.*	The interim recovery objectives described by DE (2014) are to protect and conserve large, connected areas of koala habitat and maintain corridors and connective habitat that allow movement of Koalas between such habitat. The action would not significantly impact on the achievement of these recovery objectives. The action will not significantly impact on the ecological functionality of the large contiguous habitat patches of higher value Koala habitat (well west of the impact area). The scale of potential habitat degradation (resulting in a reduction of available habitat) which is predicted over considerable time frames (10-20 years following Project commencement) and at distance to the east, will not result in significant impacts on the ecological functionality of that large contiguous patches of Koala habitat. Given the above, the action is considered unlikely to interfere substantially with the recovery of the species.

Table 6-3 Significant Impact Assessment – Greater Glider

Significant Impact Assessment Criteria	Assessment
Will the action: *lead to a long-term decrease in the size of an important population of a species.*	DE (2020b) does not identify / describe any 'important populations' within the bioregion or broader area surrounding the project area. There are no published estimates of Greater Glider population size or density for the bioregion or broader area surrounding the project area (TSSC 2016; DE 2020b). Evidence indicates that Greater Gliders occur within the landscape surrounding the project area, and that habitat suitability assessments for the area within 10km conclude that there is approximately 4,600 Ha of remnant vegetation suitable as Greater Glider habitat (L. Agnew. pers obs.; Figure 3-3). The action will not create a significant impediment to on-going movement opportunities between locally suitable habitats – though noting that the Bruce Highway bisects the project area and that it represents an existing significant threat to Greater Gliders of the local area. Given this, and that there is no 'important population' present (DE 2020b), it is concluded that the action would not lead to the long-term decrease in the size of an important population of Greater Glider.
Will the action: *reduce the area of occupancy of an important population*.	There is no 'important population' described for the region (DE 2020b). Habitat suitability assessments demonstrate that there is approximately 4,600 Ha of potentially suitable habitat (foraging and breeding) for Greater Gliders within for the surrounding area (within 10 Km). The scale of potential habitat degradation (resulting in a reduction of available habitat) which is predicted over considerable time frames (10-20 years following Project commencement) is not considered to represent a significant reduction in the area of occupancy of Greater Gliders within the wider landscape context, were an important population to occur there. Given this, and that there is no important population present (DE 2020b), it is concluded that the action would not lead to the long-term decrease in the size of an important population of Greater Glider.
Will the action: *fragment an existing important population into two or more populations*.	There is no 'important population' described for the region (DE 2020b). To the near west, known and potential habitat is bisected by the Bruce Highway which would have already significantly diminished movement opportunities between Greater Glider habitats to the east and west. A significant area of known and potential habitat is located to the west of the project area and Bruce Highway, and the action will not significantly impact on the ecological functionality that large contiguous patch of Greater Glider habitat (Figure 3-3). There are no large patches of known and potential Greater Glider habitat associated either Deep Creek or Tooloombah Creek downstream of the potential impact area (Figure 3-3), thus any potential impact would not fragment potentially important habitat areas. Implementation of a suite of measures, including revegetation and active habitat management, to respond to potential habitat degradation resulting from hydrological changes will support maintenance of the land's contribution to on-going Greater Glider movements through riparian habitats of Deep Creek and Tooloombah Creek. Given this, and that there is no important population present (DE 2020a), it is concluded that the action would not fragment an existing an important population of Greater Glider into two or more populations.

Significant Impact Assessment Criteria	Assessment
Will the action: *adversely affect habitat critical to the survival of a species.*	There is no recovery plan for the species which identifies habitat critical for Greater Glider, and there is no habitat listed on the Register of Critical Habitat maintained by the minister under the EPBCA. However, habitat required for foraging, breeding, and / or dispersal, is located within the impact area and when assessed against the significant impact guidelines (DEWHA 2013) is considered to be habitat critical to the survival of the Greater Gilder. Potential habitat degradation (resulting in a reduction of available habitat), whilst predicted over considerable time frames (10-20 years following Project commencement), has the potential to adversely affect habitat critical to the survival of a species, and therefore that the project constitutes a significant impact to greater Gliders. Implementation of a suite of measures, including revegetation and active habitat management, to respond to potential habitat degradation resulting from hydrological changes will assist in mitigating potential impacts to Habitat for Greater Glider along Deep Creek and Tooloombah Creek.
Will the action: *disrupt the breeding cycle of an important population.*	DE (2020b) does not identify / describe any 'important populations' within the bioregion or broader area surrounding the project area. Habitat of comparatively higher value to Greater Gliders for foraging and breeding comprise a set of large contiguous habitat patches to the north-west, west, and south of the project area (Figure 3-3). It is highly unlikely that the any potential changes to habitat within the subject land (at distance and to the east beyond the Bruce Highway) would disrupt the breeding cycle of an important population if it were to occur. As such, there is no potential to disrupt the breeding cycle of an important population of Greater Glider.
Will the action: *modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline.*	Changes to groundwater characteristics have the potential decrease the quality of habitat within the predicted impact area. However, the limited spatial extent of potentially impacted habitat, in the context of habitat to be retained, and within a wider landscape context, is not considered to be an adverse impact to the species. Implementation of a suite of measures, including revegetation and active habitat management, to respond to potential habitat degradation resulting from hydrological changes will assist in reducing the potential impact. Given this, it is concluded that the action would not modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline.
Will the action: *result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat.*	There is potential for introduction and spread of invasive flora and feral animals as a result of the action. It is highly unlikely that the action will contribute a significant further change to existing threats given the current land use history for the project area and surrounding area (long history of pastoralism) and the implementation of supporting plans for land use management and control of invasive species. The potential introduction and spread of invasive weeds will need to be addressed through a comprehensive suite of best-practice prevention and control strategies. Implementation of a suite of measures (including weed control, revegetation with native flora, and active habitat management) to respond to potential habitat degradation resulting from hydrological changes will assist in reducing the potential impact of habitat degradation resulting from non-native past plants. With the appropriate management measures in place, it is considered unlikely that the action will result in new or increased levels of invasive species that are harmful to Greater Glider becoming established in their habitat.
Will the action: *introduce disease that may cause the species to decline.*	Tree dieback caused by the root-rot fungus *Phytophthora cinnamomi* is a threat to Greater Glider habitat within parts of the species' distribution, though the status of *P. cinnamomi* within the region is unknown. It is possible that this fungus already occurs in the region, though environmental conditions which prevail within the region do not appear to provide the optimum climate for disease expression. Specific hygiene procedures designed to prevent the introduction / spread of *P. cinnamomi* should be prepared for land management works within remnant vegetation areas retained outside the project area (see DE 2015a). Given this, it is concluded that the action is unlikely to introduce disease that may cause the species to decline.

Significant Impact Assessment Criteria	Assessment
Will the action: *interfere substantially with the recovery of the species.*	There is no Commonwealth or State recovery plan for the Greater Glider (DE 2020b). TSSC (2016) recommends that there should be a national recovery plan, and notes that in Queensland, there are no species-specific management actions currently in place for the Greater Glider. In the absence of a recovery plan, the TSSC (2016) identifies the following primary conservation actions: reduce the frequency and intensity of prescribed burns; identify appropriate levels of patch retention, habitat tree retention, and logging rotation in hardwood production; and protect and retain hollow-bearing trees, suitable habitat and habitat connectivity. The action will implement a wide variety of measures the potential impact of habitat degradation resulting from non-native past plants, uncontrolled fire, grazing, etc. Specifically, to respond to potential habitat degradation resulting from hydrological changes, revegetation and the installation of refuge / next boxes will augment the suite of measures and strategies to reduce potential impacts to Greater Gliders. Given the above, the action is considered unlikely to interfere substantially with the recovery of the species.

Table 6-4 Significant Impact Assessment – Squatter Pigeon (southern)

Significant Impact Assessment Criteria	Assessment
Will the action: *lead to a long-term decrease in the size of an important population of a species*	DE (2020c) does not identify / describe any 'important population' within the region relevant to the project area, i.e. north of the Carnarvon Ranges in Central Queensland. DE (2020c) concludes that the Squatter Pigeon (southern) remains common north of the Carnarvon Ranges in Central Queensland and is considered to be distributed as a single, continuous (i.e. inter-breeding) sub-population. Evidence indicates that Squatter Pigeons occur throughout the landscape surrounding the project area and that potentially suitable remnant woodland habitat is widespread (L. Agnew. pers obs.; Figure 4-3). There are numerous records of Squatter Pigeons within cleared and grazed landscapes throughout the wider area and that non-remnant habitat is widespread within the landscape surrounding the project area (L. Agnew. pers obs.; Figure 4-3). Impact areas support potential drinking points and contribute to potential dispersal habitat, though feeding habitat value is negligible. Given this, and that there is no important population present (DE 2020c), it is concluded that the action would not lead to the long-term decrease in the size of an important population, or the single, continuous sub-population north of the Carnarvon Ranges as described in DE (2020c).
Will the action: *reduce the area of occupancy of an important population*.	There is no 'important population' described for the region (DE 2020c). Impact areas support potential drinking points and contribute to potential dispersal habitat, and feeding habitat value is considered to be negligible. The scale of potential habitat degradation (resulting in a reduction of available habitat) which is predicted over considerable time frames (10-20 years following Project commencement) would not result in a significant reduction in the area of occupancy of Squatter Pigeons within the wider landscape context, were an important population to occur there.
Will the action: *fragment an existing important population into two or more populations*.	DE (2020c) does not identify / describe any 'important population' within the region relevant to the project area, i.e. north of the Carnarvon Ranges in Central Queensland. The action does not involve clearing of vegetation, though there is potential for tree canopy thinning over considerable time frames (10-20 years following Project commencement). The key value of habitat within the impact areas is that it may be used by Squatter Pigeons as one of a number of opportunities for dispersal through the local landscape. It seems unlikely that the predicted canopy thinning would result in a significant impact to local movement of birds. Given this, and as there is no important population present, the action will not fragment an important population into two or more populations.
Will the action: *adversely affect habitat critical to the survival of a species*.	There is no Commonwealth or State recovery plan which identifies habitat critical to the survival of Squatter Pigeon (southern), and there is no habitat listed on the Register of Critical Habitat maintained by the minister under the EPBCA. DEE (2019) provides a habitat categorisation to inform the assessment of 'key habitat requirements' for the species. This includes definitions for breeding, foraging and dispersal habitat. The areas which may be subject to groundwater drawdown impacts do not support the full suite of 'key habitat requirements' for the species, and limited to the provision of drinking points within the waterway channels, and contribute a canopy of trees which may support dispersal of birds within the local landscape. Groundwater drawdown may reduce the persistence of surface water in pools throughout dry periods and lead to tree canopy thinning, though these relatively localised impacts would not adversely affect habitat critical to the survival of a species.

Significant Impact Assessment Criteria	Assessment
Will the action: *disrupt the breeding cycle of an important population.*	DE (2020c) does not identify / describe any 'important populations' within the region relevant to the project area, i.e. north of the Carnarvon Ranges in Central Queensland. DE (2020c) concludes that the Squatter Pigeon (southern) remains common north of the Carnarvon Ranges in Central Queensland and is considered to be distributed as a single, continuous (i.e. inter-breeding) sub-population. A large area of remnant woodland habitat, of comparatively higher value as breeding habitat for to Squatter Pigeons, is located along the western side of the project area, and a small area within the eastern part of the project area. Areas of potential impact do not support breeding habitat and any changes to existing habitat attributes would not have any impact on the breeding cycles of Squatter Pigeons within the larger tracts of suitable woodland habitat elsewhere in the local area. Given this, and that there is no 'important population' present (DE 2020c), it is concluded that the action would not disrupt the breeding cycle of an important population.
Will the action: *modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline.*	Groundwater drawdown may reduce the persistence of surface water in pools throughout dry periods and lead to tree canopy thinning, though these relatively localised impacts. The scale of potential habitat degradation (resulting in a reduction of available habitat) which is predicted over considerable time frames (10-20 years following Project commencement) would not result in a significant reduction in the area of occupancy of Squatter Pigeons within the wider landscape context to the extent that the species is likely to decline. Implementation of a suite of measures, including revegetation and active habitat management, to respond to potential habitat degradation resulting from hydrological changes will assist in reducing the potential impact. Given this, it is concluded that the action would not modify, destroy, remove or isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline.
Will the action: *result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat.*	There is potential for introduction and spread of invasive species as a result of tree canopy thinning. It is highly unlikely that the predicted impacts associated with groundwater drawdown will contribute any significant change to existing level of weeds given the current land use context for the impact area and surrounding area. The potential introduction and spread of invasive weeds will be addressed through a comprehensive suite of best-practice prevention and control strategies. Implementation of a suite of measures, including revegetation and active habitat management, to respond to potential habitat degradation resulting from hydrological changes will assist in reducing the potential impact. Therefore, with the appropriate management measures in place, it is considered highly unlikely that the action will result in new or increased levels of invasive species becoming established within Squatter Pigeon habitat.
Will the action: *introduce disease that may cause the species to decline.*	There is a negligible potential for the action to introduce disease that may cause the species to decline.
Will the action: *interfere substantially with the recovery of the species.*	There is no Commonwealth or State recovery plan for the Squatter Pigeon (southern) though current threats to Squatter Pigeon (southern) include, after TSSC (2015): ongoing vegetation clearance and fragmentation; overgrazing of habitat by livestock and feral herbivores such as rabbits; introduction of weeds; inappropriate fire regimes; thickening of understorey vegetation; predation by feral cats and foxes; and trampling of nests by domestic stock (TSSC 2015). Groundwater drawdown may lead to tree canopy thinning, and in turn, conditions suitable for the introduction of weeds and / or understorey thickening. Implementation of a suite of measures, including weed control, revegetation and active habitat management, to respond to potential habitat degradation resulting from hydrological changes will assist in reducing the potential impact. These relatively localised impacts would not interfere substantially with the recovery of the species.

7. Management Plans

7.1. Adaptive Management Approach

The following management plans has been based on, as far as practical, the current state of knowledge of the species ecology and best practice habitat management approaches. When new facts emerge from future research, they should be integrated into the plan so it remains consistent with the current state of knowledge (and best practice). That approach is consistent with adaptive management.

Adaptive management refers to a way of managing natural resources where management actions are regularly reviewed and, if necessary, modified based on monitored changes in environmental condition and/or changes in base knowledge which underpins the original management approach.

The adaptive management approach has been adopted for the reasons outlined below:

- Not all the effects of the future development are accurately predictable;
- The future development presents opportunities for continuing to provide fauna habitat concurrent with progressive, staged development of the project; and
- The methods for ensuring that the permanent habitat area remains optimal for some species and fauna groups are not fully understood.

In the light of these uncertainties, an approach to management that includes flexible management responses guided by monitoring is considered necessary. This will ensure that native fauna, continue to use existing habitat, notwithstanding the ongoing changes occurring to their habitats and surrounds.

7.2. Management Plans

The following section provides a management plan (MP) for each of the following issues:
for each key management issue:

- MP1 – Pre-clearing Planning and Surveys for Threatened Fauna Habitat
- MP2 – Vegetation Clearing Operations within Threatened Fauna Habitat
- MP3 – Animal Welfare
- MP4 – Management and Control of Introduced Fauna
- MP5 – Vehicle Interactions with Fauna
- MP6 – Road Design and Fauna Crossing Treatments
- MP7 – Artificial Lighting Impacts on Retained Habitat

Each MP is presented in a standardised format to identify / address the following elements:

- Objective;
- Implementation Requirements;
- Performance Indicators;
- Responsible Persons and Key Actions;
- Auditing and Reporting;
- Corrective Action; and
- Timing.

Within these management plans, habitat means any of the following habitat types as mapped for this report:

- In regard to Koala (**Figure 2-2**):
  - Known or Potential Habitat – Remnant;
  - Known or Potential Habitat – Non-Remnant;
  - Potential Dispersal Habitat; and

- In regard to Greater Glider (**Figure 3-2**):
  - Known Habitat – Remnant;
  - Known Habitat – Non-Remnant;
  - Potential Habitat – Remnant;
  - Potential Habitat – Non-Remnant; and
- In regard to Squatter Pigeon (southern) (**Figure 4-4**):
  - Potential Breeding Habitat – Remnant;
  - Known or Potential Foraging Habitat – Remnant;
  - Known or Potential Foraging Habitat – Non-Remnant; and
- In regard to Collared Delma (Figure 5-1), that which is described as Potential Habitat – Project Area.

Terms specific to the management plan are summarised in **Table 7-1.**

Table 7-1 Selected Management Plan Terms

Term	Description
Contractor	Contractor means a party or company that performs construction works on site, and includes all employees of the Contractor and its sub-contractors, e.g. machinery operator. The Contractor is responsible to the Site Manager.
Environment Manager	The Environment Manager means the party contracted by the Proponent to oversee implementation of EMP requirements, including requirements of this Fauna Management Plan. The Environment Manager is responsible to the Proponent.
Fauna Spotter/Catcher	A Fauna Spotter/Catcher means personnel employed to implement fauna welfare responsibilities associated with vegetation clearing operations or other construction activities. All personnel implementing this role must be licensed and working under current relevant permits.
Koala habitat tree	Koala habitat tree means a) a food tree of the *Corymbia*, *Melaleuca*, or *Lophostemon* or *Eucalyptus* genera; or b) a preferred shelter species such as *Angophora* (after QEPA 2006a).
Person taking the action	As per Commonwealth EPBCA project approval, being “the person to whom approval is granted, or to whom the approval is transferred under section 1458 of the EPBC Act”.
Project Ecologist	Project Ecologist means a specialist biological or ecological consultant employed by the Proponent. The Project Ecologist is responsible to the Environment Manager.
Proponent	Central Queensland Coal Pty Ltd
Site Manager	The Site Manager means the party contracted by the Proponent to oversee daily site operations and site management. The Site Manager is responsible to the Proponent.
Suitably qualified person	A person who has professional qualifications, training, skill or experience relevant to the nominated subject matter and can give authoritative assessment, advice, and analysis to performance relative to the subject matter using the relevant protocols, standards, methods or literature.

Table 7-2 MP1 – Pre-clearing Planning and Surveys for Threatened Fauna Habitat

Issue	Preparation of plans and processes to inform clearing operations within areas identified as habitat for threatened fauna
Objective	Prevent mortality and minimise disturbance to fauna within areas mapped as 'habitat' for threatened fauna (MNES & MSES species).
Implementation Requirements	1) At least one month before commencement of vegetation clearing, the **environment manager** is to prepare plans which identify all known or potential habitat within and / adjacent to clearing precincts for inclusion within the vegetation clearing plans. 2) To minimise any confusion in the field, flagging guidelines are to be established by the **site manager** prior to pre-clearing surveys. These are to be recorded on vegetation clearing plans and on signage at clearing precinct ingress points. As a minimum, a colour coding system is required to contrast the following: clearing precinct boundaries; habitat trees; sensitive areas within the clearing precinct; and sensitive areas to be retained that are close to and /or adjoining the clearing precinct (e.g. contiguous threatened fauna habitat). 3) Where clearing is to occur within habitat for threatened species, pre-clearance surveys must: a) Be undertaken consistent with best practice survey guidelines in effect at the time, and implemented by a **suitably qualified person**. b) Be completed 1 week to not more than 3 weeks prior to commencement of vegetation clearing. c) Take account of findings of previous fauna surveys undertaken for the area and any relevant new information on the likely presence or absence of a threatened species. d) Map the location of all habitat trees within the clearing area. i) A 'habitat tree' is defined by one of the following criteria: ≥ 50 cm DBH; or supports at least one hollow ≥ 10 cm diameter which is ≥ 2 m above ground level; or a stag (dead tree) with a primary trunk of either 7m in height or >40cm DBH. e) Habitat trees are to be marked in the field with the symbol 'H' in high-visibility marking paint and accompanying flagging tape (following flagging guidelines) and their position recorded with a GPS. f) Describe and map habitat trees which support potentially suitable resources (e.g. large hollow limbs) which could be salvaged for deployment within retained threatened fauna habitat. g) Map the location of all habitat trees within 50 m beyond the outer edge of the clearing precinct, in order to flag priority specialised directional felling techniques which may be required for large trees (> 40 cm) and / or habitat trees which are close to the clearing precinct boundary (e.g. < 50 m inside the clearing precinct boundary). 4) Within the area mapped as 'breeding habitat' for Squatter Pigeon (southern), a **suitably qualified person** is to implement / complete systematic transect searches for nesting birds within a 14-day period immediately prior to scheduled clearing. a) Searches are to be undertaken within the designated clearing precinct and within 100m of the edge of the clearing precinct where mapped 'breeding habitat' is contiguous with the clearing precinct. b) If nesting is confirmed, a 100 m exclusion zone is to be maintained around the nest site until the breeding cycle is completed or the nest is abandoned. c) The exclusion zone is applicable to all machinery and human activity, and is applicable to both remnant or non-remnant habitat. d) Persons entering the zone must be authorised by the **site manager**. e) A **suitably qualified person** is to undertake monitoring observations and upon their advice, the **site manager** can nominate when the exclusion zone is no longer applicable. 5) A **suitably qualified person** is to investigate and identify appropriate fauna relocation sites. The selection of relocation sites will be undertaken to provide separate sites for each tranche of 50 ha of habitat to be cleared. These sites are to be described in a report to the **environment manager** to inform **fauna spotter/catcher** activities during clearing operations. 6) A **suitably qualified person** is complete an assessment of weed infestations and map and report on those infestations which need to be controlled prior to clearing operations. This information is to be provided to the **environment manager** to inform control requirements prior to vegetation clearing operations. 7) A **suitably qualified person** is to prepare a report, providing information on the pre-clearing surveys (including methodologies, target species, results, significant findings, etc.), appropriate fauna relocation sites, and any additional management measures identified from the findings of the pre-clearing surveys. This information is to be provided to the **environment manager** to inform subsequent clearing operations.

Issue	Preparation of plans and processes to inform clearing operations within areas identified as habitat for threatened fauna
Performance Indicators	• Prevent fauna mortality and disturbance to significant fauna species. • No clearing operations to be initiated in areas of potential habitat for threatened species prior to completion of pre-clearance surveys described above.
Responsible Persons - Key Actions	• The **environment manager** is responsible for: ○ appointing a suitably qualified person and scheduling of work consistent with the required timelines above. ○ ensuring that no vegetation clearing occurs prior to the above requirements being completed. ○ ensuring that a copy of the pre-clearance survey results is available at the project site office. • The **site manager** is responsible for ensuring that clearing works are executed as informed by the results of the pre-clearance surveys and advice from the **environment manager**. • The **project ecologist** is to be consulted as required to assist in specialist biological / ecological input to processes, auditing, and survey design issues.
Auditing and Reporting	• Pre-clearing survey documentation to be prepared by the **suitably qualified person** and provided to the **environment manager** according to the abovementioned timelines. • The **environment manager** is responsible for ensuring a copy of the documentation is provided to the **site manager** prior to the commencement of clearing. • The **site manager** is responsible for ensuring that a copy of all pre-clearing survey documentation is maintained within the site project management office. • Monthly report by the **environment manager** to the **proponent** to include documenting compliance, non-compliance incidents and corrective actions taken.
Corrective Action	In the event that **environment manager** or **site manager** identifies practices inconsistent with the strategies described herein, the **responsible persons** identified herein, shall take the necessary corrective steps as soon as practicable, and the **environment manager** must record inconsistent practices / corrective steps / resolutions in the monthly report.
Timing	Prior to the commencement of each stage of vegetation clearing works (construction phase).

Table 7-3 MP2 – Vegetation Clearing Operations within Threatened Fauna Habitat

Issue	Terrestrial Vegetation Clearing
Objective	To minimise the adverse direct and indirect effects on threatened fauna and adjacent habitat during vegetation clearing operations.
Implementation Requirements	1) No vegetation removal shall occur until relevant permit approvals have been obtained by the **site manager**. All permit approval conditions will be followed. 2) Prior to any clearing within Koala or Greater Glider habitat, the **environment manager** is to confirm a list of veterinarians and a licensed wildlife careers who are able to assist if required. The **environment manager** is to provide the **site manager** with the full contacts for each of the suite of designated veterinary options and licensed wildlife careers should fauna need to be repatriated off site. 3) No vegetation clearing is to commence within any areas of threatened fauna habitat without the presence of a **fauna spotter/catcher.** 4) The **fauna spotter/catcher** will check vegetation prior to its felling and, if required, will relocate native wildlife into appropriate habitat areas within the site which are to be retained. 5) A **fauna spotter/catcher** is to ensure that positive communications are maintained with the machinery operator via UHF radio, and supporting visual directions, during clearing operations, especially during removal of "habitat trees". 6) The **site manager** is to ensure that all **fauna spotter/catchers** and machinery operators have competent UHF communications prior to the start of clearing operations each day and that these are functional throughout the day's operations. 7) Avoid clearing of vegetation between the hours of 1830 hrs and 0500 hrs. 8) Vegetation clearing should be undertaken sequentially, so as to encourage fauna to disperse towards adjacent habitats that will remain intact. Vegetation clearing is to be consistent with the following: a) The direction of clearing should be away from threatening processes or hostile environments, and towards any retained vegetation or habitat link. b) Fauna are not required to disperse though construction areas or areas that require movement of greater than 200m over cleared ground to reach suitable habitat. c) Fauna are not left occupying an "island" of habitat between hostile environments, such as a construction area and a cleared area, unless there are no other more suitable habitat areas in which to direct fauna. d) Fauna can safely leave the site of clearing and relocate to adjacent habitat. e) Cleared vegetation is to be stockpiled so as not to impede fauna movement. 9) To prevent damage and / or disturbance to native vegetation and associated habitat values outside clearing areas: a) Clearing boundaries are to be delineated on all drawings and in the field to define the extent of authorized / permitted clearing. b) Installation of vegetation clearance markers (e.g. high visibility tape, poly-web fencing, etc.; consistent with flagging colour guidelines) prior to the commencement of vegetation clearance to identify and protect vegetation for retention. c) Where trees occur along the interface between clearing precincts and retained habitat, trees are to be felled towards (into) the clearing precinct to avoid damage to adjacent retained habitat. d) In some instances, felling in a predetermined and desired direction will need to be implemented by skillful directional felling techniques by individuals as determined from pre-clearing surveys. 10) Temporary access tracks are to be contained within the project operational footprint where possible. Tracks outside of this area are to be agreed with the **Environment Manager** prior and are to be a maximum of 3 m in width or the required vehicle width plus 1 m. 11) Cleared vegetation is to be stockpiled so as not to impede waterway drainage and avoid damage to adjacent retained vegetation. 12) In regard to hollow-bearing habitat trees within Greater Glider habitat, removal should be consistent with the following process:

Issue	Terrestrial Vegetation Clearing

a) No hollow-bearing habitat tree is to be completely isolated and prior to felling, and there should be at least a treed linkage between the habitat tree and retained habitat wherever possible. A single row of trees could be sufficient, though will need to be determined by a **suitably qualified person** or **fauna spotter/catcher**.
b) A hollow-bearing habitat tree should be inspected by a tree climber to inspect potential occupation by gliders. In the presence of at least two **fauna spotter/catchers** as ground support, an attempt may be made to capture the gliders. In the event that gliders cannot be captured because the tree hollow is too large, high or its recovery would breach OH&S requirements, then the tree will be cautiously felled and animals recovered post-felling and repatriated in accordance with the relevant **fauna spotter/catcher** license and permit conditions.
c) All reasonable attempts will be made to clear a habitat tree as late in the day as possible to avoid disturbing / dislocating nocturnal fauna in the middle parts of the day and thus exposing them to a greater period of daylight without shelter.
d) Habitat trees shall be carefully felled under the supervision of the **suitably qualified person** or **fauna spotter/catcher**.
e) Hollow-bearing habitat trees are to be mechanically shaken or agitated prior to felling to encourage any remaining animals to either leave the tree or reveal themselves and subsequently be removed prior to felling.
f) Felling is to involve gently pushing against the tree and lowering or felling using equipment (e.g. claw extension or forestry harvester) that would allow the habitat trees to be lowered to the ground with minimal impact and to avoid sudden falling which is likely to injure wildlife. This could also require, in part, selective removal of large hollow limbs by a climbing arborist.
g) Animals that emerge should be captured, inspected for injury then relocated to pre-determined habitat identified for fauna release or repatriated to designated veterinary options or a licensed wildlife carer.
h) Felled hollow-bearing habitat trees should be left for a period of 24 hours (and where possible, adjacent to retained a habitat area which contains hollow-bearing trees) to allow any undetected fauna further opportunity to escape.
i) Following the felling of hollow-bearing trees, a **suitably qualified person** is to identify and mark natural hollows for potential salvage as hollow ground timber or arboreal hollows. Such resources are to be removed from the clearing precinct as soon as practicable.

13) The following requirements are additional and required in regard to Koala habitat:
a) No vegetation clearing is to commence without the presence of a licensed **fauna spotter/catcher** who has experience in surveying for Koalas.
b) A **fauna spotter/catcher** is not to be involved in the clearing of vegetation while they are responsible for surveying for Koalas on the clearing site.
c) On each day of operations, no vegetation clearing is to commence without the **site manager**:
    i) Ensuring that vegetation clearing boundaries are marked;
    ii) That all koala habitat trees within the daily clearing footprint are assessed for the presence of Koala;
    iii) Where two **fauna spotter/catchers** are in attendance, then the following procedure may be implemented (and repeated where required):
        - That all trees within 100 m of the "starting point" of the day's clearing operations have been assessed to ensure that no Koalas are present within that area prior to start of machinery operations (both **fauna spotter/catchers**).
        - Then, progressive assessment of the remainder of the daily clearing footprint is to follow and implemented by one **fauna spotter/catcher**, whilst the second personnel remains working with the machinery operator.
        - That the end of the 100 m zone is delineated by the **fauna spotter/catcher** with a high visibility flag line (following flagging guidelines) so that both the machinery operator and attending **fauna spotter/catcher** are clear as to the end of the 100 m zone.
        - That the **contractor** (machinery operator) is briefed on the limitations of the extent of vegetation to be cleared.
d) The **site manager** is responsible for ensuring, throughout the duration of the clearing operations, that a tree in which a Koala is present, or a tree with a crown overlapping a tree in which a Koala is present, should not be felled, damaged or interfered with until the Koala has moved from the felling site of its own volition.
e) Where a Koala is present in a tree scheduled for removal, the strategy is to allow the Koala to move of its own accord, overnight. The following is to be implemented:

Issue	Terrestrial Vegetation Clearing
	i) Habitat trees are to be marked in the field with the symbol 'K' in high-visibility marking paint and accompanying flagging tape (following flagging guidelines) and other identification means as determined by the **fauna spotter/catcher**. ii) The **fauna spotter/catcher** is to clearly distinguish a 50 m exclusion zone around the tree and a vegetated corridor from this exclusion zone to the habitat extending in the opposite direction to the clearing front. A vegetated corridor could comprise a single row of trees. iii) The **contractor** (machinery operator) is to be briefed on the location of the tree and clearly confirmed with the operator(s) that the subject tree(s) is to remain undisturbed until the Koala has moved of its own volition. iv) On the following day, such trees are to be checked again prior to their eventual removal and, if necessary, the procedure is repeated until the Koala has moved. v) Neither the **site manager** nor **contractor** nor **fauna spotter/catcher** is to physically move a Koala from a tree in which it is residing to another location. f) The **site manager** is responsible for ensuring that during clearing operations, capabilities and practices to respond to an injured Koala are consistent with the following: i) That vegetation clearing operations within 300 m of a Koala injury site are immediately ceased and not resumed until the **fauna spotter/catcher** has ensured a resolution of the incident (e.g. injured Koala has been relocated off-site for veterinary treatment). ii) That the **environment manager** is advised of a Koala injury at the earliest possible opportunity in order to confirm relocation options with the **fauna spotter/catcher**. iii) That the **fauna spotter/catcher** (or their nominated delegate) is to relocate the injured Koala to either the nearest designated veterinary clinic or licensed wildlife carer as advised by the **site manager.** iv) That the **fauna spotter/catcher** (or their nominated delegate) implements the rescue, handling, transportation, housing, and provision of food and water for a Koala subject to repatriation of veterinary care in a manner consistent with the requirements of the relevant Code of Practice and/or animal ethics approval. v) A register of Koala observations / incidents / interactions is to be maintained daily during clearing operations by the **fauna spotter/catcher**. g) There is a possibility that Koalas may become disorientated during vegetation clearing and early-operational works stages as they attempt to assimilate changes in habitat and social structure. When clearing is occurring within Koala habitat, contractors involved are to be reminded at daily toolbox talks that potentially disorientated Koalas may be seen wandering through disturbed areas, and if observed, the contractor is to convey that observation immediately to **fauna spotter/catcher**. 14) The following procedures should be implemented in regard to specific habitat features: a) Log piles – these should be dissected by hand by the **fauna spotter/catcher** as much as possible before using machinery. Excavators can easily dissect these piles using their bucket/ripper/grabs. Dozers may dissect log piles by lifting logs up using the blade or rippers, carefully sliding logs to the side, preferably without dragging logs across the ground. Care must be taken that the dozer does not track on top of the log pile. b) Logs – large logs should be lifted and rolled rather than dragged across the ground. c) Burrows – should be excavated by the Fauna Spotter/Catcher using a spade, shovel or crowbar. d) Excavated terrestrial termite mounds – these features should be carefully opened up using a shovel or a crowbar. e) Arboreal features – trees containing nests and arboreal termite mounds should be carefully felled in a direction that guarantees the least amount of damage to the habitat feature. Tree felling dozers can effectively arrest or slow down the fall of a tree by putting the dozer blade on the root bulb after/while pushing the tree forward gently. 15) All **contractors** involved in vegetation clearing operations to complete a site induction, including instruction on the relevant obligations in regard to vegetation clearing protocols and to protect native fauna.
Performance Indicators	• No disturbance to native vegetation outside permitted clearing footprints. • Prevent fauna mortality and disturbance to terrestrial fauna. • All construction personnel to complete a site induction, including awareness training in regard to this management issue.
Responsible Persons - Key Actions	• The **site manager** is responsible for ensuring requirements are included in relevant contract tenders and acknowledged in subsequent contracts awarded. • The **environment manager** is responsible for ensuring that relevant environmental awareness information is included within site induction processes. • The **contractor** is responsible for implementing clearing operations consistent with the relevant obligations of this management plan.

Issue	Terrestrial Vegetation Clearing
	• The **spotter/catcher** is responsible for implementing clearing operations consistent with the relevant obligations of this management plan. • The **project ecologist** is to be consulted as required to assist in specialist input to processes, auditing, and design issues.
Auditing and Reporting	• Weekly report by the **fauna spotter/catcher** to the **environment manager** on the clearing of any native vegetation and any animals encountered or relocated. • For each week of native vegetation clearing operations, a weekly log is to be completed by the **site manager** either prior to, or on completion of daily operations. Audit of key requirements, e.g. clearing contained within designated limits, integrity of clearing boundary devices, no damage to vegetation outside clearing boundaries, and that the fauna spotter/catcher was present throughout operations. • Monthly report by the **environment manager** to the **proponent** to include documenting compliance, non-compliance incidents and corrective actions taken.
Corrective Action	In the event that **environment manager** or **site manager** identifies practices inconsistent with the strategies described herein, the **responsible persons** identified herein, shall take the necessary corrective steps as soon as practicable, and the **environment manager** must record inconsistent practices / corrective steps / resolutions in the monthly report.
Timing	Duration of vegetation clearing works (construction phase).

Table 7-4 MP3 – Animal Welfare

Issue	Animal Welfare
Objective	Prevent fauna mortality and minimise disturbance to fauna during construction operations.
Implementation Requirements	1) All personnel implementing the role of **fauna spotter/catcher** must be licensed and working under a current Rehabilitation Permit as issued by the Department of Environment and Science under Section 12(e) – *Nature Conservation (Administration) Regulation 2006*. 2) All personnel involved in the work relevant to Koalas are to have demonstrated experience in locating koalas in koala habitats or conducting fauna surveys, and experience in the safe handling of Koalas. 3) All fauna handling and relocation activities must only be undertaken by those identified under a current Rehabilitation Permit. 4) Fauna handling and relocation is to be undertaken in compliance with conditions set out in the permit approval decision, in addition to the general requirements of the *Animal Welfare Act 2000*. 5) All activities involved in the care and rehabilitation of injured wildlife are to be consistent with the *Code of Practice Care of Sick, Injured or Orphaned Protected Animals in Queensland Nature Conservation Act 1992*. 6) All personnel authorised to undertake fauna handling and relocation activities under the required permits, must implement such work consistent with a general biosecurity obligation to ensure that all reasonable steps are taken to avoid the spread of a pest, disease or contaminant. 7) A register of fauna incidents / interactions is to be maintained and kept in the project site office. 8) Additional specific measures in regards to vegetation clearing[57] include the following: a) If practicable, the timing of vegetation clearance should be selected in order to minimise impacts (direct and indirect disturbances) to affected fauna habitats during optimum breeding periods. 9) Specific measures in regards to vehicle interactions with fauna include the following[58]: a) A **contractor** is required to report the incident to the **site manager** as soon as practicable (at least prior to end of shift) and details to be entered on a fauna incident register. b) Where there is a fauna-vehicle interaction which results in a mortality, the **site manager** is to ensure that animal is relocated off the road (well away from the road) as soon as possible, to reduce potential for scavengers to be subsequently struck. 10) All new fencing within or adjacent to retained habitats should exclude barbed wire. In places where existing fences are required for stock control, as a minimum, the top one or two strands should be replaced with high tensile plain wire. For short sections of existing barbed wire fencing, particularly in entanglement 'hot spots', interim alternatives are either to make the fence more obvious is by installing metal tags at 30 cm intervals along the top wire strand, or cover barbs of the top strand with lengths of split poly pipe. **11)** There is a possibility that Koalas may become disorientated during vegetation clearing and early-operational works stages as they attempt to assimilate changes in habitat and social structure. When clearing is occurring within Koala habitat, contractors involved are to be reminded at daily toolbox talks that potentially disorientated Koalas may be seen wandering through disturbed areas, and if observed, the contractor is to convey that observation immediately to the attendant **fauna spotter/catcher.** 12) All construction personnel to complete a site induction, including awareness training and obligations in regard to animal welfare and to protect native fauna.

[57] See also MP2 – Terrestrial Vegetation Clearing Operations for further measures.

[58] See also MP5 - Vehicle and Vessel Interactions with Fauna for further measures.

Issue	Animal Welfare
Performance Indicators	• No instances of fauna mortality. • All fauna handling, treatment and / or relocation undertaken in accordance with relevant permit conditions and the overarching requirements of the *Animal Welfare Act 2000*. • All construction personnel to complete a site induction, including awareness training in regard to this management issue.

Responsible Persons – Key Actions	• The **environment manager** is responsible for ensuring that:
	  ○ relevant environmental awareness information and animal welfare obligations are included within site induction processes.
	  ○ all personnel involved in fauna handling and relocation activities have the relevant permits.
	  ○ an annual audit of all fencing within or adjacent to retained habitats is undertaken.
	• The **site manager** is responsible for ensuring that a register of fauna incidents / interactions is maintained at the site project office.
	• The **project ecologist** is to be consulted as required to assist in specialist input to processes, auditing, and design issues.

Auditing and Reporting	• Monthly report by the **environment manager** to the **proponent** to include documenting compliance, non-compliance incidents and corrective actions taken.
Corrective Action	In the event that **environment manager** or **site manager** identifies practices inconsistent with the strategies described herein, the **responsible persons** identified herein, shall take the necessary corrective steps as soon as practicable, and the **environment manager** must record inconsistent practices / corrective steps / resolutions in the monthly report.
Timing	Duration of construction and operational periods.

Table 7-5 MP4 – Management and Control of Introduced Fauna

Issue	Management and Control of Introduced Fauna
Objective	To minimise the impact of introduced pest species on threatened fauna within retained habitat.
Implementation Requirements	1) Minimise available food sources for introduced rodents such as house mouse around project-built facilities (e.g. workshops, storage sheds, site offices and crib huts). This is to be maximised through maintenance of routine practices and environmental education, e.g.: promoting good housekeeping practices in relation to food scraps; ample provision of waste receptacles which prevent access by rodents; ensuring daily food waste removal; and maintain staff awareness of the linkage between poor housekeeping practices and the environments which support rodent populations, which in turn, support feral cats and the consequent impact of feral cats on native fauna. 2) Food waste will be segregated from the other waste streams and disposed of at an approved landfill facility. 3) All **contractors** will be required to place a high emphasis on housekeeping and waste management. 4) Implementation of an on-going, monthly rodent baiting program around built facilities. Both rodent poison and disposable traps are cost-effective measures. 5) Implementation of an on-going, cat baiting program around built facilities using proprietary baits such as Curiosity® with the toxin PAPP (para-aminopropriophenone). 6) Domestic dogs are to be prohibited within the project area during both construction and operational phases. 7) Implementation of an on-going, 1080 (sodium fluoroacetate) baiting program for wild dogs, foxes and feral pigs. 8) Baiting programs must be implemented under the condition requirements of the relevant permits, e.g. *1080 Pest Animal Management Authorisation* and *Permit to Take Protected Wildlife*, and consistent with the requirements of the *Animal Welfare Act 2000*. 9) Consultation with managers of adjoining property and Mamelon Station to engage in co-ordinated baiting programs to maximise effectiveness in the control of feral cats, foxes, dogs, and pigs[59]. 10) All construction personnel to complete a site induction, including information on practices to minimise encouraging rodent populations, which in turn, support feral cats, and the consequent impacts to native fauna.
Performance Indicators	• On-going implementation of control programs. • All construction personnel to complete a site induction, including awareness training in regard to this management issue.
Responsible Persons – Key Actions	• The **environment manager** is responsible for developing a suitable control program for introduced fauna. • The **environment manager** is responsible for preparing relevant awareness components within the site induction training. • The **site manager** is responsible for **contractor** compliance with the implementation of control and management strategies on the site.
Auditing and Reporting	• Monthly report by the **environment manager** to the **proponent** to include documenting compliance, non-compliance incidents and corrective actions taken.
Corrective Action	In the event that **environment manager** or **site manager** identifies practices inconsistent with the strategies described herein, the **responsible persons** identified herein, shall take the necessary corrective steps as soon as practicable, and the **environment manager** must record inconsistent practices / corrective steps / resolutions in the monthly report.
Timing	Duration of construction and operational periods.

[59] For wide-ranging species such as dogs and pigs, the ultimate success of any control strategy within the project footprint is linked to the management approaches implemented as part of the grazing operations on the remainder of Mamelon Station, and those implemented by adjoining land holders.

Table 7-6 MP5 - Vehicle Interactions with Fauna

Issue	Vehicle Interactions with Fauna
Objective	To minimise impacts to fauna resulting from vehicle usage across terrestrial environments.
Implementation Requirements	1) A map is to be developed to identify the network of authorised access tracks. 2) Site protocols are to be established which restrict authorised area access by activity to the approved track network identified with the plan. 3) Vehicle movements outside designated operational areas will be subject to specific approval only. 4) For areas outside the disturbance footprint, establish an enforceable maximum vehicle speed limit of 60 km per hour. 5) Set an enforceable maximum vehicle speed limit of 50 km per hour between 1900hrs and 0500hrs for the following areas: a) The crossing of Deep Creek and for a distance of 100 m either side. b) The section of Mount Bison Road which traverses through remnant habitat on the western side of the project area and for a distance of 100 m east of that remnant vegetation. c) The full extent of the haul road which extends along the western side of the project area and connects between Mount Bison Road (in the south) and the Bruce Highway (in the north). 6) Road signage to be used to increase awareness and alert drivers to the fact that Koalas may cross the roadway in particular areas. Strategic locations for signage include: a) On approaches to the crossing of Deep Creek. b) On approach along Mount Bison Road to remnant vegetation on the western side of the project area. c) Along the haul road which continues north from Mount Bison Road to the Bruce Highway (western side of project area). 7) The installation of speed limit signage is to accompany awareness signage at the abovementioned strategic locations. 8) Implement measures to improve driver awareness, and thereby minimise the incidence of fauna-vehicle collisions, including: a) The installation of general signage to signal the presence of native wildlife at road entry points to the site. b) The installation of more specific signage treatments to be installed to signal areas within the site where there is an increased likelihood of encountering native wildlife on a road, roadside exits from contractor camps or where a road passes through / by habitats of particular value (e.g. crossings of Alligator Creek). 9) All **contractors** shall attend environmental training as part of the site induction and instructed on their obligations in regard to movement restrictions and road speed limits.
Responsible Persons – Key Actions	• The **environment manager** is responsible for ensuring that awareness information relating to this management issue is included as part of the site induction process. • The **site manager** is responsible for ensuring that information on the authorised track network is provided to all **contractors** and that site-wide driver awareness signage is maintained.
Performance Indicators	• Project traffic is restricted to an established track network and road speeds between / within designated construction areas are adhered to. • No collisions between vehicles with fauna. • All construction personnel to complete a site induction, including awareness training in regard to this management issue.
Auditing and Reporting	• Monthly report by the **environment manager** to the **proponent** to include documenting compliance, non-compliance incidents and corrective actions taken.
Corrective Action	In the event that **environment manager** or **site manager** identifies practices inconsistent with the strategies described herein, the **responsible persons** identified herein, shall take the necessary corrective steps as soon as practicable, and the **environment manager** must record inconsistent practices / corrective steps / resolutions in the monthly report.
Timing	Duration of construction and operational periods.

Table 7-7 MP6 - Road Design and Fauna Crossing Treatments

Issue	Facilitating safe and on-going fauna movement along Deep Creek
Objective	To minimise impact to Koala and Greater Glider movement associated with the development of a road crossing of Deep Creek.
Implementation Requirements	1) In regard to Koala, a preferred solution comprises a dedicated 'grade-separated' road crossing treatment. a) The key structural element is either: a large open bridge underpass (e.g. spanned bridge or bebo arch) centrally located within the corridor crossing (preferred); or two sub-road spaces (fauna underpasses), being typically culverts of minimum size of 2.4 m high by 3 m wide[60]. b) In regard to the bridging structure, wherever possible, the design will make provision for dry land passage through the retention of either the watercourse embankment beneath the bridge, or elevated portions of road bridging dry land underneath. Where this is not achievable, the structure is to incorporate a dedicated Koala 'boardwalk ledge' at each end of the bridge. c) At least one dedicated fauna underpass (culvert or similar) is to incorporate a Koala 'bridge' or 'boardwalk ledge' structure which mirrors the length of the underpass to reduce the threat of predation and / or provide a resource for Koala access in the event of inundation. i) The 'bridge' structure comprises a line of horizontal poles / planks (extending through the length of the culvert), which are supported at regular intervals (app. 5 m) by vertical poles for the Koalas to ascend / descend as required, with several vertical (retreat / refuge) poles near the culvert entrances. Horizontal logs / planks should be placed as high off the ground as possible for koalas to avoid predators, with a minimum space of 60 cm between the top of the horizontal log / plank and the culvert ceiling. Poles, either horizontal or vertical poles, are to be ≥15 cm in diameter. Horizontal planks should be ≥15 cm in width. Materials should be timber and a post /rail diameter should not exceed 50 cm diameter as a maximum. ii) The 'boardwalk ledge' structure comprises a timber surface having a minimum width of 50 cm, which is fixed to metal brackets along outer wall of the single-cell culvert. The boardwalk ledge is to extend from the culvert opening out and around the adjacent fill batter (or wing wall) and terminate adjacent to natural ground, and near / adjacent to a Koala 'refuge pole'. The boardwalk ledge should be at least 1 m above the floor of culvert, though higher if possible – though no less than 60 cm between the boardwalk ledge and the top / ceiling of the culvert. iii) Koala refuge poles are to be installed at strategic locations – near / adjacent to – entry / exit points of culvert structures. Two poles should be set within 10 to 20 m of each culvert opening, and a further refuge pole adjacent to the outer extent of the timber boardwalk. A pole should be: treated timber; at least 20 cm diameter (though <50 cm); with an escape / rest fork near the top of pole (30 cm timber "arm" set at app. 45° angle to pole); and with the top of pole at least 3 m (preferably 4 m) above ground level. d) Other design considerations for a grade-separated crossing include the following: i) That there is no external lighting at culvert entrances. ii) Provision of an unobstructed view through to the far side of the underpass / sub-road space. iii) Dedicated fauna underpass design to ensure suitable drainage and avoidance of water logging – even shallow pools of surface water may deter Koalas from using the crossing structure. Underpass floors are to be designed to remain dry at all times except in significant rain events where the structure quickly dries out, or ledges or Koala furniture are incorporated in the underpass to provide a dry path for movement.

[60] The author has incorporated in previous underpass design, 'stock' culverts of 4.2 m wide x 3 m high, and 3.6m wide x 2.4m high (supplied November 2017 by Humes Ipswich for the Yarrabilba PDA Koala underpasses).

Issue	Facilitating safe and on-going fauna movement along Deep Creek

iv) The ground surface around the culvert entrances should be shaped to allow free drainage so surface water and swampy vegetation does not dominate these areas, making koala passage difficult.

v) Habitat rehabilitation to provide some protective cover on approach/exiting the underpass though should not obstruct access or view of underpass entrance. For Koalas, the most suitable environment should reflect open forest or woodland conditions, with eucalypts near the overpass structure that are connected to adjacent Koala habitat, scattered midstorey species, and a sparse or low groundcover. Dense or overgrown ground cover or low shrub cover (e.g. tall, rank grass cover, dense weed infestations) are not favorable conditions for Koala ground movement and may be deterred usage of the crossing structure under such circumstances.

vi) Installation of Koala refuge poles at strategic locations near entry / exit points where suitable tree cover is sparse or absent. The purpose of these structures is to provide an available retreat / refuge site if a koala is disturbed/threatened (e.g. by a dog). Access poles must be of a width suitable for climbing (approximately 50 cm diameter maximum) and should be timber.

e) Where an under-road treatment is not feasible, an alternative solution comprises 'at-grade' road crossing treatment.

i) Here, the primary management intent is to create a 'slow zone' which limits traffic speed and raises driver awareness.

ii) Treatments will include speed reduction or other traffic calming devices (e.g. speed bumps), and koala movement awareness signs and other awareness heightening treatments such as the use of Cat's eye road reflectors.

f) The use of directional (exclusion) fencing should be considered for dedicated 'grade-separated' road crossing treatments. Given the often-unpredictable nature of Koala movement and dispersal patterns, it is not possible to ensure that all animals are guided to these crossing points, thus the aim of such treatment is to minimise, rather than prevent casualties. The following provides the key design and siting considerations for the application of directional fencing:

i) Fencing in place to guide koalas to the underpass(es) should extend at least 100 m on either side of the underpass entrance.

ii) Chain wire fencing to a height of least 1.5 m, with a Koala exclusion metal strip or similar of at least 50 cm in width which is attached beneath the top rail on the exclusion side of the fence.

iii) Fence bracing / supports are located on the opposite side to the Koala exclusion Koala exclusion metal strip or similar (i.e. the non-exclusion side of the fence).

iv) Fencing has a gap of <10 cm between the ground and the fence.

v) A treated timber pole (15 cm diameter) which mirrors the height of the fence, is to be located at 20 m centres, on the opposite side to Koala exclusion metal strip or similar (i.e. the non-exclusion side of the fence).

vi) Vegetation adjacent to the fence is to be maintained to achieve the following: exclusion of trees and shrubs from within 3 m of the fence; keeping tree canopies trimmed to remove links to tree canopies on the other side of the fence; and removal of fallen branches and vines growing on the fence to maintain fence effectiveness.

1) In regard to Greater Glider, the road crossing treatment involves the installation of vertical poles placed on the road verge and in the centre median to provides intermediate landing and launch opportunities to enable arboreal movements.

a) The following ecological data has been taken into consideration in the treatment design:

i) The glide distance is directly proportional to launch height (Ball & Goldingay, 2008).

ii) ABMS (2001) estimated an average glide distance of between 25 to 35 m, with an average launch height of 20 to 25 m, and a minimum cross beam (launch) height of 11.96 m (average).

iii) It is generally agreed that the glide angle for Greater Glider is 40° (Wakefield 1970, Jackson 1999, and Taylor & Goldingay 2009).

b) Based on an understanding of the ecological data for the Greater Glider, and a clearing gap of 51 m, the following forms the treatment design:

i) Glider poles are to be spaced at intervals of 20 m along both edges of the road and within the centre median. Poles are to be located opposite each other.

ii) The height of a glider pole should be a minimum of 26m – top of pole to ground level.

Issue	Facilitating safe and on-going fauna movement along Deep Creek
	iii) Each pole will have two cross-arms running perpendicular to each other to assist in glider launch. Launching cross-arms are to be located at 50 cm and 1 m from the top of each pole to allow maximum choice of glides between individual poles and surrounding habitat. iv) Each pole will have a predation refuge located at the bottom cross-arm at heights of approximately 6, 9, 14, 17, 20, and 23 m above ground. A predation refuge comprises a length of PVC pipe (11 cm x 38 cm). v) The height of the glider pole accounts for a launch height from either of the cross-arms to enable a glide over a horizontal distance of 26 m to arrive at the pole within the centre median at a landing point approximately 3 m above ground. A glider would then need to ascend the pole within the centre median, and undertake a second glide to reach to pole on the habitat edge on opposite side of the clearing. vi) The height of the glider pole and spacing design accounts for a conservative assessment of the gliding capabilities of the Greater Glider[61] and gliding attempts under a variety of conditions.
Responsible Persons – Key Actions	• The **environment manager** is responsible for ensuring that: ○ the **project ecologist** and / or a **suitably qualified person** is engaged to work within the design process and that outcomes are consistent the above requirements. ○ the **project ecologist** and / or a **suitably qualified person** is engaged to prepare a program to assess and monitor usage of the road crossing treatments by the target species. ○ the engineering drawings for the treatment designs are incorporated with construction works contracts. ○ Road crossing treatments and associated site rehabilitation is completed within 12 months of vegetation clearing and road construction.
Performance Indicators	• Road crossing treatments are to be consistent with the abovementioned details, and with best practice guidelines including QDTMR (2010), QEPA (2006a), QDEHP (2011), RTA (2011), and VicRoads (2012). • That there are no collisions between vehicles with Koalas or Greater Gliders. • That there is positive evidence of use of treatments by Koalas and Greater Gliders.
Auditing and Reporting	• Monthly report by the **environment manager** to the **proponent** to include documenting compliance, non-compliance incidents and corrective actions taken.
Corrective Action	In the event that **environment manager** or **site manager** identifies practices inconsistent with the strategies described herein, the **responsible persons** identified herein, shall take the necessary corrective steps as soon as practicable, and the **environment manager** must record inconsistent practices / corrective steps / resolutions in the monthly report.
Timing	Duration of construction and operational periods.

[61] cf. conclusions by Taylor & Goldingay (2009) that "The installation of wooden poles 20 m in height should enable a glide of approximately 33 m and potentially allow the movement of greater gliders across the motorways [Compton Road, Karawatha] in our study area." and alternative estimates of lesser glide angle of 31° (Kavanagh pers comm. cited in Taylor & Goldingay (2009))

Table 7-8 MP7 – Artificial Lighting Impacts on Retained Habitat

Issue	Artificial Lighting Impacts on Retained Habitat
Objective	To minimise artificial light impacts on retained habitats
Implementation Requirements	1) In working areas adjacent to habitat, lighting should be consistent with the following guidelines: a) Lights should be shielded beyond full cut-off to ensure that light falls only on the intended surfaces, and minimise direct light above the horizontal and minimise light spill along habitat edges. b) Use light emitting diodes (LEDs) for lighting wherever possible. c) Use long wavelength (550-700 nanometers; orange to red) lights wherever possible. d) Lighting is to be designed to avoid the use of ultraviolet light and adjacent short wavelengths. e) Avoid use of white lights that emit ultraviolet light and limit strong blue or green spectral elements (e.g. mercury vapour lights) as far as possible / practicable. 2) Lighting for the road crossing over Deep Creek and along roads within remnant habitat on the western side of the project area should be restricted to the minimum necessary to meet safety standards. Within these areas, consideration should be given to the use of red light which has the least effect on nocturnal mammals. 3) Lighting design to minimise impact to Greater Gliders and Koalas should be consistent with best practice and best available technology (e.g. Longcore *et al.* 2017; ISDA 2018; DEE 2019b). 4) A **suitably qualified person** should be consulted in regard to ecological considerations in the design process for night lighting within these areas of threatened fauna habitat.
Responsible Persons – Key Actions	• The **environment manager** is responsible for ensuring that awareness information relating to this management issue is included as part of the site induction process. • The **site manager** is responsible for ensuring that contractors are aware of night lighting requirements and these are reflected in contract tenders. • The **project ecologist** is to be consulted as required to assist in specialist input to processes, auditing, and survey design issues.
Performance Indicators	• Minimise disturbance to significant species and their habitat to the lowest extent possible. • Strategies to minimise disturbance are implemented during all construction operations. • All construction personnel to complete a site induction, including awareness training in regard to this management issue.
Auditing and Reporting	• Monthly report by the **environment manager** to the **proponent** to include documenting compliance, non-compliance incidents and corrective actions taken.
Corrective Action	In the event that **environment manager** or **site manager** identifies practices inconsistent with the strategies described herein, the **responsible persons** identified herein, shall take the necessary corrective steps as soon as practicable, and the **environment manager** must record inconsistent practices / corrective steps / resolutions in the monthly report.
Timing	Duration of construction and operational periods.

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Attachment A Overarching Impact Mitigation Strategies and Measures

Management Strategies and Measures	Relevant Project Phase		Issue Category					
	Construction	Operational	Habitat Clearing	Management of Retained habitat	Animal Welfare	Fauna Movement	Pest Management	Habitat Rehabilitation
No remnant vegetation removal shall occur until relevant approvals have been obtained.	✓	✓	✓					
Clearing boundaries will be delineated on all drawings and in the field to define the extent of authorized/permitted clearing.	✓	✓	✓					
Installation of vegetation clearance markers (e.g. high visibility poly-web fencing) prior to the commencement of remnant vegetation clearance to identify and protect remnant vegetation for retention.	✓		✓	✓				
Clearly define all areas not directly affected by construction/mining activities to delineate limits of disturbance. No unauthorised disturbances should occur outside defined disturbance areas (e.g. dumping of excavated material).	✓	✓	✓	✓				
Avoiding additional clearing of remnant vegetation for construction vehicle access tracks, truck turning areas and extra workspaces, etc. A track plan is to be developed for areas of retained habitat and rehabilitation. Site protocols are to be established which restrict authorised area access to the approved track network identified with the plan.	✓	✓		✓			✓	✓
Areas identified for vegetation clearance are to be clearly defined and detailed in site inductions.	✓		✓					
No clearing is to commence without the presence of a suitably experienced and licensed spotter/catcher.	✓		✓		✓			
Pre-clearing surveys are to be undertaken by suitably experienced and licensed spotter/catchers in advance of remnant vegetation clearing and pre-empting such operations with suitable lead times to ensure that specific management and mitigation measures can be implemented (e.g. avoidance of disturbance to nesting birds).	✓		✓		✓			

Management Strategies and Measures	Relevant Project Phase		Issue Category					
	Construction	Operational	Habitat Clearing	Management of Retained habitat	Animal Welfare	Fauna Movement	Pest Management	Habitat Rehabilitation
Conduct clearing in a sequential manner. The direction of sequential clearing should be away from the disturbance area and towards any retained vegetation or habitat links.	✓		✓		✓			
Along the interface between clearing precincts and retained remnant habitat, trees are to be felled towards the clearing precinct to avoid damage to adjacent retained remnant habitat.	✓		✓	✓				
Cleared vegetation is to be stockpiled so as not to impede wildlife, surface drainage and avoid damage to adjacent retained vegetation.	✓		✓		✓	✓		
Cleared material should not be deposited in or adjacent to watercourses. Setbacks to waterways as defined by approval permits need to be enforced.	✓		✓	✓		✓		
Suitable buffer distances for sensitive locations (e.g. active nest sites, presence of a Koala, etc.) must be established and clearly marked as a 'no go zone' until spotter/catcher has authorised that clearing in the area can commence/continue.	✓		✓		✓			
The timing of vegetation clearance (particularly areas of remnant vegetation) should be selected in order to minimise impacts (direct and indirect disturbances) to affected fauna habitats during optimum breeding periods.	✓		✓		✓			
No remnant vegetation clearing is to be conducted between the 1700hrs and 0500 hours unless subject to area-specific exemptions identified in the management plan.	✓		✓		✓			
Habitat trees are to be identified in the field and by plan prior to commencement of clearing operations. These shall be marked and dismantled using a cherry picker and a suitably qualified arborist and spotter/catcher. Hollows containing fauna shall be blocked, removed from the tree and gently lowered to the ground, with species relocated to a pre-identified, suitable site. Areas inaccessible to a cherry picker, requiring hollow removal shall use a hydraulic grabber to remove and gently to the ground.	✓	✓	✓		✓			

Management Strategies and Measures	Relevant Project Phase		Issue Category					
	Construction	Operational	Habitat Clearing	Management of Retained habitat	Animal Welfare	Fauna Movement	Pest Management	Habitat Rehabilitation
All remnant vegetation removed should be reused, either within the offset areas and/or within the rehabilitation areas. Logs and large rocks should be placed in nearby vegetation or adjacent to such vegetation to create shelter habitat for terrestrial fauna species. These 'stock piles' may then be used during later operations to create artificial habitats within rehabilitation areas.	✓	✓	✓	✓				✓
To ensure that the seed bank in removed soil is preserved as much as practical, stockpiling of topsoil will be undertaken in accordance with best practice storage guidelines.	✓	✓	✓					✓
Wildlife assessment/rescue services are to be engaged prior to vegetation clearing, to assess appropriate site clearing approaches to minimise deleterious impacts to fauna. Spotter/catcher services (wildlife handlers) are to be employed during vegetation clearing activities.	✓		✓		✓			
A permit to interfere with wildlife from the Queensland Department of Environment and Science will be required for the wildlife handling activities as will the appropriate Animal Ethics Permit from the Department of Employment, Economic Development and Innovation.	✓	✓	✓		✓			
Spotter/catcher services (wildlife handlers) must only be undertaken by those identified on a current site-specific Damage Mitigation Permit (Removal and Relocation of Wildlife) from the Department of Environment and Science.	✓	✓	✓		✓			
Where badly injured fauna requires euthanasia, only personnel suitably licensed shall undertake such actions. The Australian National Health and Medical Research Council's Australian Code of Practice for the Care and Use of Animals for Scientific Purposes (2004) are to be followed when dealing with injured fauna. Alternatively, any injured fauna should be taken to the nearest veterinary clinic.	✓	✓	✓		✓			
Development and implementation of protocols for the relocation of any displaced fauna must be prepared prior to clearing operations.	✓	✓	✓		✓			

Management Strategies and Measures	Relevant Project Phase		Issue Category					
	Construction	Operational	Habitat Clearing	Management of Retained habitat	Animal Welfare	Fauna Movement	Pest Management	Habitat Rehabilitation
A register of fauna incidents/interactions needs to be maintained daily during clearing operations.	✓	✓	✓		✓			
Post-disturbance reconstructed landforms to be contoured to resemble the original local topography as far as practical.		✓						✓
A weed management plan will be implemented during both construction and operational phases. Weed control strategies are to be developed and implemented and include, but not be limited to the design and implementation of an ongoing eradication program which targets environmental weeds and an ongoing systematic monitoring program to detect the occurrence of environmental weeds and to assess the success of the control/eradication program.	✓	✓	✓	✓			✓	✓
Prior to commencement of clearing operations, a survey of weed species is to be undertaken in order to identify areas requiring treatment.	✓	✓	✓				✓	
All weed infestations within the construction area are to be treated and/or removed where practical from the clearing precinct prior to clearing.	✓	✓	✓				✓	
All construction machinery entering the site shall be free of soil, weeds, soil pathogens and pest species.	✓	✓					✓	
Designated wash down points for vehicles and plant entering the site will be established and plant will be inspected prior to mobilsation and demobilisation. A register of vehicle approval certification is to be developed and maintained.	✓	✓					✓	
It will be mandatory that vehicles and equipment to be used within areas of retained habitat are subject to a separate, more detailed and comprehensive wash-down before entering such areas. The remainder of the workforce vehicles/equipment will be required to stay on project/site approved roads and designated works areas to minimise contact with weeds.	✓	✓		✓			✓	✓
The proposed development will not deliberately introduce any invasive species. Companion animals (e.g. dogs) are to be banned from all construction and operational areas.	✓	✓	✓				✓	

Management Strategies and Measures	Relevant Project Phase		Issue Category					
	Construction	Operational	Habitat Clearing	Management of Retained habitat	Animal Welfare	Fauna Movement	Pest Management	Habitat Rehabilitation
Feral animal control strategies are to be developed and implemented and include, but not be limited to the design and implementation of an ongoing eradication program which targets pest animals (especially cats, dogs and foxes) and an ongoing systematic monitoring program to detect the occurrence of feral animals and to assess the success of the eradication program.	✓	✓		✓			✓	✓
All sightings of non-indigenous fauna and conservation significant fauna will be reported to the Site Manager.	✓	✓		✓			✓	
Implementation of a program to ensure strict litter/waste control throughout the construction and operational works on the site. This is to be supported by: site-wide signage; an adequate number of litter bins (which by design exclude birds and vermin); bin clearance on a regular basis; daily maintenance of crib rooms to ensure cleanliness; educational signage within crib rooms on the linkage between poor waste management practices, increases in pest animal populations and subsequent impacts to native fauna.	✓	✓					✓	
Implementation of design features for permanent structures and temporary site facilities (e.g. construction site offices. etc.) which minimise harbourage or roost opportunities for vermin and animal pests.		✓					✓	
Fauna shall not be fed and direct contact with fauna is to be avoided. This includes both native and introduced species.	✓	✓			✓			
Identify barriers to safe fauna movement and remove or modify these barriers where possible (external to the open cut mine and infrastructure operational areas).	✓	✓				✓		
Implement measures to reduce fauna mortality on roads.	✓	✓		✓	✓	✓		
Vehicle speed limits will be imposed and enforced on Project roads.	✓	✓			✓	✓		
All fauna mortalities and injuries will be reported to the Site Manager within 24 hours and recorded within the incident reporting system.	✓	✓			✓			

Management Strategies and Measures	Relevant Project Phase		Issue Category					
	Construction	Operational	Habitat Clearing	Management of Retained habitat	Animal Welfare	Fauna Movement	Pest Management	Habitat Rehabilitation
Establishment of fauna exclusion fences to prevent fauna inadvertently re-entering the open cut mine operational areas.	✓	✓			✓	✓		
Monitoring of the movements of, and any incidents involving, the fauna populations will identify if there is the need for erection of fauna exclusion fencing around active quarry. If required, fencing should be designed and located with the assistance of an ecologist.	✓	✓			✓	✓		
The use of barbed wire should be avoided and used only where essential to exclude stock from adjoining pastoral activities. Where the use of barbed wire cannot be avoided, the fence design should incorporate alternate strands of plain wire and barbed wire, e.g. top strand plain wire, middle strand barbed wire and bottom strand plain wire.	✓	✓		✓	✓	✓		
Existing boundary fences associated with any offset areas should be retrofitted to meet the above recommendations (assuming there is no conflict with existing/approved rights of use).	✓	✓		✓	✓	✓		
All personnel shall attend environmental training prior to entering the work site. As part of this training, all personnel will be briefed about their obligations to protect fauna.	✓	✓						
Awareness training will identify conservation significant fauna and habitat and discuss relevant management measures, personnel/contractor responsibilities, and incident reporting requirements (i.e. reporting of fauna observations and/or incidents).	✓	✓		✓				
Off-road driving will be prohibited unless otherwise authorised by the Site Manager.	✓	✓		✓				✓
Temporary access tracks are to be contained within the project operational footprint where possible. Tracks outside of this area are to be agreed with the Environment Manager prior and are to be a maximum of three metres in width or the required vehicle width plus one metre.	✓	✓	✓	✓				

Management Strategies and Measures	Relevant Project Phase		Issue Category					
	Construction	Operational	Habitat Clearing	Management of Retained habitat	Animal Welfare	Fauna Movement	Pest Management	Habitat Rehabilitation
Implementation of a comprehensive suite of dust suppression techniques to minimise impacts to areas of retained habitat and rehabilitation which are in proximity to operational areas.	✓	✓	✓					✓
Any proposed site lighting should be designed to ensure that leakage of artificial light onto adjoining retained habitat is avoided.	✓	✓		✓				

Attachment B Queensland Government Wildlife Online Extracts

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Queensland Government

Wildlife Online Extract

Search Criteria: Species List for a Specified Point
Species: Animals
Type: Native
Status: All
Records: Confirmed
Date: Since 1980
Latitude: -22.7045
Longitude: 149.6867
Distance: 10
Email: lindsay@austecology.com.au
Date submitted: Thursday 19 Mar 2020 11:31:54
Date extracted: Thursday 19 Mar 2020 11:40:12

The number of records retrieved = 164

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Hylidae	*Litoria fallax*	eastern sedgefrog		C		4
animals	amphibians	Hylidae	*Litoria rothii*	northern laughing treefrog		C		4
animals	amphibians	Hylidae	*Litoria inermis*	bumpy rocketfrog		C		1
animals	amphibians	Hylidae	*Litoria rubella*	ruddy treefrog		C		4
animals	amphibians	Hylidae	*Litoria caerulea*	common green treefrog		C		3
animals	amphibians	Hylidae	*Litoria gracilenta*	graceful treefrog		C		1
animals	amphibians	Hylidae	*Cyclorana alboguttata*	greenstripe frog		C		2
animals	amphibians	Hylidae	*Litoria latopalmata*	broad palmed rocketfrog		C		4
animals	amphibians	Limnodynastidae	*Limnodynastes salmini*	salmon striped frog		C		1
animals	amphibians	Limnodynastidae	*Limnodynastes terraereginae*	scarlet sided pobblebonk		C		1
animals	amphibians	Myobatrachidae	*Crinia deserticola*	chirping froglet		C		2
animals	birds	Acanthizidae	*Gerygone olivacea*	white-throated gerygone		C		1
animals	birds	Acanthizidae	*Smicrornis brevirostris*	weebill		C		1
animals	birds	Accipitridae	*Aquila audax*	wedge-tailed eagle		C		8
animals	birds	Accipitridae	*Milvus migrans*	black kite		C		4
animals	birds	Accipitridae	*Accipiter fasciatus*	brown goshawk		C		1
animals	birds	Accipitridae	*Elanus axillaris*	black-shouldered kite		C		1
animals	birds	Accipitridae	*Haliaeetus leucogaster*	white-bellied sea-eagle		C		2
animals	birds	Accipitridae	*Aviceda subcristata*	Pacific baza		C		4
animals	birds	Acrocephalidae	*Acrocephalus australis*	Australian reed-warbler		C		1
animals	birds	Alaudidae	*Mirafra javanica*	Horsfield's bushlark		C		2
animals	birds	Anatidae	*Nettapus coromandelianus*	cotton pygmy-goose		C		2
animals	birds	Anatidae	*Dendrocygna arcuata*	wandering whistling-duck		C		1
animals	birds	Anatidae	*Dendrocygna eytoni*	plumed whistling-duck		C		2
animals	birds	Anatidae	*Chenonetta jubata*	Australian wood duck		C		2
animals	birds	Anatidae	*Anas superciliosa*	Pacific black duck		C		2
animals	birds	Anatidae	*Anas gracilis*	grey teal		C		1
animals	birds	Anhingidae	*Anhinga novaehollandiae*	Australasian darter		C		2
animals	birds	Anseranatidae	*Anseranas semipalmata*	magpie goose		C		3
animals	birds	Apodidae	*Hirundapus caudacutus*	white-throated needletail		V	V	1
animals	birds	Ardeidae	*Egretta novaehollandiae*	white-faced heron		C		3
animals	birds	Ardeidae	*Bubulcus ibis*	cattle egret		C		4
animals	birds	Ardeidae	*Ardea pacifica*	white-necked heron		C		4
animals	birds	Artamidae	*Strepera graculina*	pied currawong		C		8
animals	birds	Artamidae	*Cracticus nigrogularis*	pied butcherbird		C		8
animals	birds	Artamidae	*Artamus leucorynchus*	white-breasted woodswallow		C		4
animals	birds	Artamidae	*Artamus cinereus*	black-faced woodswallow		C		8
animals	birds	Artamidae	*Gymnorhina tibicen*	Australian magpie		C		8
animals	birds	Cacatuidae	*Cacatua galerita*	sulphur-crested cockatoo		C		8
animals	birds	Cacatuidae	*Eolophus roseicapilla*	galah		C		7
animals	birds	Cacatuidae	*Calyptorhynchus banksii*	red-tailed black-cockatoo		C		2
animals	birds	Campephagidae	*Lalage tricolor*	white-winged triller		C		1
animals	birds	Campephagidae	*Lalage leucomela*	varied triller		C		8
animals	birds	Campephagidae	*Coracina papuensis*	white-bellied cuckoo-shrike		C		4
animals	birds	Campephagidae	*Coracina tenuirostris*	cicadabird		C		2
animals	birds	Campephagidae	*Coracina novaehollandiae*	black-faced cuckoo-shrike		C		8

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Casuariidae	*Dromaius novaehollandiae*	emu		C		5
animals	birds	Charadriidae	*Vanellus miles novaehollandiae*	masked lapwing (southern subspecies)		C		3
animals	birds	Cisticolidae	*Cisticola exilis*	golden-headed cisticola		C		3
animals	birds	Columbidae	*Geophaps scripta scripta*	squatter pigeon (southern subspecies)		V	V	7
animals	birds	Columbidae	*Geopelia humeralis*	bar-shouldered dove		C		4
animals	birds	Columbidae	*Phaps chalcoptera*	common bronzewing		C		1
animals	birds	Columbidae	*Ocyphaps lophotes*	crested pigeon		C		4
animals	birds	Columbidae	*Geopelia striata*	peaceful dove		C		5
animals	birds	Coraciidae	*Eurystomus orientalis*	dollarbird		C		3
animals	birds	Corcoracidae	*Corcorax melanorhamphos*	white-winged chough		C		3
animals	birds	Corcoracidae	*Struthidea cinerea*	apostlebird		C		4
animals	birds	Corvidae	*Corvus orru*	Torresian crow		C		8
animals	birds	Cuculidae	*Cacomantis pallidus*	pallid cuckoo		C		2
animals	birds	Cuculidae	*Scythrops novaehollandiae*	channel-billed cuckoo		C		3
animals	birds	Cuculidae	*Cacomantis flabelliformis*	fan-tailed cuckoo		C		2
animals	birds	Cuculidae	*Centropus phasianinus*	pheasant coucal		C		4
animals	birds	Cuculidae	*Chalcites minutillus barnardi*	Eastern little bronze-cuckoo		C		4
animals	birds	Cuculidae	*Chalcites basalis*	Horsfield's bronze-cuckoo		C		1
animals	birds	Cuculidae	*Eudynamys orientalis*	eastern koel		C		3
animals	birds	Dicruridae	*Dicrurus bracteatus*	spangled drongo		C		4
animals	birds	Estrildidae	*Taeniopygia guttata*	zebra finch		C		3
animals	birds	Estrildidae	*Taeniopygia bichenovii*	double-barred finch		C		1
animals	birds	Falconidae	*Falco berigora*	brown falcon		C		6
animals	birds	Falconidae	*Falco cenchroides*	nankeen kestrel		C		8
animals	birds	Gruidae	*Antigone rubicunda*	brolga		C		4
animals	birds	Halcyonidae	*Todiramphus macleayii*	forest kingfisher		C		4
animals	birds	Halcyonidae	*Todiramphus pyrrhopygius*	red-backed kingfisher		C		1
animals	birds	Halcyonidae	*Dacelo leachii*	blue-winged kookaburra		C		8
animals	birds	Halcyonidae	*Dacelo novaeguineae*	laughing kookaburra		C		8
animals	birds	Halcyonidae	*Todiramphus sanctus*	sacred kingfisher		C		3
animals	birds	Hirundinidae	*Petrochelidon ariel*	fairy martin		C		3
animals	birds	Hirundinidae	*Hirundo neoxena*	welcome swallow		C		4
animals	birds	Jacanidae	*Irediparra gallinacea*	comb-crested jacana		C		2
animals	birds	Maluridae	*Malurus melanocephalus*	red-backed fairy-wren		C		7
animals	birds	Megaluridae	*Cincloramphus mathewsi*	rufous songlark		C		1
animals	birds	Meliphagidae	*Stomiopera flava*	yellow honeyeater		C		8
animals	birds	Meliphagidae	*Meliphaga lewinii*	Lewin's honeyeater		C		8
animals	birds	Meliphagidae	*Entomyzon cyanotis*	blue-faced honeyeater		C		4
animals	birds	Meliphagidae	*Manorina flavigula*	yellow-throated miner		C		7
animals	birds	Meliphagidae	*Lichmera indistincta*	brown honeyeater		C		7
animals	birds	Meliphagidae	*Philemon corniculatus*	noisy friarbird		C		5
animals	birds	Meliphagidae	*Philemon citreogularis*	little friarbird		C		3
animals	birds	Meliphagidae	*Melithreptus albogularis*	white-throated honeyeater		C		8
animals	birds	Meliphagidae	*Plectorhyncha lanceolata*	striped honeyeater		C		1
animals	birds	Meropidae	*Merops ornatus*	rainbow bee-eater		C		6
animals	birds	Monarchidae	*Myiagra rubecula*	leaden flycatcher		C		2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Monarchidae	*Grallina cyanoleuca*	magpie-lark		C		8
animals	birds	Motacillidae	*Anthus novaeseelandiae*	Australasian pipit		C		4
animals	birds	Nectariniidae	*Dicaeum hirundinaceum*	mistletoebird		C		7
animals	birds	Oriolidae	*Oriolus sagittatus*	olive-backed oriole		C		1
animals	birds	Oriolidae	*Sphecotheres vieilloti*	Australasian figbird		C		7
animals	birds	Otididae	*Ardeotis australis*	Australian bustard		C		3
animals	birds	Pachycephalidae	*Colluricincla megarhyncha*	little shrike-thrush		C		1
animals	birds	Pachycephalidae	*Pachycephala rufiventris*	rufous whistler		C		8
animals	birds	Pachycephalidae	*Colluricincla harmonica*	grey shrike-thrush		C		8
animals	birds	Pardalotidae	*Pardalotus striatus*	striated pardalote		C		7
animals	birds	Petroicidae	*Eopsaltria australis*	eastern yellow robin		C		1
animals	birds	Phalacrocoracidae	*Microcarbo melanoleucos*	little pied cormorant		C		3
animals	birds	Phalacrocoracidae	*Phalacrocorax sulcirostris*	little black cormorant		C		2
animals	birds	Phasianidae	*Coturnix ypsilophora*	brown quail		C		1
animals	birds	Podargidae	*Podargus strigoides*	tawny frogmouth		C		3
animals	birds	Podicipedidae	*Tachybaptus novaehollandiae*	Australasian grebe		C		1
animals	birds	Pomatostomidae	*Pomatostomus temporalis*	grey-crowned babbler		C		3
animals	birds	Psittacidae	*Trichoglossus chlorolepidotus*	scaly-breasted lorikeet		C		1
animals	birds	Psittacidae	*Trichoglossus haematodus moluccanus*	rainbow lorikeet		C		8
animals	birds	Psittacidae	*Platycercus adscitus*	pale-headed rosella		C		6
animals	birds	Psittacidae	*Aprosmictus erythropterus*	red-winged parrot		C		7
animals	birds	Rallidae	*Porphyrio melanotus*	purple swamphen		C		1
animals	birds	Rallidae	*Gallinula tenebrosa*	dusky moorhen		C		1
animals	birds	Rhipiduridae	*Rhipidura leucophrys*	willie wagtail		C		7
animals	birds	Rhipiduridae	*Rhipidura albiscapa*	grey fantail		C		1
animals	birds	Scolopacidae	*Gallinago hardwickii*	Latham's snipe		SL		1
animals	birds	Strigidae	*Ninox boobook*	southern boobook		C		1
animals	birds	Threskiornithidae	*Threskiornis spinicollis*	straw-necked ibis		C		3
animals	birds	Threskiornithidae	*Platalea flavipes*	yellow-billed spoonbill		C		1
animals	birds	Threskiornithidae	*Threskiornis molucca*	Australian white ibis		C		2
animals	birds	Timaliidae	*Zosterops lateralis*	silvereye		C		1
animals	mammals	Canidae	*Canis familiaris (dingo)*	dingo				2
animals	mammals	Emballonuridae	*Saccolaimus flaviventris*	yellow-bellied sheathtail bat		C		1
animals	mammals	Macropodidae	*Macropus giganteus*	eastern grey kangaroo		C		5
animals	mammals	Macropodidae	*Macropus robustus*	common wallaroo		C		1
animals	mammals	Macropodidae	*Macropus agilis*	agile wallaby		C		7
animals	mammals	Macropodidae	*Macropus parryi*	whiptail wallaby		C		3
animals	mammals	Macropodidae	*Wallabia bicolor*	swamp wallaby		C		6
animals	mammals	Macropodidae	*Macropus dorsalis*	black-striped wallaby		C		2
animals	mammals	Muridae	*Hydromys chrysogaster*	water rat		C		1
animals	mammals	Petauridae	*Petaurus breviceps*	sugar glider		C		1
animals	mammals	Phalangeridae	*Trichosurus vulpecula*	common brushtail possum		C		2
animals	mammals	Phascolarctidae	*Phascolarctos cinereus*	koala		V	V	5
animals	mammals	Potoroidae	*Aepyprymnus rufescens*	rufous bettong		C		3
animals	mammals	Pseudocheiridae	*Petauroides volans*	greater glider		V	V	3
animals	mammals	Tachyglossidae	*Tachyglossus aculeatus*	short-beaked echidna		SL		2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	ray-finned fishes	Ambassidae	*Ambassis agassizii*	Agassiz's glassfish				1
animals	ray-finned fishes	Atherinidae	*Craterocephalus stercusmuscarum*	flyspecked hardyhead				1
animals	ray-finned fishes	Eleotridae	*Hypseleotris compressa*	empire gudgeon				1
animals	ray-finned fishes	Melanotaeniidae	*Melanotaenia splendida splendida*	eastern rainbowfish				1
animals	reptiles	Agamidae	*Chlamydosaurus kingii*	frilled lizard		C		2
animals	reptiles	Boidae	*Morelia spilota*	carpet python		C		1
animals	reptiles	Chelidae	*Wollumbinia latisternum*	saw-shelled turtle		C		2
animals	reptiles	Colubridae	*Boiga irregularis*	brown tree snake		C		1
animals	reptiles	Colubridae	*Dendrelaphis punctulatus*	green tree snake		C		1
animals	reptiles	Colubridae	*Tropidonophis mairii*	freshwater snake		C		2
animals	reptiles	Elapidae	*Cryptophis boschmai*	Carpentaria whip snake		C		1
animals	reptiles	Elapidae	*Hoplocephalus bitorquatus*	pale-headed snake		C		1
animals	reptiles	Elapidae	*Demansia psammophis*	yellow-faced whipsnake		C		1
animals	reptiles	Gekkonidae	*Heteronotia binoei*	Bynoe's gecko		C		1
animals	reptiles	Gekkonidae	*Gehyra dubia*	dubious dtella		C		2
animals	reptiles	Pygopodidae	*Paradelma orientalis*	brigalow scaly-foot		C		1
animals	reptiles	Scincidae	*Carlia vivax*	tussock rainbow-skink		C		1
animals	reptiles	Scincidae	*Cryptoblepharus pulcher pulcher*	elegant snake-eyed skink		C		3
animals	reptiles	Scincidae	*Glaphyromorphus punctulatus*	fine-spotted mulch-skink		C		1
animals	reptiles	Scincidae	*Cryptoblepharus metallicus*	metallic snake-eyed skink		C		1
animals	reptiles	Scincidae	*Carlia rubigo*	orange-flanked rainbow skink		C		1
animals	reptiles	Scincidae	*Morethia taeniopleura*	fire-tailed skink		C		1
animals	reptiles	Scincidae	*Pygmaeascincus timlowi*	dwarf litter-skink		C		1
animals	reptiles	Scincidae	*Ctenotus taeniolatus*	copper-tailed skink		C		2
animals	reptiles	Scincidae	*Lygisaurus foliorum*	tree-base litter-skink		C		1
animals	reptiles	Typhlopidae	*Anilios ligatus*	robust blind snake		C		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 in the Wild (PE), Endangered (E), Vulnerable (V), Near Threatened (NT), Least Concern (C) or Not Protected ( ).

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

Records – The first number indicates the total number of records of the taxon for the record option selected (i.e. All, Confirmed or Specimens).
This number is output as 99999 if it equals or exceeds this value. The second number located after the / indicates the number of specimen records for the taxon.
This number is output as 999 if it equals or exceeds this value.

Queensland Government

Wildlife Online Extract

Search Criteria: Species List for a Specified Point
Species: Animals
Type: Native
Status: All
Records: Confirmed
Date: Since 1980
Latitude: -22.7045
Longitude: 149.6867
Distance: 20
Email: lindsay@austecology.com.au
Date submitted: Thursday 19 Mar 2020 11:32:19
Date extracted: Thursday 19 Mar 2020 11:40:14

The number of records retrieved = 209

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Hylidae	*Litoria fallax*	eastern sedgefrog		C		4
animals	amphibians	Hylidae	*Litoria nasuta*	striped rocketfrog		C		1
animals	amphibians	Hylidae	*Litoria rothii*	northern laughing treefrog		C		5
animals	amphibians	Hylidae	*Litoria inermis*	bumpy rocketfrog		C		1
animals	amphibians	Hylidae	*Litoria rubella*	ruddy treefrog		C		5
animals	amphibians	Hylidae	*Litoria caerulea*	common green treefrog		C		5
animals	amphibians	Hylidae	*Litoria wilcoxii*	eastern stony creek frog		C		1
animals	amphibians	Hylidae	*Cyclorana alboguttata*	greenstripe frog		C		3
animals	amphibians	Hylidae	*Litoria latopalmata*	broad palmed rocketfrog		C		5
animals	amphibians	Hylidae	*Litoria gracilenta*	graceful treefrog		C		1
animals	amphibians	Limnodynastidae	*Platyplectrum ornatum*	ornate burrowing frog		C		1
animals	amphibians	Limnodynastidae	*Limnodynastes salmini*	salmon striped frog		C		1
animals	amphibians	Limnodynastidae	*Limnodynastes terraereginae*	scarlet sided pobblebonk		C		1
animals	amphibians	Myobatrachidae	*Crinia deserticola*	chirping froglet		C		2
animals	birds	Acanthizidae	*Sericornis frontalis*	white-browed scrubwren		C		3
animals	birds	Acanthizidae	*Acanthiza chrysorrhoa*	yellow-rumped thornbill		C		2
animals	birds	Acanthizidae	*Smicrornis brevirostris*	weebill		C		1
animals	birds	Acanthizidae	*Acanthiza nana*	yellow thornbill		C		1
animals	birds	Acanthizidae	*Acanthiza pusilla*	brown thornbill		C		1
animals	birds	Acanthizidae	*Gerygone olivacea*	white-throated gerygone		C		3
animals	birds	Acanthizidae	*Gerygone palpebrosa*	fairy gerygone		C		2
animals	birds	Accipitridae	*Aviceda subcristata*	Pacific baza		C		6
animals	birds	Accipitridae	*Accipiter fasciatus*	brown goshawk		C		1
animals	birds	Accipitridae	*Elanus axillaris*	black-shouldered kite		C		1
animals	birds	Accipitridae	*Milvus migrans*	black kite		C		4
animals	birds	Accipitridae	*Aquila audax*	wedge-tailed eagle		C		13/1
animals	birds	Accipitridae	*Haliaeetus leucogaster*	white-bellied sea-eagle		C		3
animals	birds	Accipitridae	*Haliastur sphenurus*	whistling kite		C		1
animals	birds	Acrocephalidae	*Acrocephalus australis*	Australian reed-warbler		C		1
animals	birds	Aegothelidae	*Aegotheles cristatus*	Australian owlet-nightjar		C		1
animals	birds	Alaudidae	*Mirafra javanica*	Horsfield's bushlark		C		2
animals	birds	Anatidae	*Dendrocygna eytoni*	plumed whistling-duck		C		2
animals	birds	Anatidae	*Chenonetta jubata*	Australian wood duck		C		4
animals	birds	Anatidae	*Anas superciliosa*	Pacific black duck		C		4
animals	birds	Anatidae	*Aythya australis*	hardhead		C		2
animals	birds	Anatidae	*Anas gracilis*	grey teal		C		4
animals	birds	Anatidae	*Dendrocygna arcuata*	wandering whistling-duck		C		1
animals	birds	Anatidae	*Nettapus coromandelianus*	cotton pygmy-goose		C		2
animals	birds	Anhingidae	*Anhinga novaehollandiae*	Australasian darter		C		4
animals	birds	Anseranatidae	*Anseranas semipalmata*	magpie goose		C		3
animals	birds	Apodidae	*Hirundapus caudacutus*	white-throated needletail		V	V	1
animals	birds	Ardeidae	*Egretta novaehollandiae*	white-faced heron		C		4
animals	birds	Ardeidae	*Ardea alba modesta*	eastern great egret		C		3
animals	birds	Ardeidae	*Ardea intermedia*	intermediate egret		C		2
animals	birds	Ardeidae	*Ardea pacifica*	white-necked heron		C		7
animals	birds	Ardeidae	*Bubulcus ibis*	cattle egret		C		5

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Artamidae	*Cracticus nigrogularis*	pied butcherbird		C		10
animals	birds	Artamidae	*Artamus superciliosus*	white-browed woodswallow		C		1
animals	birds	Artamidae	*Artamus leucorynchus*	white-breasted woodswallow		C		4
animals	birds	Artamidae	*Cracticus torquatus*	grey butcherbird		C		2
animals	birds	Artamidae	*Strepera graculina*	pied currawong		C		13
animals	birds	Artamidae	*Gymnorhina tibicen*	Australian magpie		C		11
animals	birds	Artamidae	*Artamus cinereus*	black-faced woodswallow		C		8
animals	birds	Cacatuidae	*Calyptorhynchus banksii*	red-tailed black-cockatoo		C		2
animals	birds	Cacatuidae	*Eolophus roseicapilla*	galah		C		8
animals	birds	Cacatuidae	*Cacatua galerita*	sulphur-crested cockatoo		C		13
animals	birds	Campephagidae	*Lalage leucomela*	varied triller		C		13
animals	birds	Campephagidae	*Coracina novaehollandiae*	black-faced cuckoo-shrike		C		9
animals	birds	Campephagidae	*Coracina tenuirostris*	cicadabird		C		2
animals	birds	Campephagidae	*Lalage tricolor*	white-winged triller		C		1
animals	birds	Campephagidae	*Coracina papuensis*	white-bellied cuckoo-shrike		C		5
animals	birds	Caprimulgidae	*Caprimulgus macrurus*	large-tailed nightjar		C		1
animals	birds	Casuariidae	*Dromaius novaehollandiae*	emu		C		5
animals	birds	Charadriidae	*Vanellus miles novaehollandiae*	masked lapwing (southern subspecies)		C		4
animals	birds	Cisticolidae	*Cisticola exilis*	golden-headed cisticola		C		4
animals	birds	Columbidae	*Geopelia humeralis*	bar-shouldered dove		C		9
animals	birds	Columbidae	*Chalcophaps indica*	emerald dove		C		2
animals	birds	Columbidae	*Ptilinopus regina*	rose-crowned fruit-dove		C		2
animals	birds	Columbidae	*Phaps chalcoptera*	common bronzewing		C		1
animals	birds	Columbidae	*Macropygia amboinensis*	brown cuckoo-dove		C		2
animals	birds	Columbidae	*Geopelia striata*	peaceful dove		C		7
animals	birds	Columbidae	*Leucosarcia melanoleuca*	wonga pigeon		C		2
animals	birds	Columbidae	*Geophaps scripta scripta*	squatter pigeon (southern subspecies)		V	V	11
animals	birds	Columbidae	*Ocyphaps lophotes*	crested pigeon		C		4
animals	birds	Coraciidae	*Eurystomus orientalis*	dollarbird		C		3
animals	birds	Corcoracidae	*Struthidea cinerea*	apostlebird		C		4
animals	birds	Corcoracidae	*Corcorax melanorhamphos*	white-winged chough		C		3
animals	birds	Corvidae	*Corvus orru*	Torresian crow		C		10
animals	birds	Cuculidae	*Eudynamys orientalis*	eastern koel		C		3
animals	birds	Cuculidae	*Cacomantis pallidus*	pallid cuckoo		C		3
animals	birds	Cuculidae	*Chalcites minutillus barnardi*	Eastern little bronze-cuckoo		C		4
animals	birds	Cuculidae	*Chalcites basalis*	Horsfield's bronze-cuckoo		C		1
animals	birds	Cuculidae	*Centropus phasianinus*	pheasant coucal		C		6
animals	birds	Cuculidae	*Cacomantis flabelliformis*	fan-tailed cuckoo		C		5
animals	birds	Cuculidae	*Scythrops novaehollandiae*	channel-billed cuckoo		C		3
animals	birds	Cuculidae	*Chalcites lucidus*	shining bronze-cuckoo		C		1
animals	birds	Dicruridae	*Dicrurus bracteatus*	spangled drongo		C		5
animals	birds	Estrildidae	*Taeniopygia bichenovii*	double-barred finch		C		6
animals	birds	Estrildidae	*Taeniopygia guttata*	zebra finch		C		3
animals	birds	Falconidae	*Falco cenchroides*	nankeen kestrel		C		9
animals	birds	Falconidae	*Falco berigora*	brown falcon		C		7
animals	birds	Gruidae	*Antigone rubicunda*	brolga		C		4

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Halcyonidae	*Dacelo novaeguineae*	laughing kookaburra		C		15
animals	birds	Halcyonidae	*Todiramphus macleayii*	forest kingfisher		C		4
animals	birds	Halcyonidae	*Dacelo leachii*	blue-winged kookaburra		C		9
animals	birds	Halcyonidae	*Todiramphus pyrrhopygius*	red-backed kingfisher		C		1
animals	birds	Halcyonidae	*Todiramphus sanctus*	sacred kingfisher		C		3
animals	birds	Hirundinidae	*Petrochelidon ariel*	fairy martin		C		3
animals	birds	Hirundinidae	*Hirundo neoxena*	welcome swallow		C		5
animals	birds	Jacanidae	*Irediparra gallinacea*	comb-crested jacana		C		3
animals	birds	Laridae	*Chlidonias hybrida*	whiskered tern		C		1
animals	birds	Maluridae	*Malurus melanocephalus*	red-backed fairy-wren		C		11
animals	birds	Megaluridae	*Cincloramphus mathewsi*	rufous songlark		C		1
animals	birds	Megapodiidae	*Alectura lathami*	Australian brush-turkey		C		4
animals	birds	Meliphagidae	*Philemon corniculatus*	noisy friarbird		C		8
animals	birds	Meliphagidae	*Lichmera indistincta*	brown honeyeater		C		9
animals	birds	Meliphagidae	*Manorina flavigula*	yellow-throated miner		C		8
animals	birds	Meliphagidae	*Entomyzon cyanotis*	blue-faced honeyeater		C		5
animals	birds	Meliphagidae	*Plectorhyncha lanceolata*	striped honeyeater		C		1
animals	birds	Meliphagidae	*Myzomela sanguinolenta*	scarlet honeyeater		C		2
animals	birds	Meliphagidae	*Stomiopera flava*	yellow honeyeater		C		8
animals	birds	Meliphagidae	*Philemon citreogularis*	little friarbird		C		3
animals	birds	Meliphagidae	*Melithreptus albogularis*	white-throated honeyeater		C		9
animals	birds	Meliphagidae	*Meliphaga lewinii*	Lewin's honeyeater		C		14
animals	birds	Meropidae	*Merops ornatus*	rainbow bee-eater		C		11
animals	birds	Monarchidae	*Carterornis leucotis*	white-eared monarch		C		3
animals	birds	Monarchidae	*Symposiachrus trivirgatus*	spectacled monarch		SL		1
animals	birds	Monarchidae	*Grallina cyanoleuca*	magpie-lark		C		9
animals	birds	Monarchidae	*Myiagra rubecula*	leaden flycatcher		C		3
animals	birds	Motacillidae	*Anthus novaeseelandiae*	Australasian pipit		C		4
animals	birds	Nectariniidae	*Dicaeum hirundinaceum*	mistletoebird		C		9
animals	birds	Oriolidae	*Sphecotheres vieilloti*	Australasian figbird		C		11
animals	birds	Oriolidae	*Oriolus sagittatus*	olive-backed oriole		C		2
animals	birds	Otididae	*Ardeotis australis*	Australian bustard		C		4
animals	birds	Pachycephalidae	*Pachycephala pectoralis*	golden whistler		C		2
animals	birds	Pachycephalidae	*Pachycephala rufiventris*	rufous whistler		C		12
animals	birds	Pachycephalidae	*Colluricincla megarhyncha*	little shrike-thrush		C		6
animals	birds	Pachycephalidae	*Colluricincla harmonica*	grey shrike-thrush		C		12
animals	birds	Pardalotidae	*Pardalotus striatus*	striated pardalote		C		9
animals	birds	Pelecanidae	*Pelecanus conspicillatus*	Australian pelican		C		3
animals	birds	Petroicidae	*Eopsaltria australis*	eastern yellow robin		C		3
animals	birds	Phalacrocoracidae	*Phalacrocorax sulcirostris*	little black cormorant		C		4
animals	birds	Phalacrocoracidae	*Microcarbo melanoleucos*	little pied cormorant		C		4
animals	birds	Phasianidae	*Coturnix ypsilophora*	brown quail		C		4
animals	birds	Pittidae	*Pitta versicolor*	noisy pitta		C		1
animals	birds	Podargidae	*Podargus strigoides*	tawny frogmouth		C		3
animals	birds	Podicipedidae	*Tachybaptus novaehollandiae*	Australasian grebe		C		4
animals	birds	Pomatostomidae	*Pomatostomus temporalis*	grey-crowned babbler		C		3

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Psittacidae	*Platycercus adscitus*	pale-headed rosella		C		8
animals	birds	Psittacidae	*Trichoglossus haematodus moluccanus*	rainbow lorikeet		C		12
animals	birds	Psittacidae	*Trichoglossus chlorolepidotus*	scaly-breasted lorikeet		C		2
animals	birds	Psittacidae	*Aprosmictus erythropterus*	red-winged parrot		C		9
animals	birds	Rallidae	*Fulica atra*	Eurasian coot		C		1
animals	birds	Rallidae	*Gallinula tenebrosa*	dusky moorhen		C		3
animals	birds	Rallidae	*Porphyrio melanotus*	purple swamphen		C		2
animals	birds	Recurvirostridae	*Himantopus himantopus*	black-winged stilt		C		3
animals	birds	Rhipiduridae	*Rhipidura albiscapa*	grey fantail		C		6
animals	birds	Rhipiduridae	*Rhipidura rufifrons*	rufous fantail		SL		3
animals	birds	Rhipiduridae	*Rhipidura leucophrys*	willie wagtail		C		9
animals	birds	Scolopacidae	*Gallinago hardwickii*	Latham's snipe		SL		2
animals	birds	Strigidae	*Ninox boobook*	southern boobook		C		2
animals	birds	Threskiornithidae	*Threskiornis molucca*	Australian white ibis		C		2
animals	birds	Threskiornithidae	*Platalea flavipes*	yellow-billed spoonbill		C		1
animals	birds	Threskiornithidae	*Threskiornis spinicollis*	straw-necked ibis		C		4
animals	birds	Threskiornithidae	*Platalea regia*	royal spoonbill		C		1
animals	birds	Timaliidae	*Zosterops lateralis*	silvereye		C		4
animals	birds	Turnicidae	*Turnix melanogaster*	black-breasted button-quail		V	V	2
animals	mammals	Canidae	*Canis familiaris (dingo)*	dingo				4
animals	mammals	Emballonuridae	*Saccolaimus flaviventris*	yellow-bellied sheathtail bat		C		1
animals	mammals	Macropodidae	*Macropus giganteus*	eastern grey kangaroo		C		7
animals	mammals	Macropodidae	*Macropus robustus*	common wallaroo		C		1
animals	mammals	Macropodidae	*Macropus dorsalis*	black-striped wallaby		C		5
animals	mammals	Macropodidae	*Macropus agilis*	agile wallaby		C		7
animals	mammals	Macropodidae	*Macropus parryi*	whiptail wallaby		C		3
animals	mammals	Macropodidae	*Wallabia bicolor*	swamp wallaby		C		6
animals	mammals	Muridae	*Hydromys chrysogaster*	water rat		C		1
animals	mammals	Peramelidae	*Perameles nasuta*	long-nosed bandicoot		C		1
animals	mammals	Petauridae	*Petaurus breviceps*	sugar glider		C		1
animals	mammals	Phalangeridae	*Trichosurus vulpecula*	common brushtail possum		C		5
animals	mammals	Phascolarctidae	*Phascolarctos cinereus*	koala		V	V	5
animals	mammals	Potoroidae	*Aepyprymnus rufescens*	rufous bettong		C		4
animals	mammals	Pseudocheiridae	*Pseudocheirus peregrinus*	common ringtail possum		C		1
animals	mammals	Pseudocheiridae	*Petauroides volans*	greater glider		V	V	3
animals	mammals	Rhinolophidae	*Rhinolophus megaphyllus*	eastern horseshoe-bat		C		1
animals	mammals	Tachyglossidae	*Tachyglossus aculeatus*	short-beaked echidna		SL		3
animals	ray-finned fishes	Ambassidae	*Ambassis agassizii*	Agassiz's glassfish				1
animals	ray-finned fishes	Atherinidae	*Craterocephalus stercusmuscarum*	flyspecked hardyhead				1
animals	ray-finned fishes	Eleotridae	*Hypseleotris compressa*	empire gudgeon				1
animals	ray-finned fishes	Melanotaeniidae	*Melanotaenia splendida splendida*	eastern rainbowfish				1
animals	reptiles	Agamidae	*Chlamydosaurus kingii*	frilled lizard		C		2
animals	reptiles	Agamidae	*Diporiphora nobbi*	nobbi		C		2
animals	reptiles	Boidae	*Morelia spilota*	carpet python		C		1
animals	reptiles	Carphodactylidae	*Nephrurus asper*	spiny knob-tailed gecko		C		1
animals	reptiles	Chelidae	*Wollumbinia latisternum*	saw-shelled turtle		C		2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	reptiles	Colubridae	*Dendrelaphis punctulatus*	green tree snake		C		4
animals	reptiles	Colubridae	*Tropidonophis mairii*	freshwater snake		C		2
animals	reptiles	Colubridae	*Boiga irregularis*	brown tree snake		C		1
animals	reptiles	Diplodactylidae	*Strophurus williamsi*	soft-spined gecko		C		1
animals	reptiles	Elapidae	*Hoplocephalus bitorquatus*	pale-headed snake		C		1
animals	reptiles	Elapidae	*Cryptophis boschmai*	Carpentaria whip snake		C		1
animals	reptiles	Elapidae	*Demansia psammophis*	yellow-faced whipsnake		C		1
animals	reptiles	Gekkonidae	*Gehyra dubia*	dubious dtella		C		3
animals	reptiles	Gekkonidae	*Heteronotia binoei*	Bynoe's gecko		C		1
animals	reptiles	Pygopodidae	*Paradelma orientalis*	brigalow scaly-foot		C		1
animals	reptiles	Scincidae	*Cryptoblepharus virgatus sensu lato*			C		1
animals	reptiles	Scincidae	*Cryptoblepharus pulcher pulcher*	elegant snake-eyed skink		C		3
animals	reptiles	Scincidae	*Carlia pectoralis sensu lato*			C		2
animals	reptiles	Scincidae	*Glaphyromorphus punctulatus*	fine-spotted mulch-skink		C		1
animals	reptiles	Scincidae	*Cryptoblepharus metallicus*	metallic snake-eyed skink		C		1
animals	reptiles	Scincidae	*Pygmaeascincus timlowi*	dwarf litter-skink		C		1
animals	reptiles	Scincidae	*Morethia taeniopleura*	fire-tailed skink		C		1
animals	reptiles	Scincidae	*Ctenotus taeniolatus*	copper-tailed skink		C		4
animals	reptiles	Scincidae	*Lygisaurus foliorum*	tree-base litter-skink		C		1
animals	reptiles	Scincidae	*Carlia schmeltzii*	robust rainbow-skink		C		1
animals	reptiles	Scincidae	*Concinnia tenuis*	bar-sided skink		C		1
animals	reptiles	Scincidae	*Carlia rubigo*	orange-flanked rainbow skink		C		1
animals	reptiles	Scincidae	*Carlia vivax*	tussock rainbow-skink		C		1
animals	reptiles	Typhlopidae	*Anilios ligatus*	robust blind snake		C		1
animals	uncertain	Indeterminate	*Indeterminate*	Unknown or Code Pending		C		6

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 in the Wild (PE), Endangered (E), Vulnerable (V), Near Threatened (NT), Least Concern (C) or Not Protected ( ).

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

Records – The first number indicates the total number of records of the taxon for the record option selected (i.e. All, Confirmed or Specimens).
This number is output as 99999 if it equals or exceeds this value. The second number located after the / indicates the number of specimen records for the taxon.
This number is output as 999 if it equals or exceeds this value.

Queensland Government

Wildlife Online Extract

Search Criteria: Species List for a Specified Point
Species: Animals
Type: Native
Status: All
Records: Confirmed
Date: Since 1980
Latitude: -22.7045
Longitude: 149.6867
Distance: 30
Email: lindsay@austecology.com.au
Date submitted: Thursday 19 Mar 2020 11:32:30
Date extracted: Thursday 19 Mar 2020 11:40:08

The number of records retrieved = 262

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Hylidae	*Litoria fallax*	eastern sedgefrog		C		5
animals	amphibians	Hylidae	*Litoria nasuta*	striped rocketfrog		C		1
animals	amphibians	Hylidae	*Cyclorana novaehollandiae*	eastern snapping frog		C		1
animals	amphibians	Hylidae	*Cyclorana alboguttata*	greenstripe frog		C		5
animals	amphibians	Hylidae	*Litoria latopalmata*	broad palmed rocketfrog		C		7
animals	amphibians	Hylidae	*Litoria gracilenta*	graceful treefrog		C		1
animals	amphibians	Hylidae	*Litoria rothii*	northern laughing treefrog		C		5
animals	amphibians	Hylidae	*Litoria inermis*	bumpy rocketfrog		C		3
animals	amphibians	Hylidae	*Litoria rubella*	ruddy treefrog		C		7
animals	amphibians	Hylidae	*Litoria caerulea*	common green treefrog		C		20
animals	amphibians	Hylidae	*Litoria wilcoxii*	eastern stony creek frog		C		1
animals	amphibians	Hylidae	*Cyclorana brevipes*	superb collared frog		C		1
animals	amphibians	Limnodynastidae	*Limnodynastes salmini*	salmon striped frog		C		4
animals	amphibians	Limnodynastidae	*Limnodynastes tasmaniensis*	spotted grassfrog		C		3
animals	amphibians	Limnodynastidae	*Platyplectrum ornatum*	ornate burrowing frog		C		3
animals	amphibians	Limnodynastidae	*Limnodynastes terraereginae*	scarlet sided pobblebonk		C		8
animals	amphibians	Myobatrachidae	*Crinia deserticola*	chirping froglet		C		3
animals	birds	Acanthizidae	*Acanthiza pusilla*	brown thornbill		C		1
animals	birds	Acanthizidae	*Acanthiza nana*	yellow thornbill		C		1
animals	birds	Acanthizidae	*Smicrornis brevirostris*	weebill		C		2
animals	birds	Acanthizidae	*Gerygone olivacea*	white-throated gerygone		C		6
animals	birds	Acanthizidae	*Gerygone palpebrosa*	fairy gerygone		C		2
animals	birds	Acanthizidae	*Sericornis frontalis*	white-browed scrubwren		C		3
animals	birds	Acanthizidae	*Acanthiza chrysorrhoa*	yellow-rumped thornbill		C		2
animals	birds	Accipitridae	*Aquila audax*	wedge-tailed eagle		C		22/1
animals	birds	Accipitridae	*Accipiter cirrocephalus*	collared sparrowhawk		C		1
animals	birds	Accipitridae	*Haliaeetus leucogaster*	white-bellied sea-eagle		C		4
animals	birds	Accipitridae	*Milvus migrans*	black kite		C		5
animals	birds	Accipitridae	*Elanus axillaris*	black-shouldered kite		C		2
animals	birds	Accipitridae	*Accipiter fasciatus*	brown goshawk		C		1
animals	birds	Accipitridae	*Aviceda subcristata*	Pacific baza		C		7
animals	birds	Accipitridae	*Haliastur sphenurus*	whistling kite		C		4
animals	birds	Acrocephalidae	*Acrocephalus australis*	Australian reed-warbler		C		1
animals	birds	Aegothelidae	*Aegotheles cristatus*	Australian owlet-nightjar		C		3
animals	birds	Alaudidae	*Mirafra javanica*	Horsfield's bushlark		C		2
animals	birds	Anatidae	*Aythya australis*	hardhead		C		5
animals	birds	Anatidae	*Cygnus atratus*	black swan		C		1
animals	birds	Anatidae	*Anas gracilis*	grey teal		C		9
animals	birds	Anatidae	*Anas superciliosa*	Pacific black duck		C		8
animals	birds	Anatidae	*Malacorhynchus membranaceus*	pink-eared duck		C		1
animals	birds	Anatidae	*Nettapus coromandelianus*	cotton pygmy-goose		C		2
animals	birds	Anatidae	*Dendrocygna arcuata*	wandering whistling-duck		C		1
animals	birds	Anatidae	*Dendrocygna eytoni*	plumed whistling-duck		C		3
animals	birds	Anatidae	*Chenonetta jubata*	Australian wood duck		C		8
animals	birds	Anhingidae	*Anhinga novaehollandiae*	Australasian darter		C		6
animals	birds	Anseranatidae	*Anseranas semipalmata*	magpie goose		C		3

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Apodidae	*Hirundapus caudacutus*	white-throated needletail		V	V	1
animals	birds	Ardeidae	*Ardea alba modesta*	eastern great egret		C		6
animals	birds	Ardeidae	*Nycticorax caledonicus*	nankeen night-heron		C		1
animals	birds	Ardeidae	*Egretta novaehollandiae*	white-faced heron		C		10
animals	birds	Ardeidae	*Egretta garzetta*	little egret		C		1
animals	birds	Ardeidae	*Ardea intermedia*	intermediate egret		C		5
animals	birds	Ardeidae	*Ardea pacifica*	white-necked heron		C		7
animals	birds	Ardeidae	*Bubulcus ibis*	cattle egret		C		8
animals	birds	Artamidae	*Gymnorhina tibicen*	Australian magpie		C		21
animals	birds	Artamidae	*Cracticus nigrogularis*	pied butcherbird		C		22
animals	birds	Artamidae	*Artamus superciliosus*	white-browed woodswallow		C		2
animals	birds	Artamidae	*Artamus leucorynchus*	white-breasted woodswallow		C		6
animals	birds	Artamidae	*Cracticus torquatus*	grey butcherbird		C		4
animals	birds	Artamidae	*Strepera graculina*	pied currawong		C		21
animals	birds	Artamidae	*Artamus cinereus*	black-faced woodswallow		C		10
animals	birds	Cacatuidae	*Eolophus roseicapilla*	galah		C		11
animals	birds	Cacatuidae	*Cacatua galerita*	sulphur-crested cockatoo		C		22
animals	birds	Cacatuidae	*Calyptorhynchus banksii*	red-tailed black-cockatoo		C		5
animals	birds	Campephagidae	*Lalage leucomela*	varied triller		C		15
animals	birds	Campephagidae	*Coracina papuensis*	white-bellied cuckoo-shrike		C		5
animals	birds	Campephagidae	*Coracina novaehollandiae*	black-faced cuckoo-shrike		C		11
animals	birds	Campephagidae	*Coracina tenuirostris*	cicadabird		C		2
animals	birds	Campephagidae	*Lalage tricolor*	white-winged triller		C		2
animals	birds	Caprimulgidae	*Caprimulgus macrurus*	large-tailed nightjar		C		2
animals	birds	Casuariidae	*Dromaius novaehollandiae*	emu		C		5
animals	birds	Charadriidae	*Elseyornis melanops*	black-fronted dotterel		C		2
animals	birds	Charadriidae	*Vanellus miles novaehollandiae*	masked lapwing (southern subspecies)		C		7
animals	birds	Cisticolidae	*Cisticola exilis*	golden-headed cisticola		C		4
animals	birds	Columbidae	*Geophaps scripta scripta*	squatter pigeon (southern subspecies)		V	V	21
animals	birds	Columbidae	*Leucosarcia melanoleuca*	wonga pigeon		C		2
animals	birds	Columbidae	*Macropygia amboinensis*	brown cuckoo-dove		C		2
animals	birds	Columbidae	*Geopelia humeralis*	bar-shouldered dove		C		14
animals	birds	Columbidae	*Chalcophaps indica*	emerald dove		C		2
animals	birds	Columbidae	*Ptilinopus regina*	rose-crowned fruit-dove		C		2
animals	birds	Columbidae	*Phaps chalcoptera*	common bronzewing		C		1
animals	birds	Columbidae	*Ocyphaps lophotes*	crested pigeon		C		5
animals	birds	Columbidae	*Geopelia striata*	peaceful dove		C		20
animals	birds	Coraciidae	*Eurystomus orientalis*	dollarbird		C		13
animals	birds	Corcoracidae	*Struthidea cinerea*	apostlebird		C		7
animals	birds	Corcoracidae	*Corcorax melanorhamphos*	white-winged chough		C		5
animals	birds	Corvidae	*Corvus orru*	Torresian crow		C		30
animals	birds	Cuculidae	*Eudynamys orientalis*	eastern koel		C		3
animals	birds	Cuculidae	*Cacomantis pallidus*	pallid cuckoo		C		3
animals	birds	Cuculidae	*Chalcites lucidus*	shining bronze-cuckoo		C		1
animals	birds	Cuculidae	*Centropus phasianinus*	pheasant coucal		C		8
animals	birds	Cuculidae	*Cacomantis flabelliformis*	fan-tailed cuckoo		C		5

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Cuculidae	*Chalcites basalis*	Horsfield's bronze-cuckoo		C		1
animals	birds	Cuculidae	*Chalcites minutillus barnardi*	Eastern little bronze-cuckoo		C		4
animals	birds	Cuculidae	*Scythrops novaehollandiae*	channel-billed cuckoo		C		10
animals	birds	Dicruridae	*Dicrurus bracteatus*	spangled drongo		C		13
animals	birds	Estrildidae	*Taeniopygia bichenovii*	double-barred finch		C		12
animals	birds	Estrildidae	*Taeniopygia guttata*	zebra finch		C		3
animals	birds	Falconidae	*Falco cenchroides*	nankeen kestrel		C		12
animals	birds	Falconidae	*Falco berigora*	brown falcon		C		9
animals	birds	Falconidae	*Falco hypoleucos*	grey falcon		V		1
animals	birds	Falconidae	*Falco peregrinus*	peregrine falcon		C		1
animals	birds	Gruidae	*Antigone rubicunda*	brolga		C		6
animals	birds	Halcyonidae	*Dacelo leachii*	blue-winged kookaburra		C		14
animals	birds	Halcyonidae	*Todiramphus pyrrhopygius*	red-backed kingfisher		C		1
animals	birds	Halcyonidae	*Todiramphus macleayii*	forest kingfisher		C		11
animals	birds	Halcyonidae	*Todiramphus sanctus*	sacred kingfisher		C		4
animals	birds	Halcyonidae	*Dacelo novaeguineae*	laughing kookaburra		C		21
animals	birds	Hirundinidae	*Hirundo neoxena*	welcome swallow		C		6
animals	birds	Hirundinidae	*Petrochelidon ariel*	fairy martin		C		3
animals	birds	Jacanidae	*Irediparra gallinacea*	comb-crested jacana		C		3
animals	birds	Laridae	*Chlidonias hybrida*	whiskered tern		C		1
animals	birds	Maluridae	*Malurus melanocephalus*	red-backed fairy-wren		C		16
animals	birds	Megaluridae	*Cincloramphus mathewsi*	rufous songlark		C		2
animals	birds	Megapodiidae	*Alectura lathami*	Australian brush-turkey		C		4
animals	birds	Meliphagidae	*Philemon citreogularis*	little friarbird		C		4
animals	birds	Meliphagidae	*Melithreptus albogularis*	white-throated honeyeater		C		17
animals	birds	Meliphagidae	*Plectorhyncha lanceolata*	striped honeyeater		C		1
animals	birds	Meliphagidae	*Epthianura crocea macgregori*	yellow chat (Dawson)		E	CE	11
animals	birds	Meliphagidae	*Stomiopera flava*	yellow honeyeater		C		9
animals	birds	Meliphagidae	*Meliphaga lewinii*	Lewin's honeyeater		C		33
animals	birds	Meliphagidae	*Entomyzon cyanotis*	blue-faced honeyeater		C		7
animals	birds	Meliphagidae	*Manorina flavigula*	yellow-throated miner		C		8
animals	birds	Meliphagidae	*Lichmera indistincta*	brown honeyeater		C		10
animals	birds	Meliphagidae	*Melithreptus lunatus*	white-naped honeyeater		C		1
animals	birds	Meliphagidae	*Philemon corniculatus*	noisy friarbird		C		14
animals	birds	Meliphagidae	*Myzomela sanguinolenta*	scarlet honeyeater		C		3
animals	birds	Meliphagidae	*Manorina melanocephala*	noisy miner		C		2
animals	birds	Meropidae	*Merops ornatus*	rainbow bee-eater		C		42
animals	birds	Monarchidae	*Symposiachrus trivirgatus*	spectacled monarch		SL		1
animals	birds	Monarchidae	*Carterornis leucotis*	white-eared monarch		C		3
animals	birds	Monarchidae	*Grallina cyanoleuca*	magpie-lark		C		11
animals	birds	Monarchidae	*Myiagra rubecula*	leaden flycatcher		C		4
animals	birds	Motacillidae	*Anthus novaeseelandiae*	Australasian pipit		C		6
animals	birds	Nectariniidae	*Dicaeum hirundinaceum*	mistletoebird		C		15
animals	birds	Oriolidae	*Oriolus sagittatus*	olive-backed oriole		C		3
animals	birds	Oriolidae	*Sphecotheres vieilloti*	Australasian figbird		C		13
animals	birds	Otididae	*Ardeotis australis*	Australian bustard		C		7

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Pachycephalidae	*Colluricincla megarhyncha*	little shrike-thrush		C		7
animals	birds	Pachycephalidae	*Pachycephala pectoralis*	golden whistler		C		2
animals	birds	Pachycephalidae	*Pachycephala rufiventris*	rufous whistler		C		14
animals	birds	Pachycephalidae	*Colluricincla harmonica*	grey shrike-thrush		C		13
animals	birds	Pardalotidae	*Pardalotus striatus*	striated pardalote		C		17
animals	birds	Pelecanidae	*Pelecanus conspicillatus*	Australian pelican		C		6
animals	birds	Petroicidae	*Eopsaltria australis*	eastern yellow robin		C		5
animals	birds	Phalacrocoracidae	*Phalacrocorax sulcirostris*	little black cormorant		C		6
animals	birds	Phalacrocoracidae	*Microcarbo melanoleucos*	little pied cormorant		C		7
animals	birds	Phasianidae	*Coturnix ypsilophora*	brown quail		C		7
animals	birds	Pittidae	*Pitta versicolor*	noisy pitta		C		1
animals	birds	Podargidae	*Podargus strigoides*	tawny frogmouth		C		5
animals	birds	Podicipedidae	*Tachybaptus novaehollandiae*	Australasian grebe		C		9
animals	birds	Pomatostomidae	*Pomatostomus temporalis*	grey-crowned babbler		C		4
animals	birds	Psittacidae	*Trichoglossus haematodus moluccanus*	rainbow lorikeet		C		24
animals	birds	Psittacidae	*Aprosmictus erythropterus*	red-winged parrot		C		17
animals	birds	Psittacidae	*Platycercus adscitus*	pale-headed rosella		C		15
animals	birds	Psittacidae	*Trichoglossus chlorolepidotus*	scaly-breasted lorikeet		C		4
animals	birds	Rallidae	*Fulica atra*	Eurasian coot		C		2
animals	birds	Rallidae	*Gallinula tenebrosa*	dusky moorhen		C		4
animals	birds	Rallidae	*Porphyrio melanotus*	purple swamphen		C		3
animals	birds	Recurvirostridae	*Himantopus himantopus*	black-winged stilt		C		7
animals	birds	Rhipiduridae	*Rhipidura albiscapa*	grey fantail		C		6
animals	birds	Rhipiduridae	*Rhipidura rufifrons*	rufous fantail		SL		3
animals	birds	Rhipiduridae	*Rhipidura leucophrys*	willie wagtail		C		13
animals	birds	Scolopacidae	*Numenius phaeopus*	whimbrel		SL		1
animals	birds	Scolopacidae	*Gallinago hardwickii*	Latham's snipe		SL		2
animals	birds	Scolopacidae	*Xenus cinereus*	terek sandpiper		SL		1
animals	birds	Strigidae	*Ninox boobook*	southern boobook		C		4
animals	birds	Threskiornithidae	*Platalea flavipes*	yellow-billed spoonbill		C		4
animals	birds	Threskiornithidae	*Threskiornis spinicollis*	straw-necked ibis		C		6
animals	birds	Threskiornithidae	*Threskiornis molucca*	Australian white ibis		C		3
animals	birds	Threskiornithidae	*Platalea regia*	royal spoonbill		C		2
animals	birds	Timaliidae	*Zosterops lateralis*	silvereye		C		4
animals	birds	Turnicidae	*Turnix melanogaster*	black-breasted button-quail		V	V	2
animals	mammals	Canidae	*Canis familiaris (dingo)*	dingo				4
animals	mammals	Emballonuridae	*Saccolaimus flaviventris*	yellow-bellied sheathtail bat		C		4
animals	mammals	Macropodidae	*Macropus parryi*	whiptail wallaby		C		6
animals	mammals	Macropodidae	*Macropus rufogriseus*	red-necked wallaby		C		1
animals	mammals	Macropodidae	*Macropus giganteus*	eastern grey kangaroo		C		11
animals	mammals	Macropodidae	*Macropus robustus*	common wallaroo		C		1
animals	mammals	Macropodidae	*Macropus dorsalis*	black-striped wallaby		C		6
animals	mammals	Macropodidae	*Wallabia bicolor*	swamp wallaby		C		7
animals	mammals	Macropodidae	*Macropus agilis*	agile wallaby		C		11
animals	mammals	Macropodidae	*Petrogale sp.*			C		1
animals	mammals	Molossidae	*Mormopterus lumsdenae*	northern free-tailed bat		C		2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	mammals	Molossidae	*Chaerephon jobensis*	northern freetail bat		C		3
animals	mammals	Muridae	*Hydromys chrysogaster*	water rat		C		1
animals	mammals	Peramelidae	*Isoodon macrourus*	northern brown bandicoot		C		1
animals	mammals	Peramelidae	*Perameles nasuta*	long-nosed bandicoot		C		1
animals	mammals	Petauridae	*Petaurus breviceps*	sugar glider		C		1
animals	mammals	Phalangeridae	*Trichosurus vulpecula*	common brushtail possum		C		6
animals	mammals	Phascolarctidae	*Phascolarctos cinereus*	koala		V	V	17
animals	mammals	Potoroidae	*Aepyprymnus rufescens*	rufous bettong		C		10
animals	mammals	Pseudocheiridae	*Pseudocheirus peregrinus*	common ringtail possum		C		1
animals	mammals	Pseudocheiridae	*Petauroides volans*	greater glider		V	V	3
animals	mammals	Pteropodidae	*Pteropus alecto*	black flying-fox		C		1
animals	mammals	Rhinolophidae	*Rhinolophus megaphyllus*	eastern horseshoe-bat		C		1
animals	mammals	Tachyglossidae	*Tachyglossus aculeatus*	short-beaked echidna		SL		9
animals	mammals	Vespertilionidae	*Scotorepens greyii*	little broad-nosed bat		C		4
animals	mammals	Vespertilionidae	*Chalinolobus gouldii*	Gould's wattled bat		C		4
animals	mammals	Vespertilionidae	*Scotorepens balstoni*	inland broad-nosed bat		C		2
animals	mammals	Vespertilionidae	*Scotorepens sanborni*	northern broad-nosed bat		C		1
animals	mammals	Vespertilionidae	*Nyctophilus geoffroyi*	lesser long-eared bat		C		1
animals	mammals	Vespertilionidae	*Vespadelus baverstocki*	inland forest bat		C		1
animals	mammals	Vespertilionidae	*Scotorepens sp.*					1
animals	mammals	Vespertilionidae	*Chalinolobus nigrogriseus*	hoary wattled bat		C		2
animals	mammals	Vespertilionidae	*Chalinolobus picatus*	little pied bat		C		3
animals	ray-finned fishes	Ambassidae	*Ambassis agassizii*	Agassiz's glassfish				9
animals	ray-finned fishes	Anguillidae	*Anguilla reinhardtii*	longfin eel				2
animals	ray-finned fishes	Apogonidae	*Glossamia aprion*	mouth almighty				2
animals	ray-finned fishes	Atherinidae	*Craterocephalus stercusmuscarum*	flyspecked hardyhead				9
animals	ray-finned fishes	Belonidae	*Strongylura krefftii*	freshwater longtom				1
animals	ray-finned fishes	Clupeidae	*Nematalosa erebi*	bony bream				2
animals	ray-finned fishes	Eleotridae	*Hypseleotris galii*	firetail gudgeon				7
animals	ray-finned fishes	Eleotridae	*Oxyeleotris lineolata*	sleepy cod				1
animals	ray-finned fishes	Eleotridae	*Hypseleotris klunzingeri*	western carp gudgeon				3
animals	ray-finned fishes	Eleotridae	*Hypseleotris compressa*	empire gudgeon				5
animals	ray-finned fishes	Eleotridae	*Mogurnda adspersa*	southern purplespotted gudgeon				7
animals	ray-finned fishes	Melanotaeniidae	*Melanotaenia splendida splendida*	eastern rainbowfish				9
animals	ray-finned fishes	Osteoglossidae	*Scleropages leichardti*	southern saratoga				2
animals	ray-finned fishes	Plotosidae	*Neosilurus hyrtlii*	Hyrtl's catfish				1
animals	ray-finned fishes	Terapontidae	*Leiopotherapon unicolor*	spangled perch				4
animals	ray-finned fishes	Terapontidae	*Amniataba percoides*	barred grunter				1
animals	reptiles	Agamidae	*Chlamydosaurus kingii*	frilled lizard		C		3
animals	reptiles	Agamidae	*Diporiphora nobbi*	nobbi		C		4
animals	reptiles	Boidae	*Morelia spilota*	carpet python		C		1
animals	reptiles	Boidae	*Aspidites melanocephalus*	black-headed python		C		1
animals	reptiles	Carphodactylidae	*Nephrurus asper*	spiny knob-tailed gecko		C		8
animals	reptiles	Chelidae	*Elseya albagula*	southern snapping turtle		E	CE	3
animals	reptiles	Chelidae	*Wollumbinia latisternum*	saw-shelled turtle		C		4
animals	reptiles	Chelidae	*Emydura macquarii krefftii*	Krefft's river turtle		C		3

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	reptiles	Colubridae	*Dendrelaphis punctulatus*	green tree snake		C		6
animals	reptiles	Colubridae	*Tropidonophis mairii*	freshwater snake		C		2
animals	reptiles	Colubridae	*Boiga irregularis*	brown tree snake		C		4/1
animals	reptiles	Diplodactylidae	*Strophurus williamsi*	soft-spined gecko		C		2
animals	reptiles	Elapidae	*Demansia psammophis*	yellow-faced whipsnake		C		1
animals	reptiles	Elapidae	*Pseudonaja textilis*	eastern brown snake		C		1
animals	reptiles	Elapidae	*Hoplocephalus bitorquatus*	pale-headed snake		C		1
animals	reptiles	Elapidae	*Cryptophis boschmai*	Carpentaria whip snake		C		2
animals	reptiles	Gekkonidae	*Heteronotia binoei*	Bynoe's gecko		C		11
animals	reptiles	Gekkonidae	*Gehyra dubia*	dubious dtella		C		10
animals	reptiles	Pygopodidae	*Paradelma orientalis*	brigalow scaly-foot		C		1
animals	reptiles	Pygopodidae	*Lialis burtonis*	Burton's legless lizard		C		4
animals	reptiles	Scincidae	*Carlia rhomboidalis*	blue-throated rainbow-skink		C		1/1
animals	reptiles	Scincidae	*Carlia schmeltzii*	robust rainbow-skink		C		11
animals	reptiles	Scincidae	*Concinnia tenuis*	bar-sided skink		C		1
animals	reptiles	Scincidae	*Carlia rubigo*	orange-flanked rainbow skink		C		18
animals	reptiles	Scincidae	*Carlia vivax*	tussock rainbow-skink		C		2
animals	reptiles	Scincidae	*Carlia sp.*					1
animals	reptiles	Scincidae	*Cryptoblepharus sp.*					1
animals	reptiles	Scincidae	*Lampropholis adonis*	diamond-shielded sunskink		C		1/1
animals	reptiles	Scincidae	*Pygmaeascincus timlowi*	dwarf litter-skink		C		1
animals	reptiles	Scincidae	*Lygisaurus foliorum*	tree-base litter-skink		C		7
animals	reptiles	Scincidae	*Cryptoblepharus metallicus*	metallic snake-eyed skink		C		1
animals	reptiles	Scincidae	*Glaphyromorphus punctulatus*	fine-spotted mulch-skink		C		4
animals	reptiles	Scincidae	*Cryptoblepharus pulcher pulcher*	elegant snake-eyed skink		C		13
animals	reptiles	Scincidae	*Cryptoblepharus virgatus sensu lato*			C		1
animals	reptiles	Scincidae	*Carlia pectoralis sensu lato*			C		2
animals	reptiles	Scincidae	*Morethia taeniopleura*	fire-tailed skink		C		4
animals	reptiles	Scincidae	*Ctenotus taeniolatus*	copper-tailed skink		C		17
animals	reptiles	Scincidae	*Concinnia brachysoma*	northern bar-sided skink		C		4
animals	reptiles	Typhlopidae	*Anilios ligatus*	robust blind snake		C		1
animals	uncertain	Indeterminate	*Indeterminate*	Unknown or Code Pending		C		6

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 in the Wild (PE), Endangered (E), Vulnerable (V), Near Threatened (NT), Least Concern (C) or Not Protected ( ).

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

Records – The first number indicates the total number of records of the taxon for the record option selected (i.e. All, Confirmed or Specimens).
This number is output as 99999 if it equals or exceeds this value. The second number located after the / indicates the number of specimen records for the taxon.
This number is output as 999 if it equals or exceeds this value.

Queensland Government

Wildlife Online Extract

Search Criteria: Species List for a Specified Point
Species: Animals
Type: Native
Status: All
Records: Confirmed
Date: Since 1980
Latitude: -22.7045
Longitude: 149.6867
Distance: 40
Email: lindsay@austecology.com.au
Date submitted: Thursday 19 Mar 2020 11:32:45
Date extracted: Thursday 19 Mar 2020 11:40:10

The number of records retrieved = 309

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Hylidae	*Litoria rothii*	northern laughing treefrog		C		6
animals	amphibians	Hylidae	*Cyclorana alboguttata*	greenstripe frog		C		6
animals	amphibians	Hylidae	*Litoria latopalmata*	broad palmed rocketfrog		C		7
animals	amphibians	Hylidae	*Litoria gracilenta*	graceful treefrog		C		1
animals	amphibians	Hylidae	*Cyclorana brevipes*	superb collared frog		C		1
animals	amphibians	Hylidae	*Litoria wilcoxii*	eastern stony creek frog		C		2
animals	amphibians	Hylidae	*Litoria sp.*					1
animals	amphibians	Hylidae	*Litoria fallax*	eastern sedgefrog		C		6
animals	amphibians	Hylidae	*Litoria nasuta*	striped rocketfrog		C		1
animals	amphibians	Hylidae	*Cyclorana novaehollandiae*	eastern snapping frog		C		1
animals	amphibians	Hylidae	*Litoria inermis*	bumpy rocketfrog		C		4
animals	amphibians	Hylidae	*Litoria rubella*	ruddy treefrog		C		7
animals	amphibians	Hylidae	*Litoria caerulea*	common green treefrog		C		23
animals	amphibians	Limnodynastidae	*Limnodynastes terraereginae*	scarlet sided pobblebonk		C		8
animals	amphibians	Limnodynastidae	*Limnodynastes tasmaniensis*	spotted grassfrog		C		3
animals	amphibians	Limnodynastidae	*Platyplectrum ornatum*	ornate burrowing frog		C		4
animals	amphibians	Limnodynastidae	*Limnodynastes salmini*	salmon striped frog		C		4
animals	amphibians	Myobatrachidae	*Crinia deserticola*	chirping froglet		C		3
animals	amphibians	Myobatrachidae	*Uperoleia rugosa*	chubby gungan		C		1/1
animals	birds	Acanthizidae	*Smicrornis brevirostris*	weebill		C		3
animals	birds	Acanthizidae	*Acanthiza chrysorrhoa*	yellow-rumped thornbill		C		2
animals	birds	Acanthizidae	*Sericornis frontalis*	white-browed scrubwren		C		3
animals	birds	Acanthizidae	*Acanthiza nana*	yellow thornbill		C		1
animals	birds	Acanthizidae	*Acanthiza pusilla*	brown thornbill		C		1
animals	birds	Acanthizidae	*Gerygone olivacea*	white-throated gerygone		C		11
animals	birds	Acanthizidae	*Gerygone palpebrosa*	fairy gerygone		C		2
animals	birds	Acanthizidae	*Acanthiza reguloides*	buff-rumped thornbill		C		3/3
animals	birds	Accipitridae	*Accipiter cirrocephalus*	collared sparrowhawk		C		1
animals	birds	Accipitridae	*Haliaeetus leucogaster*	white-bellied sea-eagle		C		6
animals	birds	Accipitridae	*Haliastur sphenurus*	whistling kite		C		7
animals	birds	Accipitridae	*Aviceda subcristata*	Pacific baza		C		9
animals	birds	Accipitridae	*Aquila audax*	wedge-tailed eagle		C		24/1
animals	birds	Accipitridae	*Milvus migrans*	black kite		C		5
animals	birds	Accipitridae	*Haliastur indus*	brahminy kite		C		2
animals	birds	Accipitridae	*Elanus axillaris*	black-shouldered kite		C		3
animals	birds	Accipitridae	*Lophoictinia isura*	square-tailed kite		C		1
animals	birds	Accipitridae	*Accipiter fasciatus*	brown goshawk		C		1
animals	birds	Acrocephalidae	*Acrocephalus australis*	Australian reed-warbler		C		2
animals	birds	Aegothelidae	*Aegotheles cristatus*	Australian owlet-nightjar		C		4
animals	birds	Alaudidae	*Mirafra javanica*	Horsfield's bushlark		C		3
animals	birds	Alcedinidae	*Ceyx azureus*	azure kingfisher		C		4
animals	birds	Anatidae	*Cygnus atratus*	black swan		C		3
animals	birds	Anatidae	*Anas gracilis*	grey teal		C		11
animals	birds	Anatidae	*Aythya australis*	hardhead		C		7
animals	birds	Anatidae	*Malacorhynchus membranaceus*	pink-eared duck		C		1
animals	birds	Anatidae	*Nettapus coromandelianus*	cotton pygmy-goose		C		3

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Anatidae	*Dendrocygna arcuata*	wandering whistling-duck		C		2
animals	birds	Anatidae	*Dendrocygna eytoni*	plumed whistling-duck		C		3
animals	birds	Anatidae	*Chenonetta jubata*	Australian wood duck		C		9
animals	birds	Anatidae	*Anas superciliosa*	Pacific black duck		C		11
animals	birds	Anhingidae	*Anhinga novaehollandiae*	Australasian darter		C		7
animals	birds	Anseranatidae	*Anseranas semipalmata*	magpie goose		C		6
animals	birds	Apodidae	*Hirundapus caudacutus*	white-throated needletail		V	V	1
animals	birds	Ardeidae	*Butorides striata*	striated heron		C		4
animals	birds	Ardeidae	*Ardea alba modesta*	eastern great egret		C		13
animals	birds	Ardeidae	*Nycticorax caledonicus*	nankeen night-heron		C		1
animals	birds	Ardeidae	*Egretta novaehollandiae*	white-faced heron		C		17
animals	birds	Ardeidae	*Egretta garzetta*	little egret		C		4
animals	birds	Ardeidae	*Ardea intermedia*	intermediate egret		C		5
animals	birds	Ardeidae	*Ardea pacifica*	white-necked heron		C		8
animals	birds	Ardeidae	*Bubulcus ibis*	cattle egret		C		10
animals	birds	Artamidae	*Cracticus nigrogularis*	pied butcherbird		C		30
animals	birds	Artamidae	*Artamus superciliosus*	white-browed woodswallow		C		2
animals	birds	Artamidae	*Artamus leucorynchus*	white-breasted woodswallow		C		9
animals	birds	Artamidae	*Cracticus torquatus*	grey butcherbird		C		5
animals	birds	Artamidae	*Strepera graculina*	pied currawong		C		25
animals	birds	Artamidae	*Gymnorhina tibicen*	Australian magpie		C		25
animals	birds	Artamidae	*Artamus cinereus*	black-faced woodswallow		C		10
animals	birds	Burhinidae	*Esacus magnirostris*	beach stone-curlew		V		9
animals	birds	Cacatuidae	*Calyptorhynchus banksii*	red-tailed black-cockatoo		C		9
animals	birds	Cacatuidae	*Eolophus roseicapilla*	galah		C		11
animals	birds	Cacatuidae	*Cacatua galerita*	sulphur-crested cockatoo		C		27
animals	birds	Campephagidae	*Coracina novaehollandiae*	black-faced cuckoo-shrike		C		13
animals	birds	Campephagidae	*Coracina tenuirostris*	cicadabird		C		3
animals	birds	Campephagidae	*Coracina papuensis*	white-bellied cuckoo-shrike		C		6
animals	birds	Campephagidae	*Lalage tricolor*	white-winged triller		C		2
animals	birds	Campephagidae	*Lalage leucomela*	varied triller		C		15
animals	birds	Caprimulgidae	*Caprimulgus macrurus*	large-tailed nightjar		C		2
animals	birds	Casuariidae	*Dromaius novaehollandiae*	emu		C		5
animals	birds	Charadriidae	*Charadrius mongolus*	lesser sand plover		E	E	6
animals	birds	Charadriidae	*Elseyornis melanops*	black-fronted dotterel		C		5
animals	birds	Charadriidae	*Pluvialis squatarola*	grey plover		SL		7
animals	birds	Charadriidae	*Charadrius ruficapillus*	red-capped plover		C		5
animals	birds	Charadriidae	*Vanellus miles novaehollandiae*	masked lapwing (southern subspecies)		C		8
animals	birds	Charadriidae	*Vanellus miles*	masked lapwing		C		1
animals	birds	Charadriidae	*Charadrius sp.*					1
animals	birds	Charadriidae	*Charadrius leschenaultii*	greater sand plover		V	V	2
animals	birds	Ciconiidae	*Ephippiorhynchus asiaticus*	black-necked stork		C		1
animals	birds	Cisticolidae	*Cisticola exilis*	golden-headed cisticola		C		5
animals	birds	Climacteridae	*Cormobates leucophaea metastasis*	white-throated treecreeper (southern)		C		2
animals	birds	Columbidae	*Geophaps scripta scripta*	squatter pigeon (southern subspecies)		V	V	41
animals	birds	Columbidae	*Leucosarcia melanoleuca*	wonga pigeon		C		2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Columbidae	*Macropygia amboinensis*	brown cuckoo-dove		C		2
animals	birds	Columbidae	*Geopelia humeralis*	bar-shouldered dove		C		18
animals	birds	Columbidae	*Chalcophaps indica*	emerald dove		C		2
animals	birds	Columbidae	*Ptilinopus regina*	rose-crowned fruit-dove		C		2
animals	birds	Columbidae	*Phaps chalcoptera*	common bronzewing		C		1
animals	birds	Columbidae	*Ocyphaps lophotes*	crested pigeon		C		6
animals	birds	Columbidae	*Geopelia striata*	peaceful dove		C		23
animals	birds	Coraciidae	*Eurystomus orientalis*	dollarbird		C		17
animals	birds	Corcoracidae	*Corcorax melanorhamphos*	white-winged chough		C		5
animals	birds	Corcoracidae	*Struthidea cinerea*	apostlebird		C		8
animals	birds	Corvidae	*Corvus orru*	Torresian crow		C		38
animals	birds	Corvidae	*Corvus coronoides*	Australian raven		C		1
animals	birds	Cuculidae	*Cacomantis pallidus*	pallid cuckoo		C		3
animals	birds	Cuculidae	*Chalcites lucidus*	shining bronze-cuckoo		C		2
animals	birds	Cuculidae	*Eudynamys orientalis*	eastern koel		C		4
animals	birds	Cuculidae	*Centropus phasianinus*	pheasant coucal		C		10
animals	birds	Cuculidae	*Cacomantis flabelliformis*	fan-tailed cuckoo		C		5
animals	birds	Cuculidae	*Chalcites basalis*	Horsfield's bronze-cuckoo		C		1
animals	birds	Cuculidae	*Chalcites minutillus barnardi*	Eastern little bronze-cuckoo		C		4
animals	birds	Cuculidae	*Scythrops novaehollandiae*	channel-billed cuckoo		C		11
animals	birds	Dicruridae	*Dicrurus bracteatus*	spangled drongo		C		17
animals	birds	Estrildidae	*Taeniopygia guttata*	zebra finch		C		3
animals	birds	Estrildidae	*Taeniopygia bichenovii*	double-barred finch		C		16
animals	birds	Eurostopodidae	*Eurostopodus mystacalis*	white-throated nightjar		C		1
animals	birds	Falconidae	*Falco peregrinus*	peregrine falcon		C		1
animals	birds	Falconidae	*Falco cenchroides*	nankeen kestrel		C		16
animals	birds	Falconidae	*Falco berigora*	brown falcon		C		11
animals	birds	Falconidae	*Falco hypoleucos*	grey falcon		V		1
animals	birds	Gruidae	*Antigone rubicunda*	brolga		C		9
animals	birds	Haematopodidae	*Haematopus fuliginosus*	sooty oystercatcher		C		1
animals	birds	Haematopodidae	*Haematopus longirostris*	Australian pied oystercatcher		C		7
animals	birds	Halcyonidae	*Todiramphus pyrrhopygius*	red-backed kingfisher		C		1
animals	birds	Halcyonidae	*Todiramphus macleayii*	forest kingfisher		C		17
animals	birds	Halcyonidae	*Todiramphus sanctus*	sacred kingfisher		C		5
animals	birds	Halcyonidae	*Dacelo novaeguineae*	laughing kookaburra		C		33
animals	birds	Halcyonidae	*Dacelo leachii*	blue-winged kookaburra		C		16
animals	birds	Hirundinidae	*Petrochelidon nigricans*	tree martin		C		1
animals	birds	Hirundinidae	*Petrochelidon ariel*	fairy martin		C		3
animals	birds	Hirundinidae	*Hirundo neoxena*	welcome swallow		C		12
animals	birds	Jacanidae	*Irediparra gallinacea*	comb-crested jacana		C		4
animals	birds	Laridae	*Sternula albifrons*	little tern		SL		2
animals	birds	Laridae	*Hydroprogne caspia*	Caspian tern		SL		4
animals	birds	Laridae	*Gelochelidon nilotica*	gull-billed tern		SL		6
animals	birds	Laridae	*Chlidonias hybrida*	whiskered tern		C		1
animals	birds	Laridae	*Chroicocephalus novaehollandiae*	silver gull		C		2
animals	birds	Maluridae	*Malurus melanocephalus*	red-backed fairy-wren		C		22

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animals	birds	Megaluridae	*Cincloramphus mathewsi*	rufous songlark		C		3
animals	birds	Megapodiidae	*Alectura lathami*	Australian brush-turkey		C		4
animals	birds	Meliphagidae	*Plectorhyncha lanceolata*	striped honeyeater		C		1
animals	birds	Meliphagidae	*Melithreptus albogularis*	white-throated honeyeater		C		24
animals	birds	Meliphagidae	*Gavicalis fasciogularis*	mangrove honeyeater		C		3
animals	birds	Meliphagidae	*Philemon citreogularis*	little friarbird		C		11
animals	birds	Meliphagidae	*Myzomela sanguinolenta*	scarlet honeyeater		C		5
animals	birds	Meliphagidae	*Manorina melanocephala*	noisy miner		C		6
animals	birds	Meliphagidae	*Philemon corniculatus*	noisy friarbird		C		21
animals	birds	Meliphagidae	*Melithreptus lunatus*	white-naped honeyeater		C		1
animals	birds	Meliphagidae	*Lichmera indistincta*	brown honeyeater		C		12
animals	birds	Meliphagidae	*Manorina flavigula*	yellow-throated miner		C		8
animals	birds	Meliphagidae	*Entomyzon cyanotis*	blue-faced honeyeater		C		13/1
animals	birds	Meliphagidae	*Meliphaga lewinii*	Lewin's honeyeater		C		38
animals	birds	Meliphagidae	*Epthianura crocea macgregori*	yellow chat (Dawson)		E	CE	33
animals	birds	Meliphagidae	*Stomiopera flava*	yellow honeyeater		C		10/1
animals	birds	Meropidae	*Merops ornatus*	rainbow bee-eater		C		66
animals	birds	Monarchidae	*Symposiachrus trivirgatus*	spectacled monarch		SL		1
animals	birds	Monarchidae	*Carterornis leucotis*	white-eared monarch		C		3
animals	birds	Monarchidae	*Monarcha melanopsis*	black-faced monarch		SL		1
animals	birds	Monarchidae	*Grallina cyanoleuca*	magpie-lark		C		17
animals	birds	Monarchidae	*Myiagra rubecula*	leaden flycatcher		C		8
animals	birds	Motacillidae	*Anthus novaeseelandiae*	Australasian pipit		C		10
animals	birds	Nectariniidae	*Dicaeum hirundinaceum*	mistletoebird		C		17
animals	birds	Oriolidae	*Oriolus sagittatus*	olive-backed oriole		C		4
animals	birds	Oriolidae	*Sphecotheres vieilloti*	Australasian figbird		C		18/1
animals	birds	Otididae	*Ardeotis australis*	Australian bustard		C		9
animals	birds	Pachycephalidae	*Colluricincla harmonica*	grey shrike-thrush		C		19
animals	birds	Pachycephalidae	*Colluricincla megarhyncha*	little shrike-thrush		C		7
animals	birds	Pachycephalidae	*Pachycephala rufiventris*	rufous whistler		C		16
animals	birds	Pachycephalidae	*Pachycephala pectoralis*	golden whistler		C		2
animals	birds	Pardalotidae	*Pardalotus striatus*	striated pardalote		C		20
animals	birds	Pelecanidae	*Pelecanus conspicillatus*	Australian pelican		C		8
animals	birds	Petroicidae	*Eopsaltria australis*	eastern yellow robin		C		6
animals	birds	Phalacrocoracidae	*Microcarbo melanoleucos*	little pied cormorant		C		10
animals	birds	Phalacrocoracidae	*Phalacrocorax sulcirostris*	little black cormorant		C		6
animals	birds	Phasianidae	*Coturnix ypsilophora*	brown quail		C		9
animals	birds	Pittidae	*Pitta versicolor*	noisy pitta		C		1
animals	birds	Podargidae	*Podargus strigoides*	tawny frogmouth		C		6
animals	birds	Podicipedidae	*Tachybaptus novaehollandiae*	Australasian grebe		C		13
animals	birds	Pomatostomidae	*Pomatostomus temporalis*	grey-crowned babbler		C		6
animals	birds	Psittacidae	*Trichoglossus haematodus moluccanus*	rainbow lorikeet		C		35/1
animals	birds	Psittacidae	*Trichoglossus chlorolepidotus*	scaly-breasted lorikeet		C		9
animals	birds	Psittacidae	*Aprosmictus erythropterus*	red-winged parrot		C		20
animals	birds	Psittacidae	*Glossopsitta concinna*	musk lorikeet		C		1
animals	birds	Psittacidae	*Platycercus adscitus*	pale-headed rosella		C		23

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animals	birds	Rallidae	*Gallinula tenebrosa*	dusky moorhen		C		6
animals	birds	Rallidae	*Porphyrio melanotus*	purple swamphen		C		4
animals	birds	Rallidae	*Fulica atra*	Eurasian coot		C		2
animals	birds	Recurvirostridae	*Himantopus himantopus*	black-winged stilt		C		7
animals	birds	Rhipiduridae	*Rhipidura rufifrons*	rufous fantail		SL		6
animals	birds	Rhipiduridae	*Rhipidura leucophrys*	willie wagtail		C		17
animals	birds	Rhipiduridae	*Rhipidura albiscapa*	grey fantail		C		6
animals	birds	Scolopacidae	*Numenius madagascariensis*	eastern curlew		E	CE	22
animals	birds	Scolopacidae	*Limosa lapponica baueri*	Western Alaskan bar-tailed godwit		V	V	17
animals	birds	Scolopacidae	*Calidris tenuirostris*	great knot		E	CE	13
animals	birds	Scolopacidae	*Gallinago hardwickii*	Latham's snipe		SL		3
animals	birds	Scolopacidae	*Calidris ruficollis*	red-necked stint		SL		9
animals	birds	Scolopacidae	*Calidris ferruginea*	curlew sandpiper		E	CE	3
animals	birds	Scolopacidae	*Calidris acuminata*	sharp-tailed sandpiper		SL		4
animals	birds	Scolopacidae	*Numenius phaeopus*	whimbrel		SL		21
animals	birds	Scolopacidae	*Tringa nebularia*	common greenshank		SL		4
animals	birds	Scolopacidae	*Calidris canutus*	red knot		E	E	7
animals	birds	Scolopacidae	*Xenus cinereus*	terek sandpiper		SL		8
animals	birds	Scolopacidae	*Tringa brevipes*	grey-tailed tattler		SL		7
animals	birds	Strigidae	*Ninox boobook*	southern boobook		C		7
animals	birds	Threskiornithidae	*Platalea regia*	royal spoonbill		C		3
animals	birds	Threskiornithidae	*Platalea flavipes*	yellow-billed spoonbill		C		4
animals	birds	Threskiornithidae	*Threskiornis molucca*	Australian white ibis		C		5
animals	birds	Threskiornithidae	*Threskiornis spinicollis*	straw-necked ibis		C		8
animals	birds	Timaliidae	*Zosterops lateralis*	silvereye		C		4
animals	birds	Turnicidae	*Turnix pyrrhothorax*	red-chested button-quail		C		1
animals	birds	Turnicidae	*Turnix melanogaster*	black-breasted button-quail		V	V	2
animals	mammals	Canidae	*Canis familiaris (dingo)*	dingo				4
animals	mammals	Emballonuridae	*Saccolaimus flaviventris*	yellow-bellied sheathtail bat		C		5
animals	mammals	Macropodidae	*Macropus parryi*	whiptail wallaby		C		8
animals	mammals	Macropodidae	*Macropus rufogriseus*	red-necked wallaby		C		1
animals	mammals	Macropodidae	*Macropus giganteus*	eastern grey kangaroo		C		16
animals	mammals	Macropodidae	*Macropus robustus*	common wallaroo		C		1
animals	mammals	Macropodidae	*Macropus dorsalis*	black-striped wallaby		C		6
animals	mammals	Macropodidae	*Wallabia bicolor*	swamp wallaby		C		8
animals	mammals	Macropodidae	*Macropus agilis*	agile wallaby		C		12
animals	mammals	Macropodidae	*Petrogale sp.*			C		1
animals	mammals	Miniopteridae	*Miniopterus australis*	little bent-wing bat		C		1
animals	mammals	Miniopteridae	*Miniopterus schreibersii oceanensis*	eastern bent-wing bat		C		1
animals	mammals	Molossidae	*Chaerephon jobensis*	northern freetail bat		C		4
animals	mammals	Molossidae	*Mormopterus lumsdenae*	northern free-tailed bat		C		4
animals	mammals	Molossidae	*Mormopterus ridei*	eastern free-tailed bat		C		1
animals	mammals	Muridae	*Hydromys chrysogaster*	water rat		C		1
animals	mammals	Peramelidae	*Isoodon macrourus*	northern brown bandicoot		C		2
animals	mammals	Peramelidae	*Perameles nasuta*	long-nosed bandicoot		C		1
animals	mammals	Petauridae	*Petaurus norfolcensis*	squirrel glider		C		1

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animals	mammals	Petauridae	*Petaurus breviceps*	sugar glider		C		1
animals	mammals	Phalangeridae	*Trichosurus vulpecula*	common brushtail possum		C		6
animals	mammals	Phascolarctidae	*Phascolarctos cinereus*	koala		V	V	28
animals	mammals	Potoroidae	*Aepyprymnus rufescens*	rufous bettong		C		15
animals	mammals	Pseudocheiridae	*Pseudocheirus peregrinus*	common ringtail possum		C		1
animals	mammals	Pseudocheiridae	*Petauroides volans*	greater glider		V	V	3
animals	mammals	Pteropodidae	*Pteropus alecto*	black flying-fox		C		1
animals	mammals	Rhinolophidae	*Rhinolophus megaphyllus*	eastern horseshoe-bat		C		1
animals	mammals	Tachyglossidae	*Tachyglossus aculeatus*	short-beaked echidna		SL		10
animals	mammals	Vespertilionidae	*Scotorepens greyii*	little broad-nosed bat		C		5
animals	mammals	Vespertilionidae	*Chalinolobus gouldii*	Gould's wattled bat		C		5
animals	mammals	Vespertilionidae	*Scotorepens balstoni*	inland broad-nosed bat		C		3
animals	mammals	Vespertilionidae	*Scotorepens sanborni*	northern broad-nosed bat		C		1
animals	mammals	Vespertilionidae	*Nyctophilus geoffroyi*	lesser long-eared bat		C		1
animals	mammals	Vespertilionidae	*Vespadelus baverstocki*	inland forest bat		C		2
animals	mammals	Vespertilionidae	*Scotorepens sp.*					3
animals	mammals	Vespertilionidae	*Chalinolobus nigrogriseus*	hoary wattled bat		C		3
animals	mammals	Vespertilionidae	*Chalinolobus picatus*	little pied bat		C		4
animals	ray-finned fishes	Ambassidae	*Ambassis agassizii*	Agassiz's glassfish				11
animals	ray-finned fishes	Anguillidae	*Anguilla reinhardtii*	longfin eel				2
animals	ray-finned fishes	Apogonidae	*Glossamia aprion*	mouth almighty				2
animals	ray-finned fishes	Atherinidae	*Craterocephalus stercusmuscarum*	flyspecked hardyhead				11
animals	ray-finned fishes	Belonidae	*Strongylura krefftii*	freshwater longtom				1
animals	ray-finned fishes	Clupeidae	*Nematalosa erebi*	bony bream				3
animals	ray-finned fishes	Eleotridae	*Hypseleotris klunzingeri*	western carp gudgeon				3
animals	ray-finned fishes	Eleotridae	*Hypseleotris compressa*	empire gudgeon				5
animals	ray-finned fishes	Eleotridae	*Oxyeleotris lineolata*	sleepy cod				1
animals	ray-finned fishes	Eleotridae	*Hypseleotris galii*	firetail gudgeon				9
animals	ray-finned fishes	Eleotridae	*Mogurnda adspersa*	southern purplespotted gudgeon				9
animals	ray-finned fishes	Melanotaeniidae	*Melanotaenia splendida splendida*	eastern rainbowfish				11
animals	ray-finned fishes	Osteoglossidae	*Scleropages leichardti*	southern saratoga				2
animals	ray-finned fishes	Plotosidae	*Tandanus tandanus*	freshwater catfish				2
animals	ray-finned fishes	Plotosidae	*Neosilurus hyrtlii*	Hyrtl's catfish				1
animals	ray-finned fishes	Pseudomugilidae	*Pseudomugil signifer*	Pacific blue eye				2
animals	ray-finned fishes	Terapontidae	*Amniataba percoides*	barred grunter				1
animals	ray-finned fishes	Terapontidae	*Leiopotherapon unicolor*	spangled perch				6
animals	reptiles	Agamidae	*Chlamydosaurus kingii*	frilled lizard		C		3
animals	reptiles	Agamidae	*Diporiphora nobbi*	nobbi		C		4
animals	reptiles	Boidae	*Morelia spilota*	carpet python		C		1
animals	reptiles	Boidae	*Aspidites melanocephalus*	black-headed python		C		1
animals	reptiles	Carphodactylidae	*Nephrurus asper*	spiny knob-tailed gecko		C		8
animals	reptiles	Chelidae	*Wollumbinia latisternum*	saw-shelled turtle		C		6
animals	reptiles	Chelidae	*Elseya albagula*	southern snapping turtle		E	CE	3
animals	reptiles	Chelidae	*Emydura macquarii krefftii*	Krefft's river turtle		C		5
animals	reptiles	Colubridae	*Boiga irregularis*	brown tree snake		C		4/1
animals	reptiles	Colubridae	*Dendrelaphis punctulatus*	green tree snake		C		9

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	reptiles	Colubridae	*Tropidonophis mairii*	freshwater snake		C		2
animals	reptiles	Diplodactylidae	*Oedura monilis sensu lato*	ocellated velvet gecko		C		1
animals	reptiles	Diplodactylidae	*Strophurus williamsi*	soft-spined gecko		C		2
animals	reptiles	Elapidae	*Cryptophis boschmai*	Carpentaria whip snake		C		2
animals	reptiles	Elapidae	*Hoplocephalus bitorquatus*	pale-headed snake		C		4
animals	reptiles	Elapidae	*Pseudonaja textilis*	eastern brown snake		C		1
animals	reptiles	Elapidae	*Demansia psammophis*	yellow-faced whipsnake		C		1
animals	reptiles	Elapidae	*Cryptophis nigrescens*	eastern small-eyed snake		C		1
animals	reptiles	Elapidae	*Demansia torquata*	collared whipsnake		C		1
animals	reptiles	Gekkonidae	*Gehyra dubia*	dubious dtella		C		12
animals	reptiles	Gekkonidae	*Heteronotia binoei*	Bynoe's gecko		C		25
animals	reptiles	Pygopodidae	*Paradelma orientalis*	brigalow scaly-foot		C		1
animals	reptiles	Pygopodidae	*Lialis burtonis*	Burton's legless lizard		C		4
animals	reptiles	Scincidae	*Morethia taeniopleura*	fire-tailed skink		C		5
animals	reptiles	Scincidae	*Pygmaeascincus timlowi*	dwarf litter-skink		C		1
animals	reptiles	Scincidae	*Cryptoblepharus metallicus*	metallic snake-eyed skink		C		1
animals	reptiles	Scincidae	*Glaphyromorphus punctulatus*	fine-spotted mulch-skink		C		4
animals	reptiles	Scincidae	*Carlia pectoralis sensu lato*			C		2
animals	reptiles	Scincidae	*Cryptoblepharus pulcher pulcher*	elegant snake-eyed skink		C		20
animals	reptiles	Scincidae	*Cryptoblepharus virgatus sensu lato*			C		1
animals	reptiles	Scincidae	*Ctenotus taeniolatus*	copper-tailed skink		C		19
animals	reptiles	Scincidae	*Concinnia brachysoma*	northern bar-sided skink		C		4
animals	reptiles	Scincidae	*Lygisaurus foliorum*	tree-base litter-skink		C		21
animals	reptiles	Scincidae	*Lampropholis adonis*	diamond-shielded sunskink		C		1/1
animals	reptiles	Scincidae	*Cryptoblepharus sp.*					1
animals	reptiles	Scincidae	*Carlia rhomboidalis*	blue-throated rainbow-skink		C		1/1
animals	reptiles	Scincidae	*Carlia schmeltzii*	robust rainbow-skink		C		14
animals	reptiles	Scincidae	*Concinnia tenuis*	bar-sided skink		C		1
animals	reptiles	Scincidae	*Carlia rubigo*	orange-flanked rainbow skink		C		23
animals	reptiles	Scincidae	*Carlia sp.*					2
animals	reptiles	Scincidae	*Carlia vivax*	tussock rainbow-skink		C		4
animals	reptiles	Typhlopidae	*Anilios ligatus*	robust blind snake		C		1
animals	uncertain	Indeterminate	*Indeterminate*	Unknown or Code Pending		C		9

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 in the Wild (PE), Endangered (E), Vulnerable (V), Near Threatened (NT), Least Concern (C) or Not Protected ( ).

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

Records – The first number indicates the total number of records of the taxon for the record option selected (i.e. All, Confirmed or Specimens).
This number is output as 99999 if it equals or exceeds this value. The second number located after the / indicates the number of specimen records for the taxon.
This number is output as 999 if it equals or exceeds this value.

Queensland Government

Wildlife Online Extract

Search Criteria: Species List for a Specified Point
Species: Animals
Type: Native
Status: All
Records: Confirmed
Date: Since 1980
Latitude: -22.7045
Longitude: 149.6867
Distance: 50
Email: lindsay@austecology.com.au
Date submitted: Thursday 19 Mar 2020 11:39:47
Date extracted: Thursday 19 Mar 2020 11:40:15

The number of records retrieved = 370

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Hylidae	*Litoria sp.*					1
animals	amphibians	Hylidae	*Cyclorana novaehollandiae*	eastern snapping frog		C		1
animals	amphibians	Hylidae	*Cyclorana alboguttata*	greenstripe frog		C		6
animals	amphibians	Hylidae	*Litoria latopalmata*	broad palmed rocketfrog		C		8
animals	amphibians	Hylidae	*Litoria gracilenta*	graceful treefrog		C		1
animals	amphibians	Hylidae	*Cyclorana brevipes*	superb collared frog		C		2/1
animals	amphibians	Hylidae	*Litoria wilcoxii*	eastern stony creek frog		C		2
animals	amphibians	Hylidae	*Litoria caerulea*	common green treefrog		C		25
animals	amphibians	Hylidae	*Litoria fallax*	eastern sedgefrog		C		10
animals	amphibians	Hylidae	*Litoria nasuta*	striped rocketfrog		C		1
animals	amphibians	Hylidae	*Litoria rothii*	northern laughing treefrog		C		6
animals	amphibians	Hylidae	*Litoria inermis*	bumpy rocketfrog		C		5
animals	amphibians	Hylidae	*Litoria rubella*	ruddy treefrog		C		12/1
animals	amphibians	Limnodynastidae	*Limnodynastes tasmaniensis*	spotted grassfrog		C		18/8
animals	amphibians	Limnodynastidae	*Platyplectrum ornatum*	ornate burrowing frog		C		15/8
animals	amphibians	Limnodynastidae	*Limnodynastes salmini*	salmon striped frog		C		6/2
animals	amphibians	Limnodynastidae	*Limnodynastes peronii*	striped marshfrog		C		1
animals	amphibians	Limnodynastidae	*Limnodynastes terraereginae*	scarlet sided pobblebonk		C		9
animals	amphibians	Myobatrachidae	*Crinia deserticola*	chirping froglet		C		4/1
animals	amphibians	Myobatrachidae	*Uperoleia rugosa*	chubby gungan		C		2/2
animals	arachnids	Theraphosidae	*Selenocosmia sp.*			C		1
animals	birds	Acanthizidae	*Sericornis frontalis*	white-browed scrubwren		C		6
animals	birds	Acanthizidae	*Acanthiza reguloides*	buff-rumped thornbill		C		3/3
animals	birds	Acanthizidae	*Gerygone palpebrosa*	fairy gerygone		C		5
animals	birds	Acanthizidae	*Gerygone olivacea*	white-throated gerygone		C		18
animals	birds	Acanthizidae	*Acanthiza chrysorrhoa*	yellow-rumped thornbill		C		2
animals	birds	Acanthizidae	*Acanthiza nana*	yellow thornbill		C		2
animals	birds	Acanthizidae	*Smicrornis brevirostris*	weebill		C		4
animals	birds	Acanthizidae	*Sericornis magnirostra*	large-billed scrubwren		C		1
animals	birds	Acanthizidae	*Acanthiza pusilla*	brown thornbill		C		1
animals	birds	Accipitridae	*Aquila audax*	wedge-tailed eagle		C		27/1
animals	birds	Accipitridae	*Accipiter cirrocephalus*	collared sparrowhawk		C		1
animals	birds	Accipitridae	*Hieraaetus morphnoides*	little eagle		C		2
animals	birds	Accipitridae	*Haliaeetus leucogaster*	white-bellied sea-eagle		C		8
animals	birds	Accipitridae	*Milvus migrans*	black kite		C		5
animals	birds	Accipitridae	*Haliastur indus*	brahminy kite		C		2
animals	birds	Accipitridae	*Circus assimilis*	spotted harrier		C		1
animals	birds	Accipitridae	*Elanus axillaris*	black-shouldered kite		C		3
animals	birds	Accipitridae	*Pandion cristatus*	eastern osprey		SL		1
animals	birds	Accipitridae	*Lophoictinia isura*	square-tailed kite		C		1
animals	birds	Accipitridae	*Accipiter fasciatus*	brown goshawk		C		2
animals	birds	Accipitridae	*Aviceda subcristata*	Pacific baza		C		10/1
animals	birds	Accipitridae	*Haliastur sphenurus*	whistling kite		C		11
animals	birds	Acrocephalidae	*Acrocephalus australis*	Australian reed-warbler		C		2
animals	birds	Aegothelidae	*Aegotheles cristatus*	Australian owlet-nightjar		C		7/1
animals	birds	Alaudidae	*Mirafra javanica*	Horsfield's bushlark		C		7/4

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Alcedinidae	*Ceyx azureus*	azure kingfisher		C		4
animals	birds	Anatidae	*Nettapus coromandelianus*	cotton pygmy-goose		C		9
animals	birds	Anatidae	*Dendrocygna arcuata*	wandering whistling-duck		C		3
animals	birds	Anatidae	*Dendrocygna eytoni*	plumed whistling-duck		C		5
animals	birds	Anatidae	*Chenonetta jubata*	Australian wood duck		C		11
animals	birds	Anatidae	*Anas superciliosa*	Pacific black duck		C		18
animals	birds	Anatidae	*Aythya australis*	hardhead		C		10
animals	birds	Anatidae	*Cygnus atratus*	black swan		C		4
animals	birds	Anatidae	*Radjah radjah*	radjah shelduck		C		1
animals	birds	Anatidae	*Anas gracilis*	grey teal		C		13
animals	birds	Anatidae	*Malacorhynchus membranaceus*	pink-eared duck		C		1
animals	birds	Anhingidae	*Anhinga novaehollandiae*	Australasian darter		C		10
animals	birds	Anseranatidae	*Anseranas semipalmata*	magpie goose		C		8
animals	birds	Apodidae	*Hirundapus caudacutus*	white-throated needletail		V	V	1
animals	birds	Ardeidae	*Bubulcus ibis*	cattle egret		C		12
animals	birds	Ardeidae	*Egretta garzetta*	little egret		C		4
animals	birds	Ardeidae	*Butorides striata*	striated heron		C		4
animals	birds	Ardeidae	*Ardea alba modesta*	eastern great egret		C		15
animals	birds	Ardeidae	*Nycticorax caledonicus*	nankeen night-heron		C		1
animals	birds	Ardeidae	*Egretta novaehollandiae*	white-faced heron		C		22
animals	birds	Ardeidae	*Ardea pacifica*	white-necked heron		C		9
animals	birds	Ardeidae	*Ardea intermedia*	intermediate egret		C		6
animals	birds	Artamidae	*Gymnorhina tibicen*	Australian magpie		C		32
animals	birds	Artamidae	*Strepera graculina*	pied currawong		C		42
animals	birds	Artamidae	*Cracticus torquatus*	grey butcherbird		C		8
animals	birds	Artamidae	*Artamus leucorynchus*	white-breasted woodswallow		C		10
animals	birds	Artamidae	*Artamus superciliosus*	white-browed woodswallow		C		3
animals	birds	Artamidae	*Cracticus nigrogularis*	pied butcherbird		C		34
animals	birds	Artamidae	*Artamus cinereus*	black-faced woodswallow		C		11
animals	birds	Burhinidae	*Esacus magnirostris*	beach stone-curlew		V		9
animals	birds	Cacatuidae	*Cacatua galerita*	sulphur-crested cockatoo		C		38
animals	birds	Cacatuidae	*Eolophus roseicapilla*	galah		C		12
animals	birds	Cacatuidae	*Calyptorhynchus banksii*	red-tailed black-cockatoo		C		11
animals	birds	Campephagidae	*Coracina papuensis*	white-bellied cuckoo-shrike		C		8/1
animals	birds	Campephagidae	*Lalage leucomela*	varied triller		C		19
animals	birds	Campephagidae	*Lalage tricolor*	white-winged triller		C		2
animals	birds	Campephagidae	*Coracina tenuirostris*	cicadabird		C		5/1
animals	birds	Campephagidae	*Coracina novaehollandiae*	black-faced cuckoo-shrike		C		23/1
animals	birds	Caprimulgidae	*Caprimulgus macrurus*	large-tailed nightjar		C		2
animals	birds	Casuariidae	*Dromaius novaehollandiae*	emu		C		9
animals	birds	Charadriidae	*Pluvialis fulva*	Pacific golden plover		SL		1
animals	birds	Charadriidae	*Charadrius mongolus*	lesser sand plover		E	E	10
animals	birds	Charadriidae	*Elseyornis melanops*	black-fronted dotterel		C		7
animals	birds	Charadriidae	*Pluvialis squatarola*	grey plover		SL		9
animals	birds	Charadriidae	*Charadrius leschenaultii*	greater sand plover		V	V	4
animals	birds	Charadriidae	*Vanellus miles novaehollandiae*	masked lapwing (southern subspecies)		C		11

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Charadriidae	*Vanellus miles*	masked lapwing		C		1
animals	birds	Charadriidae	*Charadrius sp.*					2
animals	birds	Charadriidae	*Charadrius ruficapillus*	red-capped plover		C		9
animals	birds	Ciconiidae	*Ephippiorhynchus asiaticus*	black-necked stork		C		3
animals	birds	Cisticolidae	*Cisticola exilis*	golden-headed cisticola		C		9/2
animals	birds	Climacteridae	*Cormobates leucophaea metastasis*	white-throated treecreeper (southern)		C		2
animals	birds	Columbidae	*Leucosarcia melanoleuca*	wonga pigeon		C		2
animals	birds	Columbidae	*Geophaps scripta scripta*	squatter pigeon (southern subspecies)		V	V	53/1
animals	birds	Columbidae	*Geopelia striata*	peaceful dove		C		28
animals	birds	Columbidae	*Ocyphaps lophotes*	crested pigeon		C		8
animals	birds	Columbidae	*Phaps chalcoptera*	common bronzewing		C		2
animals	birds	Columbidae	*Ptilinopus regina*	rose-crowned fruit-dove		C		2
animals	birds	Columbidae	*Chalcophaps indica*	emerald dove		C		5
animals	birds	Columbidae	*Geopelia humeralis*	bar-shouldered dove		C		20
animals	birds	Columbidae	*Macropygia amboinensis*	brown cuckoo-dove		C		2
animals	birds	Coraciidae	*Eurystomus orientalis*	dollarbird		C		31/1
animals	birds	Corcoracidae	*Struthidea cinerea*	apostlebird		C		8
animals	birds	Corcoracidae	*Corcorax melanorhamphos*	white-winged chough		C		8
animals	birds	Corvidae	*Corvus coronoides*	Australian raven		C		1
animals	birds	Corvidae	*Corvus orru*	Torresian crow		C		53
animals	birds	Cuculidae	*Cacomantis flabelliformis*	fan-tailed cuckoo		C		8
animals	birds	Cuculidae	*Scythrops novaehollandiae*	channel-billed cuckoo		C		18
animals	birds	Cuculidae	*Centropus phasianinus*	pheasant coucal		C		22
animals	birds	Cuculidae	*Eudynamys orientalis*	eastern koel		C		8
animals	birds	Cuculidae	*Cacomantis pallidus*	pallid cuckoo		C		3
animals	birds	Cuculidae	*Chalcites minutillus barnardi*	Eastern little bronze-cuckoo		C		4
animals	birds	Cuculidae	*Chalcites basalis*	Horsfield's bronze-cuckoo		C		1
animals	birds	Cuculidae	*Chalcites lucidus*	shining bronze-cuckoo		C		5
animals	birds	Dicruridae	*Dicrurus bracteatus*	spangled drongo		C		21
animals	birds	Estrildidae	*Taeniopygia guttata*	zebra finch		C		3
animals	birds	Estrildidae	*Taeniopygia bichenovii*	double-barred finch		C		22/2
animals	birds	Eurostopodidae	*Eurostopodus mystacalis*	white-throated nightjar		C		1
animals	birds	Falconidae	*Falco berigora*	brown falcon		C		15
animals	birds	Falconidae	*Falco cenchroides*	nankeen kestrel		C		16
animals	birds	Falconidae	*Falco peregrinus*	peregrine falcon		C		6
animals	birds	Falconidae	*Falco hypoleucos*	grey falcon		V		1
animals	birds	Gruidae	*Antigone rubicunda*	brolga		C		11
animals	birds	Haematopodidae	*Haematopus longirostris*	Australian pied oystercatcher		C		11
animals	birds	Haematopodidae	*Haematopus fuliginosus*	sooty oystercatcher		C		1
animals	birds	Halcyonidae	*Dacelo novaeguineae*	laughing kookaburra		C		46/1
animals	birds	Halcyonidae	*Dacelo leachii*	blue-winged kookaburra		C		20
animals	birds	Halcyonidae	*Todiramphus sanctus*	sacred kingfisher		C		5
animals	birds	Halcyonidae	*Todiramphus pyrrhopygius*	red-backed kingfisher		C		1
animals	birds	Halcyonidae	*Todiramphus macleayii*	forest kingfisher		C		21
animals	birds	Hirundinidae	*Petrochelidon ariel*	fairy martin		C		3
animals	birds	Hirundinidae	*Hirundo neoxena*	welcome swallow		C		12

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Hirundinidae	*Petrochelidon nigricans*	tree martin		C		2/1
animals	birds	Jacanidae	*Irediparra gallinacea*	comb-crested jacana		C		5
animals	birds	Laridae	*Thalasseus bergii*	crested tern		SL		1
animals	birds	Laridae	*Chlidonias hybrida*	whiskered tern		C		4
animals	birds	Laridae	*Hydroprogne caspia*	Caspian tern		SL		6
animals	birds	Laridae	*Chroicocephalus novaehollandiae*	silver gull		C		3
animals	birds	Laridae	*Gelochelidon nilotica*	gull-billed tern		SL		8
animals	birds	Laridae	*Thalasseus bengalensis*	lesser crested tern		C		1
animals	birds	Laridae	*Sternula albifrons*	little tern		SL		3
animals	birds	Maluridae	*Malurus sp.*					1
animals	birds	Maluridae	*Malurus melanocephalus*	red-backed fairy-wren		C		33
animals	birds	Megaluridae	*Cincloramphus mathewsi*	rufous songlark		C		3
animals	birds	Megapodiidae	*Alectura lathami*	Australian brush-turkey		C		7
animals	birds	Meliphagidae	*Melithreptus lunatus*	white-naped honeyeater		C		1
animals	birds	Meliphagidae	*Philemon corniculatus*	noisy friarbird		C		32/1
animals	birds	Meliphagidae	*Manorina melanocephala*	noisy miner		C		12
animals	birds	Meliphagidae	*Myzomela sanguinolenta*	scarlet honeyeater		C		11
animals	birds	Meliphagidae	*Philemon citreogularis*	little friarbird		C		14
animals	birds	Meliphagidae	*Gavicalis fasciogularis*	mangrove honeyeater		C		3
animals	birds	Meliphagidae	*Melithreptus albogularis*	white-throated honeyeater		C		31
animals	birds	Meliphagidae	*Plectorhyncha lanceolata*	striped honeyeater		C		1
animals	birds	Meliphagidae	*Epthianura crocea macgregori*	yellow chat (Dawson)		E	CE	50
animals	birds	Meliphagidae	*Lichmera indistincta*	brown honeyeater		C		13
animals	birds	Meliphagidae	*Manorina flavigula*	yellow-throated miner		C		8
animals	birds	Meliphagidae	*Entomyzon cyanotis*	blue-faced honeyeater		C		17/2
animals	birds	Meliphagidae	*Stomiopera flava*	yellow honeyeater		C		11/1
animals	birds	Meliphagidae	*Meliphaga lewinii*	Lewin's honeyeater		C		43
animals	birds	Meropidae	*Merops ornatus*	rainbow bee-eater		C		73
animals	birds	Monarchidae	*Grallina cyanoleuca*	magpie-lark		C		22
animals	birds	Monarchidae	*Monarcha melanopsis*	black-faced monarch		SL		1
animals	birds	Monarchidae	*Carterornis leucotis*	white-eared monarch		C		6
animals	birds	Monarchidae	*Symposiachrus trivirgatus*	spectacled monarch		SL		1
animals	birds	Monarchidae	*Myiagra inquieta*	restless flycatcher		C		1
animals	birds	Monarchidae	*Myiagra rubecula*	leaden flycatcher		C		14
animals	birds	Motacillidae	*Anthus novaeseelandiae*	Australasian pipit		C		13
animals	birds	Nectariniidae	*Dicaeum hirundinaceum*	mistletoebird		C		21
animals	birds	Oriolidae	*Oriolus sagittatus*	olive-backed oriole		C		7/1
animals	birds	Oriolidae	*Sphecotheres vieilloti*	Australasian figbird		C		23/1
animals	birds	Otididae	*Ardeotis australis*	Australian bustard		C		9
animals	birds	Pachycephalidae	*Colluricincla harmonica*	grey shrike-thrush		C		25
animals	birds	Pachycephalidae	*Pachycephala pectoralis*	golden whistler		C		5
animals	birds	Pachycephalidae	*Pachycephala rufiventris*	rufous whistler		C		20
animals	birds	Pachycephalidae	*Colluricincla megarhyncha*	little shrike-thrush		C		8
animals	birds	Pardalotidae	*Pardalotus punctatus*	spotted pardalote		C		1
animals	birds	Pardalotidae	*Pardalotus striatus*	striated pardalote		C		30
animals	birds	Pelecanidae	*Pelecanus conspicillatus*	Australian pelican		C		9

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Petroicidae	*Microeca fascinans*	jacky winter		C		1/1
animals	birds	Petroicidae	*Petroica rosea*	rose robin		C		1
animals	birds	Petroicidae	*Eopsaltria australis*	eastern yellow robin		C		9
animals	birds	Phalacrocoracidae	*Phalacrocorax varius*	pied cormorant		C		1
animals	birds	Phalacrocoracidae	*Microcarbo melanoleucos*	little pied cormorant		C		15
animals	birds	Phalacrocoracidae	*Phalacrocorax sulcirostris*	little black cormorant		C		12
animals	birds	Phasianidae	*Coturnix ypsilophora*	brown quail		C		9
animals	birds	Pittidae	*Pitta versicolor*	noisy pitta		C		1
animals	birds	Podargidae	*Podargus strigoides*	tawny frogmouth		C		8
animals	birds	Podicipedidae	*Tachybaptus novaehollandiae*	Australasian grebe		C		17
animals	birds	Pomatostomidae	*Pomatostomus temporalis*	grey-crowned babbler		C		7/1
animals	birds	Procellariidae	*Ardenna tenuirostris*	short-tailed shearwater		SL		2/2
animals	birds	Psittacidae	*Alisterus scapularis*	Australian king-parrot		C		4
animals	birds	Psittacidae	*Trichoglossus haematodus moluccanus*	rainbow lorikeet		C		55/3
animals	birds	Psittacidae	*Platycercus adscitus*	pale-headed rosella		C		29
animals	birds	Psittacidae	*Glossopsitta concinna*	musk lorikeet		C		1
animals	birds	Psittacidae	*Aprosmictus erythropterus*	red-winged parrot		C		24
animals	birds	Psittacidae	*Trichoglossus chlorolepidotus*	scaly-breasted lorikeet		C		18
animals	birds	Psophodidae	*Psophodes olivaceus*	eastern whipbird		C		1
animals	birds	Ptilonorhynchidae	*Ptilonorhynchus maculatus*	spotted bowerbird		C		1
animals	birds	Rallidae	*Porphyrio melanotus*	purple swamphen		C		4
animals	birds	Rallidae	*Gallinula tenebrosa*	dusky moorhen		C		7
animals	birds	Rallidae	*Fulica atra*	Eurasian coot		C		2
animals	birds	Recurvirostridae	*Himantopus himantopus*	black-winged stilt		C		8
animals	birds	Rhipiduridae	*Rhipidura leucophrys*	willie wagtail		C		19
animals	birds	Rhipiduridae	*Rhipidura rufifrons*	rufous fantail		SL		7
animals	birds	Rhipiduridae	*Rhipidura albiscapa*	grey fantail		C		11
animals	birds	Scolopacidae	*Limosa lapponica baueri*	Western Alaskan bar-tailed godwit		V	V	30
animals	birds	Scolopacidae	*Calidris tenuirostris*	great knot		E	CE	21
animals	birds	Scolopacidae	*Gallinago hardwickii*	Latham's snipe		SL		3
animals	birds	Scolopacidae	*Calidris ruficollis*	red-necked stint		SL		17
animals	birds	Scolopacidae	*Calidris ferruginea*	curlew sandpiper		E	CE	4
animals	birds	Scolopacidae	*Calidris acuminata*	sharp-tailed sandpiper		SL		6
animals	birds	Scolopacidae	*Arenaria interpres*	ruddy turnstone		SL		1
animals	birds	Scolopacidae	*Numenius phaeopus*	whimbrel		SL		31
animals	birds	Scolopacidae	*Tringa nebularia*	common greenshank		SL		5
animals	birds	Scolopacidae	*Calidris canutus*	red knot		E	E	10
animals	birds	Scolopacidae	*Numenius madagascariensis*	eastern curlew		E	CE	35
animals	birds	Scolopacidae	*Xenus cinereus*	terek sandpiper		SL		10
animals	birds	Scolopacidae	*Tringa brevipes*	grey-tailed tattler		SL		10
animals	birds	Strigidae	*Ninox boobook*	southern boobook		C		11
animals	birds	Threskiornithidae	*Threskiornis molucca*	Australian white ibis		C		5
animals	birds	Threskiornithidae	*Platalea regia*	royal spoonbill		C		4
animals	birds	Threskiornithidae	*Platalea flavipes*	yellow-billed spoonbill		C		5
animals	birds	Threskiornithidae	*Threskiornis spinicollis*	straw-necked ibis		C		10
animals	birds	Timaliidae	*Zosterops lateralis*	silvereye		C		7

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Turnicidae	*Turnix pyrrhothorax*	red-chested button-quail		C		2/1
animals	birds	Turnicidae	*Turnix melanogaster*	black-breasted button-quail		V	V	2
animals	birds	Turnicidae	*Turnix varius*	painted button-quail		C		1
animals	birds	Tytonidae	*Tyto delicatula*	eastern barn owl		C		1
animals	mammals	Balaenopteridae	*Balaenoptera musculus*	blue whale		C	E	1/1
animals	mammals	Canidae	*Canis familiaris (dingo)*	dingo				5
animals	mammals	Dasyuridae	*Planigale maculata*	common planigale		C		1/1
animals	mammals	Emballonuridae	*Saccolaimus flaviventris*	yellow-bellied sheathtail bat		C		10
animals	mammals	Macropodidae	*Macropus robustus*	common wallaroo		C		2
animals	mammals	Macropodidae	*Macropus dorsalis*	black-striped wallaby		C		9
animals	mammals	Macropodidae	*Petrogale herberti*	Herbert's rock-wallaby		C		1
animals	mammals	Macropodidae	*Macropus giganteus*	eastern grey kangaroo		C		17
animals	mammals	Macropodidae	*Wallabia bicolor*	swamp wallaby		C		11
animals	mammals	Macropodidae	*Macropus parryi*	whiptail wallaby		C		12
animals	mammals	Macropodidae	*Macropus agilis*	agile wallaby		C		14
animals	mammals	Macropodidae	*Petrogale sp.*			C		1
animals	mammals	Macropodidae	*Macropus rufogriseus*	red-necked wallaby		C		1
animals	mammals	Macropodidae	*Petrogale inornata*	unadorned rock-wallaby		C		9
animals	mammals	Miniopteridae	*Miniopterus australis*	little bent-wing bat		C		2
animals	mammals	Miniopteridae	*Miniopterus schreibersii oceanensis*	eastern bent-wing bat		C		2
animals	mammals	Molossidae	*Mormopterus ridei*	eastern free-tailed bat		C		4
animals	mammals	Molossidae	*Mormopterus lumsdenae*	northern free-tailed bat		C		8
animals	mammals	Molossidae	*Chaerephon jobensis*	northern freetail bat		C		8
animals	mammals	Muridae	*Pseudomys gracilicaudatus*	eastern chestnut mouse		C		1/1
animals	mammals	Muridae	*Hydromys chrysogaster*	water rat		C		1
animals	mammals	Muridae	*Melomys sp.*					1
animals	mammals	Muridae	*Rattus sp.*					5
animals	mammals	Peramelidae	*Perameles nasuta*	long-nosed bandicoot		C		2
animals	mammals	Peramelidae	*Isoodon macrourus*	northern brown bandicoot		C		12
animals	mammals	Petauridae	*Petaurus norfolcensis*	squirrel glider		C		1
animals	mammals	Petauridae	*Petaurus breviceps*	sugar glider		C		2
animals	mammals	Phalangeridae	*Trichosurus vulpecula*	common brushtail possum		C		13
animals	mammals	Phascolarctidae	*Phascolarctos cinereus*	koala		V	V	49
animals	mammals	Potoroidae	*Aepyprymnus rufescens*	rufous bettong		C		15
animals	mammals	Pseudocheiridae	*Petauroides volans*	greater glider		V	V	10
animals	mammals	Pseudocheiridae	*Pseudocheirus peregrinus*	common ringtail possum		C		4
animals	mammals	Pteropodidae	*Pteropus alecto*	black flying-fox		C		2
animals	mammals	Rhinolophidae	*Rhinolophus megaphyllus*	eastern horseshoe-bat		C		2
animals	mammals	Tachyglossidae	*Tachyglossus aculeatus*	short-beaked echidna		SL		13
animals	mammals	Vespertilionidae	*Scotorepens sp.*					6
animals	mammals	Vespertilionidae	*Chalinolobus morio*	chocolate wattled bat		C		1
animals	mammals	Vespertilionidae	*Scotorepens greyii*	little broad-nosed bat		C		8
animals	mammals	Vespertilionidae	*Chalinolobus gouldii*	Gould's wattled bat		C		8
animals	mammals	Vespertilionidae	*Chalinolobus picatus*	little pied bat		C		6
animals	mammals	Vespertilionidae	*Scotorepens balstoni*	inland broad-nosed bat		C		4
animals	mammals	Vespertilionidae	*Scotorepens sanborni*	northern broad-nosed bat		C		1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	mammals	Vespertilionidae	*Nyctophilus geoffroyi*	lesser long-eared bat		C		1
animals	mammals	Vespertilionidae	*Vespadelus troughtoni*	eastern cave bat		C		2
animals	mammals	Vespertilionidae	*Vespadelus baverstocki*	inland forest bat		C		5
animals	mammals	Vespertilionidae	*Chalinolobus nigrogriseus*	hoary wattled bat		C		5
animals	mammals	Vespertilionidae	*Nyctophilus sp.*					1
animals	mammals	Vespertilionidae	*Vespadelus sp.*					2
animals	mammals	Vespertilionidae	*Myotis macropus*	large-footed myotis		C		1
animals	ray-finned fishes	Ambassidae	*Ambassis agassizii*	Agassiz's glassfish				17
animals	ray-finned fishes	Anguillidae	*Anguilla reinhardtii*	longfin eel				8
animals	ray-finned fishes	Apogonidae	*Glossamia aprion*	mouth almighty				7
animals	ray-finned fishes	Ariidae	*Neoarius graeffei*	blue catfish				65
animals	ray-finned fishes	Atherinidae	*Craterocephalus stercusmuscarum*	flyspecked hardyhead				14
animals	ray-finned fishes	Belonidae	*Strongylura krefftii*	freshwater longtom				17
animals	ray-finned fishes	Clupeidae	*Nematalosa erebi*	bony bream				51
animals	ray-finned fishes	Eleotridae	*Mogurnda adspersa*	southern purplespotted gudgeon				11
animals	ray-finned fishes	Eleotridae	*Hypseleotris galii*	firetail gudgeon				12
animals	ray-finned fishes	Eleotridae	*Oxyeleotris lineolata*	sleepy cod				6
animals	ray-finned fishes	Eleotridae	*Hypseleotris compressa*	empire gudgeon				6
animals	ray-finned fishes	Eleotridae	*Hypseleotris species 1*	Midgley's carp gudgeon				1
animals	ray-finned fishes	Eleotridae	*Philypnodon grandiceps*	flathead gudgeon				1
animals	ray-finned fishes	Eleotridae	*Hypseleotris klunzingeri*	western carp gudgeon				3
animals	ray-finned fishes	Hemiramphidae	*Arrhamphus sclerolepis*	snubnose garfish				4
animals	ray-finned fishes	Megalopidae	*Megalops cyprinoides*	oxeye herring				5
animals	ray-finned fishes	Melanotaeniidae	*Melanotaenia splendida splendida*	eastern rainbowfish				18
animals	ray-finned fishes	Osteoglossidae	*Scleropages leichardti*	southern saratoga				4
animals	ray-finned fishes	Percichthyidae	*Macquaria ambigua*	golden perch				5
animals	ray-finned fishes	Plotosidae	*Neosilurus hyrtlii*	Hyrtl's catfish				6
animals	ray-finned fishes	Plotosidae	*Porochilus rendahli*	Rendahl's catfish				1
animals	ray-finned fishes	Plotosidae	*Neosilurus ater*	black catfish				1
animals	ray-finned fishes	Plotosidae	*Tandanus tandanus*	freshwater catfish				9
animals	ray-finned fishes	Pseudomugilidae	*Pseudomugil signifer*	Pacific blue eye				5
animals	ray-finned fishes	Terapontidae	*Leiopotherapon unicolor*	spangled perch				11
animals	ray-finned fishes	Terapontidae	*Scortum hillii*	leathery grunter				8
animals	ray-finned fishes	Terapontidae	*Amniataba percoides*	barred grunter				11
animals	reptiles	Agamidae	*Diporiphora nobbi*	nobbi		C		4
animals	reptiles	Agamidae	*Chlamydosaurus kingii*	frilled lizard		C		4
animals	reptiles	Agamidae	*Diporiphora australis*	tommy roundhead		C		2
animals	reptiles	Agamidae	*Diporiphora bilineata*	two-lined dragon		C		1
animals	reptiles	Agamidae	*Intellagama lesueurii*	eastern water dragon		C		2
animals	reptiles	Boidae	*Aspidites melanocephalus*	black-headed python		C		3/1
animals	reptiles	Boidae	*Morelia spilota*	carpet python		C		3
animals	reptiles	Carphodactylidae	*Nephrurus asper*	spiny knob-tailed gecko		C		8
animals	reptiles	Chelidae	*Emydura macquarii krefftii*	Krefft's river turtle		C		10
animals	reptiles	Chelidae	*Wollumbinia latisternum*	saw-shelled turtle		C		8
animals	reptiles	Chelidae	*Chelodina longicollis*	eastern snake-necked turtle		C		2/2
animals	reptiles	Chelidae	*Elseya albagula*	southern snapping turtle		E	CE	3

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	reptiles	Colubridae	*Dendrelaphis punctulatus*	green tree snake		C		11
animals	reptiles	Colubridae	*Tropidonophis mairii*	freshwater snake		C		5/1
animals	reptiles	Colubridae	*Boiga irregularis*	brown tree snake		C		5/1
animals	reptiles	Crocodylidae	*Crocodylus porosus*	estuarine crocodile		V		2
animals	reptiles	Diplodactylidae	*Oedura monilis sensu lato*	ocellated velvet gecko		C		2
animals	reptiles	Diplodactylidae	*Lucasium steindachneri*	Steindachner's gecko		C		2/2
animals	reptiles	Diplodactylidae	*Strophurus williamsi*	soft-spined gecko		C		2
animals	reptiles	Diplodactylidae	*Oedura tryoni*	southern spotted velvet gecko		C		1
animals	reptiles	Elapidae	*Cryptophis boschmai*	Carpentaria whip snake		C		3/1
animals	reptiles	Elapidae	*Demansia psammophis*	yellow-faced whipsnake		C		1
animals	reptiles	Elapidae	*Hoplocephalus bitorquatus*	pale-headed snake		C		6
animals	reptiles	Elapidae	*Demansia torquata*	collared whipsnake		C		3
animals	reptiles	Elapidae	*Pseudonaja textilis*	eastern brown snake		C		1
animals	reptiles	Elapidae	*Cryptophis nigrescens*	eastern small-eyed snake		C		1
animals	reptiles	Elapidae	*Demansia vestigiata*	lesser black whipsnake		C		1/1
animals	reptiles	Gekkonidae	*Gehyra dubia*	dubious dtella		C		23/1
animals	reptiles	Gekkonidae	*Heteronotia binoei*	Bynoe's gecko		C		48/2
animals	reptiles	Pygopodidae	*Lialis burtonis*	Burton's legless lizard		C		4
animals	reptiles	Pygopodidae	*Paradelma orientalis*	brigalow scaly-foot		C		1
animals	reptiles	Scincidae	*Lygisaurus foliorum*	tree-base litter-skink		C		27/2
animals	reptiles	Scincidae	*Concinnia brachysoma*	northern bar-sided skink		C		5
animals	reptiles	Scincidae	*Ctenotus taeniolatus*	copper-tailed skink		C		23/1
animals	reptiles	Scincidae	*Morethia taeniopleura*	fire-tailed skink		C		7
animals	reptiles	Scincidae	*Pygmaeascincus timlowi*	dwarf litter-skink		C		1
animals	reptiles	Scincidae	*Cryptoblepharus metallicus*	metallic snake-eyed skink		C		1
animals	reptiles	Scincidae	*Liburnascincus mundivensis*	outcrop rainbow-skink		C		3
animals	reptiles	Scincidae	*Glaphyromorphus punctulatus*	fine-spotted mulch-skink		C		4
animals	reptiles	Scincidae	*Carlia pectoralis sensu lato*			C		5
animals	reptiles	Scincidae	*Cryptoblepharus pulcher pulcher*	elegant snake-eyed skink		C		28
animals	reptiles	Scincidae	*Cryptoblepharus virgatus sensu lato*			C		3/2
animals	reptiles	Scincidae	*Lampropholis adonis*	diamond-shielded sunskink		C		1/1
animals	reptiles	Scincidae	*Cryptoblepharus sp.*					5
animals	reptiles	Scincidae	*Carlia rhomboidalis*	blue-throated rainbow-skink		C		1/1
animals	reptiles	Scincidae	*Ctenotus spaldingi*	straight-browed ctenotus		C		1/1
animals	reptiles	Scincidae	*Carlia schmeltzii*	robust rainbow-skink		C		16
animals	reptiles	Scincidae	*Eulamprus quoyii*	eastern water skink		C		1/1
animals	reptiles	Scincidae	*Concinnia tenuis*	bar-sided skink		C		1
animals	reptiles	Scincidae	*Menetia greyii*	common dwarf skink		C		1
animals	reptiles	Scincidae	*Eulamprus sp.*					1
animals	reptiles	Scincidae	*Carlia rubigo*	orange-flanked rainbow skink		C		25
animals	reptiles	Scincidae	*Carlia vivax*	tussock rainbow-skink		C		5
animals	reptiles	Scincidae	*Ctenotus sp.*					1
animals	reptiles	Scincidae	*Carlia sp.*					4
animals	reptiles	Scincidae	*Carlia munda*	shaded-litter rainbow-skink		C		6/5
animals	reptiles	Typhlopidae	*Anilios ligatus*	robust blind snake		C		1
animals	reptiles	Varanidae	*Varanus sp.*	goanna				1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	reptiles	Varanidae	*Varanus tristis*	black-tailed monitor		C		1
animals	uncertain	Indeterminate	*Indeterminate*	Unknown or Code Pending		C		11

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 in the Wild (PE), Endangered (E), Vulnerable (V), Near Threatened (NT), Least Concern (C) or Not Protected ( ).

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

Records – The first number indicates the total number of records of the taxon for the record option selected (i.e. All, Confirmed or Specimens).
This number is output as 99999 if it equals or exceeds this value. The second number located after the / indicates the number of specimen records for the taxon.
This number is output as 999 if it equals or exceeds this value.

Queensland Government

Wildlife Online Extract

Search Criteria: Species List for a Specified Point
Species: Animals
Type: Native
Status: All
Records: Confirmed
Date: Since 1980
Latitude: -22.7045
Longitude: 149.6867
Distance: 60
Email: lindsay@austecology.com.au
Date submitted: Thursday 19 Mar 2020 11:39:55
Date extracted: Thursday 19 Mar 2020 11:40:02

The number of records retrieved = 422

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Hylidae	*Litoria sp.*					1
animals	amphibians	Hylidae	*Cyclorana novaehollandiae*	eastern snapping frog		C		1
animals	amphibians	Hylidae	*Cyclorana alboguttata*	greenstripe frog		C		18/1
animals	amphibians	Hylidae	*Litoria latopalmata*	broad palmed rocketfrog		C		8
animals	amphibians	Hylidae	*Litoria gracilenta*	graceful treefrog		C		1
animals	amphibians	Hylidae	*Cyclorana brevipes*	superb collared frog		C		2/1
animals	amphibians	Hylidae	*Litoria wilcoxii*	eastern stony creek frog		C		2
animals	amphibians	Hylidae	*Litoria caerulea*	common green treefrog		C		29
animals	amphibians	Hylidae	*Litoria rubella*	ruddy treefrog		C		12/1
animals	amphibians	Hylidae	*Litoria fallax*	eastern sedgefrog		C		11
animals	amphibians	Hylidae	*Litoria nasuta*	striped rocketfrog		C		3/2
animals	amphibians	Hylidae	*Litoria rothii*	northern laughing treefrog		C		6
animals	amphibians	Hylidae	*Litoria inermis*	bumpy rocketfrog		C		7/2
animals	amphibians	Limnodynastidae	*Limnodynastes salmini*	salmon striped frog		C		6/2
animals	amphibians	Limnodynastidae	*Limnodynastes terraereginae*	scarlet sided pobblebonk		C		13/4
animals	amphibians	Limnodynastidae	*Limnodynastes peronii*	striped marshfrog		C		5/3
animals	amphibians	Limnodynastidae	*Platyplectrum ornatum*	ornate burrowing frog		C		19/10
animals	amphibians	Limnodynastidae	*Limnodynastes tasmaniensis*	spotted grassfrog		C		21/11
animals	amphibians	Myobatrachidae	*Pseudophryne major*	great brown broodfrog		C		1/1
animals	amphibians	Myobatrachidae	*Uperoleia rugosa*	chubby gungan		C		6/6
animals	amphibians	Myobatrachidae	*Crinia deserticola*	chirping froglet		C		6/3
animals	arachnids	Theraphosidae	*Selenocosmia sp.*			C		1
animals	birds	Acanthizidae	*Gerygone palpebrosa*	fairy gerygone		C		6
animals	birds	Acanthizidae	*Gerygone levigaster*	mangrove gerygone		C		1/1
animals	birds	Acanthizidae	*Gerygone olivacea*	white-throated gerygone		C		21/2
animals	birds	Acanthizidae	*Acanthiza pusilla*	brown thornbill		C		1
animals	birds	Acanthizidae	*Acanthiza nana*	yellow thornbill		C		3
animals	birds	Acanthizidae	*Smicrornis brevirostris*	weebill		C		7/2
animals	birds	Acanthizidae	*Sericornis magnirostra*	large-billed scrubwren		C		1
animals	birds	Acanthizidae	*Acanthiza chrysorrhoa*	yellow-rumped thornbill		C		2
animals	birds	Acanthizidae	*Sericornis frontalis*	white-browed scrubwren		C		6
animals	birds	Acanthizidae	*Acanthiza reguloides*	buff-rumped thornbill		C		3/3
animals	birds	Accipitridae	*Circus assimilis*	spotted harrier		C		1
animals	birds	Accipitridae	*Elanus axillaris*	black-shouldered kite		C		3
animals	birds	Accipitridae	*Haliastur indus*	brahminy kite		C		6/1
animals	birds	Accipitridae	*Milvus migrans*	black kite		C		6
animals	birds	Accipitridae	*Aquila audax*	wedge-tailed eagle		C		31/1
animals	birds	Accipitridae	*Pandion cristatus*	eastern osprey		SL		13/1
animals	birds	Accipitridae	*Lophoictinia isura*	square-tailed kite		C		1
animals	birds	Accipitridae	*Accipiter fasciatus*	brown goshawk		C		2
animals	birds	Accipitridae	*Aviceda subcristata*	Pacific baza		C		13/2
animals	birds	Accipitridae	*Haliastur sphenurus*	whistling kite		C		15
animals	birds	Accipitridae	*Haliaeetus leucogaster*	white-bellied sea-eagle		C		19/1
animals	birds	Accipitridae	*Hieraaetus morphnoides*	little eagle		C		2
animals	birds	Accipitridae	*Accipiter cirrocephalus*	collared sparrowhawk		C		1
animals	birds	Acrocephalidae	*Acrocephalus australis*	Australian reed-warbler		C		2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Aegothelidae	*Aegotheles cristatus*	Australian owlet-nightjar		C		7/1
animals	birds	Alaudidae	*Mirafra javanica*	Horsfield's bushlark		C		7/4
animals	birds	Alcedinidae	*Ceyx azureus*	azure kingfisher		C		7/3
animals	birds	Anatidae	*Anas superciliosa*	Pacific black duck		C		23
animals	birds	Anatidae	*Malacorhynchus membranaceus*	pink-eared duck		C		1
animals	birds	Anatidae	*Nettapus coromandelianus*	cotton pygmy-goose		C		10
animals	birds	Anatidae	*Dendrocygna arcuata*	wandering whistling-duck		C		3
animals	birds	Anatidae	*Dendrocygna eytoni*	plumed whistling-duck		C		6
animals	birds	Anatidae	*Chenonetta jubata*	Australian wood duck		C		12
animals	birds	Anatidae	*Aythya australis*	hardhead		C		10
animals	birds	Anatidae	*Cygnus atratus*	black swan		C		4
animals	birds	Anatidae	*Radjah radjah*	radjah shelduck		C		3/2
animals	birds	Anatidae	*Anas gracilis*	grey teal		C		14
animals	birds	Anhingidae	*Anhinga novaehollandiae*	Australasian darter		C		11
animals	birds	Anseranatidae	*Anseranas semipalmata*	magpie goose		C		9
animals	birds	Apodidae	*Hirundapus caudacutus*	white-throated needletail		V	V	1
animals	birds	Ardeidae	*Nycticorax caledonicus*	nankeen night-heron		C		1
animals	birds	Ardeidae	*Egretta novaehollandiae*	white-faced heron		C		28
animals	birds	Ardeidae	*Butorides striata*	striated heron		C		8/1
animals	birds	Ardeidae	*Bubulcus ibis*	cattle egret		C		13
animals	birds	Ardeidae	*Ardea alba modesta*	eastern great egret		C		16
animals	birds	Ardeidae	*Ardea pacifica*	white-necked heron		C		12
animals	birds	Ardeidae	*Ardea intermedia*	intermediate egret		C		7
animals	birds	Ardeidae	*Egretta garzetta*	little egret		C		6
animals	birds	Ardeidae	*Egretta sacra*	eastern reef egret		C		5
animals	birds	Artamidae	*Artamus minor*	little woodswallow		C		1/1
animals	birds	Artamidae	*Artamus cinereus*	black-faced woodswallow		C		17/4
animals	birds	Artamidae	*Strepera graculina*	pied currawong		C		53
animals	birds	Artamidae	*Gymnorhina tibicen*	Australian magpie		C		54/2
animals	birds	Artamidae	*Artamus leucorynchus*	white-breasted woodswallow		C		20
animals	birds	Artamidae	*Artamus superciliosus*	white-browed woodswallow		C		3
animals	birds	Artamidae	*Cracticus nigrogularis*	pied butcherbird		C		48/1
animals	birds	Artamidae	*Cracticus torquatus*	grey butcherbird		C		12
animals	birds	Burhinidae	*Esacus magnirostris*	beach stone-curlew		V		34/1
animals	birds	Burhinidae	*Burhinus grallarius*	bush stone-curlew		C		1
animals	birds	Cacatuidae	*Cacatua galerita*	sulphur-crested cockatoo		C		49
animals	birds	Cacatuidae	*Calyptorhynchus funereus*	yellow-tailed black-cockatoo		C		1
animals	birds	Cacatuidae	*Calyptorhynchus banksii*	red-tailed black-cockatoo		C		16
animals	birds	Cacatuidae	*Eolophus roseicapilla*	galah		C		14
animals	birds	Campephagidae	*Lalage leucomela*	varied triller		C		25
animals	birds	Campephagidae	*Coracina papuensis*	white-bellied cuckoo-shrike		C		11/3
animals	birds	Campephagidae	*Coracina tenuirostris*	cicadabird		C		7/3
animals	birds	Campephagidae	*Coracina novaehollandiae*	black-faced cuckoo-shrike		C		32/1
animals	birds	Campephagidae	*Lalage tricolor*	white-winged triller		C		3
animals	birds	Caprimulgidae	*Caprimulgus macrurus*	large-tailed nightjar		C		3
animals	birds	Casuariidae	*Dromaius novaehollandiae*	emu		C		10

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Charadriidae	*Charadrius sp.*					2
animals	birds	Charadriidae	*Vanellus miles*	masked lapwing		C		1
animals	birds	Charadriidae	*Pluvialis fulva*	Pacific golden plover		SL		4
animals	birds	Charadriidae	*Vanellus miles novaehollandiae*	masked lapwing (southern subspecies)		C		14
animals	birds	Charadriidae	*Charadrius leschenaultii*	greater sand plover		V	V	6
animals	birds	Charadriidae	*Vanellus tricolor*	banded lapwing		C		1
animals	birds	Charadriidae	*Charadrius mongolus*	lesser sand plover		E	E	13
animals	birds	Charadriidae	*Elseyornis melanops*	black-fronted dotterel		C		8
animals	birds	Charadriidae	*Pluvialis squatarola*	grey plover		SL		11
animals	birds	Charadriidae	*Charadrius ruficapillus*	red-capped plover		C		15
animals	birds	Ciconiidae	*Ephippiorhynchus asiaticus*	black-necked stork		C		4
animals	birds	Cisticolidae	*Cisticola exilis*	golden-headed cisticola		C		10/2
animals	birds	Climacteridae	*Climacteris picumnus*	brown treecreeper		C		3/1
animals	birds	Climacteridae	*Cormobates leucophaea metastasis*	white-throated treecreeper (southern)		C		3
animals	birds	Columbidae	*Macropygia amboinensis*	brown cuckoo-dove		C		2
animals	birds	Columbidae	*Phaps chalcoptera*	common bronzewing		C		2
animals	birds	Columbidae	*Geophaps scripta scripta*	squatter pigeon (southern subspecies)		V	V	62/2
animals	birds	Columbidae	*Lopholaimus antarcticus*	topknot pigeon		C		2
animals	birds	Columbidae	*Leucosarcia melanoleuca*	wonga pigeon		C		3
animals	birds	Columbidae	*Ptilinopus magnificus*	wompoo fruit-dove		C		1
animals	birds	Columbidae	*Geopelia humeralis*	bar-shouldered dove		C		36
animals	birds	Columbidae	*Chalcophaps indica*	emerald dove		C		6
animals	birds	Columbidae	*Ptilinopus regina*	rose-crowned fruit-dove		C		11
animals	birds	Columbidae	*Ocyphaps lophotes*	crested pigeon		C		9
animals	birds	Columbidae	*Geopelia striata*	peaceful dove		C		32
animals	birds	Columbidae	*Ducula bicolor*	pied imperial-pigeon		C		1
animals	birds	Coraciidae	*Eurystomus orientalis*	dollarbird		C		37/2
animals	birds	Corcoracidae	*Corcorax melanorhamphos*	white-winged chough		C		8
animals	birds	Corcoracidae	*Struthidea cinerea*	apostlebird		C		9
animals	birds	Corvidae	*Corvus coronoides*	Australian raven		C		1
animals	birds	Corvidae	*Corvus orru*	Torresian crow		C		73
animals	birds	Cuculidae	*Cacomantis pallidus*	pallid cuckoo		C		4
animals	birds	Cuculidae	*Chalcites minutillus barnardi*	Eastern little bronze-cuckoo		C		4
animals	birds	Cuculidae	*Chalcites lucidus*	shining bronze-cuckoo		C		7/1
animals	birds	Cuculidae	*Chalcites basalis*	Horsfield's bronze-cuckoo		C		2
animals	birds	Cuculidae	*Cuculus optatus*	oriental cuckoo		SL		1/1
animals	birds	Cuculidae	*Chalcites minutillus*	little bronze-cuckoo		C		1/1
animals	birds	Cuculidae	*Eudynamys orientalis*	eastern koel		C		13/5
animals	birds	Cuculidae	*Centropus phasianinus*	pheasant coucal		C		31/2
animals	birds	Cuculidae	*Cacomantis flabelliformis*	fan-tailed cuckoo		C		10
animals	birds	Cuculidae	*Scythrops novaehollandiae*	channel-billed cuckoo		C		25/4
animals	birds	Cuculidae	*Cacomantis variolosus*	brush cuckoo		C		1/1
animals	birds	Dicruridae	*Dicrurus bracteatus*	spangled drongo		C		35/2
animals	birds	Estrildidae	*Taeniopygia bichenovii*	double-barred finch		C		29/3
animals	birds	Estrildidae	*Taeniopygia guttata*	zebra finch		C		3
animals	birds	Estrildidae	*Neochmia phaeton phaeton*	crimson finch		C		1

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animals	birds	Estrildidae	*Lonchura castaneothorax*	chestnut-breasted mannikin		C		1/1
animals	birds	Eurostopodidae	*Eurostopodus mystacalis*	white-throated nightjar		C		4
animals	birds	Falconidae	*Falco berigora*	brown falcon		C		19/1
animals	birds	Falconidae	*Falco hypoleucos*	grey falcon		V		1
animals	birds	Falconidae	*Falco longipennis*	Australian hobby		C		1
animals	birds	Falconidae	*Falco cenchroides*	nankeen kestrel		C		19
animals	birds	Falconidae	*Falco peregrinus*	peregrine falcon		C		8
animals	birds	Gruidae	*Antigone rubicunda*	brolga		C		12
animals	birds	Haematopodidae	*Haematopus fuliginosus*	sooty oystercatcher		C		7
animals	birds	Haematopodidae	*Haematopus longirostris*	Australian pied oystercatcher		C		31/3
animals	birds	Halcyonidae	*Dacelo leachii*	blue-winged kookaburra		C		26/2
animals	birds	Halcyonidae	*Todiramphus macleayii*	forest kingfisher		C		30/1
animals	birds	Halcyonidae	*Todiramphus sordidus*	Torresian kingfisher		C		3/1
animals	birds	Halcyonidae	*Todiramphus pyrrhopygius*	red-backed kingfisher		C		1
animals	birds	Halcyonidae	*Dacelo novaeguineae*	laughing kookaburra		C		65/3
animals	birds	Halcyonidae	*Todiramphus sanctus*	sacred kingfisher		C		8
animals	birds	Hirundinidae	*Petrochelidon nigricans*	tree martin		C		3/1
animals	birds	Hirundinidae	*Petrochelidon ariel*	fairy martin		C		4
animals	birds	Hirundinidae	*Hirundo neoxena*	welcome swallow		C		16
animals	birds	Jacanidae	*Irediparra gallinacea*	comb-crested jacana		C		6/1
animals	birds	Laridae	*Thalasseus bergii*	crested tern		SL		10
animals	birds	Laridae	*Chlidonias hybrida*	whiskered tern		C		4
animals	birds	Laridae	*Hydroprogne caspia*	Caspian tern		SL		15/1
animals	birds	Laridae	*Chroicocephalus novaehollandiae*	silver gull		C		18
animals	birds	Laridae	*Gelochelidon nilotica*	gull-billed tern		SL		12
animals	birds	Laridae	*Thalasseus bengalensis*	lesser crested tern		C		4
animals	birds	Laridae	*Sternula albifrons*	little tern		SL		5
animals	birds	Maluridae	*Malurus melanocephalus*	red-backed fairy-wren		C		37
animals	birds	Maluridae	*Malurus sp.*					1
animals	birds	Megaluridae	*Megalurus gramineus*	little grassbird		C		1
animals	birds	Megaluridae	*Cincloramphus mathewsi*	rufous songlark		C		3
animals	birds	Megapodiidae	*Alectura lathami*	Australian brush-turkey		C		15
animals	birds	Megapodiidae	*Megapodius reinwardt*	orange-footed scrubfowl		C		2
animals	birds	Meliphagidae	*Manorina flavigula*	yellow-throated miner		C		8
animals	birds	Meliphagidae	*Myzomela obscura*	dusky honeyeater		C		2
animals	birds	Meliphagidae	*Melithreptus gularis*	black-chinned honeyeater		C		1
animals	birds	Meliphagidae	*Melithreptus lunatus*	white-naped honeyeater		C		1
animals	birds	Meliphagidae	*Philemon corniculatus*	noisy friarbird		C		43/2
animals	birds	Meliphagidae	*Ramsayornis fasciatus*	bar-breasted honeyeater		C		1/1
animals	birds	Meliphagidae	*Manorina melanocephala*	noisy miner		C		19
animals	birds	Meliphagidae	*Myzomela sanguinolenta*	scarlet honeyeater		C		14
animals	birds	Meliphagidae	*Philemon citreogularis*	little friarbird		C		17
animals	birds	Meliphagidae	*Gavicalis fasciogularis*	mangrove honeyeater		C		14
animals	birds	Meliphagidae	*Melithreptus albogularis*	white-throated honeyeater		C		41/5
animals	birds	Meliphagidae	*Plectorhyncha lanceolata*	striped honeyeater		C		1
animals	birds	Meliphagidae	*Epthianura crocea macgregori*	yellow chat (Dawson)		E	CE	50

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animals	birds	Meliphagidae	*Entomyzon cyanotis*	blue-faced honeyeater		C		25/4
animals	birds	Meliphagidae	*Meliphaga lewinii*	Lewin's honeyeater		C		50/1
animals	birds	Meliphagidae	*Stomiopera flava*	yellow honeyeater		C		12/2
animals	birds	Meliphagidae	*Lichmera indistincta*	brown honeyeater		C		17
animals	birds	Meropidae	*Merops ornatus*	rainbow bee-eater		C		88/1
animals	birds	Monarchidae	*Myiagra rubecula*	leaden flycatcher		C		26/2
animals	birds	Monarchidae	*Myiagra cyanoleuca*	satin flycatcher		SL		2
animals	birds	Monarchidae	*Myiagra ruficollis*	broad-billed flycatcher		C		1/1
animals	birds	Monarchidae	*Grallina cyanoleuca*	magpie-lark		C		26
animals	birds	Monarchidae	*Myiagra inquieta*	restless flycatcher		C		1
animals	birds	Monarchidae	*Carterornis leucotis*	white-eared monarch		C		7
animals	birds	Monarchidae	*Symposiachrus trivirgatus*	spectacled monarch		SL		3
animals	birds	Monarchidae	*Myiagra alecto*	shining flycatcher		C		4/4
animals	birds	Monarchidae	*Monarcha melanopsis*	black-faced monarch		SL		4
animals	birds	Motacillidae	*Anthus novaeseelandiae*	Australasian pipit		C		15
animals	birds	Nectariniidae	*Dicaeum hirundinaceum*	mistletoebird		C		24
animals	birds	Nectariniidae	*Cinnyris jugularis*	olive-backed sunbird		C		1
animals	birds	Oriolidae	*Oriolus sagittatus*	olive-backed oriole		C		10/1
animals	birds	Oriolidae	*Sphecotheres vieilloti*	Australasian figbird		C		26/1
animals	birds	Otididae	*Ardeotis australis*	Australian bustard		C		13/3
animals	birds	Pachycephalidae	*Pachycephala pectoralis*	golden whistler		C		6/1
animals	birds	Pachycephalidae	*Colluricincla megarhyncha*	little shrike-thrush		C		10
animals	birds	Pachycephalidae	*Pachycephala rufiventris*	rufous whistler		C		27
animals	birds	Pachycephalidae	*Colluricincla harmonica*	grey shrike-thrush		C		28/1
animals	birds	Pardalotidae	*Pardalotus punctatus*	spotted pardalote		C		1
animals	birds	Pardalotidae	*Pardalotus striatus*	striated pardalote		C		42/2
animals	birds	Pelecanidae	*Pelecanus conspicillatus*	Australian pelican		C		18/1
animals	birds	Petroicidae	*Petroica rosea*	rose robin		C		2/1
animals	birds	Petroicidae	*Microeca fascinans*	jacky winter		C		1/1
animals	birds	Petroicidae	*Eopsaltria australis*	eastern yellow robin		C		9
animals	birds	Phalacrocoracidae	*Phalacrocorax sulcirostris*	little black cormorant		C		13
animals	birds	Phalacrocoracidae	*Phalacrocorax varius*	pied cormorant		C		4
animals	birds	Phalacrocoracidae	*Microcarbo melanoleucos*	little pied cormorant		C		16
animals	birds	Phasianidae	*Coturnix ypsilophora*	brown quail		C		10
animals	birds	Pittidae	*Pitta versicolor*	noisy pitta		C		1
animals	birds	Podargidae	*Podargus strigoides*	tawny frogmouth		C		11
animals	birds	Podicipedidae	*Tachybaptus novaehollandiae*	Australasian grebe		C		17
animals	birds	Pomatostomidae	*Pomatostomus temporalis*	grey-crowned babbler		C		12/3
animals	birds	Procellariidae	*Ardenna tenuirostris*	short-tailed shearwater		SL		2/2
animals	birds	Psittacidae	*Platycercus adscitus*	pale-headed rosella		C		53/3
animals	birds	Psittacidae	*Glossopsitta concinna*	musk lorikeet		C		1
animals	birds	Psittacidae	*Alisterus scapularis*	Australian king-parrot		C		4
animals	birds	Psittacidae	*Aprosmictus erythropterus*	red-winged parrot		C		30
animals	birds	Psittacidae	*Trichoglossus haematodus moluccanus*	rainbow lorikeet		C		74/6
animals	birds	Psittacidae	*Trichoglossus chlorolepidotus*	scaly-breasted lorikeet		C		25/2
animals	birds	Psophodidae	*Psophodes olivaceus*	eastern whipbird		C		1

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animals	birds	Ptilonorhynchidae	*Ptilonorhynchus maculatus*	spotted bowerbird		C		1
animals	birds	Rallidae	*Porphyrio melanotus*	purple swamphen		C		5
animals	birds	Rallidae	*Gallinula tenebrosa*	dusky moorhen		C		11/3
animals	birds	Rallidae	*Gallirallus philippensis*	buff-banded rail		C		3/3
animals	birds	Rallidae	*Fulica atra*	Eurasian coot		C		2
animals	birds	Recurvirostridae	*Himantopus himantopus*	black-winged stilt		C		9
animals	birds	Rhipiduridae	*Rhipidura rufifrons*	rufous fantail		SL		10/1
animals	birds	Rhipiduridae	*Rhipidura albiscapa*	grey fantail		C		29/1
animals	birds	Rhipiduridae	*Rhipidura leucophrys*	willie wagtail		C		24
animals	birds	Scolopacidae	*Limosa limosa*	black-tailed godwit		SL		1
animals	birds	Scolopacidae	*Xenus cinereus*	terek sandpiper		SL		14
animals	birds	Scolopacidae	*Tringa brevipes*	grey-tailed tattler		SL		24/2
animals	birds	Scolopacidae	*Calidris canutus*	red knot		E	E	10
animals	birds	Scolopacidae	*Tringa nebularia*	common greenshank		SL		5
animals	birds	Scolopacidae	*Numenius phaeopus*	whimbrel		SL		52/2
animals	birds	Scolopacidae	*Arenaria interpres*	ruddy turnstone		SL		3
animals	birds	Scolopacidae	*Calidris acuminata*	sharp-tailed sandpiper		SL		8
animals	birds	Scolopacidae	*Calidris ferruginea*	curlew sandpiper		E	CE	8
animals	birds	Scolopacidae	*Calidris ruficollis*	red-necked stint		SL		22
animals	birds	Scolopacidae	*Gallinago hardwickii*	Latham's snipe		SL		3
animals	birds	Scolopacidae	*Calidris tenuirostris*	great knot		E	CE	27
animals	birds	Scolopacidae	*Limosa lapponica baueri*	Western Alaskan bar-tailed godwit		V	V	48/1
animals	birds	Scolopacidae	*Numenius madagascariensis*	eastern curlew		E	CE	46/1
animals	birds	Strigidae	*Ninox strenua*	powerful owl		V		1/1
animals	birds	Strigidae	*Ninox boobook*	southern boobook		C		15
animals	birds	Strigidae	*Ninox connivens*	barking owl		C		2/2
animals	birds	Sulidae	*Sula leucogaster*	brown booby		SL		1
animals	birds	Threskiornithidae	*Threskiornis spinicollis*	straw-necked ibis		C		11
animals	birds	Threskiornithidae	*Platalea regia*	royal spoonbill		C		5
animals	birds	Threskiornithidae	*Platalea flavipes*	yellow-billed spoonbill		C		6
animals	birds	Threskiornithidae	*Threskiornis molucca*	Australian white ibis		C		6
animals	birds	Timaliidae	*Zosterops lateralis*	silvereye		C		9
animals	birds	Turnicidae	*Turnix pyrrhothorax*	red-chested button-quail		C		2/1
animals	birds	Turnicidae	*Turnix melanogaster*	black-breasted button-quail		V	V	2
animals	birds	Turnicidae	*Turnix maculosus*	red-backed button-quail		C		1
animals	birds	Turnicidae	*Turnix varius*	painted button-quail		C		3/2
animals	birds	Tytonidae	*Tyto delicatula*	eastern barn owl		C		1
animals	insects	Formicidae	*Oecophylla smaragdina*	green tree ant				1
animals	mammals	Balaenopteridae	*Balaenoptera musculus*	blue whale		C	E	1/1
animals	mammals	Canidae	*Canis familiaris (dingo)*	dingo				6
animals	mammals	Dasyuridae	*Dasyurus hallucatus*	northern quoll		C	E	1
animals	mammals	Dasyuridae	*Planigale maculata*	common planigale		C		2/2
animals	mammals	Emballonuridae	*Saccolaimus flaviventris*	yellow-bellied sheathtail bat		C		13/1
animals	mammals	Macropodidae	*Macropus parryi*	whiptail wallaby		C		14
animals	mammals	Macropodidae	*Wallabia bicolor*	swamp wallaby		C		13
animals	mammals	Macropodidae	*Macropus dorsalis*	black-striped wallaby		C		13/2

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animals	mammals	Macropodidae	*Macropus agilis*	agile wallaby		C		15
animals	mammals	Macropodidae	*Macropus giganteus*	eastern grey kangaroo		C		21
animals	mammals	Macropodidae	*Macropus robustus*	common wallaroo		C		2
animals	mammals	Macropodidae	*Petrogale sp.*			C		1
animals	mammals	Macropodidae	*Petrogale herberti*	Herbert's rock-wallaby		C		2
animals	mammals	Macropodidae	*Petrogale inornata*	unadorned rock-wallaby		C		13/4
animals	mammals	Macropodidae	*Macropus rufogriseus*	red-necked wallaby		C		2/1
animals	mammals	Miniopteridae	*Miniopterus australis*	little bent-wing bat		C		4
animals	mammals	Miniopteridae	*Miniopterus schreibersii oceanensis*	eastern bent-wing bat		C		4
animals	mammals	Molossidae	*Mormopterus ridei*	eastern free-tailed bat		C		5
animals	mammals	Molossidae	*Mormopterus lumsdenae*	northern free-tailed bat		C		9
animals	mammals	Molossidae	*Chaerephon jobensis*	northern freetail bat		C		10
animals	mammals	Muridae	*Pseudomys gracilicaudatus*	eastern chestnut mouse		C		1/1
animals	mammals	Muridae	*Pseudomys delicatulus*	delicate mouse		C		1/1
animals	mammals	Muridae	*Hydromys chrysogaster*	water rat		C		1
animals	mammals	Muridae	*Melomys cervinipes*	fawn-footed melomys		C		2/2
animals	mammals	Muridae	*Melomys sp.*					1
animals	mammals	Muridae	*Rattus sp.*					5
animals	mammals	Peramelidae	*Isoodon macrourus*	northern brown bandicoot		C		15
animals	mammals	Peramelidae	*Perameles nasuta*	long-nosed bandicoot		C		2
animals	mammals	Petauridae	*Petaurus sp.*					1
animals	mammals	Petauridae	*Petaurus norfolcensis*	squirrel glider		C		1
animals	mammals	Petauridae	*Petaurus breviceps*	sugar glider		C		3
animals	mammals	Phalangeridae	*Trichosurus vulpecula*	common brushtail possum		C		14
animals	mammals	Phascolarctidae	*Phascolarctos cinereus*	koala		V	V	50
animals	mammals	Potoroidae	*Aepyprymnus rufescens*	rufous bettong		C		19/1
animals	mammals	Pseudocheiridae	*Pseudocheirus peregrinus*	common ringtail possum		C		4
animals	mammals	Pseudocheiridae	*Petauroides volans*	greater glider		V	V	12
animals	mammals	Pteropodidae	*Pteropus alecto*	black flying-fox		C		2
animals	mammals	Rhinolophidae	*Rhinolophus megaphyllus*	eastern horseshoe-bat		C		2
animals	mammals	Tachyglossidae	*Tachyglossus aculeatus*	short-beaked echidna		SL		16
animals	mammals	Vespertilionidae	*Vespadelus baverstocki*	inland forest bat		C		5
animals	mammals	Vespertilionidae	*Vespadelus troughtoni*	eastern cave bat		C		2
animals	mammals	Vespertilionidae	*Nyctophilus geoffroyi*	lesser long-eared bat		C		1
animals	mammals	Vespertilionidae	*Scotorepens sanborni*	northern broad-nosed bat		C		1
animals	mammals	Vespertilionidae	*Scotorepens balstoni*	inland broad-nosed bat		C		4
animals	mammals	Vespertilionidae	*Chalinolobus picatus*	little pied bat		C		6
animals	mammals	Vespertilionidae	*Chalinolobus gouldii*	Gould's wattled bat		C		9/1
animals	mammals	Vespertilionidae	*Scotorepens greyii*	little broad-nosed bat		C		8
animals	mammals	Vespertilionidae	*Chalinolobus morio*	chocolate wattled bat		C		1
animals	mammals	Vespertilionidae	*Scotorepens sp.*					8
animals	mammals	Vespertilionidae	*Nyctophilus sp.*					2
animals	mammals	Vespertilionidae	*Myotis macropus*	large-footed myotis		C		1
animals	mammals	Vespertilionidae	*Chalinolobus nigrogriseus*	hoary wattled bat		C		6
animals	mammals	Vespertilionidae	*Vespadelus sp.*					2
animals	ray-finned fishes	Ambassidae	*Ambassis agassizii*	Agassiz's glassfish				23

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	ray-finned fishes	Anguillidae	*Anguilla reinhardtii*	longfin eel				10
animals	ray-finned fishes	Apogonidae	*Glossamia aprion*	mouth almighty				11
animals	ray-finned fishes	Ariidae	*Neoarius graeffei*	blue catfish				92
animals	ray-finned fishes	Atherinidae	*Craterocephalus stercusmuscarum*	flyspecked hardyhead				23
animals	ray-finned fishes	Belonidae	*Strongylura krefftii*	freshwater longtom				22
animals	ray-finned fishes	Clupeidae	*Nematalosa erebi*	bony bream				198
animals	ray-finned fishes	Eleotridae	*Oxyeleotris lineolata*	sleepy cod				7
animals	ray-finned fishes	Eleotridae	*Hypseleotris compressa*	empire gudgeon				8
animals	ray-finned fishes	Eleotridae	*Hypseleotris species 1*	Midgley's carp gudgeon				3
animals	ray-finned fishes	Eleotridae	*Mogurnda adspersa*	southern purplespotted gudgeon				18
animals	ray-finned fishes	Eleotridae	*Hypseleotris klunzingeri*	western carp gudgeon				4
animals	ray-finned fishes	Eleotridae	*Hypseleotris galii*	firetail gudgeon				18
animals	ray-finned fishes	Eleotridae	*Philypnodon grandiceps*	flathead gudgeon				2
animals	ray-finned fishes	Hemiramphidae	*Arrhamphus sclerolepis*	snubnose garfish				4
animals	ray-finned fishes	Megalopidae	*Megalops cyprinoides*	oxeye herring				5
animals	ray-finned fishes	Melanotaeniidae	*Melanotaenia splendida splendida*	eastern rainbowfish				28
animals	ray-finned fishes	Osteoglossidae	*Scleropages leichardti*	southern saratoga				9
animals	ray-finned fishes	Percichthyidae	*Macquaria ambigua*	golden perch				6
animals	ray-finned fishes	Plotosidae	*Neosilurus hyrtlii*	Hyrtl's catfish				14
animals	ray-finned fishes	Plotosidae	*Tandanus tandanus*	freshwater catfish				13
animals	ray-finned fishes	Plotosidae	*Porochilus rendahli*	Rendahl's catfish				3
animals	ray-finned fishes	Plotosidae	*Neosilurus ater*	black catfish				1
animals	ray-finned fishes	Pseudomugilidae	*Pseudomugil signifer*	Pacific blue eye				8
animals	ray-finned fishes	Terapontidae	*Amniataba percoides*	barred grunter				15
animals	ray-finned fishes	Terapontidae	*Scortum hillii*	leathery grunter				14
animals	ray-finned fishes	Terapontidae	*Leiopotherapon unicolor*	spangled perch				20
animals	reptiles	Agamidae	*Chlamydosaurus kingii*	frilled lizard		C		5/1
animals	reptiles	Agamidae	*Intellagama lesueurii*	eastern water dragon		C		2
animals	reptiles	Agamidae	*Diporiphora australis*	tommy roundhead		C		6/3
animals	reptiles	Agamidae	*Diporiphora nobbi*	nobbi		C		4
animals	reptiles	Agamidae	*Diporiphora bilineata*	two-lined dragon		C		1
animals	reptiles	Boidae	*Antaresia maculosa*	spotted python		C		1
animals	reptiles	Boidae	*Aspidites melanocephalus*	black-headed python		C		4/1
animals	reptiles	Boidae	*Morelia spilota*	carpet python		C		4
animals	reptiles	Carphodactylidae	*Nephrurus asper*	spiny knob-tailed gecko		C		9
animals	reptiles	Chelidae	*Chelodina longicollis*	eastern snake-necked turtle		C		2/2
animals	reptiles	Chelidae	*Emydura macquarii krefftii*	Krefft's river turtle		C		16/1
animals	reptiles	Chelidae	*Wollumbinia latisternum*	saw-shelled turtle		C		11
animals	reptiles	Chelidae	*Elseya albagula*	southern snapping turtle		E	CE	4
animals	reptiles	Colubridae	*Dendrelaphis punctulatus*	green tree snake		C		15/2
animals	reptiles	Colubridae	*Boiga irregularis*	brown tree snake		C		6/1
animals	reptiles	Colubridae	*Tropidonophis mairii*	freshwater snake		C		6/1
animals	reptiles	Crocodylidae	*Crocodylus porosus*	estuarine crocodile		V		2
animals	reptiles	Diplodactylidae	*Lucasium steindachneri*	Steindachner's gecko		C		4/4
animals	reptiles	Diplodactylidae	*Oedura tryoni*	southern spotted velvet gecko		C		3/2
animals	reptiles	Diplodactylidae	*Strophurus williamsi*	soft-spined gecko		C		3

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	reptiles	Diplodactylidae	*Oedura monilis sensu lato*	ocellated velvet gecko		C		5/3
animals	reptiles	Diplodactylidae	*Amalosia rhombifer*	zig-zag gecko		C		3/3
animals	reptiles	Diplodactylidae	*Diplodactylus vittatus*	wood gecko		C		2/1
animals	reptiles	Elapidae	*Pseudonaja textilis*	eastern brown snake		C		3
animals	reptiles	Elapidae	*Hoplocephalus bitorquatus*	pale-headed snake		C		7/1
animals	reptiles	Elapidae	*Demansia psammophis*	yellow-faced whipsnake		C		1
animals	reptiles	Elapidae	*Cryptophis boschmai*	Carpentaria whip snake		C		3/1
animals	reptiles	Elapidae	*Demansia torquata*	collared whipsnake		C		4/1
animals	reptiles	Elapidae	*Suta suta*	myall snake		C		1/1
animals	reptiles	Elapidae	*Demansia vestigiata*	lesser black whipsnake		C		2/2
animals	reptiles	Elapidae	*Acanthophis antarcticus*	common death adder		V		1
animals	reptiles	Elapidae	*Oxyuranus scutellatus*	coastal taipan		C		2/1
animals	reptiles	Elapidae	*Cryptophis nigrescens*	eastern small-eyed snake		C		3/1
animals	reptiles	Elapidae	*Vermicella annulata*	bandy-bandy		C		2/1
animals	reptiles	Gekkonidae	*Gehyra dubia*	dubious dtella		C		23/1
animals	reptiles	Gekkonidae	*Heteronotia binoei*	Bynoe's gecko		C		50/3
animals	reptiles	Pygopodidae	*Lialis burtonis*	Burton's legless lizard		C		5/1
animals	reptiles	Pygopodidae	*Paradelma orientalis*	brigalow scaly-foot		C		1
animals	reptiles	Scincidae	*Glaphyromorphus punctulatus*	fine-spotted mulch-skink		C		11/7
animals	reptiles	Scincidae	*Carlia pectoralis sensu lato*			C		5
animals	reptiles	Scincidae	*Cryptoblepharus pulcher pulcher*	elegant snake-eyed skink		C		32
animals	reptiles	Scincidae	*Cryptoblepharus virgatus sensu lato*			C		5/4
animals	reptiles	Scincidae	*Carlia sp.*					4
animals	reptiles	Scincidae	*Menetia sp.*					1/1
animals	reptiles	Scincidae	*Carlia munda*	shaded-litter rainbow-skink		C		14/13
animals	reptiles	Scincidae	*Carlia vivax*	tussock rainbow-skink		C		7/2
animals	reptiles	Scincidae	*Ctenotus sp.*					1
animals	reptiles	Scincidae	*Carlia rubigo*	orange-flanked rainbow skink		C		27
animals	reptiles	Scincidae	*Eulamprus sp.*					1
animals	reptiles	Scincidae	*Anomalopus sp.*					1/1
animals	reptiles	Scincidae	*Menetia greyii*	common dwarf skink		C		1
animals	reptiles	Scincidae	*Concinnia tenuis*	bar-sided skink		C		1
animals	reptiles	Scincidae	*Eulamprus quoyii*	eastern water skink		C		2/1
animals	reptiles	Scincidae	*Carlia schmeltzii*	robust rainbow-skink		C		19/1
animals	reptiles	Scincidae	*Ctenotus spaldingi*	straight-browed ctenotus		C		2/2
animals	reptiles	Scincidae	*Tiliqua scincoides*	eastern blue-tongued lizard		C		1/1
animals	reptiles	Scincidae	*Carlia rhomboidalis*	blue-throated rainbow-skink		C		1/1
animals	reptiles	Scincidae	*Cryptoblepharus sp.*					5
animals	reptiles	Scincidae	*Lampropholis adonis*	diamond-shielded sunskink		C		1/1
animals	reptiles	Scincidae	*Lygisaurus foliorum*	tree-base litter-skink		C		33/7
animals	reptiles	Scincidae	*Concinnia brachysoma*	northern bar-sided skink		C		6
animals	reptiles	Scincidae	*Ctenotus taeniolatus*	copper-tailed skink		C		25/2
animals	reptiles	Scincidae	*Calyptotis temporalis*	broad-templed calyptotis		C		1
animals	reptiles	Scincidae	*Morethia taeniopleura*	fire-tailed skink		C		8
animals	reptiles	Scincidae	*Anomalopus brevicollis*	short-necked worm-skink		C		4/4
animals	reptiles	Scincidae	*Pygmaeascincus timlowi*	dwarf litter-skink		C		4/3

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	reptiles	Scincidae	*Cyclodomorphus gerrardii*	pink-tongued lizard		C		1/1
animals	reptiles	Scincidae	*Cryptoblepharus metallicus*	metallic snake-eyed skink		C		2
animals	reptiles	Scincidae	*Liburnascincus mundivensis*	outcrop rainbow-skink		C		3
animals	reptiles	Typhlopidae	*Anilios ligatus*	robust blind snake		C		1
animals	reptiles	Varanidae	*Varanus semiremex*	rusty monitor		C		1/1
animals	reptiles	Varanidae	*Varanus sp.*	goanna				1
animals	reptiles	Varanidae	*Varanus tristis*	black-tailed monitor		C		1
animals	uncertain	Indeterminate	*Indeterminate*	Unknown or Code Pending		C		13

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 in the Wild (PE), Endangered (E), Vulnerable (V), Near Threatened (NT), Least Concern (C) or Not Protected ( ).

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

Records – The first number indicates the total number of records of the taxon for the record option selected (i.e. All, Confirmed or Specimens).
This number is output as 99999 if it equals or exceeds this value. The second number located after the / indicates the number of specimen records for the taxon.
This number is output as 999 if it equals or exceeds this value.

Queensland Government

Wildlife Online Extract

Search Criteria: Species List for a Specified Point
Species: Animals
Type: Native
Status: All
Records: Confirmed
Date: Since 1980
Latitude: -22.7045
Longitude: 149.6867
Distance: 70
Email: lindsay@austecology.com.au
Date submitted: Thursday 19 Mar 2020 11:40:09
Date extracted: Thursday 19 Mar 2020 11:50:02

The number of records retrieved = 466

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Hylidae	*Litoria sp.*					3
animals	amphibians	Hylidae	*Cyclorana novaehollandiae*	eastern snapping frog		C		3/1
animals	amphibians	Hylidae	*Cyclorana alboguttata*	greenstripe frog		C		23/4
animals	amphibians	Hylidae	*Litoria latopalmata*	broad palmed rocketfrog		C		12/1
animals	amphibians	Hylidae	*Litoria gracilenta*	graceful treefrog		C		2/1
animals	amphibians	Hylidae	*Cyclorana brevipes*	superb collared frog		C		2/1
animals	amphibians	Hylidae	*Litoria wilcoxii*	eastern stony creek frog		C		11/5
animals	amphibians	Hylidae	*Litoria caerulea*	common green treefrog		C		38/2
animals	amphibians	Hylidae	*Litoria rubella*	ruddy treefrog		C		15/1
animals	amphibians	Hylidae	*Litoria inermis*	bumpy rocketfrog		C		11/6
animals	amphibians	Hylidae	*Litoria fallax*	eastern sedgefrog		C		13/2
animals	amphibians	Hylidae	*Litoria nasuta*	striped rocketfrog		C		3/2
animals	amphibians	Hylidae	*Litoria rothii*	northern laughing treefrog		C		7/1
animals	amphibians	Limnodynastidae	*Adelotus brevis*	tusked frog		V		2
animals	amphibians	Limnodynastidae	*Limnodynastes tasmaniensis*	spotted grassfrog		C		22/12
animals	amphibians	Limnodynastidae	*Limnodynastes terraereginae*	scarlet sided pobblebonk		C		13/4
animals	amphibians	Limnodynastidae	*Limnodynastes peronii*	striped marshfrog		C		5/3
animals	amphibians	Limnodynastidae	*Limnodynastes salmini*	salmon striped frog		C		7/2
animals	amphibians	Limnodynastidae	*Platyplectrum ornatum*	ornate burrowing frog		C		40/12
animals	amphibians	Myobatrachidae	*Uperoleia rugosa*	chubby gungan		C		6/6
animals	amphibians	Myobatrachidae	*Crinia deserticola*	chirping froglet		C		10/7
animals	amphibians	Myobatrachidae	*Pseudophryne major*	great brown broodfrog		C		3/3
animals	arachnids	Theraphosidae	*Selenocosmia sp.*			C		1
animals	birds	Acanthizidae	*Sericornis magnirostra*	large-billed scrubwren		C		1
animals	birds	Acanthizidae	*Acanthiza chrysorrhoa*	yellow-rumped thornbill		C		4
animals	birds	Acanthizidae	*Sericornis frontalis*	white-browed scrubwren		C		7
animals	birds	Acanthizidae	*Acanthiza reguloides*	buff-rumped thornbill		C		4/4
animals	birds	Acanthizidae	*Gerygone palpebrosa*	fairy gerygone		C		10/2
animals	birds	Acanthizidae	*Smicrornis brevirostris*	weebill		C		13/3
animals	birds	Acanthizidae	*Acanthiza apicalis*	inland thornbill		C		1
animals	birds	Acanthizidae	*Gerygone olivacea*	white-throated gerygone		C		34/4
animals	birds	Acanthizidae	*Acanthiza pusilla*	brown thornbill		C		1
animals	birds	Acanthizidae	*Acanthiza nana*	yellow thornbill		C		5
animals	birds	Acanthizidae	*Gerygone levigaster*	mangrove gerygone		C		1/1
animals	birds	Accipitridae	*Haliastur sphenurus*	whistling kite		C		29
animals	birds	Accipitridae	*Aviceda subcristata*	Pacific baza		C		15/3
animals	birds	Accipitridae	*Accipiter fasciatus*	brown goshawk		C		5/1
animals	birds	Accipitridae	*Lophoictinia isura*	square-tailed kite		C		2
animals	birds	Accipitridae	*Pandion cristatus*	eastern osprey		SL		35/1
animals	birds	Accipitridae	*Elanus axillaris*	black-shouldered kite		C		3
animals	birds	Accipitridae	*Circus assimilis*	spotted harrier		C		1
animals	birds	Accipitridae	*Haliastur indus*	brahminy kite		C		23/1
animals	birds	Accipitridae	*Milvus migrans*	black kite		C		7
animals	birds	Accipitridae	*Aquila audax*	wedge-tailed eagle		C		41/1
animals	birds	Accipitridae	*Haliaeetus leucogaster*	white-bellied sea-eagle		C		64/2
animals	birds	Accipitridae	*Accipiter cirrocephalus*	collared sparrowhawk		C		4

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Accipitridae	*Hieraaetus morphnoides*	little eagle		C		2
animals	birds	Acrocephalidae	*Acrocephalus australis*	Australian reed-warbler		C		2
animals	birds	Aegothelidae	*Aegotheles cristatus*	Australian owlet-nightjar		C		9/1
animals	birds	Alaudidae	*Mirafra javanica*	Horsfield's bushlark		C		7/4
animals	birds	Alcedinidae	*Ceyx azureus*	azure kingfisher		C		11/4
animals	birds	Anatidae	*Anas gracilis*	grey teal		C		16
animals	birds	Anatidae	*Malacorhynchus membranaceus*	pink-eared duck		C		1
animals	birds	Anatidae	*Nettapus coromandelianus*	cotton pygmy-goose		C		11
animals	birds	Anatidae	*Dendrocygna arcuata*	wandering whistling-duck		C		4
animals	birds	Anatidae	*Dendrocygna eytoni*	plumed whistling-duck		C		8
animals	birds	Anatidae	*Chenonetta jubata*	Australian wood duck		C		19
animals	birds	Anatidae	*Anas superciliosa*	Pacific black duck		C		34
animals	birds	Anatidae	*Aythya australis*	hardhead		C		12
animals	birds	Anatidae	*Cygnus atratus*	black swan		C		5
animals	birds	Anatidae	*Radjah radjah*	radjah shelduck		C		10/5
animals	birds	Anhingidae	*Anhinga novaehollandiae*	Australasian darter		C		18
animals	birds	Anseranatidae	*Anseranas semipalmata*	magpie goose		C		9
animals	birds	Apodidae	*Hirundapus caudacutus*	white-throated needletail		V	V	2
animals	birds	Ardeidae	*Ardea intermedia*	intermediate egret		C		9
animals	birds	Ardeidae	*Egretta garzetta*	little egret		C		8
animals	birds	Ardeidae	*Butorides striata*	striated heron		C		15/1
animals	birds	Ardeidae	*Ardea alba modesta*	eastern great egret		C		22
animals	birds	Ardeidae	*Ixobrychus flavicollis*	black bittern		C		1
animals	birds	Ardeidae	*Egretta novaehollandiae*	white-faced heron		C		47
animals	birds	Ardeidae	*Ardea pacifica*	white-necked heron		C		15
animals	birds	Ardeidae	*Egretta sacra*	eastern reef egret		C		36/2
animals	birds	Ardeidae	*Bubulcus ibis*	cattle egret		C		15
animals	birds	Ardeidae	*Nycticorax caledonicus*	nankeen night-heron		C		5
animals	birds	Artamidae	*Cracticus torquatus*	grey butcherbird		C		18/2
animals	birds	Artamidae	*Strepera graculina*	pied currawong		C		71
animals	birds	Artamidae	*Gymnorhina tibicen*	Australian magpie		C		79/2
animals	birds	Artamidae	*Artamus personatus*	masked woodswallow		C		2
animals	birds	Artamidae	*Artamus leucorynchus*	white-breasted woodswallow		C		29/1
animals	birds	Artamidae	*Artamus minor*	little woodswallow		C		1/1
animals	birds	Artamidae	*Artamus superciliosus*	white-browed woodswallow		C		4
animals	birds	Artamidae	*Cracticus nigrogularis*	pied butcherbird		C		63/1
animals	birds	Artamidae	*Artamus cinereus*	black-faced woodswallow		C		19/6
animals	birds	Burhinidae	*Esacus magnirostris*	beach stone-curlew		V		72/1
animals	birds	Burhinidae	*Burhinus grallarius*	bush stone-curlew		C		3
animals	birds	Cacatuidae	*Calyptorhynchus banksii*	red-tailed black-cockatoo		C		22
animals	birds	Cacatuidae	*Calyptorhynchus funereus*	yellow-tailed black-cockatoo		C		1
animals	birds	Cacatuidae	*Nymphicus hollandicus*	cockatiel		C		3
animals	birds	Cacatuidae	*Eolophus roseicapilla*	galah		C		15
animals	birds	Cacatuidae	*Cacatua galerita*	sulphur-crested cockatoo		C		70/2
animals	birds	Campephagidae	*Coracina novaehollandiae*	black-faced cuckoo-shrike		C		42/1
animals	birds	Campephagidae	*Coracina tenuirostris*	cicadabird		C		10/4

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Campephagidae	*Coracina papuensis*	white-bellied cuckoo-shrike		C		17/5
animals	birds	Campephagidae	*Lalage tricolor*	white-winged triller		C		3
animals	birds	Campephagidae	*Lalage leucomela*	varied triller		C		36/2
animals	birds	Caprimulgidae	*Caprimulgus macrurus*	large-tailed nightjar		C		4/1
animals	birds	Casuariidae	*Dromaius novaehollandiae*	emu		C		13
animals	birds	Charadriidae	*Charadrius mongolus*	lesser sand plover		E	E	22/1
animals	birds	Charadriidae	*Elseyornis melanops*	black-fronted dotterel		C		11/2
animals	birds	Charadriidae	*Pluvialis squatarola*	grey plover		SL		13
animals	birds	Charadriidae	*Vanellus miles*	masked lapwing		C		1
animals	birds	Charadriidae	*Charadrius leschenaultii*	greater sand plover		V	V	7
animals	birds	Charadriidae	*Vanellus miles novaehollandiae*	masked lapwing (southern subspecies)		C		17
animals	birds	Charadriidae	*Charadrius sp.*					2
animals	birds	Charadriidae	*Vanellus tricolor*	banded lapwing		C		1
animals	birds	Charadriidae	*Pluvialis fulva*	Pacific golden plover		SL		12/1
animals	birds	Charadriidae	*Charadrius ruficapillus*	red-capped plover		C		25
animals	birds	Ciconiidae	*Ephippiorhynchus asiaticus*	black-necked stork		C		7
animals	birds	Cisticolidae	*Cisticola exilis*	golden-headed cisticola		C		17/2
animals	birds	Climacteridae	*Climacteris picumnus*	brown treecreeper		C		3/1
animals	birds	Climacteridae	*Cormobates leucophaea metastasis*	white-throated treecreeper (southern)		C		4
animals	birds	Columbidae	*Geophaps scripta scripta*	squatter pigeon (southern subspecies)		V	V	73/2
animals	birds	Columbidae	*Lopholaimus antarcticus*	topknot pigeon		C		2
animals	birds	Columbidae	*Leucosarcia melanoleuca*	wonga pigeon		C		3
animals	birds	Columbidae	*Macropygia amboinensis*	brown cuckoo-dove		C		4/1
animals	birds	Columbidae	*Ptilinopus magnificus*	wompoo fruit-dove		C		1
animals	birds	Columbidae	*Geopelia humeralis*	bar-shouldered dove		C		70
animals	birds	Columbidae	*Chalcophaps indica*	emerald dove		C		7
animals	birds	Columbidae	*Ptilinopus regina*	rose-crowned fruit-dove		C		19
animals	birds	Columbidae	*Phaps chalcoptera*	common bronzewing		C		3
animals	birds	Columbidae	*Ocyphaps lophotes*	crested pigeon		C		14
animals	birds	Columbidae	*Geopelia striata*	peaceful dove		C		46/1
animals	birds	Columbidae	*Ducula bicolor*	pied imperial-pigeon		C		2
animals	birds	Coraciidae	*Eurystomus orientalis*	dollarbird		C		48/4
animals	birds	Corcoracidae	*Corcorax melanorhamphos*	white-winged chough		C		14
animals	birds	Corcoracidae	*Struthidea cinerea*	apostlebird		C		14
animals	birds	Corvidae	*Corvus orru*	Torresian crow		C		128
animals	birds	Corvidae	*Corvus coronoides*	Australian raven		C		1
animals	birds	Cuculidae	*Cacomantis flabelliformis*	fan-tailed cuckoo		C		16/1
animals	birds	Cuculidae	*Centropus phasianinus*	pheasant coucal		C		44/6
animals	birds	Cuculidae	*Cacomantis variolosus*	brush cuckoo		C		1/1
animals	birds	Cuculidae	*Eudynamys orientalis*	eastern koel		C		21/6
animals	birds	Cuculidae	*Chalcites minutillus*	little bronze-cuckoo		C		3/2
animals	birds	Cuculidae	*Scythrops novaehollandiae*	channel-billed cuckoo		C		35/4
animals	birds	Cuculidae	*Chalcites lucidus*	shining bronze-cuckoo		C		15/3
animals	birds	Cuculidae	*Chalcites basalis*	Horsfield's bronze-cuckoo		C		2
animals	birds	Cuculidae	*Cuculus optatus*	oriental cuckoo		SL		3/3
animals	birds	Cuculidae	*Chalcites minutillus barnardi*	Eastern little bronze-cuckoo		C		4

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animals	birds	Cuculidae	*Cacomantis pallidus*	pallid cuckoo		C		5
animals	birds	Dicruridae	*Dicrurus bracteatus*	spangled drongo		C		43/2
animals	birds	Estrildidae	*Taeniopygia guttata*	zebra finch		C		4
animals	birds	Estrildidae	*Neochmia temporalis*	red-browed finch		C		2/2
animals	birds	Estrildidae	*Neochmia phaeton phaeton*	crimson finch		C		1
animals	birds	Estrildidae	*Taeniopygia bichenovii*	double-barred finch		C		39/3
animals	birds	Estrildidae	*Lonchura castaneothorax*	chestnut-breasted mannikin		C		4/2
animals	birds	Eurostopodidae	*Eurostopodus mystacalis*	white-throated nightjar		C		6/1
animals	birds	Falconidae	*Falco berigora*	brown falcon		C		21/1
animals	birds	Falconidae	*Falco hypoleucos*	grey falcon		V		1
animals	birds	Falconidae	*Falco longipennis*	Australian hobby		C		4
animals	birds	Falconidae	*Falco cenchroides*	nankeen kestrel		C		21
animals	birds	Falconidae	*Falco peregrinus*	peregrine falcon		C		9
animals	birds	Gruidae	*Antigone rubicunda*	brolga		C		14
animals	birds	Haematopodidae	*Haematopus fuliginosus*	sooty oystercatcher		C		35/4
animals	birds	Haematopodidae	*Haematopus longirostris*	Australian pied oystercatcher		C		57/3
animals	birds	Halcyonidae	*Dacelo leachii*	blue-winged kookaburra		C		33/4
animals	birds	Halcyonidae	*Todiramphus macleayii*	forest kingfisher		C		42/1
animals	birds	Halcyonidae	*Todiramphus sordidus*	Torresian kingfisher		C		7/1
animals	birds	Halcyonidae	*Todiramphus pyrrhopygius*	red-backed kingfisher		C		1
animals	birds	Halcyonidae	*Dacelo novaeguineae*	laughing kookaburra		C		99/4
animals	birds	Halcyonidae	*Todiramphus sanctus*	sacred kingfisher		C		19
animals	birds	Hirundinidae	*Petrochelidon nigricans*	tree martin		C		3/1
animals	birds	Hirundinidae	*Petrochelidon ariel*	fairy martin		C		7
animals	birds	Hirundinidae	*Hirundo neoxena*	welcome swallow		C		32/3
animals	birds	Jacanidae	*Irediparra gallinacea*	comb-crested jacana		C		6/1
animals	birds	Laridae	*Sterna hirundo*	common tern		SL		1
animals	birds	Laridae	*Thalasseus bergii*	crested tern		SL		25/2
animals	birds	Laridae	*Chlidonias hybrida*	whiskered tern		C		4
animals	birds	Laridae	*Hydroprogne caspia*	Caspian tern		SL		36/1
animals	birds	Laridae	*Sternula albifrons*	little tern		SL		6
animals	birds	Laridae	*Gelochelidon nilotica*	gull-billed tern		SL		15
animals	birds	Laridae	*Thalasseus bengalensis*	lesser crested tern		C		8
animals	birds	Laridae	*Chroicocephalus novaehollandiae*	silver gull		C		55/2
animals	birds	Maluridae	*Malurus sp.*					1
animals	birds	Maluridae	*Malurus lamberti*	variegated fairy-wren		C		1
animals	birds	Maluridae	*Malurus melanocephalus*	red-backed fairy-wren		C		53
animals	birds	Megaluridae	*Cincloramphus mathewsi*	rufous songlark		C		4/1
animals	birds	Megaluridae	*Megalurus gramineus*	little grassbird		C		1
animals	birds	Megapodiidae	*Megapodius reinwardt*	orange-footed scrubfowl		C		5/1
animals	birds	Megapodiidae	*Alectura lathami*	Australian brush-turkey		C		23/1
animals	birds	Meliphagidae	*Meliphaga lewinii*	Lewin's honeyeater		C		67/4
animals	birds	Meliphagidae	*Entomyzon cyanotis*	blue-faced honeyeater		C		31/6
animals	birds	Meliphagidae	*Manorina flavigula*	yellow-throated miner		C		8
animals	birds	Meliphagidae	*Gavicalis versicolor*	varied honeyeater		C		1/1
animals	birds	Meliphagidae	*Lichmera indistincta*	brown honeyeater		C		33/1

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animals	birds	Meliphagidae	*Melithreptus gularis*	black-chinned honeyeater		C		5/3
animals	birds	Meliphagidae	*Melithreptus lunatus*	white-naped honeyeater		C		2
animals	birds	Meliphagidae	*Philemon corniculatus*	noisy friarbird		C		62/5
animals	birds	Meliphagidae	*Ptilotula penicillata*	white-plumed honeyeater		C		1
animals	birds	Meliphagidae	*Ramsayornis fasciatus*	bar-breasted honeyeater		C		5/5
animals	birds	Meliphagidae	*Manorina melanocephala*	noisy miner		C		24/1
animals	birds	Meliphagidae	*Myzomela sanguinolenta*	scarlet honeyeater		C		21/1
animals	birds	Meliphagidae	*Philemon citreogularis*	little friarbird		C		26/3
animals	birds	Meliphagidae	*Stomiopera flava*	yellow honeyeater		C		12/2
animals	birds	Meliphagidae	*Myzomela obscura*	dusky honeyeater		C		14/1
animals	birds	Meliphagidae	*Ptilotula fusca*	fuscous honeyeater		C		4/4
animals	birds	Meliphagidae	*Epthianura crocea macgregori*	yellow chat (Dawson)		E	CE	50
animals	birds	Meliphagidae	*Acanthorhynchus tenuirostris*	eastern spinebill		C		1
animals	birds	Meliphagidae	*Plectorhyncha lanceolata*	striped honeyeater		C		2
animals	birds	Meliphagidae	*Gavicalis fasciogularis*	mangrove honeyeater		C		27/1
animals	birds	Meliphagidae	*Melithreptus albogularis*	white-throated honeyeater		C		58/7
animals	birds	Meropidae	*Merops ornatus*	rainbow bee-eater		C		113/2
animals	birds	Monarchidae	*Myiagra cyanoleuca*	satin flycatcher		SL		3
animals	birds	Monarchidae	*Myiagra ruficollis*	broad-billed flycatcher		C		2/1
animals	birds	Monarchidae	*Grallina cyanoleuca*	magpie-lark		C		34
animals	birds	Monarchidae	*Monarcha melanopsis*	black-faced monarch		SL		4
animals	birds	Monarchidae	*Myiagra inquieta*	restless flycatcher		C		2
animals	birds	Monarchidae	*Symposiachrus trivirgatus*	spectacled monarch		SL		4
animals	birds	Monarchidae	*Myiagra alecto*	shining flycatcher		C		7/5
animals	birds	Monarchidae	*Myiagra rubecula*	leaden flycatcher		C		44/5
animals	birds	Monarchidae	*Carterornis leucotis*	white-eared monarch		C		10/2
animals	birds	Motacillidae	*Anthus novaeseelandiae*	Australasian pipit		C		16/1
animals	birds	Nectariniidae	*Cinnyris jugularis*	olive-backed sunbird		C		7
animals	birds	Nectariniidae	*Dicaeum hirundinaceum*	mistletoebird		C		33
animals	birds	Neosittidae	*Daphoenositta chrysoptera*	varied sittella		C		4/4
animals	birds	Oriolidae	*Oriolus sagittatus*	olive-backed oriole		C		14/1
animals	birds	Oriolidae	*Sphecotheres vieilloti*	Australasian figbird		C		30/1
animals	birds	Otididae	*Ardeotis australis*	Australian bustard		C		15/3
animals	birds	Pachycephalidae	*Pachycephala melanura*	mangrove golden whistler		C		2/1
animals	birds	Pachycephalidae	*Pachycephala rufiventris*	rufous whistler		C		53/1
animals	birds	Pachycephalidae	*Colluricincla megarhyncha*	little shrike-thrush		C		17/1
animals	birds	Pachycephalidae	*Colluricincla harmonica*	grey shrike-thrush		C		35/1
animals	birds	Pachycephalidae	*Pachycephala pectoralis*	golden whistler		C		13/4
animals	birds	Pardalotidae	*Pardalotus striatus*	striated pardalote		C		67/4
animals	birds	Pardalotidae	*Pardalotus rubricatus*	red-browed pardalote		C		1
animals	birds	Pardalotidae	*Pardalotus punctatus*	spotted pardalote		C		3
animals	birds	Pelecanidae	*Pelecanus conspicillatus*	Australian pelican		C		60/1
animals	birds	Petroicidae	*Petroica rosea*	rose robin		C		3/2
animals	birds	Petroicidae	*Eopsaltria australis*	eastern yellow robin		C		10
animals	birds	Petroicidae	*Microeca fascinans*	jacky winter		C		2/2
animals	birds	Phalacrocoracidae	*Phalacrocorax varius*	pied cormorant		C		22

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Phalacrocoracidae	*Microcarbo melanoleucos*	little pied cormorant		C		21
animals	birds	Phalacrocoracidae	*Phalacrocorax sulcirostris*	little black cormorant		C		15
animals	birds	Phalacrocoracidae	*Phalacrocorax carbo*	great cormorant		C		1
animals	birds	Phasianidae	*Coturnix ypsilophora*	brown quail		C		18/1
animals	birds	Pittidae	*Pitta versicolor*	noisy pitta		C		1
animals	birds	Podargidae	*Podargus strigoides*	tawny frogmouth		C		18
animals	birds	Podicipedidae	*Tachybaptus novaehollandiae*	Australasian grebe		C		21
animals	birds	Pomatostomidae	*Pomatostomus temporalis*	grey-crowned babbler		C		17/3
animals	birds	Procellariidae	*Ardenna tenuirostris*	short-tailed shearwater		SL		2/2
animals	birds	Psittacidae	*Trichoglossus haematodus moluccanus*	rainbow lorikeet		C		114/10
animals	birds	Psittacidae	*Trichoglossus chlorolepidotus*	scaly-breasted lorikeet		C		33/3
animals	birds	Psittacidae	*Aprosmictus erythropterus*	red-winged parrot		C		37
animals	birds	Psittacidae	*Glossopsitta concinna*	musk lorikeet		C		1
animals	birds	Psittacidae	*Platycercus adscitus*	pale-headed rosella		C		70/5
animals	birds	Psittacidae	*Alisterus scapularis*	Australian king-parrot		C		7
animals	birds	Psittacidae	*Parvipsitta pusilla*	little lorikeet		C		5/2
animals	birds	Psophodidae	*Psophodes olivaceus*	eastern whipbird		C		1
animals	birds	Ptilonorhynchidae	*Ptilonorhynchus maculatus*	spotted bowerbird		C		1
animals	birds	Rallidae	*Porphyrio melanotus*	purple swamphen		C		5
animals	birds	Rallidae	*Gallinula tenebrosa*	dusky moorhen		C		13/3
animals	birds	Rallidae	*Fulica atra*	Eurasian coot		C		3
animals	birds	Rallidae	*Gallirallus philippensis*	buff-banded rail		C		3/3
animals	birds	Recurvirostridae	*Himantopus himantopus*	black-winged stilt		C		9
animals	birds	Rhipiduridae	*Rhipidura rufifrons*	rufous fantail		SL		12/1
animals	birds	Rhipiduridae	*Rhipidura albiscapa*	grey fantail		C		43/1
animals	birds	Rhipiduridae	*Rhipidura leucophrys*	willie wagtail		C		36
animals	birds	Scolopacidae	*Limosa limosa*	black-tailed godwit		SL		1
animals	birds	Scolopacidae	*Tringa incana*	wandering tattler		SL		2/1
animals	birds	Scolopacidae	*Xenus cinereus*	terek sandpiper		SL		15
animals	birds	Scolopacidae	*Tringa brevipes*	grey-tailed tattler		SL		38/3
animals	birds	Scolopacidae	*Calidris canutus*	red knot		E	E	11
animals	birds	Scolopacidae	*Heteroscelus sp.*					4
animals	birds	Scolopacidae	*Tringa nebularia*	common greenshank		SL		5
animals	birds	Scolopacidae	*Numenius phaeopus*	whimbrel		SL		79/2
animals	birds	Scolopacidae	*Actitis hypoleucos*	common sandpiper		SL		1
animals	birds	Scolopacidae	*Arenaria interpres*	ruddy turnstone		SL		9
animals	birds	Scolopacidae	*Calidris acuminata*	sharp-tailed sandpiper		SL		8
animals	birds	Scolopacidae	*Calidris ferruginea*	curlew sandpiper		E	CE	8
animals	birds	Scolopacidae	*Calidris ruficollis*	red-necked stint		SL		31/3
animals	birds	Scolopacidae	*Gallinago hardwickii*	Latham's snipe		SL		4
animals	birds	Scolopacidae	*Calidris tenuirostris*	great knot		E	CE	35/1
animals	birds	Scolopacidae	*Limosa lapponica baueri*	Western Alaskan bar-tailed godwit		V	V	62/1
animals	birds	Scolopacidae	*Numenius madagascariensis*	eastern curlew		E	CE	62/1
animals	birds	Strigidae	*Ninox boobook*	southern boobook		C		23/1
animals	birds	Strigidae	*Ninox strenua*	powerful owl		V		3/1
animals	birds	Strigidae	*Ninox connivens*	barking owl		C		6/5

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animals	birds	Strigidae	*Ninox rufa queenslandica*	rufous owl (southern subspecies)		C		1
animals	birds	Sulidae	*Morus serrator*	Australasian gannet		C		1
animals	birds	Sulidae	*Sula leucogaster*	brown booby		SL		1
animals	birds	Threskiornithidae	*Threskiornis molucca*	Australian white ibis		C		11
animals	birds	Threskiornithidae	*Threskiornis spinicollis*	straw-necked ibis		C		13
animals	birds	Threskiornithidae	*Platalea flavipes*	yellow-billed spoonbill		C		6
animals	birds	Threskiornithidae	*Platalea regia*	royal spoonbill		C		6
animals	birds	Timaliidae	*Zosterops lateralis*	silvereye		C		35/11
animals	birds	Turnicidae	*Turnix melanogaster*	black-breasted button-quail		V	V	2
animals	birds	Turnicidae	*Turnix pyrrhothorax*	red-chested button-quail		C		2/1
animals	birds	Turnicidae	*Turnix maculosus*	red-backed button-quail		C		2/1
animals	birds	Turnicidae	*Turnix varius*	painted button-quail		C		5/4
animals	birds	Tytonidae	*Tyto delicatula*	eastern barn owl		C		1
animals	insects	Formicidae	*Oecophylla smaragdina*	green tree ant				1
animals	insects	Lycaenidae	*Hypolycaena phorbas phorbas*	black-spotted flash				1
animals	mammals	Balaenopteridae	*Balaenoptera musculus*	blue whale		C	E	1/1
animals	mammals	Canidae	*Canis familiaris (dingo)*	dingo				14
animals	mammals	Dasyuridae	*Dasyurus hallucatus*	northern quoll		C	E	1
animals	mammals	Dasyuridae	*Planigale maculata*	common planigale		C		3/3
animals	mammals	Delphinidae	*Orcaella heinsohni*	Australian snubfin dolphin		V		1
animals	mammals	Emballonuridae	*Saccolaimus flaviventris*	yellow-bellied sheathtail bat		C		15/2
animals	mammals	Emballonuridae	*Taphozous troughtoni*	Troughton's sheathtail bat		C		2/1
animals	mammals	Emballonuridae	*Taphozous australis*	coastal sheathtail bat		NT		1/1
animals	mammals	Macropodidae	*Macropus robustus*	common wallaroo		C		2
animals	mammals	Macropodidae	*Macropus giganteus*	eastern grey kangaroo		C		26
animals	mammals	Macropodidae	*Petrogale herberti*	Herbert's rock-wallaby		C		9/2
animals	mammals	Macropodidae	*Macropus dorsalis*	black-striped wallaby		C		14/3
animals	mammals	Macropodidae	*Macropus rufogriseus*	red-necked wallaby		C		3/1
animals	mammals	Macropodidae	*Petrogale inornata*	unadorned rock-wallaby		C		13/4
animals	mammals	Macropodidae	*Wallabia bicolor*	swamp wallaby		C		13
animals	mammals	Macropodidae	*Macropus parryi*	whiptail wallaby		C		15
animals	mammals	Macropodidae	*Macropus agilis*	agile wallaby		C		19/1
animals	mammals	Macropodidae	*Petrogale sp.*			C		1
animals	mammals	Macropodidae	*Onychogalea fraenata*	bridled nailtail wallaby		E	E	1
animals	mammals	Macropodidae	*Macropus sp.*					1
animals	mammals	Miniopteridae	*Miniopterus australis*	little bent-wing bat		C		7/1
animals	mammals	Miniopteridae	*Miniopterus schreibersii oceanensis*	eastern bent-wing bat		C		5
animals	mammals	Molossidae	*Mormopterus ridei*	eastern free-tailed bat		C		6
animals	mammals	Molossidae	*Chaerephon jobensis*	northern freetail bat		C		12/1
animals	mammals	Molossidae	*Mormopterus lumsdenae*	northern free-tailed bat		C		11/1
animals	mammals	Muridae	*Pseudomys gracilicaudatus*	eastern chestnut mouse		C		7/7
animals	mammals	Muridae	*Pseudomys delicatulus*	delicate mouse		C		1/1
animals	mammals	Muridae	*Hydromys chrysogaster*	water rat		C		5
animals	mammals	Muridae	*Melomys cervinipes*	fawn-footed melomys		C		2/2
animals	mammals	Muridae	*Melomys sp.*					1
animals	mammals	Muridae	*Rattus sp.*					5

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animals	mammals	Ornithorhynchidae	*Ornithorhynchus anatinus*	platypus		SL		1
animals	mammals	Peramelidae	*Isoodon macrourus*	northern brown bandicoot		C		15
animals	mammals	Peramelidae	*Perameles nasuta*	long-nosed bandicoot		C		3
animals	mammals	Petauridae	*Petaurus norfolcensis*	squirrel glider		C		1
animals	mammals	Petauridae	*Petaurus sp.*					1
animals	mammals	Petauridae	*Petaurus breviceps*	sugar glider		C		4/1
animals	mammals	Phalangeridae	*Trichosurus vulpecula*	common brushtail possum		C		16
animals	mammals	Phascolarctidae	*Phascolarctos cinereus*	koala		V	V	52
animals	mammals	Potoroidae	*Aepyprymnus rufescens*	rufous bettong		C		28/4
animals	mammals	Pseudocheiridae	*Petauroides volans*	greater glider		V	V	16
animals	mammals	Pseudocheiridae	*Pseudocheirus peregrinus*	common ringtail possum		C		4
animals	mammals	Pteropodidae	*Pteropus alecto*	black flying-fox		C		5/1
animals	mammals	Pteropodidae	*Syconycteris australis*	eastern blossom bat		C		2/2
animals	mammals	Rhinolophidae	*Rhinolophus megaphyllus*	eastern horseshoe-bat		C		4
animals	mammals	Tachyglossidae	*Tachyglossus aculeatus*	short-beaked echidna		SL		16
animals	mammals	Vespertilionidae	*Chalinolobus nigrogriseus*	hoary wattled bat		C		13/5
animals	mammals	Vespertilionidae	*Vespadelus baverstocki*	inland forest bat		C		5
animals	mammals	Vespertilionidae	*Vespadelus troughtoni*	eastern cave bat		C		6/2
animals	mammals	Vespertilionidae	*Nyctophilus geoffroyi*	lesser long-eared bat		C		1
animals	mammals	Vespertilionidae	*Scotorepens sanborni*	northern broad-nosed bat		C		1
animals	mammals	Vespertilionidae	*Scotorepens balstoni*	inland broad-nosed bat		C		4
animals	mammals	Vespertilionidae	*Chalinolobus picatus*	little pied bat		C		6
animals	mammals	Vespertilionidae	*Chalinolobus gouldii*	Gould's wattled bat		C		15/6
animals	mammals	Vespertilionidae	*Kerivoula papuensis*	golden-tipped bat		C		1/1
animals	mammals	Vespertilionidae	*Chalinolobus dwyeri*	large-eared pied bat		V	V	1/1
animals	mammals	Vespertilionidae	*Scotorepens greyii*	little broad-nosed bat		C		12/3
animals	mammals	Vespertilionidae	*Chalinolobus morio*	chocolate wattled bat		C		2
animals	mammals	Vespertilionidae	*Scotorepens sp.*					10
animals	mammals	Vespertilionidae	*Nyctophilus sp.*					2
animals	mammals	Vespertilionidae	*Vespadelus sp.*					2
animals	mammals	Vespertilionidae	*Myotis macropus*	large-footed myotis		C		1
animals	ray-finned fishes	Ambassidae	*Ambassis agassizii*	Agassiz's glassfish				27
animals	ray-finned fishes	Anguillidae	*Anguilla reinhardtii*	longfin eel				11
animals	ray-finned fishes	Apogonidae	*Glossamia aprion*	mouth almighty				12
animals	ray-finned fishes	Ariidae	*Neoarius graeffei*	blue catfish				233
animals	ray-finned fishes	Atherinidae	*Craterocephalus stercusmuscarum*	flyspecked hardyhead				29
animals	ray-finned fishes	Belonidae	*Strongylura krefftii*	freshwater longtom				38
animals	ray-finned fishes	Clupeidae	*Nematalosa erebi*	bony bream				482
animals	ray-finned fishes	Eleotridae	*Hypseleotris compressa*	empire gudgeon				11
animals	ray-finned fishes	Eleotridae	*Hypseleotris klunzingeri*	western carp gudgeon				4
animals	ray-finned fishes	Eleotridae	*Hypseleotris species 1*	Midgley's carp gudgeon				8
animals	ray-finned fishes	Eleotridae	*Philypnodon grandiceps*	flathead gudgeon				2
animals	ray-finned fishes	Eleotridae	*Mogurnda adspersa*	southern purplespotted gudgeon				19
animals	ray-finned fishes	Eleotridae	*Hypseleotris galii*	firetail gudgeon				20
animals	ray-finned fishes	Eleotridae	*Oxyeleotris lineolata*	sleepy cod				9
animals	ray-finned fishes	Hemiramphidae	*Arrhamphus sclerolepis*	snubnose garfish				4

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	ray-finned fishes	Megalopidae	*Megalops cyprinoides*	oxeye herring				7
animals	ray-finned fishes	Melanotaeniidae	*Melanotaenia splendida splendida*	eastern rainbowfish				36
animals	ray-finned fishes	Osteoglossidae	*Scleropages leichardti*	southern saratoga				39
animals	ray-finned fishes	Percichthyidae	*Macquaria ambigua*	golden perch				16
animals	ray-finned fishes	Plotosidae	*Neosilurus hyrtlii*	Hyrtl's catfish				24
animals	ray-finned fishes	Plotosidae	*Porochilus rendahli*	Rendahl's catfish				3
animals	ray-finned fishes	Plotosidae	*Tandanus tandanus*	freshwater catfish				22
animals	ray-finned fishes	Plotosidae	*Neosilurus ater*	black catfish				1
animals	ray-finned fishes	Pseudomugilidae	*Pseudomugil signifer*	Pacific blue eye				8
animals	ray-finned fishes	Terapontidae	*Scortum hillii*	leathery grunter				47
animals	ray-finned fishes	Terapontidae	*Leiopotherapon unicolor*	spangled perch				22
animals	ray-finned fishes	Terapontidae	*Amniataba percoides*	barred grunter				32
animals	reptiles	Agamidae	*Diporiphora bilineata*	two-lined dragon		C		1
animals	reptiles	Agamidae	*Diporiphora australis*	tommy roundhead		C		11/6
animals	reptiles	Agamidae	*Intellagama lesueurii*	eastern water dragon		C		2
animals	reptiles	Agamidae	*Chlamydosaurus kingii*	frilled lizard		C		5/1
animals	reptiles	Agamidae	*Diporiphora nobbi*	nobbi		C		4
animals	reptiles	Boidae	*Aspidites melanocephalus*	black-headed python		C		4/1
animals	reptiles	Boidae	*Morelia spilota*	carpet python		C		7/1
animals	reptiles	Boidae	*Antaresia maculosa*	spotted python		C		3
animals	reptiles	Carphodactylidae	*Nephrurus asper*	spiny knob-tailed gecko		C		11/1
animals	reptiles	Chelidae	*Chelodina longicollis*	eastern snake-necked turtle		C		2/2
animals	reptiles	Chelidae	*Elseya albagula*	southern snapping turtle		E	CE	4
animals	reptiles	Chelidae	*Rheodytes leukops*	Fitzroy River turtle		V	V	7
animals	reptiles	Chelidae	*Wollumbinia latisternum*	saw-shelled turtle		C		16/3
animals	reptiles	Chelidae	*Emydura macquarii krefftii*	Krefft's river turtle		C		22/3
animals	reptiles	Colubridae	*Tropidonophis mairii*	freshwater snake		C		8/2
animals	reptiles	Colubridae	*Boiga irregularis*	brown tree snake		C		9/4
animals	reptiles	Colubridae	*Dendrelaphis punctulatus*	green tree snake		C		20/2
animals	reptiles	Crocodylidae	*Crocodylus porosus*	estuarine crocodile		V		2
animals	reptiles	Diplodactylidae	*Oedura monilis sensu lato*	ocellated velvet gecko		C		7/4
animals	reptiles	Diplodactylidae	*Diplodactylus vittatus*	wood gecko		C		4/3
animals	reptiles	Diplodactylidae	*Strophurus williamsi*	soft-spined gecko		C		3
animals	reptiles	Diplodactylidae	*Nebulifera robusta*	robust velvet gecko		C		1/1
animals	reptiles	Diplodactylidae	*Amalosia rhombifer*	zig-zag gecko		C		6/5
animals	reptiles	Diplodactylidae	*Oedura tryoni*	southern spotted velvet gecko		C		5/4
animals	reptiles	Diplodactylidae	*Lucasium steindachneri*	Steindachner's gecko		C		5/5
animals	reptiles	Elapidae	*Cryptophis boschmai*	Carpentaria whip snake		C		4/2
animals	reptiles	Elapidae	*Cryptophis nigrostriatus*	black-striped snake		C		1/1
animals	reptiles	Elapidae	*Acanthophis antarcticus*	common death adder		V		1
animals	reptiles	Elapidae	*Oxyuranus scutellatus*	coastal taipan		C		2/1
animals	reptiles	Elapidae	*Cryptophis nigrescens*	eastern small-eyed snake		C		3/1
animals	reptiles	Elapidae	*Suta suta*	myall snake		C		2/1
animals	reptiles	Elapidae	*Demansia torquata*	collared whipsnake		C		4/1
animals	reptiles	Elapidae	*Hemiaspis damelii*	grey snake		E		1
animals	reptiles	Elapidae	*Denisonia maculata*	ornamental snake		V	V	2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	reptiles	Elapidae	*Hoplocephalus bitorquatus*	pale-headed snake		C		7/1
animals	reptiles	Elapidae	*Demansia psammophis*	yellow-faced whipsnake		C		1
animals	reptiles	Elapidae	*Demansia vestigiata*	lesser black whipsnake		C		4/4
animals	reptiles	Elapidae	*Pseudonaja textilis*	eastern brown snake		C		4/1
animals	reptiles	Elapidae	*Vermicella annulata*	bandy-bandy		C		2/1
animals	reptiles	Gekkonidae	*Gehyra sp.*					1/1
animals	reptiles	Gekkonidae	*Gehyra dubia*	dubious dtella		C		30/5
animals	reptiles	Gekkonidae	*Heteronotia binoei*	Bynoe's gecko		C		63/7
animals	reptiles	Pygopodidae	*Lialis burtonis*	Burton's legless lizard		C		8/2
animals	reptiles	Pygopodidae	*Paradelma orientalis*	brigalow scaly-foot		C		2
animals	reptiles	Scincidae	*Anomalopus brevicollis*	short-necked worm-skink		C		4/4
animals	reptiles	Scincidae	*Pygmaeascincus timlowi*	dwarf litter-skink		C		7/6
animals	reptiles	Scincidae	*Cryptoblepharus pannosus*	ragged snake-eyed skink		C		1/1
animals	reptiles	Scincidae	*Cyclodomorphus gerrardii*	pink-tongued lizard		C		2/2
animals	reptiles	Scincidae	*Cryptoblepharus metallicus*	metallic snake-eyed skink		C		7/5
animals	reptiles	Scincidae	*Liburnascincus mundivensis*	outcrop rainbow-skink		C		3
animals	reptiles	Scincidae	*Glaphyromorphus punctulatus*	fine-spotted mulch-skink		C		13/9
animals	reptiles	Scincidae	*Carlia pectoralis sensu lato*			C		19/3
animals	reptiles	Scincidae	*Cryptoblepharus pulcher pulcher*	elegant snake-eyed skink		C		34
animals	reptiles	Scincidae	*Cryptoblepharus virgatus sensu lato*			C		8/6
animals	reptiles	Scincidae	*Carlia sp.*					7/3
animals	reptiles	Scincidae	*Menetia sp.*					1/1
animals	reptiles	Scincidae	*Carlia munda*	shaded-litter rainbow-skink		C		16/15
animals	reptiles	Scincidae	*Carlia vivax*	tussock rainbow-skink		C		13/7
animals	reptiles	Scincidae	*Ctenotus sp.*					2/1
animals	reptiles	Scincidae	*Carlia rubigo*	orange-flanked rainbow skink		C		30
animals	reptiles	Scincidae	*Eulamprus sp.*					1
animals	reptiles	Scincidae	*Anomalopus sp.*					1/1
animals	reptiles	Scincidae	*Menetia greyii*	common dwarf skink		C		1
animals	reptiles	Scincidae	*Concinnia tenuis*	bar-sided skink		C		3/2
animals	reptiles	Scincidae	*Eulamprus quoyii*	eastern water skink		C		3/2
animals	reptiles	Scincidae	*Carlia schmeltzii*	robust rainbow-skink		C		25/4
animals	reptiles	Scincidae	*Concinnia martini*	dark bar-sided skink		C		2/2
animals	reptiles	Scincidae	*Concinnia sokosoma*	stout bar-sided skink		C		1
animals	reptiles	Scincidae	*Ctenotus spaldingi*	straight-browed ctenotus		C		5/4
animals	reptiles	Scincidae	*Ctenotus strauchii*	eastern barred wedgesnout ctenotus		C		2/1
animals	reptiles	Scincidae	*Tiliqua scincoides*	eastern blue-tongued lizard		C		2/2
animals	reptiles	Scincidae	*Carlia rhomboidalis*	blue-throated rainbow-skink		C		1/1
animals	reptiles	Scincidae	*Cryptoblepharus sp.*					5
animals	reptiles	Scincidae	*Lampropholis adonis*	diamond-shielded sunskink		C		3/3
animals	reptiles	Scincidae	*Lygisaurus foliorum*	tree-base litter-skink		C		43/14
animals	reptiles	Scincidae	*Concinnia brachysoma*	northern bar-sided skink		C		6
animals	reptiles	Scincidae	*Ctenotus taeniolatus*	copper-tailed skink		C		33/8
animals	reptiles	Scincidae	*Calyptotis temporalis*	broad-templed calyptotis		C		4/3
animals	reptiles	Scincidae	*Lampropholis delicata*	dark-flecked garden sunskink		C		2/2
animals	reptiles	Scincidae	*Morethia taeniopleura*	fire-tailed skink		C		10/1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	reptiles	Typhlopidae	*Anilios ligatus*	robust blind snake		C		2/1
animals	reptiles	Varanidae	*Varanus varius*	lace monitor		C		1
animals	reptiles	Varanidae	*Varanus tristis*	black-tailed monitor		C		3/1
animals	reptiles	Varanidae	*Varanus semiremex*	rusty monitor		C		1/1
animals	reptiles	Varanidae	*Varanus sp.*	goanna				1
animals	uncertain	Indeterminate	*Indeterminate*	Unknown or Code Pending		C		30

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 in the Wild (PE), Endangered (E), Vulnerable (V), Near Threatened (NT), Least Concern (C) or Not Protected ( ).

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

Records – The first number indicates the total number of records of the taxon for the record option selected (i.e. All, Confirmed or Specimens).
This number is output as 99999 if it equals or exceeds this value. The second number located after the / indicates the number of specimen records for the taxon.
This number is output as 999 if it equals or exceeds this value.

Queensland Government

Wildlife Online Extract

Search Criteria: Species List for a Specified Point
Species: Animals
Type: Native
Status: All
Records: Confirmed
Date: Since 1980
Latitude: -22.7045
Longitude: 149.6867
Distance: 80
Email: lindsay@austecology.com.au
Date submitted: Thursday 19 Mar 2020 11:40:17
Date extracted: Thursday 19 Mar 2020 11:50:08

The number of records retrieved = 507

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Hylidae	*Litoria sp.*					4
animals	amphibians	Hylidae	*Cyclorana novaehollandiae*	eastern snapping frog		C		4/1
animals	amphibians	Hylidae	*Cyclorana alboguttata*	greenstripe frog		C		25/4
animals	amphibians	Hylidae	*Litoria latopalmata*	broad palmed rocketfrog		C		13/1
animals	amphibians	Hylidae	*Litoria gracilenta*	graceful treefrog		C		2/1
animals	amphibians	Hylidae	*Cyclorana brevipes*	superb collared frog		C		2/1
animals	amphibians	Hylidae	*Litoria wilcoxii*	eastern stony creek frog		C		11/5
animals	amphibians	Hylidae	*Litoria caerulea*	common green treefrog		C		41/2
animals	amphibians	Hylidae	*Litoria rubella*	ruddy treefrog		C		17/1
animals	amphibians	Hylidae	*Litoria inermis*	bumpy rocketfrog		C		13/6
animals	amphibians	Hylidae	*Litoria fallax*	eastern sedgefrog		C		16/2
animals	amphibians	Hylidae	*Litoria nasuta*	striped rocketfrog		C		3/2
animals	amphibians	Hylidae	*Litoria rothii*	northern laughing treefrog		C		9/1
animals	amphibians	Limnodynastidae	*Adelotus brevis*	tusked frog		V		2
animals	amphibians	Limnodynastidae	*Limnodynastes tasmaniensis*	spotted grassfrog		C		23/12
animals	amphibians	Limnodynastidae	*Limnodynastes terraereginae*	scarlet sided pobblebonk		C		14/4
animals	amphibians	Limnodynastidae	*Limnodynastes peronii*	striped marshfrog		C		5/3
animals	amphibians	Limnodynastidae	*Limnodynastes salmini*	salmon striped frog		C		7/2
animals	amphibians	Limnodynastidae	*Platyplectrum ornatum*	ornate burrowing frog		C		41/12
animals	amphibians	Myobatrachidae	*Uperoleia rugosa*	chubby gungan		C		6/6
animals	amphibians	Myobatrachidae	*Crinia deserticola*	chirping froglet		C		13/9
animals	amphibians	Myobatrachidae	*Pseudophryne major*	great brown broodfrog		C		3/3
animals	arachnids	Theraphosidae	*Selenocosmia sp.*			C		1
animals	birds	Acanthizidae	*Smicrornis brevirostris*	weebill		C		20/3
animals	birds	Acanthizidae	*Sericornis magnirostra*	large-billed scrubwren		C		1
animals	birds	Acanthizidae	*Acanthiza nana*	yellow thornbill		C		5
animals	birds	Acanthizidae	*Acanthiza pusilla*	brown thornbill		C		1
animals	birds	Acanthizidae	*Gerygone olivacea*	white-throated gerygone		C		42/4
animals	birds	Acanthizidae	*Acanthiza uropygialis*	chestnut-rumped thornbill		C		1
animals	birds	Acanthizidae	*Gerygone levigaster*	mangrove gerygone		C		1/1
animals	birds	Acanthizidae	*Gerygone palpebrosa*	fairy gerygone		C		14/2
animals	birds	Acanthizidae	*Acanthiza reguloides*	buff-rumped thornbill		C		6/4
animals	birds	Acanthizidae	*Sericornis frontalis*	white-browed scrubwren		C		7
animals	birds	Acanthizidae	*Acanthiza chrysorrhoa*	yellow-rumped thornbill		C		5
animals	birds	Acanthizidae	*Acanthiza apicalis*	inland thornbill		C		1
animals	birds	Accipitridae	*Accipiter cirrocephalus*	collared sparrowhawk		C		4
animals	birds	Accipitridae	*Hieraaetus morphnoides*	little eagle		C		2
animals	birds	Accipitridae	*Haliaeetus leucogaster*	white-bellied sea-eagle		C		79/3
animals	birds	Accipitridae	*Aquila audax*	wedge-tailed eagle		C		52/2
animals	birds	Accipitridae	*Milvus migrans*	black kite		C		14
animals	birds	Accipitridae	*Haliastur indus*	brahminy kite		C		30/2
animals	birds	Accipitridae	*Circus assimilis*	spotted harrier		C		3
animals	birds	Accipitridae	*Elanus axillaris*	black-shouldered kite		C		3
animals	birds	Accipitridae	*Pandion cristatus*	eastern osprey		SL		50/2
animals	birds	Accipitridae	*Lophoictinia isura*	square-tailed kite		C		2
animals	birds	Accipitridae	*Accipiter fasciatus*	brown goshawk		C		7/1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Accipitridae	*Aviceda subcristata*	Pacific baza		C		15/3
animals	birds	Accipitridae	*Haliastur sphenurus*	whistling kite		C		37
animals	birds	Acrocephalidae	*Acrocephalus australis*	Australian reed-warbler		C		3
animals	birds	Aegothelidae	*Aegotheles cristatus*	Australian owlet-nightjar		C		11/1
animals	birds	Alaudidae	*Mirafra javanica*	Horsfield's bushlark		C		9/4
animals	birds	Alcedinidae	*Ceyx azureus*	azure kingfisher		C		12/4
animals	birds	Anatidae	*Anas gracilis*	grey teal		C		25
animals	birds	Anatidae	*Radjah radjah*	radjah shelduck		C		10/5
animals	birds	Anatidae	*Cygnus atratus*	black swan		C		11
animals	birds	Anatidae	*Aythya australis*	hardhead		C		23
animals	birds	Anatidae	*Anas superciliosa*	Pacific black duck		C		44
animals	birds	Anatidae	*Chenonetta jubata*	Australian wood duck		C		21
animals	birds	Anatidae	*Anas castanea*	chestnut teal		C		1
animals	birds	Anatidae	*Spatula rhynchotis*	Australasian shoveler		C		2
animals	birds	Anatidae	*Dendrocygna arcuata*	wandering whistling-duck		C		8
animals	birds	Anatidae	*Stictonetta naevosa*	freckled duck		C		1
animals	birds	Anatidae	*Nettapus coromandelianus*	cotton pygmy-goose		C		13
animals	birds	Anatidae	*Malacorhynchus membranaceus*	pink-eared duck		C		5
animals	birds	Anatidae	*Dendrocygna eytoni*	plumed whistling-duck		C		11
animals	birds	Anhingidae	*Anhinga novaehollandiae*	Australasian darter		C		27
animals	birds	Anseranatidae	*Anseranas semipalmata*	magpie goose		C		9
animals	birds	Apodidae	*Hirundapus caudacutus*	white-throated needletail		V	V	3
animals	birds	Apodidae	*Apus pacificus*	fork-tailed swift		SL		2/1
animals	birds	Ardeidae	*Ardea intermedia*	intermediate egret		C		15
animals	birds	Ardeidae	*Egretta garzetta*	little egret		C		8
animals	birds	Ardeidae	*Butorides striata*	striated heron		C		15/1
animals	birds	Ardeidae	*Ardea alba modesta*	eastern great egret		C		29
animals	birds	Ardeidae	*Ardea pacifica*	white-necked heron		C		16
animals	birds	Ardeidae	*Egretta sacra*	eastern reef egret		C		42/2
animals	birds	Ardeidae	*Bubulcus ibis*	cattle egret		C		19
animals	birds	Ardeidae	*Ixobrychus flavicollis*	black bittern		C		1
animals	birds	Ardeidae	*Egretta novaehollandiae*	white-faced heron		C		57
animals	birds	Ardeidae	*Nycticorax caledonicus*	nankeen night-heron		C		6
animals	birds	Artamidae	*Artamus minor*	little woodswallow		C		1/1
animals	birds	Artamidae	*Artamus cinereus*	black-faced woodswallow		C		25/9
animals	birds	Artamidae	*Artamus personatus*	masked woodswallow		C		6
animals	birds	Artamidae	*Gymnorhina tibicen*	Australian magpie		C		98/2
animals	birds	Artamidae	*Cracticus nigrogularis*	pied butcherbird		C		87/2
animals	birds	Artamidae	*Cracticus torquatus*	grey butcherbird		C		27/2
animals	birds	Artamidae	*Artamus superciliosus*	white-browed woodswallow		C		6
animals	birds	Artamidae	*Artamus leucorynchus*	white-breasted woodswallow		C		45/1
animals	birds	Artamidae	*Strepera graculina*	pied currawong		C		85
animals	birds	Burhinidae	*Esacus magnirostris*	beach stone-curlew		V		88/2
animals	birds	Burhinidae	*Burhinus grallarius*	bush stone-curlew		C		6/1
animals	birds	Cacatuidae	*Nymphicus hollandicus*	cockatiel		C		3
animals	birds	Cacatuidae	*Eolophus roseicapilla*	galah		C		16

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Cacatuidae	*Cacatua sanguinea*	little corella		C		1
animals	birds	Cacatuidae	*Cacatua galerita*	sulphur-crested cockatoo		C		85/2
animals	birds	Cacatuidae	*Calyptorhynchus banksii*	red-tailed black-cockatoo		C		24
animals	birds	Cacatuidae	*Calyptorhynchus lathami erebus*	glossy black-cockatoo (northern)		V		2
animals	birds	Cacatuidae	*Calyptorhynchus funereus*	yellow-tailed black-cockatoo		C		1
animals	birds	Campephagidae	*Coracina novaehollandiae*	black-faced cuckoo-shrike		C		57/2
animals	birds	Campephagidae	*Coracina tenuirostris*	cicadabird		C		19/5
animals	birds	Campephagidae	*Coracina papuensis*	white-bellied cuckoo-shrike		C		21/5
animals	birds	Campephagidae	*Lalage leucomela*	varied triller		C		44/3
animals	birds	Campephagidae	*Coracina maxima*	ground cuckoo-shrike		C		1
animals	birds	Campephagidae	*Lalage tricolor*	white-winged triller		C		3
animals	birds	Caprimulgidae	*Caprimulgus macrurus*	large-tailed nightjar		C		4/1
animals	birds	Casuariidae	*Dromaius novaehollandiae*	emu		C		14
animals	birds	Charadriidae	*Charadrius leschenaultii*	greater sand plover		V	V	7
animals	birds	Charadriidae	*Vanellus miles novaehollandiae*	masked lapwing (southern subspecies)		C		26
animals	birds	Charadriidae	*Charadrius sp.*					2
animals	birds	Charadriidae	*Vanellus miles*	masked lapwing		C		4
animals	birds	Charadriidae	*Pluvialis fulva*	Pacific golden plover		SL		12/1
animals	birds	Charadriidae	*Vanellus tricolor*	banded lapwing		C		1
animals	birds	Charadriidae	*Charadrius mongolus*	lesser sand plover		E	E	25/1
animals	birds	Charadriidae	*Elseyornis melanops*	black-fronted dotterel		C		16/2
animals	birds	Charadriidae	*Pluvialis squatarola*	grey plover		SL		13
animals	birds	Charadriidae	*Charadrius ruficapillus*	red-capped plover		C		26
animals	birds	Ciconiidae	*Ephippiorhynchus asiaticus*	black-necked stork		C		10
animals	birds	Cisticolidae	*Cisticola exilis*	golden-headed cisticola		C		26/4
animals	birds	Cisticolidae	*Cisticola juncidis laveryi*	zitting cisticola		C		3
animals	birds	Climacteridae	*Cormobates leucophaea metastasis*	white-throated treecreeper (southern)		C		7
animals	birds	Climacteridae	*Climacteris picumnus*	brown treecreeper		C		3/1
animals	birds	Columbidae	*Geopelia striata*	peaceful dove		C		55/1
animals	birds	Columbidae	*Ocyphaps lophotes*	crested pigeon		C		22
animals	birds	Columbidae	*Ducula bicolor*	pied imperial-pigeon		C		6/1
animals	birds	Columbidae	*Geophaps scripta scripta*	squatter pigeon (southern subspecies)		V	V	83/4
animals	birds	Columbidae	*Lopholaimus antarcticus*	topknot pigeon		C		2
animals	birds	Columbidae	*Leucosarcia melanoleuca*	wonga pigeon		C		3
animals	birds	Columbidae	*Macropygia amboinensis*	brown cuckoo-dove		C		5/1
animals	birds	Columbidae	*Ptilinopus magnificus*	wompoo fruit-dove		C		1
animals	birds	Columbidae	*Geopelia humeralis*	bar-shouldered dove		C		82
animals	birds	Columbidae	*Chalcophaps indica*	emerald dove		C		8
animals	birds	Columbidae	*Ptilinopus regina*	rose-crowned fruit-dove		C		20
animals	birds	Columbidae	*Phaps chalcoptera*	common bronzewing		C		3
animals	birds	Coraciidae	*Eurystomus orientalis*	dollarbird		C		54/4
animals	birds	Corcoracidae	*Corcorax melanorhamphos*	white-winged chough		C		15
animals	birds	Corcoracidae	*Struthidea cinerea*	apostlebird		C		15
animals	birds	Corvidae	*Corvus orru*	Torresian crow		C		160
animals	birds	Corvidae	*Corvus coronoides*	Australian raven		C		3
animals	birds	Cuculidae	*Chalcites minutillus barnardi*	Eastern little bronze-cuckoo		C		4

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Cuculidae	*Cacomantis pallidus*	pallid cuckoo		C		6
animals	birds	Cuculidae	*Chalcites minutillus*	little bronze-cuckoo		C		4/3
animals	birds	Cuculidae	*Chalcites lucidus*	shining bronze-cuckoo		C		17/3
animals	birds	Cuculidae	*Chalcites basalis*	Horsfield's bronze-cuckoo		C		4
animals	birds	Cuculidae	*Cuculus optatus*	oriental cuckoo		SL		3/3
animals	birds	Cuculidae	*Scythrops novaehollandiae*	channel-billed cuckoo		C		43/7
animals	birds	Cuculidae	*Cacomantis flabelliformis*	fan-tailed cuckoo		C		17/1
animals	birds	Cuculidae	*Centropus phasianinus*	pheasant coucal		C		55/8
animals	birds	Cuculidae	*Cacomantis variolosus*	brush cuckoo		C		3/1
animals	birds	Cuculidae	*Eudynamys orientalis*	eastern koel		C		22/6
animals	birds	Dicruridae	*Dicrurus bracteatus*	spangled drongo		C		49/2
animals	birds	Estrildidae	*Neochmia phaeton phaeton*	crimson finch		C		2
animals	birds	Estrildidae	*Taeniopygia guttata*	zebra finch		C		10
animals	birds	Estrildidae	*Neochmia modesta*	plum-headed finch		C		7
animals	birds	Estrildidae	*Neochmia temporalis*	red-browed finch		C		2/2
animals	birds	Estrildidae	*Taeniopygia bichenovii*	double-barred finch		C		49/3
animals	birds	Estrildidae	*Lonchura castaneothorax*	chestnut-breasted mannikin		C		7/2
animals	birds	Eurostopodidae	*Eurostopodus mystacalis*	white-throated nightjar		C		8/1
animals	birds	Falconidae	*Falco peregrinus*	peregrine falcon		C		10
animals	birds	Falconidae	*Falco hypoleucos*	grey falcon		V		1
animals	birds	Falconidae	*Falco berigora*	brown falcon		C		31/1
animals	birds	Falconidae	*Falco cenchroides*	nankeen kestrel		C		26
animals	birds	Falconidae	*Falco longipennis*	Australian hobby		C		4
animals	birds	Gruidae	*Antigone rubicunda*	brolga		C		19
animals	birds	Haematopodidae	*Haematopus fuliginosus*	sooty oystercatcher		C		48/5
animals	birds	Haematopodidae	*Haematopus longirostris*	Australian pied oystercatcher		C		62/4
animals	birds	Halcyonidae	*Todiramphus sordidus*	Torresian kingfisher		C		8/1
animals	birds	Halcyonidae	*Todiramphus sanctus*	sacred kingfisher		C		23
animals	birds	Halcyonidae	*Dacelo novaeguineae*	laughing kookaburra		C		116/5
animals	birds	Halcyonidae	*Dacelo leachii*	blue-winged kookaburra		C		40/4
animals	birds	Halcyonidae	*Todiramphus macleayii*	forest kingfisher		C		55/1
animals	birds	Halcyonidae	*Todiramphus pyrrhopygius*	red-backed kingfisher		C		1
animals	birds	Hirundinidae	*Petrochelidon nigricans*	tree martin		C		5/1
animals	birds	Hirundinidae	*Hirundo neoxena*	welcome swallow		C		44/3
animals	birds	Hirundinidae	*Petrochelidon ariel*	fairy martin		C		10
animals	birds	Jacanidae	*Irediparra gallinacea*	comb-crested jacana		C		8/1
animals	birds	Laridae	*Sterna hirundo*	common tern		SL		1
animals	birds	Laridae	*Sterna sumatrana*	black-naped tern		SL		1
animals	birds	Laridae	*Thalasseus bergii*	crested tern		SL		30/3
animals	birds	Laridae	*Chlidonias hybrida*	whiskered tern		C		4
animals	birds	Laridae	*Hydroprogne caspia*	Caspian tern		SL		41/2
animals	birds	Laridae	*Sternula albifrons*	little tern		SL		10/1
animals	birds	Laridae	*Gelochelidon nilotica*	gull-billed tern		SL		17
animals	birds	Laridae	*Onychoprion anaethetus*	bridled tern		SL		2
animals	birds	Laridae	*Thalasseus bengalensis*	lesser crested tern		C		8
animals	birds	Laridae	*Chroicocephalus novaehollandiae*	silver gull		C		62/3

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Maluridae	*Malurus sp.*					1
animals	birds	Maluridae	*Malurus lamberti*	variegated fairy-wren		C		2
animals	birds	Maluridae	*Malurus melanocephalus*	red-backed fairy-wren		C		66/2
animals	birds	Megaluridae	*Megalurus gramineus*	little grassbird		C		3
animals	birds	Megaluridae	*Megalurus timoriensis*	tawny grassbird		C		4
animals	birds	Megaluridae	*Cincloramphus mathewsi*	rufous songlark		C		8/1
animals	birds	Megaluridae	*Cincloramphus cruralis*	brown songlark		C		3
animals	birds	Megapodiidae	*Alectura lathami*	Australian brush-turkey		C		29/1
animals	birds	Megapodiidae	*Megapodius reinwardt*	orange-footed scrubfowl		C		8/1
animals	birds	Meliphagidae	*Gavicalis versicolor*	varied honeyeater		C		2/1
animals	birds	Meliphagidae	*Lichmera indistincta*	brown honeyeater		C		43/1
animals	birds	Meliphagidae	*Melithreptus gularis*	black-chinned honeyeater		C		5/3
animals	birds	Meliphagidae	*Melithreptus lunatus*	white-naped honeyeater		C		5
animals	birds	Meliphagidae	*Philemon corniculatus*	noisy friarbird		C		92/5
animals	birds	Meliphagidae	*Ptilotula penicillata*	white-plumed honeyeater		C		1
animals	birds	Meliphagidae	*Ramsayornis fasciatus*	bar-breasted honeyeater		C		5/5
animals	birds	Meliphagidae	*Manorina melanocephala*	noisy miner		C		32/4
animals	birds	Meliphagidae	*Myzomela sanguinolenta*	scarlet honeyeater		C		23/2
animals	birds	Meliphagidae	*Philemon citreogularis*	little friarbird		C		38/7
animals	birds	Meliphagidae	*Gavicalis fasciogularis*	mangrove honeyeater		C		32/1
animals	birds	Meliphagidae	*Melithreptus albogularis*	white-throated honeyeater		C		81/7
animals	birds	Meliphagidae	*Plectorhyncha lanceolata*	striped honeyeater		C		7
animals	birds	Meliphagidae	*Acanthorhynchus tenuirostris*	eastern spinebill		C		1
animals	birds	Meliphagidae	*Epthianura crocea macgregori*	yellow chat (Dawson)		E	CE	50
animals	birds	Meliphagidae	*Ptilotula fusca*	fuscous honeyeater		C		5/5
animals	birds	Meliphagidae	*Myzomela obscura*	dusky honeyeater		C		16/1
animals	birds	Meliphagidae	*Stomiopera flava*	yellow honeyeater		C		12/2
animals	birds	Meliphagidae	*Meliphaga lewinii*	Lewin's honeyeater		C		73/5
animals	birds	Meliphagidae	*Entomyzon cyanotis*	blue-faced honeyeater		C		45/9
animals	birds	Meliphagidae	*Manorina flavigula*	yellow-throated miner		C		8
animals	birds	Meliphagidae	*Gavicalis virescens*	singing honeyeater		C		1
animals	birds	Meropidae	*Merops ornatus*	rainbow bee-eater		C		127/3
animals	birds	Monarchidae	*Myiagra cyanoleuca*	satin flycatcher		SL		3
animals	birds	Monarchidae	*Myiagra alecto*	shining flycatcher		C		8/5
animals	birds	Monarchidae	*Myiagra inquieta*	restless flycatcher		C		3
animals	birds	Monarchidae	*Myiagra rubecula*	leaden flycatcher		C		61/6
animals	birds	Monarchidae	*Symposiachrus trivirgatus*	spectacled monarch		SL		5
animals	birds	Monarchidae	*Myiagra ruficollis*	broad-billed flycatcher		C		2/1
animals	birds	Monarchidae	*Grallina cyanoleuca*	magpie-lark		C		47
animals	birds	Monarchidae	*Monarcha melanopsis*	black-faced monarch		SL		5
animals	birds	Monarchidae	*Carterornis leucotis*	white-eared monarch		C		11/2
animals	birds	Motacillidae	*Anthus novaeseelandiae*	Australasian pipit		C		22/1
animals	birds	Nectariniidae	*Cinnyris jugularis*	olive-backed sunbird		C		8
animals	birds	Nectariniidae	*Dicaeum hirundinaceum*	mistletoebird		C		46
animals	birds	Neosittidae	*Daphoenositta chrysoptera*	varied sittella		C		6/4
animals	birds	Oriolidae	*Oriolus sagittatus*	olive-backed oriole		C		20/1

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animals	birds	Oriolidae	*Sphecotheres vieilloti*	Australasian figbird		C		41/2
animals	birds	Otididae	*Ardeotis australis*	Australian bustard		C		19/3
animals	birds	Pachycephalidae	*Pachycephala melanura*	mangrove golden whistler		C		2/1
animals	birds	Pachycephalidae	*Colluricincla harmonica*	grey shrike-thrush		C		50/1
animals	birds	Pachycephalidae	*Colluricincla megarhyncha*	little shrike-thrush		C		19/1
animals	birds	Pachycephalidae	*Pachycephala rufiventris*	rufous whistler		C		67/1
animals	birds	Pachycephalidae	*Pachycephala pectoralis*	golden whistler		C		16/6
animals	birds	Pardalotidae	*Pardalotus rubricatus*	red-browed pardalote		C		1
animals	birds	Pardalotidae	*Pardalotus striatus*	striated pardalote		C		89/6
animals	birds	Pardalotidae	*Pardalotus punctatus*	spotted pardalote		C		3
animals	birds	Pelecanidae	*Pelecanus conspicillatus*	Australian pelican		C		70/1
animals	birds	Petroicidae	*Petroica rosea*	rose robin		C		3/2
animals	birds	Petroicidae	*Microeca fascinans*	jacky winter		C		2/2
animals	birds	Petroicidae	*Eopsaltria australis*	eastern yellow robin		C		12/1
animals	birds	Phalacrocoracidae	*Microcarbo melanoleucos*	little pied cormorant		C		25
animals	birds	Phalacrocoracidae	*Phalacrocorax varius*	pied cormorant		C		27
animals	birds	Phalacrocoracidae	*Phalacrocorax carbo*	great cormorant		C		2
animals	birds	Phalacrocoracidae	*Phalacrocorax sulcirostris*	little black cormorant		C		20
animals	birds	Phasianidae	*Coturnix ypsilophora*	brown quail		C		21/1
animals	birds	Pittidae	*Pitta versicolor*	noisy pitta		C		2
animals	birds	Podargidae	*Podargus strigoides*	tawny frogmouth		C		21
animals	birds	Podicipedidae	*Podiceps cristatus*	great crested grebe		C		3
animals	birds	Podicipedidae	*Tachybaptus novaehollandiae*	Australasian grebe		C		28
animals	birds	Pomatostomidae	*Pomatostomus temporalis*	grey-crowned babbler		C		25/3
animals	birds	Procellariidae	*Ardenna tenuirostris*	short-tailed shearwater		SL		2/2
animals	birds	Psittacidae	*Trichoglossus haematodus moluccanus*	rainbow lorikeet		C		141/10
animals	birds	Psittacidae	*Trichoglossus chlorolepidotus*	scaly-breasted lorikeet		C		43/6
animals	birds	Psittacidae	*Parvipsitta pusilla*	little lorikeet		C		6/2
animals	birds	Psittacidae	*Alisterus scapularis*	Australian king-parrot		C		7
animals	birds	Psittacidae	*Platycercus adscitus*	pale-headed rosella		C		84/10
animals	birds	Psittacidae	*Glossopsitta concinna*	musk lorikeet		C		1
animals	birds	Psittacidae	*Melopsittacus undulatus*	budgerigar		C		1
animals	birds	Psittacidae	*Aprosmictus erythropterus*	red-winged parrot		C		45/3
animals	birds	Psophodidae	*Psophodes olivaceus*	eastern whipbird		C		1
animals	birds	Ptilonorhynchidae	*Ptilonorhynchus maculatus*	spotted bowerbird		C		3
animals	birds	Rallidae	*Fulica atra*	Eurasian coot		C		10
animals	birds	Rallidae	*Amaurornis moluccana*	pale-vented bush-hen		C		1
animals	birds	Rallidae	*Porphyrio melanotus*	purple swamphen		C		6
animals	birds	Rallidae	*Gallinula tenebrosa*	dusky moorhen		C		19/3
animals	birds	Rallidae	*Tribonyx ventralis*	black-tailed native-hen		C		1
animals	birds	Rallidae	*Gallirallus philippensis*	buff-banded rail		C		3/3
animals	birds	Recurvirostridae	*Recurvirostra novaehollandiae*	red-necked avocet		C		4
animals	birds	Recurvirostridae	*Himantopus himantopus*	black-winged stilt		C		17
animals	birds	Rhipiduridae	*Rhipidura leucophrys*	willie wagtail		C		53
animals	birds	Rhipiduridae	*Rhipidura rufifrons*	rufous fantail		SL		14/1
animals	birds	Rhipiduridae	*Rhipidura albiscapa*	grey fantail		C		46/1

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animals	birds	Scolopacidae	*Limosa limosa*	black-tailed godwit		SL		3
animals	birds	Scolopacidae	*Tringa incana*	wandering tattler		SL		3/1
animals	birds	Scolopacidae	*Numenius madagascariensis*	eastern curlew		E	CE	69/2
animals	birds	Scolopacidae	*Limosa lapponica baueri*	Western Alaskan bar-tailed godwit		V	V	66/2
animals	birds	Scolopacidae	*Calidris tenuirostris*	great knot		E	CE	37/1
animals	birds	Scolopacidae	*Gallinago hardwickii*	Latham's snipe		SL		5
animals	birds	Scolopacidae	*Calidris ruficollis*	red-necked stint		SL		31/3
animals	birds	Scolopacidae	*Xenus cinereus*	terek sandpiper		SL		16
animals	birds	Scolopacidae	*Tringa brevipes*	grey-tailed tattler		SL		45/4
animals	birds	Scolopacidae	*Calidris canutus*	red knot		E	E	12
animals	birds	Scolopacidae	*Heteroscelus sp.*					8
animals	birds	Scolopacidae	*Tringa nebularia*	common greenshank		SL		5
animals	birds	Scolopacidae	*Numenius phaeopus*	whimbrel		SL		90/3
animals	birds	Scolopacidae	*Actitis hypoleucos*	common sandpiper		SL		2
animals	birds	Scolopacidae	*Arenaria interpres*	ruddy turnstone		SL		13
animals	birds	Scolopacidae	*Calidris acuminata*	sharp-tailed sandpiper		SL		11
animals	birds	Scolopacidae	*Tringa stagnatilis*	marsh sandpiper		SL		2
animals	birds	Scolopacidae	*Calidris ferruginea*	curlew sandpiper		E	CE	10
animals	birds	Strigidae	*Ninox strenua*	powerful owl		V		3/1
animals	birds	Strigidae	*Ninox boobook*	southern boobook		C		30/1
animals	birds	Strigidae	*Ninox connivens*	barking owl		C		6/5
animals	birds	Strigidae	*Ninox rufa queenslandica*	rufous owl (southern subspecies)		C		1
animals	birds	Sulidae	*Sula leucogaster*	brown booby		SL		2
animals	birds	Sulidae	*Morus serrator*	Australasian gannet		C		1
animals	birds	Threskiornithidae	*Platalea regia*	royal spoonbill		C		14
animals	birds	Threskiornithidae	*Platalea flavipes*	yellow-billed spoonbill		C		9
animals	birds	Threskiornithidae	*Plegadis falcinellus*	glossy ibis		SL		4
animals	birds	Threskiornithidae	*Threskiornis molucca*	Australian white ibis		C		14
animals	birds	Threskiornithidae	*Threskiornis spinicollis*	straw-necked ibis		C		20
animals	birds	Timaliidae	*Zosterops lateralis*	silvereye		C		41/11
animals	birds	Turnicidae	*Turnix pyrrhothorax*	red-chested button-quail		C		2/1
animals	birds	Turnicidae	*Turnix varius*	painted button-quail		C		5/4
animals	birds	Turnicidae	*Turnix maculosus*	red-backed button-quail		C		3/2
animals	birds	Turnicidae	*Turnix melanogaster*	black-breasted button-quail		V	V	2
animals	birds	Tytonidae	*Tyto delicatula*	eastern barn owl		C		1
animals	insects	Formicidae	*Oecophylla smaragdina*	green tree ant				1
animals	insects	Lycaenidae	*Hypolycaena phorbas phorbas*	black-spotted flash				1
animals	mammals	Balaenopteridae	*Balaenoptera musculus*	blue whale		C	E	1/1
animals	mammals	Canidae	*Canis familiaris (dingo)*	dingo				15
animals	mammals	Dasyuridae	*Dasyurus hallucatus*	northern quoll		C	E	1
animals	mammals	Dasyuridae	*Sminthopsis macroura*	stripe-faced dunnart		C		1/1
animals	mammals	Dasyuridae	*Planigale maculata*	common planigale		C		3/3
animals	mammals	Delphinidae	*Orcaella heinsohni*	Australian snubfin dolphin		V		1
animals	mammals	Emballonuridae	*Taphozous troughtoni*	Troughton's sheathtail bat		C		2/1
animals	mammals	Emballonuridae	*Saccolaimus flaviventris*	yellow-bellied sheathtail bat		C		17/3
animals	mammals	Emballonuridae	*Taphozous australis*	coastal sheathtail bat		NT		1/1

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animals	mammals	Macropodidae	*Petrogale sp.*			C		1
animals	mammals	Macropodidae	*Onychogalea fraenata*	bridled nailtail wallaby		E	E	1
animals	mammals	Macropodidae	*Macropus rufogriseus*	red-necked wallaby		C		3/1
animals	mammals	Macropodidae	*Petrogale inornata*	unadorned rock-wallaby		C		13/4
animals	mammals	Macropodidae	*Petrogale herberti*	Herbert's rock-wallaby		C		9/2
animals	mammals	Macropodidae	*Macropus giganteus*	eastern grey kangaroo		C		31
animals	mammals	Macropodidae	*Macropus robustus*	common wallaroo		C		5
animals	mammals	Macropodidae	*Macropus dorsalis*	black-striped wallaby		C		18/3
animals	mammals	Macropodidae	*Wallabia bicolor*	swamp wallaby		C		14
animals	mammals	Macropodidae	*Macropus parryi*	whiptail wallaby		C		17
animals	mammals	Macropodidae	*Macropus agilis*	agile wallaby		C		23/1
animals	mammals	Macropodidae	*Macropus sp.*					1
animals	mammals	Miniopteridae	*Miniopterus schreibersii oceanensis*	eastern bent-wing bat		C		5
animals	mammals	Miniopteridae	*Miniopterus australis*	little bent-wing bat		C		9/2
animals	mammals	Molossidae	*Tadarida australis*	white-striped freetail bat		C		2
animals	mammals	Molossidae	*Chaerephon jobensis*	northern freetail bat		C		14/3
animals	mammals	Molossidae	*Mormopterus lumsdenae*	northern free-tailed bat		C		12/1
animals	mammals	Molossidae	*Mormopterus ridei*	eastern free-tailed bat		C		7
animals	mammals	Muridae	*Melomys cervinipes*	fawn-footed melomys		C		2/2
animals	mammals	Muridae	*Melomys sp.*					1
animals	mammals	Muridae	*Rattus sp.*					5
animals	mammals	Muridae	*Hydromys chrysogaster*	water rat		C		5
animals	mammals	Muridae	*Pseudomys delicatulus*	delicate mouse		C		1/1
animals	mammals	Muridae	*Pseudomys gracilicaudatus*	eastern chestnut mouse		C		7/7
animals	mammals	Ornithorhynchidae	*Ornithorhynchus anatinus*	platypus		SL		2
animals	mammals	Peramelidae	*Perameles nasuta*	long-nosed bandicoot		C		3
animals	mammals	Peramelidae	*Isoodon macrourus*	northern brown bandicoot		C		15
animals	mammals	Petauridae	*Petaurus sp.*					1
animals	mammals	Petauridae	*Petaurus breviceps*	sugar glider		C		5/1
animals	mammals	Petauridae	*Petaurus norfolcensis*	squirrel glider		C		1
animals	mammals	Petauridae	*Petaurus australis australis*	yellow-bellied glider (southern subspecies)		C		2
animals	mammals	Phalangeridae	*Trichosurus vulpecula*	common brushtail possum		C		19
animals	mammals	Phascolarctidae	*Phascolarctos cinereus*	koala		V	V	56
animals	mammals	Potoroidae	*Aepyprymnus rufescens*	rufous bettong		C		29/4
animals	mammals	Pseudocheiridae	*Pseudocheirus peregrinus*	common ringtail possum		C		4
animals	mammals	Pseudocheiridae	*Petauroides volans*	greater glider		V	V	17
animals	mammals	Pteropodidae	*Pteropus alecto*	black flying-fox		C		7/1
animals	mammals	Pteropodidae	*Syconycteris australis*	eastern blossom bat		C		2/2
animals	mammals	Rhinolophidae	*Rhinolophus megaphyllus*	eastern horseshoe-bat		C		4
animals	mammals	Tachyglossidae	*Tachyglossus aculeatus*	short-beaked echidna		SL		18
animals	mammals	Vespertilionidae	*Scotorepens sp. (Parnaby)*	central-eastern broad-nosed bat		C		1
animals	mammals	Vespertilionidae	*Vespadelus sp.*					2
animals	mammals	Vespertilionidae	*Myotis macropus*	large-footed myotis		C		1
animals	mammals	Vespertilionidae	*Nyctophilus sp.*					2
animals	mammals	Vespertilionidae	*Scotorepens sp.*					14

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	mammals	Vespertilionidae	*Chalinolobus morio*	chocolate wattled bat		C		5
animals	mammals	Vespertilionidae	*Scotorepens greyii*	little broad-nosed bat		C		18/5
animals	mammals	Vespertilionidae	*Chalinolobus dwyeri*	large-eared pied bat		V	V	1/1
animals	mammals	Vespertilionidae	*Kerivoula papuensis*	golden-tipped bat		C		1/1
animals	mammals	Vespertilionidae	*Chalinolobus gouldii*	Gould's wattled bat		C		17/6
animals	mammals	Vespertilionidae	*Chalinolobus picatus*	little pied bat		C		11
animals	mammals	Vespertilionidae	*Scotorepens balstoni*	inland broad-nosed bat		C		5
animals	mammals	Vespertilionidae	*Scotorepens sanborni*	northern broad-nosed bat		C		1
animals	mammals	Vespertilionidae	*Nyctophilus geoffroyi*	lesser long-eared bat		C		1
animals	mammals	Vespertilionidae	*Vespadelus troughtoni*	eastern cave bat		C		7/3
animals	mammals	Vespertilionidae	*Vespadelus baverstocki*	inland forest bat		C		8
animals	mammals	Vespertilionidae	*Chalinolobus nigrogriseus*	hoary wattled bat		C		14/5
animals	ray-finned fishes	Ambassidae	*Ambassis agassizii*	Agassiz's glassfish				34
animals	ray-finned fishes	Anguillidae	*Anguilla reinhardtii*	longfin eel				13
animals	ray-finned fishes	Apogonidae	*Glossamia aprion*	mouth almighty				16
animals	ray-finned fishes	Ariidae	*Neoarius graeffei*	blue catfish				257
animals	ray-finned fishes	Atherinidae	*Craterocephalus stercusmuscarum*	flyspecked hardyhead				38
animals	ray-finned fishes	Belonidae	*Strongylura krefftii*	freshwater longtom				50
animals	ray-finned fishes	Clupeidae	*Nematalosa erebi*	bony bream				637
animals	ray-finned fishes	Eleotridae	*Oxyeleotris lineolata*	sleepy cod				10
animals	ray-finned fishes	Eleotridae	*Hypseleotris compressa*	empire gudgeon				14
animals	ray-finned fishes	Eleotridae	*Hypseleotris species 1*	Midgley's carp gudgeon				11
animals	ray-finned fishes	Eleotridae	*Mogurnda adspersa*	southern purplespotted gudgeon				23
animals	ray-finned fishes	Eleotridae	*Hypseleotris klunzingeri*	western carp gudgeon				5
animals	ray-finned fishes	Eleotridae	*Hypseleotris galii*	firetail gudgeon				25
animals	ray-finned fishes	Eleotridae	*Philypnodon grandiceps*	flathead gudgeon				4
animals	ray-finned fishes	Hemiramphidae	*Arrhamphus sclerolepis*	snubnose garfish				4
animals	ray-finned fishes	Megalopidae	*Megalops cyprinoides*	oxeye herring				7
animals	ray-finned fishes	Melanotaeniidae	*Melanotaenia splendida splendida*	eastern rainbowfish				43
animals	ray-finned fishes	Melanotaeniidae	*Rhadinocentrus ornatus*	ornate rainbowfish				1
animals	ray-finned fishes	Osteoglossidae	*Scleropages leichardti*	southern saratoga				45
animals	ray-finned fishes	Percichthyidae	*Macquaria ambigua*	golden perch				17
animals	ray-finned fishes	Plotosidae	*Tandanus tandanus*	freshwater catfish				28
animals	ray-finned fishes	Plotosidae	*Neosilurus ater*	black catfish				1
animals	ray-finned fishes	Plotosidae	*Neosilurus hyrtlii*	Hyrtl's catfish				31
animals	ray-finned fishes	Plotosidae	*Porochilus rendahli*	Rendahl's catfish				3
animals	ray-finned fishes	Pseudomugilidae	*Pseudomugil signifer*	Pacific blue eye				8
animals	ray-finned fishes	Scorpaenidae	*Notesthes robusta*	bullrout				1
animals	ray-finned fishes	Terapontidae	*Scortum hillii*	leathery grunter				55
animals	ray-finned fishes	Terapontidae	*Leiopotherapon unicolor*	spangled perch				28
animals	ray-finned fishes	Terapontidae	*Amniataba percoides*	barred grunter				58
animals	reptiles	Agamidae	*Intellagama lesueurii*	eastern water dragon		C		2
animals	reptiles	Agamidae	*Diporiphora sp.*					1
animals	reptiles	Agamidae	*Diporiphora nobbi*	nobbi		C		4
animals	reptiles	Agamidae	*Chlamydosaurus kingii*	frilled lizard		C		5/1
animals	reptiles	Agamidae	*Diporiphora australis*	tommy roundhead		C		13/6

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	reptiles	Agamidae	*Diporiphora bilineata*	two-lined dragon		C		1
animals	reptiles	Boidae	*Antaresia maculosa*	spotted python		C		3
animals	reptiles	Boidae	*Morelia spilota*	carpet python		C		8/1
animals	reptiles	Boidae	*Aspidites melanocephalus*	black-headed python		C		5/1
animals	reptiles	Carphodactylidae	*Nephrurus asper*	spiny knob-tailed gecko		C		14/1
animals	reptiles	Chelidae	*Rheodytes leukops*	Fitzroy River turtle		V	V	9
animals	reptiles	Chelidae	*Chelodina longicollis*	eastern snake-necked turtle		C		2/2
animals	reptiles	Chelidae	*Elseya albagula*	southern snapping turtle		E	CE	7
animals	reptiles	Chelidae	*Wollumbinia latisternum*	saw-shelled turtle		C		16/3
animals	reptiles	Chelidae	*Emydura macquarii krefftii*	Krefft's river turtle		C		27/3
animals	reptiles	Cheloniidae	*Chelonia mydas*	green turtle		V	V	1
animals	reptiles	Cheloniidae	*Eretmochelys imbricata*	hawksbill turtle		E	V	1
animals	reptiles	Cheloniidae	*Natator depressus*	flatback turtle		V	V	6
animals	reptiles	Colubridae	*Dendrelaphis punctulatus*	green tree snake		C		22/3
animals	reptiles	Colubridae	*Boiga irregularis*	brown tree snake		C		9/4
animals	reptiles	Colubridae	*Tropidonophis mairii*	freshwater snake		C		9/2
animals	reptiles	Crocodylidae	*Crocodylus porosus*	estuarine crocodile		V		2
animals	reptiles	Diplodactylidae	*Lucasium steindachneri*	Steindachner's gecko		C		5/5
animals	reptiles	Diplodactylidae	*Diplodactylus vittatus*	wood gecko		C		5/3
animals	reptiles	Diplodactylidae	*Strophurus williamsi*	soft-spined gecko		C		5/1
animals	reptiles	Diplodactylidae	*Oedura monilis sensu lato*	ocellated velvet gecko		C		7/4
animals	reptiles	Diplodactylidae	*Amalosia rhombifer*	zig-zag gecko		C		6/5
animals	reptiles	Diplodactylidae	*Oedura tryoni*	southern spotted velvet gecko		C		5/4
animals	reptiles	Diplodactylidae	*Diplodactylus platyurus*	eastern fat-tailed gecko		C		1/1
animals	reptiles	Diplodactylidae	*Nebulifera robusta*	robust velvet gecko		C		1/1
animals	reptiles	Elapidae	*Furina diadema*	red-naped snake		C		1/1
animals	reptiles	Elapidae	*Cryptophis nigrostriatus*	black-striped snake		C		1/1
animals	reptiles	Elapidae	*Brachyurophis australis*	coral snake		C		1/1
animals	reptiles	Elapidae	*Acanthophis antarcticus*	common death adder		V		1
animals	reptiles	Elapidae	*Oxyuranus scutellatus*	coastal taipan		C		2/1
animals	reptiles	Elapidae	*Hoplocephalus bitorquatus*	pale-headed snake		C		7/1
animals	reptiles	Elapidae	*Suta suta*	myall snake		C		2/1
animals	reptiles	Elapidae	*Demansia torquata*	collared whipsnake		C		4/1
animals	reptiles	Elapidae	*Hemiaspis damelii*	grey snake		E		1
animals	reptiles	Elapidae	*Denisonia maculata*	ornamental snake		V	V	2
animals	reptiles	Elapidae	*Cryptophis boschmai*	Carpentaria whip snake		C		6/3
animals	reptiles	Elapidae	*Demansia psammophis*	yellow-faced whipsnake		C		2
animals	reptiles	Elapidae	*Demansia vestigiata*	lesser black whipsnake		C		4/4
animals	reptiles	Elapidae	*Pseudonaja textilis*	eastern brown snake		C		4/1
animals	reptiles	Elapidae	*Vermicella annulata*	bandy-bandy		C		2/1
animals	reptiles	Elapidae	*Pseudechis australis*	king brown snake		C		1
animals	reptiles	Elapidae	*Cryptophis nigrescens*	eastern small-eyed snake		C		3/1
animals	reptiles	Gekkonidae	*Gehyra sp.*					1/1
animals	reptiles	Gekkonidae	*Gehyra dubia*	dubious dtella		C		32/6
animals	reptiles	Gekkonidae	*Heteronotia binoei*	Bynoe's gecko		C		77/7
animals	reptiles	Pygopodidae	*Paradelma orientalis*	brigalow scaly-foot		C		3/1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	reptiles	Pygopodidae	*Lialis burtonis*	Burton's legless lizard		C		8/2
animals	reptiles	Scincidae	*Cyclodomorphus gerrardii*	pink-tongued lizard		C		3/3
animals	reptiles	Scincidae	*Cryptoblepharus metallicus*	metallic snake-eyed skink		C		7/5
animals	reptiles	Scincidae	*Liburnascincus mundivensis*	outcrop rainbow-skink		C		3
animals	reptiles	Scincidae	*Glaphyromorphus punctulatus*	fine-spotted mulch-skink		C		13/9
animals	reptiles	Scincidae	*Carlia pectoralis sensu lato*			C		23/4
animals	reptiles	Scincidae	*Cryptoblepharus pulcher pulcher*	elegant snake-eyed skink		C		36
animals	reptiles	Scincidae	*Cryptoblepharus virgatus sensu lato*			C		12/6
animals	reptiles	Scincidae	*Carlia sp.*					8/3
animals	reptiles	Scincidae	*Menetia sp.*					1/1
animals	reptiles	Scincidae	*Carlia munda*	shaded-litter rainbow-skink		C		17/15
animals	reptiles	Scincidae	*Carlia vivax*	tussock rainbow-skink		C		13/7
animals	reptiles	Scincidae	*Ctenotus sp.*					4/1
animals	reptiles	Scincidae	*Carlia rubigo*	orange-flanked rainbow skink		C		30
animals	reptiles	Scincidae	*Eulamprus sp.*					2
animals	reptiles	Scincidae	*Anomalopus sp.*					1/1
animals	reptiles	Scincidae	*Menetia greyii*	common dwarf skink		C		3
animals	reptiles	Scincidae	*Concinnia tenuis*	bar-sided skink		C		4/2
animals	reptiles	Scincidae	*Eulamprus quoyii*	eastern water skink		C		7/6
animals	reptiles	Scincidae	*Lerista fragilis*	eastern mulch slider		C		2/1
animals	reptiles	Scincidae	*Carlia pectoralis*	open-litter rainbow skink		C		2
animals	reptiles	Scincidae	*Carlia schmeltzii*	robust rainbow-skink		C		28/5
animals	reptiles	Scincidae	*Concinnia martini*	dark bar-sided skink		C		2/2
animals	reptiles	Scincidae	*Eremiascincus sp.*					1
animals	reptiles	Scincidae	*Concinnia sokosoma*	stout bar-sided skink		C		1
animals	reptiles	Scincidae	*Ctenotus spaldingi*	straight-browed ctenotus		C		6/4
animals	reptiles	Scincidae	*Ctenotus strauchii*	eastern barred wedgesnout ctenotus		C		4/1
animals	reptiles	Scincidae	*Tiliqua scincoides*	eastern blue-tongued lizard		C		3/2
animals	reptiles	Scincidae	*Carlia rhomboidalis*	blue-throated rainbow-skink		C		1/1
animals	reptiles	Scincidae	*Cryptoblepharus sp.*					5
animals	reptiles	Scincidae	*Lampropholis adonis*	diamond-shielded sunskink		C		3/3
animals	reptiles	Scincidae	*Lygisaurus foliorum*	tree-base litter-skink		C		47/14
animals	reptiles	Scincidae	*Morethia boulengeri*	south-eastern morethia skink		C		1
animals	reptiles	Scincidae	*Concinnia brachysoma*	northern bar-sided skink		C		6
animals	reptiles	Scincidae	*Ctenotus taeniolatus*	copper-tailed skink		C		36/8
animals	reptiles	Scincidae	*Calyptotis temporalis*	broad-templed calyptotis		C		4/3
animals	reptiles	Scincidae	*Lampropholis delicata*	dark-flecked garden sunskink		C		2/2
animals	reptiles	Scincidae	*Morethia taeniopleura*	fire-tailed skink		C		10/1
animals	reptiles	Scincidae	*Anomalopus brevicollis*	short-necked worm-skink		C		4/4
animals	reptiles	Scincidae	*Pygmaeascincus timlowi*	dwarf litter-skink		C		7/6
animals	reptiles	Scincidae	*Cryptoblepharus pannosus*	ragged snake-eyed skink		C		1/1
animals	reptiles	Typhlopidae	*Anilios affinis*	small-headed blind snake		C		1
animals	reptiles	Typhlopidae	*Anilios ligatus*	robust blind snake		C		2/1
animals	reptiles	Varanidae	*Varanus semiremex*	rusty monitor		C		1/1
animals	reptiles	Varanidae	*Varanus varius*	lace monitor		C		2/1
animals	reptiles	Varanidae	*Varanus sp.*	goanna				2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	reptiles	Varanidae	*Varanus tristis*	black-tailed monitor		C		4/2
animals	uncertain	Indeterminate	*Indeterminate*	Unknown or Code Pending		C		34

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 in the Wild (PE), Endangered (E), Vulnerable (V), Near Threatened (NT), Least Concern (C) or Not Protected ( ).

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

Records – The first number indicates the total number of records of the taxon for the record option selected (i.e. All, Confirmed or Specimens).
This number is output as 99999 if it equals or exceeds this value. The second number located after the / indicates the number of specimen records for the taxon.
This number is output as 999 if it equals or exceeds this value.

Queensland Government

Wildlife Online Extract

Search Criteria: Species List for a Specified Point
Species: Animals
Type: Native
Status: All
Records: Confirmed
Date: Since 1980
Latitude: -22.7045
Longitude: 149.6867
Distance: 90
Email: lindsay@austecology.com.au
Date submitted: Thursday 19 Mar 2020 11:40:23
Date extracted: Thursday 19 Mar 2020 11:50:11

The number of records retrieved = 552

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Hylidae	*Litoria rothii*	northern laughing treefrog		C		13/2
animals	amphibians	Hylidae	*Cyclorana novaehollandiae*	eastern snapping frog		C		11/1
animals	amphibians	Hylidae	*Cyclorana alboguttata*	greenstripe frog		C		39/4
animals	amphibians	Hylidae	*Litoria latopalmata*	broad palmed rocketfrog		C		22/2
animals	amphibians	Hylidae	*Cyclorana verrucosa*	rough collared frog		C		1
animals	amphibians	Hylidae	*Litoria gracilenta*	graceful treefrog		C		3/1
animals	amphibians	Hylidae	*Cyclorana brevipes*	superb collared frog		C		4/1
animals	amphibians	Hylidae	*Litoria wilcoxii*	eastern stony creek frog		C		12/5
animals	amphibians	Hylidae	*Litoria caerulea*	common green treefrog		C		61/2
animals	amphibians	Hylidae	*Litoria rubella*	ruddy treefrog		C		31/2
animals	amphibians	Hylidae	*Litoria sp.*					5
animals	amphibians	Hylidae	*Litoria fallax*	eastern sedgefrog		C		30/2
animals	amphibians	Hylidae	*Litoria nasuta*	striped rocketfrog		C		3/2
animals	amphibians	Hylidae	*Litoria inermis*	bumpy rocketfrog		C		24/6
animals	amphibians	Hylidae	*Litoria peronii*	emerald spotted treefrog		C		1
animals	amphibians	Limnodynastidae	*Platyplectrum ornatum*	ornate burrowing frog		C		53/12
animals	amphibians	Limnodynastidae	*Adelotus brevis*	tusked frog		V		2
animals	amphibians	Limnodynastidae	*Limnodynastes peronii*	striped marshfrog		C		9/3
animals	amphibians	Limnodynastidae	*Limnodynastes salmini*	salmon striped frog		C		19/2
animals	amphibians	Limnodynastidae	*Limnodynastes terraereginae*	scarlet sided pobblebonk		C		26/11
animals	amphibians	Limnodynastidae	*Limnodynastes tasmaniensis*	spotted grassfrog		C		44/16
animals	amphibians	Myobatrachidae	*Pseudophryne major*	great brown broodfrog		C		8/8
animals	amphibians	Myobatrachidae	*Crinia deserticola*	chirping froglet		C		14/9
animals	amphibians	Myobatrachidae	*Uperoleia rugosa*	chubby gungan		C		7/6
animals	arachnids	Theraphosidae	*Selenocosmia sp.*			C		1
animals	birds	Acanthizidae	*Sericornis magnirostra*	large-billed scrubwren		C		1
animals	birds	Acanthizidae	*Acanthiza uropygialis*	chestnut-rumped thornbill		C		1
animals	birds	Acanthizidae	*Acanthiza chrysorrhoa*	yellow-rumped thornbill		C		9
animals	birds	Acanthizidae	*Sericornis frontalis*	white-browed scrubwren		C		12
animals	birds	Acanthizidae	*Acanthiza reguloides*	buff-rumped thornbill		C		6/4
animals	birds	Acanthizidae	*Gerygone palpebrosa*	fairy gerygone		C		23/5
animals	birds	Acanthizidae	*Pyrrholaemus sagittatus*	speckled warbler		C		1
animals	birds	Acanthizidae	*Acanthiza apicalis*	inland thornbill		C		1
animals	birds	Acanthizidae	*Gerygone olivacea*	white-throated gerygone		C		50/4
animals	birds	Acanthizidae	*Acanthiza pusilla*	brown thornbill		C		2
animals	birds	Acanthizidae	*Acanthiza nana*	yellow thornbill		C		6
animals	birds	Acanthizidae	*Smicrornis brevirostris*	weebill		C		35/3
animals	birds	Acanthizidae	*Gerygone levigaster*	mangrove gerygone		C		5/2
animals	birds	Accipitridae	*Haliastur sphenurus*	whistling kite		C		80
animals	birds	Accipitridae	*Aviceda subcristata*	Pacific baza		C		24/3
animals	birds	Accipitridae	*Accipiter fasciatus*	brown goshawk		C		13/2
animals	birds	Accipitridae	*Lophoictinia isura*	square-tailed kite		C		12
animals	birds	Accipitridae	*Circus approximans*	swamp harrier		C		1
animals	birds	Accipitridae	*Pandion cristatus*	eastern osprey		SL		70/3
animals	birds	Accipitridae	*Elanus axillaris*	black-shouldered kite		C		10
animals	birds	Accipitridae	*Circus assimilis*	spotted harrier		C		9

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Accipitridae	*Haliastur indus*	brahminy kite		C		44/3
animals	birds	Accipitridae	*Milvus migrans*	black kite		C		29
animals	birds	Accipitridae	*Aquila audax*	wedge-tailed eagle		C		65/2
animals	birds	Accipitridae	*Haliaeetus leucogaster*	white-bellied sea-eagle		C		107/5
animals	birds	Accipitridae	*Accipiter cirrocephalus*	collared sparrowhawk		C		13
animals	birds	Accipitridae	*Hieraaetus morphnoides*	little eagle		C		2
animals	birds	Acrocephalidae	*Acrocephalus australis*	Australian reed-warbler		C		9
animals	birds	Aegothelidae	*Aegotheles cristatus*	Australian owlet-nightjar		C		15/1
animals	birds	Alaudidae	*Mirafra javanica*	Horsfield's bushlark		C		13/4
animals	birds	Alcedinidae	*Ceyx azureus*	azure kingfisher		C		16/4
animals	birds	Anatidae	*Radjah radjah*	radjah shelduck		C		13/5
animals	birds	Anatidae	*Cygnus atratus*	black swan		C		24
animals	birds	Anatidae	*Nettapus coromandelianus*	cotton pygmy-goose		C		36
animals	birds	Anatidae	*Anas superciliosa*	Pacific black duck		C		103
animals	birds	Anatidae	*Chenonetta jubata*	Australian wood duck		C		62
animals	birds	Anatidae	*Dendrocygna eytoni*	plumed whistling-duck		C		26
animals	birds	Anatidae	*Spatula rhynchotis*	Australasian shoveler		C		4
animals	birds	Anatidae	*Dendrocygna arcuata*	wandering whistling-duck		C		18
animals	birds	Anatidae	*Nettapus pulchellus*	green pygmy-goose		C		2
animals	birds	Anatidae	*Stictonetta naevosa*	freckled duck		C		4
animals	birds	Anatidae	*Anas gracilis*	grey teal		C		59
animals	birds	Anatidae	*Anas castanea*	chestnut teal		C		5
animals	birds	Anatidae	*Malacorhynchus membranaceus*	pink-eared duck		C		10
animals	birds	Anatidae	*Aythya australis*	hardhead		C		51
animals	birds	Anhingidae	*Anhinga novaehollandiae*	Australasian darter		C		63
animals	birds	Anseranatidae	*Anseranas semipalmata*	magpie goose		C		22
animals	birds	Apodidae	*Apus pacificus*	fork-tailed swift		SL		5/1
animals	birds	Apodidae	*Hirundapus caudacutus*	white-throated needletail		V	V	5
animals	birds	Ardeidae	*Egretta picata*	pied heron		C		1
animals	birds	Ardeidae	*Ardea intermedia*	intermediate egret		C		41
animals	birds	Ardeidae	*Butorides striata*	striated heron		C		17/1
animals	birds	Ardeidae	*Ixobrychus dubius*	Australian little bittern		C		1
animals	birds	Ardeidae	*Ardea alba modesta*	eastern great egret		C		61
animals	birds	Ardeidae	*Ixobrychus flavicollis*	black bittern		C		2
animals	birds	Ardeidae	*Nycticorax caledonicus*	nankeen night-heron		C		13
animals	birds	Ardeidae	*Egretta novaehollandiae*	white-faced heron		C		97/1
animals	birds	Ardeidae	*Ardea pacifica*	white-necked heron		C		27
animals	birds	Ardeidae	*Egretta sacra*	eastern reef egret		C		50/2
animals	birds	Ardeidae	*Bubulcus ibis*	cattle egret		C		37
animals	birds	Ardeidae	*Egretta garzetta*	little egret		C		28
animals	birds	Artamidae	*Gymnorhina tibicen*	Australian magpie		C		138/2
animals	birds	Artamidae	*Strepera graculina*	pied currawong		C		99/1
animals	birds	Artamidae	*Cracticus torquatus*	grey butcherbird		C		35/2
animals	birds	Artamidae	*Artamus leucorynchus*	white-breasted woodswallow		C		67/2
animals	birds	Artamidae	*Artamus superciliosus*	white-browed woodswallow		C		9
animals	birds	Artamidae	*Cracticus nigrogularis*	pied butcherbird		C		136/6

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Artamidae	*Artamus minor*	little woodswallow		C		1/1
animals	birds	Artamidae	*Artamus cinereus*	black-faced woodswallow		C		35/9
animals	birds	Artamidae	*Artamus personatus*	masked woodswallow		C		7
animals	birds	Burhinidae	*Esacus magnirostris*	beach stone-curlew		V		120/3
animals	birds	Burhinidae	*Burhinus grallarius*	bush stone-curlew		C		20/2
animals	birds	Cacatuidae	*Cacatua galerita*	sulphur-crested cockatoo		C		117/4
animals	birds	Cacatuidae	*Cacatua sanguinea*	little corella		C		10
animals	birds	Cacatuidae	*Eolophus roseicapilla*	galah		C		33
animals	birds	Cacatuidae	*Nymphicus hollandicus*	cockatiel		C		8
animals	birds	Cacatuidae	*Calyptorhynchus banksii*	red-tailed black-cockatoo		C		38/2
animals	birds	Cacatuidae	*Calyptorhynchus lathami erebus*	glossy black-cockatoo (northern)		V		4/2
animals	birds	Cacatuidae	*Calyptorhynchus funereus*	yellow-tailed black-cockatoo		C		1
animals	birds	Campephagidae	*Coracina novaehollandiae*	black-faced cuckoo-shrike		C		97/2
animals	birds	Campephagidae	*Coracina tenuirostris*	cicadabird		C		31/5
animals	birds	Campephagidae	*Coracina papuensis*	white-bellied cuckoo-shrike		C		30/5
animals	birds	Campephagidae	*Lalage leucomela*	varied triller		C		50/4
animals	birds	Campephagidae	*Coracina maxima*	ground cuckoo-shrike		C		2
animals	birds	Campephagidae	*Lalage tricolor*	white-winged triller		C		11
animals	birds	Caprimulgidae	*Caprimulgus macrurus*	large-tailed nightjar		C		6/1
animals	birds	Casuariidae	*Dromaius novaehollandiae*	emu		C		14
animals	birds	Charadriidae	*Pluvialis squatarola*	grey plover		SL		22
animals	birds	Charadriidae	*Charadrius ruficapillus*	red-capped plover		C		32
animals	birds	Charadriidae	*Charadrius leschenaultii*	greater sand plover		V	V	15
animals	birds	Charadriidae	*Vanellus miles novaehollandiae*	masked lapwing (southern subspecies)		C		55/2
animals	birds	Charadriidae	*Erythrogonys cinctus*	red-kneed dotterel		C		8
animals	birds	Charadriidae	*Charadrius mongolus*	lesser sand plover		E	E	35/1
animals	birds	Charadriidae	*Elseyornis melanops*	black-fronted dotterel		C		30/2
animals	birds	Charadriidae	*Charadrius sp.*					2
animals	birds	Charadriidae	*Vanellus miles*	masked lapwing		C		19
animals	birds	Charadriidae	*Pluvialis fulva*	Pacific golden plover		SL		13/1
animals	birds	Charadriidae	*Vanellus tricolor*	banded lapwing		C		2
animals	birds	Ciconiidae	*Ephippiorhynchus asiaticus*	black-necked stork		C		16
animals	birds	Cisticolidae	*Cisticola exilis*	golden-headed cisticola		C		45/4
animals	birds	Cisticolidae	*Cisticola juncidis laveryi*	zitting cisticola		C		3
animals	birds	Climacteridae	*Climacteris picumnus*	brown treecreeper		C		3/1
animals	birds	Climacteridae	*Cormobates leucophaea metastasis*	white-throated treecreeper (southern)		C		8
animals	birds	Columbidae	*Phaps chalcoptera*	common bronzewing		C		3
animals	birds	Columbidae	*Geophaps scripta scripta*	squatter pigeon (southern subspecies)		V	V	95/6
animals	birds	Columbidae	*Lopholaimus antarcticus*	topknot pigeon		C		5
animals	birds	Columbidae	*Leucosarcia melanoleuca*	wonga pigeon		C		4
animals	birds	Columbidae	*Macropygia amboinensis*	brown cuckoo-dove		C		5/1
animals	birds	Columbidae	*Ptilinopus magnificus*	wompoo fruit-dove		C		1
animals	birds	Columbidae	*Geopelia humeralis*	bar-shouldered dove		C		97/1
animals	birds	Columbidae	*Chalcophaps indica*	emerald dove		C		9
animals	birds	Columbidae	*Ptilinopus regina*	rose-crowned fruit-dove		C		25
animals	birds	Columbidae	*Ocyphaps lophotes*	crested pigeon		C		55

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Columbidae	*Geopelia striata*	peaceful dove		C		85/2
animals	birds	Columbidae	*Ducula bicolor*	pied imperial-pigeon		C		9/2
animals	birds	Coraciidae	*Eurystomus orientalis*	dollarbird		C		70/4
animals	birds	Corcoracidae	*Corcorax melanorhamphos*	white-winged chough		C		19
animals	birds	Corcoracidae	*Struthidea cinerea*	apostlebird		C		30
animals	birds	Corvidae	*Corvus orru*	Torresian crow		C		217
animals	birds	Corvidae	*Corvus coronoides*	Australian raven		C		7
animals	birds	Cuculidae	*Centropus phasianinus*	pheasant coucal		C		79/9
animals	birds	Cuculidae	*Cacomantis variolosus*	brush cuckoo		C		9/1
animals	birds	Cuculidae	*Eudynamys orientalis*	eastern koel		C		41/8
animals	birds	Cuculidae	*Chalcites minutillus*	little bronze-cuckoo		C		5/3
animals	birds	Cuculidae	*Cacomantis pallidus*	pallid cuckoo		C		11
animals	birds	Cuculidae	*Cacomantis flabelliformis*	fan-tailed cuckoo		C		22/1
animals	birds	Cuculidae	*Scythrops novaehollandiae*	channel-billed cuckoo		C		70/9
animals	birds	Cuculidae	*Chalcites basalis*	Horsfield's bronze-cuckoo		C		7
animals	birds	Cuculidae	*Cuculus optatus*	oriental cuckoo		SL		3/3
animals	birds	Cuculidae	*Chalcites minutillus barnardi*	Eastern little bronze-cuckoo		C		5
animals	birds	Cuculidae	*Chalcites lucidus*	shining bronze-cuckoo		C		20/3
animals	birds	Dicruridae	*Dicrurus bracteatus*	spangled drongo		C		73/2
animals	birds	Estrildidae	*Neochmia temporalis*	red-browed finch		C		2/2
animals	birds	Estrildidae	*Lonchura castaneothorax*	chestnut-breasted mannikin		C		17/2
animals	birds	Estrildidae	*Neochmia modesta*	plum-headed finch		C		16
animals	birds	Estrildidae	*Neochmia phaeton phaeton*	crimson finch		C		2
animals	birds	Estrildidae	*Taeniopygia guttata*	zebra finch		C		14
animals	birds	Estrildidae	*Taeniopygia bichenovii*	double-barred finch		C		75/3
animals	birds	Eurostopodidae	*Eurostopodus mystacalis*	white-throated nightjar		C		10/2
animals	birds	Eurostopodidae	*Eurostopodus argus*	spotted nightjar		C		1
animals	birds	Falconidae	*Falco berigora*	brown falcon		C		50/1
animals	birds	Falconidae	*Falco subniger*	black falcon		C		1
animals	birds	Falconidae	*Falco longipennis*	Australian hobby		C		8
animals	birds	Falconidae	*Falco peregrinus*	peregrine falcon		C		14
animals	birds	Falconidae	*Falco cenchroides*	nankeen kestrel		C		33
animals	birds	Falconidae	*Falco hypoleucos*	grey falcon		V		1
animals	birds	Glareolidae	*Stiltia isabella*	Australian pratincole		C		1
animals	birds	Gruidae	*Antigone rubicunda*	brolga		C		26
animals	birds	Haematopodidae	*Haematopus fuliginosus*	sooty oystercatcher		C		51/5
animals	birds	Haematopodidae	*Haematopus longirostris*	Australian pied oystercatcher		C		96/6
animals	birds	Halcyonidae	*Dacelo leachii*	blue-winged kookaburra		C		53/4
animals	birds	Halcyonidae	*Todiramphus macleayii*	forest kingfisher		C		77/1
animals	birds	Halcyonidae	*Todiramphus sordidus*	Torresian kingfisher		C		8/1
animals	birds	Halcyonidae	*Todiramphus pyrrhopygius*	red-backed kingfisher		C		4
animals	birds	Halcyonidae	*Dacelo novaeguineae*	laughing kookaburra		C		146/5
animals	birds	Halcyonidae	*Todiramphus sanctus*	sacred kingfisher		C		45
animals	birds	Hirundinidae	*Petrochelidon nigricans*	tree martin		C		10/1
animals	birds	Hirundinidae	*Petrochelidon ariel*	fairy martin		C		26
animals	birds	Hirundinidae	*Hirundo neoxena*	welcome swallow		C		72/3

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Jacanidae	*Irediparra gallinacea*	comb-crested jacana		C		28/1
animals	birds	Laridae	*Sterna hirundo*	common tern		SL		1
animals	birds	Laridae	*Sterna sumatrana*	black-naped tern		SL		1
animals	birds	Laridae	*Thalasseus bergii*	crested tern		SL		36/4
animals	birds	Laridae	*Chlidonias hybrida*	whiskered tern		C		7
animals	birds	Laridae	*Chroicocephalus novaehollandiae*	silver gull		C		88/3
animals	birds	Laridae	*Sternula albifrons*	little tern		SL		24/2
animals	birds	Laridae	*Gelochelidon nilotica*	gull-billed tern		SL		33
animals	birds	Laridae	*Onychoprion anaethetus*	bridled tern		SL		2
animals	birds	Laridae	*Thalasseus bengalensis*	lesser crested tern		C		13
animals	birds	Laridae	*Hydroprogne caspia*	Caspian tern		SL		78/3
animals	birds	Maluridae	*Malurus melanocephalus*	red-backed fairy-wren		C		106/2
animals	birds	Maluridae	*Malurus lamberti*	variegated fairy-wren		C		3
animals	birds	Maluridae	*Malurus sp.*					1
animals	birds	Megaluridae	*Cincloramphus cruralis*	brown songlark		C		3
animals	birds	Megaluridae	*Cincloramphus mathewsi*	rufous songlark		C		12/1
animals	birds	Megaluridae	*Megalurus gramineus*	little grassbird		C		5
animals	birds	Megaluridae	*Megalurus timoriensis*	tawny grassbird		C		15
animals	birds	Megapodiidae	*Megapodius reinwardt*	orange-footed scrubfowl		C		9/1
animals	birds	Megapodiidae	*Alectura lathami*	Australian brush-turkey		C		34/1
animals	birds	Meliphagidae	*Entomyzon cyanotis*	blue-faced honeyeater		C		82/9
animals	birds	Meliphagidae	*Manorina flavigula*	yellow-throated miner		C		17
animals	birds	Meliphagidae	*Gavicalis virescens*	singing honeyeater		C		4
animals	birds	Meliphagidae	*Gavicalis versicolor*	varied honeyeater		C		3/1
animals	birds	Meliphagidae	*Lichmera indistincta*	brown honeyeater		C		78/1
animals	birds	Meliphagidae	*Melithreptus gularis*	black-chinned honeyeater		C		6/3
animals	birds	Meliphagidae	*Melithreptus lunatus*	white-naped honeyeater		C		7
animals	birds	Meliphagidae	*Philemon corniculatus*	noisy friarbird		C		114/6
animals	birds	Meliphagidae	*Ptilotula penicillata*	white-plumed honeyeater		C		1
animals	birds	Meliphagidae	*Ramsayornis fasciatus*	bar-breasted honeyeater		C		15/5
animals	birds	Meliphagidae	*Manorina melanocephala*	noisy miner		C		63/8
animals	birds	Meliphagidae	*Myzomela sanguinolenta*	scarlet honeyeater		C		34/2
animals	birds	Meliphagidae	*Philemon citreogularis*	little friarbird		C		65/7
animals	birds	Meliphagidae	*Conopophila rufogularis*	rufous-throated honeyeater		C		1
animals	birds	Meliphagidae	*Gavicalis fasciogularis*	mangrove honeyeater		C		43/1
animals	birds	Meliphagidae	*Acanthagenys rufogularis*	spiny-cheeked honeyeater		C		1
animals	birds	Meliphagidae	*Melithreptus albogularis*	white-throated honeyeater		C		117/7
animals	birds	Meliphagidae	*Plectorhyncha lanceolata*	striped honeyeater		C		18
animals	birds	Meliphagidae	*Melithreptus brevirostris*	brown-headed honeyeater		C		2
animals	birds	Meliphagidae	*Acanthorhynchus tenuirostris*	eastern spinebill		C		1
animals	birds	Meliphagidae	*Epthianura crocea macgregori*	yellow chat (Dawson)		E	CE	50
animals	birds	Meliphagidae	*Ptilotula fusca*	fuscous honeyeater		C		5/5
animals	birds	Meliphagidae	*Myzomela obscura*	dusky honeyeater		C		24/1
animals	birds	Meliphagidae	*Stomiopera flava*	yellow honeyeater		C		12/2
animals	birds	Meliphagidae	*Epthianura crocea*	yellow chat		V		1
animals	birds	Meliphagidae	*Meliphaga lewinii*	Lewin's honeyeater		C		82/5

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Meropidae	*Merops ornatus*	rainbow bee-eater		C		150/3
animals	birds	Monarchidae	*Myiagra ruficollis*	broad-billed flycatcher		C		2/1
animals	birds	Monarchidae	*Myiagra cyanoleuca*	satin flycatcher		SL		4
animals	birds	Monarchidae	*Monarcha melanopsis*	black-faced monarch		SL		8
animals	birds	Monarchidae	*Grallina cyanoleuca*	magpie-lark		C		91
animals	birds	Monarchidae	*Carterornis leucotis*	white-eared monarch		C		13/2
animals	birds	Monarchidae	*Symposiachrus trivirgatus*	spectacled monarch		SL		9
animals	birds	Monarchidae	*Myiagra alecto*	shining flycatcher		C		8/5
animals	birds	Monarchidae	*Myiagra inquieta*	restless flycatcher		C		8/1
animals	birds	Monarchidae	*Myiagra rubecula*	leaden flycatcher		C		87/8
animals	birds	Motacillidae	*Anthus novaeseelandiae*	Australasian pipit		C		36/3
animals	birds	Nectariniidae	*Dicaeum hirundinaceum*	mistletoebird		C		79
animals	birds	Nectariniidae	*Cinnyris jugularis*	olive-backed sunbird		C		9
animals	birds	Neosittidae	*Daphoenositta chrysoptera*	varied sittella		C		6/4
animals	birds	Oriolidae	*Sphecotheres vieilloti*	Australasian figbird		C		65/3
animals	birds	Oriolidae	*Oriolus sagittatus*	olive-backed oriole		C		39/1
animals	birds	Otididae	*Ardeotis australis*	Australian bustard		C		36/3
animals	birds	Pachycephalidae	*Pachycephala melanura*	mangrove golden whistler		C		2/1
animals	birds	Pachycephalidae	*Pachycephala rufiventris*	rufous whistler		C		83/2
animals	birds	Pachycephalidae	*Colluricincla harmonica*	grey shrike-thrush		C		62/2
animals	birds	Pachycephalidae	*Pachycephala pectoralis*	golden whistler		C		17/6
animals	birds	Pachycephalidae	*Colluricincla megarhyncha*	little shrike-thrush		C		30/2
animals	birds	Pardalotidae	*Pardalotus punctatus*	spotted pardalote		C		3
animals	birds	Pardalotidae	*Pardalotus rubricatus*	red-browed pardalote		C		1
animals	birds	Pardalotidae	*Pardalotus striatus*	striated pardalote		C		113/6
animals	birds	Pelecanidae	*Pelecanus conspicillatus*	Australian pelican		C		110/2
animals	birds	Petroicidae	*Peneoenanthe pulverulenta*	mangrove robin		C		1
animals	birds	Petroicidae	*Eopsaltria australis*	eastern yellow robin		C		14/1
animals	birds	Petroicidae	*Microeca fascinans*	jacky winter		C		2/2
animals	birds	Petroicidae	*Petroica rosea*	rose robin		C		3/2
animals	birds	Phalacrocoracidae	*Phalacrocorax varius*	pied cormorant		C		42/1
animals	birds	Phalacrocoracidae	*Phalacrocorax sulcirostris*	little black cormorant		C		53/1
animals	birds	Phalacrocoracidae	*Microcarbo melanoleucos*	little pied cormorant		C		53
animals	birds	Phalacrocoracidae	*Phalacrocorax carbo*	great cormorant		C		6
animals	birds	Phasianidae	*Excalfactoria chinensis*	king quail		C		1/1
animals	birds	Phasianidae	*Coturnix ypsilophora*	brown quail		C		36/1
animals	birds	Pittidae	*Pitta versicolor*	noisy pitta		C		2
animals	birds	Podargidae	*Podargus strigoides*	tawny frogmouth		C		33
animals	birds	Podicipedidae	*Poliocephalus poliocephalus*	hoary-headed grebe		C		1
animals	birds	Podicipedidae	*Podiceps cristatus*	great crested grebe		C		5
animals	birds	Podicipedidae	*Tachybaptus novaehollandiae*	Australasian grebe		C		58
animals	birds	Pomatostomidae	*Pomatostomus temporalis*	grey-crowned babbler		C		40/3
animals	birds	Procellariidae	*Ardenna tenuirostris*	short-tailed shearwater		SL		2/2
animals	birds	Psittacidae	*Parvipsitta pusilla*	little lorikeet		C		7/2
animals	birds	Psittacidae	*Alisterus scapularis*	Australian king-parrot		C		8
animals	birds	Psittacidae	*Platycercus adscitus*	pale-headed rosella		C		114/11

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Psittacidae	*Glossopsitta concinna*	musk lorikeet		C		2
animals	birds	Psittacidae	*Melopsittacus undulatus*	budgerigar		C		2
animals	birds	Psittacidae	*Aprosmictus erythropterus*	red-winged parrot		C		71/6
animals	birds	Psittacidae	*Trichoglossus chlorolepidotus*	scaly-breasted lorikeet		C		60/6
animals	birds	Psittacidae	*Platycercus adscitus palliceps*	pale-headed rosella (southern form)		C		1
animals	birds	Psittacidae	*Trichoglossus haematodus moluccanus*	rainbow lorikeet		C		187/12
animals	birds	Psophodidae	*Psophodes olivaceus*	eastern whipbird		C		1
animals	birds	Ptilonorhynchidae	*Ptilonorhynchus maculatus*	spotted bowerbird		C		8
animals	birds	Rallidae	*Gallinula tenebrosa*	dusky moorhen		C		53/4
animals	birds	Rallidae	*Porphyrio melanotus*	purple swamphen		C		29
animals	birds	Rallidae	*Fulica atra*	Eurasian coot		C		27
animals	birds	Rallidae	*Tribonyx ventralis*	black-tailed native-hen		C		2
animals	birds	Rallidae	*Amaurornis moluccana*	pale-vented bush-hen		C		3
animals	birds	Rallidae	*Gallirallus philippensis*	buff-banded rail		C		7/3
animals	birds	Recurvirostridae	*Recurvirostra novaehollandiae*	red-necked avocet		C		5
animals	birds	Recurvirostridae	*Himantopus himantopus*	black-winged stilt		C		27
animals	birds	Rhipiduridae	*Rhipidura leucophrys*	willie wagtail		C		90
animals	birds	Rhipiduridae	*Rhipidura rufifrons*	rufous fantail		SL		21/1
animals	birds	Rhipiduridae	*Rhipidura albiscapa*	grey fantail		C		58/1
animals	birds	Rostratulidae	*Rostratula australis*	Australian painted snipe		E	E	3
animals	birds	Scolopacidae	*Calidris ruficollis*	red-necked stint		SL		42/3
animals	birds	Scolopacidae	*Limosa lapponica baueri*	Western Alaskan bar-tailed godwit		V	V	92/3
animals	birds	Scolopacidae	*Numenius madagascariensis*	eastern curlew		E	CE	93/3
animals	birds	Scolopacidae	*Gallinago hardwickii*	Latham's snipe		SL		23
animals	birds	Scolopacidae	*Calidris tenuirostris*	great knot		E	CE	53/1
animals	birds	Scolopacidae	*Calidris ferruginea*	curlew sandpiper		E	CE	19
animals	birds	Scolopacidae	*Tringa stagnatilis*	marsh sandpiper		SL		6
animals	birds	Scolopacidae	*Calidris acuminata*	sharp-tailed sandpiper		SL		20
animals	birds	Scolopacidae	*Limosa limosa*	black-tailed godwit		SL		4
animals	birds	Scolopacidae	*Tringa incana*	wandering tattler		SL		3/1
animals	birds	Scolopacidae	*Xenus cinereus*	terek sandpiper		SL		28
animals	birds	Scolopacidae	*Tringa brevipes*	grey-tailed tattler		SL		58/4
animals	birds	Scolopacidae	*Calidris canutus*	red knot		E	E	14
animals	birds	Scolopacidae	*Heteroscelus sp.*					10
animals	birds	Scolopacidae	*Tringa nebularia*	common greenshank		SL		5
animals	birds	Scolopacidae	*Numenius phaeopus*	whimbrel		SL		106/4
animals	birds	Scolopacidae	*Actitis hypoleucos*	common sandpiper		SL		5
animals	birds	Scolopacidae	*Arenaria interpres*	ruddy turnstone		SL		17
animals	birds	Strigidae	*Ninox boobook*	southern boobook		C		36/2
animals	birds	Strigidae	*Ninox strenua*	powerful owl		V		3/1
animals	birds	Strigidae	*Ninox connivens*	barking owl		C		6/5
animals	birds	Strigidae	*Ninox rufa queenslandica*	rufous owl (southern subspecies)		C		1
animals	birds	Sulidae	*Morus serrator*	Australasian gannet		C		1
animals	birds	Sulidae	*Sula leucogaster*	brown booby		SL		2
animals	birds	Threskiornithidae	*Threskiornis spinicollis*	straw-necked ibis		C		37
animals	birds	Threskiornithidae	*Threskiornis molucca*	Australian white ibis		C		41

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animals	birds	Threskiornithidae	*Plegadis falcinellus*	glossy ibis		SL		11
animals	birds	Threskiornithidae	*Platalea flavipes*	yellow-billed spoonbill		C		19
animals	birds	Threskiornithidae	*Platalea regia*	royal spoonbill		C		44
animals	birds	Timaliidae	*Zosterops lateralis*	silvereye		C		47/11
animals	birds	Turnicidae	*Turnix pyrrhothorax*	red-chested button-quail		C		2/1
animals	birds	Turnicidae	*Turnix varius*	painted button-quail		C		10/4
animals	birds	Turnicidae	*Turnix maculosus*	red-backed button-quail		C		5/2
animals	birds	Turnicidae	*Turnix melanogaster*	black-breasted button-quail		V	V	2
animals	birds	Tytonidae	*Tyto delicatula*	eastern barn owl		C		9
animals	insects	Formicidae	*Oecophylla smaragdina*	green tree ant				1
animals	insects	Lycaenidae	*Hypolycaena phorbas phorbas*	black-spotted flash				1
animals	insects	Nymphalidae	*Phaedyma shepherdi shepherdi*	white-banded plane (southern subspecies)				2
animals	mammals	Balaenopteridae	*Balaenoptera musculus*	blue whale		C	E	1/1
animals	mammals	Canidae	*Canis familiaris (dingo)*	dingo				18
animals	mammals	Dasyuridae	*Planigale maculata*	common planigale		C		3/3
animals	mammals	Dasyuridae	*Dasyurus hallucatus*	northern quoll		C	E	1
animals	mammals	Dasyuridae	*Planigale ingrami*	long-tailed planigale		C		3
animals	mammals	Dasyuridae	*Sminthopsis macroura*	stripe-faced dunnart		C		2/1
animals	mammals	Delphinidae	*Orcaella heinsohni*	Australian snubfin dolphin		V		1
animals	mammals	Emballonuridae	*Taphozous troughtoni*	Troughton's sheathtail bat		C		2/1
animals	mammals	Emballonuridae	*Saccolaimus flaviventris*	yellow-bellied sheathtail bat		C		22/4
animals	mammals	Emballonuridae	*Taphozous australis*	coastal sheathtail bat		NT		1/1
animals	mammals	Macropodidae	*Macropus sp.*					1
animals	mammals	Macropodidae	*Onychogalea fraenata*	bridled nailtail wallaby		E	E	442
animals	mammals	Macropodidae	*Macropus rufogriseus*	red-necked wallaby		C		5/1
animals	mammals	Macropodidae	*Petrogale inornata*	unadorned rock-wallaby		C		14/4
animals	mammals	Macropodidae	*Petrogale herberti*	Herbert's rock-wallaby		C		9/2
animals	mammals	Macropodidae	*Macropus giganteus*	eastern grey kangaroo		C		39
animals	mammals	Macropodidae	*Macropus robustus*	common wallaroo		C		5
animals	mammals	Macropodidae	*Macropus dorsalis*	black-striped wallaby		C		20/3
animals	mammals	Macropodidae	*Wallabia bicolor*	swamp wallaby		C		16
animals	mammals	Macropodidae	*Macropus parryi*	whiptail wallaby		C		18
animals	mammals	Macropodidae	*Macropus agilis*	agile wallaby		C		25/1
animals	mammals	Macropodidae	*Petrogale sp.*			C		1
animals	mammals	Megadermatidae	*Macroderma gigas*	ghost bat		E	V	2
animals	mammals	Miniopteridae	*Miniopterus schreibersii oceanensis*	eastern bent-wing bat		C		8/1
animals	mammals	Miniopteridae	*Miniopterus australis*	little bent-wing bat		C		14/3
animals	mammals	Molossidae	*Chaerephon jobensis*	northern freetail bat		C		21/6
animals	mammals	Molossidae	*Tadarida australis*	white-striped freetail bat		C		3
animals	mammals	Molossidae	*Mormopterus ridei*	eastern free-tailed bat		C		15/6
animals	mammals	Molossidae	*Mormopterus lumsdenae*	northern free-tailed bat		C		17/2
animals	mammals	Muridae	*Rattus sp.*					5
animals	mammals	Muridae	*Melomys sp.*					1
animals	mammals	Muridae	*Rattus tunneyi*	pale field-rat		C		1/1
animals	mammals	Muridae	*Pseudomys gracilicaudatus*	eastern chestnut mouse		C		7/7

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	mammals	Muridae	*Rattus sordidus*	canefield rat		C		2
animals	mammals	Muridae	*Pseudomys delicatulus*	delicate mouse		C		1/1
animals	mammals	Muridae	*Hydromys chrysogaster*	water rat		C		8
animals	mammals	Muridae	*Melomys cervinipes*	fawn-footed melomys		C		3/3
animals	mammals	Ornithorhynchidae	*Ornithorhynchus anatinus*	platypus		SL		3
animals	mammals	Peramelidae	*Isoodon macrourus*	northern brown bandicoot		C		15
animals	mammals	Peramelidae	*Perameles nasuta*	long-nosed bandicoot		C		3
animals	mammals	Petauridae	*Petaurus australis australis*	yellow-bellied glider (southern subspecies)		C		3
animals	mammals	Petauridae	*Petaurus sp.*					1
animals	mammals	Petauridae	*Petaurus breviceps*	sugar glider		C		6/1
animals	mammals	Petauridae	*Petaurus norfolcensis*	squirrel glider		C		3/1
animals	mammals	Phalangeridae	*Trichosurus vulpecula*	common brushtail possum		C		30
animals	mammals	Phascolarctidae	*Phascolarctos cinereus*	koala		V	V	60
animals	mammals	Potoroidae	*Aepyprymnus rufescens*	rufous bettong		C		31/4
animals	mammals	Pseudocheiridae	*Pseudocheirus peregrinus*	common ringtail possum		C		6/2
animals	mammals	Pseudocheiridae	*Petauroides volans*	greater glider		V	V	19/2
animals	mammals	Pteropodidae	*Syconycteris australis*	eastern blossom bat		C		2/2
animals	mammals	Pteropodidae	*Pteropus scapulatus*	little red flying-fox		C		1/1
animals	mammals	Pteropodidae	*Pteropus alecto*	black flying-fox		C		13/5
animals	mammals	Rhinolophidae	*Rhinolophus megaphyllus*	eastern horseshoe-bat		C		5
animals	mammals	Tachyglossidae	*Tachyglossus aculeatus*	short-beaked echidna		SL		25
animals	mammals	Vespertilionidae	*Scotorepens balstoni*	inland broad-nosed bat		C		8
animals	mammals	Vespertilionidae	*Scotorepens sanborni*	northern broad-nosed bat		C		1
animals	mammals	Vespertilionidae	*Nyctophilus geoffroyi*	lesser long-eared bat		C		1
animals	mammals	Vespertilionidae	*Vespadelus troughtoni*	eastern cave bat		C		8/3
animals	mammals	Vespertilionidae	*Vespadelus baverstocki*	inland forest bat		C		9
animals	mammals	Vespertilionidae	*Chalinolobus nigrogriseus*	hoary wattled bat		C		18/7
animals	mammals	Vespertilionidae	*Scotorepens sp. (Parnaby)*	central-eastern broad-nosed bat		C		1
animals	mammals	Vespertilionidae	*Vespadelus sp.*					3
animals	mammals	Vespertilionidae	*Myotis macropus*	large-footed myotis		C		2
animals	mammals	Vespertilionidae	*Nyctophilus sp.*					4
animals	mammals	Vespertilionidae	*Scotorepens sp.*					15
animals	mammals	Vespertilionidae	*Chalinolobus morio*	chocolate wattled bat		C		7
animals	mammals	Vespertilionidae	*Nyctophilus gouldi*	Gould's long-eared bat		C		1
animals	mammals	Vespertilionidae	*Scotorepens greyii*	little broad-nosed bat		C		27/12
animals	mammals	Vespertilionidae	*Chalinolobus dwyeri*	large-eared pied bat		V	V	1/1
animals	mammals	Vespertilionidae	*Kerivoula papuensis*	golden-tipped bat		C		1/1
animals	mammals	Vespertilionidae	*Chalinolobus gouldii*	Gould's wattled bat		C		27/10
animals	mammals	Vespertilionidae	*Chalinolobus picatus*	little pied bat		C		11
animals	ray-finned fishes	Ambassidae	*Ambassis agassizii*	Agassiz's glassfish				39
animals	ray-finned fishes	Anguillidae	*Anguilla reinhardtii*	longfin eel				21
animals	ray-finned fishes	Apogonidae	*Glossamia aprion*	mouth almighty				18
animals	ray-finned fishes	Ariidae	*Neoarius graeffei*	blue catfish				259
animals	ray-finned fishes	Atherinidae	*Craterocephalus stercusmuscarum*	flyspecked hardyhead				43
animals	ray-finned fishes	Belonidae	*Strongylura krefftii*	freshwater longtom				53

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	ray-finned fishes	Centropomidae	*Lates calcarifer*	barramundi				3
animals	ray-finned fishes	Clupeidae	*Nematalosa erebi*	bony bream				646
animals	ray-finned fishes	Eleotridae	*Hypseleotris species 1*	Midgley's carp gudgeon				11
animals	ray-finned fishes	Eleotridae	*Philypnodon grandiceps*	flathead gudgeon				4
animals	ray-finned fishes	Eleotridae	*Hypseleotris klunzingeri*	western carp gudgeon				8
animals	ray-finned fishes	Eleotridae	*Mogurnda adspersa*	southern purplespotted gudgeon				25
animals	ray-finned fishes	Eleotridae	*Hypseleotris galii*	firetail gudgeon				29
animals	ray-finned fishes	Eleotridae	*Oxyeleotris lineolata*	sleepy cod				15
animals	ray-finned fishes	Eleotridae	*Hypseleotris compressa*	empire gudgeon				20
animals	ray-finned fishes	Hemiramphidae	*Arrhamphus sclerolepis*	snubnose garfish				4
animals	ray-finned fishes	Megalopidae	*Megalops cyprinoides*	oxeye herring				7
animals	ray-finned fishes	Melanotaeniidae	*Melanotaenia splendida splendida*	eastern rainbowfish				48
animals	ray-finned fishes	Melanotaeniidae	*Rhadinocentrus ornatus*	ornate rainbowfish				1
animals	ray-finned fishes	Mugilidae	*Mugil cephalus*	sea mullet				4
animals	ray-finned fishes	Osteoglossidae	*Scleropages leichardti*	southern saratoga				47
animals	ray-finned fishes	Percichthyidae	*Macquaria ambigua*	golden perch				21
animals	ray-finned fishes	Plotosidae	*Neosilurus ater*	black catfish				1
animals	ray-finned fishes	Plotosidae	*Porochilus rendahli*	Rendahl's catfish				3
animals	ray-finned fishes	Plotosidae	*Neosilurus hyrtlii*	Hyrtl's catfish				34
animals	ray-finned fishes	Plotosidae	*Tandanus tandanus*	freshwater catfish				29
animals	ray-finned fishes	Pseudomugilidae	*Pseudomugil signifer*	Pacific blue eye				8
animals	ray-finned fishes	Scorpaenidae	*Notesthes robusta*	bullrout				1
animals	ray-finned fishes	Synbranchidae	*Ophisternon gutturale*	swamp eel				2
animals	ray-finned fishes	Terapontidae	*Leiopotherapon unicolor*	spangled perch				33
animals	ray-finned fishes	Terapontidae	*Amniataba percoides*	barred grunter				64
animals	ray-finned fishes	Terapontidae	*Scortum hillii*	leathery grunter				58
animals	reptiles	Agamidae	*Chlamydosaurus kingii*	frilled lizard		C		8/1
animals	reptiles	Agamidae	*Diporiphora bilineata*	two-lined dragon		C		1
animals	reptiles	Agamidae	*Diporiphora sp.*					2
animals	reptiles	Agamidae	*Pogona barbata*	bearded dragon		C		4
animals	reptiles	Agamidae	*Diporiphora nobbi*	nobbi		C		4
animals	reptiles	Agamidae	*Intellagama lesueurii*	eastern water dragon		C		3
animals	reptiles	Agamidae	*Diporiphora australis*	tommy roundhead		C		16/6
animals	reptiles	Boidae	*Aspidites melanocephalus*	black-headed python		C		6/2
animals	reptiles	Boidae	*Morelia spilota*	carpet python		C		12/1
animals	reptiles	Boidae	*Antaresia maculosa*	spotted python		C		5
animals	reptiles	Carphodactylidae	*Nephrurus asper*	spiny knob-tailed gecko		C		16/1
animals	reptiles	Chelidae	*Emydura macquarii krefftii*	Krefft's river turtle		C		35/3
animals	reptiles	Chelidae	*Elseya albagula*	southern snapping turtle		E	CE	7
animals	reptiles	Chelidae	*Chelodina longicollis*	eastern snake-necked turtle		C		2/2
animals	reptiles	Chelidae	*Chelodina expansa*	broad-shelled river turtle		C		2
animals	reptiles	Chelidae	*Rheodytes leukops*	Fitzroy River turtle		V	V	9
animals	reptiles	Chelidae	*Wollumbinia latisternum*	saw-shelled turtle		C		17/4
animals	reptiles	Cheloniidae	*Chelonia mydas*	green turtle		V	V	1
animals	reptiles	Cheloniidae	*Natator depressus*	flatback turtle		V	V	8
animals	reptiles	Cheloniidae	*Eretmochelys imbricata*	hawksbill turtle		E	V	1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	reptiles	Colubridae	*Boiga irregularis*	brown tree snake		C		11/5
animals	reptiles	Colubridae	*Tropidonophis mairii*	freshwater snake		C		17/6
animals	reptiles	Colubridae	*Dendrelaphis punctulatus*	green tree snake		C		24/4
animals	reptiles	Crocodylidae	*Crocodylus porosus*	estuarine crocodile		V		3
animals	reptiles	Diplodactylidae	*Oedura monilis sensu lato*	ocellated velvet gecko		C		8/4
animals	reptiles	Diplodactylidae	*Diplodactylus platyurus*	eastern fat-tailed gecko		C		1/1
animals	reptiles	Diplodactylidae	*Lucasium steindachneri*	Steindachner's gecko		C		5/5
animals	reptiles	Diplodactylidae	*Diplodactylus vittatus*	wood gecko		C		7/4
animals	reptiles	Diplodactylidae	*Strophurus taenicauda*	golden-tailed gecko		NT		5/1
animals	reptiles	Diplodactylidae	*Strophurus williamsi*	soft-spined gecko		C		5/1
animals	reptiles	Diplodactylidae	*Nebulifera robusta*	robust velvet gecko		C		1/1
animals	reptiles	Diplodactylidae	*Amalosia rhombifer*	zig-zag gecko		C		7/6
animals	reptiles	Diplodactylidae	*Oedura tryoni*	southern spotted velvet gecko		C		6/5
animals	reptiles	Elapidae	*Denisonia maculata*	ornamental snake		V	V	2
animals	reptiles	Elapidae	*Cryptophis nigrostriatus*	black-striped snake		C		2/2
animals	reptiles	Elapidae	*Brachyurophis australis*	coral snake		C		1/1
animals	reptiles	Elapidae	*Acanthophis antarcticus*	common death adder		V		1
animals	reptiles	Elapidae	*Oxyuranus scutellatus*	coastal taipan		C		4/2
animals	reptiles	Elapidae	*Cryptophis nigrescens*	eastern small-eyed snake		C		3/1
animals	reptiles	Elapidae	*Pseudechis australis*	king brown snake		C		1
animals	reptiles	Elapidae	*Vermicella annulata*	bandy-bandy		C		5/1
animals	reptiles	Elapidae	*Hoplocephalus bitorquatus*	pale-headed snake		C		8/2
animals	reptiles	Elapidae	*Suta suta*	myall snake		C		3/1
animals	reptiles	Elapidae	*Demansia sp.*					1
animals	reptiles	Elapidae	*Furina ornata*	orange-naped snake		C		1
animals	reptiles	Elapidae	*Furina diadema*	red-naped snake		C		5/2
animals	reptiles	Elapidae	*Demansia torquata*	collared whipsnake		C		4/1
animals	reptiles	Elapidae	*Hemiaspis damelii*	grey snake		E		4
animals	reptiles	Elapidae	*Cacophis harriettae*	white-crowned snake		C		3
animals	reptiles	Elapidae	*Cryptophis boschmai*	Carpentaria whip snake		C		6/3
animals	reptiles	Elapidae	*Demansia psammophis*	yellow-faced whipsnake		C		5
animals	reptiles	Elapidae	*Demansia vestigiata*	lesser black whipsnake		C		4/4
animals	reptiles	Elapidae	*Pseudechis guttatus*	spotted black snake		C		1/1
animals	reptiles	Elapidae	*Pseudonaja textilis*	eastern brown snake		C		7/1
animals	reptiles	Gekkonidae	*Gehyra sp.*					1/1
animals	reptiles	Gekkonidae	*Gehyra dubia*	dubious dtella		C		72/6
animals	reptiles	Gekkonidae	*Gehyra catenata*	chain-backed dtella		C		3
animals	reptiles	Gekkonidae	*Heteronotia binoei*	Bynoe's gecko		C		93/8
animals	reptiles	Pygopodidae	*Paradelma orientalis*	brigalow scaly-foot		C		4/1
animals	reptiles	Pygopodidae	*Delma tincta*	excitable delma		C		3/2
animals	reptiles	Pygopodidae	*Lialis burtonis*	Burton's legless lizard		C		11/2
animals	reptiles	Pygopodidae	*Pygopus lepidopodus*	common scaly-foot		C		1/1
animals	reptiles	Scincidae	*Concinnia brachysoma*	northern bar-sided skink		C		6
animals	reptiles	Scincidae	*Ctenotus taeniolatus*	copper-tailed skink		C		41/8
animals	reptiles	Scincidae	*Calyptotis temporalis*	broad-templed calyptotis		C		4/3
animals	reptiles	Scincidae	*Lampropholis delicata*	dark-flecked garden sunskink		C		2/2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	reptiles	Scincidae	*Morethia taeniopleura*	fire-tailed skink		C		12/1
animals	reptiles	Scincidae	*Anomalopus brevicollis*	short-necked worm-skink		C		5/5
animals	reptiles	Scincidae	*Pygmaeascincus timlowi*	dwarf litter-skink		C		8/6
animals	reptiles	Scincidae	*Cryptoblepharus pannosus*	ragged snake-eyed skink		C		1/1
animals	reptiles	Scincidae	*Cyclodomorphus gerrardii*	pink-tongued lizard		C		3/3
animals	reptiles	Scincidae	*Cryptoblepharus australis*	inland snake-eyed skink		C		1
animals	reptiles	Scincidae	*Cryptoblepharus metallicus*	metallic snake-eyed skink		C		7/5
animals	reptiles	Scincidae	*Liburnascincus mundivensis*	outcrop rainbow-skink		C		3
animals	reptiles	Scincidae	*Glaphyromorphus punctulatus*	fine-spotted mulch-skink		C		15/10
animals	reptiles	Scincidae	*Carlia pectoralis sensu lato*			C		31/7
animals	reptiles	Scincidae	*Cryptoblepharus pulcher pulcher*	elegant snake-eyed skink		C		55
animals	reptiles	Scincidae	*Cryptoblepharus virgatus sensu lato*			C		16/7
animals	reptiles	Scincidae	*Carlia sp.*					10/3
animals	reptiles	Scincidae	*Menetia sp.*					1/1
animals	reptiles	Scincidae	*Carlia munda*	shaded-litter rainbow-skink		C		19/15
animals	reptiles	Scincidae	*Carlia vivax*	tussock rainbow-skink		C		15/7
animals	reptiles	Scincidae	*Ctenotus sp.*					5/1
animals	reptiles	Scincidae	*Morethia sp.*					1
animals	reptiles	Scincidae	*Carlia rubigo*	orange-flanked rainbow skink		C		31
animals	reptiles	Scincidae	*Eulamprus sp.*					2
animals	reptiles	Scincidae	*Anomalopus sp.*					1/1
animals	reptiles	Scincidae	*Menetia greyii*	common dwarf skink		C		4
animals	reptiles	Scincidae	*Tiliqua rugosa*	shingle-back		C		1
animals	reptiles	Scincidae	*Concinnia tenuis*	bar-sided skink		C		8/4
animals	reptiles	Scincidae	*Eulamprus quoyii*	eastern water skink		C		14/11
animals	reptiles	Scincidae	*Lerista fragilis*	eastern mulch slider		C		2/1
animals	reptiles	Scincidae	*Carlia pectoralis*	open-litter rainbow skink		C		4
animals	reptiles	Scincidae	*Carlia schmeltzii*	robust rainbow-skink		C		32/5
animals	reptiles	Scincidae	*Concinnia martini*	dark bar-sided skink		C		3/2
animals	reptiles	Scincidae	*Eremiascincus sp.*					1
animals	reptiles	Scincidae	*Concinnia sokosoma*	stout bar-sided skink		C		1
animals	reptiles	Scincidae	*Ctenotus spaldingi*	straight-browed ctenotus		C		11/5
animals	reptiles	Scincidae	*Ctenotus strauchii*	eastern barred wedgesnout ctenotus		C		4/1
animals	reptiles	Scincidae	*Tiliqua scincoides*	eastern blue-tongued lizard		C		3/2
animals	reptiles	Scincidae	*Carlia rhomboidalis*	blue-throated rainbow-skink		C		1/1
animals	reptiles	Scincidae	*Cryptoblepharus sp.*					5
animals	reptiles	Scincidae	*Lampropholis adonis*	diamond-shielded sunskink		C		3/3
animals	reptiles	Scincidae	*Lygisaurus foliorum*	tree-base litter-skink		C		51/15
animals	reptiles	Scincidae	*Morethia boulengeri*	south-eastern morethia skink		C		2
animals	reptiles	Typhlopidae	*Anilios affinis*	small-headed blind snake		C		1
animals	reptiles	Typhlopidae	*Anilios wiedii*	brown-snouted blind snake		C		1/1
animals	reptiles	Typhlopidae	*Anilios unguirostris*	claw-snouted blind snake		C		1/1
animals	reptiles	Typhlopidae	*Anilios ligatus*	robust blind snake		C		2/1
animals	reptiles	Varanidae	*Varanus semiremex*	rusty monitor		C		1/1
animals	reptiles	Varanidae	*Varanus varius*	lace monitor		C		4/2
animals	reptiles	Varanidae	*Varanus sp.*	goanna				2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	reptiles	Varanidae	*Varanus tristis*	black-tailed monitor		C		5/3
animals	uncertain	Indeterminate	*Indeterminate*	Unknown or Code Pending		C		35

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 in the Wild (PE), Endangered (E), Vulnerable (V), Near Threatened (NT), Least Concern (C) or Not Protected ( ).

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

Records – The first number indicates the total number of records of the taxon for the record option selected (i.e. All, Confirmed or Specimens).
This number is output as 99999 if it equals or exceeds this value. The second number located after the / indicates the number of specimen records for the taxon.
This number is output as 999 if it equals or exceeds this value.

Queensland Government

Wildlife Online Extract

Search Criteria: Species List for a Specified Point
Species: Animals
Type: Native
Status: All
Records: Confirmed
Date: Since 1980
Latitude: -22.7045
Longitude: 149.6867
Distance: 100
Email: lindsay@austecology.com.au
Date submitted: Thursday 19 Mar 2020 11:40:28
Date extracted: Thursday 19 Mar 2020 11:50:05

The number of records retrieved = 569

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	amphibians	Hylidae	*Litoria sp.*					5
animals	amphibians	Hylidae	*Cyclorana novaehollandiae*	eastern snapping frog		C		14/1
animals	amphibians	Hylidae	*Cyclorana alboguttata*	greenstripe frog		C		41/5
animals	amphibians	Hylidae	*Litoria latopalmata*	broad palmed rocketfrog		C		23/2
animals	amphibians	Hylidae	*Cyclorana verrucosa*	rough collared frog		C		1
animals	amphibians	Hylidae	*Cyclorana cultripes*	grassland collared frog		C		3/3
animals	amphibians	Hylidae	*Litoria gracilenta*	graceful treefrog		C		6/2
animals	amphibians	Hylidae	*Cyclorana brevipes*	superb collared frog		C		4/1
animals	amphibians	Hylidae	*Litoria wilcoxii*	eastern stony creek frog		C		16/6
animals	amphibians	Hylidae	*Litoria caerulea*	common green treefrog		C		62/2
animals	amphibians	Hylidae	*Litoria rubella*	ruddy treefrog		C		31/2
animals	amphibians	Hylidae	*Litoria peronii*	emerald spotted treefrog		C		1
animals	amphibians	Hylidae	*Litoria fallax*	eastern sedgefrog		C		31/2
animals	amphibians	Hylidae	*Litoria nasuta*	striped rocketfrog		C		5/3
animals	amphibians	Hylidae	*Litoria rothii*	northern laughing treefrog		C		14/2
animals	amphibians	Hylidae	*Litoria inermis*	bumpy rocketfrog		C		26/7
animals	amphibians	Limnodynastidae	*Limnodynastes tasmaniensis*	spotted grassfrog		C		45/16
animals	amphibians	Limnodynastidae	*Limnodynastes terraereginae*	scarlet sided pobblebonk		C		26/11
animals	amphibians	Limnodynastidae	*Adelotus brevis*	tusked frog		V		3/1
animals	amphibians	Limnodynastidae	*Limnodynastes peronii*	striped marshfrog		C		10/3
animals	amphibians	Limnodynastidae	*Limnodynastes salmini*	salmon striped frog		C		20/2
animals	amphibians	Limnodynastidae	*Platyplectrum ornatum*	ornate burrowing frog		C		67/12
animals	amphibians	Myobatrachidae	*Pseudophryne sp.*					1
animals	amphibians	Myobatrachidae	*Uperoleia rugosa*	chubby gungan		C		7/6
animals	amphibians	Myobatrachidae	*Crinia deserticola*	chirping froglet		C		14/9
animals	amphibians	Myobatrachidae	*Pseudophryne major*	great brown broodfrog		C		8/8
animals	amphibians	Myobatrachidae	*Pseudophryne raveni*	copper backed broodfrog		C		2/2
animals	arachnids	Theraphosidae	*Selenocosmia sp.*			C		1
animals	birds	Acanthizidae	*Sericornis magnirostra*	large-billed scrubwren		C		3/2
animals	birds	Acanthizidae	*Acanthiza uropygialis*	chestnut-rumped thornbill		C		1
animals	birds	Acanthizidae	*Acanthiza chrysorrhoa*	yellow-rumped thornbill		C		10
animals	birds	Acanthizidae	*Sericornis frontalis*	white-browed scrubwren		C		17/5
animals	birds	Acanthizidae	*Acanthiza reguloides*	buff-rumped thornbill		C		10/7
animals	birds	Acanthizidae	*Gerygone palpebrosa*	fairy gerygone		C		26/5
animals	birds	Acanthizidae	*Pyrrholaemus sagittatus*	speckled warbler		C		3
animals	birds	Acanthizidae	*Acanthiza apicalis*	inland thornbill		C		1
animals	birds	Acanthizidae	*Gerygone olivacea*	white-throated gerygone		C		59/4
animals	birds	Acanthizidae	*Acanthiza pusilla*	brown thornbill		C		2
animals	birds	Acanthizidae	*Acanthiza nana*	yellow thornbill		C		7
animals	birds	Acanthizidae	*Smicrornis brevirostris*	weebill		C		41/3
animals	birds	Acanthizidae	*Gerygone levigaster*	mangrove gerygone		C		5/2
animals	birds	Accipitridae	*Haliastur sphenurus*	whistling kite		C		105
animals	birds	Accipitridae	*Aviceda subcristata*	Pacific baza		C		26/3
animals	birds	Accipitridae	*Accipiter fasciatus*	brown goshawk		C		13/2
animals	birds	Accipitridae	*Lophoictinia isura*	square-tailed kite		C		13
animals	birds	Accipitridae	*Circus approximans*	swamp harrier		C		6

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Accipitridae	*Pandion cristatus*	eastern osprey		SL		71/3
animals	birds	Accipitridae	*Elanus axillaris*	black-shouldered kite		C		10
animals	birds	Accipitridae	*Circus assimilis*	spotted harrier		C		9
animals	birds	Accipitridae	*Haliastur indus*	brahminy kite		C		45/3
animals	birds	Accipitridae	*Milvus migrans*	black kite		C		35
animals	birds	Accipitridae	*Aquila audax*	wedge-tailed eagle		C		75/3
animals	birds	Accipitridae	*Haliaeetus leucogaster*	white-bellied sea-eagle		C		112/5
animals	birds	Accipitridae	*Accipiter cirrocephalus*	collared sparrowhawk		C		14
animals	birds	Accipitridae	*Hieraaetus morphnoides*	little eagle		C		2
animals	birds	Acrocephalidae	*Acrocephalus australis*	Australian reed-warbler		C		12
animals	birds	Aegothelidae	*Aegotheles cristatus*	Australian owlet-nightjar		C		18/1
animals	birds	Alaudidae	*Mirafra javanica*	Horsfield's bushlark		C		17/4
animals	birds	Alcedinidae	*Ceyx azureus*	azure kingfisher		C		21/4
animals	birds	Anatidae	*Radjah radjah*	radjah shelduck		C		14/5
animals	birds	Anatidae	*Cygnus atratus*	black swan		C		32
animals	birds	Anatidae	*Nettapus coromandelianus*	cotton pygmy-goose		C		43
animals	birds	Anatidae	*Anas superciliosa*	Pacific black duck		C		115
animals	birds	Anatidae	*Chenonetta jubata*	Australian wood duck		C		70
animals	birds	Anatidae	*Dendrocygna eytoni*	plumed whistling-duck		C		27
animals	birds	Anatidae	*Spatula rhynchotis*	Australasian shoveler		C		4
animals	birds	Anatidae	*Dendrocygna arcuata*	wandering whistling-duck		C		31
animals	birds	Anatidae	*Nettapus pulchellus*	green pygmy-goose		C		2
animals	birds	Anatidae	*Stictonetta naevosa*	freckled duck		C		4
animals	birds	Anatidae	*Anas gracilis*	grey teal		C		67
animals	birds	Anatidae	*Anas castanea*	chestnut teal		C		5
animals	birds	Anatidae	*Malacorhynchus membranaceus*	pink-eared duck		C		10
animals	birds	Anatidae	*Aythya australis*	hardhead		C		58
animals	birds	Anhingidae	*Anhinga novaehollandiae*	Australasian darter		C		68
animals	birds	Anseranatidae	*Anseranas semipalmata*	magpie goose		C		27
animals	birds	Apodidae	*Apus pacificus*	fork-tailed swift		SL		5/1
animals	birds	Apodidae	*Hirundapus caudacutus*	white-throated needletail		V	V	5
animals	birds	Ardeidae	*Egretta picata*	pied heron		C		1
animals	birds	Ardeidae	*Ardea intermedia*	intermediate egret		C		49
animals	birds	Ardeidae	*Butorides striata*	striated heron		C		17/1
animals	birds	Ardeidae	*Ixobrychus dubius*	Australian little bittern		C		1
animals	birds	Ardeidae	*Ardea alba modesta*	eastern great egret		C		68
animals	birds	Ardeidae	*Ixobrychus flavicollis*	black bittern		C		3
animals	birds	Ardeidae	*Nycticorax caledonicus*	nankeen night-heron		C		15
animals	birds	Ardeidae	*Egretta novaehollandiae*	white-faced heron		C		108/1
animals	birds	Ardeidae	*Ardea pacifica*	white-necked heron		C		35
animals	birds	Ardeidae	*Egretta sacra*	eastern reef egret		C		52/2
animals	birds	Ardeidae	*Bubulcus ibis*	cattle egret		C		48
animals	birds	Ardeidae	*Egretta garzetta*	little egret		C		34
animals	birds	Artamidae	*Gymnorhina tibicen*	Australian magpie		C		151/3
animals	birds	Artamidae	*Strepera graculina*	pied currawong		C		111/6
animals	birds	Artamidae	*Cracticus torquatus*	grey butcherbird		C		41/2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Artamidae	*Artamus leucorynchus*	white-breasted woodswallow		C		70/2
animals	birds	Artamidae	*Artamus superciliosus*	white-browed woodswallow		C		10
animals	birds	Artamidae	*Cracticus nigrogularis*	pied butcherbird		C		147/6
animals	birds	Artamidae	*Artamus minor*	little woodswallow		C		2/1
animals	birds	Artamidae	*Artamus cinereus*	black-faced woodswallow		C		38/9
animals	birds	Artamidae	*Artamus personatus*	masked woodswallow		C		8
animals	birds	Burhinidae	*Esacus magnirostris*	beach stone-curlew		V		121/3
animals	birds	Burhinidae	*Burhinus grallarius*	bush stone-curlew		C		36/7
animals	birds	Cacatuidae	*Cacatua galerita*	sulphur-crested cockatoo		C		124/4
animals	birds	Cacatuidae	*Cacatua sanguinea*	little corella		C		10
animals	birds	Cacatuidae	*Eolophus roseicapilla*	galah		C		38
animals	birds	Cacatuidae	*Nymphicus hollandicus*	cockatiel		C		9
animals	birds	Cacatuidae	*Calyptorhynchus banksii*	red-tailed black-cockatoo		C		42/2
animals	birds	Cacatuidae	*Calyptorhynchus lathami erebus*	glossy black-cockatoo (northern)		V		5/2
animals	birds	Cacatuidae	*Calyptorhynchus funereus*	yellow-tailed black-cockatoo		C		1
animals	birds	Campephagidae	*Coracina novaehollandiae*	black-faced cuckoo-shrike		C		108/2
animals	birds	Campephagidae	*Coracina tenuirostris*	cicadabird		C		35/6
animals	birds	Campephagidae	*Coracina papuensis*	white-bellied cuckoo-shrike		C		32/5
animals	birds	Campephagidae	*Lalage leucomela*	varied triller		C		52/4
animals	birds	Campephagidae	*Coracina maxima*	ground cuckoo-shrike		C		3
animals	birds	Campephagidae	*Lalage tricolor*	white-winged triller		C		11
animals	birds	Caprimulgidae	*Caprimulgus macrurus*	large-tailed nightjar		C		7/1
animals	birds	Casuariidae	*Dromaius novaehollandiae*	emu		C		31/1
animals	birds	Charadriidae	*Pluvialis squatarola*	grey plover		SL		22
animals	birds	Charadriidae	*Charadrius ruficapillus*	red-capped plover		C		32
animals	birds	Charadriidae	*Charadrius leschenaultii*	greater sand plover		V	V	15
animals	birds	Charadriidae	*Vanellus miles novaehollandiae*	masked lapwing (southern subspecies)		C		63/2
animals	birds	Charadriidae	*Erythrogonys cinctus*	red-kneed dotterel		C		8
animals	birds	Charadriidae	*Charadrius mongolus*	lesser sand plover		E	E	36/1
animals	birds	Charadriidae	*Elseyornis melanops*	black-fronted dotterel		C		32/2
animals	birds	Charadriidae	*Charadrius sp.*					2
animals	birds	Charadriidae	*Vanellus miles*	masked lapwing		C		21
animals	birds	Charadriidae	*Pluvialis fulva*	Pacific golden plover		SL		14/1
animals	birds	Charadriidae	*Vanellus tricolor*	banded lapwing		C		2
animals	birds	Ciconiidae	*Ephippiorhynchus asiaticus*	black-necked stork		C		19
animals	birds	Cisticolidae	*Cisticola exilis*	golden-headed cisticola		C		54/4
animals	birds	Cisticolidae	*Cisticola juncidis laveryi*	zitting cisticola		C		5
animals	birds	Climacteridae	*Climacteris picumnus*	brown treecreeper		C		4/1
animals	birds	Climacteridae	*Cormobates leucophaea metastasis*	white-throated treecreeper (southern)		C		13/4
animals	birds	Columbidae	*Phaps chalcoptera*	common bronzewing		C		8
animals	birds	Columbidae	*Geophaps scripta scripta*	squatter pigeon (southern subspecies)		V	V	103/6
animals	birds	Columbidae	*Lopholaimus antarcticus*	topknot pigeon		C		8/1
animals	birds	Columbidae	*Leucosarcia melanoleuca*	wonga pigeon		C		4
animals	birds	Columbidae	*Macropygia amboinensis*	brown cuckoo-dove		C		13/6
animals	birds	Columbidae	*Ptilinopus magnificus*	wompoo fruit-dove		C		5/3
animals	birds	Columbidae	*Ptilinopus superbus*	superb fruit-dove		C		2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Columbidae	*Geopelia humeralis*	bar-shouldered dove		C		108/1
animals	birds	Columbidae	*Chalcophaps indica*	emerald dove		C		12/2
animals	birds	Columbidae	*Ptilinopus regina*	rose-crowned fruit-dove		C		26/1
animals	birds	Columbidae	*Ocyphaps lophotes*	crested pigeon		C		62
animals	birds	Columbidae	*Columba leucomela*	white-headed pigeon		C		1
animals	birds	Columbidae	*Geopelia striata*	peaceful dove		C		96/2
animals	birds	Columbidae	*Ducula bicolor*	pied imperial-pigeon		C		9/2
animals	birds	Coraciidae	*Eurystomus orientalis*	dollarbird		C		75/4
animals	birds	Corcoracidae	*Struthidea cinerea*	apostlebird		C		39
animals	birds	Corcoracidae	*Corcorax melanorhamphos*	white-winged chough		C		19
animals	birds	Corvidae	*Corvus coronoides*	Australian raven		C		9
animals	birds	Corvidae	*Corvus orru*	Torresian crow		C		240
animals	birds	Cuculidae	*Eudynamys orientalis*	eastern koel		C		42/8
animals	birds	Cuculidae	*Chalcites minutillus*	little bronze-cuckoo		C		5/3
animals	birds	Cuculidae	*Cacomantis pallidus*	pallid cuckoo		C		13
animals	birds	Cuculidae	*Chalcites lucidus*	shining bronze-cuckoo		C		23/4
animals	birds	Cuculidae	*Scythrops novaehollandiae*	channel-billed cuckoo		C		71/9
animals	birds	Cuculidae	*Chalcites minutillus barnardi*	Eastern little bronze-cuckoo		C		6
animals	birds	Cuculidae	*Cuculus optatus*	oriental cuckoo		SL		3/3
animals	birds	Cuculidae	*Cacomantis flabelliformis*	fan-tailed cuckoo		C		22/1
animals	birds	Cuculidae	*Cacomantis variolosus*	brush cuckoo		C		9/1
animals	birds	Cuculidae	*Centropus phasianinus*	pheasant coucal		C		85/9
animals	birds	Cuculidae	*Chalcites basalis*	Horsfield's bronze-cuckoo		C		7
animals	birds	Dicruridae	*Dicrurus bracteatus*	spangled drongo		C		79/2
animals	birds	Estrildidae	*Neochmia temporalis*	red-browed finch		C		4/2
animals	birds	Estrildidae	*Lonchura castaneothorax*	chestnut-breasted mannikin		C		18/2
animals	birds	Estrildidae	*Neochmia modesta*	plum-headed finch		C		16
animals	birds	Estrildidae	*Neochmia phaeton phaeton*	crimson finch		C		2
animals	birds	Estrildidae	*Taeniopygia guttata*	zebra finch		C		14
animals	birds	Estrildidae	*Taeniopygia bichenovii*	double-barred finch		C		82/3
animals	birds	Eurostopodidae	*Eurostopodus mystacalis*	white-throated nightjar		C		10/2
animals	birds	Eurostopodidae	*Eurostopodus argus*	spotted nightjar		C		1
animals	birds	Falconidae	*Falco berigora*	brown falcon		C		52/1
animals	birds	Falconidae	*Falco subniger*	black falcon		C		1
animals	birds	Falconidae	*Falco longipennis*	Australian hobby		C		9
animals	birds	Falconidae	*Falco peregrinus*	peregrine falcon		C		14
animals	birds	Falconidae	*Falco cenchroides*	nankeen kestrel		C		40
animals	birds	Falconidae	*Falco hypoleucos*	grey falcon		V		1
animals	birds	Glareolidae	*Stiltia isabella*	Australian pratincole		C		1
animals	birds	Gruidae	*Antigone rubicunda*	brolga		C		35
animals	birds	Haematopodidae	*Haematopus fuliginosus*	sooty oystercatcher		C		52/5
animals	birds	Haematopodidae	*Haematopus longirostris*	Australian pied oystercatcher		C		98/6
animals	birds	Halcyonidae	*Dacelo leachii*	blue-winged kookaburra		C		59/4
animals	birds	Halcyonidae	*Todiramphus macleayii*	forest kingfisher		C		85/1
animals	birds	Halcyonidae	*Todiramphus sordidus*	Torresian kingfisher		C		16/7
animals	birds	Halcyonidae	*Todiramphus pyrrhopygius*	red-backed kingfisher		C		5

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Halcyonidae	*Tanysiptera sylvia*	buff-breasted paradise-kingfisher		C		7/2
animals	birds	Halcyonidae	*Dacelo novaeguineae*	laughing kookaburra		C		169/6
animals	birds	Halcyonidae	*Todiramphus sanctus*	sacred kingfisher		C		46
animals	birds	Hirundinidae	*Petrochelidon nigricans*	tree martin		C		13/1
animals	birds	Hirundinidae	*Petrochelidon ariel*	fairy martin		C		30
animals	birds	Hirundinidae	*Hirundo neoxena*	welcome swallow		C		77/3
animals	birds	Jacanidae	*Irediparra gallinacea*	comb-crested jacana		C		38/1
animals	birds	Laridae	*Sterna hirundo*	common tern		SL		1
animals	birds	Laridae	*Sterna sumatrana*	black-naped tern		SL		1
animals	birds	Laridae	*Thalasseus bergii*	crested tern		SL		38/4
animals	birds	Laridae	*Chlidonias hybrida*	whiskered tern		C		8
animals	birds	Laridae	*Chroicocephalus novaehollandiae*	silver gull		C		88/3
animals	birds	Laridae	*Sternula albifrons*	little tern		SL		24/2
animals	birds	Laridae	*Gelochelidon nilotica*	gull-billed tern		SL		34
animals	birds	Laridae	*Onychoprion anaethetus*	bridled tern		SL		2
animals	birds	Laridae	*Thalasseus bengalensis*	lesser crested tern		C		13
animals	birds	Laridae	*Hydroprogne caspia*	Caspian tern		SL		83/3
animals	birds	Maluridae	*Malurus melanocephalus*	red-backed fairy-wren		C		116/2
animals	birds	Maluridae	*Malurus lamberti*	variegated fairy-wren		C		4
animals	birds	Maluridae	*Malurus sp.*					1
animals	birds	Megaluridae	*Cincloramphus cruralis*	brown songlark		C		4
animals	birds	Megaluridae	*Cincloramphus mathewsi*	rufous songlark		C		13/1
animals	birds	Megaluridae	*Megalurus gramineus*	little grassbird		C		5
animals	birds	Megaluridae	*Megalurus timoriensis*	tawny grassbird		C		16
animals	birds	Megapodiidae	*Megapodius reinwardt*	orange-footed scrubfowl		C		11/1
animals	birds	Megapodiidae	*Alectura lathami*	Australian brush-turkey		C		37/1
animals	birds	Meliphagidae	*Stomiopera flava*	yellow honeyeater		C		13/2
animals	birds	Meliphagidae	*Epthianura crocea*	yellow chat		V		1
animals	birds	Meliphagidae	*Meliphaga lewinii*	Lewin's honeyeater		C		93/9
animals	birds	Meliphagidae	*Caligavis chrysops*	yellow-faced honeyeater		C		1
animals	birds	Meliphagidae	*Entomyzon cyanotis*	blue-faced honeyeater		C		92/9
animals	birds	Meliphagidae	*Manorina flavigula*	yellow-throated miner		C		18
animals	birds	Meliphagidae	*Epthianura tricolor*	crimson chat		C		1
animals	birds	Meliphagidae	*Gavicalis virescens*	singing honeyeater		C		9
animals	birds	Meliphagidae	*Gavicalis versicolor*	varied honeyeater		C		3/1
animals	birds	Meliphagidae	*Lichmera indistincta*	brown honeyeater		C		84/2
animals	birds	Meliphagidae	*Melithreptus gularis*	black-chinned honeyeater		C		6/3
animals	birds	Meliphagidae	*Melithreptus lunatus*	white-naped honeyeater		C		8
animals	birds	Meliphagidae	*Philemon corniculatus*	noisy friarbird		C		126/6
animals	birds	Meliphagidae	*Ptilotula penicillata*	white-plumed honeyeater		C		1
animals	birds	Meliphagidae	*Ramsayornis fasciatus*	bar-breasted honeyeater		C		17/5
animals	birds	Meliphagidae	*Manorina melanocephala*	noisy miner		C		66/8
animals	birds	Meliphagidae	*Myzomela sanguinolenta*	scarlet honeyeater		C		39/2
animals	birds	Meliphagidae	*Philemon citreogularis*	little friarbird		C		73/7
animals	birds	Meliphagidae	*Conopophila rufogularis*	rufous-throated honeyeater		C		1
animals	birds	Meliphagidae	*Gavicalis fasciogularis*	mangrove honeyeater		C		44/1

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animals	birds	Meliphagidae	*Acanthagenys rufogularis*	spiny-cheeked honeyeater		C		1
animals	birds	Meliphagidae	*Melithreptus albogularis*	white-throated honeyeater		C		130/7
animals	birds	Meliphagidae	*Plectorhyncha lanceolata*	striped honeyeater		C		20
animals	birds	Meliphagidae	*Melithreptus brevirostris*	brown-headed honeyeater		C		2
animals	birds	Meliphagidae	*Acanthorhynchus tenuirostris*	eastern spinebill		C		1
animals	birds	Meliphagidae	*Epthianura crocea macgregori*	yellow chat (Dawson)		E	CE	50
animals	birds	Meliphagidae	*Ptilotula fusca*	fuscous honeyeater		C		5/5
animals	birds	Meliphagidae	*Myzomela obscura*	dusky honeyeater		C		27/2
animals	birds	Meropidae	*Merops ornatus*	rainbow bee-eater		C		156/3
animals	birds	Monarchidae	*Myiagra inquieta*	restless flycatcher		C		9/1
animals	birds	Monarchidae	*Myiagra alecto*	shining flycatcher		C		8/5
animals	birds	Monarchidae	*Myiagra cyanoleuca*	satin flycatcher		SL		4
animals	birds	Monarchidae	*Myiagra rubecula*	leaden flycatcher		C		99/9
animals	birds	Monarchidae	*Myiagra ruficollis*	broad-billed flycatcher		C		2/1
animals	birds	Monarchidae	*Grallina cyanoleuca*	magpie-lark		C		98
animals	birds	Monarchidae	*Monarcha melanopsis*	black-faced monarch		SL		10/1
animals	birds	Monarchidae	*Carterornis leucotis*	white-eared monarch		C		15/2
animals	birds	Monarchidae	*Symposiachrus trivirgatus*	spectacled monarch		SL		11/2
animals	birds	Motacillidae	*Anthus novaeseelandiae*	Australasian pipit		C		40/3
animals	birds	Nectariniidae	*Dicaeum hirundinaceum*	mistletoebird		C		88
animals	birds	Nectariniidae	*Cinnyris jugularis*	olive-backed sunbird		C		9
animals	birds	Neosittidae	*Daphoenositta chrysoptera*	varied sittella		C		8/4
animals	birds	Oriolidae	*Oriolus sagittatus*	olive-backed oriole		C		43/2
animals	birds	Oriolidae	*Sphecotheres vieilloti*	Australasian figbird		C		72/3
animals	birds	Otididae	*Ardeotis australis*	Australian bustard		C		42/3
animals	birds	Pachycephalidae	*Colluricincla harmonica*	grey shrike-thrush		C		72/2
animals	birds	Pachycephalidae	*Pachycephala melanura*	mangrove golden whistler		C		3/1
animals	birds	Pachycephalidae	*Pachycephala pectoralis*	golden whistler		C		20/6
animals	birds	Pachycephalidae	*Pachycephala rufiventris*	rufous whistler		C		92/3
animals	birds	Pachycephalidae	*Colluricincla megarhyncha*	little shrike-thrush		C		35/4
animals	birds	Pardalotidae	*Pardalotus rubricatus*	red-browed pardalote		C		1
animals	birds	Pardalotidae	*Pardalotus punctatus*	spotted pardalote		C		3
animals	birds	Pardalotidae	*Pardalotus striatus*	striated pardalote		C		125/7
animals	birds	Pelecanidae	*Pelecanus conspicillatus*	Australian pelican		C		114/2
animals	birds	Petroicidae	*Petroica rosea*	rose robin		C		3/2
animals	birds	Petroicidae	*Microeca fascinans*	jacky winter		C		4/2
animals	birds	Petroicidae	*Eopsaltria australis*	eastern yellow robin		C		16/3
animals	birds	Petroicidae	*Peneoenanthe pulverulenta*	mangrove robin		C		1
animals	birds	Phalacrocoracidae	*Phalacrocorax sulcirostris*	little black cormorant		C		63/1
animals	birds	Phalacrocoracidae	*Microcarbo melanoleucos*	little pied cormorant		C		59
animals	birds	Phalacrocoracidae	*Phalacrocorax carbo*	great cormorant		C		8
animals	birds	Phalacrocoracidae	*Phalacrocorax varius*	pied cormorant		C		44/1
animals	birds	Phasianidae	*Excalfactoria chinensis*	king quail		C		1/1
animals	birds	Phasianidae	*Coturnix ypsilophora*	brown quail		C		40/1
animals	birds	Pittidae	*Pitta versicolor*	noisy pitta		C		6/4
animals	birds	Podargidae	*Podargus strigoides*	tawny frogmouth		C		42/3

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animals	birds	Podicipedidae	*Poliocephalus poliocephalus*	hoary-headed grebe		C		1
animals	birds	Podicipedidae	*Tachybaptus novaehollandiae*	Australasian grebe		C		68
animals	birds	Podicipedidae	*Podiceps cristatus*	great crested grebe		C		5
animals	birds	Pomatostomidae	*Pomatostomus temporalis*	grey-crowned babbler		C		44/3
animals	birds	Procellariidae	*Ardenna tenuirostris*	short-tailed shearwater		SL		3/2
animals	birds	Procellariidae	*Pterodroma nigripennis*	black-winged petrel		C		1/1
animals	birds	Psittacidae	*Lathamus discolor*	swift parrot		E	CE	1
animals	birds	Psittacidae	*Parvipsitta pusilla*	little lorikeet		C		8/2
animals	birds	Psittacidae	*Alisterus scapularis*	Australian king-parrot		C		8
animals	birds	Psittacidae	*Platycercus adscitus*	pale-headed rosella		C		124/11
animals	birds	Psittacidae	*Glossopsitta concinna*	musk lorikeet		C		2
animals	birds	Psittacidae	*Melopsittacus undulatus*	budgerigar		C		7
animals	birds	Psittacidae	*Aprosmictus erythropterus*	red-winged parrot		C		78/6
animals	birds	Psittacidae	*Trichoglossus chlorolepidotus*	scaly-breasted lorikeet		C		65/6
animals	birds	Psittacidae	*Platycercus adscitus palliceps*	pale-headed rosella (southern form)		C		1
animals	birds	Psittacidae	*Trichoglossus haematodus moluccanus*	rainbow lorikeet		C		203/13
animals	birds	Psophodidae	*Psophodes olivaceus*	eastern whipbird		C		4/3
animals	birds	Ptilonorhynchidae	*Ptilonorhynchus maculatus*	spotted bowerbird		C		9
animals	birds	Rallidae	*Gallinula tenebrosa*	dusky moorhen		C		64/4
animals	birds	Rallidae	*Porphyrio melanotus*	purple swamphen		C		34
animals	birds	Rallidae	*Fulica atra*	Eurasian coot		C		33
animals	birds	Rallidae	*Tribonyx ventralis*	black-tailed native-hen		C		2
animals	birds	Rallidae	*Amaurornis moluccana*	pale-vented bush-hen		C		3
animals	birds	Rallidae	*Gallirallus philippensis*	buff-banded rail		C		9/3
animals	birds	Recurvirostridae	*Recurvirostra novaehollandiae*	red-necked avocet		C		5
animals	birds	Recurvirostridae	*Himantopus himantopus*	black-winged stilt		C		29
animals	birds	Rhipiduridae	*Rhipidura leucophrys*	willie wagtail		C		104
animals	birds	Rhipiduridae	*Rhipidura rufifrons*	rufous fantail		SL		25/2
animals	birds	Rhipiduridae	*Rhipidura albiscapa*	grey fantail		C		64/2
animals	birds	Rostratulidae	*Rostratula australis*	Australian painted snipe		E	E	3
animals	birds	Scolopacidae	*Calidris ruficollis*	red-necked stint		SL		42/3
animals	birds	Scolopacidae	*Limosa lapponica baueri*	Western Alaskan bar-tailed godwit		V	V	94/3
animals	birds	Scolopacidae	*Numenius madagascariensis*	eastern curlew		E	CE	96/3
animals	birds	Scolopacidae	*Gallinago hardwickii*	Latham's snipe		SL		28
animals	birds	Scolopacidae	*Calidris tenuirostris*	great knot		E	CE	54/1
animals	birds	Scolopacidae	*Calidris ferruginea*	curlew sandpiper		E	CE	19
animals	birds	Scolopacidae	*Tringa stagnatilis*	marsh sandpiper		SL		6
animals	birds	Scolopacidae	*Calidris acuminata*	sharp-tailed sandpiper		SL		21
animals	birds	Scolopacidae	*Limosa limosa*	black-tailed godwit		SL		4
animals	birds	Scolopacidae	*Tringa incana*	wandering tattler		SL		3/1
animals	birds	Scolopacidae	*Xenus cinereus*	terek sandpiper		SL		29
animals	birds	Scolopacidae	*Tringa brevipes*	grey-tailed tattler		SL		58/4
animals	birds	Scolopacidae	*Calidris canutus*	red knot		E	E	14
animals	birds	Scolopacidae	*Heteroscelus sp.*					10
animals	birds	Scolopacidae	*Tringa nebularia*	common greenshank		SL		6
animals	birds	Scolopacidae	*Numenius phaeopus*	whimbrel		SL		108/4

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animals	birds	Scolopacidae	*Actitis hypoleucos*	common sandpiper		SL		5
animals	birds	Scolopacidae	*Arenaria interpres*	ruddy turnstone		SL		17
animals	birds	Strigidae	*Ninox boobook*	southern boobook		C		38/3
animals	birds	Strigidae	*Ninox strenua*	powerful owl		V		3/1
animals	birds	Strigidae	*Ninox connivens*	barking owl		C		10/5
animals	birds	Strigidae	*Ninox rufa queenslandica*	rufous owl (southern subspecies)		C		1
animals	birds	Sulidae	*Morus serrator*	Australasian gannet		C		1
animals	birds	Sulidae	*Sula leucogaster*	brown booby		SL		2
animals	birds	Threskiornithidae	*Threskiornis spinicollis*	straw-necked ibis		C		45
animals	birds	Threskiornithidae	*Threskiornis molucca*	Australian white ibis		C		52
animals	birds	Threskiornithidae	*Plegadis falcinellus*	glossy ibis		SL		16
animals	birds	Threskiornithidae	*Platalea flavipes*	yellow-billed spoonbill		C		21
animals	birds	Threskiornithidae	*Platalea regia*	royal spoonbill		C		49
animals	birds	Timaliidae	*Zosterops lateralis*	silvereye		C		51/11
animals	birds	Turnicidae	*Turnix pyrrhothorax*	red-chested button-quail		C		3/1
animals	birds	Turnicidae	*Turnix varius*	painted button-quail		C		11/5
animals	birds	Turnicidae	*Turnix maculosus*	red-backed button-quail		C		6/2
animals	birds	Turnicidae	*Turnix melanogaster*	black-breasted button-quail		V	V	3
animals	birds	Tytonidae	*Tyto delicatula*	eastern barn owl		C		11/1
animals	insects	Formicidae	*Oecophylla smaragdina*	green tree ant				1
animals	insects	Lycaenidae	*Hypolycaena phorbas phorbas*	black-spotted flash				1
animals	insects	Nymphalidae	*Phaedyma shepherdi shepherdi*	white-banded plane (southern subspecies)				2
animals	mammals	Balaenopteridae	*Balaenoptera musculus*	blue whale		C	E	1/1
animals	mammals	Canidae	*Canis familiaris (dingo)*	dingo				40
animals	mammals	Dasyuridae	*Planigale ingrami*	long-tailed planigale		C		3
animals	mammals	Dasyuridae	*Planigale maculata*	common planigale		C		4/3
animals	mammals	Dasyuridae	*Dasyurus hallucatus*	northern quoll		C	E	3
animals	mammals	Dasyuridae	*Sminthopsis sp.*					3
animals	mammals	Dasyuridae	*Sminthopsis macroura*	stripe-faced dunnart		C		2/1
animals	mammals	Delphinidae	*Orcaella heinsohni*	Australian snubfin dolphin		V		1
animals	mammals	Emballonuridae	*Taphozous troughtoni*	Troughton's sheathtail bat		C		8/1
animals	mammals	Emballonuridae	*Saccolaimus flaviventris*	yellow-bellied sheathtail bat		C		23/4
animals	mammals	Emballonuridae	*Taphozous australis*	coastal sheathtail bat		NT		1/1
animals	mammals	Macropodidae	*Petrogale sp.*			C		1
animals	mammals	Macropodidae	*Onychogalea fraenata*	bridled nailtail wallaby		E	E	467
animals	mammals	Macropodidae	*Macropus rufogriseus*	red-necked wallaby		C		5/1
animals	mammals	Macropodidae	*Petrogale inornata*	unadorned rock-wallaby		C		23/11
animals	mammals	Macropodidae	*Petrogale herberti*	Herbert's rock-wallaby		C		9/2
animals	mammals	Macropodidae	*Macropus giganteus*	eastern grey kangaroo		C		105
animals	mammals	Macropodidae	*Macropus robustus*	common wallaroo		C		23
animals	mammals	Macropodidae	*Macropus dorsalis*	black-striped wallaby		C		52/3
animals	mammals	Macropodidae	*Wallabia bicolor*	swamp wallaby		C		35
animals	mammals	Macropodidae	*Macropus parryi*	whiptail wallaby		C		18
animals	mammals	Macropodidae	*Macropus agilis*	agile wallaby		C		28/1
animals	mammals	Macropodidae	*Macropus sp.*					1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	mammals	Megadermatidae	*Macroderma gigas*	ghost bat		E	V	2
animals	mammals	Miniopteridae	*Miniopterus schreibersii oceanensis*	eastern bent-wing bat		C		9/1
animals	mammals	Miniopteridae	*Miniopterus australis*	little bent-wing bat		C		15/4
animals	mammals	Molossidae	*Chaerephon jobensis*	northern freetail bat		C		21/6
animals	mammals	Molossidae	*Tadarida australis*	white-striped freetail bat		C		3
animals	mammals	Molossidae	*Mormopterus ridei*	eastern free-tailed bat		C		15/6
animals	mammals	Molossidae	*Mormopterus lumsdenae*	northern free-tailed bat		C		17/2
animals	mammals	Muridae	*Rattus sp.*					5
animals	mammals	Muridae	*Melomys sp.*					1
animals	mammals	Muridae	*Rattus tunneyi*	pale field-rat		C		2/2
animals	mammals	Muridae	*Pseudomys gracilicaudatus*	eastern chestnut mouse		C		7/7
animals	mammals	Muridae	*Rattus sordidus*	canefield rat		C		2
animals	mammals	Muridae	*Pseudomys delicatulus*	delicate mouse		C		1/1
animals	mammals	Muridae	*Hydromys chrysogaster*	water rat		C		9/1
animals	mammals	Muridae	*Melomys cervinipes*	fawn-footed melomys		C		5/5
animals	mammals	Ornithorhynchidae	*Ornithorhynchus anatinus*	platypus		SL		3
animals	mammals	Peramelidae	*Perameles nasuta*	long-nosed bandicoot		C		6
animals	mammals	Peramelidae	*Isoodon macrourus*	northern brown bandicoot		C		18/2
animals	mammals	Petauridae	*Petaurus breviceps*	sugar glider		C		7/1
animals	mammals	Petauridae	*Petaurus sp.*					1
animals	mammals	Petauridae	*Petaurus norfolcensis*	squirrel glider		C		6/2
animals	mammals	Petauridae	*Petaurus australis australis*	yellow-bellied glider (southern subspecies)		C		3
animals	mammals	Phalangeridae	*Trichosurus vulpecula*	common brushtail possum		C		50/3
animals	mammals	Phascolarctidae	*Phascolarctos cinereus*	koala		V	V	64
animals	mammals	Potoroidae	*Aepyprymnus rufescens*	rufous bettong		C		52/4
animals	mammals	Pseudocheiridae	*Pseudocheirus peregrinus*	common ringtail possum		C		7/3
animals	mammals	Pseudocheiridae	*Petauroides volans minor*	northern greater glider		V	V	1
animals	mammals	Pseudocheiridae	*Petauroides volans*	greater glider		V	V	19/2
animals	mammals	Pteropodidae	*Pteropus alecto*	black flying-fox		C		13/5
animals	mammals	Pteropodidae	*Pteropus scapulatus*	little red flying-fox		C		1/1
animals	mammals	Pteropodidae	*Nyctimene robinsoni*	eastern tube-nosed bat		C		1/1
animals	mammals	Pteropodidae	*Syconycteris australis*	eastern blossom bat		C		3/3
animals	mammals	Rhinolophidae	*Rhinolophus megaphyllus*	eastern horseshoe-bat		C		5
animals	mammals	Tachyglossidae	*Tachyglossus aculeatus*	short-beaked echidna		SL		54
animals	mammals	Vespertilionidae	*Kerivoula papuensis*	golden-tipped bat		C		1/1
animals	mammals	Vespertilionidae	*Chalinolobus gouldii*	Gould's wattled bat		C		29/11
animals	mammals	Vespertilionidae	*Chalinolobus picatus*	little pied bat		C		11
animals	mammals	Vespertilionidae	*Scotorepens balstoni*	inland broad-nosed bat		C		8
animals	mammals	Vespertilionidae	*Scotorepens sanborni*	northern broad-nosed bat		C		1
animals	mammals	Vespertilionidae	*Nyctophilus geoffroyi*	lesser long-eared bat		C		1
animals	mammals	Vespertilionidae	*Vespadelus troughtoni*	eastern cave bat		C		8/3
animals	mammals	Vespertilionidae	*Vespadelus baverstocki*	inland forest bat		C		9
animals	mammals	Vespertilionidae	*Chalinolobus nigrogriseus*	hoary wattled bat		C		20/9
animals	mammals	Vespertilionidae	*Scotorepens sp. (Parnaby)*	central-eastern broad-nosed bat		C		1
animals	mammals	Vespertilionidae	*Vespadelus sp.*					3

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animals	mammals	Vespertilionidae	*Myotis macropus*	large-footed myotis		C		6
animals	mammals	Vespertilionidae	*Nyctophilus sp.*					5
animals	mammals	Vespertilionidae	*Scotorepens sp.*					15
animals	mammals	Vespertilionidae	*Chalinolobus morio*	chocolate wattled bat		C		7
animals	mammals	Vespertilionidae	*Nyctophilus gouldi*	Gould's long-eared bat		C		1
animals	mammals	Vespertilionidae	*Scotorepens greyii*	little broad-nosed bat		C		27/12
animals	mammals	Vespertilionidae	*Chalinolobus dwyeri*	large-eared pied bat		V	V	1/1
animals	ray-finned fishes	Ambassidae	*Ambassis agassizii*	Agassiz's glassfish				48
animals	ray-finned fishes	Anguillidae	*Anguilla obscura*	Pacific shortfin eel				3
animals	ray-finned fishes	Anguillidae	*Anguilla reinhardtii*	longfin eel				27
animals	ray-finned fishes	Apogonidae	*Glossamia aprion*	mouth almighty				23
animals	ray-finned fishes	Ariidae	*Neoarius graeffei*	blue catfish				268
animals	ray-finned fishes	Atherinidae	*Craterocephalus stercusmuscarum*	flyspecked hardyhead				51
animals	ray-finned fishes	Belonidae	*Strongylura krefftii*	freshwater longtom				54
animals	ray-finned fishes	Centropomidae	*Lates calcarifer*	barramundi				3
animals	ray-finned fishes	Clupeidae	*Nematalosa erebi*	bony bream				684
animals	ray-finned fishes	Eleotridae	*Hypseleotris species 1*	Midgley's carp gudgeon				12
animals	ray-finned fishes	Eleotridae	*Hypseleotris compressa*	empire gudgeon				26
animals	ray-finned fishes	Eleotridae	*Oxyeleotris lineolata*	sleepy cod				15
animals	ray-finned fishes	Eleotridae	*Hypseleotris galii*	firetail gudgeon				37
animals	ray-finned fishes	Eleotridae	*Hypseleotris klunzingeri*	western carp gudgeon				9
animals	ray-finned fishes	Eleotridae	*Mogurnda adspersa*	southern purplespotted gudgeon				34/1
animals	ray-finned fishes	Eleotridae	*Philypnodon grandiceps*	flathead gudgeon				4
animals	ray-finned fishes	Hemiramphidae	*Arrhamphus sclerolepis*	snubnose garfish				4
animals	ray-finned fishes	Megalopidae	*Megalops cyprinoides*	oxeye herring				7
animals	ray-finned fishes	Melanotaeniidae	*Rhadinocentrus ornatus*	ornate rainbowfish				1
animals	ray-finned fishes	Melanotaeniidae	*Melanotaenia splendida splendida*	eastern rainbowfish				56
animals	ray-finned fishes	Mugilidae	*Mugil cephalus*	sea mullet				4
animals	ray-finned fishes	Osteoglossidae	*Scleropages leichardti*	southern saratoga				47
animals	ray-finned fishes	Percichthyidae	*Macquaria ambigua*	golden perch				21
animals	ray-finned fishes	Plotosidae	*Porochilus rendahli*	Rendahl's catfish				3
animals	ray-finned fishes	Plotosidae	*Neosilurus hyrtlii*	Hyrtl's catfish				36
animals	ray-finned fishes	Plotosidae	*Tandanus tandanus*	freshwater catfish				29
animals	ray-finned fishes	Plotosidae	*Neosilurus ater*	black catfish				1
animals	ray-finned fishes	Pseudomugilidae	*Pseudomugil signifer*	Pacific blue eye				9
animals	ray-finned fishes	Scorpaenidae	*Notesthes robusta*	bullrout				1
animals	ray-finned fishes	Synbranchidae	*Ophisternon gutturale*	swamp eel				4
animals	ray-finned fishes	Terapontidae	*Scortum hillii*	leathery grunter				58
animals	ray-finned fishes	Terapontidae	*Amniataba percoides*	barred grunter				80
animals	ray-finned fishes	Terapontidae	*Leiopotherapon unicolor*	spangled perch				42
animals	reptiles	Agamidae	*Pogona barbata*	bearded dragon		C		5
animals	reptiles	Agamidae	*Intellagama lesueurii*	eastern water dragon		C		5/1
animals	reptiles	Agamidae	*Diporiphora bilineata*	two-lined dragon		C		1
animals	reptiles	Agamidae	*Diporiphora australis*	tommy roundhead		C		19/7
animals	reptiles	Agamidae	*Chlamydosaurus kingii*	frilled lizard		C		9/1
animals	reptiles	Agamidae	*Diporiphora nobbi*	nobbi		C		6/2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	reptiles	Agamidae	*Diporiphora sp.*					2
animals	reptiles	Boidae	*Morelia spilota*	carpet python		C		15/3
animals	reptiles	Boidae	*Antaresia maculosa*	spotted python		C		5
animals	reptiles	Boidae	*Aspidites melanocephalus*	black-headed python		C		8/2
animals	reptiles	Carphodactylidae	*Nephrurus asper*	spiny knob-tailed gecko		C		17/2
animals	reptiles	Chelidae	*Emydura macquarii krefftii*	Krefft's river turtle		C		36/3
animals	reptiles	Chelidae	*Chelodina longicollis*	eastern snake-necked turtle		C		3/2
animals	reptiles	Chelidae	*Rheodytes leukops*	Fitzroy River turtle		V	V	9
animals	reptiles	Chelidae	*Chelodina expansa*	broad-shelled river turtle		C		3
animals	reptiles	Chelidae	*Elseya albagula*	southern snapping turtle		E	CE	7
animals	reptiles	Chelidae	*Wollumbinia latisternum*	saw-shelled turtle		C		17/4
animals	reptiles	Cheloniidae	*Eretmochelys imbricata*	hawksbill turtle		E	V	1
animals	reptiles	Cheloniidae	*Natator depressus*	flatback turtle		V	V	8
animals	reptiles	Cheloniidae	*Chelonia mydas*	green turtle		V	V	1
animals	reptiles	Colubridae	*Boiga irregularis*	brown tree snake		C		12/5
animals	reptiles	Colubridae	*Dendrelaphis punctulatus*	green tree snake		C		27/4
animals	reptiles	Colubridae	*Tropidonophis mairii*	freshwater snake		C		20/7
animals	reptiles	Crocodylidae	*Crocodylus porosus*	estuarine crocodile		V		3
animals	reptiles	Diplodactylidae	*Oedura tryoni*	southern spotted velvet gecko		C		8/7
animals	reptiles	Diplodactylidae	*Amalosia rhombifer*	zig-zag gecko		C		7/6
animals	reptiles	Diplodactylidae	*Nebulifera robusta*	robust velvet gecko		C		2/2
animals	reptiles	Diplodactylidae	*Strophurus williamsi*	soft-spined gecko		C		7/1
animals	reptiles	Diplodactylidae	*Oedura monilis sensu lato*	ocellated velvet gecko		C		16/5
animals	reptiles	Diplodactylidae	*Diplodactylus vittatus*	wood gecko		C		7/4
animals	reptiles	Diplodactylidae	*Lucasium steindachneri*	Steindachner's gecko		C		6/5
animals	reptiles	Diplodactylidae	*Diplodactylus platyurus*	eastern fat-tailed gecko		C		1/1
animals	reptiles	Diplodactylidae	*Strophurus taenicauda*	golden-tailed gecko		NT		7/1
animals	reptiles	Elapidae	*Suta suta*	myall snake		C		3/1
animals	reptiles	Elapidae	*Hoplocephalus bitorquatus*	pale-headed snake		C		8/2
animals	reptiles	Elapidae	*Furina ornata*	orange-naped snake		C		1
animals	reptiles	Elapidae	*Furina diadema*	red-naped snake		C		6/3
animals	reptiles	Elapidae	*Demansia torquata*	collared whipsnake		C		4/1
animals	reptiles	Elapidae	*Hemiaspis damelii*	grey snake		E		4
animals	reptiles	Elapidae	*Denisonia maculata*	ornamental snake		V	V	2
animals	reptiles	Elapidae	*Cacophis harriettae*	white-crowned snake		C		4
animals	reptiles	Elapidae	*Cryptophis boschmai*	Carpentaria whip snake		C		6/3
animals	reptiles	Elapidae	*Demansia psammophis*	yellow-faced whipsnake		C		6
animals	reptiles	Elapidae	*Demansia vestigiata*	lesser black whipsnake		C		4/4
animals	reptiles	Elapidae	*Pseudechis guttatus*	spotted black snake		C		1/1
animals	reptiles	Elapidae	*Pseudonaja textilis*	eastern brown snake		C		10/2
animals	reptiles	Elapidae	*Vermicella annulata*	bandy-bandy		C		5/1
animals	reptiles	Elapidae	*Pseudechis australis*	king brown snake		C		1
animals	reptiles	Elapidae	*Cryptophis nigrescens*	eastern small-eyed snake		C		3/1
animals	reptiles	Elapidae	*Oxyuranus scutellatus*	coastal taipan		C		5/3
animals	reptiles	Elapidae	*Acanthophis antarcticus*	common death adder		V		1
animals	reptiles	Elapidae	*Brachyurophis australis*	coral snake		C		1/1

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	reptiles	Elapidae	*Pseudechis porphyriacus*	red-bellied black snake		C		1
animals	reptiles	Elapidae	*Cryptophis nigrostriatus*	black-striped snake		C		3/2
animals	reptiles	Elapidae	*Demansia sp.*					2
animals	reptiles	Gekkonidae	*Gehyra sp.*					1/1
animals	reptiles	Gekkonidae	*Heteronotia binoei*	Bynoe's gecko		C		100/11
animals	reptiles	Gekkonidae	*Gehyra catenata*	chain-backed dtella		C		5/1
animals	reptiles	Gekkonidae	*Gehyra dubia*	dubious dtella		C		78/6
animals	reptiles	Pygopodidae	*Delma tincta*	excitable delma		C		3/2
animals	reptiles	Pygopodidae	*Paradelma orientalis*	brigalow scaly-foot		C		4/1
animals	reptiles	Pygopodidae	*Pygopus lepidopodus*	common scaly-foot		C		1/1
animals	reptiles	Pygopodidae	*Lialis burtonis*	Burton's legless lizard		C		11/2
animals	reptiles	Scincidae	*Morethia boulengeri*	south-eastern morethia skink		C		2
animals	reptiles	Scincidae	*Lygisaurus foliorum*	tree-base litter-skink		C		57/20
animals	reptiles	Scincidae	*Ctenotus taeniolatus*	copper-tailed skink		C		42/8
animals	reptiles	Scincidae	*Lampropholis couperi*	plain-backed sunskink		C		2/2
animals	reptiles	Scincidae	*Calyptotis temporalis*	broad-templed calyptotis		C		5/4
animals	reptiles	Scincidae	*Lampropholis delicata*	dark-flecked garden sunskink		C		3/2
animals	reptiles	Scincidae	*Morethia taeniopleura*	fire-tailed skink		C		13/1
animals	reptiles	Scincidae	*Anomalopus brevicollis*	short-necked worm-skink		C		20/20
animals	reptiles	Scincidae	*Pygmaeascincus timlowi*	dwarf litter-skink		C		8/6
animals	reptiles	Scincidae	*Cryptoblepharus pannosus*	ragged snake-eyed skink		C		1/1
animals	reptiles	Scincidae	*Cyclodomorphus gerrardii*	pink-tongued lizard		C		4/3
animals	reptiles	Scincidae	*Cryptoblepharus australis*	inland snake-eyed skink		C		1
animals	reptiles	Scincidae	*Cryptoblepharus metallicus*	metallic snake-eyed skink		C		7/5
animals	reptiles	Scincidae	*Liburnascincus mundivensis*	outcrop rainbow-skink		C		3
animals	reptiles	Scincidae	*Glaphyromorphus punctulatus*	fine-spotted mulch-skink		C		15/10
animals	reptiles	Scincidae	*Carlia pectoralis sensu lato*			C		35/9
animals	reptiles	Scincidae	*Cryptoblepharus pulcher pulcher*	elegant snake-eyed skink		C		57
animals	reptiles	Scincidae	*Cryptoblepharus virgatus sensu lato*			C		18/9
animals	reptiles	Scincidae	*Carlia sp.*					10/3
animals	reptiles	Scincidae	*Menetia sp.*					1/1
animals	reptiles	Scincidae	*Carlia munda*	shaded-litter rainbow-skink		C		22/15
animals	reptiles	Scincidae	*Carlia vivax*	tussock rainbow-skink		C		16/8
animals	reptiles	Scincidae	*Ctenotus sp.*					5/1
animals	reptiles	Scincidae	*Morethia sp.*					1
animals	reptiles	Scincidae	*Carlia rubigo*	orange-flanked rainbow skink		C		33
animals	reptiles	Scincidae	*Eulamprus sp.*					2
animals	reptiles	Scincidae	*Anomalopus sp.*					1/1
animals	reptiles	Scincidae	*Menetia greyii*	common dwarf skink		C		4
animals	reptiles	Scincidae	*Tiliqua rugosa*	shingle-back		C		1
animals	reptiles	Scincidae	*Concinnia tenuis*	bar-sided skink		C		8/4
animals	reptiles	Scincidae	*Eulamprus quoyii*	eastern water skink		C		18/12
animals	reptiles	Scincidae	*Lerista fragilis*	eastern mulch slider		C		2/1
animals	reptiles	Scincidae	*Carlia pectoralis*	open-litter rainbow skink		C		4
animals	reptiles	Scincidae	*Carlia schmeltzii*	robust rainbow-skink		C		34/7
animals	reptiles	Scincidae	*Concinnia martini*	dark bar-sided skink		C		5/4

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	reptiles	Scincidae	*Eremiascincus sp.*					1
animals	reptiles	Scincidae	*Bellatorias frerei*	major skink		C		1/1
animals	reptiles	Scincidae	*Concinnia sokosoma*	stout bar-sided skink		C		1
animals	reptiles	Scincidae	*Ctenotus spaldingi*	straight-browed ctenotus		C		12/6
animals	reptiles	Scincidae	*Ctenotus strauchii*	eastern barred wedgesnout ctenotus		C		4/1
animals	reptiles	Scincidae	*Tiliqua scincoides*	eastern blue-tongued lizard		C		3/2
animals	reptiles	Scincidae	*Carlia rhomboidalis*	blue-throated rainbow-skink		C		1/1
animals	reptiles	Scincidae	*Cryptoblepharus sp.*					5
animals	reptiles	Scincidae	*Lampropholis adonis*	diamond-shielded sunskink		C		3/3
animals	reptiles	Scincidae	*Concinnia brachysoma*	northern bar-sided skink		C		7/1
animals	reptiles	Typhlopidae	*Anilios wiedii*	brown-snouted blind snake		C		3/3
animals	reptiles	Typhlopidae	*Anilios unguirostris*	claw-snouted blind snake		C		1/1
animals	reptiles	Typhlopidae	*Anilios ligatus*	robust blind snake		C		2/1
animals	reptiles	Typhlopidae	*Anilios affinis*	small-headed blind snake		C		1
animals	reptiles	Varanidae	*Varanus sp.*	goanna				2
animals	reptiles	Varanidae	*Varanus semiremex*	rusty monitor		C		1/1
animals	reptiles	Varanidae	*Varanus tristis*	black-tailed monitor		C		5/3
animals	reptiles	Varanidae	*Varanus varius*	lace monitor		C		4/2
animals	uncertain	Indeterminate	*Indeterminate*	Unknown or Code Pending		C		36

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 in the Wild (PE), Endangered (E), Vulnerable (V), Near Threatened (NT), Least Concern (C) or Not Protected ( ).

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

Records – The first number indicates the total number of records of the taxon for the record option selected (i.e. All, Confirmed or Specimens).
This number is output as 99999 if it equals or exceeds this value. The second number located after the / indicates the number of specimen records for the taxon.
This number is output as 999 if it equals or exceeds this value.

Queensland Government

Wildlife Online Extract

Search Criteria: Species List for a Selected Area
Species: Animals
Type: Native
Status: Rare and threatened species
Records: Confirmed
Area: Tooloombah Creek Conservation Park
Email: lindsay@austecology.com.au
Date submitted: Monday 30 Sep 2019 14:27:41
Date extracted: Monday 30 Sep 2019 14:30:08

There were no records retrieved for your selection

Queensland Government

Wildlife Online Extract

Search Criteria: Species List for a Selected Area
Species: Animals
Type: Native
Status: Rare and threatened species
Records: Confirmed
Area: Bukkulla Conservation Park
Email: lindsay@austecology.com.au
Date submitted: Monday 30 Sep 2019 14:28:28
Date extracted: Monday 30 Sep 2019 14:30:06

There were no records retrieved for your selection

Queensland Government

Wildlife Online Extract

Search Criteria: Species List for a Selected Area
Species: Animals
Type: Native
Status: Rare and threatened species
Records: Confirmed
Area: Eugene State Forest
Email: lindsay@austecology.com.au
Date submitted: Monday 30 Sep 2019 14:30:59
Date extracted: Monday 30 Sep 2019 14:40:03

There were no records retrieved for your selection

Queensland Government

Wildlife Online Extract

Search Criteria: Species List for a Selected Area
Species: Animals
Type: Native
Status: Rare and threatened species
Records: Confirmed
Area: Marlborough State Forest
Email: lindsay@austecology.com.au
Date submitted: Monday 30 Sep 2019 14:29:09
Date extracted: Monday 30 Sep 2019 14:30:02

The number of records retrieved = 2

Kingdom	Class	Family	Scientific Name	Common Name	I	Q	A	Records
animals	birds	Columbidae	*Geophaps scripta scripta*	squatter pigeon (southern subspecies)		V	V	1
animals	birds	Turnicidae	*Turnix melanogaster*	black-breasted button-quail		V	V	2

CODES

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

Records – The first number indicates the total number of records of the taxon for the record option selected (i.e. All, Confirmed or Specimens).
This number is output as 99999 if it equals or exceeds this value. The second number located after the / indicates the number of specimen records for the taxon.
This number is output as 999 if it equals or exceeds this value.

Queensland Government

Wildlife Online Extract

Search Criteria: Species List for a Selected Area
Species: Animals
Type: Native
Status: Rare and threatened species
Records: Confirmed
Area: Mount Buffalo State Forest
Email: lindsay@austecology.com.au
Date submitted: Monday 30 Sep 2019 14:30:26
Date extracted: Monday 30 Sep 2019 14:40:07

There were no records retrieved for your selection