



COMPONENT OF M BLOCK GEOLOGICAL EXPLORATION SITE GREGORY CRINUM MINE

TARGETED EPBC FAUNA AND FLORA ASSESSMENT

**Report prepared
for
BHP Billiton Mitsubishi Alliance (BMA)**



**Biodiversity
Assessment**
AND MANAGEMENT PTY LTD

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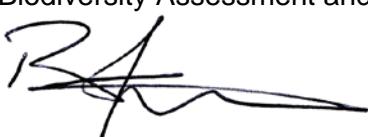
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Date: 06/02/2012



Managing Director

TARGETED EPBC FAUNA AND FLORA ASSESSMENT WITHIN A COMPONENT OF THE M BLOCK GEOLOGICAL EXPLORATION SITE, GREGORY CRINUM MINE, EMERALD

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List of Abbreviations

BAAM	-	Biodiversity Assessment and Management Pty Ltd
DERM		Department of Environment and Resource Management
EPBC Act		<i>Environment Protection and Biodiversity Conservation Act 1999</i>
MNES		Matters of National Environmental Significance
NC Act		Queensland's <i>Nature Conservation Act 1992</i>
RE	-	Regional Ecosystem
SEWPaC		Commonwealth Department of Sustainability, Environment, Water, Population and Communities
TSSC		Threatened Species Scientific Committee

1.0 INTRODUCTION

An area of regrowth Brigalow (Regional Ecosystem equivalent 11.4.9) within a project area for M Block exploration (**Figure 1**) was identified by consultants Eco Logical Australia (Eco Logical Australia *memorandum* 2011) as requiring a targeted Matters of National Environmental Significance (MNES) assessment to inform a referral of the project under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). **Figure 1** shows the component of this area subject to the current assessment.

The objectives of this assessment were to:

- Review existing reports for the M Block exploration area;
- Review existing mapping of Regional Ecosystem (RE) mapping; and
- Apply standard Commonwealth survey guidelines for EPBC searches to undertake a site assessment for listed threatened species likely to occur in the area.

The following report presents the findings of the assessment undertaken by Adam Abbott and Gavin Jones from the 9th to the 12th of December, 2011.

2.0 METHODOLOGY

2.1 TARGETED FIELD ASSESSMENT

Two terrestrial vertebrates Squatter Pigeon *Geophaps scripta scripta* and Brigalow Scaly-Foot along with three grass species, King Bluegrass *Dichanthium queenslandicum* Finger Panic Grass *Digitaria porrecta* and Bluegrass *Dichanthium setosum* were targeted during the field survey.

The methodology follows the survey effort requirements outlined in the Commonwealth's *Survey Guidelines for Nationally Threatened Species*.

Squatter Pigeon:

- 15 hours over three days in habitat less than 50 ha. Surveys conducted in 2.5 hour blocks morning and evening, where sufficient habitat was available. Suitable habitat includes grassy understorey of Brigalow woodland and Brigalow regrowth.

- Assessment conducted during the peak bird activity (morning and afternoon) using direct observation or vocalisation to determine presence.

Brigalow Scaly-Foot:

- Searches of diurnal active searches under rocks, fallen bark and timber as well as leaf litter. Nocturnal spotlight searches undertaken on the ground and around Brigalow trunks with other rough barked trees included.
- Survey effort dependent upon habitat quality, survey techniques and available habitat features such as logs and leaf litter within the area.

Native Grasses

- Grasses searched for during random meanders. Characteristic structure of the flower heads are used to identify grasses found within the subject area.

2.2 INCIDENTAL FIELD ASSESSMENT

All other species were continuously recorded during the assessment.

3.0 FIELD RESULTS

3.1 GENERAL SURVEY CONDITIONS

The assessment took place during early summer, December 2011. The weather was warm, up to 35.6°C with heavy rainfall occurring both prior and during the survey, totalling 60.6 mm at the Emerald airport weather station. Winds were up to speeds of 78 km/h. A lightning storm with heavy rain passed over the site on Sunday the 11th December.

Project Area for the M-Block Exploration Program



0 0.25 0.5 1
Kilometres

Datum/Projection: GDA 1994 MGA Zone 55

Legend

Site Boundary

Data Sources: Microsoft Virtual Earth



Client: BMA

Project Number: 11CANFED 0017

- Project Area for M Block Exploration
- EPBC Flora & Fauna Assessment Area

Figure 1
Targeted EPBC Fauna & Flora Assessment
Component of M Block Geological Exploration Site
Gregory Crinum Mine

3.2 MEANDERING TRANSECTS

Over four days and two nights meandering transects were conducted (**Figure 2**). **Table 1** outlines dates, times and person hours for all meandering transects.

Table 1: Dates and times of meandering transects.

Meandering Transects			
Date	Time/ transect	Number of transects	Person hours
9/12/11	30 min	8	8
9/12/11	Spotlighting	1	3
10/12/11	30 min	4	4
11/12/11	30 min	4	4
12/12/11	30 min	2	2
12/12/11	Spotlighting	1	5

3.3 FLORA SPECIES

The Brigalow regrowth area was searched for the potential occurrence of King Bluegrass *Dichanthium queenslandicum* Finger Panic Grass *Digitaria porrecta* and Bluegrass *Dichanthium setosum*.

None of the targeted flora species were located within the Brigalow regrowth. Characteristic flower spikes were not identified through any random meander.

Conditions for the identification of native grasses were difficult as Buffel Grass *Cenchrus ciliaris* was densely covering the ground (**Photo 1**) and native grasses were not flowering.

Buffel Grass was up to waist height in many areas searched. Ground cover estimates of Buffel Grass exceed 60 percent cover within the assessment area.



Photo 1: Brigalow regrowth area showing a dense grass layer of Buffel Grass

Extensive infestations of Parthenium *Parthenium hysterophorus* were noted fringing and infiltrating the subject Brigalow regrowth.

Other weed species identified include Pear Tree *Opuntia tomentosa* and *Harrisa* spp.

The Brigalow regrowth within the assessment area does not display the structural requirements of Brigalow that would meet the requirements to be considered remnant (TSSC 2001i). Brigalow within the assessment area was two to three meters in height and estimated to be less than 10 years old.

3.4 FAUNA SPECIES

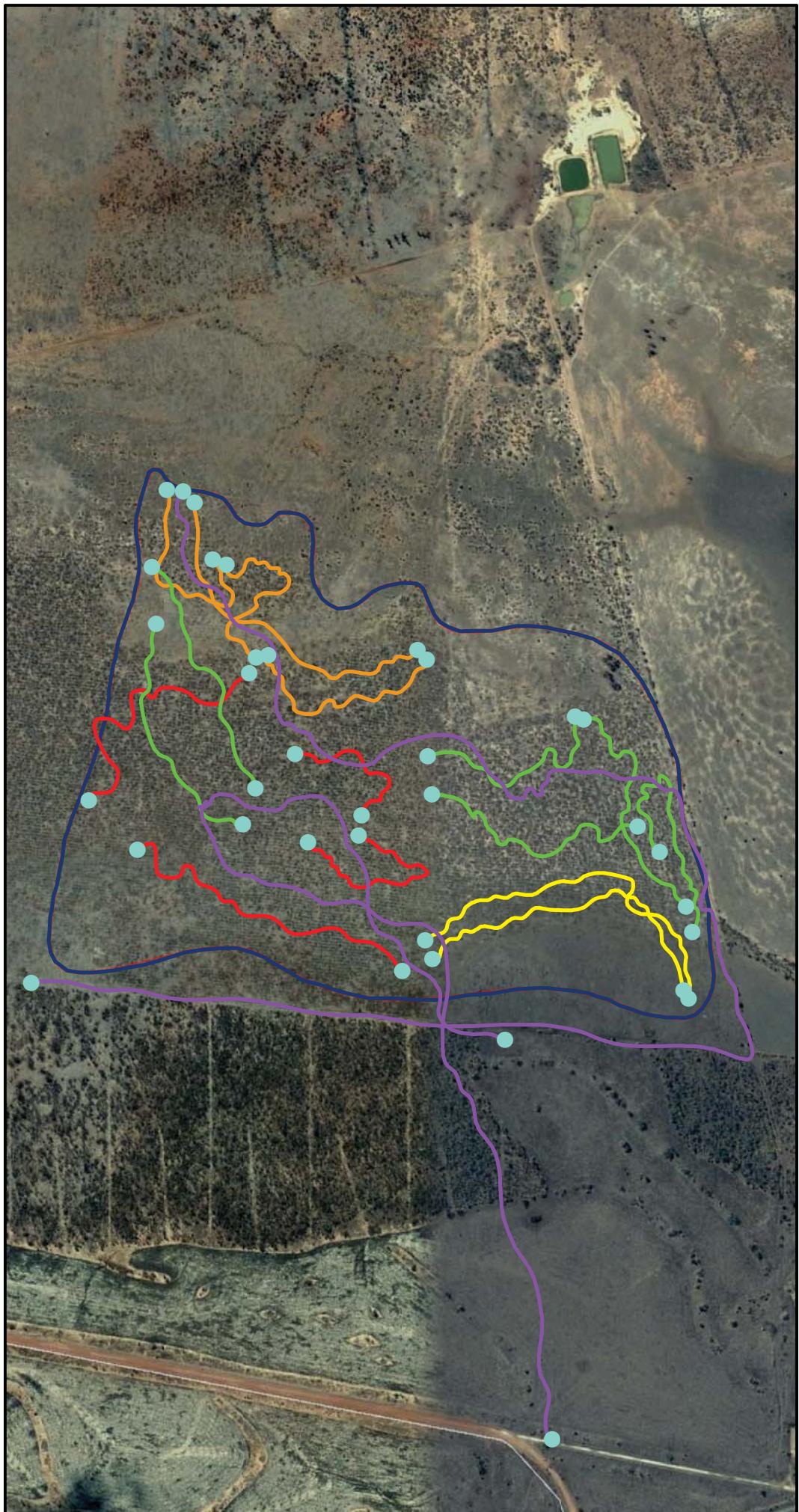
Squatter Pigeon:

No patches of suitable habitat within the Brigalow regrowth were identified for Squatter Pigeon. The surrounding cleared areas including tracks and drill pads were searched within 2.5 hours of dawn each day and no Squatter Pigeons were observed using these areas.

Brigalow Scaly-Foot:

Diurnal active searches and nocturnal active spotlighting searches were undertaken within the Brigalow regrowth to locate Brigalow Scaly-foot. Active searches revealed no individual records of Brigalow Scaly-Foot, and while species may utilise this area for foraging and shelter around the Brigalow regrowth bases, overall the assessment area was not considered to represent ideal habitat for Brigalow Scaly-foot.

Results of database searches and Incidental species records are found within **Appendix 1**.



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any reason.
Image Courtesy of NearMap 2011 [accessed December 2011]

Legend	
Traverse	
Night Survey	● Start/End
Friday 9/12/11	—
Saturday 10/12/11	—
Sunday 11/12/11	—
Monday 12/12/11	—

Figure 2
Location of traverses within a
Brigalow regrowth area

Targeted EPBC Fauna & Flora Assessment
Component of M Block Geological Exploration Site
Gregory Crinum Mine



Meters
Datum: GDA94



Figure 2
Location of traverses within a
Brigalow regrowth area

Targeted EPBC Fauna & Flora Assessment
Component of M Block Geological Exploration Site
Gregory Crinum Mine



Meters
Datum: GDA94



4.0 CONCLUSIONS

4.1 FLORA

Of the targeted flora species, none were observed. These species are likely to be absent from the subject area due to significant Buffel Grass infestation.

4.2 FAUNA

EPBC Act fauna targeted in the survey were Squatter Pigeon and Brigalow Scaly-Foot. Neither was detected using SEWPAC recommended survey techniques. Squatter Pigeon was recorded feeding in sparse grass cover along tracks at M Block and Brigalow Scaly-Foot has been recorded for the M Block site adjacent to the assessment area in previous studies by (Austecology 2008, 2009). The presence of a dense covering of Buffel grass hindered the search effort for these species, and while both species may utilise the area at times, the presence of Buffel Grass significantly reduces the value of the habitat.

Removal of part or all of the Buffel grass would lead to improved conditions for Squatter Pigeon.

5.0 BIBLIOGRAPHY

Austecology (2008) *Review of Fauna and Flora Habitat Values – M Block, BMA Gregory Crinum.* An unpublished report for BMA Gregory Crinum.

Austecology (2009) *Rare and Threatened Fauna and Flora Surveys and Fauna Biodiversity Inventory of M Block, BMA Gregory Crinum.* An unpublished report for BMA Gregory Crinum.

BoM (2011). Weather observations for The Monument. Bureau of Meteorology website <http://www.bom.gov.au> (accessed on 17/12/2011).

Cogger, HG (2000). *Reptiles and amphibians of Australia.* Reed New Holland, Sydney.

DERM (2011). *Wildlife Online.* Queensland Department of Environment and Resource Management, Brisbane.
http://www.epa.qld.gov.au/nature_conservation/wildlife/wildlife_online

DSEWPaC (2011a). ‘Australian Faunal Directory.’ Department of Sustainability, Environment, Water, Population and Communities, Canberra
<http://www.environment.gov.au/biodiversity/abrs/online-resources/fauna/afd/taxa/>

DSEWPaC (2011b). ‘Species Profile and Threats Database.’ Department of Sustainability, Environment, Water, Population and Communities, Canberra.
http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=12768

DSEWPaC (2011c). ‘Species Profile and Threats Database.’ Department of Sustainability, Environment, Water, Population and Communities, Canberra.
<http://www.environment.gov.au/biodiversity/threatened/communities/pubs/99-listing-advice.pdf>

DSEWPaC (2011d). ‘Species Profile and Threats Database.’ Department of Sustainability, Environment, Water, Population and Communities, Canberra.
<http://www.environment.gov.au/cgi-bin/sprat/public/publicshowcommunity.pl?id=28>

Eco Logical Australia (2011). *Gregory Crinum M Block Preliminary EPBC Act*

approvals strategy. Unpublished Memorandum for BMA Gregory Crinum.

Garnett, ST and Crowley, GM (2000). *The action plan for Australian birds.* Environment Australia, Canberra.

Menkhorst, PW and Knight, F (2004). *A field guide to the mammals of Australia.* Oxford University Press, Melbourne.

Pizzey, G and Knight, F (2007). *The field guide to the birds of Australia.* HarperCollins, Sydney.

Richardson, R (2006). ‘Queensland Brigalow Belt Reptile Recovery Plan.’ Report to the Department of the Environment, Water, Heritage and the Arts, Canberra. WWF-Australia, Brisbane.

Wilson, S (2005). *A field guide to reptiles of Queensland.* Reed New Holland, Sydney.

APPENDIX 1

**RESULTS OF DATABASE SEARCHES AND
INCIDENTAL SPECIES RECORDS**

Appendix 1: Fauna species list for the study area from field survey and Wildnet search using a 10 km radius.

Abbreviations

Data Source: **NC** = Nature Conservation Act 1992 (Queensland); **EPBC** = Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act); **WN** = Queensland Department of Environment and Resource Management WildNet database records since 1980; **BAA**M = Data collected by BAAM staff in the study area over the period 9 – 12 December 2011. Numbers in the table refer to the number of records reported in each data source; X = species recorded.

Status: **EPBC:** E = Endangered; V = Vulnerable; M = Migratory; I = Invasive; (species listed under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act)). **NC:** E = Endangered; V = Vulnerable; NT = Near Threatened; S = of Special Concern (Migratory); C = Least Concern (species listed under Queensland's Nature Conservation Act 1992 (NC Act)); I = Introduced.

This table follows the nomenclature provided by the Australian Faunal Directory maintained by the Department of Sustainability, Environment, Water, Population and Communities (SEWPAC 2010a) as it provides a single point of reference for all terrestrial vertebrate groups. With the exception of alterations due to subsequent taxonomic revision, species reported by sources other than BAAM are accepted at face value.

Class	Family	Scientific Name	Common Name	NC Act	EPBC	Mig	WN	BAAM
amphibians	Bufoidae	<i>Rhinella marina</i>	cane toad	I			1	X
amphibians	Hyldae	<i>Litoria inermis</i>	bumpy rocketfrog	C			1	X
amphibians	Hyldae	<i>Litoria rubella</i>	ruddy treefrog	C			1	X
amphibians	Hyldae	<i>Cyclorana brevipes</i>	superb collared frog	C			1	X
amphibians	Hyldae	<i>Cyclorana cultripes</i>	grassland collared frog	C			1	
amphibians	Hyldae	<i>Litoria caerulea</i>	common green treefrog	C			1	
amphibians	Hyldae	<i>Cyclorana verrucosa</i>	rough collared frog	NT			1	X
amphibians	Hyldae	<i>Cyclorana alboguttata</i>	greenstripe frog	C			1	X
amphibians	Hyldae	<i>Cyclorana novaehollandiae</i>	eastern snapping frog	C			1	X
amphibians	Hyldae	<i>Cyclorana platycephala</i>	water holding frog	C			1	
amphibians	Hyldae	<i>Litoria latopalmata</i>	broad palmed rocketfrog	C			1	X
amphibians	Limnodynastidae	<i>Limnodynastes salmini</i>	salmon striped frog	C			1	X
amphibians	Limnodynastidae	<i>Platyplectrum ornatum</i>	ornate burrowing frog	C			1	X

APPENDIX 1: FAUNA SPECIES LIST FROM FIELD SURVEY AND WILDFNET RECORDS

Class	Family	Scientific Name	Common Name	NC Act	EPBC	Mig	WN	BAAM
amphibians	Limnodynastidae	Limnodynastes tasmaniensis	spotted grassfrog	C			1	X
amphibians	Limnodynastidae	Limnodynastes terraereginae	scarlet sided pebblebonk	C			1	X
amphibians	Myobatrachidae	Uperoleia rugosa	chubby gungan	C			1	
birds	Acanthizidae	Acanthiza nana	yellow thornbill	C			1	X
birds	Acanthizidae	Chthonicola sagittata	speckled warbler	C			1	
birds	Acanthizidae	Smicromis brevirostris	weebill	C			1	
birds	Acanthizidae	Acanthiza chrysorrhoa	yellow-rumped thornbill	C			2	
birds	Acanthizidae	Gerygone albogularis	white-throated gerygone	C			1	X
birds	Accipitridae	Aquila audax	wedge-tailed eagle	C			1	X
birds	Accipitridae	Elanus axillaris	black-shouldered kite	C			1	X
birds	Accipitridae	Haliastur sphenurus	whistling kite	C			1	X
birds	Accipitridae	Milvus migrans	black kite	C			1	X
birds	Aegothelidae	Aegothelos cristatus	Australian owllet-nightjar	C			1	
birds	Alaudidae	Mirafra javanica	Horsfield's bushlark	C			1	
birds	Anatidae	Malacorhynchos membranaceus	pink-eared duck	C			1	
birds	Anatidae	Anas gracilis	grey teal	C			1	
birds	Anatidae	Cygnus atratus	black swan	C			1	
birds	Anatidae	Anas superciliosa	Pacific black duck	C			1	X
birds	Anatidae	Dendrocygna eytoni	plumed whistling-duck	C			1	
birds	Anatidae	Dendrocygna arcuata	wandering whistling-duck	C			1	
birds	Anatidae	Chenonetta jubata	Australian wood duck	C			1	X
birds	Anatidae	Aythya australis	hardhead	C			1	
birds	Anhingidae	Anhinga novaehollandiae	Australasian darter	C			1	X
birds	Ardeidae	Ardea pacifica	white-necked heron	C			1	
birds	Ardeidae	Egretta novaehollandiae	white-faced heron	C			1	X
birds	Ardeidae	Nycticorax caledonicus	Nankeen night-heron	C			2	

APPENDIX 1: FAUNA SPECIES LIST FROM FIELD SURVEY AND WILDFNET RECORDS

Class	Family	Scientific Name	Common Name	NC Act	EPBC	Mig	WN	BAAM
birds	Ardeidae	Ixobrychus flavicollis	black bittern	C			1	
birds	Artamidae	Artamus cinereus	black-faced woodswallow	C			1	
birds	Artamidae	Cracticus torquatus	grey butcherbird	C			1	X
birds	Artamidae	Artamus leucorynchus	white-breasted woodswallow	C			2	
birds	Artamidae	Cracticus nigrogularis	pied butcherbird	C			1	
birds	Artamidae	Cracticus tibicen	Australian magpie	C			2	X
birds	Burhinidae	Burhinus grallarius	bush stone-curlew	C			1	
birds	Cacatuidae	Cacatua galerita	sulphur-crested cockatoo	C			1	X
birds	Cacatuidae	Nymphicus hollandicus	cockatoo	C			1	X
birds	Cacatuidae	Eolophus roseicapillus	galah	C			1	X
birds	Campephagidae	Coracina maxima	ground cuckoo-shrike	C			1	
birds	Campephagidae	Coracina papuensis	white-bellied cuckoo-shrike	C			1	
birds	Campephagidae	Lalage leucomela	varied triller	C			1	
birds	Campephagidae	Coracina novaehollandiae	black-faced cuckoo-shrike	C			1	
birds	Casuariidae	Dromaius novaehollandiae	emu	C			1	X
birds	Charadriidae	Vanellus miles	masked lapwing	C			1	
birds	Charadriidae	Elseyornis melanops	black-fronted dotterel	C			1	
birds	Cisticolidae	Cisticola exilis	golden-headed cisticola	C			1	X
birds	Columbidae	Geopelia cuneata	diamond dove	C			1	
birds	Columbidae	Geophaps scripta scripta	squatter pigeon (southern subspecies)	V	V		1	
birds	Columbidae	Geopelia striata	peaceful dove	C			1	
birds	Columbidae	Ocyphaps lophotes	crested pigeon	C			1	X
birds	Columbidae	Geopelia humeralis	bar-shouldered dove	C			1	
birds	Columbidae	Phaps chalcoptera	common bronzewing	C			2	
birds	Coraciidae	Eurystomus orientalis	dollarbird	C		X	1	
birds	Corcoracidae	Struthidea cinerea	apostlebird	C			1	

APPENDIX 1: FAUNA SPECIES LIST FROM FIELD SURVEY AND WILDNET RECORDS

Class	Family	Scientific Name	Common Name	NC Act	EPBC	Mig	WN	BAAM
birds	Corvidae	<i>Corvus orru</i>	Torresian crow	C			1	X
birds	Cuculidae	<i>Chalcites basalis</i>	Horsfield's bronze-cuckoo	C			1	
birds	Cuculidae	<i>Centropus phasianinus</i>	pheasant coucal	C			1	
birds	Cuculidae	<i>Cacomantis flabelliformis</i>	fan-tailed cuckoo	C			1	
birds	Cuculidae	<i>Syrrhops novaehollandiae</i>	channel-billed cuckoo	C		X	1	
birds	Cuculidae	<i>Chalcites minutillus</i>	little bronze-cuckoo	C		X	1	
birds	Cuculidae	<i>Cacomantis variolosus</i>	brush cuckoo	C		X	1	
birds	Dicruridae	<i>Dicrurus bracteatus</i>	spangled drongo	C			2	
birds	Estrildidae	<i>Taeniopygia guttata</i>	zebra finch	C			1	X
birds	Estrildidae	<i>Taeniopygia bichenovii</i>	double-barred finch	C			2	
birds	Estrildidae	<i>Lonchura castaneothorax</i>	chestnut-breasted mannikin	C			1	
birds	Eurostopodidae	<i>Eurostopodus mystacalis</i>	white-throated nightjar	C			1	
birds	Falconidae	<i>Falco berigora</i>	brown falcon	C			1	X
birds	Falconidae	<i>Falco subniger</i>	black falcon	C			1	
birds	Falconidae	<i>Falco cenchroides</i>	nankeen kestrel	C			1	X
birds	Halcyonidae	<i>Todiramphus pyrrhopygius</i>	redbacked kingfisher	C			1	
birds	Halcyonidae	<i>Todiramphus macleayii</i>	forest kingfisher	C			1	
birds	Halcyonidae	<i>Todiramphus sanctus</i>	sacred kingfisher	C			1	
birds	Halcyonidae	<i>Dacelo novaeguineae</i>	laughing kookaburra	C			2	X
birds	Hirundinidae	<i>Hirundo neoxena</i>	welcome swallow	C			1	
birds	Hirundinidae	<i>Petrochelidon nigricans</i>	tree martin	C			1	
birds	Maluridae	<i>Malurus lamberti</i>	variegated fairy-wren	C			2	
birds	Maluridae	<i>Malurus melanocephalus</i>	redbacked fairy-wren	C			1	X
birds	Megaluridae	<i>Megalurus timoriensis</i>	tawny grassbird	C			1	X
birds	Megaluridae	<i>Cincloramphus mathewsi</i>	rufous songlark	C			1	
birds	Megaluridae	<i>Cincloramphus cruralis</i>	brown songlark	C			1	

APPENDIX 1: FAUNA SPECIES LIST FROM FIELD SURVEY AND WILDFNET RECORDS

Class	Family	Scientific Name	Common Name	NC Act	EPBC	Mig	WN	BAAM
birds	Meliphagidae	<i>Entomyzon cyanotis</i>	blue-faced honeyeater	C			1	X
birds	Meliphagidae	<i>Lichenura indistincta</i>	brown honeyeater	C			1	X
birds	Meliphagidae	<i>Manorina melanocephala</i>	noisy miner	C			1	
birds	Meliphagidae	<i>Plectrohyncha lanceolata</i>	striped honeyeater	C			1	
birds	Meliphagidae	<i>Melithreptus albogularis</i>	white-throated honeyeater	C			1	
birds	Meliphagidae	<i>Acanthagenys rufogularis</i>	spiny-cheeked honeyeater	C			1	X
birds	Meliphagidae	<i>Ptilotula penicillata</i>	white-plumed honeyeater	C			1	
birds	Meliphagidae	<i>Philemon citreogularis</i>	little friarbird	C			1	
birds	Meliphagidae	<i>Philemon corniculatus</i>	noisy friarbird	C			1	X
birds	Meliphagidae	<i>Gavicalis virescens</i>	singing honeyeater	C			1	X
birds	Meliphagidae	<i>Manorina flavigula</i>	yellow-throated miner	C			1	
birds	Meropidae	<i>Merops ornatus</i>	rainbow bee-eater	C	X		1	
birds	Monarchidae	<i>Myiagra inquieta</i>	restless flycatcher	C			1	
birds	Monarchidae	<i>Myiagra rubecula</i>	leaden flycatcher	C			1	
birds	Monarchidae	<i>Grallina cyanoleuca</i>	magpie-lark	C			1	X
birds	Monacillidae	<i>Anthus novaeseelandiae</i>	Australasian pipit	C			1	X
birds	Nectariniidae	<i>Dicaeum hirundinaceum</i>	mistletoebird	C			2	X
birds	Oriolidae	<i>Oriolus sagittatus</i>	olive-backed oriole	C			1	
birds	Oriolidae	<i>Sphæcotheres vieilloti</i>	Australasian figbird	C			1	
birds	Otididae	<i>Ardeotis australis</i>	Australian bustard	C			2	
birds	Pachycephalidae	<i>Colluricinclia harmonica</i>	grey shrike-thrush	C			3	X
birds	Pachycephalidae	<i>Pachycephala pectoralis</i>	golden whistler	C			1	
birds	Pachycephalidae	<i>Pachycephala rufiventris</i>	rufous whistler	C			4	X
birds	Pardalotidae	<i>Pardalotus striatus</i>	striated pardalote	C			1	X
birds	Pelecanidae	<i>Pelecanus conspicillatus</i>	Australian pelican	C			2	
birds	Phasianidae	<i>Coturnix ypsilophora</i>	brown quail	C			1	X
birds	Podargidae	<i>Podargus strigoides</i>	tawny frogmouth	C			1	X

Class	Family	Scientific Name	Common Name	NC Act	EPBC	Mig	WN	BAAM
birds	Podicipedidae	<i>Tachybaptus novaehollandiae</i>	Australasian grebe	C			1	
birds	Pomatostomidae	<i>Pomatostomus temporalis</i>	grey-crowned babbler	C			2	
birds	Psittacidae	<i>Platycercus adscitus</i>	pale-headed rosella	C			1	
birds	Psittacidae	<i>Trichoglossus haematocephalus</i>	rainbow lorikeet	C			1	X
birds	Psittacidae	<i>Aprosmictus erythropterus</i>	red-winged parrot	C			1	X
birds	Ptilonorhynchidae	<i>Ptilonorhynchus maculatus</i>	spotted bowerbird	C			2	X
birds	Rhipiduridae	<i>Rhipidura albiscapa</i>	grey fantail	C			1	
birds	Rhipiduridae	<i>Rhipidura leucophrys</i>	willie wagtail	C			1	X
birds	Strigidae	<i>Ninox boobook</i>	southern boobook	C			1	X
birds	Timeliidae	<i>Zosterops lateralis</i>	silvereye	C			1	
birds	Turnicidae	<i>Turnix velox</i>	little button-quail	C			1	
birds	Turnicidae	<i>Turnix varius</i>	Painted button-quail	C			1	
birds	Tytonidae	<i>Tyto javanica</i>	eastern barn owl	C			1	X
bony fish	Ambassidae	<i>Ambassis agassizii</i>	Agassiz's glassfish				1	
bony fish	Atherinidae	<i>Craterocephalus sterusmuscarum</i>	flyspecked hardyhead				1	
bony fish	Clupeidae	<i>Nematalosa erebi</i>	bony bream				1	
bony fish	Eleotridae	<i>Hypseleotris species 1</i>	Middleley's carp gudgeon				1	
bony fish	Eleotridae	<i>Hypseleotris kunzingeri</i>	western carp gudgeon				1	
bony fish	Melanotaeniidae	<i>Melanotaenia splendida</i>	eastern rainbowfish				1	
bony fish	Percichthyidae	<i>Macquaria ambigua</i>	golden perch				1	
bony fish	Plotosidae	<i>Tandanus tandanus</i>	freshwater catfish				1	
bony fish	Plotosidae	<i>Neosilurus hytllii</i>	Hyrtl's catfish				1	
bony fish	Terapontidae	<i>Leiopotherapon unicolor</i>	spangled perch				1	
mammals	Bovidae	<i>Bos taurus</i>	European cattle	1			1	X
mammals	Canidae	<i>Canis lupus dingo</i>	dingo	C			1	

APPENDIX 1: FAUNA SPECIES LIST FROM FIELD SURVEY AND WILDFNET RECORDS

Class	Family	Scientific Name	Common Name	NC Act	EPBC	Mig	WN	BAAM
mammals	Emballonuridae	<i>Saccofulviventer</i>	yellow-bellied sheathtail bat	C			1	
mammals	Felidae	<i>Felis catus</i>	cat	I			1	X
mammals	Leporidae	<i>Oryctolagus cuniculus</i>	rabbit	I			3	X
mammals	Macropodidae	<i>Wallabia bicolor</i>	swamp wallaby	C			2	X
mammals	Macropodidae	<i>Macropus giganteus</i>	eastern grey kangaroo	C			4	X
mammals	Molossidae	<i>Mormopterus sp. 2</i>	eastern freetail bat	C			1	
mammals	Molossidae	<i>Tadarida australis</i>	white-striped freetail bat	C			1	
mammals	Molossidae	<i>Chaerephon jobensis</i>	northern freetail bat	C			1	
mammals	Molossidae	<i>Mormopterus beccarii</i>	Beccari's freetail bat	C			1	
mammals	Petauridae	<i>Petaurus breviceps</i>	sugar glider	C			2	
mammals	Phalangeridae	<i>Trichosurus vulpecula</i>	common brushtail possum	C			2	X
mammals	Potoroidae	<i>Aepyprymnus rufescens</i>	rufous bettong	C			2	X
mammals	Suidae	<i>Sus scrofa</i>	pig	I			1	X
mammals	Tachyglossidae	<i>Tachyglossus aculeatus</i>	short-beaked echidna	C			2	
mammals	Vesptilionidae	<i>Nyctophilus sp.</i>		C			1	
mammals	Vesptilionidae	<i>Scotorepens balstoni</i>	inland broad-nosed bat	C			1	
mammals	Vesptilionidae	<i>Vespadelus troughtoni</i>	eastern cave bat	C			1	
mammals	Vesptilionidae	<i>Chalinolobus picatus</i>	little pied bat	NT			1	
mammals	Vesptilionidae	<i>Scotorepens greyii</i>	little broad-nosed bat	C			1	
mammals	Vesptilionidae	<i>Chalinolobus gouldii</i>	Gould's wattled bat	C		X	1	
reptiles	Agamidae	<i>Pogona barbata</i>	bearded dragon	C			1	
reptiles	Agamidae	<i>Amphibolurus nobbi</i>		C		X	1	
reptiles	Agamidae	<i>Amphibolurus burnsi</i>		C		X	1	
reptiles	Boidae	<i>Antaresia maculosa</i>	spotted python	C			1	
reptiles	Carphodactylidae	<i>Nephrurus asper</i>	spiny knob-tailed gecko	C			1	
reptiles	Colubridae	<i>Boiga irregularis</i>	brown tree snake	C			1	
reptiles	Colubridae	<i>Dendrelaphis punctulata</i>	common tree snake	C			1	

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Class	Family	Scientific Name	Common Name	NC Act	EPBC	Mig	WN	BAAM
reptiles	Diplodactylidae	<i>Oedura monilis</i>		C			1	
reptiles	Diplodactylidae	<i>Strophurus williamsi</i>	soft-spined gecko	C			1	
reptiles	Elapidae	<i>Suta suta</i>	myall snake	C			1	
reptiles	Elapidae	<i>Furina diadema</i>	red-naped snake	C			1	
reptiles	Elapidae	<i>Cryptophis boschmai</i>	Carpentaria whip snake	C			1	
reptiles	Elapidae	<i>Hoplocephalus bitorquatus</i>	pale-headed snake	C			1	
reptiles	Gekkonidae	<i>Gehyra dubia</i>		C			1	X
reptiles	Gekkonidae	<i>Heteronotia binoei</i>	Bynoe's gecko	C			1	X
reptiles	Gekkonidae	<i>Gehyra catenata</i>		C			1	
reptiles	Pygopodidae	<i>Lialis burtonis</i>	Burton's legless lizard	C			1	
reptiles	Pygopodidae	<i>Paradelma orientalis</i>	brigalow scaly-foot	V	V		1	
reptiles	Scincidae	<i>Lerista fragilis</i>		C			1	
reptiles	Scincidae	<i>Carlia pectoralis</i>		C			1	
reptiles	Scincidae	<i>Ctenotus robustus</i>		C			1	
reptiles	Scincidae	<i>Lygisaurus foliorum</i>		C			1	
reptiles	Scincidae	<i>Morethia bouleengeri</i>		C			1	
reptiles	Scincidae	<i>Ctenotus taeniatus</i>	copper-tailed skink	C			1	
reptiles	Scincidae	<i>Cryptoblepharus pannosus</i>	ragged snake-eyed skink	C			1	
reptiles	Scincidae	<i>Cryptoblepharus virgatus</i>	striped snake-eyed skink	C			1	
reptiles	Scincidae	<i>Glyptothorax punctulatus</i>		C			1	
higher dicots	Acanthaceae	<i>Dipteracanthus australasicus</i> subsp. <i>corynothecus</i>		C			1	
higher dicots	Amaranthaceae	<i>Amaranthus mitchellii</i>	Boggabri weed	C			1	
higher dicots	Apocynaceae	<i>Parsonisia lanceolata</i>	northern silkpod	C			2	
higher dicots	Celastraceae	<i>Denhamia oleaster</i>		C			1	
higher dicots	Chenopodiaceae	<i>Sclerolaena birchii</i>	galvanised burr	C			1	

Class	Family	Scientific Name	Common Name	NC Act	EPBC	Mig	WN	BAAM
higher dicots	Cleomaceae	<i>Cleome viscosa</i>	tick-weed	C			1	
higher dicots	Convolvulaceae	<i>Convolvulus graminetinus</i>		C			1	
higher dicots	Erythroxylaceae	<i>Erythroxylum australe</i>	cocaine tree	C				
higher dicots	Euphorbiaceae	<i>Chamaesyce</i>		C			1	
higher dicots	Fabaceae	<i>Crotalaria juncea</i>	sunhemp	I		X	1	
higher dicots	Malvaceae	<i>Sida laevis</i>		C			1	
higher dicots	Malvaceae	<i>Abelmoschus ficulneus</i>	native rosella	C		X	1	
higher dicots	Malvaceae	<i>Abutilon oxycarpum</i> var. <i>incanum</i>		C		X	1	
higher dicots	Malvaceae	<i>Malvastrum americanum</i> var. <i>americanum</i>		I			1	
higher dicots	Malvaceae	<i>Hibiscus verdcourtii</i>		C			1	
higher dicots	Mimosaceae	<i>Acacia mellvillei</i>		C		X	1	
higher dicots	Mimosaceae	<i>Acacia excelsa</i> subsp. <i>excelsa</i>		C				
higher dicots	Mimosaceae	<i>Neptunia gracilis</i> forma <i>gracilis</i>		C			1	
higher dicots	Rubiaceae	<i>Psidax johnsonii</i>		C			1	
higher dicots	Sapindaceae	<i>Alectryon oleifolius</i> subsp. <i>elongatus</i>		C			2	
higher dicots	Thymelaeaceae	<i>Pimelea microcephala</i> subsp. <i>microcephala</i>		C			1	
monocots	Poaceae	<i>Ancistrachne uncinulata</i>	hooky grass	C			1	