

VOLUME 4
PART 2

MEMOIRS OF THE
QUEENSLAND MUSEUM
CULTURAL HERITAGE SERIES

17 OCTOBER 2008

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National Library of Australia card number
ISSN 1440-4788

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CHAPTER 22

THE TERRESTRIAL VERTEBRATES OF MUA, WESTERN TORRES STRAIT

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Ingram, G.J. 2008 10 17: The Terrestrial vertebrates of Mua, Western Torres Strait. *Memoirs of the Queensland Museum, Cultural Heritage Series* 4(2): 495-504. Brisbane. ISSN 1440-4788.

Of terrestrial vertebrates, 213 species have been recorded from the island of Mua in Western Torres Strait: six species of frogs, 34 reptiles, 155 birds and 18 mammals. This is a large and varied insular fauna and reflects the variety of habitats on the island. Presently, there is no evidence that the occupation of Mua by people has had a detrimental impact on the terrestrial vertebrates except possibly for macropods. Even so, the extent of habitats on the island may be a result of purposeful burning. In managing the habitats, local knowledge will be crucial. ♀ *Torres Strait, terrestrial vertebrates, frog, reptile, bird, mammal, biogeography, conservation.*

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Mua is the second-largest island in Torres Strait (about 17,000ha). It is a continental island of granite with a variety of habitats including forest, woodland, grassland and mangroves (Draffan et al., 1983). As well there is the intertidal habitat for wading birds. Over all, the habitats are in good condition.

From the perspective of science, the knowledge and understanding of Mua's terrestrial animals are in their infancy; the Torres Strait islands have been much neglected. As well, scientific knowledge has yet to be joined with the knowledge of the land owners, which will greatly enrich that understanding (McNiven & Hitchcock, 2004).

NAMES

Some clarification of the names used here for species is necessary. The scientific names are given in italics. This is an universally agreed upon scientific language so that animals can be referred to by one name. This is to avoid the confusion that can happen when one animal can have different names across the different languages – even within one language. At first, these scientific names were in Latin; however more recently local names have been accepted within the scientific discipline.

As well, I have given their common or English names. The agreement on these names is not as universal. As well, some animals are more known to scientists than to the majority of the population and do not have common names.

Local language names have yet to be written down. From past experience, language names will exist for most of the species determined by science (see, for example, Meriam Mír names for birds on Mer: Ingram, 1976).

For this report I have followed the scientific names and common names in the WildNet Database, Environmental Protection Agency, Queensland (http://www.epa.qld.gov.au/nature_conservation/wildlife/wildlife_online). Excellent reference books for the fauna of the islands are the following: frogs and reptiles (Cogger, 2000); reptiles (Wilson, 2005); birds (Pizzey & Knight, 2003); mammals (Menkhorst & Knight, 2001).

THE TERRESTRIAL VERTEBRATES

The following information is mostly taken from published literature and from databases in the public domain (listed in Appendix 1) and from my visit to the island in November 2004, which included the performance of small mammal trapping.

To date, to my knowledge, 213 terrestrial vertebrates have been recorded from the island (Appendix 1). This is a large and varied insular fauna. I comment on the frogs, reptiles, birds and mammals below.

FROGS. Six species of frogs have been recorded. All these species of frogs breed in temporary pools formed by inundation from rain and have free-living tadpoles. However, they can breed

in the shallow edges of dams. All the species also occur on mainland Australia. Frogs are poor crossers of salt water (Cameron et al., 1984) and their presence suggests that they were in the area already when rising sea levels separated the island of Mua from the New Guinea and Australian mainlands. Research suggests that Australia was connected to New Guinea until about 10,000 years ago, and present sea levels were reached about 6000 years ago, although minor fluctuations may have occurred since then (Thom & Chappell, 1975).

The introduced Cane Toad (*Bufo marinus*) has not yet reached the islands. However, it breeds in similar habitat to the preceding species. It is important that quarantine procedures avoid the inadvertent introduction of this pest.

REPTILES. Thirty-four species have been recorded. This is a large number of reptilian species. Notable is the presence of the Emerald Monitor (*Varinus prasinus*) which is present in New Guinea but not on mainland Australia. Mua is the southern limit of its distribution in Australia.

The House Gecko (*Hemidactylus frenatus*) appears to be a very recent introduction to the Torres Strait and Queensland. It is now a common lizard throughout the islands but it was not recorded from them in the 19th century by Macleay (1877) – but he did record it from Papua New Guinea (as *Peripia papuensis* – see Cogger, 1983). However, whether or not this species is actually introduced to Australia is difficult to conclude. Gray (1845) refers to the lizard as occurring at Port Essington, Northern Territory (as *Hemidactylus vittatus* – see Cogger, 1983). Thus, it has been in this country for over 160 years.

For the native species, it appears that most of these species would have been present on Mua when it became an island. In fact, for some of the small species of skinks, it has been noted that some of the island populations differ from each other in size and colouration (Ingram and Covacevich 1988, 1989).

BIRDS. In Appendix 1, 155 birds are listed as occurring on the island. Many of the species are migratory or nomadic (about 40) but many are also resident. Birds are the best-known of the terrestrial vertebrate fauna of Torres Strait. And Mua's birds are probably the best known of all the islands because an excellent bird collector

stayed there for over five months at the beginning of last century. William Maclellan collected for H.L White from 1 November 1919 to 13 April 1920 (Campbell, 1920; Whittell, 1954).

As well, last century, Draffan et al. (1983) compiled all the known bird records for the island to that time. In that work they also discuss all the islands of Torres Strait and make conclusions about the ecology and distribution of the region's birds. Importantly, they concluded that the number of species of birds on the individual islands in Torres Strait was a reflection of the number of different habitats on the islands more than the sizes of the islands.

From data on statuses of birds in Torres Strait, about 43% of the birds on Mua are resident, 31% are migratory, 17% are regular visitors and 9% are nomadic. Ingram et al. (1986) have discussed the movement of birds through Torres Strait based on bird kills at Booby Island lighthouse. They noted that migratory birds move through the islands in two peak periods: September and April to May. For water birds, there were two peak periods, in January and in May, which usually approximates the beginning and end of the wet season.

MAMMALS. Eighteen species of mammals have been recorded from Mua: mostly species of bats and rodents. This is enigmatic and raises questions as to what mammals might have originally occurred in the area of Mua prior to the sea level rises that created the island during the Holocene.

Most of these species could have colonised from elsewhere. Bats are aerial and can cross water while the Water Rat (*Hydromys chrysogaster*) is at home in marine situations close to shore. The other rodent, Grassland Melomys (*Melomys burtoni*) can definitely colonise islands because the species is present throughout Torres Strait even on coral sand islands, which are recent in origin. However, the presence of Short-beaked Echidna and bandicoots (McNiven and Hitchcock 2004) and Delicate Mouse, which have not been identified as water crossers, suggests that some species of mammals were there before sea level changes.

As well, the presence of Agile Wallaby (*Macropus agilis*) teeth in archaeological excavations (Bruno David, pers. comm., 2007) on Mua also implies that a grazing marsupial herbivore may have been part of the island fauna. It is not extant there today. Abbott (1980) suggested that the land owners of the Torres

Strait islands most likely hunted out macropods such as these wallabies.

Even so, it is possible that the wallaby and bandicoot were translocated by Torres Strait Islanders around the Strait. McNiven & Hitchcock (2004) concluded that the wallaby probably once existed naturally on the islands, particularly Muralag, but they were unconvinced it occurred naturally on Mua and probably was brought there recently.

There is also a record of the Common Walaroo (*Macropus robustus*) from one midden on Mua. However, this record is contentious and the identification of the bones needs to be confirmed (McNiven & Hitchcock, 2004).

Wallaby records are mostly from the western and southern Torres Strait islands (Cameron et al., 1984; McNiven & Hitchcock, 2004). Ses Brauna, Mer, told me when I was there in 1974 that a wallaby was present recently on Mer but it was killed because it was damaging gardens. He did not know the marsupial's origin.

The Torresian Flying-fox (*Pteropus banakrisi*) was described as a new species restricted to Mua by Richards & Hall (2002). However, Helgen (2004) concluded that the specimens on which the species was based were only subadult individuals of the Black Flying-fox (*P. alecto*). As well, his examination of specimens supposedly of the Large-eared Flying-fox (*P. macrotis*) from the Torres Strait showed they were actually Little Red Flying-fox (*P. scapulatus*). He concluded that only three species occur throughout the Strait: Little Red Flying-fox, Black Flying-fox and Spectacled Flying-fox (*P. conspicillatus*).

CONCLUSION

From an evolutionary and biogeographical perspective, whether Torres Strait is a 'bridge' or 'barrier' to animal movements and, thus, the movement of genes is a matter of temporal perspective. There is no apparent evidence that the inundation of the Strait has significantly impacted on the evolution of the faunas of Australia or New Guinea (Schodde & Calaby, 1972; Kikkawa et al., 1981, Beehler & Swaby, 1991). This is not an unexpected observation: the time period of 8-10,000BP from the formation of the Strait till now is small in terms of the immensity of geological time and associated evolutionary change.

The effects of the Strait on the faunas of the two land masses are probably still to come or are occurring now imperceptibly. Draffan et al. (1983) noted that 15 species of birds that occurred in New Guinea and mainland Australia did not fly across the Strait. These were primarily Papuan species with isolated populations on Cape York Peninsula. As isolated populations with no gene flow between them, their evolutionary futures may diverge.

On the islands themselves, however, there appears to be evidence that there has been some genetic change in populations isolated on the islands (small skinks, for example). Whether this is by natural selection, or by the breaking up of a cline of populations into distinct genetic populations because the connecting populations have been lost by inundation, awaits further study.

Individually, Mua has a large diversity of terrestrial vertebrates. This most likely reflects the diversity of habitats on the island and their relatively good condition. In this, there are few data to conclude that the occupation of the island by people has had a major impact on the terrestrial fauna except for species used for food. Even then, this appears to be mostly about the fate of macropods, with the evidence still equivocal as to what actually happened with them.

McNiven & Hitchcock (2004), however, for the Strait as a whole, concluded that '[...] the islands of the Torres Strait, far from being pristine landscapes, are constructed environments, reflecting the long-term operation of a specialised marine subsistence system'.

While undoubtedly people must have had some effect, it is unknown how major or minor the effects of this system was on terrestrial vertebrates.

Even so, one important effect could have been the effect of purposeful burning in that the extent habitats now seen is a result of regular fires (for example, the extent of grasslands). If the habitats are to be managed then local knowledge will be crucial for conservation strategies.

AKNOWLEDGEMENTS

Many thanks to the people of Mua for the invitation to visit. I also thank the following for their help with this paper: Bruno David (Monash University); Heather Janetsky and Andrew Amey (Queensland Museum); and Ross Sadlier (Australian Museum).

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APPENDIX 1.

LIST OF TERRESTRIAL
VERTEBRATES KNOWN FROM MUA.

ABBREVIATIONS. A = Australian Museum Database, Q = Queensland Museum Database, W = WildNet database, Environmental Protection Agency (2005), G = Glen Ingram November 2004. D = Draffan et al. (1983), M = McNiven & Hitchcock (2004), B = Bruno David (pers. comm., 2007; concerns archaeological evidence), * = Introduced species.

SCIENTIFIC NAME	COMMON NAME	RECORD
AMPHIBIANS		
Hylidae		
<i>Litoria bicolor</i>	Northern Sedgefrog	A,W
<i>Litoria caerulea</i>	Common Green Treefrog	A,W
<i>Litoria nasuta</i>	Striped Rocketfrog	A,W,G
<i>Litoria nigrofrenata</i>	Tawny Rocketfrog	A,W,G
Myobatrachidae		
<i>Limnodynastes ornatus</i>	Ornate Burrowing Frog	A,W
<i>Uperoleia mimula</i>	Mimicking Gungan	A,W
REPTILES		
Agamidae		
<i>Diporiphora bilineata</i>	Two-lined Dragon	A,W,G
<i>Chalmydosaurus kingii</i>	Frilled-necked Lizard	G
Boidae		
<i>Antaresia maculosus</i>		A,W
<i>Morelia amethystina</i>	Amethystine Python	A,W
Colubridae		
<i>Boiga irregularis</i>	Brown Tree Snake	W
<i>Dendrelaphis calligastra</i>	Northern Tree Snake	A,W,Q
<i>Dendrelaphis punctulata</i>	Common Tree Snake	A,W
<i>Stegonotus cucullatus</i>	Slaty-Grey Snake	W,G
Elapidae		
<i>Acanthophis praelongus</i>	Northern Death Adder	W
<i>Demansia papuensis</i>	Papuan Whip Snake	W
<i>Furina tristis</i>	Brown-headed Snake	W
Gekkonidae		
<i>Gehyra baliola</i>		A,Q,G
<i>Hemidactylus frenatus</i>	*House Gecko	A,W,G
<i>Lepidodactylus lugubris</i>	Mourning Gecko	A,W
<i>Lepidodactylus pumilus</i>		G
<i>Nactus pelagicus</i>		A,Q,G
<i>Oedura rhombifer</i>	Zig-zag Gecko	A,W
Pygopodidae		
<i>Lialis burtonis</i>	Burton's Legless Lizard	A,W,G
Scincidae		
<i>Carlia longipes</i>		A,W,Q,G
<i>Carlia macfarlani</i>		A,W,G
<i>Carlia storri</i>		A
<i>Cryptoblepharus virgatus</i>		A,W
<i>Cryptoblepharus litoralis</i>		Q,G
<i>Ctenotus spaldingi</i>		A
<i>Egernia frerei</i>	Major Skink	G
<i>Emoia atrocostata</i>		W
<i>Emoia longicauda</i>		A,W
<i>Glaphyromorphus crassicaudus</i>		W,G
<i>Glaphyromorphus nigricaudis</i>		W,G
Typhlopidae		
<i>Ramphotyphlops leucoproctus</i>		A,W

SCIENTIFIC NAME	COMMON NAME	RECORD
Varanidae		
<i>Varanus indicus</i>	Mangrove Monitor	A,G
<i>Varanus panoptes</i>	Yellow-spotted Monitor	A,W
<i>Varanus prasinus</i>	Emerald Monitor	W,G
<i>Varanus scalaris</i>	Spotted Tree Monitor	W,G
BIRDS		
Accipitridae		
<i>Accipiter fasciatus</i>	Brown Goshawk	W,D
<i>Accipiter novaehollandiae</i>	Grey Goshawk	W,D
<i>Circus assimilis</i>	Spotted Harrier	W,D
<i>Elanus axillaris</i>	Black-shouldered Kite	W,D
<i>Erythrotriorchis radiatus</i>	Red Goshawk	W,D
<i>Haliaeetus leucogaster</i>	White-bellied Sea-eagle	W,D,G
<i>Haliastur indus</i>	Brahminy Kite	W,G
<i>Haliastur sphenurus</i>	Whistling Kite	W,D
<i>Pandion haliaetus</i>	Osprey	W,D,G
Anatidae		
<i>Anas gracilis</i>	Grey Teal	W,D
<i>Anas superciliosa</i>	Pacific Black Duck	W,D,G
<i>Dendrocygna eytoni</i>	Plumed Whistling-duck	W
<i>Dendrocygna arcuata</i>	Wandering Whistling-duck	D
<i>Tadorna radjah</i>	Radjah Shelduck	W,D,G
Anhingidae		
<i>Anhinga melanogaster</i>	Darter	W,D
Anseranatidae		
<i>Anseranas semipalmata</i>	Magpie Goose	W
Apodidae		
<i>Apus pacificus</i>	Fork-tailed Swift	W,D
Ardeidae		
<i>Ardea alba</i>	Great Egret	W,D
<i>Ardea intermedia</i>	Intermediate Egret	W,D
<i>Ardea pacifica</i>	Pacific Heron	D
<i>Ardea picata</i>	Pied Heron	D
<i>Butorides striatus</i>	Striated Heron	W,D
<i>Egretta garzetta</i>	Little Egret	W,D
<i>Egretta novaehollandiae</i>	White-faced Heron	W,D
<i>Egretta sacra</i>	Eastern Reef Egret	W,D,G
<i>Ixobrychus flavicollis</i>	Black Bittern	W,D
<i>Ixobrychus minutus</i>	Little Bittern	W
<i>Nycticorax caledonicus</i>	Nankeen Night Heron	W,D
Artamidae		
<i>Artamus leucorhynchus</i>	White-breasted Woodswallow	W,D,G
Burhinidae		
<i>Burhinus grallarius</i>	Bush Stone-curlew	W,D,G
<i>Esacus neglectus</i>	Beach Stone-curlew	W,D,G
Cacatuidae		
<i>Cacatua galerita</i>	Sulphur-crested Cockatoo	W,D,G
Campephagidae		
<i>Coracina novaehollandiae</i>	Black-faced Cuckoo-shrike	W,D

SCIENTIFIC NAME	COMMON NAME	RECORD
<i>Coracina papuensis</i>	White-bellied Cuckoo-shrike	W,D
<i>Coracina tenuirostris</i>	Cicadabird	W,D
<i>Lalage leucomela</i>	Varied Triller	W,D,G
Caprimulgidae		
<i>Caprimulgus macrurus</i>	Large-tailed Nightjar	W,D,G
Centropodidae		
<i>Centropus phasianinus</i>	Pheasant Coucal	W,G
Charadriidae		
<i>Charadrius leschenaultii</i>	Greater Sand Plover	W,D,G
<i>Charadrius mongolus</i>	Lesser Sand Plover	W,D
<i>Charadrius ruficapillus</i>	Red-capped Plover	W
<i>Pluvialis fulva</i>	Pacific Golden Plover	W,D,G
<i>Pluvialis squatarola</i>	Grey Plover	W,G
<i>Vanellus miles</i>	Masked Lapwing	W,D,G
Ciconiidae		
<i>Ephippiorhynchus asiaticus</i>	Black-necked Stork	W
Columbidae		
<i>Chalcophaps indica</i>	Emerald Dove	W,D
<i>Ducula bicolor</i>	Pied Imperial-pigeon	W,D,G
<i>Geopelia humeralis</i>	Bar-shouldered Dove	W,D,G
<i>Geopelia striata</i>	Peaceful Dove	W,D
<i>Ptilinopus magnificus</i>	Wompoo Fruit-dove	W,D
<i>Ptilinopus regina</i>	Rose-crowned Fruit-dove	W,D
<i>Ptilinopus superbus</i>	Superb Fruit-dove	W,D
Coraciidae		
<i>Eurystomus orientalis</i>	Dollarbird	W,D
Cuculidae		
<i>Cacomantis variolosus</i>	Brush Cuckoo	W,D,G
<i>Chrysococcyx basalix</i>	Horsfield's Bronze-cuckoo	W,D
<i>Chrysococcyx minutillus</i>	Little Bronze-cuckoo	W,D,G
<i>Chrysococcyx russatus</i>	Gould's Bronze-cuckoo	W,D
<i>Cuculus saturatus</i>	Oriental Cuckoo	W,D
<i>Eudynamys scolopacea</i>	Common Koel	D,G
<i>Scythrops novaehollandiae</i>	Channel-billed Cuckoo	W,D
Dicaeidae		
<i>Dicaeum hirundinaceum</i>	Mistletoebird	W,D
Dicruridae		
<i>Dicrurus bracteatus</i>	Spangled Drongo	W,D,G
<i>Grallina cyanoleuca</i>	Australian Magpie-lark	D
<i>Monarcha trivirgatus</i>	Spectacled Monarch	W,DG
<i>Myiagra alecto</i>	Shining Flycatcher	W,DG
<i>Myiagra rubecula</i>	Leaden Flycatcher	W,D,G
<i>Myiagra ruficollis</i>	Broad-billed Flycatcher	W,D
<i>Rhipidura rufifrons</i>	Rufous Fantail	W,D
Falconidae		
<i>Falco berigora</i>	Brown Falcon	W,D
Fregatidae		
<i>Fregata ariel</i>	Lesser Frigatebird	W,D,G

SCIENTIFIC NAME	COMMON NAME	RECORD
<i>Fregata minor</i>	Great Frigatebird	W
Glareolidae		
<i>Glareola maldivarum</i>	Oriental Pratincole	W,D
<i>Stiltia isabella</i>	Australian Pratincole	G
Haematopodidae		
<i>Haematopus longirostris</i>	Pied Oystercatcher	W,D
Halcyonidae		
<i>Ceyx azurea</i>	Azure Kingfisher	D
<i>Ceyx pusilla</i>	Little Kingfisher	D
<i>Tanysiptera sylvia</i>	Buff-breasted Paradise-kingfisher	W,D
<i>Todiramphus macleayii</i>	Forest Kingfisher	W,D
<i>Todiramphus sanctus</i>	Sacred Kingfisher	W,D
Hirundinidae		
<i>Hirundo ariel</i>	Fairy Martin	W,D
<i>Hirundo neoxena</i>	Welcome Swallow	W,D
<i>Hirundo nigricans</i>	Tree Martin	W,D
<i>Hirundo rustica</i>	Barn Swallow	D
Laridae		
<i>Chlidonias hybridus</i>	Whiskered Tern	W
<i>Chlidonias leucopterus</i>	White-winged Black Tern	W
<i>Larus novaehollandiae</i>	Silver Gull	W,D,G
<i>Sterna albifrons</i>	Little Tern	G
<i>Sterna anaethetus</i>	Bridled Tern	D
<i>Sterna bengalensis</i>	Lesser Crested Tern	W,D
<i>Sterna bergii</i>	Crested Tern	W,D,G
<i>Sterna caspia</i>	Caspian Tern	W,D
<i>Sterna fuscata</i>	Sooty Tern	W
<i>Sterna nilotica</i>	Gull-billed Tern	W,D,G
<i>Sterna sumatrana</i>	Black-naped Tern	W,D
Megapodiidae		
<i>Megapodius reinwardt</i>	Orange-footed Scrubfowl	W,D,G
Meliphagidae		
<i>Conopophila albogularis</i>	Rufous-banded Honeyeater	W,D
<i>Lichmera indistincta</i>	Brown Honeyeater	W
<i>Meliphaga gracilis</i>	Graceful Honeyeater	W,D,G
<i>Meliphaga notata</i>	Yellow-spotted Honeyeater	W,D,G
<i>Myzomela erythrocephala</i>	Red-headed Honeyeater	W,D
<i>Myzomela obscura</i>	Dusky Honeyeater	W,D,G
<i>Philemon buceroides</i>	Helmeted Friarbird	W,D
<i>Ramsayornis modestus</i>	Brown-backed Honeyeater	W,D
Meropidae		
<i>Merops ornatus</i>	Rainbow Bee-eater	W,D,G
Nectariniidae		
<i>Nectarinia jugularis</i>	Yellow-bellied Sunbird	W,D,G
Oriolidae		
<i>Oriolus sagittatus</i>	Olive-backed Oriole	W,D
<i>Sphecotheres viridis</i>	Figbird	W,D
Pachycephalidae		
<i>Colluricincla megarhyncha</i>	Little Shrike-thrush	W,D,G
<i>Pachycephala melanura</i>	Mangrove Golden Whistler	W,D

SCIENTIFIC NAME	COMMON NAME	RECORD
Pardalotidae		
<i>Gerygone magnirostris</i>	Large-billed Gerygone	W,D,G
<i>Sericornis beccarii</i>	Tropical Scrubwren	W
Passeridae		
<i>Lonchura castaneothorax</i>	Chestnut-breasted Mannikin	W,D,G
<i>Passer domesticus</i>	*House Sparrow	W,D,G
Pelecanidae		
<i>Pelecanus conspicillatus</i>	Australian Pelican	W,D,G
Phalacrocoracidae		
<i>Phalacrocorax melanoleucos</i>	Little Pied Cormorant	W,D,G
<i>Phalacrocorax sulcirostris</i>	Little Black Cormorant	W,D
<i>Phalacrocorax varius</i>	Pied Cormorant	D
Phasianidae		
<i>Coturnix ypsilophora</i>	Brown Quail	W,D
Pittidae		
<i>Pitta versicolor</i>	Noisy Pitta	W,D,G
Podicipedidae		
<i>Poliiocephalus novaehollandiae</i>	Australian Grebe	G
Psittacidae		
<i>Trichoglossus haematodus</i>	Rainbow Lorikeet	W,D,G
Rallidae		
<i>Amaurornis olivaceus</i>	Bush-Hen	W,D
<i>Gallirallus philippensis</i>	Buff-banded Rail	W,D
<i>Porphyrio porphyrio</i>	Purple Swamphen	W,D
<i>Porzana cinerea</i>	White-browed Crake	W
<i>Porzana tabuensis</i>	Spotless Crake	W
<i>Rallina tricolor</i>	Red-necked Crake	W,D
Recurvirostridae		
<i>Himantopus himantopus</i>	Black-winged Stilt	W,G
Scolopacidae		
<i>Actitis hypoleucos</i>	Common Sandpiper	W,DG
<i>Arenaria interpres</i>	Ruddy Turnstone	W
<i>Calidris acuminata</i>	Sharp-tailed Sandpiper	W,G
<i>Calidris ferruginea</i>	Curlew Sandpiper	W
<i>Calidris ruficollis</i>	Red-necked Stint	W,D
<i>Calidris tenuirostris</i>	Great Knot	W
<i>Heteroscelus brevipes</i>	Grey-tailed Tattler	W,D,G
<i>Heteroscelus incanus</i>	Wandering Tattler	G
<i>Limosa lapponica</i>	Bar-tailed Godwit	W,D
<i>Limosa limosa</i>	Black-tailed Godwit	W
<i>Numenius madagascariensis</i>	Eastern Curlew	W,D
<i>Numenius phaeopus</i>	Whimbrel	W,D,G
<i>Numenius minutus</i>	Little Whimbrel	D,G
<i>Tringa nebularia</i>	Common Greenshank	W,D,G
<i>Xenus cinereus</i>	Terek Sandpiper	W,G
Strigidae		
<i>Ninox connivens</i>	Barking Owl	W,D
<i>Tyto longimembris</i>	Grass Owl	D
Sturnidae		
<i>Aplonis metallica</i>	Metallic Starling	W,D,G

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Sulidae		
<i>Sula leucogaster</i>	Brown Booby	W
Sylviidae		
<i>Cisticola exilis</i>	Golden-headed Cisticola	W,D,G
<i>Megalurus gramineus</i>	Little Grassbird	W
<i>Megalurus timoriensis</i>	Tawny Grassbird	W,D
Threskiornithidae		
<i>Platalea regia</i>	Royal Spoonbill	W,D
<i>Plegadis falcinellus</i>	Glossy Ibis	W
<i>Threskiornis molucca</i>	Australian White Ibis	W,D,G
<i>Threskiornis spinicollis</i>	Straw-necked Ibis	W,D
Turnicidae		
<i>Turnix maculosa</i>	Red-backed Button-quail	W,D
Tytonidae		
<i>Tyto capensis</i>	Grass Owl	W
MAMMALS		
Tachyglossidae		
<i>Tachyglossus aculeatus</i>	Short-beaked Echidna	M
Macropodidae		
<i>Macropus agilis</i>	Agile Wallaby	B
Peramelidae		
<i>Echymipera</i> and/or <i>Isoodon</i>	bandicoot	M
Canidae		
<i>Canis lupus dingo</i>	Dingo	M
Emballonuridae		
<i>Taphozous australis</i>	Coastal Sheath-tail Bat	W,Q
Hipposideridae		
<i>Hipposideros ater aruensis</i>	Eastern Dusky Leaf-nosed Bat	W,Q
<i>Hipposideros cervinus</i>	Fawn Leaf-nosed Bat	W,Q
Muridae		
<i>Hydromys chrysogaster</i>	Water Rat	W,G
<i>Melomys burtoni</i>	Grassland Melomys	G
<i>Pseudomys delicatulus</i>	Delicate Mouse	G
Pteropodidae		
<i>Dobsonia moluccensis</i>	Bare-backed Fruit Bat	W
<i>Macroglossus minimus</i>	Northern Blossom Bat	W,Q
<i>Nyctimene cephalotes</i>	Torresian Tube-nosed Bat	W
<i>Nyctimene robinsoni</i>	Eastern Tube-nosed Bat	W,Q
<i>Pteropus alecto</i>	Black Flying-fox	W
Suidae		
<i>Sus scrofa</i>	Feral Pig	G
Vespertilionidae		
<i>Miniopterus australis</i>	Little Bent-wing Bat	W
<i>Nyctophilus bifax bifax</i>	Northern Long-eared Bat	W,Q