

REPORT

TERRESTRIAL FAUNA SURVEY FOR PROPOSED VICTORIA HIGHWAY UPGRADE

Prepared by Paul Horner and Jared Archibald
Museum and Art Gallery of the Northern Territory

INTRODUCTION

The Museum and Art Gallery of the Northern Territory (MAGNT) has been commissioned to conduct baseline fauna surveys of sections of the Victoria River region. These surveys relate to a proposal by the Northern Territory Department of Planning and Infrastructure (DPI) to upgrade sections of the Victoria Highway to improve its flood immunity between the east and west of Australia.

This report provides information on the terrestrial vertebrate fauna found or expected to be found in the vicinity of the Victoria Highway, Northern Territory, between chainages 185 km to 220 km. The information has been obtained through direct field observations and reference to existing data.

SCOPE AND METHODOLOGY

The objectives of the fauna survey were to:

- Describe the terrestrial vertebrate fauna (amphibians, reptiles, birds and mammals) of the area, and to provide information on the relative abundance and habitat requirements of each species.
- Determine the presence of any species of special conservation significance, such as rare, threatened or restricted species, and assess their local and regional status.
- Assess the ecological significance of the area as a wildlife refuge, roosting or breeding habitat.

Habitats and sample sites

The area surveyed comprised that section of the Victoria Highway between 8 km east of the Victoria River Bridge and west to the Fitzroy Station turn-off. Particular attention was paid to areas that may be significantly impacted by the proposed upgrade, such as

bridge-works at Joe, Lost and Sandy Creeks and the Victoria River. Additionally RG3, a gravel deposition bank in the bed of the Victoria River (the preferred site for gravel extraction) (15°32'17"S 130°58'33"E), was also surveyed. Within the general area four major habitat types were recognised for the purpose of the fauna survey. The characteristics and extent of these habitats are briefly described below.

Riparian (RIP). Variable dense river-side vegetation extending along the Victoria River channel (Figure 2). Characteristically including *Barringtonia acutangula*, *Pandanus aquaticus*, *Eucalyptus camaldulensis*, *Nauclea orientalis* and *Melaleuca leucadendra*.

Cane grass (CG). In this instance referring to dense stands of *Mnesithea rottboellioides* on clay soils (Figures 3-5). Found alongside stretches of the Victoria River and some of its tributaries.

Eucalyptus woodland (EW). Woodlands, dominated by *Eucalyptus* spp, occur on a range of soil types and are the major habitat in the area (Figures 2, 6 and 7). This habitat is especially dominant on the loam plains that separate the Victoria River channel from surrounding sandstone ranges and outcrops.

Escarpment scree slope (ESS). Rocky slopes, supporting low open *Eucalyptus* woodland with an understorey of *Triodia* hummock grassland (Figure 2). This habitat borders short sections of the Victoria Highway, between The Victoria River bridge and Lost Creek.

Within the survey area, trap sites were positioned to sample representative selections of each habitat. As shown in Figure 1 these were: Site 1, the banks of the Victoria River (Riparian) at Coolibah Station (15°32'17"S 130°58'33"E); Site 2, Cane grass stand on the upper river bank at Coolibah Station (Figure 3) (15°32'17"S 130°58'33"E); Site 3, Cane grass stand on the western flood channel of lost Creek (Figure 5) (15°35'15"S 131°01'54"E); Site 4, *Eucalyptus* woodland above the banks of Sandy Creek (Figure 6) (15°35'48"S 130°57'29"E); Site 5, *Eucalyptus* woodland above the banks of Joe Creek (Figure 6) (15°36'52"S 131°04'48"E); Site 6, Escarpment scree slope above the banks of Joe Creek (15°36'52"S 131°04'48"E). Additional representation of most habitats was gained opportunistically by diurnal searches and spotlighting at night.

Survey methods

Before survey work was undertaken, a review was made of existing information on species of the area. As much of this related to the general district (Sample, 2004) and Gregory National Park (PWCNT 2001), a more specific species list was obtained from the MAGNT's terrestrial vertebrates databases.

A survey was undertaken to the site (28 November to 06 December, 2005) during the build-up to the monsoonal wet season. Early rains limited some results by flooding traps, but did not cause any access problems. This survey may be followed by a supplementary survey, in the dry season of 2006, with the aim to investigate seasonal differences between fauna.

Small mammals and reptiles were surveyed using a number of live trapping methods under a permit issued by the Parks and Wildlife Commission of the Northern Territory (No. 22743). Live capture/release methods included aluminium Elliot box traps, wire cage traps and pitfall/drift fence combinations. Box and wire traps were baited with a varied mixture of peanut butter, rolled oats, honey and fish. Trapping effort at each site consisted of seven 20 litre pitfall traps connected with 25 metres of mesh drift fence 30 cm in height, 20 medium sized Elliot traps and two cage traps. Traps were operated over a three-night period at each trap site. Sites were also sampled opportunistically by diurnal searches and spotlighting at night.

Birds were identified as encountered, and the habitat and site recorded. Specific bird surveys were conducted at each trap site during the early morning. Point census counts were also taken in riparian habitat from a boat. Additional bird species records were compiled incidentally, during spotlight survey and from vocalisations.

Active searching for amphibians, reptiles and small mammals included scanning of trees and ground, removal of cover such as rocks and fallen logs and peeling the bark from trees. Large mammals were recorded when encountered during trapping, bird survey and spotlight survey. Observations of fauna outside the main sampling sites were recorded according to the habitat in which they were observed.

Spotlighting from a slow moving vehicle was undertaken along the Victoria Highway and main tracks through the area. Hand torches were also employed during foot surveys to detect nocturnal amphibians and reptiles.

Indirect fauna records were compiled from evidence of fauna presence, including tracks, traces, scats, skeletal remains or other signs.

Taxonomy and common name usage in this report generally conforms to the following standard references: reptiles and amphibians – Cogger 2000; birds – Christidis and Boles 1994; mammals – Menkhorst and Knight 2001.

RESULTS

Survey results

A total of 154 terrestrial vertebrate species were recorded during survey of the study area (Table 1). Of these, 145 were native and nine were introduced feral species.

Amphibians

Thirteen frog and one toad species were recorded during the survey (Table 1). As the survey coincided with heavy rains frogs were common in most habitats sampled, particularly along creek lines and flooded roadside verges. Immediately following rainfall, frogs were especially abundant on much of the Victoria Highway road-surface between Joe and Lost Creeks. The most common native species were members of the genus *Cyclorana*, of which four species were observed (*C. australis*, *C. cultripes*, *C. longipes* and *C. maculosa*), and the Green Tree-frog *Litoria caerulea*. The introduced Cane Toad *Bufo marinus* was also abundant in all habitats.

Reptiles

Twenty six species of reptile were recorded during the survey (Table 1). The most common species were the small skinks *Carlia munda* and *Cryptoblepharus plagiocephalus*. *Carlia munda* was abundant among ground litter in grass and woodland habitats, while the arboreal *C. plagiocephalus* occurred on tree trunks in the same habitats. Survey of the river and its banks at Coolibah Station by boat revealed the aquatic Freshwater Crocodile (*Crocodylus johnstoni*) and Victoria River Turtle (*Emydura victoriae*) and the semi-aquatic monitor lizards *Varanus mertensi* and *V. mitchelli*.

Birds

Ninety eight species of birds were recorded during the survey (Table 1). More species were observed in woodland (72 species) than in other habitats, with the next richest habitat being riparian with 35 species. Many of the species recorded could be expected to move between several habitats.

A number of birds appeared more or less restricted to cane grass habitat. These include Purple-crowned Fairy-wren *Malurus coronatus*, Crimson Finch *Neochmia phaeton*, Yellow-rumped Mannikin *Lonchura flaviprymna* and Golden-headed Cisticola *Cisticola exilis* (Table 1). Two of these species are uncommon (*M. coronatus* and *L. flaviprymna*), so their occurrence is indicative of high quality habitat.

The introduced Helmeted Guineafowl *Numida meleagris* was observed as a small flock of six specimens in the yards surrounding Coolibah Station homestead.

Mammals

Sixteen species of mammals (including seven introduced species) were recorded during the survey (Table 1). The most commonly observed native mammal was the Agile Wallaby *Macropus agilis*, which was especially abundant in the vicinity of the Victoria River Roadhouse.

Rodents (*Leggadina lakedownensis*, *Pseudomys nanus*, *Rattus tunneyi*, *R. rattus* and *Zyomys argurus*) were recorded frequently in woodland and cane grass habitats, with the most commonly encountered species being the introduced Black Rat (Figure 8). Only recorded from cane grass habitat, the presence of this feral species in a natural habitat well removed from human habitation was unusual.

Additional species

Supplementary to the species recorded by survey, records from the collections of the Museum and Art Gallery of the Northern Territory, for the area defined by the co-ordinates 15°31'S to 15°38'S, 130°56'E to 131°09'E, added 31 species to the area surveyed (Table 2). Consisting of five amphibians, 18 reptiles, three birds and five mammals, these additional species give a total of 185 terrestrial vertebrates recorded from the survey area.

DISCUSSION

Most of the terrestrial vertebrates referred to in this report are not of significant conservation concern (Table 1), those that are of concern are assigned conservation status according to Northern Territory, Commonwealth and International criteria as described in the:

- Territory Parks and Wildlife Conservation Act 2000 (TPWC Act);
- Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act);
- IUCN Red List of Threatened Species 2004 (IUCN).

Two species of particular concern are:

Purple-crowned Fairy-wren (western) *Malurus coronatus coronatus* Gould, 1858

Conservation status: Vulnerable (EPBC Act); Near Threatened (TPWC Act); Near Threatened (IUCN).

The western subspecies of the Purple-crowned Fairy-wren has declined over much of its range, with its main stronghold now being along the Victoria River (Garnett and Crowley 2000). The species is apparently common in cane grass habitat surveyed, with

numerous specimens observed and considerable vocalisations heard. The eastern subspecies of this taxon (*M. c. macgillivrayi*) has been given a status of Least Concern.

Star Finch (western) *Neochmia ruficauda subclarescens* (Mathews, 1912)

Conservation status: Near Threatened (TPWC Act); Near Threatened (IUCN).

This taxon comprises three subspecies, western (*N. r. subclarscens*), northern (*N. r. clarscens*) and southern (*N. r. ruficauda*). Both the western and northern populations are classified as Near Threatened, while the southern form is in the Critically Endangered category (Garnett and Crowley 2000). The western subspecies was observed in the cane grass habitat at Lost Creek and in woodland near the Coolibah Station turn-off on the Victoria Highway. One of the observations consisted of a flock of 30+ individuals and the taxon was considered common in the area.

The following eight species are of 'Near Threatened' status on a regional level, although they are generally common and widespread species without specific habitat requirements.

Floodplain Monitor *Varanus panoptes*, widespread through northern Australia this species occurs in a broad range of habitats. As a frog predator, it is considered to be under threat from the widening Cane Toad invasion. Within the project area a juvenile Floodplain Monitor was captured in *Eucalyptus* Woodland near Sandy Creek.

Bush Stone-curlew *Burhinus grallarius* is common across northern and north-eastern Australia. Usually found in woodland habitats, this species was commonly seen while spotlighting at night throughout the project area.

White-quilled Rock-Pigeon *Petrophassa albipennis* is locally common on sandstone escarpments through the Kimberley and Ord-Victoria regions of Northern Australia. Very habitat specific, several specimens of this species were observed on escarpment scree slopes near Joe Creek

Red-tailed Black-Cockatoo *Calyptorhynchus banksii* is common across much of Australia. It is nomadic and migratory and may be found in a broad range of habitats. In the project area numerous specimens were observed in *Eucalyptus* woodland near Lost Creek.

Yellow-rumped Mannikin *Lonchura flaviprymna* is generally uncommon but can be locally abundant. Several specimens of this species were observed in cane grass habitat at

Lost Creek, intermixed with groups of the more numerous Chestnut-breasted Mannikin *Lonchura castaneothorax*.

Ningbing False Antechinus *Antechinus ningbing* is locally common on rocky habitats through the Kimberley and Ord-Victoria regions of Northern Australia. The species was recorded from escarpment scree slope habitat near Joe Creek in May 1986.

Western Chestnut Mouse *Pseudomys nanus* is common in northern Northern Territory and the Kimberley region of Western Australia. Prefers woodland habitat, but was observed in cane grass and escarpment scree slope habitats within the project area.

Pale Field Rat *Rattus tunneyi* has a widespread distribution through northern Australia. Found in a broad range of habitats, this species was observed in cane grass and *Eucalyptus* woodland habitats within the project area.

Migratory bird species

Some bird species listed in international agreements and conventions such as the Japan–Australia Migratory Bird Agreement (JAMBA), the China-Australia Migratory Bird Agreement (CAMBA) and the Convention on the Conservation of Migratory Species of Wild Animals (Bonn Convention) were recorded in the survey. The Victoria River region is not considered to be a significant area for migratory birds, as the migratory birds recorded mostly comprised wading and aerial species.

Four species of migratory birds listed under the EPBC Act were observed in the project area. These species are detailed below:

Great Egret *Ardea alba* occurs throughout most of the world and, apart from most arid areas, is common in Australia. This species prefers shallow water, particularly when flowing, but may be seen on any watered area, including damp grasslands. Within the project area a single specimen was observed on the bank of the Victoria River near the RG3 gravel site.

Oriental Plover *Charadrius veredus* breeds in the northern hemisphere and arrives in northern Australia in October. It disperses widely throughout northern Australia where it inhabits open grasslands, claypans, gibber plains and occasionally tidal mudflats. Within the project area several specimens were observed on the bank of the Victoria River near the RG3 gravel site.

Fork-tailed Swift *Apus pacificus* breeds in the northern hemisphere and is a summer migrant to Australia. It is generally common and disperses widely throughout Australia. Fork-tailed Swifts spend most of their time on the wing and do not have any specific habitat requirements. A flock of 30 plus specimens was observed hawking over the RG3 gravel site

Rainbow Bee-eater *Merops ornatus* is an extra-limital migrant that disperses from northern Australia and New Guinea (plus associated islands) to southern Australia, although some are present in northern Australia year-round. This species is generally common and widespread and does not have any specific habitat requirements. Within the project area the species was observed in most habitats, being especially abundant in *Eucalyptus* Woodland.

Conservation values

The survey area contains excellent representation of several habitats. However, centred as it is on the Victoria Highway, all have been relatively affected by human disturbance (pastoral activities and associated tracks and roads), feral animals (43% of mammal species observed) and fire.

Of the habitats surveyed, most are widely distributed through the Northern Territory's Top End and, thus, the relatively small area that will be impacted by the project is of small consequence. One habitat that is of conservation concern is cane grass *Mnesithea rottboellioides*. This habitat is regionally significant in that it occurs in dense stands alongside some stretches of the Victoria River and supports populations of the Purple-crowned Fairy-wren. In the survey area, cane grass stands were a prominent habitat at the Victoria River Bridge, Lost Creek Bridge and the gravel deposition site on Coolibah Station. The survey identified Cane grass as a biologically rich environment with 33 species of terrestrial vertebrates recorded, 15 of which were recorded only in that habitat (Table 1). Although many of these are known to commonly occupy other habitats (eg. Reptiles - *Heteronotia binoei*, *Oedura rhombifer*, *Morethia ruficauda*, *Proablepharus tenuis*, *Tiliqua scincoides*; Mammals - *Planigale maculata* and *Leggadina lakedownensis*) some bird species especially favoured this habitat (ie. Finches - *Neochmia phaeton*, *Lonchura flaviprymna*, *L. castaneothorax*; Cisticola - *Cisticola exilis*).

In the Victoria River region, cane grass stands are under pressure from feral animals, such as pigs and buffalos, which tunnel and force their way through the stands opening them to erosion. A further adverse agent, not previously recorded, was the presence of Black Rat *Rattus rattus* (Figure 8) populations in both the Lost Creek and RG3 cane grass stands. Collection of two specimens of *R. rattus* from each cane grass stand is a significant number as, for equal collection effort, less specimens of native rodent species were captured from a greater variety of habitats (Table 1). Black Rats are an introduced species that is usually

associated with human settlement and disturbed environments (Menkhorst and Knight 2001) and its presence in cane grass habitat increases concerns for the Purple-crowned Fairy-wren, as *Rattus rattus* is an expert climber, omnivorous and a known predator of bird eggs and hatchlings (Major 1991).

Based on results from this preliminary survey, we recommend that the proposed project to upgrade the Victoria Highway makes every effort to minimise any disturbance to stands of cane grass including noise and dust impacts associated with vehicular traffic.

Construction workers should also ensure proper management and disposal of foodstuffs and other rubbish that might encourage and increase in Black rat populations, which could lead to adverse impacts on cane grass nesting birds.

We further recommend that, as an aid to control of the Cane Toad invasion front, toad traps be placed at appropriate locations and that captured toads be disposed of in a humane manner.

REFERENCES

Australian Government, Department of the Environment and Heritage. 1999. *EPBC Act list of threatened fauna*. 2006 revised database on the internet.

Christidis, L. and Boles, W. 1994. *The taxonomy and species of birds in Australia and its Territories*. RAOU Monograph No.2.

Cogger, H. 2000. *Reptiles and amphibians of Australia. Sixth Edition*. Reed New Holland. Sydney.

Garnett, S. T. and Crowley, G. M. 2000. *The Action Plan for Australian Birds 2000*. Environment Australia, Canberra.

IUCN. 2004. *IUCN red list of threatened species*. The IUCN Species Survival Commission. 2006 revised database on the internet.

Major, R.E. 1991. Identification of nest predators by photography, dummy eggs and adhesive tape. *Auk* **108**: 190-196

Menkhorst, P. and Knight, F. 2001. *A field guide to the mammals of Australia*. Oxford University Press. Melbourne.

Parks and Wildlife Commission of the Northern Territory. 2001. *Gregory National Park Draft Plan of Management*. May, 2001.

Sample, R. 2004. *The Victoria River District Natural Resource Plan*. Victoria River District Conservation Association.

Table 1. Results of survey for terrestrial fauna of the Victoria Highway section proposed for up-grading. Legend to habitats: RIP = Riparian; CG = Cane grass; EW = *Eucalyptus* woodland; ESS = Escarpment scree slope. Legend to conservation status: VU = vulnerable; NT = near threatened; DD = data deficient; blank = least concern; 1 = TPWC Act; 2 = EPBC Act; 3 = IUCN.

Common name	Scientific name	Habitat				Status
		RIP	CG	EW	ESS	
AMPHIBIANS						
Cane Toad	<i>Bufo marinus</i>	+	+	+	+	introd.
Giant Frog	<i>Cyclorana australis</i>	-	+	+	+	DD ¹
Knife-footed Frog	<i>Cyclorana cultripes</i>	-	+	+	-	
Long-footed Frog	<i>Cyclorana longipes</i>	-	-	+	-	
Daly Waters Frog	<i>Cyclorana maculosa</i>	-	-	+	-	
Green Tree-frog	<i>Litoria caerulea</i>	+	-	+	+	
Copland's Rock Frog	<i>Litoria coplandi</i>	-	-	-	+	
Peter's Frog	<i>Litoria inermis</i>	-	-	+	-	
Pale Frog	<i>Litoria pallida</i>	+	-	+	-	
Roth's Tree-frog	<i>Litoria rothii</i>	+	-	+	-	
Red Tree-frog	<i>Litoria rubella</i>	-	+	+	-	
Marbled Frog	<i>Limnodynastes convexiusculus</i>	-	-	+	-	
Ornate Burrowing Frog	<i>Limnodynastes ornatus</i>	-	+	+	-	DD ¹
Stonemason Toadlet	<i>Uperoleia lithomoda</i>	-	-	+	-	
total Amphibians =	14 species					
REPTILES						
Freshwater Crocodile	<i>Crocodylus johnstoni</i>	+	-	-	-	
Victoria River Turtle	<i>Emydura victoriae</i>	+	-	-	-	
Large Two-lined Dragon	<i>Diporiphora magna</i>	-	-	+	-	
Gilbert's Dragon	<i>Lophognathus gilberti</i>	-	+	+	-	
Northern Dtella	<i>Gehyra australis</i>	-	-	+	-	
Bynoe's Gecko	<i>Heteronotia binoei</i>	-	+	-	-	
Zig-zag Gecko	<i>Oedura rhombifer</i>	-	+	-	-	
Spiny-tailed Gecko	<i>Strophurus ciliaris</i>	-	-	+	-	
Burton's Legless Lizard	<i>Lialis burtonis</i>	-	-	+	-	
Striped Rainbow Skink	<i>Carlia munda</i>	-	+	+	-	
Arboreal Snake-eyed Skink	<i>Cryptoblepharus plagiocephalus</i>	-	+	+	-	
Plain Ctenotus	<i>Ctenotus inornatus</i>	-	+	-	-	
Fire-tailed Skink	<i>Morethia ruficauda</i>	-	+	-	-	
Slender Soil-skink	<i>Proablepharus tenuis</i>	-	+	-	-	
Northern Blue-tongued Skink	<i>Tiliqua scincoides</i>	-	+	-	-	DD ¹
Ridge-tailed Monitor	<i>Varanus acanthurus</i>	-	-	-	+	DD ¹
Merten's Water Monitor	<i>Varanus mertensi</i>	+	-	+	-	DD ¹
Mitchell's Water Monitor	<i>Varanus mitchelli</i>	+	-	-	-	DD ¹
Floodplain Monitor	<i>Varanus panoptes</i>	-	-	+	-	NT ¹
Spotted Tree-monitor	<i>Varanus scalaris</i>	-	+	-	-	DD ¹
Northern Blind Snake	<i>Ramphotylops diversus</i>	-	+	-	-	
Children's Python	<i>Antaresia childreni</i>	-	-	+	-	
Olive Python	<i>Liasis olivaceus</i>	-	-	-	+	
Brown Tree Snake	<i>Boiga irregularis</i>	-	-	-	+	
Keelback	<i>Tropidonophis mairii</i>	-	+	+	-	
Mulga Snake	<i>Pseudechis australis</i>	-	-	+	-	DD ¹
total Reptiles =	26 species					

Common name	Scientific name	Habitat				Status
		RIP	CG	EW	ESS	
BIRDS						
Brown Quail	<i>Coturnix ypsilophora</i>	-	+	+	-	
Helmeted Guineafowl	<i>Numida meleagris</i>	-	-	+	-	introd.
Plumed Whistling-Duck	<i>Dendrocygna eytoni</i>	-	-	+	-	
Radjah Shelduck	<i>Tadorna radjah</i>	+	-	-	-	
Darter	<i>Anhinga melanogaster</i>	+	-	-	-	
Pied Cormorant	<i>Phalacrocorax varius</i>	+	-	-	-	
White-faced Heron	<i>Egretta novaehollandiae</i>	+	-	-	-	
Little Egret	<i>Egretta garzetta</i>	+	-	-	-	
White-necked Heron	<i>Ardea pacifica</i>	+	-	-	-	
Great Egret	<i>Ardea alba</i>	+	-	-	-	
Intermediate Egret	<i>Ardea intermedia</i>	+	-	-	-	
Nankeen Night Heron	<i>Nycticorax caledonicus</i>	+	-	-	-	
Straw-necked Ibis	<i>Threskiornis spinicollis</i>	-	-	+	-	
Black-breasted Buzzard	<i>Hamirostra melanosternon</i>	-	-	+	-	
Black Kite	<i>Milvus migrans</i>	+	-	+	+	
Whistling Kite	<i>Haliastur sphenurus</i>	+	-	+	+	
White-bellied Sea-Eagle	<i>Haliaeetus leucogaster</i>	+	-	-	-	
Spotted Harrier	<i>Circus assimilis</i>	-	-	+	-	
Brown Goshawk	<i>Accipiter fasciatus</i>	+	-	+	-	
Wedge-tailed Eagle	<i>Aquila audax</i>	-	-	+	-	
Brown Falcon	<i>Falco berigora</i>	-	-	+	-	
Brolga	<i>Grus rubicunda</i>	+	-	+	-	
Australian Bustard	<i>Ardeotis australis</i>	-	-	+	-	VU ¹
Red-chested Button-quail	<i>Turnix pyrrhorthorax</i>	-	-	+	-	
Common Sandpiper	<i>Tringa hypoleucos</i>	+	-	-	-	
Bush Stone-curlew	<i>Burhinus grallarius</i>	-	-	+	-	NT ¹
Oriental Plover	<i>Charadrius veredus</i>	+	-	-	-	
Black-fronted Dotterel	<i>Elseyaornis melanops</i>	+	-	-	-	
Masked Lapwing	<i>Vanellus miles</i>	+	-	+	-	
Whiskered Tern	<i>Chlidonias hybridus</i>	+	-	-	-	
Crested Pigeon	<i>Ocyphaps lophotes</i>	-	-	+	-	
Spinifex Pigeon	<i>Geophaps plumifera</i>	-	-	+	-	
White-quilled Rock-Pigeon	<i>Petrophassa albipennis</i>	-	-	-	+	NT ¹
Peaceful Dove	<i>Geopelia placida</i>	-	-	+	-	
Bar-shouldered Dove	<i>Geopelia humeralis</i>	+	+	+	-	
Red-tailed Black-Cockatoo	<i>Calyptorhynchus banksii</i>	-	-	+	-	NT ¹
Galah	<i>Cacatua roseicapilla</i>	-	-	+	-	
Little Corella	<i>Cacatua sanguinea</i>	+	-	+	-	
Sulphur-crested Cockatoo	<i>Cacatua galerita</i>	+	-	-	-	
Rainbow Lorikeet	<i>Trichoglossus haematodus</i>	+	-	+	-	
Varied Lorikeet	<i>Psitteuteles versicolor</i>	-	-	+	-	
Red-winged Parrot	<i>Aprosmictus erythropterus</i>	-	-	+	-	
Northern Rosella	<i>Platycercus venustus</i>	-	-	+	-	
Pallid Cuckoo	<i>Cuculus pallidus</i>	-	-	+	-	
Brush Cuckoo	<i>Cacomantis variolosus</i>	-	-	+	-	
Common Koel	<i>Eudynamys scolopacea</i>	+	-	+	-	
Channel-billed Cuckoo	<i>Scythrops novaehollandiae</i>	+	-	+	-	
Pheasant Coucal	<i>Centropus phasianinus</i>	+	+	+	-	
Barn Owl	<i>Tyto alba</i>	-	-	+	-	
Tawny Frogmouth	<i>Podargus strigoides</i>	+	-	+	-	
Spotted Nightjar	<i>Eurostopodus argus</i>	-	-	+	-	

Common name	Scientific name	Habitat				Status
		RIP	CG	EW	ESS	
Fork-tailed Swift	<i>Apus pacificus</i>	-	-	+	-	
Azure Kingfisher	<i>Alcedo azurea</i>	+	-	-	-	
Blue-winged Kookaburra	<i>Dacelo leachii</i>	+	-	+	-	
Sacred Kingfisher	<i>Todiramphus sanctus</i>	-	-	+	-	
Rainbow Bee-eater	<i>Merops ornatus</i>	-	-	+	-	
Dollarbird	<i>Eurystomus orientalis</i>	+	-	+	-	
Black-tailed Treecreeper	<i>Climacteris melanura</i>	-	-	+	-	
Purple-crowned Fairy-wren	<i>Malurus coronatus</i>	-	+	-	-	NT ¹ , VU ² , NT ³
Red-backed Fairy-wren	<i>Malurus elegans</i>	-	+	+	-	
Striated Pardalote	<i>Pardalotus striatus</i>	-	-	+	-	
Weebill	<i>Smicronis brevirostris</i>	-	-	+	-	
Silver-crowned Friarbird	<i>Philemon argenticeps</i>	-	-	+	+	
Little Friarbird	<i>Philemon citreogularis</i>	-	-	+	+	
Blue-faced Honeyeater	<i>Entomyzon cyanotis</i>	-	-	+	-	
Singing Honeyeater	<i>Lichenostomus virescens</i>	-	-	+	-	
White-gaped Honeyeater	<i>Lichenostomus unicolor</i>	+	-	+	-	
Yellow-tinted Honeyeater	<i>Lichenostomus flavescens</i>	-	-	+	-	
White-throated Honeyeater	<i>Melithreptus albogularis</i>	-	-	+	-	
Brown Honeyeater	<i>Lichmera indistincta</i>	-	-	+	-	
Grey-crowned Babbler	<i>Pomatostomus temporalis</i>	-	-	+	-	
Varied Sitella	<i>Daphoenositta chrysoptera</i>	-	-	+	-	
Rufous Whistler	<i>Pachycephala rufiventris</i>	-	-	+	-	
Sandstone Shrike-thrush	<i>Colluricincla woodwardi</i>	-	-	-	+	
Leaden Flycatcher	<i>Myiagra rubecula</i>	+	-	-	-	
Shining Flycatcher	<i>Myiagra alecto</i>	+	-	-	-	
Restless Flycatcher	<i>Myiagra inquieta</i>	+	-	-	-	
Magpie-lark	<i>Grallina cyanoleuca</i>	-	-	+	-	
Willie Wagtail	<i>Rhipidura leucophrys</i>	-	-	+	-	
Black-faced Cuckoo-shrike	<i>Coracina novaehollandiae</i>	-	-	+	-	
White-bellied Cuckoo-shrike	<i>Coracina papuensis</i>	-	-	+	-	
White-breasted Woodswallow	<i>Artamus leucorhynchus</i>	-	-	+	-	
Black-faced Woodswallow	<i>Artamus cinereus</i>	-	-	+	-	
Little Woodswallow	<i>Artamus minor</i>	-	-	+	-	
Pied Butcherbird	<i>Cracticus nigrogularis</i>	-	-	+	-	
Torresian Crow	<i>Corvus orru</i>	+	-	+	-	
Great Bowerbird	<i>Chlamydera nuchalis</i>	-	-	+	-	
Singing Bushlark	<i>Mirafra javanica</i>	-	-	+	-	
Double-barred Finch	<i>Taeniopygia bichenovii</i>	-	-	+	-	
Long-tailed Finch	<i>Poephila acuticauda</i>	-	-	+	-	
Masked Finch	<i>Poephila personata</i>	-	-	+	-	
Crimson Finch	<i>Neochmia phaeton</i>	-	+	-	-	
Star Finch	<i>Neochmia ruficauda</i>	-	+	+	-	NT ¹ , NT ³
Yellow-rumped Mannikin	<i>Lonchura flaviprymna</i>	-	+	-	-	NT ¹
Chestnut-breasted Mannikin	<i>Lonchura castaneothorax</i>	-	+	-	-	
Mistletoebird	<i>Dicaeum hirundinaceum</i>	-	-	+	-	
Fairy Martin	<i>Hirundo ariel</i>	-	-	+	-	
Golden-headed Cisticola	<i>Cisticola exilis</i>	-	+	-	-	
total Birds =	98 species					
MAMMALS						
Common Planigale	<i>Planigale maculata</i>	-	+	-	-	DD ¹

Common name	Scientific name	Habitat				Status
		RIP	CG	EW	ESS	
Agile Wallaby	<i>Macropus agilis</i>	-	-	+	-	
Euro	<i>Macropus robustus</i>	-	-	-	+	
Little Red Flying-fox	<i>Pteropus scapulatus</i>	-	-	+	-	
Yellow-bellied Sheat htail Bat	<i>Saccolaimus flaviventris</i>	-	-	+	-	
Tropical Short-tailed Mouse	<i>Leggadina lakedownensis</i>	-	+	-	-	
Western Chestnut Mouse	<i>Pseudomys nanus</i>	-	+	-	+	NT ¹
Black Rat	<i>Rattus rattus</i>	-	+	-	-	introd.
Pale Field Rat	<i>Rattus tunneyi</i>	-	+	+	-	NT ¹
Common Rock R at	<i>Zyzomys argurus</i>	-	-	+	-	
Cat	<i>Felis catus</i>	-	-	+	-	introd.
Dingo	<i>Canis lupus</i>	-	-	+	-	
Pig	<i>Sus scrofa</i>	+	-	-	-	introd.
Horse	<i>Equus caballus</i>	-	-	+	-	introd.
Water Buffalo	<i>Bubalus bubalis</i>	-	+	+	-	introd.
Cattle	<i>Bos taurus</i>	-	-	+	-	introd.
total Mammals =	16 species					introd.
total species per habitat =		44	33	107	15	

Table 2. Additional species records from the collections of the Museum and Art Gallery of the N.T., for the Victoria River region defined by the co-ordinates: 15° 31'S to 15° 38'S, 130° 56'E to 131° 09'E. Legend to habitats: RIP = Riparian; CG = Cane grass; EW = *Eucalyptus* woodland; ESS = Escarpment scree slope. Legend to conservation status: VU = vulnerable; NT = near threatened; DD = data deficient; blank = least concern; 1 = TPWC Act.

Common name	Scientific name	RI P	Habitat			ES S	Statu s
			C G	E W			
AMPHIBIANS							
Rockhole Frog	<i>Litoria meiriana</i>	-	-	-	-	+	
Magnificent Tree-frog	<i>Litoria splendida</i>	-	-	-	-	+	
Tornier's Frog	<i>Litoria tornieri</i>	+	-	-	-	-	
Wotjulum Frog	<i>Litoria wotjulumensis</i>	+	-	-	-	-	
Desert Froglet	<i>Crinia deserticola</i>	-	-	+	-	-	
total Amphibians =	5 species						
REPTILES							
Snapping Turtle	<i>Elseya dentata</i>	+	-	-	-	-	
Robust Dragon	<i>Diporiphora bennettii</i>	-	-	+	-	-	
Two-lined Dragon	<i>Diporiphora bilineata</i>	-	-	+	-	-	
Fat-tailed Gecko	<i>Diplodactylus conspicillatus</i>	-	-	+	-	-	
Spotted Rock Detella	<i>Gehyra nana</i>	-	-	-	-	+	
Banded Rock Dtella	<i>Gehyra koiria</i>	-	-	-	-	+	DD ¹
Asian House Gecko	<i>Hemidactylus frenatus</i>	-	-	+	-	-	introd.
Two-spined Rainbow Skink	<i>Carlia amax</i>	-	-	-	-	+	
Three-spined Rainbow Skink	<i>Carlia triacantha</i>	-	-	+	-	-	
Spotted Snake-eyed Skink	<i>Cryptoblepharus megastictus</i>	-	-	-	-	+	
Leopard Ctenotus	<i>Ctenotus pantherinus</i>	-	-	+	-	-	
Rock Ctenotus	<i>Ctenotus saxatilis</i>	-	-	-	-	+	
Smooth-tailed Skink	<i>Glaphyromorphus isolepis</i>	-	-	+	-	-	
Northern Lerista	<i>Lerista borealis</i>	-	-	+	-	-	
Grey's Menetia	<i>Menetia greyii</i>	-	-	+	-	-	
	<i>Ramphotyphlops</i>						
Kimberley Blind Snake	<i>kimberleyensis</i>	-	-	-	-	+	DD ¹
Papuan Whip Snake	<i>Demansia papuensis</i>	-	-	+	-	-	DD ¹
Western Brown Snake	<i>Pseudonaja nuchalis</i>	-	-	+	-	-	DD ¹
total Reptiles =	18 species						
MAMMALS							
Sugar Glider	<i>Petaurus breviceps</i>	-	-	+	-	-	
Ningbing Antechinus	<i>Pseudantechinus ningbing</i>	-	-	-	-	+	NT ¹
Red-cheeked Dunnart	<i>Sminthopsis virginiae</i>	-	-	+	-	-	DD ¹
Common Sheath-tail Bat	<i>Taphozous georgianus</i>	-	-	+	-	-	
Western Cave Eptesicus	<i>Vespadelus caurinus</i>	-	-	+	-	-	
total Mammals =	5 species						
BIRDS							
White-winged Triller	<i>Lalage sueurii</i>	-	-	+	-	-	
Pied Honeyeater	<i>Certhionyx variegatus</i>	-	-	+	-	-	
Jacky Winter	<i>Microeca fascinans</i>	-	-	+	-	-	
total Birds =	3 species						
	total species per habitat =	3	0	19	9		

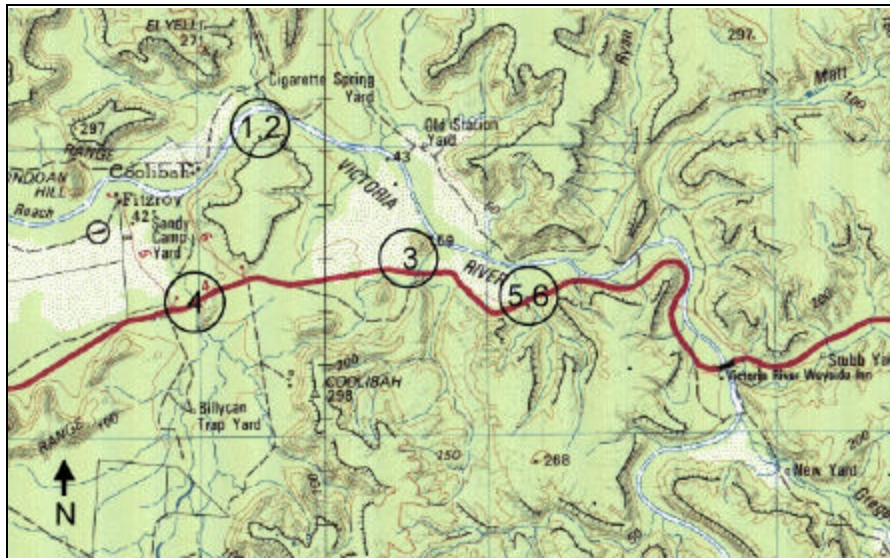


Figure 1. Topographic map centred on the Victoria Highway section between the Victoria River bridge and Fitzroy Station turn-off. Circled numbers show position of terrestrialfauna trap sites: (1), bank of the Victoria River at Coolibah Station, 15°32'17"S 130°58'33"E; (2), Cane grass stand on the upper river bank at Coolibah Station, 15°32'17"S 130°58'33"E; (3), western flood channel of lost Creek, 15°35'15"S 131°01'54"E; (4), *Eucalyptus* woodland above the banks of Sandy Creek, 15°35'48"S 130°57'29"E; (5), *Eucalyptus* woodland above the banks of Joe Creek, 15°36'52"S 131°04'48"E; (6) escarpment scree slope above the banks of Joe Creek (15°36'52"S 131°04'48"E).



Figure 2. View of the Victoria River and Highway from 4 kilometres west of Victoria River Roadhouse. Shows several habitats including *Eucalyptus* woodland between highway and river, riparian alongside river course and escarpment scree slope in foreground.



Figure 3. Trap site in cane grass habitat adjoining gravel deposition bed (background) in the bed of the Victoria River at Coolibah Station. Shows cage trap and pitfall trap with drift fence.



Figure 4. Cane grass stand adjoining Victoria Highway on western side of Lost Creek.



Figure 5. Trap site in cane grass habitat at Lost Creek.



Figure 6. Sandy Creek bridge on the Victoria Highway, showing *Eucalyptus* woodland habitat and riparian vegetation in creek bed.



Figure 7. Joe Creek, northern side of Victoria Highway, showing surrounding woodland vegetation and rocky creek bed.



Figure 8. Specimen of the introduced Black Rat *Rattus rattus*, trapped in cane grass habitat at Lost Creek.