

## Appendix F






Key Ecological Features in the Project Area  
prepared by EcOz Environmental Services















Appendix F Flora, Terrestrial Fauna and Aquatic Fauna

Appendix F Table 1 Vegetation Patterns

Corridor Section	Description of Vegetation Patterns	Photo
0-70	<p>Broad gently undulating coastal plains dominated by <i>Eucalyptus miniata</i> and <i>E. tetradonta</i> forest with <i>Sarga spp.</i> tussock grasses in the understorey. Between KP17 and KP21 the corridor traverses low stony hills through the Sugarloaf Range dominated by <i>Eucalyptus miniata</i> and <i>E. tetradonta</i> open woodland with a sparse understorey of tussock grasses.</p> <p>The coastal sand plains are dissected by a number of minor stream lines and floodplain associated with the Moyle River where the vegetation is dominated by woodlands to forests of <i>Melaleuca spp.</i>, <i>Corymbia polycarpa</i>, <i>Eucalyptus miniata</i> and <i>E. tetradonta</i>.</p>	
70-90	<p>Sandstone slopes and ridges of the Macadam Range dominated by <i>Eucalyptus tetradonta</i> and <i>E. miniata</i> woodland often with <i>Eucalyptus tectifica</i> and <i>Corymbia latifolia</i> and tussock grasses in the understorey.</p>	
90-210	<p>Elevated lateritic plains on a plateau with fairly uniform vegetation dominated by <i>Eucalyptus tetradonta</i> and <i>E. miniata</i> open forest with <i>Sarga spp.</i> tussock grasses in the understorey.</p> <p>The open forest communities are dissected by a number of broad shallow drainage floors dominated by <i>Melaleuca spp.</i> open woodland swamps with <i>Grevillea pteridifolia</i> and <i>Banksia dentata</i> in the mid storey, emergent <i>Eucalyptus</i>/<i>Corymbia</i> trees, and sedges in the understorey.</p>	
210-230	<p>Sandstone slopes and ridges along the edge of the tablelands dominated by <i>Eucalyptus tectifica</i> and <i>Corymbia latifolia</i> open woodland with tussock grasses in the understorey.</p>	
230-267	<p>Gently undulating sandy plains dominated by <i>Eucalyptus tectifica</i> and <i>Corymbia latifolia</i> with <i>Themeda triandra</i> and <i>Heteropogon contortus</i> grasses in the understorey.</p> <p>Riverine plains adjacent to Bradshaw Creek and Daly River are dominated by woodlands to forests of <i>Corymbia bella</i>, <i>Corymbia porrecta</i>, <i>Terminalia spp.</i> and <i>Acacia spp.</i></p>	

Corridor Section	Description of Vegetation Patterns	Photo
267-310	Gently undulating sandy plains dominated by <i>Eucalyptus miniata</i> and <i>E. tetradonta</i> open woodland to woodland often with <i>Corymbia bleeseri</i> . <i>Triodia sp.</i> hummock grasses typically dominate the understorey to KP290. Tussock grasses become more dominant in the understorey from KP290 east to the Katherine River.	
310-350	Undulating clay soil plains dominated by <i>Eucalyptus tectifica</i> and <i>Corymbia latifolia</i> open woodland to woodland with <i>Themeda triandra</i> , <i>Heteropogon contortus</i> and <i>Sarga spp.</i> tussock grasses in the understorey.	
350-400	Gently undulating sandy plains dominated by <i>Eucalyptus tetradonta</i> open forest often with <i>Corymbia bleeseri</i> , <i>Corymbia dichromophloia</i> , <i>Corymbia latifolia</i> and <i>Erythrophleum chlorostachys</i> , and tussock grasses in the understorey.	
400-424	Undulating plains dominated by <i>Eucalyptus tectifica</i> and <i>Corymbia latifolia</i> open woodland to woodland with <i>Themeda triandra</i> , <i>Heteropogon contortus</i> and <i>Sarga spp.</i> tussock grasses in the understorey. The plains are dissected by channels of Beswick Creek and Waterhouse River with fringing forests dominated by <i>Melaleuca spp.</i> and <i>Eucalyptus camaldulensis</i> and a dense mid storey of species such as <i>Pandanus aquaticus</i> and <i>Barringtonia acutangula</i> .	
424-460	Low sandstone hills and rises with areas of rugged dissected plateaux and rocky ridges dominated by either <i>Eucalyptus miniata</i> and <i>E. tetradonta</i> forest with <i>Eucalyptus phoenicea</i> and <i>Corymbia bleeseri</i> , or <i>Corymbia latifolia</i> , <i>Eucalyptus tectifica</i> and <i>Corymbia foelscheana</i> open woodland, both with tussock grasses in the understorey. The broad fluvial corridor associated with the Chambers River meanders through the hills and is dominated by a fringing forest of <i>Eucalyptus camaldulensis</i> .	

Corridor Section	Description of Vegetation Patterns	Photo
460-540	<p>Level to gently undulating plains with clay soils dominated by <i>Eucalyptus tectifica</i> and <i>Corymbia latifolia</i> woodland with a variety of co-dominant species in the understorey including <i>Mnesithea rottboellioides</i>, <i>Arundinella nepalensis</i>, <i>Heteropogon contortus</i> and <i>Schizachyrium fragile</i>. The plains are dissected by broad fluvial corridors and low hills and rises on siltstone which are dominated by <i>Melaleuca spp.</i> and <i>Eucalyptus pruinosa</i> open woodland with a sparse understorey of tussock grasses and <i>Eriachne spp.</i></p>	
540-570	<p>Gently undulating to hilly terrain on basalt, and low hills and rises on siltstone, both dominated by open woodlands of <i>Eucalyptus patellaris</i>, <i>Corymbia confertiflora</i>, <i>Corymbia terminalis</i>, <i>Corymbia bella</i> and <i>Eucalyptus tectifica</i>, with tussock grasses in the understorey. <i>Melaleuca spp.</i> open woodlands with <i>Triodia spp.</i> and <i>Sarga spp.</i> grasses in the understorey occur in wetter areas. Broad fluvial corridors are associated with the Mainoru River and Wilton River. The fringing forests are dominated by <i>Melaleuca cajuputi</i> closed forest and <i>Casuarina cunninghamiana</i> and <i>Lophostemon lactifluus</i> respectively.</p>	
570-772	<p>Undulating slopes with rises and low hills, dominated by <i>Eucalyptus miniata</i> and <i>E. tetradonta</i> woodlands to open forests with <i>Petalostigma quadriloculare</i>, <i>Triodia spp.</i>, <i>Sarga spp.</i> and <i>Eriachne spp.</i> in the understorey. East of the Wilton River the country grades into gently undulating sand plains dominated by <i>Eucalyptus miniata</i> and <i>E. tetradonta</i> woodlands to open forests, sometimes with <i>Callitris intratropica</i>.</p> <p>Isolated swamp depressions and alluvial floodplains associated with the Annie Creek and Goyder River systems typically support <i>Melaleuca spp.</i> closed forests with <i>Eriachne sp</i> in the understorey. The fringing riparian forests are dominated by <i>Melaleuca spp.</i> with <i>Pandanus aquaticus</i>, <i>Acacia leptocarpa</i> and <i>Barringtonia acutangula</i>.</p>	
772-782 (Mitchell Ranges)	<p>Elevated rocky plateaux and rolling to steep hills dominated by open woodland of <i>Eucalyptus tetradonta</i>, <i>E. miniata</i>, <i>E. phoenicea</i> and <i>Callitris intratropica</i>.</p>	Not surveyed
782-880	<p>Gently undulating sandy plains dominated by <i>Eucalyptus tetradonta</i> and <i>E. miniata</i> woodlands to forests with tussock grasses in the understorey. The sandy plains are dissected by floodplains and channels associated with the Goromuru River, Boggy Creek and the Cato River, which are dominated by forests of <i>Melaleuca viridiflora</i> and <i>Lophostemon lactifluus</i> with <i>Imperata cylindrica</i> and other sedge species in the understorey.</p>	

Corridor Section	Description of Vegetation Patterns	Photo
880–943	<p>Gently undulating plains associated with bauxite, dominated by <i>Eucalyptus tetradonta</i> woodland to forest with <i>Sarga spp.</i> tussock grasses in the understorey. <i>Eucalyptus miniata</i> is notably absent as a co-dominant in the vegetation east of the Cato River. The plains are dissected by narrow floodplains and channels associated with the Giddy River, Latram River and coastal inlets on the east coast of the Gove Peninsula, which are typically dominated by closed forest of <i>Melaleuca spp.</i>, <i>Corymbia polycarpa</i> and <i>Lophostemon lactifluus</i> with <i>Imperata cylindrica</i> in the understorey.</p>	

Appendix F Table 2 Fauna Species Recorded in or Near the Project Area

Family	Common Name	Scientific Name	Moyle	Chambers River	Chainman and Chinaman	Dorisyvale	Latram River	Gurrumuru	NT Fauna Atlas	EPBC Act Protected Matters	Chatto Reports	VB1	DAB	GFU1	CA1	ARC3
<b>AMPHIBIANS</b>																
Bufoidae	Cane Toad	<i>Bufo marinus</i>		✓	✓	✓	✓	✓								
Hylidae	Giant Frog	<i>Cyclorana australis</i>							✓				✓	✓		✓
Hylidae	Long-footed Frog	<i>C. longipes</i>							✓				✓	✓	✓	
Hylidae	Northern Dwarf Tree-frog	<i>Litoria bicolor</i>		✓			✓	✓	✓						✓	✓
Hylidae	Green Tree Frog	<i>L. caerulea</i>		✓	✓				✓			✓	✓		✓	
Hylidae	Copland's Rock Frog	<i>L. coplandi</i>		✓										✓	✓	
Hylidae	Peter's Frog	<i>L. inermis</i>	✓	✓	✓				✓				✓	✓	✓	
Hylidae	Javelin Frog	<i>L. microbelos</i>							✓						✓	
Hylidae	Rocket Frog	<i>L. nasuta</i>	✓	✓	✓		✓	✓	✓			✓			✓	✓
Hylidae	Pale tree frog	<i>L. pallida</i>		✓					✓			✓			✓	
Hylidae	Masked Rock-Frog	<i>L. personata</i>							✓							✓
Hylidae	Roth's Tree Frog	<i>L. rothii</i>	✓				✓		✓				✓	✓	✓	✓
Hylidae	Red tree frog	<i>L. rubella</i>		✓	✓			✓	✓			✓	✓		✓	✓
Hylidae	Tornier's Frog	<i>L. tornieri</i>	✓	✓			✓	✓	✓				✓	✓	✓	✓
Hylidae	Wotjulum frog	<i>L. wotjulumensis</i>	✓	✓	✓	✓	✓		✓			✓		✓	✓	✓

Family	Common Name	Scientific Name	Moyle	Chambers River	Chainman and Chinaman	Dorisvale	Latram River	Gurrumuru	NT Fauna Atlas	EPBC Act Protected Matters	Chatto Reports	VB1	DAB	GFU1	CA1	ARC3
Myobatrachidae		<i>Crinia</i> sp.						✓								
Myobatrachidae	Bilingual Froglet	<i>Crinia bilingua</i>							✓						✓	
Myobatrachidae		<i>C. remota</i>	✓	✓												
Myobatrachidae	Marbled frog	<i>Limnodynastes convexiusculus</i>	✓				✓		✓			✓			✓	
Myobatrachidae	Ornate Burrowing Frog	<i>L. ornatus</i>	✓	✓	✓		✓		✓			✓			✓	✓
Myobatrachidae	Carpenter Frog	<i>Megistolotis lignarius</i>							✓						✓	
Myobatrachidae	Northern Spadefoot Toad	<i>Notaden melanoscaphus</i>		✓					✓				✓		✓	
Myobatrachidae	Floodplain Toadlet	<i>Uperoleia inundata</i>							✓			✓			✓	✓
Myobatrachidae	Stonemason Toadlet	<i>U. lithomoda</i>	✓	✓	✓		✓	✓	✓				✓			
Ranadidae	Water Frog	<i>Rana daemeli</i>							✓							✓
<b>REPTILES</b>																
Agamidae	Frilled Lizard	<i>Chlamydosaurus kingii</i>							✓							✓
Agamidae		<i>Diporiphora albilabris sobria</i>	✓	✓					✓			✓		✓		
Agamidae		<i>D. arnhemica</i>	✓													
Agamidae		<i>D. bennettii</i>							✓						✓	
Agamidae	Two-lined Dragon	<i>D. bilineata</i>	✓	✓	✓	✓		✓	✓				✓		✓	✓
Agamidae		<i>D. magna</i>			✓				✓			✓			✓	



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Agamidae	Gilbert's Dragon	<i>Lophognathus gilberti</i>	✓	✓	✓	✓	✓		✓				✓	✓	✓	✓
Agamidae	Northern Water Dragon	<i>L. temporalis</i>							✓			✓				✓
Boidae	Children's Python	<i>Antaresia childreni</i>		✓					✓				✓			
Boidae	Water Python	<i>Liasis mackloti</i>						✓	✓							✓
Boidae	Carpet Python	<i>Morelia spilota</i>														✓
Chelidae	Northern Snake-necked Turtle	<i>Chelodina rugosa</i>							✓						✓	
Chelidae	Northern Snapping Turtle	<i>Elseya dentata</i>							✓				✓			
Chelidae	Red-faced Turtle	<i>Emydura victoriae</i>							✓				✓			
Colubridae	Brown Tree Snake	<i>Boiga irregularis</i>							✓				✓			✓
Colubridae	Bockadam	<i>Cerberus australis</i>							✓						✓	
Colubridae	Green/Common Tree Snake	<i>Dendrelaphis punctulata</i>						✓								
Colubridae	White-bellied Mangrove Snake	<i>Fordonia leucobalia</i>														✓
Colubridae	Keelback/Freshwater Snake	<i>Tropidonophis mairii</i>		✓				✓	✓						✓	
Crocodylidae	Freshwater Crocodile	<i>Crocodylus johnstonii</i>							✓	✓		✓		✓	✓	
Crocodylidae	Saltwater Crocodile	<i>C. porosus</i>							✓	✓					✓	✓
Elapidae	Northern Death Adder	<i>Acanthophis praelongus</i>														✓
Elapidae	Northern Shovel-nosed Snake	<i>Brachyuropsis roperi</i>		✓												
Elapidae	Black Whip Snake	<i>Demansia atra</i>							✓				✓		✓	✓
Elapidae	Papuan Whip Snake	<i>D. papuensis</i>							✓						✓	
Elapidae	Orange-naped Snake	<i>Furina ornata</i>							✓				✓			✓

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Elapidae	King Brown	<i>Pseudechis australis</i>							✓				✓			✓
Elapidae	Western Brown Snake	<i>Pseudonaja nuchalis</i>							✓							✓
Elapidae	Northern Small-eyed Snake	<i>Rhinoplocephalus pallidiceps</i>		✓												
Elapidae	Northern Desert Banded Snake	<i>Simoselaps anomalus</i>							✓				✓			
Gekkonidae		<i>Diplodactylus conspicillatus</i>			✓											
Gekkonidae	Crowned Gecko	<i>D. stenodactylus</i>							✓			✓				
Gekkonidae	House Gecko	<i>Gehyra australis</i>	✓	✓	✓	✓		✓	✓			✓	✓		✓	✓
Gekkonidae		<i>G. nana</i>	✓		✓				✓						✓	
Gekkonidae		<i>G. pamela</i>	✓													
Gekkonidae	Bynoe's Gecko	<i>Heteronotia binoei</i>	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓
Gekkonidae	Marbled Velvet Gecko	<i>Oedura marmorata</i>					✓		✓			✓	✓		✓	✓
Gekkonidae	Zig-zag Gecko	<i>O. rhombifer</i>		✓			✓	✓	✓			✓			✓	✓
Gekkonidae	Northern Spiny-tailed Gecko	<i>Strophurus ciliaris</i>	✓	✓	✓				✓				✓			
Pygopodidae	Burton's legless lizard	<i>Lialis burtonis</i>							✓				✓	✓		
Pygopodidae	Hooded Scaly Foot	<i>Pygopus nigriceps</i>							✓				✓			
Scincidae	Two-spined Rainbow Skink	<i>Carlia amax</i>	✓	✓	✓	✓	✓		✓							✓
Scincidae	Slender Rainbow Skink	<i>C. gracilis</i>	✓			✓		✓	✓			✓	✓			
Scincidae	Robust Rainbow Skink	<i>C. longipes</i>					✓	✓	✓						✓	
Scincidae	Striped Rainbow Skink	<i>C. munda</i>	✓	✓	✓		✓	✓	✓			✓		✓	✓	✓
Scincidae	Three-spined Rainbow	<i>C. triacantha</i>	✓		✓				✓			✓	✓		✓	

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	Skink															
Scincidae		<i>Ctenotus decaneurus</i>		✓												
Scincidae	Port-Essington Ctenotus	<i>C. essingtonii</i>	✓				✓	✓	✓							✓
Scincidae		<i>C. hilli</i>		✓	✓			✓								
Scincidae	Plain Ctenotus	<i>C. inornatus</i>		✓		✓			✓			✓			✓	✓
Scincidae	MacFarlane's Lerista	<i>C. macfarlani</i>					✓		✓							✓
Scincidae	Leopard Ctenotus	<i>C. pantherinus</i>			✓				✓			✓	✓			
Scincidae	Robust Ctenotus	<i>C. robustus</i>							✓				✓			✓
Scincidae	Spalding's Ctenotus	<i>C. spaldingi</i>		✓	✓				✓			✓	✓	✓	✓	
Scincidae	Dwarf Ctenotus	<i>C. tantillus</i>							✓			✓	✓			
Scincidae	Scant-striped Ctenotus	<i>C. vertebralis</i>		✓					✓				✓		✓	
Scincidae	Aboreal Snake-eyed Skink	<i>Cryptoblepharus plagiocephalus</i>	✓	✓	✓	✓	✓	✓	✓			✓	✓		✓	✓
Scincidae	Stout-tailed Skink	<i>Glaphyromorphus crassicaudus</i>							✓							✓
Scincidae		<i>G. douglasi</i>							✓						✓	
Scincidae	Smooth-tailed Skink	<i>G. isolepis</i>							✓			✓	✓		✓	✓
Scincidae	Dark-tailed Skink	<i>G. nigricaudis</i>					✓		✓							✓
Scincidae	Griffin's Lerista	<i>Lerista griffini</i>							✓				✓			
Scincidae	Karl Schmidt's Lerista	<i>L. karlschmidti</i>							✓						✓	
Scincidae	Eastern Lerista	<i>L. orientalis</i>							✓			✓				
Scincidae	Single-toed Larista	<i>L. stylis</i>							✓							✓
Scincidae	Grey's Menetia	<i>Menetia greyii</i>	✓						✓			✓	✓			
Scincidae	Main's Menetia	<i>M. maini</i>							✓					✓		

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Scincidae		<i>Menetia sp.</i>		✓												
Scincidae	Red-tailed Snake-eyed Skink	<i>Morethia ruficauda</i>	✓						✓			✓			✓	
Scincidae	Storr's Snake-eyed Skink	<i>M. storri</i>		✓		✓			✓			✓	✓		✓	✓
Scincidae	Ornate Snake-eyed Skink	<i>Notoscincus ornatus</i>	✓			✓			✓			✓			✓	
Scincidae	Slender Snake-eyed Skink	<i>Proablepharus tenuis</i>			✓				✓			✓	✓			
Scincidae	Common Blue-tongue Lizard	<i>Tiliqua scincoides</i>							✓				✓			
Typhlopidae		<i>Ramphotyphlops broomi</i>														✓
Typhlopidae		<i>R. ligatus</i>							✓				✓			
Typhlopidae		<i>R. wiedii</i>							✓							✓
Typhlopidae		<i>R. yirrikalae</i>														✓
Varanidae	Ridge-tailed Monitor	<i>Varanus acanthurus</i>							✓				✓			
Varanidae	Sand Goanna	<i>V. gouldii</i>	✓						✓			✓	✓			✓
Varanidae	Merten's Water Monitor	<i>V. mertensi</i>	✓						✓						✓	
Varanidae		<i>V. primordius</i>		✓												
Varanidae	Spotted Tree Monitor	<i>V. scalaris</i>	✓				✓	✓	✓			✓			✓	✓
Varanidae		<i>V. tristis</i>							✓				✓			
Varanidae		<i>Varanus sp.</i>					✓									
<b>BIRDS</b>																
Accipitridae	Collared Sparrowhawk	<i>Accipiter cirrhocephalus</i>			✓				✓							✓
Accipitridae	Brown Goshawk	<i>A. fasciatus</i>	✓					✓	✓			✓	✓	✓	✓	✓

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Accipitridae	Wedge-tailed Eagle	<i>Aquila audax</i>		✓	✓	✓			✓			✓	✓	✓		✓
Accipitridae	Pacific Baza	<i>Aviceda subcristata</i>							✓			✓				
Accipitridae	Spotted Harrier	<i>Circus assimilis</i>							✓					✓		
Accipitridae	Black-shouldered Kite	<i>Elanus axillaris</i>							✓							✓
Accipitridae	Red Goshawk	<i>Erythrorchis radiatus</i>							✓	✓						✓
Accipitridae	White-bellied Sea Eagle	<i>Haliaeetus leucogaster</i>						✓	✓	✓		✓				✓
Accipitridae	Brahminy Kite	<i>Haliastur indus</i>							✓							✓
Accipitridae	Whistling Kite	<i>H. sphenurus</i>	✓	✓		✓		✓	✓			✓	✓	✓	✓	✓
Accipitridae	Black-breasted Buzzard	<i>Hamirostra melanosternon</i>						✓	✓					✓		
Accipitridae	Square Tailed Kite	<i>Lophoictinia isura</i>							✓					✓		
Accipitridae	Black Kite	<i>Milvus migrans</i>		✓	✓				✓			✓	✓	✓	✓	✓
Accipitridae	Osprey	<i>Pandion haliaetus</i>							✓							✓
Aegothelidae	Australian Owlet-nightjar	<i>Aegotheles cristatus</i>	✓		✓		✓		✓			✓				✓
Alaudidae	Singing Bushlark	<i>Mirafra javanica</i>							✓			✓	✓			
Alcedinidae	Azure Kingfisher	<i>Ceyx azurea</i>			✓		✓	✓	✓			✓		✓	✓	✓
Alcedinidae	Little Kingfisher	<i>Alcedo pusilla</i>							✓							✓
Anatidae	Grey Teal	<i>Anas gracilis</i>							✓			✓	✓	✓		
Anatidae	Pacific Black Duck	<i>A. superciliosa</i>							✓			✓	✓	✓		
Anatidae	Wandering Whistling-Duck	<i>Dendrocygna arcuata</i>						✓	✓			✓		✓		✓
Anatidae	Plumed Whistling Duck	<i>D. eytoni</i>							✓							✓
Anatidae	Green Pygmy Goose	<i>Nettapus pulchellus</i>							✓			✓			✓	✓
Anatidae	Radjah Shelduck	<i>Tadorna radjah</i>							✓				✓	✓	✓	
Anhingidae	Darter	<i>Anhinga melanogaster</i>	✓					✓	✓			✓		✓	✓	✓

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Anseranatidae	Magpie Goose	<i>Anseranas semipalmata</i>						✓	✓			✓				✓
Apodidae	Fork-tailed Swift	<i>Apus pacificus</i>							✓				✓			
Ardeidae	Great Egret	<i>Ardea alba</i>							✓			✓	✓	✓	✓	✓
Ardeidae	Intermediate Egret	<i>A. intermedia</i>							✓			✓			✓	✓
Ardeidae	White-necked Heron	<i>A. pacifica</i>		✓		✓			✓				✓	✓	✓	✓
Ardeidae	Pied Heron	<i>A. picata</i>							✓			✓		✓		
Ardeidae	Little Egret	<i>Egretta garzetta</i>							✓			✓	✓	✓	✓	✓
Ardeidae	White-Faced Heron	<i>E. novaehollandiae</i>							✓					✓	✓	✓
Ardeidae	Eastern Reef Egret	<i>E. sacra</i>							✓							✓
Ardeidae	Black Bittern	<i>Ixobrychus flavicollis</i>							✓			✓	✓		✓	✓
Ardeidae	Nankeen Night Heron	<i>Nycticorax caledonicus</i>	✓						✓			✓	✓	✓	✓	✓
Artamidae	Black-faced Woodswallow	<i>Artamus cinereus</i>		✓	✓			✓	✓			✓	✓	✓	✓	
Artamidae	White-breasted Woodswallow	<i>A. leucorhynchus</i>	✓				✓	✓	✓					✓	✓	
Artamidae	Little woodswallow	<i>A. minor</i>	✓						✓			✓	✓	✓	✓	
Artamidae	Masked woodswallow	<i>A. personatus</i>							✓				✓		✓	
Artamidae	Pied Butcher Bird	<i>Cracticus nigrogularis</i>	✓		✓	✓	✓	✓	✓			✓	✓	✓	✓	✓
Artamidae	Grey Butcher Bird	<i>C. torquatus leucopterus</i>							✓			✓	✓		✓	
Artamidae	Australian Magpie	<i>Gymnorhina tibicen</i>				✓			✓			✓		✓	✓	
Burhinidae	Bush-stone Curlew	<i>Burhinus grallarius</i>				✓			✓			✓			✓	
Burhinidae	Beach-stone Curlew	<i>Esacus neglectus</i>						✓								
Cacatuidae	Sulfur Crested Cockatoo	<i>Cacatua galerita</i>		✓		✓	✓	✓	✓			✓	✓	✓	✓	✓
Cacatuidae	Galah	<i>C. roseicapilla</i>		✓	✓	✓			✓			✓	✓	✓	✓	

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Cacatuidae	Little Corella	<i>C. sanguinea</i>							✓			✓			✓	✓
Cacatuidae	Red-tailed Black Cockatoo	<i>Calyptorhynchus banksii</i>	✓	✓	✓	✓			✓			✓	✓	✓	✓	✓
Cacatuidae	Cockatiel	<i>Nymphicus hollandicus</i>		✓	✓				✓				✓	✓	✓	
Campephagidae	Black-faced Cuckoo Shrike	<i>Coracina novaehollandiae</i>	✓	✓	✓	✓			✓			✓	✓	✓	✓	✓
Campephagidae	White Bellied Cuckoo Shrike	<i>C. papuensis</i>	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓
Campephagidae	Cicadabird	<i>C. tenuirostris</i>							✓	✓		✓				✓
Campephagidae	Spotted Nightjar	<i>Eurostopodus argus</i>						✓								
Campephagidae	Varied Triller	<i>Grallina cyanoleuca</i>		✓					✓			✓				✓
Campephagidae	White-winged Triller	<i>Lalage sueurii</i>		✓	✓				✓			✓	✓	✓	✓	
Caprimulgidae	Large-tailed Nightjar	<i>Caprimulgus macrurus</i>							✓							✓
Casuariidae	Emu	<i>Dromaius novaehollandiae</i>							✓				✓			✓
Centropodidae	Pheasant Coucal	<i>Centropus phasianinus</i>				✓		✓	✓			✓	✓	✓	✓	✓
Charadriidae	Greater Sand Plover	<i>Charadrius leschenaultii</i>							✓							✓
Charadriidae	Oriental Plover	<i>C. veredus</i>								✓						
Charadriidae	Black-fronted Dotterel	<i>Elsayornis melanops</i>							✓			✓		✓		
Charadriidae	Red-kneed Dottrel	<i>Erythrogonys cinctus</i>							✓			✓				
Charadriidae	Masked Lapwing	<i>Vanellus miles miles</i>							✓			✓		✓		✓
Ciconiidae	Black-necked stork	<i>Ephippiorhynchus asiaticus</i>			✓				✓			✓	✓	✓		✓
Climacteridae	Black-tailed Treecreeper	<i>Climacteris melanura</i>			✓			✓					✓	✓	✓	
Columbidae	Rock Dove (feral pigeon)	<i>Columba livia</i>							✓							✓

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Columbidae	Pied Imperial Pigeon	<i>Ducula bicolor</i>							✓			✓			✓	✓
Columbidae	Diamond Dove	<i>Geopelia cuneata</i>	✓	✓					✓				✓	✓	✓	✓
Columbidae	Bar-shouldered Dove	<i>G. humeralis</i>	✓		✓	✓	✓	✓	✓			✓	✓	✓	✓	✓
Columbidae	Peaceful Dove	<i>G. striata</i>	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓
Columbidae	Partridge Pigeon	<i>Geophaps smithii smithii</i>								✓						
Columbidae	Crested Pigeon	<i>Ocyrops lophotes</i>							✓				✓	✓		
Columbidae	Common Bronzewing	<i>Phaps chalcoptera</i>		✓		✓			✓				✓	✓		✓
Columbidae	Rose-crowned Fruit Dove	<i>Ptilinopus regina</i>							✓							✓
Coraciidae	Dollarbird	<i>Eurystomus orientalis</i>							✓			✓	✓	✓	✓	✓
Corcoracidae	Apostle Bird	<i>Struthidea cinerea</i>			✓				✓				✓	✓		
Corvidae	Torresian Crow	<i>Corvus orru</i>	✓	✓	✓	✓		✓	✓			✓	✓	✓	✓	
Cuculidae	Brush Cuckoo	<i>Cacomantis variolosus</i>			✓	✓			✓			✓	✓	✓	✓	✓
Cuculidae	Horsfield's Bronze Cuckoo	<i>Chrysococcyx basalis</i>			✓				✓				✓			✓
Cuculidae	Little Bronze Cuckoo	<i>C. minutillus</i>							✓			✓				✓
Cuculidae	Pallid Cuckoo	<i>Cuculus pallidus</i>			✓				✓					✓		✓
Cuculidae	Common Koel	<i>Eudynamys scolopacea</i>							✓			✓	✓	✓		✓
Cuculidae	Channel Billed Cuckoo	<i>Scythrops novaehollandiae</i>							✓			✓		✓		
Dicaeidae	Mistletoebird	<i>Dicaeum hirundinaceum</i>	✓		✓	✓	✓	✓	✓			✓	✓	✓	✓	✓
Dicruridae	Spangled Drongo	<i>Dicrurus bracteatus</i>	✓				✓	✓	✓			✓			✓	
Dicruridae	Magpie Lark	<i>Grallina cyanoleuca</i>			✓	✓			✓			✓	✓	✓	✓	✓
Dicruridae	Shining Flycatcher	<i>Myiagra alecto</i>	✓					✓	✓			✓		✓	✓	✓
Dicruridae	Restless Flycatcher	<i>M. inquieta</i>		✓	✓	✓			✓			✓	✓	✓	✓	



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Dicruridae	Leaden flycatcher	<i>M. rubecula</i>		✓	✓		✓	✓	✓			✓	✓	✓	✓	✓
Dicruridae	Broad-billed Flycatcher	<i>M. ruficollis</i>							✓							✓
Dicruridae	Grey Fantail	<i>Rhipidura fuliginosa</i>							✓					✓		
Dicruridae	Willie Wagtail	<i>R. leucophrys</i>	✓	✓	✓	✓		✓	✓			✓	✓	✓	✓	✓
Dicruridae	Rufous Fantail	<i>R. rufifrons</i>					✓		✓	✓		✓			✓	✓
Dicruridae	Northern Fantail	<i>R. rufiventris</i>	✓			✓	✓	✓	✓			✓	✓	✓	✓	✓
Falconidae	Brown Falcon	<i>Falco berigora</i>		✓					✓			✓		✓	✓	✓
Falconidae	Nankeen Kestrel	<i>F. cenchroides</i>		✓					✓					✓		
Glareolidae	Oriental Pratincole	<i>Glareola maldivarum</i>								✓						
Glareolidae	Australian Pratincole	<i>Stiltia isabella</i>							✓			✓	✓		✓	
Gruidae	Brolga	<i>Grus rubicunda</i>							✓			✓		✓		
Halcyonidae	Blue-winged Kookaburra	<i>Dacelo leachii</i>	✓	✓			✓	✓	✓			✓	✓	✓	✓	✓
Halcyonidae	Collared Kingfisher	<i>Todiramphus chloris</i>							✓							✓
Halcyonidae	Forest Kingfisher	<i>T. macleayii</i>					✓	✓	✓				✓	✓	✓	✓
Halcyonidae	Red-backed Kingfisher	<i>T. pyrrhopygia</i>			✓				✓			✓	✓	✓		
Halcyonidae	Sacred Kingfisher	<i>T. sanctus</i>						✓	✓			✓	✓	✓	✓	
Hirundinidae	Fairy Martin	<i>Hirundo ariel</i>							✓						✓	
Hirundinidae	Tree Martin	<i>H. nigricans</i>	✓						✓			✓		✓	✓	✓
Hirundinidae	Barn Swallow	<i>H. rustica</i>								✓						
Jacanidae	Comb-crested Jacana	<i>Irediparra gallinacea</i>							✓							✓
Laridae	Silver Gull	<i>Larus novaehollandiae</i>							✓							✓
Laridae	Lesser Crested Tern	<i>Sterna bengalensis</i>							✓							✓
Laridae	Crested Tern	<i>S. bergii</i>							✓							✓

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Laridae	Caspian Tern	<i>S. caspia</i>							✓							✓
Laridae	Black-naped Tern	<i>S. sumatrana</i>							✓							✓
Maluridae	Red-backed Fairy Wren	<i>Malurus melanocephalus</i>	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓
Megapodiidae	Orange-footed Scrubfowl	<i>Megapodius reinwardt</i>					✓		✓			✓				✓
Meliphagidae	Banded Honeyeater	<i>Certhionyx pectoralis</i>		✓					✓				✓	✓	✓	✓
Meliphagidae	Rufous-banded Honeyeater	<i>Conopophila albogularis</i>		✓				✓	✓			✓				
Meliphagidae	Rufous throated honeyeater	<i>C. rufogularis</i>		✓				✓	✓			✓	✓	✓	✓	
Meliphagidae	Blue-faced Honeyeater	<i>Entomyzon cyanotis</i>	✓	✓		✓			✓			✓	✓	✓	✓	
Meliphagidae	Yellow-tinted honeyeater	<i>Lichenostomus flavescens</i>			✓				✓			✓	✓	✓	✓	
Meliphagidae	White-gaped honeyeater	<i>L. unicolor</i>	✓	✓		✓		✓	✓			✓	✓	✓	✓	✓
Meliphagidae	Singing Honeyeater	<i>L. virescens</i>							✓					✓		
Meliphagidae	Brown honeyeater	<i>Lichmera indistincta</i>	✓	✓			✓	✓	✓			✓	✓	✓	✓	✓
Meliphagidae	Yellow-throated Miner	<i>Manorina flavigula</i>				✓	✓	✓	✓			✓				✓
Meliphagidae	White-throated Honeyeater	<i>Melithreptus albogularis</i>	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓
Meliphagidae	Black-chinned Honeyeater	<i>M. gularis</i>							✓				✓		✓	
Meliphagidae	Red-headed Honeyeater	<i>Myzomela erythrocephala</i>							✓							✓
Meliphagidae	Dusky Honeyeater	<i>M. obscura</i>	✓				✓	✓	✓			✓	✓	✓	✓	✓
Meliphagidae	Silver-crowned friarbird	<i>Philemon argenticeps</i>	✓				✓	✓	✓			✓	✓	✓	✓	✓
Meliphagidae	Helmeted Friarbird	<i>P. buceroides</i>	✓	✓					✓			✓				✓

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Meliphagidae	Little friar bird	<i>P. citreogularis</i>					✓		✓			✓	✓	✓	✓	✓
Meliphagidae	Bar-breasted Honeyeater	<i>Ramsayornis fasciatus</i>						✓	✓			✓		✓	✓	
Meliphagidae	White-streaked Honeyeater	<i>Trichodere cockerelli</i>							✓							✓
Meliphagidae	Tawny-breasted Honeyeater	<i>Xanthotis flaviventer</i>					✓									
Meropidae	Rainbow bee-eater	<i>Merops ornatus</i>	✓	✓	✓		✓	✓	✓			✓	✓	✓	✓	✓
Motacilidae	Richard's Pipet	<i>Anthus novaeseelandiae</i>							✓			✓		✓		
Neosittidae	Varied Sittella	<i>Daphoenositta chrysoptera leucoptera</i>		✓	✓	✓			✓				✓	✓	✓	
Oriolidae	Yellow Oriole	<i>Oriolus flavocinctus</i>						✓	✓			✓			✓	✓
Oriolidae	Olive-backed Oriole	<i>O. sagittatus</i>							✓					✓	✓	✓
Oriolidae	Australasian Figbird	<i>Sphecotheres viridis</i>		✓					✓				✓		✓	✓
Otididae	Australian Bustard	<i>Ardeotis australis</i>							✓			✓		✓		
Pachycephalidae	Grey Shrike Thrush	<i>Colluricincla harmonica</i>							✓			✓	✓	✓		✓
Pachycephalidae	Little Shrike Thrush	<i>C. megarhyncha</i>			✓				✓						✓	✓
Pachycephalidae	Crested Shrike-tit	<i>Falcunculus frontatus whitei</i>								✓						
Pachycephalidae	Rufous Whistler	<i>Pachycephala rufivenris</i>	✓	✓	✓		✓	✓	✓			✓	✓	✓	✓	✓
Pachycephalidae	Grey Whistler	<i>P. simplex</i>					✓		✓							✓
Pardalotidae	Green-backed Gerygone	<i>Gerygone chloronotus</i>							✓			✓		✓		✓
Pardalotidae	Mangrove Gerygone	<i>G. levigaster</i>							✓							✓
Pardalotidae	Large-billed Gerygone	<i>G. magnirostris</i>	✓					✓								
Pardalotidae	White-throated Gerygone	<i>G. olivacea</i>					✓	✓	✓				✓	✓	✓	

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Pardalotidae	Red-browed Pardalote	<i>Pardalotus rubricatus</i>							✓				✓			
Pardalotidae	Striated Pardalote	<i>P. striatus</i>	✓	✓	✓	✓	✓		✓			✓	✓	✓	✓	
Pardalotidae	Weebill	<i>Smicromnis brevirostris</i>	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓
Passeridae	Gouldian Finch	<i>Erythrura gouldiae</i>		✓					✓	✓				✓		
Passeridae	Chestnut-breasted Mannikin	<i>Lonchura castaneothorax</i>						✓	✓						✓	
Passeridae	Yellow-rumped Mannikin	<i>L. flaviptymna</i>						✓								
Passeridae	Crimson Finch	<i>Neochmia phaeton</i>	✓	✓				✓	✓			✓		✓	✓	
Passeridae	Long-tailed Finch	<i>Poephila acuticauda</i>		✓		✓			✓			✓	✓	✓	✓	
Passeridae	Masked Finch	<i>P. personata</i>		✓	✓				✓			✓	✓	✓	✓	✓
Passeridae	Double-barred finch	<i>Taeniopygia bichenovii</i>	✓	✓	✓			✓	✓			✓	✓	✓	✓	✓
Pelecanidae	Australian Pelican	<i>Pelecanus conspicillatus</i>							✓			✓		✓		
Petroicidae	Hooded Robin	<i>Melanodryas cucullata</i>							✓				✓	✓		
Petroicidae	Jacky Winter	<i>Microeca fascinans</i>		✓	✓				✓			✓		✓	✓	
Petroicidae	Lemon-bellied Flycatcher	<i>M. flavigaster</i>	✓					✓	✓			✓		✓	✓	✓
Petroicidae	White-browed Robin	<i>Poecilodryas superciliosa</i>							✓	✓				✓		
Phalacrocoracidae	Great Cormorant	<i>Phalacrocorax carbo</i>							✓					✓	✓	
Phalacrocoracidae	Little Pied Cormorant	<i>P. melanoleucos</i>							✓			✓	✓	✓	✓	✓
Phalacrocoracidae	Little Black Cormorant	<i>P. sulcirostris</i>							✓			✓		✓		✓
Phalacrocoracidae	Pied Cormorant	<i>P. varius</i>							✓					✓	✓	
Phasianidae	King Quail	<i>Coturnix chinensis</i>							✓						✓	
Phasianidae	Brown Quail	<i>C. ypsilophora</i>	✓	✓	✓	✓		✓	✓				✓		✓	

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Pittidae	Rainbow Pitta	<i>Pitta iris</i>							✓							✓
Podargidae	Tawny Frogmouth	<i>Podargus strigoides</i>		✓	✓	✓			✓			✓	✓		✓	✓
Podicipedidae	Australasian Grebe	<i>Tachybaptus novaehollandiae</i>							✓				✓		✓	
Pomatostomidae	Grey-crowned babbler	<i>Pomatostomus temporalis</i>		✓	✓	✓			✓			✓	✓	✓	✓	✓
Psittacidae	Red-winged Parrot	<i>Aprosmictus erythropterus</i>	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓
Psittacidae	Northern Rosella	<i>Platycercus venustus</i>			✓	✓	✓		✓			✓		✓		✓
Psittacidae	Hooded Parrot	<i>Psephotus dissimilis</i>		✓	✓				✓				✓	✓		✓
Psittacidae	Varied Lorikeet	<i>Psitteuteles versicolor</i>			✓		✓	✓	✓					✓		✓
Psittacidae	Rainbow Lorikeet	<i>Trichoglossus haematodus</i>	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓
Ptilonorhynchidae	Great Bowerbird	<i>Chlamydera nuchalis</i>		✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓
Rallidae	Bush Hen	<i>Amaurornis olivaceus</i>							✓							✓
Rallidae	Buff-banded Rail	<i>Gallirallus philippensis</i>							✓						✓	
Rallidae	Spotless Crake	<i>Porzana tabeensis</i>							✓						✓	
Recurvirostridae	Black-winged stilt	<i>Himantopus himantopus</i>							✓			✓		✓		
Scolopacidae	Common sandpiper	<i>Actitis hypoleucos</i>							✓			✓				
Scolopacidae	Red-necked Stint	<i>Calidris ruficollis</i>							✓							✓
Scolopacidae	Great Knot	<i>C. tenuirostris</i>							✓	✓						✓
Scolopacidae	Black-tailed Godwit	<i>Limosa limosa</i>								✓						
Scolopacidae	Eastern Curlew	<i>Numenius madagascariensis</i>							✓							✓
Scolopacidae	Little Curlew	<i>N. minutus</i>							✓	✓						✓

Family	Common Name	Scientific Name	Moyle	Chambers River	Chainman and Chinaman	Dorisvale	Latram River	Gurrumuru	NT Fauna Atlas	EPBC Act Protected Matters	Chatto Reports	VB1	DAB	GFU1	CA1	ARC3
Scolopacidae	Common Greenshank	<i>Tringa nebularia</i>							✓			✓				
Scolopacidae	Terek Sandpiper	<i>Xenus cinereus</i>							✓							✓
Strigidae	Barking Owl	<i>Ninox connivens</i>							✓			✓				
Strigidae	Southern Boobook	<i>N. novaeseelandiae</i>					✓	✓	✓			✓	✓	✓		✓
Sylviidae	Rufous Songlark	<i>Cincloramphus mathewsi</i>							✓					✓	✓	✓
Sylviidae	Golden Headed Cristicola	<i>Cristicola exilis</i>	✓		✓	✓		✓	✓					✓	✓	✓
Sylviidae	Tawny Grassbird	<i>Megalurus timoriensis</i>				✓		✓	✓						✓	
Threskiornithidae	Yellow-billed Spoonbill	<i>Platalea flavipes</i>							✓					✓		
Threskiornithidae	Royal Spoonbill	<i>P. regia</i>							✓			✓	✓	✓		✓
Threskiornithidae	Glossy Ibis	<i>Plegadis falcinellus</i>							✓			✓		✓		
Threskiornithidae	Australian White Ibis	<i>Threskiornis molucca</i>							✓			✓		✓		✓
Threskiornithidae	Straw-necked Ibis	<i>T. spinicollis</i>							✓			✓	✓	✓	✓	
Turnicidae	Red-backed Button Quail	<i>Turnix maculosa</i>							✓						✓	
Tytonidae	Barn Owl	<i>Tyto alba</i>							✓					✓		
Tytonidae	Masked Owl	<i>T. novaehollandiae kimberli</i>								✓						
Zosteropidae	Yellow white-eye	<i>Zosterops luteus</i>							✓							✓
<b>MAMMALS</b>																
Bovidae	Water Buffalo	<i>Bubalus bubalis</i>					✓	✓								
Canidae	Dingo	<i>Canis lupus dingo</i>				✓		✓	✓			✓			✓	
Dasyuridae	Fawn Antechinus	<i>Antechinus bellus</i>							✓							✓
Dasyuridae	Northern Quoll	<i>Dasyurus hallucatus</i>	✓						✓				✓			

Family	Common Name	Scientific Name	Moyle	Chambers River	Chainman and Chinaman	Dorisvale	Latram River	Gurrumuru	NT Fauna Atlas	EPBC Act Protected Matters	Chatto Reports	VB1	DAB	GFU1	CA1	ARC3
Dasyuridae	Common Plantigale	<i>Planigale maculata</i>		✓					✓				✓			
Dasyuridae	Dunnart	<i>Smithopsis bindi</i>		✓		✓										
Dasyuridae	Red-cheeked Dunnart	<i>S. virginiae</i>	✓			✓		✓	✓						✓	
Emballonuridae	Yellow-Bellied Sheathtail Bat	<i>Saccolaimus flaviventris</i>							✓			✓				✓
Emballonuridae	Bare-rumped Sheathtail Bat	<i>S. saccolaimus nudicluniatus</i>								✓						
Emballonuridae	Common Sheath-tailed Bat	<i>Taphozous georgianus</i>							✓			✓				✓
Equidae	Donkey	<i>Equus asinus</i>			✓											
Felidae	Feral Cat	<i>Felis catus</i>							✓						✓	
Hipposideridae	Dusky leaf-nosed Bat	<i>Hipposideros ater</i>							✓				✓			
Hipposideridae	Orange Leafnosed Bat	<i>Rhinonictoris aurantius</i>							✓				✓			
Macropodidae	Spectacled Hare-wallaby	<i>Lagorchestes conspicillatus</i>							✓						✓	
Macropodidae	Agile Wallaby	<i>Macropus agilis</i>	✓	✓	✓		✓	✓	✓				✓		✓	✓
Macropodidae	Antilopine Wallaroo	<i>M. antilopinus</i>							✓			✓				✓
Macropodidae	Black Wallaroo	<i>M. bernardus</i>							✓							✓
Macropodidae	Wallaroo species (scats)	<i>Macropus sp.</i>						✓								
Macropodidae	Euro	<i>M. robustus</i>							✓				✓	✓		
Macropodidae	Northern Nail-tail Wallaby	<i>Onychogalea unguifera</i>							✓					✓		
Macropodidae	Short-eared Rock Wallaby	<i>Petrogale brachyotis</i>							✓				✓		✓	
Megadermatidae	Ghost Bat	<i>Macroderma gigas</i>							✓				✓			
Molossidae	Northern Free-tail Bat	<i>Chaerephon jobensis</i>							✓			✓				
Muridae	Water Rat	<i>Hydromys chrysogaster</i>						✓	✓						✓	

Family	Common Name	Scientific Name	Moyle	Chambers River	Chainman and Chinaman	Dorisvale	Latram River	Gurrumuru	NT Fauna Atlas	EPBC Act Protected Matters	Chatto Reports	VB1	DAB	GFU1	CA1	ARC3
Muridae	Forrest's Mouse	<i>Leggadina forresti</i>							✓			✓				
Muridae	Grassland Melomys	<i>Melomys burtoni</i>	✓			✓	✓	✓	✓						✓	
Muridae	Black-footed Tree Rat	<i>Mesembriomys gouldii</i>							✓							✓
Muridae	House Mouse	<i>Mus musculus</i>					✓		✓							✓
Muridae	Northern Hopping-mouse	<i>Notomys aquilo</i>								✓						
Muridae	Delicate Mouse	<i>Pseudomys delicatulus</i>	✓	✓					✓			✓				
Muridae	Western Chestnut Mouse	<i>P. nanus nanus</i>							✓			✓				
Muridae	Dusky Rat	<i>Rattus colletti</i>							✓						✓	
Muridae	Black Rat	<i>R. rattus</i>							✓							✓
Muridae	Pale Field Rat	<i>R. tunneyi</i>	✓			✓			✓			✓				
Muridae	Water Mouse	<i>Xeromys myoides</i>								✓						
Muridae	Common Rock Rat	<i>Zyzomys argurus</i>	✓	✓	✓	✓			✓			✓				
Peramelidae	Northern Brown Bandicoot	<i>Isodon macrourus</i>		✓	✓				✓				✓		✓	
Petauridae	Sugar Glider	<i>Petaurus breviceps</i>							✓				✓			
Phalangeridae	Northern Brush-tail Possum	<i>Trichosurus vulpecula</i>							✓							✓
Pteropodidae	Northern Blossom Bat	<i>Macroglossus minimus</i>							✓							✓
Pteropodidae	Black Flying-fox	<i>Pteropus alecto</i>					✓	✓	✓						✓	
Pteropodidae	Little-red Flying Fox	<i>P. scapulatus</i>		✓					✓				✓		✓	
Suidae	Pig (feral)	<i>Sus scrofa</i>							✓						✓	
Tachyglossidae	Echidna	<i>Tachyglossus aculeatus</i>							✓						✓	✓
Vespertilionidae	Gould's Wattled Bat	<i>Chalinolobus gouldii</i>							✓				✓			
Vespertilionidae	Hoary Wattled Bat	<i>C. nigrogriseus</i>							✓						✓	
Vespertilionidae	Common Bent-wing Bat	<i>Miniopterus schreibersii</i>							✓				✓			



Family	Common Name	Scientific Name	Moyle	Chambers River	Chainman and Chinaman	Dorisvale	Latram River	Gurrumuru	NT Fauna Atlas	EPBC Act Protected Matters	Chatto Reports	VB1	DAB	GFU1	CA1	ARC3
Vespertilionidae	Large-footed Myotis	<i>Myotis Leuconoe adversus</i>							✓				✓			
Vespertilionidae	Arnhem Long-eared Bat	<i>Nyctophilus arnhemensis</i>							✓							✓
Vespertilionidae	Eastern Long-eared Bat	<i>N. bifax</i>							✓						✓	
Vespertilionidae	Little Broad-nosed Bat	<i>Scotorepens greyii</i>							✓				✓	✓		
Vespertilionidae	Western Cave Eptesicus	<i>Vespadelus caurinus</i>							✓				✓			
Vespertilionidae	Eastern Forest Bat	<i>V. pumilus</i>							✓				✓			

VB1 – Victoria Bonaparte bioregion (sub-bioregion 1), DAB – Daly Basin bioregion  
GFU – Gulf Falls and Uplands bioregion, CA1 – Central Arnhem bioregion (sub-bioregion 1)  
ARC3 – Arnhem Coastal bioregion (sub-bioregion 3),

**Appendix F Table 3 Aquatic Fauna Survey Sites**

<b>Waterway</b>	<b>General Description of survey site</b>	<b>Latitude</b>	<b>Longitude</b>
Mainoru River	Middle reach river with long quiet tree lined pools connected by short runs of faster water.	S13.9513	E133.9633
Krabakuk	Middle reaches of small seasonal creek, comprised of small drying waterholes. Rock and clay substrate. Tributary of Mainoru R.	S14.0666	E134.0524
Wilton River	Middle reach river with long wide pools connected by short sets of rapids.	S13.7533	E134.4600
Jasper Creek	Lower reaches, small pools connected by long slow runs, silt and boulder substrate.	S13.8860	E134.4615
Goyder River	Middle reach river with long wide tree lined pools connected by short sets of rapids.	S13.0280	E134.9766
Rocky Bottom Creek	Fast flowing stream with rock and sand substrate.	S12.9008	E135.0153
Barmgueikba Creek	A small fast flowing creek with some still pools between runs. Sandy substrate with some boulders.	S14.2490	E133.5276
Chambers River	Upper reaches of river surrounded with non-permanent waterholes. River contains small non-permanent waterholes. Muddy substrate with discoloured very turbid water. Flat plains with open woodland.	S14.5386	E133.3188
Dook Creek	Small stream dropping through low rock escarpment area onto flat plain. Boulders and sand substrate.	S14.4776	E132.9768
Maiwok Creek	Non-flowing small sandy creek with high banks flowing in a low hilly area. Flat black soil plains adjacent the creek.	S14.2781	E133.6840
King River	Long, wide deep pools with small fast runs at the ends. A substratum of sand and mud with the occasional boulder. Surrounded by low hills and open woodland.	S14.5101	E132.6350
Bradshaw Creek	A small stream with long pandanus covered pools ending with small rapids flowing through flat open woodland .	S14.4971	E131.3433
Tom Turner Creek	Long wide deep pools punctuated by small runs and swampy areas low gently sloping bank on flat open woodland.	S14.1731	E130.1141
Moyle River	A medium sized river with a moderate flow of clear water consisting of long pools ending in fast wide shallow sets of runs. The surrounding countryside is low rocky hills supporting open woodland.	S14.2686	E130.0540
Anopheles Creek	A small stream shaded by trees flowing into small pools, one very large pool at sample site, approx 2 km long Flat open woodland with some grasslands nearby.	S14.3630	E129.9191
Giddy River	A small river flowing across a sand substrate, a long deep pool at sample site but mostly narrow sandy river with a swamp upstream from site and another downstream from sample site.	S12.3633	E136.7096
Wonga Creek	Headwaters stream comprising of several large waterholes with fast water running over rock and waterfall approx. 3 metres high. Sloping ground with open woodland.	S12.4529	E136.5787
Cato River	Low hilly area with open woodland areas of	S12.4196	E136.3838

<b>Waterway</b>	<b>General Description of survey site</b>	<b>Latitude</b>	<b>Longitude</b>
	monsoon forest along river at sample site. Long wide deep pools with wide shallow slow flowing areas between sandy substrate. Small swampy areas in the monsoon forest near river.		
Richard River	A small upland stream with occasional long shallow pools with small runs and riffles. Running through open woodland with grass and sandpalm understorey plants.	S12.7003	E136.0969
Habgood River	Long deep pools with a sandy substrate punctuated by rocky barriers creating sets of rapids; the river flows through open woodland in sandy country.	S12.5240	E135.8998
Buckingham River	Short deep pools with an earthen substrate, plant-lined trickle at ends of the pools. The river flows through open woodland in low hilly sandy country.	S12.6863	E135.6903

Appendix F Table 4 Fish Species Known From Waterways Traversed by the Pipeline Corridor.

		Moyle River	Anopheles Creek	Tom Turner Creek	Daly /Katherine Rivers	Mainoru River	Krabakuk Creek	Jasper Creek	Wilton River	Goyder River	Rock Bottom Creek	Dook Creek	Maiwok Creek	Barmguerikba Ck	Chambers River	King River	Bradshaw Creek	Giddy River	Wonga Creek	Cato River	Richard River	Habgood River	Buckingham River
Scientific Name	Common Name																						
<i>Ambassis agrammus</i>	Sailfin Glassfish				#				#									X			X		
<i>Ambassis macleayi</i>	Reticulated Glassfish				#	X		X		X	X	X		X	X		X			X		X	X
<i>Ambassis muelleri</i>	Western Glassfish				#	X		X	X		X			X	X					X		X	
<i>Amniataba percoides</i>	Barred Grunter	X	X		#	X		X	X	X	X	X	X	X			X	#		X		X	
<i>Anodontiglanis dahli</i>	Toothless Catfish				#	X			#			X			X								
<i>Arius berneyi</i>	Berney's Catfish								#	X		#											
<i>Arius graeffei</i>	Lesser Salmon Catfish				#				#														
<i>Arius leptaspis</i>	Salmon Catfish				#	X			X	X	X									X			
<i>Arius midgleyi</i>	Shovel-nose Catfish				#							X			X	X	X						
<i>Aseraggodes klunzingeri</i>	Tailed Sole				#																		
<i>Brachirus selheimi</i>	Freshwater Sole				#			X															
<i>Carcharhinus leucas</i>	Bull Shark				#	*			#														
<i>Cinetodus froggatti</i>	Small-mouthed Catfish											#											
<i>Craterocephalus stercusmuscarum</i>	Fly-specked Hardyhead	X	X	X	#	X		X	X	X		X								X		X	X
<i>Craterocephalus stramineus</i>	Blackmast				#												X						
<i>Denariusa bandata</i>	Penny Fish			X	#															X			
<i>Gerres filamentosus</i>	Whipfin Silverbidy																		X				
<i>Glossamia aprion</i>	Mouth Almighty	X	X	X	#	X		X	X	X	X	#	X	X	X	X	X	X	X	X		X	X
<i>Glossogobius aureus</i>	Golden Goby				#				#														
<i>Glossogobius giurus</i>	Flathead Goby				#	X			#	X	X	#				X	X						
<i>Glossogobius sp. 1</i>	Munro's Goby																			X			
<i>Glossogobius concavifrons</i>	Concave Goby																			X			
<i>Hephaestus carbo</i>	Coal Grunter									X	X							X	X	X		X	
<i>Hephaestus fuliginosus</i>	Sooty Grunter	X	X	X	#	X		X	#	X		X	X	X		X	X		X	X		X	



		Moyle River	Anopheles Creek	Tom Turner Creek	Daly /Katherine Rivers	Mainoru River	Krabakuk Creek	Jasper Creek	Wilton River	Goyder River	Rock Bottom Creek	Dook Creek	Maiwok Creek	Barmguerikba Ck	Chambers River	King River	Bradshaw Creek	Giddy River	Wonga Creek	Cato River	Richard River	Haggood River	Buckingham River
Scientific Name	Common Name																						
<i>Pseudomugil gertrudae</i>	Spotted blue-eye			X	#													X		X		X	
<i>Scatophagus argus</i>	Spotted Scat				#																	X	
<i>Scleropages jardinii</i>	Gulf Saratoga					X				X										X		X	
<i>Scortum barcoo</i>	Barcoo Grunter								#														
<i>Scortum ogilbyi</i>	Gulf Grunter					X								X	X								
<i>Selenotoca multifasciata</i>	Striped Scat				#																	X	
<i>Strongylura krefftii</i>	Freshwater Longtom	X	X		#	X		X	X	X		#			X					X		X	
<i>Syncomistes butleri</i>	Butlers Grunter				#					X	X					X							
<i>Thryssa scratchleyi</i>	Freshwater Anchovy								X														
<i>Toxotes chatareus</i>	Common Archerfish				#	X		X	X	X	X	X	X	X	X	X	X			X			
<i>Toxotes lorentzi</i>	Primitive Archerfish	X	X		#																		

X Species recorded during field surveys

# Species only recorded from river system in Museum records

\* Landowners indicated presence in waterway but not recorded in current or previous surveys

**Appendix F Table 5 Aquatic Flora Species Recorded in Field Surveys**

<b>Waterway</b>	<b>Aquatic flora species identified</b>
Mainoru River	<i>Chara sp</i> (algae), <i>Nitella sp</i> (algae), <i>Vallisneria nana</i> (ribbonweed), <i>Hydrilla verticillata</i> (water thyme, hydrilla), <i>Ottelia alismoides</i> , <i>Nymphaea violacea</i> (Blue flowering native water lily), <i>Triglochin sp</i> (water ribbons), <i>Schoenoplectus sp</i> , <i>Nelsonia campestris</i> , <i>Ceratopteris thalictroides</i> (native water sprite)
Wilton River	No submerged plants at sample site
Goyder River	<i>Aponogeton vanbruggenii</i> (NT lace plant)
Rocky Bottom Creek	<i>Vallisneria nana</i> (ribbonweed), <i>Nelsonia campestris</i> , <i>Limnophila brownii</i> , <i>Hygrophila angustifolia</i> , <i>Chara sp</i> (algae), Unidentified filament algae
Barmgueikba Creek	<i>Rotala occultiflora</i> , <i>Najas sp</i> , <i>Blyxa aubertii</i> , <i>Nymphaea violacea</i> (Blue flowering native water lily), <i>Limnophila aromatica</i> , <i>Hygrophila angustifolia</i>
Chambers River	<i>Nymphaea violacea</i> (Blue flowering native water lily), <i>Marselia drummondii</i> (rainbow nardoo), <i>Najas sp</i>
Dook Creek	<i>Nymphaea violacea</i> (blue flowering native water lily), <i>Nymphoides indica</i> (snowflake lily), <i>Limnophila brownii</i> , <i>Rotala occultiflora</i>
Maiwok Creek	No submerged aquatic plants at sample site
King River	<i>Nymphoides spongiosa</i> , <i>Microcarpaea minima</i> , <i>Limnophila brownii</i> , <i>Staurogyne leptocaulis</i> , <i>Vallisneria nana</i>
Bradshaw Creek	<i>Nitella sp</i> (algae)
Tom Turner Creek	<i>Limnophila fragrans</i> , <i>Eriocaulon setaceum</i> , <i>Nymphaea violacea</i> (blue flowering native water lily), <i>Fimbristylis sp</i>
Moyle River	<i>Myriophyllum sp</i> (water milfoil), <i>Limnophila chinensis</i> , <i>Nymphoides minima</i> , <i>Nymphaea violacea</i>
Anopheles Creek	Unidentified aquatic sedge species
Giddy River	<i>Blyxa aubertii</i> , <i>Limnophila fragrans</i> , <i>Chara sp.</i> (algae), <i>Eriocaulon setaceum</i> , <i>Utricularia fulva</i> , <i>Hygrophila angustifolia</i>
Wonga Creek	<i>Eriocaulon setaceum</i> , <i>Eriocaulon willdenovianum</i> , <i>Chara sp</i> (algae), <i>Limnophila fragrans</i>
Cato River	<i>Nymphaea violacea</i> (blue flowering native water lily), <i>Limnophila aromatica</i> , <i>Eriocaulon setaceum</i> , <i>Eriocaulon willdenovianum</i> , <i>Blyxa aubertii</i> , <i>Limnophila fragrans</i>
Richard River	<i>Isachne sp</i> , <i>Microcarpaea minima</i> , <i>Xyris indica</i> , <i>Triglochin sp</i> , <i>Blyxa aubertii</i> , <i>Eriocaulon setaceum</i> , <i>Eriocaulon sp</i> , <i>Nelsonia campestris</i> , <i>Goodenia sp</i>
Habgood River	<i>Aponogeton sp</i> , <i>Limnophila chinensis</i> , <i>Limnophila aromatica</i> , <i>Isachne confusa</i> , <i>Utricularia fulva</i> , <i>Utricularia gibba</i> , <i>Utricularia australis</i> , <i>Hanguana malayana</i> , <i>Najas sp</i> , <i>Nymphoides sp</i> (yellow flower), <i>Nymphoides indica</i> (snowflake lily)
Buckingham River	<i>Nymphaea violacea</i> (Blue flowering native water lily), <i>Limnophila chinensis</i> , <i>Eriocaulon setaceum</i> , <i>Hygrophila angustifolia</i> , <i>Utricularia fulva</i> , <i>Utricularia sp</i> , <i>Triglochin sp</i> , <i>Eriocaulon sp</i> (small rosette growing submerse)

**Appendix F Table 6 Baseline Water Quality Results from Aquatic Surveys**

<b>River Name</b>	<b>Date</b>	<b>Temp °C</b>	<b>pH</b>	<b>DO Mg/l</b>	<b>Hardness ppm</b>	<b>Ec µS/cm</b>	<b>Alk ppm</b>	<b>Turb mtrs</b>
Mainoru River	Oct /03	29	7.8	6.1	270	646	180	>3
Wilton River	Oct /03	23	8.4	7.5	180	506	140	1.2
Goyder River	Oct/03	27	8.1	6.1	120	455	100	>6
Rocky Bottom Creek	Oct/03	30	8.1	7.15	100	464	100	1.8
Barmgueikba Creek	Oct/03	30	7.0	6.1	20	69	20	1.5
Chambers River	Oct/03	34	8.1	7.5	10	67.8	10	<0.05
Dook Creek	Oct/03	30	7.1	5.91	10	29.1	10	2.3
Maiwok Creek	Oct/03	35	7.8	5.97	220	691	180	>0.3
King River	Nov/03	29	6.8	-	<10	-	<10	0.35
Bradshaw Creek	Nov/03	31	7.8	-	140	-	110	0.5
Tom Turner Creek	Jun/04	23	-	3.18	<10	18.2	<10	3.5
Moyle River	Jun/04	24	-	8.05	<10	19.3	<10	>5
Anopheles Creek	Jun/04	20	-	6.25	<10	-	<10	1.2
Giddy River	Jul/04	27.7	7.43	6.62	<10	60.2	<10	2.8
Wonga Creek	Jul/04	29.8	5.32	7.72	<10	37	<10	3.2
Cato River	Jul/04	27	6.41	6.1	<10	36	<10	>3
Richard River	Jul/04	19.8	7.46	8.32	<10	36.5	<10	1.5
Habgood River	Jul/04	24.4	6.77	7.68	40	126.4	40	>5
Buckingham River	Jul/04	26.2	6.59	13.35	10	40.8	20	1.5



**Appendix F Table 7 Recommended crossing types for various classifications of fish habitat (from Fairfull and Witheridge 2003).**

<b>Classification</b>	<b>Characteristics of Waterway Type</b>	<b>Recommended Crossing Type in preferred order.</b>
Class 1 – Major fish habitat	Major permanently or intermittently flowing waterway (e.g. river or major creek), habitat of a threatened fish species.	Bridge Arch structure Tunnel
Class 2 – Moderate fish habitat	Named permanent or intermittent stream, creek or waterway with clearly defined bed and banks with semi-permanent to permanent waters in pools or in connected wetland areas. Freshwater aquatic vegetation is present. Known fish habitat and/or fish observed inhabiting the area.	Bridge Arch structure Culvert (high priority should be given to a high flow design) Ford.
Class 3- Minimal fish habitat	Named or unnamed waterway with intermittent flow and potential refuge, breeding or feeding areas for some aquatic fauna. Semi-permanent pools form within the waterway or adjacent wetlands after a rain event. Any minor waterway that interconnects with wetlands or recognised aquatic habitats.	Culvert (high flow or medium flow designs should be given priority where affordable) Ford
Class 4 – Unlikely fish habitat	Named or unnamed waterway with intermittent flow following rain events only, little or no defined drainage channel, little or no flow or free standing water or pools after rain events. No permanent aquatic flora present.	Culvert Causeway Ford

**Appendix F Table 8 Recommended construction practices for various types of water way crossings (from Fairfull and Witheridge 2003).**

Crossing type	Recommended construction practices
Ford	<p>The deck of the ford should follow the natural bed elevation.</p> <p>Where concrete is used, the surface will need an artificial roughness, at least along the lowest section of the crossing. Grouted rocks may be used instead of the concrete pad.</p> <p>Do not use exposed-aggregate concrete finishing as its preparation can pollute.</p>
Causeway	<p>Minimise the use of causeways where migratory fish species have been identified.</p> <p>Construct the deck to follow the stream's natural cross section to achieve variable flow depths over the causeway.</p> <p>Give appropriate consideration to fish passage and install low-flow pipes or boxes to carry the normal dry-weather flow.</p>
Culvert	<p>Align the culvert with the downstream channel to minimise bank erosion.</p> <p>Minimise the changes to the natural flow of the waterway through the culvert's wet cells. These should have a minimum depth of 0.2-0.5 m to encourage fish passage.</p> <p>Designed to maximise the geometric similarities of the natural channel profile from the bed of the culvert up to a flow depth of 0.5 metres.</p> <p>If a smooth bed is required, flow velocities for water depth up to 0.5 m should be no more than 0.3 m/s.</p> <p>In sand and gravel-based streams, natural bed material should be placed along the bed of the wet cells or allowed to deposit in these cells.</p> <p>In clay-based streams that do not experience movement of bed load sediment, artificial roughness can be created by grouting rounded stone across the bed of the wet cells.</p> <p>Consideration should be given to adding artificial sidewall roughness along the walls immediately adjacent to the channel banks.</p> <p>Construct pools at the inlet and outlet of the culvert.</p> <p>Ensure the low-flow channel extends across the inlet and outlet aprons.</p> <p>Use debris deflector walls to reduce blockages.</p> <p>Maximise light penetration within the wet cells.</p> <p>Avoid the formation of a perched culvert or damage to the stream bed, control erosion using rock protection or with a stabilised energy dissipation pool.</p>
Bridges and Arch structures	<p>Avoid locating bridge piers or foundations within the main waterway channel.</p> <p>Design and orientate bridge piers to avoid the formation of large-scale turbulence or erosion of the bed and banks.</p> <p>Give appropriate consideration to fish passage requirements along floodplains.</p> <p>Locate bridge abutments away from the channel banks and consider the possibility of installing floodplain culverts adjacent to the main crossing.</p> <p>Maximise light penetration under the bridge or arch to encourage fish passage.</p> <p>Maximise bed and bank erosion control measures.</p>