

Scientific Name	Common Name	1	2	3	4	5	6	7	8	9
<b>DIOSCORACEAE</b>										
<i>Dioscoria transversa</i>	Pencil Yam					X	X			
<b>HAEMODORACEAE</b>										
<i>Haemodorum planifolium</i>	Blood Root	X		X				X		
<b>HYDROCHARITACEAE</b>										
<i>Ottelia ovalifolia</i>	Swamp Lily						X	X	X	
<b>IRIDACEAE</b>										
<i>Patersonia glabrata</i>	Leafy Purple Flag			X						
<i>Patersonia sericea</i>	Silky Purple Flag			X						
<b>JUNCACEAE</b>										
<i>Juncus</i> sp.								X		
<i>Juncus continuus</i>				X			X			
<i>Juncus kraussii</i> ssp. <i>australiensis</i>	Sand Rush				X					X
<b>LOMANDRACEAE</b>										
<i>Lomandra filiformis</i> ssp. <i>filiformis</i>	Wattle Mat Rush	X		X						
<i>Lomandra cylindrica</i>				X						
<i>Lomandra longifolia</i>	Spiny Mat Rush		X				X			
<i>Lomandra multiflora</i>		X		X						
<i>Lomandra obliqua</i>	Fish Bones			X						
<b>LUZURIAGACEAE</b>										
<i>Eustrephus latifolius</i>	Wombat Berry		X	X						
<i>Geitonoplesium cymosum</i>	Scrambling Lily					X	X			
<b>ORCHIDACEAE</b>										
<i>Acianthus fornicatus</i>	Pixie Orchid			X		X	X			
<i>Caladenia carnea</i>	Pink Fingers			X						
<i>Caladenia catenata</i>	White Fingers			X						
<i>Caleana major</i>	Duck Orchid			X						
<i>Calochilus robertsonii</i>	Purple Beard Orchid			X						
<i>Cryptostylis subulata</i>	Large Tongue Orchid		X	X						
<i>Dendrobium teretifolium</i>	Rat's Tail Orchid				X					
<i>Diuris alba</i>	Donkey Orchid			X						
<i>Diuris aurea</i>	Golden Donkey Orchid			X						
<i>Erythrorchis cassythoides</i>	Climbing Orchid	X	X							
<i>Glossodia major</i>	Wax Lip Orchid			X						
<i>Prasophyllum elatum</i>	Tall Leek Orchid			X						
<i>Pterostylis baptistii</i>	King Greenhood			X						
<i>Pterostylis nutans</i>	Nodding Greenhood			X				X		
<i>Thelymitra ixioides</i>	Blue Sun Orchid			X						
<i>Thelymitra media</i>	Sun Orchid			X						
<b>PHORMIACEAE</b>										
<i>Dianella caerulea</i> var. <i>caerulea</i>	Blue Flax Lily			X						
<i>Dianella caerulea</i> var. <i>producta</i>	Blue Flax Lily	X	X	X		X	X			
<i>Dianella revoluta</i>	Flax Lily			X			X			
<b>POACEAE</b>										
* <i>Andropogon virginicus</i>	Whisky Grass	X		X			X			
<i>Aristida vagans</i>	Three-awn Speargrass			X						
<i>Aristida warburgii</i>				X						
<i>Austrodanthonia tenuior</i>	Wallaby Grass			X						

Scientific Name	Common Name	1	2	3	4	5	6	7	8	9
<i>*Chloris gayana</i>	Rhodes Grass			X						
<i>Cynodon dactylon</i>	Common Couch			X		X				
<i>Digitaria parviflora</i>	Smallflower Fingergrass		X							
<i>Entolasia marginata</i>	Bordered Panic		X			X	X		X	
<i>Entolasia stricta</i>	Wiry Panic	X	X	X			X			
<i>Eragrostis benthamii</i>	Bentham's Love Grass			X			X			
<i>Eragrostis brownii</i>	Brown's Love Grass	X		X			X			
<i>Eragrostis sp.</i>	-							X		
<i>Hemarthria uncinata</i>	Mat Grass					X	X	X	X	
<i>Imperata cylindrica</i> var. <i>major</i>	Blady Grass		X	X		X				
<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass		X			X				
<i>Oplismenus aemulus</i>	Basket Grass					X	X			
<i>Oplismenus imbecillus</i>	Basket Grass		X			X	X			
<i>Panicum simile</i>	Two Colour Panic	X	X							
<i>*Paspalum dilatatum</i>	Paspalum			X						
<i>*Paspalum urvillei</i>	Vasey Grass			X						
<i>*Pennisetum clandestinum</i>	Kikuyu			X						
<i>Phragmites australis</i>	Native Reed		X		X	X				X
<i>Poa sp.</i>							X			
<i>Poa labillardieri</i>	Tussock Grass	X		X						
<i>Sporobolus creber</i>	Slender Rats Tail			X						
<i>*Sporobolus elongatus</i>	Slender Rat's-tail Grass		X							
<i>Sporobolus virginicus</i>	Salt Couch				X					X
<i>*Stenotaphrum secundatum</i>	Buffalo Grass			X	X					X
<i>Themeda australis</i>	Kangaroo Grass	X	X	X						
RESTIONACEAE										
<i>Baloskion tetraphyllum</i> ssp <i>meiostachyum</i>	Tassel Cord Rush					X	X		X	
<i>Empodisma minus</i>	Spreading Rope Rush					X	X	X		
<i>Leptocarpus tenax</i>				X		X	X	X	X	
<i>Lepyrodia scariosa</i>				X		X		X	X	
SMILACACEAE										
<i>Smilax australis</i>	Smilax					X	X			
<i>Smilax glyciphylla</i>	Native Sarsaparilla		X	X		X	X			
XANTHORRHOEACEAE										
<i>Xanthorrhoea latifolia</i> ssp <i>latifolia</i>	Grass Tree	X	X	X						
<i>Xanthorrhoea minor</i>						X	X	X		

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## Appendix 3

### Fauna Species List

## EXPECTED FAUNA SPECIES LIST

Below is a list of fauna species that could be *reasonably* expected to be found within the study area at some occurrence. Such an approach has been taken given the unlikelihood to record *all* potentially occurring species within an area during formal fauna surveys (due to seasonality, climatic limitations, crypticism etc).

Family sequencing and taxonomy follow for each fauna class:

Birds – Christidis and Boles (1994).

Herpetofauna - Cogger (1996).

Mammals - Strahan (ed) (1995) and Churchill (1998).

## Known and Expected Bird List

**Appendix Key:** ✓ = Species Detected  
 \* = Introduced species  
 (E) = Species listed under NSW TSC Act 1995 as Endangered.  
 (V) = Species listed under NSW TSC Act 1995 as Vulnerable.  
 (V\*) = Species listed under the Commonwealth EPBC Act 1999 as Vulnerable  
 (E\*) = Species listed under the Commonwealth EPBC Act 1999 as Endangered  
 (M\*) = Species listed under the Commonwealth EPBC Act as Migratory  
 Species indicated in **BOLD** font are those threatened species known from within 10km of site (Atlas of NSW Wildlife 2010)  
**Data Source:** 1 = Species recorded at Gwandalan during this survey

Family Name	Scientific Name	Common Name	1
Phasianidae (True Quails, Pheasants and Fowls)	<i>Coturnix ypsilophora</i>	Brown Quail	
Pelecanidae (Pelicans)	<i>Pelicanus conspicillatus</i>	Australian Pelican	✓
Phalacrocoracidae (Cormorants)	<i>Phalacrocorax melanoleucos</i>	Little Pied Cormorant	✓
Anatidae (Swans, Geese and Ducks)	<i>Anas castanea</i>	Chestnut Teal	
	<i>Anas gracilis</i>	Grey Teal	
	<i>Anas superciliosa</i>	Pacific Black Duck	
	<i>Aythya australis</i>	Hardhead	
	<i>Chenonetta jubata</i>	Australian Wood Duck	
	<b><i>Oxyura australis</i></b>	<b>Blue-billed Duck (V)</b>	
	<b><i>Stictonetta naevosa</i></b>	<b>Freckled Duck (V)</b>	
Ardeidae (Hérons, Bitterns and Egrets)	<i>Ardea alba</i>	Great Egret	✓
	<i>Ardea ibis</i>	Cattle Egret	
	<i>Ardea intermedia</i>	Intermediate Egret	
	<i>Ardea pacifica</i>	White-necked Heron	
	<b><i>Botaurus poiciloptilus</i></b>	<b>Australasian Bittern (V)</b>	
	<i>Butorides striatus</i>	Striated Heron	
	<i>Egretta garzetta</i>	Little Egret	✓
	<i>Egretta novaehollandiae</i>	White-faced Heron	✓
	<b><i>Ixobrychus flavicollis</i></b>	<b>Black Bittern (V)</b>	
	<i>Nycticorax caledonicus</i>	Nankeen Night Heron	
Threskiornithidae	<i>Threskiornis molucca</i>	Australian White Ibis	

(Ibises and Spoonbills)			
	<i>Threskiornis spinicollis</i>	Straw-necked Ibis	
Ciconiidae (Storks)	<b><i>Ephippiorhynchus asiaticus</i></b>	<b>Black-necked Stork (E)</b>	
Accipitridae (Hawks, Kites and Eagles)	<i>Accipiter fasciatus</i>	Brown Goshawk	
	<i>Accipiter cirrhocephalus</i>	Collared Sparrowhawk	✓
	<i>Accipiter novaehollandiae</i>	Grey Goshawk	
	<i>Aquila audax</i>	Wedge-tailed Eagle	
	<i>Elanus axillaris</i>	Black-shouldered Kite	
	<i>Haliaeetus leucogaster</i>	White-bellied Sea-Eagle	✓
	<i>Haliastur sphenurus</i>	Whistling Kite	
	<i>Hieraaetus morphnoides</i>	Little Eagle	
	<b><i>Lophoictinia isura</i></b>	<b>Square-tailed Kite (V)</b>	
	<b><i>Pandion haliaetus</i></b>	<b>Osprey (V)</b>	
Falconidae (Falcons)	<i>Falco berigora</i>	Brown Falcon	
	<i>Falco cenchroides</i>	Nankeen Kestrel	
	<i>Falco longipennis</i>	Australian Hobby	
	<i>Falco peregrinus</i>	Peregrine Falcon	
Rallidae (Crakes, Rails and Gallinules)	<i>Fulica atra</i>	Eurasian Coot	✓
	<i>Gallinula philippensis</i>	Buff-banded Rail	
	<i>Gallinula tenebrosa</i>	Dusky Moorhen	
	<i>Porphyrio porphyrio</i>	Purple Swamphen	
	<i>Porzana fluminea</i>	Australian Spotted Crake	
	<i>Porzana pusilla</i>	Baillon's Crake	
	<i>Porzana tabuensis</i>	Spotless Crake	
	<i>Rallus pectoralis</i>	Lewin's Rail	
	<i>Vanellus miles</i>	Masked Lapwing	
Haematopodidae (Oystercatchers)	<b><i>Haematopus longirostris</i></b>	<b>Pied Oystercatcher (V)</b>	
	<b><i>Haematopus fuliginosus</i></b>	<b>Sooty Oystercatcher (V)</b>	
	<i>Vanellus miles</i>	Masked Lapwing	
Laridae (Gulls and Terns)	<i>Larus novaehollandiae</i>	Silver Gull	✓
	<i>Sterna bergii</i>	Crested Tern	✓
	<i>Sterna striata</i>	White-fronted Tern	
	<i>Sterna hirundo</i>	Common Tern	
Columbidae (Pigeons and Doves)	* <i>Columba livia</i>	Rock Dove	
	<i>Chalcophaps indica</i>	Emerald Dove	
	<i>Geopelia humeralis</i>	Bar-shouldered Dove	
	<i>Geopelia striata</i>	Peaceful Dove	
	<i>Leucosarcia melanoleuca</i>	Wonga Pigeon	
	<i>Macropygia amboinensis</i>	Brown Cuckoo-Dove	
	<i>Ocyphaps lophotes</i>	Crested Pigeon	
	<i>Phaps chalcoptera</i>	Common Bronzewing	
	<i>Phaps elegans</i>	Brush Bronzewing	
	<b><i>Ptilinopus magnificus</i></b>	<b>Wompoo Fruit-dove (V)</b>	
	<b><i>Ptilinopus regina</i></b>	<b>Rose-crowned Fruit-Dove (V)</b>	
	<b><i>Ptilinopus superbus</i></b>	<b>Superb Fruit-Dove (V)</b>	
	* <i>Streptopelia chinensis</i>	Spotted Turtle-Dove	
Cacatuidae (Cockatoos)	<i>Calyptorhynchus funereus</i>	Yellow-tailed Black-Cockatoo	✓
	<b><i>Calyptorhynchus lathami</i></b>	<b>Glossy Black-Cockatoo (V)</b>	
	<i>Cacatua roseicapilla</i>	Galah	
	<i>Cacatua tenuirostris</i>	Long-billed Corella	
	<i>Cacatua sanguinea</i>	Little Corella	

	<i>Cacatua galerita</i>	Sulphur-crested Cockatoo	
Psittacidae (Parrots)	<i>Alisterus scapularis</i>	Australian King Parrot	
	<i>Glossopsitta pusilla</i>	Little Lorikeet	✓
	<b><i>Lathamus discolor</i></b>	<b>Swift Parrot (E, E*)</b>	
	<i>Platycercus elegans</i>	Crimson Rosella	
	<i>Platycercus eximius</i>	Eastern Rosella	✓
	<i>Trichoglossus chlorolepidotus</i>	Scaly-breasted Lorikeet	✓
	<i>Trichoglossus concina</i>	Musk Lorikeet	
	<i>Trichoglossus haematodus</i>	Rainbow Lorikeet	✓
Cuculidae (Old World Cuckoos)	<i>Cacomantis flabelliformis</i>	Fan-tailed Cuckoo	✓
	<i>Cacomantis variolosus</i>	Brush Cuckoo	
	<i>Chrysococcyx basalis</i>	Horsfield's Bronze-Cuckoo	
	<i>Chrysococcyx lucidus</i>	Shining Bronze-Cuckoo	
	<i>Cuculus pallidus</i>	Pallid Cuckoo	
	<i>Eudynamis scolopacea</i>	Common Koel	
	<i>Scythrops novaehollandiae</i>	Channel-billed Cuckoo	
Centropodidae (Coucals)	<i>Centropus phasianinus</i>	Pheasant Coucal	
Strigidae (Hawk Owls)	<b><i>Ninox strenua</i></b>	<b>Powerful Owl (V)</b>	
	<i>Ninox boobook</i>	Southern Boobook	
Tytonidae (Barn Owls)	<i>Tyto alba</i>	Barn Owl	
	<b><i>Tyto novaehollandiae</i></b>	<b>Masked Owl (V)</b>	
Podargidae (Frogmouths)	<i>Podargus strigoides</i>	Tawny Frogmouth	✓
Caprimulgidae (Nightjars)	<i>Aegotheles cristatus</i>	Owlet Nightjar	✓
	<i>Eurostopodus mystacalis</i>	White-throated Nightjar	
Halcyonidae (Kingfishers and Kookaburras)	<i>Alcedo azurea</i>	Azure Kingfisher	✓
	<i>Dacelo novaeguineae</i>	Laughing Kookaburra	
	<i>Todiramphus sanctus</i>	Sacred Kingfisher	✓
Meropidae (Bee-eaters)	<i>Merops ornatus</i>	Rainbow Bee-eater (M*)	
Coraciidae (Typical Rollers)	<i>Eurystomus orientalis</i>	Dollarbird	
Climacteridae (Australo-Papuan Treecreepers)	<i>Cormobates leucophaeus</i>	White-throated Treecreeper	✓
Maluridae (Fairy-Wrens and Emu-Wrens)	<i>Malurus cyaneus</i>	Superb Fairy-wren	
	<i>Malurus lamberti</i>	Variegated Fairy-wren	✓
	<i>Stipiturus malachurus</i>	Southern Emu-wren	✓
Pardalotidae (Pardalotes, Scrubwrens, Thornbills)	<i>Pardalotus punctatus</i>	Spotted Pardalote	✓
	<i>Paradallotus striatus</i>	Striated Pardalote	✓
	<i>Sericornis frontalis</i>	White-browed Scrubwren	✓
	<i>Gerygone mouki</i>	Brown Gerygone	✓
	<i>Gerygone olivacea</i>	White-throated Gerygone	
	<i>Acanthiza pusilla</i>	Brown Thornbill	✓
	<i>Acanthiza reguloides</i>	Buff-rumped Thornbill	✓
	<i>Acanthiza chrysorrhoa</i>	Yellow-rumped Thornbill	
	<i>Acanthiza nana</i>	Yellow Thornbill	✓
	<i>Acanthiza lineata</i>	Striated Thornbill	✓

	<i>Hylacola pyrrhopygia</i>	Chestnut-rumped Heathwren	
Meliphagidae (Honeyeaters)	<i>Anthochaera carunculata</i>	Red Wattlebird	✓
	<i>Anthochaera chrysoptera</i>	Little Wattlebird	
	<i>Plectrhynga lanceolata</i>	Striped Honeyeater	
	<i>Philemon corniculatus</i>	Noisy Friarbird	✓
	<b><i>Xanthomyza phrygia</i></b>	<b>Regent Honeyeater (E, E*)</b>	
	<i>Manorina melanophrys</i>	Bell Miner	
	<i>Manorina melanocephala</i>	Noisy Miner	
	<i>Meliphaga lewinii</i>	Lewin's Honeyeater	✓
	<i>Lichenostomus chrysops</i>	Yellow-faced Honeyeater	✓
	<i>Lichenostomus fuscus</i>	Fuscous Honeyeater	✓
	<i>Lichenostomus melanops</i>	Yellow-tufted Honeyeater	
	<i>Lichenostomus penicillatus</i>	White-plumed Honeyeater	
	<i>Melithreptus brevirostris</i>	Brown-headed Honeyeater	✓
	<i>Melithreptus lunatus</i>	White-naped Honeyeater	✓
	<i>Lichmera indistincta</i>	Brown Honeyeater	
	<i>Phylidonyris nigra</i>	White-cheeked Honeyeater	✓
	<i>Phylidonyris novaehollandiae</i>	New Holland Honeyeater	
	<i>Acanthorhynchus tenuirostris</i>	Eastern Spinebill	✓
	<i>Myzomela sanguinolenta</i>	Scarlet Honeyeater	✓
Eopsaltriidae (Robins)	<i>Microeca fascians</i>	Jacky Winter	
	<i>Petroica rosea</i>	Rose Robin	✓
	<i>Eopsaltria australis</i>	Eastern Yellow Robin	✓
Cinclosomidae (Quail-thrushes and allies)	<i>Psophodes olivaceus</i>	Eastern Whipbird	
Neosittidae (Sittellas)	<i>Daphoenositta chrysoptera</i>	Varied Sittella	✓
Pycnonotidae (Bulbuls)	<i>Pycnonotus jocosus</i>	Red-whiskered Bulbul	
Pachycephalidae (Whistlers, Shrike-tit, Shrike-thrushes)	<i>Falcunculus frontatus</i>	Crested Shrike-tit	
	<i>Pachycephala pectoralis</i>	Golden Whistler	✓
	<i>Pachycephala rufiventris</i>	Rufous Whistler	✓
	<i>Colluricincla harmonica</i>	Grey Shrike-thrush	✓
Dicruridae (Monarchs, Fantails and Drongo)	<i>Monarcha melanopsis</i>	Black-faced Monarch	
	<i>Myiagra cyanoleuca</i>	Satin Flycatcher	
	<i>Myiagra rubecula</i>	Leaden Flycatcher	
	<i>Myiagra inquieta</i>	Restless Flycatcher	
	<i>Grallina cyanoleuca</i>	Magpie-lark	
	<i>Rhipidura rufifrons</i>	Rufous Fantail	
	<i>Rhipidura fuliginosa</i>	Grey Fantail	✓
	<i>Rhipidura leucophrys</i>	Willie Wagtail	
	<i>Dicrurus bracteatus</i>	Spangled Drongo	
Campephagidae (Cuckoo-shrikes and Trillers)	<i>Coracina novaehollandiae</i>	Black-faced Cuckoo-shrike	✓
	<i>Coracina papuensis</i>	White-bellied Cuckoo-shrike	
	<i>Lalage sueurii</i>	White-winged Triller	
Oriolidae (Oroles and Figbird)	<i>Oriolus sagittatus</i>	Olive-backed Oriole	✓
	<i>Sphecotheres viridis</i>	Figbird	
Artamidae (Woodswallows, Butcherbirds, Currawongs)	<i>Artamus leucorhynchus</i>	White-breasted Woodswallow	
	<i>Artamus cyanopterus</i>	Dusky Woodswallow	

	<i>Cracticus torquatus</i>	Grey Butcherbird	✓
	<i>Cracticus nigrogularis</i>	Pied Butcherbird	✓
	<i>Gymnorhina tibicen</i>	Australian Magpie	✓
	<i>Strepera graculina</i>	Pied Currawong	✓
Corvidae (Crows and allies)	<i>Corvus coronoides</i>	Australian Raven	✓
Ptilinorhynchidae (Bowerbirds)	<i>Ptilinorhynchus violaceus</i>	Satin Bowerbird	
	<i>Sericulus chrysocephalus</i>	Regent Bowerbird	
Motacillidae (Old World Wagtails, Pipits)	<i>Anthus novaeseelandiae</i>	Richard's Pipit	
Passeridae (Sparrows, Weaverbirds, Waxbills)	* <i>Passer domesticus</i>	House Sparrow	
	<i>Taeniopygia guttata</i>	Zebra Finch	
	<i>Taeniopygia bichenovii</i>	Double-barred Finch	
	<i>Neochmia temporalis</i>	Red-browed Finch	✓
	<i>Lonchura castaneothorax</i>	Chestnut-breasted Mannikin	
Dicaeidae (Flowerpeckers)	<i>Dicaeum hirundinaceum</i>	Mistletoebird	✓
Hirundinidae (Swallows and Martins)	<i>Hirundo neoxena</i>	Welcome Swallow	✓
	<i>Hirundo nigricans</i>	Tree Martin	
	<i>Hirundo ariel</i>	Fairy Martin	
Zosteropidae (White-eyes)	<i>Zosterops lateralis</i>	Silvereye	✓
Sturnidae (Starlings and allies)	* <i>Sturnus vulgaris</i>	Common Starling	
	* <i>Acridotheres tristis</i>	Common Myna	



# Known and Expected Mammal List

Appendix Key:	✓ = Species Detected
	* = Introduced species
	(E) = Species listed under NSW TSC Act 1995 as Endangered.
	(V) = Species listed under NSW TSC Act 1995 as Vulnerable.
	(V*) = Species listed under the Commonwealth EPBC Act 1999 as Vulnerable
	(E*) = Species listed under the Commonwealth EPBC Act 1999 as Endangered
	(M*) = Species listed under the Commonwealth EPBC Act as Migratory
	Species indicated in <b>BOLD</b> font are those threatened species known from within 10km of site (Atlas of NSW Wildlife 2010)
Data Source:	1 = Species recorded at Gwandalan during this survey

Family Name	Scientific Name	Common Name	1
Tachyglossidae (Echidnas)	<i>Tachyglossus aculeatus</i>	Short-beaked Echidna	
Dasyuridae (Dasyurids)	<i>Antechinus stuartii</i>	Brown Antechinus	✓
	<i>Antechinus swainsonii</i>	Dusky Antechinus	
	<b><i>Dasyurus maculatus</i></b>	<b>Tiger Quoll (V, V*)</b>	
	<b><i>Planigale maculata</i></b>	<b>Common Planigale (V)</b>	
	<i>Sminthopsis murina</i>	Common Dunnart	
Peramelidae (Bandicoots and Bilbies)	<i>Isodon macrourus</i>	Northern Brown Bandicoot	
	<i>Peremeles nasuta</i>	Long-nosed Bandicoot	
Phascolarctidae (Koala)	<b><i>Phascolarctos cinereus</i></b>	<b>Koala (V)</b>	
Petauridae (Wrist-winged Gliders)	<i>Petaurus breviceps</i>	Sugar Glider	✓
	<b><i>Petaurus norfolcensis</i></b>	<b>Squirrel Glider (V)</b>	✓
	<b><i>Petaurus australis</i></b>	<b>Yellow-bellied Glider (V)</b>	
Pseudocheiridae (Ringtail Possums, Greater Glider)	<i>Pseudocheirus peregrinus</i>	Common Ringtail Possum	✓
Acrobatidae (Feathertail Glider)	<i>Acrobates pygmaeus</i>	Feathertail Glider	
Phalangeridae (Brushtail Possums and Cuscuses)	<i>Trichosurus vulpecula</i>	Common Brushtail Possum	✓
Potoroidae (Potoroos and Bettongs)	<b><i>Potorous tridactylus</i></b>	<b>Long-nosed Potoroo (V, V*)</b>	
Macropodidae (Wallabies and Kangaroos)	<i>Macropus giganteus</i>	Eastern Grey Kangaroo	
	<i>Macropus rufogriseus</i>	Red-necked Wallaby	
	<i>Wallabia bicolor</i>	Swamp Wallaby	✓
Pteropodidae (Flying-foxes, Blossom-bats)	<b><i>Pteropus poliocephalus</i></b>	<b>Grey-headed Flying-fox (V, V*)</b>	✓
	<i>Pteropus scapulatus</i>	Little Red Flying-fox	
Rhinolophidae (Horseshoe-bats)	<i>Rhinolophus megaphyllus</i>	Eastern Horseshoe-bat	
Emballonuridae (Sheath-tail-bats)	<b><i>Saccolaimus flaviventris</i></b>	<b>Yellow-bellied Sheath-tail-bat (V)</b>	
Molossidae (Freetail-bats)	<b><i>Mormopterus norfolkensis</i></b>	<b>East Coast Freetail-bat (V)</b>	
	<i>Mormopterus</i> sp.1	Little Freetail-bat	
	<i>Mormopterus</i> sp.2	Eastern Freetail-bat	
	<i>Tadarida australis</i>	White-striped Freetail-bat	✓

Vespertilionidae (Vespertilionid Bats)	<b><i>Miniopterus australis</i></b>	<b>Little Bentwing-bat (V)</b>	✓
	<b><i>Miniopterus schreibersii</i></b>	<b>Common Bentwing-bat (V)</b>	
	<i>Nyctophilus geoffroyi</i>	Lesser Long-eared Bat	
	<i>Nyctophilus gouldii</i>	Gould's Long-eared Bat	
	<b><i>Chalinolobus dwyeri</i></b>	<b>Large-eared Pied Bat (V, V*)</b>	
	<i>Chalinolobus gouldii</i>	Gould's Wattled Bat	✓
	<i>Chalinolobus morio</i>	Chocolate Wattled Bat	✓
	<b><i>Falsistrellus tasmaniensis</i></b>	<b>Eastern Falsistrelle (V)</b>	✓
	<b><i>Myotis adversus</i></b>	<b>Large-footed Myotis (V)</b>	
	<b><i>Scoteanax rueppellii</i></b>	<b>Greater Broad-nosed Bat (V)</b>	✓
	<i>Scotorepens greyii</i>	Little Broad-nosed Bat	
	<i>Scotorepens orion</i>	Eastern Broad-nosed Bat	✓
	<i>Vespadelus darlingtoni</i>	Large Forest Bat	
	<i>Vespadelus regulus</i>	Southern Forest Bat	
	<i>Vespadelus pumilus</i>	Eastern Forest Bat	✓
	<i>Vespadelus vulturnus</i>	Little Forest Bat	✓
Muridae (Murids)	<i>Hydromys chrysogaster</i>	Water Rat	
	<i>*Mus musculus</i>	House Mouse	
	<i>Pseudomys novaehollandiae</i>	New Holland Mouse	
	<i>Rattus fuscipes</i>	Bush Rat	
	<i>Rattus lutreolus</i>	Swamp Rat	✓
	<i>*Rattus norvegicus</i>	Brown Rat	
	<i>*Rattus rattus</i>	Black Rat	✓
Canidae (Dogs)	<i>*Canis familiaris</i>	Dog	
	<i>Canis familiaris dingo</i>	Dingo	
	<i>*Vulpes vulpes</i>	Red Fox	✓
Felidae (Cats)	<i>*Felis catus</i>	Feral Cat	
Leporidae (Rabbit and Hare)	<i>*Oryctolagus cuniculus</i>	European Rabbit	
	<i>*Lepus capensis</i>	Brown Hare	
Equidae (Horse and Donkey)	<i>*Equus caballus</i>	Horse	
Suidae (Pigs)	<i>*Sus scrofa</i>	Pig	
Bovidae (Horned Ruminants)	<i>*Bos taurus</i>	Cow	
	<i>*Capra hircus</i>	Goat	

# Known and Expected Reptile List

**Appendix Key:** ✓ = Species Detected  
**(E)** = Species listed under NSW TSC Act 1995 as Endangered.  
**(V)** = Species listed under NSW TSC Act 1995 as Vulnerable.  
**(V\*)** = Species listed under the Commonwealth EPBC Act 1999 as Vulnerable  
**(E\*)** = Species listed under the Commonwealth EPBC Act 1999 as Endangered  
**(M\*)** = Species listed under the Commonwealth EPBC Act as Migratory  
Species indicated in **BOLD** font are those threatened species known from within 10km of site (Atlas of NSW Wildlife data 2010)

**Data Source:** 1 = Species recorded at Gwandalan during this survey

Family Name	Scientific Name	Common Name	1
Chelidae (Tortoises)	<i>Chelodina longicollis</i>	Long-necked Tortoise	
Agamidae (Dragons)	<i>Amphibolurus muricatus</i>	Jacky Lizard	✓
	<i>Amphibolurus nobbi</i>	Nobbi	
	<i>Physignathus lesuerii</i>	Eastern Water Dragon	
	<i>Pogona barbata</i>	Eastern Bearded Dragon	
Pygopodidae (Legless Lizards)	<i>Lialis burtonis</i>	Burton's Snake Lizard	
	<i>Pygopus lepidopus</i>	Common Scaly-foot	
	<i>Delma plebeia</i>	Leaden Delma	
Gekkonidae (Geckoes)	<i>Diplodactylus vittatus</i>	Wood Gecko	
	<i>Phyllurus platurus</i>	Southern Leaf-tailed Gecko	
	<i>Oedura lesueurii</i>	Lesueur's Velvet Gecko	
	<i>Underwoodisaurus milii</i>	Thick-tailed Gecko	
Varanidae (Monitors)	<i>Varanus gouldii</i>	Gould's Monitor	
	<i>Varanus varius</i>	Lace Monitor	
Scincidae (Skinks)	<i>Carlia tetradactyla</i>		
	<i>Cryptoblepharus virgatus</i>		
	<i>Ctenotus taeniolatus</i>	Copper-tailed Skink	
	<i>Ctenotus robustus</i>	Striped Skink	
	<i>Cyclodomorphus michaeli</i>	Oak Skink	✓
	<i>Egernia cunninghamii</i>	Cunningham's Skink	
	<i>Egernia major</i>	Land Mullet	
	<i>Egernia modesta</i>		
	<i>Egernia striolata</i>	Tree-crevice Skink	
	<i>Egernia saxatilis</i>	Black Rock Skink	
	<i>Egernia whitii</i>	White's Skink	
	<i>Eulamprus quoyii</i>	Eastern Water Skink	
	<i>Eulamprus tenuis</i>		
	<i>Lampropholis delicata</i>	Grass Skink	✓
	<i>Lampropholis guichenoti</i>	Garden Skink	
	<i>Lygisaurus foliorum</i>	Tree-base Litter-skink	
	<i>Morethia boulengeri</i>	South-eastern Morethia	
	<i>Pseudomoia platynota</i>	Red-throated Skink	
	<i>Saiphos equalis</i>	Three-toed Skink	✓
	<i>Saproscincus mustelinus</i>	Weasel Skink	
	<i>Tiliqua scincoides</i>	Eastern Blue-tongued Lizard	
Typhlopidae (Blind Snakes)	<i>Ramphotyphlops bituberculatus</i>	Prong-snouted Blind Snake	
	<i>Ramphotyphlops weidii</i>	Brown-snouted Blind Snake	
	<i>Ramphotyphlops nigrescens</i>	Black Blind Snake	
Boidae (Pythons)	<i>Morelia spilota</i>	Diamond Python	
Colubridae	<i>Boiga irregularis</i>	Brown Tree Snake	

Family Name	Scientific Name	Common Name	1
(Tree Snakes)			
	<i>Dendralaphis punctulata</i>	Green Tree Snake	
Elapidae (Venomous Snakes)	<i>Furina diadema</i>	Red-naped Snake	
	<i>Cacophis krefftii</i>	Dwarf Crowned Snake	
	<i>Demansia psammophis</i>	Yellow-faced Whip Snake	✓
	<i>Furina diadema</i>	Red-naped Snake	
	<i>Notechis scutatus</i>	Eastern Tiger Snake	
	<i>Pseudonaja textilis</i>	Eastern Brown Snake	
	<i>Rhinoplocephalus nigrescens</i>	Eastern Small-eyed Snake	
	<i>Vermicella annulata</i>	Bandy Bandy	
	<i>Hemiaspis signata</i>	Black-bellied Swamp Snake	✓
	<i>Pseudechis porphyriacus</i>	Red-bellied Black Snake	✓

# Known and Expected Frog List

**Appendix Key:** ✓ = Species Detected  
**(E)** = Species listed under NSW TSC Act 1995 as Endangered.  
**(V)** = Species listed under NSW TSC Act 1995 as Vulnerable.  
**(V\*)** = Species listed under the Commonwealth EPBC Act 1999 as Vulnerable  
**(E\*)** = Species listed under the Commonwealth EPBC Act 1999 as Endangered  
**(M\*)** = Species listed under the Commonwealth EPBC Act as Migratory  
Species indicated in **BOLD** font are those threatened species known from within 10km of site (Atlas of NSW Wildlife data 2010)

**Data Source:** 1 = Species recorded at Gwandalan during this survey

Family Name	Scientific Name	Common Name	1
Hylidae (Tree Frogs)	<b>Litoria aurea</b>	<b>Green and Golden Bell Frog (E, V*)</b>	
	<i>Litoria caerulea</i>	Green Tree Frog	
	<i>Litoria chloris</i>	Red-eyed Green Tree Frog	
	<i>Litoria dentata</i>	Bleating Tree Frog	
	<i>Litoria fallax</i>	Eastern Dwarf Tree Frog	
	<i>Litoria latopalmata</i>	Broad-palmed Frog	
	<i>Litoria lesueuri</i>	Lesueur's Frog	
	<i>Litoris nasuta</i>	Rocket Frog	
	<i>Litoria peronii</i>	Peron's Tree Frog	
	<i>Litoria phyllochroa</i>	Green Leaf Tree Frog	
	<i>Litoria tyleri</i>	Tyler's Tree Frog	
	<i>Litoria verreauxii</i>	Verreaux's Frog	
Myobatrachidae (Ground Frogs)	<i>Adelotus brevis</i>	Tusked Frog	
	<i>Crinia signifera</i>	Common Eastern Froglet	✓
	<b>Crinia tinnula</b>	<b>Wallum Froglet (V)</b>	✓
	<i>Limnodynastes dumerilli</i>	Eastern Banjo Frog	
	<i>Limnodynastes ornatus</i>	Ornate Burrowing Frog	
	<i>Limnodynastes peronii</i>	Striped Marsh Frog	
	<i>Limnodynastes tasmaniensis</i>	Spotted Grass Frog	
	<i>Mixophyes fasciolatus</i>	Great Barred Frog	
	<i>Pseudophryne coriacea</i>	Red-backed Toadlet	
	<i>Pseudophryne bibronii</i>	Brown Toadlet	
	<i>Uperoleia fusca</i>	Dusky Toadlet	✓
	<i>Uperoleia laevisgata</i>	Smooth Toadlet	

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## Appendix 4

### Vegetation Communities Photographs





**Plate 1 – Coastal Plains Smooth- barked Apple Woodland**



**Plate 2 – Coastal Sheltered Apple – peppermint Forest**





**Plate 3 – Coastal Plains Scribbly Gum Woodlands**



**Plate 4 – Swamp Oak Rushland Forest (EEC – Swamp Oak Floodplain Forest)**





**Plate 5 – Swamp mahogany – Paperbark Forest (EEC – Swamp Sclerophyll Forest on Coastal Floodplain)**



**Plate 6 – Riparian Melaleuca Swamp Woodland (EEC - Swamp Sclerophyll Forest on Coastal Floodplain)**





**Plate 7 – Wet Coastal Cyperoid Heath**



**Plate 8 – Freshwater Wetland Complex (EEC – Freshwater Wetlands and Coastal Floodplains)**



**Plate 9 – Mangrove Estuary Complex (Protected under the Fisheries Management Act 1994)**

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## Appendix 5

### Qualifications of Personnel



## Curriculum Vitae

### MATTHEW DOHERTY

Manager - Ecology & GIS

Newcastle, NSW

Bachelor of Landscape Management and Conservation (Land & Water Conservation Major), University of Western Sydney, 2002

Bushland Regeneration Certificate II, Western Sydney Institute of TAFE, 1999

Spikeless Tree Climbing Techniques, Total Height Safety, 2004

OH&S Induction Training (Green Card)

NPWS Scientific Investigation Licence

NSW Animal Ethics Research Authority

Senior First Aid

#### AREAS OF EXPERTISE:

Matt has seven years experience in the environmental industry with key skills in project management, survey design, GIS and client relations. In his position as Ecology & GIS Manager, Matt manages environment department including the day to day running of projects, verification of reports and other outputs and ensures clients are well informed of project progress and key findings. Matthew's background in local government, state government and private consultancy gives him a high level of appreciation of the environmental and consultancy sector, thus allowing him to take a pragmatic approach to providing successful conservation and development outcomes whilst meeting the aims and objectives of clients and determining authorities.

#### SELECTED PROJECT EXPERIENCE:

##### Ecology and GIS

- **Various large-scale land development, mining, energy and infrastructure projects** – Matt has project managed and/or participated in numerous large-scale land development, mining, energy and infrastructure projects including Queensland Hunter Gas Pipeline (850km); Hunter Gas Pipeline; Rio Tinto Lower Hunter Lands Project; GIS biodiversity, large scale vegetation, habitat and predictive modelling mapping works; wind farms and coordination of environmental monitoring programs for mines

#### PREVIOUS EXPERIENCE:

##### Ecologist – Andrews Neil Pty Ltd

2004 - 2005

Duties included: preparation of Fee Proposals for Ecological Services; General and Targeted Flora and Fauna Surveys including Flora and Fauna Identification; Desktop Studies and Literature Searches; Interpretation and Application of Legislation; report preparation including Threatened Species Assessments (8 part test), Vegetation Management Plans (Riparian Restoration/ Rehabilitation, Bush Regeneration), Species Impact Statements, Weed Management Strategies, Habitat Management Strategies and Tree Assessments; GIS/ Spatial Analysis and Database Management; Liaison with Client, Stakeholder Groups, State and Local Governing Bodies; Site Supervision of Ecological Conditions; Tree Climbing for installation, maintenance and monitoring of nestboxes.

##### Project Officer / Horticultural Services – Gosford City Council

06/2003 – 05/2004

Comprehensively reviewed noxious weed management; performed vegetation surveys on GCC landfills to identify the presence of noxious weeds; quantify the extent of infestation of each noxious weeds species and map the





## Curriculum Vitae

- CONTINUED -

affected areas; developed a management plan for the control of NW species identified in the survey in accordance with relevant legislation; maintained Japanese Gardens along with City Wide Gardens and Streetscapes.

### Various Roles whilst at University

1997 - 2002

#### Environmental Officer - Dept of Land & Water Conservation, Newcastle

01/1999 – 12/1999

Liaised with relevant agency and stakeholder groups; researched and prepared an extensive literature review of issues pertaining to riparian vegetation; assessed current best practice for revegetation and rehabilitation of degraded sites; prepared a Riparian Revegetation Management Strategy

#### Volunteer – Maitland City Council

07/1999 – 12/1999

Assisted with Rivercare implementation throughout LGA. Utilised primary, secondary and field research to prepare a River Plan under 'Rivercare' guidelines.

#### Volunteer – Brisbane Waters & Gosford Lagoons Catchment Management Committee

03/1998 – 05/1998

Prepared Riparian Zone Rehabilitation Plan for Degraded Creek Management, Research and prepared a Riparian Zone Rehabilitation Project. Member on several Gosford City Council steering committees and working groups.

### MEMBERSHIPS & ACHIEVEMENTS:

- Fire Protection Association Australia (FPAA)



## Curriculum Vitae

### CRAIG ANDERSON

Senior Ecologist – Senior Project Manager

Newcastle, NSW

Bachelor Applied Science (Environmental Assessment & Management), University of Newcastle, 1994

Graduate Diploma in Archaeological Heritage, UNE, Current

RFS/PIA NSW Consulting Planners Bushfire Training

#### AREAS OF EXPERTISE:

Craig has over 15 years experience in a wide range of environmental consulting. He has undertaken and managed commissions for a diverse range of projects within land development, energy, mining, infrastructure and conservation, including State Significant developments.

Craig has an extensive background in ecological field surveys, encompassing all aspects of flora and fauna identification, targeted surveying and mapping. He was involved in the initial formulation of an Association of Consulting Ecologists for NSW in 1998 and has acted as an expert witness in several Land and Environment Court matters relating to ecology and bushfire assessment. He is an experienced negotiator of ecological / development outcomes, and has a detailed understanding of legislation related to ecological matters.

Craig has been actively involved in representations to the Department of Environment on behalf of the NSW Urban Taskforce in regards to proposed changes to the NSW Threatened Species Conservation Act, and for the Urban Development Institute of Australia (UDIA) on matters relating to issues such as the proposed listing of endangered ecological communities, regional environmental biodiversity strategies, and the Native Vegetation Act and the operations of the Catchment Management Authority (CMA).

#### SELECTED PROJECT EXPERIENCE:

##### Ecology

- **Buttaba Hills (336 Lots)** – Species Impact Statement
- **Hunter Economic Zone (800+ ha industrial estate)** – Species Impact Statement
- **Pelaw Main By-Pass to Hunter Economic Zone** – Species Impact Statement
- **Residential development / Eco-Resort / Fauna Sanctuary at Paxton** - Flora and Fauna Assessment incorporating Seven Part Tests of Significance of Impact under Threatened Species Legislation
- **SEPP 5 Aged Care facilities, Kariong, Hawks Nest, Wallsend, Glenhaven** - Flora and Fauna Assessment incorporating Seven Part Tests of Significance of Impact under Threatened Species Legislation
- **Caravan Park extensions, Fern Bay** - Flora and Fauna Assessment incorporating Seven Part Tests of Significance of Impact under Threatened Species Legislation
- **Road & Rail Infrastructure for the Hunter Economic Zone** - Flora and Fauna Assessment incorporating Seven Part Tests of Significance of Impact under Threatened Species Legislation
- **Alignments for Hunter Gas Pipeline Infrastructure** - Flora and Fauna Assessment incorporating Seven Part Tests of Significance of Impact under Threatened Species Legislation
- **Landscape Concept Plan, rural subdivision at Oakhampton Heights** - Vegetation Management Plan
- **Creek Rehabilitation Plan, Warners Bay** - Vegetation Management Plan
- **Vegetation Management Plan for a retained creek line with Sugar Valley Golf Course, West Wallsend** - Vegetation Management Plan
- **Individual Koala Plan of Management under SEPP 44 at Hawks Nest** – Management Plan



## Curriculum Vitae

- CONTINUED -

- **Ecological Constraints Management Plan, Hawks Nest North** - Management Plan
- **Management Plan for the Green & Golden Bell Frog at Culburra** - Management Plan
- **Fuel Management Plan over lots within a rural-residential estate at Glen Oak** - Management Plan
- **Ecological Constraints Master Plan for Hunter Economic Zone** - Management Plan
- **Environmental Plan of Management for Residential / Tourism Sanctuary Project at Paxton** - Management Plan
- **Green and Golden Bell Frog Survey and Management Plan, Gillieston Heights** - Targeted Species Study
- Targeted Species Studies as part of the Ecological Constraints Master Plan for the Hunter Economic Zone

### PREVIOUS EXPERIENCE:

#### **Senior Ecologist, Wildthing Environmental Consulting**

**1995 – 2000**

Oversaw operations in NSW and Qld, and project managed and undertook numerous ecological and bushfire assessments for a diverse array of clients / projects.

#### **Environmental Officer, Pulver Cooper & Blackley / Kel Nagle Cooper & Associates**

**1994 - 1995**

Undertook a range of environmental, planning and survey investigations; fieldwork; reporting for a range of land development; and golf course development projects.

### MEMBERSHIPS & ACHIEVEMENTS:

- Frog and Tadpole Study Group (FATS)
- Hunter Birds Observers Club (HBOC). Committee Member 2009. Records Appraisal Committee, 2008 – present
- Bird Observers Club of Australia (BOCA)
- Donaldson Conservation Trust. Board member (independent environmental expert). 2009 – present.





## Curriculum Vitae

**Name:** Allan Richardson

**Office:** RPS Harper Somers O'Sullivan

**Position in Company:** Senior Ecologist

**Qualifications / Awards**

- B.Env.Sc. (Environmental Management)
- B.Env.Sc. (Hons) (Biology) – Migratory Wading Bird Study
- 2002 Hunter Environmental Institute Scholarship
- Waterways Authority Boating Licence
- OH&S Induction Training (Green Card)
- NSW Driver's Licence (Class C)
- NPWS Scientific Licence
- NSW Animal Ethics Research Authority
- St John Ambulance Senior First Aid Certificate

**Memberships:**

- Hunter Bird Observers Club
- Victorian Wader Study Group

### Areas of Expertise:

- Ornithological Surveys and Research
- Targeted and general Terrestrial flora and fauna surveys
- Threatened Flora & Fauna Assessment, Reporting and Legislation
- GPS Survey and GIS Mapping Projects
- High Level Nature Photography
- Tertiary and General Ecological Tutoring, Demonstrating and Presenting

### Recent Experience Includes:

Allan Richardson has broad range of Ecological Assessment reporting experience underpinned by over 27 years of ecological field experience. Over four and a half years of project experience has primarily included a range of flora and fauna assessment disciplines as required by a wide range of corporate and domestic client requirements. Allan has a strong grounding in threatened species ecology in both coastal and western NSW regional areas, with specialist migratory wader studies expertise in Central NSW and Roebuck Bay in North Western Australia.

Allan's wide ranging interest across different ecological disciplines, has been a central part of important threatened species projects, including, the Critically Endangered North Rothbury Persoonia, Hunter Estuary Green and Golden Bell Frog populations, Migratory Wader habitat usage surveys, seasonal Swift Parrot movements and specialised Avifauna Wind Farm Surveys on the east and west coast. Allan's broad ecological experience also represents an important part of RPS HSO's threatened flora and vegetation community mapping, targeted fauna survey works and threatened species habitat assessments over both small and large spatial areas for a range of client needs. His depth of experience and a strong knowledge of Australian fauna and regional vegetation contribute strongly to RPS HSO's ability to meet the consultation and regulatory needs of the development community.



## Curriculum Vitae

### SARAH JONES

Ecologist / Bushfire Planner

Newcastle, NSW

B. Env.Sc, University of Newcastle

G.Dip (Design for Bushfire Areas)

RFS / PIA NSW Consulting Planners Bushfire Training Course

#### AREAS OF EXPERTISE:

Sarah has over 10 years experience as an Ecologist, including over 8 years with RPS as the company's bushfire planning specialist. Sarah has gained extensive experience in Bushfire Threat Assessment & Management reporting, Bushfire Risk Management Plans, Fuel Management Plans, Bushfire Evacuation Plans, understanding of fire regimes upon flora and fauna, Vegetation Management Plans, Terrestrial flora and fauna surveys, Flora and Fauna Assessments, along with understanding of environmental legislation and threatened species issues.

#### PREVIOUS EXPERIENCE:

**Ecologist – Ecotone Environmental Consultants, Waratah, NSW**

**Jan 2001 – Nov 2001**

**Volunteer Environmental Educator – Community Partnership,  
Newcastle City Council**

**Sept 2000 – Dec 2000**

#### MEMBERSHIPS & ACHIEVEMENTS:

- Member of the Fire Protection Association Australia (FPA)
- Member of the Bushfire Planning and Design Special Interest Group (BPAD)
- NSW Driver's Licence (Class C)
- OH&S Induction Training (Green Card)
- NPWS Scientific Investigation Licence
- NSW Animal Ethics Research Authority



## Curriculum Vitae

### TOBY LAMBERT

Senior Ecologist / Senior Project Manager

Newcastle, NSW

Bachelor of Environmental Science, University of Newcastle, 1993 - 1996

Accredited BioBanking Assessor, Tafe NSW – Ryde, 2009

NSW Driver's Licence (Class C)

OH&S Induction Training (Green Card)

NPWS Scientific Investigation Licence and NSW Animal Ethics Research Authority

#### AREAS OF EXPERTISE:

Toby has over fourteen years experience in undertaking and managing a diverse array of ecological and environmental surveys and assessments. As a Senior Ecologist – Senior Project Manager, he supervises all facets of flora and fauna assessment and related reports: planning, supervision of field and reporting staff, project scheduling, budget management, liaising with clients and Government departments and providing advice of all kinds. He has also been called upon to prepare expert evidence for matters at the NSW Land and Environment Court. Toby has produced ecological and environmental documentation for private and public projects ranging in complexity. These include a number of wind farms throughout Australia and New Zealand, coal mines and a range of infrastructure projects within the Hunter region. Toby has also managed ecological master planning for residential projects in Sydney, the Central Coast and the Hunter. Toby's fields of expertise are Environmental Impact Assessment and mediation, flora, fauna and habitat survey method, design and identification, detailed understanding of legislation and threatened species issues, terrestrial fauna surveys and project management. He has experience in conducting comprehensive fauna surveys and preparing related documentation in a broad array of environments throughout New South Wales, with most projects located in the greater Sydney area, Blue Mountains, Central Coast, Hunter and Forster / Great Lakes regions. Toby has also undertaken ecological projects in Western Australia, Queensland, the ACT and New Zealand.

#### SELECTED PROJECT EXPERIENCE:

##### Ecology

- **Hunter Economic Zone Industrial Estate** - Project Manager for the environmental component of the development of the Hunter Economic Zone industrial estate at Kurri Kurri, to be the largest industrial estate in NSW.
- **Centennial Coal** - Environmental Project Manager for consultancy works to Centennial Coal covering a broad range of disciplines, but primarily focussed on ecological impact assessments, monitoring and management at six coal mines in the western Blue Mountains and Lake Macquarie NSW.
- **Peabody Energy Australia** - Senior Project Manager for project specific and ongoing monitoring requirements for Wambo Coal Mine at Warkworth in the Upper Hunter Valley. Toby liaises directly with the Environmental Manager of the mine in relation to requirements to fulfil consent conditions for the ongoing development and operation of the project.
- **Allco Wind Energy** - This involved undertaking fauna surveys for a 100 turbine wind farm on the North Island of New Zealand and coordinating other ecological specialists to prepare an ecological impact assessment for submission to Taranaki Council. Aspects included regular liaison with the Department of Conservation regarding issues of significance, survey methodology, and mitigation and management measures to protect significant ecological features. Local bird groups were also involved and Toby was involved in the public consultation sessions.



## Curriculum Vitae

- CONTINUED -

- **Stockland Wallarah Peninsula** - This Lake Macquarie, NSW project required a multi-disciplinary approach to an innovative residential proposal on environmentally sensitive land. Project management of, and participation in, a large and diverse planning team were major features of this work. Toby was a pivotal member of the project management team that provided the detailed ecological input and advice that was required from the early stages of the planning process to the point of submission to determining authorities. The proposal required sophisticated and creative impact assessment and reporting. Toby made a major contribution to the production of a series of comprehensive ecological reports that ensured the ecological integrity of the site was maintained in the post-development landscape.

### PREVIOUS EXPERIENCE:

#### **Senior Project Manager - Cumberland Ecology, Epping** **2005**

Duties included flora and fauna surveying and survey design; overseeing and contribution to the preparation of complex ecological and environmental reports for both small and large projects; flora and fauna surveying and survey design; liaison with both the private sector and federal, state and local government departments.

#### **Principal Consultant / Co-Founder - Keystone Ecological, Kariong** **2004 - 2005**

Preparation and development of Keystone Ecological Flora and Fauna Impact Assessment report format; development of client database, including organisation of promotional material, logo design and customer relations; administration including preparation of quotes and invoices and organising accounts and BAS statements; Flora and fauna surveying and survey design; along with Anabat II Data Analysis.

#### **Project Manager - Ecology - Conacher Travers Environmental, Somersby** **1998 - 2004**

Supervision of flora and fauna survey design; report quality control; production of technical reports such as Review of Environmental Factors, Flora & Fauna Assessments, Statement of Environmental Effects, Species Impact Statements and Plans of Management, Land and Environment Court Evidence preparation, EPBC Act Referrals and Preliminary Information preparation; Flora & fauna surveying; liaison with Department of Environment and Conservation, Department of Environment and Heritage, Department of Infrastructure, Planning and Natural Resources, Department of Agriculture, Local Governments and private clients; Anabat II Data Analysis; Water Testing; Data Recording and Statistical Analysis.

#### **Volunteer for Green and Golden Bell Frog Survey - Australian Museum, North Avoca** **1999 - 2001**

Survey and searches for the endangered species Green & Golden Bell Frog; assisting in weighing, measuring and micro-chipping frogs for on-going research purposes.

#### **Environmental Scientist - Australian Defence Industries (ADI), St Marys** **1998**

Bore Water Sampling; statistical analysis of test results; and report production.

#### **Environmental Scientist - Anne Clements & Associates, North Sydney** **1997**

Field Assistant to Botanist and data recording.

#### **Research Assistant - University of Newcastle** **1996**

Initiation of design of final year project for Biology Dept; research into fire regimes on species composition & regeneration in open woodland; use of advanced scientific equipment including infra red gas analyser in the field, and replication of experiments using computer database; theoretical knowledge on soils, nutrient cycles & vegetation types.

### MEMBERSHIPS & ACHIEVEMENTS:

- Ecological Consultants Association of NSW (ECA) – Council Member
- Newcastle Green Drinks for Environmental Professionals organising committee

## Curriculum Vitae

**Name:** Shaun Corry

**Office:** RPS Newcastle

**Position in Company:** Ecologist

**Qualifications / Memberships:** Dip Conservation and Land Mgt  
NSW Driver's Licence (Class C)  
Waterways Authority Boating Licence  
OH&S Induction Training (Green Card)  
NPWS Scientific Investigation Licence  
NSW Animal Ethics Research Authority

### Areas of Expertise:

- Flora and fauna identification and habitat assessment
- Targeted threatened flora and fauna surveys
- Delineation and mapping of vegetation communities
- Endangered Ecological Community (EEC) assessment
- Experience with GPS/GIS for project design and mapping
- Conducting Field Surveys for Flora, Fauna and Habitat Identification
- Report Preparation including Fauna & Flora Assessments
- Ecological Monitoring and Reporting
- Bushfire Threat Assessment & Management reporting
- Understanding of environmental legislation

### Recent Experience Includes:

Shaun has a broad range of Ecological Assessment reporting experience and ecological field experience. Experience within the consulting industry has primarily included a wide range of flora assessment disciplines as required by a wide range of public and private clients. Shaun has a strong grounding in threatened flora species, endangered ecological communities and populations throughout NSW. Shaun has undertaken flora and fauna surveys including targeted surveys for threatened flora species within the Blue Mountains, Hunter, Central Coast, Mid North Coast and Southern Queensland.