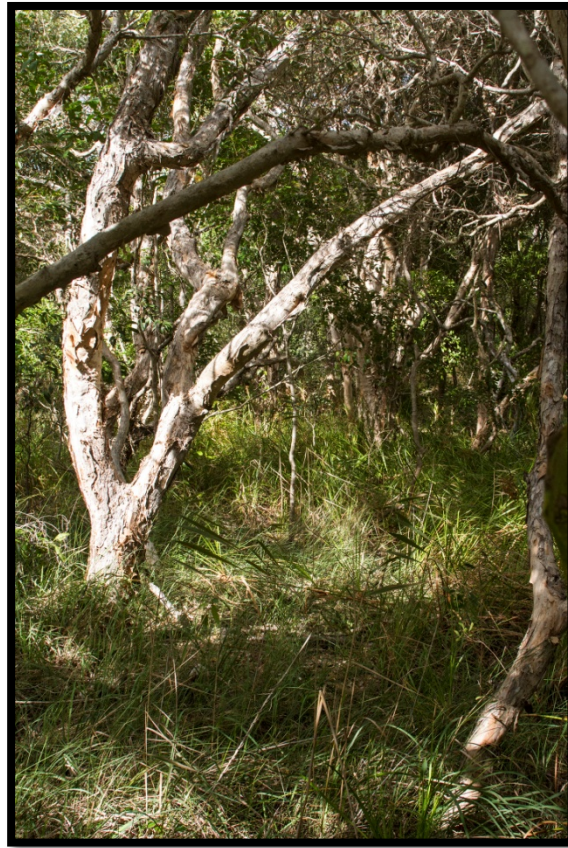


**Fauna Survey at the fore dune section between  
Lions Park and Stumers Creek, Coolum, Queensland  
for  
Coolum District Coast Care Group Inc.**



**Report written by the  
Wildlife Preservation Society of Queensland  
Sunshine Coast and Hinterland Branch Inc.  
through the**

**Faunawatch program.**

**By**

**Paul Smith** BS (Hon) BE PhD (cand)  
with observational recordings by Rob Kernot.

**Aug-Sep/Oct 2012**

## Table of Contents

### Section

1	Introduction.....	4
2	Methods.....	4
2.1	Study sites.....	4
2.2	Opportunistic survey.....	6
2.3	Hair-tube Trap.....	6
3	Results.....	8
3.1	Hair-tube Sampling.....	12
4	Discussion.....	13
6	Acknowledgements.....	20
7	Appendices.....	21

### List of Tables

Table 1	Summary of all observed species.....	9
Table 2	Hair-tube Trapping results.....	12

### List of Figures

Fig. 1	Location of survey site.....	4
Fig. 2	Vegetation on site.....	5
Fig. 3	Semi-permanent water source at north end of site .....	5
Fig. 4	Seasonal drain running through centre of site .....	5
Fig. 5a	Faunatech Hair-tube trap.....	6
Fig. 5b	Homemade Hair-tube Trap .....	6
Fig. 6	Walkways cutting site.....	7
Fig. 7a	Orchard Swallowtail.....	8
Fig. 7b	Little Shrike-thrush.....	8
Fig. 8	Horn-eyed Ghost Crab.....	11
Fig. 9	Smooth-handed Ghost Crab.....	11
Fig. 10	Varied Triller.....	13
Fig. 11	Mangrove Gerygone.....	13
Fig. 12	Figbird and Magpie Lark nesting.....	13
Fig. 13	Spotted Turtle-dove.....	14
Fig. 14	Masked Lapwing in park.....	14
Fig. 15	Fairy Gerygone.....	14
Fig. 16	Swamp Wallaby tracks.....	15
Fig. 17	Bandicoot nest and track.....	15
Fig. 18	Ringtail Possum Drey.....	16
Fig. 19	Kingfisher nest.....	16
Fig. 20	Corridor blocked at southern end.....	16
Fig. 21	Stumers Creek river mouth.....	17
Fig. 22	Domestic Dog scat.....	17
Fig. 23	Stumers Creek with road.....	18
Fig. 24	Stumers Road cutting site.....	18
Fig. 25	Cane toad regurgitate.....	18
Fig. 26	Two-spined Spider.....	18
Fig. 27	Eastern Water Skink.....	19
Fig. 28	Crusader Beetle.....	19

---

**Appendices**

A1	Camera trap details.....	20
A2	Summary of species observed - Survey 1.....	21
A3	Summary of species observed - Survey 2.....	23
A4	Summary of species observed - Survey 3.....	25
A5	Summary of species observed - Survey 4.....	27

## 1. Introduction

The Wildlife Preservation Society of Queensland Sunshine Coast and Hinterland Branch Inc. (WPSQSCH) were contracted by Coolum District Coast Care Group Inc. (CDCCG) to undertake a fauna survey on the fore dunes between Lions Park and Stumers Creek, Coolum, Queensland. The purpose of the survey was to establish a baseline understanding of species in the area and define a clear and repeatable working method. Two techniques were used to record the range of vertebrate fauna that are most likely to be present in the target site. This included opportunistic sightings in 4 hour or 8 hour blocks plus baited hair-tube traps. Although not specifically targeted a list of non-vertebrate fauna identified during field work is also provided.

## 2. Methods

### 2.1 Study Site

The survey site is located between Lions Park and Stumers Creek, Coolum, Queensland (Fig. 1). The site is bordered by a caravan park to the south and continues 930 metres to the Stumers Creek river mouth in a northerly direction. It is positioned between the South Pacific Ocean to the east and David Low Way and residential housing to the west.

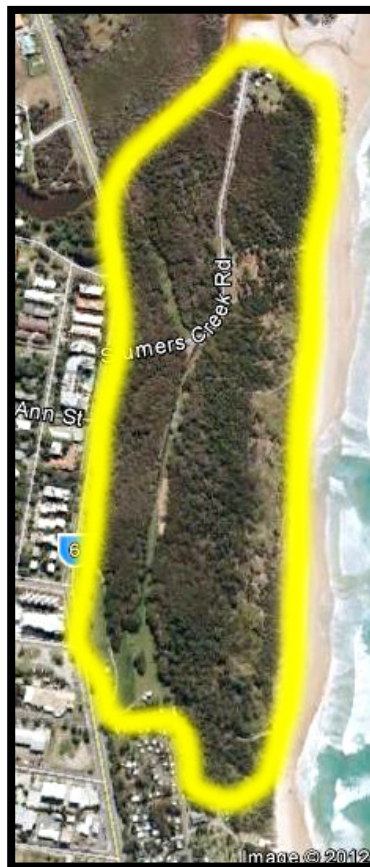




Fig. 1 Location of survey site.

The site comprises of fore dune complex (RE12.2.14) backing onto a *Melaleuca quinquenervia* woodland on Palustrine wetland with seasonally waterlogged sandplain (RE12.2.7) at the northern end (Fig. 2), and a *Banksia integrifolia* - *Melaleuca* open-forest (RE 12.2.5) at the south-western end of the site.

Fig 2. Open forest and *Melaleuca* woodlands at the survey site.

Within the test site there is some variation within the vegetation complexes based on small changes in relief. This results in poorly drained quaternary dunes from overflow and infiltration at low points of the sand mass, to sparse open vegetated grassland at the dune front (Fig. 3a & 3b).



Fig. 3a Semi-permanent water source at north end of site.



Fig 3b. Seasonal drain running through centre of site.



## 2.2 Opportunistic Survey Technique

Opportunistic surveys were conducted four times over the survey period. These consisted of visual and call identification of vertebrate and non-vertebrate species (birds, mammals, butterflies). Due to specialised techniques and time restrictions, reptiles, amphibians and insects were not specifically targeted but identified species were recorded. The surveys were completed in two eight hour blocks conducted during hair-tube trap setup and retrieval, and one four hour survey. An additional two hour thirty minute survey was conducted by a group of 15 Faunawatch members.

## 2.3 Hair-tube Trap

To assist in fauna detection twenty hair-tube traps were set on the site (Fig. 4, App. 1). These work by using a food source to attract fauna to the trap and collecting a hair sample on a strip of adhesive tape as the animal tries to eat the bait. Microscopy is used to analyse the hair sample as every species will have a different visual fingerprint.

Two types of traps were used to maximise the chance of attracting trap-shy individuals (i) Faunatech (Bainsdale Vic.) (Fig. 5a), (ii) homemade trap (after Murray, 2005) (Fig. 5b).



Fig. 5a Faunatech Trap



Fig. 5b Home made trap

The traps were baited with a mixture that should attract most mammals that are likely to populate the test site. The traps were set in 2 groups due to the presence of Stumers Road and a human walkway crossing the site (Fig. 6). Each trap was laid approximately 25 metres apart resulting in a total length of the trap run of 545 metres. The traps were checked 4 days after setup and retrieved after 7 nights. Hair samples were sent and analysed by Endeavour Vet Pty Ltd (Toorbul, Qld).

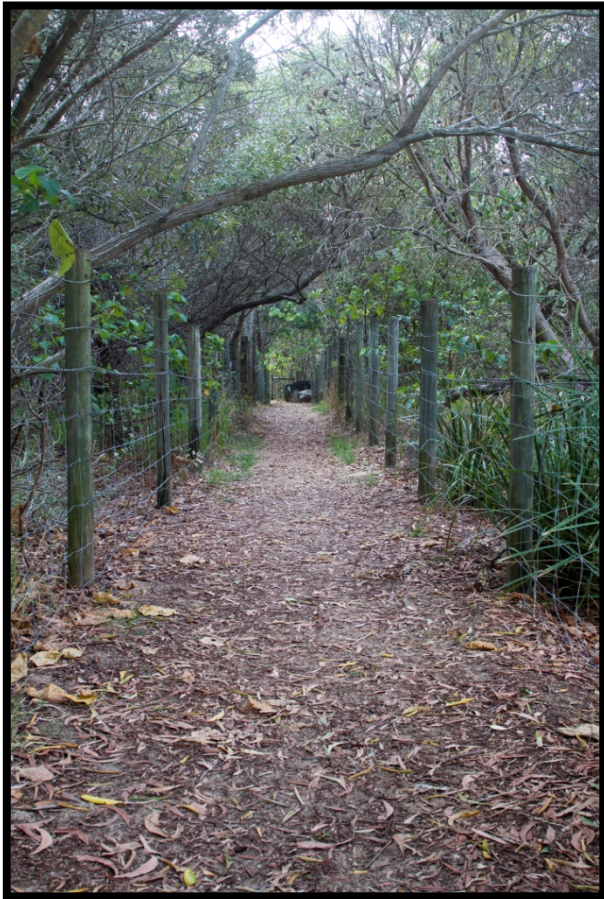


Fig. 6 The site is cut by beach access paths and a central walkway running north-south



### 3. Results

110 species were recorded over the survey period (Table 1). This consisted of 68 birds, 20 butterflies, 6 spiders, 5 mammals, 5 reptiles, 2 amphibians, 2 crustaceans, 1 dragonfly and 1 beetle. No species were found that have a conservation status of vulnerable or higher.



Fig. 7a Male Orchard Swallowtail.



Fig. 7b Little Shrike-thrush.



Table 1. Summary of all species identified from opportunistic survey, hair-tube trapping, and scat analysis.

Location: Coolum Beach North - Lions Park - Stumers Creek

Lat: 26 31 20

Long: 153 05 29

Date: 27/08/2012 – 03/09/12 &amp; 22/10/12

	Common Name	Scientific Name
Birds	Australasian Figbird	<i>Sphecotheres viridis</i>
	Australasian Gannet	<i>Morus serrator</i>
	Australian Brush-turkey	<i>Alectura lathamii</i>
	Australian Magpie	<i>Gymnorhina tibicen</i>
	Australian White Ibis	<i>Threskiornis molucca</i>
	Bar-shouldered Dove	<i>Geopelia humeralis</i>
	Black-faced Cuckoo-shrike	<i>Coracina novaehollandiae</i>
	Blue Faced Honeyeater	<i>Entomyzon cyanotis</i>
	Brahminy Kite	<i>Haliastur Indus</i>
	Brown Honeyeater	<i>Lichmera indistincta</i>
	Buff-banded Rail	<i>Gallirallus philippensis</i>
	Clamorous Reed-Warbler	<i>Acrocephalus stentoreus</i>
	Crested Pigeon	<i>Ocyphaps lophotes</i>
	Crested Tern	<i>Sterna bergii</i>
	Eastern Whipbird	<i>Psophodes olivaceus</i>
	Eastern Yellow Robin	<i>Eopsaltria australis</i>
	Fairy Gerygone	<i>Gerygone palpebrosa</i>
	Fan-tailed Cuckoo	<i>Cacomantis flabelliformis</i>
	Forest Kingfisher	<i>Todiramphus macleayii</i>
	Galah	<i>Cacatua roseicapilla</i>
	Golden Whistler	<i>Pachycephala pectoralis</i>
	Great Egret	<i>Ardea alba</i>
	Grey Butcherbird	<i>Cracticus torquatus</i>
	Grey Fantail	<i>Rhipidura fuliginosa</i>
	Grey Shrike-thrush	<i>Colluricincla harmonica</i>
	Laughing Kookaburra	<i>Dacelo novaeguineae</i>
	Leaden Flycatcher	<i>Myiagra rubecula</i>
	Lewin's Honeyeater	<i>Meliphaga lewinii</i>
	Little Black Cormorant	<i>Phalacrocorax sulcirostris</i>
	Little Corella	<i>Cacatua sanguinea</i>
	Little Shrike-thrush	<i>Colluricincla megarhyncha</i>
	Little Wattlebird	<i>Anthochaera chrysoptera</i>
	Magpie-lark	<i>Grallina cyanoleuca</i>
	Mangrove Gerygone	<i>Gerygone levigaster</i>
	Masked Lapwing	<i>Vanellus miles</i>
	Mistletoe Bird	<i>Dicaeum hirundinaceum</i>
	Noisy Friarbird	<i>Philemon corniculatus</i>
	Noisy Miner	<i>Manorina melanocephala</i>
	Olive-backed Oriole	<i>Oriolus sagittatus</i>
	Osprey	<i>Pandion haliaetus</i>
	Pacific Baza	<i>Aviceda subcristata</i>

	Pied Butcherbird	<i>Cracticus nigrogularis</i>
	Pied Currawong	<i>Strepera graculina</i>
	Rainbow Bee-eater	<i>Merops ornatus</i>
	Rainbow Lorikeet	<i>Trichoglossus haematodus</i>
	Red-backed Fairy-wren	<i>Malurus melanocephalus</i>
	Rufous Fantail	<i>Rhipidura rufifrons</i>
	Sacred Kingfisher	<i>Todirhamphus sanctus</i>
	Shining Bronze-cuckoo	<i>Chrysococcyx lucidus</i>
	Silvereye	<i>Zosterops lateralis</i>
	Spangled Drongo	<i>Dicrurus bracteatus</i>
	Spectacled Monarch	<i>Monarcha trivirgatus</i>
	Spotted Turtle-dove	<i>Streptopelia chinensis</i>
	Straw-necked Ibis	<i>Threskionis spinicollis</i>
	Striated Pardalote	<i>Pardalotus striatus</i>
	Sulphur-crested cockatoo	<i>Cacatua galerita</i>
	Torresian Crow	<i>Corvus orru</i>
	Varied Triller	<i>Lalage leucomela</i>
	Welcome Swallow	<i>Hirundo neoxena</i>
	Whistling Kite	<i>Haliastur sphenurus</i>
	White-bellied Sea-eagle	<i>Haliaeetus leucogaster</i>
	White-breasted Woodswallow	<i>Artamus leucorhynchus</i>
	White-browed Scrubwren	<i>Sericornis frontalis</i>
	White-cheeked Honeyeater	<i>Phylidonyris nigra</i>
	White-faced Heron	<i>Egretta novaehollandiae</i>
	White-throated Honeyeater	<i>Melithreptus albogularis</i>
	Willie Wagtail	<i>Rhipidura leucophrys</i>
	Yellow-tailed Black Cockatoo	<i>Calyptorhynchus funereus</i>
Butterflies	Black Jezebel	<i>Delias nigrina</i>
	Blue Tiger	<i>Tirumala hamata hamata</i>
	Blue Triangle	<i>Graphium sarpedon choredon</i>
	Brown Ringlet	<i>Hypocysta metirius</i>
	Caper White	<i>Belenois java teutonia</i>
	Case Moth	<i>Psychidae Sp.</i>
	Clearwing Swallowtail	<i>Cressida cressida</i>
	Common Crow	<i>Euploea core corinna</i>
	Common Grass-blue	<i>Zizina labradus</i>
	Evening Brown	<i>Melanitis leda bankia</i>
	Large Grass Yellow	<i>Eurema hecabe phoebus</i>
	Lemon Migrant	<i>Catopsilia pomona Pomona</i>
	Magpie Moth	<i>Nyctemera secundiana</i>
	Meadow Argus	<i>Junonia villida</i>
	Monarch	<i>Danaus plexippus plexippus</i>
	Orchard Swallowtail	<i>Papilio aegaeus aegaeus</i>
	Regent Skipper	<i>Euschemon rafflesia</i>
	Small Grass-yellow	<i>Eurema smilax</i>
	Small Dusky Blue	<i>Candalides erinus erinus</i>
	Small Green-banded Blue	<i>Psychonotis caelius</i>
Mammals	Bandicoot	<i>Bandicoot Spp.</i>



	Common Ringtail Possum	<i>Pseudocheirus peregrinus</i>
	European Red Fox	<i>Vulpes vulpes</i>
	Ship Rat	<i>Rattus rattus</i>
	Swamp Wallaby	<i>Wallabia bicolor</i>
Amphibians	Cane Toad	<i>Bufo marinus</i>
	Eastern Sedgefrog	<i>Litoria fallax</i>
Reptiles	Carpet Python	<i>Morelia spilota</i>
	Eastern Water Skink	<i>Eulamprus quoyii</i>
	Lace Monitor	<i>Varanus varius</i>
	Red-bellied Black Snake	<i>Pseudechis porphyriacus</i>
	Wall Skink	<i>Cryptoblepharus virgatus</i>
Dragonflies	Scarlet Percher	<i>Diplacodes haematodes</i>
Spiders	Four-spined Spider	<i>Gasteracantha quadrispinosa</i>
	Garden Orb-weaver	<i>Eriophora transmarinus</i>
	Golden Orb-weaver	<i>Nephila spp.</i>
	Russian Tent Spider	<i>Cyrtophora spp.</i>
	Silver Orb-weaver	<i>Leucauge spp.</i>
	Two-spined Spider	<i>Poecilopachys australasiae</i>
Beetles	Crusader Bug	<i>Mictis profana</i>
Crustaceans	Horn-eyed Ghost Crab	<i>Ocypode ceratophthalma</i>
	Smooth-handed Ghost Crab	<i>Ocypode cordimanus</i>

Fig. 8 Horn-eyed Ghost Crab (*Ocypode ceratophthalma*)Fig. 9 Smooth-handed Ghost Crab (*Ocypode cordimanus*)

### 3.1 Hair-tube Sampling.

Four of the twenty hair-tube traps had signs of animal presence (Table 2). Hair samples were found in one trap and were identified as a Ship Rat (*Rattus rattus*), and one trap contained the scales of a Carpet Python. The bait ball of one trap had chew marks of a small mammal. One trap was disturbed and appeared to be disturbed by a larger species, most likely a macropod or Lace Monitor.

Trap No.	Trap Type	Lat	Lon	Hit
T01	FT	-26° 31' 31.8"	153° 05' 30.1"	
T02	HM	-26° 31' 30.6"	153° 05' 29.9"	
T03	FT	-26° 31' 29.8"	153° 05' 29.9"	
T04	HM	-26° 31' 28.8"	153° 05' 29.7"	Carpet Python scales
T05	FT	-26° 31' 28.0"	153° 05' 29.4"	Ship Rat
T06	HM	-26° 31' 26.9"	153° 05' 28.9"	Bait ball chewed
T07	FT	-26° 31' 25.6"	153° 05' 29.0"	
T08	HM	-26° 31' 25.1"	153° 05' 29.5"	
T09	FT	-26° 31' 24.0"	153° 05' 29.9"	
T10	HM	-26° 31' 22.4"	153° 05' 30.2"	
T11	FT	-26° 31' 21.7"	153° 05' 30.3"	
T12	HM	-26° 31' 21.0"	153° 05' 31.4"	
T13	FT	-26° 31' 20.9"	153° 05' 32.5"	
T14	HM	-26° 31' 19.6"	153° 05' 32.3"	
T15	FT	-26° 31' 18.7"	153° 05' 31.9"	
T16	HM	-26° 31' 17.4"	153° 05' 32.2"	
T17	FT	-26° 31' 17.1"	153° 05' 28.4"	
T18	HM	-26° 31' 16.6"	153° 05' 29.3"	Trap flattened
T19	FT	-26° 31' 15.3"	153° 05' 29.4"	
T20	HM	-26° 31' 14.1"	153° 05' 29.2"	

Table 2. Hair-tube trap location and results.

Note: Trap type are labelled as Faunatech Trap type (FT) or Home Made type (HM).



#### 4. Discussion

This fauna survey has shown that this site has a large amount of species for its location within a developed region. With 110 species identified within the site this quantity shows the importance of the fore dune system as it forms an almost continuous corridor, creating and linking a large refugial habitat from the Maroochy River in the south to the Noosa Headland in the north, and a network of national parks and reserves to the west. The assemblage is the highest number of species recorded by Faunawatch along the Mudjimba – Marcoola -Yaroomba – Coolum fore dune section. This level of diversity was achieved through high numbers of birds (68) and butterflies (20).



Fig 10. Varied Triller in north west section (12.2.7)



Fig. 11 Mangrove Gerygone



Fig. 12 Juvenile Figbird and Magpie Lark nesting in Meleleuca



The site showed the effects of human disturbance at the south and north end with a high presence of species that are able to exist or thrive in cleared or human populated areas such as Spotted Turtle Doves (*Streptopelia chinensis*) (Fig. 13), Australian Magpies (*Gymnorhina tibicen*), Magpie Larks (*Grallina cyanoleuca*) and Masked Lapwings (*Vanellus miles*) (Fig. 14).



Fig. 13 Spotted Turtle-dove in Lions Park.



Fig. 14 Masked Lapwing on grass in Lions Park.

The areas with higher density natural vegetation allowed the more sensitive species to populate the site. Two species of note identified within these areas include the Fairy Gerygone (*Gerygone palpebrosa*) (Fig. 15) and the Clamorous Warbler (*Acrocephalus stentoreus*). The Sunshine Coast is believed to be the southern limit of the Fairy Gerygone's distribution and an uncommon find. This discovery of another population within the Coolum fore dune system is another piece of valuable information gathered by this series of Coolum Coast Care surveys and will assist in understanding the local distribution, and how this changes with time.



Fig. 15 Fairy Gerygone seen in fore dunes \*Note - Photo taken in Wurtulla.



The Clamorous Warbler is an uncommon species on the Sunshine Coast. Although distributed throughout eastern Australia the tropical populations are believed to comprise of migratory southern individuals. Due to the Sunshine Coasts location forming the transition between the temperate south and tropical north, it is unknown if this individual is a southern migrant or if has become resident to the area. Future surveys would be essential to gain a greater understanding of the local population size and distribution.

Mammal populations were surprisingly low in the survey site. Despite ideal conditions only 1 mammal was identified through hair-tube trapping being a Ship Rat (*Rattus rattus*). There was an active Ringtail Possum drey found at the southern end of the site (Fig. 18), scat evidence from Swamp Wallabies (*Wallabia bicolor*) (Fig. 16) and diggings and nests of Bandicoots (Fig. 17), but the quantity of these were comparatively low compared to previous Faunawatch surveys in Yaroomba and Mudjimba.



Fig. 16 Low-Med density of wallaby paths found through ground cover.



Fig. 17 Bandicoot tunnels found in dense grassed ground cover.





Fig. 18 Ringtail Possum drey in Melealeuca

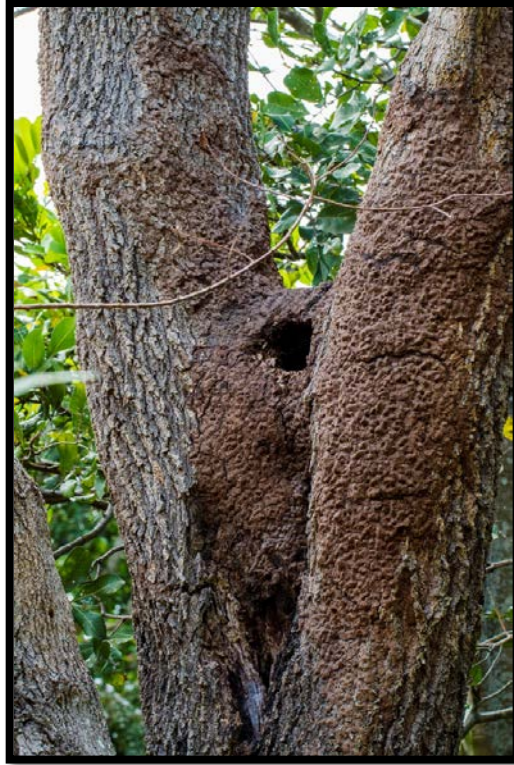


Fig. 19 Kingfisher nest in termite mound

We would suggest the low numbers of mammals is due to several factors related to its position on the south side of Stumers Creek and anthropogenic pressure with development on the south and eastern side. The nature corridor tapers down until all the dunal system and natural vegetation is absent at the Coolum surf club (Fig. 20). We would propose this artificial barrier has stopped the recruitment of terrestrial species from the south and limited movement of species from the north.



Fig. 20 The dunal system corridor is blocked at the southern end by the Coolum Surf Club.



The north end of the site with a natural barrier of Stumers Creek has also suffered from anthropogenic pressure with the river mouth (Fig. 21 & 23) and surrounding dunes becoming a very popular off-leash dog walking zone and general recreation area. The presence of a fox (*Vulpes vulpes*) was also identified at a beach access path which puts further pressure on native species.



Fig. 21 Stumers Creek creating a barrier at the north end of the site.



Fig. 22 Dog scats were found throughout the area causing stress for native species.





Fig. 23 Stumers Creek and David Low Way creating a barrier to northern population migration.



Fig. 24. Stumers Road creates causes edge effects and divides the northern section of the site.

Two amphibians were identified in the survey being an Eastern Sedge Frog (*Litoria fallax*) and a Cane Toad (*Bufo marinus*) (Fig. 25). With large seasonal swamp areas and two main drain lines running the length of the site it would be recommended that this site is resurveyed in more favourable conditions for frog detection. With areas around the survey site containing several species, including vulnerable acid frogs, this would help our understanding of these species distribution. Similarly reptile presence was surprisingly low with only five species identified. Identification of the presence of this group would also benefit from a summer survey.



Fig. 25 Cane Toad regurgitate found on central walking path



Fig. 26 Two spined Spider





Fig. 27 Eastern Water Skink next to central walking track drain



Fig. 28 Crusader Beetle

## 6. Acknowledgements

This project was carried out with financial support from Coolum District Coast Care Group Inc. with logistic support from the Wildlife Preservation Society of Queensland, Sunshine Coast and Hinterland Branch Inc.

Fauna survey work was conducted under DERM Scientific Purposes Permit no. WISP05484408 and DPI Animal Ethics permit no. CA2009/02/329.

All photographs were taken by Paul Smith on the survey site unless otherwise indicated. These photos remain the property of photographers.



## 7. Appendices

### A1. Hair-tube Trap locations.





## A2. Survey - 27/08/12

Location: Coolum Beach North - Lions Park - Stumers Creek

Lat: 26 31 20

Long: 153 05 29

Date: 27/08/2012

Time: 07:45 - 15:15

Group	Common Name	Scientific Name	Seen or Heard	Qty
Birds	Australian Brush-turkey	<i>Alectura lathamii</i>	S	1+
	Australasian Gannet	<i>Morus serrator</i>	S	1
	Great Egret	<i>Ardea alba</i>	S	1
	Straw-necked Ibis	<i>Threskionis spinicollis</i>	S	1
	Australian White Ibis	<i>Threskiornis molucca</i>	S	1
	Buff-banded Rail	<i>Gallirallus philippensis</i>	S	1
	Masked Lapwing	<i>Vanellus miles</i>	S	2
	Spotted Turtle-dove	<i>Streptopelia chinensis</i>	H	1
	Bar-shouldered Dove	<i>Geopelia humeralis</i>	S	4
	Crested Pigeon	<i>Ocyphaps lophotes</i>	S	1
	Galah	<i>Cacatua roseicapilla</i>	S	4
	Rainbow Lorikeet	<i>Trichoglossus haematodus</i>	S	6
	Laughing Kookaburra	<i>Dacelo novaeguineae</i>	S	4
	Forest Kingfisher	<i>Todiramphus macleayi</i>	S	1
	Red-backed Fairy-wren	<i>Malurus melanocephalus</i>	S	2
	White-browed Scrubwren	<i>Sericornis frontalis</i>	S	6
	Mangrove Gerygone	<i>Gerygone levigaster</i>	S	2
	Little Wattlebird	<i>Anthochaera chrysoptera</i>	S	30+
	Noisy Friarbird	<i>Philemon corniculatus</i>	S	2
	Lewin's Honeyeater	<i>Meliphaga lewinii</i>	S	10+
	White-cheeked Honeyeater	<i>Phylidonyris nigra</i>	S	20+
	Brown Honeyeater	<i>Lichmera indistincta</i>	S	20+

	Eastern Yellow Robin	<i>Eopsaltria australis</i>	S	4
	Eastern Whipbird	<i>Psophodes olivaceus</i>	S	2
	Grey Shrike-thrush	<i>Colluricincla harmonica</i>	S	1
	Leaden Flycatcher	<i>Myiagra rubecula</i>	S	1
	Magpie-lark	<i>Grallina cyanoleuca</i>	S	2
	Rufous Fantail	<i>Rhipidura rufifrons</i>	S	1
	Grey Fantail	<i>Rhipidura fuliginosa</i>	S	1
	Willie Wagtail	<i>Rhipidura leucophrys</i>	S	1
	Spangled Drongo	<i>Dicrurus bracteatus</i>	S	1
	Black-faced Cuckoo-shrike	<i>Coracina novaehollandiae</i>	S	3
	Varied Triller	<i>Lalage leucomela</i>	S	4
	Olive-backed Oriole	<i>Oriolus sagittatus</i>	H	1
	Pied Butcherbird	<i>Cracticus nigrogularis</i>	H	1
	Australian Magpie	<i>Gymnorhina tibicen</i>	S	2
	Pied Currawong	<i>Strepera graculina</i>	S	2
	Torresian Crow	<i>Corvus orru</i>	S	4
	Mistletoe Bird	<i>Dicaeum hirundinaceum</i>	H	1
	Welcome Swallow	<i>Hirundo neoxena</i>	S	2+
	Silvereye	<i>Zosterops lateralis</i>	S	15+
Butterflies	Black Jezebel	<i>Delias nigrina</i>	S	8
	Brown Ringlet	<i>Hypocysta metirius</i>	S	15+
	Evening Brown	<i>Melanitis leda bankia</i>	S	6
	Large Grass Yellow	<i>Eurema hecabe phoebus</i>	S	1
	Orchard Swallowtail	<i>Papilio aegaeus aegaeus</i>	S	1
	Small Green-banded Blue	<i>Psychonotis caelius</i>	S	2
Mammals	Common Ringtail Possum	<i>Pseudocheirus peregrinus</i>	E	
	Swamp Wallaby	<i>Wallabia bicolor</i>	E	
Frogs	Cane Toad	<i>Bufo marinus</i>	S	2
Reptiles	Red-bellied Black Snake	<i>Pseudechis porphyriacus</i>	S	1
Spiders	Four-spined Spider	<i>Gasteracantha quadrispinosa</i>	S	3
	Garden Orb-weaver	<i>Eriophora transmarinus</i>	S	1
	Golden Orb-weaver	<i>Nephila spp.</i>	S	1
	Russian Tent Spider	<i>Cyrtophora spp.</i>	S	5+

## A3. Survey - 30/08/12

Location: Coolum Beach North - Lions Park - Stumers Creek

Lat: 26 31 20

Long: 153 05 29

Date: 30/08/2012

Time: 07:30 - 11:30

Group	Common Name	Scientific Name	Seen or Heard	Qty
Birds	Australian Brush-turkey	<i>Alectura lathamii</i>	S	1+
	Little Black Cormorant	<i>Phalacrocorax sulcirostris</i>	S	1
	Pacific Baza	<i>Aviceda subcristata</i>	S	1
	Whistling Kite	<i>Haliastur sphenurus</i>	S	1
	Osprey	<i>Pandion haliaetus</i>	S	2
	Buff-banded Rail	<i>Gallirallus philippensis</i>	S	1
	Bar-shouldered Dove	<i>Geopelia humeralis</i>	S	4
	Rainbow Lorikeet	<i>Trichoglossus haematodus</i>	S	8+
	Fan-tailed Cuckoo	<i>Cacomantis flabelliformis</i>	S	1
	Laughing Kookaburra	<i>Dacelo novaeguineae</i>	S	4
	Sacred Kingfisher	<i>Todirhamphus sanctus</i>	S	1
	Rainbow Bee-eater	<i>Merops ornatus</i>	H	2+
	Red-backed Fairy-wren	<i>Malurus melanocephalus</i>	S	4
	Striated Pardalote	<i>Pardalotus striatus</i>	H	1
	White-browed Scrubwren	<i>Sericornis frontalis</i>	S	6
	Mangrove Gerygone	<i>Gerygone levigaster</i>	S	2
	Fairy Gerygone	<i>Gerygone palpebrosa</i>	S	1
	Little Wattlebird	<i>Anthochaera chrysoptera</i>	S	30+
	Noisy Friarbird	<i>Philemon corniculatus</i>	S	1
	Blue Faced Honeyeater	<i>Entomyzon cyanotis</i>	S	3
	Lewin's Honeyeater	<i>Meliphaga lewinii</i>	S	4+
	White-cheeked Honeyeater	<i>Phylidonyris nigra</i>	S	15+
	Brown Honeyeater	<i>Lichmera indistincta</i>	S	25+



	Eastern Yellow Robin	<i>Eopsaltria australis</i>	S	5
	Eastern Whipbird	<i>Psophodes olivaceus</i>	H	1
	Grey Shrike-thrush	<i>Colluricincla harmonica</i>	H	1
	Leaden Flycatcher	<i>Myiagra rubecula</i>	S	1
	Magpie-lark	<i>Grallina cyanoleuca</i>	S	2
	Rufous Fantail	<i>Rhipidura rufifrons</i>	S	2
	Willie Wagtail	<i>Rhipidura leucophrys</i>	S	1
	Spangled Drongo	<i>Dicrurus bracteatus</i>	S	5
	Varied Triller	<i>Lalage leucomela</i>	S	6
	Olive-backed Oriole	<i>Oriolus sagittatus</i>	S	1+
	White-breasted Woodswallow	<i>Artamus leucorhynchus</i>	H	1
	Pied Butcherbird	<i>Cracticus nigrogularis</i>	H	1
	Australian Magpie	<i>Gymnorhina tibicen</i>	S	3
	Torresian Crow	<i>Corvus orru</i>	S	6
	Mistletoe Bird	<i>Dicaeum hirundinaceum</i>	S	1+
	Welcome Swallow	<i>Hirundo neoxena</i>	S	4+
	Silvereye	<i>Zosterops lateralis</i>	S	20+
Butterflies	Black Jezebel	<i>Delias nigrina</i>	S	10+
	Brown Ringlet	<i>Hypocysta metirius</i>	S	1
	Common Crow	<i>Euploea core corinna</i>	S	1
	Evening Brown	<i>Melanitis leda bankia</i>	S	5
	Lemon Migrant	<i>Catopsilia pomona Pomona</i>	S	1
	Monarch	<i>Danaus plexippus plexippus</i>	S	1
	Small Dusky Blue	<i>Candalides erinus erinus</i>	S	2+
Reptiles	Wall Skink	<i>Cryptoblepharus virgatus</i>	S	2
	Lace Monitor	<i>Varanus varius</i>	S	1
	Red-bellied Black Snake	<i>Pseudechis porphyriacus</i>	S	1
Spiders	Four-spined Spider	<i>Gasteracantha quadrispinosa</i>	S	2
	Golden Orb-weaver	<i>Nephila spp.</i>	S	1
	Russian Tent Spider	<i>Cyrtophora spp.</i>	S	1
	Silver Orb-weaver	<i>Leucauge spp.</i>	S	20

## A4. Survey - 03/09/12

Location: Coolum Beach North - Lions Park - Stumers Creek

Lat: 26 31 20

Long: 153 05 29

Date: 03/09/2012

Time: 07:45 - 15:45

Group	Common Name	Scientific Name	Seen or Heard	Qty
Birds	Australian Brush-turkey	<i>Alectura lathami</i>	S	3
	Brahminy Kite	<i>Haliastur Indus</i>	S	1
	Whistling Kite	<i>Haliastur sphenurus</i>	S	1
	Masked Lapwing	<i>Vanellus miles</i>	H	1
	Bar-shouldered Dove	<i>Geopelia humeralis</i>	S	4+
	Crested Pigeon	<i>Ocyphaps lophotes</i>	S	1
	Rainbow Lorikeet	<i>Trichoglossus haematodus</i>	S	8
	Fan-tailed Cuckoo	<i>Cacomantis flabelliformis</i>	S	1
	Shining Bronze-cuckoo	<i>Chrysococcyx lucidus</i>	S	1
	Rainbow Bee-eater	<i>Merops ornatus</i>	S	6
	Red-backed Fairy-wren	<i>Malurus melanocephalus</i>	S	2
	White-browed Scrubwren	<i>Sericornis frontalis</i>	S	8+
	Mangrove Gerygone	<i>Gerygone levigaster</i>	S	3
	Little Wattlebird	<i>Anthochaera chrysoptera</i>	S	15+
	Noisy Friarbird	<i>Philemon corniculatus</i>	S	15+
	Blue Faced Honeyeater	<i>Entomyzon cyanotis</i>	S	6
	Lewin's Honeyeater	<i>Meliphaga lewinii</i>	S	8+
	White-cheeked Honeyeater	<i>Phylidonyris nigra</i>	S	20+
	Brown Honeyeater	<i>Lichmera indistincta</i>	S	50+
	Eastern Yellow Robin	<i>Eopsaltria australis</i>	S	6
	Eastern Whipbird	<i>Psophodes olivaceus</i>	H	2+

	Golden Whistler	<i>Pachycephala pectoralis</i>	S	1
	Little Shrike-thrush	<i>Colluricincla megarhyncha</i>	H	1
	Leaden Flycatcher	<i>Myiagra rubecula</i>	S	1
	Magpie-lark	<i>Grallina cyanoleuca</i>	S	2+
	Rufous Fantail	<i>Rhipidura rufifrons</i>	S	4
	Grey Fantail	<i>Rhipidura fuliginosa</i>	S	1
	Spangled Drongo	<i>Dicrurus bracteatus</i>	S	4
	Black-faced Cuckoo-shrike	<i>Coracina novaehollandiae</i>	H	2
	Varied Triller	<i>Lalage leucomela</i>	S	10
	Olive-backed Oriole	<i>Oriolus sagittatus</i>	S	5
	Australasian Figbird	<i>Sphecotheres viridis</i>	S	5
	Pied Butcherbird	<i>Cracticus nigrogularis</i>	H	1
	Australian Magpie	<i>Gymnorhina tibicen</i>	H	2
	Pied Currawong	<i>Strepera graculina</i>	S	4
	Torresian Crow	<i>Corvus orru</i>	S	10
	Mistletoe Bird	<i>Dicaeum hirundinaceum</i>	S	2
	Welcome Swallow	<i>Hirundo neoxena</i>	S	6
	Clamorous Reed-Warbler	<i>Acrocephalus stentoreus</i>	S	1
	Silvereye	<i>Zosterops lateralis</i>	S	10
Butterflies	Black Jezebel	<i>Delias nigrina</i>	S	15+
	Brown Ringlet	<i>Hypocysta metirius</i>	S	50+
	Clearwing Swallowtail	<i>Cressida cressida</i>	S	1
	Evening Brown	<i>Melanitis leda bankia</i>	S	2
	Large Grass Yellow	<i>Eurema hecabe phoebus</i>	S	2
	Monarch	<i>Danaus plexippus plexippus</i>	S	2
	Small Dusky Blue	<i>Candalides erinus erinus</i>	S	3
	Small Green-banded Blue	<i>Psychonotis caelius</i>	S	4
Mammals	Bandicoot	<i>Bandicoot Spp.</i>	E	4+
Reptiles	Wall Skink	<i>Cryptoblepharus virgatus</i>	S	5
	Red-bellied Black Snake	<i>Pseudechis porphyriacus</i>	S	1
Spiders	Russian Tent Spider	<i>Cyrtophora spp.</i>	S	10+



## A5. Survey - 22/10/12

Location: Coolum Beach North - Lions Park - Stumers Creek

Lat: 26 31 20

Long: 153 05 29

Date: 22/10/2012

Time: 07:45 - 10:30

Group	Common Name	Scientific Name	Seen or Heard	Qty
Birds	Australian Brush-turkey	<i>Alectura lathamii</i>	S	2
	White-faced Heron	<i>Egretta novaehollandiae</i>	S	2
	Australian White Ibis	<i>Threskiornis molucca</i>	S	3
	White-bellied Sea-eagle	<i>Haliaeetus leucogaster</i>	S	3
	Crested Tern	<i>Sterna bergii</i>	S	1
	Spotted Turtle-dove	<i>Streptopelia chinensis</i>	S	3
	Bar-shouldered Dove	<i>Geopelia humeralis</i>	S	3
	Crested Pigeon	<i>Ocyphaps lophotes</i>	S	2
	Yellow-tailed Black Cockatoo	<i>Calyptorhynchus funereus</i>	S	6
	Little Corella	<i>Cacatua sanguinea</i>	H	1
	Sulphur-crested cockatoo	<i>Cacatua galerita</i>	H	1
	Rainbow Lorikeet	<i>Trichoglossus haematodus</i>	S	7
	Fan-tailed Cuckoo	<i>Cacomantis flabelliformis</i>	S	2
	White-throated Needletail	<i>Hirundapus caudacutus</i>	S	20+
	Laughing Kookaburra	<i>Dacelo novaeguineae</i>	S	2
	Rainbow Bee-eater	<i>Merops ornatus</i>	S	2
	White-browed Scrubwren	<i>Sericornis frontalis</i>	S	10+
	Little Wattlebird	<i>Anthochaera chrysoptera</i>	S	7
	Noisy Friarbird	<i>Philemon corniculatus</i>	S	3
	Blue Faced Honeyeater	<i>Entomyzon cyanotis</i>	S	4
	Noisy Miner	<i>Manorina melanocephala</i>	S	8
	Lewin's Honeyeater	<i>Meliphaga lewinii</i>	S	2
	White-throated Honeyeater	<i>Melithreptus albogularis</i>	S	2

	Brown Honeyeater	<i>Lichmera indistincta</i>	S	5
	Grey Shrike-thrush	<i>Colluricincla harmonica</i>	S	1
	Spectacled Monarch	<i>Monarcha trivirgatus</i>	S	1
	Magpie-lark	<i>Grallina cyanoleuca</i>	S	6
	Willie Wagtail	<i>Rhipidura leucophrys</i>	S	3
	Black-faced Cuckoo-shrike	<i>Coracina novaehollandiae</i>	S	2
	Varied Triller	<i>Lalage leucomela</i>	H	2
	Australasian Figbird	<i>Sphecotheres viridis</i>	S	4
	Grey Butcherbird	<i>Cracticus torquatus</i>	H	2
	Pied Butcherbird	<i>Cracticus nigrogularis</i>	H	1
	Australian Magpie	<i>Gymnorhina tibicen</i>	S	6
	Pied Currawong	<i>Strepera graculina</i>	S	2
	Torresian Crow	<i>Corvus orru</i>	S	6
	Mistletoe Bird	<i>Dicaeum hirundinaceum</i>	S	1
Butterflies	Welcome Swallow	<i>Hirundo neoxena</i>	S	10+
	Silvereye	<i>Zosterops lateralis</i>	S	20+
	Black Jezebel	<i>Delias nigrina</i>	S	2
	Blue Tiger	<i>Tirumala hamata hamata</i>	S	3
	Blue Triangle	<i>Graphium sarpedon choredon</i>	S	1
	Common Grass-blue	<i>Zizina labradus</i>	S	5
	Caper White	<i>Belenois java teutonia</i>	S	4
	Clearwing Swallowtail	<i>Cressida cressida</i>	S	1
	Evening Brown	<i>Melanitis leda bankia</i>	S	1
	Meadow Argus	<i>Junonia villida</i>	S	2
	Monarch	<i>Danaus plexippus plexippus</i>	S	1
	Orchard Swallowtail	<i>Papilio aegeus aegeus</i>	S	1
	Regent Skipper	<i>Euschemon rafflesia</i>	S	1
	Small Grass-yellow	<i>Eurema smilax</i>	S	3
	Magpie Moth	<i>Nyctemera secundiana</i>	S	1
	Case Moth	<i>Psychidae Sp.</i>	S	1
Mammals	European Red Fox	<i>Vulpes vulpes</i>	E - Scent	1

Frogs	Eastern Sedgefrog	<i>Litoria fallax</i>	H	2
Reptiles	Eastern Water Skink	<i>Eulamprus quoyii</i>	S	1
Spiders	Silver Orb-weaver	<i>Leucauge spp.</i>	S	1
	Two-spined Spider	<i>Poecilopachys australasiae</i>	S	1
Beetles	Crusader Bug	<i>Mictis profana</i>	S	1
Dragonflies	Scarlet Percher	<i>Diplacodes haematodes</i>	S	3
Crustaceans	Horn-eyed Ghost Crab	<i>Ocypode ceratophthalma</i>	S	1
	Smooth-handed Ghost Crab	<i>Ocypode cordimanus</i>	S	1