

NATURE TERRITORY

February 2013

Newsletter of the Northern Territory Field Naturalists Club Inc.

PO Box 39565, Winnellie, NT 0821



President:	Tissa Ratnayeke	8921 8226 (h/w)
Secretary:	Peter Holbery	8901 6105 (w)
Treasurer:	John Rawsthorne	
Newsletter Editor:	John Rawsthorne	
Committee Member:	Tida Nou	8981 6667 (h)
Committee Member:	Stuart Young	8995 5026 (w)
Committee Member:	Graham Brown	8945 4745 (h/w)
Committee Member:	Mark Grubert	0407 367 585
Committee Member:	Jyoti Choudhary	0404 270 302
Committee Member:	Peter Ebsworth	
Committee Member:	Laurie Barrand	

Club web-site: <http://ntfieldnaturalists.org.au/>

Meetings are generally held on the second Wednesday of every month, commencing at 7:45 PM, in Blue 1.54 (Business Faculty Building) on the Casuarina Campus of Charles Darwin University.

Subscriptions are on a financial-year basis and are: Families/Institutional - \$30; Singles - \$25; Concessions - \$15. Discounts are available for new members – please contact us.



An adult male Tawny Coster butterfly at Wagait Beach. This is a newly discovered species of butterfly for Australia, previously known from India and Sri Lanka. Read more on page 5. *Photo Michael Braby*

CONTENTS

Club activities .. p2	Club notices .. p3	
Life member p4	A new butterfly.. p5	Solar eclipse p6
e-Guide to Australian birds .. p9	Recent literature .. p11	

Disclaimer: The views expressed in *Nature Territory* are not necessarily those of the NT Field Naturalists Club Inc. or members of its Committee.

Club activities

February meeting. Wednesday February 13, 7:45 PM. Blue 1.54 (Business Bldg.), CDU Casuarina.

NOTE: Our meeting room has permanently moved to a different room in the same building used last year.

A reptile and toad update Graeme Sawyer

Reptile populations in the top end have taken a significant hit from the arrival of cane toads into our ecosystems. Whilst the reptile populations have not been studied to the same degree as mammals there is significant evidence of population level declines.

Varanid lizards are a major group of predators and we know all too little about them. Their decline has been one of the biggest and there are now concerns about the flow on impacts from the loss of these apex predators.

As we continue to study cane toads and our reptiles and look at the impact of cane toads we are finding some interesting elements in the decline. We have a much greater knowledge of cane toads and a better understanding of their impacts on some species.

East Point reserve in Darwin is a focus for a CFOC funded study “Reversing Reptile Decline” where we think we are seeing one mechanism that helps Monitor populations persist. We have been capturing reptiles and microchipping them and have caught 17 Yellow-spotted Monitors *Varanus Panoptes*, 21 Frill-necked lizards and 3 bluetongues on the site to date.

Graeme’s talk will give an update on our knowledge regarding toads and a overview of the reptile research.



Left: Yellow-spotted Monitor *Varanus Panoptes* inspecting a trap. Photo Graeme Sawyer.

Graeme Sawyer is the coordinator of FrogWatch which was set up in 1991 to gather better information about the frogs of North Australia, their distribution and to increase community awareness about frogs. Cane Toads have hijacked the agenda in recent years and now much effort and research is devoted to monitoring their spread, controlling populations and evaluating their impact on the environment.



March meeting: To be advised



Top End Native Plant Society General meetings are held on the 3rd Thursday of the month at the Marrara Christian College, corner Amy Johnson Ave. and McMillans Road, and commence at 7:30 PM (speaker at 8 PM). Visit <http://www.topendnativeplants.org.au/index.php> or contact Russell Dempster on 8983 2131.

February meeting: 21 February: Tony Cox – “Remnant bush in urban areas”

Club activities

February field trip. Sunday 17 February 8.30am A tour of the lizard research area at East Point led by Graeme Sawyer

This is an opportunity to visit the CFOC funded lizard research area at East Point to check the traps and the cameras and do a search for any yellow-spotted monitors, frillies or bluetongues. We could catch and microchip any animals if we get the chance.

Meet at the carpark at the far end of Lake Alexander. Contact Tissa on 8921 8226 if you would like more information.



Left: A Yellow-spotted Monitor ready for release. Photo Graeme Sawyer.

Club notices

Thank you: The previous issue was edited by **John Rawsthorne**, proof-read by **Erica Garcia** and collated and mailed by **Laurie Barrant**. It was printed using equipment kindly made available by **Delia Lawrie MLA** at her Karama electoral office.



Need a Club membership form? Go to: <http://sites.google.com/site/ntfieldnaturalists/downloads>.



Newsletter contributions welcome: Sightings, reports, travelogues, reviews, photographs, sketches, news, comments, opinions, theories , anything relevant to natural history. Please forward material to Tissa at tissa@imprintdesign.com.au or the Club's postal address, or contact him on 8921 8226.

Deadline for the March newsletter: Friday 22 February.



Club library: The Club's journal and book collection is available to members. Lists of holdings can be found on our web-site: <http://sites.google.com/site/ntfieldnaturalists/library>. The library is housed in two sections:

Books, reports and CDs: at the medical clinic of Dr. Lyn Reid in the Rapid Creek Business Village. This can be accessed directly between 9 AM and 2:30 PM Tuesday to Thursday, and 4–6 PM on Tuesday, or indirectly by phoning Lyn at work on 8985 3250.

Journals: in the office of Stuart Young at the Biodiversity Unit at Berrimah. These can be accessed by ringing Stuart on 8995 5026 (w).

Leanyer Ponds: Access to Leanyer Ponds is generally available after induction through PAWC. To commence the induction process go to <https://www.rapidinduct.com.au/powerwater/waterservices>. A key to the ponds may be obtained on payment of a \$50 deposit. Only those who have undertaken the induction and signed an indemnity can enter Leanyer Ponds.

Bryan Baker has keys for the Alice Springs Sewage Ponds, available for collection in Darwin by members before they head south. Bryan can be reached in Darwin on 8948 2196.



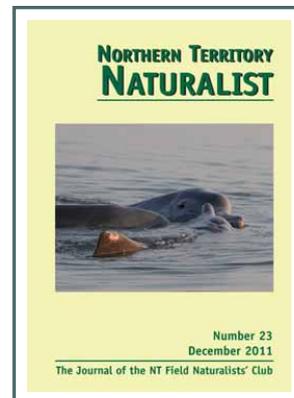
Northern Territory Naturalist: The Editorial Committee of the Club's journal, the *Northern Territory Naturalist*, is now finalising printing of issue no. 24. The journal publishes works concerning any aspect of the natural history and ecology of the Northern Territory or adjacent northern Australia, and may include Reviews, Research Articles, Short Notes, Species Profiles and Book Reviews.

The *Northern Territory Naturalist* is a registered, peer-reviewed journal (ISSN 0155-4093). Author instructions may be downloaded from our web-site:

<http://sites.google.com/site/ntfieldnaturalists/journal>.

If possible, manuscripts should be submitted in digital form by email to michael.braby@nt.gov.au. Manuscript editors are Drs Michael Braby, Lynda Prior and Anke Frank. Louis Elliott is the production editor.

Originals are available of most back issues, some are available as photocopies only, and several recent issues are out-of-print but individual papers are available as pdfs. The journal page of the Club's web-site has an order form for back issues. Free pdfs of papers from issue 18 (2005) onwards are available from the authors or by contacting Lou Elliott, email louis.elliott@nt.gov.au.



Our first Honorary Life Member: Don Franklin

The club committee decided at its January meeting to confer life membership on Don Franklin. Don (pictured below on a field trip in February 2011) was a tireless and passionate ecologist based in Darwin from 1993 to 2012, and has been instrumental in making the club what it is today. As Don now lives in Queensland, we have advised him of this award and will present him a certificate via Australia Post.

Check out Fiona Douglas' excellent article about Don in the March 2012 newsletter at <https://sites.google.com/site/ntfieldnaturalists/2012-newsletters>



The Tawny Coster *Acraea terpsicore* in the Northern Territory, a new butterfly for Australia

Michael F. Braby

During the Easter holiday break in 2012, Chris Sanderson from Brisbane visited the Cox Peninsula to do some bird watching and visit friends. On 9 April 2012, Chris recorded 15 adults of an unfamiliar butterfly at three sites at Wagait Beach. Several adults were photographed and most butterflies were observed close to the beach at a site not far from the town centre.

Subsequently, and to my surprise, I recorded the species at Dundee Beach where I collected a single male on 19 April 2012. Three days later I captured a second male on a mesa near the Town of Adelaide River on 22 April 2012. The Cox Peninsula was revisited by Brian Thistleton, Michael Neal and myself on 23 May 2012 and the butterfly was recorded in abundance at several additional sites distributed throughout Wagait Beach, including Mandorah. A week later, Michael Neal collected two males at Charles Darwin National Park on 28 May 2012. More recently, the butterfly has become very abundant and more widely distributed around Darwin this wet season, and it has now reached the Rural Area at Herbert (D. Bisa, pers. comm.).

We have confirmed that the species in question is the Tawny Coster *Acraea terpsicore*. The presence of this species in the Northern Territory represents a new addition to the butterfly fauna of Australia. It is not certain how it reached the Australian shores and became established in the Top End. The species was formerly restricted to India and Sri Lanka, although there are published reports from South-East Asia, and more recently it appears to have spread to Timor. Overseas there are reports that larvae of the butterfly feed on plants in the Violaceae, Passifloraceae and Cucurbitaceae, and in Sri Lanka it is considered a major pest of gourds. The Consultative Committee on Emergency Plant Pests convened a meeting on 24 May 2012 and

determined that the Tawny Coster does not meet the criteria as an Emergency Pest and that it was not technically feasible to eradicate it based on its current distribution in the NT.

The Tawny Coster is readily identified and distinguished from other similarly coloured butterflies in Australia, and the Glasswing *Acraea andromacha*, by



An adult female Tawny Coster *Acraea terpsicore* at Wagait Beach, Cox Peninsula, NT. Photo by M.F. Braby

its wing shape, colour and pattern elements. The upperside ground colour is bright reddish-orange in males and orange-brown in females, with a series of black spots. The pattern is similar on the underside, but with more pronounced cream subterminal spots on the hind wing.

My colleagues and I are currently investigating the occurrence, impact on native species such as the Glasswing, and the extent to which the Tawny Coster can exploit melons and passionfruit based on laboratory trials because there is potential risk to the tropical horticultural industry and residential garden vegetable crops. A more detailed report on its geographical distribution, colonisation, comparative morphology and life history and general biology is being prepared.

Should you come across this butterfly please send records to michael.braby@nt.gov.au or phone 8995 5015.

Solar Wonderment: 2012 Cairns Total Solar Eclipse

Magen Pettit

It's been ten years since the Moon's shadow plunged a small tract of southern Australia into daytime darkness and thousands gathered in the outback town of Ceduna, S.A., to witness a total solar eclipse. On the morning of Wednesday, 14th November 2012 at approximately 6:38am, the Pettit family from Darwin sat on Wonga Beach, just north of Port Douglas in Far North Queensland, and experienced the descent of night during day at the latest total solar eclipse. This natural phenomenon is without doubt the most amazing spectacle in astronomy and considered by some to be the most awe-inspiring event Mother Nature has to offer.

A total solar eclipse occurs when the Moon passes between the Sun and the Earth, fully obscuring the Sun with its shadow bar a glowing corona of hot gases and light. Total solar eclipses are rare at any particular location because totality exists only along a narrow path on Earth's surface traced by the Moon's shadow or umbra.

The path of totality began in the Northern Territory at sunrise, when the first point of contact of the Moon's shadow with the Earth's surface occurred north east of Ubirr Rock in Kakadu National Park. The shadow travelled east across Arnhem Land, crossing into the Gulf of Carpentaria coast at the north end of Blue Mud Bay. It reached land again on Cape York Peninsula near Wallaby Island. The centreline crossed the eastern coast 30km north of Cairns about halfway between Cairns and Port Douglas, crossing Green Island before heading southeast across the Pacific Ocean where it didn't touch land again.



In the NT, more than 200 people witnessed the total solar eclipse from an escarpment overlooking the Gurruwilny Swamp in Arnhem Land. The Indigenous community of Ramingining was the first place in Australia to view the total eclipse. It was a significant event for the Yolngu people of Arnhem Land, who celebrated the dreaming of the Sun and the Moon. In Yolngu culture, it is believed the Moon is the husband and the Sun is the wife. When the Sun and the Moon came together, that was the beginning of the marriage system.

In Queensland, the eclipse path crossed Cape York Peninsular in a roughly south easterly direction. As the umbra crossed the east coast it darkened a 200km swathe of coastline between Innisfail in the south to Cedar Bay National Park in the north (about half way between Cape Tribulation and Cooktown). For eclipse observers north or south of the 140km wide path of the umbra only a partial eclipse was visible. Totality at the centre of the umbra's path lasted for two spectacular minutes, while duration at the path's northern and southern limits was much shorter and only lasted for a few seconds.

Images: Top Umbra on the Earth's surface as photographed by a Japanese geostationary satellite (MTSAT) during a solar eclipse in 1999 (Wikimedia commons).

Above: Sunrise at Wonga Beach. Clouds. OH NO! (pic: Magen Pettit)

Right: The path of totality



I was fortunate to travel with my family to Cairns for this solar eclipse and we observed it from Wonga Beach, situated about halfway between the townships of Mossman and Daintree. On the morning of the eclipse we were more than a bit lucky that the rain from the previous night had stopped, but there were still enough clouds about to potentially spoil a view of the eclipse



Sunrise occurred at 5:34am and the partial eclipse began about ten minutes later. To prevent any eye damage, we took precautions viewing the Sun using special eclipse viewing glasses and fitted solar filter film in front of camera lenses and binoculars. It was only safe to look directly at the Sun without eye protection during the brief period of totality. The partial eclipse took approximately 54 minutes, with the Sun's disk diminishing steadily as the black body of the Moon passed over it.

As totality approached, the solar crescent became very thin. During the minute before the eclipse, the ambient light about us dimmed dramatically. The wait to see totality was over. As the Moon moved to completely obscure the Sun, the 'diamond ring' formed briefly and for the next 2 minutes (2mins 3.8secs to be exact!) our part of the world experienced totality.

The 'diamond ring' is a bright ring of light surrounding the dark lunar disk with one dazzling bright white point of light. It forms when the Sun shines between lunar mountain peaks and craters, and is one of the highlights during a total eclipse. Having witnessed it myself, I now understand why this phenomenon attracted approx. 60,000 professional astronomers and amateur eclipse chasers from all parts of the globe to travel to FNQ and photograph it. Unfortunately, a pesky cloud obscured my view during this particular moment.

The cloud that had obscured our view of the Moon and Sun during most of the period of totality passed just as the diamond ring re-appeared signalling the end of totality. The Moon spent another hour in partial eclipse as it gradually uncovered the Sun.

It has been reported in previous solar eclipses that as totality neared, birds believing the Sun was going down, all went back to roost and became quiet, only to start calling again as the Sun re-emerged. In similar reports nocturnal insects, such as crickets and cicadas, also began their night calls and then ceased shortly after the Sun re-emerged. It was reported the animals in Cairns Wildlife Dome on top of the Sheraton Casino went silent as the umbra passed over it. Birds, in particular, went silent and some even went back to sleep. The reactions of more than 300 birds, koalas, crocodiles, snakes and insects were observed by a team of Guam-based researchers. If this happened at Wonga Beach we were oblivious to it. All we heard were small waves crashing and occasional excited but hushed conversations of fellow eclipse watchers.

Images: Top to bottom shows the chronology of the eclipse from Wonga Beach, including the flirtations with clouds through the period of total eclipse. Pictures Magen Pettit.

This amazing event was all over by 7:40 am. A total eclipse occurs somewhere on Earth every 18 months or so, but will only recur at any given place within 360 to 410 years on average. I was fortunate to experience this once in a lifetime phenomenon on home territory, with a few precious moments of breath-taking wonder that is forever imprinted in my memory (along with a few good photographs!).

Right: The Pettit family, Wonga Beach, complete with funky protective eyewear!



.....

Literature Review Summaries (continued from page 11)

Little known marsupials

The Scaly-tailed Possum (*Wyulda squamicaudata*) is restricted to the more rugged parts of the Kimberley in Western Australia. Doody *et al.* (2012) report observations of ‘at least four individuals’ of this poorly known possum in the east Kimberley, at El Questro station. Although known from several remote reserves in the north-west Kimberley, this species had not been recorded from the east Kimberly (at least in the literature) since 1917. This begs the question of whether the species is geographically restricted, is in decline, is just hard to find (it is nocturnal and secretive), or if there are insufficient researchers in the right places (steep escarpments dissected by gorges) and with the right techniques (in this case camera traps) for finding them.

A different species, *Pseudantechinus mimulus* (a False Antechinus) illustrates another issue that complicates the taxonomy and general study of small mammals in Australia; the difficulty of making correct identifications of cryptic species that were described by some fellow on the other side of the globe (London) at the turn of the century. As noted by Woolley (2012), this medium-sized dasyurid (carnivorous) marsupial was described based on a single type specimen from Alexandria Station in 1906. At the time the station encompassed the better half of the Barkly Tableland in the NT, and it is not clear where on the station the specimen was collected (it is easy to scoff in these days of GPS accuracy, but these chaps should really have kept better records). The species was re-encountered in 1967 based on a collection from the Sir Edward Pellew group of islands in the Gulf of Carpentaria, and others recorded since then bring the total to 18 specimens in museums (here and overseas), including 12 from the NT. Woolley has clearly expended considerable time and effort disentangling this particular taxonomic nightmare (there are numerous examples from the days of the gentleman naturalists) and, based primarily on dentition, Woolley concludes that the species is valid and that ‘examination of specimens ... in museum collections may lead to the discovery of individuals from localities other than those presently known.’

.....

Rock wallaby genetics

Several papers by Potter and co-workers describe the genetic relationships of the the Short-eared Rock-wallaby (*Petrogale brachyotis*) in northern Australia. This species is fairly common across the Top End and Kimberley and is likely to be present in any area of suitably rocky country (Florence Falls is a favoured spot). Potter *et al.* (2012a) found relatively little genetic differentiation between populations, suggesting that the wallabies do, at times, move between seemingly isolated ranges and outcrops. Rock-wallabies tend to feed at the base of outcrops, and do move around at night, hence dispersal does not seem completely unlikely. At a regional scale, Potter *et al.* (2012b) discovered ‘eight geographically discrete and genetically distinct lineages’ based on mitochondrial DNA. The authors suggest that there are ‘lineages’ in the West Kimberley, East Kimberley, Victoria River District (limited sampling) and the Top End. They posit several major geographical barriers to explain this genetic differentiation, including ‘major river valleys, arid lowlands and discontinuous sandstone ranges’. However, it seems somewhat surprising that one of the groups occurred ‘throughout the Top End’, an area with considerable topographic variation. Strangely also, the closely related dwarf species Monjon (*P. burbidgei*) and Nabarlek (*P. concinna*) were mixed in with the short-ears in the phylogenetic tree.

Michael Morcombe eGuide to Australian Birds – A review

Laurie & Illona Barrand

We have been using The Michael Morcombe eGuide for some months now and found it useful for checking on birds we see in our travels. We use the eGuide on our iPad and iPhone and there is also an Android version.

The eGuide has the same illustrations and explanatory text as the printed version, with the addition of usually one or more bird calls for each bird which can aid in identification. Searching for birds can be done in quite a few ways. The initial step is to select the area you are in, for example Top End or Kimberley which will limit only birds that could be seen in that area, so no penguins in the Top End list. For each area the list can be further refined by requesting "All" possible birds, the Usual birds seen or Vagrants.

The next searching method is the Taxonomic Index. So you might see an unknown duck, so select "Ducks, Geese, Swans" in the list and then touch the name for most likely bird or start at the beginning. All the information for that bird will come up including the calls. If not the right bird, then just press the > button to move to the next bird in the group. Also in each searching method you can turn on Compare. This shows the first bird you pick and the next bird side by side on the screen to allow for a more detailed look to check smaller markings. Only two birds can be shown at a time, but you can zoom in to any illustration by just touching the drawing.

Another search method if you know the bird name is to go to Alphabetic Index. It only has the common name in the list and the scientific name in the bird details.

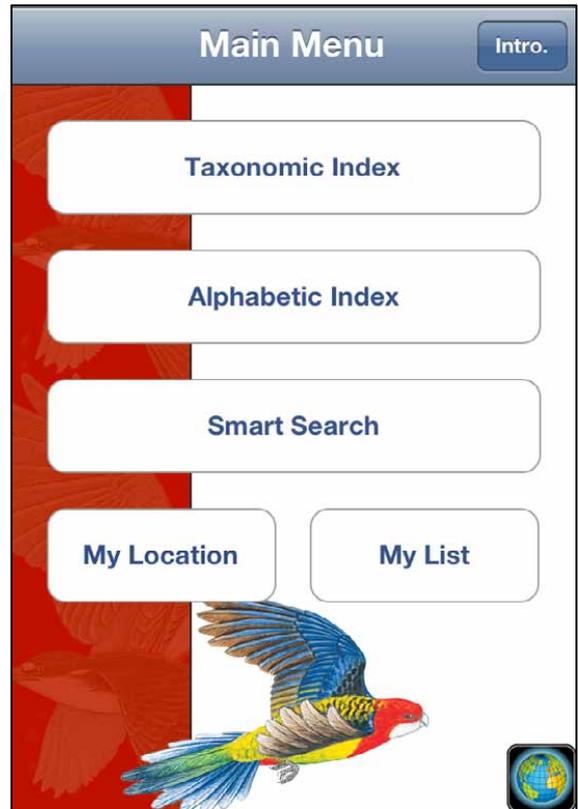
Yet another search method exists called Smart Search. This uses a series of questions to refine the list of possible birds. So you might pick – Looks like a duck, coloured black and in freshwater would give four birds that could be compared quickly.

Once a bird has been found it can be recorded for the location and date it was seen. This sighting is recorded in a My List file which can be read, printed or emailed using filters for location, bird or date. This is useful for knowing what birds you have seen and when.

Some of the gripes are that in Smart Search the descriptions are text only. Being able to see what is meant by an upturned bill or rufous colouring for beginners would be useful. Also in the sighting lists it would be useful to allow the GPS location to be automatically added to save typing the location.

The main advantage is that it is easier to carry one phone or tablet than a book and as we have several guide books in the same tablet much easier to carry them all around in the bush.

Ed: Screenshots of the start menu of the iPhone version (above) and a typical opening page for a species account (left) are shown. I use this app regularly. My favourite feature of this app (apart from its portability) is the bird-call library.



Interesting bird sightings

22 November 2012 to 30 January 2013

Compiled by Micha Jackson and Peter Kyne

Sightings are as reported (unvetted, unconfirmed) and have been compiled from emails sent to the NT Birds forum (<http://groups.yahoo.com/group/ntbirds>) moderated by Niven McCrie, postings on Birdline Northern Territory (<http://www.ereamaea.com/>) and from correspondences with birdwatchers. Bird names follow the IOC world checklist.

Species	Date	Location	Observer/s	Numbers/comments
Waterbirds, Seabirds & Shorebirds				
Spotted Whistling Duck	24/12/12	Leanyer Sewage Ponds	Dan Mantle <i>et al.</i>	1; 2nd NT record
Freckled Duck	27/12/12	Leanyer Sewage Ponds	Clive Garland	1; rare Top End record
Pink-eared Duck	14/12/12	Leanyer Sewage Ponds	Peter Kyne	41
Black-backed (Little) Bittern	24/12/12	Fogg Dam	David Webb	1 male; & 7/1/13 (Ian Hance <i>et al.</i>)
Little Egret (n nominate race)	14/12/12	Leanyer Sewage Ponds	Peter Kyne	1 Asian race, regular at site
Lesser Frigatebird	23/1/13	Darwin Ski Club	Will Riddell	1
Black-tailed Nativehen	20/12/12	Daguargu STP	Marc Gardner	1
Black-tailed Nativehen	19/12/12	Buntine Hwy, ~30km S of Victoria Hwy	Marc Gardner	
Eurasian Coot	14/12/12	Leanyer Sewage Ponds	Peter Kyne	12
Oriental Plover	9/1/13	Nyirripi Community	Don Hadden	3
Swinhoe's Snipe	11/12/12	Walker Crt, McMinns Lagoon	Geoff Corry	+ subs. sightings of up to 20
Oriental Pratincole	22/12/12	Near Cooinda, Kakadu NP	Marc Gardner	400+
Oriental Pratincole	24/1/13	Tablelands Hwy	Mick Jerram	500+
Birds Of Prey				
Eastern Grass Owl	29/11/12	Holmes Jungle	Will Riddell	1; birds first reported at site 26/09
Other Non-Passerines				
Australian Bustard	4/1/13	Bees Creek	Gill Ainsworth	1; rare close to Darwin
Red-backed Buttonquail	17/1/13	Florina Rd, Katherine	Marc Gardner	
Flock Bronzewing	20/12/12	Buntine Hwy	Marc Gardner	
Flock Bronzewing	24/1/13	Tablelands Hwy	Mick Jerram	500
Pacific Swift	7/12/12	Katherine	Marc Gardner	70+; ++300+ at var. Top End sites
Passerines				
Purple-crowned Fairywren	18/12/12	Policeman's Point, Vic. River	Marc Gardner	Plus 2 other locations on Vic. River
Grey-headed Honeyeater	19/12/12	Buntine Hwy, N of Top Springs	Marc Gardner	3
Crimson Chat	24/1/13	Tablelands Hwy	Mick Jerram	5
Orange Chat	9/12/12	Nyirripi Community	Don Hadden	
Yellow Chat	24/1/13	Tablelands Hwy	Mick Jerram	20; race <i>crocea</i>
Australian Magpie	20/12/12	Buntine Hwy, S of Top Springs	Marc Gardner	2
Ground Cuckooshrike	20/12/12	Buntine Hwy	Marc Gardner	1
Ground Cuckooshrike	22/12/12	Stuart Hwy, S of Barrow Creek	Jim Allen	2
Common Cicadabird	12/12/12	Wadeye Sewage Ponds	Marc Gardner	2 males & 1 female
Tawny Grassbird	14/12/12	McDonald's car park, Katherine	Marc Gardner	1
Spinifexbird	22/12/12	Stuart Hwy, S of Barrow Creek	Jim Allen	
Star Finch	15/1/13	Florina Rd, Katherine	Vikki & Marc Gardner	And subsequent dates; up to ~110; irregular close to Katherine
Gouldian Finch	19/12/12	Buchanan X Victoria Hwys	Marc Gardner	5
Gouldian Finch	17/1/13	Florina Rd, Katherine	Marc Gardner	1
Yellow-rumped Mannikin	30/11/12	Leanyer Sewage Ponds	Gus Daly	1 w/ Chestnut-breasted Mannikins
Yellow-rumped Mannikin	19/12/12	5km east of Timber Creek	Marc Gardner	40+
Yellow-rumped Mannikin	15/1/13	Florina Rd, Katherine	Vikki & Marc Gardner	And subsequent dates; up to 6; irregular close to Katherine
Eastern Yellow Wagtail	12/12/12	Wadeye Sewage Ponds	Marc Gardner	1

fungimap 7

Advancing knowledge and conservation of fungi

Rawson, Victoria, May 24-27 2013

For the complete program, check out www.rbg.vic.gov.au/fungimap and sign up to the Fungimap 7 mailing list

Registration opens on February 4th 2013. Places are limited so book early.

Recent literature about Top End natural history

MAMMALS

Compiled by Carla & Steve

Species and distributions

- Doody SJ, Rhind D, Castellano CM, Bass M. 2012. Rediscovery of the Scaly-tailed Possum (*Wyulda squamicaudata*) in the Eastern Kimberley. *Australian Mammalogy* 34: 260-262.
- Masters P, Dickman, CR. 2012. Population dynamics of *Dasyercus blythi* (Marsupialia: Dasyuridae) in Central Australia: How does the Mulgara persist? *Wildlife Research* 39: 419-428. [desert marsupial]
- Parish S, Richards G, Hall L. 2012. *A Natural History of Australian Bats: Working the Night Shift*. CSIRO Publishing, Collingwood. [30+ species of bats occur in the NT]
- Woolley, P. A. 2011. *Pseudantechinus mimulus*: a little known dasyurid marsupial. *Australian Mammalogy* 33: 57-67.

Rock wallabies

- Potter S, Cooper SJB, Metcalfe CJ, Taggart DA, Eldridge MDB. 2012a. Phylogenetic relationships of rock-wallabies, *Petrogale* (Marsupialia: Macropodidae) and their biogeographic history within Australia. *Molecular Phylogenetics and Evolution* 62: 640-652.
- Potter S, Eldridge MDB, Taggart DA, Cooper SJB. 2012b. Multiple biogeographical barriers identified across the monsoon tropics of northern Australia: phylogeographic analysis of the *brachyotis* group of rock-wallabies. *Molecular Ecology* 21: 2254-2269.
- Potter S, Eldridge MDB, Cooper SJB, Paplinska JZ, Taggart DA. 2012c. Habitat connectivity, more than species' biology, influences genetic differentiation in a habitat specialist, the short-eared rock-wallaby (*Petrogale brachyotis*). *Conservation Genetics* 13: 937-952.

Mammalian parasites

- Field H, de Jong C, Melville D, Smith C, Smith I, Broos A, Kung YH, McLaughlin A, Zeddeman A. 2011. Hendra virus infection dynamics in Australian fruit bats. *PLoS ONE* 6: e28678.
- Paparini A, Jackson B, Ward S, Young S, Ryan UM. 2012. Multiple *Cryptosporidium* genotypes detected in wild black rats (*Rattus rattus*) from northern Australia. *Experimental Parasitology* 131: 404-412. [parasite of introduced Black Rats]
- Tan N, Chilton NB, Huby-Chilton F, Jex AR, Gasser RB, Beveridge I. 2012. Molecular evidence for a cryptic species within the parasitic nematode *Macroponema comani* (Strongyloidea: Cloacininae). *Molecular and Cellular Probes* 26: 170-174. [parasite of Euro *Macropus robustus*]

Mammal declines and management

- Anon. 2011/12. Wongalara: reversing the small mammal decline in northern Australia. *Wildlife Matters* Summer 2011/12: 10.
- Kennedy M, Phillips BL, Legge S, Murphy SA, Faulkner RA. 2012. Do dingoes suppress the activity of feral cats in northern Australia? *Austral Ecology* 37: 134-139.
- Legge S, Kennedy MS, Lloyd R, Murphy SA, Fisher A. 2011. Rapid recovery of mammal fauna in the Central Kimberley, Northern Australia, following the removal of introduced herbivores. *Austral Ecology* 36:791-799.
- Woinarski J. 2012. Northern Australia's disappearing native mammals. *ECOS 2012*, no. 167 (November 1, 2012). <http://www.ecosmagazine.com/?paper=EC11150>.

Miscellaneous

- Bradshaw CJA, McMahon CR, Miller PS, Lacy RC, Watts MJ, Verant ML, Pollak JP, Fordham DA, Prowse TAA, Brook BW. 2012. Novel coupling of individual-based epidemiological and demographic models predicts realistic dynamics of tuberculosis in alien buffalo. *Journal of Applied Ecology* 49: 268-277.
- Palmer C, Murphy SA, Thiele D, Parra GJ, Robertson KM, Beasley I, Austin CM. 2011. Analysis of mitochondrial DNA clarifies the taxonomy and distribution of the Australian Snubfin Dolphin (*Orcaella heinsohni*) in Northern Australian waters. *Marine and Freshwater Research* 62: 1303-1307.
- Webb J. 2012. Outsmarting cane toads: Lessons from a small marsupial, *ECOS 2012*, no. 167.
- Webb JK, Pearson D, Shine R. 2011. A small dasyurid predator (*Sminthopsis virginiae*) rapidly learns to avoid a toxic invader. *Wildlife Research* 38: 726-731.



Cattle and native mammals

It is generally conceded that sheep, cattle, goats, buffalo, camels, brumbies and other introduced herbivores are neither good for the soil, the vegetation, or the native animals of Australia. A drive through the pastures of southern Australia or the degraded cattle country of Queensland should make this clear to anyone. However, it is not often that the (negative) influence of cattle on native mammals is clearly demonstrated, and perhaps we could be forgiven for thinking that in sub-tropical northern Australia the influence of the cattle industry on native fauna is negligible. Legge *et al.* (2011) managed to overcome many of the logistical constraints associated with undertaking a study of the effects of cattle at a landscape scale, and found that native mammals recovered following destocking at Mornington Wildlife Sanctuary (previously Mornington Station) in the Kimberley. Relatively large areas of Mornington were destocked (cattle, horses and donkeys) in 2004 and 2005, and monitoring included sites with stock and others in progressively destocked habitats. The species richness (nine species were recorded in total) and abundance of small native rodents and dasyurids increased in the three years following destocking, and this trend seems set to continue, albeit under the influence of fire regimes and feral predators. This finding was in contrast to many other areas in northern Australia, where evidence indicates that small mammals are in decline.