

NATURE TERRITORY

August 2011



Newsletter of the Northern Territory Field Naturalists Club Inc.

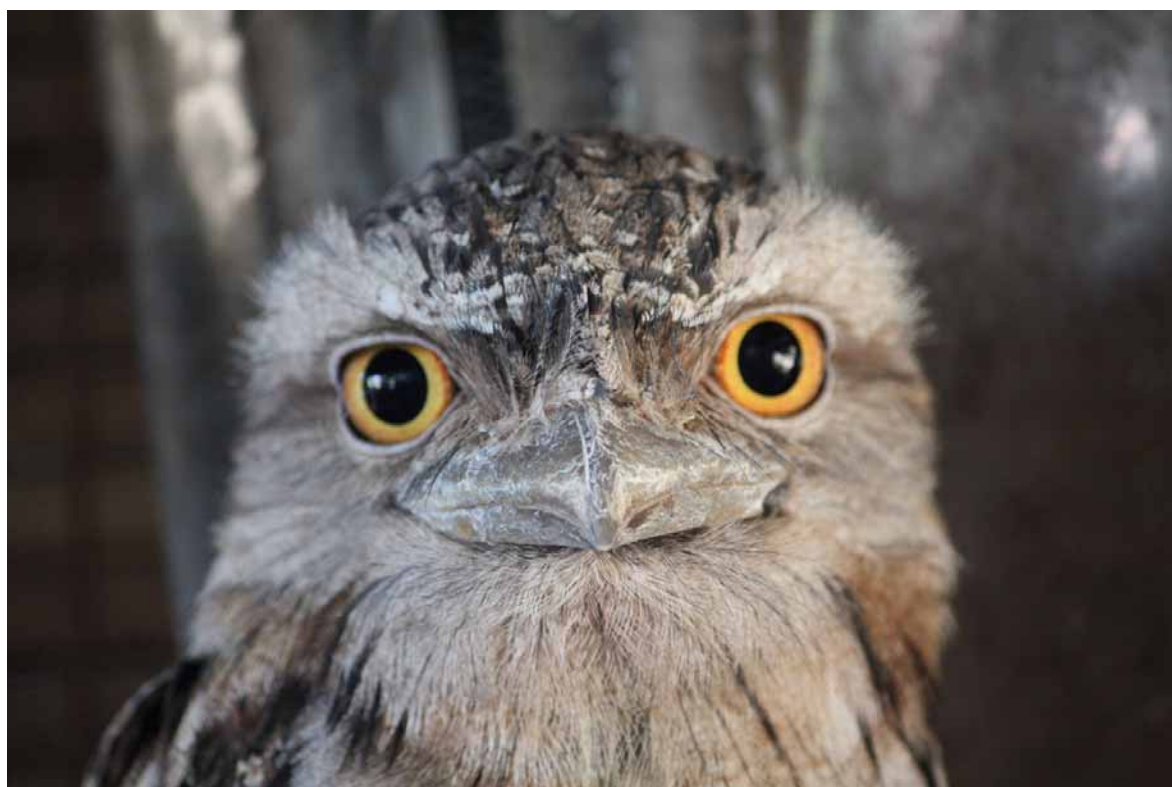
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Club website: <http://ntfieldnaturalists.org.au/>

Meetings are generally held on the second Wednesday of every month, commencing at 7:45 PM, in Blue 1.14 (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.



Beware the stare: Tawny Frogmouth photographed by Will Duiker at Nina's Ark on the Club's July excursion. See page 7 for a report on the excursion.

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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

August meeting. Wednesday August 10, 7:45 PM. Blue 1.14 (Business Bldg.), CDU.

Dr Andrew Tomkins

"Towards a biosecurity strategy for the Northern Territory"

Biosecurity is the protection of people, animals and plants in natural and managed systems from incursions of exotic pests, diseases and weeds that could cause serious economic, environmental and social damage. It has been estimated that damage by invasive species worldwide amounts to almost 5% of the world economy. In Australia, it has been estimated that the economic and environmental costs of diseases, pests and weeds is about \$6 billion per year.

This talk will be about the development of a Biosecurity Strategy for the Northern Territory – why we need one, what it is, how we are going about developing it, and what role Club members can play in the process.

Dr Tomkins is Director of the Biosecurity & Product Integrity Group of the NT's Dept. of Resources. Before that, he worked at Biosecurity Victoria, the NSW Department of Agriculture, and in New Zealand's MAF & HortResearch. His original career was in New Zealand as an applied horticultural entomologist.

Member of the Northern Territory team that successfully eradicated Grapevine Leaf Rust (*Phakospora euvitis*) in Darwin/Palmerston in 2001. Photo provided by Andrew Tomkins.



.....
August field trip. Sunday August 14, 9AM. Berrimah Research Farm Entomology Collection.

To be led by Brian Thistleton. This is an opportunity to view the insect collection and learn about the role of this division within the Department of Resources. You will also be able to view some live termite displays.

The entrance to the farm is at the corner of Strath & Makagon Roads in Berrimah. From the Berrimah lights (intersection of Stuart Hwy and Berrimah Road) drive south towards East Arm Port for c. 1.3 km and turn left into Strath Road. Follow Strath Road to the obvious entrance to Berrimah Farm. Within the Farm, drive approximately 250 m to the second drive and turn left, proceed a short distance and park in the car park on the right hand side. Brian will put up a sign at the Farm entrance and at the turn off. Contact Tissa on 8921 8226 if you require further details.

.....
August survey of Pig-nosed Turtles. Oolloo Crossing, Daly R., Aug. 1-21. *For info, see page 4.*

.....
September 2011 meeting. Wednesday September 14. *speaker to be advised.*

This will be our Annual General Meeting – see page 3 for more details.

September 2011 excursion. Sept. 16-18 (Friday to Sunday): *Litchfield National Park bird survey.*

In conjunction with NRETAS and the NT Junior Rangers program, this is a camp-out to conduct wildlife surveys. It is also an opportunity to explore parts of the Park not often seen by the public including remote swimming holes. We have been given access to the Special Interest Group facility at Litchfield NP for camping – this has manicured green lawns for camping, a large roofed/floored area, kitchen, showers and toilets, and is secure and out of the public eye. Alternatively, participants may choose to grab a bed in Batchelor or day-trip from Darwin. .

More details will be available closer to the time. **Please advise interest ASAP**, as numbers for this trip are limited. Contact: John Rawsthorne on 0412 899 051.

October 2011 meeting. Wed. October 12. Don Franklin: *A naturalist in Timor-Leste (East Timor).*

Top End Native Plant Society General meetings are held on the 3rd Thursday of the month at the Marrara Christian College, and commence at 7:30 PM. Visit <http://www.topendnativeplants.org.au/index.php>.

Club notices

Welcome to new members: Lynette Carruth & family

Thank you: the previous issue edited by **Fiona Douglas** (Don was away) and collated and mailed by **Anne Highfield**. It was printed by **Fiona Douglas** using equipment kindly made available by **Michael Gunner MLA**.

Notice of Annual General Meeting

The Annual General Meeting of the NT Field Naturalists Club Inc. will be held at 7.45pm on Wednesday Sept. 14 in Room Blue 1.14, Casuarina Campus of Charles Darwin University. Issues to be considered include:

- the audited accounts for 2010-11. Audited accounts will be available from Fiona Douglas (8985 4179 or fiona.douglas@octa4.net.au) from 29 August 2011, and a summary will be included in the September newsletter.
- election of Office Bearers and Management Committee for 2010-2011. A nomination form will be included in the September newsletter.

Newsletter contributions welcome: Sightings, reports, travelogues, reviews, photographs, sketches, news, comments, opinions, theories , anything relevant to natural history. Please forward material to Don at eucalypt@octa4.net.au or the Club's postal address, or contact him on 8948 1293.

Deadline for the September newsletter: Friday August 26.

Final notice for membership renewals If you have not renewed your membership for the 2011/12 financial year, this is the last copy of the newsletter you will receive. If you are in this category and:

- receive the newsletter by email, your newsletter will have been accompanied by a final notice
- receive the newsletter by mail, your subscription expiry date will be highlighted below your address.

We value your membership; please renew promptly.

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

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.

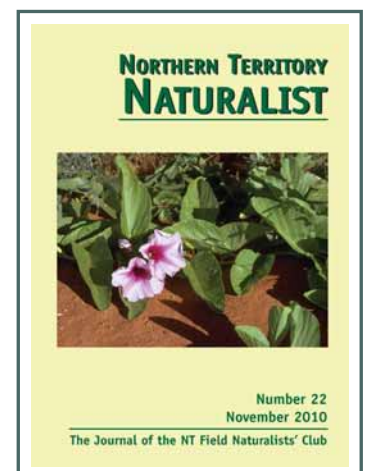
Journals: in the office of Don Franklin at CDU Casuarina (Red 1.2.34). These can be accessed directly during working hours, or by ringing Don on 8946 6976 (w) or 8948 1293 (h).

Northern Territory Naturalist: The Editorial Committee of the Club's journal, the *Northern Territory Naturalist*, is now calling for manuscripts for issue no. 23. The journal publishes works concerning any aspect of the natural history and ecology of the Northern Territory or adjacent northern Australia. and may include Research Papers (Articles or Short Notes), Reviews, Species Profiles and Book Reviews.

The *Northern Territory Naturalist* is a registered, peer-reviewed journal (ISSN 0155-4093) and is recognised as a Category C publication by the Australian Research Council (http://www.arc.gov.au/era/era_journal_list.htm). 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. Editors of the journal are Dr Michael Braby, Dr Lynda Prior and Dr Chris Tracy.

The journal page of the web-site also has an order form for back issues of the *Northern Territory Naturalist*, which are available individually or as a set (some are out of print and available as photocopies only).



Rare bladderwort rediscovered

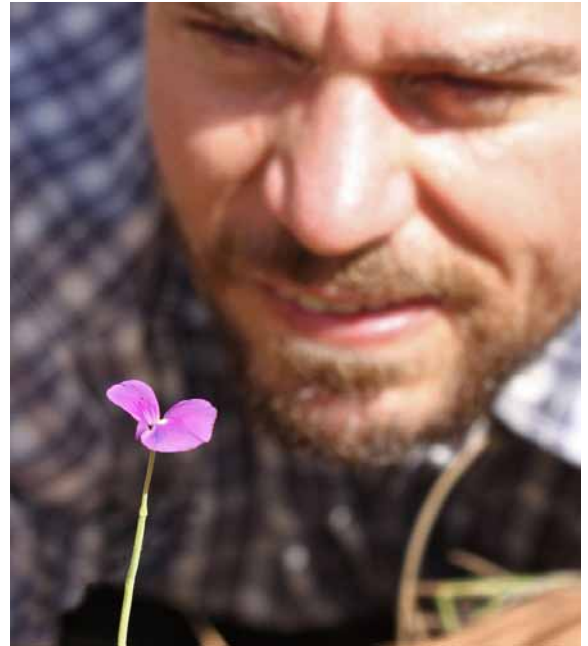
NRETAS scientists have recently found a substantial but highly localised population of the bladderwort *Utricularia singeriana* in Litchfield Shire. Before that, the species had not been found in the Darwin region since 1926. It is also known from two small populations near the Edith River in the Katherine district. It was formerly thought also to occur in Western Australia, but plants there appear to be a different species that is yet to be described.

Utricularia singeriana is classified as Vulnerable in the Northern Territory.



Bladderworts are small, carnivorous plants usually found in swampy areas. Small creatures are digested by tiny “bladders” on the plant’s roots. Poorly-drained sandy areas between Darwin and Katherine are a global hotspot for bladderworts, containing 36 species. (See also “Red Dwarf”, *Nature Territory* Dec. 2008, p4.)

Utricularia singeriana: left – flower and calyx; right – Herbarium botanist (and Club member) Ben Stuckey examining the species. Photos: NRETAS.



At 2 cm across, *U. singeriana* has the largest of all bladderwort flowers. It flowers from March to May.

The Litchfield Shire population of *U. singeriana* is known to occupy about 1 hectare and contain about 15,000 individuals. Its classification as Vulnerable has been based on having: a. an estimated population less than 1,000; and b. an Area of Occupancy of less than 20 km². The former seems unlikely to still apply, but the species seems likely to continue to qualify as Vulnerable under the second criterion.

Sources

Florabase. *The Western Australian flora*. <http://florabase.calm.wa.gov.au/> (23 July 2011)

Rare Carnivorous Plant Rediscovered near Darwin. NRETAS media release, 4 July 2011.

Woinarski J, Pavey C, Kerrigan R, Cowie I, Ward S, eds. 2007. *Lost from our landscape. Threatened species of the Northern Territory*. NRETAS: Palmerston. 284 pp.

Club members invited to join research into Pig-nosed Turtle populations

Dane Trembath, from the Museum and Art Gallery of the NT, is funded by a grant to NT Field Nats from the Commonwealth Government’s program ‘Caring For Our Country: community action grants ‘ to determine the size and status of populations of Pig-nosed Turtles at Ooloo Crossing on the Daly River.

Fieldwork will take place between 1 & 21 August 2011. Spaces will be limited, and people are not required to remain for the whole period. Basic meals and drinks will be provided to visiting members. For those staying overnight, it is camping only.

Dane is asking for expressions of interest from people thinking about joining in.

Please note that during the fieldwork period, Dane will only have once weekly access to his email Dane.Trembath@nt.gov.au.



Fish population structure and management

A key issue in the management of fisheries is the spatial structure of populations. It may be that a species is functioning as a series of more or less discrete populations with little or no capacity (at least in the shorter term) to support each other against impacts. If fisheries managers don't know this, this could result in the over-fishing of one population (believing it to be but a part of a larger population and therefore not over-fishing). The consequence could include loss of genetic diversity and regional decimation and even extinction. If, on the other hand, populations are functioning at broader scales, state agencies may need to cooperate in the species' management. The issue is also of concern for conservation biologists dealing with threatened species even where they are not subject to commercial fishing. This month's literature features a number of studies that address these issues for a range of north Australian fish species using a range of techniques.

The Blue Threadfin (*Eleutheronema tetradactylum*) was the subject of three such studies, one using genetic techniques (Horne *et al.* 2011), one using the composition of the fish's parasite assemblages (Moore *et al.* 2011), and another examining variation in stable isotopes from carbonate in otoliths (bone-like organs in the inner ear). Blue Threadfin is an inshore species that is important for both commercial and recreational fishers. All three studies found that there is strong spatial separation of populations. "Populations separated by as little as 15 km also showed significant genetic structure, implying that local populations are mainly insular and self-seeding on an ecological time frame. the larvae of *E. tetradactylum* have lower swimming performance and poor orientation compared with other tropical fishes ..." (Horne *et al.* 2011). "The population subdivision of *E. tetradactylum* was evident along expansive stretches of open beach systems and within coastal embayments with no physical barriers such as headlands" (Newman *et al.* 2011). The conclusion seems to be that management needs to ensure that fishing is not overly concentrated at remarkably local scales.

Newman *et al.* (2010a) report similar conclusions, though at a slightly larger spatial scale, for the King Threadfin (*Polydactylus macrochir*). They examined otoliths from 9 locations across northern Australia and repeated the comparison across several years. Stable isotope signatures revealed strong structuring at the level of (not within) large coastal beaches and embayments. Unique signatures were maintained across years. Findings for the Grey Mackerel (*Scomberomorus semifasciatus*) using the same technique were almost identical (Newman *et al.* 2010b).

Barramundi (*Lates calcarifer*) occur across 16 degrees of latitude (10 to 26° South) and thus experience waters that differ in temperature. Barramundi from Darwin are more tolerant of heat than those from Gladstone in Queensland (Newton *et al.* 2010). This demonstrates local adaptation and thus the need for management at relatively local scales. It presumably also has implications for the source of founder populations for aquaculture.

Three critically endangered sawfishes for which "Northern Australia is considered to be one of the last strongholds" all displayed significant genetic structure, especially so in *Pristis microdon* (Phillips *et al.* 2011). This is thought to be because females are quite strongly site-faithful. "Since female migration (replenishment) between regions is unlikely, conservation plans should strive to maintain current levels of diversity and abundances in the regional assemblages of each species."



New marine species

The coast and adjacent waters of northern Australia, and the Northern Territory in particular, continue to yield a rich "harvest" of new species. Those described recently include:

- a shrimp, *Onycocaris balssi*, by Bruce (2011)
- a goby (small fish), *Redigobius nanus*, by Larson (2010)
- a polychaete worm in the genus *Hermundura*, by Glasby & Hocknull (2010)
- three polychaete worms in the genus *Laonice*, by Greaves *et al.* (2011)
- two polychaete worms in the genus *Treptopale*, by Watson (2010)
- two microscopic parasites of elasmobranch fish (sharks, rays, skates) – *Kudoa hemiscylli* and *K. carcharhini*, by Gleeson *et al.* (2010)

The new goby species has been recorded from estuaries including Darwin Harbour, Melville Island and also Western Australia, Queensland south to Brisbane, and southern PNG (Helen Larson, pers. comm.). It is 30 mm long (standard length, which excludes the tail fin) as an adult. It has iridescent blue spots on the body and fins. "nanus" means *small*, the species being small compared to the other 11 members of the genus. Members of the genus are found in estuarine and freshwater habitats of the Indo-west Pacific region.

Illnesses and injuries in wildlife

Report on the talk by Dr Stephen Cutter at the July Club meeting

Will Duiker; photographs provided by Stephen Cutter

Stephen works as a veterinarian at the Ark Animal Hospital at Yarrawonga in Palmerston, and gave the members of the NT Field Nats an insight into the wide range of native animals they treat. The Ark Animal Hospital obviously has to survive as a business and the majority of the patients are family pets, but a pretty big chunk of Stephen's time is spent patching up native animals – about 1,600 last year. If you ever wanted to know what vets have for pets then have a look at their website at <http://www.thearkvet.com.au/main.php>.

Stephen showed us lots of animal photos and the range of taxa was pretty amazing – from fish, reptiles, amphibians, birds, and the mammals – both marsupials and placentals.

He started with the reptiles and showed a Tata Lizard with 2 tails, mites on the frills of Frill-necks, an old slow Carpet Python with more ticks on it than you could poke a stick at, and a non-local Green Tree-snake with exotic viruses that make them dance! He reckons snakes are pretty tough with some surviving being run over by a car – he just pokes the guts back in and stitches them up (well, sometimes).

Other reptiles included freshwater or even sea turtles (which can be somewhat heavy) with injuries like damaged shells, for which Stephen showed unique repair techniques using fibreglass! Bluetongue lizards are often run over and since they reproduce by live birth, the young may survive. Bites from cats or dogs need antibiotics because secondary infection is common.

Among the amphibians were frogs – often Green Tree-frogs – and their “owners” usually took them home to release into the garden – where hopefully they would not be hit by the lawn mower again next weekend!

About 70% of the animals they treat at the Ark are due to collisions with vehicles while much of the remainder are caused by our family pets – cats and dogs. If people are able to catch them, they are typically already pretty far gone and unfortunately many of the animals do not survive treatment.

I was surprised to hear about the animal feed breeding program at the Berrimah Prison where prisoners are tasked with cultivating crickets and grasshoppers which is good tucker for lots of the Ark's patients. The prisoners also get to take care of animals in need of rehabilitation – or is that a two way thing? Most animals are micro-chipped before release to the bush (so they can monitor recidivism? 😊).

One of the things on Stephen's most hated list for doing damage to animals is barbed wire. The typical victims are fruit bats. He also showed some sad shots of Northern Brushtail Possums suffering from a type of mange resulting from the stress of high population densities and scarcity of food. This was easily treated with R-n-R and antibiotics and extended holidays out at Nina's Ark up near Litchfield National Park. I understand that the possum population is declining outside of Darwin so relocating there should not be as problematic as in the southern states.

Sugar Gliders and Northern Quolls are rare and becoming rarer patients. Larger macropods – the wallabies such as Agile, are common guests but survival of adults is unusual due to stress; conversely, the joeys do well. Interestingly some wallabies suffer from a canine-derived mange and in a type of poetic justice give it back to dogs. At this time of year bushfires also claim some animals – not pretty ...



One of a seven baby Bluetongue lizards “delivered” by caesarean after their mother was killed. All survived.



Dr. Cutter with his “pet” hate – barbed wire – and a flying fox. (PS Never handle a flying-fox unless you've been immunised, as Dr Cutter has.)

Baby bandicoots are a strange one in that they tend to eat each other when confined so need special care. We saw something similar with snakes. With friends like that, who needs predators in the animal world!

The birds included seabirds oiled by the Montara oil spill, drunk and hung-over lorikeets, raptors suffering from a cancer transferred from pigeon prey, numerous birds with broken wings, and a fatal condition in which parrots lose their feathers.

One of the most striking shots was of a trio of Pheasant Coucal chicks with their wiry heads – it looked like hair not feathers. Cute was not an apt descriptor; kinky maybe. Stephen had trouble with the identification of many chicks – the published bird books aren't too good unless they are an egg or a juvenile or older. There was one chick with toes bigger than the rest of it combined – perhaps a Jacana?

Stephens talk was well appreciated by the audience and gave great insight into the life of a vet specialising in native animal injuries here in Darwin.



Nina's Ark and the Butterfly Farm

Report on the Club's July excursion

Jan Allen

What was more entertaining- Nina? Or the wildlife? The 15 of us who had the privilege to visit Nina's Ark on Sunday 17 July had a great time!

The property of Nina's Ark (www.ninasark.com.au) is '1000s' of hectares of open dry forest bordered to the west by Litchfield National Park and to the north by the Finnis River. Eight kilometres of slow-going dirt track brings you to the oasis of Nina's residence. Nearby is the holding enclosure for many young Agile Wallabies and a few Antilopine Wallaroos. This is a soft-release facility for hand-reared orphan joeys – of which there is never a shortage – usually as a result of car trauma to the mothers.



Entertaining: Nina (in black) making a point to some of the fifteen field nats. Photo: Tissa Ratnayake.



Marsupials: feeding time for Agile Wallabies (and Nina at work). Photo: Will Duiker.

Wild wallabies are fed a token amount twice daily. This attracts up to 180 wallabies to visit and encourages interaction with the young in the enclosure. One of the regular wild visitors is Bunny, a female Agile whose tail was amputated to a small stump. She has been travelling well in the wild for almost a year now. According to Nina some of the visiting marsupials are 14 and 15 years old; normally these animals live to be up to 9 years.

A Territorian from the age of 11, Nina brought up her first joey at her home which is now part of Kakadu. Her Batchelor property is a long-term dream come true. Nina has been on the Batchelor property for 17 years and has built up a respect developing from 'the mad kangaroo lady' to an expert in marsupial care.

Raising of the orphaned joeys is done by staff at the Ark Animal Hospital, the prison inmates at the Berrimah Facility and Nina. Bringing up one joey is a time-consuming and long-term commitment.



Inquisitive adolescent: Bush Stone Curlew.
Photos: Will Duiker (above), Tissa Ratnayake (right).

Other inhabitants we met at Nina's were two Bush Stone-Curlews – one a dangerously over inquisitive adolescent and the other a feather-plucking adult that refuses to fly – and a young Tawny Frogmouth. From the empty spa, Tissa retrieved a wild Keelback snake that had fallen in, providing an opportunity for other members to view at close hand one of the few Australian snakes capable of eating Cane Toads and surviving.



Nina has new cages to house the soon-to-be-released possum adolescents. There are hollow-log possum boxes in trees all over the property.

In previous times Nina had constant problems with nuisance visits from bandicoots and Northern Quolls but there have been none to be seen for over 2 years now which she attributes to the arrival of Cane Toads, which are evident in large numbers during the Wet.



Keelback and rescuer.
Photos: Will Duiker (left); Jon Clark (right).

Though we could easily have kept chatting to Nina it was time for the 4WDs



to move back to the Litchfield Road where we headed into Batchelor and the Butterfly Farm – for delightful lunches, banana smoothies and homemade ice creams.

After a short pep talk from Graham we visited the single butterfly enclosure! Currently it houses mostly Queensland varieties - Ulysses, Lurcher, Cruiser, a single Cairns Birdwing, and a few Common (Varied) Eggfly – this species is also resident in the Top End. In the enclosure, a single 20mm-long adult Dwarf Green Tree Frog (*Litoria bicolor*) was also observed.

A successful trip with plenty to learn, good food, great entertainment and wonderful company! Thanks to all, especially Nina!

Comments invited on draft weed management plans

Territorians are invited to have their say on draft Weed Management Plans for Prickly Acacia (*Acacia nilotica*), Mesquite (*Prosopis* spp.) and Chinee Apple (*Ziziphus mauritiana*). Go to: <http://www.nt.gov.au/nreta/consult/>.

Interesting bird sightings

25 June to 22 July 2011

Compiled by Ian Hance

Sightings are as reported (unvetted, unconfirmed) and have been mostly compiled from the e-mail digest of the NT birder website (<http://groups.yahoo.com/group/ntbirds>) moderated by Niven McCrie.

Species	Date	Location	Observer/s	Nos./comments
Waterbirds				
Black Bittern	10/07	Yellow Water, Kakadu	Marc Gardner <i>et al.</i>	1
~	11/07	Mardugal walk, Kakadu	Glenn Ehmke & Ian Hance	1
Great-billed Heron	17/07	Channel Island	Ian Hance	1
~	23/06	Daly River	Peter Kyne	1
Chestnut Rail	28/06	Bayside Intersection, Darwin	Andrew Bell	1
Buff-banded Rail	14/07	Smith Street, Darwin	Arthur Keates	1
~	16/07	Fogg Dam	Peter Kyne & Micha Jackson	5
Birds of prey				
Pacific Baza	26/06	Galloping Jacks, Katherine River	Peter Kyne & Micha Jackson	1
Spotted Harrier	27/06	South Alligator floodplain	Marc Gardner	1
Black Falcon	1/07	Mitchell St., Darwin	Marc Gardner	1
Rufous Owl	11/07	Botanic Gardens, Darwin	A & S Keates <i>et al.</i>	1
~	12/07	Bees Creek	Gill Ainsworth	1
Other non-passerines				
Emu	c. 16/7	Waterfall Creek, Kakadu	via Heather Moorcroft	2+
Diamond Dove	27/06	Bird Billabong road	A & S Keates <i>et al.</i>	4; & other sightings
Australian Bustard	9/07	South Alligator floodplain	Glenn Ehmke & Ian Hance	1
~	c. 14/7	near Pine Creek	Heather Moorcroft	2
Chestnut-backed Button-quail	10/07	Marrakai Track	Bas Hensen 3+; & other sightings by other observers	
Varied Lorikeet	27/06	Bird Billabong road	Marc Gardner	breeding pair & young
Horsfield's Bronze-Cuckoo	2/07	Mamukala	A & S Keates 1; & other sightings by other observers	
Black-eared Cuckoo	15/07	Marrakai Track	Marc Gardner	1
Pallid Cuckoo	30/06	Tipperary Station	Peter Kyne & Micha Jackson	1
~	10/07	Mamukala	Bas Hensen	1
Little Kingfisher	27/06	Buffalo Creek	A & S Keates <i>et al.</i>	1
~	10/07	Yellow Water, Kakadu	Marc Gardner <i>et al.</i>	1
Passerines				
Banded Honeyeater	25/06	Marrakai Track	A & S Keates B & L Reid	1
~	27/06	Bird Billabong road	Marc Gardner	1 male
Mangrove Golden Whistler	14/07	Leanyer Swamp	Bas Hensen	6
Masked Woodswallow	27/06	Bird Billabong road	Marc Gardner	10
Arafura Fantail	25/06	Margaret River	A & S Keates; B & L Reid 1; & other sightings by others	
Mangrove Robin	14/07	Leanyer Swamp	Bas Hensen	4
Buff-sided Robin	10/07	Yellow Water, Kakadu	Marc Gardner <i>et al.</i>	1
Australian Reed-Warbler	10/07	Yellow Water	Marc Gardner <i>et al.</i>	1
Brown Songlark	16/07	Anzac Parade, near Fogg Dam	Peter Kyne & Micha Jackson	1
Zebra Finch	3/07	Groote Eylandt	Braden McDonald <i>et al.</i>	1
Gouldian Finch	27/06	Bird Billabong road	Marc Gardner 33; & other sightings by other observers	
~	c. 12/7	Old Jim Jim Rd., Kakadu	John Rawsthorne	2 flocks
Nutmeg Mannikin	c. 26/6	Knuckeys Lagoon	Ric Webb	2+
Eurasian Tree Sparrow	c. 20/7	Garden Point, Melville Island	Ben Hoffmann	1

Eavesdropping and other (mis-)behaviours in courting crabs from *Recent Literature*, page 10

Male fiddler crabs wave their colourful, enlarged claw (see *Northern Territory Naturalist* 20:28) to attract females, but this behaviour is also obvious to neighbouring males. At Ludmilla Creek, male *Uca mjoebergi* keep track of their neighbours and use those cues to start claw-waving before the target female is visible to them (Milner *et al.* 2010). These males are choosy – sometimes. If females of several species of fiddler crab arrive simultaneously, they will usually choose the female of their own species (of course, I can hear you say). But if a female of another species arrives alone, she was just as likely to be courted as a female of his own species (Booksmythe *et al.* 2011). When a female *U. mjoebergi* approaches a group of courting males, other females will often follow (Milner *et al.* 2011). This, the authors argue, is because the arrival of the first female causes the males to display at a greater rate, rendering the males more obvious to other females.

Both males and females of the fiddler crab *Uca capricornis* defend a burrow, but it seems that males may also attempt to exclude other males from nearby burrows. At Ludmilla Creek, Mautz *et al.* (2011) demonstrated experimentally that this serves to increase the probability that the burrow will be available for a female that is in need of one.

Recent literature about Top End natural history

Back listings and summaries may be viewed at <http://www.cdu.edu.au/ser/profiles/ecologyintopend.htm>.

MARINE & COASTAL

Compiled by Don Franklin

Fish population structure

- Horne JB, Momigliano P, Welch DJ, Newman SJ, van Herwerden L. 2011. Limited ecological population connectivity suggests low demands on self-recruitment in a tropical inshore marine fish (*Eleutheronema tetradactylum*: Polynemidae). *Molecular Ecology* 20: 2291-2306.
- Moore BR, Stapley J, Allsop Q, Newman SJ, Ballagh A, Welch DJ, Lester RJG. 2011. Stock structure of blue threadfin *Eleutheronema tetradactylum* across northern Australia, as indicated by parasites. *Journal of Fish Biology* 78: 923-936.
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