

NATURE TERRITORY

October 2008



Newsletter of the Northern Territory Field Naturalists Club Inc.
PO Box 39565, Winnellie, NT 0821

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Club web-site: <http://www.geocities.com/ntfieldnaturalists>

Meetings are generally held on the second Wednesday of every month, commencing at 7:45 PM, in Blue 1.03 (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. Part-year discounts are available for new members from January 1 each year.



Looking remarkably like a funnel-web spider, male Northern Mouse Spiders (*Missulena pruinosa*) are active at this time of year. You may be relieved to know, however, that toxicity tests (page 8) have confirmed that the species lacks the potent venom of its look-alike.

Photo:
Graham Brown.

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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

October meeting. Wednesday October 8, 7:45 PM. Blue 1.03 (Business Bldg.), CDU.

Peter Dostine

"Life in the open spaces: the ecology of the Flock Bronzewing Pigeon"



Uncertain future for a highly-gregarious, nomadic species: Flock Bronzewings on the Barkly Tableland.

Photo: courtesy of Mr D. Duff.

The Flock Bronzewing Pigeon is an enigmatic, iconic species of the grasslands of northern Australia. In common with many other granivorous birds of the northern savannas and grasslands, it faces an uncertain future. Often referred to as an “ultra-nomad” the species presents a challenge to researchers and conservation managers.

Peter has worked in the Top End since 1983 on various bird-related

projects, and has a habit of selecting difficult species to study. He was involved in studies on the Gouldian Finch from 1994-1998 and commenced his PhD on the Flock Bronzewing Pigeon in 2005. In this talk Peter will present the findings of his research and discuss the challenges, joys and pitfalls of field research in the grasslands.

October field trip. Loafing round Lagoons – Sunday 12 October 2008 at 8.30 AM

We’ll start at one of the Knuckey lagoons – entering at Fiddlers Lane – a small turn-off along McMillans Road between Farrar Rd and Stevens Road, but on the opposite side – in Google maps search by Fiddlers Lane 0828. Then we’ll probably move on round to Snipe Lagoon (down Randall Road) on another part of the Knuckey lagoon complex. What happens after that will depend on the wishes of the group; options will include the Palmerston Sewage Ponds and McMinns Lagoon.

They are pretty spots and there should still be a good number of waterbirds and others around. Bring the usual hat, sunblock, water etc., binoculars and a scope if you have one; field guides will be useful (birds and plants) and you might want to bring some morning tea.

For more info contact Fiona on fiona.douglas@octa4.net.au or phone 8985 4179.

November 2008 meeting. Wednesday November 12. Don Franklin: *Slow boat on the Mekong.*

ERA Annual Birdwatching Event

It is on again this year. Sites are Georgetown Billabong, Coojimba Billabong and a woodland walk, all on the ERA Mining Lease. Meet at the Jabiru lake carpark, from where buses will be provided. For Session 1, meet at 4:15 PM on Saturday November 1. For session 2, meet at 5:30 AM on Sunday November 2. BYO: camera, binoculars, bird books. Supplied: water, sunscreen and insect repellent; also a free BBQ breakfast at c. 9 AM after the Sunday morning session. Long-sleeved shirts, long pants, closed shoes and a hat **MUST** be worn. Reservations essential: contact nicole.smith@era.riotinto.com or phone 8938 1491.

Club notices

Welcome to new members: Sherry Prince; Andy Mortimer; Will Duiker & family.

Changes to the Committee

Louise Harrison has kindly agreed to take on the vital role of Secretary.

Ashley Carlson is rather unexpectedly leaving Darwin to live on the mid-north coast of NSW, and is therefore resigning as a Committee member and our Membership Officer. Ashley has been Membership Officer for the past year, performing this key function superbly. He will be sorely missed.

New member Sherry Prince has been co-opted (voluntarily!) by the Committee to fill a vacancy on the Committee. Welcome Sherry. Out of the frying pan she has agreed to use her Excel / databasing skills to fill Ashley's shoes as Membership Officer.

Thank you

The previous issue was proof-read by Christine Maas and collated and mailed by Susan Jacups. It was printed by Gay Crowley and Don Franklin using equipment kindly made available by the Biodiversity Unit, Department of Natural Resources, Environment and the Arts, Berrimah and the School for Environmental Research at Charles Darwin University.

Newsletter contributions welcome

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

Deadline for the November newsletter: Friday October 24.

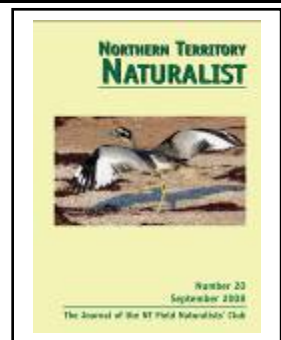
Need an NTFNC membership form? Go to: <http://www.geocities.com/ntfieldnaturalists/subscription.htm>.

Northern Territory Naturalist

Issue no. 20 is out. Members should have, or shortly receive their copy. This issue includes 10 papers (1 article, 7 short notes, 1 review, 1 species profile) and for the first time, colour pages - 6 of them - in addition to the colour cover. Additional copies of the issue are available for a cost of \$15- plus \$1.30 postage.

The Editorial Committee of the *Northern Territory Naturalist* is now calling for manuscripts for issue no. 21. Manuscripts may relate to any aspect of natural history or ecology relevant to the Northern Territory, and may include reviews, papers, research reports, species profiles and thesis abstracts.

Northern Territory Naturalist is a registered, peer-reviewed journal (ISSN 0155-4093). Author instructions may be downloaded from <http://www.geocities.com/ntfieldnaturalists/journal.htm>. If possible, manuscripts should be submitted in digital form by emailing to lynda.prior@cdu.edu.au.



Steve Reynolds has been a co-editor of the journal for 3 issues and has decided to call it a day. His contribution is much appreciated. The Committee and remaining editors (Lynda Prior and Michael Braby) are in the process of appointing a new co-editor – we hope to have an announcement soon.

Sewage Pond Keys - Leanyer

NT Field Naturalists have access to this world-famous bird-watching spot. The key can be collected from Graham Brown (h) 8945 4745. A refundable \$50.00 deposit is required at time of collecting the key, which is available only to members. Conditions imposed by PowerWater Corporation apply to all visitors to the ponds. These are not onerous and are made clear at time of picking up the keys.

Fare thee well, long-grassers!

Arthur Keates is retiring from his position as a legal officer responsible for drafting legislation for the NT government. He and Sheryl will depart Darwin in mid-October to return to their home in Brisbane after quite a few years in Darwin.

I'm sure I'm not alone in saying I'll miss them both very much. They'll be missed not only as two of the most dedicated and capable bird-watchers in Darwin, not only as enthusiastic butterflyers, and not only for their dedication to the NT Field Naturalists Club, but also for their wonderful welcoming and helpful attitude to all. How many people have they helped out, shown around the birding spots, transported on an excursion or dozens, hundreds? How much work have they done for the Field Nats Club – heaps, I can assure you.



Closet long-grassers? Photo: Deb Bisa.

We wish them the very best, and much very good birding and butterflying as well!

True birdos wouldn't be seen dead without binoculars around their necks. Photo: Lyn Reid.

Help needed for bird-listener

One of the many people who will miss Sheryl is blind bird "watcher" Andrew Ritchie, who Sheryl has guided on excursions. With Sheryl's departure, Andrew would be grateful for someone else who would be willing to take him bird-listening perhaps once a month. Andrew has a variety of bird call CDs against which *listenings* can be bench-marked. If you are willing to help, please contact Andrew Ritchie & family on 8981 7096 or discuss this with Sheryl (she will be in town in early October).



East Point - request for information

When was most of the vine-thicket including the current regeneration areas cleared? Staff of the School for Environmental Research are seeking information about this. We can date clearing around the military installations to the early 1940s. As shown by an air photo, by 1955 clearing for a golf course had extended from the current site of Lake Alexander west along the northern side about half way to the military installations, but much of the central plateau must have occurred since then and apparently prior to 1963. If anyone can fill us in on the history of clearing for the golf course, please contact Don Franklin, phone 8946 6976, email don.franklin@cdu.edu.au.

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From the air: East Point in 1955. Note that Lake Alexander did not yet exist; note also the golf course fairways extending from the current site of the Lake north-west into areas that are now regenerating vine-thicket.

Fungi from Arnhem Land

Photos by Deb Bisa



Welcoming the Waders

Report on the field trip at Sunset Park, Nightcliff, Saturday Sept. 6

Arthur & Sheryl Keates

At the recent Olympic Games, athletes from around the world showed us their strength and determination. However, an impressive avian marathon is presently underway, going unnoticed by most people. Migratory shorebirds (or waders) are returning from their breeding grounds in the northern hemisphere.



Picnic at Nightcliff Rocks? Photo: Lyn Reid.

The Club's regular September outing again saw members meet up at Sunset Park to welcome these remarkable birds to the Top End. Some of them will spend the non-breeding season here while others will fly further south after a stopover here to refuel for the rest of their migration.

Birdwatchers with telescopes and binoculars were on hand to help identify the species roosting on the rocks. It was a good opportunity for members to talk to passers by who stopped to have a look and learn a little bit about their migratory lifestyle. The Club's display boards were put to good use with posters and photographs giving information about waders using the East Asian-Australasian Flyway, their feeding habits and identification.

As usual, a good variety of wader species were observed although not in large numbers. The species recorded were Whimbrel, Bar-tailed Godwit, Terek Sandpiper, Common Sandpiper, Grey-tailed Tattler, Ruddy Turnstone, Red-necked Stint, Sharp-tailed Sandpiper, Pacific Golden Plover, Lesser Sand Plover, Greater Sand Plover, the resident Beach Stone-curlew and Masked Lapwing. However, the highlight of the day was the early arrival of a flock of 6 Oriental Plover. Our earliest record at Nightcliff was Sept. 5, 2004. Some observers were also fortunate to see a Red-necked Stint with an orange leg flag that had been banded and flagged in Victoria. The gold medal must surely go to this bird, the smallest of them all to visit our shores. Weighing in at about 30 grams with a body about the same size as a hen's egg, it is most likely to continue its journey to Victoria. Our thanks to those who attended to help make this another successful and enjoyable morning's wader watching in an ideal setting.

*Early record: Oriental Plovers pass through coastal areas such as Darwin on their southward migration from breeding grounds in the north of China.
Photo: Brian Thistleton.*



Indigenous Knowledge and Stuffed Mammals

Reporting on the talk at the September Club meeting

Dave Lowe

Mark Ziembicki presented a talk at the September Club meeting about a project to discover Aboriginal knowledge of animals in their country, in order to add to the limited knowledge of current and recent past animal species distribution in and around the northern half of Australia.

With some of the tools used in the research sitting on the desk – a stuffed wallaby and a stuffed quoll – Mark described his project. The stuffed animals were shown to people living in remote communities, to give a more realistic view of the animals he was seeking data on than could otherwise be obtained. The aim was to reveal any sightings of animals that have been disappearing fast in the northern regions over the last 50 years.



Discussions at Dhalinybuy in eastern Arnhem Land, with Black-footed Tree-rat Mesembriomys gouldii for company. Photo: Ian Morris.

There has been only very limited past survey data to work with to try to understand why the disappearances are happening. This was probably the last opportunity to access the knowledge of Aboriginal people who had lived a traditional life as nomadic hunters. The survey required skills of a diverse group of people including linguists, anthropologists and an ethnobotanist, to arrange and get the best value from community visits. Most information usually came from the old people, who were able to talk about their past experiences; there were many stories and it was sometimes hard to get factual data and a definite timeline.

Men and women were interviewed separately, which improved the chances of everyone being able to have their say without the stories of one group being dominant. Men usually hunted

different (larger) game to women, which made women's information more useful in many ways as they tended to hunt the smaller creatures which are a particular focus of the project. This group of mid to low bodyweight animals are particularly shrinking in number and distribution and information about their range within living memory was particularly sought.

The use of the stuffed animals was crucial as photographs may have been misleading as to the size and colour of animals. They were also useful in teaching the younger generation about the environment, many having never seen some of the animals, and about the problems that can happen with inappropriate management of land.

With the data obtained from all these indigenous groups it is hoped that some of the reasons for the disastrous declines in populations of many animals can be identified. The aim is to assist in formation of guidelines for future management, if possible with reversal of the declining numbers. Sadly for the many species that are already extinct or locally extinct, it is too late.

*Mark with Traditional Owner from southern Gregory National Park, with stuffed mammal collection.
Photo: courtesy of NRETA.*



Insects & spiders from *Recent Literature*, page 10.

Berry Springs ants

Andersen *et al.* (2008) surveyed the ant fauna of the spring-fed rainforest and adjacent savanna in the grounds of the Territory Wildlife Park. Forty-three species were collected, with 75% of all individuals belong to two genera – *Paratrechina* and *Pheidole*. Species composition differed markedly between habitats and richness was “far higher” in the savanna. The rainforest ant fauna was “remarkably similar” to that recorded in an earlier survey of the spring-fed rainforest at Holmes Jungle.

Savanna specialists:
the *Savanna Spiny Ant*
Polyrhachis senilis (top right),
and the *Savanna Strobe Ant*
Opisthopsis haddonii.
Photos: Alan Andersen.



Toxin of the Northern Mouse Spider

Male Mouse Spiders (*Missulena* spp.) look remarkably similar to the infamous Sydney Funnel-web Spider (*Atrax robustus*), to which they are somewhat related but less aggressive.

At least one species, the Eastern

Mouse Spider (*M. bradleyi*) of New South Wales, is known to have a venom similar to that of the Sydney Funnel-web Spider. Herzig *et al.* (2008) investigated the composition and toxicity of venom from the

Eastern Mouse Spider, and also that of the Northern Mouse Spider (*M. pruinosa*). The latter is a common species around Darwin active in the Build-Up. In both species, the venom differs between the sexes. Only that of the male Eastern Mouse Spider proved similar to that of the Sydney Funnel-web Spider, and no significant toxic effects were noted in venom collected from females of that species, nor of either sex of the Northern Mouse Spider. The lack of severe toxicity in the Northern Mouse Spider is consistent with medical evidence.



The female Northern Mouse Spider (shown here) may be distinguished from the male (page 1) by her larger abdomen and relatively shorter legs. Photo: Graham Brown.

Insect humour

Entomologist Graham Brown denies having a wicked sense of humour - he blames his wife for *those* T-shirts! Keep it up, Janet. Your editor has recently noted:

- *Entomologists know their frass;*
- *Anti-social butterfly;* and
- *A beetle's work is always dung.*

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Bird notes

With the impending departure of Sheryl Keates, there is no list of bird observations this month. We hope to resume the compilation next month.



The Buff-sided (White-browed) Robin that took up residence in the vine-thicket at Lee Point in late July (see last newsletter) was sighted up until at least August 3 – long enough to be photographed by Brian Thistleton.

“Chasing birds”

A short documentary film entitled “Chasing birds” is to be broadcast on ABC 1 on Thursday October 23

at 9:35 PM. The film follows the fortunes of three teams participating in the NSW Twitchathon. It is described as “a light-hearted look at the wacky antics of the local birders”. It was first aired at the Sydney Film Festival in June.

Top End bird records accepted

The Birds Australia Rarities Committee has announced the acceptance of the following records (amongst others from throughout Australia):

- Oriental Honey-buzzard *Pernis ptilorhynchus*: one at Gunlom, Kakadu National Park, 5 May 2005. This is the second accepted record for Australia.
- Black-headed Gull *Larus ridibundus*: one adult at the mouth of Buffalo Creek, 19 February 2006. This is the fifth accepted record for Australia.
- Red-rumped Swallow *Hirundo daurica*: one at Darwin, 16-17 March 2006. This is the twelfth accepted record for Australia.

Source: Palliser T. 2008. Rare Birds in 2007. *Wingspan* 18(3): 46-49.

Bird Atlas Fund

Here’s a reminder that the NTFNC holds funds (currently \$2,665) available to support bird surveys or related activities. The money is a carry-over from the discontinued Top End Bird Atlas Committee.

The Committee of the NTFNC is calling for expressions of interest for the use of the funds. Uses envisaged include, but need not be confined to, expenses for surveys of conservation or research interest, for ornithological research, or for costs relating to publications about birds, preferably relating to the Top End or neighbouring areas. Non-professional bird watchers and students are encouraged to apply.

Interested? As a first step, we recommend discussing your idea with Don Franklin, phone 8948 1293 or email eucalypt@octa4.net.au. Applicants may be requested to provide a summary of *no more than* one page outlining the nature and value of the activity, the proposed budget for the use of the funds, and how the results will be made available to the community.

Recent literature about Top End natural history

INSECTS & SPIDERS

Compiled by Don Franklin

Not so technical

Crough J. 2007. Creepy-crawleys catch student interest. *Savanna Links* 34: 10-11. [Maningrida students & spiders]

Butterflies

Braby MF. 2006. *National Recovery Plan for the Gove Crow Butterfly, Euploea alcatheae enastri*. Department of Natural Resources, Environment and the Arts. A Report prepared for the Australian Commonwealth Department of the Environment and Heritage: Palmerston, 36 pp.

Braby MF. 2008. Biogeography of butterflies in the Australian monsoon tropics. *Australian Journal of Zoology* 56: 41-56.

Eastwood RG, Braby MF, Lohman DJ, King A. 2008. New ant-lycaenid associations and biological data for some Australian butterflies (Lepidoptera: Lycaenidae). *Australian Entomologist* 35: 47-56. [includes Top End records]

Franklin DC, Bisa D. 2008. Field key to the lycaenid butterflies of north-western Australia. *Northern Territory Naturalist* 20: 1-18.

Pierce F. 2008. Range extension records for various butterflies throughout Australia. *Victorian Entomologist* 38: 15-16.

Termites

Korb J. 2008. The ecology of social evolution in termites. In *Ecology of Social Evolution*, eds. J. Korb, J. Heinze, pp. 151-174. Heidelberg: Springer Press. [chapter is mainly about Top End termites]

Schmidt AM, Trindl A, Korb J. 2007. Isolation and characterization of ten microsatellite loci in the magnetic termite *Amitermes meridionalis* (Isoptera: Termitidae). *Molecular Ecology Notes* 7: 1045-1047.

Other ecology

Andersen AN, van Ingen LT, Campos RI. 2008. Contrasting rainforest and savanna ant faunas in monsoonal northern Australia: a rainforest patch in a tropical savanna landscape. *Australian Journal of Zoology* 55: 363-369.

Yang G-J, Bradshaw CJA, Whelan PI, Brook BW. 2008. Importance of endogenous feedback controlling the long-term abundance of tropical mosquito species. *Population Ecology* 50: 293-305. [6 species, Darwin]

Miscellaneous

Herzig V, Khalife AA, Chong Y, Isbister GK, Currie BJ, Churchill TB, Horner S, Escoubas P, Nicholson GM, Hodgson WC. 2008. Intersexual variations in Northern (*Missulena pruinosa*) and Eastern (*M. bradleyi*) mouse spider venom. *Toxicon* 51: 1167-1177.

Yeates DK. 2008. *Apiformyia*, a new genus of Australian bee flies (Diptera : Bombyliidae, Bombyliinae) with affinities to the new world *Heterostylum* Macquart. *Zootaxa* 1714: 31-36.

Butterfly biogeography

About 60% of all Australian butterfly species occur in the monsoonal tropics, though only 6% are endemic to the region (Braby 2008). Of these 265 species, 123 occur in the Top End of the Northern Territory, there being a steep gradient in species richness from Cape York Peninsula (251 species) westward to the Kimberley (85 species). A major theory in the biogeography of northern Australian flora and fauna is that dry and and/or inhospitable habitat separating Cape York Peninsula from the Top End, and the Top End from the Kimberley, was accentuated during the "Ice Ages" and has become the basis for the evolution of distinct forms (*vicariant speciation*). Among butterflies, there are two groups of sister species and five sister subspecies or geographical forms across the geographic divide between Cape York Peninsula and the Top End, the sister species groups being the ant-blues (*Acrodipsas* spp.) and the Opals (*Nesolycaena* spp.). However, there is only one potentially vicariant group across the Top End– Kimberley divide, the Opals again.



Three species of *Opal* (*Nesolycaena*) occupy complementary regions of northern Australia, the Kimberley Spotted *Opal* *N. caesia* – guess where; the Spotted *Opal* *N. urumelia* in the Top End, and the Dark *Opal* *N. medicea* a small area in north Queensland. The Top End species is illustrated.

Photo: Michael Braby.