



# NATURE TERRITORY

August 2018

Newsletter of the Northern Territory Field Naturalists' Club Inc.

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



This photograph, entitled 'Flame of Ngurra-Kurla', was Runner-up in the Landscape category in the 2017 Northern Territory Field Naturalists' Club Wildlife Photograph Competition. Its story is on page 8 in this newsletter. *Photo: Chantele Cowley.*

## FOR THE DIARY

**August Meeting:** Wednesday 15 - Could Fire Manager depelte an important food resource for savanna animals? with Dr Anna Richards

**August Field Trips:** Sunday 12 - Giraween Lagoon with Richard Willan

**See pages 2 - 3 for more details**

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

# August Meeting

## Could fire management deplete an important food resource for savanna animals?

presented by Dr Anna Richards

Wednesday 15 August, 7.45 pm, CDU Casuarina, Room [BLUE 2.1.51](#)

**Summary:** Fire management is used across northern Australian savannas to reduce greenhouse gas emissions and sequester carbon. These managed fires are less intense and frequent than recent historical baselines (one fire every two years) and may help to reverse small mammal declines. Here we determine the effect of reduced fire frequency and intensity on the diversity and abundance of grasses, which provide an important food source for some mammals and birds.



Field work. Photo: Anna Richards

We measured grass species diversity and abundance at a long-term (10 years +) fire experiment at the Territory Wildlife Park near Darwin. Fire treatments included long unburnt, burnt every one, two, three and five years in the early dry season and every two years in the late dry season. At the start of the fire experiment, after more than 20 years without fire, introduction of fire resulted in an increase in grass diversity and abundance. The highest grass diversity was found on plots burnt every 2 to 5 years. I discuss these findings and their implications for changes to food resources (particularly grass seeds and rhizomes) in tropical savannas under different fire regimes.

**Biography:** Dr Anna Richards is a research scientist who has been based at the CSIRO laboratories in Darwin for the past 10 years. She is a plant and soil ecologist with a particular interest in the effect of fire on nutrient cycling. When she is not stuck at a desk, she likes to be out in the bush; walking, bird watching or orienteering.



Rhizomes. Photo: Anna Richards



Seeds. Photo: Anna Richards



# August Field Trip

## Girraween Lagoon with Richard Willan

Sunday 12 August 2018, 9 am



Girraween Lagoon is an oasis in Darwin's rural area that has never been visited by the Club before. It's tranquil beauty belies a fascinating history – ancient and modern. It is close to, but very different from, the more developed and disturbed McMinns Lagoon.

We will take an easy leisurely stroll looking at the scenery and wildlife around its shore.

The Lagoon is home to some unusual birds and plants. One plant, which we should see in flower is *Grevillea goodii*. This is a very peculiar *Grevillea*, being a slender, prostrate, trailing shrub. It has long annual stems that arise from a perennial woodstock. Its flowers (pictured) must have the longest and furriest style of any species of *Grevillea*.

**Directions:** Drive down the Stuart highway to Girraween Road. Turn left into Rodgers Road. Turn left into Hicks Road. Meet on the left just past the intersection with Watling Road. The Club's banner will indicate where to meet.

**What to bring:** Hat, water bottle, insect repellent, enclosed footwear.

**What not to bring:** Swimming gear as there might be crocodiles!

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## LIVERWORTS WANTED

We have had a request to pass on details of thallus liverworts we may notice in our wanderings.

A researcher from the Australian National Herbarium, Christine Cargill, is studying the taxonomy and phylogeny of the cryptogams *Riccia*. *Riccia* is a genus of the thallose liverwort, and the species around Darwin may be more closely related to Asian species than other Australian *Riccia*.

Should you come across any thallus liverworts please take a photo, note down the location, and then send on to our club email for onforwarding to Christine. Please note that the images shown here were taken in a more temperate zone and are to be used as an indicative image. Club email: [news.ntfieldnatsnt@gmail.com](mailto:news.ntfieldnatsnt@gmail.com).



Top Image: *Riccia caroliniana*. Bottom image: Soil crust. All images supplied by C Cargill.



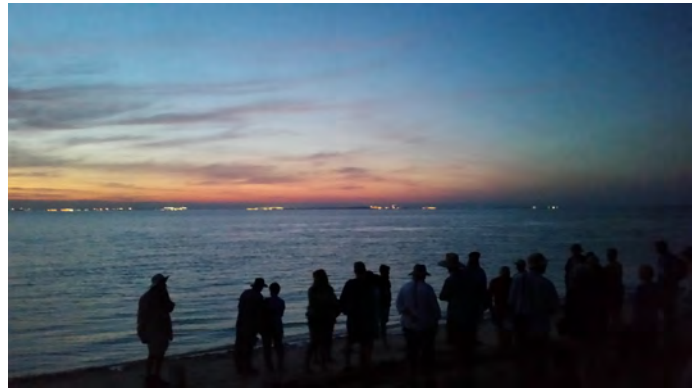
# July Field Trip Report One (Pictorial)

## Mica Beach with Richard Willan

Sunday 15 August 2018



Arrival at Mica Beach after a mirror smooth crossing of the harbour. *Photo: Tony Sullivan*



The group enjoying the sunrise and dry season morning. *Photo: Tony Sullivan*



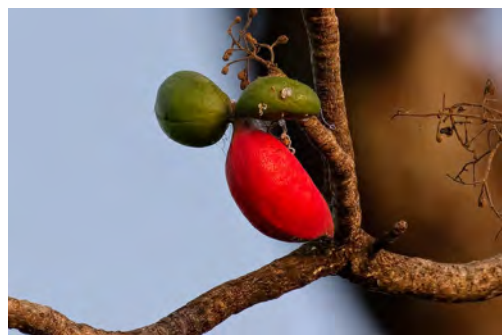
The cliff at Talc Head at the end of Mica Beach. *Photo: Tissa Ratnayeke.*



Sea slater (*Ligia orientalis*) *Photo: Leona Sullivan.*



The commemorative anchor atop Talc Head opposite where the ship HMS *Beagle* with surveyor John Stokes on board moored in 1837 and named the area Darwin. *Photo: Tissa Ratnayeke.*



Ripening fruit of the Peanut Tree (*Sterculia quadrifida*) *Photo: Tissa Ratnayeke.*



There was excitement on board the boat when we saw this on our approach to a crocodile trap - it turned out to be a "logodile". *Photo: Tissa Ratnayeke.*



A few bird pics from the Mica Beach field trip (clockwise from top left: 1. Osprey 2. Brahminy Kite 3. Beach Stone-curlew and Masked plover. *Photos: Tissa Ratnayake.*

Also seen Rainbow Pitta and Rose-crowned Fruit-dove plus heaps of the more common birds.



How many of these three tracks from Mica Beach can you identify? Answers bottom of page



Answers: Clockwise from top right. 1 Hermit crab tracks on the beach plus a white bottle top. 2. Termite tracks on the ground. 3. Goanna tracks on the beach. *Photos: Tissa Ratnayake.*



# July Field Trip Report Two

Litchfield National Park - 20 to 22 July 2018 with Mark Grubert

*Report and photographs by Tissa Ratnayake*

Did the howling Dingoes scare the Sugar Gliders or was it the rampaging pig?

Our weekend adventure commenced when some of us arrived at the SIG campground on Friday afternoon to discover a wild pig exploring the open grassed area - fortunately it raced off crashing through the dense growth around the adjacent creek. We then set up tents and as the evening light faded we listened to the ever quietening calls of birds as they settled down for the night. We had a quick look around for any



Rufous Whistler (*Pachycephala rufiventris*), male at top, female above.



nocturnal creatures that might have been active but apart from spiders saw little else of interest. We then turned to the clear sky to observe a few constellations and to admire the three bright planets of Venus, Jupiter and red Mars.

Conditions were perfect for sleeping outdoors. In the quiet of the night one could hear the heavy wing beat of flying fruit bats and their occasional noisy landing in blossoming trees. And the pig reassured by the quiet of the camp noisily made its way back along the creek.

We were up early on Saturday morning, woken by a chorus of bird calls to search for the Rock Wallabies before they sought shelter from the rising sun but unfortunately on this occasion we didn't see any. We continued on our way, enjoying a lovely loop walk through gorges and across several little creeks near Florence Falls before returning to camp for a late breakfast.

In late afternoon we traveled the short 4WD track to the Lost City, an iconic vertical stand of eroded sandstone. A short track leads through these magnificent natural carvings and despite peering inside some of the caves and amongst some of the fallen structure we were not able to find any sheltering reptiles or mammals.

After dinner we went on a night walk searching the ground and trees with our spotlights, the most interesting sightings being the glowing eyes of thousands on Wolf Spiders.

We retired to our tents on Saturday night but sleep became a series of interrupted events. The temperature kept dropping and dropping and most of us shivered away the last few hours. A pack of around four dingoes began howling nearby and repeated that several times during the night. Barely audible, the low frequency calls of a Tawny Frogmouth passed unnoticed by many but the louder calls of a Southern Boobook Owl did attract some attention.

On Sunday morning we again awoke to the extraordinary diverse calls of birds in this mixed habitat

*continued next page ...*

Brown Falcon (*Falco berigora*). Note the pale patch on cheek and underwing pattern.



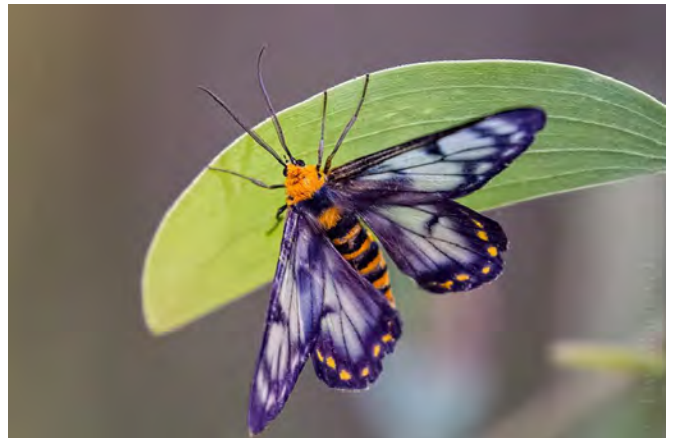


Left: Little Shrike-thrush (*Colluricincla harmonica*). Right is the Female White Winged Triller (*Lalage tricolor*).

setting, the lovely notes of the Little Shrike-thrush and Rufous Whistler were highlights. Around the camp alone we identified 39 bird species (see page 11 for bird list).

After breakfast we visited the nearby Tabletop Swamp and its large melaleuca forest. My highlight, which I'm sure didn't pass unnoticed by all, was seeing a SpheX Wasp attempting to dig a burrow. These large wasps sting and paralise green katydids which are then buried in the burrow with one wasp egg - the egg hatches and the wasp larva feeds on the immobilised katydid - the things one learns on Field Nats walks!

This was another lovely weekend at this campsite, in fact the fourth one organised by the Club over the past six or so years. We have previously seen Sugar Gliders and several species of frogs around the camp but not on this occasion but I guess that's just the luck of the draw.



Top - left: SpheX Wasp - Tissa's most rewarding observation for the Litchfield weekend (see text). Right: 4 O'clock Moth (*Dysphania numana*). Bottom - left: *Jacksonia dilatata* - flowers at the end of the leaf stems which have been modified to take the place of its leaves. Right: Swamp Bloodwood (*Corymbia ptychocarpa*)





## 2017 Northern Territory Field Naturalists' Club Wildlife Photographic Competition

Landscape category.

Photographer: Chantele Cowley.

Subject: Milpirri Festival at Lajamanu.



Here is the story behind Chantele's photograph titled 'Flame of Ngurra-Kurla' reproduced with her permission on the front cover of this newsletter:

"The 'Flame of Ngurra-Kurla' is a piece captured in the remote community of Lajamanu during the Milpirri Festival, which is held on a bi-annual basis. I was lucky enough to be invited into the community for the festival and was able to capture this

photograph towards the end of festival. The community of Lajamanu is a remote indigenous community situated approximately 900 km from Darwin along the North Tanami Desert. The Milpirri Festival is a unique collaboration between community members, the Lajamanu School and Tracks Dance Company. The festival displayed a number of artworks as the backdrop to the large stage area where dance performances were held including traditional styles of dance mixed with contemporary and hip hop styles, choreographed around a unique soundtrack developed within the community over many months. The artwork banners represent the different skin groups within the community for the Warlpiri people.

The totem flame piece which is displayed in full flame in this photograph, represents the symbol of Ngurra-Kurla. Ngurra-Kurla acts an important cultural and environmental symbol for the Warlpiri people representing four elements in each of the outer circles. Those four elements are Jaru (language), Manyuwara (ceremonies), Nyinyi Warlalja (family and skin groups) and Kuruwarri (law). The centre circle which is connected to each of these elements, and the encapsulation of all these elements represent what is Ngurra-Kurla (our home within). The burning of this large totem symbol is significant for a couple of reasons, most importantly being that fire is a very important part of Warlpiri culture for environmental renewal and simply as a means to live. By burning the symbol they are renewing these values and displaying the significance. As soon as the flame was ignited the stage filled with members of the community young and old, and guests to admire the mesmerising effect. The festival was a beautiful display not only for guests but for community members. School children performed a number of dance pieces and were followed by older community members in other dance pieces. Festivals like this truly show the depth and richness held within indigenous culture. It definitely reaffirmed my respect, appreciation and understanding of a culture with thousands and thousands of years of history across the Northern Territory landscape."

### Upcoming Field Nats Activities

**September Meeting:** Wednesday 12 - AGM and Hawaii: The US's 50th State but what is the state of the Wildlife? with Richard Willan

**September Field Trip:** Saturday 15 - Mangrove boardwalk at East Point with Richard Willan



# Podcasts - Off Track, Radio National

For lovers of nature and podcasts, if you haven't discovered these already, you may enjoy this series from Radio National. Here is a selected summary of those aired over July. To access the podcasts check the website at: <http://www.abc.net.au/radionational/programs/offtrack/>

## 28 July: The sperm whale's clicking tale

Next to nothing was known about sperm whales in the Southern Ocean. That is, until the Australian Antarctic Division started listening to their clicks.



## 21 July: Ghost claws on a unicorn

From the murky waters of the Murray River emerges a rare monster with an underbelly of red berries and claws of ghostly white.

## 14 July: Edible ocean conservation with a side of chips

Two PhD-qualified fisheries scientists have jumped ship to open an eco-friendly fish and chip shop, aiming to put their philosophy of sustainable ocean use into practise.



## Notice of the NTFNC's 2018 Annual General Meeting

The Annual General Meeting of The NT Field Naturalists' Club Inc. will be held at 7.45 pm on Wednesday 12 September in Blue Precinct, Room 2.1.51, Casuarina Campus of Charles Darwin University. Items to be considered include:

- President's report
- The audited accounts for 2017-18 and Treasurer's report. Audited accounts will be available from Jo Rapley ([treasurer.ntfnc@gmail.com](mailto:treasurer.ntfnc@gmail.com)) from 22 August onwards;
- Election of Office Bearers and Management Committee for 2018-2019 (a nomination form will be included in September's newsletter)



# Chitter Chatter

**19 July 2018: Tissa Ratnayeke:** Love our Top End butterflies. Here are a few of the smaller ones, in particular the two "blues". See how one of them has a little "tail" on the hindwing. All of these feeding on the widespread weed Tridax Daisy.



Spotless (Line) Grass Yellow



Speckled Line Blue



Small Dusky Blue



**19 July 2018 William Riddell:** I got called to Gardens Golf course last night after someone pulled this little freshwater turtle off a road. After confirming the species is Northern Yellow-faced Turtle (*Emydura tanybaraga*) I released it into a nearby freshwater creek. Good luck little fella

**Alana Court:** Good deed for the day.



**28 July 2018 Andrew Bell:** A large Yellow-Spotted Monitor, *Varanus panoptes*, at home in Brinkin this afternoon. Another nice one for the garden wildlife list.

**Graeme Gillespie:** Hey Andrew. We regularly see them this size at our place in Brinkin also. This talk about a monitoring program for this population to track how they are faring. At this size they are well able to eat toads, and plenty of toad tadpoles seen at CDU and Cas coastal reserve this year. We suspect these guys are actually avoiding toads.

**Sally Osborne:** Beautiful things, hope they are adapting.





**31 July 2018 Janis Otto:** I saw this pair early this morning on the open grassland along the Marakai Track. This is the first time I've spotted them in the NT. "Australian Bustards are omnivorous, eating leaves, buds, seeds, fruit, frogs, lizards, and invertebrates. They walk slowly, picking at food items as they wander, usually at twilight and after dark."

### Bird List from Litchfield National Park Camping Weekend - 20 to 22 July

Whistling Kite	Torresian Crow	Willie Wagtail	Little Woodswallow
Black Kite	Mistletoe Bird	Leaden Flycatcher	Southern Boobook
Brown Falcon	Red-tailed Black Cockatoo	Shining Flycatcher	Tawny Frogmouth
Brown Goshawk	Sulphur-Crested Cockatoo	Paperbark Flycatcher	Pied Butcherbird
Striated Pardalote	Little Corella	Northern Fantail	Little Friarbird
Spangled Drongo	Galah	Rufous Whistler	White-gaped Honeyeater
Great Bowerbird	Red Winged Parrot	Australasian Figbird	Blue-faced Honeyeater
Peaceful Dove	Rainbow Lorikeet	Yellow Oriole	Varied Triller
Bar Shouldered Dove	Varied Lorikeet	Little Shrike-thrush	White-winged Triller
Crimson Finch	Weebill	Black-faced Cuckoo-shrike	



# Wildlife Research

The following abstracts are from Wildlife Research Volume 45(4). Click on the link for the full article.

## **Heads in the sand: public health and ecological risks of lead-based bullets for wildlife shooting in Australia**

Hea Jordan O. Hampton, Mark Laidlaw, Eric Buenz and Jon M. Arnemo



The toxicity of lead (Pb) has seen it banned from most products but it is still widely used in rifle bullets worldwide. Our analysis of wildlife shooting practices in Australia suggests that Pb-based bullets are likely to pose considerable but underappreciated risks to the health of scavenging wildlife such as raptors and human consumers of game meat. Urgent studies are required to examine current Pb exposure levels for at-risk Australian wildlife

and human meat consumers. [Full Text](#)

## **Multinational genetic connectivity identified in western Pacific hawksbill turtles, *Eretmochelys imbricata***

Ian Bell and Michael P. Jensen

Understanding where feeding turtles are born and if threats are occurring at those areas, is vital for developing sound conservation practices. Using genetic “fingerprinting”, this study determined that the majority of *Eretmochelys imbricata* found feeding on the Great Barrier Reef had originated from nesting sites widely distributed though the western Pacific. Holistic conservation strategies are required to save the species.

[Full Text](#)



## **Impacts of translocation on a large urban-adapted venomous snake**

Ashleigh K. Wolfe, Patricia A. Fleming and Philip W. Bateman



Urban snakes are often managed by translocating them away from properties, despite the practice having limited success worldwide. We tracked 10 Dugites (*Pseudonaja affinis*, Elapidae) using radio-telemetry and GPS in Perth, Western Australia, where translocated snakes had larger activity ranges and

higher mortality than did residents. Translocation is not a humane snake management method, and alternatives such as public education are recommended.

[Full Text](#)



## The use of point-of-view cameras (Kittycams) to quantify predation by colony cats (*Felis catus*) on wildlife

Sonia M. Hernandez, Kerrie Anne T. Loyd, Alexandra N. Newton, Benjamin L. Carswell and Kyler J. Abernathy

We collected empirical data on stray cat predation on wildlife and investigated influences on hunting behavior. We found that a majority of colony cats kill prey, most commonly invertebrates, reptiles, and amphibians. We suggest further investigation into the impact of domestic cats on herpetofauna and recommend that Trap-Neuter-Return colonies be located away from habitats hosting sensitive species.

[Full Text](#)



## Using non-invasive sampling methods to determine the prevalence and distribution of *Chlamydia pecorum* and koala retrovirus in a remnant koala population with conservation importance

Faye Wedrowicz, Jennifer Mosse, Wendy Wright and Fiona E. Hogan

*Chlamydia pecorum* and koala retrovirus infect wild koala populations with potential negative impacts.



Non-invasive methods facilitate broad-scale pathogen detection in wild populations. DNA sourced from scats was used to establish baseline prevalence and diversity data for these pathogens in a remnant, genetically diverse koala population. Continued monitoring of pathogen prevalence in this koala population is important for its future conservation.

[Full Text](#)

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## Book Review by Jay Churly, age 9.

**Chrissie can draw Seabirds**, Editor, Dr. Juna Kim; Author/Illustrator, Chrissie Cloete

I like the pictures of the birds, the puzzles in the book and the variety of pictures to colour in. I especially like the origami of the penguin, and the instructions are easy to follow. I also liked the bird names and the very interesting facts. But it would be good to have even more information included. For example, I would like it if the pages would have a little picture of the real seabird, so I can copy the colours to make it look like the proper bird. I would also like it if all the birds were labelled so you know what they are, so I can look them up in my bird book (the middle pages of the book don't have names of the birds so you don't know what the birds are).

Overall, I would rate this colouring in book as a 9 out of 10.



## NT Field Naturalists' Club Directory

President:	Richard Willan	8999 8238 (w)
Secretary:	Diana Lambert	0409 767 570
Treasurer:	Jo Rapley	0487 193 241
Committee Members:	Graham Brown	0417 804 036
	Mark Grubert	8999 2167 (w)
	Lyn Lowe	0411 269 216
	Leona Sullivan	0423 951 874
Bird Life Australia Liason Officer:	Denise Goodfellow	
Newsletter Editor	Leona Sullivan	0423 951 874
Website and Facebook:	Tissa Ratnayeke	0417 659 755

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



## Club notices

**Thank you:** The previous issue was despatched by **Tissa Ratnayeke**.

**Newsletter contributions welcome:** Sightings, reports, travelogues, reviews, photographs, sketches, news, comments, opinions, theories ..... , anything relevant to natural history. Please forward material to [news.ntfieldnatsnt@gmail.com](mailto:news.ntfieldnatsnt@gmail.com)

Deadline for the September newsletter: Friday 31 August 2018

**Need a Club membership form?** Go to: <http://ntfieldnaturalists.org.au/membership/>

### **Northern Territory Naturalist:**

Chief Editor, Richard Willan, advises that Volume 28 has been printed and copies will be available for members at the August meeting. Contributions for next year's volume are now welcome.

**Top End Native Plant Society** General meetings are held on the 3<sup>rd</sup> 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 0459 440 665.

**NT Field Naturalists' Club Meetings** are *generally* held on the second Wednesday of every month, commencing at 7:45 PM, 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.