**June 2018** 



# Alice Springs Field Naturalists Club Newsletter



Very sad to see parts of one of my favourite places, the Intertexta Forest, deliberately burnt a few weeks ago. Peter Latz tells us that *Eucalyptus intertexta* trees like this one are multi-trunked because of previous fires. I hope they don't have to start from scratch again. This fire would have been cooler because of earlier Buffel Grass removal from the area. More pictures on page 9. Barb *Gilfedder* 

Meetings are held on the second Wednesday of each month (except December & January) at 7:00 PM at Higher Education Building at Charles Darwin University. Visitors are welcome.

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# **NEWSLETTER**

The next newsletter will be July 2018.

The deadline for the next newsletter will be 23 June 2018

Please send your contributions to Barb Gilfedder - bjfedders@gmail.com

# TRIPS AND ACTIVITIES

#### **ALICE SPRINGS FIELD NATURALISTS CLUB**

## Sat 9 June - Mon 11 June Queens Birthday Weekend. Three day/two night Camping Trip with Jim Lawrence



Route: South Stuart Hwy, Henbury Meteorite Craters, Running Waters, Illamurta Springs. Return to Alice Springs via Finke Gorge, Ellery Creek and Larapinta Drive. No mobile coverage until, I believe, near the Ellery/Larapinta intersection. Only shopping/fuel opportunity is Orange Creek Roadhouse on Stuart Highway.

Max 6 vehicles, high clearance 4wd, fuel for 350 Km, UHF radio an advantage. Camp 2 nights, probably without any facilities - have your own shovel/spade and snatch strap. Please advise leader Jim Lawrence on Email <a href="mailto:jim.lawrence.asp@gmail.com">jim.lawrence.asp@gmail.com</a> or 0428823631 as soon as possible if you intend going on this trip – only limited response so far. Allow for overnight temperatures to be cold. Pray for fine weather. Depart from Information Bay opposite Old Timers, South Stuart Hwy 09-06-2018.

Wed 13 June

**General Meeting** at the lecture theatre in CDU higher education building 7.00pm. **Caragh Heenan and Candice Appleby**, of Land for Wildlife Central Australia, will present some images of their trip to **South America** in February 2018. From the granite-peaks and grasslands of Patagonia, to the wet and wild of the Galapagos... and all that Iguazu, Rio, the Amazon and Machu Picchu have to offer in between. They will take you on a visual trip with them through some of the fauna and botanical highlights of 5 weeks abroad.' Pictured: Galapagos Iguana



Sat 30 June

Day trip to Roma Gorge with Neil Woolcock. Meet at Flynn's Grave at 8.00am. Contact Neil on 0428 521 598

Wed11 July

**General Meeting** at the lecture theatre in CDU higher education building at 7.00pm. **Sheridan Martin,** Senior Ranger at Owen Springs Reserve will talk about Owen Springs from a Ranger's perspective.

Watch for this one later in July Serpentine chalet – camp and walk with Wendy and Ian Mann

# **AUSTRALIAN PLANTS SOCIETY ALICE SPRINGS**

Contact: apsalicesprings@yahoo.com.au

Wed 6 June

**APS AS Meeting** at Olive Pink Botanic Garden Visitors Centre at 7.30pm. **Ian Coleman, Curator at OPBG** will talk about the new Olive Pink Botanic Garden water saving irrigation system.

## Friday 6th and Saturday 7th July 2018 Alice Spring Show at Blatherskite Park

Come and see the APS stand at the show for native plant sales, native plant seed sales, local gardening advice, plant identification and to discover what's new with the Australian Plants Society in Alice Springs.

Contact: apsalicesprings@yahoo.com.au if you can volunteer a little bit or a lot of your time in setting up, manning the stand or packing up.

President	Barbara Gilfedde	r 8955 5452	Committee Member	Pamela Keil	8955 0496
Vice-President	Lee Ryall	0417 401 237	Committee Member	Robyn Grey-Gardner	8952 2207
Secretary	Anne Pye	0438 388 012	Some other Club Responsibilities:-		
Treasurer	Neil Woolcock	8955 1021	Newsletter	Barbara Gilfedder	
Property Officer	Rosalie Breen	8952 3409	Website	Pamela Keil	
Public Officer	Anne Pye	0438 388 012	Minutes Secretary	Connie Spencer	0429 966 592
			Facebook organiser	Colleen O'Malley	

# **Burrowing through Paper**

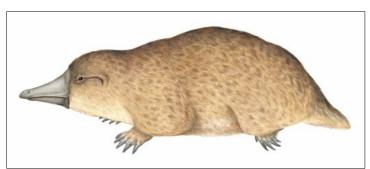
Talk by Adam Yates, palaeontologist at the Museum of Central Australia on 9 May. Report by Lee Ryall.

The enchantment of Adam Yates' talk to the Field Naturalists on Wednesday night was in the way it wove time, geology, geography and evolution together to give us the Alcoota context.

It was quite a trip. Helping to make deep time more comprehensible, our guides were stacks of paper, possibly gsm80 reflex-

photocopy paper (at least that's what came to my mind).

Each sheet represented a year. So when we set out with a glimpse into the early Cretaceous, its age was marked by a stack of paper sheets some 6km high (120 million years). At that time, the Australian continent was still protruding from the Antarctic Gondwana segment and was almost split in two by a shallow epicontinental sea flowing in across the NT and Queensland. Thanks to the lack of a circumpolar current (this character will play a part later on), the equatorial waters sliding down the west coast of "South America" warmed the great southern landmass. So there was no icy desert, despite Australia extending into the Antarctic Circle, but forests of conifers where dinosaurs played, fought and paddled in the muds of the Eromanga Sea, leaving bones and footsteps for us to marvel at. Yes, it would have been dark for long stretches of the year, but at least it was a warm darkness. Well warmer than the equivalent latitude in the modern world, there were still winter freezes, deep snow and frost.

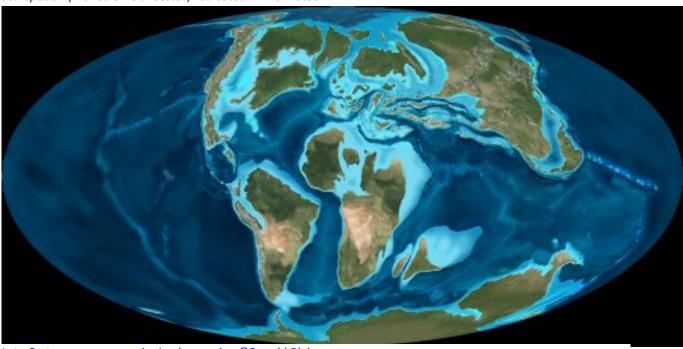


Steropodon (monotreme ancestor) recreated Anne Musser



Cretaceous landscape recreated Karen Carr

And somehow surviving unsquashed by those gigantic feet was a small monotreme, an ancestor of the platypus, breeding, evolving, waiting its chance.



Late Cretaceous map: unzipping happening ©Ronald Blakey



Monito del Monte, a tiny marsupial only found in South America. They are only four to five inches long, with a tail almost as long. A creature probably similar to this, would soon evolve and radiate into the iconic range of the 'Australian' marsupial fauna.

What started as a 6 km paper pile, losing one page of height per year, it had almost halved, when a 10 km diameter asteroid hurtled out of the cosmos and smashed into a shallow sea half on and half off the modern Yucatan peninsula of Mexico. This spelled the end for the non-avian dinosaurs. The 'Australian' continent was now slowly unzipping from soon-to-be Antarctica, which was still connected to the also unzipping South America.

With the paper still flicking page by page into the wind, migrants from South America included the eucalyptus and an ancestral marsupial, probably similar to the South American Monito del Monte (mountain mouse) *Dromiciops gliroide*. This creature would soon evolve and radiate into the iconic range of the 'Australian' marsupial fauna.

Crocodiles were the next to arrive, possibly about 60mya (million years ago). Adam presented an intriguing image of the creatures possibly swimming over from the Chinese landmass. By the time the paper pile had reduced to 45 mya one group of avian remnants of the dinosaurs, the palaeognaths, had already flown to the southern continents. Here they would evolve into a range of large flightless birds such as the Moa, the Ostrich, the Emu and the Dromonorthids. One or two, such as the South American Tinamous, and the New Zealand Kiwi would retain their petite size.



*Dromornis stirtoni* was the largest of the dromornithids, a group of huge flightless birds known only from Australia. The late Miocene Dromornis, known from fossils found on Alcoota Station, weighed up to 500kg and stood over three metres in height, making it heavier than the Giant Moa of New Zealand and taller than the Elephant Bird of Madagascar.

Meanwhile the Australian fauna was diversifying, the 'oldest inhabitant' still hanging in and becoming more platypus-like with every disappearing ream of paper. In the absence of the dinosaurs, many, if not most, of the marsupials were growing in size. Around 35 million years ago the Drake Passage south of South America opened, Australia unzipped completely from Antarctica and the way was clear for a circumpolar sea current to insulate the great southern continent of Antarctica from equatorial warmth. This would start the slow growth of the Antarctic ice cap. At the same time, Australia's northward journey would coincide with the gradual drying out of the Australian continental interior.

Despite this, the Alcoota fauna lived in a much greener environment than today's. Alcoota was woodland 8 million years ago. We know this because the herbivorous megafauna of Alcoota - several sizes and shapes of Diprotodontid, and a couple of species of kangaroos- were browsers, not grazers. Grasses would come later. But life at Alcoota was enlivened by the presence of the massive flightless birds - *Dromornis stirtoni* alongside smaller *Ilbandornis* species and a range of predators including Marsupial Lions and *Baru* - a Mega-crocodile capable of hiding in the bushes and pouncing on unsuspecting prey. But Alcoota exists as a fossil ground precisely because of the rapidly proceeding drying out of the Australian interior.



Fossils of *Palorchestes* a squat, trunked herbivore, are also found at Alcoota.



Post Alcoota: Marsupial Lions attacking Short-faced Kangaroos

As the paper stack reduced to between 2 and 3 metres, (about 50,000 years ago) almost all of these huge creatures disappeared, leaving Australia's fauna much more recognisable to us today. However, in ending his talk, Adam left us thinking about the extinction of the megafauna - was it the result of the changing environment or was it caused by the arrival of another predator- *Homo sapiens*? This question is even more relevant today.

If you want to see the remains of the Alcoota fauna, wait for the opening of Megafauna Central in Todd St on July 5th 2:30pm to 4:30pm, where you can feast your eyes on real bones and re-creations to your heart's delight.



# Walk and Talk at Olive Pink Botanic Garden by Caragh Heenan

Regular visitors to Olive Pink Botanic Garden over the years will have noticed big changes taking place as Buffel Grass (*Cenchrus ciliaris*) has been progressively removed from sections of the garden. The native species regeneration is remarkable! Myself, Candice, Sue and Simon joined Connie and Ian on a walk and talk, to learn more.

The walk and talk began at the entrance to OPBG and ran along the outside of the fence line abutting the Todd River to demonstrate the work that the OPBG Landcare group has been undertaking. The Landcare group are relatively newly established, but with some hard work and muscle power, Buffel is starting to make way for some native grasses such as Purple Plumegrass (*Triraphis mollis*), Erect Kerosene Grass (*Aristida holathera var. holathera*),

and Woolly Oat-grass (*Enneapogon polyphyllus*), among others. Some species have been planted and are doing well, including Dense Cassia (*Senna artemisioides nothosubsp. sturtii*) and Bluebush (*Maireana sp.*).

Above: OPBG Curator, Ian Coleman, atop Annie Myers Hill.

The walk continued into the formal gardens. Annie Meyers hill is currently going under the mattock and has been cleared of Buffel to half way up the slope (marked with some pegs and flagging tape) and the area has been allowed to naturally regenerate with grasses such as Mountain Wanderrie (*Eriachne mucronata*) and forbs such as Crimson Foxtail (*Ptilotus sessilifolius*).

Further up the slope, some Kangaroo Grass (*Themeda triandra*) is holding on in patches amongst the Buffel. There are plans to clear selected areas, to allow natives to expand their range. Some management of Buffel Grass around selected trees (*ie.* Common Rock Fig, *Ficus brachypoda*) has taken place as a fire management tool. Selected shrubs do well among the rocks, with some hardy Native Fuchsia (*Eremophila latrobei*) staking a claim for space.

Below:Clockwise from top left:
Crimson Foxtail (*Ptilotus*sessilifolius)., Common Rock Fig
(*Ficus brachypoda*), Red-bud Mallee
flower (*Eucalyptus pachyphylla*),
Red-bud Mallee buds (*Eucalyptus*pachyphylla), Mountain Wanderrie
Grass (*Eriachne mucronata*), Painted
Lady Butterfly (*Vanessa*kershawi)settled on *Frankenia*cordata.



June 2018



We continued back down the hill after a moment of soaking in the view to view the impact of Euros (*Macropus robustus*) on the native forbs in the low-lying areas. A few individuals stuck around to demonstrate their ability to eat the soft succulent grasses and forbs. We then continued on over to Nurses Hill, which has also gone under the mattock of late. Olive Pink Botanic Garden successfully hosted four Green Army programs, who quickly became experts at gaining control over Buffel Grass. The native species present on Nurses Hill is testament to the hard work of them and the OPBG staff.

We paid a quick visit to the sand dune and heath areas on our way out, where we interrupted a pigeon party and spied a Painted Lady (*Vanessa kershawi*) butterfly feeding on Salty Heath (*Frankenia cordata*) flowers.

While Buffel Grass control is an ongoing concern for many, OPBG are certainly on the right track and are making a considerable impact on regeneration of native plants on the site.

Thanks to Connie Spencer and Ian Coleman for showing us around Olive Pink Botanic Garden— the hill climbs were a great way to get the blood pumping early on a Sunday morning!

Top: Nurses Hill in the foreground, which is Buffel-free and a stark contrast to the hill in the background.

Below: Salty Heath (Frankenia cordata) in bloom; Crested Pigeons (Ocyphaps lophotes) find shade under a Latz's Wattle (Acacia latzii).





# Another Buffel-busting Story - Walk from Kurrajong Drive - Saturday 12 May 2018

# by Jane Bannister

We set off from Kurrajong Drive and led by Connie we walked up the hill to "Henry's Secret Garden". It was my first time to visit this jewel among a sea of Buffel. As we climbed up, it was interesting to see the work of several individuals who are making an indent on the Buffel grass in the area. It appears that the preferred method is to slash the Buffel right down, wait for rain until there is new growth, and then spray. Where this has been done other grasses were appearing, we saw Silky Browntop (*Eulalia aurea*), some Button Grass, *Dactyloctenium radulans*; Kangaroo Grass, *Themeda triandra*; Woolly Oat Grass, *Enneapogon polyphyllus* (pictured below in that order) and others unidentified.









We climbed up through an open woodland of Ironwoods, Whitewoods, Supplejack (Connie pointed out how to tell the difference between the two, by leaf form and seeds) Mulga, Witchetty Bush, Dead Finish, Corkwoods (*Hakea lorea* subsp. *lorea* and *Hakea divaricata*) and a sea of Buffel, until we came to Henry's cleared area. It was so beautiful to see the contours of rocks and hills in their pristine form. It made me realise what this whole landscape must have been like pre Buffel – oh,A to have been there!

In his garden we saw *Ptilotus macrocephalus* and *P. sessilifolius*. They were the only plants that were flowering. We also saw *Sida* spp, many different *Solanum* spp, a *Hibiscus* sp, *Indigophera leucotricha*, *Eremophila freelingii*, *E.longifolia*, (we were told how this suckers and can run riot if planted in your garden!) and *E. latrobei*. There were also many *Senna artemisioides subsp. helmsii* and *sturtii* plus a very pretty Mountain Wanderrie Grass *Eriachne mucranata*. It was just astonishing the variety of plants in this cleared area.

We climbed up to the top of the ridge with wonderful views of the hills, half the group went a direct route back, and the rest of us walked along the tops, on a maize of mountain bike tracks, for another hour or so and got back after a very delightful and informative morning's walk.

We met Henry before we started and he explained how the whole project started. He saw a lot of Buffel around the trunk of a favourite large tree, and decided to remove it in order to protect the tree from fire. Having removed that bit he just carried on outwards from there, until what we see now. It is a real testament to what can be achieved by sticking at it.

Part of Henry's garden Photo by Neil Woolcock.



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# Heritage Market at Telegraph Station – 20 May 2018

Alice Springs Field Naturalists shared a stall with Australian Plants Society Alice Springs at the recent Heritage Market held at the Telegraph Station. Our new banner got its first airing and looked good.

Rosalie put together an extensive collection of interesting rocks from her collection, which were inspected with interest by lots of patrons. I think the pet rock hiding in the middle with red paint and stick-on eyes was the most popular with the younger ones.

Barb resurrected a 'Know your Natives' competion which provided educational puzzling for many. The family below were getting very involved.

Bec Duncum displayed and sold a range of APS merchandise including posters, brochures, seed packets, cards, mugs and more.

Many thanks to all volunteers who took a turn manning the stall and chatting to interested locals and visitors. I think there were fewer people attending than there were last year, possibly because of other events in town, but it was still a relaxing family market with something for everyone. The band and singers provided a great atmosphere. Food smells and old engine noises attracted people to different areas. Well done, Parks and Wildlife!

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# Intertexta Forest Sessiliceps succumbs to fire

Sadly one of the casualties of the Intertexta Forest fire was this small spindly tree. It was one of only two *Acacia sessiliceps* specimens in this small area.

Below: before the fire and flowering... and right: after fire.









# ALICE SPRINGS FIELD NATURALISTS CLUB INCORPORATED Minutes of the general meeting held at the Higher Education Building Charles Darwin University – Wednesday 9 May 2018

**Open:** The President, Barbara Gilfedder, declared the meeting open at 8:30 pm following a presentation by Adam Yates, *Alcoota in context – A walk through time*. Thank you to Jill Brew for providing supper and to Rosalie Breen for taking notes.

**Present:** 24 members, 12 visitors and 1 apology as per attendance book.

Minutes: The Minutes of the April 2018 general meeting as printed in the newsletter were accepted by the meeting.

#### **Business Arising:**

- Website Robyn Grey-Gardner and Pamela Keil still working to have past newsletters displayed.
- Lisa and Pete Nunn are launching their *Birds of Central Australia* brochure on Saturday May 12, 3:00 pm at OPB Pete had brochures for sale at the meeting. Members \$5.00.

Treasurer's	Report:
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Balance of all funds (including petty cash) end N	\$4 080.18			
Activity April 2018	·			
Income:				
Fridge magnet sales	5.00			
Bank interest	<u>.17</u>			
Total Income	5.17	\$5.17		
Expenditure:				
AWC Newhaven donation	\$1 000.00			
Pete & Lisa Nunn bird brochure loan	1 756.00			
Insurance – Austcover	440.00			
(Transferred to petty cash 2.50)				
Total expenditure	\$3196.00	\$3 196.00		
(Petty Cash \$32.65)				
Total of all funds (including petty cash) end Apr	\$889.35			
Report accepted by the meeting.				

#### **Correspondence:**

Margaret Friedel – notes on the introduction of Buffel Grass from Robert Winkwork (1997) & Des Nelson (2018)

#### **General Business:**

- Barb displayed a vinyl banner purchased from Vista Print at recent sale for \$50.00. Her visiting son, Mathew, helped with the design.
- Insurance (slightly overdue) has been paid. Await certificate of currency. Barb to check cost of extra insurance for trips longer than one day.

## **Past Events:**

Sat 15 April 2018 Drive to Kunoth Well (a birding hotspot) with Pam Keil.

Sun 29 April 2018
 OPBG Walk with Connie Spencer. Six in attendance. Report for newsletter by Caragh Heenan.

• Sat 5–Mon 7 May 2018 Tower Rock trip postponed due to lack of a leader

#### **Future Events:**

• Sat 12 May 2018 Walk to Henry's garden in hills north of Kurrajong Drive with Connie Spencer

Sun 20 May 2018 ASTS Heritage Markets. Joint stall with APS AS
 9-11 June 2018 Camping trip to Running Waters with Jim Lawrence.

• Neil Woolcock offered to lead a trip to Tower Rock in the future. Date to be decided.

**Next Meeting:** Wednesday 13 June 2018. Topic: *Travels in South America* by Caragh Heenan and Candice

Appleby. Supper volunteer needed, please.

Meeting closed at 9 pm. Minutes compiled by Connie Spencer