



August 2016

Alice Springs Field Naturalists Club Newsletter



Walkers in the Gully – A photo taken on the Old Hamilton Downs weekend by Rosalie Breen. Ian, the caretaker is second from the left. He had led the group to a beautiful flowering specimen of *Senna glutinosa*. Another picture on page 9.

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 September 2016.
The deadline for the next newsletter will be 23 August.
Please send your contributions to Barb Gilfedder: bjfedders@gmail.com

Sun 7 August **Launch of the second Central Australian Flora Brochure – trees, large shrubs, grasses and sedges** by Peter Latz at 3.00pm at Olive Pink Botanic Garden.
All welcome .

ALICE SPRINGS FIELD NATURALISTS CLUB

Please contact the relevant leader of any ASFNC trip that you wish to attend.

Wed 10 Aug **Alice Springs Field Naturalists Club ANNUAL GENERAL MEETING** at the Lecture Theatre in Higher Education Building at CDU at 7.00pm. All Committee positions will be declared vacant and the Committee will be elected. Annual subscription fees due at this meeting. This will be followed by **Members' night**. Please bring pictures, either hard copy or on a thumb drive, or other items to share.

Wed 13 Sept **Alice Springs Field Naturalists Club GENERAL MEETING** at the Lecture Theatre in Higher Education Building at CDU at 7.00pm.
Speaker – Doug McDougall "Highlights of Hawaiian Wilderness"
Doug will show pictures and talk about a recent trip to Hawaii, including a tour with Humpback Whales, a trip to Volcano National Park and the summit of the Big island.



AUSTRALIAN PLANTS SOCIETY ALICE SPRINGS

Contact: apsalicesprings@yahoo.com.au

Wed 3 August **APS AS meeting** at Alice Springs Desert Park Nursery 7.30 pm "Introduction to Propagation". If you wish to attend or for further information contact apsalicesprings@yahoo.com.au or Karlee 0488 104 490

Wed 7 Sept **APS AS Meeting** ay Olive Pink Botanic at 7.30pm.
Speaker: Bec Duncum "Flowers of Fitzgerald River National Park".

26-30 Sept **Alice Springs - Australasian Systematic Botany Society Conference**

BIRDLIFE CENTRAL AUSTRALIA

Contact: birdlifeca@gmail.com

Sunday 1 August **Social Birding.** Contact birdlifeca@gmail.com for place and time.

17-21 August **Central Australian Bird Festival.** A big range of exciting bird-related activities is available. For a copy of the program, contact birdlife@gmail.com

Wed 24 August **Birdlife Central Australia Meeting** 7.00pm in Education Room at Alice Springs Desert Park.

Alice Springs Field Naturalists Club Committee Members

President	Barbara Gilfedder	8955 5452	Public Officer	Rhondda Tomlinson	8953 1280
Vice-President	Lee Ryall	8953 6394	Property Officer	Rosalie Breen	8952 3409
Secretary	vacant		Committee Member	Connie Spencer	8952 4694
Treasurer	Neil Woolcock	8955 1021	Committee Member	Claire Meney	0448341795
Website and Newsletter	Pamela Keil	8955 0496.			

CROCODILE CONCERNS by Don Hadden

What can be done about a crocodile turning up in your favourite fishing hole? Not much really. He's bigger, tougher and meaner than you are.



Recently we were living in Peppimenarti Aboriginal Community where my wife Llane was working as a Remote Area Nurse and I was photographing the local birds. A small pond near an extensive floodplain was full of fish and a favourite of various herons, egrets, cormorants, darters and Nankeen Night Herons. That is until a crocodile appeared. Suddenly, wading in the water was a risk. I noticed those species capable of doing so changed their feeding procedures. Pied Herons, Intermediate and Little Egrets, took to watching from the bank and on spotting a fish, flying out 'hovering' briefly (if a heron can be said to hover) and stabbing at the fish and flying back to the shore. They were quite successful using this method but also stood on the bank and caught what they could from around the edges.

However, the Great Egret didn't appear able to fly out over the water and stab at fish it saw, so simply waded in as usual. It did, however, seem to be aware of where the crocodile was situated and searched for fish at the other end. The Little Black Cormorants had no choice but to swim and dive. For a long time, they would watch from the shore, until one would make a move followed by the rest of the flock. There would be some frantic fishing and then all would fly back to shore. Then when hunger overtook their fear, back in they would go again. Once or twice a heron was very close to the crocodile and I wondered if it would meet its end but they all survived during the hours I watched. *(Thanks Don, Ed.)*

Photos on the left show the antics of Intermediate Egrets, the one above is a Pied Heron performing a difficult aerial manoeuvre and below the cause of the problem, the Crocodile.



Kakapo recovery – nest minding on Anchor Island during the 2016 breeding season

July Speaker – Colleen O’Malley

Colleen also kindly wrote this précis of her talk

Kakapo belong to an endemic subfamily of birds unique to NZ. They are flightless, but have retained well-developed wings which they use for balance while clambering up trees with their bills and sharp claws. Kakapo are long-lived - current thinking is up to 80 years - and are the biggest parrot in the world, with females averaging 1.5 kg and males topping the scales at 3 kg in the lead up to a breeding season. Being nocturnal, they roost in shrubs, under ferns, or in cavities under tree roots during the day, and their mossy green feathers give them good camouflage in NZ forests.

Kakapo have the lowest known daily energy requirement of any bird, and their diet consists of leaves, tubers, fruits, stems and nectar from over 80 different plant species. Birds can range across 30 ha while feeding – walking on the forest floor rather than travelling through the canopies of shrubs.



Kakapo only breed every 2-4 years, triggered by masting (a big flowering/seeding event) in key food species – particularly rimu. Male kakapo build a distinctive track and bowl system during the breeding season (Dec-Feb), and each night set out to seduce females by inflating their thoracic air sac and emitting a deep resonant series of booms and high pitched chings for hours on end. Females mate several times with the male of their choosing – generally the one with the best real estate and most resonant booming. A clutch of 1-4 chook-sized eggs are laid in a shallow scrape in dry cavities under tree roots and females incubate the eggs and do all of the chick rearing . Chicks fledge at 10 weeks, weighing a hefty 700 g.



Kakapo were once one of the most abundant and widespread birds in NZ, persisting well after Maori arrived (~800 y ago) despite hunting pressure, landscape burning and predation of eggs and chicks by kiore (Polynesian rats). The arrival of Europeans in the 1840s with their clear-fell farming practices, indiscriminate hunting and the cats, rats, stoats, weasels and ferrets they brought with them spelled doom for mainland kakapo populations. By the 1970s kakapo had virtually disappeared from all of NZ, apart from a few ranges in remote Fiordland in the bottom third of

the South Island, and even in these high altitude haunts remnant populations were being battered by predation by stoats and cats.

Early conservation efforts by Department of Conservation staff were focussed on trapping and translocating kakapo to a predator free island in the Marlborough Sounds. These efforts were not very successful as all of the birds trapped turned out to be males, and all attempts at captive rearing birds were short-lived as kakapo did not survive in captivity.

Just when it seemed like this iconic parrot was headed to extinction, there was a lucky break with a healthy breeding population being discovered in the remote interior of Stewart Island in 1977. But it wasn't until 1980 that the first female seen in 70 years was captured and the recovery program could now begin in earnest. Working against a backdrop of escalating cat predation, DOC staff set about trapping all remaining wild kakapo in Stewart Island and translocating them to two predator-free islands – Whenua Hou (Codfish Island) and Pukenui (Anchor Island). In all 61 kakapo were moved to the two islands. By 1989 kakapo were considered to be extinct in the wild.



The next two decades were full of trial and error as kakapo recovery scientists tried to understand more about breeding cues, factors affecting fertility in eggs and survival of chicks. There were advances in technology that helped the recovery effort. All kakapo were fitted with radio transmitters that allowed scientists to monitor movement, mating events and nesting. Nests were fitted with an electronic doorbell and video camera to allow scientists to follow egg incubation and intervene if mothers stayed away too long from eggs or chicks. Improvements were made to supplementary food mixes so these more closely mimicked wild food favoured during breeding events. Electronically-monitored feed stations were also set up that only let certain kakapo feed and regulated the amount of food they could take.

Kakapo became one of the most intensively managed wild birds in the world, but despite all these efforts the population hovered between 50 and 90 birds. Then a big breeding event in 2009 saw 33 chicks fledge to bring the population to 124 birds! 2016 was another big breeding event and I was lucky enough to spend three weeks in February helping with the recovery program on Anchor Island. Officially I was the team's cook, but I also got to wander the island rebaiting all the predator traps. I got to see the first of the season's chicks hatch, and even got to nest-mind for one of the first-time mums. As of this week all of the surviving chicks have fledged, and the total number of kakapo in the wild is now 157!

There's still a long way to go before these birds are safe from extinction. You can find out more about kakapo recovery on the official website and facebook page, or you if you are into tweeting (all good birdos should be!) you can follow one of the scientists, Andrew Digby, to get the latest news about the program. If you are feeling generous you can also contribute to the kakapo recovery program by adopting a kakapo – checkout the web page: <http://kakaporecovery.org.nz/adopt-a-kakapo/>

Maloney Creek Fossils – a step back in time

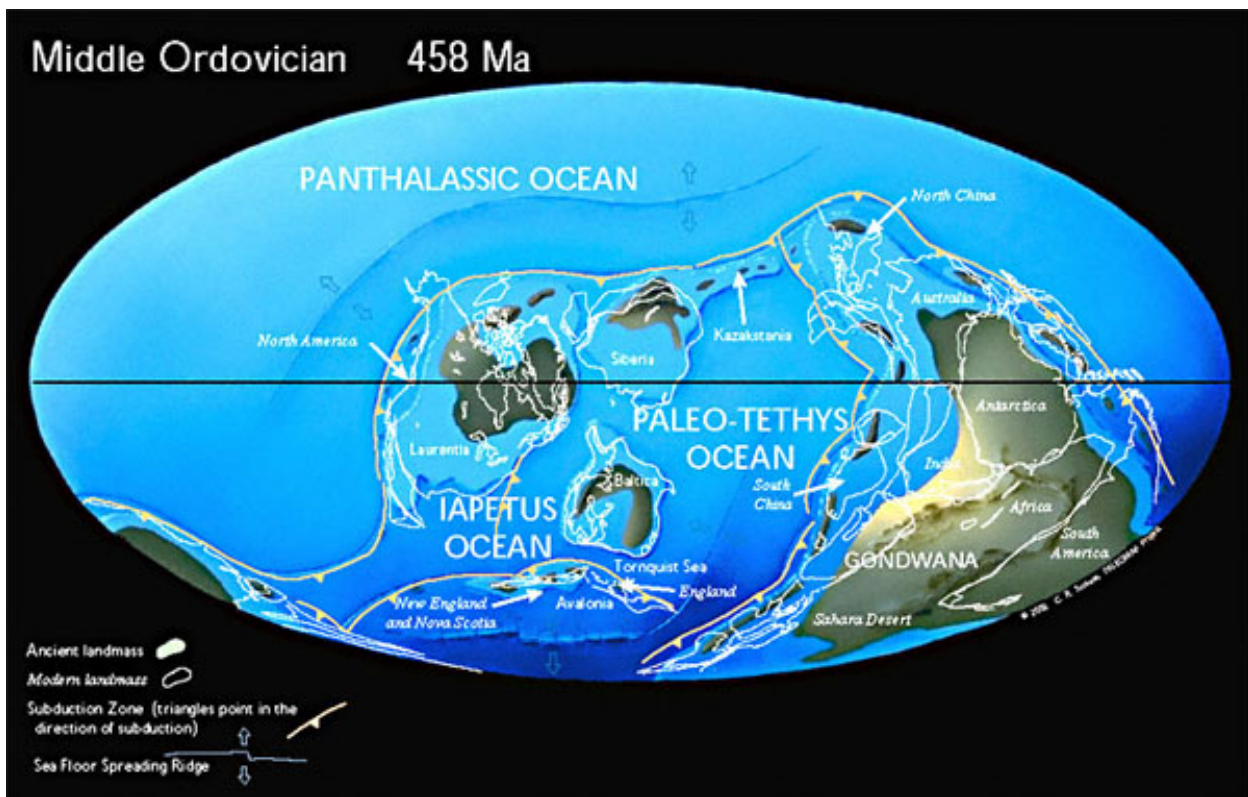
A trip led and reported on by Lee Ryall

On 26 June an intrepid group of fossickers braved the rain to go paddling in the Ordovician.

What was the Ordovician like? The weather was hot, and sea levels were high, drowning many of today's land masses under relatively shallow, warm seas. As there wasn't a lot happening on land in terms of life (a few mossy plants edging out of the water, and possibly a few arthropods experimenting with their land legs towards the end of the period), this wasn't necessarily a big problem. However in the seas, animals which had evolved during the Cambrian period flourished and diversified.



*It was a bit of a wet cold day but as soon as we were out of the cars all eyes were in search mode even before we made it through the gate.
- Rhondda Tomlinson*



The water was crowded with untold varieties of invertebrate: trilobites, brachiopods, molluscs, bryozoans, echinoderms and graptolites. This geological period started roughly 485 million years BCE, after the mass extinction which marked the end of the Cambrian, and was brought to a close 45 million years later by a couple of million years of massive climatic oscillation, causing the second largest mass extinction in earth history.

The Australian continent was sitting across the equator at this time, and was unlike the continent we see today, with a series of seas covering the northern part of the landmass, so the deposits at Maloney Creek formed in a shallow, warm equatorial sea. The Horn Valley Siltstone, which crops out at various places across the Amadeus basin, was laid down between the Pacoota Sandstone and the Stairway Sandstone. It is estimated to have formed between 472 and 468 million years ago, so at Maloney Creek we are looking at a tiny slice of time in the early Ordovician. Although there is some siltstone at Maloney Creek, we mainly see a hard limestone. The consolation is that it's chock full of fossils.

Ordovician waters worldwide were full of the creatures whose remains are common at Maloney Creek, although the fossils are poorly preserved as a result of weathering. As a result, here we find creatures which had hard shells, rather than soft-bodied animals. Not only are the more complex animals such as Trilobites disarticulated (in pieces) which can make them harder to identify, but so are nautiloids, gastropods and brachiopods.



Massed Brachiopods, a handful of typical Gastropods, a pyritised Nautiloid and below typical Nautiloid pieces - Maloney Creek fossils found and photographed by Pete and Lisa Nunn. A scientist's image of a Nautiloid.



Nautiloid cephalopods were one of the top predators in these seas, and sections of their remains are relatively easy to find and to recognise with their cone like shape comprising reasonably well delineated segments. Some even retain the siphuncle (central tube) which they used to adjust their buoyancy. Marine gastropods, bearing some resemblance to garden snails, are also quite recognisable. Trilobites are mainly found as pygidia (tail sections), but tiny spines and sections of carapace can also be spotted, usually jumbled in with a lot of other unrelated bits and pieces. Brachiopods became extremely common in the Ordovician- some slabs of limestone at Maloney Creek appear to be largely made up of them, their shells still shining after millions of years of burial.

The Pacoota sandstone at the southern end of the cutting contains trace fossils- burrows which give the rock a distinctive stripey appearance, and the name, 'pipe rock'. The Stairway sandstone, laid down later in the period, not only has *Cruziana* (lithified trilobite scratchings) in abundance, but is also known to contain fossils of *Arandaspis*, one of the earliest jawed fishes.



Thanks to those who voted to continue when a downpour made continuing dubious- the weather did clear and we all had an enjoyable morning dabbling in the Ordovician.

Lee, thank you for leading the trip to Moloney's Creek. It was exciting to be able to pull up on the side of the South Stuart Highway and a few paces away was this river bed of fossils. This is a must visit again site.
Rhondda Tomlinson

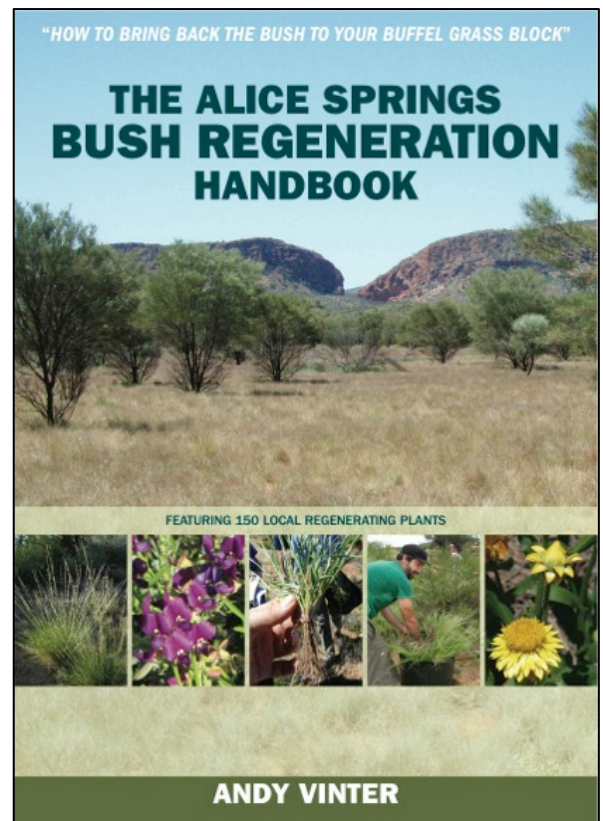
Useful local Bush Regeneration Handbook.

The Alice Springs region is alive with regrowth after the incredible hail storm and other recent rainfall. Gardeners will be asking themselves what plants have come up this time. *The Alice Springs Bush Regeneration Handbook* has been written to help answer this question. It features 150 of the common regenerating plants and has just entered its second print run.

There are many young plants emerging now that can be identified from their developing features. Some native forbs (herbs) seen emerging include Annual Yellowtop (*Senecio gregorii*), Blue Heronsbiill (*Erodium crinitum*), Bogan Flea (*Calotis hispidula*), Golden Everlasting (*Xerochrysum bracteatum*), Green Pepperpress (*Lepidium oxytrichum*), Muellers Pepperpress (*Lepidium muelleri-ferdinandi*), and Variable Daisy (*Brachycome ciliaris*).

Gardeners will also need to be dealing with weeds that have also responded to recent rain. Small-flower Mallow, Smooth Mustard, Milk Thistle and Prickly Lettuce are some of the weeds that have emerged. Controlling these weeds before they set seed, and bagging any flower or seed parts, will be needed to reduce future regrowth. Gardeners may also need to tackle the native Bogan Flea which is a locally infamous prickly plant.

For more information contact the author at andy_vinter@yahoo.com.au.





Another photo from the Old Hamilton Downs trip. This one by Rhondda Tomlinson 'Reflections in the creek'.

Write-up next month.



Greetings from Pam Windle and Les Gilliland

Thanks for the newsletters. We've been enjoying them, though they make us a little homesick. We're really enjoying wandering around southern WA. The Hakea was taken in the Fitzgerald River National Park. Greetings to everyone.

Membership Fees due at August Meeting.

Prompt payment would be appreciated, paid at meeting nights or posted to the Treasurer (P.O. Box 8663) or direct into the club account at Westpac BSB No.035-303 and Account No 100981

Be sure to put your name in the payment details

If personal details have changed please indicate, especially email address.

New members to fill in complete form.

MEMBERSHIP FORM

Alice Springs Field Naturalists Club Inc
 PO Box 8663, Alice Springs NT 0871
 e-mail: contact@alicefieldnaturalists.org.au

Name(s)

.....

Address:.....

.....

Phone contact

(home)

.....

(work)

.....

(mobile)

.....

Email (print carefully)

.....

Renewal/new membership

Payment enclosed \$

.....

Please circle relevant membership

Fees: Family \$30. Concession \$25

Individual \$20 Concession \$15

Life member 10 times annual fee

Interstate past member.

Newsletter only \$10

Alice Springs Field Naturalists Club

Minutes – general meeting – July 13, 2016

After Presentation by Colleen O'Malley on Kakapo population recovery.
Thank you to scribe, Colleen O'Malley and to Connie Spencer for supper.

Attendance: 20 Members, 3 Visitors and 3 Apologies as per attendance book.

Minutes of June 2016 meeting were on back of July 2016 newsletter – accepted by meeting.

Business arising from the minutes

- Sewage ponds – Martin O'Neill trying hard to get access reinstated by Bird Festival starting 17 August. It will be necessary to have gone through an on-line induction course before entering and be with a super-inducted person who will have phoned in before and after entry. ASFNC will be issued keys for Rosalie, Colleen, Lee and Barb when they have gone on this super-induction course, to be held at the sewage ponds. Martin would like to know if any of those people are willing to go on a list held at the Tourist office as possible escorts for tourists. Anyone can opt to not go on the list, and also any request to accompany a tourist can be refused.
- Some Members who entered Green Snaps Competition In Katherine, had their entries delayed in the post and not arrive in time. Next year's subject will be 'Scales' – reptiles, butterflies, etc. if you want to start thinking about possible photos. Perhaps they will give us more notice next year.

Treasurer's Report, presented by Neil Woolcock

Balance of all funds (inc. petty cash) end of May \$1245.82

Activity in June	<u>Income received</u>	
	Membership	\$100.00
	Bank interest	\$0.41
	<u>Withdrawals</u>	Nil

[Petty cash

Petty cash opening balance \$4.60

Expenditure in June Nil

Petty cash balance end June **\$4.60]**

Total of all funds (inc. petty cash) end June \$1346.23

Correspondence out/in

- Resignation of secretary, Charissa Allan. Requests for club documents.
- Phone call and email from Emily Findlay re possibility of community talk by John Kenwright, Parks Victoria on 'Accessibility programs in Parks' on 27 or 28 July, 5 or 7pm. No interest from Members.
- Eco-Fair Sunday Market - Aug 14 at ASDP, invitation from Nicole Pietsch, ALEC, to hold a stall – theme 'Sustainability'. Aim would be presentation of the club and also supporting the event. No one was keen, but considered contacting other groups such as Land for Wildlife to see if ASFNC brochures could be on their stall. Unable to sell Flora brochures as already sold by ASDP shop.

General Business

Need for new secretary!!!!!! No offers yet.

Future Activities/trips

- Sun 17 July - Cycle through ASDP on new bike tracks. Starting from Flynn's Grave at 8.00am, returning to Lawrence's for tea, coffee and cake. Leader - Jim Lawrence can give lift back to Flynn's Grave afterwards.
- Sat 23 July - Sun 24 - Old Hamilton Downs – Xmas in July – Leaders, Wendy and Ian Mann encouraged Members to attend a great celebration. They will compose an email to be sent out for response and they will co-ordinate food offers for evening meal – Barb will send out.
- Fri 29 July - Mon 1 Aug - Newhaven Sanctuary. Barb to contact Joe and Danae re condition of road in and Joe giving presentation on Saturday evening. Leave Alice individually either Friday or Saturday, return Monday.
- New Flora Brochure has arrived. Possible launch on 7 or 28 August. ASFNC Members will be invited.

Next meeting – 10 August – AGM and Members' Night. All Committee positions will be declared vacant and elections to take place. For Members' night, please bring pictures, photos on USB or in books or interesting natural history objects to show.

Supper: Wendy and Ian Mann