February 2022

Alice Springs Field Naturalists Club Newsletter

These beautiful White-backed Swallows (*Cheramoeca leucosterna*) were photographed perched on a dead branch along the bike path between the Desert Park and Blain Street. They are widespread over drier regions across mainland Australia. Usually seen flying with their distinctive white backs and long forked tails. They build nests with a sparse lining of grass and leaves at the end of a tunnel up to 1m long in a sandy creek bank. Photo – Leigh Woolcock.

Meetings are held on the second Wednesday of the month (except December and January) at 7:00pm at the Olive Pink Botanic Garden.

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NEWSLETTER

The next newsletter will be March 2022.

The deadline for that newsletter will be 23 February 2022.

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

ALICE SPRINGS FIELD NATURALISTS CLUB

It is important to watch for up-to-date flyers or contact leaders for details as arrangements may change.

Wednesday February 9 at 7.00pm – ASFNC Monthly Speaker Night at Olive Pink Botanic Garden. **"Eat, Drink, Sleep, Walk" Anne Schmidt** will talk about the solo walk along the entire Larapinta Trail that she undertook last year. The 223km trail is one of Australia's most spectacular bushwalking experiences. Also a photographer, Anne will be illustrating her talk with photos of the beautiful scenery and interesting plants, as well as describing the highs and the lows of this great adventure.

OPBG LIBRARY

The reference library at Olive Pink Botanic Garden is available for all Members of ASFNC and APS AS to use. There are some excellent natural history books in it.
Recently one of our members, Gillian Terry, who recently retired from CDU library, has gone through all the books in it. Marg Friedel and I went through the books that she thought were no longer relevant. We rescued a few to put back on the shelves. Others will be available at the ASFNC meeting for members to choose for their own libraries. A small donation would be appreciated. Leftovers will be taken to the recycling centre. Barb Gilfedder

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AUSTRALIAN PLANTS SOCIETY - ALICE SPRINGS

apsalicesprings@yahoo.com.au

Please note: these talks may be rearranged subject to the availability of speakers and Covid restrictions.

Wednesday 2 February 2022 7.30pm Olive Pink Botanic Garden - Kate Stevens — *"Rangeland land-condition measuring techniques"* Kate began a new job as a Rangeland Monitoring Officer in April 2021. Come and hear about the use of rangeland land-condition measuring techniques and the experiences Kate has had in the field.

Wednesday 2 March 2022 7.30pm Olive Pink Botanic Garden - Bec Duncum — *"Flora of south-west Western Australia"* Bec will talk about her holiday amongst the wildflowers of south-west Western Australia. Judging by sample photos, it will be a great night.

Wednesday 6 April 2022 7.30pm Olive Pink Botanic Garden - Peter Jobson —*"Introduction to plant nomenclature"* Peter will talk about how plants are given their scientific names.

Alice Springs Field Naturalists Club

Committee Members

President	Barb Gilfedder	8955 5452
Vice-President	Marg Friedel	0417 849 743
Secretary	Connie Spencer	0429 966 592
Treasurer	Neil Woolcock	0428 521 598
Property Officer	Claire Norman	0448 341 795
Members	Lee Ryall	0417 401 237
	Rosalie Breen	0458 155 141
Public Officer	Anne Pye	0438 388 012

Other Club Responsibilities:

Newsletter – Barb Gilfedder bjfedders@gmail.com
Facebook Organiser – Meg Mooney moon3@iinet.net.au
Website controller – position vacant

Gossypium sturtianum

Sturt's Desert Rose

Have the bees been busy pollinating the *Gossypium sturtianum* flowers in your garden?
APS AS would love for you to collect the seeds for them for seed sales.
apsalicesprings@yahoo.com.au

Working together: a decade of collaboration across the arid lands

A talk presented on 24 November 2021 by Jimmy Cocking, former Director of the Arid Lands Environment Centre (ALEC), Alice Springs. Report by Marg Friedel. Photos are Jimmy's.

After two failed attempts at a meeting, and determined not to be stopped by floods or pandemics, a big crowd turned out to hear Jimmy Cocking tell us about the history of collaboration amongst indigenous and non-indigenous groups on land management in the arid lands.

He has had a long connection with these efforts, as a participant, a witness and sometimes as a facilitator. Reflecting on collaboration, he observed that through the process of building collaboration all parties are changed. "Cooperation is working together but remaining the same, collaboration changes the possibilities and requires participants to be the change they want to see. Big vision and shared goals are the starting point…"

He reviewed the history of collaborative endeavours, starting with the Arid Lands Alliance in 1998. Some initiatives persist to the current time, while others faded away or were re-imagined through the development of new alliances. The clear trend throughout was the growing involvement of indigenous groups, as participants initially and later as fully fledged independent organisations, working collaboratively with others.

Trans Australian Ecolink, a biodiversity habitat corridor from Darwin to Port Augusta, was an initiative of NT and SA government environment departments, which began in 2009. It lost political support in 2012 but was taken up by Greening Australia, who drew in other arid zone participants, leading to the formation of the Ten Deserts Initiative.

Location of the Ten Deserts. URL: facebook.com/bhpfoundation/photos/for-australias-indigenous-people-the-desert-holds-their-culture-their-language-a/697637437350126/

Nine groups, a mixture of indigenous organisations (Kanyinirnpa Jukurrpa, Desert Support Services), non-indigenous conservation organisations and government agencies, identified key threats: wild fire, buffel grass, ferals and loss of cultural knowledge, and they committed to working together.

In the same period (2013-2016), indigenous ranger groups from WA, NT and SA came together to share knowledge and joined with conservation groups and government agencies to form the Indigenous Desert Network and provide ranger support and training.

By 2016, the Ten Deserts Initiative had expanded its membership and was developing management plans to deal with the identified key threats as well as seeking payment for ecosystem services delivered by members. Building trust and 'collaborative potential' was an important element. Later that year Ten Deserts and the Indigenous Desert Alliance (formerly 'Network) worked in collaboration to launch the Southern Desert Ranger Forum to focus on ranger training programs and the sharing of cultural knowledge. One significant outcome was the increasing leadership role taken by the rangers themselves.

Launch of the Southern Desert Ranger Forum to support ranger training and cultural knowledge sharing, June 2017, Ilkurlka.

During 2016, the Ten Deserts Initiative morphed into the largest indigenous led conservation project in the world: the 10 Deserts Project, with generous funding from the BHP Foundation, and the support of Pew Charitable Trusts, The Nature Conservancy, indigenous organisations the Kimberley Land Council, CLC, Kanyirnipa Jukurrpa and Desert Support Services, and ALEC https://10deserts.org. As the website shows, the number of partnerships has since grown. ALEC, which had previously controlled the Ten Deserts name and domain, transferred it to the new body, under the auspices of the Indigenous Desert Alliance (IDA). The 10 Deserts Project was officially launched at Parliament House, Canberra, in June 2018. Its core business was building the capacity of Indigenous groups to look after country for a range of economic, social, cultural and environmental outcomes.

Soon after a broader alliance, the Outback Alliance, was formally launched in November 2018, connecting Pew Charitable Trusts, ALEC, Royal Flying Doctors Service, Rangelands NRM Alliance, Desert Knowledge Australia and Ninti One. Its purpose was complementary to that of the IDA and 10 Deserts Project, being to work in the policy arena for improving the health, economy, environment and livelihoods of people living in the arid lands. Its activities continue.

Brenda Niall, Jimmy Cocking and Senator Pat Dodson at the launch of the '10 Deserts Project', Parliament House, Canberra, June 2018.

The IDA and the Southern Desert Ranger Forum (SDRF) continued to meet during 2019, to work on threatened species and climate change action, and diverse activities such as training on fire and chemical use, use of mapping apps, and cultural business. Confidence of participants was growing and activities were controlled by the rangers at SDRF workshops.

Covid brought meetings and workshop to a stop in 2020. Instead, ranger groups, IDA and SDRF learnt to meet via Zoom. There were positive outcomes: participants built their technological skills, driving the need for better internet services in communities, and the costs for meetings that had traditionally been face to face were much reduced.

Indigenous Business Alliance Conference, November 2019, Uluru.

Jimmy is optimistic about the future for these collaborations. He believes that the Indigenous Desert Alliance is the future for conservation in the arid lands through bringing rangers and other groups together annually and supporting on-going collaboration at scale. Over time he has observed growing support for indigenous led conservation nationally and globally and he argues that they are vital to supporting livelihoods and sustainability in the face of climate change.

Want to know more? Jimmy provided the following links:

ALEC https://www.alec.org.au/ten_deserts
10 Deserts www.10deserts.org
Indigenous Desert Alliance www.indigenousdesertalliance.com
Outback Alliance www.outbackalliance.org.au
10 Deserts https://10deserts.org/resource/film/
Ninu festival https://www.youtube.com/watch?v=c0k7bZX8lQc
IDA Youtube Channel https://www.youtube.com/channel/UCzIYZFC1ECWFmTa2mfEPfLA/videos

Thank you Jimmy for your positive stories about collaboration across the arid lands.

Jimmy was unable to check this article, so any errors and omissions are mine. Marg

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Chequered Swallowtail Butterfly, *Papilio demoleus – Barb Gilfedder*

I captured these two photos last time I went to Standley Chasm. Many of you would be familiar with the butterfly, sometimes called the Lime Butterfly, fluttering around your citrus trees, common host plants. When young the caterpillars are mainly black with orange stripes and spikey. The later instar caterpillars are green as below and the spikes are reduced to small knobs. This one was feeding on *Cullen australasicum*, another favoured host plant. You can also see a spherical egg in the top left corner of the photo, no doubt ready to hatch out a young caterpillar ready to takeover when this one pupates.

This is the only Swallowtail butterfly with no obvious tails on its wings. It is widely distributed across all Australian mainland states, also found in Asia and the Caribbean.

Saturday 9 October 2021
Leader and report: Clare Pearce
Photos: Suzanne Bitar
Participants: Clare Pearce, Suzanne Bitar, Jan Black, Wendy McTaggart, Helen Miller

Serpentine Gorge is a wonderful place. Part of the vast and spectacular Tjoritja / West MacDonnell National Park, it comprises of two gorges created by a south flowing creek cutting through two ridges of Heavitree Quartzite. The waterholes along the creek vanish in warmer, dryer weather, leaving the larger Serpentine Gorge waterhole as the remaining, semi-permanent water in the area. Birds congregate around the waterhole making it a fantastic, easily accessible location for birdwatching.

In early October (2021) a small and enthusiastic crew of Field Naturalists made their way out along the well-trodden trail to the waterhole, hoping to catch a glimpse – and maybe a photo – of some of the spectacular dry-country birds that would be using the Serpentine waterhole on a daily basis. There weren't an enormous number of birds around the car park and trail-head. It was warming up quickly and perhaps they were already camped up for the day. However the track to the gorge did provide a taste of things to come with many different bird calls and plenty of movement in the shrubby understory. Most obvious were flocks of darting Zebra Finches feeding on fallen seed, while Babblers and Diamond Doves were using dead branches of small trees as perches.

Photos this page from the top: Peregrine Falcon, Zebra Finches, Diamond Dove, Peregrine Falcon.
Next page from the top: Male Rufous Whistler, Whitewood Flowers, *Gossypium sturtianum* (Desert Rose).

Serpentine Gorge is the site of the Carpet Snake Dreaming with some areas of the gorge and the western cliffs having special significance to the Western Arrente custodians. Hikers are asked to not go past the first main pool. Particularly enthusiastic park visitors are able to climb to the lookout above the gorge. With views over the surrounding plain on one side and into Serpentine Gorge on the other, it's a worthwhile endeavour but not on this day. It was far too hot and the rock face far too towering to be enticing. Instead our small and intrepid bunch made a smoko camp in the welcome shade at the entrance to the gorge and enjoyed a variety of homemade treats, while we waited for the main attractions to arrive. With the deep shade, the breeze funnelling through the gap and plenty of handy rocks to sit on it was a great place to sit and watch for smaller waterhole visitors.

Many bouncy, chonky Zebra Finches were immediately evident although without my glasses they looked like flurries of leaves blown down to the water's edge. Quick drinks were followed by immediate retreats into the tree branches nearby, as there was a raptor making a regular appearance overhead. The identity of this particular critter was hotly debated for a while but close up photos of it sitting on the rocky ledges above us proved that it was a Peregrine Falcon – a wonderful spotting! We were hoping to see the clouds of budgies that had been in the area previously, but unfortunately by the time of our visit, these little bush gems had started to disperse. We managed to get a glimpse of a couple of small and swiftly moving flocks but nothing like the large congregations that were supported by the wet summer months earlier in the year. More pedestrian sightings on the way back to the car park of a busy Willie Wagtail and some sort of honeyeater (perhaps a White-plumed) were completely outshone by both a male and a female Rufous Whistler!

All up an enjoyable morning.

CORRECTIONS - making the story much more complicated and interesting
– Barb Gilfedder

Sclerolaena bicornis – a harvest for ants.

You may need to refresh your memory and reread this article in the November newsletter.

Photo from original article – a close-up of the pile of discarded seedcases, which were around an ant hole.

- Having another look at my photographs, I think the seedcases in this pile discarded by ants around their nest, may be from *Sclerolaena diacantha* rather than *S. bicornis.* The seedcases of both are a very similar shape but the *S.bicornis* are bigger and the spines are longer. Both species of Chenopod plants were in the vicinity. I should use a scale on photos.

- Marg Friedel and Steve Morton read the newsletter and discussed the article.
  Interestingly, Steve Morton and DW Davidson had published a very relevant paper in 1981, which set me straight.

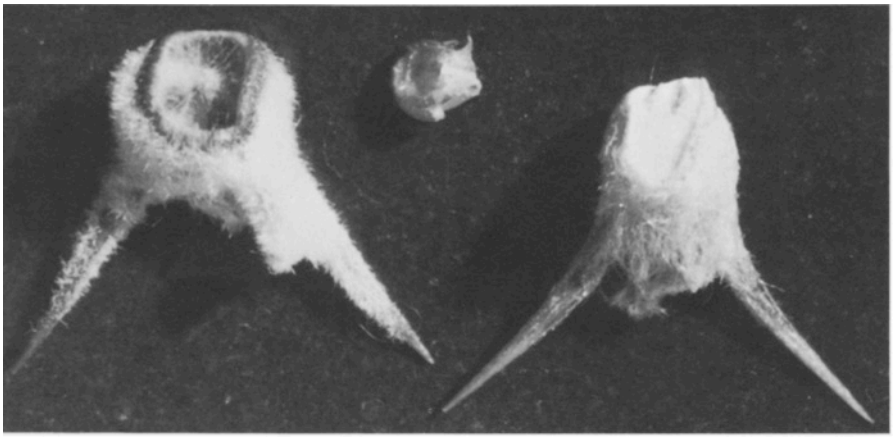
Myrmecochory in Some Plants (F. Chenopodiaceae) of the Australian Arid Zone Author(s): D. W. Davidson and S. R. Morton Source: Oecologia, Vol. 50, No. 3 (1981), pp. 357-366 Published by: Springer.

You can find it by just Googling "Oecologia 50 (1981), pp. 357-366"

Being a scientific paper I found parts of it quite hard to understand but I have tried to simplify the main point.

The seedcases of these Chenopods (and some others) contain two chambers separated by a woody wall. The chamber at the base of the seedcase, which is easily accessible by the ants, contains an elaiosome, a fat body that acts as a lure for the ants. This is where I made the mistake. I thought the ants must have been eating the seeds but they were all still safe. The ants had collected the whole seedcases from the plants and brought them to their nest. Here they had eaten just their reward (the fatty elaiosome), not the seeds. The seedcases still containing the seeds have been moved to a very fertile area of ground around the nest by the ants. They wait to be possibly buried and for rains to help with the breakdown of the seedcases so the seeds can germinate.

So plants and ants mutually benefit. The whole process is called Myrmecochory from the Greek for "ant" (myrmex) and "dispersal" (kore).



Above: Two seedcases and a seed from *Sclerolaena diacantha*, the one on the left with the elaiosome removed, showing the hollow in the seedcase and the one on the right with the elaiosome still in place. The small thing in the middle is the seed. Photo from the Davidson and Morton paper.

Right: *Sclerolaena diacantha* showing maturing seedcases. Barb Gilfedder

Many thanks to Steve Morton and Marg Friedel for your interest and assistance!

Information also from an article 'Seed dispersal by Ants' by Steven N. Handel and Andrew J. Beattie