July 2013

Alice Springs Field Naturalists Club Newsletter

This beautiful old Coolabah tree stands out against the colours of the Conlons Lagoon Claypan. Photographer: 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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Postal Address: P.O. Box 8663 Alice Springs, Northern Territory 0871

Web site:
http://www.alicefieldnaturalists.org.au

NEXT NEWSLETTER

The deadline for the next newsletter is **Friday 26 July 2013**.
Please send your contributions to Barb Gilfedder at the email listed below.

ASFNC MEETINGS

Wed 10 July — **ASFNC** Meeting 7.00 pm at Lecture Theatre in Higher Education Building at the Charles Darwin University - **Chris Watson** will show and talk about photos of birds and other wildlife from his **Galapagos and mainland Ecuador trip**.

Wed 14 Aug — **ASFNC** Meeting 7.00 pm at Lecture Theatre in Higher Education Building at the Charles Darwin University - **Annual General Meeting** – see below and **Members' Evening**. Please bring along items of interest or books or photos to share.

ASFNC FIELD TRIPS / ACTIVITIES

If you wish to take part in any of these trips or activities, it is advisable to ring or email the leader of that particular trip beforehand, as information can change.

Weekend 13, 14 July	**Alcoota Fossils Visitors weekend** – It is necessary to register to participate in this trip run by the Central Australian Museum staff. Details from Lee Ryall More information on page 7.
Sun 21 July	**Shorebird Count** – Alice Springs Sewage ponds. Counters and Scribes needed. Contact: Barb Gilfedder
Weekend 17, 18 Aug	**Dulcie Ranges**. Leader Colleen O'Malley shrikestar8@gmail.com
Sun 25 Aug	**Planning meeting** Sunday afternoon - Desert Park Courtyard 2.00pm. Please bring along ideas for trips and speakers. If unable to attend, please pass your ideas on to a Committee Member.
Weekend 31 Aug-1 Sept	**Duck Swamp, Henbury Station.** Limited number of vehicles. 4WD needed. Contact: Barb Gilfedder.

AUSTRALIAN PLANT SOCIETY

Contact: Jo Smith joschep1@gmail.com

Fri 5- Sat 6 July	ALICE Springs Show – Don't miss the native plant display and sale at Australian Plant Society stand.
August	**Araluen garden walk and talk with Ian Coleman**. This will be weekend daytime outing. Date and time to be confirmed.
Wed 4 Sep 2013	**Scott Pullyblank and Rebecca Duncum on Alice Springs Desert Park record keeping.** Meet 7:30pm Olive Pink Botanic Garden.

ARID LANDS ENVIRONMENT CENTRE

Cnr Warburton St and Lindsay Ave. Contact: Nicole Pietsch, Phone: 08 8952 2497, Email: communications@alec.org.au

Friday 26 July – Monday 29 July ***Newhaven Field Trip With Australian Wildlife Conservancy***. *Leave 9am Friday morning from ALEC, return Monday afternoon. Cost: $150, $140 ALEC members, $120 Concession*

Sunday 11 August ***desertSMART Ecofair - Biodiversity Matters Walk and Talk - 10am Olive Pink Botanic garden***. *Cost: Gold Coin donation*

Saturday August 31 – Sunday September 1 ***Finke Gorge Field Trip with NT National Parks and Wildlife***. *Participants will leave from ALEC 9am Saturday Morning, and return Sunday afternoon. Cost: $80, $70 ALEC members, $60* Concession

Saturday 7th September ***Threatened Species Day Community BBQ*** - ***4pm at Ilparpa.*** Join us at the Ilparpa Claypans where the Alice Springs Field Naturalists Club will be hosting a guided walk through the Intertexta forest. This will be followed by picking up some rubbish and a family community BBQ. Please bring a salad to share and non-alcoholic drinks of your choice. Meat and vegetarian options provided.

ALICE SPRINGS FIELD NATURALISTS CLUB

President	Barbara Gilfedder	8955 5452	fedders@octa4xxx.net.au
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Please delete the xxx when emailing – their placement is an attempt to stop some spam emails.

SAMPHIRES, SALTBUSHES, CRUMBWEEDS, COPPERBURRS – through the looking-glass

Presentation by Colleen O'Malley June 2013 Report by Rosalie Breen

What makes the Chenopod family so special?

Soon after arriving in Adelaide, Colleen fell in love with this group of plants, while working in the SA Herbarium keying out old individual species in their collection.

Chenopodiaceae is certainly an interesting family. It occurs worldwide, found in semi arid and saline conditions and has been around for millions of years with evidence of Atriplex consumption in mesolithic (Middle Stone Age) times. Surprisingly Beetroot, spinach, quinoa and orache are chenopods.

In general chenopods can be herbs or shrubs, with flat and fleshy or succulent and cylindrical leaves, wind pollinated with indistinct flowers, but often prominent fruit. Being drought tolerant, leaves and roots are modified to reduce water loss. Leaves are succulent, often hairy; stomata are small, and photosynthesis uses C4 pathway which means the plant does not transpire as much. They are salt tolerant, using exclusion mechanisms or concentrating salt and excretion. We saw examples of salt glands and hairs with concentrations of salt, and bladders. Fruits can be spiky which aids seed dispersal as well as being a protection, or woolly which reduces water loss.

Many species are palatable being high in protein and vitamin D and quite nutritious. But they are susceptible to over-grazing and damage from ferals, especially rabbits, and to fire.

Chenopod shrubland in the Beddome ranges

In Australia we have 32 genera, 19 in the desert region, with 300 species. Chenopod shrublands cover 6% of Australia, and are the mainstay of the pastoral industry there, especially the Atriplex and Maireana generas (saltbushes and bluebushes). Aboriginal people used many species as food plants. Dysphania and Samphires have tiny prolific seeds easily harvested. Samphires were steamed and roasted and often actually traded.

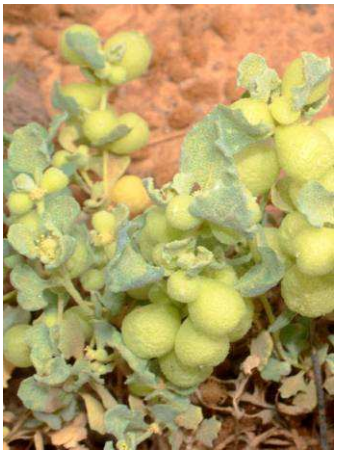
Identification of genera is done by examining the following characteristics

Leaves leafless, with jointed fleshy branches
with leaves flat ,broad, narrow or terete (circular in cross section)

Fruit succulent
dry appendages, wings, spines, horns
no appendages

The main genera of the NT and their characteristics were shown in the accompanying wonderful pictures. Thanks to Dave Albrecht for many of these. The shapes of the dry fruits are so beautiful and varied, each species identified by a close examination and a key of pictures. These can be found in Flora of Central Australia by John Jessop. Colleen's enthusiasm and the many specimens she brought for us to examine, especially with the little digital microscope, made for a special meeting. And also Barb's set of real and possible Chenopods for us to try out our new ID knowledge. The camera is made by Kaiser Baas and is available at Ted's Camera shops website. Our camera shop in *Yeperenye* has them, too.

Main NT genera



Atriplex holocarpa

Saltbushes - *Atriplex* - 25 species in NT
Key characteristics: flat leaves and dry fruit with hard or spongy body, often with ornate shapes

Samphires –*Tecticornia* - 11 species in NT
Key characteristic: leafless, swollen jointed branches

Bluebushes – *Maireana* - 29 species in NT
Key characteristics: terete leaves and dry fruit with winged appendages

Tecticornia verrucosa

Copperburrs– *Sclerolaena* - 32 species in NT
Key characteristics: terete leaves and dry fruit with spiny appendages

Rats-tails or Crumbweeds – *Dysphania* - 11 species in NT
Key characteristics: Herbs with flat leaves and small dry fruit clustered in cylindrical or globular arrays

Rhagodia, Enchylaena and *Einadia* - 5 species in NT
Key characteristic: Fruits are berries

Sclerolaena longicuspis

Dysphania plantagineum

Maireana triptera

Enchylaena tormentosa

Minor but significant NT genera

Dissocarpus paradoxus, Salsola tragus, Eriochiton scleronaeoides, Osteocarpum dipterocarpum and *Chenopodium auricomum*

Late afternoon walk at Conlons Lagoon – June 13 2013

Cecily Sutton - I was enjoying the view through the window, as usual, during my flight into Alice Springs two weeks ago. It was an added delight to see water in the claypans and Conlans Lagoon. I mentioned this to a few Field Nats, and Barb with great efficiency arranged access for a visit on Thursday 13 the night after a great talk by Colleen O'Malley on Chenopods.

The Lagoon had dried up. Its surface was really impressive. It had a sheen over the clay pan surface, that looked like it had been lacquered. There were large areas of cracked mud that had peeled back from the surface. It looked like shaved chocolate. It was so shiny I had to keep touching it to convince myself it was completely dry.

It was a bit of a disappointment that it was all dry. However, I don't like getting muddy shoes so I was pleased to have the opportunity to walk way across the Lagoon and into the Coolabah and Acacia trees on the other side.

Thanks to Barb for arranging access to this unique place, so close to town.

Connie Spencer - Conlons Lagoon falls into two vegetation types: one being "Claypans often with a fringing sandy herbfield and the second "Coolabah associated with the claypans" (Albrecht, D. and Pitts, B. (2004) *The Vegetation and plant species of the Alice Springs municipality, Northern Territory*). Within these vegetation types there are a number of significant species many of which were not present due to seasonal conditions and many even if there, not identifiable due to our limited knowledge even with the above mentioned book under my arm! However, two were identified to our satisfaction and confirmed later with the experts. Nitre Goosefoot (*Chenopodium nitrariaceum)* a shrub to about 2 m was quite common on the claypan and the margins but is at least 100 km distant from the nearest additional populations occurring in the MacDonnell Ranges and Finke bioregions.

Nitre Goosefoot – *Chenopodium nitrariaceum*

Glinus orygioides

A second significant species is *Glinus orygioides* (sorry no common name) a small forb less than 15 cm high with white flowers. The closest known population is in the Simpson Desert more than 200 km away. We also noted the much more common Hairy Carpet Weed (*Glinus lotoides*).

Hairy Carpet Weed – *Glinus lotoides*

Grey Germander – *Teucrium racemosum*

I was interested to see the Grey Germander *(Teucrium racemosum)*. Nothing special about this plant at all except it is one the Olive Pink Botanic Garden Growers propagate and sell at plant sales but I hadn't until then seen it in its natural habitat.

Although lured to the lagoon under a false pretence (allegedly there was water), it was, nevertheless, a pleasant way to spend a late afternoon - wandering about a dry but colourful claypan fringed with interesting plants and shady Coolabahs in that magical light of a setting sun.

Bev Gray – My first visit to Conlons Lagoon took place one afternoon on May 25 1997 with a number of people, on an expedition led by David Albrecht – Botanist with the NT Herbarium.

The focus was mainly on an area of meandering channels with some water in them, which probably meant that the clay pan was inaccessible. We were surprised and delighted to see Sundews, flourishing and flowering on the banks above the water. I had previously encountered Sundews in swamp country near Darwin. Finding them in the dry heart of Australia, not far from Alice Springs was totally unexpected. The channels were alive with many and varied small aquatic creatures including tiny snails. An added bonus was chorusing birds of several varieties.

Since that day, Conlons has rated as a special place for me and I have been endeavouring, on the few occasions I have revisited to find the place where the Sundews grow. I have noted the encroachment of Buffel Grass, which can alter terrain and smother other vegetation, with much concern. I feel that on this occasion I came one step closer to my goal. Next time, if the dreaded Buffel doesn't get there first, I will find them.

Rosalie Breen - "Where's the water?" The only water we found was in a muddy puddle on the edge. But we saw evidence of water in the shiny lacquered cracked up mud, and the different colours of the clay surface. You would swear the mud was wet but it was dry, and crunched when you walked on it.

The one small puddle of water we found was bursting with life.

I took a sample of the water and found a few different crustaceans. A small fairy or brine shrimp ((order Anostraca), seed shrimp (order Ostracoda), the carapaces of the shield shrimp (order Nostraca), and many tiny water fleas (order Cladocera). To the naked eye, the water fleas look like little dots jerking around. Under the microscope they show their characteristics. The most common is *Daphnia*, but I think these looked like a species of *Moina*, so that was something special for me. Fascinating little animals, they are almost transparent so you can see their innards pulsating and their feathery antennas waving, and stare at their big black eye. The fairy shrimps were beautiful too. They were long, thin, transparent, had a prominent black eye, a set of 11 pairs of legs in constant motion, and at the end of the abdomen were two feather shaped appendages which were red in this case. Most of the crustaceans have short life cycles and lay many eggs which can stand desiccation, lying in the soil waiting for the next rains to hatch or to be blown further away by the wind ready to colonize new places.

Barb Gilfedder – This is the third time I have visited Conlons Lagoon - each time different and interesting. The first time I went in May 2010 and it was full of water. We could only struggle around the edge avoiding mud and thick growth. The second in September 2011 it was completely dry, there was a pall of smoke from bush fires, but we were excited to find Emu footprints and remains of Yabbies on the surface.

Scelrolaena cuneata

Scelrolaena bicornis

This time my mind was busy with Chenopod information after Colleen's fascinating talk the previous day. Plants were looking green and bursting with life after the recent rain. Prickly characters, *Scelrolaena cuneata and Scelroleana bicornis* were both looking quite lush; one of the Bluebushes, *Maireana integra* had papery fruit on its tough stripy twigs; (Thanks to Colleen for later identification) and tiny seedlings, as yet unidentifiable to me, were pushing their way through the damp soil. The Nitre Goosefoot, *Chenopodium nitrariaceum* certainly dominated the area around the edge of the claypan and it was a treat to see it flowering.

This time we found, what Chris assured us were, Bush Stone-curlew footprints in the dry surface. A flock of Red-tailed Black Cockatoos and a few stragglers, flew over with their characteristic wailings. Chris, Neil and Cecily found other birds in the Acacias on the far side of the claypan. I was too fascinated by the colours in surface and my new interest in the Chenopods, to wander off in that direction. It was interesting that we didn't stay together as a group, but all found different things to wander off and look at.

Maireana integra

Many thanks to Wendy and the Rifle Club for allowing us access.

C ACTUS WARS.

Field report from Rosalie Breen

An escaped terrorist from South-west USA, Mexico and the West Indies has been put on the Weeds of National Significance register. It has invaded the hills around Alice Springs, notably in the Telegraph Station and Eastside. It spreads quickly and effectively by segments which easily break off, and which, being very prickly, are further spread by attaching to euros and other animals. (Humans beware). Each segment then sends out roots and becomes a new plant, ousting the natural vegetation. The enemy is the Coral Cactus, *Cylindropuntia fulgida*, sometimes called Boxing Glove Cactus.

Alice Springs Landcare has declared war and Saturday 15 June saw an army, armed with kitchen tongs, trowels, gloves, mattocks, plastic garbage bins or buckets, swarm over the hills next to Cavenagh Cres., to push back the enemy even further from Spencer Valley, and to remove all the cactus to stop it invading new areas. Hand weeding is recommended to ensure all segments are collected.

Cecily ready to attack

From Landcare, here are Andy Vinter's recommendations for hand removal.

1. Use tongs to collect loose segments before disturbing larger plants.
2. Pick up any segments or "fingerlings" on the ground.
3. To remove larger plants loosen the roots with a trowel or the narrow end of a mattock first.
4. Pick up larger plants by the roots to avoid the spines.
5. Bin all plant material.
6. Check the ground for any missed segments.

Andy with a display of captives.

Alcoota visit 13-14 July

If you are travelling to Alcoota on the 13 July, we will be leaving the North Stuart Highway layby at the Sargent St sign at 8 am. This will give us time to meet Adam Yates at 10 at Gem Tree. and follow him to Alcoota from there.

Remember- if you are interested in going- for one day or for the weekend, you will need to register- contact Lee Ryall at ryall.lee8@gmail.com or ring on 0417401237.

If you have already registered and are camping overnight, remember you will have to bring your own camping gear, food and water and either a small stove or use the central barbecue pit. The station owner does not want any other fires.

It should be a great weekend.

Cowpat Hill at the Alcoota fossil site

Alice Springs Field Naturalists Club Incorporated

Annual General Meeting

When: 7.00pm Wednesday 14 August

Where: CDU Higher Education Building Lecture Theatre.

If you would like to nominate yourself or another Member for a Committee position, please contact a Committee Member.

Annual membership fees will also be due at this meeting.
Please help your Treasurer by renewing promptly.

ALICE SPRINGS FIELD NATURALISTS CLUB INCORPORATED

Minutes of general meeting at Higher Education Building,
Charles Darwin University - 12 June 2013

Following presentation by Colleen O'Malley on Chenopods
Thank you to Jill Brew for supper and to Rosalie Breen scribe.

Present: 16 Members/visitors and 5 apologies as per attendance book.

Meeting commenced: 8-30pm

Previous minutes: Accepted. **Business arising from the minutes:** Nil

Correspondence in:

- Email re change of server address for our website.
- Email from ASDP re Plant Nursery Tour on 16 June, forwarded to Members
- Email from Chris Watson, on behalf of his work colleagues at Lowecol, expressing appreciation of our newsletter.
- Email from Jenny Molyneux asking for volunteers for survey at Newhaven, forwarded to Members

Correspondence out

- Email exchange with Wendy Kittle re trip to Conlons Lagoon.
- Email to Rory Richards re arranging trip to Duck Swamp on Henbury Station.
- Thank you card for Colleen

Treasurer's Report:
Balance at 12/6/13: $3093.76
Nil debits or credits in May.

General business:

- Jill Brew recently spent 2 weeks as a volunteer on a Rangeland soil and plant survey in Queensland. She reported this as a very positive experience and will write about it for the Newsletter and forward contact information to members
- Website not showing newsletters since February. Barb will ask Pam Keil to update them

Future activities:

- Conlons Lagoon on Thursday.
- Alice Springs Landcare Sat 15 June in Spencer Valley. Coral Cactus control
- 22-23 June - Hugh Gorge walk. Leader Colleen O'Malley.
- Alcoota Visitors weekend 13-14 July. Contact Lee Ryall as visitors need to register

Sightings

- Chris Watson - Pied and White-fronted Honeyeaters on the west side of town.
- Colleen O'Malley - Boobook owl displaying unusual behaviour, flying at windows presumably to catch geckoes, at her home near Honeymoon Gap.
- Chris Watson - reports of Princess Parrots at Emily Gap.

Next meeting: 10 July. Chris Watson on wildlife of Galapagos Islands and mainland Ecuador.
Speaker: Scribes: Lee Ryall Supper : Volunteer needed.

AGM: August 14 2013 – needs to be advertised

Meeting Closed: 8-50pm