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Inc. PO Box 8663, Alice Springs, NT 0871

August 2006



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Web site : [www.geocities.com/alicenats](http://www.geocities.com/alicenats)

## Alice Springs Field Naturalists Club 2006

### Meetings

7.30 pm on the second Wednesday of the month.

Venue: Olive Pink Botanic Garden, Tuncks Road

**Wed 9<sup>th</sup> August.** AGM. Presentation of reports and election of office bearers. Members "Show and Tell".

### Trips / Activities

**Sat 5<sup>th</sup>, Sun 6<sup>th</sup> and Mon 7<sup>th</sup> August.** Stage 6 Larapinta Trail. Leader Bob Read.

**Sat 19 August.** Easy morning walk from Ragonesi Road to Emily Gap below the range. Meet at Date Farm carpark for 8am start. Contact Rosalie Breen on 8952 3409

**Sun 27 Aug.** Day trip to Chambers Pillar. 4WD required.

**Sat 2 Sep.** Native Gap

**Sat 9 and Sun 10 Sept.** Old Hamilton Downs.

**!6 or 17 Sept.** Bush Foods Garden at Alice Springs Desert Park

**Sat 30 Sep and Sun 1 Oct.** Palm Valley

**Sat 14 Oct.** AS Sewerage Ponds

### Guest Speaker Report

#### Lake Lewis

Wednesday 12<sup>th</sup> July, 2006

By Jane Danne

Bill Low from **Low Ecological Services** talked to us about Lake Lewis, its ecology, cycles and the results of the monitoring work he has been doing there for more than 7 years. This work was commissioned by the petroleum industry that needed to find a suitable discharge site for the 60million year old hyper saline water being released with the natural gas they are currently tapping. Preliminary work done by Bill established that Lake Nash was suitable because the composition of the discharge water was very similar to that of the Lake.

**Lake Nash is situated** out along the Tanami Desert road near Tilmouth Well. It spans an approx 50 x 20 km area, with a catchment of 750 square kms, is drained into by Napperby Creek and is dammed by land to the north that was pushed upward some 60 or 70 thousand yrs ago.

Two land systems are represented: Amadeus Land System over the northern bulk of the Lake, and Singleton Sand Plain Land System to the south of where Napperby Creek enters it.

**Markers** in this 60 million yr old water are its elevated levels of calcium, barium and strontium. These are also found in the salt deposits of Lake Nash, but it was established there levels were low enough for discharge water to be able to be 'tracked', and its effects measured. What they found is that any sign of the discharge is dissipated within 100 metres of the discharge site and that this is decreasing as they monitor.

#### Monitoring:

20 sites were nominated along the north-south seismic transect of the NT that the Gov't had surveyed in 1982/83 (very conveniently running straight through Lake Nash and the Napperby Creek flood plain). These were visited monthly for 3 yrs, 3 monthly for the next 3 to 4 years and annually since the discharging of water ceased. Amongst other things, soil composition, rainfall, and fauna and flora species were monitored and documented at each site

#### PRINCIPAL ECOLOGICAL FEATURES:

##### The weather:

Hot and dry with only about 50 mm of annual rainfall but, like all of Central Australia, experiencing huge variation. In 1999/2000 summer, 150 mm fell in **one day!** At Lake Nash, 70 to 85% of the rain falls in summer, while only 15 to 30% is winter rain. (By comparison, Alice Springs has 60% summer rain with 40% in winter.)

##### Bush fire:

Fire has always been a part of the cycle at Lake Nash. However, the introduction of Buffel Grass (*Cenchrus ciliatus*) has eventuated in the recent destruction of ancient (200 to 300 yr old) specimens of *Acacia sessilicaps*. An absolute tragedy.

##### The soil:

Grey saline soil with a salinity 'value' of 40 to 50 (garden soil has a value of 10).

##### The plants & animals:

**Halophytic plants** (ie: they live in saline conditions) that need freshwater for germination and establishment. Without the cyclic flooding with freshwater, the crustacean that rely on these plants would not survive and the whole food chain would crash. As it is, there is a huge diversity of fish, insects, birds and other animals

that form part of the Lake Nash ecosystem and when it is full of water, the place teems with life.

Bill talked about the huge seed store that lies in the ground, each species just waiting for right conditions at the right time of year to germinate and spring forth into life:- After the 1999/2000 floods, he saw vast carpets of *Solanum spp* flowering around the Lake.

#### Crustacean:

*Parartemia* (Brine or Fairy Shrimp)  
*Ostracod* (Seed Shrimp)  
*Ecocyclus* (Shield Shrimp)

These require a period of hot, dry conditions to mature in their 'cysts' in the dry mud before they can take advantage of fresh water flows to hatch. They start emerging while the water is at about 10 to 20 parts per million salt and are able to continue living even when the water is hyper saline at about 200 parts per million (by comparison, sea water is about 35 parts per million)!

Yellow pollen collects in big slicks at the waters edge and is an important food source, as is an algae – *Ruppia maritime* – which forms thick mats in the water.

Deposited in the top soil 'crust', the crustacean cysts are susceptible to the hooves of horses and camels that now come to the Lake for water.

**Burrowing Bettongs** used to be here in large numbers, the country being perfect for them. Unfortunately it was also perfect for rabbits and they were quickly crowded out. Today, rabbits are no longer a problem due to successful biological control, so it may become a future sight for Bettong reintroduction.

When asked for a list of the principle plants in the Lake Nash ecosystem, Bill wrote me this list:

Scientific name	Common name
<i>Triodia pungent</i>	Soft Spinifex
<i>Dodorea viscosa</i>	Sticky hopbush
<i>Acacia ligulata</i>	Sandhill wattle
<i>Acacia kempeana</i>	Witchetty bush
<i>Acacia sessiliceps</i>	
<i>Acacia farnesiana</i>	
<i>Acacia tetragonophylla</i>	Dead finish
<i>Melaleuca glomerata</i>	Inland tea tree
<i>Enneapogon spp</i>	Oat grasses
<i>Eragrostis eriopoda</i>	Woolybutt
<i>Paraneurachne muelleri</i>	Bandicoot grass
<i>Corymbia opaca</i>	Bloodwood
<i>Ventilago viminalis</i>	Supplejack
<i>Cymbopogon obtectus</i>	Lemon scented grass
<i>Themeda triandra</i>	Kangaroo grass
<i>Halosarcia halocnemoides</i>	Samphire

<i>Halosarcia indica</i>	Black samphire
<i>Goodenia spp</i>	
<i>Solanum ellipticum</i>	Native tomato
<i>Solanum centrale</i>	Desert raisin
<i>Swainsona cyclocarpa</i>	Salt pea
<i>Trianthema triquetra</i>	Red spinach
<i>Zygophyllum compressum</i>	Rabbit ears twinleaf

### Creature Feature

## ANN Get-together 2006 HIGH COUNTRY IN THE ALPINE SPRING Part 3

By Rhondda Tomlinson

Sitting here in cold Alice Springs and knowing it is snowing in the Alpine Country it seems strange thinking about writing of the Alpine Spring.

**Day 14:** This was the day many of us had been waiting for the climb to the top of the highest point in Australia – Mt. Kosciuszko.

The walkers were given a choice to walk from Charlotte's Pass which was an 18km round trip or cut a few kilometers off and go via the chairlift. I chose the Charlotte's Pass route. We started walking at 8.00am. We commenced our walk at the snow gum line and moved into the low vegetation carpet with many wildflowers.



The Grass Trigger plant (*Stylidium*) in the foreground. All along the track the scenery and colours changed.

Seaman's Hut, 5.5km from Charlotte's Pass is used for day walkers and has facilities for overnight emergency accommodation. It was hard to believe that the weather can get so severe here that people have lost their lives only a short distance from this hut.



Seaman's Hut

Photo: Rhondda Tomlinson

As we climbed higher the terrain was becoming more rocky and desolate. Rawson's Pass this not only meant 1.5km to the summit of Kosciuszko but the last toilet stop and where we met the chairlift people.



Toilet stop on Mt. Kosciuszko

Photo: Rhondda Tomlinson

I made it to the top with not much energy to spare but the climb and the thought that I have been to the top elevation of Australia was a great feeling. The photo below is looking back along the walking track from the top of the mountain.



From the top of Mt. Kosciuszko

Photo: Rhondda Tomlinson

Half the journey over we now made our way back the way we had come but this time to look around at what we had passed on the way up. We noticed snow daisies, mosses, rock hugging *Kunzea* and this little rock garden and waterfall really fascinated me.



Snow daisies

Photo: Rhondda Tomlinson

As we neared Seaman's Hut again the clouds were starting to gather and were forming interesting patterns. We had been told to carry warm clothing with us as the weather can change and it even has been known to snow at this time of year. I might mention it was quite hot and we were complaining about all the extra gear we carried.

Looking at the clouds by the time we neared our destination we could see the possibilities of anything happening.



Cloud patterns

Photo: Rhondda Tomlinson

Even though we were all exhausted from our big day out we could not miss our evening talk by Allan McGuire one of our group who by the way is 91 years old. Alan was an engineer on the Snowy Mountains Hydro Electric Project. Allan said that there were 100,000 displaced persons from all over Europe were brought to work on the Scheme. It covers an area of 160 x100km. There are 80km of tunnels and the major tunnels were 6metres in diameter. Lake Eucumbene was the heart of the water collection for the Scheme and the Commonwealth Government financed the project.

I could not close this chapter of my trip without showing the beauty of the Snow Gums.



Snow Gums

Photo: Rhondda Tomlinson

## **NEWS ITEMS** (spotted by Bob Read)

### **Goanna populations impacted by cane toads** *(ABC Radio – 26.7.06)*

July 27, 2006 - Friday Round Up

Up to 95% of the goanna population in the Top End are being affected by the Cane Toads. University of Canberra researcher Sean Dudgeon recently completed a four year study into the goanna populations on the Daly River. He says he found declines in three species of goanna's of between 85% - 95%. He says some populations have plateaued before going completely extinct, and hopes that the goannas can get used to avoiding cane toads as prey. He says crocodiles can also die from eating a single cane toad.

### **• Lost butterfly rediscovered** (*Territory Times* – 21.7.06, *ABC Radio Country Hour* -

*25.7.06 and ABC Radio News – 26.7.06)*

July 27, 2006 - Friday Round Up

NRETA entomologist Dr Michael Brady recently visited remote Arnhem Land to work with traditional owners and indigenous rangers to discover new habitat of the Gove Crow Butterfly. Also accompanying Dr Brady was naturalist Ian Morris who saw the unknown butterfly as a teenager 30 years ago. Dr Brady says the butterfly is currently on the endangered species list and is only found in Arnhem Land.

<http://www.abc.net.au/news/items/200607/1697559.htm?nt>

<http://www.abc.net.au/rural/nt/content/2006/s1696570.htm>

Copy Deadline for articles for September  
Newsletter -Friday 1st September 2006

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## BIRD SIGHTINGS

**30<sup>th</sup> July 2006**

Kunoth Bore

3 banded Lapwings sighted by Liz Carpenter and Eric Tan.



Banded Lapwing

Photo: Eric Tan

**29<sup>th</sup> July 2006.** Wader in breeding plumage sighted at Alice Springs Sewage Ponds by Liz Carpenter and Eric Tan.

Photo finish possibly clarifies that it was a Wood Sandpiper, not one of the two Common Greenshanks spotted the previous weeks...

The question is, was it coming or going?



Wood Sandpiper.

Photo: Eric Tan

Red Kneed Dotterel

Photo: Eric Tan



**24<sup>th</sup> July 2006.** Solitary Red Kneed Dotterel sighted at Alice Springs Sewage Ponds. 3 sighted on the 29<sup>th</sup> July 2006 by Liz Carpenter and Eric Tan.

**ALICE SPRINGS FIELD NATURALISTS  
CLUB INCORPORATED**

**Minutes of the General Meeting held at Olive Pink  
Botanic Garden  
Wednesday 12<sup>th</sup> July 2006**

**Open:** The President, Bob Read, declared the meeting open at 8:50 pm and welcomed members and visitors

**Present:** As per attendance book (14 members and 6 visitors)

**Apologies:** Jim Lawrence, Shirley Goodman, Ian Archibald, Rosalie Breen, Karen May & Kevin Boyle

**Minutes:** The meeting resolved to accept the minutes of the previous meeting held Wednesday, 14<sup>th</sup> June 2006 as a true and correct record of that meeting.

**Correspondence In:**

WANC  
WBC  
NTFNC

**Correspondence Out:**

Sonny Mason & Greg Mair

Thank you

**Treasurer's Report:**

Opening balance end May 06		\$1841.93
Plus Bank Interest	\$2.72	
Less Donation to OPBG for use of Building (Flora of Australia book)	\$69.50	
Closing balance end June 06		<u>\$1775.15</u>

**General Business**

**AGM Wed 9<sup>th</sup> August** – presentation of reports and election of office bearers followed by members Show and Tell.

**Trips:**

Sat 15 Jul Day trip to Lake Lewis. Meet 7:30 am at the Sargent St sign on the north Stuart Hwy. Contact Bob Read on 8952 1935.

Sun 23 July Invitation to join the Gem & Mineral Club. Meet Jessie Gap.

Sat 29 & Sun 30 Jul Alcoota fossil dig. Meet 8:30 am at the Sargent Street sign on the north Stuart Hwy.

Sat 5, Sun 6 & Mon 7 Stage 6 Larapinta Trail. Leader Bob Read. Those interested to meet and discuss details.

Aug  
Sat 19 Aug Easy morning walk from Ragonesi Rd to Emily Gap below the range. Meet at the Date Farm carpark for 8am

Sun 27 August

Sat 2 Sep  
Sat 9 & Sun 10 Sep  
Sat 16 Sep

Sat 30 Sep & Sun 1 Oct  
Sat 14 Oct

start. Contact Rosalie Breen on 8952 3409.

Day trip to Chambers Pillar. 4WD required.

Native Gap  
Old Hamilton Downs  
Bush Foods Garden at the Alice Springs Desert Park.

Palm Valley  
Sewage Ponds

**Other Business:**

Kaye Percy asked if we have any information at CATIA? Website best avenue for information.

Barb Gilfedder to follow-up with brochures at the Town Library.

**Supper for August** – Kaye Percy

**Note taker for August** – not required

**Sightings:**

Kaye Percy reported seeing Erodium sp. on Stage 1 of the Larapinta Trail and many Lapwings on the Sadadeen High School Oval.

Black-breasted Buzzards still around.

Liz Carpenter reported 2 Greenshanks and 3 fluffy Red-necked Avocets at the Sewage Ponds, also Black-winged Stilts.

**Meeting Closed** 9:20 pm