If not claimed within 14 days please return to the Alice Springs Field Naturalists Club Inc. PO Box 8663, Alice Springs, NT 0871

APRIL 2004



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ALICE SPRINGS FIELD NATURALISTS CLUB APRIL 2004

MEETINGS

Wednesday 14 April – Speaker Margaret Friedel, an Ecological Journey through Namibia

Wednesday 12 May – Speaker Michael Green, the Henbury Meteorite Crater.

TRIPS

April 3rd to 6th, Newhaven Station. Meet 9am Sargent Street sign on North Stuart Hwy. Contact Bob Read on 8952 1935.

April 18th Slot Gorge on southern side of Mt Gillen. Meet 7:30am at the Information Bay on the South Stuart Hwy. Contact Connie Spencer on 8952 4694.

April 24th, 25th & 26th Bowmans Gap overnight camp. Meet 2pm Sat 24th Flynn's Grave. Travel to Ormiston Gorge. Camp overnight at camp grounds (showers and BBQ available). Camping fees apply.

Sun 25th walk through Ormiston Gorge then on to Bowmans Gap and camp. (If you want to come ont on Snnday morning, the walk will start at 8am. Must let Kaye know you are coming.) Easy walking, great scenery within Ormiston Pound.

Mon 26th April return to Ormiston carpark via Pound Walk. Two walks for the weekend. Provide your own food and camping gear. Contact Kaye Percy on 8952 3405

1 st weekend	Opeu for suggestions
May 2004	Chain of Ponds (Trephina)
Sat. Sun &	Mac Clark Conservation Reserve
Mon 12,13	(Acacia peuce) and Acacia
& 14 June	pickardii. This would be a
	combined FNC & APS trip.

KINDRED ORGANISATIONS EVENTS

Wed 7 April - Australian Plants Society monthly meeting, 7:30 pm Olive Pink Botanic Garden. Plant propagation by cuttings demo/workshop.

Wed 5 May - Australian Plants Society monthly meeting, 7:30 pm Olive Pink Botanic Garden. Guest Speaker, Helen Puckey on Buffel grass in Central Australia - what we know and what we don't know.

GUEST SPEAKER REPORT

SEVENTEEN CENTIMETERS A SECOND

That is how fast a Racehorse Ant can move...and it can survive temperatures up to 80degrees.

The Racehorsc Ant is one of 1200 species of ant that live in Australia, Ajay Narendra informed us during his talk at the last Field Naturalists meeting. He is in Alicc Springs because Central Australia is one of the best places in the world for diversity of ants and they are obviously his passion.

First he challenged us to identify whether some pictures depicted ants or other insects.

It was hard, until he explained that ants have a distinctive waist. At the constriction between the thorax and the abdomen they have either one or two small knobs, the petiole and the post petiole. These are actually the first or first two segments of the abdomen, the remainder being called the gaster.

Ants live in colonies and there can be as many as 18 different forms and sizes in one nest, each doing a different job.

The females do all the work. The queen who lays the eggs; her nursenialds; others that build or dig the nest; others that tend the eggs, larvae and pupae; others that gather food and others that defend the nest.

They have very sensitive antennae, so they can recognise not just their own species but those from their own colony, by their particular identifying chemicals.

All ants have a sting and often large powerful mandibles. Their nests are very humid places but they produce their own fungicidal secretions so they don't go mouldy.

But one of the most interesting thing Ajay told us about ants was the clever way they often interact with other animals and plants.

Some ants farm aphids which produce honeydew secretions rich in carbohydrates.

Others stick leaves together and put mealy-bugs inside, so they can use their cottony secretions.

Some plants welcome them, forming special holes so terrestrial ants can stay in the tree all the time and kill other pests of the plants.

Green Tree Ants make arboreal nests. They first use their bodies to pull leaves together then stitch them by holding their own larvae and squeezing goo out of them like a tube of toothpaste, which sets, holding the leaves in place. Most ants are extremely industrious but some maybe are lazy. First they invade the nest of another species, kill the queen and steal eggs and cocoons. When these develop into adults, they work for the pirating colony, probably without realising it is not their own.

It was a very informative talk. Thank you Ajay. We will all look at ants with a bit more interest, once we have identified them by their petiole and post-petiole waistlines.

TRIP REPORTS

Walk in hills behind Zeil Street March 7th Just on the doorstep of town, Sunday's walk had everything. Great company, Barb, Connic, Kaye, Lyndal, Rhondda, Lisa and Rosalie, lots of different habitats and many birds.

First we climbed steeply up a track to the top of the hills backing on to Nelson Terrace and Zeil Street. We were rewarded with great views all around, looking across Desert Park land and along the ridge with impressive mini cliffs and equally impressive ghost gums clinging to the sides – really pretty.

Along the tops we passed through Mulga and *Eremophila latrobei*, as well as Witchetty bushes and the occasional Corkwood. Down on the flats we noticed Colony Wattle colonies, and a line of Eucalypts and Melaleucas following a small creek.

Barb challenged us to identify a round hole in the bare ground. It was a Rainbow Bee-eater's nest, which I thought were only in soil banks of crecks. We walked through the little Eucalypt forest and regrowth from suckers of *Eremophila longifolia*, some of it flowering. Also groups of Lechenaultia in flower, which Connie said flower when nothing much else will. The Teatrees brrnt in the fires which affected much of this area, were sprouting luxuriantly from the base. It was a delight to see so much regeneration.

In the drain was a smorgasbord of growth, especially of native grasses including Brown Beetle, Silky Browntop, Queensland Blue and Kangaroo and a tangle of a Kennedia.

Our last habitat was the much eroded river hed with sandy base and steep banks with grass roots dangling many feet down. Here we found a Red-backed Kingfisher's nest hole.

Throughout we spotted many birds, Ringnecks, Rainbow Bee-eaters, a Kestrel, a Red-backed Kiogfisher, Fairy Martins, Zebra Finches, White-plumed Honeyeaters, Spiny-cheeked Honeyeaters, Willie Wagtails, Galahs, Crested Pigeons, Mistletoe Birds, Black Kites, Magpie Larks, Grey-crowned Babblers, Black-faced Cuckooshrikes and a Black-faced Woodswallow. Then to top off a good walk we went to Lyndal's for a cuppa, a biscuit and a chat and saw a Brown Honeyeater and a Western Bowerbird in her garden. Thanks especially to our leader, Barb. By Rosalie Breen



Sitting down on the job on the Zeil Street walk

Up hill and down dale with Rosalie Saturday, 13 March 2004 By Connie Spencer

Roll call: Rosalie, Barbara, Bob, Rhondda, Sue and Connie plus Nick Tyllis & Rosalie Schultz, welcome visitors and hopefully, prospective members to the club. There we were at 7am in the Gosse Street playground, all ready to play (Barbara was already on the swing), but no, we were there for a walk in the Telegraph Station and Rosalie Breen was leading the way.

Our first stop was less than 50 m along the track to check out a good specimen of Wild Orauge (*Capparis mitchellii*) at the base of Spencer Hill. A few meters on we stopped as several species of birds had been spied – Ringneeked parrots, Black-faced Cuckoo-shrike, Willy Wagtails, Zebra Finches, White-plumed Honeyeaters and Rainbow Bee-eaters. A few more meters and another stop to look at a line of processionary caterpillars. The weather is becoming cooler when you see these fellows on the move in their head to tail fashion.

We were making slow progress but that's the name of the gaine. We were there to look, to learn and to appreciate. We wandered through good stands of Witchetty Bush (Acacia kempeana) much tougher and more drought resistant-looking than the sennas and eremophilas in the area. However, we should not to be deceived by looks, " because those sennas and eremophilas will most likely spring back to life with a little raiu.

By now we were travelling along a narrow rocky gully come creek and Bob gave us a bit of a geology lesson. Rosalie pointed out some rocks as being unakite, composed of pink felspar, green epidote and quartz. We checked out the Black Teatrec (*Melaleuca bracteata*) and had a discussion on the name bracteata and came up with small leaves. Bob, Barbara and Nick took off in search of an Inland Thornbill which they could hear whilst the rest of us looked at a specimen of Whitewood (*Atalaya hemiglauca*) and more unakite.

Soon we were oohing and aahing at some wonderful views of Mt. Gillen and as we headed downhill towards the Todd River, Rosalie gave us a test – we had to pick out something special on the hills to the north of the track. One by one we spied the Cycad (*Macrozamia macdonnellii*) with Nick and Rosalie Schultz giving it a more detailed inspection.

As we headed south back towards Spencer Hill and our vehicles, we stopped to look at a very old Emu Bush (Eremophila longifolia) in flower and whilst there came across a Bean Tree (Erythrina vespertilio). The Bean Tree was certainly not in its prime but then that's not unusual around Alice Springs. In the summer, they suffer if it is dry and in the winter they are frost sensitive. Further along the track we stopped to discuss another group of root suckering trees. I'm fairly confident they were Bullockbush (Alectryon oleifolius). Sheltering under large rocks Rosalie pointed out a special plant of the Telegraph Station - Plumbago (Plumbago zevlanica). It is in need of rain but nevertheless hanging in there. Whilst we were checking out the plants, a Black-tailed Rock Wallaby was watching us from his/her posi high up on the rocks.

Some three hours later were are back to where we started from having had a leisurely walk with great company with the added benefit of learning a little along the way. Thank you Rosalie for leading the way.

KUNOTH BORE - 21st March, 2004

A Saturday or Sunday early morning rise is becoming part of my weekend routine this last couple of months since moving to Alice Springs. This Sunday 21st was uo different.

I had no idea where we were going or what the outing involved, is all I knew was that we were to meet at the Sargent Street sign car park on the north road at 7.30am and we were going to Kunoth Bore.

Five very keen sojourners met and organized to go in two vehicles. It was a perfect morning with a pleasant breeze as we travelled north along the Stuart Highway and then headed west along the Tanami Highway.

It was not long before our first 'bird' stop. Binoculars out and two vehicles abandoned on the side of the road. Two Wedged -tailed Eagles were flying up from the road kill and were very inconvienced by all these passing people movers. They circled high above trying to make sense of the guys that had stopped on the side of the road with the strange eyes which appeared to be following their every move. A walk across the road and the bird list started in earnest adding Ringneck Parrots, Fairy-wrens, Whistling Kites and Black-faced Woodswallows. This was a great start and a bif further on we added the Mulga Parrot, Zebra Finches, Splendid and Variegated Fairy-wrens, Willie Wagtail, Singing Honeyeater and Hooded Robin.

There were some plants in flower on the side of the road and as we didn't stop there was some speculation at our next stop as to what they could be. It was a majority decision to stop on the return journey and investigate the situation.

On Bond Springs Station not far from the Hamilton Downs Station joint border we walked along a fire break track and saw some very interesting ant nests. I found this fascinating as we had had the talk on ants at the previous meeting.



We did not see the inhabitants of these nests but the openings were quite large and appeared to be divided into at least three tunnels.

This was not the only ant type encounter a bit further along the track were many more small mound type nests.



Plantwise we saw a native currant and Connie was most impressed with the amount of native grasses in the area. The most spectacular sight of all was one beautifully attired male Red-capped Robin who sat not far from us on a branch for quite a while and we were so taken by his beautiful colours and how close we could get to him.

On the road again and we made it to the side road just past Kunoth Bore about 9.30am. All out of the vehicles and the bird list continued to grow with White-browed Babblers, Hooded Robins both male and female, Inland Thornbills, Brown Falcon, Rufos Whistler and Crested Pigeons.

A slight deviation from the birds and Bob found some fresh water snail shells, we saw dragonflies and spiders with large webs built from one tree to another. The female or the one who seemed to be in charge was very large and there were many small spiders on the web as well. A cocoon was at the edge of one of the webs which we presumed contained the eggs.

Back to the birds and we saw a Kestrel, Brown Falcon, Chestnut-rumped Thorn bill and Singing Honeyeaters.

Over at the bore the tanks were full and water was running into the overflow pit which allowed the mnoff to seep back into the ground. Near the bore Connie identified a Native Orange tree (*Capparis mitchelli*). We also saw Bloodwood Trees.

We heard a roar in the distance and finally the roar was sighted in the form of a fuel tanker with 3 trailers. This of course was not considered an important sighting but I decided to give it a mention.

The dam surprisingly had quite a bit of water in it which was a pleasant sight as the surrounding country was very dry.

We had a short morning tea stop and a Lesser Wanderer butterfly fluttered past just to check us out.

About 5km down the road we stopped in an area of heavy clay soil and mulga. Here our plant people found *Eremophila latrobei* which is a native fuchsia, also called Latrobe's desert fuchsia. It has a small red bell shaped flower and we were lucky to be able to see a bush with



several flowers.

As like all outings it comes time to return home and off we set back towards Alice Springs but first our promised stop to identify the mystery roadside flowering plant. *Gossypium bickii*, a low bush with a flower very like the Sturt's Desert Rose. The actual plant only grows to about one metre in height.

Our return was about midday and a very enjoyable and interesting way to spend a Sunday morning. Thank you for the opportunity to go on the outing.

Rhondda Tomlinson

NEWS

Ants, like humans, avoid traffic jams Ants, just like motorists, hate congestion and use alternative routes to avoid it, European scientists have found.

The industrions insects push and shove each other out of the way when it gets too crowded, forcing some to find another route from a food source back to the nest.

Scientists from France, Belgium and Germany publish their results on ant behaviour in the current issue of the journal <u>Nature</u>.

"Ants are able to find a solution when they are faced with congestion on trails," said Dr Vincent Fourcassié, a biologist at the <u>Centre for Cognitive Animal Research</u> in Toulouse, France.

The researchers analysed videotapes of black garden ants (*Lasius niger*) in an experiment on collective movement. Using a mathematical model, they explained how the individual behaviour of the ants affected their collective movement and group behaviour.

Foraging ants prefer to carry food along a favourite trail that is marked with scent clues. In the experiment, the insects had to cross a diamond-shaped bridge between their nest and sugary food.

Fourcassle said that if the two branches of the bridge were quite wide, traffic on the preferred route was much heavier.

But when the branches were narrowed and the ants encountered a bottleneck getting to the favourite route, congestion on both branches was more equal because ants chose the alternative route.

Pushing seemed to be the favourite way to maintain a steady flow of food back to the nest, the researchers said.

ABC Science Online

