



ALICE SPRINGS FIELD NATURALISTS CLUB

September 2009 Newsletter

Wood Sandpiper. *Photo Mat and Cathy Gilfedder*



Meetings are held on the second Wednesday of each month (except December and January) at 7:30 PM at the Olive Pink Botanic Garden. Visitors are welcome

Postal Address: P.O. Box 8663 Alice Springs, Northern Territory 0871

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MEETINGS

Wednesday 9 September – Star Gazing with Stuart Traynor

Wednesday 14 October – Peter Collins Ex Warden at Broome Bird Observatory talking about 'Waders, Flyways and Flagging'.

TRIPS/ ACTIVITIES

If you want to attend any trips please RSVP to Trip Leader

- 12 September** **Ridge Walk Trepina Gorge to John Hayes Rockhole.**
Alternative shorter walks can be done at Trepina Gorge if it is a hot day. Full day outing, meet at 7am at the Date Farm. Contact Shirley Goodman 8952 5724 sunbear68@hotmail.com if you want to go.
- 19 September** **desertSMART EcoFair** at Olive Pink Botanic Gardens. Visit the EcoFair to Learn about local sustainability initiatives, wander through the stalls, taste entries from the solar oven bake-off, check out interactive displays and speak to experts from the trade sector from 7am – 5pm. Volunteers needed contact Sue Fraser - 8952 5728 suefra@hotmail.com
- 19-26 September** **Desert Bird Week** - A variety of Bird friendly activities running throughout the week including art exhibition, Bird Walkabouts at Alice Springs Desert Park, Birds before Work, guided walks at Olive Pink Botanic Garden and 24hr Twitchathon. Final Program should be available at Septembers Field Nats meeting. For more information contact Sarah White 8953 8605 sarahsg2@dodo.com.au
- 10 October** Drive to Native Gap for lunch – Trip Leader Connie Spencer
- 17 October** Visit the 'Land for Wildlife' area at OLSH Saddadeen Campus. – Trip Leader is Rosalie Breen.

NEXT NEWSLETTER

The deadline for the next newsletter is **Wednesday 30th September**. Please send your contributions to Emily Findlay – robbiemily@hotmail.com

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2009 President's Report

This is my 13th and final President's report.

It is a bit of an emotional wrench giving up the presidency, but I feel in view of the uncertainty of my future it is better to do it now.

It has been an interesting experience for me, inheriting the presidency a few months after joining the club. Not having done anything similar before it was a steep learning curve. This has been a period of technological change. Email makes it far easier to contact club members. In earlier days I once had to telephone the entire list, which would be difficult with the increased membership of recent years. The digital camera and the internet have transformed the newsletter from two photocopied A4 sheets (3 pages plus the cover) to the multipage colour photo illustrated digital newsletter of the last few years.

The club has continued to run well. New innovations have been the Behind the Scenes tours at the Desert Park and the after dark tour of the Desert Park. Thanks to Sarah for organising these.

Other than that we have kept to much the usual formula of speakers for 9 meetings a year and a good selection of outings.

I was going to bemoan the poor attendance at club excursions, but looking at my records I found that I had said the same thing at the previous three AGMs, so clearly that would be a waste of breath.

The number of people who do not stay for the business meeting is disappointing. I realise that some people have legitimate reasons for leaving, often long working days, but I do wonder if this applies to all.

Thanks to the committee for their support. Thanks to all the membership who make this an easy club to run. One of the reasons that it has been a pleasure to stay in this position for so long is that the Field Nats are such a nice group of people.

I trust that you will give the incoming president the same support as you have given me.

You may feel obliged to do something in recognition of my long period in office. I really only have one request: that collectively you keep the club running with the same good will and enthusiasm.

Bob Read
President

A Long Weekend in Mordor by Meg Mooney

It's all a little while ago now, but that long weekend at Mordor is still floating happily in my mind. Camping among undulating hills with intriguing collections of dark boulders within easy walking distance. I'm regretting I didn't check more of them out now Rosalie!

To reach Mordor, we travelled along the tourist route from the Stuart Highway to Arltunga. Not long before the Garden Station homestead, we headed south, past the spectacular Winnecke and Georgina Ranges. We rounded the great Georgina Range bluff, which forms the northwest wall of the pound. There is another high wall running northeast and a long southeast one. The pound is more open to the southwest, north of Trepina Gorge. Trepina Bluff is near the end of the southeast wall, forming a striking rampart which Shrike and I suddenly recognised as we gazed around from the top of the wall near Jennings Gorge.



Georgina Range, from the north. The Pound is over the other side of this range. Heavitree Quartzite cliff above foothills of much older

Enclosed by these dramatic walls of Heavitree Quartzite (the rock unit the Heavitree Range is made of), it did feel like we'd passed through some gate – the Black Gates? – into a strange world. Dark boulders lurking among the grass, as well as little ridges of white and pale pink pegmatite and other igneous rocks. Puntj found some great tourmaline crystals (long black prisms) in the pegmatite forming a little hill near our camp.

tourmaline crystals



Igneous rocks crystallize from molten rock, either underground, when there's usually time for visible crystals like you see in granites to form; or above ground, when spewed out of volcanos and vents. The rocks in Mordor Pound are the type that crystallize underground, and get exposed at the surface by uplift and erosion of the rocks on top of them. The rocks at Mordor crystallized 1130 million years ago, so they're pretty old. The granite gneiss hills around Alice are even older, 1800 million years old. (The earth is 4,500 million years old.)

The black rocks at Mordor are very unusual in central Australia and uncommon world-wide. They're dark because they have high proportions of minerals called pyroxenes, which are low in silica (silicon dioxide) and high in iron and magnesium. Geologists call them mafic and ultramafic. Most of the dark, iron and magnesium-rich, rocks in Australia are basalts, from volcanoes, with tiny crystals, quite different to the rocks at Mordor

The Mordor rocks were part of the shoreline of the Amadeus Sea, a great arm of sea, which covered most of central Australia off and on from 800 to 350 million years ago. The Heavitree Quartzite was the first sands deposited at the bottom of this sea, around 800 million years ago. Over millions of years, this sand was buried under great depths of silt, sand and limey mud and turned into a layer of sandstone.

Over more millennia, and very high temperatures and pressures under the earth, the silica grains were welded together to form quartzite. Then this Heavitree layer, and many others on top of it, were folded by great compressive forces. Eventually they were slowly uplifted, by more huge forces, and exposed by erosion at the surface of the earth. The dipping limbs and curved noses of these folds make the walls we see around Mordor. Quartzite is one of the hardest rocks, and doesn't break down chemically, so it erodes much less quickly than 'softer' rocks like the dark pyroxenites.

My favourite mineral was phlogopite, a bronze mica visible as splodges on the surface of the pyroxenite.

We camped a few kilometres south of the northwest wall and had great views of this and the northeast wall, the rest being obscured by low hills. Next day we drove the few kilometres to Jennings Gorge, a deep cut near the northern end of the southeast wall. You soon come to a sharp drop if you enter this gorge from the pound, so we walked around a kilometre southeast along the pound wall and then along a creek bed, another break in the wall, so we could get to the Gorge from behind. It is winding, high and narrow, 15 to 20 metres wide, with a bouldery floor. The walls are dripping with spearwoods and the occasional fig. You need to swim through a small pool at the end to get through to the pound side of the gorge. No guesses about who did that!



Inside Mordor Pound, looking north.

Retracing our steps back down the gorge, Bob and Meg had a great view, while looking for Dusky Grasswrens, of a large (as big as 10 cm) fat-tailed pseudantechinus, among the rocks near the gorge entrance. This one did not in fact have a fat tail – a sign of lean times? Apparently these animals often sun themselves on rocks during the day, but it's very unusual to spot them.

Shrike and Meg climbed over the top of the wall and back into the pound – great views - while the rest of the walking party retraced their steps along the creek bed and turned north into the second Jennings Gorge.

We also visited several springs, one on the road into the gorge, fenced off and full of bullrushes. The other two, at the foot of the northwest wall, we visited on the way out. Apparently water filters slowly down through cracks in the quartzite, and trickles out where the quartzite meets the igneous pound rocks, which are impermeable. (If anyone is interested there was a note on these springs in the Sept 07 newsletter.) Algae descriptions from Rosalie to come.

I think I'd better stop there! Bird list below, courtesy of Bob.

- | | |
|--|--------------------------|
| Australian Magpie | Mistletoebird |
| Australian Owlet-nightjar (heard only) | Painted Finch |
| Australian Ringneck | Pallid Cuckoo (calling) |
| Black-faced Woodswallow | Pied Honeyeater |
| Brown Falcon | Rufous Whistler |
| Budgerigar | Singing Honeyeater |
| Chestnut-rumped Thornbill | Southern Whiteface |
| Crested Bellbird | Spiny-cheeked Honeyeater |
| Crimson Chat | Splendid Fairy-wren |
| Diamond Dove | Torresian Crow |
| Dusky Grasswren | Western Gerygone |
| Grey Shrike-thrush | White-browed Babbler |
| Grey-headed Honeyeater | White-plumed Honeyeater |
| Hooded Robin | White-winged Triller |
| Horsfield's Bronze-Cuckoo | Willie Wagtail |
| Inland Thornbill | Yellow-rumped Thornbill |
| | Zebra Finch |



Springs in Hugh Gorge by Bob Read

Where the upper reaches of the Hugh River cut through the Chewings Range at Hugh Gorge there is near permanent water. In wet years water holes occur through much of the gorge, and walkers may need to make extensive detours around them. Even in dry years such as 2008 springs can be found at two spots in the lower part of the gorge, while the narrow steep-sided upper gorge has small springs that support ferns and a deep waterhole that blocks the gorge.

The occurrence of these is governed by the geology, but to explain this it I will begin with a short discussion of groundwater.

Groundwater originates as rainfall at the ground surface. Some evaporates, some runs off and becomes creek flow, most is used by plants with extensive root systems that extract water from the soil quite effectively. A small portion gets below the plant roots and eventually reaches the water table. Water is stored in and is transmitted both in pores in the rock and, fractures or cracks. Once below the water table water will move down the hydraulic gradient, generally toward low points in the landscape. Figure 1 is an attempt to show this.

Springs are spots where groundwater discharges naturally at the surface. Often they occur where water moving through permeable rock is dammed against low

permeability rock, as shown in Figure 2.

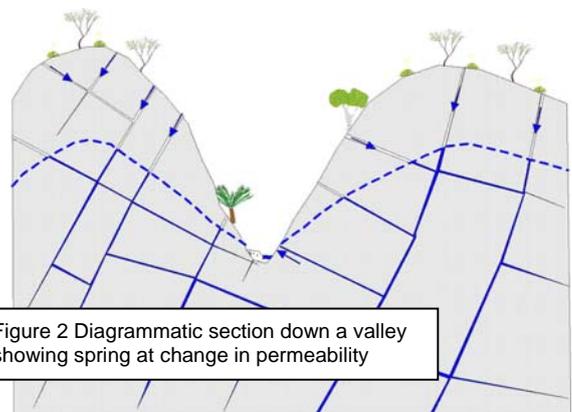


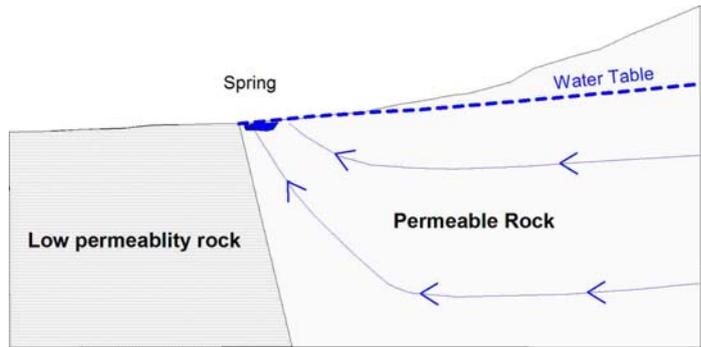
Figure 2 Diagrammatic section down a valley showing spring at change in permeability

Figure 1 Diagrammatic section across a valley in fractured rock

The Chewings Range has two main rock types:

Quartzite which is hard and brittle and tends to fracture (break) under stress. These fractures give the rock some permeability. Note that these fractures would be quite narrow, probably a fraction of a millimetre wide.

Schist, which is softer and deforms rather than fractures under stress. This usually has very low permeability.



Looking at the ridges of Chewings Quartzite with much bare rock one would expect that nearly all rain falling on them would run off. However water balance studies suggest that a surprisingly large proportion perhaps 5 to 10 % in some cases, reaches the water table and becomes groundwater, sustaining the springs.

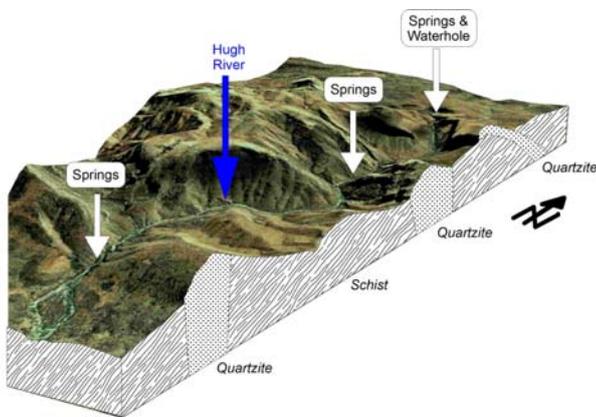


Figure 3 Block diagram of the headwaters of the Hugh River, using Google Earth imagery to show relation of springs to the geology.

The springs occur where layers of Chewings Range Quartzite (about 1500 My old) cross the river valley. The upper and lower ones are near the downstream edge of quartzite bands, the middle one is not so clear.

Glossary

Groundwater - Water below water table, where rocks are saturated. Often called under-ground water.

Quartzite - Quartz sandstone that has been altered by metamorphism (heat and pressure) so that the grains are welded together to form a very hard rock.

Schist - A foliated, medium-grained metamorphic rock that splits easily into flakes because of its contained mica, a flaky mineral.

Water table - The surface below which all voids in the rock are water saturated.

Pseudantechinus by Bob Read

We were walking along the creek between the upper and lower Jennings Gorges when I heard some Dusky Grasswrens on the nearby hillside. I dropped my pack and dashed over to get a look at them. Seeing some movement among some rocks, I trained my binoculars on it I was astonished to see a small rat-like mammal with a hairy tail and pointed snout watching me with its large brown eyes. Meg followed me and also got a good view. There was no point going back to my pack 20 m away for my camera, so all I could do was make a note of all details I could think of that might be helpful with identification. By the time the rest of the party came up the animal had had enough scuttled off through the rocks.

In later discussion Colleen O'Malley suggested it might be a Fat-tailed Antechinus, *Pseudantechinus macdonnellensis*, a small carnivorous marsupial that lives in rocky areas and occasionally comes out to sun bake. It definitely was not a Central Rock-rat as the snout was quite the wrong shape, and not a Mulgara as it did not have a black crest on the tail.

The illustration is very similar to the animal I saw. This animal uses its tail as a store in good times, and other illustrations are of specimens with more swollen tails.



Araluen Cultural Precinct Natural History Collection, History?

A community workshop meeting is being held on 1 September to discuss the future direction of the Araluen Cultural Precinct from 6-7pm . A proposed development plan is being put up which basically involves shifting the natural history collection out of the museum to some off site facility where presumably the arty types who are more interested in social history don't have to see it.

The museum never receives any publicity despite being the only natural history collection open to the public in Alice Springs. If you want to help preserve this museum in its current format and think enough money has already been spent on social history please attend the meeting or sent comments in to <http://www.nt.gov.au/nreta/arts/ascp/comment.html> by the end of October

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Club Badge Now Available

We now have available a club badge in colour, featuring our logo, the spinifex pigeon, which can be embroidered onto a t-shirt or other garment or made into a sew-on badge. This has been arranged through the business, Central Uniforms and Embroidery Janet and Bruce Skein Shop 2/24 Parsons St, Phone 8952 2458



Members are invited to visit the shop to choose a shirt from among their extensive range and put it aside or just designate style, size and colour. Alternatively take in your own garment. When the shop has an order of at least five they will process the order. At the next meeting we could collect orders or garments and I will take them into the shop if that is more convenient. Costs will be \$6.00 for embroidery on a shop shirt or \$6.50 for sewing onto your own garment or \$6.50 for a badge. Please ring Rosalie 89523409 for arrangements or enquiries.

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Subscriptions are Now Due

Membership fees for the year 1 August 2009 to 30 July 2010 are now due. These can be paid at meeting nights or posted to the Treasurer If details have changed please indicate. New members to fill in complete form

MEMBERSHIP FORM

Alice Springs Field Naturalists Club Inc PO Box 8663, Alice Springs NT 0871

Name(s) _____ Address: _____

Phone Contact (home) _____ (work) _____ (mobile) _____

Email (print carefully) _____ Renewal/New Membership

Payment enclosed \$ _____

Fees: Family \$30 Concession \$25 Individual \$20 Concession \$15

Interstate past member. Newsletter only, \$10

Subscription year begins at August AGM.

ALICE SPRINGS FIELD NATURALISTS CLUB INCORPORATED
Minutes of General Meeting held at Olive Pink Botanic Garden
on Wednesday 12 August 2009

Open: New President, Barb Gilfedder declared the meeting open at 8.02pm.

Present: 20 people attended as per attendance book

Apologies: Kaye Percy, Robbie Henderson, Emily Findlay, Sarah Wilson, John Bermingham, Ian and Jenny Richter, Leonie Read.

Minutes of previous Meeting:

As usual minutes of the previous meeting had been circulated as part of the newsletter. The minutes on the July meeting were moved for acceptance by Bob, seconded by Rhondda. Accepted.

Matters Arising:

Still no response to the club's offer of financial support for Bird Week.

Treasurer's Report:

As per AGM. There is a current balance of \$2282.

A new First Aid kit has been purchased at the cost of \$77

Correspondence In:

Western Australian Naturalists Club
NT Field Naturalists Club
NT Young Achievers Awards
Australian of the Year
Australian Naturalist' Network

The Naturalist News – August 2009
Nature Territory – August 2009
Invite to launch on 27 August and invitation to nominate
Nomination pamphlet
Info about 6th ANN Get-together,
24 Aug-4 Sept 2010 at Chinchilla and registration form

Correspondence Out:

General Business:

- First Aid Kit- an antiseptic bottle will need replacing and it was suggested that a tube of Savlon or similar antiseptic cream be added to the kit.
- DesertSMART EcoFair (Sustainability Fair.). Connie has received info via Aust. Plants Soc. but ASFNC has heard nothing. Apparently participants need to register – this needs to be followed up. Action- Shirley. A committee comprising of Bob, Rosalie, Sue Sarah and Rhondda was nominated to organize a Bird -Call Competition as had been discussed at previous committee meetings. We will need to organize a roster for the day- this will be advertised in the newsletter and finalized at the September meeting.
- Larapinta Trail Information. You may have noticed discussion concerning Field notes about the Larapinta Trail in the August Newsletter. The discussion was noted by David Nixon, Senior Interpretative Officer for Parks and Wildlife. He indicated that they will be seeking local knowledge when they start work on a new digital interpretation strategy for the Red Centre Way that input from club members would be welcome.
- Club Shirts. Rosalie has researched having an embroidered club badge available from Central Uniforms and Embroidery. This costs \$80 to set up. Club members would then have the option of buying a shirt from in the shop's range or taking in their preferred shirt and having the badge embroidered on for about \$6.50. There will be a minimum 'run' of 5 items.
Rosalie proposed 'That the club pay \$80 to get the embroidery set up at Central Uniforms and Embroidery'. Seconded by Marilyn. Accepted.
Information about this will go in the next Newsletter. Action:Rosalie

Outings/Trips

- Sat 22 August - walk with Connie in the Larapinta Hills.
- Sat 12 September – Ridge walk from Trepina Gorge to John Hayes Rockhole. Contact person –Shirley
- Sat 19 September - desertSMART EcoFair at Olive Pink Botanic Garden – ASFNC will have a stall and run a competition.

Sightings:

- Bob reported that people who went on the trip to Mordor Pound saw a Pseudantechinus, a small mammal that lives in rocky areas. They also saw a Satin Azure butterfly.
- Jenny Purdie saw at least 31 bustards in a 200m distance on her way to Lake Nash.
- Ian Campbell saw 4 Ground Cuckoo-shrikes and he reported that the Black-chinned Honeyeaters are around again.
- Barb has seen 2 cockatiels

Next Meeting: Wednesday 9 September 2009

Note taker: Rosalie
Supper: Marilyn
Gate: Connie.

Meeting closed at 8.40 pm.