



December 2012

Alice Springs Field Naturalists Club Newsletter



Rare Flannel Flowers blooming on the wall of Standley Chasm, glowing at noon.
Photo by Jodie Clarkson.

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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Web site:

<http://www.alicefieldnaturalists.org.au>

**MEMBERS OF THE COMMITTEE WISH ALL
THE FIELD NATS A VERY HAPPY AND
ADVENTUROUS FESTIVE SEASON.
HAVE FUN!!**

NEXT NEWSLETTER

The deadline for the next newsletter is **Friday 25 January 2013**. Please send your contributions to Barb Gilfedder at fedders@octa4.net.au

MEETINGS

- Sun 10 Feb **ASFNC** PLANNING MEETING will be held at Barb and Jim's house – 33 Battarbee Street at 3.00pm. All welcome. Please come with lots of ideas for trips, activities and speakers.
- Wed 13 Feb **ASFNC** Meeting 7.00 pm at the lecture theatre in the Higher Education Building at Charles Darwin University. – Speaker: Meg Mooney

FIELD TRIPS / ACTIVITIES

- Wed 5 Dec **Book Launch:** Andy Vinter's *The Alice Springs Bush Regeneration Handbook*, 3.30pm in Andy MacNeil Room, Alice Springs Town Council.
- Sat 8 Dec **ASFNC** Quarterly Shorebird Count. This was originally scheduled for 2 December but had to be postponed due to rain and muddy conditions. Bird counters and scribes are needed. Meet at Bird Watchers' Gate at the Sewage Ponds at 7.00am sharp. – Barb Gilfedder Ph 89555452
- Sun 9 Dec **ASFNC** Christmas Breakfast at ASDP Picnic area. The Club is paying for a fun Treasure Hunt at the Desert Park at 7.30am. Meet at the entry station. You will need to produce your Territorian Season ticket or pay for entry to the park. Please contact Barb to register your interest in this part of the celebration. It will be followed by a shared breakfast in the picnic area at about 8.45am. Pam is also bringing a craft activity along to the breakfast. Bring a plate of food to share and your own thermos of coffee or tea and water. A chair may be useful, too. The club will provide juice and disposable cups. Contact Barb Gilfedder 89555452.
- Sat 9 Feb **ASFNC** Visit to the Alice Springs Sewage Ponds. This is not a shorebird count, just a wander around looking at the birds. Meet promptly at 7,00am. Contact Barb Gilfedder Ph. 89555452

Sorry we did not have room this month for part 2 of Jenny and Steve's African Safari. Watch out for it our February newsletter. Ed.

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November Speaker – Adam Yates: South Africa’s Newest Jurassic Park

Report by Lee Ryall

On 14 November, Adam Yates gave us a fascinating talk about his palaeontological work (love affair with sauropods) in South Africa. He started by outlining the golden age of dinosaurs which occurred around the late Jurassic, approximately 160 million years ago. At that time herds of sauropods (long-necked, long-tailed and quadrupedal with massive limbs to support their weight) roamed the earth with ornithiscians (including the armoured dinosaurs such as ankylosaurs and stegosaurs). They were preyed on by large meat-eating theropods such as the tyrannosaurs.



Site

The site where Adam was working comprises formations from the Stormberg Group in the Karoo Basin which occupies two-thirds of South Africa. These rocks were deposited from the late Triassic continuing into the Jurassic period, coinciding with the early rise and increasing dominance of the dinosaurs. The fossils show the beginnings of many of the groups which typify our vision of the ‘golden age’ of dinosaurs.

Common fossils from the Elliot mudstones included the prosauropod, *Massospondylus*, a cute early sauropod growing up to 4 metres of mostly tail and neck and weighing between 100 and 200 kg. There were also some small, equally cute looking but not so cute in their eating habits, *Coelophysis* growing up to 3 metres. Both were bipedal, but whereas the *Massospondylus* had a small head similar to that of its massive descendants, the *Coelophysis* had a relatively larger head- foreshadowing the terrifying huge heads of later theropods.

The team established two quarries on Spionkop Hill in a game park in the Free State. It was at Marc’s quarry, in the rare dry days, that they found some larger than expected bones and a few precious skull parts. The bones were taken back to the University, meticulously cleaned, and reassembled into a new creature, an exciting transitional sauropod, named *Aardonyx celestae* in recognition of Celeste Yates’s two years of labour-intensive bone preparation.



Aardonyx

This specimen is a juvenile, shown by the lines of arrested growth (lags) in the bones. In fact it probably died before reaching the age of ten. Nevertheless, the

complete specimen would have been 7 to 8 m long. Indications from bones found elsewhere indicate that a fully grown adult was probably around 15 or 16 m long.

Aardonyx is transitional because it is prosauropod, but well on the way to becoming a sauropod. For instance, it has a short massive foot like a sauropod, and could open its long thin prosauropod style jaws especially wide, moving towards the broad jaws of a sauropod which were for eating in quantity rather than picking out the choicest morsels. *Aardonyx's* teeth were similar to those of a sauropod. Like the prosauropods, *Aardonyx* was bipedal.



Another new species, this time a true prosauropod, was named *Arcusaurus*, or rainbow lizard. This creature was less derived but was living contemporaneously with true sauropods, such as the 'Rainmaker'. This animal was quadrupedal, and had claws and spoon-shaped teeth that were typical of sauropods.

Mystery Tooth

A number of mystery teeth were found among the bones at the site - curved teeth with a serrated edge. These probably belonged to a 'modest' theropod- about 7m tall and weighing a few hundred kilograms. In common with other reptiles, tyrannosaur teeth were lost and replaced throughout the lifecycle, and it is likely that some were dropped as they dined. The teeth appear to be from a tetanuran – a sub-group of the theropods, which group also includes the tyrannosaurs. If so, they would represent the oldest tetanuran found.

Micro-climate

Although not far apart, the two sites gave very different pictures of the fauna. Sandstone lenses in the mudstones at Marc's quarry suggest river channels rather than the aridity of the rest of the area. This area may have been a small oasis, a gallery forest along permanent water with a moist microclimate which could have provided the right conditions for the development of a community moving towards that of the golden age of dinosaurs, and away from the smaller, desert-adapted dinosaurs roundabout.



Adam also told us that it had been discovered from fossils that *Tyrannosaurus Rex* actually had feathers. Paleo-sculptor Jacob Clarkson corrected his dinosaur pets after his mum, Jodie told him.

Visit to the Finlayson Collection at Araluen. Report and photos by Lee Ryall

On Saturday 20 October Adam Yates met a group of field naturalists for another trip 'out the back' of the Araluen Centre, this time to look at the Finlayson collection. The collection comprises specimens collected by H H Finlayson during his travels through Central Australia, largely in the 1930s and is housed in Alice Springs as a result of Finlayson's insistence on this in his will. It includes animals which have since disappeared, such as the lesser Bilby (*Macrotis leucura*) and the Desert Rat-kangaroo (*Caloprymnus campestris*). Not all of the animals are extinct; some, such as Dingos have survived, and others such as the Rufous Bettong now inhabit much reduced ranges, some confining themselves to islands where predators aren't present.



Pete and Lisa Nunn inspecting part of the Finlayson collection.



Skins of small Mammals, some now extinct.

We inspected the skeleton of a Rat-kangaroo in detail. Finlayson's was possibly the last sighting of this creature, which had previously not been seen for some ninety years. It was living in the harsh gibber desert flats near Diamantina and Finlayson commented that it could outrun his horses- no doubt assisted by terror! The skeleton includes a tiny jaw complete with kangaroo style teeth, and the delicate ribcage had been wired together with copper wire, probably by Finlayson himself, to help preserve the shape. Sadly, the collection doesn't include any skins for this animal, unlike for the majority of the

species.

The size of the collection is astounding, with drawers of skulls and bones of the rarest species of Wombat (*Vombatus ursinus*) succeeding those of Rat-kangaroos, Bilbies and others in seemingly endless succession. There is also a stunning range of skins, the Echidnas and the gorgeously striped Numbats (yet another endangered species) being particularly spectacular. Some specimens have been stuffed after being preserved and crouched in lifelike positions.

The large numbers of samples from different species make the collection extremely valuable to mammalogists as it enables them to analyse the composition of the living populations. The museum receives three or four requests every year from scientists wanting to study specific aspects of the collection. The dingo skulls are currently undergoing a springclean in Sydney as the result of just such a request. It was a fascinating morning, a tribute to the commitment and skills of HH Finlayson, and made all the more interesting because of Ken Johnson's talk about the man himself a couple of months ago. It is easy to imagine Finlayson, in his suit, out in the desert (in the middle of summer) atop a horse or camel, searching for mammals, and then bringing them home and, sitting by his green shaded lamp, preserving and cataloguing them for the future.

Thanks to Adam for giving up his morning to show us this collection, to Barb for organizing it and to Ken for the talk that provided the inspiration.

Footnote: After looking at the Finlayson collection, a number of the group drifted into the Palaeontology laboratory where Adam showed us some of the finds from this year's dig at Alcoota including the large mysterious claw which was found at the end of the season. We had a chance to look at drawers full of older bones, teeth and claws. We were able to compare an *Ilbandornis* foot bone with that of the more massive *Dromornis*, and 'Baru' bones, teeth and skin patches with the modern, 'weak' equivalents from a large saltie. An intriguing end to the morning.

Standley Chasm - November 9-10 ; report by Cecily Sutton, photos by Jodie Clarkson.

The plan was to see Standley Chasm, at sunrise and sunset, in springtime. The recent rain was a bonus as everything looked superb, and it was cooler than expected.

The format of the trip was that people could join in as it suited them. So as it evolved, Benitta and myself arrived in time to see the Chasm at noon. This is something I had always wanted to do, and it was great to have it almost to ourselves at this time of year. I was savouring the red rocks in the distance, when Benitta pointed out the beautiful Desert Flannel Flowers (*Actinotus schwarzi*) in full flower in the rocks above our heads (see front cover photo).

I went for a walk over the hill after lunch and found a deep rock hole in the little creek just north of the Larapinta Trail Section 4. It was just flowing after the recent rain.



Later in the afternoon, Rosalie and Gavan, then Connie, then Scott, Jodie and Jacob arrived. We headed off for the Chasm, and under Connie and Scott's expertise saw so much more botanical beauty in this special place. The MacDonnell Ranges cycads (*Macrozamia macdonnellii*) were numerous and fruiting. It was amazing to see the huge female and male cycad cones. The rare and threatened Desert Flannel Flowers were admired as well as the Thomson's Daisy (*Helichrysum thomsonii*), that also live high up on the rock faces.

We reluctantly left the Chasm and then walked up the Lookout Scenic Walk for sunset views and nibbles. It was just getting dark as we walked back to camp, so a congenial evening was spent over dinner.

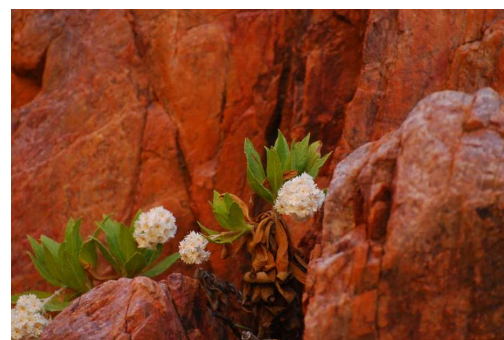
At dawn Rosalie and Gavan admired the scenery from rocky peaks, the rest of us from the valley. Lye and Anne joined us at 7am and we headed off up the Larapinta Trail Section 3. The vista was magnificent. The plants were looking fresh from the rain and the rocks were as ancient and contorted as ever. The contrast of the white trunks of the Ghost Gums and the red rocks were especially beautiful in the morning light.

We walked varying distances as suited our stage in life, and then returned the same way. Everybody had great experiences:

near misses from low flying Budgies at Gastrolobium Saddle;
finding Flannel Flowers not so far up the cliff so that their soft
petal like bracts could be stroked;
having a conversation with a Rufous Whistler.

We visited the Kiosk for refreshments and had a chat with Ray, the Manager who had been very welcoming and helpful for our stay.

It was a great excursion.



Thomson's Daisy, *Cremnothamnus thomsonii*

BirdList – Standley Chasm

Sacred Kingfisher
Grey shrike-thrush
Yellow-throated Miner
Budgerigar
Tawny frogmouth (heard only)

Mudlark
White-plumed Honeyeater
Willy Wagtail
Black-faced Cuckoo-shrike
Crow (ate Benitta's eggs)

Port Lincoln Parrot
Hooded Robin
Zebra Finch
Black-faced Woodswallow

Rufous whistler (see the You tube video of young Jacob communicating with it)

Kuyunba Conservation Reserve – 18 November 2012

Barb Gilfedder - I exchanged several emails with the Australian Federal Police, prior to this short trip, telling them who, when and what and trying to persuade them not to intrude on a quiet Sunday morning walk. The effort paid off and we saw nobody. It was a shame that more members didn't turn up to enjoy this special place, after my efforts. There was just Connie and I.

On the way out we disturbed a large flock of Cockatiels, then a smaller flock of Budgerigars flew over. Also seen were Crested Pigeons decorating the electricity wires and a single Black-faced Woodswallow, perched conspicuously as usual on the top of a dead tree, while a Whistling Kite hunted low around the Mulgas.

At the Reserve a group of Mulga parrots were feeding on the ground, but flew off as we got close. A Pied Butcherbird serenaded us. We saw Willy Wagtails, Mistletoebird, Singing and Spiny-cheeked Honeyeaters, Zebra Finches and a Grey-shrike Thrush. There were Fairy Martin mud bottle nests under an overhang (pictured), but none of their owners. Almost a complete circuit and I finally saw the Little Woodswallows which I was expecting to see, because they love the rocky outcrops.

As we drove back to Hatt Road a White-backed Swallow flew over and a Black-faced cuckoo-shrike perched in a tree.

But the best bit for me were the two Goannas which crossed the road in front of us. First a large Perentie, *Varanus giganteus*, plodding purposely across, his huge body swaying as he walked; then a Sand Goanna, *Varanus gouldii* smaller, nearer the ground and faster with a lovely sandy red tinge, streaked across. Connie named him immediately. I would have had to look him up in the book when I got home.

Fifteen bird species and two Goannas was not a bad count.



Connie Spencer - Kuyunba used to be described as an Aboriginal site of significance (I don't know if that is still mentioned on the sign). To me, it is also a site of significance although for different reasons.

The scene as we started our walk was like parklands with perfectly shaped Native Pine (*Callitris glaucophylla*) trees although the Buffel grass spoiled the scene somewhat. A little further along we came to an enormous Native Fig (*Ficus brachypoda*) sprawling out over the red rock formation (where are the geologists when you need them)! A colony of Weeping Emu Bush (*Eremophila longifolia*) bordered sections of the trail. On the ridge to our north a few Ghost Gums (*Corymbia aparrerinja*) stood like sentinels watching over the park.

Next we came to a variety of Mulgas. This is where we needed Latzy. Barb and I pondered over the length and breadth of the leaves of the various forms before us trying to discern which might be the *Acacia aneura* var. *Holey Trunk*. (There are some

specimens of this unusual variety of Mulga at Olive Pink Botanic Garden). We determined which ones were the Holey Trunk variety and without Latzy, who's to say we are wrong! Further along the trail, amongst the rocks, we found *Sida* sp., *Hibiscus sturtii* (pictured) and *Eremopila latrobei* in flower and the Whitewoods (*Atalaya hemiglauca*) were in seed. We made our way back to the start of our walk waving to the camera in the distance watching our every move! Good thing we didn't feel the need to go behind a bush!

Where was everyone?! You missed a most pleasant early morning walk. As Barb said, it was worth it just for the Native Pines. I do despair, however, at the thought of fire in the reserve. There is so much Buffel grass and the Pines are not fire tolerant.

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Winnecke Weekend – 27-28 October

Cecily - I really appreciated having a friendly geologist to explain the rock features that we saw. I now understand more about gold.

What especially interested me was that we were able to look at the endeavours of the early prospectors, and also get a modern perspective of gold mining from a geologist, who had recently worked on the site. The company of the

Field Nats, of all ages, was also great.

Lee - A day of stories. The joy of geology is in the stories it tells, and the day at Winnecke goldfield abounded in stories. Human tales behind the graves, abandoned mines and tiny tumbled down houses made my back ache and my hands sprout calluses in sympathy as I reached gratefully for my bottle of water, still cool from the fridge. Layer on layer of geological stories arched overhead. There was the slippery schist basement from the depths of time (well, getting on for 2 billion years ago, anyway). Above that a few chapters were missing, a mere eight or nine hundred million years' worth, before the sediments were laid down which would become the shining heavitree quartzite. The quartzite itself dates back to a time of continental seas and dunes, and the sand which forms it to the old rocks of Rodinia, a massive continent from a time before Gondwana.



Entrance to Coorong gold mine



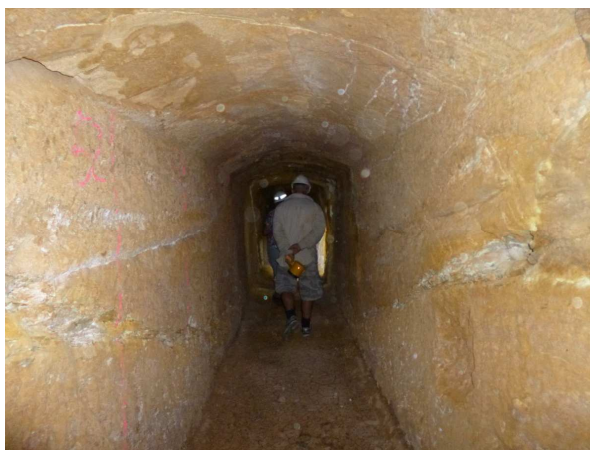
Beautiful stonework on the old Winnecke Hotel ruin.

The story which connects all of this together, which brought the gold which brought the prospectors, is of a landscape crumpled like a Persian carpet by the movement of continents. As the rocks were pushed and heated, as the schist was squashed and raised, sloughing off those missing chapters, the minerals inside the rocks changed. Liquids formed and exploded upwards into cracks and crannies, forcing them further apart, carrying a load of metals and sulphides. Gold was carried along with the iron pyrite and as the veins of quartz solidified from this boiling liquid, some formed gorgeous cubic crystals laced with the precious metal. We saw their cavities in the rusty edges along the heavitree quartzite. We peered at threads and specks of gold in the rusty borders of quartz veins at the Golden Goose mine. The mine interior revealed a network of such veins. They were

echoed on the top of the nearby hill where ancient erosion had left white lines criss-crossing the summit on its crazily shorn head.

Thank you Michael and everyone who helped make the trip happen. Ideal weather, great company, stunning rocks and a head full of stories for the drive home. What more can you ask for?

Connie - A superb weekend with perfect weather and great company. As usual it was the plants that took my fancy. The Native Orange, Whitewoods & Turpentine Bush (*Eremophila sturtii*) were in full flower and the Supplejack with copious amounts of seed. At one point having lunch on a log in the shade of a Bloodwood I counted over 10 different species of plants in a square metre. This was amazing considering we had just had our longest dry spell and the most October days over 37 degrees in a row. It goes to show that some of our weather statistics are irrelevant. Sorry Michael – a lot of your geological information went over my head but I was very interested in the history of the area and also how mining companies carry out surveys and exploration these days compared to the old ways. More concern for the environment today.



A well made tunnel inside the Golden Goose mine

Dave - Thanks to Michael for running this on top of the talk - good reinforcement. Explained the geology in simple terms that I was able to comprehend. Seeing the mixed-up geology there I am amazed that people were able to find anything at all. And I'm impressed how tough and determined the miners were.

Harrison Green, aged 8 - On the weekend we went to Winnecke. I went to a gold mine and I saw a shaft. We didn't go down the shaft because it was broken. We had to slide into the mine because the entrance was blocked a little bit by rocks. I saw a brown and yellow python snake. It was hissing at me. I also got to see the core. I used Dad's geopick and Jim's chisel to



chip out rocks of the mine. I tried to find some gold. I wore a helmet and glasses and shoes to be safe. We saw a perentie on our way to the mine. We slept in our tent. It was fun.

Kingsley Green, aged 6 - On the weekend I went to a gold mine and on the way I saw a Perentie. At the gold mine, when we went underground, on the way back we saw a baby Python. A bee went on me but it didn't sting me. It was fun. I went to bed early and the next day I saw another gold mine. It went on an angle but we didn't go in it. We threw rocks down it. I threw a rock. It was really, really fun and I smashed a huge rock out of the cave. It was fun. I did some drawing in my new book. I had fun. I made a new friend. It was dog. His name was Timmy. I lifted him. Then I went home. I was sad.

Bird List - Winnecke

Birds seen in transit:

Whistling Kite
Budgerigar
Brown Falcon
Nankeen Kestrel
Willie Wagtail
Black-faced
Woodswallow
Cockatiel
Black Falcon

Birds seen at Winnecke:
Diamond Dove

Zebra Finch
Singing Honeyeater
Black-faced Cuckoo-shrike
Australasian Grebe
Hardhead
Grey Teal
Pink-eared Duck
Horsfield's Bronze-cuckoo
Australian Wood Duck
Black-fronted Dotterel
Magpie Lark

Spiny-cheeked Honeyeater
Pied Butcherbird
Galah
Red-backed Kingfisher
Splendid Fairy-wren
Crested Pigeon
Rufous Whistler
Crested Bellbird
Mulga Parrot
Grey-crowned Babbler
Hooded Robin
Red-capped Robin

Yellow-rumped Thornbill
White-winged Triller
Weebill
Grey Shrike-thrush
White-browed Babbler
White-plumed Honeyeater
Yellow-throated Miner
Little Crow
Wedge-tailed Eagle
Mistletoe Bird
Australian Pipit

ALICE SPRINGS FIELD NATURALISTS CLUB INCORPORATED
Minutes of general meeting at Higher Education Building, Charles Darwin University
Wed 14 November 2012.

Following presentation by Adam Yates on the South African Palaeontology

Present: 19 Members, 3 visitors and no apologies as per attendance book.

Previous minutes – accepted.

Business arising from the minutes:

- Information on club hats from Jill Brew, who was unable to attend – Barb will forward to members

Correspondence in:

- Ken Johnson with apology for not being able to attend visit to Natural History Museum visit.
- Jude Mapleson re fundraising for education and welfare for African Children's Choir.
- Paul Rilstone/Sam re proposal to manufacture seats.
- Alan Whyte from Power and Water re seating at sewage Ponds. Proposal has been forwarded to Rod Randall, Manager Water Services.
- Jo from Landcare re Spencer Valley Buffel and Rubbish Removal morning. Barb to forward to members
- Bill Low re talk by Fiona Walsh and book launch by Andy Vinter. Barb to forward to members
- Department of Business (Gambling and Licensing Services) re services.

Correspondence out:

- Barb to Alan Whyte from Power and Water re Seating at sewage Ponds.
- Barb email and photos of proposed seats to Rod Randall, Power and Water
- Barb reply to Ken Johnson re Natural History museum visit.
- Thank you card to Michael Green for talk on Gold.

Treasurer's Report: In Jill's absence, the Bank Statement shows

Balance at 31 Oct 2012	\$3632,68
Subs \$55	
Debits Nil	Petty Cash \$26

General business:

- Awaiting further action from Power and Water re seating. In the interim members are to consider potential positions for seats.

Past Activities/Trips discussed:

- Recent successful trips to Upper Todd River, Winnecke and Standley Chasm discussed and photos from Aileron and Winnecke trips displayed by Barb.

Future activities:

- Sat 1 Dec 5-30 am. Walk up Spencer Hill. Rosalie Breen Ph 89523409.
- Sun 2 Dec 7am Quarterly Shorebird count, at Sewage Ponds
- Sun 9 Dec 7-30am. ASDP Picnic area. Desert Park Activity followed by shared Christmas Breakfast.

Sightings:

- Lots of activity due to spring/recent rains. Huge flocks of Budgerigars.
- Frequent sightings of birds in breeding colours - Pam Keil
- Sightings of Grey Shrike-thrush (Rosalie Breen), Peaceful Doves (Ian Mann) in back yards.
- Channel-billed Cuckoos are back – Bev Gray.
- Snipes at sewage ponds. Individual species of these birds are so difficult to identify without catching them
- Impressive flowering Bush Oranges.
- Resurrection Ferns and Mosses in green grotto in a slot gorge, South of Heavitree Gap - Connie Spencer.
- 2 Black Falcons on the way to Winnecke - Michael Green.

Next meeting: Wed 13 February 2013

Speaker: Meg Mooney

Notetaker: Rosalie Breen Supper: Ian and Wendy Mann