

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

FEBRUARY 2006



NOTE NEW MEETING PLACE

Details inside

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ALICE SPRINGS FIELD NATURALISTS CLUB JANUARY 2006

MEETINGS

Please Note New meeting venue Olive Pink Botanic Garden on Tuncks Road.

7:30 pm on the second Wednesday of the month.

Wednesday February 8th: Cassie Wright, Lowe Ecological Services presents 'A snapshot of the Land for Wildlife Scheme across Australia with a special focus on Alice Springs'. The Land for Wildlife Schemes aims to encourage and assist community participation in nature conservation and promote the conservation of biodiversity on private land. Come along to Cassie's talk to find out more.

TRIPS / ACTIVITIES

February 4th Birdwatching at the sewage ponds. Meet 6.15 am sharp at the gate. Contact Bob Read 8952 1935

February 11th Moonlight walk/bike ride to picnic spur along the Simpsons Gap Bike Track approx 4 km each way. Meet 6pm Flynn's Grave. Contact Emily Findlay 8955 0313.

February 25th Walk in *Eucalyptus intertexta* forest near the Ilparpa claypans followed by BYO breakfast. Meet Information Bay opp. Old Timers at 6:30am. Contact Connie Spencer on 8952 4694.

NEW MEMBERS

A Big Welcome to New Members!

- Heather Whittaker
- Marie and Lou Leidwinger

GUEST SPEAKER REPORT

IN MEMORIAM H H FINLAYSON Observer and conservationist. Presentation by Ken Johnson

Ken Johnson gave us insight into the amazing life of Hedley Herbert Finlayson, "a man with no phone, no TV, no wife, no kids, no car and a want to walk everywhere even as an aged man". Ken's interest in Hedley's recordings led him to personally meet Hedley on numerous occasions in North Adelaide during the last 10 years of Hedley's life. Ken must have instilled a lot of

confidence in Hedley as he was entrusted with Hedley's mammalian specimens personally collected between 1930 and 1965. These specimens are now on display at the Museum of Central Australia.

Hedley was born in Adelaide becoming a demonstrator in organic chemistry at the University of Adelaide and later the Honorary Curator of Mammals at the Museum of SA. He suffered a physical impairment when experimenting with explosives in 1913 but losing his left hand, his right eye and a bit of his right thumb failed to leave him with a handicap. He was still able to shoot on horseback, take photographs with elongated bellows cameras and undertake 27 months of scientific expeditions mostly in the centre of Australia. These, too, were no mean feat as they were carried out in summer months when he was on vacation.

Hedley gathered a private mammal collection of 3000 specimens and annotated photographs in English and in local indigenous language. He wrote 60 scientific papers (5 of which were published in "Nature") and a book, still in print, called "The Red Centre" about life in Central Australia around 1935. He identified 5 new species and subspecies including the Rat Kangaroo, Lesser Bilby and Bilby. Some species in his collection are now extinct. He was a meticulous recorder of people, places, distances travelled and everything he captured in the flesh and on film, recording even the time of day and camera settings. Ken's friendship with Hedley will be long remembered through the exhibition in Alice Springs thanks to Ken's curiosity to find this very remarkable man.

Written by Liz Carpenter

TRIP REPORTS

Frog hunt at Simpsons Gap

4 November 2005 by Helen Morgan

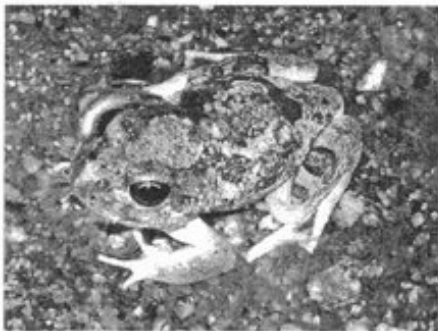
When Jane and I arrived, the barbeque tea was well underway. There were delicious smells of barbequed meat and everyone was eating while catching up on the latest bird sightings and animal spotting activities. Everyone had eaten but they were still engrossed in catch-up chats when Barb and Jim reminded us what we were there for. Torches were grabbed as we set off down the path to the waterhole.

Frog calls were soon heard and only halfway down the path, beams of torchlight revealed unexpected pools of water. Down the bank we hurried to see those denizens of the desert. Many exclamations were heard as those small blobs at the water's edge materialised into frogs. There were the squat olive-brown frogs *Cyclorana maini*, known as the Western collared frog or Main's frog.

It is widespread throughout Australia, living in grasslands, claypans, forests and marshes. It can be identified by a dark lateral head stripe. Its call sounds like a bleating sheep!.



The leaner athletic-looking one was Spencer's burrowing frog, *Limnodynastes spenceri*. This has a distinctive butterfly or U-shaped light patch on the back behind the eyes. Colouration is variable from dark brown to pale grey with dark irregular markings. This burrowing frog lives in sandy creeks and rivers and is distributed throughout central Australia.



First was the pretty, green Centralian Tree frog, *Litoria gilleni*, with small creamy-white spots and blotches. Its range is restricted to Central Australia where it lives in rock gorges with waterholes. During the day it can be found under boulders. Its call is a slow repeated barking sound.



Next were the Ruddy or Red Tree frogs, *Litoria rubella*. They are a distinctive pretty, brick red but can vary from grey, red-brown to fawn back with yellow groins and white-yellow bellies. They are found throughout Australia in a wide range of habitats from coastal regions through to the arid centre. They make a harsh buzzing sound, something like the call of a seagull.



A rapid "Ho-ho-ho-ho" betrays its presence. Tadpoles can complete their development in forty days, thus making the most of the erratic rainfall of central Australia. Cameras flashed while the frogs sat shocked into submission...but they soon recovered and their instinct for preservation caused them to move away from the noise and the bright light. Hundreds of tadpoles of various sizes and miniature frogs swam about in the crystal clear water. We moved on, following the string of pools. I hurried to catch up with a group gathering in the distance but, alas, was too late to see the Mulga or King Brown snake. Erroneously named, because it actually belongs to the black snake genus, *Pseudechis australis*. It is distributed throughout most of Australia in a wide range of habitats and, as we know, is extremely venomous. This one had been at the water's edge. When disturbed it swam rapidly through the water and disappeared into the reeds on the other side, just as I arrived. Once more we sought the path to the main pool where two different types of frogs greeted us at the bottom of the steps.

Again cameras flashed until they shot away out of sight. Then Barbara found a special pool.

"Flat worms?"

"No" stated the experts, "Leeches."

We watched them gracefully swim through the water like tiny ribbons.

What was that on the weed but two mating water scorpions, family *Belostomatidae*? They hunt tadpoles, fish and other insects. They had long filamentous, threadlike structures extending from their behinds. These, I was assured, were for breathing! Many tiny snails could be seen grazing on the weed in the cool of the evening. Loud cries came from the other end of the pool as a very large Nursery or Fishing spider was discovered spread-eagled on the surface of the water.



This Dolomedes spider was probably *Megadolomedes australiensis*. It hunts insects, small fish and tadpoles, frequently diving beneath the surface of the water to catch its prey. As we observed, it remained very still on the surface of the water, with back legs anchored on reeds while awaiting its prey. They are widespread throughout Australia. Unlike the European water spider, the Australian species is not a true water spider. Eventually, tired of the noisy humans and bright lights, it dived beneath the water and sat still in a silver bubble of air.

As we moved back to the track once more, we were surprised to see Connie sitting intently contemplating a single Ruby Dock plant.

On we wandered, feeling satisfied with the night's hunting, when a handsome large centipede decided to cross the track in front of us. No, he didn't have a hundred legs, I counted twenty pairs.

The flowering wild orange, *Capparis mitchellii*, in the car park, proved to harbour an assortment of creatures. A large orb-building spider, who eats its web in the morning after a night of hunting to rebuild it the following night; several different beetles and many caterpillars.

At approximately 9.00 pm, twenty-eight weary hunters climbed into their vehicles to travel homeward.

Cassia Hill Walk Saturday 12th November, 2005 By Connie Spencer

Bearing in mind that November can be very hot, Rosalie had set the meeting time at 6:30am and there we all were, on time, at Flynn's Grave Memorial shivering and wondering why so early! It was cloudy, cool, breezy and even some light rain before we returned home. Beautiful weather for an early morning walk with the plant life enjoying every bit of it. Apparently not the best weather for bird sightings though.

Cassia Hill walk is a 1.8 km loop walk within Simpsons Gap National Park. It gets its name from the low cassia shrub-land covering the hillside. Cassias are now called sennas. However, they are still commonly

referred to as cassias. The hill top offers excellent elevated views of the ranges and surrounding area.

Good rainfall in October made for a continuing display of spring wildflowers and flowering shrubs. The witchetty bushes were resplendent in green and gold. The cassias were past their flowering time although the odd bloom was hanging on. A flowering and fruiting Bush Banana was well photographed. But, it was the herbs, ferns, grasses and wildflowers that were of most interest – well, to me at least. We stopped and had a whiff of the strongly, aromatic *Chenopodium melanocarpum* with the common name of Black-fruited Goosefoot. Some turned up their noses and others thought not bad. It is always delightful to see ferns in central Australia and the mulga ferns didn't disappoint. Even though the buffel grass is rampant in Simpsons Gap National Park there are still good patches of native grasses especially on rocky hill slopes. We noted Woollybutt, Mountain Wattle, Kangaroo Grass, Small-burr Grass and the delicate Eight Day Grass. And finally the wildflowers – the pretty blue flowers of the Storkbills or Wild Geranium as it is sometimes called, the large green pussy-tail heads of *Ptilotus macrocephalus*, the sweet smelling Thread-petal, the white flowers of the Native Tobacco, the single petal Orange Spade Flower, yellow daisies, and a delicate white flowered Heliotrope.

We completed the loop and made our way back to our vehicles with some calling it a day and others heading to the Gap. One more very pleasant morning spent with fine company.

It was great to catch up with Haydee and Eve again – hard to believe it's been four years since Haydee caught a touch of the wanderlust and left us for other pastures.



Back row - Eve & Stephen (visitors). Middle row - Rosalie, Kevin, Haydee (past member), Margaret, Rhonda & Bob. Front row - Karen, Michael & Bev

End of Year Breakfast – By Bob Read

There was a good roll up for the end of year breakfast at Pichi Richi. Elsa led us on a guided tour around the Sanctuary which was established by her late husband Leo Corbet in 1955. Fortunately, although the day was hot, it was overcast and not as scorching as it might have been. We were treated to interpretations of the Bill Ricketts' sculptures and the extensive collection of mining and pioneering relics.

The area that Elsa had managed to clear of Buffel Grass is impressive, and her ongoing battle with the weeds is inspiring. After wandering around the sanctuary, we retreated to shade of the veranda for a snack and social chat.

Many thanks to Elsa for her hospitality in inviting us to her property.

Boxing Day walk up Mount Gillen – By Bob Read

To my surprise 7 others turned up for this walk which I usually do alone. I had set the time for 5:30 AM thinking that it might be hot, but in the event the day was mild and we could have started later.

On the lower part of the hill we came on a group of Euros, with one very pale individual and one very dark showing the wide colour variation in this species.

Past the saddle about half way up we came on Dusky Grasswrens, and bit further on could see a Black-flanked Rock Wallaby on the cliff.

After the short scramble up the gully that leads up through the cliff we came onto the ridge with only a short stroll to the summit, where we took in the view in the cool breeze, before returning.

CREATURE FEATURE

Alice Springs Summer of Singing Cicadas

For many, growing up in Australia leaves vivid memories of blazing hot summers, trips to the beach and the deafening drone of cicadas pulsing through the air.

Alice Springs residents this summer may have missed out on the trips to the beach, but certainly not the blazing hot days or the deafening drone of cicadas.

There are just under 2000 species of cicada around the world and in Australia around 220.

Cicadas don't bite, they aren't regarded as a pest and they're harmless to humans. But there's a lot more to our shrill summertime visitors than meets the eye.

Colourful Names

The common names for cicadas vary widely around the world. Probably the best known and most mysterious is the Black Prince (*Psaltoda plaga*) followed closely by the Green Grocer (*Cyclochila australasiae*). Other popular names include the Double Drummer (*Thopha saccata*), Cherrynose (*Macrotristria angularis*), Floury Baker (*Abrieta curvica*) and Redeye (*Psaltoda moerens*).

The species of Cicadas that occur in the Northern Territory include *Macrotristria intersecta* is common in Top End eucalypts. There are two varieties: the Green Whizzer and a dark form called the Corroboree Cicada.

The Big W (or Golden Drummer) *Thopha colorata* is very common in Central Australia. It's a very large cicada. The nymphs live on the roots of River Red Gums.



The exact origin of most of these names is unclear, but the Yellow Monday and Green Grocer were in popular use as early as 1896.

Cicadas love suburbia

Australian cities are some of the very few in the world to experience the loud singing of cicada song right in the middle of suburbia. This is because some species have the ability to adapt perfectly to the urbanised environment.

That deafening drone

Cicadas are the most efficient and loudest sound-producing insects in existence.

The Green Grocer, Yellow Monday and the Double Drummer produce noise intensity in excess of 120dB at close range (this is approaching the pain threshold of the human ear). Some small species, on the other hand, have songs so high in pitch that the noise is beyond the range of our hearing.

Only the male sings as a mating ritual to attract the females and different species have different songs so they don't attract the wrong females. Most insects produce their calls by rubbing one part of the exoskeleton against another. Not so cicadas! What they do is a bit like pushing in the sides of an empty aluminium drink can. On each side of their abdomen is a cavity containing a ribbed plate called a tymbal. A strong muscle is attached to each tymbal by a short tendon.

When this muscle contracts it makes the tymbal buckle inwards. When the muscle relaxes, the tymbal pops back to its original position. The inside of the male abdomen is substantially hollow to amplify the sound as it resonates at the frequency of the call.

The loud noise produced by some cicadas actually repels birds. The males of many cicada species tend to group together when calling which increases the total volume of noise and reduces the chances of being eaten by birds.

In addition to the calling or mating song, many species also possess a distress song, usually a broken and erratic noise emitted when an individual is captured. A number of species also have a courtship song, which is usually a quiet call produced only after a female has been attracted nearby using the calling song.

The cicada's lifecycle

There are three distinct stages in the life cycle of a cicada - egg, nymph and adult.

Egg stage: After mating, the female will lay several hundred eggs. She makes a little slit in the bark of the branch as she walks along and pushes the eggs down through her long tail. She deposits 12 or so into each slit and then moves on a few millimetres to make another slit for more eggs, and so on, until all the eggs have been laid.

Nymph stage: The eggs stay in the slits in the bark for many weeks and then hatch into a miniature cicada called a nymph.

Because they are so small they can fall down to the ground without injuring themselves and seek shelter underneath the leaf litter.

They search for cracks and burrow down between 10cm and 40cm using their large forelegs to shovel soil around. It's here, underground, that Cicadas spend most of their life. The cicada nymph feeds by piercing small tree roots with its needle-like rostrum and sucking up sap. When the sap runs out, it tunnels around to find a new root to feed from.

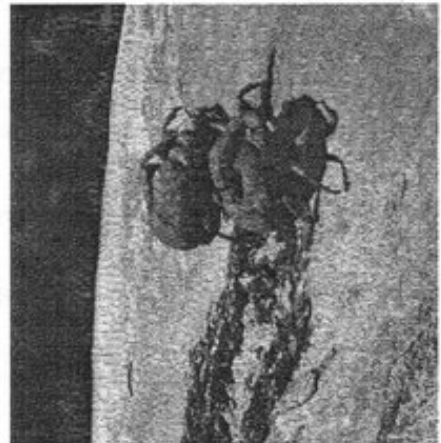


While living and feeding underground they continue growing, periodically shedding their skin, until they reach maturity.

Adult stage: When the nymph finally reaches full size it digs its way to the surface, climbs on to a tree trunk and sheds its skin for the last time leaving a telltale brown shell. The life of the adult, in contrast to that of the nymph, is very short.

When they emerge from the ground they live for varying periods of time, from

a few days to a couple of months, depending on the species. The majority live for around two to four weeks during which time they mate and lay eggs and the cycle starts again.



The seven year itch

While it is true that most species take around six or seven years to re-emerge, their underground sojourn can take anything from nine months to 17 years or more depending on the species.

Where you can find them

Cicadas occur in almost every part of Australia. The plants they inhabit include both native and exotic plant species.

However, cicadas are primarily tropical insects and most Australian species are found in the northern half of the continent. The area of greatest species diversity is within 100km of Cairns.

The time at which cicadas appear throughout the summer season varies from species to species, but each will tend to emerge in the same month across the different states. Green Grocers tend to come out early in November and die out by the end of December. Black Princes and Flourey Bakers start off at the end of December and go right through to February or March, while Red Eyes can still be found in the middle of February.

Want to learn more about these interesting creatures? A good book is *Australian Cicadas* by M.S. Moulds, published in 1990 by New South Wales University Press. (ISBN 0 86 840 139 0)

This story was adapted from *Summer of Singing Cicadas* written by Owen Craig - ABC Science 'Scribbly Gum'. With the local bits by Emily Findlay. Photos by Rosalie Breen.

