

December 2008
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OBJECT: To foster an interest in nature

MEETING THURSDAY December 4 6:30 pm Banks Wing School of Botany and Zoology Australian National Univer- sity



What is so exciting?—see page 4

FIELD NATURALISTS' ASSOCIATION OF CANBERRA

FIELD NATTER

This is our **Christmas meeting** BYO your food for sharing and drink for a fun relaxing night **DOWNSTAIRS** in **BOZO** tea room/**old seminar room (off Linnaeus Way)**.

To maintain our good relations with ANU **please be prepared to take rubbish home afterwards**. Tea and coffee provided

Goorooyarro field trip November 9 Benj Whitworth

A great start to the was to have 3 superb parrots fly over while we were getting organised in the car park. Our first threatened species for the day. Less impressive was Tony Lawson finding a very large cats-ear daisy (*Arctotheca calendula*), but on entering the reserve our eyes were focussed on natives.

Kangaroo enclosure

Passing through the ~3m tall kangaroo enclosure fence the recovery of the nature reserve from overgrazing was obvious and dramatic. Geoff Robertson pointed out a variety of grass species, such as wiregrass (*Aristida ramosa*), tall and short speargrasses (*Austrostipa bigeniculata* and *A. scabra*, respectively), plumegrass (*Dichelachne*) and blow-away grass (*Panicum effusum*). These are all common species in our region and therefore useful to know. But the primary goal was really to recognise wallaby grasses, particularly *Austrodanthonia carphoides*, which is a host plant for the golden sun moth.

Mike Doyle's comment at the last meeting about Field Nats pace had forgotten to take into account this was a joint field trip with FOG and although Chris Bunn was ½ an hour late our 'walkers' had only moved 50m from the car park.

Once we had had our grass fix we headed into the scribbly gum woodland (*E. rossii*) to see 'another grass!' but this one was special, a forest grass, the red-anthered wallaby grass (*Joycea pallida*) a large tussock grass which were in flower with their beautiful feather-like purple stigmas and red anthers, hanging. Other interesting species included yellow flowered grassland wood sorrel (*Oxalis perennans*), the purple flowered *Glycine tabacine*, green flowered *Pimelea curviflora* and egg and bacon peas (*Dillwynia phyllicoides*). Tony Lawson also found a trapdoor spider's hollow.

Under the omnipresent calls of a pallid cuckoo we walked through grassland, well recovered from grazing (when 3 years ago it was only 3cm tall), until we were diverted to a

(Continued on page 4)

A 'NEW' SPECIES FOR MT ROGERS

Something unusual always seems to turn up as a reward for volunteering and weeding on Mt Rogers is no exception. On September 28th whilst working to 'cut & dab' woody weeds a shaft of sunlight highlighted a patch of almost-indescribable-blue.

Flowering near the base of a Eucalypt's trunk, with well-established stems twining amongst the leaf-litter and rocks, was a plant I'd never seen before. Without a hand-lens the individual flowers seemed almost orchid-like with two blue petals shaped like the bowl-end of a rounded teaspoon. Between them were, perhaps, stamens & a stigma, cream-white in colour. Below them was a purple labellum-like petal. I took several photographs.

My first response was to send its photo off to Ian Fraser and Sheila Cudmore. But specific help from these acknowledged orchid devotees proved unnecessary. Betty & Don's colour-coded, second Field Guide lead to Broom Milkwort and

Google showed *Comesperma volubile*, Love Creeper from the **Polygalaceae** family.

Such over-powering names for a delicate and attractive plant! As a prefix, **poly** has Greek origins meaning much or many whereas **gala** means milk. The ancients believed that those animals which ate plants from this family would produce more milk. 'Baines' explained that **Comes** comes from the Greek **kome**, meaning hair and **sperma** means seed. Apparently the seeds have tufts of hair on them. Did the 'hairy' seeds contribute to the plant's arrival on Mt Rogers? How long has the plant been there? Has it flowered, unnoticed every spring or have a combination of circumstances contributed to 2008's show?

Why is its flowers' structure so specialist? What insects visit and pollinate it? Observations tend to generate further questions but websites such as the ANBG's fill in some details.



It's apparently difficult to grow from seed or cuttings. It's difficult to establish as the plants need symbiotic relationships in order to grow successfully. But it is resistant to the fungus *Phytophthora cinnamoni* which is a spreading threat to forest species of native plants and can withstand moderate frosts and dry periods.

Its range extends from the coast into the tablelands of Queensland, New South Wales, Victoria and Tasmania. "Widespread but un-common" fits the species well.

Bibliography:

Wood, Betty *Flowers of the South Coast and ranges of New South Wales Volume 2* Canberra, Wood's Books, 1999 A Field Guide which lists local plants according to their flower-colour. Photographs by Don Wood.

Baines, James A. *Australian Plant Genera: An Etymological Dictionary of Australian Plant Genera* Sydney, The Society for Growing Australian Plants, 1981. A fascinating, but long out-of-print, dictionary of the origins of many generic names.

Rosemary Blemings

Outing- Hall Woodland: Sunday 6th December 9:30-11:30 am

There are 4 nature reserves close to Hall. Last year we visited the Horse paddocks and this year we will visit Hall Woodland (Block 27). This reserve is primarily stringybark forest facing SE and is one of the latest flowering reserves that I know. Other trees include yellowbox-redgum on the lower edge and another species which may be *E. nortonii*. As of 11/11/08 it was in full flower with heath plants like *Brachyloma* and a variety of button daisies. In the wetter areas are yellow *Bulbine* lilies, Austral sun-rays, and *Tricoryne*, green *Pimeleas*, and most interestingly this is a great spot for sundews (*Drosera*). If that is boring then how about this; milkmaids, donkey orchids (*Diurus sulphurea*), and trigger plants were all in flower as were small patches of *Gompholobium huegelii*.

This is also a great spot for birds, with a pair of leaden flycatchers, 4 varied sittellas, a pair of olive-backed orioles seen on a nest, a pair of sacred kingfishers and strangely 4 white throated treecreepers-presumably including young. Other interesting species seen were a white-throated gerygone, striated thornbills and 2 wedgies. A bronzewing was heard and there were many signs of echidnas.

Although this is a steepish site, the walking is relatively easy on the paths. The walking trail should take 30 minutes but I estimate it will take about 2 hours with Field Nats. Bring good shoes, suncream, hats, binos, camera, field guides. Meet on the corner of Hoskins and Hall St- Hall. If necessary call Benj at work on 6272 3192.

Some Recent Natural History Publications #11 November 2008

Owls, Frogmouths and Nightjars of Australia

David Hollands. Blooming Books. 336 pages. RRP \$59.95
David Hollands is now a well-established and highly respected feature of the Australian bird photography and field studies landscape. I was a bit startled to realise that his *Birds of the Night*, the precursor to this volume and well-browsed on my shelf, appeared way back in 1991. His books are always very personal, in part because of his seemingly indefatigable energy and willingness to spend countless hours and days (or nights in this case) in gaining great familiarity with his subjects. As a result, he has studied and photographed at the nest all but two of the species in this book, a remarkable achievement in itself. The photos moreover would be truly superb, even if they had been of commoner and day time species. Not a great fan of heights myself, I shudder at the image of Hollands perched high in the rainforest canopy opposite a Lesser Sooty Owl nest, on a flimsy tower and platform comprising slender cut poles nailed together, or swinging about while climbing a 25 metre free-swinging ladder into the crown of a huge old eucalypt. Each species receives its own chapter; very sensibly he does not try to repeat information available from elsewhere, but focusses on his own, often fascinating, observations and experiences. His very attractive approach is summarised in a couple of quotes from the book. "No matter how much we know in nature, there is always something still to learn." "... a Boobook calling loudly in the trees outside. Life is the richer for it being there." Indeed. One could say something similar about this book. A word in an ear about Christmas presents might not go astray here.

Albatross; their world, their way

Tui De Roy, Mark Jones and Julian Fitter. CSIRO Publishing. 240 pages. RRP \$79.95

There are analogies between this book and the previous, in its focus on one group of birds, its often personal approach and emphasis on photography. In this case though the stage is all of the world's oceans, and there are many contributors to the text, chapters being written by relevant authorities. The book

is both a celebration of the wonder of the great ocean roamers, and a loud and clear warning of impending catastrophe for most of the world's albatross species, primarily due to human fishing activities. De Roy's photographs are simply and breathtakingly glorious and the text is of the highest quality. The book opens with a long section introducing the albatrosses, with a chapter on each of the eight major sub-groups. This section is reminiscent of Hollands' personalised approach, and underlines the authors' detailed knowledge of and passion for the birds. It is followed by a fascinating series of essays on aspects of albatross conservation, and ends with a most informative profile of each species, like a very extended field guide entry. The price is a bit intimidating, but if you can manage it there is a wealth of beauty and knowledge here, albeit tempered with a sense of impending dread. Part of the message though is that it doesn't have to be that way.

Koala; a historical biography

Ann Moyal. CSIRO Publishing. 246 pages. RRP \$39.95
For one such as I who is fascinated by the history of Australian biology, this is exactly the sort of book I love and Canberra science historian Ann Moyal does it very well. This is effectively another in a series that began in 2001 with her *Platypus* and follows the same general format. It is a wonderfully well planned, researched and written compendium of information about Koalas *per se*, and about Koalas and their generally unhappy relationship with people. As ever we learn a great deal about ourselves in the process, including what she is able to glean about the interaction of Koalas and Aboriginal people. In addition she looks at the species from the points of view of non-indigenous Australian art, literature, study, shockingly ruthless and brutal exploitation and finally conservation. There is also a very good summary chapter on koala anatomy and biology, nicely entitled *Being and Doing*. This book earns its place either on your history or your mammal books shelf. Start with it on the bedside table though.
Ian Fraser (Ian Fraser is a Canberra-based professional naturalist and writer)

Outing- Black Mountain: Sunday 6th December 2:30-5pm

The morning walk at Hall is an easy walk, this walk on Black mountain is intended to be harder and is not suitable for people with walking difficulties, but it is worth it.

Black mountain is an icon site for the ACT and yet we have rarely had walks in the reserve. The SW facing slope tends to flower later. On entering the reserve we will pass through secondary grassland with a diversity of daisies in flower plus yellow *Hibertia* spp, *Goodenia* and *Tricoryne*. Heading up through stringybark forest, although affected by drought, there are *Joycea*, donkey orchids, *Dianella*, *Pultenea* and very interestingly, *Helichrysum collinum* and *Grevillea alpina* in flower. Interesting birds seen included a pair of leaden flycatchers and sacred kingfishers, olive-backed oriole, and white throated gerygone.

We will head down a secret wet gully with flowering *Leptospermum multicaule*, and a variety of heath plants, including egg and bacon *Mirbelia oxylobioides* and *Daviesia*, and white flowered *Brachyloma*, all being in flower on 11/11/08.

Then the focus will be on birds and walking faster. All up, I saw 3 pairs of sacred kingfishers and 3 pairs of leaden flycatchers, perhaps the most dense site in Canberra, and if you want to see those species then this is the walk for you.

Directions: Drive along William Hovell Dr towards civic, pass Bindubi St then turn onto the old Caswell Dr Rd just before reaching the GDE overpass. This Black Mountain reserve car park is well signposted. The carpark is the old Rani Rd.

This site is steep, slippery, so bring good shoes, suncream, hats, binos, camera, field guides.

Although I will be leading both walks, it is intended that members pick one of the walks to attend. The one most suitable to their interest and abilities.

Benj

Sacrificial ants

In the Brazilian ant *Forelius pusillus*, the nest entrance is closed at sunset, some worker ants finish the job from the outside and, in doing so, sacrifice their lives.

Most workers involved in entrance closing reentered the nest. However, every time we observed an entrance closure, one to eight workers were trapped outside.

Entrance closure was the only activity at that time, and there were no ants returning from foraging or soil-dumping trips.

Two lines of evidence indicate that the ants trapped outside were not accidental victims but rather were part of a deliberate strategy of entrance closing. First, the numbers trapped outside differed significantly from a random expectation, with the zero category significantly underrepresented. Second, the ants left outside remained near the entrance for up to 50 min and continued to perform deliberate nest-closing behaviors, including the only activity at that time, and there were no ants returning from foraging or soil-dumping trips.

During kicking the outside ants made rapid leg movements that propelled fine sand toward the entrance. The proportion of total time spent kicking increased from 32% when the entrance first became impassable to 91% 15 min later. Kicking appeared to complete entrance closing.

What happened to the ants that were trapped outside, and did they survive the night? After nest closure, these ants eventually left the entrance area, sometimes after being blown away by a gust of wind but usually by abruptly walking away. The next morning, no *F. pusillus* worker ants were ever seen within 3 m of the entrance location when the entrances were reopened.

Opening always took place from the inside to form a conical depression. Ants immediately exited the nest and began kicking sand away from the nest entrance, presumably to prevent it from rolling into the tunnel. *F. pusillus* colonies are large, and in other *Forelius* species colony sizes of up to 100,000 workers have been reported. A few workers sacrificed per day in a large colony would be only a minute proportion of the workforce and is presumably a small cost to pay for the benefit of improved defense of the whole colony.

Chris Bunn (extracted from the *American Naturalist*)

(Continued from page 1)

large yellowbox with fighting thornbills. Considerable debate ensued until the gaggle agreed that they were buff-rumped and not yellow-rumped thornbills. Also seen were noisy miners and noisy friarbirds and an unusually quiet brown-headed honey-eater.

Gecko Hills

Moving out of the kangaroo enclosure the grazing pressure was clear and the thistles extensive, nevertheless I ticked off two new dainty, spindly blue-flowered species, identified by Rosemary Blemings as native flax (*Linum marginale*) and *Erodium crinitum*. Although I have heard these names before I'd never seen the flowers. Also present were pink Australian bindweed (*Convolvulus erubescens*).

Euro valley

Finally we had reached the Euro valley's gullies and ridges which I had been so keen to see again, after being impressed with them 6 months before. This time we were being shadowed by the very loud call of an olive-backed oriole. The wallaby grass (*Austrodanthonia carphoides*) swathes were impressive but the diversity of forbes I was expecting was quite disappointing. However, a greater surprise was in store. After looking at the grassland for 15 minutes we were debating what the species of moth was that was flying around. A number of theories were put forward until we actually located one on the ground, I think it was Kris Nash (from FOG), in shock, who said it was a golden sun moth (GSM). 'No way!', we all rushed over and sure enough it was a golden sun moth. Over the next 20 minutes we darted around following the moths to identify them, while Geoff and Kris practised their GSM monitoring techniques. Pamela Finger followed a female moth that was laying eggs, giving us 'hopefully' great photos, and we watched this female fly 3m once and 2m another time. Altogether there were probably 20 GSM on this ridge. We moved on to the next ridge



Female GSM— photo on Sunday

and found another 10 or so, and on the following ridge another 5 or 6. In the gullies there were patches of blue devils (*Eryngium rostratum*), yellow *Bulbine bulbosa* and Austral sunrays (*Triptilodiscus pygmaeus*), amongst expanses of kangaroo grass (*Themeda australis*).

Old Joe Hill (813m)

After soaking up GSM's for a while we then headed at full speed (Field Nats speed) to Old Joe Hill, since it was now 1pm. We decided to camp by a dam rather than climb the hill and while Andy Russell unpacked his extensive pack (including fancy tea) Julie Palmer (Ginninderra Catchment Group) described her history and current job. While we also listened to the repertoire of a voluminous pair of leaden flycatchers, a distant western gerygone, and the hissing of a flock of white-winged choughs. A wedgie also soared over.

And Back

We decided to take the high road back through Euro valley, and while I looked at a yellow sticky paper daisy (*Zerochrysum viscosa*) and patches of healthy *Goodenia pinnatifida*, Geoff and Kris mapped more sightings of GSM, of which there were quite a few, although in lesser density. Just before Gecko Hills there was a large yellowbox raining yellow flowers. It took us a while to identify the culprit, which was a crimson rosella.

Taking the lower path through the kangaroo enclosure paddock, interesting birds included a pair of tree martins acting suspiciously, probably nesting, a pair of dusky woodswallows, and our third threatened species, a white-winged triller. Reaching the car park at 2:59 was put down to my great organising abilities- little do they know. Thanks to Geoff for being the FOG joint organiser, to Tony for organising our side, to Julie from the Ginninderra Catchment Group, and of course to the golden sun moths for making an appearance and making our day.

Benj Whitworth

How Many Plants in the ACT?

Recently Brendan Lepschi gave a lunchtime talk at the ANBG on the Census of the ACT Flora. He has kindly agreed that I can pass on some of the information that he provided.

The ANBG website has a list of ACT flora which can be found at <http://www.cpbr.gov.au/cpbr/ACT-census/index.html>. The plants can be listed by family or by genus. The list at present only relates to vascular plants, and excludes plants found only in the Jervis Bay part of the ACT. They hope to extend the list to include the cryptogams, ie 'plants' without flowers or seeds - the ferns, mosses, liverworts, hornworts, algae, fungi and lichens.

The list will be updated regularly. The current list is version 1.0, dated 24 October 2007.

However this has been revised and the data that follows is based on the revised list, which should soon be available on the website. The list of vascular plants includes both native species and

exotics that have established themselves in the ACT. Exotics also include some species that are native to Australia but not of local provenance, such as the Cootamundra Wattle. Altogether 1543 species are listed for the ACT. Incidentally to be listed, there must be a herbarium specimen of the plant that has been collected in the ACT and is held in the Australian National Herbarium at the CSIRO. In some cases sub-species or varieties are identified, so that in total, there are 1575 vascular plant taxa listed.

These taxa comprise 1023 native taxa and another 552 naturalised taxa, of which 524 taxa originated outside Australia and 28 are Australian taxa from elsewhere which have natu-

ralized in the ACT. For the purposes of the list, the definition of a naturalised plant is a plant originating outside of the Australian Capital Territory, subsequently introduced to the ACT by or with the help of human intervention, and persisting there unaided by human intervention.

One taxon (*Passiflora cinnabarina*) is represented by both indigenous and naturalised populations. Of the 552 naturalised taxa, 131 are doubtfully naturalized, 63 are formerly naturalised (meaning that there are no Herbarium collections for 30 years), and 9 are historical records (no collections for 50 years).

Which families are most represented in the ACT list in terms of number of taxa? It turns

out that our flora is typical of that for southern temperate Australia. The largest local family is the grasses (Poaceae) with 238 taxa, followed by the daisies (Asteraceae) with 185, and the orchids (Orchidaceae) with 115. Other significant families are the Fabaceae (95 taxa), Cyperaceae (64), Myrtaceae (50), Juncaceae

(34), Mimosaceae (32), Rosaceae (29), Scrophulariaceae (31), and the Apiaceae (25).

The grasses include Red-anthered Wallaby Grass (*Joycea pallida*) which we were lucky to see in flower on our Sunday walk through Goorooyarroo Nature Reserve - see photo. Many thanks to Brendan for an interesting talk. And of course there are good talks at the ANBG theatrette every Thursday from 12:30 to 1:30 from February to the end of November.

Tony Lawson

individual flower of *Joycea pallida* -ANBG



Field Naturalists' Association of Canberra

Who are the Field Naturalists?

The Field Naturalists' Association of Canberra (FNAC) was formed in 1981. Our aim is to foster interest in natural history by means of meetings and regular field outings. Meetings are usually held on the first Thursday of each month. Outings range from weekend rambles to long weekends away. Activities are advertised in our monthly newsletter. We emphasise informality and the enjoyment of nature. New members are always welcome. If you wish to join FNAC, please fill in the member application below and send it in with your subscription to the FNAC Treasurer at the address below:

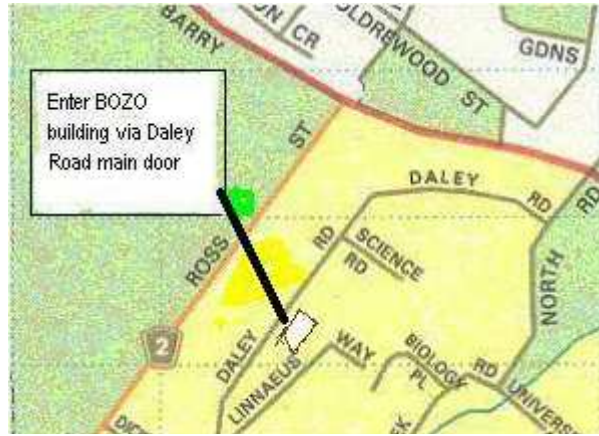
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Tel 02 6241 2968. Member contributions welcome.

Published and distributed by Bob Lehman



Monthly meeting venue: Division of Botany and Zoology, Building 116, Daley Rd, Australian National University. Park (occasionally the adjacent building 44). Meetings start at 8 pm and are followed by refreshments.

FIELD NATURALISTS ASSOCIATION OF CANBERRA INC.

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MEMBERSHIP APPLICATION OR RENEWAL

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