

February 2009
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OBJECT: To foster an interest in nature

MEETING THURSDAY February 5
7:30 pm Australian National University
Meeting details back page

SPIDERS

Speaker: Assoc. Prof. Dave Rowell ANU BOZO

Dave's research is primarily involved with the Australian spider fauna and Australian representatives of the phylum Onychophora (velvet worms). He also has an active interest in spider social behaviour (especially Huntsman) and the impact different forms of social behaviour have on population differentiation, through the effects of strong inbreeding, skewed sex ratios, and other population phenomena. All of these problems require genetic markers with resolving powers appropriate to the particular evolutionary levels that are being examined

The new committee met last week and has planned out an exciting year of talks covering a wide range of subjects and excursions both near and far, with one or possibly two overnight.

Trivia

If you have seen *Harry Potter and the Goblet of Fire* you have seen an improbable creature with a flat body, spiny arms and incredibly long flailing whips. Most people probably thought the creature was a figment of the director's imagination. Not so. In fact with only minor changes an amblypygid was the culprit.

Amblypygid are neither spiders or scorpions, but are arachnids. They are found in most tropical regions of the world. They prefer to reside in tight crevices such as under rocks or under the bark of trees, but venture out at night. They feed on other invertebrates such as insects which are gently herded towards their mouthparts and pedipalps by their long antennae before they are grasped and dismembered. Four species have been recorded in the tropical parts of Australia.

Recent overseas research, is that rarely for arachnids these animals demonstrate social behaviour in the first 12 months between mother and offspring through mutual whip stroking.

NOTE NEW 7:30 PM START

February Outing

Sunday 8 February @ 10:00 am

We will be looking at the Darwin Exhibition at the National Museum. Meet near the main entry at 9:55. There is plenty to see, so allow plenty of time. We can break for a coffee or lunch. Further details of the Exhibition can be found on the Museum website at <http://www.nma.gov.au/exhibitions/darwin/>

Darwin illuminates the life of the iconic naturalist, geologist, and thinker Charles Darwin, whose extraordinary ideas on evolution by natural selection were a critical turning point for science and culture and continue to be revolutionary more than a century after the publication of *On the Origin of Species* (1859). Through artefacts, documents, film, interactive media, live animals and plants, as well as Darwin's own personal items, this landmark international exhibition offers visitors a unique glimpse into Darwin's intellectual and personal world and the experiences that first led him to formulate his groundbreaking theories.

Darwin is based on an exhibition organised by the American Museum of Natural History, New York in collaboration with the Museum of Science, Boston; The Field Museum, Chicago; Royal Ontario Museum, Toronto; and the Natural History Museum, London.

The concurrent *Darwin and Australia* exhibition looks at Darwin's experiences during his short but important visit to Australia in early 1836. It also explores the links Darwin maintained with Australia after his visit.

Developed by the National Museum of Australia to accompany the *Darwin* exhibition in Australia, *Darwin and Australia* represents Darwin's experiences and encounters during his visit to Australia.

The exhibition includes artworks and graphics by Australian artists which reflect the landscapes that Darwin encountered as well as specimens of plants and animals that he observed and described in his diary. It explores Darwin's travels in Australia and his associations with prominent Australians. It also profiles Darwin's analogous observations in Australia, and subsequent and contemporary Australian research that continues his intellectual legacy.

Initiated also by American Museum of Natural History is the web site <http://darwinlibrary.amnh.org>. The site features Darwin's chief works and also provides transcriptions of Darwin's voluminous scientific notes, notebooks and drafts. What is interesting is to look at his notebooks and see how his mind was raising a myriad of questions to be answered. (more on Darwin page 5)

Non—Birding at the Coast

Rod MacKay

I witnessed an amazing sight when I went walking Sunday morning on one of my favourite birding tracks at Durras. Surprisingly few birds, but at one point just off the track there's a soak (which is rapidly drying out due to summer heat and lack of heavy rain and now measures approx 3 X 2 metres). It contains a jumble of logs, some blackened by bushfires, which when wet can have a remarkably glistening snakelike appearance. On several previous occasions I have mistaken these logs for reptiles, then found when checking with the binoculars I had overlooked a real Red-bellied Black Snake.

On Sunday, I detected the real Red-bellied Black straight away - and it was much more active than on previous occasions. It slithered into the remaining water, probably no more than 30cms deep (I didn't actually check!) submerging repeatedly then raising its head with forked tongue flicking, fascinating to watch & making me wish I had my video or at least a camera. Then suddenly the apparent tranquillity was shattered as all hell broke loose. Brilliant red and glossy black coils flashed as the snake writhed and wrestled with something, but what? Just as I saw a grey/brown body the snake lost its grip and I realised the prey was an eel which quickly slid below the surface. More fruitless pursuit by the snake followed, after which it became motionless, with its head and about 20cms of its body raised in what I would think was a classic strike position. It remained that way for probably five minutes. Then in some debris on the edge of the water behind the snake there was a slight movement - detected by the snake - and this time there was no mistake as it grabbed its victim by the head. The evidence of the first strike was clearly visible & I presume the venom was taking effect as the struggles grew weaker and were soon over. Then it was

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December Outing – Hall woodblock

The Outing at Hall Woodland (Block 27) on Sunday 6 December 9.30 – 11.30 was poorly attended in terms of numbers: Benj, Rosemary, George, Judy and I, but there was another outing scheduled for the same day and hopefully more people would be attending the afternoon walk at Black Mountain. I don't think numbers matter really because it is always enjoyable being with other Field Nats and there is always more to learn from each other about our wonderful natural environment.

This area, comprising a few paddocks and one dam, although small, had many plants and birds of interest to see and/or hear. Rosemary has compiled the following list of birds and the plants. You will note had you read Benj's report on his earlier walk there on 11 November, that almost a month makes some difference. The Bulbine lilies, sundews (*Drosera*), Donkey orchids (*Diuris sulphurea*), trigger plants (*Stylidium graminifolium*) and many other plants Benj mentioned were no longer in flower. However, with the changing season there were other plants to delight in. And Benj was right, the half hour walk was a 2 hour ramble for us. The wind fresh earlier, ameliorated as we walked away from the top of the hill and then the sun came out making it a very pleasant time and place to be outdoors.

The Birds

Common bronzewing (unconfirmed); Galah; Crimson rosella; Eastern rosella; Sacred kingfisher (heard); Black-faced Cuckoo-shrike; Rufous whistler (h); Leaden flycatcher; Grey fantail; White-throated Gerygone; White-throated Tree-creeper (h); Striated Pardalote (h); Noisy Friarbird; Red Wattlebird; Olive-backed Oriole; White-winged Chough; Magpie-Lark; Magpie; Raven (several at Markets); and Pied Currawong.

The Nest

Amazingly Benj was able to locate a very interesting unusual type of nest, hanging under the branch of a stringybark about 3m off the ground, that he had seen on his earlier walk. Rosemary has done some research on that and has provided the following:

"A deep cup suspended at the rim in a thin fork in the outer foliage of a tree & constructed from grasses, thin strips of bark, tightly woven together & sometimes bound with spiders' webbing... usually between 5-12 metres above the ground" (Beruldsen on the Oriole's nest).

"Nest is a deep rather untidy cup: hangs by the rim....barks & leaves bound with webs to form a strong, soft & flexible nest. The rim is tied with fine fibres and webs into a slender horizontal fork in a tree's...outer canopy 2-15m up.

(Morcombe on the Oriole).

"Large open cup--bark strips, dry grass bound with webs... Hangs by rim between slender branches of outer foliage 2-20m up.

(Morecombe on Friar Bird nest).

The nest remains a problem in that both the Oriole & Noisy Friar bird descriptions sound the same and could both apply to the nest we saw.

The Friarbird nests I've seen have been greener, suggesting more leaves than bark but they weren't built near Stringybark trees. The nest book doesn't actually show the oriole's nest... but both descriptions show how amazing birds are as builders..as if we didn't know.

Sorry about the inconclusive nest...Shall we go for an Oriole's....it's more exciting!??

The Plants

My list of plants (with help from everyone) as follows:

Grasses: Wallaby Grass, Kangaroo Grass and Briza grass, among many others:

Hypericum perforatum (exotic St John's Wort) and *H. granimeum* (native St John's Wort); 2 species of Acacia were identified: *A.dealbata* (Silver Wattle), and *A.decurrens* (Black Wattle); *Centaurium erythraea* (introduced); *Chryscephalum semipapposum* & *C.apiculatum*; *Craspedia* (Billy Buttons) and Scaly Billy Buttons (*Leptorhynchos squamatus*); *Dichopogon fimbriatus* (Chocolate Lily); *Gonocarpus tetragynus* (Common Raspwort); *Drosera auriculata* (Sundew); *Microtis parviflora* (Slender Onion Orchid); *Triptilodiscus pygmaeus*; *Vittadinea squamatus*; *Pimelia curviflora*; *Goodeinia* there but stunted and only a few; *Melichrus* (Urn Heath); *Dillwynia*; *Brachyloma*; *Dianella* just starting to flower; and *Indigofera*.

Eucalypts predominately stringybark (probably *E. macrorrhyncha*) with yellow box (*E. melliodora*) – redgum (*E. Blakelyi*). Many of the latter trees extensively damaged by insect attack which is usual for this time of year.

Didn't spot any Golden Sun Moths but there were plenty of the common orange/brown butterflies. I'm not sure about whether the Common Brown is just that or the Shouldered Brown. The browns' ranges overlap in Michael Braby's book *Heteronympha merope* is for the former & *H. penelope* the latter. I also had down the increasing numbers of the smaller blue butterflies (perhaps the Common Grass-blue *Zizinia labradus*) & the Meadow Argus *Junonia villida* (with the rings on its wings) &, of course the beige grassland moths which we wished were golden sun moths when they first took off

Sybil

(Continued from page 2)

dinner time as the snake proceeded to swallow its prey head first and whole (as snakes do).

My impression was that the RBBS was a very healthy specimen about 6 feet long and almost as thick as my wrist while the eel was about 40 cms. The whole episode, viewed from a distance of about 10 metres thru binoculars, took about 30 - 40 fascinating minutes.

Cheers

Rod

{This item was originally posted on Canberrabirds Chatline Rosemary B obtained permission for it also to go into the Field Natter— Editor}

Why the Current Interest in Charles Darwin? from Tony Lawson

According to one of my books, 'The 100 Most Influential Scientists', by John Simmons, Charles Darwin is ranked number four, behind Newton, Einstein and Neils Bohr. This makes Darwin easily the most significant contributor to the biological sciences, our greatest naturalist, and the most important scientist of the nineteenth century. That alone justifies interest in him at any time.

Darwin sailed on the *Beagle* during its famous scientific voyage around the world, including calling in to Australia. That gives a particular reason for Australian interest in Darwin. Combine that with the celebration of two very significant anniversaries and it is no surprise that in 2009 the National Museum is celebrating his life with an exhibition.

Charles Robert Darwin (12 February 1809 – 19 April 1882) was an English naturalist who realised and demonstrated that all species of life have evolved over time from common ancestors through a process he called 'natural selection'.

Darwin's ideas were published in his seminal work *On the Origin of Species* (first published 24 November 1859). *Origin* is arguably the pivotal work in evolutionary biology and was the culmination of evidence he had accumulated on the voyage of the *Beagle* in the 1830s and expanded through continuing investigations and experiments after his return to England.

During his lifetime the scientific community accepted that evolution occurs. By the 1930s Darwin's theory of natural selection had become widely accepted as the primary explanation of the process of evolution and now forms the basis of modern evolutionary theory.

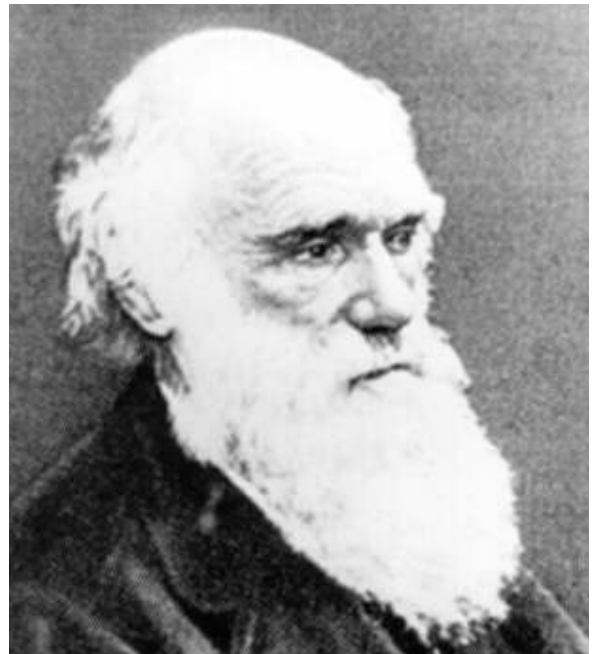
In modified form, Darwin's scientific discovery remains the foundation of biology, as it provides a unifying logical explanation for the diversity of life.

Darwin has also managed to keep himself well in the news thanks to the strong opposition to his views from the Creationists who believe in the literal truth of the biblical story of the creation of life. After being vanquished, the Creationists have been on the attack again under the new banner of Intelligent Design. Recently this was judged to be based on religious faith rather than testable scientific theory, and so could not be taught as part of the

science curriculum in United States schools. Nevertheless, it seems that more than half of Americans believe the Creationist story (including that great man - the previous President of the United States) rather than Darwin.

Apart from the *Origin* (full title is *On the Origin of Species by Means of Natural Selection; or, the Preservation of Favoured Races in the Struggle for Life*), Darwin published several other significant books, including: *On the various contrivances by which British and foreign orchids are fertilised by insects*, 1862; *The Descent of Man, and selection in relation to sex*, 1871; *The Expression of the Emotions in Men and Animals*, 1872; and *The Power of Movement in Plants*, 1880. He also published many other pieces on geological matters, on flora and on zoological issues. For a complete list of his works, see http://en.wikipedia.org/wiki/List_of_works_by_Charles_Darwin

So this year, if you come across anything about Darwin and his theory that might be of interest to Field Naturalists please forward it to our editor. As well as numerous books about his life, there is a good Wikipedia article on Darwin at http://en.wikipedia.org/wiki/Charles_Darwin.



Golden Sun Moth Count Project - Wrap-up (2: - 4:45 pm, Sat 14 Feb)

The Wrap-up session will be held at the CSIRO Discovery Centre, Clunies Ross Street, Black Mountain, ACT.

It is for all sun moth counters and others that are interested in the Project. Please come and provide your feedback. Afternoon tea will be provided, so for catering purposes please contact Sarah on 6251 2228 or sarah.hnatiuk@fog.org.au



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:

President: Benj Whitworth

Secretary: Tony Lawson
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Website: www.geocities.com/fieldnaturalist/index.html

Newsletter editor: Chris Bunn <chris_b@webone.com.au>
Member contributions welcome.

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Monthly meeting venue: Division of Botany and Zoology, Building 116, Daley Rd, Australian National University. Park (occasionally the adjacent building 44). Meetings start at 7:30 pm and are followed by refreshments.

EDO Environmental Law Workshop and Seminars – Canberra, 4-18 February 2009

Want to be a more effective environmental advocate? Want to learn about ACT's new planning and development laws? Join us for a new community workshop and seminar series...

From 4-18 February, the Environmental Defender's Office (ACT) will be holding an environmental law workshop and seminar series in inner-city Canberra.

The workshop and seminars are open to the public, and are suitable for anyone with an interest in using the law to protect the environment.

The seminars will be held at lunch time (12.30pm-1.30pm), and will cover five topics:

- Wednesday, 4 February- Environmental Planning
- Thursday, 5 February- Development Assessment and Approval
- Monday, 9 February- Nature Conservation and the Law
- Tuesday, 10 February- Environmental Advocacy and the Law
- Wednesday, 18 February- Understanding Federal Environmental Law

These topics will be repeated at a full day workshop (10.00am-4.00pm) on Saturday, 7 February.

The seminars and workshop are free for EDO members. Entry by donation for non-members.

For more information, see www.edo.org.au/edoact/workshops.htm Please register in advance by email (edoact@edo.org.au) or telephone (02 6247 9420).

The Environmental Defender's Office (ACT) is a community legal centre specialising in environmental law. The EDO provides legal advice, engages in law reform and delivers community legal education.

MEMBERSHIP APPLICATION OR RENEWAL

Family name: First name:

If a family membership, please include the first names of other members of the family:

.....

Postal address:

Suburb: State: Postcode: Home phone:

Work phone: Email address:

Subscription enclosed: \$.....(Single/Family \$20) Donation: \$.....

How did you hear about FNAC? Please circle: FRIEND? OTHER? Please specify: