

August 2007



FIELD NATURALISTS' ASSOCIATION OF CANBERRA

FIELD NATTER

OBJECTS: To foster an interest in an awareness and an understanding of nature

MEETING THURSDAY August 2
8:00 pm Australian National University
Meeting details back page

Jumping spiders

Barry Richardson
CSIRO

'Dr Richardson is presently studying the taxonomy and biogeography of jumping spiders. He is also working collaboratively on several projects related to the community ecology of insects. Throughout his career, he has conducted research on the processes of evolution through studies of the ecological genetics of a wide range of organisms from tuna and squid to wallaroos and rabbits. Until relatively recently he was a member of the management committee of the Species Survival Commission of IUCN. He is Chair of the Anglican Commission for the Environment.'



Dr Barry Richardson is finding, describing and mapping the distribution of the jumping spider fauna of Australia.

AUGUST OUTING - Burning, Bushrangers and Ghosts - A Natural History of Canberra

Weetangera cemetery is listed on the ACT Heritage Register because it is one of the oldest in the ACT and its burials include early pioneers of the Canberra district. The site is small, freezing cold, and has an eerie atmosphere of ancestors past and so perhaps not appropriate for a usual nature field trip. Native species on the site include very large scribbly gums, Blakely's redgum, and applebox, however, the understorey is entirely introduced. Birds can sometimes be abundant but this is unpredictable. This eerie setting provides the perfect backdrop for a discussion about the natural history of Canberra. It may surprise some people, but humans are a part of nature. Once we have entered the site, we can discuss (in an informal 'campfire style') the history of Canberra and how humans have related to nature over time, from theories about pre-human Canberra, to aboriginal burning and use of nature, through early pioneers struggles and hardships, the ghosts of this site, the gold rush years and bushrangers, the creation of a nation's 'bush' capital, to modern Canberra, and potential future directions. Perhaps surprisingly Weetangera cemetery is not in current-day Weetangera. Join us on the South side of Drake Brockman Dr, at the corner with William Hovell Dr. A short, easy walk of about 200m will take us to the cemetery. Bring very warm clothes or multiple layers, beanie, binos and your stories on the natural history of Canberra. Further info contact Benj on 62544 556

Species of the Month- Hardenbergia violacea

False Sarsaparilla

Benj Whitworth

This species is a beautiful and under-rated species, with brilliant purple flowers, and is prostrate or sometimes climbing. It grows in semi-shade.

Description

Prostrate or climbing shrub (1, 3, 4, 5). It has beautiful fluorescent purple flowers (1), and large green and leathery 'gum leaf' shaped leaves (1, 2, 3), and brown twig-like stems (3). Although Hovea and Glycine have similar flowers (2), their flowers are paler, and their plants have narrow leaves.

Distribution, habitat, and Physical requirements

Occurs in most places, from dry, rocky, slopes, to wet gullies, but seems to grow best in wetter, better soils.

Flowering and life cycle

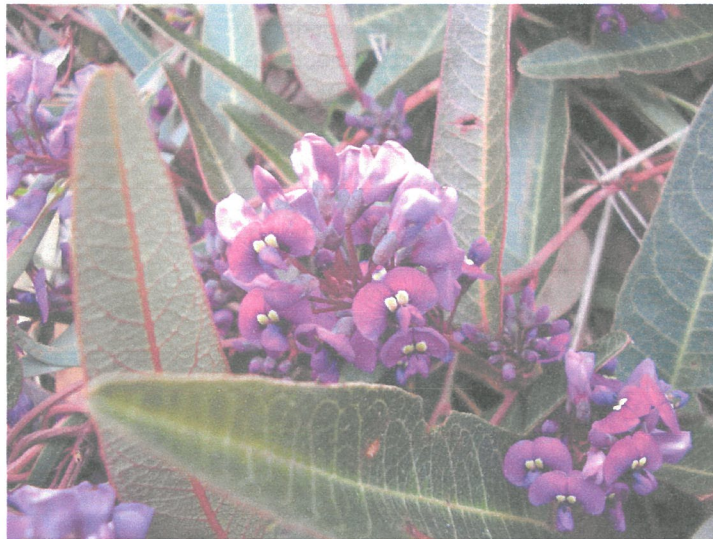
It is flowering now, July 20th (Benj), so during late spring and early autumn (1, 2, 3, 4). This species appeals to me because it is one of the earliest flowerers in our native forests after the Early Wattle (*Acacia genistifolia*). With its fluorescent purple flowers it stands out. Each flower doesn't last long, and each plant seems to flower for only max of 6 weeks, although various (some) plants may be in flower in late spring. The cultivated variety 'Mini haha' flowers much longer through the year, with many dramatic flowers, but also was quite different to the wild variety, being a small compact 'upright shrub' which seemed to defeat a lot of what the original plant was.

Has large seeds, which like most peas, can be encouraged to germinate, possibly through scarification

(1,3,5), boiling water (5) or smoke. Cuttings can also be used to make new plants (3: implied, 5).

Uses

Local aboriginals and early settlers, used this species, called False sarsaparilla, as an additive to drinks to make a hot sarsaparilla-like drink by soaking leaves in hot water. In cultivation, it has great potential as a groundcover, particularly stabilising rocky soils or providing cover. It's leaves are attractive, and the flowers are brilliant, although short-lived (6 weeks per plant).



Status and threats

Very common in forest and woodland in ACT, in dappled shade. Virtually never used in gardens which is a shame, even considering the cultivated plant 'Mini haha'™ was very popular. It was never successful, but although this plant lives for years in the wild, in rocks and stones, it appears that cultivated specimens

seem to not last as long. This needs to be proven wrong.

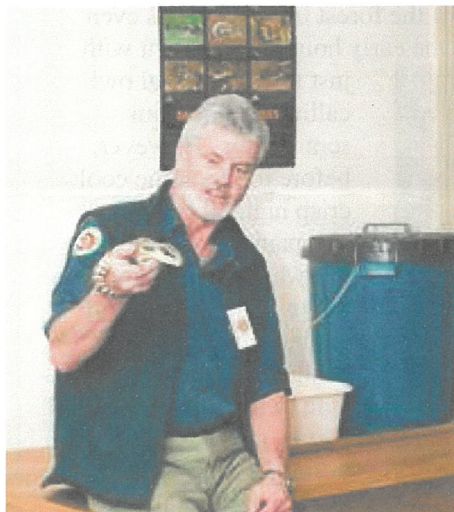
References

- 1 Flora of NSW (2002) *Flora of NSW V2*. Harden, G. J. (ed), UNSW, Sydney.
- 2 Friends of Aranda Bushland (1997) *Our patch- Field guide to the flora of the Australian Capital Region, as photographed in the Aranda Bushland*. Environment ACT/Friends of the Aranda Bushland, Canberra.
- 3 SGAP Can-Region (1983) *Australian plants for Canberra gardens*. Society for Growing Australian plants-Canberra Region. Canberra
- 4 Wood, D&B (2005) *Flowers of the ACT & Region.-A field guide*. Wood's Books, Weetangera, Canberra.
- 5 ASGAP (2002) *Hardenbergia violacea*.. Association of Societies for Growing Australian Plants (ASGAP), Website-19/5/2002

July outing Report - The Australian Reptile Centre

We followed the excellent talk given by Sean Doody at the July meeting with an equally informative outing to The Australian Reptile Centre at Gold Creek Village.

There were seventeen of us in all - fifteen FNAC members and two from the ACT Herpetological Association - and we began our visit with a presentation by the Centre's Director, Ross Bennett. During the presentation, Ross provided us with many facts about reptiles and dispelled as many myths. He also introduced us to three reptiles - an Eastern Blue-tongued Lizard, a Red-bellied Black Snake and a Rainforest Carpet Python called Casper.



Ross Bennett with a friendly eastern blue-tongued lizard during his presentation to the FNAC group.

Following the presentation, those who hadn't visited the Centre before headed to the Prehistory Gallery. The rest of us headed directly to the Reptile Gallery, keen to see more live specimens. Throughout our visit, Ross did an amazing job of talking to our group and other visitors whilst listening for the door and greeting new arrivals. He returned to us time after time to provide us with more interesting facts and to answer yet more of our questions. The last of our group to leave had spent a full three hours at the Centre and were rewarded with an opportunity to get up close to a couple of other species - a Shingleback and a Bearded Dragon.

As we left the Centre and ventured out into a cold, wet day we all agreed that an indoor outing had been a very good idea for July. Our sincere thanks go to Ross for giving us such a great visit but also for the work that he and his volunteers do at the Reptile Centre - giving ACT residents and visitors a better understanding of reptiles. If there are any FNAC members out there who haven't made it to the Centre yet, we encourage you to see it for yourself!

Paula Banks (text) & Damon Banks (photo)

NATURE ON THE NET

Animals display inherent mathematical patterns. One page at the Web site of the American Mathematical Society features the "The Mathematical Study of Mollusk Shells."
<http://www.ams.org/featurecolumn/archive/shell1.html>

"But the shell retains its unchanging form in spite of its *asymmetrical* growth; it grows at one end only And this remarkable property of increasing by *terminal* growth, but nevertheless retaining unchanged the form of the entire figure, is characteristic of the equiangular spiral, and of no other mathematical curve."

-Sir D'Arcy Wentworth Thompson, *On Growth and Form*
 1942 edition, Cambridge University Press, p. 758.

D'Arcy Thompson is referring to a phenomenon which everyone has observed but not everyone has pondered. The shell of a small snail is identical to the shell of a larger one of the same species, except for its size. One is an exact scale model of the other. But a snail does not enlarge its shell by uniform expansion. It adds onto it only at the open end ("terminal growth"). And it does so in such a way that the new shell is an exact scale-up of the old ("unchanging form"). The combination of constraints has a mathematical consequence. Almost all mollusk shells, in all their rich variety of form, must follow the general plan of an equiangular (or, "logarithmic") spiral, or of one of its three-dimensional cousins..

Click on section six. It enables you to specify the basic shape of just about any snail shell by adjusting three just variables. In 1962 David Raup, a palaeontologist then at Cornell University, outlined the use of the three variables, one of the first efforts to model animal forms with a computer.

Exploring Snowball

Debbie Saunders

As member of the Canberra field naturalists I love exploring natural areas and one way of doing this is by participating in rogaining events. Rogaining involves long distance bush navigation with only a map and compass, often where there are no tracks or other human constructs to use for navigation.

The ACT Rogaining Association (<http://www.act.rogaine.asn.au/>) holds several events each year in the local region, and last spring the event was held over 12 hours in a little visited area near Snowball Mountain, including parts of Deua National Park, Tallaganda State Forest and private properties. The topography was varied ranging from flat valleys to steep mountains rising up to 1200m. The upper reaches of the Shoalhaven River and Currumbene Creek criss-cross the landscape providing a variety of stunning gullies with huge tree ferns, towering eucalypts and extensive bogs. With an abundance of frogs calling in the swamps, it wasn't too surprising to also find a few snakes lingering amongst the long grass. Both a copperhead and a red bellied black snake were way too close for my liking, but neither of them really seemed perturbed by my presence. Lyrebirds called frequently from the dense gullies, thick with ferns and vines. The dense heath for which Deua NP is well known was great to see but it certainly also made for some challenging navigation. To add further to the diverse landscape, there were also rocky ridges on most of the



mountains, including at Snowball trig. After a gorgeous sunny day navigating and exploring through the area, the sun set and the clear sky provided a spectacular sight with constellations and shimmering stars galore. The tranquillity of the forest in the day was even more pronounced into the early hours of the night with

just the occasional owl calling and possum scrambling. However, before too long the cool crisp night air was accompanied by a thick fog which rolled in rapidly making navigation at night much more challenging, only being able to see a couple of metres ahead. The inviting forest we had known during the day had turned into another world. Step after step

we became entangled in vines, tripped over and were regularly going backwards to get around impenetrable vegetation. With the darkness, fog and vegetation



closing in on us it was easy to get disorientated. However by following a bearing on our compass we were able to traverse through a diversity of terrain and vegetation, exploring by torchlight. Through the fog, the shape, form and beauty of gnarled tree branches and clusters of rocky outcrops were accentuated by torchlight. We knew we were going in the right direction and the end was near when we once again heard to chorus of frog calls signalling the last creek that we needed to follow back to the start. It is great to know that there are still wild, natural areas close to Canberra where you can get off the

beaten track and experience the rugged and varied Australian bush.

Caring for Land — An exhibition of Prints and paintings responding to land

6 June – 28 October 2007 Visitor Centre

Botanic Gardens

Odd observations

Although most spiders possess eight eyes (spitting spiders have only six), the majority don't see very well. Their eyes can only pick up different levels of light. They sense the movement of prey through the hairs that cover their body and legs. Some families, however, such as the jumping spiders, have remarkable(?) eyesight and can identify prey up to 20 cm away.

The lifetime of spiders ranges from as much as 30 years for a tarantula to as little as three months in the case of a fast-living tropical jumping spider. In temperate climates, however, spiders typically have a one- to three-year life cycle.

Source: Paul Hillyard, *Spiders and Scorpions*, RD Press, 1996, pp. 7, 11.

There are about 35,000 known species of spider. Most have a venomous bite, but only about 500 can inject their poison into human skin. The poison is rarely fatal. Our funnel-web and red-backed spiders are two of the few spiders that can kill people.

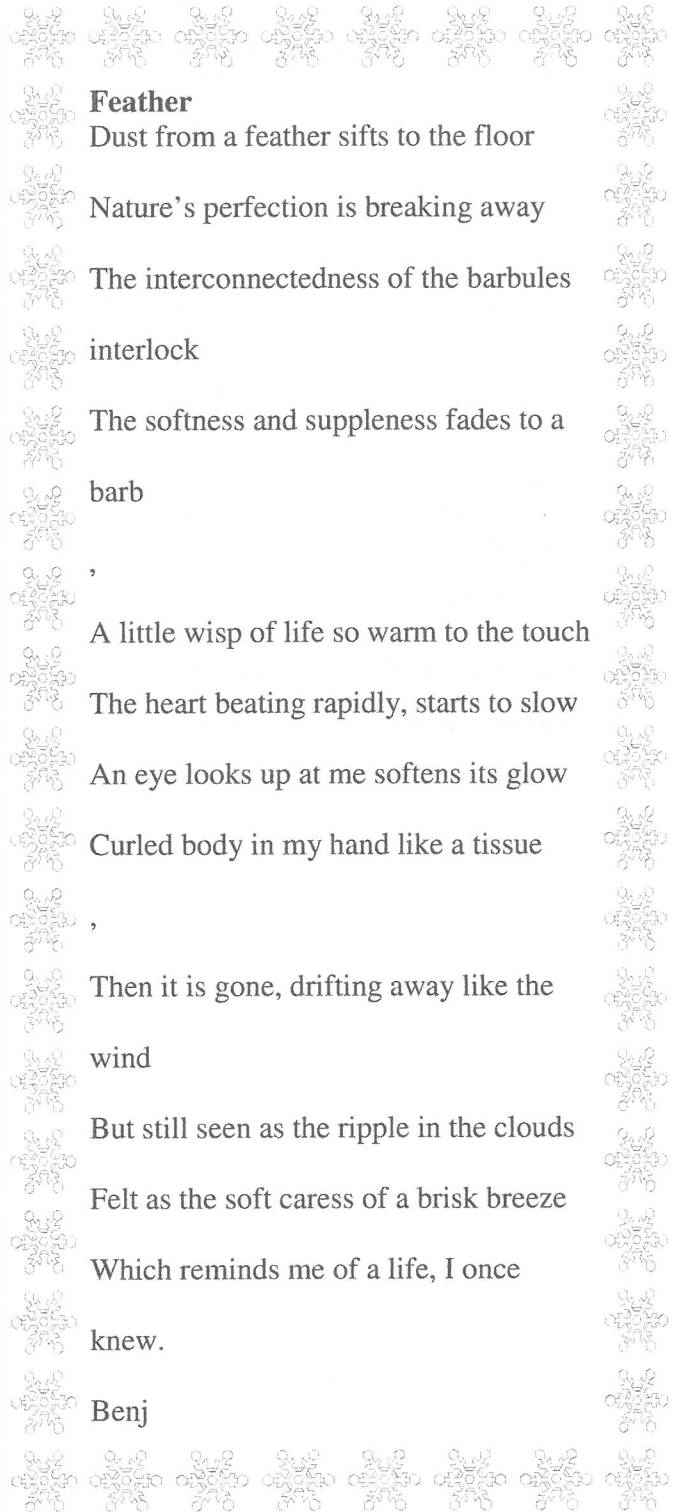
George Else, *Insects & Spiders*, Weldon Owen, 1997, p. 51.

Fleas jump with a force of 140 g, which is over 20 times that required to launch a space rocket.

Dragonflies can reach speeds of almost 100 km/h to escape from birds.

Source: John Farndon, *1000 things you should know about Wild Animals*, Miles Kelly Pub., 2005, p. 54, 59.

Submitted by Tony Lawson



Feather

Dust from a feather sifts to the floor

Nature's perfection is breaking away

The interconnectedness of the barbules

interlock

The softness and suppleness fades to a

barb

A little wisp of life so warm to the touch

The heart beating rapidly, starts to slow

An eye looks up at me softens its glow

Curled body in my hand like a tissue

Then it is gone, drifting away like the

wind

But still seen as the ripple in the clouds

Felt as the soft caress of a brisk breeze

Which reminds me of a life, I once

knew.

Benj

THE NAMING OF THE MACADAMIA

The Macadamia is our only native plant to have become an international food. Macadamias are members of the *Protaeaceae* family (which includes banksias and grevilleas) and current taxonomy describes eight species. The commercial industry is based on two species *Macadamia tetraphylla* (rough shelled) and *Macadamia integrifolia* (smooth shelled).

In 1857, Baron Ferdinand von Mueller collected and described macadamias from an area just north of Brisbane. Von Mueller named the tree in honour of his friend, John Macadam. A medical doctor, post master general, school teacher, scientist and a politician, John Macadam most likely never saw a macadamia or tasted the nut.

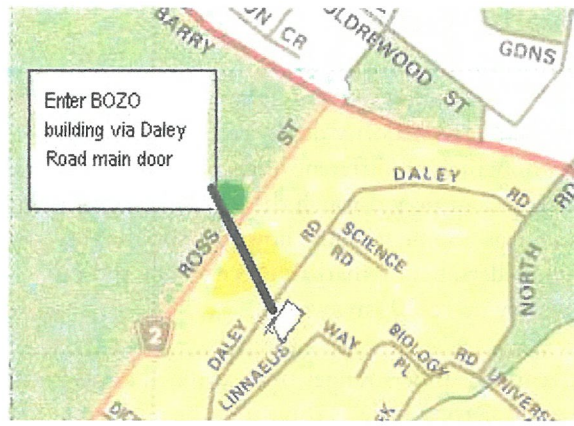
- an extract from the *Australian Heritage magazine*, Winter 2007

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:

President: Benj Whitworth, tel w 6272 3192 h 62544556
Secretary: Rosemary Blemings, tel 02 6258 4724
Website: www.geocities.com/fieldnaturalist/index.html
Newsletter editor: Chris Bunn <chris_b@webone.com.au>
 Tel 02 6241 2968. Member contributions welcome.
 Published and distributed by Philip Bell



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

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: