



FIELD NATTER

Field Naturalists'
Association of
Canberra

May 2006

Field Naturalists' Association of Canberra

Snakes in Vietnam

Ric Longmore

Thursday May 4 2006

(location details back page)

Speakers

May 4 Ric Longmore - Snakes in Vietnam

Ric is a retired but still very active herpetologist. He has spoken on Radio 666 and has been a key organiser with the display at the Botanic gardens.

Vietnam is noted for its variety of snakes. An article on the internet said there were 100 snake species in Vietnam 99 of them venomous. The 100th just squeezed you to death!

June 1 Geoff Dabb - Birds of Canberra

July 6 Geoff Kaye - Sub-antarctic Islands

Outing— Budawang lookout walk Sunday 7th May

Located in the Southern Highlands of NSW, Budawang National Park is within 1 ½ hours drive of Canberra. The park is variable with Woodlands, Eucalypt forests, Rainforests and extensive Heathlands. Cool temperate rainforest occurs extensively on middle and high slopes. Interesting animals include swamp wallabies, greater gliders and potoroos, common wombats, and honeyeaters (NLWS, 2006) which should be migrating in large numbers. We may also

see green catbirds and lyrebirds in the wetter microhabitats. This is one of the best walks I have been on in the local region, and we will be walking a trail through all the ecological communities, culminating at the lookout (hopefully). We will leave at 8am Sunday and this will be a day walk so bring picnic lunch. The walk is medium-difficult, with creek crossings along logs, scaling some steep rocky slopes and suitable for able bushwalkers only. Other things to bring include good water proof shoes, raincoat (weather can change

fast here), warm clothes, hat & sunscreen and insect repellent, cameras for the view. The easiest way to get to the park is via the western side, driving along the Braidwood to Mongarlowe road. About 4.5 km from Mongarlowe there is a marked track leading to the foot of Mt Budawang. Car pooling will be necessary. Contact Benj on 62544 556 if you want to go. <http://www.nationalparks.nsw.gov.au/parks.nsf/ParkContent/N0045?OpenDocument&ParkKey=N0045&Type=NX>
PS— Benj will likely have updates at the meeting

Inside this issue:

Species of the month— 2
Argiope sp

That magnificent bird 3
and its flying machine

Velcro vector 4

Flora Tasmanica 4

Photo of the Month 5

Argiope sp (St Andrew's Cross Spider like species)

St Andrew's Cross Spiders are named for their bright web decorations - zig-zag ribbons of bluish-white silk that form a full or partial cross through the centre of the vertical orb web. Females have a silvery carapace and a silver, yellow, red and black banded upper abdomen with two longitudinal yellow stripes below. The spider sits with the legs in pairs. The brown and cream coloured males are much smaller than females

These spiders build medium-sized orb webs, occupied day and night, on low shrubby vegetation. Their prey includes flies, moths, butterflies, bugs and bees. These are usually secured by silk wrapping into a neat parcel before being bitten.

The role of the cross-like web decoration, called the **stabilimentum**, has long been a puzzle. At first thought to strengthen or "stabilise" the web, more recent ideas associate it with capturing prey or avoiding predators. The ribbon-like silk reflects ultra-violet light strongly. Such light is attractive to flying insects, which use it to locate food sources like flowers and to navigate through openings in the vegetation. If the stabilimentum silk attracts insects it may increase the web's prey-catching efficiency. Another possibility is that the stabilimentum advertises a warning to predators like birds to stay away - after diving through the sticky web, the effort required to clean silk off plumage may deter birds from trying again.

When threatened, the spider responds, either by dropping from the web or shaking it so vigorously that both spider and stabilimentum become a blur,

confusing its attacker. These measures don't always succeed, as indicated by empty, damaged webs and the presence of these spiders as food in the mud cells of wasps.

Mating occurs in summer-autumn and can be hazardous for the small males. One or more males sit in the upper parts of the web - some may be missing legs, survivors of encounters with unreceptive females. The male constructs a mating thread within the web, onto which it attracts a receptive female by vibrating the thread. The female suspends its pear-shaped egg sac in a network of threads, often among leaves where the sac's greenish silk disguises it. Despite this, the egg sacs are often the target of parasitic wasps and flies.

Australia has 25 described species of *Argiope*. The St Andrews Cross Spider *A. keyserlingi* (or in some references wrongly identified as *A. aetherea* is the best known.)

The photographs below were taken about two metres from our back door in Watson in February. In wet weather the spider would leave her web and seek protection in the nearby Daphne bush. Research has shown that these spiders build their webs more in protected locations than for the collection of prey. This site did not appear productive and after a month the spider disappeared.

Can anyone identify the specific species of this spider?



That magnificent bird and its flying machine



As many of you are probably aware through work I have been deeply involved with avian influenza (bird flu) and its panzootic spread to over forty countries.

A major development occurred in May 2005 when there were significant die-offs of migratory Bar-headed Geese (*Anser indicus*). It is estimated that somewhere between 5% and 10% of the world population of Bar-headed Goose perished in this outbreak at Qinghai lake, the largest inland saltwater lake in China.

However the purpose of this article is not to discuss avian influenza, but to introduce you to one of the most remarkable bird species on this planet. These geese live and hatch their young at the high –altitude Tibetan lakes where they remain until the lakes freeze over. They then migrate to the plains of north-west India. Sounds simple except for a mountain range known as the Himalayas *en route*. Temperatures on the mountains can plummet low enough to freeze exposed flesh instantly, winds can blow at over 300kms per hour and upper reaches offer only a third of the oxygen available at sea level--so little that if you could be transported instantly from sea level to Everest's summit, without time to acclimatize, you would probably lose consciousness within minutes. However, with a little help from tailwinds, these birds are able to cover the one-way trip--more than 1,600 kilometres--in a single day.

So how does this bird – the world's highest migratory species – achieve such an accomplishment?

First of all the avian breathing system is uniquely structured. Among its special features are several large air sacs that temporarily store inhaled air that has passed through the lungs and then send it back through their lungs before it is exhaled. Thus, birds circulate inhaled air through their lungs twice--once more than earthbound mammals

do--increasing their opportunities for capturing oxygen. The birds are powerful flyers, not soarers that just glide with the wind. Partly because their wings are huge, they have a disproportionately large surface area for their weight, and are pointed to reduce wind resistance. They can fly at over 80 kms an hour on their own power, with a heart rate well over 300 beats per minute, hour after hour. Able to gauge and correct for drift, bar-headed geese can even fly in crosswinds without being blown off course. The same powerful and unremitting flapping that helps propel them over the mountains also generates body heat, which is retained by their down feathers. This heat, in turn, helps keep ice from building up on their wings. The geese however have one extra advantage. They have a special type of haemoglobin that has a greater affinity for oxygen than any other species, thereby avoiding hypoxia at extreme altitudes. Some scientists have calculated that the bar-headed goose likely still has oxygen reserves, even when flying over the summit of Mt Everest (probably enough for them to honk at any struggling human climber below).

Footnote

The highest-flying bird ever recorded was a Ruppell's griffon, a vulture with a wingspan of about 3 metres; on November 29, 1975, a Ruppell's griffon was sucked into a jet engine 12 000 metres above the Ivory Coast. The plane was damaged, though it landed safely.

This article draws on a publication in *Audobon* in 2000 by Lily Whiteman. Permission received to publish the photograph by Alistair Benn <http://www.naturescapes.net/portfolios/portfolio.php?cat=13165>

Christopher Bunn

Velcro Vector



Macquarie Island

Ubiquitous Velcro may be an environmental hazard. Scientists and support staff arriving at Macquarie Island were subjected to a vacuum cleaner and forceps inspection by botanists. Out of sixty-four staff only twenty were clean. Between them the other forty-four carried 981 seeds and fruit belonging to ninety species. Seeds were plucked from pockets, cuffs, seams, socks and boots, but the great majority were attached to velcro fas-

teners of clothing and gear. Some of the ninety species are known to be highly invasive and would pose a threat to the island. The spread of alien species into other lands is second only to habitat loss as a cause for declining biodiversity

From *New Scientist* March 11

Submitted by Rosemary Blemings



Les Blakebrough is regarded as one of Australia's leading ceramic artists. His work is represented in the National Gallery of Australia, all Australian state galleries and many international collections, including the British and Danish royal collections. Les spent almost five years on the *Flora Tasmanica* project. Only 100 plates of each design have been produced.

Flora Tasmanica

Flora Tasmanica is on display at the Botanic Gardens Visitor Centre until July 2006, 9am - 4.30pm daily. This exhibition features the works of renowned Tasmanian wilderness photographer, the late Peter Dombrovskis, Les Blakebrough, regarded as one of Australia's greatest ceramic artists and Lauren Black, a highly regarded botanical artist. Les Blakebrough's porcelain plates depict six endemic Tasmanian plants - *Eucalyptus coccifera*, *Eucryphia lucida*, *Brachyglottis brunonis*, *Nothofagus gunnii*, *Lomatia tasmanica* and *Telopea truncata* - and will be accompanied by the original paintings by botanical illus-

trator Lauren Black. Peter Dombrovskis' photographs are on loan from the Royal Tasmanian Botanic Gardens, Hobart. The *Flora Tasmanica* ceramic plates and paintings are on loan from the University of Tasmania, Fine Art Collection. This exhibition was opened by HRH Crown Princess Mary of Denmark at the University of Tasmania, Plimsoll Gallery in March 2005.

From Betty and Don Wood

I was talking to Benj after the last meeting and he suggested we put a request in the newsletter. We are still photographing the odd flower round the ACT with the purpose of using them in a possible second edition of "Flowers of the ACT & Region". It would be very helpful if Field Nats members could email us at wood-book@optusnet.com.au if they see flowers they would like put in the second edition. We would need map/GPS readings and time of flowering.

Thanks

Betty Wood

Black Ridge

A small but enthusiastic group had a wonderful day at the Black Ridge property in April.

After meeting at Bredbo we travelled in convoy to the start of the property. The Von Behrens explained that 8 people had interests in the property and a nature covenant protected the property from development.

We were all amazed at the size of the holding being approximately 7kms by 3 kms (sorry if I

have got this wrong). After having lunch at the 'shack' (complete with pink napkins) we walked and drove over the property. The outstanding item of the day were the Eucalypts resplendent in their new bark. Dierk explained that there were at least 8 varieties of Eucalypts and how they changed with the topography of the land.

A wonderful day's outing and one that I hope will be repeated at another time of year.

Chris Bunn



George Heinsohn, Rosemary Von Behrens and Phyll Goddard at the old dead tree On the April Black ridge outing

Inside Story Headline

Sightings, reports, travelogues, reviews, photographs, sketches, news, comments, opinions, theories — in fact anything relevant to natural history. Please forward material to chris_b@webone.com.au or 13 Burnside Street Watson ACT 2602,. Any queries please phone 6272 5540



Photo of the Month

Possum in the Shed
Philip Bell

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:

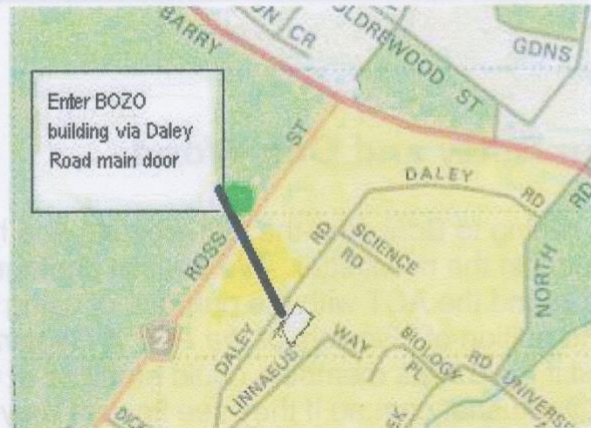
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Newsletter editor: Chris Bunn <chris_b@webone.com.au>
Tel 02 6241 2968. Member contributions welcome.

Member database: email updates to <fnac.net@gmail.com>



Monthly meeting venue: Division of Botany and Zoology, Building 44, Daley Rd, Australian National University, Park in Linnaeus Way. 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:

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

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