

FIELD NATTER

FIELD NATURALISTS ASSOCIATION OF CANBERRA

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

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Meetings are held in the Division of Zoology and Botany, Building 44, in the Australian National University, on the first Thursday of each month, except January. Meetings commence at 8:00 pm and are followed by refreshments.

NEWSLETTER — FEBRUARY 2005

MEETING: 8 pm February 3rd in the BOZO Gould Building Seminar room.

Dr Simon Driver, Fellow/Senior Lecturer, Mt Stromlo, Research School of Astronomy and Astrophysics

Our view of the Universe.

Our frontier of knowledge continues to expand. Over the past 100 years we have recognised that our star resides in a galaxy of 100 billions stars and our galaxy is itself surrounded by billions of other galaxies with a multitude of sizes, shapes and colours. More recently we've begun to chart out the distribution of the galaxy distribution and unveil the cosmic web. Along the way we've identified structures such as superclusters, voids, filaments and phenomena such as "the fingers of god". Here Dr Driver will show the maps they are creating and others and how we interpret them to better understand the universe we live in.

OUTING:

Amazing Insects including Beautiful Butterflies

Meet at Dunlop Grassland, Binns St Fraser, 10am, Sunday 6th Feb.

Most insects are extremely numerous in terms of species, numbers and even biomass and yet we know so little about them. To try and redress some of this balance, we will be having an insect walk led by the experts. Bring good walking shoes, sun protection and gaters. Contact Benj for more details 62544 556.

NEWS AND EDITORIAL

Welcome to 2005. We start the year with a big bang literally with a talk from Simon Driver about the solar system and also what sounds a very interesting outing. Benj has advised that the walk details were still being finalised as the *Field Natter* is being prepared.

In this *Natter* we have contributions from Leonie Andrews about their trip to Western Queensland; Benj and myself about the frog walk. I have also added an article concerning an extreme threat to Australian environment that, in my opinion, needs more publicity.

Chris Bunn

Bustards and Brolgas – or a very short visit to Queensland

Leonie Andrews

Over Christmas Steve and I accompanied visiting relatives to Queensland for a flying visit to the Salvator Rosa section of Carnarvon Gorge National Park.

We travelled to the park along the Wilderness Way from Tambo. The roads were passable in the 4WD – we were lucky as it had rained the day before and access at this time of the year is not guaranteed. Driving into the park via local roads you get a stunning view of the sandstone escarpment of the Goodliffe Section of the Carnarvon Gorge National Park.

Given the amount of rain that had fallen in recent weeks the country was lush and provided cover for many birds including bustards (*Ardeotis australis*). Having only encountered this bird once before I was thrilled to see several of them in the paddocks as we drove into and out of Salvator Rosa. Lake Salvatore also held water and we saw Great Egrets (*Ardea alba*) and a brolga (*Grus rubicola*), ducks and other waterbirds.

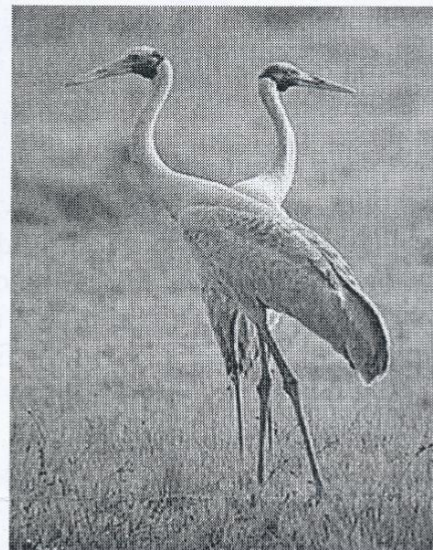
The stunning sandstone structures of the park were as fascinating as I had been told. From the lookout we had excellent views of Spyglass Hill – which has a large hole in its summit - and also of the surrounding valleys lush with rain soaked grass and vegetation. As we climbed we could smell the rich scent of the flowering eucalypts. Of particular interest was a smooth-barked eucalypt (which I'm still trying to identify) whose recently shed bark revealed a startlingly bright orange trunk.

The Nogoia River, which runs through the Salvator Rosa section of the park, was muddy with run-off. At the junction of Louisa Creek and the Nogoia River the clear spring water provided a distinct contrast to the muddy river flow before the two merged. Further up the valley Mitchell and Belinda Springs fed a well-watered valley floor covered in reeds

and lush grass. In all the effect was reminiscent of the green of the Kakadu flood plains.

Sadly we could only have a day visit as camping is not permitted in any section of the park at this time of the year. The kangaroos were taking advantage of this by using the campground as a feeding area.

Before we left this part of Queensland we drove further north to Longreach. The caravan park we stayed at certainly boasted an unexpected extra feature – a pair of nesting brolgas! One bird was sitting on the nest, which appeared to have two eggs, while the second bird patrolled the surrounding area to keep unwanted visitors away (except when it was scavenging food of the campers). It was in all a very interesting place to stay.



(Wikipedia free encyclopaedia)

On the return trip we spent one night at the Riverside Camp Ground at Nyngan, on the banks of the Bogan River. While the camp couldn't boast nesting brolgas a number of interesting birds were seen including Little Friarbird (*Philemon citreogularis*), White-browed Woodswallow (*Artamus superciliosus*), Forest Kingfisher's (*Todiramphus macleayii*) and a large number of Tree Martins (*Hirundo nigricans*) hawking for insects. The park owners have a list of 107 species seen in the campground.

Brolgas were initially given the name "**Australian crane**" by John Gould in 1885. In 1926 the RAOU managed to make **Brolga**, the popular name derived from native tongue, the official name of the bird. Additionally, it is sometimes referred to as the "**Native Companion**".

OBSERVATIONS

December field trip report: frog walk

Six people enthusiastically gathered at Campbell Park offices for the frog walk. We entered, dodging kangaroos as we walked, while observing many 'native' cockroaches.

On reaching the first dam it had dried up completely, so we forged on to the 'Triangular' dam. Meanwhile Mandy and Kevin enthused over the planes that were landing every 10 minutes or so. Lateral trips were common to observe hairy button daisies, common and clustered everlasting daisies and other plants and animals.

On reaching the Triangular dam there was deathly silence, when only 2 weeks before there was a cacophony of frog calls. Nevertheless, after one minute there was one lonely descending reeeeeeu call, the mating call of Peron's tree frog. After waiting for an hour or so we heard no other frogs calling and Kevin had spotted the frog, so we took a look, observing the 4cm long, tan body, with green flecks on the back, yellow and black legs.

This digital photograph taken on the night (by Kevin) reveals a significant feature of this frog — cross-shaped pupils.

Described as a medium-sized frog to 6 cm.¹ Rich grey or brown above, the colour can vary in intensity with temperature and temperament. Peron's Tree Frog may be found long distances from water in a variety of habitats, usually in trees and shrubs, but will forage for food on the ground. In the ACT, Peron's tree frog is commonly found in woodland areas on the northern plains, adjacent hills and mountain valleys. The call is loud and distinctive — described as a

rattling, laughing cackle. Listen to the call on the Internet at:

<http://www.midcoast.com.au/users/ddunne/frogs/frogs/perontree.htm>

Calling is heard from early spring to late summer when rainstorms can trigger daytime vocalising.

And who was Peron? I haven't found out yet, but the frog seems to have been named early in the 19th century.



Coming in March:

Within our grasp: Saving the great apes
Ian Redmond

Date: Thursday, 17 March 2005

Time: 6pm

Venue: Visions Theatre, National Museum of Australia

Enquiries:

T: 02 6125 8396

E: nihca@anu.edu.au

¹ Reptiles & Frogs of the ACT, Ross Bennett, National Parks Association of the ACT 2602

Eucalyptus rust (*Puccinia psidii*) – a serious threat to a national icon by Andrew Geering, Senior Plant Pathologist QLD Dept of Primary industries

Eucalypts (*Eucalyptus* and *Corymbia* spp.) are the dominant component of the Australian vegetation, from the tall, wet forests of Tasmania, the snowfields of the Australian Alps, the bonsai forests of the mallee to the savannah of northern Australia. Not surprisingly, eucalypts are critical to the survival of much of the Australian fauna, which utilise them for both food and shelter. Alarmingly, a serious threat to eucalypts lurks offshore, outside the natural range of the trees, in South America. This threat is *Puccinia psidii*, the cause of rust disease in eucalypts.

Eucalyptus rust is an example of a 'new encounter' disease. Eucalypts belong to the family Myrtaceae, a large family of plants containing c. 155 genera and over 3000 species. The Myrtaceae, through ancient Gondwanaland links, is predominantly distributed in the southern hemisphere. *P. psidii* was first reported on red guava (*Psidium guajava* syn. *P. pomiferum*) in Brazil, another member of the Myrtaceae that is thought to have originated in Central America. Eucalypts were introduced to Brazil for timber production and an unfortunate consequence was the exposure of the trees to an endemic pathogen able to switch hosts. *P. psidii* is now considered a serious pathogen in eucalypt plantations in Brazil, with a report of the loss of more than 300 ha of 6-month old seedlings of *Eucalyptus grandis* in one epidemic. [The Rust attacks leaves, flowers, young twigs, shoots, and fruits. First signs of infection are tiny raised spots or pustules on infected tissue; after a few days pustules turn a distinctive egg-yolk yellow. Plants shrivel, leaves are deformed; infection can cause heavy defoliation, stunted growth and death.]

P. psidii must be regarded as one of the most serious quarantine threats to Australia. *P. psidii* is unusual amongst rust fungi in having a relatively broad host range, which

in addition to eucalypts, includes other Australian plant genera such as the bottlebrushes (*Callistemon* and *Melaleuca* spp.) and lilly-pillies (*Syzygium* and *Eugenia* spp.). The full host range of *P. psidii* is unknown, and all genera of the Myrtaceae can be regarded as potentially susceptible. If it were to be introduced in Australia, it is likely that *P. psidii* would spread rapidly through wind dispersal of spores, and there would be no practical control method in native forests. There is evidence of varying levels of resistance within and between different species of eucalypt, and young trees (less than 2 years old) are more susceptible than old trees. If it were to be introduced to Australia, *P. psidii* could be very damaging to the native flora, and indirectly, fauna, as well as the hardwood timber industry. The exact impact is unknown, but let's hope we never find out.

Further reading

Coutinho, T.A., Wingfield, M.J., Alfenas, A.C. and Crous, P.W. (1998) Eucalypt rust: a disease with the potential for serious international implications. *Plant Disease* **82**: 819-825.

Floyd, R., Wylie, R., Old, K., Dudzinski, M. and Kile, G. (1998) Pest risk analysis of *Eucalyptus* spp. at risk from incursions of plant pests and pathogens through Australia's northern border. CSIRO Entomology, Contracted Report No. 44, p 73.

Park, R.F., Keane, P.J., Wingfield, M.J. and Crous, P.W. (2000) Fungal diseases of eucalypt foliage. In: Keane, P.J., Kile, G.A., Podger, F.D. and Brown, B.N. (eds) *Diseases and pathogens of eucalypts*. CSIRO Publishing: Collingwood, Victoria, pp. 191-193.

Editorial footnote: The following news was reported by AQIS in October 2004: As from 15 October 2004, AQIS will suspend the

import of *Eucalyptus* timber from guava rust reported countries due to the occurrence of guava rust (*Puccinia psidii*) detected on

imported consignments. All *Eucalyptus* timber currently in transit, certified prior to 15 October 2004 will be ordered into Quarantine, at the first port of entry, in registered premises until an appropriate disinfestation treatment is determined. Otherwise it is to be re-exported or destroyed. All current Import Permits for *Eucalyptus* timber from guava rust reported countries (16 South American countries plus

the State of Florida) are now revoked pending further review.

The suspension of trade will remain in place until a Pest Risk Assessment is completed by Biosecurity Australia.



Surfing on the NET

Before Christmas there was quite a bit of media coverage of a whale that has been singing its very own tune for the past 12 years. Dubbed the 52-Hertz whale you can hear it and other whales singing if you go to:

<http://www.pmel.noaa.gov/vents/acoustics/whales/bioacoustics.html>

This site is part of the Acoustics Monitoring program that monitors the global ocean through underwater acoustics.

BUSH ETIQUETTE

Car pooling

Support the concept of car-pooling to minimise creation of pollution & reduce vehicle impact. Offer the driver payment for fuel expenses.

If offering lifts you must be adequately insured & ensure each passenger has access to, & wears, a seatbelt.

Ensure your vehicle is not parked in front of access gates at any time or for any length of time. Ensure you will not return to find you are locked in behind park gates (e.g. At the Namadgi Visitors' centre).

Ensure your vehicle is suitable & equipped for the proposed road/route. 4WD..2WD

Equipment

Be prepared for the conditions and a broad range of possible weather conditions (especially in our high country) in terms of your clothing, footwear, and headgear.

Individual walkers/members are responsible for their own equipment including binoculars, telescopes, cameras, GPS units, backpacks and camping gear.

Mobile phones can be useful but service is erratic in some high-country &/or remote areas.

Ensure your footwear is as clean as possible, minimising the transfer of pathogens, seeds, soil etc from one walk surface to another.

Newsletter contributions welcome

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

FIELD NATURALISTS ASSOCIATION OF CANBERRA INC.

The Field Naturalists Association of Canberra was formed in 1981. The aim of the club is to stimulate interest in the natural history of the ACT through regular meetings and field outings. Meetings are usually held on the first Thursday of each month. Field outings are also planned each month and range from day outings to long weekends and camping. The emphasis is on informality and fun. New members are always welcome, especially family groups and young people. Information on activities is circulated in the monthly newsletter. If you wish to join FNAC, please complete the form below and send it with the appropriate subscription to: The Treasurer, FNAC, GPO Box 249, Canberra ACT 2601.

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

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