

November 2012  
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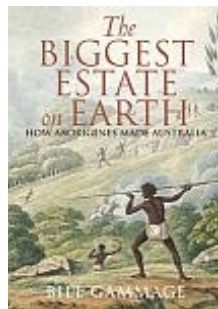


OBJECT: To foster an interest in nature

**MEETING—THURSDAY 1st November**  
**7:30pm Gould Wing, Building 116**  
**Australian National University**  
Venue details back page

## Biggest Estate On Earth: How Aborigines Made Australia

Bill Gammage's *The Biggest Estate on Earth* argues that the Aboriginal people managed the land in a far more systematic and scientific fashion than we previously envisioned. *The Biggest Estate on Earth* recasts, in a quantum leap, our perceptions of



Aboriginal Australia and our understanding of the historic Australian environment and its land care. Bill Gammage makes us reconsider our landscape, and thus present day environmental practices, through his dramatic historical revisioning of our physical landscape. His compelling central insight is that the landscape of 1788 was not natural but rather that it was made by Aboriginal people.

In July Prime Minister Julia Gillard and Arts Minister Simon Crean announced the winners of the 2012 Prime Minister's Literary Awards at the National library of Australia. Among the winners was Professor Bill Gammage, receiving the inaugural prize for Australian history with his book, *The Biggest Estate on Earth*, the result of 12 years of scholarship.

Bill Gammage is an academic historian, Adjunct Professor and Senior Research Fellow at the Humanities Research Centre of the ANU. He was born in Orange, went to Wagga Wagga High School and then to ANU. He was on the faculty of the University of Papua New Guinea and the University of Adelaide. He is a fellow of the Australian Academy of Social Sciences and deputy chair of the National Museum of Australia.

### STOP PRESS

**Over 60 field naturalists from all over Australia voted the Australian network meeting in Canberra last week a huge success. A wide-spectrum of members pitched in assisting the visitors to get a behind the scenes appreciation of the many organisations within the ACT. They also got the opportunity to stretch their legs with visits to Namadgi, Mulligans and Tidbinbilla. The week finished with a celebratory dinner at CIT where the prime organiser — Rosemary von Behrens was especially thanked.**

## Field Nats outing 7 October 2012 summary

On this beautiful Spring morning, Rosemary was joined by three others in her exploration of Mulligans Flat in preparation for the ANN walk there. While we didn't become "geographically embarrassed", it might be because we didn't get that far in the two hours I was there. Why – there was a lot of interest.

First stop was the woolshed with its interesting displays of the reserve and some of the research being undertaken in it. On the nearby dam was an Australasian grebe as well as black and wood duck, and we could hear lots of *Crinia signifera* (eastern common froglet).

The open areas were more productive for spring flowers, with *Wurmbea dioica* (early nancy) being common. Other plants in flower included *Helichrysum scorpioides* (button everlasting), *Cymbonotus lawsonianus* (Austral bears ears), *Pultanea procumbens* (heathy bush-pea), *Triptilodiscus pygmaeus* (Austral sunray), *Melichrus urceolatus* (urn heath), *Daviesia genistifolia* (broom bitter pea), *Stackhousia monogyna* (creamy candles), *Hardenbergia violacea* (false sarsaparilla) and *Lomandra filiformis* (wattle mat-rush). We admired a lovely patch of Joyce, and refreshed our memories on eucalyptus identification.

Birds sighted included the usual suspects, such as galahs, magpies, crimson rosellas, wattle birds and ravens. As well there were the brown tree creeper, weebill, buff rumped thornbill, willy wagtail, grey fantail, kookaburra, striated pardalote and little falcon. A highlight was watching two families of white winged choughs come together with a lot of noise, then separate.

Naarilla Hirsch

*P.S. Rosemary Blemings has drawn to my attention a report (with photographs) from Wednesday walkers about a visit they made to Mulligans in March of this year. The report is available at:*  
<http://nativeplants-canberra.asn.au/Uploads/MulligansFlatE12733.pdf>

NEXT OUTING SUNDAY 4TH NOVEMBER 10:00AM

HALL HORSE POUND/RESERVE

From Northborne avenue take the Barton highway for 8.9 kms. Turn off right onto Victoria Street with directions to the Hall village. Drive into Hall and continue straight at the main intersection up the hill for a further 700 metres. At the top of the hill pull into a big car parking area on the left.

This is a small flatish grassy woodland area, but with a good variety of plants and birds. As an added extra I suggest we also make an extra study of lichen in the reserve. For information on lichen visit the website [www.anbg.gov.au/lichen/](http://www.anbg.gov.au/lichen/)

Afterwards a coffee shop is just down the road

Chris Bunn 02 6241 2968

## President's report

Chris Bunn

During the year we have once again had a variety of speakers and excursions. As can be seen from the table our club covers an extraordinary wide-ranging list of topics. This is our strength and should be an attractant for potential new members interested in natural history

Month	Presenter	Topic	Planned excursions
<b>October</b>	Members	Short talks	Spring outings
<b>November</b>	Chris Allen	Koala survey program in SE NSW	Black Ridge
<b>February</b>	Don & Gwen McGregor	The lure of the Lyrebird	Molonglo gorge
<b>March</b>	Clive Broadbent	Legionella	Tidbinbilla (Lyrebird trail)
<b>April</b>	Heino Lepp	Fungi – a mycologist's passion	Birrigai
<b>May</b>	Dierk Von Behrens	Snippets from Senegal & South Africa Bird brains	Booromba Rocks
<b>June</b>	Rosemary Purdie	Kamchatka –Russia's land of ice and fire	Yerrabi walking track
<b>July</b>	Duncan Steel	The secret astronomical reason for the British colonisation of North America	Geoscience
<b>August</b>	Graeme Barrow	Lake George	Red Hill
<b>September</b>	Denis Anderson	Reducing the threats to pollination	Black Mountain

We are a small club, but a club with many members helping along the way. Special thanks to Bob Lehman for the website, newsletter distribution, and finance. It is no fault of Bob that we have had trouble with Yahoo that has turned out to be fatal. Tony Lawson as stalwart of Natchat; Shirley and Warwick for the supper support; Pam for the monthly raffle; Alan as our door keeper; Rosemary Blemings and the rest of the committee for organising speakers and outings. Also I will pass on our thanks to BOZO for their ongoing support in providing meeting facilities. But a special extra thanks to Rosemary von Behrens. Rosemary's input into the planning of ANN has been extra-ordinary as well as substantial input to the general running of the club.

ANN will be a great time to meet people with similar interests from all over Australia.

The club has a few challenges in the coming year, post ANN, but with the wonderful members we have I am sure the club will prosper. However, we do need to encourage more membership to maintain the quality of speakers and to have well attended outings.



We are clearing out books from our reading room in Gould and wondered if your Field Naturalists group would like any.

They are in boxes in R115 – go downstairs at the bear. We'll leave them there until after your next meeting at the beginning of November. We have a tin for a gold coin donation towards the Royal Flying Doctor Service for those who want to make a contribution.

Jan

Jan Elliott  
Senior Technical Officer  
Division of Evolution, Ecology and Genetics  
Research School of Biology

# An unusual bird

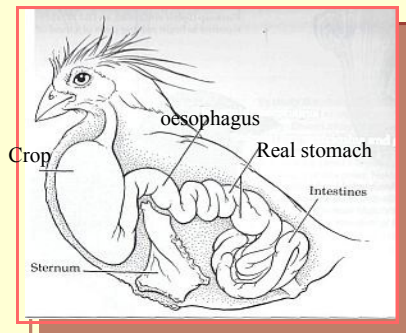
Earlier this year I gave a series of presentations called *Those Magnificent Birds and their flying machines*. During my preparations I came upon some birds that have some truly bizarre features.

My number 1 is the hoatzin (pronounced (pronounced "WAT-sins") large, bizarre birds of the South American rain forest. Hoatzins are unique among modern birds in that their chicks have clawed wings. Flightless Hoatzin chicks use these claws to grip branches as they clamber about the rain forest canopy. Because of these unique wing claws the Hoatzin was once considered to be a primitive bird, intermediate in form between modern birds and such ancient ancestors as *Archaeopteryx*, which also had clawed wings. However, recent genetic analysis suggests that Hoatzins may be related to the cuckoos and that any resemblance between Hoatzins and ancient birds results from convergent evolution of the wing claws.

Hoatzins are more like cows than birds. It is a true ruminant, feeding almost entirely on leafy foliage and fermenting the ingested leaves with a stomach that functions much as does that of a cow. Like cows, Hoatzins are foregut fermenters. A series of chambers near the anterior of the intestinal tract house bacteria that break down indigestible cellulose fibers into simpler digestible carbohydrates. The Hoatzin's large crop consists of two fermentation chambers in which bacteria break down the leaves. The fermented mash of leaves then passes through an enlarged lower oesophagus area, where it is further fermented. The crop and esophagus are both quite muscular in the Hoatzin, contracting to grind the leaf mash much as a cow "chews its cud" to aid fermentation. In the Hoatzin the proventriculus and gizzard areas of the true stomach are relatively small and of secondary importance in digestion.

Although large herbivores such as cows and deer commonly are foregut-fermenting ruminants, small warm-blooded animals rarely digest food in this way. Leaves are a relatively poor source of nutrients; digesting them takes a lot of time and fermentation space within the body. The Hoatzin's unusual feeding strategy probably depends on its warm, food-rich rain forest environment and its sedentary habits. Hoatzins are comically poor fliers (most landings seem to be barely controlled crashes) and spend most of the day roosting to conserve energy. The Hoatzin remains fairly common in a large part of its range.

Chris Bunn



## Wanted— more photographs

Now days whenever a field outing occurs people are busily photographing. Most of mine I must admit turn out not to be much good.

But please share your better photographs for the *Field natter* with a brief description.



*Ajuga australis* or Austral bugle is a small, native Australian perennial herb with soft, velvet-like foliage and a clumping habit. Foliage is green on top and purplish underneath. Tubular purple flowers are produced in Spring and Summer. *Ajuga* is in a genus of about 45 species found in many parts of the world. There are two species native to Australia with *A. australis* being the best known.

It is in the family Lamiaceae. The aborigines used to bathe sores and boils with an infusion of the plant in hot water

Chris Bunn (photo 16/10/12 Mulligan's flat)

## INTERNET CORNER

What is biodiversity and why does it matter?

<http://theconversation.edu.au/explainer-what-is-biodiversity-and-why-does-it-matter-9798?>

## Koala: Origins of an Icon by Stephen Jackson

Jacana Books, an imprint of Allen & Unwin, Crows Nest, NSW, 2007.

### Review by Dierk von Behrens

This cute, cuddly cousin of the wombat, successfully coexisted for millennia with Australia's Aborigines, but was brought to the brink of extinction by the fur trade as late as 1927. In 1924 alone 'the colossal total of over two million were exported from the eastern States.'

As one of the joint custodians of *Black Ridge* - a 1922 ha private conservation property adjoining *Mt Clifford Nature Reserve* (located some 100 km South of Canberra in the extension of the Tinderry Ranges) - I was naturally attracted to the book that describes the fate of these iconic animals that are now so highly regarded. Why? We have a thinly scattered population of them on the property and have been studying their strange bark-chewing behaviour, only so far documented on the Monaro, since 1992. Initially very few people, including scientists, would believe us. We were eventually able to visually demonstrate it with the aid of **Chris Allen**, the NSW National Park Service and infrared cameras installed last year. To view the evidence, please google: 'bark chew koalas *Canberra Times*.'

Bark chewing behaviour is not described in **Jackson's** otherwise comprehensive and engaging tome, which comprehensively tackles the fascinating evolution, ecology and behaviour of the species, its Aboriginal dreamtime status, discovery by Europeans, and its transformation both into a cultural ambassador and from cartoon character to chocolate bar icon. The work also discusses the politics and costs of managing koalas, threats to them, focusing on habitat loss and, finally, discusses the highs and lows of the conservation controversy surrounding this extraordinary animal with its two thumbs on each hand.

The book achieves its aims of highlighting both the variety of complex issues associated with the koala that are not normally discussed, as well as this animal's important role in Australian culture.

'Ultimately' the author concludes 'let us aspire to the conservation of the forests of Australia for future generations ... No doubt the animal with the spoon-shaped nose will have an important role to play in this endeavour.'

In their own, limited way the co-owners of *Black Ridge* and our bark-chewing koalas are doing their bit.

I recommend that all those interested in Australian nature read this authoritative work.

## Red Deer Cave People (submitted by Dierk von Behrens)

In 2012, what seems to be the remains of a previously unknown human species were identified in southern China. The bones, which represented at least five individuals, were dated to between 11,500 and 14,500 years ago.

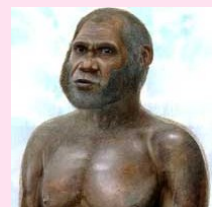
They were named simply the Red Deer Cave people, after one of the sites from which they were unearthed, at Maludong (or Red Deer Cave), near the city of Mengzi in Yunnan Province. A further skeleton was discovered at Longlin, in neighbouring Guangxi Province. The skulls and teeth from the two locations are very similar to each other, suggesting they are from the same population.

The Red Deer Cave people have a mix of archaic and modern characteristics. In general, the individuals had rounded brain cases with prominent brow ridges. Their skull bones were quite thick. Their faces were quite short and flat and tucked under the brain, and they had broad noses. Their jaws jutted forward but they lacked a modern-human-like chin. Computed Tomography (X-ray) scans of their brain cavities indicate they had modern-looking frontal lobes but quite archaic-looking anterior, or parietal, lobes. They also had large molar teeth.

One theory for the origins of this group posits that they represent a very early migration of a primitive-looking *Homo sapiens* that lived separately from other forms in Asia before dying out. Another possibility contends that they were indeed a distinct *Homo* species that evolved in Asia (out of *Homo erectus*) and lived alongside *Homo sapiens* until remarkably recently. A third scenario being suggested by scientists not connected with the research is that the Red Deer Cave people could be hybrids. A fourth is that they were *Homo sapiens* who evolved more primitive features independently because of genetic drift or isolation, or in a response to an environmental pressure such as climate.

A good deal more investigation is required before any decision on this new find can be made."

<http://www.historyfiles.co.uk/FeaturesAfrica/HominidChronology7.htm> (includes picture)





**Field Naturalists' Association of Canberra Inc.**

**Who are the Field Naturalists?**

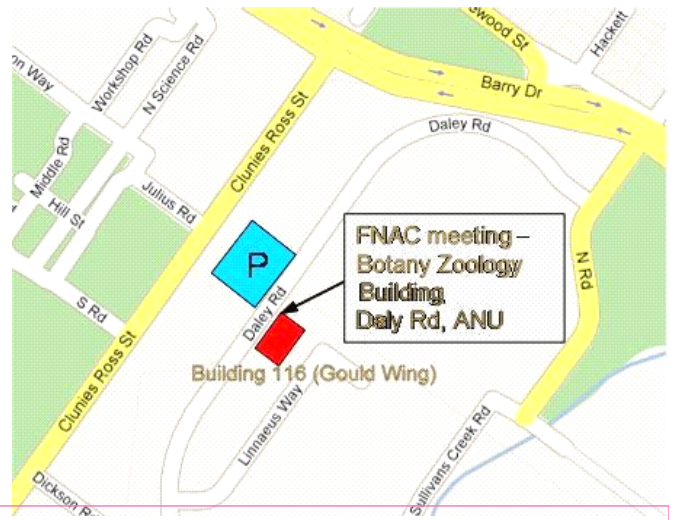
The Field Naturalists' Association of Canberra (FNAC) was formed in 1981. Our aim is to foster interest in natural history by means of meetings and regular field outings. Meetings are usually held on the first Thursday of each month. Outings range from weekend rambles to long weekends away. Activities 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:** Chris Bunn (02)62412968/0417407351

**Email:** fieldnaturalist@yahoo.com.au

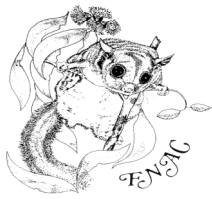
**Website:** is under repair

All newsletter contributions welcome, material published does not necessarily reflect the views of the club



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

**Field Naturalists' Association of Canberra**  
**GPO Box 249**  
**Canberra ACT 2601**



**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 \$25) Donation: \$.....

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