

OBJECT: To foster an interest in nature

February 2012
ISSN: 1836-2761

MEETING–THURSDAY 3rd May
7:30pm Australian National University
Venue details back page



FIELD NATURALISTS' ASSOCIATION OF CANBERRA INC. GPO BOX 249
CANBERRA ACT 2601

FIELD NATURALIST

"Snippets from Senegal and South Africa" Dierk von Behrens recently spent several weeks in both countries. The reason for the visit was to attend a conference, but a few items of natural history did sneak in.

Bird brains and the arrogance of man

Until recently we misunderstood the power of the bird brain. Thinking they were primitive compared to mammalian brains. Birds were just "eyes with wings". This short presentation by Chris Bunn will present a contrary view.

ANN2012 update: a brief look at the program to date. Which outing can you attend to help guide our visitors? A grassland? Forest? Birding? More ideas?

It seems many of our planned speakers are away from Canberra during the winter months, hence some presentations by our members for this month

OUTING: Sunday May 6 Booroomba Rocks. Located approximately 34 kilometres southwest of Canberra the granite boulders are beloved by climbers. We shall only observe. Meet at the Namadgi Visitors Centre at 10 am.



Bring lunch, thermos, hat, good shoes etc you know the drill. Ring Rosemary von Behrens on 6254 1763 and let her know if you are interested in going.

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Public plant identification resources

The Botanical Resource Centre is jointly managed by the Australian National Botanic Gardens, the Friends of the Gardens and the Australian National Herbarium and is open daily. It is located next to the Friends' Lounge on the Main Path in the Gardens.

It houses the Public Reference Herbarium specimens which represent the native and naturalised plants of the A.C.T., the Southern Tablelands, Australian Alps and the South Coast. This self-help collection is available for use by students, plant surveyors and people who just want to know more about plants. The plants are mounted in plastic sleeves in loose-leafed books to make them more robust for public use.

This facility also has microscopes, access to an extensive library of botanical books and two computers with interactive identification tools to some major plant groups.



Computer identification tools

The following interactive computer keys can be used on the computers in the Botanical Resource Centre:

Families of Flowering Plants - key to the families

Euclid - key to the eucalypts of Australia

Wattle - key to the genus *Acacia*

Australian Orchid Genera - key to the genera of Australian orchids

The Pea Key - interactive website to identify Australia's pea flowers

Australian Tropical Rain Forest Trees and Shrubs - tropical rainforest plants

Trained Facilitators are available to introduce the public to the facilities and users are advised to seek their assistance before using the BRC for the first time.

There is usually a Facilitator present on Thursday afternoons and Sunday mornings.

The Atlas of Living Australia

Maureen Bell

Australia, sadly, has not yet got a Museum of Natural History but it now has the Atlas of Living Australia. This is a virtual natural history museum which aims to cover all the known species in Australia and gathers into one database collections of fauna, insects, microorganisms and plants - 35 million specimens in all, I believe. The collections now brought together come from museums, universities, herbariums, government departments, community groups and individuals.

You can search for any living species by common or scientific name or by location (check out your own street), record your personal sightings, become a citizen scientist and upload to the Atlas descriptions, data sets, photos and videos, even join in a "virtual expedition". Darwin, eat your heart out!

The website is: <http://www.ala.org.au/>

CONNECTING WITH “ILLUMINATED MUSINGS” AND SHEPHERDS LOOKOUT IN RURAL BELCONNEN - APRIL 2012

By Rosemary Blemings

Margaret Kalms had an exhibition at Strathnairn Homestead Gallery in Holt from 30 March until 15 April 2012. Margaret is a Christian, an artist, photographer and ecologist. Her respect for God’s creation is obvious. She selected quotations from The Bible and created her responses to illustrate humanity’s effects on the natural world to connect Bible faith with current Australian ecological problems.

As an amateur naturalist and citizen scientist, I found I could use examples from the spectacular Shepherds Lookout nature reserve to further stress inter-relationships, impacts and the consequences of human activities.



Woe to you who add house to house; until no space is left and you live alone in the land. (Isaiah 5:8)

Margaret’s photo of a multi-storey apartment block bloating obscenely through her study of a dry sclerophyll forest makes the point that cities, roads and urban development cut swathes through natural vegetation. The entry to Shepherds Lookout is along a now-abandoned bitumen road from the days when there was never a thought for species condemned to die during construction and others poisoned by toxic run-off or altered soil chemistry.

Habitat loss from vegetation clearing for cities,

farms, infrastructure and amenities continues unabated and is the major reason for species extinctions throughout the world.

Yet many people living in multi-million cities are alone, lonelier and more isolated from community than ever before. A walk to Shepherds Lookout reconnects people to the natural world of vistas, plants, animals, fresh air and quietness though many may not have made the connection that this simple activity brings heightened well-being.

Strathnairn is also a place to reconnect with the land whilst revisiting our heritage, past and present cultures and creativity with friends’ company or taking time to reflect.

The ground will grow thorns and thistles for you. (Genesis 3:17)

The hills “at the back of Jindabyne” are consigned to unattainable distance by the foreground’s monoculture of dead, thistles. We are forced to contemplate the terrible scene from a distance by vicious, actual plants and Julian Cribb’s displayed article on invasive species (Canberra Times 29.03.12). Weeds cause extinctions through habitat modification just as thoroughly as land clearing.

Australian spends \$1.5 billion annually trying to control weeds that impact on native species, habitats and agricultural production and yet the island continent had stringent protections against new infestations.

The road and tracksides into Shepherds Lookout show infestation in action with wheels, paws, feet, wind and water bringing introduced species’ seeds into the once natural area since “settlement”. On a visit in March I noticed a weed that was new to me. Greater Beggarticks *Bidens subalternans* is of South American origin. Here it has already spread across the road but how did the first adhering seeds reach this Belconnen outpost? The tough seeds are 1cm long. The barbed ends ensure penetration into fur, fabric is irreversible.

I am the vine, you are the branches – apart from me you can do nothing. (John 15:5)

Baked, cracked clay that’s sky-blue to reflect the searing, endless heat and desiccation of extended drought is a backdrop to vines that have withered and died with the withdrawal of irrigation water. Margaret’s photograph draws attention to the need to work within the natural capacity of systems.

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Shepherds Lookout offers peerless views of the Murrumbidgee's landscape and its wooded riverine habitats. The view is a mecca for artists even when the water's flow doesn't show the results of La Nina. All feel a sense of place and awe.

The confluence of the Molonglo and the 'Bidgee is visible, showing Molonglo water stained after treatment. Are people downstream relying on natural systems to restore the water they receive from the ACT?

Not one sparrow falls to the ground....(Matthew 10:29)

Margaret uses two Civic streetscapes with confronting bird corpses incorporated into the views to show the colossal impacts human activities have on other species. Yet we are so self-absorbed and busy with our own lives that we fail to notice. We are largely unaware of the consequences of destroying other species.

A printed list of 180 extinct birds extends onto the gallery's timber floor to

emphasise what effects human actions have. Countless other "seemingly insignificant" species are extinct or threatened often before their function in ecosystems is fully understood and certainly before they are valued as unique and essential ecosystem partners.

Are we growing insensitive to death because we see so much on screens that fiction and reality are blurred?

Shepherds Lookout had so many intriguing and colourful fungi

last month yet evidence of their presence is already gone from the surface. Their subterranean mycelia continue the decomposition of decaying matter that restores nutrients to plants and thence to animals. For the observant there are lidded spider holes, magical cobwebs, butterflies puddling or seeking sap, bird calls as mixed flocks glean from lerp-infested eucalypts, dozens of ant species and newly discovered Yellow Burr-daisies if extra time is taken for the "insignificant ones".

Whatever the man called each living thing...(Genesis 2:19)

Margaret's brilliant idea to seek and borrow ants from CSIRO's entomological collection illustrates humans' insatiable urge to name and classify what they see and find. Surrounding a photographed microscope are the ants' names in red.

Naming is the basis of taxonomy and of understanding and distinguishing other species. It is also integral to language, the transmission of cultural knowledge and to understanding of self...if we allow time for these connections.

Shepherds Lookout is a place for bird watching, gathering birds' names on each visit, comparing notes and findings with others. There is always the optimism of finding something different or unusual or as a first for the season. There is currently a buzz in ornithological circle with Ospreys and Sea Eagles being sighted in the confluence area. And this is discovery of large species. Hand-lenses and macrophotography open even more doors for citizen scientists.

Although I do not share Margaret's belief in the Bible, I am thrilled that we can share a passion for nature that inspires a respect and awe for all of life. We work together to highlight the sound ecological principles of sustainable use of nature and resources.



Man's Trash Is A Lizard's Treasure?

Australian lace monitors (*Varanus varius*) were the subject of a study by researchers at the University of Melbourne, Zoos Victoria, and the Australian Wildlife Health Centre. The goannas were examined *in situ* at four different sites in East Gippsland. Two undisturbed forests in which resident monitors consumed their natural diets, and two small garbage dumps associated with nearby rural towns. In addition to performing point counts to estimate lizard density at each site, the researchers caught as many animals as possible in order to mark and measure them, and to collect a blood sample that could be subjected to a suite of laboratory analyses. Specifically, the scientists could perform counts of both red and white blood cells, assay for liver- and heart-related metabolic syndromes, measure metabolic activity and corticosterone levels, look for blood parasites, and extract genetic data to sex each lizard. Cumulatively, these tests enabled the researchers to compare size, condition, physical health, and stress levels of "natural" and food-supplemented monitors.

At human subsidized sites, lizards were significantly more abundant and their sex ratio highly male biased compared to control sites in natural forest. They were significantly longer, heavier and in much greater body condition.



Photograph: Chris Bunn Mallacoota picnic site

Blood parasites were significantly lower in human trophic subsidised lizards. Collectively, their results implied that human trophic subsidised sites were especially attractive to adult male lace monitors. However, they could not rule out that the male-biased aggregations of large monitors at "human sites" could lead to reductions in reproductive fitness, through mate competition and offspring survival, and through greater exposure of eggs and juveniles to predation. These possibilities could have negative population consequences. Aggregations of these large predators may also have flow on effects to surrounding food web dynamics through elevated predation levels.

Read the complete publication:

Jessop, T.S., Smissen, P., Scheelings, F., and Dempster, T. 2012. [Demographic and phenotypic effects of human mediated trophic subsidy on a large Australian lizard \(*Varanus varius*\): meal ticket or last supper?](#) PLoS ONE 7(4):e34069.

Hints on photographing fungi

Remember the usual advice for taking good photos in these conditions — the fungi don't move at all while they are being photographed so you can use long exposures in the low light of the forest, provided you know how to control your camera and have brought something stable to rest it on while the photo is being taken (tripod, block of wood, small bean bag — are all good solutions). The fungi are usually small and very close to the ground so either one of ground-sheet or a piece of plastic is good to have — then you can kneel or even lie down in relative comfort on the damp ground while the camera is being focussed on the fungus.

Of course, you can use the camera's flash unit to take, but you would need to play around with exposure compensation (read the camera's manual for instructions about how to do this with your camera) to avoid an unnaturally lit fungus shining brightly against an almost black background. If you want to take a more naturally lit photo of these little gloom dwellers, then you need to find out how to turn off the automatic flash in your camera and use one of the techniques, suggested above, for keeping your camera absolutely still while it is taking the photo.

By Rod Orr

Whirrakee

Newsletter of the Bendigo Field Naturalists Club



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: www.fieldnatscanberra.com

All newsletter contributions welcome.



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: