



OBJECT: To foster an interest in nature

MEETING THURSDAY 1st July 2010
7:30 pm Australian National University
Meeting details back page

Citizen Science

Speaker: Bryan Kalms

This is a talk with a different angle from usual - a talk about the contributions individuals make to scientific endeavour.

Bryan says "A guided wander around the realm of citizen science, with ample opportunity for engagement, questions and reflection."



Artwork - Art Explosion

Contents

	Page
Outing - The Justice Robert Hope Park	2
ANU Awards and Scholarship Presentation	2
FNAC Website Photographs Page	3
Feeling Creative or Contemplative?	3
Rapt !!	4
Sea Lions Recruited as GPS Trackers	5
Hybridisation a Threat to Native Ducks	6
Invitation to Lake Eyre	6
Citizen Science 'Can Safeguard Birds' Future'	7
Contact details and map	8
Membership application	8

Outing - The Justice Robert Hope Park - 4 July 10:00am

Location: The Justice Robert Hope Park, Antill Street next to Prime Television and opposite the horse paddocks.

The reserve has an overstorey comprising an approximately 80% / 20% mix of *Eucalyptus melliodora* (Yellow Box) and *Eucalyptus blakelyi* (Blakely's Red Gum) respectively, with a few trees of *Eucalyptus bridgesiana* (Apple Box) also present. One very old *Eucalyptus rossii* (Scribbly Gum) also occurs within the Reserve. The Yellow Box/Red Gum woodland has many large healthy mature trees with diameters at breast height of over 1.3 m. Based on studies these are likely to be at least 200 to 300 years old.

The woodland now also contains several extensive patches of regeneration largely comprising saplings estimated to be 12-17 years old. This regrowth has occurred most prolifically where mature trees remained providing a seed source for recruitment. Some of the regeneration has been damaged by kangaroos. The Woodlands convenor, Richard Larson will meet us to discuss the work the group has done over the last 15 years.

The Yellow Box/Red Gum woodland is an endangered ecological community. More information and the downloadable Policy Statement can be found on the Department of Environment, Water, Heritage and the Arts website;

<http://www.environment.gov.au/epbc/publications/box-gum.html>

Contact : Chris Bunn 6241 2968 or [chris_b\(at\)webone.com.au](mailto:chris_b(at)webone.com.au)

★ ANU Awards and Scholarships Presentation ★

Each year FNAC donates a prize to ANU as a small 'Thank You' for the use of the room for our monthly meetings in the Botany and Zoology building. This year two students, Peri Bolton and Kristen Walker received our prize of \$200 each.

On 7th June I was pleased to witness the presentation of our prizes during an award ceremony for ANU College of Medicine, Biology and Environment and ANU College of Physical and Mathematical Sciences. It is always exciting seeing excellence rewarded. FNAC wishes Peri and Kristen every success in their future. It was great to see their enthusiasm, to see how our small donation encouraged these students.

The students also receive a complimentary membership to FNAC. I look forward to getting to know our new members better at future meetings and outings as they take advantage of their complimentary membership. Congratulations to Peri and Kristen.

Margaret Kalms - Editor

Photos: Margaret Kalms



FNAC Website Photographs Page

Field Naturalists - Canberra

Home

Committee

Contacts

Newsletters

Field-Trips

Membership

Articles

Archives

Submissions

Photographs

Photographs of events on the Field Naturalists' Association of Canberra's calendar will be shown here whenever they are made available. Simply click your cursor on the particular event of interest to you to view photographs and information from that event.

Be aware that it may take some time for these photographs to appear.

[Australian National Botanic Gardens](#) (Sunday, 6 June, 2010.)

Bob Lehman, our skilled Web Master, has added a "Photographs" page to the FNAC Website; <http://www.fieldnatscanberra.com/Photographs.html>.

The idea is to place photographs from various field trips, activities and events, or natural history interest, initially from 2010 and 2009, then build up from that point.

The "Photographs" page will become a collective record of various field trips, activities and events named and listed, with a link to the relevant photographs in each case.

All that is needed now are the photographs and a brief statement indicating what each represents:- the - What; When; Where and Who of each photo.

FNAC Members and friends who have such photos and information, and would be willing to have them placed onto the website, contact Bob Lehman; [helbo\(at\)westnet.com.au](mailto:helbo@westnet.com.au)

Thank you for your excellent work maintaining our website. Margaret Kalms - Editor.

Feeling Creative or Contemplative?

In the spirit of Citizen Science, there are many places where you can place your photographs or musings. With the worldwide web connecting us all, information can be gathered in a variety of ways. Two interesting Australian sites, both hosted by the ABC are;

<http://pool.org.au/birdland>

about birdlife

<http://pool.org.au/rivers>

about rivers

These sites are requesting submissions of photos and observations from any interested person. The best works will be collected for a documentary. You can upload any digital format item - poems, music, memories, writings, letters, photographs, short video clips, interviews, animations, digital art and more. Get creative, get thinking about how birds and rivers have impacted your life in the past and in the present. Have you noticed something that no-one else has noticed? Do you have a favourite bird or river? What makes it special? How does human activity impact on it?

The birds project closes 1 Sept 2010

The rivers project closes 15 Sept 2010

Margaret Kalms - Editor

RAPT !!

Going to the sink to stack dishes I glanced out of the window. What scattered mess had the wind blown out onto the grass? Plastic pieces from an old sack? NO - a Crested pigeon was being plucked in our own backyard.

The Brown Goshawk/Collared Sparrowhawk (*Accipiter cirrocephalus*) quandary existed for more than an hour until I could see a seemingly-elongated middle toe which Michael Morcombe's Field Guide suggests would belong to a sparrowhawk.

Crested pigeons are the birds most commonly present around the garden. Now the rest of them will have a real vigil to keep as they perch for hours on the electricity wires.

There were some feathers 2m from where the sparrowhawk was feeding but the body was moved to be partially hidden from the view of magpies who began a short-lived racket a few gardens down. For the next hour the sparrowhawk wasn't disturbed by other birds as squally showers and fickle winds blew across Flynn (as forecast).

There were a few objections from the pigeon or its involuntary nervous system but its eyes then close and the neck went limp. It was no longer being eaten alive. So used to seeing naked chicken and only half remembering plucking chicken as a teenager, I was still amazed at how much plucking the 'hawk had to do between mouthfuls.

I've seen scatters of feathery evidence before both here & around the place but should I have blamed cats less? Would the sparrowhawk leave the carcass? If so which species would then scavenge what was left on a cold day when they'd likely be extra hungry? Or could it carry the remains and to where?

Flesh was pulled from the breast area and presumably vital organs were eaten first. The 'hawk stood on the body using considerable strength to pull meat from between its feet. At first the area around its beak was bloodied, showing the value of vultures' bare skin but it seems the plucking had the effect of cleaning off the gory evidence. Apart from plucking movements where the wind helped to blow the feathers away the downy feathers were eaten along with the 'meat'. At one stage the bird seemed to run the beak along the outer wing feathers as if to clean it. Then these tougher feathers were plucked out as well.

The sparrowhawk turned round and the "parson's nose" was next on the menu, or at least, the seemingly fatty-meat around the tail. The wings were the last to receive attention. After two hours the 'hawk's crop was visibly full, almost Pouter-pigeon-like. The feeding wasn't continuous, there were several breaks between efforts. Did the bird ponder "Dare I leave this meal?", "Will I be able to fly with this extra weight on board?" And I wondered whether, reptile-like, it would now go several days without eating?

At one point, perhaps an hour into the feasting, an Eastern Spine-bill darted into the profusely flowering pink *Correa* that was nearby. Four Galahs observed the garden from their customary power-pole-perch. Increasingly noisy just before they left, did they spread the news, give a warning or were they merely registering disapproval? Was it only the weather that kept the garden silent & devoid of birds?

Later the sparrowhawk became still, wary and seemed likely to take-off. It relaxed once an undulation of Currawongs had flown through to the north. Twice non-feeding spells were followed by poop-production. If the guano could have been analysed what would I have learned? How long before the remains of the hapless Crested pigeon pass out?

Almost three hours after observations began there seemed to be more bird-calls in the air, especially those of magpies. Feeding activity was less frenzied and the gaps between efforts much longer. The sparrowhawk's feathers seemed unaffected by the rain and it would shuffle them every 5 minutes or so. Quite suddenly the bird flew off and up on to the paling fence clutching the carcass with one foot. The Spinebill made another dash into a different *Correa*. Then there was another short flight onto another fence but in the lee of a neighbour's Cotoneaster. The sparrowhawk remained there, its grey-brown back towards the camera for 10-15 minutes.

The last visible flight was towards high eucalypts. There was a bit of bluster from magpies but whether they had seen the raptor or fancied hassling it for the red-remains, who knows? And will the Crested Pigeons have bad vibes about our backyard for a few weeks?

Rosemary Blemings, June 17th 2010.

Sea Lions Recruited as GPS Trackers

Australian sea lions are being fitted with GPS trackers and National Geographic Crittercams. They are taking scientists on amazing journeys under our seas to previously unknown marine 'hot spots,' supplying very clear information about areas that provide important habitats for our fish stocks and other marine life.

The information will be used by the South Australian Department for Environment and Heritage (DEH) to help determine the levels of protection required within the different zones of SA's new marine parks.

The novel project, led by SARDI scientist Dr Brad Page, is revealing critical information about SA's sea floor environments, as well as valuable insights into the behaviour and foraging habits of the endangered Australian sea lion. The crittercam footage (available from SARDI) includes world-first vision of a sea lion capturing a large octopus, swimming with other sea lions and diving and foraging on the sea floor.

To date, 14 sea lions have been tagged with GPS loggers, including four with Crittercams supplied by National Geographic.

When researchers finish tracking the movements of the sea lions, a team from DEH will retrace the sea lion's 'footsteps', mapping the sea floor in their feeding hotspots. Dr Page said the research was also answering many questions about the endangered sea lion, which would help in their conservation.

"We are seeing how they behave in a natural environment with the crittercam documenting what they eat, how they capture it, what time they eat, where they spend their time in the water as well as how fast they swim and dive," he said.

"One important discovery is that the sea lions always feed near the sea floor and they don't eat pelagic fish – they regularly swim through schools of sardines, salmon and even sweep. This is critical information because the marine parks are being set up to protect sea floor habitats, a move that we can now confirm will protect critical sea lion feeding habitats."

Researchers have spent up to two weeks at a time, at Dangerous Reef in Spencer Gulf, a remote, barren and rocky outcrop the size of a football field, and home to Australia's biggest Australian sea lion colony.

The Crittercams and GPS loggers were retrieved from the animals after four days. Dr Page said only the female sea lions were tagged with the devices as they were looking after their pups on Dangerous Reef.

"Mums are the most important part of any seal population because they provide the next generation of seals, so if there's any feeding habitat that should be protected, it is theirs," he said. "And they don't forage too far because they have to remain close to their pups, returning often to nurse them, whereas the males have free rein to go where they like."

The three-year project, using the foraging behaviour of the threatened Australian sea lion to assess habitat quality and inform the zoning of marine parks in South Australia, concludes in 2012. It is being conducted by SARDI and DEH with support from Marine Innovation SA (MISA).



National Geographic 'crittercams' are giving SA researchers a unique view into the life of Australian sea lions.



An Australian sea lion with a GPS tracker attached to its back.

Article and photographs from SARDI (South Australia Research and Development Institute); http://www.sardi.sa.gov.au/information_and_news/media_releases/sea_lions_given_a_voice_in_the_marine_park_planning_process

The National Geographic story captured by the Crittercam showing a sea lion devouring a large octopus; <http://video.nationalgeographic.com/video/player/news/animals-news/crittercam-sealion-vs-octopus-vin.html>

Hybridisation a Threat To Native Ducks

Research fellows Dr Patrick-Jean Guay and Dr Randal Robinson of VU's Institute of Sustainability and Innovation found native Pacific Black Ducks appear destined to follow a similar fate in Australia as they have in New Zealand, where they are now likely extinct in their pure form.

Their nemesis is the domestic duck, or mallard, which mates with wild ducks and creates cross-bred populations.

Dr Guay said hybridisation not only represents a threat to biodiversity - the life-sustaining dispersal of species across the planet - but Mallards and their hybrid offspring can become a nuisance since they are more aggressive, more tolerant of humans and can invade urban habitat.

On Lord Howe Island, for example, an increasing number of Mallards and their hybrids have caused extensive beach fouling and tourists now tend to avoid those areas.

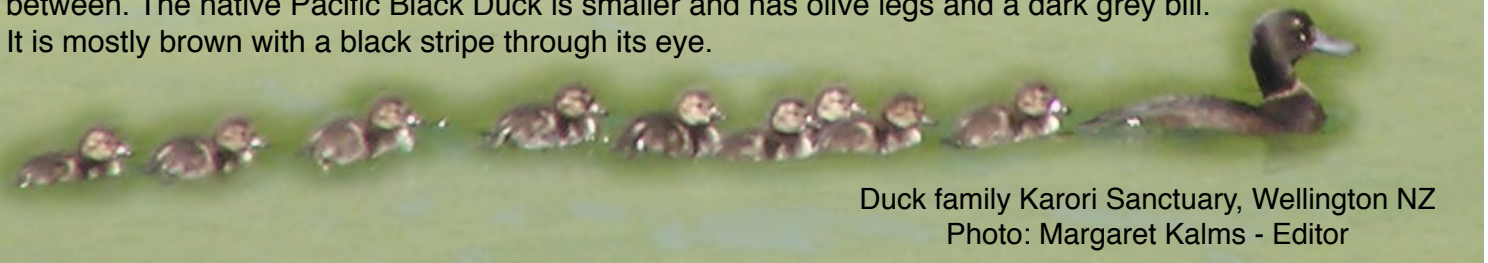
During a three year study, the researchers aim to determine the genetic integrity of Australia's native duck populations by collecting DNA samples of ducks from hunters.

Once the extent of the problem is exposed recommendations to manage Mallards will be submitted to the nation's wildlife agencies. The sampling has already started in Tasmania and parts of Victoria.

"In New Zealand, it took less than 100 years from when the first Mallards were introduced from Europe and North America for wild Pacific Black Ducks to reach the brink of extinction," he said. "Most ducks in New Zealand are now hybrids between Mallards and Black Ducks," he said.

Dr Guay said it was important for people not to release domestic ducks into the wild, nor to feed them in urban settings. Domestic ducks can be distinguished from wild ducks by their larger size, their orange legs and their yellow (male) or orange (female) bills. Their plumage ranges from white to black and ranges in between. The native Pacific Black Duck is smaller and has olive legs and a dark grey bill.

It is mostly brown with a black stripe through its eye.



Duck family Karori Sanctuary, Wellington NZ
Photo: Margaret Kalms - Editor

Victoria University, Wellington NZ.

http://www.sciencealert.com.au/news/20101506-21060.html?utm_source=feedburner&utm_medium=email&utm_campaign=Feed%3A+sciencealert-latestnews+%28ScienceAlert-Latest+Stories%29

Invitation to Lake Eyre

Rosemary Bell from Canberra Ornithologist Group (COG) has been on a recent trip to Lake Eyre. In a recent email to a committee member, she described an abundance of birds and an exciting journey.

She suggests that FNAC and COG could get together and organise a joint trip to enjoy this spectacle. Is there anyone who would like to organise this?

Sounds like fun to me.

Margaret Kalms - Editor

Citizen Science 'Can Safeguard Birds' Future'

Encouraging people to record everyday sightings of common bird species could help limit future extinctions, an international study suggests.

It concludes that large, long-running records are needed to show how numbers and distribution change over time. The authors add that the internet could allow people to log their sightings on line, and urge websites to standardise the way data is collated. The findings have been published in the journal PLoS Biology.

Lead author Elizabeth Boakes said millions of people enjoyed birdwatching, and data collected by the "twitchers" could be vital for professional scientists in the future.

"There is a wealth of untapped data that could be made available for conservationists," explained Dr Boakes, a research associate for the Natural Environment Research Council (Nerc) Centre for Population Biology at Imperial College London.

"In the future, say 50 or 100 years time, if scientists want to reconstruct a picture of our present-day biodiversity, they are not going to be able to because the data has not been recorded," she told BBC News.

"We found that data from the past 30 years or so has been heavily biased towards threatened species and areas of high biodiversity, such as protected areas like national parks."

Dr Boakes presumed that the bias in the contemporary records were a result of the focus on conservation. "While this is very sensible, it means that we are really lacking data from huge areas of low biodiversity," she said. "For example, our records from India have a lot of recent data from the Himalayas, but we have hardly any data at all from the central plains; yet there must be birds there. "It is really important that people record every bird, not just the exciting species that they see."

'Citizen science'

The team reached their findings after collating 170,000 records for 127 gamebird species across Europe and Asia dating back over the past two centuries.

Sources of data included museum collections, literary sources such as journal entries and private letters, and ringing data.

Limited resources and funding meant it was unlikely that professional biologists and conservationists were going to conduct comprehensive, continuing surveys on the scale required, suggested Dr Boakes. However, she added that it was a gap that could be filled by "citizen scientists".

"Museum collections in the past provided good representative data, and they are the only source that really did that. Now, museums are chronically underfunded and people cannot go out and collect everything, so we need something to replace the role of museums in recording biodiversity, and I think citizen science offers the best prospect."

The authors said the development of the internet and mobile computing had led to a "vast increase in citizen science projects, which can facilitate collection and distribution of all kinds of taxonomic data from a wide geographic area at minimal cost".

Dr Boakes added: "We are suggesting that we need to have a formalised website on which people can enter data on not just birds, but plants and mammals etc." However, the team acknowledged that submissions lacking geographical references, or that were not fed into a centralised database, would have "little future scientific value".

"But there are numerous examples of citizen science projects recording less charismatic taxa ranging from freshwater sponges to lichens, and these give reason for real hope that we can eventually establish a robust mechanism for monitoring changes in global biodiversity," they wrote.

Article By Mark Kinver

Science & environment reporter, BBC News;

http://news.bbc.co.uk/2/hi/science_and_environment/10206710.stm

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 the member application below and send it with your subscription to the FNAC Treasurer, GPO Box 249 Canberra, ACT 2601:

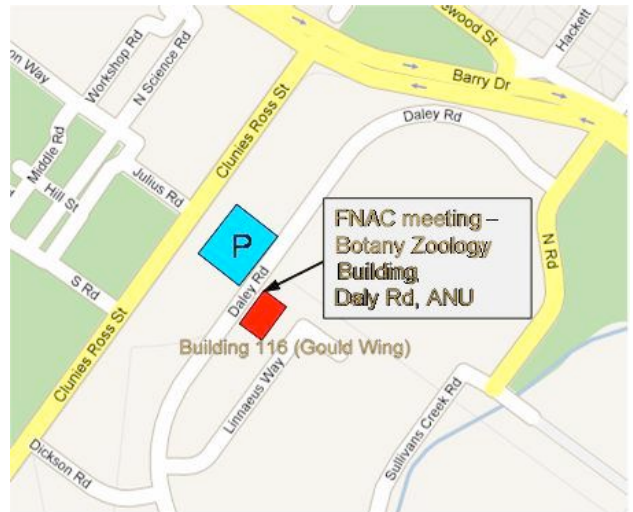
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Published and distributed by Bob Lehman.



Monthly meeting venue: Division of Botany and Zoology, Building 116, Daley Rd, Australian National University Park (occasionally at the adjacent Building 44).

Meetings start at 7:30 pm and are followed by refreshments.

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: