



MEETING THURSDAY 5th AUGUST
7:30 pm Australian National University
Meeting details back page

Ginninderra Creek:

Realities, Issues and Potential

Photographs by John Baker

Ginninderra Creek rises in Mulligans Flat. In recent decades the waterway has seen many suburbs encroach on its floodplain and vegetation. Its corridor is urban open space for many kilometres but has also been modified by bike-paths, created wetlands, Lake Ginninderra, the effects of willows and their removal and the way storm water drains into it from the suburbs. It still flows through paddocks beyond Dunlop and provides a vital connection with the Brindabella foothills for birds. Ginninderra Falls are spectacular still after heavy rain but unseen by the public. High quality habitat surrounds the creek at the Falls and as the water meanders, finally, to the creek's mouth on the Murrumbidgee.

Invitation - October is Members' Night

Members are invited to talk about a Natural History topic. Get thinking. This is your chance to shine! The committee (contact details on back page) is looking for several members to speak for about 15-20 minutes at our October meeting, 7:30 pm Thursday, 7th October.

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Outing Ginninderra Creek - 10:30 am, Sunday 8th August

Meet at Croke Place, Evatt (UBD reference , page 37 Q 6 and off William Webb Drive). We may carpool there & drive to two other stopping-points (Latham and Dunlop) to view some of the creek's features. For further details or with queries, contact Rosemary Blemings on 6258 4724 or [rosemary\(at\)blemings.org](mailto:rosemary(at)blemings.org) .

July Outing - Justice Robert Hope Park

1808 saw the emergence of Beethoven's Pastoral Symphony in response to the composer's frequent walks "in the country". From 1904 Hans Heysen began his "pastorale" with depictions of the country around Hahndorf, now a short drive east of Adelaide. In the late twentieth century a group of dedicated volunteers accepted the challenge of adopting country barely five kilometres from the capital's CBD.

On 23rd June I went to the National Gallery to see the Hans Heysen exhibition. On 4th July FNAC members were introduced to Justice Robert Hope Park (JRHP) and on the way home Beethoven's symphony drew all the experiences together as musings on the nature of PASTORAL.

Heysen is credited with bringing the iconic character, colours shades and sculptural forms of eucalypts to the attention of Australians through his paintings. The play of light in nature, the deceptive simplicity of rural scenes, the richness of the land's colours and life's effects on the early settlers brought new dimensions to the "young" Nation's consciousness.

Previously the Watson woodlands, the park now protects a small acreage of Yellow Box Red Gum Grassy Woodland that links part of the "plains" to the foothills of Mt Majura. On Antill street vehicles speed between the park and horse paddocks, their occupants oblivious to bush that

has been spared from residential development. Marginal for agriculture, the habitats were almost grazed to extinction by pressures from weeds, fertility from dung, widespread *Phalaris* as pasture-improvement and agistment practices that ignored the value of native species for decades. Majestically towering over the trashed grassland maybe a score of *Eucalyptus blakelyi* and *E. melliodora* remain, adding silent witness to the landscape changes wrought by population increase and political demands.

On a cool but sunny winter morning John Briggs interpreted JRHP to Field Naturalists' members, a conductor taking us to each of his favourite trees and showing how the orchestra of volunteers has worked to transform the degraded woodlands. Inspired by the late Martin Grace, Richard, John, Helen and Terry have systematically taken out the environmental and woody weeds that were choking the grasslands and denying the shrub layer space and water. Briar roses, though not traditional garden-escapees, were numerous. Their only positive, the shelter they afforded small birds.

More recently Gillian and Keith have joined the group. They live in the only environmentally sensitive, climate-aware house we could see in the new "infill" development east of the Potters' Society gallery on Aspinall Street.

Photo: George Heinsohn



The group's grass-roots activism has led to help from Parks, Conservation and Lands with weed control. They've secured grants that have assisted with fencing, exclusion-fencing, the planting of local species, signage and had the help of Minister Corbell to increase the size of the park to 18 hectares.

The group created a comprehensive management plan but the orchestra's "score" wasn't always followed. Misunderstandings or lack of communication between layers of management, lack of consistent leadership once lead to the spraying of species planted to replace the ground-storey. A water retention pond was created but it is too shallow and tadpoles couldn't mature before evaporation killed them. (Some that John moved to a different pond were attacked & eaten by mosquito-fish). Although grasses round the pond and rushes and reeds at the water's edge have flourished the grasses were mown, denying their flowers the chance to seed.

Many of Heysen's masterpieces depict "the toilers" amongst South Australia's settlers. He drew on observations whilst studying in Europe. His landscapes highlight people especially miners, farmers, bullockies, drovers and ploughmen. Horses, poultry, cattle and sheep help to create setting. Beethoven's symphony includes a shepherds' dance. Sheep and cattle have compacted JRHP's soil and eaten any forbs that struggled to grow during the grazing period on Canberra's fringe. The Parkcare group are the toilers in our own age.

For centuries there's been a tradition, a religious zealotness associated with taming nature and dominating other species. In colonial Australia this lead many to despise or undervalue "the bush". Indigenous species couldn't possibly be better or more valuable than those imported from the "old world". Heysen lived to see enormous changes around Hahndorf as farming altered age-old patterns and structures. In Beethoven's Europe the major changes took place centuries before his time.

The JRHP Group, with their Landcare and Parkcare colleagues show these destructive attitudes are changing at last - working with nature to heal the damage of the past and achieve a future for ourselves and the species we influence.

At JRHP the shrub layer is being replaced with local-provenance plants, such as *Bursaria spinulosa* and smaller wattles using seed harvested from the woodland. Some young trees grow almost in a ring beyond the allelopathic zones of the huge parent-eucalypts.

Fallen branches are no longer harvested for firewood. The branches remain, to be searched for borers by Yellow-Tailed Black Cockatoos and to shelter germinating plants from grazing. In some places where kangaroos are the only grazers, the natural forbs have re-emerged from the soil's seed-bank. This should continue if rabbit control in co-operation with Parks, Conservation & Lands and the Majura Parkcare Group is successful.

A fall in nutrient levels because sheep no longer graze has led to an increase of native grasses in the ground-cover. These will increase the incidence of seed-seeking small birds and the numbers of reptiles taking advantage of the grasses' inter-tussock spaces. Dragon lizards and Stumpy-tails have already increased in numbers much to the volunteers' delight. Sheep's hooves no longer compact the soil and destroy the mosses and lichens which are the first colonisers. There sheep no longer need weed-infested hay

nor lay bare the soil around the shading trees as they chew the cud.

The parkland can contribute as a wildlife corridor with the land opposite and the Majura-Ainslie Nature Park areas. It's possible that JRHP will act as a connectivity catalyst in having the horse paddocks absorbed as part of an offset for the destructive development-plans for the woodland near the old National Heritage Park.

Most nature reserves and urban open spaces in the ACT have problems including dogs' and cats' effects on wildlife. When a "BMX" track and jump were constructed it was removed by the "department". This raised the ire of the constructors who injured new plants and tree guards.

The fallen branches, timber remains, derelict acacias, leaf litter and trees and shrubs of varying ages ensures that the natural, fertile messiness of the bush is returning. Falling and peeling bark, tree hollows and the endless textures of the big trees trunks are here in Watson. Often the trees' shape is rendered more unpredictable when stormy winds tear off branches. Such losses stimulate epicormic growth and the sculptured form alters again... over hundreds of years. Heysen painted these icons using water-colours or oils. We measured the trees' girths and photographed the occasion.

Will anyone adopt Justice Robert Hope Park's trees to write a new score, a high-tech record of their centuries-old story, in our time? Both Heysen and Beethoven created storm-scenes in their compositions. The vivid threat of a bushfire at Hahndorf shows how the idyll of rural life could be shattered. The evocative harmonies of the symphony are shattered by the thunderstorm's intrusion. Nature's power is seldom far away or are these different storms used as commentaries on man's treatment of the planet?

John conducted us through their "patch" bringing a patient, ecologists' eyes to his sensitive interpretations and explanations. We felt his passion for the park, Australian ecosystems and species and the intricate needs of flora, fauna and habitats. He has a deep sense of the ebbs and flows of seasonal and climatic changes and the inter-dependence of species in the landscape and we thoroughly enjoyed sharing this experience.

Rosemary Blemings

Photo: George Heinsohn



Natural History Observations in New Caledonia

words and photos by Miriam and Bob Bruning



A view of coastal bay near Prony to the south

New Caledonia is a fragment of Gondwanaland about 500 Km long with some attendant islands. The main Island which we visited (Grand Terre) has high mountains of volcanic origin and is surrounded by the world's largest encircling reef. The indigenous population are Melanesian and have been colonised by the French who also used it as a penal colony from the 1870's. There is now limited autonomy but New Caledonia is still controlled by the

French government and part of the European Community.

New Caledonia has dry forest, wet forest and Maquis (ma-kee) - a name for shrubland borrowed from the shrubby heathlands of southern France which it only resembles in appearance as it grows in a wet climate not a dry one. As a part of Gondwanaland, the country carries plant families familiar in Australia and New Zealand including: *Araucaria* (Bunya, Hoop pine), *Agathis* (Kauri), *Myrtaceae* (*Melaleuca*, Kiwi Christmas tree -*Metrosideros*, *Xanthostemon*), *Grevillea*, *Podocarpaceae* (mountain plum pine), *Areaceae* (palms, climbing canes), *Nothofagus* (southern beech -did not see), *Epacridaceae* (heaths, *dracophyllums*), and *Casuarina*, tree-ferns etc.

Dracophyllum verticillatum
Epacridaceae - endemic

There are also similar bird and animal species (notably flying fox) and similar problems with introduced cats, dogs, rats, Common Mynahs and escapist plantation *Pinus*. The bad news is the removal of a significant amount of the rainforest due to mining (Nickel pays the bills) and fires – even maquis will not regrow well after fire has destroyed the humus as the plants are coping with a hostile soil full of more toxic metals of high interest to miners. The good news is the establishment of reserves, a captive breeding program for their flightless bird, the *Kagu*.



Reserves are also established for cleared areas less likely to return to natural forest, forming plantations of local *Agathis* and *Araucaria* species. As well as the flightless bird, and the reef, the gem of New Caledonian ecology is the high degree of endemism, particularly among the conifers. When you consider that Norfolk Island is home to one *Araucaria* (N.I. Pine) and Australia (Bunya and Hoop pine), PNG and Latin America each home to two or three others; New Caledonia hosts 13 species in that genus found nowhere else on earth!



We were able (by 4WD tour) to visit a maquis reserve and some rainforest in the interior of the island. I thought the maquis most resembled the high diversity in southern WA “heathlands” where some of the shrubs are taller than people due to reasonable rainfall. As well as various conifers and relatives of *Epacris*, *Dracophyllum* and *Xanthorrhoea*, there were orchids a metre tall and members of *Boronia* and *Hibbertia* genera. The rainforest contained tall *Agathis* (like Kauri) and *Araucaria* as well as palms, tree-ferns, scrambling and epiphytic plants and figs. We were shown two massive trees – one *Montrouzieria cauliflora* (*Clusiaceae* formerly *Guttiferae*) and the other a genus unique to NC – *Neoguillauminia Cleopatra* (*Euphorbiaceae*). Both trees had circumferences at base of up to 10 metres and were at least 50m tall. The latter was apparently a good gecko habitat, of which there a quite a few unique species.

There is a hill overlooking the nice beaches of Noumea called Ouen Toro which is worth a walk as it is reserved and contains a nice mix of dry forest. As well as the lowland *Araucaria (columnaris)*, this contained wattle and *Melaleuca* and was popular with local species of silver-eye, fantail, rufous whistler and a species of firetail finch. Unfortunately the lack of access to the reef (off season less operators) reduced the options for sea birds as well as fish and coral. However a sacred kingfisher and Pacific reef heron (dark phase) were seen at low tide.

A visit to the aquarium at least showed us what was on the reef and included chambered nautilus which they were proud of breeding. A visit to the cultural centre reminded us that mosquitos go with mangroves and gave a good insight of the relationship of the indigenous people to the plants – especially yams. A visit to the large botanic gardens and wildlife park showed us unlabelled plants and the indigenous birds, fruit bats, geckos and the *Kagu* captive breeding program. The last has a nice crest which is raised and lowered very quickly and a strange assortment of calls including a harsh “swearing” and mournful calls.

Sources:

http://en.wikipedia.org/wiki/List_of_birds_of_New_Caledonia

<http://www.conifers.org/topics/nctrees.htm>

<http://www.conifers.org/topics/nctrees.htm>

<http://www.endemia.nc/> - have to rely on Google’s literal translation from the French!

<http://www.new-caledonia-photos.com/index.html>

Aussie Oil Drilling Threatens Fish

Flinders University

The issuing of oil drilling licences off the coast of South Australia poses a serious potential threat to the ecosystem that underpins the nation's most valuable fishing industry, a Flinders University oceanographer has said. Associate Professor Kaempf said that the seasonal upwelling of nutrient-enriched water across the continental shelf break near Kangaroo Island is the principal agent that fuels high abundances of phytoplankton, zooplankton and fish, including the pilchards which attract juvenile Southern Bluefin Tuna to the region.

The haunting images of the massively destructive oil spill in the Gulf of Mexico have an immediate relevance, he said. "Apart from potential overfishing of juvenile tuna, future oil disasters pose the biggest threat to the unique ecological environment produced by upwelling in the region. Even a small oil spill could cause damage in the Great Australian Bight similar to that caused by the BP spill in the Gulf of Mexico," Associate Professor Kaempf said.

Associate Professor Kaempf recently completed a study that revealed a chain of processes that begins with localised upwelling in submarine canyons cutting through the shelf break south of Kangaroo Island. The upwelling produces nutrient-rich water,

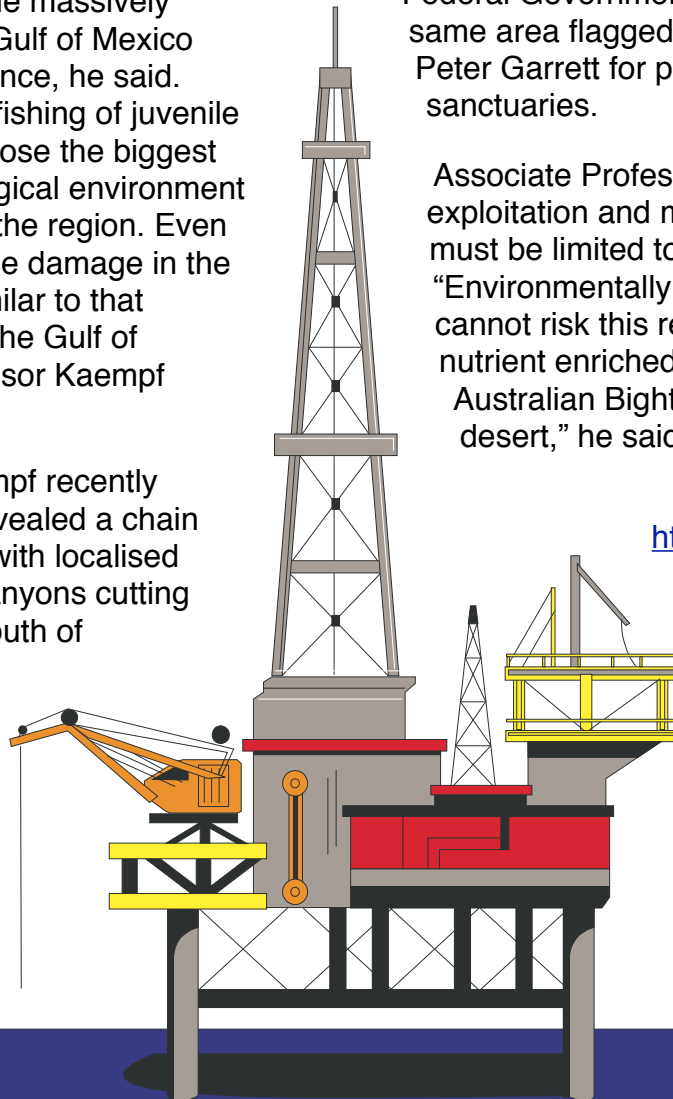
which collects southwest of Kangaroo Island in a subsurface pool approximately 100 kilometres square, and equivalent in volume to 40 million Olympic swimming pools. In summer, the pool moves further onshore into the surface ocean layers off the southern tip of Eyre Peninsula where the nutrients and light catalyse high levels of primary production, the trigger of a highly productive marine food chain.

"The canyon upwelling is unique because of its depth – it is one of the deepest in the world, guaranteeing particularly high nutrient fluxes," Associate Professor Kaempf said.

Some of the new drill leases approved by the Federal Government are, ironically, in the same area flagged by Environment Minister Peter Garrett for potential marine sanctuaries.

Associate Professor Kaempf said industrial exploitation and marine pollution of any kind must be limited to zero in the area.

"Environmentally and economically, we cannot risk this resource: without the nutrient enriched water, the eastern Great Australian Bight would be a marine desert," he said.



<http://www.sciencealert.com.au/news/20100907-21124.html>
9th July 2010

"There is an innate interest and sympathy for the natural world among many people. If only you can get the story across, truly and simply, you will find a response and an enthusiasm."

Graham Pizey of Crosbie Morrison

Secret Creek Sanctuary, Lithgow - Outing with ANPS

An email from Shirley and Warwick Daniels

I am pleased that you are able to promote this activity on our behalf for the Field Naturalists. It is part of the Tuesday Activity for ANPS Canberra for Monday, 18th October and Tuesday 19th October.

We will drive to Lithgow on Monday 18th of October. Participants will need to organise their own accommodation and transport. We will be staying at the Zig Zag Motel in Lithgow.

For 5:30pm Monday, I have booked a guided tour of the "Secret Creek" wildlife sanctuary, for those who are interested. They specialise in breeding rare and endangered Australian animals, including quolls. There are also rare native plants on the property. The cost of the guided tour is \$15 per person.

On Tuesday, 19th October, we will visit the Mt Tomah Botanic Gardens, before returning to Canberra. We intend to have lunch in the gardens cafe.

Thanks once again for organising things from your end.

As we will not be back from our trip to the Pilbara, etc until about 10th October, it is best to contact us via our message bank: 026231 0852

Could you please include your contact details for Field Nats.

Kind Regards,

Shirley and Warwick Daniels

To join ANPS contact Rosmary Blemings on 6258 4724 or [rosemary\(at\)blemings.org](mailto:rosemary(at)blemings.org)

Secret Creek Sanctuary website -

http://www.secretcreek.info/index_files/Page344.html



Interactive Field Day

Tuesday 31 August 2010, 10am till 4pm
Australian National Botanic Gardens, Canberra

Product developers and scientists will be on hand to engage with users at a variety of interactive booths displaying:

- » identification keys for mangroves, insects, mayflies, rodents and others
- » management protocols for weeds and small vertebrates
- » remote microscopy demonstrations online to other lab locations
- » sub-fossil bones and CT scanner technology
- » a Wiki corner
- » other resources and applications that support biodiversity management, such as the Atlas of Living Australia, Australian Plant Name Index and Australian Plant Census.

For further information and to register your interest go to: www.taxonomy.org.au/fieldday.html



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:

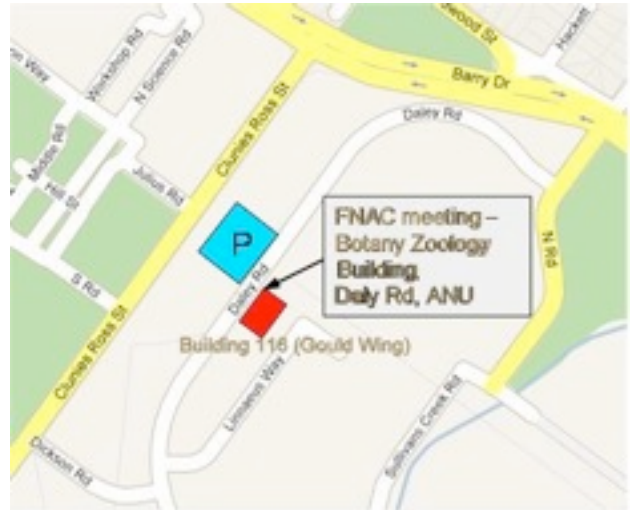
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Monthly meeting venue: Division of Botany and Zoology, Building 116, Daley Rd, Australian National University. Park (occasionally at the adjacent Building 44).

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

Twilight Forest Adventure

This adventure shines a spotlight on the after dark happenings in the ANBG. Feel the rainforest come alive, catch a glimpse of a sugar glider in search of food in the tree tops and hear the forest groan. Discover the mysteries of the rainforest at night. 2 hour session with a Twilight Guide, including a hot Milo.

When: Monday 16 August, 7.00 pm – 9.00 pm.

Cost: \$5 per person or \$15 for a family of four.

Bookings and enquiries: Bookings essential, fill in form (available at www.anbg.gov.au/anbg/activities.html) and fax to (02) 62509539 or email to vc@anbg.gov.au – limited numbers per night, cancellation fees apply.

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: