

March 2018

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GPO BOX 249
CANBERRA ACT 2601

FIELD NATURALISTS' ASSOCIATION OF CANBERRA INC.

FIELD NATURALIST

MEETING—Thursday 1 March 2018

7:30 pm Australian National University

Jan Anderson Seminar Room, R.N. Robertson Building, Biology Place, ANU, ACT
details back page

Island of Stone Money

Speaker: Karen Hanson

Karen is passionate about environmental issues, such as protecting the ecological habitat of a wide range of floral and fauna species, and how society manages these environment issues. Her passion for environment issues led her to study the field of ecology and environmental science at Canberra educational institutions, and from there to Compliance Program Development Advisor in Yap EPA in the State of Yap, Federated States of Micronesia. Karen's presentation will provide a brief overview of the Island of Stone Money – the culture, environmental challengers and how these issues are being addressed, and brief information on her assignment role.



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Canberra naturalist Ian Fraser awarded a Medal of the Order of Australia

No doubt you are aware that Ian Fraser was honoured in the 2018 Australia Day awards, being granted the Medal of the Order of Australia.

Ian Fraser began his exploration of the natural world trawling around a paddock in South Australia, looking for lizards with a 'neuronally-challenged' bull terrier called Peter. Since

then—particularly since his move to Canberra in 1980—he's shared his love of the Australian environment with thousands of people, through teaching, tours, books and on ABC radio.

This award is a sign that society still values the flora and fauna that makes our country unique. The recognition is well deserved and long overdue.

Fruit fly with the wings of beauty

A neighbour recently showed me some photos that amazed me. She told me she saw them in a book/magazine and couldn't resist taking a photo. They were of the fruit fly *Goniurellia tridens*. Of all the resplendent beauties in the insect kingdom, few might look to the humble fruit fly for its delicacy or charm, but a closer examination of the transparent wings of *G. tridens* reveals a piece of evolutionary art. Each wing carries a precisely detailed image of an ant-like insect, complete with six legs, two antennae, a head, thorax and tapered abdomen.



Googling images of this fly I found other insects that have wings that depict images such as an ant. Since first seeing these photos I have also noted that some of my own photos of insects show interesting patterns in the wings, though none as clear as the *G. tridens*.

Alison Milton

Mark Moffett, the photographer and adventurer best known as Doctor Bugs, convincingly asserts that the images on this fly's wings are jumping spiders, not ants. His theory is that unlike ants, jumping spiders are visual and see their image in the wings. He has watched them dance to an image (thinking it a mate) rather than eat the prey.

G. tridens is a member of the Tephritidae fly family, known as 'peacock flies' for their colourful wing patterns. *G. tridens* was first identified in 1910 by an Austrian entomologist, Friedrich Georg Handel, and more recently spotted in the United Arab Emirates by Dr Brigitte Howarth, an ecologist and fly specialist at the UAE's Zayed University.

Since it was identified in 1910, it has been found in the Near and Middle East, India, and central Asia.



Another insect with insects depicted on its wings.

Bees and cars

The speaker for last month's meeting spoke to us about bees, so it is probably notable that Jenni sent this from WA.

We experienced thousands of thirsty honey bees buzzing around and under the front of parked cars on some extremely hot days in very dry weather in mid-January at Murchison Gorge near Kalbarri. They were also around the taps in the toilet blocks. More recently, we experienced them in Cape Natu-raliste National Park near Sugarloaf Rock. Not sure why English honey bees were in native shrubland.

My son also experienced this phenomenon in the USA (they may have been killer bees).

Apparently they are after the condensation that drips from car air conditioners.

We were also harassed by honey bees when camp- ing in a 'Beekeepers reserve' – they were living in cracks in a limestone cliff.

I am currently living in coastal Cottesloe, an old suburb and have seen very few, if any, bees; not on Rosemary or Lavender or even on Callistemons when in full bloom in September. Why??

Jenni Marsh

Backyard observations

Each day I try to make time to do a circuit of my yard checking on insect activity. This Summer I have had two large Garden orb weaving spiders in my front yard, visible during the day. However, they both ap- peared to disappear but a recent nocturnal reconnoitre found one of the large ones and four much smaller ones in various loca- tions, (which made me more cautious of walking through the yard at night). Thankfully only one is where I might walk into it, and it isn't the large one.

Coming home from the Australia Day fireworks I checked my back screen door as it often attracts various moths and insects. I was greeted by a male orb spider dangling on a thread outside the door. It was there every night for just over a week.



Then going out the front to check on my orb spiders I noted that the large one had something unusually large in her web and

was quite active. Frustratingly, I couldn't get my camera focus on her in the dark so had to fetch my tripod and a torch. By the time I set up I had probably missed the best action as I was amazed to realise that it was actually another orb spider in the web, albeit, much smaller. I concluded that they had con- summated their relationship and then she had decided to have him for breakfast. Dr Google confirmed that orb spiders do actually do this, much like the black widows. Later, she had wrapped him up in a parcel for her pantry. I was totally blown away to actually capture these photos, even though I missed the



mating process.

I'm only just beginning to see leaf curl spiders even though they were more plentiful last year. I also collected a spider egg sac and watched and photographed as the tiny spiderlings finally emerged.

Of most interest however, is what I thought to be an egg sac that I found hanging from a tree by a single thread. I collected it and waited for the occupant to emerge. It turned out to be a parasitic wasp cocoon.



Surprisingly, I've seen very few Orchard Swallowtail butterflies or caterpillars this year. I did however, find an amazing Vine Hawk Moth just inside my back door and a weevil that has the most amazing feet; possibly an Elephant Weevil.



Alison Milton

Orange Hawkweed: continuation of alert

This just a reminder that if you are visiting the Australian Alps to be on the lookout for Orange Hawkweed. This is an invasive plant with the potential to devastate our alpine flora. Orange hawkweed is a perennial that grows up to 400 mm high and has bright orange flowers and hairy stems and leaves. Each flowering shoot consists of 5–30 flower heads, 10–20 mm in diameter. The leaves are 100–150 mm long, dark green on the upper surface and light green underneath, forming in rosettes close to the ground. The stems contain milky sap and are covered in short stiff hairs. The plants are capable of flowering, seeding and reflowering within 10–12 days.’

Orange hawkweed is a potential threat in the alpine country and the temperate tablelands of eastern Australia. It was probably introduced to Tasmania as a garden plant early in the 20th century but was not recorded in mainland Australia until much later. In alpine areas orange hawkweed can outcompete native plants and disturb local ecosystems. It fills the spaces between grass tussocks that are necessary for the regeneration and survival of native species.



The call to NPA members and others is to learn what Orange Hawkweed looks like and be able to identify it and GPS its location. Do not pick the flower or try to pull up the plant. If you locate a plant record the GPS location and contact Jo Caldwell, Project Officer Orange Hawkweed, NPWS Khancoban, NSW. Phone: 02 6079373, Mobile: 0428 103 800.

A salty cure for a deadly frog disease

ABC Newcastle By Annabelle Regan: 5 February 2018

It’s been described by scientists as the “most devastating wildlife disease ever known”—a deadly fungus that has caused the mass global extinction of hundreds of frog species. But researchers at the University of Newcastle have discovered a simple solution in the form of salt.

Chytridiomycosis is an infectious disease caused by the chytrid fungus and blamed for wiping out more than a third of the world’s frog species.

It is a type of fungus that spreads infection by releasing small bodies known as zoospores. It gets into the skin of frogs, disrupting the flow of electrolytes and eventually gives them a heart attack.

University of Newcastle ecologist Simon Clulow said it was devastating the world’s frog populations.

“Hundreds of species have already gone extinct and hundreds more are at risk of extinction,” Dr Clulow said.

It is continuing to devastate populations in Australia, the Americas, Asia, Europe and Africa.

A new hope for survival

Dr Clulow said they focused their study on ‘one species we’re particularly fond of that occurs in our area, that’s suffered huge, dramatic declines by 90%’—the green and golden bell frog. And the solution is a simple one.

“We use pool salt ... It’s predominantly sodium chloride, which is your most common salt.” The study established that by elevating salt levels very slightly, we’re still talking fresh water that you could drink, we can block the disease and lower the transmission rate,” Dr Clulow said.

The discover has led to staggering results.

“It had a 70% increased survival rate when translocated into habitats where small amounts of salt were added to the water,” he said.

A global impact

Dr Clulow now plans to team up with scientists in Ecuador to further test the study. Habitat is being constructed for a translocation program for the endangered Riobamba marsupial frog.

“This offers an ideal system to further test our salt strategy,” Dr Clulow said.

Something for everyone: Open Gardens Canberra Autumn 2018

Open Gardens Canberra is community-run... a phoenix from the ashes of when the national Open Gardens scheme ceased to function. In most cases opening times are 10 am to 4 pm both Saturday and Sunday. Entry for members of Open Gardens Canberra is free (membership \$25/year) and for non-members is \$8. Autumn events are:

24–25 March

Haven: 31 Drooka Crescent, Crace ACT

This attractive garden on a 540 m² flat block is just 5 years old and has achieved the owner's aims to design a garden that is both easily maintained and fully accessible. Being a cottage garden there is interest 12 months of the year be it colour, flower, shape and/or foliage. The garden includes many rare and unusual plants both native and non-native. The backyard has a chook run, fruit and vegetable garden, and several potted citrus trees to complement the owner's plot at the nearby community garden. Despite its petite dimensions, there is even space for a patch of real lawn!

Crace Community Garden: Drooka Crescent, Crace ACT

Crace is a Canberra Organic Growers Community Garden - this is a relatively new suburb so the garden is providing a great opportunity for locals to get to know each other. The 2000-square-metre garden was built by Crace's developers; there are 30 raised garden beds of varying sizes plus some shared larger plots. Around the perimeter are rosemary, lavender and blueberry bushes as well as fruit trees such as pomegranates and feijoas. Free entry.

Loraine and Geoff's Garden: 93 Macfarland place, Pearce ACT

This garden flows beautifully, providing comfort and inspiration and framing views of nearby Mount Taylor. Careful plantings, featuring diverse and effective groundcovers, draw your eye to different garden rooms. A feature of the front garden are the 'steppable' plants in lieu of a front lawn. In the back garden the sloping land allows a beautiful dry creek to run diagonally from top to bottom, linking ponds at either end. Diverse plantings surround several seating areas in which to relax and chat.

7–8 April

McLeod's Creek Reserve: Marked Tree Rd, Gundaroo NSW – 11 am to 12:30 pm

McLeods Creek Nature Reserve was created in August 2010. It covers an area of 204 ha. and is currently being restored to preserve the White Box, Yellow Box, Blakelys Red Gum Woodland and Natural Temperate Grassland. Guided walks at 11 am each day will be led by Ranger Susannah Power. Free.

Evalees: 1494 Marked Tree Rd, Gundaroo NSW

An informal country garden with views of Lake George. The garden has extensive native grass areas with informal plantings of native and exotic trees. The garden designs have been developed to complement rather than compete with the landscape. There are colourful beds of shrubs and flowers with designated areas and garden names corresponding to places, people and events in the families' lives. There are many quirky additions that will delight children.

14–15 April

The Oaks Estate Garden: 35 William St, Oaks Estate NSW

Two gardens, back to back, are set in a quiet, well treed neighbourhood of Oaks Estate, in a very historic part of the Region near the Queanbeyan River. The gardens have much to interest all, but characterised by many autumn flowering perennials and shrubs. Native planted areas contrast with more reflective corners, vegetable gardens and the poultry run.

15 April, 10 am to 3 pm: Fetherston Gardens: Unwin St, Weston ACT

Heritage event. The Gardens comprise 3.5 hectares of urban parkland with a small arboretum, and woodland gardens. The vegetation is mixed, but includes some outstanding mature yellow box trees. Free guided walks at 11 am and 1 pm.

Butterfly Walk at the Pinnacle:

11 February 2018

Elizabeth Smith, Rosemary Blemings, Alison Milton

The first Pinnacle Butterfly Walk took place on a very pleasant, clear and sunny, late summer morning, ideal for butterflies as the temperature was between 20 and 33 degrees. The broad sweep of the Brindabella Ranges and Molonglo Gorge landscapes were a constantly beautiful backdrop to our walk.

Flight styles from butterfly and bird species remind us that, like humans' movements, identification is possible from observing how animals move.

However, you need a different technique for observing butterflies compared with birds. They're faster, less predictable and don't sit on fences or branches long enough for you to get a good look. Also they are much smaller than birds. This was a constant comment by participants.

Though many people did, one thing perhaps not thought of was to bring binoculars. Butterflies can be found at all levels; not just those at ground level like the Grass Blues and Common Browns. Spotted Jezebels and others prefer treetops. However, some species tend to 'hilltop': that is, to migrate to the highest point for their mating rituals. Therefore hilltops are a great place to look for butterflies. The Pinnacle, Black Mountain and Mt Ainslie, inter alia; the best place to see them. The male butterflies fight each other for mates on the top of hills – lots of swirling around and dogfights, rather than 'tooth and claw': so we're told.

The walk attracted over 38 people with a number of children taking advantage of completing a page in their Nature Play Passports. Participants included some regular FotPin members, Field Naturalists, butterfly watchers, some who knew nothing about butterflies, and others.

Suzi's preamble said the butterflies she expected to see were Cabbage White, Australian Painted Lady, Yellow Admiral, Meadow Argus and Grass Blue, (all spoken while a Cabbage White fluttered nonchalantly around a bush behind Suzi's back - to the delight of the participants). These are butterflies you have probably seen in your own garden but can also see at the Pinnacle.

- Cabbage White – medium size and mainly white (scourge of the *Brassica* family, but eclectic in its tastes).
- Painted Lady – medium size - brownish but with brightly coloured upper wings.

- Common Brown - medium size – brownish and similar to the Australian Painted Lady in colour, but more tapered wings and with large 'eye spots' at the end of its wings to confuse predators. The Meadow Argus also has similar colourings but have the distinctive eyespots on their wings, they are similar to the Australian Painted Ladies in the way they fly, but don't have tapered wings
- Common Grass-Blue (in grassy areas, including your lawn) - small silvery blue/mauve.
- Dainty Swallowtail - (similar to the Citrus Butterfly/Orchard Swallowtail but, well, daintier – white and black with red and blue spots on the back of the wings).

There are others you probably won't have seen that specialise in particular plants: the Azures (Ogyris rely on mistletoe, while Tailed Emperors and Bronze Flats breed on Kurrajongs. The Spotted Jezebel uses parasitic plants such as *Exocarpus* (Cherry Ballart). Check out these plants when you are next at the Pinnacle.

Suzi provided information on the interconnections of each shrub species and plants, which was a way FotPin members could share what they've learned since restoration of the reserve began. Immersion in the natural untidiness of the Australian bush helps banish misconceptions some of us apply to nature around Canberra.

At the start of the walk at the species-rich Dunggowan Tree, Suzie explained about the importance of mistletoes for butterflies. Though they have a poor reputation, mistletoes are vital for healthy habitats of some butterfly species.

Though we didn't see as many as expected, Suzi explained that the Common Brown butterfly has one of the longest breeding periods, with the males emerging in early spring, when you will mostly see males. Then the females emerge and you will see almost equal numbers of males and females, but the males are shorter lived and begin to fade in colour, sometimes so pale they can be mistaken for Cabbage Whites. The females retain their eggs until conditions are ideal for laying them-usually late Autumn-at which time females will be predominant. Some species only live for two weeks so observing them can be very opportunistic.

Despite the conditions, we didn't see as many butterflies as hoped, however, Suzi reported a total of 11 species: Orchard Swallowtail; Dainty Swallowtail; Cabbage White; Spotted Jezebel; Common Brown; Tailed Emperor; Meadow Argus; Australian

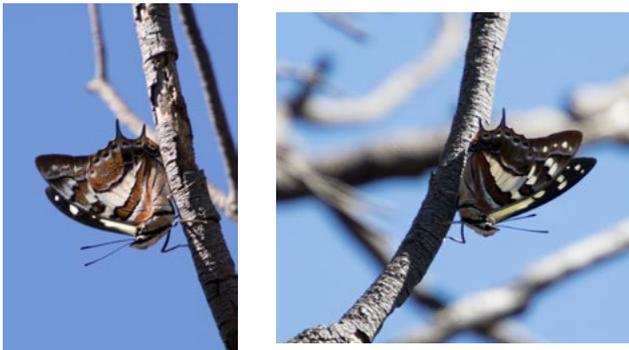
Activity

Painted Lady; Broad-margined Azure; Two-spotted Line-blue; and Common Grass-blue. We also saw evidence of the Bronze Flats breeding on a small stand of Kurrajongs, but didn't see any adults.

As expected, our best sightings were when we got to the top of the Pinnacle as three species were 'hilltopping'. A strong, gusty, north-westerly had sprung up, which threatened to blow our hats to Tuggeranong. Nevertheless, a few Dainty Swallowtails danced on the gusts apparently unaffected by the wind.



While these barely perched, a Tailed Emperor decided its best defence against the winds was to perch on a branch and grab on for dear life giving us all a great chance to observe and photograph.



Tailed Emperor: it was interesting to note that the wings looked brown or black, depending on how it was blown in the wind.

However, the most significant sighting was (very unusually), an obliging Broad-margined Azure, (which are normally very hard to see perched, let alone as close as we saw!).

While not particularly productive for butterflies on the day, we enjoyed seeing some, and learning about their habitats and behaviour. The undersides of wings gave us lessons in camouflage. We also saw several moths; they're even more successful at vanishing among the summer vegetation.

Once you 'get your eye in', you are focussing on small insects, above and around trees or understory plants and on grasslands. They move rapidly and irregularly, then settle briefly on a plant, looking like a leaf or similar. This means you also get to notice other small insects such as dragonflies, flies and moths: even a tiny sandy-coloured moth (Geometrid sp?) on the track. The Pinnacle Trig was a prime example as we also saw a large Bristle Fly clinging to the 'one tree', several Bee Flies and some Hover Flies.



Thanks to John Brannan for organising this walk. There was constant sharing of observations, experiences, knowledge and the tangible joy of being outdoors and active. Every time we stopped, the children inspiringly found countless organisms, objects and observations to stimulate their imaginations.

So the next time you visit the Pinnacle, look out for butterflies – it is well worth it, and a different way to enjoy the world around you.

Suzi is the author of *Field Guide to the Butterflies of the Australian Capital Territory* (available from the National Botanic Gardens).

To feed or not to feed

Following on from last month's article about bird feeding in Australia Professor Darryl Jones from Griffith University advocates the practice. His view is that feeding the birds can heal a multitude of human wounds.

In an ABC Radio interview on 3 February, Professor Jones said that some people are even drawn to the practice of bird feeding to atone for the perceived sins of humanity. That is, they want to make one small gesture of love for their environment to make up for the broad-scale destruction of habitat they see around them.

Professor Darryl Jones from Griffith University is an urban ecology expert AND he's an evangelistic bird feeder. That combo is incredibly unusual in Australia, where bird feeding is often frowned upon.



Field Naturalists' Association of Canberra Inc.

Who are the Field Naturalists?

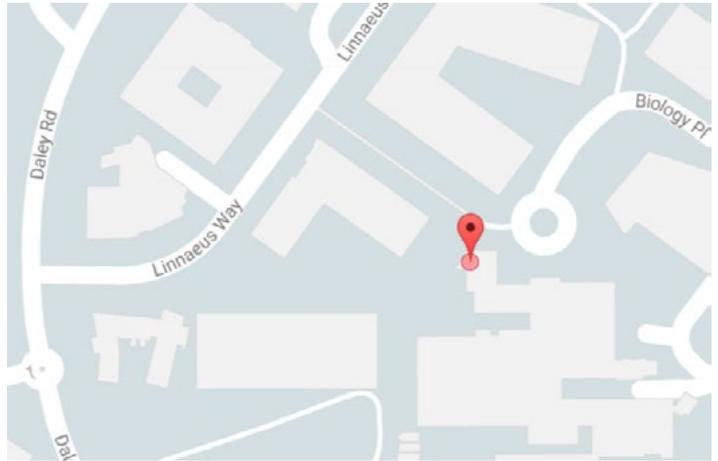
The Field Naturalists' Association of Canberra (FNAC) was formed in 1981. Our aim is to foster interest in natural history by means of meetings and regular field outings. Meetings are usually held on the first Thursday of each month. Outings range from weekend rambles to long weekends away. Activities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

Email: fieldnaturalist@yahoo.com.au

Website: under construction

Editor: Alison Milton All newsletter contributions welcome. **Email:** apm56@optusnet.com.au



Monthly meeting venue: Jan Anderson Seminar Room, R.N. Robertson Building, Biology Place, Australian National University.

**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:

.....

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