Field Nats News No.276

Understanding Our Natural World

Newsletter of the Field Naturalists Club of Victoria Inc.
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July 2017

From the President

The deadline for FNN 277 will be **10 am on Tuesday 4th July.** FNN will go to the printers on the 11th with collation on Tuesday

I was pleased to attend a Fungal Foray at Mount Worth Park on Sun 4th of June. There were plenty of fungi to look at and a large number of naturalists to look at them. As always the forays provide an opportunity to see invertebrates and take macro photographs. The fungi themselves are associated with numerous invertebrates including collembolans, psocopterans, dipterans, molluscs, nematodes and protozoans to name but a few groups. There are many invertebrates that feed on fungi. The heteromyzid fly, *Tapeigaster* is often observed sitting on fungi (Photo 1) and its larvae eat them. If you break open a fungal fruiting body you will usually see large numbers of collembolans (springtails) within the tissue. Fly larvae are often encountered, consuming the moist tissue and turning it to a gelatinous mass. I have seen very large boletes collapse into a gooey mass of slime and maggots a few days after emergence.

Photo 1. *Tapeigaster sp.* on fungus at Genoa, Vic.

A native snail or 'semi-slug' was having a stroll over the leaf litter at Mount Worth (Photo 2). It is always encouraging to see native molluscs surviving in our parks. Too frequently these days the predominant molluscs encountered are introduced. Many of the parks I visit seem to have fewer native macro-invertebrates than I remember observing and photographing in previous decades. Introduced species including the Portuguese Black Millipede, *Ommatoiulus moreletii* and introduced isopods *Porcellio scaber* and *Armadillidium vulgare* appear to have invaded many of our parks and doubtless impacted the native species. The European wasp *Vespula germanica* has also spread widely and is an aggressive predator. There are also more visitors to parks these days and I recall a quote from Aldo Leopold: 'All conservation of wildness is self-defeating, for to cherish we must see and fondle, and when enough have seen and fondled, there is no wilderness left to cherish.' However, we need people to understand the nature of biodiversity, and to do that they need to experience it first hand.

Photo 2. *Helicarion niger* at Mount Worth

In the 1950s and 1960s I often encountered a large carabid beetle, the Green-lined Ground Beetle *Catadromus lacordairei* around Melbourne, particularly along the banks of the Darebin and Merri Creeks and the Plenty River. They were most common on naturally occurring wetlands and best seen at twilight. I photographed one at Lake Wellington in 2010 (Photo 3) and it was the first I had seen for decades. I haven't seen it since. I would be interested to hear if anyone has seen one lately. The beetle is also found in Tasmania where it is considered to be vulnerable.

The 2017 FNCV Biodiversity Symposium, 'Marine Biodiversity in the 21st Century' is scheduled for 19–20 August and I urge everyone to attend. It promises to be a very interesting weekend and a great venue for meeting other naturalists. The symposium coincides with the 60th anniversary of the Marine Research Group and the 20th anniversary of its amalgamation with FNCV.

All photos: M. Campbell

Maxwell Campbell

Photo 3. Green-lined Ground Beetle at Lake Wellington 2010

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CALENDAR OF EVENTS

All meetings are held at the FNCV Hall, 1 Gardenia St. Blackburn at 8 pm., unless otherwise indicated. On days of extreme weather conditions, excursions may be cancelled. Please check with leader.

July

Sunday 2nd – Fungi Group- -Foray: ***Wanderslore Sanctuary*** 2180 Warburton Highway, Launching Place (Mel Ed 37 Page 287 J6). Park down below near the Rail Trail and meet there at 10.15 am. (Note: earlier time than usual). We will go as a group up to the Sanctuary. Contact: Carol Page 9857 6388; cpage356@gmail.com
Use this mobile. number ONLY on day of the foray, 0438 446 973

Sunday 2nd – Juniors' Group—-Excursion: ***St Kilda penguin research team***
Meet at 7pm at the start of the St Kilda wharf. Numbers are limited so bookings essential. We will be led by a team member while the researchers go about their business. Please bring: warm clothes, including beanies and gloves; headlamp or torch with red cellophane over the top; gold coin donation for penguin research (there is a donation pole on the breakwater)
Contact: Claire Ferguson 8060 2474; toclairef@gmail.com

Monday 3rd – Fungi Group—Meeting: ***Review of this season's forays.*** Contact: Carol Page 9857 6388; cpage356@gmail.com

Tuesday 4th - Fauna Survey Group—Meeting: ***Discussion of the natural history of the west Texas (USA) ecotone, with emphasis on lizard behavioural ecology.*** Speaker: Dr Matt Anderson, Oklahoma State University.
Contact: Robin Drury 0417 195 148; robindrury6@gmail.com

Saturday 8th - Fauna Survey Group—Survey: ***Setting up sites for Swamp Skink survey on the Mornington Peninsula***
Contact: David De Angelis 0409 519 829; d.deangelis@latrobe.edu.au

Monday 11th - Marine Research Group—No Meeting: ***Winter Break***

Saturday 15th- Fauna Survey Group—-Meeting: ***Equipment maintenance day at FNCV Hall.*** *All welcome*
Contact: Ray Gibson 0417 861 651

Sunday 16th – Fungi Group Foray: ***Noojee – Toorongo Falls circuit*** Meet at 10.30am at Toorongo Falls car park Toorongo Falls Road . From Melbourne, head east along the Princes Freeway turning left at the Drouin exit towards Noojee, or take the Warburton Hwy to Yarra Junction, turning onto the Yarra Junction-Noojee Road for a more scenic trip through the ranges. From the Noojee township, head east for around 3km then left onto the Toorongo Falls Road which terminates at the Reserve.
Mel Ed 37 Page X928 B5 or Vic Roads Ed 8 Page 81 B7)
Contact: Carol Page 9857 6388; cpage356@gmail.com Use this mobile number ONLY on the day of the foray, 0438 446 973

Tuesday 18th Collate FNN starting about 10 am. All welcome. Contact the FNCV office 9877 9860 or admin@fncv.org.au

Wednesday 19th - Terrestrial Invertebrates Group—Meeting: Speaker: To be advised
Contact: Max Campbell 0409 143 538; 9544 018 AH; mcam7307@bigpond.net.au

Thursday 20th – Botany Group—Meeting: ***Botanical history and geography across Bass Strait - Part 2***
Speaker: Dr Matt Dell. Contact: Sue Bendel 0427 055 071

Monday 24th - FNCV Council Meeting 7.30 sharp. Agenda items and apologies to Wendy 9877 9860 or admin@fncv.org.au

Tuesday 25th – Day Group—Meeting: ***The natural history of Western Australia's Abrolhos Islands*** *(The Batavia was wrecked there in 1647)***.** Speaker: Joan Broadberry. Meet at 10.30 am for coffee and a chat. Speaker at 11.00 am.
Contact: Joan Broadberry 9846 1218

Wednesday 26th – Geology Group—-Meeting: ***Life in the Pre-Cambrian – a microscopic journey of early invertebrate life***
Speaker: Maxwell Campbell, President of FNCV and photographer of all things small.
Contact: Ruth Hoskin 9878 5911; 0425 729 424; rrhoskin@gmail.com

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The policy of the FNCV is that non-members pay $5 per excursion and $3 per meeting, to contribute towards Club overheads. Junior non-member families, $4 for excursions and $2 per meeting.

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Friday 28th – Juniors' Group—-Meeting 7.30 pm Speaker Robin Drury: " Monitoring Biodiversity with Cameras**.**
Contact: Claire Ferguson 8060 2474; toclairef@gmail.com

Saturday 29th – Geology Group—-Excursion: *Monash Earth Sciences Garden.* Leader: Dr Julie Boyce, School of Earth, Atmosphere and Environment, Monash University. For more details contact Ruth Hoskin 9878 5911; 0425 729 424; rrhoskin@gmail.com

Sunday 30th – Fungi Group—Foray: *Badger Weir, Healesville* Meet at 10.30 am
(Mel Key Map 10 R5; Vic Roads Ed 8 Page 80 B4)
Contact: Carol Page 9857 6388; cpage356@gmail.com Use this mobile number ONLY on day of the foray, 0438 446 973

The FNCV congratulates member Dr Beth Gott on being made a Member of the Order of Australia (AM), in the recent Queen's Birthday Honours.

Members' news, photos & observations

We always have space for member photos and natural history observations. Please share with us what you have noted in your daily life, travels or garden. Email: fnnews@fncv.org.au by the first Monday in the month.
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Welcome

Warmest greetings to the following new member who was welcomed at our last Council meeting.

Lily Alvarez

bookshop@fncv.org.au
for any orders or bookshop queries.

If you don't have access to email, the FNCV office will pass on your message. Kathy will then be in contact with you.

Thanks to the editorial and layout team who put together FNN 276

Gary Presland—guest editor
Wendy Gare
Sally Bewsher

One of my absolute favourite native orchids is *Pterostylis truncate*, also known as the Brittle Greenhood or sometimes 'Little Dumpies', an apt name because the orchid has a very large striped, bulbus flower on a short stem.

Flowering is dependant on late summer and early autumn rains. In some years there may only be a few or even no flowers. I have scrambled around the granite boulders of the You Yangs many times hoping to find *Pterostylis truncata.* This year, rainfall conditions have been favourable and there was an almost once-in-a-lifetime display of this stunning orchid. They were also flowering in Werribee Gorge State Park and Long Forest Reserve.

Joan Broadberry

Extracts from SIG reports given at the last FNCV Council Meeting

Botany Group: Fourteen people enjoyed a fascinating presentation by Dr Andrew Drinnan on the University of Melbourne's system garden and herbarium. Andrew took us time travelling back to Ancient Greece and through history describing botany through the ages, and how and why the systems garden is laid out. We were also introduced to the important collection that forms the university's herbarium. Both will be open on August 20 for open day.

Geology Group: On 25th April Dr Peter Jackson presented a most interesting description of the composition of gold worldwide in either supergene, vein or nugget gold. He then described his research on the origins of the unusual prevalence of gold nuggets in the Victorian Golden Triangle. This was attended by 26 interested members and visitors.

On 24th May, Assoc. Prof. Dr Mark Quigley graphically described how earthquakes can alter the landscape. He was the Professor of Geology at Christchurch University during the Christchurch/Darfield quakes and carried out the post-quake investigations. He also captured our interest by showing aerial photos which demonstrated how ancient fault lines – such as on the Nullarbor and along the course of the Murray River in SA, have shaped the subsequent flow of both ancient and modern rivers. It was a most interesting and educational talk well illustrated by photos and diagrams and was attended by 31 people.

Juniors' Group: James Murray, educator from Mt Burnett Observatory, spoke to our juniors about different astronomy concepts. We had issues with the laptops connecting with the projectors and unfortunately the visual program had to be played through James MacBook Pro which would not connect. Thankfully the majority of James presentation wasn't reliant on the visual projection and the kids enjoyed a discussion and were part of a dramatised solar system demonstration. We look forward to visiting the Mt Burnett observatory next month to view the large telescope and view a visual presentation.

Marine Research Group: Our May meeting was our yearly field trip roundup. This year we had 10 field days at Breamlae and Altona locations around Port Fairy and Apollo Bay. We observed 363 different species and added 1087 records to our database. Over the period we collected 30 RNA samples for 3 different international studies. Members brought along observations and images from their experiences of the season. Leon Altoff spoke about the collecting of sponge samples. Audrey Falconer showed new species of nemerteans found during our excursions. Carol Bathie and Janet Pett talked about their research of Victorian ascideans. John Eichler and Joan Broadbury showed images of animals they saw and the locations we visited.

Library News

Recently acquisitioned books

The following monographs have been accessioned recently, and are available for borrowing.

Bradley, Joan (1988) *Bringing back the bush: the Bradley method of bush regeneration* [634.9 BRA]
Brock, Paul D; Haspenpusch, Jack W (2009) *The complete field guide to stick and leaf insects of Australia* [595.7 BRO]
Davies, M; Twidale CR; and Tyler MJ (2002) *Natural history of Kangaroo Island*. 2nd Edition [508.942 NAT]
Hando, Valerie M (1979) *Wildflowers: Chinchilla, Miles and Kogan* [582/943 HAN]
Hando, Valerie M (1982) *Wildflowers: Barakula Forestry and Gurulmundi. Blackdown Tableland, Carnarvon Ranges, Isla Gorge* [582/943 HAN]
Hando, Valerie M (n.d.) *Wildflowers of southeast inland Queensland* [582/943 HAN]
Murray Darling Wetlands Working Group Ltd (2013) *Wetlands watch: a field guide for monitoring wetlands in the southern Murray-Darling Basin* [333.91 WET]
Parris, Kirsten M (2016) *Ecology of urban environments* [577.5 PAR]
Parry, Sue (2009) *Lake Mountain Field Guide* [582/945 PAR]
Prictor, Lois (Ed) (1987) *A walk through Black Hill Reserve: flora and fauna of central Victoria* [508.94 PRI]
Williams SG; Marshall A; Morgan JW (2015) *Land of sweeping plains: managing the native grasslands of south-eastern Australia* [584.9 LAN]

DVD Sugar Gliders at Lower Plenty

In January 2012 John McCutchan set up a video camera inside a nest box to document a large family of sugar gliders on his Lower Plenty property. Beginning with newly born gliders emerging from a large pile of leaves, the footage documents their maturation as they demolish their food source/nesting material. John plans to follow this up with further footage taken since 2012. Thanks to John McCutchan for his donating this DVD to the library.

Gary Presland
Hon Librarian

Fungi Group

FNCV FUNGI GROUP FORAY 7th May 2017

MORTIMER RESERVE, BUNYIP STATE PARK

Riparian Forest
Weather rather inclement, dry one minute, pouring with rain the next, but we managed to find the fungi in the dry periods. The Juniors joined us and were able to complete the whole of the Nature Trail circuit.

Virgil Hubregtse "Beautiful weather for fungi, wasn't it! We didn't see as many fruit-bodies as we expected tothough. This area is usually at its best on 7-8 May. We were surprised that there weren't any fungi on the big piles of wood chips - a month ago there were heaps. I can confirm *Mycena austrofilopes*, and the small jelly on the log in the camping ground was *Ductifera sucina.* It was disappointing to see so much rubbish left by campers who don't seem to have any respect for this place, and it's a pity that trees have been chopped down to make room for more."

Reiner Richter "On this foray I spent considerable time searching for species growing on *Dicksonia antarctica* (Soft Tree-fern). About every second fern I inspected had some *Mycena lazulina* growing on hanging, dead rachises (stems of fern fronds). These very small fungi (caps around 2 mm across) grow in dense clusters and are very attractive. The base of the stipe is particularly bluish and their widely spaced gills pull at the cap, which arches convexly between them like a parachute. They are one of several bioluminescent fungi in Australia; I experienced this bioluminescent a couple of years ago while spotlighting at Melba Gully (Otways). This species appeared in Fuhrer's original 2005 field guide and we previously used the field name "tiny blue lights" but they have since been described (2016, from Japan) so we now have a formal name for them.

What I was actually searching for was rarer and harder to spot, as it doesn't form very dense colonies of protruding fungi and is even smaller than the 'tiny blue lights'. Last July I was really happy to find *Hispidula dicksoniae* along Mortimer Nature Walk. At the time I had no idea what they were but had just downloaded Jurrie's excellent fungi compilation in which I found this species (*Fungi In Australia* – e-book by Jurrie Hubregtse). They are flat, ovoid white discs, less than 2mm in diameter with somewhat triangular fimbria extending about as far as the base is broad."


***Hispidula dicksoniae* Photo: Torbjorn von Strokirch**

Fungi In Australia by Jurrie Hubregtse - *Hispidula dicksoniae. Saprotrophic ascomycete*; found in gregarious groups usually near the base of dead rachises of Soft Tree Fern *Dicksonia antarctica* in wet areas. *Fruit-body* 0.5 to 1 mm diameter, sessile, shallow cup-shaped, margin ringed with numerous whitish tapering teeth/hairs up to 1 mm in length. *Inner surface* spore-bearing surface, smooth; flat or slightly depressed, pale yellow to greyish white, with a distinct blackish margin. *Outer Surface* colour can range from the same colour as the disc to black. *Spore Print* White. *Comments: H. dicksoniae* can be readily identified from other species in its genus by its colour, the blackish margin on the disc; it grows only on dead rachises of Soft Tree Fern *Dicksonia antarctica*, usually around late autumn to early spring.

John Eichler "*Asterophora mirabilis* is an intriguing, uncommon gilled fungus that is parasitic on other gilled fungi, mostly *Russula* spp. It is a fungus I've been keen to see but which has eluded me for many years, so it was a thrill to find it not far from the start of the Mortimer Nature Trail. There were nine fruiting bodies that were a little past their best, growing on what was most likely a *Russula* species, based on its size.


***Asterophora mirabilis* Photo: J.Eichler**

Another first for me was *Hispidula dicksoniae*. This minute, crown shaped fungus grows on dead Soft Tree-fern fronds and is barely visible without the aid of a hand lens. It is one of several small fungi that specalise in growing on tree-fern fronds. I have seen high quality images of *Hispidula dicksoniae* taken by Jurrie Hubregtse, but it was wonderful to see (be shown) it in the field."

Carol Page "The *Asterophora mirabilis* was interesting as not often seen. I have a note in my *Field Guide to Australian Fungi* by Bruce Fuhrer which reads 'B 4/06'. Thinking, 'amazing - seen here in Bunyip before', I checked in my documents folder, only to find I didn't have a record for April at all. Of course 'B' could stand for 'Bunyip' or the 'Beeches'; but we visited those places in July. I will have to

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wait and ask Pat to solve the mystery for me. [It was recorded for Mortimer Reserve 30/4/2006 found by Geoff Lay and on 27/4/2014 by Janet McClean; both in the Nature Trail area near the find today 7/5/2017. PG]. It is always astonishing to me to see blue fungi; I have yet to find *Entoloma virescens* unfortunately, but the *Mycena interrupta* and *Cortinarius rotundisporus* sufficed on Sunday."

Sue Forster "It was an educative, albeit soggy foray. John Eichler made a great discovery of *Asterophora mirabilis;* Grey Jockey fruiting bodies growing on a decomposing *Russula* near the track; it was the first time many of us had seen this species. Having seen some emerging *Cyptotrama aspratum* two weeks previously in East Gippsland, I was also intrigued when Paul George pointed out a mature specimen near the road. These are more difficult to identify; the Bunyip SP specimen still had distinctive fibrillose scales on the stem but they were harder to see on the pale lemon fully extended cap. Also near the road, I was interested in a group of *Cortinarius* with caps ranging in colour from violet to buff and brown; I suspect that they were all the same species but in different states of decline. Around the picnic ground there were some pretty specimens of *Schizophyllum commune* and a large number of *Mycena*, which were often frustratingly difficult to identify. I was sorry that the rain defeated my good intentions in the afternoon as there was a lot to see."

Pat Grey "It was exciting to find *Cortinarius phalarus* which can be recognised by the flat white patch on the cap and the saccate volva, although the volva only had a bit of saccateness left. N Bougher and K Syme (*Fungi of Southern Australia*, 1998, p 254) had this to say '*C. phalarus* is named after the conspicuous white patch lying on the orange-brown cap, and this feature, together with the white volva are its most easily recognisable characteristics. The patches and volva are both derived from a stongly developed outer veil, the occurrence of which is quite unusual in the genus *Cortinarius*'."

Torbjorn von Strokirch "After lunch, following a brief walk to view a green *Entoloma rodwayii* that Jurrie had located along the track, most of the group decided to pack up and go home, leaving four of the more hardy members to continue. Four gentlemen with umbrellas completed the circuit track. A variety of *Boletes*, small *Entolomas* and *Russulas* of various kinds were observed, but in general the section of the path through more open forest was much less productive in terms of fungi. On a group of rocks near the road large numbers (hundreds) of tiny lichen fruiting bodies, perhaps *Lichenomphalia umbellifera*, were seen. Paul George spotted an example of a group of *Simocybe* sp. along a log nearby."

Thanks to all forayers for searching and photographing the species we found. A big thank-you: to John Eichler, Sue Forester, Virgil Hubregtse, Carol Page, Reiner Richter and Torbjorn von Strokirch for contributions to the report; to John Eichler, Carol Page, Reiner Richter and Torbjorn von Strokirch for their contribution of many beautiful photographs; to John Eichler, Alannah Matheson, Reiner Richter and Torbjorn von Strokirch for their species lists. And thanks to Sue Forster for checking the report and species lists.

Pat and Ed Grey

FUNGI GROUP MEETING
"Fungal futures: can foraging and conservation be aligned?"
Report on a discussion led by Alison Pouliot
1st May 2017

Alison has a background in ecological research and is very well known as a natural history photographer with a fascination and passion for the environment on a world-wide scale.

Attitudes to fungi
Alison has travelled and conducted research extensively, experiencing the variety of attitudes to fungi in many countries, using interviews, conversations, surveys and direct observation during field trips as a means to understand people's perceptions of fungi. Alison headed out with mycologists, field naturalists, forayers and foragers, artists and aesthetes, biodiversity managers, rangers, and those who simply enjoy an autumn forest stroll.

Different cultures think about fungi in different ways. Some countries have forayers, while others have foragers, and some have both. Initially in Sweden, fungi tended to be eaten only by the upper class because, in the nineteenth century, French-born King of Sweden and Norway, Charles XIV John, popularised *Boletus edulis* in Sweden. Today, Sweden has both foragers and forayers.

Alison's aim at our meeting was to generate discussion concerning how more sensitive and sustainable foraging practices can be encouraged in Australia in order to minimise potential environmental damage, poisoning risk and the need for regulation.

There were many topics to discuss, starting with identifying the issues and possibilities. Are foraging and conservation compatible? How should we approach the growing interest in foraging? Should we share our knowledge as well as our lack of it? Could interest in wild edible fungi also stimulate greater interest in their ecology and conservation?

Interest in foraging
In parts of South America, some people start forest fires to stimulate growth of morels, which are highly prized. The ensuing sales make a lot of money for some people, while the fires damage the environment and its inhabitants. In the UK there is much cultural tension about collecting fungi. Can Australia learn from these situations, considering the growing interest in foraging here?

Poisonings
A number of mushroom poisonings occur in Australia, but

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very few are fatal. Fatalities are usually caused by ingestion of *Amanita phalloides*. Most non-fatal mushroom poisonings in Victoria result from people eating the yellow-staining mushroom *Agaricus xanthodermus*: many people cannot smell the phenol in this species, which resembles edible *Agaricus* species such as the field mushroom *A. campestris* and the 'supermarket mushroom' *A. bisporus*.

People can't be stopped from foraging, so what should our role be? One suggestion was that we should try to teach people to identify fungi. However, this is a difficult task and we don't have the necessary resources. Alison has conducted over 250 workshops on fungi and has found that it is not easy to convince people about the poisonous nature of the mushrooms they have collected to eat. It was also suggested that, rather than collecting wild fungi, people should confine their foraging to pine plantations, where edible and poisonous fungi are well known and less damage would be done to the environment. Alison has found that although some people are initially interested in edible species, during the workshops they often develop a greater appreciation of all fungi, their ecological significance and the importance of their conservation.

Regulations

Most countries have regulations about collecting wild fungi. Some do not allow collecting between 8 pm and 8 am! Some allow only small groups of people to collect at any one time; some do not allow deliberate damage, so tools, especially rakes, are banned; some do not allow commercial exploitation. In parts of Switzerland, in addition to regulations regarding the quantity of fungi that can be taken, there are mushroom inspectors who help foragers distinguish edible fruitbodies from poisonous ones.

Restrictions apply to collecting fungi at this location. *Photo: Alison Pouliot*

Currently, Australia has no guidelines or recommendations for the collection of wild edible fungi, although all fungi are implicitly protected on public land (being lumped under plants if not specifically mentioned in legislation). In Victoria, Kooyoora State Park has a sign indicating that native plants, fungi and wildlife are protected. This is because, in the past, morels had been taken from the Park, but apparently that practice didn't continue at a commercial scale.

Fungi are food for numerous animals, and uncontrolled human foraging could affect the well-being of many of these creatures and their habitats. It can be argued that human foraging is unnecessary, would not be sustainable, and could not be regulated in an Australian context.

Sign at Kooyoora State Park *Photo: Alison Pouliot*

Alison finished the discussion with some photos taken at work shops and forays, illustrating the work she is involved in, plus the following summary of the important role of fungi in the environment:

'If only fungi were as clever
as animals, they might be
considered worthy of conservation.
What a shame they only
create soils,
nourish plants,
control disease,
recycle nutrients,
restore environmental damage,
stabilise the earth,
shelter creatures,
provide food,
cure illness,
underpin terrestrial ecosystems,
our existence,
life …'


Beautiful recyclers. *Photo: Alison Pouliot*

Thank you Alison, for an interesting and thought-provoking meeting, and also for helping to prepare this report. Further information and discussion can be found in *Fungimap newsletter* 57, March 2017, available in the FNCV library.

Virgil Hubregtse

Geology Group

The Geology group met at Studley Park, Yarra Bend, on Saturday 23 April. Phil Bock was our guide as, in fine weather, we looked at rock exposures from the Silurian (410–434 Mya).

- What did we see?
- How is it understood?
- Further questions ?

We stopped at road cutting exposures NE of the Johnston St bridge. Some may be of natural surfaces, eg. river bluffs.

1) Below the grassy topsoil, the sedimentary rock displayed the near vertical bedding strata perhaps a hand width wide as well as ripple marks from the old sea shore;
2) We also examined a clear fold, perhaps 2 m wide and high;
3) Nearer to Yarra Bend, the sediments of gravels and conglomerates which are capping the rise are on a horizontal plane. Phil explained that they are of the Brighton Group. [Early Pliocene 3.4–4.3 Mya, 'Yellow' on Ringwood map - see ref below for their extent];
4) A dyke where old basalt intruded upwards was also seen which was probably Andesite.

Phil explained how turbidite flows occur which were a particular feature of the pronounced bedding especially overlooking Dights Falls. For example a storm or earthquake can cause sediment to collapse from a continental shelf into deep water. This then settles horizontally by gravity.

Why do we see it here?
During the Cambrian (545–490 Mya) the east coast of Australia followed a line from NW Tasmania nearly to the Gulf of Carpentaria. We are not as old as other parts of Australia! The eastern continental shelf was a long way west of its current position. Geologists have to explain: the Tasmanides is a new name for the Lachlan Fold Belt and others north. The Melbourne Formation of sandstone/mudstone is aged 410–405 Mya.

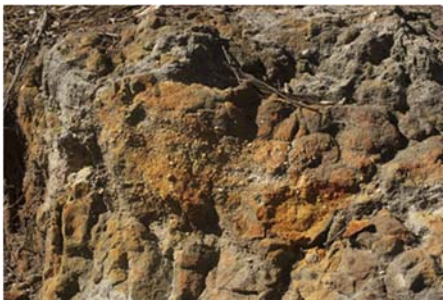
Is this rock true bed-rock/basement, or do strata lie below it? Is it continental crust? How thick is this stratum? Was much eroded above? The sea floor with its deposits must have risen. How and why?

The cross-section charts below each map only go down 150 m. Perhaps geo-physics can help answer the 'true basement' question, as well as answers to other questions.[1900 m has been cited.]

Bedded Silurian sediment

We also considered the tectonic effects, as exemplified at our sites such as:

- the uplift
- the tilting and folding
- the exposure
- the present course of the Yarra River.



Brighton Group

This immediate area is named the Dights Falls Crush Zone. It evidences a period of pressure East to West. Where the Yarra now flows may be in an ancient block fault which was part of the local compression/crushing.

Reference was also made to the Lachlan fold belt and the Tabberabberan orogeny during the middle Devonian (385–380 Mya) to account for uplift, folding and mountain building in Victoria. But is it an explanation? Only since geologists have understood plate tectonics have they been able to propose mechanisms for mountain orogenies. These latter can now be identified by their effects, while their causation is poorly understood.

Dick Glen (2006), refers to 'the plate tectonic paradigm': a cycle of sedimentation, volcanism and finally uplift and folding in an orogeny. With volcanic arcs and subduction a terrane can be accreted to a craton, building a continent, in this case Gondwana.

For rock types and the time of their emplacement, refer to the detailed legends of the inch-to-a-mile 'Melbourne' and 'Ringwood' sheets in PDF, referenced below.

Ken Griffiths

Notes

The basalts of the Merri and Darebin Creeks side of the Yarra were not our primary interest on this outing.[Includes references]
https://www.mcmc.org.au/about-merri-creek/geology-geomorphology/significant-sites/site-1-melbourne-formation-at-dight-s-falls
http://parkweb.vic.gov.au/visit/park-notes?result_661581_result_page=10 -> Yarra Bend Park - Park note
In: Australian Stratigraphic Units Database
http://dbforms.ga.gov.au/pls/www/geodx.strat_units.sch_full?wher=stratno=5213
What was the Dargile Formation is in part now called the Melbourne Formation.
'Description: Deep water sediment: mudstone, minor very fine-grained sandstone; laminated to thinly bedded, minor current ripples; shelly fossils'
Ringwood 1:63 360 geological map
http://earthresources.efirst.com.au/product.asp?pID=384&cID=33
Melbourne 1:63 360 geological map
http://earthresources.efirst.com.au/product.asp?pID=377&cID=33
Metro Tunnel
http://metrotunnel.vic.gov.au/planning/ees/geology-and-ground-conditions
Geology [of Melbourne]
www.emelbourne.net.au/biogs/EM00636b.htm
Victoria's Geology [GSAVic]
www.gsavic.org/vic-geology.html
Dick Glen (? 2006) The Lachlan Orogen: New boundaries, new data, new ideas [short account]
https://www.smedg.org.au/Glenab.pdf
Glen, R.A. (2005) The Tasmanides of eastern Australia p49 et seq [excellent graphics]
http://smedg.org.au/M&W07/Dick%20Glen%20-%20Tasmanides%20synthesis.pdf

Day Group

An autumn walk in the Dandenongs.

Tuesday 23rd May

A Day Group excursion in May involves rolling the weather dice, but we were fortunate in enjoying a warm autumn day with just a few drops of rain. A small group met at Grants Picnic Ground in Sherbrooke Forest. This forest is a remnant of the original Dandenong and Woori Yallock State Forest reserved in 1867. Despite the impact of the early exploitation for timber and bushfires, it contains varied age open forest including mature stands of Mountain ash, some over 200 years old, and fern gullies of great beauty. A wide range of fauna, in particular a population of Superb Lyrebirds *Menura superba*, can be seen.

Our leader, Sally Bewsher, lives locally and knows the area well. Our walk involved an initial short car shuffle so that we could avoid the steepest parts of the track and return to our vehicles for lunch. As we set off we noticed a locked gate ahead. Sambar deer have become a problem in the forest and there are regular deer-shoots, carried out under strict protocols. However, all this had been taken into account and the shoot was just finishing. Later we noticed a substantial area of drastically pruned Prickly Current Bush *Coprosma quadrifida*, evidence of the Black Wallabies browsing and possibly also the deer .

It was ideal hiking weather and we had the track almost to ourselves. Of course we hoped to see Lyrebirds. They were not calling despite it being the start of their breeding season. However, suddenly a handsome male hurried across the track in front of us, head down, almost as if it was late for an appointment. A major reason Lyrebirds continue to inhabit Sherbrooke Forest is that regular fox baiting is carried out through Parks Vic.

Birds and birdsong were scarce and for some time even fungi were hard to find. As we dipped down into the deeper, wetter gullies, we found some lovely fruiting bodies. Luckily a few people had come armed with fungi books and, calling on the expertise of Graham and Cecily, we puzzled out some fungi IDs. Other sightings were: an Eastern Yellow Robin, Grey Shrike-thrush, Soft Tree-ferns wearing their beautiful coats of filmy fern, *Dawsonia superba, (photo above)* our largest moss and the majestic Mountain Ash.

Upon arriving back at Grants Picnic Ground we quickly retrieved the cars and settled down to eat. Unbeknown to us we were under observation. A wily kookaburra was lining up a sandwich. Bang! A perfectly executed swoop left Barbara in shock. Then Gary opened a container of nuts. Screech, flap! A Sulphur-crested Cockatoo moved in to try for a share. For a few moments it seemed as if we were rehearsing a scene for the sequel to Alfred Hitchcock's film ‘The Birds’.

Walking and talking seem to fit naturally together. I found this walk and our picnic lunch**,** very enjoyable and one of the friendliest FNCV excursions I can remember. An invitation was extended to all, and some of us continued to socialise at Sally's home. A weekday visit to the Dandenong Ranges can be peaceful and restorative and I would, once again, like to thank Sally for planning and organising our first Day Group autumn outing.

Joan Broadberry
Photos: J. Broadberry

Fauna Survey Group

Bael Bael Grassland Nature Conservation Reserve Survey 10-14th *March, 2017*

Bael Bael Grassland NCR reserve is about 20 km NW of Kerang, and makes a significant contribution to the conservation of rare native grassland in Victoria. It has been relatively recently proclaimed a reserve and has had little survey work done. The main aim was to find the rare Plains-wanderer, but a census of other grassland species of birds, reptiles and mammals was also an important aim of the survey.

This survey was the 10th in the series of FNCV collaborative projects with Parks Victoria, with Mark Antos from Parks Victoria (PV) organising the scientific program. We were also joined by Friends of Terrick Terrick National Park, and local PV and DEDJTR staff.

We were based at Ibis Caravan Park in Kerang and travelled to the reserve for survey work. Having the comfort of cabins was appreciated by the participants as the spotlighting finished around midnight each night and there were also daylight reconnoitres and birdwatching trips. Comfortable facilities also meant we could use the meeting room for briefings and kitchen facilities for the group barbecue each evening.

Night time spotlighting surveys were conducted from slow moving vehicles and occasionally on foot. Paddocks were divided into a series of east-west or north-south transects, 100 m apart, which were traversed systematically. GPS technology was used to stay on course and also to record the locality of each observation. Fifteen separate areas were surveyed by this method. No Plains-wanderers were seen but a number of other grassland specialists were recorded, including Stubble Quail, Little Button Quail, Pipit, Singing Bush Lark and Brown Song Lark. Mammals and reptiles were rarely seen. One Curl Snake, a Fat-tailed Dunnart and a few House Mice were the only mammals or reptiles recorded while spotlighting. In much of the reserve long grass was present, which could obscure reptiles, small mammals and any birds that didn't take flight. Other species included a few Barn Owls, Tawny Frogmouth, Eastern Grey Kangaroos, and White-winged Fairy Wrens. The transects for the four nights of spotlighting totalled 200km.

Australian Pipit caught for banding by D. Mark Antos on a night survey *Photo: Barbara Burns*

Daytime survey in the grasslands and adjacent woodlands provided much interest. We inspected a rustic old homestead and also a seed and fertilizer storage shed, relics of a previous pastoral history. In the grasslands we made more sightings of some of the species seen at night and many additional species including White-winged Fairy Wrens, Fairy Martins, Tree Martins, Welcome Swallows, Singing Bushlarks and White-fronted Chats. At Outlook Lake just west of the grasslands numerous waders and ducks were seen. In the lightly timbered area at Yassom Swamp 11 bird species were seen, including Variegated Fairy Wrens, Chestnut-rumped Thornbills, Hooded Robins and Dusky Wood Swallows. A total of over 50 species of birds were seen in grassland, woodland, and lake habitats.

Processing bats at Baal Ball Reserve *Photo: B. Burns*

Some new records for the reserve were made during the survey work. In Black Box woodland on a creek line we recorded three species of bats; Little Forest Bat, Inland Forest Bat and Lesser Long-eared Bat. A total of 16 bats were caught in two nights of trapping . A Marbled Gecko was also found during daytime searching in the same locality. At Yassom Swamp three Red Kangaroos were seen. This was a large range extension for this species, the next nearest population being at Wyperfeld National Park. Near Outlook Lake we had a brief view of two Brown Quail, the only sighting for the trip and also new for the reserve.

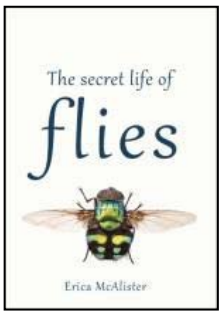
We were warned prior to the survey that owing to the rarity of Plains-wanderers, we may not see any. This was indeed the case. Plains-wanderers prefer habitat with a more open structure than was currently present in much of the reserve. Also, Plains-wanderers have undergone a reduction in numbers in recent years according to the evidence from surveys in other localities in northern Victoria. Dense swards of native and also introduced grass such as oats were prolific. Where the grass was more open, fewer observations of quail and larks were made. This survey will assist with park management. Thanks to Mark Antos for organising the survey program, and to Jenny Spence from DEDJTR and Friends of Terrick Terrick National Park for obtaining funding for the survey, and to Leeza Wishart and Murray Thorson from Parks Victoria.

Raymond Gibson

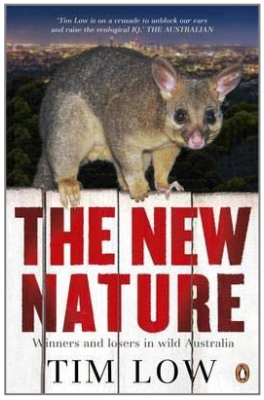
Further reading: Parker D, Antos M, Baker-Gabb D. and Kirkwood J. 2015. Haunting the Fields. Securing a future for the Plains-wanderer. *Australian Birdlife*, Vol. 4, no. 3, pp. 24–29.

NEWS FROM THE BOOKSHOP (July 2017)

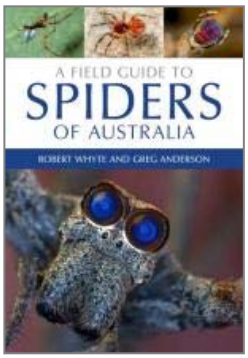
This month the bookshop presents three recently released books, an update of a favourite and a book I recently came across. Firstly those recently released, including a fascinating book on flies but please do not let the title put you off. This book is written in an easy to read and very engaging style and for the price, it is a steal! A new book on spiders in causing a bit of stir and is also well worth a look. The third recently released book is a children's book that looks at the world of soil. An interesting subject that, I am sure, a lot of children love to play in and thus will be able to relate to this book. If an advertised title or one that is not on display is of interest to you please send me an email and I will be more than happy, if suitable, to order in a copy for review prior to purchase. To order or inquire about a book, please send an email to me, at **bookshop@fncv.org.au** and I will reply as soon as I can. Your support is greatly appreciated. Happy reading, it is perfect weather for it!



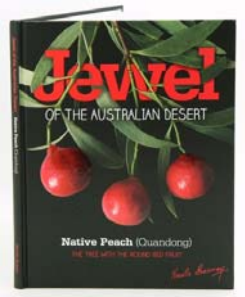
The Secret Life of Flies **(E. McAlister)** takes us into a hidden world of snail killers, silly names and crazy sex lives. From hungry herbivores and precocious pollinators to robber flies, danceflies and the much maligned mosquito, Erica describes the different types of fly, their unique and often unusual characteristics, and the unpredictable nature of their daily life. Combining her deep knowledge and love of flies with a wonderful knack for storytelling, Erica allows us to peer – amazed and captivated – into the secret life of flies. **(PB, 256 pp., April 2017) RRP $29.95; Members $23.95**



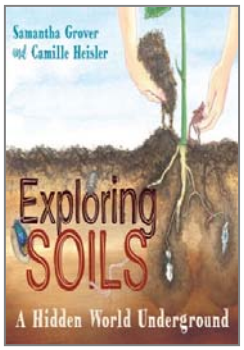
The New Nature: Winners & Losers in Wild Australia **(T. Low)** is an award-winning book about the way we interact with nature in our human spaces. Forget about wilderness, Low says, nature lives in our cities and gardens, exploiting everything we do. Many endangered species now live in industrial zones and cities. In our forests, native creatures have become pests. Fifteen years on, *The New Nature* continues to challenge the way we view the interactions between human beings and nature, and pushes us to review our relationship with Australia's wilderness.**(PB, 416 pp., January 2017) RRP $22.95; Members $18.50**



A Field Guide to Spiders of Australia **(R. Whyte & G. Anderson)** uses photographs of live animals to enable identification of commonly encountered spiders to the family level and , in some cases, to genus and species. Featuring over 1300 colour photographs, it is the most comprehensive account of Australian spiders ever published. With more than two-thirds of Australian spiders yet to be scientifically described, this book sets the scene for future explorations of our extraordinary Australian fauna. **(PB, 464 pp., June 2017) RRP $49.95; Members $39.95**



Jewel of the Australian Desert **(N. Bonney)** is all about the Native Peach (Quandong) or the tree with the round red fruit. It is highly unlikely that any other edible Australian native plant has created as much interest as the Quandong. This plant is now embedded in Australian folklore and holds nostalgic memories for many people. This fully illustrated book follows its journey through prehistoric times, ancient Aboriginal history, botany, Australian land exploration, early settlers, arts and craft, through to farming the species and its uses as a popular cooking ingredient in modern Australia. **(HB, 117pp., 2013) RRP $45; Members $39**



Exploring Soils: A Hidden World Underground **(S, Grover & C. Heisler)** is a delightful children's book written by soil scientist Sam Grover. It is charmingly illustrated by artist Camille Heisler. This book aims to introduce exploring young minds to the fascinating world of soils, and especially to the hidden world underground. It is packed with interesting facts and colourful images. Parents, grandparents and teachers will all enjoy the imaginative journey of discovery it offers. **(HB, 32pp., June 2017) RRP $24.95; Members $19.95**

From the Office…..

Dear Members I'm back from holidays feeling jet-lagged but keen! I feel very lucky to have been able to tour the stunning Irish coastline and countryside in the very best conditions - bright sunshine every day.

But down to business with an important request: you are asked NEVER to record, video or take photographs during meetings without the express permission of the speaker. As you will appreciate copyright issues arise and in some cases our presenters have used unpublished research material in their talks. Thank you!

I have emailed the annual report which was tabled at the AGM to all those members who have an email address. If anyone who hasn't received it would like a paper copy, please let me know by phone and I'll be happy to post one out to you. It covers all of our activities for 2016 and is well worth reading.

You have all been very generous following my plea for toilet paper last month. In fact, we now have enough to last for about a year! One of our members, Jan Rosenberg, has kindly donated a box of 4 dozen rolls of "Who gives a crap" toilet paper. It's made from environmentally friendly materials and they donate 50% of their profits to help build toilets for those in need. Their website is https://au.whogivesacrap.org/

As usual, biscuits, tea and coffee for the Club will be gratefully received, as would office paper.

Thank you for your generosity!

Wendy Gare. Administration Officer

This newsletter is printed on recycled paper.

"All fauna captured by the FSG is in accordance with the FNCV's DELWP Wildlife Research Permit and National Parks Act Permit and animal ethics approved Standard Operating Procedures".

Many thanks to those who helped collate and label FNN 275

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