Field Nats News No.273

Understanding Our Natural World

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

From the President

We are now at the end of summer and only four of the original thirty St Andrew's Cross Spiders that appeared in my garden last Spring remain in their webs. Another egg case hatched a week ago and released a healthy crop of spiderlings which clung together in a tight ball during the recent cold spell. (photo below). They dispersed three days later when there was a temporary improvement in the weather. There are still many unhatched egg cases which may wait until next Spring to disperse. It will be interesting to see what actually comes out of the egg cases.

The deadline for FNN 274, will be **10 am on Tuesday 4th April.** FNN will go to the printers on the 11th with collation on Tuesday 18th April.

Spiderlings huddled together in a presumably tight, cold ball.

Green headed ant *Rhytidoponera metallica*

Mymecophila sp in the nest with an alate ant.

The complexity of nature never ceases to surprise me. The adaptation of living things to exploit one another is always of great interest. I recently found a small nest of the green-headed ant, *Rhytidoponera metallica* under a small stone near Harcourt, Victoria and took the time to study it while I had the chance. (photo above.) It wasn't simply the ants that held my interest; it was the inquilines sharing the nest that really fascinated me. A number of small isopods (Armadillidiidae) were living in the nest along with tiny crickets, aptly named *Myrmecophila* which means ant loving. The cricket *Myrmecophila* is clearly well adapted to its life with the ants. (photo right). They move freely about the nests and seem to behave like the ants. The success of inquilines depends upon the ants accepting them as one of their own. This cricket is wingless and very small and feeds on secretions provided by its hosts. They produce few offspring and may be parthenogenetic. The family of crickets, Myrmecophilidae, to which they belong, comprises only a few described species but I expect more will found upon closer study of the taxon.

The isopods are common in many ant nests including those of large *Myrmecia sp*. In past years I have seen them in numerous nests in the Strathbogies. It is, I must say, a bit tricky to study "Jumper" (*Myrmecia pilosula*) nests since these pugnacious ants have absolutely no tolerance for interference. I have endured many painful stings in the pursuit of knowledge over the years. The inquilines are in jumper nests too. *Rhytidoponera metallica* nests sometimes contain some tiny gasteropods which also seem to feed on the refuse in the chambers. (photo below). Similar isopods can also be found in termite nests, termitophilous**.** **(**Photo left**).**

M. Campbell, President

Isopod and tiny snail (4mm) in the nest of *Rhytidoponera metallic* at Suggan Buggan

Isopods sharing the nest of *Rhytidoponera metallic*, one munching on ant remains.

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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.

April 2017

Saturday 1st— Tuesday 4th - Marine Research Group. Field work: ***Apollo Bay area.*** Exact locations will be decided while on site For details of when and where to meet contact: Leon Altoff 9530 4180 AH: 0428 669 773

Monday 3rd – Fungi Group Meeting: ***My fascinating work with Teresa Lebel on Lactarius & Russula; and: Using DNA sequencing & allergen testing to identify the pollen & fungal spores in the air of Melbourne & how this affects hay fever.*** Speaker: Lachlan Tegart, Master of Science (BioScience) student at the University of Melbourne. Contact: Carol Page 9857 6388; cpage356@gmail.com

Tuesday 4th - Fauna Survey Group. Meeting: ***Mallee emu-wren and fire: a balancing act.*** Speaker: Simon Verdon. PhD candidate, Latrobe University. Contact: Sally Bewsher 9752 1418

Monday 10th – Marine Research Group. Meeting: Contact: Leon Altoff for details, 9530 4180 AH: 0428 669 773

Friday 14th to Monday 17th – Juniors' Group. Easter Camp at Mali Dunes, Yanac - private property NW of Nhill. Contact: Claire Ferguson 8060 2474; toclairef@gmail.com

Sunday 9th to Saturday 15th - Fauna Survey Group Survey: *Camp at* ***Annuello Nature Conservation Reserve (near Ouyen).*** A follow-up survey from last September focusing on a smaller area and targeting threatened fauna. **Prior Registration essential.** Contact: John Harris 0409 090 955; wildlifeexperiences@gmail.com

Sunday 9th to Saturday 15th – Botany Group. ***Camp at Annuello Flora and Fauna*** **Reserve** with Fauna Survey Group, *see above.* Contact: Sue Bendel 0427 055 071

Tuesday 18th - Collate FNN 274. Starting about 10 am. Contact Joan Broadberry 9846 1218. All welcome.

Wednesday 19th - Microscopy Group. Meeting: For details contact: Philippa Burgess 0409 866 389

Thursday 20th – Botany Group. Meeting: Citizen Science & Bowerbird, Speaker: Ken Walker, Museum Victoria. Contact: Sue Bendel; 0427 055 071

Sunday 23rd – Fungi Group. Foray: ***Cambarville, Yarra Ranges National Park***
From Marysville take the Woods Point Road passing the Lake Mountain turnoff and continuing 5.5 km to the Big Culvert. The Cambarville entrance is a further 1km. Meet at 10..30 am at the picnic ground. (Mel Ed 37 Map 910 U12). Contact: Carol Page 9857 6388; cpage356@gmail.com Use this number ONLY on the day of foray 0438 446 973

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

Tuesday 25th – Day Group. No Meeting – Anzac Day

Wednesday 26th – Geology Group. Meeting: Speaker to be advised. Contact: Ruth Hoskin 9878 5911; 0425 729 424; rrhoskin@gmail.com

Friday 28th – Juniors' Group. Meeting: 7.30 pm. ***Lichen, Strange Liaisons.*** Speaker: Maria Gibson. Contact: Claire Ferguson 8060 2474; toclairef@gmail.com

Saturday 29th - Marine Research Group. Field work: ***Altona.*** Meet at 9 am at the car park on the Esplanade between Bayview St and Mount St. (Mel. 54 J12) Contact: Leon Altoff 9530 4180 AH: 0428 669 773

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.

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.

Welcome

Warmest greetings to the following new members who were welcomed at our last Council meeting.

Tycho Charlton, Huon Charlton, Jean Charlton, Arlo Charlton, Sabdha Charlton, Cristina Charlton, Jessica Ashburner, Simon Ashburner, Ben Ward, Joe Ward, Michael Ward, Linda Ward and Rosemary Martin.

A DOUBLE ANNIVERSARY

The Marine Studies Group of Victoria (MSG) held its inaugural meeting at the Museum on 4th February 1957. Its successor, the Marine Research Group MRG), became part of the FNCV in February 1997.

Therefore this year marks both a 60th and a 20th anniversary celebration for the Marine Research Group.

Second-hand Book-sale

The final result is now $1220 and counting. Special thanks to Sue Bendel who made four trips to responsibly dispose of the bulk of the left-over books. Many others also helped out, so a big thank-you all round.

Facebook– we now have 4461 followers. Thanks to Ian Kitchen and Claire Ferguson.

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.

Extracts from letter received by our president, from the Honourable Linda Dessau AM, the Governor of Victoria and our patron. **She wrote to all voluntary organisations after the recent tragic episode in the city.**

"I wanted just to write you a quick note to thank you and the Field Naturalists Club of Victoria Inc., your volunteers and members for all the work you do to strengthen our Victorian community… and to create the unity and the generosity of spirit that ensure the goodness of our community shines brightest, even on our darkest days. … Please pass on my sincere thanks and appreciation to everyone at the FNCV and my best wishes for the year ahead."

The Golden Orb Spider, *Nephila edulis*

Whilst walking in the Mullum Mullum Valley recently I found the large vertical web of the Golden Orb spider, *(Nephila edulis)*. On either side of the web were a maze of strong supporting threads making the full distance of the web approximately one metre between supports. There are various species of Nephila and their range in Australia extends from Cape York to Southern Australia. The spider hung head downwards in the web. The 22mm female produces gold-coloured eggs and wraps them in a fluffy golden egg sac. The tiny 6/7mm male spider is often found on the outer edges of the web or even the edge of the support tree, as like many other spider species he can end up as supper after mating, which takes place February to May. I have read that he sometimes quickly climbs onto the female's back if she is particularly aggressive. The prey that had been consumed in the past were wrapped in silk and all lined up in a neat debris trail at the top of the web. This possibly consisted of insects such as cicadas, bees, flies and moths. Birds such as silvereyes, wrens and even finches have been known to become trapped in the extremely strong web.

Sometimes a number of smaller spiders of different species live on the far outer edges of the web and feed on insects that are overlooked by Nephila. It is possible the observer may think the small spiders are the male of the species. What I found very unusual about my find was that there appeared to be another female only slightly smaller than the one on the centre of the web and I wondered if anyone else had observed this before. I returned the next day to try and find the male spider but with no luck, the bushland in that area being a thick tangle of undergrowth. I did see four Black Wallabies which scattered at my approach, meaning the pair I had been watching for some time had bred making my weekly walk in the valley more than worthwhile.

Cecily Falkingham, Donvale.

Photo: Max Campbell

Extracts from SIG reports given at the last FNCV Council Meeting

Botany Group: Meeting 16th February *When predators go missing: native mammal herbivore imbalance in South-east Australia*. The speaker was Dr Jeff Yugovic who has done research into the effects on vegetation when the apex predator is no longer present.

Fauna Survey Group: Meeting, 7-2-2017. This meeting was attended by 16 members. At this meeting we farewelled Katarina Stenman and Anders Wennstrom who will be heading back to Sweden at the end of March. They treated us to a talk on their home town of Umea, not far from the polar circle. Although it is cold, there is plenty of wildlife to be seen in the pine, spruce and birch forests in the summer, where the growing period for plants is from 100-220 days depending on the locality. Caribou, Brown Bear, Moose, Roe Deer, Hedgehog, Mountain Hare and Red Squirrel are some of the mammals. There are 8 species of frogs, 3 toads, 2 salamanders, and even 3 species of skinks and 3 of snakes. The forests abound with wild strawberries, raspberries, bilberries and blueberries, and there are 4 species of orchids in the mountains.

Old cottage in our part of Sweden (about 700 km's north of Stockholm).
Photo: K. Stenman & A. Wennstrom

The speaker for the night was Stephanie Rog from Monash University who spoke on Terrestrial Fauna in Mangrove Forests. Stephanie outlined the ecological function of mangroves in coast protection and the threats to them from shrimp farming in some countries. A number of techniques were used to survey for little known vertebrates; Elliott traps above the high tide for mammals, hair tubes, reptile shelters on tree trunks, thermal imaging cameras and spotlighting. Over 25 species not previously recorded included Brown Antechinus and Phascogale. Species richness was greatest in the more northerly forests.

Jacky Dragon - *Photo: J. Harris*

Surveys.
Braeside, 26-29th Jan 2017. This survey was to supplement the previous work of our Eastern Fauna Focus study, by using a different survey regime. We were mainly surveying for reptiles and mammals using traps, spotlights and remote cameras. Eight remote cameras were placed in trees, six were focused on cork tiles along a drift fence and three focused on our pit bucket line to see if we had 'visitors' to the traps. During the survey we detected the following species not recorded in the previous survey - Sugar Glider, Eastern Three-lined Skink, Common Bluetongue and Eastern Dwarf Tree Frog. Only a Common Ringtail Possum 'visited' our pit buckets. Thanks to Des Lucas and his staff for their hospitality and support.

Beaconsfield Nature Conservation Reserve, 17th - 19th February. This is a de-commissioned water supply reservoir surrounded by 170 ha bush. A few Agile Antechinus and a Swamp Rat were caught and released, as was a Little Forest Bat and Lesser Long-eared Bat. Common Ringtail Possums were seen by spotlighting. We also set remote cameras and the results will be analysed in due course. Thanks to our host Geoff Lockwood and the Cardinia Environment Coalition.

R. Gibson.

Geology Group: Mary Chapman, Landscape Architect and Project Manager for the City of Melbourne presented a most interesting talk at the Geology SIG on 22nd February. She described how the special white limestone from Oamaru and Mt Somers NZ was used in buildings in walls, spires, ceilings, facings, decorative carvings, fonts and pulpits and showed examples of its extensive use in Australia and overseas. Examples from Melbourne are numerous although many buildings have since been demolished. Some examples of the surviving uses are with the detailing at Scots Church, the Royal Insurance Building in Collins St, St Patrick's Cathedral, and some buildings at Melbourne University. Mary had a particular interest in this limestone as she was born in the area in NZ. It was a particularly interesting talk as it combined geology, history and architecture.

Ornate use of Oamaru stone in the Cathedral Room of the former stock exchange building in Collins St. *Photo: Mary Chapman.*

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Fungi Group

FUNGI GROUP FORAY 24th July 2016 UPPER YARRA RESERVOIR

Most of the fungi found on this cold day were growing on wood. Exceptions were the whitish-capped Hedgehog Fungus *Hydnum repandum* with spines below the cap, the Green Skinhead *Cortinarius austrovenetus* and several corals: *Clavulinopsis amoena*, *C. corallinorosacea*, *Ramaria flaccida* and *Ramaria lorithamnus*.

Just over the bridge into the wet forest along Doctors Creek Track was a bright yellow display of *Hypocrea victoriensis* on a standing dead tree. The darker ostioles through which the spores are released were clearly visible on the yellow, cushion-like patches. Another *Hypocrea* species with red-brown cushions was found by Reiner Richter growing on a small branch. This is what Jurrie Hubregtse had to say about it "I have had a good look at the *Hypocrea* we found at Upper Yarra Reservoir. I think it is *H. viridescens*, but without examining its anamorph it is difficult to tell which *Hypocrea* sp. it is. *Hypocrea* species in the *Hypocrea rufa* group are impossible to separate in the field. *H. rufa* is most likely not in Australia. It is a Northern Hemisphere species. Assuming that a green mould is a *Trichoderma* without having first examined it using a microscope could give a very misleading identification. The paper *Hypocrea rufa/Trichoderma viride*: *a reassessment, and description of five closely related species with and without warted conidia* by Walter M. Jaklitsch1, Gary J. Samuels, Sarah L. Dodd, Bing-Sheng Lu and Irina S. Druzhinina1 in *Studies In Mycology* 55: 135–177 2006 describes the problem of identifying these species more clearly."

Large groups of small cream to grey-capped, wood decomposing Inkcaps *Coprinellus disseminatus* were growing on tree stumps and around wooden steps and were widespread. Three small, white Mycena-like fungi were on a stump. The caps were convex with a very pale yellow centre, decurrent white gills and a white stem. This description matches *Hemimycena lacteal*. The tiered brackets of the polypore *Ryvardenia campyla* were found first on a living eucalypt and later in very large numbers on an old fallen eucalypt. The brownish upper surface with a pale edge, and the white pored lower surface, were typical for this species.

Reiner Richter had this to say –
"We encountered interesting fungi before we even crossed the bridge into the unspoilt forest wilderness. One was an unusual *Clavulinopsis* species that not even Ed or Pat could put a name to. This was a two-toned species with a beige fertile head for most of its length supported by a brown stem. Younger fruiting bodies were mostly simple clubbed shapes but some of the older ones were attractively antlered."

A mountain grey gum *Eucalyptus cypellocarpa* had lost a branch with its many dead leaves now rotting near the ground. On the most sheltered and wettest side the dead leaves were partially skeletonized and a fungus appeared to be devouring the "fleshy" part . The possibility of leaf-skeletonizing insect larvae or other invertebrates was also discussed and that the fungi may have simply exploited and colonized the damaged area. Before turning back for lunch Richard uncovered a couple of flat bugs sheltering under separated dead bark of Hazel Pomaderris. Thanks to Martin Lagerwey for identifying them as being from the *Neuroctenus* genus and that the particularly attractively patterned pale one is a nymph and the dark one (with apparently fully developed wings) is an adult .

Highlights in the afternoon were mostly enjoyed by the "stragglers" — the fleet-footed were perhaps too swift to study several large *Eucalyptus* logs. On a rotten log, we spent some time examining the interesting and unusual fungi growing on the shady side, including a flat, firm species that appears to have formed by conglomeration similar to that of slime-mould. A path of fairly small, semi-translucent yellow discs were examined but at the time thought too cup-like to be an *Orbilia* species."

As Reiner said, we did spend a long time looking over the large logs and found a variety of fungi, many of which we were unable to identify. The following are just a few of the fungi that we saw and could partially identify. Reiner pointed out the cones of *Lasiosphaeria ovina*, the first time it has been seen this season. They are a mass of minute 'white balls with dark eyes', dome-shaped and surrounded by scurfy hyphal tissue. The 'dark eyes' are ostioles, and the characteristic scurfy hyphal tissue that surrounds the fruit-body makes it recognisable in the field. The waxy-glassy look of the yellow cup-like discs did indicate that they were an *Orbilia* sp. (photo below). The yellow cup-shaped disc was 3 mm diam, the inside was golden-yellow, smooth and translucent, similar to the outside which was also yellow smooth translucent. Often the cups had a deeper golden-yellow margin. There was no stem because they were attached directly to substrate. As J Breitenbach/ F Kränzlin say of no 253 *O. xanthostigma* "Members of the genus *Orbilia* are easy to recognise in the field with some experience because they always have a waxy-glassy appearance" (*Fungi of Switzerland* (1984), vol 2 Non-gilled Fungi). But *O. xanthostigma* species is smaller (0.5-1 mm) than the ones we saw.

Orbilia sp. Photo: Reiner Richter

Richard Hartland identified *Datronia brunneoleuca*, a dark brown bracket zoned with dark brown widish bands interspersed by thin very dark bands and the margin was pale. Below the cap were white pores. The attachment of the bracket was very deep, and the pore surface went down over the log. There were 3 pores per mm, and the pores bruised brown. All of the features confirmed the identification as described in *A Field Guide to Tasmanian Fungi* (2014) by Genevieve Gates and David Ratkowsky, p 186. Richard also saw *Steccherinum ochraceum* – a pale bracket with gold teeth underneath. The orange Eyelash Fungi *Scutellinia scutellata* stood out by its bright colour. Two similar Inkcaps *Coprinellus* spp, *C. disseminatus* and *C.* sp 'Fuhrer 42' were growing fairly close together and it was easy to spot the differences. The young fruit-bodies of the former were creamy-yellow and the caps were translucent-striate, while the latter were whitish and the cap covered with scurfy material (*A field guide to Australian fungi* by Bruce Fuhrer 2011, no 42).

We spent a long time looking at tiny black balls that Richard thought were *Nitschkia* sp. (photo below). They are tiny (up to 1

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mm tall), and rough on the outside, shaped something like a blackberry. The substrate looks black. At the base of the ball, black mycelial threads spread out over the substrate and over something which looked like a white paint fungus. Peter I Thompson no 596 says of *N. grevillei* that 'they often overgrow the stomata (mass of fungal vegetative materia from which the fruit-body develops) and perithecia (container for spores) of other asccetes" (*Ascomycetes in Colour, Found and photographed in Mainland Britain*, 2013), as did the species we saw. Our fruit-body (to 1 mm tall) is larger than *N grevillei* (to 0.5 mm tall), but does seem similar to the one mention on p 231 by Genevieve Gates & David Ratkowsky (2014).

Thanks to all forayers for searching and photographing the species we found. Thanks to Reiner Richter for his contribution to the report. Thanks also to Paul George, Pat Grey, Richard Hartland, Jurrie Hubregtse, Reiner Richter, Torbjorn von Strokirch and De'ana Williams for their contribution of many beautiful photographs. Thanks to Virgil Hubregtse for checking the report and species list.

Pat & Ed Grey

Nitschkia sp. Photo: De'ana Williams

FUNGI FORAY 31st July 2016 KINGLAKE NP, MASON'S FALLS

Vegetation - Eucalypt Forest.

What a beautiful day we had, sunny and warm plus a few fungi, although we had to hunt hard to find many of them, except for *Pholiota communis* which were everywhere in the woody mulch of the car park and picnic area. *P communis* has a broadly convex cap, viscid when moist, the centre with dense fibrillose scales that become separated and paler towards the margin. The stems are brown, fibrillose, becoming fibrillose-scaly towards the base. (*A field guide to Australian fungi* by Bruce Fuhrer 2011, no 235). In the picnic area we also saw the bright pink *Ceriporia purpurea* growing flat on a fallen branch. The bright pink pored area was surrounded by a white margin. Jurrie and Virgil Hubregtse have this to say "The purple crust is probably Ceriporia purpurea sensu Gates & Ratkowsky p204 (*A Field Guide to Tasmanian Fungi*, 2014), but according to Jerry Cooper (pers. comm. 2014) and other information found by Jurrie Hubregtse this is not really *C. purpurea*. The fungus we found turns dark grey in KOH, whereas *C. purpurea* turns red-purple. Description from Mycobank web page - Basidiocarps annual, resupinate to effused-reflexed or sessile, usually effused in small separate or confluent patches up to a few cm wide; pore surface pale to dark brownish purple on dried specimens, the pores 3-4 per mm; margin usually sterile, white, minutely tomentose, less than 1 mm.

Around the Lyrebird Walk, Richard Hartland pointed out a coral in litter under a fallen trunk. This species had a very thin, delicate structure (branches 40 mm tall by up to 0.5 mm wide). The branches were white with 'u'-shaped divisions (axils) and pointed branch tips. Some branches had rusty markings, probably caused by maturing spores. It was attached to thick pieces of rotting bark. The size and structure indicated that it was *Ramaria ochracia*. Pat Grey and Ed Grey (2016) had this to say "(*Phaeoclavulina ochracea*) Delicate Coral. Fruit-body: small, delicate, branched, cream to pale ochre. One of the four coral fungi that grows on wood. Size to 50 mm tall x 25 mm wide. Branches to 1.5 mm diameter, fine and delicate, cream to pale ochre. Branch tips pointed, whitish. Stem to 10 mm long x 2.5 mm diameter, arising from a whitish mycelial ball. Spore print pale yellow-brown. Habit: solitary or in small groups. Habitat: on dead wood. (*A Little Book of Corals*, Revision 1 April 2016). It is not often that we see this species.

Richard Hartland showed us *Postia dissecta*. It is a thin fruit-body, unlike other *Postia* spp we have seen. Genevieve Gates and David Ratkowsky p 194 –"A small thin polypore with individual fruitbodies (ca 1-4 cm diam) forming shelves in tiers on the sides and cut faces of logs. The brownish top is often banded and the white or bluish undersurface has fine pores".

At lunch time Richard Hartland showed us the Arched Earthstar *Geastrum fornicatum* that had been found at Woodlands (the back of Melbourne Airport). It is usually found in sandy areas, both coastal and arid interior, often with trees such as wattles, so it is interesting that it was found at Woodlands. "This tall earthstar is distinguished by an arched circle of rays supported on a sand-encrusted basal cup. At the apex of the arched rays is a stalked, round spore sac with a simple pore-like mouth. This species is not hygroscopic" (*Fungi Down Under: the Fungimap guide to Australian fungi* by Pat Grey and Ed Grey. 2005)

In the afternoon along Boundary Road, Richard Hartland searched all the burned wood to find *Coltricia dependens* (photo right), and he was successful. Here is what Richard said about the species "This species is found underneath charred eucalypt logs that tend to provide some space above the soil. A rust coloured mycelium forms fruiting bodies that can either be small and round on a small stem or irregular and often fused forming patches

Coltriciella dependens Photo: R. Hartland

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to 30mm across. The pores are small to about 0.5mm diam. We have found it several times and it appeared at Whites Corner some three years after the fuel reduction burn and has now been found some 6 years after the wild fire at Kinglake. It appears quite common although rarely seen due to its secretive habit."

We also thought that we saw a slime mould similar to the one we saw last week, but it was an insect. However, Paul George was able to supply information re last week's slime mould: "The flat brown blob that Richard Hartland photographed at Upper Yarra reservoir is indeed a slime mould. It is a pseudoaethalia - which means that the fruit body is comprised of lots of spore-containing tubes crowded together to form a rounded cake-like mass. The tops of these tubes can clearly be seem in a photo. (An example of a true aethalium is the dog's vomit slim mould - *Fuligo septica*, which lacks distinct sporangiate tubes and is not as flat). A typical pseudoaethaliate slime mould is *Tubifera ferruginosa*, but this tends to be bright red or rusty brown and the tubes are less tightly packed and somewhat more prominent. Richard's specimen is most likely *Dictydiaethalium plumbeum*, in which the sporangia are very tightly packed and flat. Colours typically range from dull yellow, reddish brown, olive or slate. The broad off-white 'fuzz' is the hypothallus and is laid down on the substrate as the plasmodium is transforming into a fruitbody."

Along the Mason's Falls walk, John Eichler pointed out *Clavaria tenuipes*, a species that we had seen last week at Upper Yarra Reservoir. These were growing in groups in litter and on soil. They are simple or once-branched clubs, pale yellow to buff with a distinctive dark (to brown) stem. Richard Hartland had thought last week that it was *C. tenuipes* and Ed Grey confirmed this week's microscopically. Richard has also seen it along Five Mile Rd at Wilson's Promontory in a swampy area, and close to a wetland at Nyora.

Here is what Carol Page had to say about a productive spot along the track "while Richard was photographing the *Cordyceps* I noticed the *Hygrocybe*. Then when I was getting up to move away for John to take his turn, I saw the Earthtongues". The *Cordyceps robertisii* consisted of just one tall fawn spike 100 mm tall with no forking. We have seen this species several times this year but all were coloured brown and usually forked. This species itself is often parasitised by the cream *Cordyceps cranstounii*. The host for this *Cordyceps* is usually *Oxycanus diremptus* (Swift Moth) caterpillar. The larvae of all Hepialidae are concealed feeders, and this particular species lives in vertical tunnels in the soil beneath Acacia trees. At night they come to the surface to feed on leaf litter and other detritus. If not parasitised by *Cordyceps*, the adult caterpillar emerges between March and May after pupating in the tunnel. (P Grey & R Barker. 1993. Cordyceps or Plant eats Animal! *The Victorian Naturalist* vol 110 (2), p 98ff).

The red-capped *Hygrocybe* seen by Carol was recognised by John Eichler as a young specimen of *Hygrocybe psittacina var. perplexa* now *Gliophorus perplexus (photo above right).* (Bruce Fuhrer supplied the new name). John noted that it looked very similar in terms of its colour and its glutinous striate cap, to those he had seen at Ned's Gully in the Cathedral Range, Young 2005, p 134 says of *Hygrocybe psittacina var. perplexa* – "Pileus … smooth, translucent-striate glutinous, orange-brown to reddish brown (without any trace of green)…Stipe smooth, glutinous, concolorous with the pileus… This species is distinguished by the orange-brown to reddish-brown basidiomata without any trace of green". Young also noted that it is "known from only one locality in southern Vic; occurs in sclerophyll woodland in

Gliophorus perplexus Photo: John Eichler

Kunzea ericoides thickets." (AM Young *Fungi of Australia: Hygrophoraceae*). However, John has also seen it in the Cathedral Range and now at Kinglake.

There were a number of the black earthtongues. The smooth head was12 mm long by 4 mm wide, and the stem was rough, 50 mm long and 3 mm wide, and it looked to have some fine white mycelium at the stem base. The fertile head was quite distinct from the head. Genevieve Gates and David Ratkowsky p 223 say of *Geoglossum cookeanum* "This species forms shiny black or blackish-brown slender rods (c 50-100 mm long), in soil and usually in association with moss. Close examination of the fruit-body shows that the top half (which bears the reproductive structures) is smooth and of a wider diameter, whereas the bottom half (which qualifies as the stipe) is roughened and narrower." From *Fungi in Australia* (2016) by Jurrie Hubregtse who says of earthtongues "*Glossums*" (tongues) have been divided into three main genera: *Microglossum* (small tongue), *Geoglossum* (earthtongue) and *Trichoglossum* (hairy tongue). *Microglossum* fruit-bodies are more coloured, tending to green or a greenish hue (see B Fuhrer *A field guide to Australian fungi*, 2011, no 510), while *Geoglossum* or *Trichoglossum* have black/dark brown fruit-bodies. They are all recognised by their club-like shape. In the field *Trichoglossum* can be distinguished from *Geoglossum* by the minute hairs (setae, brown lance-shaped cells) that protruded from the surface of the fruit-body giving it a finely bristly texture. *Geoglossum* species have no (hairs) setae in the fertile head or stem and the texture varies from smooth to viscid or only slightly velvety. The fruit-body is club-shaped to spatulate with a fertile, flattened head, often twisted and grooved, that can be distinct from the stalk or merge into it without a sharp differentiation.

At the end of the day we saw a large group of small Black Cups. Richard Hartland noted that "The Black cups with the crenate margins seem to tie in with *Aleurina calospora* as described in Genevieve Gates and David Ratkowsky (2014) p 217" – "This soil-inhabiting species forms a small cup (ca 1-1.5 cm diam). The cup is deepish with a dark purple-brown inner surface and a minutely warted brown outer surface and has an irregularly crenate margin. It becomes quite black with age and the most distinguishing features to differentiate it from other black cups are the crenate margin and relatively small size".

Pat Grey

Erratum: The Fungi Group report in FNN 272, p 11-12, *Foray to Langwarrin Flora & Fauna Reserve* should have been dated 19th July **2015** (not 2016). This report was republished by accident. Apology from the editor. Lesson learned: More haste, less speed.

FNCV AGM

Sunday 7th May 2017 at 2 pm

You are invited to attend
The Field Naturalists Club of Victoria Inc
Annual General Meeting

to be held at the FNCV Hall, 1 Gardenia Street, Blackburn.

Agenda: *Minutes of previous AGM; Annual Report; Financial Statements; Election of Council; Environment Fund; Other Business*

Guest Speaker: To be announced

Afternoon tea will be served. ***All welcome***

Nominations for Council must reach the registered office of the Club no later than 48 hours before the AGM, i.e. Friday 5th May 2017, by 2 pm

The Field Naturalists Club of Victoria Inc.

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Email: admin@fncv.org.au
Website: www.fncv.org.au
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Reg. No A0033611X
ABN 55 791 612829

Patron: The Honourable Linda Dessau, AM
Governor of Victoria

Proxy Voting Form

I, _____

Current member of The Field Naturalists Club of Victoria Inc.

appoint (full name) _____

of (address) _____

or in their absence, the AGM Chair, to be my proxy at the 2017 Annual General Meeting to be convened on Sunday 7th May 2017 at 1 Gardenia Street, Blackburn and authorise them to vote on my behalf.

This form must be given to the FNCV Secretary before the start of the AGM.

Signed: _____

Date: ___ May 2017

Understanding Our Natural World

Thanks to the editorial and layout team who put together FNN 273

Joan Broadberry
Barbara Burns
Wendy Gare
Sally Bewsher

Many thanks to those who helped collate and label the 14 page FNN 272

Andy Brentnall
Edward Brentnall
Hazel Brentnall
Ray Gibson
Neil McLachlan
Keith Marshall
Sheina Nicholls
Barbara Burns

Continued from page 4

Juniors' Group: Our February excursion was cancelled due to poor beach weather being forecast on the day . It ended up being the coldest February day in 12 years!

At our February meeting we had Max Campbell speak to us on "Single-celled organisms / Pond Life" at a meeting that was very well attended. Max taught us about the various single celled creatures that can be found in fresh water in the categories of **Amoebae**, **Ciliates** and **Flagellates**. We also saw images of many celled Hydra organisms such as a Rotifer, Gastrotrich, water mites, water fleas, hydracnid, crustaceans, nematodes, and oligochaeta.

We were interested to hear that some single celled **amoebae** are able to digest a many celled organism and also group together to kill a bigger organism. They have "false feet" of gel that help them crawl around and some cover themselves with substances like silica, chitin and calcium.

Ciliates were interesting as they can vibrate to move in fluid and suck food into their mouths. One looked like a snail on a centipede with another having what looks like an elephants trunk! One can stretch itself 15 to 20 times its length in search of food and another forms a symbiotic relationship with algae which provided it with food.

Flagellates all have a whip like tail which pulls the cell around. Some are pear shaped, others cucumber shaped. Some have a red eye spot with which it can detect light. They can form colonies and spin around together.

Max did a great job making such a complex topic simple and easy to follow. His enthusiasm for these fascinating organisms was contagious as he showed us not only his own macro images of them, but macro video footage, some showing behaviour sequences that took hours of filming.

Our **Easter camp** is from April 14 to 17th and is at Mali Dunes, Yanac - a private property NW of Nhill.

Marine Research Group: Our field work schedule started in February with a survey of Noble Rocks, Bream-lea. Nine members and one visitor attended. 109 species were observed.

Our planned speaker for our first meeting of the year, Kent Stannard, had to cancel at short notice. Without a speaker we cancelled the February meeting. Kent will be rebooked and will be speaking on current research on the great white shark later in the year.

Day Group

On February 28th, twenty-seven members of the Day Group enjoyed a lively presentation from Birdlife Australia volunteer Janet Hand, entitled "Associations between Birds and Plants". She illustrated her themes with some stunning images of the birds we are most likely to see in our Melbourne gardens. Both native and introduced birds were included. Sadly I have space for only a brief summary of her interesting and very relevant talk.

Birds come into our gardens for five main reasons: for water; to perch, rest or preen; shelter; nest; and importantly, for food. Janet went on the elaborate on each of these. For example, fifty-one birds found locally were divided into groups according to what they eat - nectar & pollen; grubs, frogs & worms; seeds; insects; lerps; fruit & berries; meat, carrion & invertebrates; and nocturnal prey. There were many great tips on bird identification. Janet also brought along some bird skins and pamphlets, gave us a summary of the history of Melbourne's bird groups and answered questions. Our thanks go to Janet.

Joan Broadberry

NOMINATION FORM FOR FNCV COUNCIL 2017/18

The FNCV AGM will be held on Sunday 7th May, 2 pm
at the FNCV Hall, 1 Gardenia Street, Blackburn

Name of Member Nominated .....

Position Nominated * .....

Signature of Member Nominated .....

TWO MEMBERS SUPPORTING NOMINATION

Name ..... Signature ..... Date.....

Name ..... Signature ..... Date.....

*Elected members of the FNCV Council are: President, Vice-President, Secretary, Treasurer, up to six Councillors and a representative of each Special Interest Group (SIG). Councillors must be FNCV members.

All nominations, including SIG representatives, must reach the FNCV office
no later than 48 hours before the AGM,
i.e. Friday 5th May at 2 pm

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Field Nats News 273

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