



Understanding
Our Natural World
Est. 1880

Field Nats News No.270

Newsletter of the Field Naturalists Club of Victoria Inc.

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December 2016/January 2017

From the President

The past month has again been full of excellent presentations and activities. The highlight was the awarding of the Australian Natural History Medallion on November 7th to Dr Max Moulds for his contribution to the study of entomology. Max was nominated by the Entomological Society of Queensland.

The presentation of the medallion was made by Dr Bill Birch MA, President of the Royal Society of Victoria.

Dr Moulds came down from Kuranda in north Queensland to receive his award. Max has an enviable publication record. Between 1963 and the present day he has produced 84 formal publications, as sole or joint author; and the list is still being extended. This corpus includes two major volumes on his favourite areas, butterflies and cicadas. The first of these monographs, *Bibliography of the Australian butterflies (Lepidoptera: Hesperioidea and Papilionoidea) 1773-1973*, published in 1977, was a 239-page annotated bibliography of all Australian butterfly publications to date. The value this had in the field of Australian lepidopteran studies was significant, facilitating an increase in field studies in the following years.

Australian Cicadas, published in 1990 and intended for a wide readership, won the prestigious Whitley Medal for best natural history book in Australia. His papers have focused on a wide range of subjects of relevance to entomologists, including butterflies, cicadas, hawk moths, and dragonflies, as well as the history of entomology, and techniques for collecting, preserving and storing specimens.

After receiving the award, Max delivered an outstanding presentation on cicadas based on his research spanning five decades. He has collected material from most of Australia and some of the islands of New Guinea. Max covered many aspects of cicada biology and systematics to the delight of a well-attended meeting. *Continued page 5*

Photo: J. Broadberry



The deadline for FNN 271 February 2017, will be **10 am on Tuesday 10th January 2017**. FNN will go to the printers on the 17th with collation on Tues 24th Jan 2017.
NB: these dates are a week later than normal

Very best wishes for a safe & Happy Christmas and a productive and satisfying New Year, from FNN to our valued readers and wonderful contributors.

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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.

December 2016

Monday 5th – Fungi Group—No Meeting

Tuesday 6th - Fauna Survey Group—Meeting: *Christmas Break up – This was the year that was.*

Contact: Robin Drury 0417 195 148; robindrury6@gmail.com

Saturday 10th - Christmas Party BBQ—6.30 pm in the hall. Join us and help celebrate another wonderful year with lots of Christmas cheer. For details see invitation p5.

Monday 12th – Marine Research Group—Meeting: *Annual Members' Night*

Everyone is welcome to bring along exhibits, items of interest or questions on marine invertebrates.

Contact: Leon Altoff 9530 4180; 0428 669 773

Thursday 15th – Botany Group—Meeting: *Members' night & Clyde update*

Bring your photos or plant specimens to share. Contact: Sue Bendel 0427 055 071

Tuesday 20th - NO COLLATION IN DECEMBER

Wednesday 21st - Microscopy Group—No Meeting

Tuesday 27th – Day Group—No Meeting

Wednesday 28th – Geology Group—No Meeting

Friday 30th – Juniors' Group—No Meeting

January 2017

Monday 2nd – Fungi Group—No Meeting

Tuesday 3rd - Fauna Survey Group—No Meeting

Monday 9th – Marine Research Group—No Meeting

Saturday 14th - Fauna Survey Group—Excursion - *An evening survey to look for Leadbeater's Possum, gliders, owls and other nocturnal wildlife.* Contact: Ray Gibson 0417 861 651

Tuesday 17th - This month only, collation is a week later, January 24th.

Wednesday 18th - Terrestrial Invertebrates Group—No Meeting

Thursday 19th – Botany Group—No Meeting

Monday 23rd – Juniors' Group—Excursion: *Queenscliff Marine Trip* . Meet at 1.00 pm at Queenscliff Marine Discovery Centre – **Bookings essential; approx. \$25 each. Contact: Claire Ferguson 8060 2474; toclaireref@gmail.com**

Tuesday 24th – Day Group—No Meeting.

Tuesday 24th—Collate FNN 271. 10 am. All welcome. Morning tea provided. Contact Joan Broadberry 9846 1218

Wednesday 25th – Geology Group—No Meeting

Thurs 26th to Sun 29th - Fauna Survey Group—Excursion: *Fauna survey, venue to be advised. Prior registration essential.*

Contact: Robin Drury 0417 195 148; robindrury6@gmail.com

Friday 27th – Juniors' Group—Meeting: 7.30 pm. *Council Member Talks.* Speakers: Junior Council Members

Contact: Claire Ferguson 8060 2474; toclaireref@gmail.com

Monday 30th FNCV Council Meeting 7.30 pm. Agenda items and apologies to Wendy 9877 9860 or admin@fncv.org.au



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.

Warmest greetings to the following new members who were welcomed to the FNCV at the last Council Meeting:

to the the following Rachel Sawaya, Anika Stobart, Bradley Matthews, James Wiles, Alice Jane, Karen Brewster, Ethan Russell, Alex Yan, Luanda Melo, Mick Lumb, Judith Lumb, Jan Schifko, Hon Keung Chung, Zamar Chung, Guy Dutson, Mark Shepherd, Stephen Goodfield, Jules Farquhar, Athena Rozenberg, Joseph Davies, William Davies and David Davies.



Congratulations

Gary Presland's, book, *Understanding Our natural World, The Field naturalists Club of Victoria 1880-2015*, was short listed and received a commendation for the Victorian Community History Award 2016. This award recognises outstanding non-fiction publications or e-books



Morialta Conservation Park

This koala was seen by Wendy Gare during her visit to Adelaide at Morialta Conservation Park over the Cup Weekend. This is a bush reserve only ten minutes from the Adelaide CBD. It sounds like a really interesting field nats place, offering waterfalls, wildflowers and bush tracks.

Thank you Wendy for sharing it with us.

SEANA

A reminder of 2017 dates

Autumn get-together hosted by Sale & District FNC and Latrobe Valley FNC 17th –20th March 2017. Based at Sale. Group accommodation available. Contact Roslyn Steel roslynsteel@gmail.com 0438 460929

Spring camp hosted by Ringwood Field Naturalists . Friday 13th—Sunday 15th October 2017. Venue: Little Desert Lodge. Further details later.



HISTORICAL HONOUR BOARD

It's up! Just inside the front door.

"This Honour Board was unveiled by the Governor-General, Sir Ronald Munro Ferguson GCMG, at the Annual General Meeting of FNCV held on 10th June 1918, at the Royal Society's Hall.....On the Union Jack being drawn aside by his Excellency, the National Anthem was sung. The Club was indebted to Mr J Gabriel, one of the vice-presidents, for the construction of the honour board, which was made of Victorian Blackwood and Queensland maple, and to Mr PRH St John, the hon. librarian for the lettering." * *Extracts from the notes accompanying the Honour Board.*

From the Office



Dear Members, another year has flown by! Here we are organising the Christmas Party again. If any of you have any interesting photos which could be included in our Christmas presentation along with the SIG photos, they would be very welcome. Just email them to me before the end of November please.

As always, any donations of tea, coffee and biscuits are welcome, but most importantly this time, we need toilet paper please! (Boring but vital. . .)

Something else which is also always welcome is feedback on any admin matters such as membership issues, correspondence etc. I'm really into "Continuous Improvement!"

With very best wishes for a safe and happy festive season,

Wendy Gare

Many thanks to those who helped collate and label FNN 269

Andy Brentnall
Edward Brentnall
Hazel Brentnall
Keith Marshall
Sheina Nicholls
Barbara Burns

Extracts from SIG reports given at the last FNCV Council Meeting

Botany Group: The September meeting was attended by 15 people who learned about myrtle wilt in Victorian cool rainforests, presented by ARI senior botanist David Cameron. David made certain that everyone was aware of the difference between myrtle wilt (those inky patches on myrtle beech) and myrtle rust, an introduced disease of the Myrtaceae family.



The October meeting was attended by twenty people who enjoyed Brett Mifsud's presentation On the Trail of Giants, Our Tallest Trees. Brett's passion for tall trees is contagious and members are looking forward to his field trip near Powelltown in November when we will be joined by the Juniors.

Fauna Survey Group: Meeting 6/9/2016. The speaker for the meeting was Dr. Leila Brook, on the 'Predator Interactions in Northern Australia'. This study looked at the interactions of dingoes and feral cats at study sites in the Kimberleys and Cape York Peninsula. There was less cat activity where dingoes were present and cats also had to avoid times of the day when dingoes were most active.



Survey camp 24–30/9/16. The survey was conducted in Annuello Flora and Fauna Reserve and, because of wet conditions, we camped some distance away at Hattah Lakes National Park. Twenty people attended across the week. The camp was the latest collaboration with Parks Victoria. It was also used for a training workshop on trapping techniques for our permit holders and other members, as part of our ethics and scientific procedures licences. Peter Homan was assisted by John Harris in running the workshop. Due to the wet weather our trapping and species numbers were down, with more species being observed opportunistically than trapped. What was very pleasing was the number of Malleefowl sightings and the very large number of Regent Parrots counted in a late afternoon survey of roadside corridors leading into the park. Over 1500 birds were recorded flying over the two corridors. Some published numbers have only around 500 Regent Parrots in Victoria. We will be going back at Easter for another visit.

Meeting 4/10/2016. The speaker for the meeting was Mark Hall, on 'The role of vegetated linear networks for fauna conservation within agricultural landscapes'. The number of bird species increased with more tree cover, and strips of trees in the riparian areas were wider than those along roads in this locality. Noisy Miners had a suppressive effect on the number of bird species where they were common.

Fungi Group: The Fungi Group held one meeting in September. This was a members' night, where members showed their photos of fungi, many of which remain a mystery to us when it comes to identification. As one member remarked, we will never run out of fungi to puzzle over. Twelve members and one visitor attended.

The Fungi Group's final meeting for 2016 was held on 3 October and was devoted to 'Planning for 2017'. Nine members attended.



Geology Group: Approximately 30 members and visitors attended the August meeting. Our speaker was Dr Peter Jackson, who many know as geology tutor with U3A Nunawading. Peter has many years' experience as a geologist in industry and teaching. The subject of the talk was 'The Geology of North West Tasmania'. NW Tasmania has a long, varied and complicated geological history since the early Neoproterozoic. Its history has been punctuated by periods of intense deformation, particularly in the Cambrian and Mid-Devonian. NW Tasmania is home to many varied types of mineral deposits. Many, such as Mt Lyell, Renison Bell, Zeehan, and Savage River became the economic saviours of the state. On the down side the environmental consequences of mining these deposits is still with us today. Time and geological processes have combined to create the building blocks of the wonderful landscape of Tasmania; the details beyond this short report. Finally I would like to thank Peter for presenting this talk, it has given me more to ponder on my next trip to the island.

We also had a short talk on 'Harlequin Stone', a rock formed by metasomatic alteration of carbonates. A colourful decorative stone it is found only in Wallaroo on the York Peninsula in South Australia.



At September's meeting we were privileged to hear a presentation by renowned artist and scientific illustrator Peter Trusler. The title of Peter's talk was 'Paintbrushes, Geo Picks, Pixels and Acid - an illustrator's journey into deep time'. The talk was based on Peter's PhD thesis, his reconstruction of the skull of *Palorchestes azeal*, a giant marsupial herbivore of the Late Miocene-Pleistocene. *Palorchestes* was first identified in the mid-19th century as a giant kangaroo, but as more remains were discovered, it was realised that the giant marsupial belonged to a completely different family. *Palorchestes* differs from other marsupials in that its nasal bones were retractable, suggesting its nose was 'trunk like' similar to the Tapir. It is still not understood why the animal had such a large nose. The most intact skull of *Palorchestes azeal* was found wedged in the roof of a cave in the Buchan district in 2000. A covering of carbonate flowstone helped to preserve the skull. It was this skull that was the basis of Peter's research. Using his skills as an artist, palaeontologist and anatomist Peter was able to give flesh and bone to this mystery marsupial animal whose odd appearance leaves people even more intrigued as to its nature. Ruth Robertson. [A more detailed report is on p 14.](#)



FNCV Christmas Party

**Saturday December 10th.
Join us at 6.30 pm in the FNCV Hall
1 Gardenia St. Blackburn**

Relax and enjoy a BBQ with friends and members from all FNCV Special Interest Groups and celebrate another wonderful year of activities. All welcome

- * The club will provide meat, vegeburgers, bread and nibbles. Please bring a salad or a sweet to share. BYO drinks. Email the office by **Friday 2nd December** to let us know numbers coming and food you are bringing.
- * We are planning a presentation looking back over the FNCV year. SIG co-ordinators are requested to email about 10 images from their 2016 activities to the FNCV office no later than **Friday 2nd December**.
- * We will also be holding the traditional FNCV end-of-year fund raising raffle. **Donations of prizes would be much appreciated**, e.g. wine, knick-knacks, plants, books etc. Look deep into your 'present drawer'. Deliver to the office or (preferably) bring them with you on the night.

admin@fncv.org.au

From the President—continued from page 1

The presentation of the ANHM was preceded by an excellent buffet dinner. Many thanks are due to Barbara Burns, Philippa Burgess, June Anton, Deb Zinn and others who helped prepare the meal.

Special thanks to Gary Presland for his work as Secretary of the Australian Natural History Medallion.

**Max Campbell
President**



Greengrocer Cicada

Photo: Max Campbell

ANHM dinner

Photo: J. Broadberry



**Thanks to the editorial
and layout team who put
together FNN 270**

Joan Broadberry
Wendy Gare
Sally Bewsher
Gary Presland



Fungi Group

FUNGI GROUP FORAY, 3rd July 2016—DANDENONGS, Olinda Creek Walking Track

We have been fortunate to have fine weather for most of our forays this season and this continued with a cloudy day greeting us as we met in the car park. In the morning we were to walk along the Olinda Creek Track, and to get to the start we walked down Stoneyford Road to the overflow car park. A first for the group was a single fruit-body of the Barometer Earth-star *Astraea hygrometricus*. This showed the distinctive cracked (tessellated) rays surrounding a greyish round spore sac. The species is usually associated with exotic trees, and while it was found under a eucalypt among wattles, apparently this area had once been covered with pines. Under pines at the lower end of the car park were rotten *Lactarius deliciosus* and a fine *Tricholoma aff terreum*, which has a light grey cap with dark grey radial scales, white gills with a slightly serrate edge and a sturdy stem. This is an exotic fungus only found under pines.

A mass of the mustard-yellow coral *Ramaria flaccida* had the typical upright branches and slightly paler mustard-yellow tips and the pale buff coral. *Ramaria filicicola* was growing in groups in the litter with pale tips on the upright buffish branches. On this track we were confronted with a lot of felled *Acacia* trees tangled on the track sides with weedy species – holly and pittosporum – scattered among Burgan and Silver Wattles. Fungi were sparse but an early find was the Vegetable Caterpillar Fungus *Cordyceps robertsii* with two specimens showing the thin brown branched structure. Later, Janet McClean discovered a whole group of *Cordyceps* – *C. cranstounii* and *C. robertsii*. Here *C. cranstounii* was growing on its own with the yellow clubs standing out in the litter and showing the prominent ostioles. Most of the *C. robertsii* fruit-bodies were parasitised by white patches of *C. cranstounii*.

We saw a group of fungi in the mulch pile at the lower end of the car park – caps were dark brown/grey with depressed dark centre off-white gills which were slightly decurrent, and the stem was dark, with white mycelium at its base. But the smell – beautiful like bubble-gum – *Entoloma aromaticum* jumped to mind (with the smell), but Paul George noted that the body form was not like *E. aromaticum* which has a brownish cap with a nipple-like umbo and the gills are not decurrent. Apparently Tom May had said to Paul that *Clitocybe* species often have strong smells (and that there a large number of species). Conclusion – *Clitocybe* sp. ‘bubblegum’. However, later, the microscopical work by Jurrie Hubregtse showed that they were, in fact, an *Entoloma* (species not yet defined).

Richard Hartland found *Serpula himantioides* on the under side of a piece of wood. I had wondered whether it was the Dry Rot *Serpula lacrimans*. Wikipedia had this to say “It is considered the wild sister species of *S. lacrimans*. *Serpula himantioides* is commonly found in the wild, while *S. lacrimans* is rarely found in the wild and is generally found on lumber in buildings and construction.” Genevieve Gates and David Ratkowsky wrote

“A distinctive gelatinous brown species with a white growing edge (to 20 cm long) and a maze-like wrinkled surface. It has been recorded on logs of radiata pine and eucalypt species” (*A Field Guide to Tasmanian Fungi* (2014) p 210). Wikipedia also had this to say “*Serpula himantioides* is a fungal pathogen within the division Basidiomycota. *S. himantioides* prefers the moist wood of coniferous hosts such as fir, larch, spruce, and pine. It is the causal agent of butt rot disease, the symptoms of which include rotting the heartwood at base of tree, as well as damage to the tap root and cores of lateral roots, but standing trees show no signs of infection. It is also a common cause of timber rotting in buildings, which has made this pathogen difficult to differentiate from *S. lacrimans* because of their similarities. The brown cubical rot caused by *S. himantioides* resembles the rots of *Phaeolus schweinitzii* and *S. lacrimans*. *S. lacrimans* is the pathogen that causes dry rot in wooden building structures.”

Paul George brought in a *Cortinarius* sp with a very smooth convex white-buff cap (no sign of gloop, but its very smoothness could indicate that it did have), and white stem. He thought it was *C. austroalbidus*, but only Jurrie Hubregtse was able to discern the curry smell that clearly identifies the species. It has a white to buff, stem with traces of violet, and the gills become rusty-brown with maturing spores. Both the cap and stem are very slimy when fresh, and this can be seen by the ‘gloop’ on the cap margin. We saw a number of other *Cortinarius* spp, a lot of them brown with a dark brown broad umbo.

After lunch, a small group investigated a boggy area, just below the overflow car park. On the forest edge was a large group of the Green Skinhead *Cortinarius austrovenetus*. The green caps, yellow gills and stem were clearly visible. Richard Hartland found a several groups of *Cortinarius memoria-annae* growing in a semicircle. These are large fungi with cap diameters to 95 mm diam. The cap is biscuit coloured with tan marks and pale stem. It is not until the stem, when broken, immediately turns bright yellow, that determines the species in the field. Paul George had found this species at Big Pat’s Creek in 2006, and because of the bright yellowing of the flesh called it *Cortinarius* sp. ‘Bright-yellow Context’. Gates and Ratkowsky p 52 have supplied a name. Richard also found another beautiful *Cortinarius austroviolaceus* see photo page 7, which has a deep lilac, dry cap with fibrils overhanging the margin and a sturdy concolorous stem. The very dark gills, almost appearing black, contrast with the deep violet cap and stem.

Again coral fungi were abundant. The smokey-grey branched Ash-grey Coral *Clavaria cinerea* was the first found followed by more groups of *R. filicicola* amongst the Burgan with one group forming a huge ring. One bedraggled specimen of *Ramaria lorithamnus* was growing on the ground, and the Peppery Coral *Artomyces austropiperatus* was growing on a small, very rotten branch and had the crown-like branch tips on pale fawn branches. A small piece of the Delicate Peppery Coral *A. colensoi* was found on a small, thin branch. Lastly, several groups of the bright yellow clubs *Clavulinopsis amoena* were growing in the moss and litter along side the track leading back to the car park.

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John Eichler found *Clavulinopsis corallinosacea*, and when he got home and processed the photo, noticed that there was also *Cordyceps meneristitis* (tiny club with brick-red head). A Coral, Cordyceps and Cortinarius foray!

Thanks to all the forayers for hunting and photographing the species we found. Thanks to John Eichler for providing lists and photos. Thanks to Ed Grey, Richard Hartland, Carol Page and Reiner Richter for their contribution of many wonderful photographs. Thanks to Virgil Hubregtse for checking the report and species list.

Pat & Ed Grey



Cortinarius austroviolaceus
Photo: Richard Hartland

ADDENDUM: A VERY INTERESTING PIECE OF FUNGI NEWS FROM REINER RICHTER (NOT FROM THE FORAYS)

Reiner Richter "For a few years now I have been finding a beige "tack" like fungus on wood in water, particularly around waterfalls. A couple of days ago I stumbled across the *Cudoniella* genus and realized that's what they are. There were no previous Australian records for *Cudoniella clavus* on Atlas of Living Australia (ALA) so I assume nobody here has seen them before. You probably need to put on gumboots and wade around in a creek during spring and summer to find them - which is what I did. I have created a little page for them":

Common Name (water fall fungus*) **Family** Helotiaceae
Genus/Species *Cudoniella clavus* (Alb. & Schwein., 1805)
Dennis (1964)

Abundance Although to date I am the only one to have recorded this species in Australia it is probably not rare. I have

only seen it in Victoria but it is a common species of Europe and also found in North America.

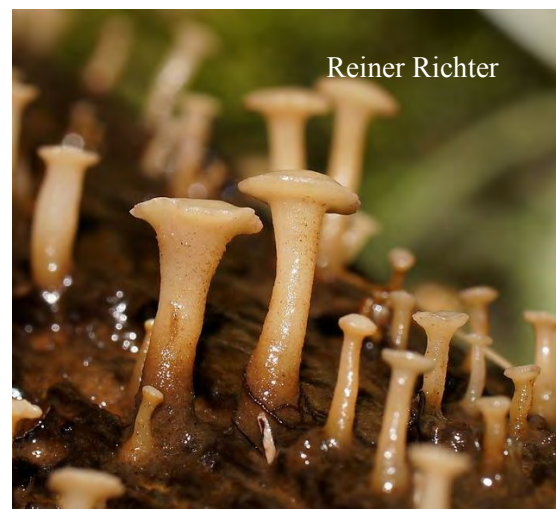
Distribution Found in the Yarra Ranges, Dandenong Ranges and Otway Ranges (photo below). Probably more widespread.

Habitat & Substrate Usually found in wet forests on very old hardwood that is partially submerged or under a constant shower from a waterfall or partially or completely submerged.
Description This is a freshwater fungus species that grows on organic material, such as wood, near the surface of water (sometimes under water or in splash zones). It has a relatively thick stem typically 5–10mm tall and a wider cap as shown. They have a fairly uniform creamy white color all over but the stem is often coated in mud.

Observations I first saw this fungus while spotlighting for invertebrates at waterfalls during spring of 2014 and have kept my eye out for them since. Although I have searched these same places during autumn I have only seen this species during spring and summer. The wood they grow on is possibly old Eucalyptus and needs to be wet and I have mostly encountered it at waterfalls where they are out of the water but continually being rained upon. The small log that they were growing on in the Otways was half submerged and the fungi were fruiting both above the water line and underneath flowing water. Because of where I found it originally I called these the "waterfall fungus" before I knew their genus.

While sifting through images on ALA I found a photo of a *Cudoniella* species (identified to genus level) that looks similar to these things I found at waterfalls. Searching the web for more images of this genera I came across *Cudoniella clavus*, which occurs overseas and apparently is quite common. There was one record for this species on ALA, although no date or location details are available. The collector of that specimen is recorded as Johann Baptist von Albertini (1769-1831), so a bit before my time. He was based around central Europe (Germany), which is probably where the specimen on ALA actually comes from (and the species for which he was co-author). It is possible that local specimens are the same species and were introduced to Australia with European settlement or that this is an Australian (or Australasian) endemic, in which case it would be a different *Cudoniella* species of course, so the identity of *Cudoniella clavus* is tentative until such time as an expert is able to examine Australian specimens.

Reiner Richter



FNCV FUNGI GROUP FORAY 10th July 2016 WANDERSLORE, LAUNCHING PLACE

WANDERSLORE SANCTUARY

Wanderslore is a Trust for Nature Property consisting of 10.05 hectares. It consists of a dry ridge running N-S. On the east is a permanent stream gully, on the west a stream runs through the gully after rain, and the vegetation includes Manna Gum, Mountain Grey Gum, Red Stringybark, Brown Stringybark, Messmate, Common Peppermint, and Soft and Rough Tree-ferns. We had a wonderful day here; there were lots of Coral fungi spread in groups throughout the foray, and *Cortinarius* species - many unidentifiable to us, a few *Hygrocybe* species scattered throughout the mosses. A lot of white pin-mould had infected numerous old rain damaged fruit-bodies.

We were greeted by Janet of the Friends of Wanderslore. 'Juniors sharp eyes' - Evie, Eliza and Jeremy - found a lot and photographed them, as well as measuring fruit-bodies. They were very good. Wanderslore continued to provide us with a wealth of fungi and could become the home of coral fungi, just as Blackwood is the home of *Cortinarius*. Walking up to the Friends Shed we found the first Rooting Shank *Oudemansiella gigaspora* - many more were scattered around the area. This stately fungus with a tall stem, grey-brown cap and white gills always appeals to our members. Several examples of Vermillion Grisette *Amanita xanthocephala* were seen with their yellow-orange caps standing out.

We continued walking up the road, past the shed and up the hill. The Collared Earthstar *Geastrum triplex* with pale fawn spore sac and rays was widespread and, interestingly, this species has been common on our forays this year. Almost opposite the shed was a small group of the Horse-dropping Fungus *Pisolithus arhizus* which has a brown shiny skin with a mottled dark pattern. A photo was taken which shows the mosaic of cells (peridioles) in which the spores develop.

We were particularly interested in some dark cups growing on a muddy bank at the side of the track just below the *P. arhizus*. They looked a bit like small *Peziza* sp - cups c 13 mm across by 8 mm deep, rather square shape, dark, inside smooth, outside dark and rather furry. Jurrie Hubregtse took a collection home - "I have concluded that the dark discs on the embankment are *Aleurina argentina*. The general description of the fruit-body, its spore size 17.5-22 X 10.5-13 µm and its ornamentation, and the shape of its paraphyses with a small knob at the apex, all match *Aleurina argentina*. This is a new find for me and will go into the 2nd edition of FIA." In fact it is a newly identified species for all of us.

Cortinarius species were found throughout the day with widespread groups of the Slimy Yellow Cort *C. sinapicolo*.

Purple fungi are not common, but the large, deep purple caps of the Emperor Cort *C. archeri* excited much interest. Other Corts (that we could identify) included Green Skinhead *C. austrovenetus* and Elegant Blue Webcap *C. rotundisporus*. While we were photographing coral fungi, the blackish caps of *Phellodon niger* were right under our feet. These had a white margin around the black cap and greyish teeth underneath the cap. Mossy areas were locations for Little Pin *Rickenella fibula* and the brown-orange capped *Galerina hypnorum*. The lichenised fungi *Lichenomphalia umbellifera* (brownish cap; very decurrent gills and pale buff stem) and Yellow Navel *Lichenomphalia chromacea* (bright yellow funnel-shaped cap, yellow decurrent gills and yellow stem)



Nidula niveototomentosa

Photo: De'ana Williams

were associated with a green alga, probably *Coccomyxa* sp., on the muddy ground. However, both these species have been found growing on granite boulders. *L. chromacea* had not been seen this season, until today. A single specimen showed the typical bright yellow depressed cap, decurrent gills and stem. Several specimens of the large, whitish *Amanita ochrophylla* were found with patches of veil remnants on the cap. One had a cap diameter of 180 mm and a very thick stem. They look a bit like cottage loaves with a bun-shaped cap, and a slightly smaller bun-shaped stem below. The red caps of the Scarlet Bracket *Pycnoporus coccineus* were occasionally seen on fallen eucalypt branches. Interestingly this fungus was re-named in 2013 *Trametes coccinea*, although it is the only member of the genus *Pycnoporus* to have its name changed (see Index Fungorum). De'ana Williams found the very small birdsnest fungus *Nidula niveototomentosa* (photo above) on a piece of bark, one fruit-body shows the 'nest' before the cap comes off. Points to note are the straight-sided cylinder, pale fawn and covered in white hairs, while the inside is smooth, fawn and filled with round chestnut-brown 'eggs'.

Coral fungi were found in all parts of the site. The most commonly seen corals were the simple yellow clubs of Yellow Club *Clavulinopsis amoena* and the pinkish clubs of Rosy Coral Fungus *Clavulinopsis corallinorosea*. Scott Ferguson found a group of the red Flame Fungus *Clavulinopsis sulcata* (*C. miniata*) which showed the typical fruit-

(Continued on page 9)

(Continued from page 8)

body with no differentiation between stem and upper fertile surface, cf *C. corallinorosea* where the red stem contrasts with the pinkish upper fertile surface. Near the Shed was a small group of Ash-grey Coral *Clavulina cinerea* where the powdery bloom was clearly seen on the grey branches. The branched Pale Buff Coral *Ramaria filicicola* was widespread in the litter. Most interest was generated by a good display of the Delicate Yellow Coral *Ramariopsis crocea* in the mossy litter. The fruit-bodies (to 25 mm tall) had slender, yellow branches dividing into two (dichotomous) with widely rounded axils (branch joints) and bluntly pointed branch tips. Occasionally this species is found on Smooth Tree-fern *Dicksonia ant-arctica* stems.



Hygrocybe aurantiopallens



Photo: Torbjorn von Strokirch

Other eagerly-looked for species were the *Hygrocybe*. There were many groups of *Hygrocybe aurantiopallens* (photo W8 Torbjorn von Strokirch) scattered throughout the bush. The colour varied from deep orange (young specimens with deeply convex caps) to the mature, pale yellow caps with crenulated margin and a brown dimple in the centre. All had orange stems. Some groups showed all stages of development, others often had mature or young fruit-bodies. There were groups of the beautiful glutinous bright yellow *Hygrocybe chromolimonea* which, also had a crenulated cap margin and decurrent yellow gills. Paul George pointed out the yellow-brown caps of Slimy Green Waxcap *H. graminicolor*. There were several variations in the colour of the cap, from light green (fresh specimens), to greenish to orange-brown. Most seemed to be orange-brown, and only the greenish-yellow base of the stem remained consistent. There is a distinctive grey-green glutinous thread along the edges of the gills. Amongst all the yellow and green, a delicate Mauve Splitting Waxcap *Humidicutus (Hygrocybe) leweliniae* was found. It looks watery, but is not sticky and as the conical cap matures, it splits radially. The cap, stem and gills are coloured in shades of mauve.

John Eichler, Paul George and Torbjorn von Strokirch also found a beautiful example of the orange-capped *Russula flocktoniae*. A similar-looking species is *Lactarius clarkae* whose gills produced white latex, and turn brown after drying. Thus in the field it is important to determine the presence or absence of latex, and the colour of the stem (white going orange in *R. flocktoniae*).

Thanks to all forayers for searching and photographing the species we found. Thanks to John Eichler, Scott Ferguson, Jurrie Hubregtse, 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 and Ed Grey

Apology: The Report FNN 269 p8-12, *Foray to Jack Cann Reserve*, was written by Les Hanrahan.

SCIENCE TALENT SEARCH

A generous donation in memory of Dr. Noel Schlieger enables the FNCV to contribute to the *Science Talent Search*, a wonderful program for primary and secondary school students. Many students who were awarded bursaries have written to the club, expressing their thanks. Below are a just a few extracts from their emails and letters.

"I entered the Junior Science Photography section of the 2016 Science Talent search. I was lucky enough to win a Major Bursary award sponsored in Memory of Noel Schlieger by your club. I presented photographs and a report that described the behaviour of the larval stage of the Saunders Case Moth... By coincidence, an interesting article that I used for background material... and which I cited in my report was by one of your club members (Virgil Hubregtse) and published in 20011 in the Victorian naturalist (Vol 128 (2) page 90)." **A year 7 student**

"My name is Ben, I am in grade 3. Thank you for sponsoring us and because of that we got a Major Bursary for the Scarecrow Robot."

"Our project, entitled Plant Survival was awarded a Major Bursary in the category of Science Photography... We had lots of fun doing our project and look forward to participating again next year. **Two grade three students.**"

"I would like to express my thanks for the sponsorship of the award that my video entry The Science Behind the Shades of the Sky received in the Science Talent Search 2016. I am extremely grateful for this bursary and the opportunity to participate in the public Exhibition and Presentation Day." **PLC Secondary student**

NEWS FROM THE BOOKSHOP (December 2016)

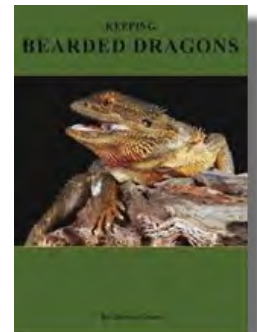
Nature books galore and all in one convenient place, the FNCV clubroom. With a huge range of books currently on display and in stock, the bookshelves are full to overflowing with choices across a variety of topics, to suit many different age groups and interests. There are still many good bargains available in the clearance range. What better time than now to check out the range on display or flick through the current 2016-2017 bookshop catalogue available on the website. If there is a nature book of interest that you can't see on the shelves fill in an order form, send me an email or phone the office. If an order is needed for Christmas please allow plenty of time for the book to arrive from the supplier, as it sometimes takes a couple of weeks. 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. Thanks to all who purchased books through the FNCV bookshop throughout the year. It is a service that is provided for the members and to help the club. Your support is greatly appreciated. Happy reading! *Kathy Himbeck*

Leaf Litter: Exploring the Mysteries of a Hidden World (R. Tonkin) is an exquisitely illustrated book suitable for children aged 5-7 years old. This book explores a small patch of Australian leaf litter beneath one tree which contains a hidden world that changes day by day. The more you look, the more amazing things you will find. In a time when respect for and understanding of our environment are paramount, *Leaf Litter* is an excellent introduction to the intricate and complex relationships that exists in our natural world. (PB, 32pp., 2010) RRP \$17.99 Members \$14



Where Song Began (T. Low) Australia's birds and how they changed the world is an eye-opening book on the unique nature of Australian birds and their role in ecology and global evolution. Compared with birds elsewhere, ours are more likely to be intelligent, aggressive and loud, to live in complex societies and are long-lived. They're also ecologically more powerful, exerting more influences on forests than other birds. This is a work that goes far beyond the birds themselves to explore the relationships between Australia's birds and its people, and the way in which scientific prejudice has hindered our understanding. (PB, 48 pp., 2014) RRP \$32.00 Members \$25.50

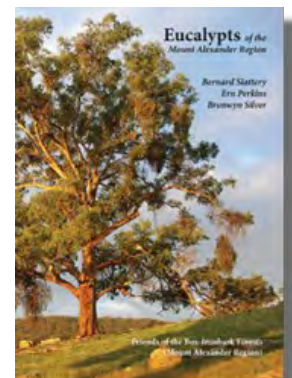
Keeping Bearded Dragons (D. Green) discusses the keeping of the Pogona genus of Australian Bearded Dragons with nine species discussed in individual chapters. Topics include enclosures, choosing a Bearded Dragon, feeding, brumation, winter care, breeding, juvenile care and ailments & disorders. (PB, 80 pp., 2009) RRP \$23.50, Member \$18.00



Hands-On Science: 50 Kids' Activities from CSIRO (ed. Kellett, Shaw & Kovac) allows children to discover more about the world of science by making: dancing slime, rubbery bones, a ping pong ball shooter, ghostly photos, fizzy dinosaur eggs and a lemon battery. The 50 kid-approved science activities are perfect for children aged 7-12 and covers electricity & magnetism, sound & light, heat & motion, water & gases, living things, shapes and our planet Earth. Each activity as a simple list of materials required, and uses simple step-by-step instructions and drawings to enable you to create exciting and interesting reactions, experiments and inventions. (PB, 128 pp., Sept 2016)

RRP \$24.95, Members \$20.50

Eucalypts of the Mount Alexander Region (Slattery, Perkins & Silver) presents the commonest species of the Mount Alexander Region but the book is relevant to the whole box ironbark region of northern Victoria. The book is generously illustrated and clearly describes each species in any easy to understand language. Sections on major species include drawings of buds, fruit, juvenile leaves and adult leaves by Leon Costermans. (PB, 90pp., Sept 2016) RRP \$10.00 Members \$8.00



This newsletter is printed on recycled paper.



WHITEHORSE FESTIVAL

Many thanks to those who helped out at the recent Whitehorse Festival: Ray Gibson, Marty Banning, Anne Marie MacArthur, Christine Gray, Tilda & Niamh Horobin, Ruth Hoskin, Alex Yan and Philippa Burgess who took on the role of co-ordinator. (photo right)

These events are an important way of publicising our great club. There was a lot of interest in the hands-on activities provided at the FNCV stall as the photos provided by Philippa show.



Vale- Ernest Edward Perkins

FNCV Council regrets the passing of Ern Perkins, an active and dedicated naturalist, and member of this Club.

Ern was elected to the FNCV in October 1965 and maintained his membership continuously thereafter, becoming a Long-term member at the AGM in May 2005.

Ern received the Australian Natural History Medallion in 2009. Ern (on the left) is being presented with the Medallion by John Landy.



Our condolences to Ern's family.



HELP NEEDED to ORGANISE THE BOTANY GROUP

Many thanks to Sue Bendel who has co-ordinated the FNCV Botany Group for a decade.

Sue would like assistance in this role and is seeking to form a committee to plan future meetings and field work.

If there is to be a botany program in 2017 FNCV members must be prepared to help.

Remember: *many hands make light work.*

Please contact the office or speak with Sue, 0427 055 071, if you can assist.



Fauna Survey Group

Seminar: Reptiles & Amphibians of Victoria

The weekend of October 8th and 9th saw the FSG host another seminar, this time on Reptiles and Amphibians of Victoria. It was another well-attended weekend with over 70 people attending on the Saturday and 60+ on the Sunday. The 17 presenters discussed a wide variety of topics from more general to those of individual species or families. The general topics included constructed wetlands as habitat for frogs, invasive species, snake husbandry in captivity, the importance of frogs to the world, interactions between predators and reptiles, climate change and its impacts on frogs and reptiles and amphibian extinction. Swamp Skinks, identifying Striped Legless Lizards and other pygopods, Baw Baw Frogs, Spotted Tree Frogs, Turtles, Grassland Earless Dragons and Southern Toadlets were amongst the specific topics also presented. The presenters were from a range of universities and research organisations, Zoos Victoria, consultancies and even individuals all striving for a better understanding of our reptiles and amphibians.

The presenters in order of presentation were Dr Geoff Heard (University of Melbourne), Shannon Braun (PhD candidate – Latrobe University), Graham Stockfeld and Jeremy Pike (Turtles Australia), Kate Howard (PhD candidate – Western Sydney University), Nick Clemann (Arthur Rylah Institute – DELWP), Jake Urlus (Ecology Australia), Chris Banks (Zoos Victoria) and Dr Megan O'Shea (Victoria University). The presenters on Sunday were A.Prof Michael Kearney (University of Melbourne), Dr Matt West (University of Melbourne), Scott Eipper (Nature4You), Deon Gilbert (Zoos Victoria) Anna Senior (PhD candidate – Monash University), Craig Cleeland, Dr Reid Tingley (University of Melbourne) and Gerry Marantelli (Amphibian Research Centre). We would like to thank these speakers for taking the time to deliver interesting, thought-provoking and informative presentations. Special thanks must go to Scott Eipper, a former FSG member, who travelled from Brisbane to present at our seminar.

Thanks to Wildlife Experiences for donating one of the raffle prizes, a signed copy of Wilson and Swan's Reptiles of Australia. Thanks must also go to Su

Dempsey, Ian Kitchen, Phillipa Burgess and David De Angelis for assistance in organising the seminar, June Anton, Denise Carew for helping with jobs on the day, members of the FSG for assistance with setting up the hall, Madison Evans-Clay and Sarah Diggerson for their help with catering over the weekend, Max Campbell for his President's welcome and Kathy Himbeck for her work with the book stall. A final thank you to Samantha Dunn – Eastern Metropolitan MLC, for loaning us a PA system to use.

John Harris
Seminar Organiser

Below: Presenters from a. Saturday
b. Sunday *Photos: J. Harris*

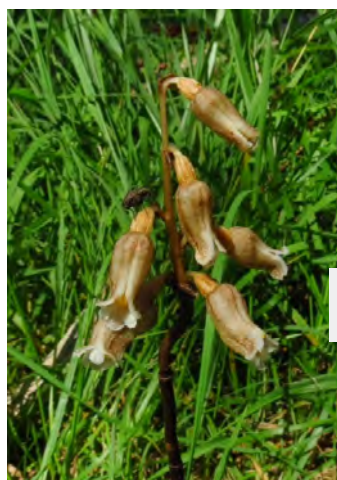




Day Group— Wombolano Park

The Day Group October excursion on 25th October to Wombolano Park won the jackpot weather wise, enjoying a beautiful, warm morning. Wombolano Park is a small council reserve in Ringwood East. It occupies just 7.5 ha (18 acres) and consists of Valley Heathy Forest, with White Stringybark (*Eucalyptus globoidea*) dominant. Very few other reserves in Maroondah with the same vegetation type feature White Stringybark.

The land was donated to the Council by P. L. Walker in 1954, for the purpose of using it as a public recreation space. Initially, some undergrowth was cleared and fire breaks were established. In the 1970s, a need for more intensive weed management was recognised, with the aim of restoring and preserving indigenous bushland. A Committee of Management was set up in 1973 and the creation of play areas and installation of seating and tables followed soon after. Housing development around the reserve necessitated sewer and drainage works, leading to vegetation disturbances. Since then, extensive weed removal and revegetation has been undertaken significantly improving the quality of the reserve.



Cinnamon Bells. (left)
Common Bird-orchid (above)

Photo: J. Broadberry
Photo: C. Page

The following plant list was compiled by Carol Page from information provided by the Maroondah Council (via the

internet), a survey made by the Ringwood Field Naturalists 12/9/1987 and observations made on the day. It is not exhaustive, but illustrates the diverse native vegetation featured in this lovely little reserve. In particular we enjoyed finding a patch of the Common Bird-orchid containing hundreds of blooms and a dozen or so Cinnamon Bell orchids, also in flower.

The excursion was well attended and I would like to thank Carol who stepped in at short notice for her able leadership. A number of members enjoyed lunch together after the walk.

Joan Broadberry

UPPER STORY

Acacia dealbata - Silver wattle; *Acacia melanoxylon* - Blackwood; *Eucalyptus globoidea* - White Stringybark *; *Eucalyptus goniocalyx* - Bundy; *Eucalyptus macrorhyncha* - Red Stringybark;

Eucalyptus obliqua - Messmate; *Eucalyptus ovata* - Swamp Gum; *Eucalyptus radiata* - Narrow-leaf Peppermint; *Pittosporum undulatum* - Sweet pittosporum.

MIDDLE & LOWER STOREY

Acacia myrtifolia - Myrtle Wattle; *Acacia ulicifolia* - Juniper Wattle; *Acacia verticillata* - Prickly Moses; *Banksia marginata* - Silver Banksia*; *Billiardiera scandens* - Common Appleberry; *Burchardia umbellata* - Milkmaids; *Bursaria spinosa* - Sweet Bursaria; *Cassinia arcuata* - Drooping Cassinia; *Cassinia longifolia* - Shiny Cassinia; *Clematis aristata* - Mountain Clematis; *Comesperma volubile* - Love Creeper; *Correa reflexa* - Common Correa; *Dillwynia cinerescens* - Grey Parrot -pea; *Drosera auriculata* - Tall sundew; *Glycyne* sp; *Goodenia ovata* - Hop Goodenia; *Hakea nodosa* - Yellow Hakea; *Hardenbergia violacea* - Purple Coral-pea; *Kangaroo apple* - Solanum aviculare; *Olearia myrsinoides* - Silky daisy -bush; *Pimelia humilis* - Common Rice-flower; *Platylobium obtusangulum* - Common Flat-pea (Formosum no longer occurs in Victoria); *Polyscias sambucifolia* - Elderberry Panax *; *Pomaderris* sp. *prob aspera*; *Prickly Currant -bush* - Coprosma quadrifida; *Senecio quadridentatus* - Cottony Fireweed; *Senecio linearifolius* - Fireweed Groundsel; *Silver Banksia* - *Banksia marginata**; *Snowy Daisy-bush* - *Olearia lirata*; *Spyridium parvifolium* - Australian Dusty Millar; *Stylidium graminifolium* - Grass-leaved Trigger plant; *Swamp Paperbark* - *Melaleuca ericifolia*; *Swamp Paperbark* - *Melaleuca ericifolia*; *Viola hederacea* - Native Violet; *Wurmbea dioica* - Early Nancy.

OTHERS

Chiloglottis valida - Common Bird-orchid; *Gastroidea sesamoides* - Cinnamon bells*; *Thelemitra* sp. *Pauciflora* group; *Dianella admixta* - Spreading Flax-lily; *Dianella laevis* - Pale Flax-lily; *Dianella tasmanica* - Tasman flax-lily;

Ghania radula - Thatch saw-sedge; *Lepidosperma elatius* - Tall Sword-sedge; *Lepidosperma gunnii* - Slender Sword-sedge*

Pandorea pandorana— Wonga Vine

Adiantum aethiopicum - Common Maidenhair; *Pteridium esculentum* - Austral Bracken.

Rare and significant plants *



J. Broadberry



Geology Group

Meeting: Wednesday 28th September

Speaker: Peter Trusler

Paintbrushes, geo picks, pixels & acid

Peter Trusler is well known for his wonderful paintings of Australian birds and his depictions of creatures from the past on three sets of postage stamps. He embarked on a PhD at Monash University later in life than most people, and his project involved the meticulous study of a skull found in 2000 in the Buchan Caves system.

The skull, about 30 cm long, was the most complete ever found of *Palorchestes azael*, a megafaunal animal of the Pleistocene. It was named in 1873 from a specimen which consists only of the front part of the skull. It has teeth which are superficially similar to some kangaroo teeth, so for almost a century *Palorchestes* was imagined to be a giant kangaroo, and the generic name means 'ancient leaper'. This 'type specimen' is held in London, so Peter went there and made many measurements and careful drawings to check that his animal was correctly named. He did the same with other specimens he could find in Australia, all of which are fragmentary. But with all of his measurements and drawings, he was able to build an almost complete picture of the skull.

One of Peter's aims was to work out how the animal's head functioned. We saw a photo of him lining up his skull for a CT scan among the other hospital patients. The scan revealed a very small brain space, and that the bones surrounding it, making up the massive skull, were a mostly hollow system of chambers. He also wanted to understand how the muscles worked and this involved comparing the muscle attachments on the *Palorchestes* skull with those of its nearest living relatives, the koala and wombats. He was unable to find previous studies of the musculature of the Common Wombat skull, so he did this himself. He showed pictures of the meaty, partly dissected skull he worked on and the very detailed drawings

of the musculature that resulted.

Peter has concluded that *Palorchestes azael* was a very unusual marsupial and not at all like a tapir, to which it has more recently been compared. The retracted nasal osteology is suggestive of animals that bore trunks or a proboscis of some kind. The bone structure and estimates for muscles, certainly suggest it had a large flexible nose, and quite manipulative lips. There are still many questions about how their noses and skulls functioned. Eyes near the top of the skull may suggest an aquatic creature, but more likely, its normal posture was with head down as it walked. In combination with its long extended rostrum, these features were part of its feeding adaptations - But the nose and lips could have had a role in sexual signaling!

Peter concluded his fascinating presentation with his beautiful painting showing his 'best estimate' as to what the animal looked like.



You can see a very brief version of the talk at <https://museumvictoria.com.au/melbournmuseum/discoverycentre/600-million-years/videos/reconstructing-palorchestes/>

Graham Patterson

The views and opinions expressed in this publication are those of the authors and do not necessarily reflect those of the FNCV.

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