Understanding Our Natural World

Field Nats News No.278

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

From the President

I hope you are not overwhelmed by the recent cold weather.

The fungal foray to Mt Macedon on 30th July was one of the coldest excursions I have been on for some time. There were very few invertebrates out and about. I suspect that the cold kept them well hidden. There was plenty of moss everywhere and moss pads may be a little warmer and protected so a few predatory red mites could be seen walking about amongst the bryophytes. The bright red mites were starkly contrasted against the light green of the moss. They seemed to be moving about in pairs, possibly hunting for prey. (A similar mite can be seen in the photo right.)

Moss, like leaf litter, is a microhabitat with great biodiversity. Moss bogs and even single moss pads are rich in the animal life they support. Early naturalists, armed with newly invented microscopes, very quickly discovered this fact. Protozoans, crustaceans, myriapods, primitive hexapods, arachnids, tardigrades, gastrotrichs, onycophorans, annelids, tiny molluscs, insects and others contribute to that biodiversity. The study of the ecology of mosses is an excellent introduction to biodiversity. Janice M. Gline's work on bryophyte ecology is an informative and detailed treatment of the subject and can be viewed on the Internet. It is gloriously illustrated with macro and micro images of the organisms to be found in moss and includes the details of their ecology.

The secret life of flies by Erica McAlister is now available from the FNCV Bookshop and is an excellent book to curl up with in the cold weather. Flies (Diptera) are one of my favourite insect groups to study. Their critical role in the ecosystem is often grossly under-estimated, if not actually overlooked, because of their often unpopular image in the community. They recycle nutrients by decomposing animal and plant remains and animal wastes such as dung which would certainly accumulate without their efforts. They are very important pollinators as well, often overshadowed by the popularity of bees. This book relates many remarkable and little known facts about flies and their ecology. There is plenty of macabre information on coffin flies, flesh flies and blow flies to satisfy those with a taste for the more confronting aspects of natural history.

Flies are active everywhere and have adapted to most environments including marine environments. They vary in size from minute midges to large robber flies and bee flies. They often turn up when you least expect them. I have frequently and inadvertently photographed tiny flies that accompany ants as they collect honey dew from leaf hoppers. They are known as "free-loader Flies" (Milichiidae) and feed opportunistically as the ants collect the honey dew. They also pilfer food from spiders and other predators as they feed on their prey. They dash in and out with amazing speed as they snatch morsels of food. Those in the photos on page 3, are minute and not much larger than the head of the meat ants attending the leaf hopper. I have revisited many of my photographs of ants and leafhoppers interacting and in every case the tiny flies are lurking close by. I had not noticed them when I took the pictures.

(Continued on page 3)

The deadline for FNN 279, October 2017, will be **10 am on Tuesday 5th September** FNN will go to the printers on the 12th with collation on Tuesday 19th September

A predatory mite on the prowl
Photo: **M.Campbell**

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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.

September

Monday 4th – Fungi Group Meeting: ***Southern Agaricus Species diversity & tantalising hints about toxicity variation***
Speaker: Grace Boxhall, PhD student working with Teresa Lebel**.** Contact: Carol Page: cpage356@gmail.com; 9857 6388

Tuesday 5th - Fauna Survey Group Meeting: ***Fauna of Currawong Bush Park & 100 Acres Reserve.***
Speaker: John Harris, Fauna Survey Group. Contact: John Harris 0409 090 955; wildlifeexperiences@gmail.com

Friday 8th to Sunday 10th - Fauna Survey Group Survey - ***Swamp Skink Survey, Mornington Peninsula***
Contact: David De Angelis 0409 519 829; d.deangelis@latrobe.edu.au

Monday 11th – Marine Research Group Meeting: ***The Great White Shark.*** Speaker Kent Stannard will be talking about Tag for Life's current research. Contact: Leon Altoff 9530 4180 AH; 0428 669 773

Tuesday 19th - Collate FNN: Starting about 10 am. All welcome Contact Joan Broadberry 9846 1218

Wednesday 20th - Terrestrial Invertebrates Group Meeting: For details contact: Max Campbell 0409 143 538; 9544 0181 AH; mcam7307@bigpond.net.au

Thursday 21st – Botany Group Meeting: ***Lifestyles of southern koalas: diet, habitats and some other interesting stuff.***
Speaker Dr Desley Whisson. Contact: Sue Bendel 0427 055 071

Monday 25th - FNCV Council Meeting: 7.30 pm sharp. Agenda items and apologies to Wendy 9877 9860 or admin@fncv.org.au

Tuesday 26th – Day Group Meeting: ***Melbourne's Boggy Beginnings.*** Speaker Gary Presland. Meet at 10.30 am for coffee and a chat, speaker at 11 am. All welcome. Contact Joan Broadberry 9846 1218**.**

Wednesday 27th – Geology Group Meeting: ***Integration of Melbourne Water's Cultural Heritage.***
Speaker: Paul Balassone MSc. Heritage Co-ordinator, Melbourne Water.
Contact: Ruth Hoskin 9878 5911; 0425 729 424; rrhoskin@gmail.com

Friday 29th – Juniors' Group—No Meeting: ***Grand Final holiday***

Southern Ark Fauna Survey, East Gippsland.

Saturday 30th September to Saturday 7th October.

The Fauna Survey Group will be assisting DELWP with the Southern Ark Project in far East Gippsland. We will staying at the Cape Conran camping ground. People can either camp or stay in cabins, but please note there are no powered sites. Field work will commence on Monday 2nd October and finish on Friday 6th October.

This will be a wonderful opportunity to see potoroos, bandicoots, numerous species of bats, plus East Gippsland reptiles, birds and frogs.

To put your name down for this trip and for further information please contact Peter Homan on 9349.1241 or 0407 525 103, email: homanpn@gmail.com."

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.

Welcome

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

Danny Tam, Greta Van Malenstein, Greg Metcalf, Jessica Lever, Rosie Reed, Dan Reed, Erin Andrews, Isabella Malberg, Val Stajsic, Kade Mills, Kirsten Binns Smith and Lisa Palma

Meat ants, leaf hopper & 'free-loader' flies in the Mallee.
Photo: M.Campbell

Photo: M.Campbell

Close up of a free-loader fly, enlarlged from photo above

(Continued from page 1)

A closer look at small things is always worthwhile and many surprising phenomena may be revealed; not to mention more questions requiring answers. A collective term for the unrecognised, cryptozoic and possibly unappreciated invertebrate species is "The Other 99%".***** The inestimable numbers of species of invertebrates and their multiple interactions with other species and the environment will never be known and certainly not fully understood but is nevertheless well worth continued investigation. I urge you all to arm yourself with a microscope and study the broad spectrum of biodiversity comprising small things. There is limitless entertainment to be had.

Maxwell Campbell

*** In fact there was a symposium with that name in 1997. *The Other 99% - The Conservation and Biodiversity of Invertebrates,* held by the Royal Zoological Society of NSW and published as transactions in 1999.**

Many thanks to those who helped collate and label FNN 277

Andy Brentnall
Keith Marshall
Neil McLachlan
Joan Broadberry
Sheina Nicholls

Thanks to the editorial and layout team who put together FNN 278

Joan Broadberry
Wendy Gare

Library News

Recently accessioned books:

The following volumes have been accessioned and can now be borrowed from the Library:
Slattery, D (2015) *Australian Alps: Kosciuszko, Alpine and Namadgi National Parks.* (CSIRO Publishing: Clayton South) [919.4 SLA]
VEAC (2017) *Conservation values of state forests: assessment report.* (Victorian Environmental Assessment Council: East Melbourne) [333.75 CON]

Recent periodicals received:

The Bulletin of the American Museum of Natural History (New York) #409 names 82 new species of diminutive bugs (Hemiptera) in the family Miridae. They constitute a newly recognised tribe for Australia.

Wildlife Research 44(2) includes an assessment of animal welfare for helicopter shooting of feral horses in Central Australia.

The latest periodicals are displayed in a rack in the library. You can borrow periodicals in the rack, as well as previous issues. Don't forget to fill in the borrowing book.

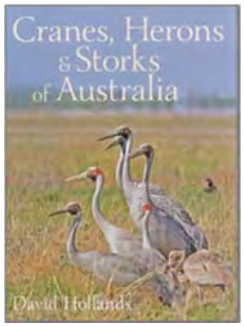
Library collections now on the website:

A reminder that you can now search the library's collections on the FNCV website. Click 'About us' à 'Library' and you will be able to download searchable lists of books, periodicals, maps and photos.

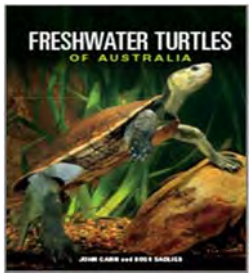
Gary Presland, Honorary Librarian

NEWS FROM THE BOOKSHOP (September 2017)

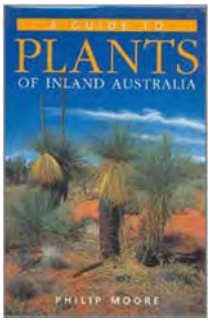
Three new titles are featured in this month's article and include the long awaited update to freshwater turtle information; an amazing photographic book on cranes, herons & storks and an update to Australasian Eagles. The other two titles are suggestions from our members. A copy of the book on plants of inland Australia was requested and as I have used it extensively myself and find it a valuable resource, I thought others might not already have it in their collection. The last title is a children's book based on a very cute lizard that was thought be lost but through surveys, conservation and education it is hopeful populations will remain safe. 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 the perfect weather! *Kathy Himbeck*



Cranes, Herons & Storks of Australia **(D. Hollands)** is richly illustrated with over 200 of the author's photographs. David has spent 16 years traversing Australia to find, study and photograph the 17 species which make up this book. His passion and enthusiasm for his subjects shine through in the text, lively, accurate, informative and beautifully written, not only about the birds but about the expeditions to find them. Though primarily a photographic book, there is a short, 12-page field guide section at the back to all 17 species. **(HB, 282 pp., Jan 2017) RRP $59.95 Members $47.95**

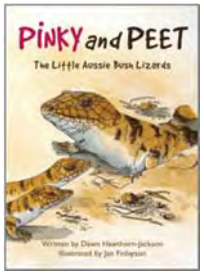


Freshwater Turtles of Australia **(J. Cann & R. Sadlier)** is a beautifully illustrated and comprehensive update of John Cann's highly respected *Australian Freshwater Turtles (1998).* It reviews new information on the biology of Australian child turtles, presents recent perspectives and insights into their history and taxonomy and provides an introduction to the freshwater turtles of New Guinea and Irian Jaya to Australia's north. This landmark work brings together years of research and experience and will serve as an important reference for researchers, academics and herpetologists for many years to come. **(HB, 448 pp., Aug 2017) RRP $150 Members $120**



A guide to Plants of Inland Australia **(P. Moore)** is the ideal companion for inland travellers who are curious about the many and varied plants they encounter. A hand reference for amateur and professional botanists, this book features over 900 inland plants. Each entry comprises a detailed description, at least one colour photograph and a distribution map, all designed to help identify the plants you see. Armed with this book, your experience and understanding of the landscape will deepen. Even armchair travellers will find this guide a fascinating read!. **(PB, 503 pp., 2005) RRP $49.95 Members $39.95**

Australasian Eagles and Eagle-like Birds **(S. Debus)** provides a 25-year update of knowledge on these 10 species as a supplement to the *Handbook of Australian, New Zealand and Antarctic Birds* (HANZAB) and recent global treatises, based partly on his own field studies. Included are the first nest or prey records for some Melanesian species. This book places the Australasian species in their regional and global context, reviews their population status and threats, provides new information on their ecology and suggests what needs to be done in order to ensure the future of these magnificent birds. **(PB, 192pp., Aug 2017) RRP $49.95 Members $39.95**



Pinky and Peet: the little Aussie bush lizards **(D. Hawthorn-Jackson)** is a delightful book aimed at primary school-aged children. This book features the rediscovered Pygmy Bluetongue Lizard, thought to have been missing since the 1950's. Thanks to research and conservation efforts, these little lizards can be found some pastoral land and grasslands near Burra in South Australia. This book not only provides a very informative narrative but includes a species account. **(PB, 32pp., 2015) RRP $16.95 Members $13.55**

From the Office…..

Dear Members, just one item for you this month regarding the Whitehorse Spring Festival – **help please!**
The festival is on Sunday 15th October from 10.00 am to 4.00 pm. It is held at the Whitehorse Civic Centre Precinct, 379-397 Whitehorse Road, Nunawading 3131 (Mel Ref: 48 G9).

All we ask is for an hour or two of your time. Please let me know by phone or email admin@fncv.org.au when you can help. You'll probably enjoy having a look at the other numerous stalls before and after you've done your bit for the FNCV.
If you want more information about the event, it's available at http://www.whitehorse.vic.gov.au/Spring-Festival.html

Thank you!

Wendy Gare, Administration Officer

Extracts from SIG reports given at the last FNCV Council Meeting

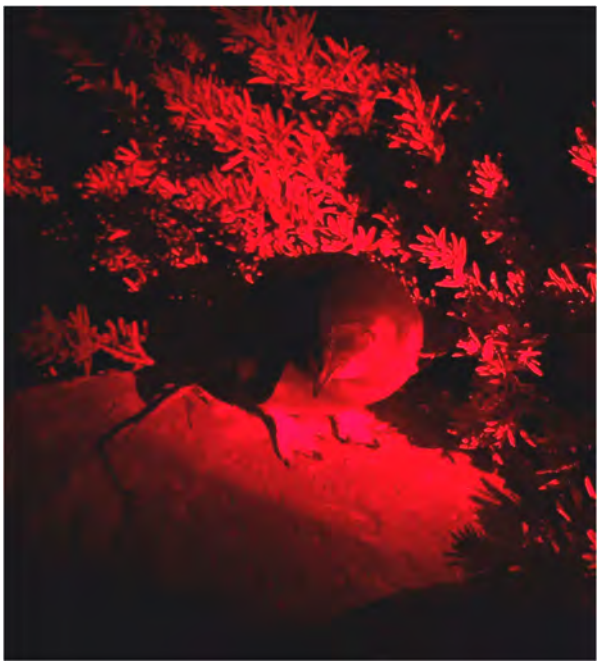
Botany Group: Thank you to Dr Matt Dell for presenting on botany and geography across Bass Strait.
Matt began by showing us an old map from the time of the last ice age when Wilsons Promontory was connected to Tasmania by a land bridge which went through the Furneaux Islands. This way we could see the link in vegetation between Victoria, Flinders Island and Tasmania. Matt also told us about an 1890 expedition to Flinders Island led by Archibald James Campbell and the FNCV. This expedition provided Matt with the early botanical records for Flinders Island. Matt then surveyed the flora of Flinders Island for his PhD. Matt showed us the similarity in flora between Victoria, Tasmania and Flinders Island concentrating mostly on bryophytes. Matt also showed us a photo of a gannet rookery taken on the FNCV 1890 expedition to the Furneaux Islands, which was the first photo published in the *Victorian Naturalist.* A very interesting presentation. There were nineteen people in attendance. **Sue Bendel**

Day Group: Max Campbell presented a talk on micro-invertebrates in pond water. The presentation focussed principally on the Protozoa and a few multi-celled organisms and was supported by high resolution micro-video of many organisms. The session was well-attended and the audience enjoyed the opportunity to see detailed video of the organisms they had seen as drawings in textbooks. **Max Campbell**

Geology Group: John Bosworth gave a presentation to the Geology Group on 28th June. He spoke on minerals found in granite deposits in Australia and, in particular, in Victoria. His photos of some spectacular and, in some cases, rare minerals richly illustrated a most interesting and wide ranging geological tour. Of particular interest were the Devonian granites at Lake Boga where 95 different minerals have been identified, five of which are the world-wide recognised Type Locality Specimens. Some are unique to this 200km wide deposit and have not yet been named or described. The meeting was well attended by an appreciative audience. **Ruth Hoskin**

Juniors' Group: On Sunday night, July 2nd, a group of 30 Junior members met at St Kilda wharf to meet the St Kilda Penguin research team and view them in action. We were guided by Tiana Preston, educator with Melbourne Water and past penguin team researcher. Tiana told us about how the penguin colony began at St Kilda, what information the research team are interested in collecting and why. St Kilda wharf is now home to around 1000 little penguins. Each penguin found is micro chipped and traced, weighed, with the population being counted each month. We saw penguins being weighed, having their beaks checked to see if they were male or females, sitting on eggs, calling loudly to each other and walking along the wharf. We heard that sometimes they are so curious they walk into the restaurant midway down the wharf!

Another animal some of us saw was the Rakali – a native water rat who looks a bit like an otter. Sea birds of many varieties were also observed and although it was a cool evening it was very still and clear.
For more info or to get involved: http://earthcarestkilda.org.au/get-involved/penguin-research/ **Claire Ferguson**



Left: Little penguin finding his way to his burrow in the wharf.

The red light is from the red cellophane covering our torch so as not to hurt their eyes.

Right: Zoe, research team leader, about to weigh the little penguin and her partner writing down the information.

Fungi Group

FNCV Fungi Group Meeting, 3rd July 2017

During this meeting members showed and discussed photos of a variety of interesting fungi and invertebrates. Speakers were: Jurrie Hubregtse, Reiner Richter, John Eichler, Carol Page and Ed Grey.

Jurrie Hubregtse spoke about *Hydnum* species. The most common species that we see was believed to be *Hydnum repandum*, because its morphology is similar to that of the northern hemisphere *H. repandum.*

Hydnum aff repandum
Photo: Jurrie Hubregtse

However, unlike northern hemisphere *Hydnum* spp., Australian *Hydnum* spp. form an ectomycorrhizal relationship with plants in the Myrtaceae, including *Eucalyptus*, *Leptospermum*, and *Melaleuca*. Moreover, recent phylogenetic analysis of Australian *Hydnum* spp. has shown that they are not members of the northern hemisphere *H. repandum* complex, and what has been accepted here as a single species called *H. repandum* has been shown to be a complex of at least 4 undescribed species. The only described Australian *Hydnum*, *H. crocidens*, was described by Cooke in 1890. It has a whitish to pale cream pileus (cap), and is usually found under *Leptospermum* spp. It is also found in New Zealand.

During forays we have encountered two different morphological types of *Hydnum* in eucalypt forests. We have referred to these as *Hydnum* 'yellow' and *Hydnum* 'brown'. *Hydnum* 'yellow' is the more common. Its pileus (cap) is up to 50 mm across, yellow-orange to orange, with a centrally glabrous surface and felty patches towards the margin. The flesh is brittle and fragile. *Hydnum* 'brown' has a brown pileus up to 30 mm across, with a distinctly radially fibrillose surface. Its flesh is not brittle, but flexible and tougher than that of *Hydnum* 'yellow'.

In the absence of phylogenetic evidence, the best way to handle this situation is to refer to both types as *Hydnum* aff. *repandum*.

Reiner Richter showed photos of some remarkable fungi, including a mass of brownish discs 0.5 mm across, possibly *Merismodes* sp., on an *Acacia* log; the very rare *Chlorovibrissea bicolor*; *Chlorovibrissea melanochlorum*; a large *Urnula campylospora* 134 mm across; *Vibrissea dura*; an amazing *Cordyceps* on a tiny insect; and some beautiful early morning scenes in the forest at the Ada Tree.

John Eichler showed a photo that Bruce Fuhrer had taken, featuring a grey, rough-surfaced coral fungus. No one present recognised it – another reminder of the incredible variety of fungi.

Photo: Bruce Fuhrer

Carol Page showed photos of an impressive array of invertebrates that she had come across during forays: flatworms, leeches, molluscs, a scorpion, cockroach, spider, ants, and many more.

Ed Grey spoke about *Ramaria pyrispora*, which we saw in May at Blanket Leaf picnic ground, near Lorne. The specimen he collected was only the second collection ever made in Australia! The first was made by R.H. Petersen and R. Watling in 1989, and was sent to the Royal Botanic Garden Edinburgh.

Ramaria pyrispora Photo: Pat Grey

In closing, Ed remarked that our group does collect information on important fungi, examples being the *Hypocreopsis amplectens* that was seen in July at Wanderslore Sanctuary, the *Hydnum* species that Jurrie spoke about, and the *Cordyceps* sp. that Reiner found at Gembrook Park. To which can be added the *Ramaria pyrispora* that Ed collected.

Hypocreopsis amplectens on Kunzea wood
Photo: Pat Grey

Thank you to all the speakers for a very interesting meeting.

Virgil Hubregtse

Fungi Group

Fungi Excursion t
Jack Cann Reserve, Blackwood
18th July 2017

Les Hanrahan: With below average rain for two months, the ground was dry under foot for our foray at Blackwood this year. Two visitors from Ballarat and three from Bendigo helped increase the numbers looking for and finding the various species of fungi. The usual exotic species were seen under pine trees near the carpark. As well as the Fly Agaric *Amanita muscaria*, *Russula integra* and *Lactarius deliciosus*, there were numerous slimy capped Granular Boletes *Suillus granulatus.* The yellow-brown suede like capped *Chalcipous piperatus* was also seen. This species has large angular pores under the cap. The Dung Bell Mottlegill *Panaeolus sphinctrinus* was fruiting in a small group on some dung. This species has a dark brown, bell-shaped cap with a paler margin to 15mm on a tall stem to 60mm. Another fungi on dung was *Stropharia semiglobata.*

We saw several *Enteloma* species. Some were old specimens that we could not put a name to the species. One species that was recognised was *Enteloma readiae* which has a pale brown cap about 20mm wide with a depressed darker centre. Another Enteloma species recognised was *Enteloma viridomarginatum*. The cap had turned blackish and the darker edge could be seen on the whitish-grey gills. Under some Blackwoods was a large stalked polypore *Polyporus melanopus.* The attractive brown cap had a pale pored surface underneath on a black stem. Also under the Blackwoods was seen the small pink Rosy Coral *Clavulinopsis corallinorosacea.* The buff coloured *Ramaria filicifolia* was nearby. This species has upright white-tipped branches and it is associated with woody litter. Another coral fungi was the small bright yellow *Ramariopsis crocea* which a distinctive U-shaped branch division. A group of this species was seen among moss. The largest coral seen was the dull mauve *Ramaria fennica var fumigata.* There were several large clumps up to 200mm tall and 160mm wide on the side of the Whipstick track. The densely branched stems had blunt pointed tips.

We were alerted by a photograph by Ambika to the occurrence of the bright yellow *Hygrocybe chromolimonea,*. <u>*Photo above right.*</u> The wide-ranging Ambika and Indra had found about twenty fruit bodies of this species in a steep, six metre deep crater that probably the result of gold mining in the past. This small species has a glutinous yellow cap of about 15mm wide on the same coloured stem to 30mm tall.

One of the first *Cortinarius* species seen was the brown capped *Cortinarius clelandii.* This species has yellow gills and stem. The white *Cortinarius austroalbidus* was added to our list. The white caps of this species were dried out, but the curry odour of this species was noticed. One very old specimen of the green capped *Cortinarius austrovenutus* was seen. The brilliant eye catching colour of the red *Cortinarius austrocinnabarinus* was hard to miss. This species has rusty brown gills. Two *Cortinarius* species which have glutinous caps, the purple *Cortinarius archeri* and the slimy yellow *Cortinarius sinapicolor* were also seen.

Under some bracken were some minute *Mycena maldea.* The white caps of this species were up to four mm wide with few gills on stems up to 35mm with no basal disc and white criniform stipes. The nitric smell of this species was noticed by some. The yellow stemmed fruit bodies of *Mycena epipterygia* group were noticed in several places.The stem colour varied from pale to a bright yellow on different groups. A few specimens of the Tall *Mycena cystidiosa* were seen, as well as the white sterile stipes associated with this species. Various jelly fungi were noticed including the *Calocera chinensis* group which had simple and forked yellow spikes. The white jelly *Tremella fuciformis* was seen in several places as was the rarer *Tremella fimbriata.* The *T. fimbriata* specimen seen was mostly dried out to a dark brown mass of leaf-like folds, lobes and convolutions. A wide variety of other genera of fungi were seen that have not been mentioned in this report, so we had a good foray again at Blackwood this year.

Hygrocybe chromolimonea
Photo: Carol Page

Reiner Richter: Morning Report: The enthusiastic Indra found several interesting species in a crater-like depression, starting with a magnificent clump of *Hygrocybe chromolimonea* These are one of my favourite mushrooms because of their bold yellow coloration all over (including the gills). I had never seen a caespitose grouping like this in such good condition. This species usually grows on the ground but may also be found on soft tree-fern trunks. In the same hole he found also a colony of boletes that appeared to have been covered by a vivid purple mould (now dry), which initially caused confusion as to what we were looking at. The underside of an old log nearby was covered with the striking orange *Tyromyces merulinus,* with its tiny, irregular pores.

Afternoon Report: After my lunch I had time to explore along the Back Creek gully for some time before the main group arrived. A very attractive fungus I found under a wet branch lying on the ground was *Pseudomerulius curtisii*. From above all I saw was some mushy brownish caps peeking out the side and I almost didn't turn the branch over to look underneath. I think their golden, wrinkly gills are most photogenic. On a mossy Eucalyptus log there were scattered maroon mushrooms with caps around 2 cm in diameter. These most resemble *Tubaria rufofulva*, but there was no hint of an annulus. I am quite familiar with *Tubaria rufofulva* as depicted in Bruce Fuhrer's 2005 field guide, however the photos in Gates & Ratkowsky 2014 field guide are quite different. It was also good to see the two *Bisporella* species that I most commonly encounter. Both produce small, yellow discs on bark or wood. I often encounter *Bisporella sulfurina* in wet forests, with its smaller than 1 mm discs. *Bisporella citrina* appears less common and has larger discs (around 2-3 mm). Hopefully I will now be able to remember their respective species names, even though they both basically mean "small

(Continued on page 8)

(Continued from page 7)
and yellow"."

Pat Grey "Regarding the maroon *Tubaria*-like fungus (see Reiner above), the cap was maroon, and the gills were pale with a red edge while the stem was also reddish. *Photo below*. However, as Reiner said, there was no sign of an annulus (ring) and it looked as though the spore print was white, rather than the red-brown of *Tubaria rufofulva.* Paul George mentioned seeing a similar-looking maroon fungus when he was out fungi hunting and thought that it might be *Callistosporium* sp.: Genevieve Gates and David Ratkowsky (A Field Guide to Tasmanian Fungi, 2016, 2nd edition, p 37) note that *Callistosporium* is 'a genus of small, white spored species that can grow on soil or wood'. The fruit-body colour, spore print and substrate suggest that the species seen at Blackwood could be *Callistosporium* 'maroon with yellow rhizomorphs', although the yellow rhizomorphs at the base of the stipe were not seen.

Red agaric on wood, *query Callistosporium* Photo: Reiner Richter

Ed Grey "Two *Ramaria* species – *R. fennica* var *fumigata* and *R. versatilis* var *latispora* are somewhat similarly sized and coloured so in the field it is important to note the following: the branching is different *R. f.* var *fumigata* is multi-branched (AM Young, April 2014, Queensland Mycological Society) while R. v. var latispora has few (2-5) main branches and they are much thicker, to 15 mm diameter (Petersen Mycobank). Other differences include the branch tips that, in the former, are tapering with two to four blunt processes and the latter has short blunt processes on the branch tips. *R. f.* var *fumigata* has a short stem to 40 mm, white at the base grading to lavender at the first branching and *R. v.* var *latispora*, if it has a stem, is very short and white, and the flesh stains yellow at the base. However, they are very similar microscopically. Our material is a mature specimen of *R. fennica* var *fumigata* and the brownish colouration is due to spore release." *Photo above right*.

Thanks to Les Hanrahan, Reiner Richter and John Walter for contributions to identification in the field, which add to our knowledge of the species. Thanks to Les Hanrahan for his report, and John Walter for his (see below), and Ed Grey and Reiner Richter for their contributions to the report. Thanks to the photographers Pat Grey, Carol Page and Reiner Richter who supplied many photos of their sightings to select for the report.

Pat Grey

Addendum to the Mount Worth Foray 4th June 2017 re the 'black jelly fungus found by Carol Page': (Original article, FNN 277 p 6-8)

Just along from the picnic rotunda Carol Page found an interesting black jelly fungus with tiny stalked grey discs growing on the surface of it The roundish jelly was 15 mm diameter and growing on a mossy upright trunk of a *Cassinia* sp. Although not seen in the field, Carol's photo showed black ostioles embedded in the jelly. This identified it as an *Exidia* sp., *E. glandulosa.* But what were the discs with a long stem penetrating into the jelly? Perhaps they were parasitising the jelly.

John Walter came up with the solution – a Tree Jelly Lichen:

John Walter "I suggest your *Exidia glandulosa* is actually a *Collema* species, a genus of lichens that is gelatinous when wet. It is possibly *Collema leucocarpum* which has black pycnidia which could easily be confused as ostioles although its apothecia are described as "laminal to sub marginal, sessile". Many *Collema* have pycnidia. If you send me a high resolution image I can try and get a name for it. Thanks for the extra images Carol. I have no doubt that this is a *Collema* species, a group of lichens described in Kantvilass & Jarman in *Lichens of Rainforest in Tasmania* as 'most abundant at the scrubby edges of rainforest, especially on the fibrous bark of *Cassinia*, *Leptospermum* or *Melaleuca*'. I see from the notes your specimen was found on *Cassinia*. Now as to the species, I am leaning towards *C. laeve* due to the small, immersed when young, apothecia. In this species they are up to 1mm in diameter and in *C. leucocarpum* they are 1.5mm which I think is too large for yours. It keys out as *C. laeve* using Flora of Australia Vol 54 but of course I cannot check any of the microscopic features to prove this. Part of the description copied - *Collema laeve* Hook.f. & Taylor: Thallus 3–6 cm wide, sometimes more than 10 cm, foliose, membranous, rounded, lobate, adnate, smooth, rugulose in parts, matt or slightly glossy, without isidia, olive-green, rarely bluish green. Lobes to 3 cm wide, few, rounded, imbricate, sparsely lobulate; lobules rounded; margins entire, sometimes slightly undulate. Apothecia usually dense, to 1 mm wide, often immersed when young, becoming sessile with a constricted base, or widely adnate; disc flat to concave, white-pruinose, …Pycnidia numerous, to 270 µm wide, laminal. *London J. Bot.* 3: 656 (1844) T: Bay of Islands, North Is., N.Z., *J.D.Hooker*, 1841; lecto: FH, *n.v.*, *fide* G.Degelius, *Symb. Bot. Upsal.* 20(2): 116 (1974). *****Collema leucocarpum* var. *minus* F.Wilson, *J. Linn. Soc., Bot.* 28: 356 (1891). T: vicinity of Lake Wat Wat, Gippsland, Vic., Dec. 1888, *F.R.M.Wilson*; lecto: NSW, *fide* G.Degelius, *loc. cit.* *****Collema laeve* f. *fimbriatum* F.Wilson, *Proc. Roy. Soc. Victoria* 5: 152 (1893). T: Warnambool, Vic., *coll. unknown*; *n.v.*"

Pat Grey "I hadn't thought about it being a lichen – but probably should have, because Reiner Richter also saw a lichen, although not jelly-like, which had discs in it, the yellow-green *Coenogonium implexum*."

Fauna Survey Group

Fauna Survey Group Survey, *June 2017*, Killawarra Section, Warby Ranges National Park

On the Queen's birthday weekend, the Fauna Survey Group ventured to the Killawarra Section of the Warby -Ovens National Park, near Wangaratta. This was our 12th collaborative project with Parks Victoria and a repeat of a survey carried out at the same time in 2015. The weather was fine and sunny, though cold at night. Our aim was to survey for arboreal fauna and birds listed under the Flora and Fauna Guarantee Act.

We had 7 attendees and were well supported by the Wangaratta Office of Parks Victoria.

We were able to complete two bird and two spotlight surveys at each of 9-five hundred metre transects, mainly within the Killawarra Forest area at the northern end of the national park. We were also able to deploy 26 cameras at 15 sites. Two cameras were deployed at 10 of the sites, one on the ground and the other in a tree. At the other sites the cameras were deployed in the tree only.

Overall we detected 45 species of birds, 14 species of mammals, one frog, Common Froglet, and one reptile, Boulenger's Skink.

Five of the target bird species were recorded being the Brown Treecreeper, Brown-headed Honeyeater, Fuscous Honeyeater, Speckled Warbler and Yellow-tufted Honeyeater.

Squirrel Gliders were detected by spotlight on two transects and by camera at two other sites. Other arboreal mammals seen were the Common Brushtail Possum, Common Ringtail Possum, Feathertail Glider and Sugar Glider. Yellow-footed Antechinus were also seen. The Feathertail Glider was one of the mammals not seen on our last visit, as were European Hare and Fallow Deer.

Robin Drury

Photos—from top:

White-browed Babbler by Karen Weil
Noisy Friarbird by Karen Weil
Squirrel Glider FSG remote camera.

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

Geology Group

Monash University Earth Sciences Garden

On Saturday 29th July the FNCV Geology Group visited the Monash University Earth Sciences Garden. Our thanks go to Julie Boyce and Jim Driscoll from Monash University for giving up a good part of their Saturday to lead us on a lively and enjoyable tour of this highly innovative geological teaching tool. Unfortunately it was a very windy day, making it virtually impossible to make notes. The information below is taken from the Monash University website.

"*First of its kind in Australia and the most comprehensive worldwide, the Monash Earth Sciences Garden is inspired by the geology and geomorphology of Victoria, Australia.*

The Monash Earth Sciences Garden comprises a stunning arrangement of nearly 500 rock specimens, weighing up to 14 tons, laid out to represent a pattern of rock outcrops and set amongst beautiful native plants representing each geographical region.

Aimed primarily at undergraduate students as well as secondary and high school students, the 120 by 30 metre Monash Earth Sciences Garden also provides a beautiful relaxation space for students and visitors.

The rock specimens represent a variety of igneous, sedimentary and metamorphic rocks found in Victoria. Highlights include:

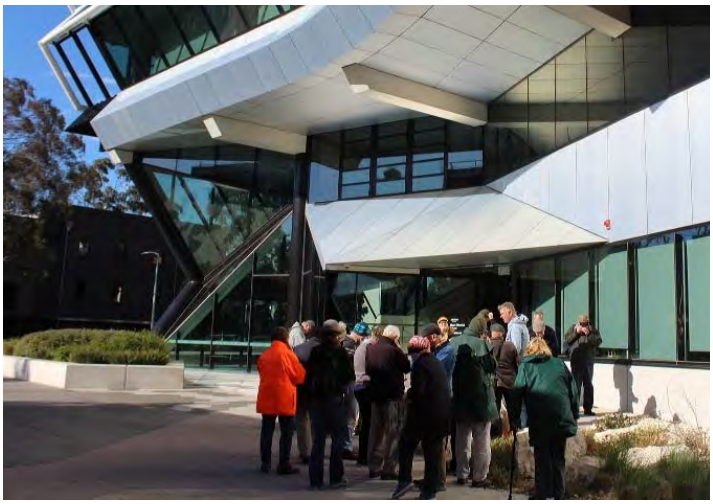
- *125-million-year-old Cretaceous sandstone from the Otway Ranges, where significant dinosaur fossils have been found and continue to be studied at Monash University. These dinosaur and early mammal remains are from creatures that lived near the South Pole in a large, forested river system that developed as Australia and Antarctica began to break apart, offering unique insights into life on a significantly warmer Earth.*
- *Large black volcanic 'bombs' - approximately 1 metre in diameter - from an 8,000-year-old volcano near Colac. This volcano is located in the Newer Volcanics Province (NVP), which stretches from Melbourne's CBD to Mount Gambier in South Australia and contains at least 437 volcanoes ranging in age from 8 million years to just 5,000 years, some of which are still considered to be active. The basalt lava that erupted from these volcanoes forms an integral part of Victoria's rich historical heritage as the rock, commonly called bluestone, is used extensively in building, paving and roads.*
- *Dramatic basalt columns similar to those located within the Organ Pipes National Park (near Calder Racetrack). These represent lava flows from the NVP volcanoes, which filled in valleys and created western Victoria's flat landscape.*
- *Spectacular 400 million-year-old limestone from Buchan in eastern Victoria, comprising fossils of marine creatures that were building reef systems in tropical seas when Victoria straddled the Equator.*
- *Folded rocks and quartz veins representing the geology of the Victorian Goldfields. The abundant gold in Victoria made Melbourne the richest city in the world for a while, and provided the foundation for growing the world's most liveable city.*
- *A seasonally dry, mud billabong that reflects the semi-dry south-eastern Australian climate. The billabong fills with water during wet weather and naturally dries up at other times, forming large mud cracks. This enables students to study how present day events may be recorded and traced back through geological time."*

http://www.monash.edu/science/schools/earth-atmosphere-environment/facilities/garden

The Monash Earth Sciences Garden was opened in September 2015. It is always open to the public and guided, group tours can be arranged. A cleverly designed, free app ***Monash Rocks,*** adds a whole new dimension to the experience. The Earth Garden is an outstanding creation. For those with an interest in geology, the time taken to visit will be well rewarded.

Many thanks to Ruth Hoskin for organising such an interesting excursion and to Wendy Nicholas for sharing her photos.

Joan Broadberry



Photos: Wendy Nicholas

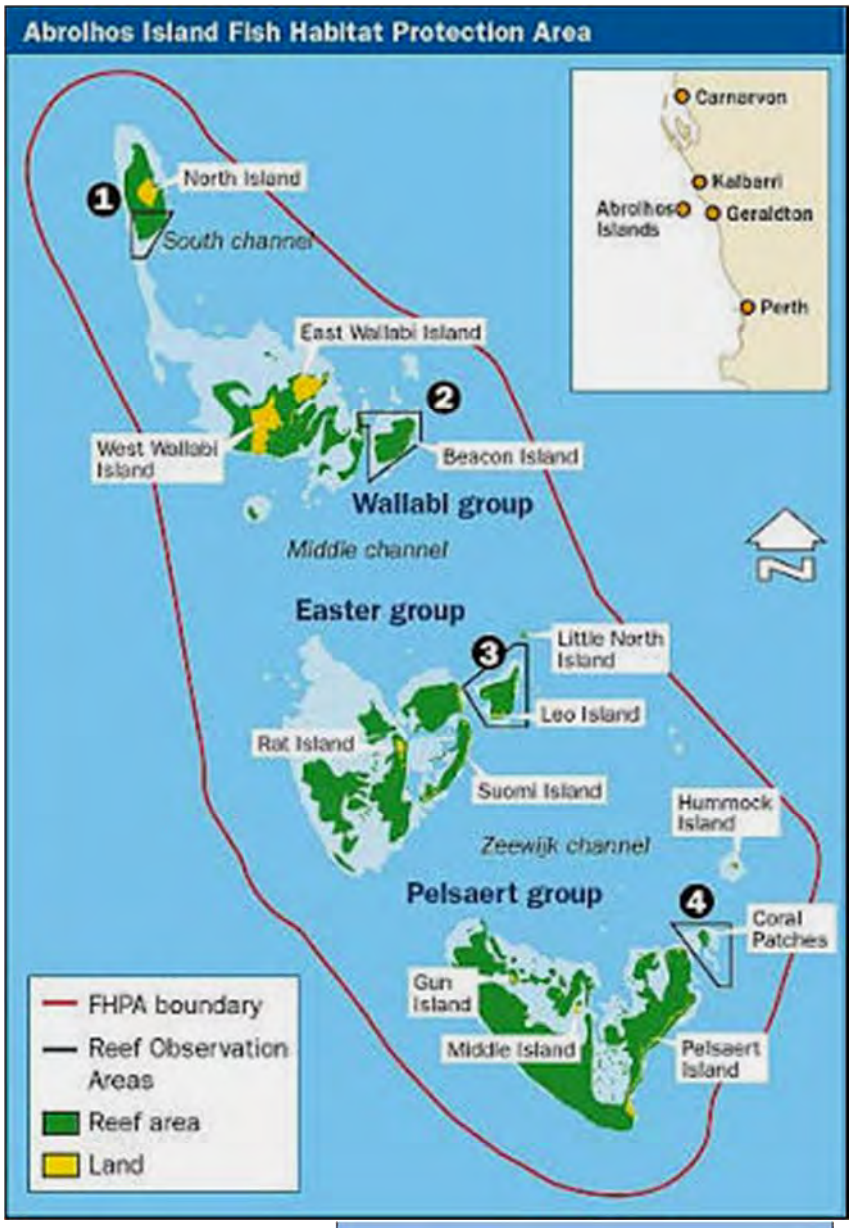
Day Group

An Introduction to the Houtman Abrolhos Islands

July 25th

Speaker: **Joan Broadberry**

The Houtman Abrolhos Islands are located approximately 80k west of Geralton, Western Australia. At 28½ degrees south they are unusual in being home to a diverse, living coral reef. The 122 islands are clustered into three main groups, separated by deeper channels and stretching across about 100 kilometres of ocean. They are, from north to south, the Wallabi, Easter and Pelsaert Groups. The Abrolhos are situated inside the edge of the WA continental shelf. The highest, East Wallabi is only 14m above sea level with most islands reaching only 3-5 metres. All are on a base of limestone, much of it submerged, being the remains of ancient coral reefs formed during periods of higher sea levels. Platform Islands are the upper levels of old reef platforms. High Islands are composed of wind-deposited sand dunes built up over a limestone base. The many low Rubble Islands are made of broken coral and shell material piled up by storms.



The Western Australian Department of Fisheries manages the Houtman Abrolhos Islands with 90% being designated a protected conservation zone. They are one of the world's most important seabird breeding sites and are well known as the site of numerous shipwrecks, the most well known being the Dutch ship Batavia which struck Morning Reef in the Wallabi Group in June 1629.

The Islands have a long history of commercial exploitation. One of the earliest industries was guano mining. They remain the centre of the WA rock lobster fishery and black-lipped pearl oysters are starting to be farmed. Crayfish licences issued last century allowed 'camps' to be built.. Twenty-one islands still contain some fishing infrastructure such as shacks and private jetties and there is a small seasonal population of fishermen. The tourist industry is very limited with no land accommodation available. Only one operator, Eco Abrolhos, offers five day cruises with participants living on the boat. It is also possible to fly to the Wallabi group for a day tour. Both trips leave from Geralton.

In October 2016, the Western Australian Field Naturalists Club hosted the biannual Australian Naturalists Network get-together. A post conference cruise for 40 people on the Eco Abrolhos was arranged. Aboard were knowledgeable guides including the skipper Jay Cox, ecologist Dr. Chris Surman and author and historian Howard Gray.

Travelling from south to north, the cruise visited all three groups of islands, offering a program packed with natural history experiences. There were guided walks on a number of inhabited and uninhabited islands and opportunities to snorkel or view the reef from a glass-bottomed boat. October was the peak seabird breeding season and participants were able to view breeding colonies of Sooty terns, Bridled Terns, Roseate Terns, Common Noddies, Lesser Noddies and Pied Cormorants. Lesser Noddies (photo above), have a limited distribution around the Indian Ocean. Many other seabirds, shorebirds, raptors and land birds were observed. Rare Australian Sea lions were present in good numbers and were remarkably unafraid. Mothers and pups were often seen resting on beaches. (photo p12)

Lesser Noddy
Photo: J. Broadberry

Other activities included: pulling craypots, beachcombing,

(Continued on page 12)

Australian Sea lions *Photo:* J. Broadberry

called 'cats' and many species of reptiles including King Skinks and the Abrolhos Dwarf Bearded Dragon. Signage and marked tracks allow visitors to appreciate the dramatic events that took place there in 1629.

A lack of space precludes a retelling of the Batavia story, but there are many books available, including a book of historical fiction *Lucretia's Batavia Diary*, by Howard Gray, for those who wish to read more.

Joan Broadberry

(Continued from page 11)
photography, botany and evening presentations on the history and ecology of the Abrolhos.

The Eco Abrolhos visited Morning Reef, the site of the wreck of the Batavia and the group walked on bleak Beacon Island (photo right) where the Batavia survivors suffered terrible privations and murderous carnage in the hands of the evil Jeronimus Cornealisz and his band of conspirators.

A highlight of the trip was a landing on West Wallabi island, a naturalist's and historian's paradise. A group of soldiers from the Batavia were sent to the 'High Islands' by the conspirators in the hope they would perish, but against the odds they found fresh water and food and survived. West Wallabi retains a population of Tamar wallabies the soldiers

Beacon Island *Photo:* J. Broadberry

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