



Understanding
Our Natural World
Est. 1880

Field Nats News No 342



Newsletter of the Field Naturalists Club of Victoria Inc.

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Office Hours: Monday and Tuesday 10 am - 4 pm

July 2023

From the President

Another year as President is a pleasing prospect and there is plenty for us all to do at FNCV. As always there are many projects and undertakings that will require as many volunteers as we can muster. The Gardeners Creek Regional Collaboration, Mali Dunes, building maintenance, evolving governance and compliance requirements and the everyday running of the club put considerable demands on a relatively small group of very dedicated people, so we welcome anyone who would like to pitch in to help. At the moment we need someone to represent the Geology Group on Council and to help organise its activities.

COVID has certainly not gone away and there appears to be a new wave of infection going through the community. During the cold winter months, we normally see an increase in colds and influenza as well, so we recommend that, where possible, you wear masks to indoor activities as a precaution.

The recent TIG field trip to Starlings Gap revealed many invertebrates but it was the large number of glorious fungi that "stole the show". The moist conditions were ideal for fungi which appeared in a kaleidoscope of colours and forms (Photos 1 & 2). Cryptogamic plants were also clearly benefiting from the cool moist conditions. Of course, the fungi attract numerous invertebrates. Heleomyzid flies such as *Tapeigaster spp* (Photo 3 & 4) were taking advantage of the fungi. In particular, a crop of ghost fungi on a eucalypt stump were covered in them. Flatworms such as *Caenoplana*

spenceri (Photo 5) were observed along with a number of native, terrestrial molluscs including *Cystopelta*, *Helicarion* and *Strangesta*. There were numerous millipedes (Photo 6) and spiders as well as native phalangids (Photo 7). Small pseudo-scorpions were also present in numbers. Crayfish species of both *Euastacus* and *Engaeus* (Photo 9) were observed moving about the path.

There are no more TIG excursions until after winter but the Fungi Group excursions are running through the colder months and I suggest that you make every attempt to book into these incredibly interesting events. This year has already shown that it will be a good year for fungi. There will also be plenty of invertebrates in general to photograph

The due date for FNN 343 will be, as always, the first Tuesday in the month, July 4th 2023. Please use joan.broadberry@gmail.com



Photo 1. Many *Mycena epipterygia* were present.

Photo 2. *Ryvardenia campyla*



Photo 3. Ghost fungi, *Omphalotus nidiformis* on a stump were covered in *Tapeigaster sp.*

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CALENDAR OF EVENTS

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

July 2023

Sunday 2nd – Fungi Group Foray: Greens Bush (Mel p254, G6) [Baldry's Crossing Picnic Area](#)
The foray will begin at 10:00 am and conclude at 3:00 pm. We will meet at the Baldry's Crossing Picnic Area (38°25'15.1"S 144°57'38.7"E). Please bring your lunch, a water bottle, and weather-appropriate clothing. Field guides and a camera optional. Register with Tobi May tobi.fungi@gmail.com

Monday 3rd - Fungi Group Meeting: Microfungi and their impact on us and the environment.
Speaker: Martin Mebalds. Contact: Melvin Xu fungifncv@gmail.com 0410 522 533

Tuesday 4th - Fauna Survey Group Meeting: Actions to control deer on Parks Victoria's managed estate across Victoria. Speaker: Sandie Czarka, Statewide program leader, Deer Control, Parks Victoria. Contact: Ray Gibson rgibson@melbpc.org.au 0417 861 651

Saturday 8th – Whole Club Excursion: Meet the Lyrebirds at Dandenong Ranges National Park
Guide: Dr Alex Maisey. Meet at 8.30 am at Grants Picnic Ground, Kallista.
<https://goo.gl/maps/wnQxGCZc42FPwXCd9> Register with Sue Bendel possum56@gmail.com 0427 055 071

Saturday 8th – Fauna Survey Group Equipment day. 10 am – 3 pm in the FNCV Hall. Join members of the FSG to help repair and label equipment. Drop in for an hour or stay for the day. BYO lunch.
Contact: Ray Gibson rgibson@melbpc.org.au 0417 861 651

Sunday 9th - Juniors Group Excursion. 10.00 am Braeside park - Birdwatching, walk and talk. Leader: Kirsty Costa, teacher, science communicator and conservationist. Kirsty hosts the Weekend Birder podcast. <https://www.weekendbirder.com/>
Register with: Adam Hosken adamhosken@gmail.com You are welcome to bring a friend.

Monday 10th - Marine Research Group. No meeting: Winter Break

Saturday 15th to Sunday 16th – Fungi Group Weekend Foray: Noojee - Toorongo Falls and Ada Tree
(Mel p X926 B5) [Toorongo Falls Reserve](#). The foray will begin at 10:00 am at Toorongo Falls Reserve carpark (37°50'58.2"S 146°02'43.8"E). The second day will begin at 10:00 am at the Ada Tree carpark (37°49'03.1"S 145°51'29.9"E).
Suggested accommodation options for this foray are available on the Noojee Hotel website. Additionally, free camping is available at the Latrobe River Camping Area and Toorongo Falls Campground. Both campgrounds operate on a first-in-first-served basis. Please bring your food for the weekend, a water bottle, weather-appropriate clothing, and camping gear. Field guides and a camera optional. Register with Hamish Beshara hamishbeshara96@gmail.com

Wednesday 19th - Terrestrial Invertebrates Group Meeting: To be advised.
Contact: Max Campbell 0409 143 538; 9544 0181; mcam7307@bigpond.net.au

Thursday 20th – Botany Group Meeting: Habitat restoration at Wilsons Promontory: the role of Friends of the Prom.
Speaker: Professor Edwin Pang RMIT. Contact: Ken Griffiths botany@fncv.org.au

Monday 24th—FNCV Council Meeting 7.30 pm. Apologies and agenda items to Wendy Gare admin@fncv.org.au

Tuesday 25th – Day Group Meeting: Sailing In the Pacific including wildlife of some Pacific Islands. Speakers: Di Young and Ken Madill. 10.30 am coffee and a chat, speaker 11 am. All welcome. Contact: Joan Broadberry joan.broadberry@gmail.com

Wednesday 26th – Geology Group Meeting: The Howitt Province: a geologically distinctive and recreationally popular part of east-central Victoria. Speaker: Leon Costermans, co-author *Stories beneath our feet*, 2022.
Contact: Ken Griffiths geology@fncv.org.au

Friday 28th—Juniors Group. No Meeting

Sunday 30th – Fungi Group Foray: Mount Worth State Park. Meet at the Moonlight Creek Picnic Area at 10.15 am for a 10.30 am start. (Melway Edition 45 Map X912 U8, GPS reading at carpark: 38° 16' 58" S 146° 00' 28" E).
Note the location has been changed from that in the COE. Register with Melvin Xu fungifncv@gmail.com 0410 522 533

Attendees are requested to register for excursions so that they can be contacted if there is a change in arrangements.
Registering also means that the leader is better able to plan activities.



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 per excursion 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: joan.broadberry@gmail.com by the first Monday in the month.

Welcome
Welcome

Warmest greetings to these new members who were welcomed into our club at the last Council meeting:

Christian Fu, Terence Fu, Alexandra Fu, William Fu, Aileen Too, Charlize Pommier, Chantale Pommier, Sam Keevers, Raylene Farrugia, Andrew Billingham, Dr Sasha Herbert, Holly Watson-Reeves, Amalia Herrera Grau, Scott Brunton, Jenny Lawlor, Elizabeth Mace, Dr Michael Bauer and William Cuthbert.

Dr Peter Dann (AM)

Dr Peter Dann (AM) became a Member of the Order of Australia in the recent King’s Birthday Honours Awards. He received the award for the Conservation of Seabirds.

Peter joined the FNCV on 1/1/1996 and between 2001 and 2020 contributed six articles to *The Victorian Naturalist*. Warmest congratulations from the FNCV Council and members.

FNCV Councillors & position on Council—May 2023	Name
President	Maxwell Campbell
Vice President	Philippa Burgess
Treasurer/Secretary	Barbara Burns
Councillor representing Botany Group	Ken Griffiths
Councillor representing Day Group	Joan Broadberry
Councillor representing Fauna Survey Group	Ray Gibson
Councillor representing Fungi Group	Melvin Xu
Councillor representing Geology Group	Vacancy
Councillor representing Juniors Group	Adam Hosken
Councillor representing Marine Research Group	Michael Lyons
Councillor representing Microscopy Group	Philippa Burgess
Councillor representing Terrestrial invertebrates Group	Wendy Clark
Councillor	Susan Dempsey
Councillor	Susan Bendel
Councillor	John Harris
Councillor	Judith Sise
Councillor	Andrej Hohmann
Councillor	Maryse Hermence

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

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

Thank you to all those who helped produce FNN 342

Joan Broadberry, Wendy Gare, Sally Bewsher and Sheina Nicholls.

FNCV Facebook report: 32,386 followers

HACKER:
I have all your passwords.

ME:
OMG thank you, what are they?

Editor required

The editorial team of *The Victorian Naturalist* is seeking a new member.

On-the-job training is available, but some knowledge and experience in the following areas would be an advantage:

- Science, biology or natural history;
- proofreading or editing;
- desktop publishing (preferably InDesign);
- science publishing.

Interested readers can phone Gary Presland (0416 316 419) or Mary Gibson (0427 876 930), to discuss details of the position.

(This is an honorary position.)



Library News

Recent additions to the Library

The following monographs have been accessioned since the previous 'Library News', in November 2022. These works may now be borrowed.

- Abbott, I; Burbidge, AA (2022) *Island jewels: the natural history of Western Australia's islands* [508.941 ABB]
- Castles, J; et al (2022) *Broken Boosey & goldfields birds* [598.2/945 BRO]
- Cayley, NW (Revd by TR Lindsey) (2011) *What bird is that?* [R598.2 CAY]
- Cherriman, S (2022) *Hollowed out?: a story of tree-hollows, habitat loss and how nest-boxes can help wildlife* [639.9 CHE]
- Costermans, L; VandenBerg, F (2023) *Stories beneath our feet: exploring the geology and landscapes of Victoria and surrounds* [559.45 COS]
- Debus, S; Davies, J (2012) *Birds of prey of Australia: a field guide* (2nd Ed.) [598.2/94 DEB]
- Dedman, V; McCarthy, G; Pescott, T (1987) *From Buckleys to the break* [508.945 FRO]
- Horne, PA; Crawford, DJ (1996) *Backyard insects* [595.7 HOR]
- Law, B; et al (2011) *The biology and conservation of Australasian bats* [599.4 BIO]
- Lepp, H (2021) *Snippets of mycological history* [589.2 LEP]
- Lepp, H (2021) *Appendices, notes and index to Snippets of mycological history* [589.2 LEP]
- Lunney, D; Hutchings, P (2012) *Wildlife & climate change: towards robust conservation strategies for Australian fauna* [595/94 WIL]
- Lunney, D; Munn, A; Meikle, W (2008) *Too close for comfort: contentious issues in human-wildlife encounters* [778.9 TOO]
- MacDonald, M (2008) *Anglesea, a natural history study*. 15th Ed. [508.945]
- Menkhorst, P; et al (2021) *The Australian bird guide* (Revised edition) [598.2/945 AUS]
- Negus, P; Scott, J (notes) (2006) *The magical world of fungi* [589.2 NEG]
- Nolden, S; et al (2022) *Sir Julius von Haast: commemorating the bicentenary of the birth of the founder of Canterbury Museum*
- Pearce, M (2021) *The message of the lyrebird* [598.2 PEA]
- The Acacia project: rare, endangered and unusual Acacias growing in the RBG Victoria* (2021) [583.321 ACA]
- Wings over Western Port: three decades surveying wetland birds* (1973-2003) [598.2/94 WIN]

Library collections on the website

Don't forget that you can search the library's collections on the FNCV website. Click 'About us' è 'Library' and you will be able to download searchable lists of books, periodicals, maps and photos.

Dr Gary Presland
Honorary Librarian

Volunteer with the Victorian Malleefowl Recovery Group!



Our 2023 training weekend will be held on 14-15 October at Wonga Campground, Wyperfeld National Park.

New attendees treated to a free dinner on Saturday night and a welcome pack!

Training takes place on Saturday afternoon and includes a visit to a Malleefowl nest plus training on: collecting monitoring data; bush navigation and safety; and using technology (CyberTracker app, GPS navigator and safety equipment).

Data collection takes place at a time to suit the volunteer between Oct and Feb.

For more information visit www.malleefowlvictoria.org.au

To register your interest email Secretary Liz Leigh lizleigh1@bigpond.com

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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but fewer insects overall. The leeches will certainly make themselves available for really close-up macrophotography.

Mali Dunes and Malleefowl

Malleefowl that have made their home at Mali Dunes Fieldwork Station have been part of an annual monitoring program for many years, undertaken by volunteers from the Victorian Malleefowl Recovery Group (VMRG). Since taking ownership we are keen to continue being involved in this long running citizen science project.

The data is uploaded into the National Malleefowl Monitoring Database and reveals trends of breeding populations and densities, as well as impacts of land management and environmental variables. With the majority of monitoring grids located on public land, having an established grid on our private land is an important asset to maintain and will help to inform and evaluate our land management approaches.

To get involved in Malleefowl monitoring at Mali Dunes Fieldwork Station, we will need to attend the VMRG's Training Weekend on 14-15 October in Wyperfeld National Park. Please see the advertisement on

page 4 for more details and let me know if you're interested and available.

Max Campbell

(Photos, unless otherwise indicated, M. Campbell)

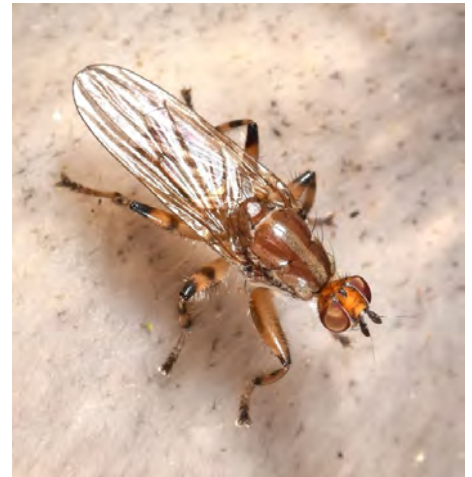


Photo 4. *Tapeigaster* sp.



Photo 5. *Caenoplana spenceri*. Photo Faye Campbell



Photo 6. A polydesmid milledpe



Photo 7. A native phalangiid, Opiliones, Laniatores, Triaenonychidae



Photo 8. A tiny pseudoscorpion on moist bark



Photo 9. *Engaeus* sp. Photo Faye Campbell

Extracts from SIG reports to the FNCV Council

Botany Group, combined with Geology: Thursday 20th April

Fearghus McSweeney presented his remarkable recent research on early land plants of Victoria. While photosynthesis is nearly as old as the Earth, much later the algae gave rise to mosses and terrestrial plants such as liverworts. The very early vascular plants would give rise eventually to trees and forests. In the 1930s, plants such as *Baragwanathia* and *Zosterophyllum* from the mid Silurian and lower Devonian, were found at sites such as Yea and Walhalla in Victoria. Dating depended on a Graptolite being on the same rock.

Fearghus himself recently found surviving fossils. His descriptions and pictures of the steps to expose and assess 400 million year old fossil plants from rock were particularly interesting. 17 attended.

Geology Group: Meeting 26th April

Dr Susan White spoke on the roles of exploration and documentation in the management and conservation of caves and karst in Australia. Among other case studies, more than 200,000 square kilometres of the Nullarbor, between the road and the rail has been systematically searched and mapped, over many years by enthusiasts. Acidic fresh water, but not sea water, can form caves in limestone. In contrast to the Buchan Caves, the Nullarbor is arid. Extinct on the mainland 2,000 years, Thylacine skeletons were found in Western Australian caves. 18 attended.

Ken Griffiths



Day Group

Bat Adventures in Australia and Slovenia

Speaker: Silvia Zele



Silvia Zele began her journey towards working with animals by taking a course at Box Hill TAFE, but it was during a Gippsland High Country Ecotour in 2002 that she saw her first microbats and fell in love with them.

Silvia went on to join the Melbourne bat box monitoring program in the Organ Pipes National Park, which was overseen by Robert Bender. She undertook many of the tasks involved in recording information about the bats found in the bat boxes, but drew the line at climbing ladders.

In 2005, Silvia travelled to Slovenia, the country her parents left as refugees after WW2, intending to stay for about a year; she stayed for fifteen!



Photo: Jenny Lawrence



Silvia carrying bats in bags, Organ Pipes Nat Park. Photo: Robert Bender



Above left: *Austronomus australis* – White-striped Free-tailed Bat.
Right: *Chalinolobus gouldii* – Gould's Wattled Bat mother with twin babies.
How could you NOT love them? Photos: Deborah Reynolds

Slovenia is a very small country with a population of around 2 million. Its capital is Ljubljana. Slovenia is bordered by Italy, Austria, Hungary and Croatia, with a tiny 46 km coastline on the Adriatic Sea. It is known for its mountains, lakes, and extensive forests. As she had arrived in Slovenia during the school holidays when work as a teacher was



Organ Pipes NP bat-box project.

unavailable, Silvia contacted SDVPN–Slovenian Association for Bat Research and Conservation. They accepted her as a volunteer and paired her up with a young biology student whose job it was to research bat colonies. In her presentation Silvia focused on bat colonies in man-made structures, particularly churches.



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There are thousands of church buildings in Slovenia, many of them hundreds of years old and in ruins or in poor repair. Microbats have adopted some churches as roosting sites. A major task of SDPVN is to identify the location of bat colonies. An example was the Church of the Holy Spirit, home to maternity colonies of the Greater Horseshoe Bat and Geoffroy's Bat. This church was due to undergo renovation in 2005. Priests don't always appreciate the presence of bats; piles of guano are one obvious problem. Exits used by bats have sometimes been blocked up, causing any bats left on the inside to starve. Another important role of SDPVN is to provide education on how things could be done differently and bats conserved. One strategy was to point out the value of guano as a fertilizer and arrange for church belfries to be cleaned up. Despite being out of her comfort zone, Silvia found herself scrambling around inside dangerous old churches.

In 2006 Silvia obtained a permit to care for microbats until they could be re-released. Sadly, any bats unable to be released with a good chance of survival, have to be euthanized. An exception was a very special animal, a Savi's Pipistrelle named Rodi. Rodi was found by children at a primary school, weak, unable to fly, and missing three fingers. He was cared for by Silvia for six years and the bat association had a permit to keep him as a teaching animal.



Church of the Holy Spirit. Maternity site for *Rhinolophus ferrumequinum* – Greater Horseshoe Bat and *Myotis emarginatus* – Geoffroy's Bat



Inside the church of the Holy Spirit



Rodi - *Hypsugo savii* - Savi's Pipistrelle



Caves are another important habitat for microbats. Cave disturbances by visitors, especially when the bats are hibernating during the cold weather, puts them in danger of starvation. Surveying microbat numbers in caves can involve walking for hours underground in a cold, dark, damp and hazardous environment.



Krizna Cave, 2006



Bat boxes at a Slovenian market.

The overriding goal in Silvia's love of microbats is educating and motivating people to care about them, and a desire to preserve their habitats. As the "bat lady from Australia", she found many opportunities to do this during her role as an English as a Foreign Language teacher to primary, secondary and tertiary students; she also taught at an international school in Ljubljana for several years. Halloween was an opportune time to highlight bat conservation, as were fairs and markets.

Now, back in Australia, when teaching whole classes via Zoom, she includes a picture of a bat on the first page of her lessons.

Silvia generously shared much more of her personal story with the Day Group. This brief outline touches lightly on only a few aspects of her interesting, informative and entertaining presentation. Many thanks also for allowing FNN access to all PowerPoint images. Photos not indicated otherwise are Silvia's.

Joan Broadberry



Fungi Group

Foray: Wanderslore Sanctuary

On the 7th of May, the Fungi Group conducted a foray at Wanderslore Sanctuary in Launching Place, which is a common location for the group to visit. As always, it is a privilege to be invited to the Sanctuary as it is typically closed to the public. Additionally, it is one of few known locations of the Critically Endangered *Hypocreopsis amplexans* (Tea Tree Fingers), which several members have had the pleasure of finding in past years.

In the days leading up to the foray, the area had received several days of showers, which often create the optimal conditions for fresh mushrooms to emerge from the soil. In the past couple of years, the foray at the Sanctuary usually has occurred in the middle to late end of the fungi season, so it was interesting seeing the different varieties of species that call Wanderslore home earlier in the season. Among the diverse array of fungi encountered, we noticed an abundance of *Russula* species. This genus is often difficult to nail down to the species level in the field, so the recorded observations have largely just identified them as *Russula* sp.

The group was particularly captivated by a small group of *Gliophorus graminicolor* (Figure 1), a small but visually appealing mushroom. *G. graminicolor* is a delicate, slender species that displays various shades of green, yellow, orange, or brown. Much to our delight, after the collection was photographed extensively, several other specimens were found. Once you see them they start appearing everywhere! Other photogenic species we found were *Porpolomopsis lewellinae* (Mauve Splitting Waxcap) (Figure 2), *Boletellus emodensis* (Shaggy Cap) (Figure 3) and *Cortinarius archeri* (Emperor Cortinar) (Figure 4).

Some of our members checked in on locations of logs with past observations of *H. amplexans* (Figure 5) and were fortunate to encounter them again. This particular species is characterised by distinctive finger-like protrusions emerging from decaying logs. The Teatree Fingers are mycoparasitic, meaning they obtain nutrients by parasitizing other fungi.

As on past forays, members are requested to attend with clean, sanitised footwear to prevent the spread of weedy fungi species to new habitats. As mentioned in other foray reports, the most prominent species of note is *Favolaschia claudopus* (Orange Pore Fungus, previously *F. calocera*) (Figure 6), which was unfortunately identified on several logs throughout the Sanctuary. This species does not appear to be a picky eater, I even observed it on a piece of bark in the middle of the driveway! The risk with introducing weedy species into new areas is that it will outcompete our native species and affect biodiversity, so the Fungi Group has started implementing footbaths prior to forays to mitigate this risk as far as reasonably practicable.

This foray was an excellent day out for those who braved the cold and showers, thank you to all who attended. The iNaturalist report can be found [here](#).



Figure 1 *Gliophorus graminicolor*
Photo: Hamish Beshara



Figure 2 *Porpolomopsis lewellinae*
Photo: Paul George



Figure 4 *Cortinarius archeri*
Photo: Reiner Richter



Figure 3 *Boletellus emodensis*
Photo: Hamish Beshara



Figure 5 (left) *H. amplexans*
Photo: Hamish Beshara

Figure 6 (right)
Favolaschia claudopus
Photo: Torbjorn von Strokirch

Hamish Beshara





Marine Research Group Sea Squirts of Stony Point, Westernport Bay

An international assemblage of Ascidians observed by the Marine Research Group in April 2022

Sea squirts (Ascidians) in the intertidal zone are easily overlooked. Fixed under rocks exposed to the air at low tide, they rarely reach the size of those living entirely under water. Artificial structures in the water can give us access to larger specimens of the species we see on beaches or rocks. We also get a chance to see species that don't survive in mud or under rocks.

Stony Point Jetty (Fig. 1) offers us the best of all worlds. It stretches out into moving water, from stony, rocky and muddy approaches. A gloriously calm April morning in 2022 was spent around and under the jetty, while pedestrians above us strolled to and from the ferry.

As usual, Team Ascidian took a long time to get to the target area. As soon as we hit the beach, observers spotted interesting ascidians requiring close inspection. These glassy-looking blobs had particularly long orange siphons stretched along crevices (Fig. 2).

These were indistinguishable internally from *Ascidia gemmata*, (Sluiter, 1895). We often see *A. gemmata*, but not looking like this. This species has been described several times around the world, and varies considerably in its form. It is feasible that this population has been introduced from overseas.

Among the stones closer to the water, Leon who looks closely for sponges, was finding tiny patches of colourful Didemnid ascidian colonies, with their masses of minute calcareous spicules (Fig. 3). We always examine these hopefully, but rarely come to an identification morphologically. The future of Didemnid identification lies with DNA testing.

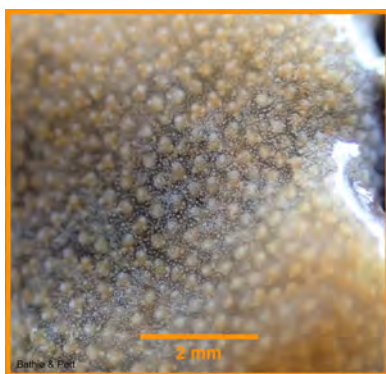


Fig 4. An orange brown morph of the global invader *Botryllodes niger*, (Herdman, 1886).

Closer to the jetty, Joan spotted a brownish-pink blob, attached to a rock by a short peduncle. Solitary ascidians like this *Polycarpa ovata*, (Pizon, 1908) (Fig. 1), which have settled in the intertidal zone as larvae carried in on the tide, are disadvantaged by their inability to move as water levels change. Even such a small peduncle would allow this individual to sway, so the branchial siphon faced into incoming water as the tide rose. On the seafloor, a peduncle can also allow an animal to filter feed slightly above disturbed sediment which might clog the siphons.

By the first jetty piles, under rocks in pools, were several orange and brown Botryllid colonies (Fig. 4). We suspect these represent a (Continued on page 10)



Fig 1. The falling tide exposed a diverse range of ascidians at Stony Point Jetty.



Fig 2. Janet gathers glassy-looking blobs (inset) identified as *Ascidia gemmata*, (Sluiter 1895).



Fig 3. A Didemnid with masses of calcareous spicules throughout the test.

two-colour morph of *Botrylloides niger*, (Herdman, 1886). This global invader is probably of West Atlantic origin. In the intertidal zone, these colonies regress in winter, and resettle in summer, possibly in response to changing salinity in the environment. In the past, colonies from Stony Point would probably have been reported as variants of *Botrylloides leachii*, (Savigny, 1816), probably of Mediterranean origin. It can be impossible even for experts to tell them apart morphologically. DNA sequencing is showing that some Australian specimens hitherto called *B. leachii* are actually *B. niger*.

In the meantime, John had advanced much further under the jetty, and reported a spectacular brown and white colony, permanently underwater. This leachii-lookalike is likely to be *Botrylloides diegensis*, (Ritter and Forsyth, 1917) described from San Diego (Fig. 5). Removed from the substrate, this became an dark slimy mass, which does not assist identification.

The jetty piles here were still submerged at the lowest point of the tide (at a depth of 800 mm) and were covered with epibionts. Various sponges and colonial ascidians were growing over each other. Multi-coloured Didemnid colonies covered several specimens of the solitary *Ascidia sydneyensis*, (Stimpson, 1855) (Fig. 6). The latter were larger and more numerous than those we typically collect from rocky reefs. A colossal, rounded mud-filled gut, sometimes visible through the test, (outer covering), can be a useful clue to identity.

We also saw convoluted red, orange, or white colonies of *Sycozoa cerebriformis*, (Quoy and Gaimard, 1834) (Fig. 7). Fan-shaped lobes of the 'brain ascidian' are often washed up on Victorian shores. They were first collected from a beach in Westernport in 1826, by two French naval surgeons, who surely knew a brain when they saw one. (Quoy and Gaimard also named the

brain coral collected from Tonga the next year). The majority of *Sycozoa* species are dioecious i.e. each colony is either male or female.

Floating from pylons were several *Pyura* swaying on long stalks, so their siphons faced into the current carrying food particles. Identification is made by dissection, and largely by differentiating the lobes of the internal anus. Judging by long spatula-like lobes (Fig. 8), and the shape of spicules in the test, these were *Pyura australis*, (Quoy and Gaimard, 1834) (Fig. 1). These too were originally collected from the port Western.

Commonly known as sea tulips, stalked *Pyura* are often beachcast as colourful bunches. Those discovered near New Zealand in 1874 were called *pachydermatina* for their leathery skin, rather than their resemblance to an elephant. The 'pachydermatina group' includes our local stalked species.

Mid-sized *Herdmania*, (Lahille, 1888) were typically covered by various green and brown algae. Mid-sized we define as: larger than those we typically observe on concrete pontoons at San Remo and Apollo Bay (6 - 8 cm across), similar to those on rocks in the tidal channel at Griffith Island, Port Fairy (12 cm) (Fig. 9), and smaller than those submerged on decaying wooden jetty piles in Apollo Bay Boat Harbour (19 cm).



Fig 5. A brown and white colony of *Botrylloides diegensis*, (Ritter and Forsyth, 1917).



Fig 6. The solitary *Ascidia sydneyensis* covered by a multi-coloured Didemnid colony.

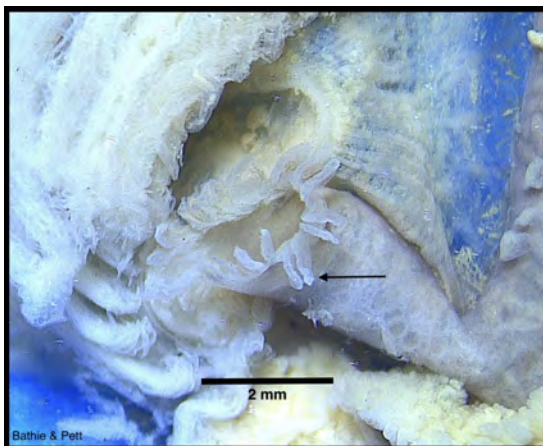


Fig 8. One of the identifying features of *Pyura australis* is the long spatula like anal lobes at the end of the rectum.



Fig 9. Carol observes *Herdmania* in a channel at Griffith Island, Port Fairy 2017.



Fig 7. The 'brain ascidian' *Sycozoa cerebriformis* still found in the same bay as it was originally found in 1834.

Herdmania in various states of decomposition are frequently found on beaches of Australia. They are occasionally reported to museums as suspicious objects resembling human body parts.

Eventually the incoming tide encouraged us to retreat, and pay more attention to a muddy mat that Margaret and Barbara had discovered when they trod on it – massed, squirting, *Microcosmus halleri*, (Herdman, 1882) (**Fig. 1**). When extended underwater, their ridged brown siphons show delicate pink linings, but these do not distinguish *M. halleri* from several very closely related species which are at home on muddy bottoms. Only dissection revealed the characteristic shiny, rounded cartilaginous tongues, inside the branchial siphon. These solitary ascidians readily form large aggregations.

Close by, Audrey's meticulous inspection of one pylon had revealed a solitary ascidian that, once dislodged from covering algae, was clearly *Pyura dalbyi*, (Rius and Teske, 2011) (**Fig. 1**). Several tiny pale *M. halleri* were attached to it. Larger *P. dalbyi* were found on a small rocky outcrop close to the jetty.

A clump of tiny pinkish-brown ascidians, in the mud between these rocks, turned out to be *Microcosmus squamiger*, (Michaelson, 1927), distinguished by rounded scales in the siphonal lining (**Fig. 10**). Other similar species have siphonal spines. The dense, sparkling scales are spectacular under the microscope. Although the name *squamiger* means scale-bearing, this is no help in the field.

M. squamiger is an aggressive pest species with economic consequences, in artificial and natural habitats around the world – this time a gift from Australia. Phylogeny and phylogeography show that overseas populations have more in common with eastern rather than western Australian populations. This suggests a sequential spread by coastal and international shipping, from the numerous ports of the eastern states. The oldest known introduction from Australia was to ports of North Africa in the 1960s.

Hulls and ballast water can provide transport for ascidian larvae, although modern regulation of hull cleaning and discharge of water is intended to minimise this risk. Paradoxically, like many ascidians, *M. squamiger* naturally has a low dispersal rate, and without ships it would have stayed close to home. Tolerance of different degrees of salinity, temperature and sedimentation, enable it to proliferate in disturbed environments where other creatures cannot survive, particularly in the Mediterranean. The highest recorded Australian density for *Microcosmus squamiger* is a mind-boggling 2300 individuals per square metre.

A more recognizable small ascidian from this environment was *Pyura irregularis*, (Herdman, 1882) (**Fig. 1**). The test is a mosaic of irregular, flat depressions, separated by sharp ridges. The branchial siphon is usually long and thin. Internally, the gonads consisting of unlobed, characteristically cuboid, polycarp sacs were delightful to behold (**Fig. 11**).

Numerous unidentified botryllid and didemnid ascidians were photographed but not collected. A number of the species mentioned above are rapid colonisers, and smotherers of other sessile marine life. Constant movement of ferries, naval vessels, commercial and recreational boating, and the proximity of shipping lanes would greatly assist the transport of ascidian larvae to and from this area.

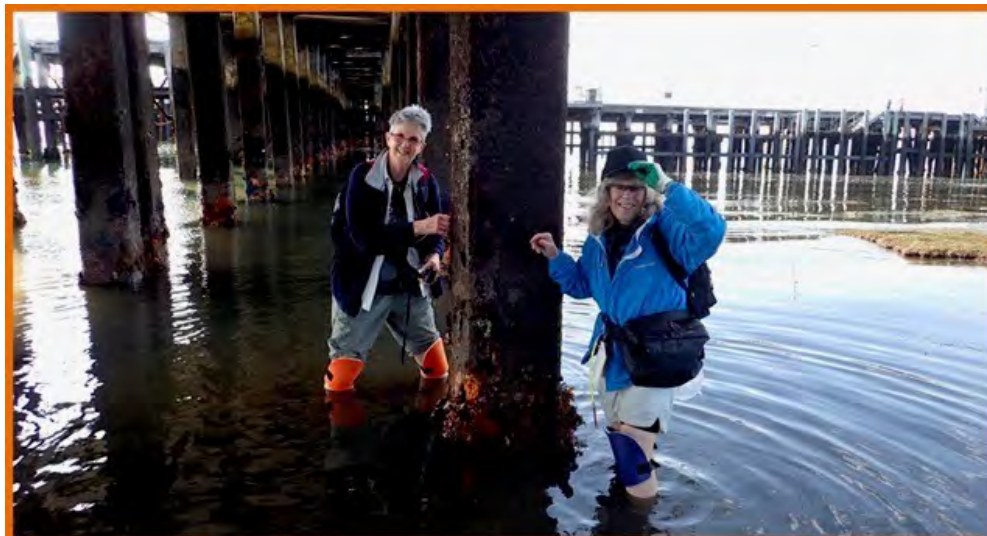


Fig 12. Janet and Carol at Stony Point Jetty.

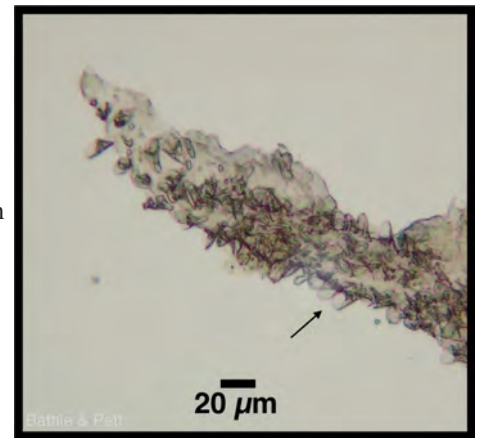


Fig 10. On the inside of the siphonal lining of *Microcosmus squamiger* are small, overlapping, curved scales with a rounded border that can only be observed with a microscope.

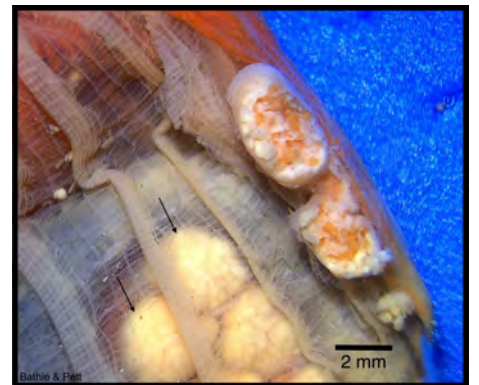


Fig 11. Dissecting a specimen of *Pyura irregularis* revealed the cuboid gonad sacs under the thin layer of branchial sac.

Identifications were made by dissection, with reference to the most recent taxonomic literature, and in accordance with our research permits. References are available on request. As usual, we are most grateful to the MRG, and to visiting mycologist Camille, for bringing to our attention so many interesting specimens, that we could not possibly have found for ourselves in the time available. Visitors with tolerance for mud and wet feet are always welcome on our excursions.

**Janet Pett and Carol Bathie
December 2022**



Fauna Survey Group

**Rushworth Forest
20th -21st May 2023**

In May four Fauna Survey Group members travelled to Rushworth State Forest to carry out a nest box survey. The trip had been postponed from February, when it had been too hot to go. The group's previous visits were in April 2019, when all 136 boxes were checked, and in May 2021 when 85 boxes were checked. We camped in the Whroo Camping Ground, which is located close to the historical area and to the places we planned to survey. Some lines had not been checked on the previous survey, so this was our priority. As well as recording any species found in the boxes, their condition was noted and we kept a lookout for other fauna. Splitting into two teams, with a ladder fastened to the car roof racks and a folder in hand, we set out.

Many wattles were in flower and the vegetation was looking healthy after all the rain. Noisy Friarbirds and Red Wattlebirds in particular were plentiful, feeding in the canopy of the flowering trees, along with a range of smaller birds. Much leaf and bark debris were mounded up in the dry creek beds, where water had flowed following heavy downpours. Wood collection sites were observed too, rendering one site virtually unrecognisable to me. Plenty of vehicles towing trailers and loaded with wood were seen travelling back and forth on the dusty roads.



Photo 3. Brush-tailed Phascogale nest

Nine nest boxes were removed because they were in poor condition, most with lids which had come off or were badly delaminating. One box had an old bees' nest in it (photo 5) and the honey tasted delicious. Seventy-two nest boxes were checked and 23 had animals in them. In all 35 Kreft's Sugar Gliders were recorded (photo 1), with numbers in the boxes varying from one to three. One desiccated individual was found in a fresh nest of eucalypt leaves. Six single Brush-tailed Phascogales were observed (photos 2 & 3). Other finds, under sheets of tin and scattered logs, were of two Spotted Marsh Frogs, an Eastern Banjo Frog, one Wood Gecko, centipedes, scorpions, ants, earthworms and spiders. Nine Painted Buttonquail were seen at three different sites by one team, with six in one group seen crossing the track.

*Unless otherwise indicated,
all photos, S. Bewsher.*

Sally Bewsher

Photo 4. (left). Andrej checking a nest box.
Photo: Ray Gibson

Photo 5. (right) Beehive filling a nest box.



Photo 1. Krefts Sugar Gliders



Photo 2. Brush-tailed Phascogale



Easter Camp at Mali Dunes 2023

extracts from *The Junior Naturalist* April/May 2023

Volume 61 Issue 1



"This year we went to the Mali Dunes property in Yanac with the Fauna Survey Group. Unlike last year we stayed the whole camp at the property and helped out with fauna surveys. This year, we saw way more frogs than last year, which was mainly spiders. The reason we saw more frogs is probably due to the wet weather before this Easter weekend and the rain we have had in the past year. At the camp, we were making traps and bait everyday to help the Fauna Survey Group. In terms of bait, we used a delicious peanut butter, oat and golden syrup mix. I can confirm it is tasty because I ate some. In terms of traps, we used Elliot Traps filled with the bait and some bedding to lure in a hopping mouse and trap it or some other kind of cool native animal, but we only got house mouse. The other trap we used was the bucket trap; using net and some buckets we managed to get skinks, a lot of house mice, too many frogs (mainly pobblebonks and spadefoots) and some spiders...."

Miles Cheng (Junior FNCV member)

Identifying frogs

In Australia there are many native frogs but no native toads. The only toad we have in Australia is the Cane Toad, which was introduced in 1935 to control cane beetles that were destroying sugar cane crops. So when we identified Spadefoot Toads on the Easter Camp, were we really talking about frogs? Basically - yes!

The Common Spadefoot Toad is also known as the Painted Burrowing Frog, Meowing Frog, Sudell's Frog and the Eastern Metal-eyed Frog.

The Common Spadefoot Toad is found in the Mallee and desert areas of Australia where water can often be very hard to come by. To survive hot weather without water, these frogs burrow underground where they can keep moist and protected from the sun. They live most of their lives underground and only become active after rain.



Photo 2.



Photo 1.

When the Juniors camped in the desert (Mali Dunes) in April, it had been raining heavily the week before, so we were lucky to see these frogs all over the place as they were out and about. The Juniors actually found two different frog species in the desert at Easter; spadefoots and pobblebonks.

Although the majority of the frogs we found were juvenile (baby frogs) we were still able to tell them apart. The Common Spadefoot Toad can be identified by the vertical pupils in its eyes and the little 'spade' or shovel it has on the back of its legs which help it to dig and burrow. Pobblebonks have horizontal

pupils and a bulge on their back legs (tibial gland).

Frogs that were caught and identified at Mali Dunes, Easter Camp.

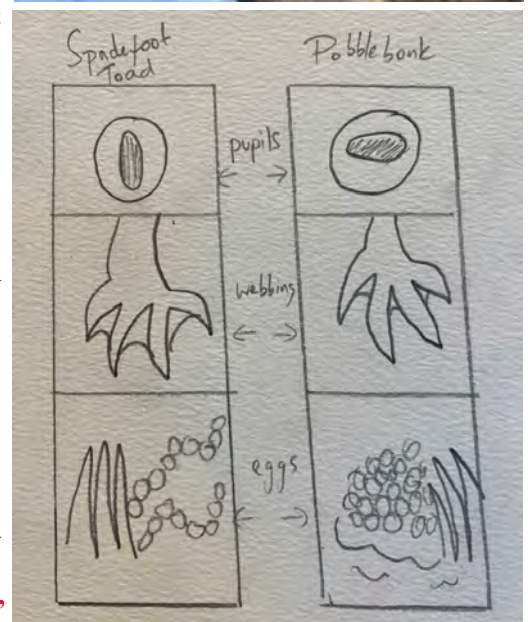
Photo 1. Pobblebonks

Photo 2. Spadefoot showing the bucket traps and mesh fence by which many frogs were caught.

Photos: Zoe Burton

Neither of these frogs are threatened species. They can be found over a wide area of the Mallee and desert in Victoria and South Australia.

Zoe Burton,
(with thanks from FNN)



**Drawing of identifying features—
Phineas Wilton**



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Western Wanderer

14-Day Easy Camping Tour (assisted camping) – Departs Broome 19 August 2023 - Maximum of 12 participants

Head north of Perth for seabirds, marine-life, coral reefs and ancient Karijini National Park gorges. Highlights include a flight over the Abrolhos Islands with time for a short nature walk and snorkel, exploration of the Shark Bay World Heritage area including a visit to Monkey Mia, free time to explore the Ningaloo Reef in Coral Bay, camping at 80-mile beach, and two days exploring the wonders of Karijini National Park. Tents are put up and taken down for you.



WA Outback

15-Day Camping Tour – Departs Perth 30 September 2023 - Maximum of 6 participants

This outback expedition follows two tracks built by the 'last real Australian Explorer', Len Beadell. Journey on the Connie Sue and Anne Beadell highways, passing through remote areas along the western side of the Great Victoria Desert, where we discover arid zone plants, wildlife, and landscapes. Two days are spent at the Eyre Bird Observatory, a favourite amongst bird watchers, and two days following the Granite Woodlands Trail. We also encounter historic towns of the goldfields.



Lord Howe Island

7-Day Accommodated Tour – Departs Lord Howe Island 30 September 2023 - Maximum of 16 participants

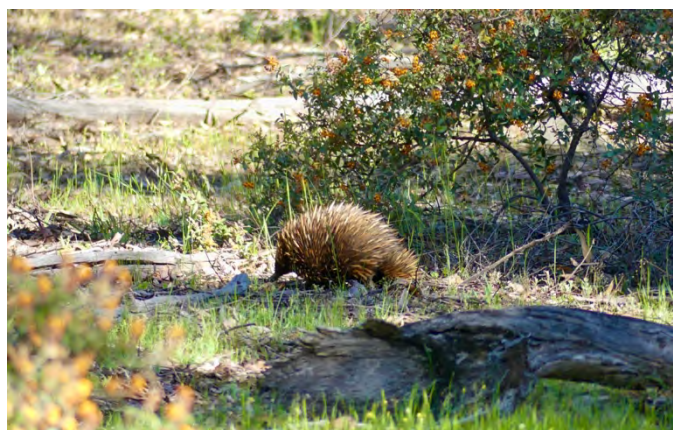
Lord Howe Island sits approximately 700 km northeast of Sydney in the South Pacific Ocean. It is World Heritage listed due to its astounding natural values. The beautiful landscape is dominated by twin peaks Mount Gower and Mount Lidgbird, while tall rainforests, thronging seabird colonies and lively coral reefs exist below. Only 400 visitors are permitted on the island at any time, so the human footprint is minimal. Your guide, Ian Hutton, is Lord Howe Island's resident expert; he will show you in seven days what would take you weeks to discover on your own.



Wildflowers of the Southern Forests

10-Day Accommodated Tour – Departs Perth 28 October 2023 - Maximum of 12 participants

Visit the South West of WA during its magnificent wildflower season, and explore Torndirrup, Stirling Range, Waychinicup, Walpole-Nornalup and Dryandra Woodland National Parks. Waychinicup is home to one of the few mainland quokka populations, and Dryandra is a refuge for the elusive and endangered Numbat (also WA's animal emblem), a small marsupial sadly listed as 'likely to become extinct' in the wild. Other highlights include the Valley of the Giants and its 40 m high tree top walk, a marine park eco cruise, the award-winning National ANZAC Centre, and WA's premier wine growing region, Margaret River.



Contact us for further information on these tours and for details of our full 2023 natural history expedition program.
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