



Understanding  
Our Natural World  
Est. 1880

# Field Nats News No 368



Newsletter of the Field Naturalists Club of Victoria Inc. Editor: Joan Broadberry 03 9846 1218  
Telephone 03 9877 9860

1 Gardenia St. Blackburn 3130 [www.fncv.org.au](http://www.fncv.org.au)

Newsletter email: [joan.broadberry@gmail.com](mailto:joan.broadberry@gmail.com)

(Office email: [admin@fncv.org.au](mailto:admin@fncv.org.au))

Founding editor: Dr Noel Schleiger

Reg. No. A0033611X

Office Hours: Monday and Tuesday 10 am - 4 pm

November 2025

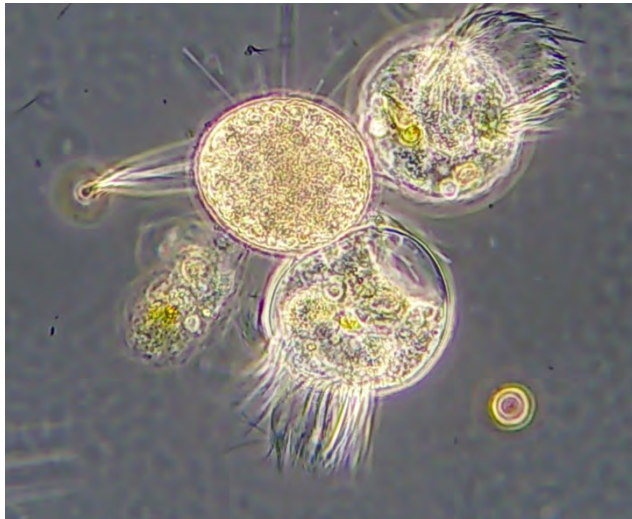
## From the President

Once again, we find ourselves approaching the end of another year and we will soon be holding elections for office bearers and councillors in general. As an incorporated entity with a large membership, numerous assets (including three properties), many activities, partnerships and responsibilities we must have a competent and dedicated governing body to operate and meet all of our compliance requirements. It is very rewarding to work closely, as a team, with like-minded people and contribute to the successful running and organisation of our wonderful Club. If you have the skills, the time and desire to be involved in pursuing our Club goals please contact me. Your contribution would be most welcome.

The due date for FNN 369, the December/January 2026 issue will be **Monday October 27th.**

Once again the editor has to juggle producing the newsletter with a trip to Mali Dunes. Early contributions would be very much appreciated.

Many thanks, Joan  
[joan.broadberry@gmail.com](mailto:joan.broadberry@gmail.com)



*Podophyra with two freshly captured Strobilidium and another, almost digested, organism. The holdfast and stalk are on the left.*

If anyone has doubts about Nature being red in tooth and claw, they need only observe pond water under a microscope. The dramas and brutal conflicts that are continuously occurring right under our noses are only clearly revealed when soil, pondwater or moss samples are examined under the microscope.

Sometimes I receive a sample which contains an exceptionally high number of organisms with considerable biodiversity. Recently, in one such sample, I was able to record the feeding of Podophyra, a suctorian ciliate as it caught and consumed numbers of the ciliate Strobilidium over a period of several hours. Samples need to be left on the slide, under a coverslip for about an hour to allow for the organisms to settle down and begin moving around the glass. During this time the material under the coverslip needs to be gently topped up with triple

distilled water, or more fluid from the sample itself, to prevent desiccation. It should not be subjected to illumination and heat during this period. Sometimes it takes days or even weeks to get a thorough appreciation of the biodiversity of a sample. The sample used to produce the following photographs was observed for over two weeks and continued to reveal more and more species of organisms. Initially very few amoeboids were observed but prolonged observation revealed a multitude of forms. Podophyra was found in only one of 15 slide preparations. Each slide may take up to six hours to fully examine and a second scan always reveals more diversity. Systematic scanning and significant patience are a mandatory requirement to get the most out of microscopical examination.



*Podophyra with dying and moribund Strobilidium*

Index	Page
From the President	1, 3
Calendar of events—Nov	2
Members' news, photos & observations	4
Day Group meeting: Painting the bush and the Yarra River	5, 6
Successful Murra Warra Wind Farm Community Grants Program\application for Mali Dunes	6
Mali Dunes — Kangaroo Guarding Report: July 2025	7
Invertebrate Study Group: Jumping Creek Reserve, Warrantyte 14th Sept 2025	8, 9
Extracts from SIG reports to Council	10
Invertebrate Study Group: Meeting 17th Sept 2025	11, 12

(Continued on page 3)



## CALENDAR OF EVENTS

All meetings are held at the FNCV Hall, 1 Gardenia St. Blackburn at 8 pm., unless otherwise indicated.  
There may be changes to the program, for example due to extreme weather conditions or the unavailability of a speaker.  
Please check with the FNCV website [www.fncv.org.au](http://www.fncv.org.au) or contact person for the most up-to-date information

### November

**Thursday 30<sup>th</sup> October—Wednesday 5<sup>th</sup>—Fauna Survey Group Spring Survey at Mali Dunes:** Mammals, reptiles and maintenance. Prior Booking essential.  
Contact : Andrej Hohmann 0410 934 779 [andrej\\_hohmann@yahoo.com.au](mailto:andrej_hohmann@yahoo.com.au)

**Monday 3<sup>rd</sup> – Fungi Group Meeting:** at 7pm via Zoom and in the hall.  
*Systematics of the cup fungus genus Peziza and Pezizaceae in Australia.*  
Speaker: Luke Vaughan.  
Contact: Georgia Beasley [georgienaturechick@gmail.com](mailto:georgienaturechick@gmail.com)

**Sunday 9<sup>th</sup> – Juniors Group Excursion: Tour of the Western Water Treatment Plant** Details advised to Juniors by email . **Bookings in advance essential!**  
Contact: Nicole Brown [nicole.vickridge@gmail.com](mailto:nicole.vickridge@gmail.com)

**Sunday 9<sup>th</sup> – Invertebrate Study Group Excursion: Langwarrin Flora and Fauna Reserve,** 9.30am to 3pm. Bookings essential via email. This is always a good spot to find invertebrates and they should be out in force, being November.  
Contact: Wendy Clark [inverts@fncv.org.au](mailto:inverts@fncv.org.au)

**Monday 10<sup>th</sup> – Australian Natural History Medallion Reception & Buffet 6.30 pm & Presentation 8.00 pm.** The 2025 Medallion has been awarded to Roger Thomas for his contribution to Public Education, Conservation, Birds and Botany. Medallion presented by the President of the Royal Society of Victoria (or Nominee) followed by a talk from the recipient. For buffet bookings (\$25) contact the FNCV Office.

**Tuesday 11<sup>th</sup> - Fauna Survey Group Meeting: Noisy boats and hidden drugs: how human pollution disrupts shoaling fish and shrimp-goby mutualisms.**  
Speaker: Jack Manera, PhD student, School of Biological Sciences, Monash University.  
Contact: Andrej Hohmann 0410 934 779 [andrej\\_hohmann@yahoo.com.au](mailto:andrej_hohmann@yahoo.com.au)

**Wednesday 19<sup>th</sup> - Invertebrate Study Group Meeting: Lacewings of Victoria.**  
Speaker: Ken Harris. This much neglected group of insects is more beautiful and interesting than you would expect. Ken will also show his newly published book  
Contact: Wendy Clark [inverts@fncv.org.au](mailto:inverts@fncv.org.au)

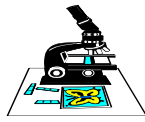
**Thursday 20<sup>th</sup> – Botany Group Meeting: Frog friendly gardening. Using indigenous flora for frogs, including creating the ideal frog pond.**  
Speaker :David De Angelis, president of Frogs Victoria. David is an environmental educator and consultant with a particular interest in the conservation and biology of frogs. He will provide an overview of the ecology of several frog species found around Melbourne and will discuss the creation of frog ponds that can provide all requirements necessary for both adult frogs and tadpoles. Contact: Ken Griffiths [botany@fncv.org.au](mailto:botany@fncv.org.au)

**Monday 24<sup>th</sup>—FNCV Council Meeting: 7.30pm.** Apologies and agenda items to Wendy Gare [admin@fncv.org.au](mailto:admin@fncv.org.au)

**Tuesday 25<sup>th</sup> – Day Group Meeting: 10.30am for coffee and a chat, speaker 11am. Delayed take-off, close encounters, German forts and hot water bottles, OR A three week safari in Southern Africa.** Speaker: John Harris, Wildlife Experiences. All welcome. Contact: Joan Broadberry [joan.broadberry@gmail.com](mailto:joan.broadberry@gmail.com)

**Wednesday 26<sup>th</sup> – Geology Group Meeting: Zebra Rock– an ancient Kimberley siltstone. The mystery of the origin of zebra rock and the formation of its unique banding.** Speaker: Retired professor Bruce Livett PhD  
Contact: Ken Griffiths [geology@fncv.org.au](mailto:geology@fncv.org.au)

**Friday 28<sup>th</sup> - Juniors Group—No meeting**



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.

### IMPORTANT

Those wanting to attend any FNCV excursion or camp **MUST register with the leader at least two full days** before the date of the activity. Some leaders may ask for registration to be even earlier. After registering you will receive details of exact locations, meeting places and times.

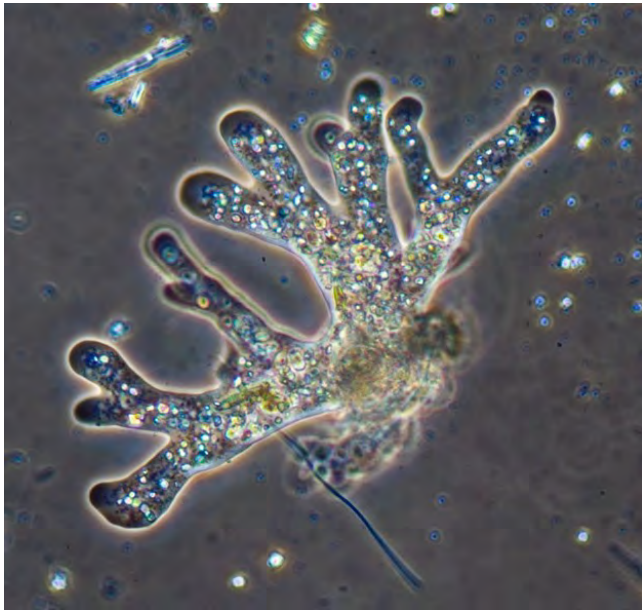
There are several reasons for this. Attendees can be contacted if the activity is cancelled or arrangements change. It is also essential for insurance purposes.

Non-members are welcome to register and attend FNCV excursions. Club policy is that non-members pay \$5 per excursion.

**Note it is not necessary to register for FNCV meetings.**

(Continued from page 1)

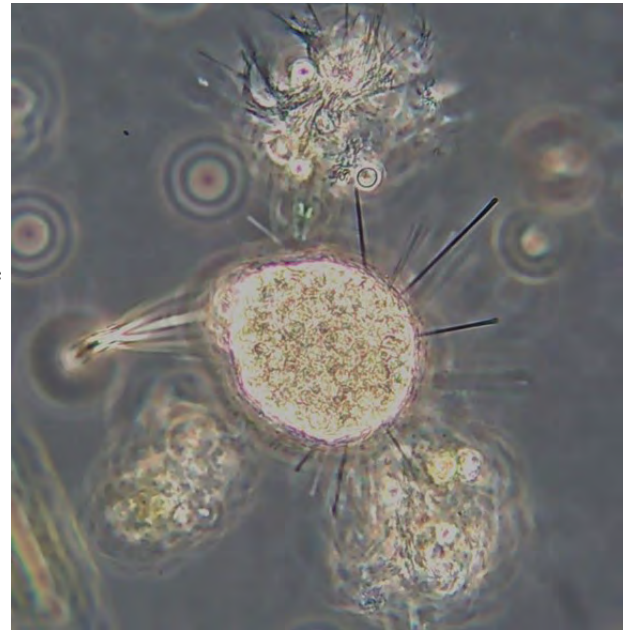
Good optics are also critical to observing very small protists, so low-quality instruments are of limited value; particularly for magnification above 100X. Studies of fungi, terrestrial invertebrates, marine life and plants frequently require the use of compound and/or dissecting microscopes. I have received many inquiries about which instruments would be the best for particular applications. In the coming weeks I will be organising a presentation on how to purchase a reliable microscope to suit your particular interests and activities.



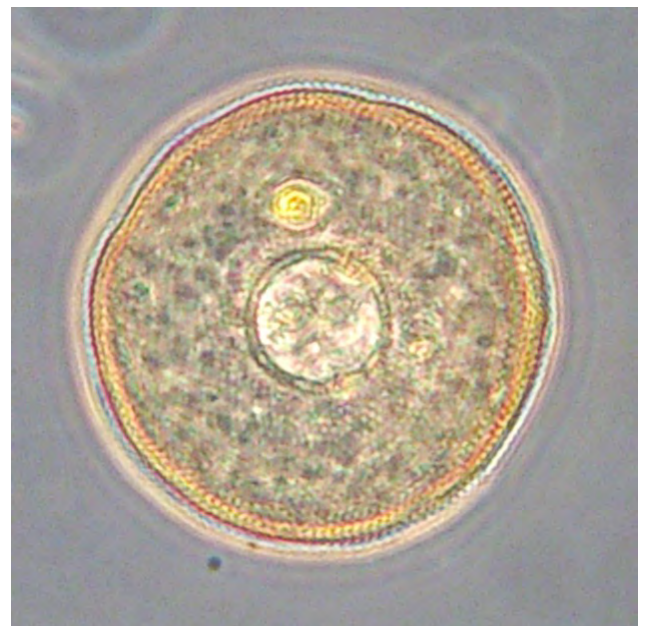
A very active amoeboid with numerous pseudopodia, possibly *Chaos*.



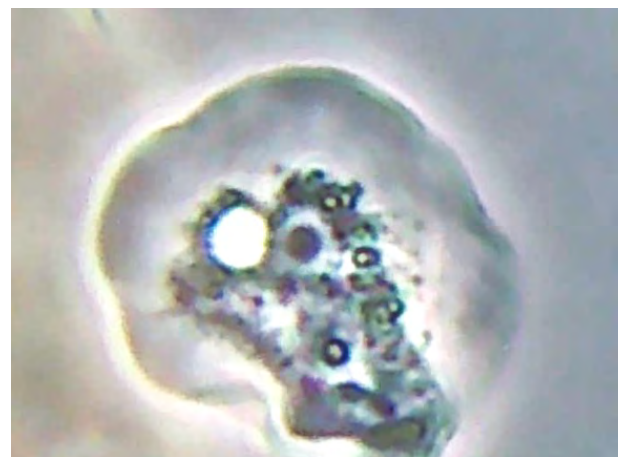
A smaller, slug-like amoeboid. *Saccamoeba*.



*Podophyra* with dead and disintegrated *Strobilidium*. The black feeding tubes can clearly be seen taking in nutrients.



*Arcella*, a testate amoeboid with a chitinous test.



A minute amoeboid, *Vannella*.

**Max Campbell**  
 All images, M. Campbell

# 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](mailto: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:

*Steven Lim, Elliot Blythman, Beth Jabornik, Isha Veerasingam, Thakshayini Bala, Melinda Davison, Ben Davison and Steve Davison*



On a trip to New Zealand I came across what is obviously a replica of a Moa. However, having photographed a skeleton of the largest species of Moa in the Auckland museum, I realised that indeed the giant Moa were roughly this size.  
Joan.

## From the Office

Having seen Joan's encounter with a Marbled Gecko in last month's News and her plea for readers to send in their photos, I thought I should send in my own encounter.

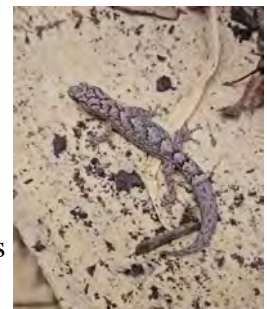
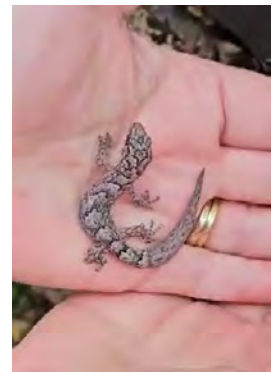


This lovely little Marbled Gecko was living a kamikazi existence in the hinge of the hatchback of my car.

I decided to try and catch it so it didn't get squashed, but when I put my hand close, it just climbed on, of its own volition.



I carried it to a stone wall in my garden, where it climbed off and disappeared into the plants. It hasn't been sighted since but I hope it is living its best life there!



Finally, another request for donations of biscuits or small packs of long life milk for use at meetings. Thank you to FNCV member Tim for the packets of biscuits he has already so generously donated.

Regards, Wendy Gare, Admin Officer.

**Facebook: 53.3K followers**  
Why not have a look yourselves at the great photos and discussions that happen there?  
Here is the link:



[bookshop@fncv.org.au](mailto: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 368**  
Joan Broadberry Sally Bewsher and Wendy Gare

The capture and handling of all animals on FNCV field trips is done strictly in accordance with the Club's research permits.

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



## Day Group

### *Painting the bush and the Yarra River* Speaker: Esther Schouten, FNCV member and artist

About a year ago, I became aware of an art exhibition at Maroondah Federation Estate Gallery, Ringwood. It was a solo exhibition by Esther Schouten consisting of two sets of work: *Aurora* and *Arborealus*. As I viewed her paintings of Warrandyte landscapes and the Yarra River, I fell in love with them. My home suburb of Templestowe is the neighbouring suburb to Warrandyte. I can look across to the Yarra River valley from my front garden. I have explored many stretches of the river's banks for over 40 years.

I will borrow from Esther's website, [artechodesign.com](http://artechodesign.com) and the Nillumbik Artists Open Studio's website [artistsopenstudios.com.au](http://artistsopenstudios.com.au) for much of this report.

*"Esther Schouten's exhibition Aurora Arborealus was named after the goddess of dawn, Aurora, combined with the word 'Arboreal' (meaning of trees). The title is finished with a playful homage to the artist's Dutch linguistic heritage where names or words frequently end with 'us'."*

*"Aurora explores the soft lucent quality of dawn through a series of oil paintings. Mist veiled objects emerge as tentative delicate shapes. As the sky colours: a gentle layering of natural forms occurs with trees taking on zoomorphic shapes, reaching and stretching. The gradual transformation of atmospheric light is tranquil and dreamlike, the bridge from night to day, sleep and consciousness. Aurora's domain is often grey, tinted with green's purples and blues. Early morning bird-calls can be heard. Aurora paintings lined the walls of the gallery."*

*Arborealus is an immersive piece that takes the viewer on a tree-lined walk along the Yarra River in East Kulin Nation. It aims to create an appreciation of our local bushland and the need for environmental conservation. The work was painted on a curved canvas: 1.5metres high and 9 metres long. Suspended in the gallery, so that visitors would walk into it and be surrounded by the bush."*

By chance Esther was at Federation Estate that day and in the course of our conversation I asked her if she might have time to present her work the Field Naturalists Club of Victoria Day Group. Little did I know then that she had been an FNCV member since 2014!

Esther spoke to the Day Group on September 23rd, firstly telling us a little about herself. Her home and studio are in North Warrandyte with views of the surrounding bushland. Early each morning she walks along the Yarra and in the bush with her dog Timi. Esther lyrically described the pre-dawn light, mists over the river and the glow of sunrise. In 2019 the smoke from the summer bushfires in NSW hung over the river adding a bluish colour to her paintings.



*(Continued on page 6)*

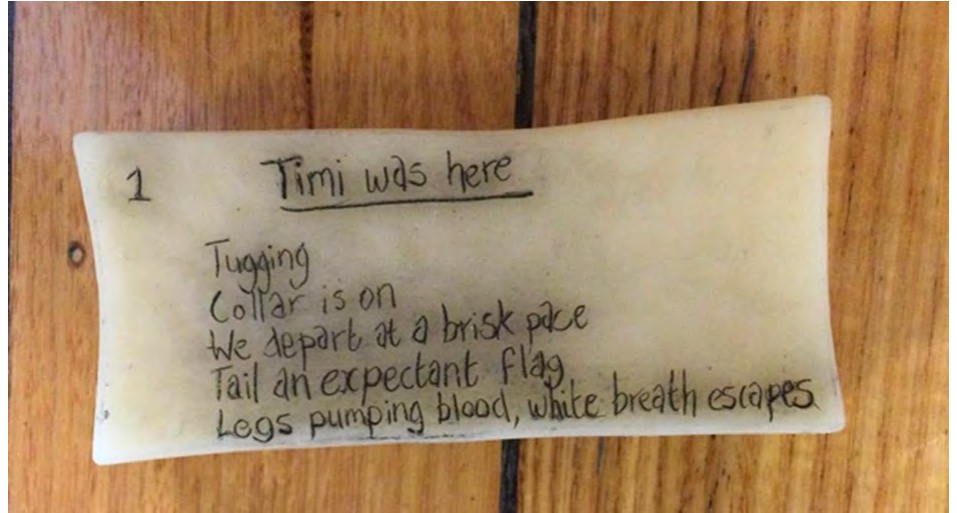
(Continued from page 5)

Esther then went on to select a number of her paintings and interpret them for her audience. These can best be seen on her website under headings titled: *The Yarra, Haze Series, Figure, Skull and Still Life*.

Inspired by the Warrandyte bush, mesmerised by the river and its reflections, Esther paints landscapes in a style reminiscent of the impressionists. She also explores portraits, nudes and still life compositions.

In 2025 Esther's portrait of Kate Hudson won the Maldon Portrait prize. She has painted two portraits of Max Campbell, including one done in oil on timber showing Max with, what else, but a microscope. Recently Esther painted a portrait of long-time FNCV member, ex-librarian, archivist and editor of *The Victorian Naturalist*, Gary Presland.

As part of her presentation Esther quietly laid down small bricks of bees wax around the hall. Each was etched with a poem dedicated to her dog Timi. The bricks or tablets were made with beeswax that had eucalyptus and ti-tree oil added, which gave a subtle bush fragrance.



*Arborealus*, showing the middle section of tree trunks, was painted as a person walking in the bush would experience the scene. Bird-calls were recorded to play in background. It was a sensory immersive experience for exhibition visitors who were surrounded by the sights, sounds and scents of the bush. This magnificent work has been divided into six panels and has been donated to the Box Hill Hospital. It will hang in a public corridor bringing the beauty of the bush to all who see it.

Once again, on behalf of everyone, I would like to express a huge thank you to Esther for giving up time in the always valued school holidays to speak to the Day Group. Thanks also for editing this report. To be presented with such a beautiful fusing of art and nature was a rare treat.

**Esther's studio is open to the public twice a year during the Nillumbik Artists Open Studio program. For upcoming dates visit <https://www.artistsopenstudios.com/>**

**Joan Broadberry**

## **Mali Dunes Successful Murra Warra Wind Farm Community Grants Program\application for Mali Dunes**

The FNCV was successful in its application to the 2025 Murra Warra Wind Farm Community Grants Program. The Murra Warra Wind Farm wind farm is owned by Squadron Energy and is located near Horsham. The grant program funds community programs within the Horsham Rural City, Hindmarsh Shire or Yarriambiack Shire for sustainable environmental, education and training, social health and wellbeing, sport and recreational and cultural diversity and arts initiatives. The FNCV applied for a grant for \$4,979.72 under the sustainable environmental category. The grant will allow the club to guard 200 plants with heavy duty kangaroo guards. Specifically, 30 EPBC listed Jumping-Jack Wattle (*Acacia enterocarpa*) and another 170 palatable species such as Slaty Sheoak, (*Allocasuarina muelleri*), Silver Banksia (*Banksia marginata*), and Sweet Bursaria (*Bursaria spinosa*). These plants are already in the ground having been planted by Sue Hayman and Bernie Fox, but are being browsed down to bonsais by kangaroos and rabbits. The guarding method and materials have been sourced and tested by Mirinda Thorpe, Iestyn Hosking, Ray Gibson, Ray White, Mark Anderson, Deb Colville and Andrej Hohmann.

The FNCV Environment Fund allowed the club to guard the first 70 Jumping Jack Wattles and to refine the method. The guards are all metal consisting of rebar post and metal wire. This should allow the club to use them for years to come for multiple planting events on the property, that is to shift the guards around to new plants as the old plants outgrow the kangaroo and rabbit browsing pressure.

Two of our members, Deb Colville and Andrej Hohmann, attended the grants presentation on Tuesday the 22nd of July in Horsham to accept the grant. It was a great chance to chat with the company staff, other grant recipients and to chow down on some delicious canapés.

We could put the guards in place over the next year but are aiming to have them all in place by this coming spring. So keep your eyes peeled on the calendar and email advertising the trip. We will need elbow grease to get all 200 guards installed!

Andrej Hohmann.

## Mali Dunes — Kangaroo Guarding Report: July 2025

The FNCV received a grant from the Environment Fund to guard the Jumping Jack Wattle (*Acacia enterocarpa*) on Mali Dunes against kangaroos. Members of the FNCV set out to install the guards over four days from the 18<sup>th</sup> to 22<sup>nd</sup> of July. The timing was fortuitous as the grant awarding presentation event for the Murra Warra Wind Farm Community Grants Program happened on the morning of 22<sup>nd</sup>. As the 22<sup>nd</sup> was our travel home day, Deb Colville and Andrej Hohmann were able to attend while passing through Horsham.

Five FNCV members, Mark Anderson, Deb Colville, Ray White, Ray Gibson and Andrej Hohmann undertook the guarding. We received a helping hand from Mirinda Thorpe and Iestyn Hoskin who picked up the rebar from Horsham and dropped them off at the site for us. We would not have been able to complete this work without their help.

It took the five of us just under two days to guard 68 of the Jumping Jack Wattles. Mark had pioneered the method and tested it on 10 plants over the previous Easter trip. The guards are made up of three rebar posts of 1.2 metre height that support dog wire of 1.2 metre height and 3 metres circumference.

The work that took the longest was cutting out the old overgrown rabbit guards. At times we were only able to partially remove the old plastic guards as they were so overgrown and ingrown.

The rest of the guarding work was pretty straightforward and quick. Even with the removal of some of the overgrown guards the five of us completed the guarding of the 68 plants in under two days.

We originally aimed to guard 70 plants, but we took the opportunity to trial two double guards on two broader plants that had sprawled beyond the 3 metre circumference at their base. For these two plants we set up 6 metres worth of circumference held in place by 4 bars. These guards will help us determine if this is a suitable method for the future, a method we may need to adopt once the plants have grown into their new guards.

We also moved some of the narrow guards Mirinda and Iestyn had donated to other plants; a banksia and five bursaria.

Based on these numbers, it should take five people 5.7 days to install the 200 guards from the Murra Warra Wind Farm Community Grants Program. It may take additional time as the plants to be guarded are spread across the property and in many cases will need to be rediscovered.

The Murra Warra Grant should bring the total of our kangaroo guards to about 280.

The cameras we had left out over Easter showed several kangaroo-browsing events, which is somewhat surprising given how incredibly prickly the plants are. Several times the videos showed the kangaroos homing in on the plants. At other times the kangaroos would move from grazing the grass to browsing



*Ray White hard at work removing overgrown plastic rabbit guards*



*Ray Gibson and Ray White rolling out the dog wire mesh to cut it to size.*



*Ray Gibson cutting the dog wire mesh to size*



*Ray White threading the rebar through the dog wire into place. This method does not require an additional tying wire*



*Ray White hammering the rebar post into place*

the wattles. This habit may well be reflected in the current state of the wattles. Those on the exposed clay flats surrounded by grass are, on average, more browsed back than those on the sand dunes without grass and/or surrounded by other plants.

The camera footage also showed European Hares and one Swamp Wallaby alongside the plants. The footage didn't clearly show whether these were actually browsing the plants or not. No rabbits were captured on the cameras.

We reset the cameras to see how effective the guards are at preventing kangaroo browsing.

**Andrej Hohmann**



# Invertebrate Study Group

**Jumping Creek Reserve,  
Warrandyte 14<sup>th</sup> Sept 2025**

We had a good turn out on a lovely warm, sunny day for the first survey of the season. Although we didn't find large numbers of invertebrates, what we found was interesting.

Before lunch we headed along the river north of the carpark towards Bluetongue Point. After lunch we headed up the hill towards the road and saw some different species, but not a great deal as it may have been too exposed and dry.

We saw two species of Leaf Beetles, some interesting spiders, a scorpion, Mantispid eggs, Pergid Sawfly larvae, a variety of ants, a Feather-legged Assassin Bug, a weevil, tiny flying beetles at the top of a wattle bush that only Andrew with his telephoto lens could reach, and more. It was noted that many of the spiders were fully grown males in breeding condition, which suggests that they must have overwintered.



Leaf Beetle  
*Paropsis pictipennis*



Mantispid Eggs



Decorative Crab Spider  
*Tharpyna decorata*



Calibracon Wasp



Feather-legged Assassin Bug  
*Ptilocnemus lemur*

(Continued on page 9)

(Continued from page 8)

**The Feather-legged Assassin Bug** is one many of us had never seen before and we found its shape bizarre. It is a specialist ant hunter and exudes odor that attract ants. The one in the photo (previous page) has lost one of its hind legs. It is also an adult as it has wings. It is a predator with a specialized gland called a trichome that it uses to attract and paralyse ants before feeding on them.

The bug stands near an ant trail and waves one of its hairy hind legs to attract the attention of a passing ant, the jack jumper ant (*Myrmecia pilosula*) often being targeted. The prey may be bigger than the nymph, and is also lured towards the bug by the release of a pheromone. When an ant approaches, the nymph raises its body so that the ant can taste the secretion produced by the trichome. The bug waits for the ant to grab its hind leg and then turns round and plunges the stylets in the proboscis into a weak spot in the ant's cuticle, the joint at the back of the head. It then jerks and shakes the ant around, perhaps to prevent it from biting, and injects saliva into the wound. The ant soon dies, and the bug may carry it to a crevice or other concealed spot. When the body contents of the ant have liquefied, the bug sucks out the body fluids. (ref: *Wikipedia*)

See all our results on iNaturalist for the photos and names:

<https://inaturalist.ala.org.au/projects/fncv-2025-jumping-creek>



Red and Black Spider  
*Nicodamus peregrinus*



Long-legged Sac Spider  
Genus *Cheiracanthium*



Scarab Beetle in flight  
Genus *Liparetrus*  
photo by Andrew McCutcheon



Scarab Beetle on Wattle  
Genus *Liparetrus*  
photo by Andrew McCutcheon

## Extracts from SIG reports given at the last FNCV Council Meeting

### **Fauna Survey Group: Meeting, Tuesday 2<sup>nd</sup> September 2025 ‘Birds in Bass Strait Movements and Implications in the age of offshore energy.’ Jessica Zhou, PhD candidate, Monash University.**

Wind turbines have been proposed for Bass Strait near the Gippsland coast. Research is needed to gain a fuller understanding of potential effects on migratory sea-birds with the aim of mitigating any untoward impacts on the birds. Trackers are attached to sea-birds and research is conducted at sea.

In addition to sea birds, about 20 species of land birds migrate across Bass Strait and their flight paths are likely to coincide with the proposed windfarms. Among the migrating birds is the Tasmanian Boobook Owl, which is smaller, has darker coloration and yellower eyes than the mainland species. Surveys were conducted at focal headlands like Wilsons Promontory and Cape Liptrap. Birds were fitted with trackers and migratory paths recorded, up to 214km at 34km/hr. The reason for seasonal migration is likely to be cold conditions in high altitude winter conditions. Victorian Boobooks were not recorded crossing to Tasmania.

**Raymond Gibson**

### **Geology Group: Meeting 27<sup>th</sup> Aug 2025. *The Macquarie volcanic arc: NSW gold emplacement and continental accretion. With two videos.***

Ken Griffiths showed on a geological map from 1970 where 3 or 4 folds N-S extend from Blackburn Anticline to Studley Park Anticline. The map includes a cross section with the folds inferred to a depth of only a few hundred metres.

The SE Lachlan Transect was a detailed seismic survey from Benalla to Bega in 2018 to investigate vertical faults up to 40km in depth. A team of geologists from the geological surveys in Melbourne, Sydney and Canberra worked to interpret the new data, displayed on large sheets of paper. Ongoing, they seek to correlate the deep new data with well mapped surface geology. The Orocline Model is an hypothesis that the massive sweeping curvature of mountain belts, from the Stavely Arc in western Victoria, to the Macquarie Arc in central NSW, was caused by the disruptive influence of the Selwyn Block in the deep basement of the Melbourne Zone. Crustal extension in the Snowy River National Park can explain the Buchan limestones.

In central NSW a N-S line of old volcanoes, now well inland, is interpreted as arising due to tectonic subduction in deep ocean in the Ordovician. Geochemistry contributes to these inferences.

From Pipers Creek (near Kyneton) to Parkes, there is deep sandstone of the same age. It is concluded that the sandstone sediment from the west was deposited under the sea, but later, massive tectonic forces from the east caused E-W shortening, and uplift above sea level. Additionally contributing to this new continental crust were volcanic rocks from more than one N-S arc.

In discussion, the correlation of granite emplacements was questioned. Deposition of sediment was in both deep and shallow seas, it seems. The rivers and mountains are long gone.

That copper is found with gold in porphyry deposits in NSW but not Victoria is attributable to the Macquarie volcanic arc.

Attendance was 14.

**Ken Griffiths**

*Acknowledgements:*

<https://www.youtube.com/watch?v=S-024Cb5VE>

[https://www.youtube.com/watch?v=duC\\_jr1iPp0](https://www.youtube.com/watch?v=duC_jr1iPp0)

*Further discussion:*

[https://www.youtube.com/watch?v=5LHKQM\\_dAWk](https://www.youtube.com/watch?v=5LHKQM_dAWk)

### **Invertebrates Study Group Excursion to Jumping Creek Reserve, Warrandyte 14<sup>th</sup> September 2025**

Detailed report, p 8-9. See results on iNaturalist for the photos and names:

<https://inaturalist.ala.org.au/projects/fncv-2025-jumping-creek>

### **Meeting Report September 17<sup>th</sup> 2025**

Max Campbell gave us a fascinating talk on Micro Predators. He showed us amazing footage shot through a microscope of tiny single-celled creatures actively hunting. To see these tiny creatures in action takes a long time. Firstly, you take a sample of pond water or similar and let it sit for a couple of hours. The creatures then come out of hiding and start to move. Then you can spend many hours watching their behaviour. It becomes quite addictive.

After showing the single-celled amoeboid creatures, Max progressed to multi cellular creatures (some of which were attacked and consumed by the single celled ones) and discussed how these creatures operated. He then proceeded to land invertebrates, giving many examples, beautifully illustrated with his excellent photography and embellished with his observations of their behaviour. A wonderful talk that one could happily watch again as it was so full of information and wonder.

**Wendy Clark**



## Invertebrate Study Group

ISG Meeting Report Sept 17th 2025 by Wendy Clark and Max Campbell

### *Micro Predators by Max Campbell*

Max Campbell gave us a fascinating talk on Micro Predators. He showed us amazing footage shot through a microscope of tiny single-celled creatures actively hunting. To see these tiny creatures in action takes a long time. Firstly, you take a sample of pond water or similar and let it sit for a couple of hours. The creatures then come out of hiding and start to move. Then you can spend many hours watching their behaviour. It becomes quite addictive.

Organisms obtain their nutrients in many ways and are generally classified as herbivores, carnivores, omnivores or autotrophs. It should be noted that so-called herbivores consume a lot of protein in the form of the small animals that are living in the vegetation that they constantly crop.

Parasitic organisms have made good use of this “accidental predation” by enlisting small invertebrates as intermediate hosts.

The dramatic nature of predation by carnivores has been a subject of great interest to naturalists for centuries. There is an incalculable amount of video material devoted to large, vertebrate carnivores preying on other vertebrates. In particular, the large cats of Africa and India have been well-recorded while stalking, catching and eating their hapless prey. There has also been a great deal of attention devoted to prehistoric predators such as Tyrannosaurus and its kin.

However, the diversity and extent of predation at the microscopic level is mind-boggling!

Although, predation at the macro and micro scale occurs constantly all around us, it is mostly out of sight and requires a lot of magnification to be observed. Many protozoans and microscopic invertebrates are singularly ruthless predators and have evolved enumerable strategies to hunt for and catch their prey.



Recently hatched *Coccinella transversalis* (Lady Beetle) larva attacking an aphid



Recently hatched Hover Fly larva attacking a much larger aphid.

After the single-celled amoeboid creatures, Max progressed to multicellular creatures (some of which were attacked and consumed by the single-celled ones) and discussed how these creatures operated. He then proceeded to land invertebrates, giving many examples, beautifully illustrated with his excellent photography and embellished with his observations of their behaviour.

A wonderful talk that one could happily watch again as it was so full of information and wonder.

(Continued on page 12)

**Advertising in the  
Field Nats News**

**VERY REASONABLE RATES**

Contact Wendy in the Field Nats  
Office  
[admin@fncv.org.au](mailto:admin@fncv.org.au)  
9877 9860  
(Mon –Tues 10 am—4 pm)

(Continued from page 11)



*Frontonia* sp, a ciliate pulling a live rotifer from the substrate.



A multicellular gastrotrich captured by a unicellular actinopod.



The gastrotrich enveloped in protoplasm.



The gastrotrich almost fully absorbed four hours later

**All images, M. Campbell**