

Latrobe Valley Naturalist

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Office bearers

President: David Stickney Secretary: Rose Mildenhall Treasurer: Marja Bouman Publicity Officer: Alix Williams Magazine editor: Tamara Leitch Conservation Coordinator: Irene Proebsting Archivist: Marja Bouman

Contact

Latrobe Valley Field Naturalists Club Inc. P.O. Box 1205 Morwell VIC 3840 info@lvfieldnats.org

Secretary – Rose Mildenhall: 0410 237 292

Bird Group – Joelle Champert: 0459 504 305

Botany Group – Marja Bouman: 0432 476 899

<u>Website</u>

www.lvfieldnats.org

General meetings

Held at 7:30 pm on the fourth Friday of each month at the Moe Library, 1/29 George St, MOE Vic 3825



Turkey Tail *Trametes versicolor* photographed by Helen Culjkovic during the Club's excursion to Uralla in July 2022.

Upcoming events

<u>January general meeting:</u> Friday 13 January 2023 – Summer Members' Night <u>January excursion:</u> Saturday 14 January – Mt Erica <u>Club Summer Camp:</u> 3-7 February – Mt Baw Baw <u>Botany Group:</u> Saturday 11 February – Plants from Summer Camp <u>Bird Group:</u> Tuesday 14 February – Twilight birding at Uralla Nature Reserve, Trafalgar. Meet 5pm at Uralla. <u>Bird Group</u>: Thursday 23 February – EA Wetlands survey. Meet 9am Morwell Bridge. <u>February general meeting:</u> Friday 24 February – Soil <u>February excursion:</u> TBC <u>Botany Group</u>: Saturday 4 March – Coastal vegetation and saltmarsh, Charles Hall Rd, Fish Creek

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Saving seed from the doomed Tyers trees

Not only are Latrobe Valley Field Naturalists interested in enjoying nature, but also in protection and conservation, and that's what some of our members were doing recently by helping to collect seed from the many specimens of Strzelecki Gum *Eucalyptus strzeleckii* that are soon to be destroyed near Sandbanks Reserve, Tyers.

In 2015 it was announced that the bridge crossing the Latrobe River near Sandbanks would be replaced to lift the 30 tonne limit and allow more forestry and quarry trucks to travel that route to Traralgon.



RBGV staff and LVFNC volunteers collecting seed near Sandbanks Reserve (photo: Irene Proebsting)

After viewing VicRoads' plans and biodiversity reports, it was found that not only was the bridge being replaced, but extraordinary road widening and alignment would destroy 120 *E. strzeleckii* plants, out of an estimated population of 145 growing in an area of endangered floodplain riparian woodland. This number was reduced to 90 in VicRoads' first planning application to remove native vegetation, which was submitted to the Latrobe City Council.



A cherry picker and chainsaw were needed to access seed from some trees (Photo: Irene Proebsting)

Local conservationists challenged VicRoads – now Regional Roads Victoria (RRV) – about the 90 listed threatened flora that they proposed to remove, and after many negotiations and council meetings RRV withdrew that permit and submitted a new one reducing the number to 49, which included 20 large and 11 medium old trees. The tragic loss of this number of established trees is still unacceptable, but a VCAT challenge was unsuccessful and RRV were granted their permit.

At first, RRV also refused to have the trees assessed under the Environment Protection and Biodiversity Conservation Act (EPBC Act), but they were advised by their environment

team to make the submission. It was found that the removal of 49 of the *E. strzeleckii* population would be a 'Controlled action' meaning a likely significant impact to the species would occur. When RRV recently announced that they had obtained all of their permits and the bridge replacement contract had been assigned, some LVFNC members and Arboricultural and Horticultural staff from the Royal Botanic Gardens Victoria (RBGV), collected seed for the Victorian Conservation Seedbank –

Victoria's primary facility for the conservation of the state's most threatened plants – on the basis that preliminary research undertaken by a Federation University PhD candidate has shown that the population in this area is genetically diverse from other populations in their range.

Botanist with RBGV, Andre Messina also collected a voucher specimen from a tree at the site. The voucher specimen will be stored at the National Herbarium of Victoria.



Fruit of Strzelecki Gum (Photo: Irene Proebsting)

We are very grateful to the staff at RBGV who came to Tyers and spent a very long day collecting seed from about 12 plants, and would like to thank James Shugg (who co-ordinated the project), Peter Berbee and David Roberts for their care and dedication. Volunteers Marja Bouman and Jack Weerts also put in a great effort on the day.

This work conserves the genetics of this important population and may contribute significantly to the preservation of this vulnerable species and to ecological restoration of the local landscape.

Irene Proebsting

Introduction to slime moulds

On 27th May, a good number of LV Field Nats crawled back out of the woodwork after many months of meeting only online. We came to the Moe Library meeting room find out whether we liked eating pizza (we did) and what we may not yet have known about slime moulds (a lot, at least in my case).

Our presenter, Peta McDonald is a science teacher at Whitehorse Primary School in Melbourne. She previously studied Bioscience, majoring in Botany and Mycology.

Peta's interest in slime moulds came initially from reading Sara Llloyd's book about them, *Where The Slime Mould Creeps: The Fascinating World of Myxomycetes,* and from hearing a program about them on Radio National's *The Science Show* in 2019.

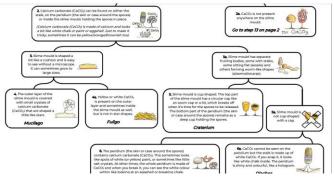
At the time, Peta was living in Melbourne and enduring the long COVID lockdowns that imposed a 5km limit on her ability to search around for things to interest her primary school science students. Peta likes to do 'real science' with them, but they weren't allowed to leave the school grounds.

It turns out that they didn't need to go very far to find some slime mould to study. It was growing in a pile of mulch outside her classroom.

One thing led to another, and now Peta and her Slime Mould Club at the school are growing slime moulds in fishing tackle boxes, looking at them and photographing them through microscopes, dissecting the sporangia to look at the spore patterns and sending previously un-named specimens off to the Melbourne Herbarium – which all sounds a lot like real science, as well as a totally absorbing field of study.

Sara made an identification chart for her students which she has since made available online. When she showed it to us, I think we all thought that it was a pretty impressive piece of work.

What we learned first is what slime moulds aren't. They aren't fungi, plants, animals or bacteria but belong to the Kingdom *Protista*.



A snapshot of Peta's slime mould identification chart

My later research found out that slime moulds are

classified in this Kingdom because, in the earliest stage of their life cycle, they are single-celled amoebas.

Peta's slime mould talk began with the next life-cycle stage, when several single-celled organisms

have joined up to make a unicellular body with multiple nuclei called a *Plasmodium*. This is the bit that creeps around. It shows specific food preferences; Peta offers hers mushrooms and rolled oats, and they will move around a maze to reach the food that they prefer. Lab experiments have reportedly set puzzles for slime mould plasmodia to solve, including one where they successfully found their way, by the shortest route, around the Tokyo metro.

Because slime moulds are tiny, and need minimal care and attention, they seem to be an ideal classroom pet. What else evolves on a piece of damp tissue in a box simply by leaving it there for a few days?

For slime moulds, species identification is determined by studying the sporangia through a microscope. Peta's photos of the dissected spore bodies show a wide range of patterns and growth habits. The spore bodies change, often varying in colour during the course of a single day.

On the next day's excursion we went armed with cameras, mirrors and hand lenses to Tarra Bulga National Park. Here we found quite a few slime moulds along the track from the main car park down to the Swing Bridge and around the track on the other side.

What I remember about distinguishing slime moulds from fungi are three points that Peta showed us.

- The stalks of slime mould spore bodies tend to be fatter at the bottom. Some have clear signs of having calcium deposits in their stalks and fruiting bodies.
- All the fruiting bodies will be the same age, as the plasmodium is a single celled organism. By contrast, patches of small look-alike fungi are likely to have different aged specimens growing in the same patch.
- Fungi fruiting bodies grow outwards from the inside of their substrate. Slime moulds grow on the surface, and on one surface only for something like a leaf.

You can hear Peta McDonald interviewed on Radio National's Science Show at this link:

https://www.abc.net.au/radionational/programs/scienceshow/slime-moulds-fascinate-the-young-andold/13495912

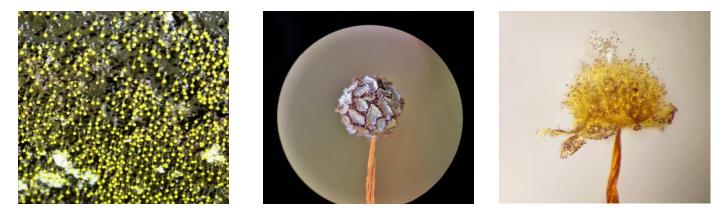
Her key to the common genera of slime moulds is available here:

https://upload.wikimedia.org/wikipedia/commons/f/f6/A_Key_to_Common_Genera_of_Slime_Moulds. pdf

Jay Duncan

Excursion to Tarra Bulga NP 28.05.2022

Despite the cold weather and the threat of rain, a large group of people turned up to explore fungi and slime moulds in Tarra Bulga NP. We met in the carpark near the visitor centre, rugged up and used our time before lunch to wander a fair distance up and down Lyrebird Ridge Track. Peta McDonald, our guest speaker from the previous night, joined us in our quest to find slime moulds. Soon people were crouching underneath wet logs. The torches some had brought came in handy. We did find three different slime moulds along this track and two were identified: Insect-egg Slime *Leocarpus fragilis* and *Physarum flavicomum*. As the common name indicates, the yellow fruiting bodies of the *Leocarpus* look like eggs of an insect. There were large numbers on a log and some on nearby small twigs. Peta said she had only seen it on one other occasion. The *Physarum* showed plasmodium and fruiting bodies at the same log. Peta took some of the fruiting bodies home. They opened the same evening. She photographed them as the skin was breaking away and the yellow lime inside that holds the spores became visible.



Slime mould *Physarum flavicomum* colony on a log (left)(Photo: M. Bouman), fruiting body with the skin beginning to break away (centre), and fruiting body with skin broken and yellow lime visible (right)(Photos: P. McDonald).

We had lunch at the Bulga Picnic Area and, depending on energy left, people completed Fern Gully Track or Scenic Track. Anyone interested in fungi was not disappointed. I photographed about 50 species along Lyrebird Ridge Track and Scenic Track. The recently purchased ring flash did make a difference, but some pictures were still unsuitable for identification due to the dark conditions in the wet forest. I was surprised by the amount of Ascomycota. They are known to be more numerous in species than Basidiomycota, but the last seem to be more common (or should I say visible?) in most of our forests. The split is not much help in the field anyway; Basidiomycota produce their spores on microscopic club-shaped cells, Ascomycota in microscopic sac-like cells.



Insect-egg Slime Mould (Photo: Marja Bouman)

Some of the more easily spotted Ascomycota were Purple Jellydisc *Ascocoryne sarcoides*, Rusty Woodwart *Hypoxylon rubiginosum* and *Trichoderma*. The Purple Jellydisc, which grows on dead logs of Acacia, starts off with little pink lobes that turn into irregularly lobed, gelatinous discs when the fungus matures. Rusty Woodwart forms extensive purple to reddish-purple crusts on decaying wood. According to

literature it favours Pomaderris wood. Trichoderma creates

yellow, cushion-like fruiting bodies. *Xylaria castorea* has dark, club-like fruiting bodies. Adding further colour to the mix was *Chlorociboria*; it has tiny blue-green disc shaped fruiting bodies and stains the wood with a similar colour. The species are difficult to separate as with many fungi – identifying a genus is often the highest reward you can get. In line with that, we further saw Ascomycota in the genera of *Calycina*, *Cheilymenia* and *Hymenoscyphus*.



Purple Jellydisc (Photo: Maria Bouman)



Yellowleg Bonnet (Photo: Marja Bouman)

Looking at Basidiomycota, the Bonnets *Mycena* sp. stood out. I was able to identify seven different species. Close to the carpark I found Yellowleg Bonnet *M. epipterygia*. It grows on dead wood and has yellow-green translucent stems and a white cap. A very common Mycena is Tall Mycena *M. cystidiosa*. It grows in leaf litter and has slender stems up to 20 cm long. On Lyrebird Ridge Track I found several Mycenas including Pixie's Parasol *M. interrupta* with blue caps that look like the iris of an eye – most likely the favourite bonnet of all. Others noted were *M. subgalericulata* which grows in often large colonies on the bark of living trees, and *M. mamaku*, a tiny bell shaped bonnet, that I found growing among moss on a tree. After lunch I added two more bonnets: *M. albidocapillaris* was growing on a small branch.

It is a slender fungus with tiny translucent caps. It can be distinguished from *M. maldea*, which has a strong nitric odour. The last

bonnet I saw was *M. kurramulla* in a sizable colony on a fallen log. It has rosy pink caps and arched gills with a prominent red edge.



Mycena kurramulla (Photo: Marja Bouman)

One last fungus to mention is Orange Coral Fungus *Ramariopsis crocera*. This fungus usually grows in moss and litter, but can occasionally be found on the stems of tree ferns, which is where we found it on Lyrebird Ridge Track.

Marja Bouman

Excursion to Uralla Reserve 23.07.2022

With fine weather for the morning, nine of us enjoyed walking a short loop, via the boardwalk and fern gully. Ken led, pointing out plants of interest and making a mental note of species so that he

could prepare a plant list. He drew our attention to the small whitish patches of the Lichen *Tapellaria phyllophila* that grows only on the leaves of the Tall Sword-sedge *Lepidosperma elatius*. There was some excitement when a Bassian Thrush, apparently gathering nesting material among the shrubs and forest litter, was spotted. A few of us sometimes lagged behind the group to photograph fungi, mosses or ferns.

During our relaxed lunch, two Eastern Yellow Robins provided very pleasant company as they flitted among the bushes and tree trunks around our table. They offered plenty of opportunities for photographs. We decided that a long write-up wasn't warranted, but to offer some of our photographs and the plant and bird lists for inclusion in The Naturalist.



Mature Silvertop Ash (Photo: Helen Culjkovic)

Margaret Rowe

Plant and bird lists for this excursion are available in Appendices I and II.



(a) *Stereum versicolor* (H. Culjkovic), (b) *Ramaria Formosa* (H. Culjkovic), (c) *Dawsonia* sp. (M. Rowe), (d) Eastern Yellow Robin (K. Harris), (e) *Atrichum androgynum*(M. Rowe), (f) *Galerina patagonica* (H. Culjkovic) and (g) *Geastrum* sp. (H. Culjkovic).

Botany excursion to Morwell National Park 30.07.2022



Rosulabryum billardieri (Photo: Margaret Rowe)

A group of twelve set off along the Fosters Gully Track on a cold, sunny winter's day. The sides of the track were carpeted with Fern Moss *Thuidiopsis sparsa*. The abundant layer of moss provided shelter for other tiny plants which were scattered among the moss. As we reached a slightly higher altitude, and the gully was more sheltered, conspicuous clumps of *Dawsonia polytrichoides* decorated the sides of our path. The diversity of mosses increased. Tiny patches of mosses such as *Rosulabryum billarderi* and *Campylopus sp.* could be found sheltering among the Fern Moss and *Dawsonia*. Large fallen logs beside the track were covered with a mat of the Flat Fern Liverwort *Chiloscyphus semiteres*.



Lembophyllum divulsum (Photo: Margaret Rowe)

As we neared and entered Lyndons Clearing, a search of stumps and fallen timber revealed a range of mosses and liverworts. Viewing with hand lenses and cameras added to our appreciation of their beauty. The common name, String-of-Pearls, describes *Lembophyllum divulsum* well. *Racopilum cuspidigerum* can be recognised by paired leaves each side of the stem and an additional row of smaller leaves along the top of the stem. The leaves of *Alleniella hymenodonta* are patterned with corrugations.

Members of our group found two species of moss and one liverwort in addition to those on my original list: Cypress-leaved moss *Hypnum cupressiforme* was one of the few mosses we found with capsules, and we also identified the bright, light green *Breutelia affinis.* The unexpected brownish-green colour, and the plane branching pattern, of small patches of liverwort attracted the attention of others. It was later identified as *Frullania falciloba*. Ken pointed out that this was a new record for the plant list he keeps for Morwell National Park.



Alleniella hymenodonta (Photo: Margaret Rowe)



Frullania falciloba (Photo: Margaret Rowe)

Ferns noted along the walk included Maidenhair Fern, Necklace Fern, Bracken, Sickle Fern, Mother Shield-fern, Gristle-fern and False Bracken. In the gully below the clearing were Kangaroo Fern, Common Filmy-fern and Soft Tree-fern. Other plants of interest were Variable Sword-sedge *Lepidosperma latitudinale* (in this case with unusually fine leaves), Tall Sedge *Carex appressa*, Austral Brook-lime *Gratiola peruviana*, and Blanket Leaf *Bedfordia arborescens*.

Along the track, Ken pointed out the small whitish patches of the Lichen *Tapellaria phyllophila* growing on *Lepidosperma elatius* and told of an occasion when Flying Foxes visited to feed on the purple berries of female Muttonwood *Myrsine howittiana* trees. Berries appear only once every 4 or 5 years. It is amazing that Flying Foxes found this food source when we would assume that Muttonwood trees would be hidden from above by the taller Mountain Grey-gums *Eucalyptus cypellocarpa*.



Breutelia affinis (Photo: Baiba Stevens)

Margaret Rowe

WELCOME TO NEW MEMBERS

The Club welcomes Rose and Mark Breyley from Neerim South, Sharon Bullard from Morwell, Steph Shields from Glengarry North, Sherryn Vardy from Traralgon, Bronwyn Teesdale from Woodside and Margaret Cromb from Castlemaine. We wish you all a long and happy association with us.

Finance

Operating Account: \$2,820.75 Term Deposit: \$22,184.89 (matures 17 Jan 2023)

Business Arising, Correspondence & General Business

- Gippsland FM Radio to start again in Feb 2023, on the third Tuesday, then every second month. Phil has volunteered to be the first interviewee for the year.
- Next year club office bearer positions of President and Vice President will be vacated. We need to think of who
 might like to take up these roles. The roles may be more inviting if there is a maximum term imposed, eg two
 terms (4 years). Although current terms are two years, the culture of very long incumbency has developed and
 this acts as a dampener on people considering the roles.
- Russell Northe is leaving parliament and can no longer offer us free printing of *The Latrobe Naturalist*. Rose to contact his successor following the election and approach their office. We may need to produce the Nov/Dec issue in black and white through Officeworks or similar.
- SEANA Spring Camp Oct 2023 Yarram Country Club will be the program venue, Forest Lodge accommodation for around 36 people. Two speakers so far: David Akers on Tarra Bulga NP, Jack Winterbottom from Heyfield bird group. Phil preparing first draft of excursion program, to circulate early next month for feedback.

Conservation Matters

- Tyers Road bridge replacement waiting for arborist report on how many trees can be saved.
- Biolink Jay asked Tania Ireton if she might talk to the Biolink group about leaf litter. Suzie Zent said there is
 only a certain time of year that koalas eat *Eucalyptus cypellocarpa*. Jay is hoping to get these points on the
 group's agenda.
- Planned burn proposed for Fitzgibbons Rd Tyers Irene has approached Lisa Whitty (Latrobe City) and plans to contact Karla Rutherford (ex-Baw Baw Shire and involved in Uralla burn planning) and Ruth Harper (a botanist from OSMI) for assistance in formulating an opposition.

Thank you to everyone who contributed to The LV Naturalist in 2022. Best wishes for a Merry Christmas and a safe and happy New Year to all our members, their families and friends.

Latrobe Valley Naturalist is the official publication of the Latrobe Valley Field Naturalists Club Inc. The Club subscription includes the "Naturalist".

Brief contributions and short articles on any aspect of natural history are invited from members of all clubs. Articles, including those covering Club speakers and excursions, would typically be around one A4 side in length, should not exceed 1,000 words, and may be edited for reasons of space and clarity. Photos should be sent as an attachment and be a maximum of 1 megabyte in size.

Responsibility for the accuracy of information and opinions expressed in this magazine rests with the author of the article.

Contributions should be addressed to:

Ms Tamara Leitch The Editor LVFNC Inc. PO Box 839 TRARALGON VIC 3844 Phone: 0438 372 186

Email: tleitch@wideband.net.au

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Deadline for articles to be considered for inclusion in the next issue (Jan-Feb): 1 February 2023

APPENDICES

APPENDIX I – Plants recorded during the Club's excursion to Uralla Reserve, 23 July 2022 (K. Harris)

Lichens

Pilocarpaceae	Tapellaria phyllophila	
Mosses		
Bryaceae Lembophyllaceae Polytrichaceae Polytrichaceae Racopiliaceae Thuidiaceae	Rosulabryum billarderi Lembophyllum clandestinum Atrichum androgynum Dawsonia sp. Racopilum cuspidigerum Thuidiopsis sparsa	String-of-pearls
Liverworts		
Lophocoleaceae	Chiloscyphus semiteres	
Ferns		
Aspleniaceae Blechnaceae	Asplenium flabellifolium Blechnum cartilagineum Blechnum nudum Blechnum patersonii	Necklace Fern Gristle Water-fern Fishbone Water-fern Strap Water-fern
Cyatheaceae Dennstaedtiaceae	Cyathea australis Hypolepis glandulifera Pteridium esculentum	Rough Treefern Downy Ground-fern Austral Bracken
Dicksoniaceae	Calochlaena dubia Dicksonia antarctica	Common Ground-fern Soft Tree-fern
Dryopteridaceae Hymenophyllaceae Pteridaceae	Polystichum proliferum Hymenophyllum cupressiforme Pellaea falcata Pteris tremula	Mother Shield-fern Common Finger-fern Sickle Fern Tender Brake
Monocotyledons		
Asparagaceae Cyperaceae	Lomandra longifolia ssp. longifolia Carex appressa Gahnia radula Lepidosperma elatius	Spiny-headed Mat-rush Tall Sedge Thatch Saw-sedge Tall Sword-sedge
Poaceae	Tetrarrhena juncea	Forest Wire-grass
Dicotyledons		
Apiaceae Araliaceae Asteraceae	Hydrocotyle hirta Polyscias sambucifolia Bedfordia arborescens Cassinia aculeata	Hairy Pennywort Elderberry Panax Blanket-leaf Common Cassinia

Bignoniaceae Caprifoliaceae Caryophyllaceae Convolvulaceae Epacridaceae Fabaceae

Geraniaceae Gesneriaceae Goodeniaceae Lamiaceae Myrsinaceae Myrtaceae

Pittosporaceae Ranunculaceae Rhamnaceae Rubiaceae Solanaceae

Thymeliaceae Urticaceae Urticaceae Violaceae Cassinia longifolia Olearia argophylla Olearia lirata Sigesbeckia orientalis Pandorea pandorana Sambucus gaudichaudiana Stellaria flaccida Dichondra repens Epacris impressa Acacia melanoxylon Acacia mucronata Acacia stricta Acacia verniciflua Acacia verticillata Geranium sp. Fieldia australis Goodenia ovata Prostanthera lasianthos Rapanea howittiana Eucalyptus cypellocarpa Eucalyptus obliqua Eucalyptus sieberi Kunzea ericoides subsp. agg Pittosporum undulatum Clematis aristata Pomaderris aspera Coprosma quadrifida Solanum aviculare Solanum prinophyllum Pimelea axiflora Australina pusilla subsp. muelleri Urtica incisa Viola hederacea

Shiny Cassinia Musk Daisy-bush Snow Daisy-bush Indian Weed Wonga Wine White Elder-berry Forest Starwort Kidney-weed Common Heath Blackwood Narrow-leaf Wattle Hop Wattle Varnish Wattle Prickly Moses Geranium Fieldia Hop Goodenia Christmas Bush Muttonwood Mountain Grey-gum Messmate Silver-top Burgan Sweet Pittosporum Australian Clematis Hazel Pomaderris Prickly Currant-bush Kangaroo Apple Forest Nightshade **Bootlace Bush** Shade Nettle Scrub Nettle Ivy-leaf Violet

APPENDIX II – Birds recorded during the Club's excursion to Uralla Reserve, 23 July 2022 (M. Rowe *et al.*)

Australian Raven Australian Wood Duck Bassian Thrush Crimson Rosella Eastern Whipbird Eastern Yellow Robin Grey Shrike-thrush Laughing Kookaburra Lewin's Honeyeater Sulphur-crested Cockatoo Thornbill sp.

White-throated Treecreeper