

THE QUEENSLAND MYCOLOGIST



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The Queensland Mycological Society

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Society Objectives

The objectives of the Queensland Mycological Society are to:

1. Provide a forum and a network for amateur and professional mycologists to share their common interest in macro-fungi
2. Stimulate and support the study and research of Queensland macro-fungi through the collection, storage, analysis and dissemination of information about fungi through workshops and fungal forays
3. Promote, at both the state and federal levels, the identification of Queensland's macrofungal biodiversity through documentation and publication of its macro-fungi
4. Promote an understanding and appreciation of the roles macro-fungal biodiversity plays in the health of Queensland ecosystems
5. Promote the conservation of indigenous macro-fungi and their relevant ecosystems.

Membership

Membership of QMS is \$25 per annum, due at the beginning of each calendar year, and is open to anyone with an interest in Queensland fungi. Membership is **not** restricted to people living in Queensland. Membership forms are available on the website, <http://qldfungi.org.au/>.

Please notify the membership secretary (memsec@qldfungi.org.au) of changes to contact details, especially your email address.

The Queensland Mycologist

The Queensland Mycologist is issued quarterly, **but issues will be combined if there is insufficient material for four**. Members are invited to submit short articles or photos to the editor for publication. It is important to note that it is a newsletter and not a peer-reviewed journal. However we do aspire to high standards of accuracy and there is an extensive review process.

Material can be in any word processor format, **but not PDF**. The deadline for contributions for the next issue is **30 April 2024**, but if you have something ready, please send it **NOW!** Late submissions may be held over to the next edition, depending on space, the amount of editing required, and how much time the editor has, or the newsletter may come out late. Email contributions to the secretary.

Photos should be **submitted separately at full-size** to allow flexibility in resizing and cropping to fit the space available while minimising loss of quality. Authors who have specific preferences regarding placement of photos should indicate in the text where they want them, bearing in mind that space and formatting limitations may mean that it is not always possible to comply. Material from published sources (including internet sites such as Wikipedia) may be included **if that complies with copyright laws and the author and source are properly acknowledged**. However extensive verbatim copying is not acceptable.

Cover Illustration

Lycogala sp. from the Maroochy Wetland Sanctuary. © Charmaine Thomas

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QMS activities

Meetings

Meetings are held on the second TUESDAY of the month at the Queensland Herbarium, Mt Coot-tha, from 6:30 – 8:30 pm.

Meetings are held monthly from February (no January meeting), unless otherwise scheduled. **Check the website for details and any changes.** There are typically 3-4 guest speakers invited during the year, with the other meetings informal. Suggestions from members for topics or names of potential speakers will be welcome at any time. Please contact a member of the Committee.

We like to publish notes from presentations in the *Queensland Mycologist*. However, the notes never do justice to the topic as they do not reflect the enthusiasm of the speaker or cover the discussion that follows, and not all talks are written up for the newsletter. If you do present at a meeting, a summary of that presentation that can be turned into a newsletter article will be greatly appreciated. But it is better to attend the meetings, get the information first hand, and participate in these invaluable information sharing opportunities.

Forays

QMS holds regular forays during the first half of the year. The dates are nominally the 4th Saturday of the month, but actual dates may vary and additional forays may also be held. Field trip details may change as a result of drought or other unforeseen circumstances. Check the website for changes.

Members are invited to suggest venues for additional forays. If you have any suggestions, (and especially if you are willing to lead a foray), please contact Wayne Boatwright or another member of the Committee.

Workshops

What do you, our members, want to learn more about that could be presented in a workshop? QMS is always on the lookout for workshop ideas. Members are encouraged to suggest topics, whether new or reruns of past workshops. Send your ideas to Wayne Boatwright (info@qldfungi.org.au).

Details of workshops will be included in newsletters and on the QMS website as they become available.

The Australasian Mycological Society

A reminder that the Australasian Mycological Society is well worth joining.

Their home page is at: <https://www.australasianmycologicalsociety.com/>

They also have virtual seminars. For more information visit the website.

QMS Program 2024

MONTH	MEETINGS	FORAYS/WORKSHOPS
The tentative schedule for the first half of 2024 is listed below. Meeting speakers yet to be determined. Look out for emails from Wayne Boatwright and Richard Zivkov for updates on meetings and forays.		
February	13: Speaker TBA	10: Bellthorpe 23-25: Residential Foray
March	12: Speaker TBA	9: Daisy's Place 23: Annie Hehir
April	9: Speaker TBA	20: Mt Cordeaux
May	14: Speaker TBA	11: Linda Garrett 25: Ben Bennett
June	11: Speaker TBA	8: Maroochy Bushland 29 Binna Burra

Editor's Comments

A short Newsletter this time round, as that is all the usable material I have. The next issue will be June 2024.

Fran Guard, with colleagues, has describe another *Marasmius* species from Australia. It will be no surprise to me if more new species of these tiny fungi are found now that Fran is working on them.

Vanessa Ryan attended the Jondaryan Biodiversity Survey back in October, and has written that up.

Many thanks to both authors. I know there have been several forays and workshops that could have been written up. Articles don't have to be long, just

give an idea of what was found, or even just highlights. We do like to have reliable names (genera at least) applied to photos. While often not possible, unfortunately, it is worth making some effort in that direction.

A new bolete genus from Queensland is *Kgaria*:

Halling, R.E., Fechner, N.A., Holmes, G and Davoodian, N (2023) *Kgaria* (Boletaceae, Boletoidae) gen. nov. in Australia: Neither a *Tylophilus* nor a *Porphyrellus*. *Fungal Systematics and Evolution* 12: 31-45.
doi.org/10.3114/fuse.2023.12.02

Marasmius australotrichotus **F.E.Guard, Dearnaley & T.Lebel** ***sp. nov.***

A new species for Queensland

Frances Guard

For anyone searching for fungi next season, if you are in the tropics or subtropics, look out for this species which now has the name *Marasmius australotrichotus*. On first impression, you may think it is an under-nourished *M. elegans* on a skinny stem. However, on closer examination, it can be seen that the cap is covered in fine velvety hairs and the stem has a hairy appearance on its full length. This small orange mushroom grows on leaf litter in wet sclerophyll forest and also on lawns, road verges and even mulched garden beds. It may be solitary or gregarious. We and others have found it in Davies Creek NP, Redlynch and Trinity Beach in Far North Queensland, Townsville Town Common, and The Gap and Fort Bushland Reserves, Indooroopilly and Mt Coot-tha suburban gardens in South East Queensland; and in the Northern

Territory. It is not uncommon, but it has been misnamed *M. elegans* on *iNaturalist*.

Interestingly the 'hairs' are actually bristles called 'setae' (sing. 'seta'); bristly (setose) species of *Marasmius* occur across the world in odd places. The first one to be described was *M. trichotus* from Singapore in 1996 ('trichotus' means hairy). That species has now been found in Papua New Guinea and Thailand. A closely related species, that is still called *M. aff trichotus* occurs in India. The next relative came to light in Argentina, and as it is in the neotropics, it was named *M. neotrichotus* (2018). After that, one was found on the volcanic islands of São Tomé and Príncipe in the Gulf of Guinea, west Africa. Its DNA shows it to be a sister species to *M. trichotus* so it was named *M. paratrichotus* (2019). Amazingly, that species has now been found to occur on Christmas Island and in the Kimberley, WA. It could occur right across the Australian Monsoon Tropical biome – so definitely one to look out for in the wet season up north. See Image below. If its distribution is found to overlap with *M. australotrichotus*, which has been found near Darwin, it would be a little difficult to separate the

two in the field. Naturally, the new Australian species had to have a name to recognise its southerly global distribution. Hence the choice of *M. australotrichotus*, where 'australis' is Latin for southerly. Its molecular sister species is *M. neutrichotus*, so the family connections circle the globe.

The images show both species published online in *Nuytsia* 26 Oct.2023.
<https://florabase.dbca.wa.gov.au/nuytsia/>.

Note that there is a Corrigendum to the paper in the same issue which supplies data missing from Table 1 in the original paper.

Full descriptions of *M. australotrichotus* and *M. paratrichotus* can be found in *Nuytsia*, and on Fungi of Queensland on the QMS Website: qldfungi.org.au.

The images below are those used in the description in *Nuytsia*, and the captions are edited versions of the originals.



M. australotrichotus spore bodies. Scale bar = 10mm.
 Left inset image of stipe. Scalebar = 2mm.
 Right inset images of pileal surface and lamellae. Scale bar = 10mm. Photos F.E. Guard.



M. paratrichotus
 A - spore bodies in situ, scale bar =10 mm
 B - pileosetae. Scale bar=10 µm. Photos N.L. Bougher.

Biodiversity Survey, Jondaryan

6-8 October, 2023

Vanessa Ryan

“The inaugural intensive survey of biodiversity in the Jondaryan area was held over the weekend of 6-8 October, 2023. Jondaryan is a small town located on the Warrego Highway 45 km west of Toowoomba. The survey was the initiative of Habitat Jondaryan, an informal consortium of stakeholders that seeks to promote and achieve the conservation and enhancement of woodland and other habitats in the Jondaryan area. The objective was to expand and deepen the collective knowledge of Jondaryan’s biota, and to create a baseline on which to inform best-practice management of the area’s woodland, grassland and creek-line habitats.

The study area extended about 3.5 km in radius from the centre of the Jondaryan township and consisted of four properties of 5 to 35 hectares, plus some highway and council road reserves. One was the Myall Park Nature Refuge located on private land next to a golf course and another was a former recreation ground that was unallocated state land at the time (the old cricket ground); the others were private land used intermittently for cattle grazing.



Surveying of the old cricket ground begins. © Vanessa Ryan

All surveyed areas held stands of woodland dominated by yarran *Acacia melvillei* and/or weeping myall *A. pendula*, often with some poplar box *Eucalyptus populnea*, belah *Casuarina cristata*, brigalow *A. harpophylla* and/or wilga *Geijera parviflora*. Considerable natural regeneration of these trees/shrubs has occurred. Grassland

containing a mix of native and exotic species was present to varied extent on three of the survey areas.

The survey brought together participating landholders, renowned experts in plants and vertebrate and invertebrate animals, and additional recruits were secured from local organisations – Toowoomba Bird Observers, BirdLife Australia (Darling Downs group) and Toowoomba Field Naturalists. It was not a monitoring exercise, so varied levels of knowledge and field skill were welcome. All participants were volunteers.ⁱ

Briefing sessions and sign-ons were held each morning at the Jondaryan Woolshed, where many of the participants obtained accommodation indoors or by camping.

The 32 participants were organised into five teams, each of up to eight members, with primary focus on birds (2 teams), insects, plants, and reptiles. At least one recognised expert was assigned to each team.

In view of the number of participants, size of properties and access considerations, each team was sent to two properties each day over three days, covering four in total with some replication. Additional activities including nocturnal searches and trapping were conducted at one site; Myall Park Nature Refuge.



Myall Park Nature Refuge. © Vanessa Ryan

Records of species were documented according to Queensland or national protocols; bird records were stored using BirdLife’s mobile phone app, Birdata. At the request of some landholders, records from their properties were marked as private or otherwise not disclosed to the wider public until the landholder had reviewed the records. No vertebrates were collected

ⁱ Initially the event was called a “bioblitz” but, as this might imply a funded activity, it was later changed to “biodiversity survey”.

and in the end it was not possible to conduct bat surveys. Some insects, plants, fungi and lichens were collected to enable identification in the laboratory. All participating experts held the necessary permits and approvals for their survey work.

The general view of organisers, leaders, experts and other participants was that the 2023 Jondaryan biodiversity survey was a successful exercise and that further such events would be well worth considering. Dry conditions enabled easy access to all survey areas and although windy at times, weather during the event did not have major negative impact on the outcomes. Future events of similar type would be desirable late in the wet season (March-April), to record plant, insect and other species that were not detected in the dry conditions of October 2023.”

I put together the above quoted text from some of the circulars and reports sent out by the organisers of the survey. Thanks to Rod Hobson and Roger Jaensch for allowing me to reproduce their material here as it sums up the event beautifully.

I was a member of the “plants” team and was responsible for the fungi and lichens during the survey. The following is my preliminary report on what was found:

“A total of 75 collections of lichens and four of fungi were made using the methods prescribed by the Queensland Mycological Society and Queensland Herbarium at the four target properties, a road reserve and the Woolshed. These collections represent (approximately) 27 lichen species and four macrofungal species. Two additional macrofungal species were observed but not collected due to the specimens' poor condition.

The majority of lichens were growing on bark, two were on rock, and two were growing on other lichens. Twelve of the lichen species were crustose in form, six placoidial, five foliose, three fruticose and one leprose. Of the fungi, five were on wood and one on horse dung. Two were polypores (*Phellinus* and *Pycnoporus* spp.), two agarics, one bird's nest (*Cyathus* sp.) and one specimen unknown due to being immature. All fungi were saprophytic (rotters) in nature.

Lichens are present all year around, but many fungi only fruit after significant rain. Ideally, another



Cyathus sp. © Vanessa Ryan

investigation for fungi should be made during the wet season (March-April).”

The lack of fungi had been expected as it had been so very, very dry. It was so dry that everyone – locals and visitors alike – were extremely worried about bushfires, and rightfully so as parts of the Western Downs were ablaze only a couple of weeks later.

The aridity of the air had an effect on my lichen collecting. Lichens rely directly on their surroundings for water and tend to match the moisture levels of their immediate environment – so if the air is dry, they also become dry. A small number of the foliose lichens I attempted to collect were so dry that, as I carefully scraped them from their bark substrates, they crumbled into tiny fragments.

As also mentioned in the organisers' report, it was very windy at times. Frustratingly, more of my attempted collections were lost as they gaily sailed away into the unknown on a perfectly timed gust.

I was a little disappointed that I couldn't collect many saxicolous lichens – lichens that grow on rocks. It wasn't because there was a lack of lichens – there were lots – it's because there was a significant lack of rocks in the places I was collecting.

Since there was a (deliberately) limited number of people participating in the survey, we were asked if we could help out the other teams by reporting to them anything of their interest that we might have seen. I dutifully photographed a skink (later identified as an elegant snake-eyed skink, *Cryptoblepharus pulcher pulcher*), a grasshopper (bark-mimicking grasshopper, *Coryphistes ruricola*), and the egg case of a preying mantis (large brown mantid, *Archimantis latistyla*).

A number of times over the weekend I was shyly approached by fellow volunteers who had, in turn, collected a lichen for me. The following interaction usually ran along the lines of: "Have you seen this before?" and I'd be handed a twig with little clumps of what looked like bright orange fluff growing on it. "Yes," was my response. "It's a pretty little *Teloschistes*. Thank you!" Now, I'd only seen of few tufts of this particular lichen during my own exploration of the sites. However, from the number of specimens that were collected over the weekend, anyone could be forgiven to think that the area was dripping with the stuff. This was a perfect example of sampling bias. These lichens are typically bright orange in colour and bushy in shape – quite different to the predominant white and grey crusts and foliose lichens – and so they naturally caught a collector's attention.



Teloschistes sieberianus. © Vanessa Ryan

On the last day of the survey, another fellow team member excitedly handed over a stick covered in a magnificent collection of lichens. "Isn't it wonderful!" she exclaimed. "Do you know what it is?" It took me a moment to focus from the many onto what would be, to the untrained eye, the star attraction. She was referring to the largest of the lichens perched atop the twig. It was a *Ramalina* species, one with very broad and long lobes scattered with dainty perforations and abundant white apothecia. "It's a *Ramalina* and it's absolutely awesome", I responded. "But look here... all these other lichens growing with it are also great to have! Thank you so

much!" I was rewarded with a surprised and slightly puzzled look, so I began pointing the lichens out, slowly rotating the stick and counting as I went... "One, two, three, four, five..." She peered at the lichens, her eyes widening in curiosity. "Oh?" She had been so focused on the huge tuft that she hadn't noticed all the fuzzes, crusts and smaller leafy lichens that also inhabited the stick. She then laughed. "Oh!"



The tuft at the top of the magnificent stick. © Vanessa Ryan

I am extremely grateful to those fellow volunteers who took the time to collect fungi and lichen specimens for me. A couple of people in particular showed a keen interest in learning more about fungi and lichen and I did my best to answer their questions.

Everyone was so friendly and helpful and I was greatly impressed by how extremely well organised the event was.

The final, detailed report is due to be given early in 2024. I have begun the long, often difficult process of attempting to identify the few fungi and all the lichens. There are a *lot* of lichens, but I suspect there are multiple samples of the same species collected from across all the sites. That should (hopefully!) make the task a little easier.

If I should be invited to participate in the next Jondaryan survey, I will be sure to accept. I only hope that next time it won't be anywhere near as dry. Or windy!