October 2016

AUSTRALIA'S FUNGI MAPPING SCHEME

fungimapnewsletter 56

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FUNGIMAP COORDINATOR'S REPORT

Sapphire McMullan-Fisher

I must be aging — this fungi season seems to be the busiest since the La Niña years of 2010-2012 when there just seemed to be endless fungi popping up. Possibly this is due to changes in my perception thanks to all the wonderful fungi Facebook groups that mean I have been able to voyeuristically appreciate the fungi season from all around the country. For a list of the different fungi groups across Australia see:
http://fungimap.org.au/index.php/get-involved/regional-groups.
Feel free to send us information on your group as we will be updating the groups and events pages in Feb 2017.

This Newsletter includes a report from the Fungimap Conservation & Biodiversity Subcommittee. Updates from this year include Fungimap's invitation to contribute to the national State of the Environment Report, currently in preparation.

Also on the conservation front: Fungimap received funding from the Victorian Government Threatened Species Protection Initiative Project for a project to help save Tea-tree Fingers (*Hypocreopsis amplectens*). The title of the project is: 'Develop surveys, training and data collection systems to improve the conservation status of Tea-tree Fingers'. Tea-tree Fingers is the only macrofungus listed under the Victorian Flora and Fauna Guarantee Act. The good news is that surveys and identification materials have been developed and are in the process of being tested and will be available in October on the Fungimap website. The sad news is that despite several surveys this year at all known sites and in seemingly suitable habitat elsewhere, Tea-tree Fingers has only been found at one of the three original sites and as yet no new sites have been found. This means that this species should now be considered 'critically endangered' with only two reproductive individuals being observed this year at the Grantville site. We think it is essential that we somehow find the funding and support to save this species before it becomes extinct.

Fungimap Newsletter 56 includes an article about one of our volunteers - one of the team who do most of the work at Fungimap. The Fungimap Coordinator's role is to support volunteers, including training, health and safety, project management and guidance. We are

hoping to highlight the contributions of other volunteers in upcoming editions. With decreases in funding the time for the Coordinator role is limited so we know that if we are to continue we will need to rely more on volunteer efforts. The trick will be in finding a balance between support for volunteers and other aspects of the Coordinator role such as supporting financial management (including membership and shop sales), supporting the management committee and coordinating the myriad of threads that help Fungimap function and communicate. In the next issue I will put out a volunteer job description about helping Fungimap update and maintain the website. This responsibility was part of the Fungimap Data Coordinator role but unfortunately we have not been successful in finding ongoing funding for that role, so we are looking for help. If you think you can help feel free to contact me.

It has been a good year for fungal events in Australasia with the successful three days of the 2016 Australasian Mycological Society / Fungal Network of New Zealand scientific conference in Queenstown, New Zealand, followed by the New Zealand Fungal Foray at Glenorchy.
The conference included a free workshop day on 'Red-listing of Fungi in Oceania', chaired by Tom May (Royal Botanic Gardens Victoria), Peter Buchanan (Landcare Research) and Sapphire McMullan-Fisher. There was also a workshop on 'Australasian Mycology Education' chaired by Sapphire McMullan-Fisher and John Dearnaley (University of Southern Queensland) that focused on ways of improving on the dearth of mycological teaching, particularly in the tertiary sector, in Australasia.

Recently, there have been two fungi events in NSW. We are delighted that Pam O'Sullivan has sent us a regional report so we can hear about the weekend at Wangat Lodge, near Barrington Tops. This was so successful, it was followed up with a second truffling event.

Fungimap has been directly involved in two series of events this year. There was a series of Fungimap events and an expedition in northern Tasmania, organised and coordinated by Fungimap. There was also a series of events in the Adelaide Hills in June 2016. For the South Australian events, I was invited and supported to attend by the organising group Sturt Upper Reaches Landcare Group. To find out more about these events read the Fungimap Events Report and the article by Wendy Ring in this issue.

Finally I want to bring to your attention the theme of our next Newsletter, which is going to be a special issue exploring edibility of fungi in the Australasian context. In the past, Fungimap has focused on understanding and conserving our native fungi. We have been reticent to directly tackle 'edibility issues' due to the legal and identification issues but as there is increasingly a local 'foraging' movement, we would like to encourage open discussion around edibility and use of wild fungi.

You can contact me about any points raised above at: info@fungimap.org.au.

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Call for content: 'The Edibility Issue'

Edibility is one way that many people connect to fungi. There is growing interest in collecting and consuming wild fungi in Australia.

The next issue of Fungimap Newsletter will be a special issue on the theme of edibility. The purpose of this special issue is to provide a forum for discussion of issues around edibility of Australian wild fungi, including mushrooms for cooking and also collection of fungi for medicinal use.

Issues include:

- How do we know which species are edible and which are toxic?
- What is the appropriate answer to 'Can I eat that fungus'?
- Is there a need for regulation of wild-collected fungi?
- Sustainability, including over-harvesting and damage to ecosystems during collecting activities
- Should field guides indicate edibility?
- Are permits required to collect wild fungi?
- Is 'foraying' compatible with 'foraging' to collect for the table?
- How do fungi groups engage with people interested in eating wild fungi?

Articles should be one to two pages (maximum 1000 words), ideally accompanied by one or several images. Images can be in colour and should be 300 dpi at publication size (usually 8 cm wide, to fit one column). The print version will be in black and white, but the pdf version will be produced in colour. See guidelines for more information https://www.fungimap.org.au/index.php/newsletter-guidelines.

Please submit articles to: info@fungimap.org.au by 1 November 2016. Do contact us in the meantime if you have an idea for an article on the issue of edibility.

FUNGAL FIZZ

Alison Pouliot

Diverse and delightful fungi enrich the Wombat Forest yet many of them don't have names. However, even with nameless fungi, we can often recognise a familiar species, not necessarily by specifics, but from an overall generalised impression. Birdwatchers call this jizz, in reference to birds. Jizz combines learned and intuitive knowledge, focussing on the bigger picture of form, movement and habit, more so than particular details. No equivalent term exists for fungi.

Poor appreciation of fungi relative to animals and plants is reflected in the lack of language to describe them. As one might expect, the weaker the cultural connections to fungi, the fewer the fungal words in that culture's language. Historically, Australians are not typically mycophiles and consequently fungal words in the English vernacular are scant. There are no collective nouns, for example, for fungi. Even the names for a mushroom's parts are less well known than those of a flower. Given the growing interest in fungi, it's time to expand our fungal vocabulary.

In this article, I propose a new addition to the fungal lexicon – FIZZ – as a contraction of fungal jizz. Like jizz for birds, the fizz of a fungus could include gestalt plus elements such as form, growth pattern, texture, smell, habitat, 'behaviour,' along with all the things that tell us it's not something else. Fizz is a distillation of what we cognitively understand and intuitively feel about a species. Fizz develops from lived experience, from daily wandering and intimate liaison with fungi over extended periods. Every fungal moment fosters fizz. Familiarity allows us to interpret limited information in a meaningful way – through looking, sensing, absorbing, repeating, recognising patterns, trends and relations and laying down memory. Very

slowly, one's brain becomes fungally infected with fizz.

Learning to recognise fungi requires awareness of fizz, tuning to the senses and instinct, along with scientific understanding. It requires a shift from looking to seeing and then sensing and feeling more broadly. It is about conscious tuning to affordances, subtleties and nuances, presences and absences, tracks and traces. Many of us know the experience of recognising a familiar fungus, even if we can't name it. Although it might not look like the idealised illustration in the field guide or has been distorted by age and lost its characteristic colour or smell, it is fizz that reveals it.

Fizz comes from jizz, but where did jizz come from? The etymology of jizz is uncertain, particularly whether it should be called giss or jizz. Some birdos suggest that giss was originally a military acronym for General Impression of Size and Shape in reference to aircraft and has been borrowed by the birding community. However, others claim the term is older dating back to 1922 when it was first used by Thomas Coward in his book Bird Haunts and Nature Memories. Others still posit that it is a corruption of the similarly meaning words, guise, gist or gestalt, or a contraction of 'just is', as in the assured answer to, 'why is that bird X?' Jizz also has rather an unfortunate homonym. The unscrupulous organisation known as Google delivers its highly censored take on the world via its search engine, yet still spits out over a hundred million hits on another more pornographic take on the word jizz. But let's not linger and focus on fizz.

Jizz and fizz are very helpful terms. These short and punchy words carry incredibly useful and evocative meanings. The catchall German word, Gestalt, for which there is no real equivalent in English, partly captures fizz. But fizz goes further than just gestalt or form or habitat and is often an amalgam of ill-defined or incomplete aspects of a fungus that capture its essence, allowing us to recognise it is as perhaps regal or elegant or enchanting. Fizz grows from time and patience and keen observation. You can't recognise a fungus from its fizz unless its traits and patterns, its vibe, are infused in your being. The best way for fizz to flourish is to first familiarise oneself with more frequently encountered fungi. It is fizz that allows one to spot a clump of Ink Caps, *Coprinus comatus*, at a distance and instantly recognise them. However, for many fungi, fizz is useful for getting to the level of genus rather than species. And unfortunately, even fizz is unlikely to help with the notorious little brown mushrooms. But oh look, it's that time again. I think I'll fix myself a gin fizz...

The Ink Cap, *Coprinus comatus*, in one of its many guises that mushroom into fizz. (Image: A. Pouliot)

[This article is reprinted from *Wombat Forestcare Newsletter 37*, with thanks.]

Getting hooked on fungi: Sally Green's crochet mushrooms

Brian Clauss

Who doesn't love a good crafty afternoon: Sally Green of Drouin West does and she's taken it one step further. Green has been a member of the Field Naturalists Club of Victoria for many years and used that interest in nature combined with her skill in craft to recreate one group in particular, fungi. What medium? Surprisingly enough, yarn. Rather than the pencil or a paintbrush of traditional fungi diagrams, Green wields a crochet hook (Fig. 1).

Figure 1. Sally Green hooking into mycelium, with her ginger cat (Image: Sally Green).

Her recreations of several fungi are surprisingly accurate, even including the volva and detailed lattice structures on Victorian stinkhorns (Fig. 2) and the veil found on some agarics. Green so far has recreated over a hundred different species, including the fruiting bodies of all 100 target species in Fungi Down Under (the Fungimap guide to Australian Fungi).

Figure 2. Crocheted versions of various stinkhorns, family Phallales, including *Itajahya hornseyi* (centre, tallest fruiting body) (Image: Sally Green).

This Victorian naturalist then took her interesting hobby one step further, creating not only the fruiting bodies of fungi but also their underground vegetative state in a spatially accurate display of several fungi for the Fungimap 8 Conference. Her first obstacle was figuring out what to use as the substrate her fungi would 'grow' on, eventually settling on a board of wood covered in green yarn grass (Fig. 3).

Figure 3. Assembly of the wood and yarn substrate (Image: Sally Green).

After she had a substrate she needed to decide how to replicate the filamentous fibres of the fungi's mycelium. She did so by creating a ring of yarn and incorporating offshoots along that ring which spread into a network of fibres (all of which were still biologically accurate in colour) (Fig. 4, 5).

Figure 4. Mycelium attached to the underside of the substrate: Fairy Ring Mushroom *Marasmius oreades* with grey mycelium, Wood Blewit *Lepista nuda* with mauve mycelium and white mycelium for the Fly Agaric *Amanita muscaria* (Image: Sally Green).

Figure 5. Lining up of fruiting bodies with correct mycelium (Image: Sally Green).

The fruiting bodies were no problem for Green after her extensive work on other fungi species. Once she had them put together to her satisfaction all that was left to do was assemble the whole display, using wire to maintain support through the stipe (Fig. 6, 7 overleaf).

Acknowledgements
This article was written by Brian Clauss, a volunteer at Royal Botanic Gardens Victoria. Special thanks to creative naturalist Sally Green for the use of her story and for providing photos of the steps involved in producing the display of crocheted fungi for

Fungimap 8. Sally thanks Pat Grey for supplying a description of *Itajahya hornseyi* upon which to base the crochet of that species.

Figure 6. Assembled display showing mycelium and fruiting bodies of (left to right) *Lepista nuda, Marasmius oreades* and *Amanita muscaria* (Image: Sally Green).

Figure 7. Finished display exhibited at Fungimap 8 (Image: Sally Green).

Purple splash fungi in Australia – there are three species!

Richard Robinson
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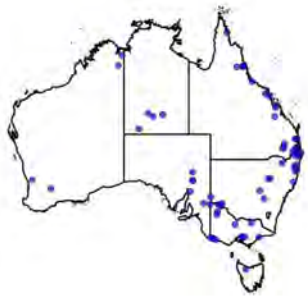
Throughout Australia there are three fungi commonly referred to as the 'purple splash fungus'. Superficially they are very similar, but when examined closely they are very different. The species referred to are the pored *Trichaptum byssogenum* and *Ceriporia purpurea* and *Phlebiopsis crassa*, the latter with a smooth underside. All three have a chequered taxonomic history resulting in long lists of synonyms. *Trichaptum byssogenum* has been stable for some time, but recent taxonomic revisions have resulted in both *C. purpurea* and *P. crassa* being shuffled around a number of different genera. *Phlebiopsis crassa* has been included in *Porostereum, Hjortstamia* and *Lopharia* and *C. purpurea* in *Poria, Polyporus, Physisporus, Meruliopsis, Merulioporia* and *Gloeoporus*. The lists of synonyms for all can be viewed on the Index Fungorum website at http://www.indexfungorum.org/. Current names used on the Atlas of Living Australia (ALA, 2016) website are *T. byssogenum, C. purpurea* and *Hjortstamia crassa* (for *Phlebiopsis crassa*).

Both *T. byssogenum* and *P. crassa* have an overlapping distribution in mainland Australia, but are rarely recorded in Tasmania. *Ceriporia purpurea* appears to have only been recorded in Tasmania (ALA 2016) and Victoria (see image below, data from this collection not yet in ALA) but could be more widespread than indicated by the few records. The similarity in appearance of the three species has probably led to some confusion and misidentification of many records and collections. Particularly for the two species with pored undersides (*T. byssogenum* and *C. purpurea*) existing maps may be misleading.

While it is difficult to find information on the internet on these species in Australia, excellent morphological descriptions including the microscopic features of Australian collections of both *T. byssogenum* and *P. crassa* are published in Cunningham (1965, as *T. venustum* and *T. versatile*) and Cunningham (1963, as *Lopharia crassa*) respectively. For a detailed description of *C. purpurea*, see Ryvarden and Melo (2014) or Breitenbach and Kränzlin (1986).



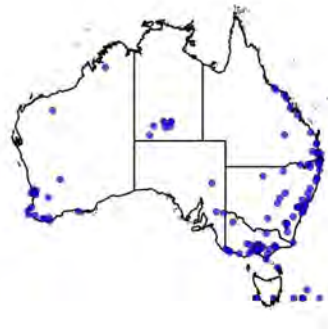


Trichaptum byssogenum **fruit body from Western Australia (left, centre) and distribution within Australia (right). Photo R. Robinson, map from ALA (2016).**



Ceriporia purpurea **fruit body from Victoria (left, centre) and distribution within Australia (right). Photo T. May, map from ALA (2016).**





Phlebiopsis crassa **fruit body from Western Australia (left, centre) and distribution within Australia (right). Photo R. Robinson, map from ALA (2016).**

All three species form purple-pink to purple-mauve resupinate (flat) fruit bodies on the underside of dead twigs, sticks and small logs on the ground. When immature they can vary in colour with creamy or buff tones and have a whitish woolly or filamentous margin 1-3 mm wide. As they develop and mature, however, *T. byssogenum* and *C. purpurea* become darker in colour and develop a **pored** hymenium (fertile layer) while *P. crassa* becomes mauve or pale violet and retains its thin **smooth** or pubescent (finely hairy) hymenial features. Older specimens of *P. crassa* may also develop areolar (thin open honeycomb-like) or lacy patches.

While *T. byssogenum* and *C. purpurea* are difficult (or impossible) to separate on macromorphological characters, they have microscopic features that differ. Both species have 4-spored clavate to subclavate basidia about 10-25 µm long, that produce smooth hyaline spores. However, spores of *T. byssogenum* are ellipsoid (football-shaped) and 4–5.5 x 1.5–2.5 µm while those of *C. purpureum* are allantoid (sausage-like) and 5–7 x 2–2.5 µm. Additionally, elongated club-shaped metuloids (crystal encrusted hyphal tips) protrude slightly from the fertile surface (inner walls of tubes forming the pored surface) of *T. byssogenum*, but are not evident in *C. purpurea*. The spores of *P. crassa* are

also ellipsoid (5–8 x 3–4 µm) but are slightly larger than those of *T. byssogenum* and the surface also has metuloids, but they are scattered, spindle-shaped and protrude to 35 µm (see Cunningham 1963, 1965).

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Fungimap Conservation & Biodiversity Subcommittee: 2014-2016

Sapphire McMullan-Fisher and Tom May

One of Fungimap's aims is 'To promote the conservation of Australian fungi.' One way we are trying to achieve this is though our Conservation & Biodiversity Subcommittee (CBS). Current subcommittee members are: Sandra Abell (Qld), Lyn Alison (Vic.), Roz Hart (W.A.), Tom May (Vic.), Sapphire McMullan-Fisher (Vic., chair), Jasmin Packer (S.A.) and Alison Pouliot (Switzerland/Vic.).

The CBS had a number of email conversations during 2014-2016 and a small number of Skype meetings. Despite the low number of formal meetings there have been a number of actions and activities that are highlighted below.

Ecosystem Science Long-Term Plan development

The Ecosystem Science Long-Term Plan (http://ecosystemscienceplan.org.au/) is a collaboration among a wide range of Australian organisations with an interest in ecology, including the Ecological Society of Australia and the Australian Academy of Science, and also not-for-profit organisations such as BirdLife Australia. A document Foundations for the future: a long-term plan for Australian ecosystem science (http://ecosystemscienceplan.org.au/The-Plan-pg29369.html) defines the 'vision, key directions and priorities for a national ecosystem science capability that will enable Australia to understand and effectively manage its ecosystems for decades to come'.

The Plan was developed collaboratively through extensive national consultation across 2013-2014, and officially launched on 15 July 2014. In late 2014 and early 2015, Sandra Abell, Jasmin Packer and Sapphire McMullan-Fisher were involved in a working group to set up the eleven member Ecosystem Science Council, which works with 'individuals, groups and organisations within the ecosystem science and management communities' to 'advance the goals of Foundations for the future' (http://ecosystemscienceplan.org.au/Council-pg30470.html). The Council includes in its priorities implementation of the Long-Term Plan, which includes development of national protocols for ecological surveys and research. Fungimap has continuing concerns about the inadequate treatment of fungi in ecological surveys and monitoring in Australia and we will continue to engage with the Ecosystem Science Long-Term Plan to improve the coverage of fungi.

Red List workshops

In July 2015, a workshop on threat status assessment of fungi was held at Royal Botanic Gardens Victoria, attended by Peter Buchanan (Landcare Research, New Zealand), Patrick Leonard (Queensland Mycological Society), Tom May and Sapphire McMullan-Fisher, with participation from David Cameron (Victoria, Department of Environment, Water, Land and Planning). Around this time, there was also liaison with a larger group of around three dozen people with an interest in fungi conservation from the Oceania region, with the aim of identifying fungi for inclusion in the Global Fungal Red List Initiative (http://iucn.ekoo.se/en/iucn/welcome). This initiative has been organizing workshops around the globe with the aim of training people in threat status assessments for fungi and how to prepare formal submissions to the International Union for Conservation of Nature (IUCN) Red List of Threatened Species. The IUCN Red List of Threatened Species provides taxonomic, conservation status and distribution information on plants, fungi and animals that have been globally evaluated using the IUCN Red List Categories and Criteria.

After liaising with the broader Oceania group via a conference call, Tom, Peter, Patrick and Sapphire spent two days working through assessments of several species and added data on these to the website of the Global Fungal Red List Initiative. The data contributed to a formal IUCN assessment of a number of fungi species. We are delighted that we were successful in having two Australasian species added to the IUCN Red List of Threatened Species:
Claustula fischeri (Bunyip Egg or Fischer's Egg) see http://iucn.ekoo.se/iucn/species_view/216632,
and for *Boletopsis nothofagi* see http://www.iucnredlist.org/details/80188388/0 or http://naturewatch.org.nz/taxa/418001-Boletopsis-nothofagi.

A further fungi threat status assessment workshop was held during the scientific meeting of the Australasian Mycological Society in Queenstown, New Zealand in May 2016. AMS provided support for this free workshop by providing the venue and catering. The workshop was organised by Tom May, Peter Buchanan and Sapphire McMullan-Fisher and attended by about twenty participants from across Oceania who enjoyed the session and now have a better understanding of threat status assessment of fungi using IUCN criteria and how this assessment can lead to formal inclusion on the IUCN Global Red List.

Australasian Mycological Society Conservation Subcommittee
The Australasian Mycological Society has formally endorsed creation of a Conservation Subcommittee, convened by Tom May. There will be close cooperation between this subcommittee and the Fungimap Conservation & Biodiversity Subcommittee and the 'Oceania group' under the Global Fungal Red List Initiative.

Comments on biodiversity strategies
Fungimap endeavours to provide informed comment to assist in the development and review of state and national biodiversity strategies and other biodiversity and conservation documents. We aim to highlight the high diversity of fungi and their ecological importance while pointing out their frequent neglect in conservation and management (especially as far as formally listed species and communities and an overall strategic approach to the conservation of all fungi). We draw attention to the significant amount of data on Australian fungi being collected by Fungimap and fungal studies groups, that could be used to assist with threat assessments. We also encourage take up of new molecular techniques that have potential to add considerable rigour to fungal taxonomy, survey and ecology.

National
Fungimap made a submission to the review of the current national strategy Australia's Biodiversity Conservation Strategy 2010-2030. During 2016, the Commonwealth Department of the Environment and Energy proposes to host a roundtable discussion, to enable stakeholders to help shape a revised Strategy.

State of the Environment
Fungimap was contacted by the authors of the next national State of the Environment (SOE) Report, with a request for information about the status of fungi. State of the Environment Reports are produced every five years. Previous SOE reports have included very little information on fungi, and this is an opportunity to improve the coverage of fungi, even if only to emphasise the lack of progress in fungal conservation, in aspects such as comprehensive threat assessments.

South Australia
During the preparation of No Species Loss - A Nature Conservation Strategy for South Australia 2007-2017 (http://www.environment.sa.gov.au/managing-natural-resources/Ecosystem_conservation/No_species_loss), Fungimap submitted a response, with Jasmin Packer as the local S.A. representative.

Victoria
In Victoria, 'The Biodiversity Strategy is being developed alongside a review of the Flora and Fauna Guarantee Act 1988, and the Native Vegetation Regulations' [http://delwp.vic.gov.au/environment-and-wildlife/biodiversity/biodiversity-strategy].
Fungimap will submit comment, once the Biodiversity Strategy is available for comment.

Fungimap CBS future
The current goal of the Fungimap CBS is to keep in touch and to participate in commenting on documents and producing material as individual's time allows. If it is possible to obtain funding for a Fungimap Conservation Officer, this would greatly increase the capacity of Fungimap to engage with local, state, federal and international conservation processes, and to support more nominations of fungi across state and federal threat status lists. If you are interested in participating in the Fungimap Conservation & Biodiversity Subcommittee, please contact: info@fungimap.org.au

The Global Fungal Red List Initiative
Species of fungi are threatened by habitat loss, loss of pollution, overexploitation, and climate change, but the vast majority of fungal species have not been assessed.

FUNGIMAP EVENTS REPORT

Sapphire McMullan-Fisher

As mentioned in recent Fungimap Newsletters, we will not be holding any large scale, national 'Fungi conferences' nor 'Fungi Festivals' for the foreseeable future. Fungimap in the past has worked with most regional Fungi groups to hold larger events, with Fungimap bearing the financial risk and administrative costs. This event model gave volunteers and collaborating groups the support of a dedicated coordinator and an incorporated framework to work under. Unfortunately, decreasing levels of funding and the loss incurred at some events means that Fungimap is no longer able to take the financial risk of larger events.

Thus this year we have been involved with two smaller scale series of events: in northern and north-west Tasmania in May and in the Adelaide Hills in June. As usual we have collaborated with local people and groups to hold very enjoyable and successful events. The ability for Fungimap to in effect supply 'mycological expertise' is made possible by the support of Royal Botanic Gardens Victoria facilitating the contribution of time for events of their senior mycologists Dr Tom May and Dr Teresa Lebel. In addition to my Coordinator role, Fungimap has now created a Mycologist position which has allowed me to work as a mycologist and ecologist for Fungimap, such as when delivering training workshops or carrying out the ecological science role for the Tea-tree Fingers project.

Events in Adelaide Hills, June 2016

Now that Fungimap has a Mycologist position, I was able to take up the invitation to be involved as a leader and presenter in a number of fungal events organised by Sturt Upper Reaches Landcare Group (SLURG).

SLURG brought together over twenty sponsors to lead a number of fungal events over a weekend. Events included an incursion on Friday to the local Adelaide Hills bush school, Upper Sturt Primary School, where students and teachers were involved in a nature based project exploring fungi. The school's bushland setting and it being a good time for fungi fruiting, made it a great place and time for the students to explore their local fungi. The students were particularly excited to be showing an 'expert' their fungi.

SLURG, as the local coordinators found, and organised the main venue and a team of dedicated volunteers so that the local hall was filled with information stalls including Adelaide Fungal Studies Group, Fungimap, Landcare Association of SA, Native Orchid Society of SA and SLURG. Nearly 100 people were in the hall to hear the 'fungi restoration' talk on Friday night. The hall was the base for a series of walks on Saturday: morning and afternoon fungi walks lead by Thelma Bridle (Adelaide Fungal Studies Group) and Sapphire McMullan-Fisher (Fungimap) and a late afternoon fundraising walk lead by local conservationist Dr John Wamsley and Jasmin Packer. Sunday was spent further afield leading two fungi walks for locals on local conservation sites on public and private land. These walks were organised and supported by the Natural Resources SA Murray-Darling Basin.

The success of events such as this takes a lot of planning and work by a lot of volunteers over a long period of time. SLURG's efforts brought together the local public and many of the local environmental groups. Costs were kept down by maximising volunteer efforts and particularly by having all the coordination done by volunteers.

Thelma Bridle (Adelaide Fungal Studies Group) and Sapphire McMullan-Fisher (Fungimap) showing participants fungi on a local revegetation site (Image: Jenny Dean).

Fungimap events in northern and north-west Tasmania, May 2016

Fungimap held a series of public education events in northern and north-west Tasmania in May 2016. These events were free to attend, which was made possible by the support of the local NRM groups: NRM north and Cradle Coast NRM, as well as local groups Central North Field Naturalists and Australian Plants Society Tasmania Inc. These public events were held in bushland areas which are excellent habitat for many mushrooms and other fungi, with amazing diversity from the relictual populations from a time when the climate was wetter. Participants were able to spend time in the bush and see fungi with experienced leaders. For information about the public events: https://www.fungimap.org.au/index.php/events/fungimap-northern-tasmania-2016.

As well as wanting to educate the public about the amazing fungi found in Tasmania, Fungimap also wanted to support the ongoing discovery of Australian fungi and scientific research on them and support local professional mycologists, including students.

This was achieved by holding a four day Mycological Expedition to the Tarkine area of north-west Tasmania. Fungimap has held a number of expeditions to Tasmania in the past. This time we tested more of an 'Earthwatch' model (people pay to support the science) where participants significantly contributed to cover the costs of the expedition — but with a variety of levels of contribution taking into account the expertise and circumstances of expeditioners. Thus the expedition was paid for through public fundraising, financial support by expeditioners at different levels and financial support from Central North Field Naturalists and Cradle Coast NRM. There was also allowance for skilled individuals who did not necessarily have financial support. The expedition in total was made up of:

Six 'Fungimap Volunteer' positions, including natural history collection expert Nimal Karunajeewa (RBG Victoria) and naturalist and communicator Sarah Lloyd (Central North Field Naturalists).
Six 'Associate Expeditioners' who contributed various mycological, photographic and data recording skills, including Pam Catcheside (Adelaide Fungal Studies Group) and David Catcheside (Flinders University).
Two 'Research Expeditioners' who were both students with their own mycological research interests. A third participant who was a botanical illustrator was unfortunately unable to attend at the last moment.
Three 'Supporting Adventurers' — these amazing individuals not only contributed their skills and efforts but also a significant financial contribution to the expedition.

Volunteer efforts both in the scientific area and in expedition support, mainly feeding of expeditioners, not only helped reduce the costs of the expedition but maximised the quality of collections with both field and 'laboratory' style images for most collections.

Seventeen expeditioners surveyed for fungi around the Tarkine for four days. More than 150 high quality taxonomic collections were made, each worth approximately $250 to an herbarium. At least as many observational records of the fungi were made. The collection data are already available through the Atlas of Living Australia and the Australian Virtual Herbarium and we hope that taxonomists will use these collections to help name species.

We are proud at Fungimap to support paid mycological scientific expertise in Australia and wish we were in a position to do more. The expedition's scientific value was increased by having experienced mycologists as leaders for each group, these were Dr Tom May and Dr Teresa Lebel (Royal Botanic Gardens Victoria) and Dr Sapphire McMullan-Fisher (Fungimap). Royal Botanic Gardens Victoria provides staff time on expeditions as an in-kind support to Fungimap. The fungal knowledge of leaders was further increased by the experience of fungal researchers and associates; some lived locally in Tasmania and some had come from elsewhere in Australia.

In the future with think this model could be refined so that future expeditions make a modest profit to 'seed' the next one. Thus, in the future we would try to raise most of the funds before the event went ahead. This way we hope to work with local groups to survey for fungi across Australia at the 'peak' of the fungi season. There have been many 'biodiversity blitzes' across Australia, but the timing of these events has been organised to get good data for animals and flowering plants, which means most have not been in peak fungi season.

Cradle Coast NRM
Central North Field Naturalists
NRM North
Australian Government
National Landcare Programme
ROYAL BOTANIC GARDENS VICTORIA

Truffling, Fairyland and Philosophers Falls: My First Fungimap Expedition

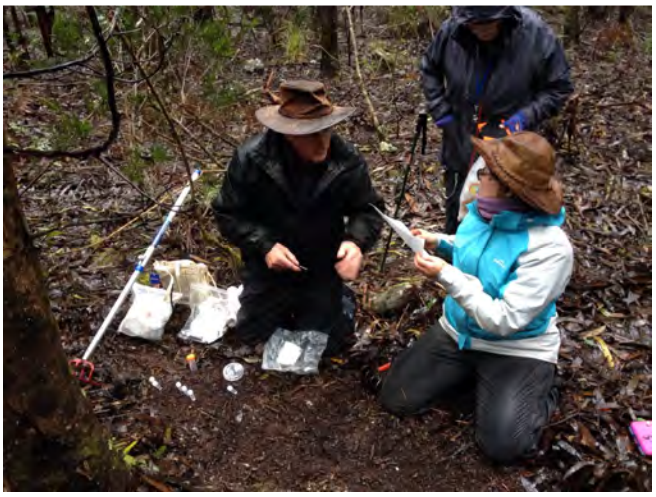
Wendy Ring

It was with some trepidation I applied to be a Support Adventurer with the Fungimap 2016 Tarkine expedition. How I could contribute, other than bringing an adventurous spirit, love of fungi and financial assistance through my registration was beyond me. The realisation of an opportunity to gain knowledge and meet like-minded people provided all the inspiration I needed.

With unforeseen, last minute changes to travel plans and accommodation arrangements, I landed in Devonport on May 20th. I had serious doubts concerning the organisational skills of Fungimap! The only information provided, giving any clue to the location of my accommodation was, Guildford Rd, Guildford. Not even a street address, I was muttering under my breath as I turned off the Ridgely Highway and headed down Guildford Rd. Crossing a bridge over the Hellyer River, then some forestry railway tracks, there was still no sight of what I expected to be the lazy hamlet of Guildford. A grand assumption I had made. Then out of the blue, my internal satnav kicked in telling me my destination was up a track to the right. Prompted by a rather large colourful fungus attached to a tree!! Too easy.

Day 1: Truffling in the eucalypt forests with Teresa, in rain and near freezing temperatures was an initiation not for the faint-hearted. I felt like a lyrebird scratching through the leaf litter, uncovering hidden gems. Watching some of these gems oxidise blue when cut open, mimicking the colour of Julie's fingertips, I was inwardly amused why the heck I wasn't lying on a beach soaking up the sun and sipping on cocktails. Wouldn't have traded the sun for the stream of superlatives Julie had for the weather. Most amusing.

Day 2: Heading out to Fairyland with Sapphire, I plucked up the courage to have a go at recording field observations. With the pleasantries of morning tea out of the way, the names of fungi came flying thick and fast. It was a bit like a who's who of fungi. Thanks Hannah and Kim for tag teaming on this.

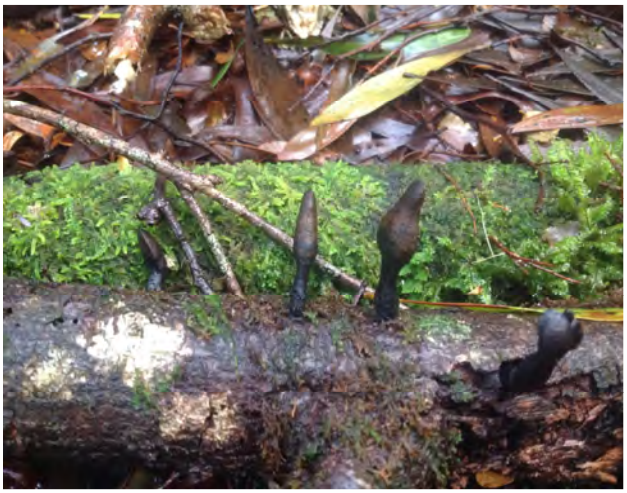


Truffling in the most amusing weather! (Image: W. Ring).

Wrapping up morning tea, Middleton Creek, "Fairyland" (Image: W. Ring).

Day 3: My final foray, led by Tom, down the old track towards Philosophers Falls was truly sublime as we entered deeper into the Nothofagus forest. With dense beds of moss and lichenized trees, I felt a bit like Miranda from Picnic at Hanging Rock. Magically drawn with an undefinable urge to wander. Keeping that urge in check, for another time, it was with great pleasure I shared Tom's excitement with the small, large and WTF (What's That Fungus) finds, and many others...

***Cordyceps* infested Cicada (Image W. Ring).**



Dead Man's Fingers, *Xylaria* sp. (Image: W. Ring).

Most likely *Biscogniauxia* sp. (Image: W. Ring).

Not being the correct season to view *Cyttaria gunnii* in full bloom, I was pleasantly rewarded when Tom pointed out some aged galls of such hanging from the trees. Too busy with my head down scanning the forest floor, I would never have spotted them. Too many fungi, too little time!!

So, our mornings spent collecting, naturally culminated in the afternoons and evenings collating. For me, this process was most rewarding. Macro descriptions, lab shots, data entry and drying of specimens for the herbarium. Overcoming my fear of inexperience began gently with sectioning fungi and taking a few lab shots, reminiscent of the days I spent working as a histology technician. My biggest hurdle was participating in macro descriptions. Quite happy to observe, Tom suggested I have a go. After all, it's just a matter of documenting what you see. Thank heavens for Beau and his copy of David Largent's How to Identify Mushrooms to Genus I, Macroscopic Features. And not to mention, his digital micrometer, which I took a particular liking to!

All in all, I had a wonderful time, hanging out with the best bunch of boffins one could ever hope to meet. I've definitely found my tribe! Finally, a big thanks to Will Borowski of Forest Fungi for his promotion of Fungimap through his cultivation course, which is where my journey and fascination for fungi began.

The large *Lyophyllum*: the WTF (what the fungi!) (Image: W. Ring).

Central Coast and Hunter Region Group News

Pam O'Sullivan

This year has been rather dismal for fungi due to extended dry periods and the warm weather continuing well into autumn. So when we unexpectedly had the chance of a weekend at Wangat Lodge due to a last minute cancellation we decided to risk it.

For those of you who don't know this gem of a spot, it's located near Dungog on the lower reaches of Barrington Tops. The area has some of the most wonderful rainforests through to dry sclerophyll forests and in the higher reaches the other world magic of Nothofagus forests. Wangat Lodge itself fronts the beautiful Chichester River burbling over water-smoothed rocks and swirling into deep secretive pools which offered delightful swimming for some! And that's all before even mentioning the fungi... We ended up with a full quota of 28 enthusiastic participants and had a wonderful weekend.

Friday afternoon and evening welcomed everyone with the most spectacular storm and torrential rain!! Which turned out to be just what the fungi needed...

We were fortunate enough to have three speakers from within the group. Nikki Bennetts, just back from a few weeks in Tassie gave us a very comprehensive talk on Fungimap on the Friday night. Ray Kearney the Chairperson of the Sydney Fungal Studies Group dazzled us all yet again with his stunning photos and informative talk 'Capturing the Living Art of Nature's Gallery' on Saturday night after our dinner that was put on by Wangat Lodge. Then on Sunday night we learned of the difficulties that the very talented Maree Elliott is facing with her PhD on Mycological illustration. Quite an eye opener for many of us that there is still so little formal recognition of the differences between Mycological and Botanical illustration as separate fields. Plus there are no handbooks on how to proceed with the former. An omission I'm sure Maree will rectify!

Saturday, even though a little wet at times, produced a good array of fungi to be put on display but by Sunday the mycelium had gone mad. People were nearly overwhelmed with the beauty and variety and quantity that were to be found from the stunning William's River Day Use Area, Jerusalem Falls and the Nothofagus forests.

The lovely thing about the weekend was not just the wonderful fungi but the feeling of comradeship and the eclectic mix of talents. After field trips in the morning specimens were sorted in the afternoon and the six microscopes were put to good use well into the evenings. In the background someone was strumming on a ukulele or someone else tinkling on the piano while others were being enthralled with Stephen's (a participant) knowledge of native reptiles, fish and frogs among other things. Everyone helped and included each other regardless of their level of knowledge resulting in a very friendly, relaxed and informal weekend. This informality was commented on many times as a great plus particularly by the younger ones.

Fungi included *Cordyceps, Russulaceae*, 'truffles', *Amanita, Thelephoraceae, Auricularia*, corals, *Mycena, Marasmius, Omphalotus* (incredible displays in places), boletes, various ascos, chantarelles and on and on as well as the most exquisitely parasitised thin legged spider which looked liked some delicate filigree that Faberge had created. If anyone wants to look at the draft species list contact me and I'll forward it through. It was so enjoyable we are thinking of holding it again next year!

***Aschersonia* sp. are insect biocontrol fungi in the Ascomycota, Clavicipitaceae (Image: P. O'Sullivan).**

Since then, there was the annual Hargraves Beach field trip run by Wyong Council and Nikki Bennetts. Unusually dry but still *Entoloma, Gymnopilus, Leucocoprinus, Mycena, Cyptotrama, Cystolepiota*, Polypores and more.

The Community Environment Network (CEN) hosted another day for Coastal Open Spaces (COS). The day was led by Nikki at Katandra. Again, very dry and little in the way of fungi, though enough to keep the participants happy and enthralled. Mostly on wood or in damp shaded microhabitats where there was still some remnant moisture. Some of the species included corals, *Cortinarius, Russula, Galerina* spp., *Omphalotus nidiformis, Cerrena zonata, Trametes coccinea*, and a number of ascomycota, polypores and some beautiful corticioids. As usual Nikki was very informative and enthusiastic. The day ended in a delicious late morning tea.

Truffle gathering

At the end of June our group was fortunate enough to have Jim Trappe and Todd Elliott from the USA join us along with Karl Vernes from the University of New England at Wangat Lodge for a couple of days of truffle hunting.

The first day we went to the mainly wet sclerophyll forests at Jerusalem Falls. Unfortunately the pickings were rather sparse in the forest, though better around the eucalypts near the picnic area and road. Todd excavated some mycorrhizal roots and gave a brief explanation of their role for those who hadn't seen them before.

Mycorrhizal cluster of roots (Image: P. O'Sullivan).

The next day at we went to the wonderful Antarctic beech forests *(Lophozonia moorei* used to be *Nothofagus moorei*) at Burrage Swamp where the truffles were more numerous and varied. This wonderful ancient forest had an 'other world' feel about it. Then we travelled up to the Mt. Allyn Lookout where the views of the Barrington Mountains to the north and the Hunter Valley to the south were just spectacular. Even if at 1.30 pm there was still frost on the ground at the lookout with its elevation of 1125m!

View Mt Allyn in the Upper Hunter region of New South Wales (Image: P. O'Sullivan).

We were well entertained at night by Todd Elliott on fiddle, accompanied by Heidi Prichard on flute. Todd's rousing Appalachian songs and music had the younger and not so young energetically dancing and singing along. We were also treated to a fascinating account of Jim and Todd's trip to Uluru and their work with local Aboriginal women collecting truffles and gaining an insight into their culture and heritage. They gave us an in depth account of the interaction between the small Australian native animals and the mycorrhizal truffles they eat and the plants that rely on this interaction. These interactions have a huge benefit to our ancient soils as well. Tragically these animals are being decimated by the exotic foxes and cats. 20 million cats alone account for the loss of 20 billion native animals a year - how much longer can our wildlife sustain these sorts of pressures? Not only are these animals lost but our soils and vegetation are degraded as a result of the lack of their digging activity and spore dispersal of the fungi. This talk was repeated the next night at University of Newcastle where the Tom Farrell Institute hosted our guests.

I'd like to take this opportunity to thank the Tom Farrell Institute and in particular Prof Tim Roberts for funding Jim, Todd and Karl's trip to our region. Many thanks also to our great host at Wangat Lodge, Ken Rubeli, for again providing a fantastic venue and atmosphere for our gathering.

Plans for 2017

Roy Halling has decided to come out tentatively from 22nd February till 15th March. He has offered to give us a workshop at no charge, most probably for four

days. The rest of the time will be spent foraying throughout this region. He has forwarded me an enormous amount of Bolete related literature - I would like to share this a list of the titles with people (please contact Pam if you are interested in this literature pam@osullivan.com.au). Jim Trappe has contacted me saying that he Todd Elliott and Karl Vernes enjoyed themselves so much this year that they would like to come back again next year in about May. The details of this has yet to be finalised.

Happy group of "Trufflers 2016" (left to right): Back Row Todd Elliott (USA), fiddle player extaordinaire, Heidi Prichard, good flute player, Jim O'Sullivan, Karl Vernes, Assoc. Prof. UNE, a little to the front, Aleen Francis (Michael Priests wife) well renown sculptor and artist, Susie Webster QMS., Kaylene Bransgrove JCU, Qld., in front of Kaylene and to her left, (second row), Susan Nuske JCU Qld. Second Row Erin Jacobi McCarthy, Nikki Bennetts, Maree Elliott, Jeanette Rogers, Noeline Karlson, Allison Webb (who has been doing tremendous work in photographing and documenting fungi and orchids in her area), Penny Pinkess, Prof. Jim Trappe (USA), Megan Prance QMS and on the end again, Susan Nuske. Note the two in front are Pam O'Sullivan making a sign of a non-truffle fungus and the delightful host at Wangat Ken Rubeli (Todd Elliott).

My day in the Fungimap office …

As with many non-government organisations, Fungimap has always relied on volunteer efforts to survive and thrive. The myriad ways that volunteers support Fungimap were a feature of the 50th Fungimap Newsletter on the theme of 'Fungimap reflections'.

The making and submitting of fungi records is one vital form of volunteer contribution; service on the Fungimap management committee is another; but there are also behind-the-scenes contributions that are important to highlight.

There is a constant and never-ending stream of incoming records, images and enquiries about fungi, as well as book orders – and much of this is dealt with by a small team of volunteers who regularly come into the Fungimap office. We'd like to highlight the contributions of these volunteers and acknowledge their effort and dedication.

Hence this informal series on 'My day in the Fungimap office…' – covering 'offices' both physical (the national office in Melbourne, hosted by Royal Botanic Gardens Victoria) and virtual (some activities, such as editing of Fungimap Newsletter and editing and administration of the Fungimap Facebook, are carried out remotely).

This first 'My day' is from Graham Patterson, who has been regularly coming in to the Fungimap office on a Friday since 2003.

Tom May
President, Fungimap Inc.

My day in the Fungimap office: Graham Patterson

Graham Patterson in the Fungimap office, working through incoming emails and batches of records, August 2016 (Image: T. May).

Emails

First, I look at emails that have come in over the past week relating to identifications and records, typically about 15 per week in the peak fungi season. There are usually some records from regular recorders which can go straight into the 'Records to be entered' folder. Mostly they come with photos, and if I can confidently identify them all, they too go into the 'Records to be entered' folder. If not, they go onto a waiting list until mycologist Dr Tom May can have a look at them. This may not be for some months, because there is a long waiting list.

Many emails come from people who have found us on our website. They might just send a photo for identification, and if we can identify it to species, I reply asking them to send details of location, habitat and date for our database.

Many queries are about edibility. We have a standard reply that we don't normally comment on edibility, and that we recommend that no-one eats anything purely on the basis of a photo identification because of the risk of similar species being confused. We'll be more forthright if the photo shows something that is clearly poisonous. There are also queries about fungi

being a danger to pets, and how to get rid of them from the garden – our replies are not very useful in these cases. There is not much information on toxicity of fungi to animals, although there is some evidence that pets have died from eating fungi.

Phone calls

A person rang with credit card details for a copy of Fungi Down Under she had ordered via our website. Normally another volunteer, Hannah, deals with book sales, but the buyer was keen to receive the book quickly. Fungimap does not have remote credit card facilities, so I phoned to validate the payment and transfer the money to our account, then packed and posted the book. Hannah will enter the details into our accounting system later.

Another caller had found a fungus beside a country road. From her description it sounded like the Giant Bolete, *Phlebopus marginatus*. She thought we might like to come and collect it. I explained that it is a fairly common species and that Fungimap does not usually collect specimens, and invited her to send us a photo with details for the database.

Giant Bolete or Salmon Gum Mushroom, *Phlebopus marginatus*, a frequent topic of enquiries to Fungimap (Image: R. Smallwood).

Photos

Another volunteer, Wendy, had entered some records into the Fungimap database. I saved the photos attached to these records into our digital photo library, and annotated them with their 'metadata' including the photographer's name, and copyright permission including preferred attribution, the Fungimap record identification number and a quick 1-5 stars assessment of the photo quality.

Identifications

Tom May dropped by and we spent about a half-hour on identifications. Today we worked on some batches with a large number of photos. These tend to drop to the bottom of the priority list and sometimes have to wait for many months. For two of today's batches, the recorders had identified most of the fungi correctly, so I could quickly email the verdicts to them. Now some more work is needed to transfer the details to our Excel spreadsheet so the records can be easily imported into the database. Today's next batch had no names attached, and as usual in such cases our success rate in identifying the fungi to species was low. But there were some records for the database and I phoned the sender to clarify some of the locations. We had a bit of a chat about fungi and places and what we are looking for.

Bulk imports

The Field Naturalists Club of Victoria and the Adelaide Fungal Studies Group send us records of their regular forays during the season. I had previously done some homework on a few batches to transfer the details from the Word format in which they are received onto our Excel spreadsheet. Today I imported the more than 300 records into the Fungimap database and also saved and annotated about 30 associated photos into our photo library.

Then I added up my hours (about 6 today) and entered the figure into the log of volunteer hours we keep and went home.

Pisolithus vs Tarmac

Teresa Lebel

Surely you have kicked or practiced your golf swing with a horse-dung fungus? You know the ones, pushing up through the compacted soil along the edge of the road for kilometres in arid country, like bunyip road markers. Perhaps they should be considered 'vehicular' rather than wind dispersed, as their distribution does seem to be in straight lines on the map! Also, it is rare to see a fruitbody more than 50-100 m off the edge of a road or track, always in compacted sand or clay, low nutrient sites.

Pisolithus is ectomycorrhizal, forming associations with a broad range of woody plants in diverse habitats. Most Australasian species appear to be particularly effective in improving plant growth on drier soils with high soil temperatures. In fact in New Zealand, species actually sometimes fruit inside thermal vents in volcanic areas! So, those fruitbodies punching up through the asphalt/tarmac or clay/gravel driveway or tennis court are probably providing water and nutrients from those hard surfaces to nearby eucalypts, acacias and sheoaks. Species have been recorded from a range of environments such as forests, plantations, and highly disturbed sites (mine spoil, roadside verges).

Trying to figure out which species you have can be problematic, as fruitbody characters are variable, and can be affected by the colour of the local soils. In the last decade 10–12 species have been distinguished, mostly utilizing DNA markers and plant host association as key characters. Identifying species based on fruitbody morphology and spore ornamentation is difficult as these characters are variable (i.e. colour, shape, length of pseudostipe, size of gleba locules), and there have been a lot of misidentifications to further confusion.

Pisolithus **breaking through the new bitumen bike track in Bremer Bay (Images: J. Messina).**

Fungi of the Southwest slopes and upper Murray region of NSW field brochures

Kylie Durant

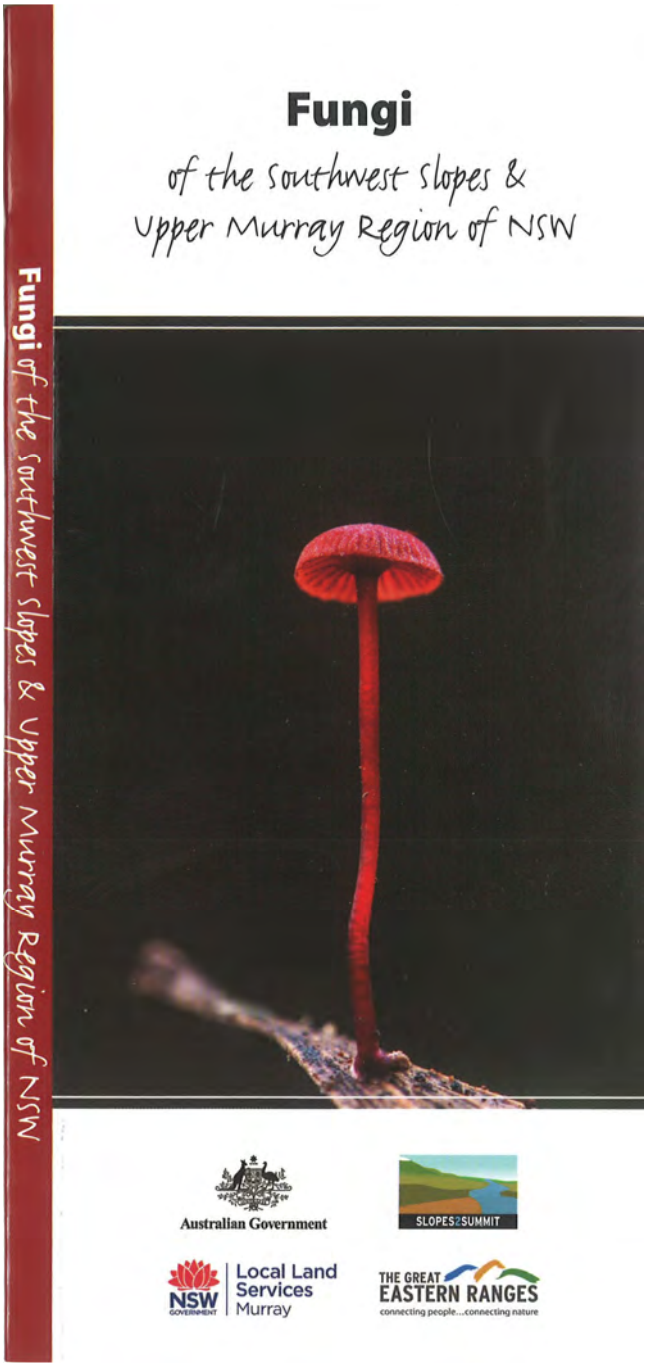
Holbrook Landcare Network has run several events with Alison Pouliot through the HLN Women in Ag program and other biodiversity programs over the past couple of years. Attendance at the workshops is always high and there are a range of interests from the culinary to the ecological to the aesthetic! The interest generated in fungi in our region was such that Holbrook Landcare Network was able to work with Alison Pouliot and the Murray Local Land Services to produce the "Fungi of the Southwest Slopes & Upper Murray of NSW" identification brochure. This was made possible by HLN's "Slopes2Summit Bushlinks" project, funded by the Australian Government.

The Slopes2Summit Bushlinks project works with farmers in the region to undertake revegetation and restoration activities to improve connectivity for wildlife. Most of the time we are very focussed on the cute furry and feathery creatures such as the threatened Squirrel Glider and woodland birds. Working with Alison made us realise how important the role of fungi is in the functional connectivity in ecosystems, and the crucial role it plays in the success of revegetation and maintaining diversity of habitat and resource for these species. We wanted to raise the profile of the ecological role of fungi in our region, and also the crucial role it plays in maintaining productive soils for farmers.

The guide has been very popular amongst enthusiasts – we recently ran a bird watching event and I heard someone call out "Slime mold!!" replacing the usual bird spotter – a true sign that fungi awareness is building!

If you are not local to the region and would like to get a copy of this field brochure please go to the Fungimap shop:

https://fungimap.org.au/index.php/bookshop/australian-field-guides?limitstart=0



The beautiful cover of the brochure featuring Ruby Bonnet.

Acknowledgements: records, funding, volunteers and supporters

Principal Sponsor

Royal Botanic Gardens Victoria provides significant in-kind assistance to Fungimap Inc. through hosting the Fungimap office at their Melbourne Gardens site and providing IT and administrative support for Fungimap staff and volunteers.

Donations

We greatly appreciate the substantial support from our regular donors Meddwyn Coleman, Frances Guard, and Blanche Higgins. Thanks to these individuals who made donations to Fungimap since March: Lyn Allison, Peter Beloff, Amber Dawson, Jill Fechner, Julia Haska, Kaitlin Wright, Teresa Lebel and Kirsten Tullis.

Sponsor a species

We are delighted that species have been sponsored by: Joanne Diver, Julia Haska, Win Pietsch and Ray Wallace. If you would like to sponsor a species please check out fungimap.org.au/index.php/get-involved/sponsor-a-species.

Thanks to our project volunteers and supporters

Help save Tea-tree Fingers (Hypocreopsis amplectens)

This project has been funded by the Victorian Government Threatened Species Protection Initiative. Thanks to these people and groups who have helped with this project: John Eichler, Maria Stevenson, Katrina Syme, the Fungi group of the Field Naturalists Club of Victoria, Main Creek Catchment Landcare Group, Parks Victoria, particularly the rangers at Mornington National Park, Southern Peninsula Indigenous Flora & Fauna Association, Victorian National Parks Association, particularly Mark Learmonth, and Royal Botanic Gardens Victoria, particularly Tom May and Val Stajsic.

Fungimap Northern Tasmania 2016

We appreciate these individuals and groups who helped support fungal education and research through their donations and support: Kathleen Bennett, Theresa Bint, Burnie Field Naturalist Club, Central North Field Naturalist, Maree Elliott, Kate Holmes, Tom May, Alison Moore, Heather Pearsall, Anna Povey, and anonymous donors. Thanks for the efforts of these people that made these events possible: Pam Catcheside, Julie Fielder, Paul George, Peter and Jo Lawrence, Teresa Lebel, Sarah Lloyd, Tom May, Ron Nagorcka, Hannah Noorda, and the Expeditioners David Catcheside, Nimal Karunajeewa, Kim Nguyen and Beau Picking, and particularly the Supporting Adventurers Ian Bell, Wendy Ring and John Walter.

Adelaide 2016

We appreciate these individuals and groups who helped support fungal education in the Adelaide Hills: Jasmin Packer, Thelma Bridle, Nicola Barnes and Jenny Dean, Hills Bush School Upper Sturt, Natural Resources Adelaide and Mount Lofty Ranges, Natural Resources SA Murray-Darling Basin and Sturt Upper Reaches Landcare Group.

Volunteers

Thanks to our regular volunteers in the Fungimap office: Wendy Cook, Hannah Noorda, Graham Patterson, Ben Sharp and Lachlan Tegart. We are also grateful the efforts of our management committee: Tom May, Paul George, Jasmin Packer, Roz Hart and Sara Romberg.

Fungimap Newsletter 56 was edited by Christina Hall.

Records

Thanks to the following who have sent in records and images. Please note, at the moment there is a backlog of records, so some contributions have not yet been logged into our system.

	Records logged	Images retained
Australia (by email)		
Joe Tomkins & Natasha Lebas	1	1
Wayne Anderson	1	4
Faye Arcaro	2	2
Rose Atkin	1	1
Sandy Bracy	1	1
Ken Bradley	1	1
Laurie & Sandy Brooker	1	2
Sandra Brunner	1	1
Tiarna Chan	1	2
Marianne Courtenay	1	1
Kirstin Crothers	1	1
Lyn Ford	1	2
Marliesje Garth	1	1
Russell Gibb	3	3
Dougal Gillman	1	1
Paul Glover	1	1
Bridgette Gower & Toby Dean	1	3
John Henderson	1	1
Karl Holden	1	1
Gareth Holmes	1	0
Michelle Honey	1	1
Cheryl Macaulay	1	1
Roisin McCann	2	2
Debra McLaren	1	1
Warwick Nash	1	1
Rob Nicholson	1	1
William Oversby	1	1
Lance Payne	1	1
Micheal Portelli	1	1
Rebecca Ritchie	11	9
Gordon Rouse	3	4
Pete Savvides	1	1
Brett & Marie Smith	1	1
Karen Wheeler	1	1
N Wright	1	1
NSW		
Lorraine Boyd	1	2
Elisabeth Burton	2	2
Mary Carthew	1	1
Kerry Cavanagh	1	0
Gary Chapman	1	1
Norm Clarke	4	7
Rob Duffield	1	1
Fiona Duggan	1	2
Chris Dunkley	1	2
John Hunter	2	1
Josie Kennedy	1	1
Susan McKellar	1	1
Pen McLachlan	1	1
David Muscatello	1	2
James Nash	1	1
Dan Robson	3	3
Sarit Scheidemann	1	1
Jon Siffleet	1	1
Martin Smith	3	3
Rakesh Vyas	1	1
QLD		
Alfred Chiodera	1	1
Rod Hobson	16	0
Karen Iliff	1	1
David Martin	1	1
Rhonda Melzer	2	2
Barry Muir	34	20
David Thompson	1	1
Michael Wood	1	2
SA		
Adelaide Fungal Studies Group	200	2
Julia Haska	28	28
Caroline Liebich	1	1
Christine Liveris	1	1
TAS		
Ian Ferris	5	2
Nick Fitzgerald	1	1
Nigel Gleeson	2	3
Steven Pryor	1	2
Gillian Zachs	1	1

VIC		
Paul Addison	2	2
Geoffrey Allen	1	1
Paul Butterfield	11	11
Karen Cane	1	1
Sylvia Collett	1	1
Wendy Cook	47	0
Rodger Elliot	1	1
Cecily Falkingham	87	0
Field Naturalists Club Victoria	164	36
Sally Green	37	26
Pat & Ed Grey	1	0
Richard Hartland	38	37
Sheila Houghton	56	65
Michael D Howes	1	1
Jenny Jackeulen	1	1
Jenny Kitchener	2	2
Laura Levens	18	18
Ivan Margitta	6	1
Malcolm McKinty	20	25
Sapphire McMullan-Fisher	1	2
Prep, Meredith Primary School	1	0
Jennie Mitchell	1	1
Ian Moodie	1	1
Win Pietsch	10	0
Reiner Richter	164	163
Rob Riley	1	1
Neil Tucker	1	2
Megan Unmack	1	2
John & Sue Walter	95	0
WA		
Lindsey Glass	1	2
Thomas Hoffman	1	1
Dena Shaw	1	1

Australian photographer **Steve Axford's** fungi photos have recently featured on My Modern Met:

http://www.mymodernmet.com/profiles/blogs/steve-axford-mushroom-fungi-time-lapse-photos

Peter Wohllenben, The Hidden Life of Trees, was interviewed on Late Night Live in September:

http://www.abc.net.au/radionational/programs/latenightlive/the-secret-life-of-trees/7835220

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