APRIL 2002

AUSTRALIA'S FUNGI MAPPING SCHEME

fungimap newsletter 16

Inside this Edition:

News from the Fungimap Coordinator

With the fungi season about to start, I thought I would encourage you all to get out there looking for fungi with this fantastic photo of *Battarraea stevenii*, taken by John Eichler in the Melbourne bayside suburb of Black Rock in January last year. This was a significant find; this is the first record of the species in the Port Phillip Bay region for more than 50 years. This is a good demonstration of the value of the Fungimap project.

Battarraea stevenii **John Eichler**

Although there were very few fungi about over the summer, life at Fungimap Central has continued to be busy! I am still working my way through the tremendous backlog of correspondence and records from the past year, so my apologies to those of you who are still waiting for a reply – you have not been forgotten. We hope that the Fungi Open House, advertised below, will help ease this situation.

A lot of my time over the summer was spent cleaning up the database, which is now in a relational format, enabling me to keep track of records, photos and contact details in the same place. It is a very time-consuming process, but it will be worth it in the end, and should enable us to produce updated Fungimap maps later in the year.

Gudrun Arnold
Fungimap Coordinator

ROYAL BOTANIC GARDENS MELBOURNE

FUNGI OPEN HOUSE

Thursday 9th May 2002
1.30 – 4.30 pm

Mueller Hall, Herbarium Building, Birdwood Ave, South Yarra

Due to the volume of enquiries about fungi, there is often some delay in dealing with many of your requests for information and identification. The FUNGI OPEN HOUSE is a chance to meet with RBG mycologists Tom May and Teresa Lebel, who will be available to answer your questions about fungi, and to identify specimens and photos. Fungimap Coordinator Gudrun Arnold will also be in attendance, and fungi books, CDs and posters will be on sale.

Contacting FUNGIMAP

Fungimap Central

Royal Botanic Gardens, Melbourne
Birdwood Avenue
South Yarra VIC 3141

Coordinator: Gudrun Arnold
Telephone: (03) 9252 2374 (Mon – Thurs)
E-mail: fungimap@rbg.vic.gov.au
Website: http://calcite.apana.org.au/fungimap

Regional Coordinators

These wonderful people contribute their time and experience voluntarily, because they love fungi! They all know lots about fungi, and run workshops and forays from time to time. (Please note that Katrina Syme's email address has changed.)

New South Wales:
Bettye Rees
C/- 10 Lloyd Avenue
Hunters Hill NSW 2110
E-mail: B.Rees@unsw.edu.au

South Australia:
Pam Catcheside
C/- 72 Eve Road
Belleview Heights SA 5050
E-mail: dpcatchi@arcom.com.au

Western Australia:
Katrina Syme
C/- Denmark Environment Centre
PO Box 142
Denmark WA 6333
E-mail: syme@westnet.com.au

Australian Capital Territory:
Heino Lepp
C/- PO Box 38
Belconnen ACT 2616
E-mail: Judith.Curnow@ea.gov.au

Tasmania:
Sapphire McMullan-Fisher
Geography and Environment
University of Tasmania
GPO Box 252-78
Hobart TAS 7001
E-mail: smcmulla@postoffice.utas.edu.au

Western Australia (Kimberley Region):
Matt Barrett
E-mail: mbarrett@kpbg.wa.gov.au

INTERESTING GROUPS

Sydney Fungal Studies Group

Runs fungi forays, talks and workshops in the Sydney area.

Secretary: Donald Gover
5 Dawes Street
Little Bay NSW 2036
Tel: (02) 9661 4898
E-mail: donaldgover@telstra.easymail.com.au
Website: http://argus.appsci.unsw.edu.au/fungi

Adelaide Fungal Studies Group

Holds monthly meetings and forays during the fungi season.

Convenor: Pam Catcheside
Tel: (08) 8278 5004
E-mail: dpcatchi@arcom.com.au

WA Naturalists Fungimap Group

A new group, running fungi-based activities in the Perth area.

Mail: WA Naturalists' Group, PO Box 8257,
Perth Business Centre WA 6849.
E-mail: wanats@iinet.net.au

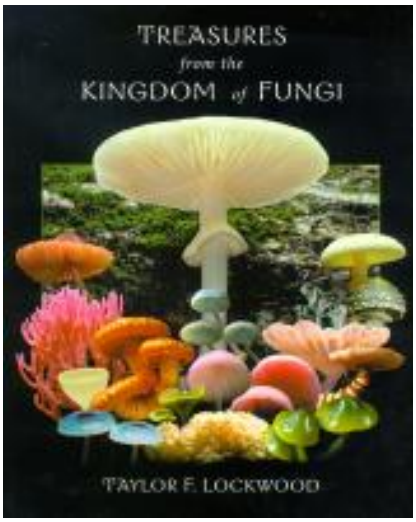
INTERESTING WEBSITES

New Zealand Post (www.nzpost.co.nz/nzpost/control/main) have released a set of native fungi stamps, featuring beautiful photos of New Zealand fungi, some of which are also found in Australia. The species are *Hygrocybe rubrocarnosa*, *Entoloma hochstetteri*, *Aseroe rubra*, *Hericium coralloides*, *Thaxterogaster porphyreus*, and *Ramaria aureorhiza*. Their website includes photos and descriptions of the fungi. Either follow the links from the home page, or go to: https://secure.nzpost.co.nz/cgi-bin/nzstamps/web_store/web_store.cgi?cart_id=7665100_4703&page=recent/2002_nativefungi.htm

- **Natural Selection:** http://nature.ac.uk/ – a listing of quality evaluated internet resources in the natural world, coordinated by the Natural History Museum, London.
- **RBG fungi pages**: http://www.rbg.vic.gov.au/fungi/
- **Taylor Lockwood**: http://www.fungiphoto.com – a collection of artistic fungi photos.
- **The Hidden Forest**: http://www.hiddenforest.co.nz – forest fungi from New Zealand, photographed by Clive Shirley.
- **MykoWeb**: http://www.mykoweb.com/ – American fungi, including the "Fungi of California", photographed by Michael Wood and Fred Stevens.

FUNGI MAP RESOURCES UPDATE

Taylor Lockwood's *Treasures from the Kingdom of Fungi*



For those of you who were lucky enough to attend one of Taylor's fabulous slide shows last year, you are now able to take the photos home with you! And for everyone who missed out, this is your chance to experience Taylor's magnificent photography. This is a coffee-table style book, bursting with stunning, full-colour photos of fungi from around the world, including Australia. (Although the cover image is clearly a compilation, the photos inside are all of fungi growing naturally.)

This is not a field guide or a scientific text (there is hardly any text at all), but the pictures truly stand alone, and will provide much inspiration for anyone interested in fungi. Hard cover, 128 pages.

Cost: $55.00 (GST inclusive) plus $10.00 postage = **$65.00**

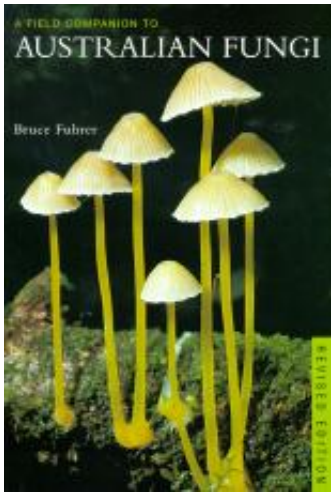
Bruce Fuhrer's *A Field Companion To Australian Fungi*

With the fungi season here at last, a reminder that this enduringly popular field guide was reprinted last year, in a revised edition with a soft cover. It is still the same compact size (good for field work), and although the cover photograph has changed, those who own the previous edition can be reassured that the photos on the inside are the same. The text is essentially the same, although some species names have been changed to reflect current taxonomy.

It features stunning photos of 138 species of fungi, including approximately 50 Fungimap target species.

For anybody who doesn't already own this book, and is interested in Australian fungi, it really is a must-buy!

Cost: $24.95 (GST inclusive) plus $3.00 postage = **$27.95**



Ordering from Fungimap

By cheque:
All cheques and money orders must be made out to the "**Field Naturalists Club of Victoria**", and should be sent to:

Fungimap
Royal Botanic Gardens, Melbourne
Birdwood Avenue
South Yarra, VIC 3141

Enquiries:
All enquiries should be addressed to the Fungimap Coordinator, Gudrun Arnold, at the Royal Botanic Gardens Melbourne:
Telephone: (03) 9252 2374 (Mon – Thurs)
E-mail: fungimap@rbg.vic.gov.au

Resources Available

- Taylor Lockwood *Treasures From the Kingdom of Fungi* **$65.00**
- Fungimap Poster Set **$40.00**
  (Limited numbers left.)
- Bruce Fuhrer *A Field Companion to Australian Fungi* (2001) **$27.95**
- Fuhrer & Robinson *Rainforest Fungi of Tasmania and SE Australia* **$25.00**
- Fungimap CD-ROM **$18.00**
- *The Victorian Naturalist* Vol 118(2) **$ 5.50**
- Fungi Kit **$ 5.00**

THE WHY AND HOW OF SURVEYS FOR FUNGI – PART 1

Tom May (Royal Botanic Gardens Melbourne)

An important issue identified during discussions at the Open Session of last years Fungimap Conference was the need to support people wishing to carry out surveys of fungi. Fungimap itself is one kind of survey, which is currently focussed on surveying the distribution of a limited set of target species. The efforts of Fungimap recorders have already resulted in the first detailed distribution maps for Australian macrofungi, and much useful information has also been compiled on the relative rarity, time of fruiting, and the substrates and habitat preferences of the target species. In time, it is planned to increase the number of targets.

Plant and Fungi Communities

More and more, however, there is interest in surveying not only for individual species of fungi, but for all the fungi of bushland, in the same way that numerous groups of field naturalists, landcare groups, and others are carrying out surveys of native vegetation. At their simplest such surveys compile a list (inventory) of the suite of plants present at a site. With this information, it is then possible to compare the plants present at sites differing in factors such as soil type, fire history, degree of disturbance and so on, and to track changes over time, such as after regeneration efforts. Surveys of plant communities may involve wandering around a reserve, or utilise specific methodology such as use of permanent defined survey plots (quadrats).

In general terms, a community is a set of plants which tend to co-occur. At different locations which support a particular community, the list of plants present will not be identical, but many of same plants will be present. Communities can be defined at different scales, and may take into account structural aspects of the vegetation (such as the height of trees, and the number of understorey layers). A community is often characterised by a few typical species. Examples of plant communities are *Eucalyptus microcarpa* woodland, *E. viminalis* open forest, *Poa poiformis* closed-tussock-grassland and *Juncus kraussii*/*Samolus repens* saltmarsh. A vegetation type such as Cool Temperate Rainforest may be divided into a number of communities or subcommunities, each with a different set of typical species. As yet, there is very little information on fungal communities in Australia, and their typical species.

Vegetation as a Surrogate for the Fungi Community?

It is imperative to be able to compile information on the suite of fungi present at a wide range of different sites across Australia, and to do this soon. This is because conservation of Australian fungi is at present almost entirely predicated upon an assumption that the different communities of plants act as surrogates for communities of fungi. There are very few individual fungi or fungal communities listed on state or commonwealth conservation schedules. Numerous Australian fungi are also yet to be discovered and formally named.

Conservation of Australian fungi rests on the hope that the existing reserve structure and management practices are looking after fungi, even though there is no real evidence either way on this. Apart from reserves chosen to protect specific animals, many of the decisions about which areas to reserve are based on the plant community (at fine or coarse scales). As far as the fungi go, we hope that if all the examples of each plant community have a reasonably similar fungal community, then conserving a proportion of each plant community will carry along all the different fungal communities. The greater the congruence between the plant and fungal communities, then the better the conservation of the fungi - via the surrogate of looking after all the different plant communities. However, if similar vegetation in different localities has rather different sets of fungi at each site, then there is a danger that some fungi could be lost by only conserving a proportion of the particular plant community.

SURVEY 1.
When does *Amanita xanthocepahala* appear?
You visit a local bushland every fortnight for three years, and record the number of fruit bodies of this species which you see as you walk around the same route through the park on each visit. You can graph the number of fruit bodies against time, and compare to a graph of temperature and rainfall. There may be a similar pattern each year, or it may differ from one year to the next. Interesting results could be achieved if several people carried out the same type of survey at different sites with somewhat different local climates, soils and so on. The survey could be extended to look at several different species.

Surveys for Fungi

We need information on fungal communities and their relation to plant communities, and we need this quickly. We need to know if the existing strategy of using the plant community as a surrogate is working. We cannot wait a century or more until all the fungi are named. That so little research on fungal communities has been carried out reflects the great difficulties involved, particularly in identification. It is clear that there are few mycologists in government institutions who can provide the necessary support, and that there is a great role for the wider community in carrying out surveys. There is interest in carrying out surveys among the community, but what is holding back progress is lack of suitable supporting information.

Surveys for fungi are possible, fun, educational and of great value scientifically and for conservation. We plan to produce a detailed guide to carrying out surveys of fungi, but this will not be available for at least a year. In the meantime, in the next few issues of the Fungimap Newsletter I will canvas in brief some issues relating to surveys. In this issue of the newsletter ideas for two types

of surveys are provided, and also some notes on replication and repeat visits. Your feedback on what you need to know is most welcome, and I will try to deal with any specific points that arise.

Replication is essential

- If you are setting out to test difference in the suite of fungi between one vegetation type and another, or with respect to soil type, fire history and so on, replication is essential
- You need several different sites within each of the different site types
- So for a study comparing burnt and unburnt forest, you will need several different unburnt sites and several different burnt sites
- The replicates should be matched as closely as possible for other factors
- For a study comparing burnt and unburnt sites, other factors that should be similar across all sites (burnt and unburnt) would include vegetation type, soil type, aspect, slope and altitude
- The number of replicates is a compromise between the effort required to survey many replicates, and the statistical power provided by having many replicates.
- Four replicates is a good starting point
- Without replication, any difference between sites could be due to chance, or some other factor apart from the one you are interested in

Repeat visits

- A single visit to a site, even at the peak of the fungal season, will never yield all the species present
- Some species prefer to fruit at different times of the year
- Some species do not fruit every year
- Each year is different
- Studies from repeated visits to sites in the Northern Hemisphere show that it might take many visits across the year for many years (even decades) to build up a comprehensive list of species present at a site
- However, it seems that an idea of the range of species present can be gained with less visits
- By recording fungi present on each visit to a defined site, you will be accumulating valuable information on how many visits are necessary to answer different types of questions

SURVEY 2.
What is the effect of dominant eucalypt on fungi?

You live near a national park where there is a mosaic of different forest types, each with one or two dominant eucalypt species. You select five sites in *Eucalyptus macrorhyncha* forest and five sites in *E. dives* forest. You try and match all the sites as closely as possible for soil type and other factors, although one forest type tends to be on the shady side of ridges, while the other is on the sunny side. Each site is roughly 25 m x 25 m. You mark out the site with a permanent peg in the SW corner and when surveying you lay out two 25 m ropes a right angles to the N and E so you can see the boundaries of the site.

You start off with a list of 50 fungi which you can recognise on sight. During the survey you find some more species which are very distinctive, and add these to the list. You decide to ignore most *Cortinarius*, since it seems difficult to work out the numerous brown species, but for *Russula* and *Lactarius* there seems to be about 10 distinct species, each with a different combination of cap and gill colour. Some of these key out in books, other not. The ones not in the book, you give field names such as *Lactarius* 'brown cap, pink stain' and so on. You record the presence of the species (whether formally named or as field names) on each site. You survey the 10 sites for up to one hour, in blocks of 15 minutes. For a particular site on a particular day, if you do not find any additional species in a 15 min. block compared to the previous 15 min block, you move on to the next site. You survey all sites in May and in June for several years. In between these visits you make a set of voucher collections for all the species which are being recorded, and lodge these at your state botanical herbarium. Its a lot of work, and you enlist the local fungal studies group to help with the surveys in the latter years, by which time you have a photo album with pictures of all the species you are surveying, which helps in field identification.

The heart of your analysis is a table containing a list of all the fungi surveyed, with the number of sites within each *Eucalyptus* forest type at which each fungus is present. Some species seem to be restricted to one or other forest type (possible indicator species), some species are found on all sites, and some occurred on only a few sites (but not restricted to one or other forest type). The species restricted to one forest type are good candidates for further survey of other areas. Rapid surveys can be carried out across many different sites focussing on the indicator species, to see of their habitat preference holds up.

FUNGI MAP BOOK

By Pat and Ed Grey

On behalf of the Fungimap organisers, Pat and Ed Grey are putting together a field identification book for the 100 target species. Leon Costermans has kindly (very kindly, seeing the amount of work) offered to scan the photos and do the lay-out for the book.

We plan to show two photos (usually) for each species – one a 'cut out' with labels showing the key characteristics and one of the species in its natural habitat. A more detailed description will be included in a separate text as well as a map showing the distribution.

A lot of the information used will be based on the Fungimap CD-ROM and, with permission, we plan to use some of these photographs. However, there are some species for which we have no useful photos at all. These are listed below and we would be grateful if you could send any shots of them, or even find and photograph them. In addition, if you have photos of any other target species we would be pleased to look at these as well.

Please remember that the photos are for publication, therefore extremely good quality is required.

Wanted... good photos of these species

Amanita austroviridis
Amanita chlorophylla
Amauroderma rude
Armillaria luteobubalina
Astraeus hygrometricus
Bolbitius vitellinus
Boletellus obscurecoccineus
Camarophyllus lilacinus
Chlorovibrissea bicolor
Claustula fischeri
Colus hirudinosus group
Cookeina tricholoma
Cordyceps hawksii
Cortinarius austroalbidus
Cortinarius rotundisporus
Dictyopanus pusillus
Dictyophora indusiata
Entoloma virescens
Fistulina hepatica
Flabellophora superposita
Gloeophyllum concentricum.
Helvella villosa
Leucopaxillus lilacinus
Macrotyphula juncea
Marasmius elegans
Marasmius oreades
Morchella esculenta
Mycena leaiana
Mycena viscidocruenta
Nyctalis mirabilis
Panus fasciatus
Piptoporus australiensis
Piptoporus maculatissimus
Pleurotus australis
Polyporus hartmannii
Polyporus mylittae
Pseudohydnum gelatinosum
Rozites metallica
Rozites roseolilacina
Rozites symeae
Schizostoma laceratum
Tubaria rufofulva
Uromyces politus

For the book, clear and sharp photos are required. Correctly exposed slides are preferred, but good negatives from print film (with a copy of the print also) would be acceptable. The third preference is for prints alone. Other requirements include:

- for natural habitat view, a landscape shot; for a "cut-out" view, a portrait shot is preferred
- correct exposure is vital. Over- or under-exposed film, especially with slides, will not reproduce well enough for book illustrations
- only photograph specimens in good condition
- photograph only specimens growing, ie. do not show overturned or picked specimens
- do not include rulers or other measuring devices eg coins etc.
- exclude material such as grass, twigs from covering any part of the fungus

In taking photos keep in mind that most examples will have the background removed.

If you are able to supply any photos, please label them clearly with your name, the location, date and species. If more than one example of the species please list numerically (*Amanita muscaria* 1, *Amanita muscaria* 2 etc.). At this preliminary stage, if you do not wish to send an original slide or negative, send a good print or e-mail a screen resolution JPEG file to Fungimap. A copyright form will be sent to owners if their photos are selected.

Each photo used in the book will be acknowledged, at least in a separate acknowledgment section (due to the format of the book it may not be possible to attach acknowledgments to each image). Any photos not used will be returned, and the photos chosen will be returned after scanning (this may take some time).

We would like to have all the photos as soon as possible because we hope to have the book proofs ready by the end of 2002.

Please send photographs to:
Fungimap – Photos for Book
Royal Botanic Gardens, Melbourne
Birdwood Avenue
South Yarra VIC 3141
Email: fungimap@rbg.vic.gov.au

Enquiries to:
Pat and Ed Grey
8 Woona Court
Yallambie VIC 3085
Ph: (03) 9435 9019.
Email: greyvox48@hotmail.com

Common Names for Fungimap Target Species

Compiled by Pat and Ed Grey

This is your chance to choose common names for the target species! Where there are no accepted common names, new ones have been constructed based on macro-characteristics and the binomial. For those with one or more names we would like you to nominate your preference. If you have any suggestions for those without a name, or something we haven't thought of for those that do, please let us know.

BINOMIAL	COMMON NAME
Agaricus xanthodermus	Yellow Stainer
Amanita austroviridis	Western Green-gilled Amanita
Amanita chlorophylla	Eastern Green-gilled Amanita
Amanita muscaria	Fly Agaric
Amanita phalloides	Death Cap
Amanita xanthocephala	Pretty Grisette
Amauroderma rude	Staining Stalked Polypore
Anthracophyllum archeri	Orange Fan Brackets
Anthurus archeri	Starfish Fungus
Armillaria luteobubalina	Honey Fungus
Ascocoryne sarcoides	Purple Jelly Drops
Aseroe rubra	Anemone Fungus
Astraeus hygrometricus	Barometer Earthstar
Banksiamyces macrocarpus	Large Banksia Discs
Battarraea stevenii	Desert Drum-stick
Beenakia dacostae	
Bolbitius vitellinus	Egg-yolk Mushroom
Boletellus obscurecoccineus	Tall Red and Yellow Bolete
Calostoma fuhreri	Fuhrer's Prettymouth
Calostoma fuscum	Common Prettymouth
Calostoma rodwayi	Rodway's Prettymouth
Camarophyllus lilacinus	Lilac Chanterelle
Chlorovibrissea bicolor	Cream-and-green Pin
Claustula fischeri	Egg Fungus
Colus hirudinosus group	Red Fingers
Cookeina tricholoma	
Coprinus comatus	Lawyer's Wig
Cordyceps gunnii	Common Caterpillar Fungus
Cordyceps hawksii	Fawn Caterpillar Fungus
Cortinarius austroalbidus	Australian White Cort
Cortinarius radicatus	Dumpy Cort
Cortinarius rotundisporus	Elegant Blue Cort
Craterellus cornucopioides	Horn of Plenty
Cymatoderma elegans	
Cyptotrama aspratum	
Cyttaria gunnii	Beech Orange
Dermocybe austroveneta	Australian Green Skinhead
Dermocybe splendida	Splendid Red Skinhead
Dictyopanus pusillus	Ping-pong Bats
Dictyophora indusiata	Yellow Net Stinkhorn
Entoloma virescens	Sky-blue Entoloma
Fistulina hepatica	Beefsteak Fungus
Flabellophora superposita	Pancake Stack
Geastrum fornicatum	Arched Earthstar
Gloeophyllum concentricum.	Labyrinthine Polypore
Gymnopilus pampeanus	Giant Gold Caps
Hebeloma aminophilum	Ghoul Fungus
Helvella villosa	Stalked Hairy Cup
Hericium clathroides	Stalactite Coral / Spiny White Coral
Hygrocybe graminicolor	Green Wax Cap
Hygrophorus lewellinae	Mauve Wax Cap

BINOMIAL	COMMON NAME
Hypocreopsis sp. A	Tea-tree Fingers
Ileodictyon gracile group	Cage Fungus
Leotia lubrica	Jelly Babies
Lepista nuda	Wood Blewit
Leucopaxillus lilacinus	Lilac Funnel Cap
Macrotyphula juncea	Fairy Hair/Tall Pipe Club
Marasmius elegans	Velvet Marasmius
Marasmius oreades	Fairy-ring Mushroom
Microporus affinis	
Microporus xanthopus	Small-pored Yellow Foot
Morchella elata group	Black Morel / Tall Morel
Morchella esculenta	Yellow Morel
Mucronella pendula	White Icicles
Mycena austrororida	Slimy White Bonnet
Mycena interrupta	Blue Pixie Parasol
Mycena leaiana	Orange Bonnet
Mycena nargan	The Black Nargan / Nargan's Bonnet
Mycena viscidocruenta	Tiny Slimy Red Bonnet
Mycoacia subceracea	Yellow Blunt Tooth
Neolentinus dactyloides	
Nyctalis mirabilis	Russula Pick-a-back
Omphalina chromacea	Yellow Navel Cap
Omphalotus nidiformis	Ghost Fungus
Oudemansiella radicata group	Australian Rooting Shank
Panus fasciatus	Hairy Roll-rim
Piptoporus australiensis	Curry Punk
Piptoporus maculatissimus	Scaly Polypore
Plectania campylospora	Blue and Brown Forest Cups
Pleurotus australis	Australian Oyster Mushroom
Podaxis pistillaris	Tall Desert Black-head
Podoserpula pusio	Pagoda Fungus
Polyporus hartmannii	Hartman's Chestnut Poypore
Polyporus mylittae	Native Bread
Poronia erici	Dung Buttons
Pseudohydnum gelatinosum	False-tooth Jelly Tongue
Rozites metallica	Metallic-blue Rozites
Rozites roseolilacina	Rosy Rozites
Rozites symeae	Syme's Rozites
Schizophyllum commune	Split Gill
Schizostoma laceratum	Split -head Puffball
Stereum hirsutum group	Hairy Leather
Stereum ostrea	Yellow Funnel Leather
Tremella fuciformis	White Brain Jelly
Tremella mesenterica group	Yellow Brain Jelly
Tubaria rufofulva	Wine-red Wood Mushroom
Underwoodia beatonii	Beaton's Brown Fingers
Uromyces politus	Orange Cluster Rust
Vibrissea dura	Brown-head Pin
Volvariella speciosa	Straw Mushroom

NEWS FROM WA

By Katrina Syme, WA Regional Coordinator

I trust Fungimappers in the north of the state have been finding and identifying many interesting species of fungi during the Wet. We would love to hear news of you.

We had good falls of rain in early December in Denmark. This produced a mini flush of an unnamed species of *Amanita*, normally the first gilled fungus to appear here – usually in March each year. It looks rather like a small *A. phalloides*, but never has a greenish coloured cap. Many species of Amanita fruit early and then show up again late in the season, but until now, I have never seen this species appear twice in the same year.

In the months since, there has been very little rain and the bush is looking parched. Plants and small trees are dying on the granite outcrop on the farm and *Pisolithus albus*, which usually fruits abundantly on the shoulders of roads in the south-west, is scarce this year.

WA Forays & Events 2002:

- The Friends of William Bay National Park will shortly begin documenting the fungi of the Park, with assistance from mycologist Dr Richard Robinson (Department of CALM, Manjimup) and me. The program has not yet been finalised; please contact me for further details. Any or all of you will be welcome.
- The WA Naturalists' Club are hoping to arrange a viewing of Taylor F. Lockwood's "Treasures from the Kingdom of Fungi" presentation. Contact Roz Hart for details – Ph: (08) 9382 2086.
- **Friday 3rd May, 7.30pm:**
  WA Naturalists' Club evening talk: Subject – Fungi. Speaker: Katrina Syme. University of WA Extension Lecture Theatre, Clifton St, Nedlands.
- **Saturday 1st June – Monday 3rd June:**
  Foundation Day long weekend. WA Naturalists' Club Fungus Foray at Donnelly River with Katrina Syme & Roz Hart. Accommodation in the forestry cottages at the old Donnelly River townsite, south west of Bridgetown. The most northerly occurrence of *Eucalyptus diversicolor* (Karri) forest grows here and beautiful, tall *Eucalyptus patens* (Blackbutt) forest occurs nearby. We will be collecting, documenting and drying the fungi for inclusion in the WA Herbarium and there will be at least 2 microscopes available, one binocular, one high-powered.
  Costs for accommodation: about $50 per person; places are limited. BOOKINGS ESSENTIAL - Glynne Beaver, Ph: (08) 9294 4948.
- **Saturday 20th July – Sunday 21st July:** Fungus Foray: a weekend collecting and documenting fungi with the friends of Shenton Park Bushland with Katrina Syme & Roz Hart. Fine tuning still in progress, but hope to include an introduction to microscope work. Contact Roz for details – Ph: (08) 9382 2086.

NEWS FROM TASMANIA

By Sapphire McMullan-Fisher, Tasmanian Regional Coordinator

Well it looks like the fungi 2001 finally finished in March 2002! The wet cool summer make for better mushrooming weather than beach weather, which I hope everyone appreciated. Now we have to sit back and hope for autumn rains to bring on the new season's treasures. I hope everyone is ready armed with notebooks and cameras: as there are about 1500 records on the database from Tasmania so far, I think 2002 by the end of the year would be an apt target. So get out there and enjoy what nature has on show.

There are a few events on in May which you might want to go to below. Sorry that they have such a Hobart bias but at the moment it's where it's all at. Don't forget to book.

As for other news there was a Fungimap poster at the 'Spirit of Gondwana' flower show held by the Australian Plants Society Tasmania, in the Hobart City Hall in November. It was great to have a presence in such an awe-inspiring show of plants ranging from the bryophytes, Gondwanan relics, to our modern flora.

I'm also looking for field helpers to assist in my PhD's fieldwork, so if you don't mind working and learning in the bush contact me. Or just contact me if you have any Fungimap questions.

Tasmania Forays & Events 2002:

- **Sunday 5th May & repeated on Sunday 19th May:**
  Environmental Studies Field Trip: A Fungal Walk & Workshop.
  This is a one-day Basics of Fungal Identification course, run with Adult Education, and is ideal for those starting out with Fungimap in Tasmania. Note there is a cost of $58 to attend – apologies for the cost but this is the easiest way to get a venue without paying thousands of dollars in public liability insurance! Please come along, tell your friends, and remember to book as the course will be cancelled if there are not enough participants.
  Leader: Sapphire McMullan-Fisher.
  Bookings: Adult Education Class, Ph: (03) 6233 7237 or www.tafe.tas.edu.au/ae/
- **Sunday 26th May:**
  Fungal Frolics: Fern Tree, Mount Wellington
  Leaders: David Ratkowsky & Genevieve Gates
  Contact: Hobart City Council, Ph: (03) 6238 2886.

NEWS FROM NSW

By Bettye Rees, NSW Regional Coordinator

We have had plenty of rain this summer and the weather is just beginning to cool off. Sensible Boletes and *Amanitas* have been and gone, but there's plenty of saprotrophic species up and running in the moist leaf litter and dry woodland. Sydney Fungal Studies Group forays continue as usual (see p. 11) with quite a few guests along who are visiting Australia.

NEWS FROM SA

By Pam Catcheside, SA Regional Coordinator

The Adelaide Fungal Studies Group calendar is bursting with events this season, which are listed below (subject to alteration). For further information contact Pam Catcheside – Ph: (08) 8222 9380 [Plant Biodiversity Centre].

MEETINGS – Usually second Tuesday of the month at the Staff Room of the Plant Biodiversity Centre, off Hackney Road, 7.30pm. There will be no excursions from November to March inclusive.

- **Tuesday 9th April:** Speaker – Dr Greg Kirby. *Smuts & other fungal plant diseases.*
- **Tuesday 14th May:** Specimens: identification / discussion.
- **Tuesday 11th June:** Specimens: identification / discussion.
- **Tuesday 23rd July:** Specimens: identification / discussion.
- **Tuesday 13th August:** Specimens: identification / discussion.
- **Tuesday 10th September:** Specimens: identification / discussion.
- **Tuesday 8th October:** Speaker – to be announced.
- **Tuesday 11th March 2003:** Programme Meeting.

And on **Wednesday 13th November, at 7:45pm,** Pam Catcheside will be speaking at the Field Naturalists Society of SA meeting, Royal Society Lecture Room, Plane Tree Courtyard, off Kintore Avenue.

EXCURSIONS - Day excursions are normally on the Saturday before the meeting. There will be no excursions from October to March inclusive. Check with Pam before the excursion as venues may change due to special fungal fruiting flushes.

- **Saturday 6th April:** Mount Lofty Botanic Garden. Meet MLBG, upper car park 10am.
- **Saturday 11th May:** Hindmarsh Valley Falls / Mount Billy CP. Meet Mount Compass, 10am.
- **Saturday 8th June:** Millbrook Reservoir Reserve. Meet Gate 38, 3-4 km past Inglewood.
- **Saturday 22nd June:** Fungimap foray. Kuitpo / Deep Creek CP / Cleland CP. Check with Pam for details.
- **Saturday 20th July:** Venue to be decided.
- **Saturday 10th August:** Boehm Springs, near Springton. Meeting place to be decided.
- **Saturday 7th September:** Venue to be decided.

ENCOUNTER 2002 – A Fungus from Mount Brown, South Australia

By Pam Catcheside

On 10th March 1802, a party from Matthew Flinders' ship, *The Investigator*, walked from the coast near the head of "Spencer's Gulph" to the summit of Mount Brown, SA. On 10th March 2002, there was a re-enactment of that expedition.

Matthew Flinders, in *A Voyage to Terra Australis*, wrote "Messrs. Brown, Bauer, and Westall, with attendants, set off upon an excursion to the top of Mount Brown", commenting that "The ascent to Mount Brown had proved to be very difficult, besides having to walk fifteen miles on a winding course, before reaching the foot."

Among collections made by botanist Dr Laurie Haegi, one of the party on the 2002 expedition, is a specimen of *Piptoporus portentosus**. This collection, made at the summit of Mt Brown, is now in the State Herbarium of SA.

It is pleasing that we have a fungal collection from the Encounter 2002 expedition as there are no extant collections (if indeed any were made) from the five year voyage around the Australian continent.

Robert Brown, in *Botany of Terra Australis* (Appendix III of Flinders' *A Voyage to Terra Australis*), lists ten species of fungi seen in Australia.

Rhizomorpha setiformis Pers. syn. fung. 705.
Tubercularia vulgaris Pers. syn. fung. 112.
Sphaeria ophioglossoides Pers. syn. fung. 4.
Clavaria pistillaris Linn.
Clavaria coralloides Linn.
Peziza scutellata Linn.
Boletus igniarius Linn.
Agaricus alneus Linn.
Agaricus muscarius Linn.
Agaricus campestris Linn.

Some of the species listed do not occur in Australia, though there are similar species. Those that do occur are *Peziza scutellata* (now *Scutellaria scutellata*, the orange Eyelash Cup Fungus), *Agaricus alneus* (now *Schizophyllum commune* or Split Gill) and *Agaricus campestris.*

The other names given by Brown are not those of native Australian fungi, so we can only conjecture which species he did, in fact, see. *Clavaria pistillaris* may have been any of the simple, yellowish club fungi, *Clavaria coralloides* any of the branching white coral fungi. *Boletus igniarius* (now *Phellinus igniarius*) may have been any of the Australian hoof–shaped, brown-pored brackets such as *Phellinus rimosus* or *P. robustus*. *Sphaeria ophioglossoides* was possibly an Earth Tongue, *Geoglossum* sp., while *Rhizomorpha setiformis* was almost certainly the boot-lace like rhizomorphs of, not the northern hemisphere *Armillaria mellea*, but *A. luteobubalina*. *Tubercularia vulgaris* is the name given to the vegetative stage of the Coral Spot Fungus, *Nectria cinnabarina*, which forms tiny, pink-red, flask-like structures pushing out from under bark. An intriguing observation is that of *Agaricus muscarius*: as *Amanita muscaria* (its present name) was not recorded from Australia until much later in the 19th century, Brown is very unlikely to have seen that species. Perhaps it was *A. xanthocephala*? Without voucher specimens we shall never know.

**Piptoporus australiensis* and *P. maculatissimus* are Fungimap species. *P. portentosus* is not.

P.S. An exhibition "The Botanical Legacy of 1802 – Behind the Scenes at the State Herbarium of South Australia" is being held at the Plant Biodiversity Centre, Hackney Road, Hackney, SA from 22nd to 28th March inclusive and includes a section on the fungi listed by Robert Brown.

WE NEED YOUR HELP THIS MUSHROOM SEASON

Teresa Lebel (Royal Botanic Gardens Melbourne)

We are trying gain a better understanding of where *Amanita muscaria* (fairy mushroom) and *Amanita phalloides* (deathcap) grow in and around Melbourne and Victoria in particular, but are also interested in records from anywhere in Australasia. Both of these species fruit in association with introduced, non-native trees such as pine, oak or poplar but this may change. *Amanita muscaria* in particular has the potential to become "weedy", and invade native forests, such as has occurred in New Zealand in *Nothofagus* forests. **We are therefore also particularly interested in any locations where these fungi seem to be fruiting with native plants, such as *Eucalyptus* or *Nothofagus*.** The information will be used by myself and Honours and PhD students in several projects that will be starting shortly, examining various aspects of the distribution and ecology of these two fungi.

Amanita muscaria **Photo: David Catcheside**

Amanita phalloides **Photo: Virgil Hubregtse**

So please, any time from now until August, keep a look-out for these mushrooms. For now, you don't have to make a collection, just notify me of where and when you saw the mushroom (teresa.lebel@rbg.vic.gov.au; ph (03) 9252 2361; fax (03) 9252 2350) or show me a photo, AS SOON AS POSSIBLE AFTER THE SIGHTING. We would like to take samples of the fungal fruitbodies if possible, so don't wait to send in your records as you usually would, please notify me as soon as possible.

FUNGI BOOK FOR SALE

Fungimapper Dave Munro has a copy of *The Genus Psilocybe* by G. Guzman (Cramer, 1983) which he would like to offer for sale. It is in excellent condition. If you are interested in buying it please contact Dave on (03) 5577 2268 (h) or (03) 5572 1244 (w).

Greening Australia Course:

Fungal Biology & Ecology

Bruce Fuhrer presents a course covering many aspects of fungal ecology and biology, such as fungal interaction with the physical environment, including fire, and invertebrate activity.

The course runs over a series of three nights and a day trip to Toolangi, near Melbourne. It takes place from 6:30–9:30pm on the 14th, 22nd and 28th May, and the field trip is on 1st June. The cost of the course is $200 ($80 for students).

For bookings and further information please contact Joey Whitehead at Greening Australia on (03) 9450 5305.

Fungimap species in Africa

By Sapphire McMullan-Fisher

I recently was in southern Africa and picked up one of the local fungi field guides, and would you believe a number of our Fungimap species were included. The Fungimap species described were: *Agaricus xanthodermus*, *Amauroderma rude*, *Amanita phalloides*, *Aseroe rubra*, *Anthurus archeri* (named *Clathrus archeri*), *Cyptotrama aspratum*, *Podaxis pistillaris*, *Schizophyllum commune*, *Stereum hirsutum*, *Stereum ostrea* and *Tremella mesenterica*. The field guide is G.C.A. van der Westhuizen and Albert Eicker (1994) *Mushrooms of Southern Africa*. Struik Publishers, Cape Town, South Africa.

Whilst on walks I saw *Mycena viscidocruenta* in litter in a pine plantation with an *Acacia melanoxylon* understorey in George, Cape, South Africa. In Zambia in woodland near the Kafue River, 20 km from Kitwe, *Schizophyllum commune* was sunning itself quietly on a log.

I guess the big questions are how may of these are weeds or Gondwanan fungi?

FORTHCOMING EVENTS: April – September 2002

Please note that these activities are not organised by Fungimap.

Event	Date	Place	State	Contact
Sydney Fungal Studies Group Foray	Saturday 20th April	Mill Creek	NSW	Elma & Ray Kearney Ph: (02) 9428 5336
Melbourne Junior Field Naturalists Club meeting: Mosses, Liverworts & Fungi. **Speaker: Bruce Fuhrer**	Friday 26th April, 7.30pm	FNCV Hall, Gardenia St, Blackburn	VIC	Wendy Clark Ph: (03)9877 9266
Fungal Course run by the University of the Third Age, Canberra. **Leader: Heino Lepp**	Wednesday 1st May (runs for 6 weeks)	U3A, Canberra	ACT	Heino Lepp Judith.Curnow@ea.gov.au
Western Australian Naturalists' Group – Fungimap Group meeting. **Speaker: Katrina Syme.**	Friday 3rd May, 7:30pm	University of WA, Perth	WA	WA Naturalists wanats@iinet.net.au
Sydney Fungal Studies Group Foray	Saturday 4th May	Robertson	NSW	Roy & Joan Freer Ph: (02) 4885 1766
Melbourne Junior Field Naturalists Club excursion: Mosses, Liverworts & Fungi. **Leader: Bruce Fuhrer**	Saturday 4th May		VIC	Wendy Clark Ph: (03)9877 9266
A Fungal Walk & Workshop (Basics of Fungal ID) **Leader: Sapphire McMullan-Fisher** COST: $58	Sunday 5th May & repeated on Sunday 19th May	Hobart	TAS	Adult Education Class Ph: (03) 6233 7237 or www.tafe.tas.edu.au/ae/
Fungi Open House **Bring in your specimens and photos for identification. Fungi books for sale.**	Thursday 9th May 1:30 – 4:30 pm	National Herbarium of Victoria	VIC	Gudrun Arnold Ph: (03) 9252 2374 or fungimap@rbg.vic.gov.au
Adelaide Fungal Studies Group Foray	Saturday 11th May	Hindmarsh Valley Falls	SA	Pam Catcheside Ph: (08) 8222 9380
Adelaide Fungal Studies Group meeting Specimens: identification / discussion.	Tuesday 14th May, 7:30pm	Plant Biodiversity Centre, Adelaide	SA	Pam Catcheside Ph: (08) 8222 9380
Greening Australia: "Fungal biology & ecology" **Leader: Bruce Fuhrer** COST: $200	Tuesday 14th May, 6:30–9:30pm	Melbourne	VIC	Joey Whitehead Ph: (03) 9450 5305
(The course runs over a series of three nights (14th, 22nd & 28th May, 6:30–9:30pm), followed by a day trip to Toolangi on Saturday 1st June.)				
Sydney Fungal Studies Group Foray	Saturday 18th May	Palm Grove	NSW	Pam O'Sullivan Ph: (02) 4362 1543
Field Naturalists Club of Victoria Fungus Foray **Leader: Tom May**	Sunday 19th May	Dom Dom saddle, Black Spur	VIC	Dennis Melzer Ph: (03) 9523 1853
Fungal Frolics: Fern Tree, Mount Wellington **Leaders: David Ratkowsky & Genevieve Gates**	Sunday 26th May	Hobart	TAS	Hobart City Council Ph: (03) 6238 2886
Blackburn Lake Sanctuary Advisory Committee Fungus Foray. **Leader: Tom May**	Sunday 26th May, 2:00pm	Blackburn Lake	VIC	Meet Information Centre, Central Rd
Sydney Fungal Studies Group Foray	Saturday 1st June	Lawson	NSW	Bettye Rees Ph: (02) 9817 5978
WA Naturalists' Group – Fungimap Group Foundation Day long weekend: surveys & workshops led by **Katie Syme**	Saturday 1st June – Monday 3rd June	Donnelley River (NW of Manjimup)	WA	Glynne Beaver Ph: (08) 9294 4948 or wanats@iinet.net.au
Adelaide Fungal Studies Group Foray	Saturday 8th June	Millbrook Reservoir Reserve	SA	Pam Catcheside Ph: (08) 8222 9380
Adelaide Fungal Studies Group meeting Specimens: identification / discussion.	Tuesday 11th June, 7:30pm	Plant Biodiversity Centre, Adelaide	SA	Pam Catcheside Ph: (08) 8222 9380
Sydney Fungal Studies Group Foray	Sunday 16th June	Boronia Park	NSW	Elma & Ray Kearney Ph: (02) 9428 5336
Adelaide Fungal Studies Group – Fungimap Foray	Saturday 22nd June	Kuitpo / Deep Creek CP / Cleland CP	SA	Pam Catcheside Ph: (08) 8222 9380
Growing Specialty Mushrooms – On-Line Course: "Introduction to Fungi and their Utilisation" COST:$490 * Register by 15th May *	Monday 15th July – Friday 18th October			Dr Karen Stott – Ph: (03) 6233 6862 karen.stott@dpiwe.tas.gov.au or www.agsci.utas.edu.au/mushrooms/
(Residential course 18th – 22nd November, Cost: $990, Prerequisite: completion of on-line course. * Register by 30th July *)				
Friends of Shenton Park Bushland Fungus Foray **Leaders: Katrina Syme & Roz Hart**	Saturday 20th July – Sunday 21st July	Shenton Park	WA	Roz Hart Ph: (08) 9382 2086
Adelaide Fungal Studies Group Foray	Saturday 20th July	Venue TBA	SA	
Adelaide Fungal Studies Group meeting Specimens: identification / discussion.	Tuesday 23rd July, 7:30pm	Plant Biodiversity Centre, Adelaide	SA	
Adelaide Fungal Studies Group Foray	Saturday 10th August	Boehm Springs	SA	Pam Catcheside Ph: (08) 8222 9380
Adelaide Fungal Studies Group meeting Specimens: identification / discussion.	Tuesday 13th August, 7:30pm	Plant Biodiversity Centre, Adelaide	SA	
Adelaide Fungal Studies Group Foray	Saturday 7th September	Venue TBA	SA	
Adelaide Fungal Studies Group meeting Specimens: identification / discussion.	Tuesday 10th September, 7:30pm	Plant Biodiversity Centre, Adelaide	SA	

ACKNOWLEDGEMENTS Fungimap recorders

Carey Family 1
Peter Lewis 5
Taylor Lockwood 2
Judy Rowe 1
Gary Warner 1

ACT
Heino Lepp 42
Mark Nicholas 1

NSW
Annette Ewins-Traviss 2
Barry Kemp 10
Craig & Jane McMurtrie 1
Jackie Miles 1
Margery Smith 2
Matthew Sparks 2
Sydney Fungal SG 31
David V Wallace 4

QLD
Eva Ford 3
Barbara Lassiter 1
Linda Milne 4
Beitske Maatje Smallegange 2
Tony Young 23

SA
Adelaide Fungal SG 14
Pamela & David Catcheside 450
Robert Hancock 5
Ron Robinson 6
Sally Williams 2

TAS
Liz Dombrovskis 5
Genevieve Gates 739
Muriel Hood 2
Sarah Lloyd 254
Sapphire McMullan-Fisher 1
David Ratkowsky 14
Di Williams 52

VIC
Robert Bender 9
Eileen Collins 5
Rosemary Cowen 1
Angela Cronin 8
Julia Davis 11
Valda Dedman 3
John Eichler 28
Cecily Falkingham 50
FNCV 18
Wendy Golden 1
Richard Griffin 2
Sheila Houghton 3
Virgil Hubregtse 75
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Helen Langley 10
Simon & Emma Lewis 14
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Ian McCann & Thelma Argall 188
Marie McIntyre 4
Betty Moroney 1
Dave & Lyn Munro 204
Julie Parker 8
Josephine Peake 9
Lois Prictor 9
Rosemary Robb 24
Judy Rutherford 6
Erich & Elsbeth Sacco 4
Elizabeth Sevior 1
Nigel Sinnott 61
Allen Trumbull-Ward 1
Anne Walker 1
Neville Walsh 1
Gary Watson 11
Hilary Weatherhead 19
Jean Youatt 1

WA
Merle Bennett 1
Karen Clarke & Mark Brundrett 7
Peter Donecker 1
Jonica Foss 9
Mary Hart 78
Mavis Sowry 7
Katrina Syme 28
Coral Turley 1

TO CONTACT FUNGIMAP

FUNGIMAP
Royal Botanic Gardens, Melbourne
Birdwood Avenue
South Yarra
Victoria 3141

e-mail: fungimap@rbg.vic.gov.au

Fungimap Newsletters are available in colour on-line at:
http://calcite.apana.org.au/fungimap

The Fungimap Newsletter is edited by Gudrun Arnold.

FUNGIMAP NEWSLETTER

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Royal Botanic Gardens, Melbourne
Birdwood Avenue
South Yarra
Victoria 3141

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