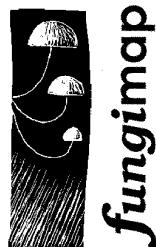


fungimap newsletter 20



Royal
Botanic
Gardens
Melbourne



August 2003

AUSTRALIA'S FUNGI MAPPING SCHEME

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News from the Fungimap Coordinator

The fungi season may be drawing to a close, but enthusiasm for the Fungimap project is continuing to grow rapidly. In May approximately 90 fungi enthusiasts from around Australia, and even a few from overseas, met at the 2nd National Fungimap Conference, held at Rawson, Victoria. Everyone who attended found the experience very valuable. We were fortunate to have an outstanding group of leaders who were capable of teaching at both beginner and advanced levels. The enthusiasm and interest of the participants were overwhelming, and the amazing group camaraderie made the conference very special. A big thank-you to everyone who was involved. For a more detailed report of the Conference see page 4.

Coinciding with the conference, Tom May was inundated with requests from the media, and gave interviews to many regional Victorian newspapers and radio stations. As a consequence of this publicity, many people from around Victoria have joined Fungimap: welcome to you all!

Ian McCann's latest book, *Australian Fungi Illustrated*, was launched at the Conference, and was met with great enthusiasm by all who obtained a copy. It is filled with colour photos of over 400 species of fungi, and while it is not a field guide, it will be of great value to anyone interested in fungi.

On a sad note, it is with regret that we acknowledge the recent death of Ian McCann, naturalist and author. The world is the poorer for his passing. His friend Dave Munro has written a tribute (see page 3).

Other members of the Fungimap family have been touched by sadness in the past few months. Our deepest sympathy goes to Roz Hart and her family, as they come to terms with the loss of her husband. Our thoughts are also with Katrina Syme and Bettye Rees, who are also experiencing difficult times.

And now, it is time for me to bid you all farewell. My husband will be working in Helsinki, Finland, for the next year, and as I love to travel, I cannot pass up the opportunity to live in Europe for a while. Sadly, this means I will be leaving Fungimap in late September.

The appointment of another Coordinator may take a while to be finalised, but in the meantime Fungimap will continue its core functions. Geoff Lay and, more recently, Graham Patterson have been assisting with databasing, and will continue to enter data. Tom May will look after the running of the scheme, with the help of the regional coordinators. Please be aware of the constraints they will be operating under, and do not flood them with ID requests!

I have made many friends in my time here, and will miss you all: I wish you many happy fungal forays. Thank-you for your friendship and support. I believe there are many fungi in Finland – I will let you know!

I am leaving you with a special issue of the *Fungimap Newsletter*: it features a full colour spread of fungi photos, sponsored by the Royal Botanic Gardens Melbourne, and also the lovely new Fungimap logo, designed by Katrina Syme.

Gudrun Evans
Fungimap Coordinator



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INTERESTING GROUPS

Adelaide Fungal Studies Group

Monthly meetings and forays during the fungi season.

- ◆ **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 meetings from November to February inclusive.
- ◆ **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.

Convenor: Pam Catcheside
Ph: (08) 8222 9379 (w)
E-mail: Catcheside.Pam@saugov.sa.gov.au

Sydney Fungal Studies Group

Fungi forays, talks and workshops in the Sydney area.

Secretary: Donald Gover
5 Dawes Street
Little Bay NSW 2036
Ph: (02) 9661 4898
E-mail: djgover@bigpond.com

WA Fungal Studies Groups

The two groups in WA, in different geographical locations, organise events both separately and together.

- ◆ A group within the WA Naturalists' Club organises fungal forays, workshops, identification evenings and talks, based in Perth.
WA Naturalists' Club, PO Box 8257
Perth Business Centre WA 6849
E-mail: wanats@iinet.net.au
Website: <http://www.wanats.iinet.net.au/>
- ◆ The William Bay National Parks Association Fungi Studies Group is based around Denmark, WA.
Contact is Katrina Syme.
E-mail: syme@westnet.com.au

INTERESTING WEBSITES

- ◆ **Natural Selection:** <http://nature.ac.uk/>
- ◆ **Royal Botanic Gardens Melbourne fungi pages:** <http://www.rbg.vic.gov.au/biodiversity/fungi/>
- ◆ **Taylor Lockwood:** <http://www.fungiphoto.com/>
- ◆ **The Hidden Forest:** <http://www.hiddenforest.co.nz/>
- ◆ **MykoWeb:** <http://www.mykoweb.com/>
- ◆ **Fungi Images on the Net:** <http://www.in2.dk/fungi/>

IAN MCCANN - AN APPRECIATION

Dave Munro

Ian McCann was born in Stawell, Western Victoria some 89 years ago and lived there for most of his life. As a field naturalist of the old school he was interested in the full spectrum of natural history. Living where he did he was ideally placed to explore not only the nearby Box Ironbark country but also the semi-arid Mallee and Wimmera as well as his beloved Grampians.

He started taking photographs shortly after he came home from WW2. Over more than half a century he amassed a treasure trove of natural history transparencies. This collection provided the illustrations for the nine books that he published under his own name and the many more to which he contributed.

The latest, *Australian Fungi Illustrated*, was published to coincide with the second Fungimap conference earlier this year. Ian's intention with this book, as with the previous ones, was that it be of interest to advanced naturalists and yet be accessible to beginners and hopefully to encourage them to develop a greater interest in the natural world.

He was an enthusiastic supporter of Fungimap and, with his partner Thelma Argall, contributed several hundred records. His generosity in providing slides for the Fungimap CD-ROM and for Pat and Ed Grey's forthcoming book will ensure that he will be long remembered.

In the last week of his life he was able to take two "octogenarian shuffles" into the bush looking for orchids and fungi. He died peacefully on 29th July having held lucid conversations with his family till close to the end.

He will be sorely missed.

AUSTRALIAN FUNGI ILLUSTRATED BY IAN MCCANN

Launched at the 2003 Fungimap Conference in Victoria, this new book features full colour photos of over 400 species of fungi. Species are named with both a common name and the scientific name. For each photograph there are brief notes on habitat, substrate if it was not on the ground, and the month in which the picture was taken. The book does not include descriptions.

This collection of photographs in a user-friendly format provides a good overview of the diversity of Australian fungi. A great addition to a field naturalist's library!

Cost: \$30.00 (GST inclusive) plus \$3.00 postage = **\$33.00**
Available from Fungimap.



AUSTRALIAN FUNGI ILLUSTRATED - FUNGIMAP TARGETS

There are 64 Fungimap target species illustrated in Ian McCann's book. List compiled by Ian Endersby.

AGARICS					
<i>Agaricus xanthodermus</i>	6	<i>Panus fasciatus</i>	57	<i>Tremella mesenterica</i> group	92
<i>Amanita muscaria</i>	9	<i>Rozites roseolilacina</i>	26	POLYPORES	
<i>Amanita xanthocephala</i>	9	<i>Schizophyllum commune</i>	82	<i>Amauroderma rude</i>	74
<i>Anthracophyllum archeri</i>	40	<i>Tubaria rufofulva</i>	26	<i>Dictyopanus pusillus</i>	45
<i>Armillaria luteobubalina</i>	41	<i>Volvariella speciosa</i>	36	<i>Fistulina hepatica</i>	82
<i>Bolbitius vitellinus</i>	11	CHANTARELLES		<i>Piptoporus australiensis</i>	
<i>Coprinus comatus</i>	11	<i>Craterellus cornucopioides</i>	66	<i>(as Laetiporus australiensis)</i>	77
<i>Cortinarius austroalbidus</i>	15	<i>Podoserpula pusio</i>	66	<i>Polyporus hartmannii</i>	
<i>Cortinarius radicatus</i>	16	CLUB FUNGI		<i>(as Laccocephalum hartmanii)</i>	81
<i>Cortinarius rotundisporus</i>	16	<i>Cytaria gunnii</i>	106	PUFFBALLS	
<i>Cryptotrama aspratum</i>	44	<i>Leotia lubrica</i>	113	<i>Astraeus hygrometricus</i>	103
<i>Dermocybe austroveneta</i>	20	<i>Morchella elata</i> group	114	<i>Battaraea stevenii</i>	104
<i>Hebeloma aminophilum</i>	24	CORAL FUNGI		<i>Calostoma fuscum</i>	102
<i>Hygrophorus lewellinae</i> (as <i>Hygrocybe lewellinae</i>)	33	<i>Hericium clathroides</i>	72	<i>Calostoma rodwayi</i>	102
<i>Lepista nuda</i>	49	<i>Macrotyphula juncea</i>	87	<i>Geastrum fornicatum</i>	95
<i>Leucopaxillus lilacinus</i>	50	<i>Mucronella pendula</i>	72	<i>Podaxis pistillaris</i>	70
<i>Marasmius elegans</i>	51	CRUST FUNGI		STINKHORNS	
<i>Marasmius oreades</i>	52	<i>Poronia ericii</i>	120	<i>Aseroe rubra</i>	94
<i>Mycena austrororida</i>	53	DISC FUNGI		<i>Colus hirudinosus</i> group	94
<i>Mycena interrupta</i>	54	<i>Ascocoryne sarcoides</i>	111	<i>Ileodictyon gracile</i> group	94
<i>Mycena viscidocruenta</i>	55	<i>Banksiamyces macrocarpus</i>	111	THELEPHORES	
<i>Omphalina chromacea</i>	56	<i>Plectania campylospora</i>	119	<i>Cymatoderma elegans</i>	83
<i>Omphalotus nidiformis</i>	62	HYDNOID FUNGI		<i>Stereum hirsutum</i> group	83
<i>Oudemansiella radicata</i> group (as <i>Xerula radicata</i>)	59	<i>Mycoacia subceracea</i>	72	<i>Stereum ostrea</i>	84
		JELLY FUNGI		VEGETABLE CATERPILLARS	
		<i>Pseudohydnum gelatinosum</i>	91	<i>Cordyceps gunnii</i>	107
		<i>Tremella fuciformis</i>	92	<i>Cordyceps hawkesii</i>	107

THE SECOND NATIONAL FUNGIMAP CONFERENCE

Pam Catcheside (State Herbarium of South Australia) (A version of this article appears in the Australian Systematic Botany Society's newsletter)

The second National Fungimap Conference was held at Rawson Village, Victoria from 15th – 20th May 2003. The conference was organised by Fungimap and members of the Field Naturalists Club of Victoria, hosted by the FNCV and supported by the Royal Botanic Gardens Melbourne. There were approximately ninety participants, from all over Australia and from overseas.

Leaders at the conference, in addition to the coordinators, were Matt Barrett, Neale Bouger, Bruce Fuhrer, Cheryl Grgurinovic, Rod Jones, Teresa Lebel, Simon Lewis, Richard Robinson and Jack Simpson.

Fungimap is an Australia-wide project to map for the first time the distribution of selected species of Australian mushrooms, toadstools and other fungi. Volunteer recorders from across Australia send in their sightings of the target species. Records are entered into the Fungimap database, and distribution maps for each species are produced. There are 640 people on the list for the free Newsletter and more than 13,000 records have been put on the database. Fungimap acts as a national fungus club, bringing together people with an interest in and enthusiasm for fungi, and providing links with fungi specialists.

The program for the conference was similar to that of the First National Conference held at Denmark, WA in 2001. On the first day, delegates were welcomed by Dr Jim Ross, RBG Melbourne, and Wendy Clark, President of the FNCV. Then followed a number of talks covering a range of topics: an introduction to fungi, the use of fungi for textile dyes and paper, Fungimap, cortinarioid fungi, how to recognise some *Gymnopilus* species, distribution patterns of Australian fungi, South Australian fungi, survey techniques for macrofungi in WA and Tasmanian alpine fungi. The program concluded with an open forum discussion on the future of Fungimap.

During the first day, Ian McCann's new book, *Australian Fungi Illustrated*, was launched. This includes more than 400 different fungi illustrated in colour. The excellent photographs provide a valuable resource for fungal identification.

The second, third and fourth days followed a similar format: forays to different sites each morning and workshops each afternoon. Sites ranged from *Nothofagus* forest, dry sclerophyll woodland to pine plantations. A mycologist was appointed leader of each group, with about ten participants. Collecting of fungi was kept to a minimum, with one person, who had a permit to collect fungi, being designated to each foray group. Each day's collections were named and displayed on tables. Some of this material was used in workshops.

Workshops covered topics such as Introduction to Fungi (both basic and intermediate), Basic Microscopy, Survey Techniques, Location: Mastering AMG and GPS, Photographing Fungi, Keying out Fungi to Genus Level, Truffles, Guide to Cortinariaceae, Illustrating Fungi for Record Keeping, Guide to Polypores and Identification of *Mycena*.

On Saturday evening, Bruce Fuhrer gave the Keynote Address: *My Favourite Hectare*. Bruce is a wonderfully entertaining speaker with a wry sense of humour. His

superb photographs showed a great range of fungi from a site at Warrandyte State Park in outer Melbourne which he has been surveying for over twenty-five years.

Evening presentations included talks and slides on European Fungi Folklore, New Zealand Fungi, Fungimap Target Species and on the genus *Dermocybe*. Following the conference dinner on Sunday, Teresa Lebel was quizmaster for a Fungi Trivia Quiz with Tom May and Neale Bouger as adjudicators.

Almost all participants stayed at the conference centre, meeting for breakfast, lunch and dinner each day. This enabled discussion of the day's events and resulted in the development of a very convivial atmosphere. The conference demonstrated that, though there is a lot to learn about fungi, such learning can be great fun.

A number of issues were discussed on the first day at the open forum:

- ◆ Fungimap was recognised by all present as performing very valuable roles in collecting data on Australian fungi and in linking and educating those with an interest in fungi, as well as raising the profile of fungi in the general community.
- ◆ Funding for Fungimap remains critical. Its scope continues to broaden, and with this comes an increased workload. The Fungimap database requires continual updating and maintenance as new records come in. Correspondence needs to be answered. The newsletter needs to be produced regularly. The workload has become too much for one person and Fungimap funds are insufficient to provide a secure, salaried position.
- ◆ Since the scheme's inception in 1996, some funding has been received from The Ian Potter Foundation and the Myer Foundation. Data has recently been provided to the Australian Heritage Commission, for which a grant was obtained. Securing funding for the continuation of Fungimap is a pressing issue.
- ◆ Many of the Fungimap participants are enthusiastic amateurs and feel that Fungimap fills an important niche. Links with the Australasian Mycological Society were discussed, and it was agreed that coordination between Fungimap Conferences and AMS Conferences would be desirable, however it would better to retain a separate organisation for Fungimap.
- ◆ The FNCV has provided valuable support for Fungimap, but the scheme has outgrown its ability to provide administrative support. It was felt that Fungimap is now at a stage where it should be considering incorporation. RBG Melbourne is happy to continue to provide support and workspace for the Fungimap Coordinator. The Committee will investigate incorporation.
- ◆ Concern was raised about the paucity of courses covering fungi in Australian universities and also the lack of salaried taxonomic mycologists in Australian herbaria studying indigenous macrofungi – other than at RBG Melbourne, where there are two.
- ◆ The support of the FNCV and of the RBG Melbourne was gratefully acknowledged, along with the Conference Committee (Gudrun Evans, Ed Grey, Merilyn Grey, Pat Grey, Teresa Lebel, Tom May).

TREADING SOFTLY - WALKING THE WEB-OF-LIFE

Sapphire McMullan-Fisher and Sarah Lloyd

In the modern world it is easy to become so goal oriented that the textured beauty around us passes by unseen. It is easy to forget that everything is interconnected from the large to the small. It is often the microbes or hidden processes that have the largest connections.

The glorious trees that have grown from seeds depend on their mycorrhizal symbionts for good nutrition and protection against pathogen attack at the roots. Many of these mycorrhizae are truffle-like fungi and are dispersed by mycophagous (fungus-eating) marsupials like the long-footed potoroo, Gilbert's potoroo, bandicoots etc. These creatures dig up and eat these fungi, the fungal spores are then dispersed in the droppings. These spores then sit in the soil waiting to partner with a seed, which one day may become a glorious tree!

There are other webs interconnected with this one - fallen trees, branches, large woody debris, bark and leaf litter that are often viewed as simply waste or fuel are in fact extremely important to the structural complexity of ecosystems and the recycling of nutrients, particularly carbon and nitrogen. All the nutrients used by a plant during its life are slowly released back to the soil as it breaks down and the decay is accelerated by the actions of fungi, bacteria and invertebrates (Lindenmayer, 2002).

Most wood-boring insects are unable to digest cellulose, the principal component of plants, and many have a symbiotic relationship with wood-decomposing fungi or bacteria that break down cellulose into digestible components. After insects bore into a log and decay has been initiated, the site is further colonised by many other species of fungi that in turn become food for hundreds of species of insects (McQuillan, 1996).

It is interesting to note that the removal of coarse woody debris (CWD) has been strongly implicated in the decline of some woodland birds such as Bush Stone-curlew, Painted Button-Quail, Hooded Robins and Spotted Quail-thrush. Not only do these birds feed on invertebrates in the ground litter layer (most of these invertebrates feed on fungi) many birds use this material for shelter and nesting. Scientific committees of New South Wales, Queensland and Victoria have recently recommended that the loss of CWD from native forests and woodlands be listed as a potentially threatening process under each state's conservation legislation (Tzaros, 2003).

All these interconnections and more are found in our local environment. Although links are difficult to recognise, it is important that we are aware of these connections so that when we are moving around in the natural world we take care of **all** the elements and try not to disturb or damage them.

Macrofungi (mushrooms, boletes, coral-fungi and the like) are the reproductive structures of fungi, and collecting them probably does no more damage than collecting flowers. However, it is important to remember that fungi, like flowers, can be habitat too - many invertebrates lay their eggs in fungi fruiting bodies, while slugs and psocids eat the fruiting bodies themselves.

It was great to see so many people at the Fungimap conference using mirrors to look at the undersurface of the fungi. Using a mirror lets you see the details of gills or pores - so it is not necessary to pick every fungus you come across. Some people's mirrors came with extendable handles, which is great for those who have difficulty getting to ground level.

Naturalists, artists and scientists have learnt from and been inspired by the natural world for hundreds of years. However, in order to observe more closely, we often move or even take small bits of nature with us. These small changes probably make no

lasting damage in the greater scheme of things. Learning about nature helps us in the fight to conserve it but we should not be careless with that which we love and want to protect.

Gerald and Lee Durrell were two great naturalists who produced some codes to help keep our behaviour from becoming damaging. The codes below have been modified from and inspired by the Codes for the Naturalist (Durrell, 1982).

Codes for the fungal enthusiast

Code for the environment:

1. **Leave things as you found them.** This means logs or branches, litter or soil you may have moved - many organisms may be in residence.
2. **Obtain permission** to enter private lands and, where necessary, public nature reserves.
3. **Make yourself aware of the laws** in your country pertaining to wild areas and their inhabitants.
4. **Be aware of pests and diseases** like *Phytophthora*. Take appropriate measures to prevent the spread of diseases and pests.
5. **Consider the necessity of picking fungi** for identification.
6. **Tell the authorities of unusual finds** that you make, and if you are visiting in an area of special interest to conservationists, then supply a list of species found.

Code for the collector of fungi:

1. **Take no more specimens than are necessary** for your purpose. Do you want to make an identification, a drawing or a voucher collection? The number of specimens you need to take will depend on this purpose.
2. **Do not take the same species in numbers** from the same place year after year.
3. Predators or parasites of whatever you collect should not be destroyed.
4. **Do not disturb all potential home sites** in your search for a species. For example, don't turn over all the rotting logs in an area or investigate all holes in every tree.
5. **For local or rare species, take only one or two specimens** and avoid collecting in well-worked or over-worked areas.
6. **Tell the authorities of unusual finds** that you make, and if you are collecting in an area of special interest to conservationists, then supply a list of species found.
7. **Have a current collecting permit** (NB: each state system has different requirements, so you'll need a permit for each state you collect in. Also these permits usually need to be renewed annually).
8. **Never collect for commercial gain.**
9. **Never disturb an endangered species.**
10. **Only collect what you have time to process well.** Remember examining, drawing, photographing, describing and preserving takes time. Record locality details at the time of collection.
11. If the collection makes **good voucher material** consider lodging it at your local herbarium.

References

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 Lindenmayer, D. (2000). *Life in the Tall Eucalypt Forests*. New Holland Publishers, Sydney.
 McQuillan, P. (1996). Understorey as habitat for insects and other invertebrates In *Understorey in Farm Forests: Proceedings from a Forum/Workshop* University of Tasmania, Launceston Campus, Understorey Network, Launceston, pp. 14–15.
 Tzaros, C. (2003). Woody Debris, *Wingspan* 13 (2): 6.

FLAVOURS OF FUNGIMAP - COLOUR SUPPLEMENT

Tom May (Royal Botanic Gardens Melbourne)

This special colour issue of *Fungimap Newsletter* has been generously supported by Royal Botanic Gardens Melbourne, as part of the celebrations of the 150th anniversary of the National Herbarium of Victoria. It is an opportunity to present some of the flavours of Fungimap – introduce some familiar target species to those who have recently joined the scheme, provide new illustrations of some of the less common species, clarify the identification of others, and show some species never before illustrated that might be part of future expansions of the target species. The potential targets are all illustrated on Plate 1, with the two following plates highlighting target species (and *Piptoporus australiensis* on Plate 1 is also a target).

Future Fungimap

If resources allow, it is intended to expand the list of target species. Ideally, an expanded edition of the Fungimap CD-ROM will be produced, with information on additional targets. In the meantime, some possibilities (please don't send records at the moment!) include the following distinctive fungi. *Psathyrella asperospora* (1a) (sometimes placed in the genus *Lacrymaria*) has large shaggy fruit bodies and black gills with a pale edge, often covered in water droplets. The stipe base looks as if covered in a very woolly sock. *Lactarius eucalypti* (1b) is a common species of *Eucalyptus* forests, distinguished by the milky juice appearing where the gills are cut, and the orange-red cap and stipe. *Simocybe phlebophora* (1c) is one of many rather nondescript small brownish fungi on wood, but the combination of netted cap surface, translucent-striate margin and olive tones are very characteristic. *Endopychum variatodes* (1d) is a relative of *Agaricus*, but has an enclosed powdery spore mass, like a puffball. The yellow stain to the stipe, and the strong marzipan odour are very similar to some species of *Agaricus*. *Podoscypha petalodes* (1e) forms lovely stalked rosettes around the base of trees. The underside is smooth. *Barya agaricicola* (1f) occurs as numerous small yellow flask-shaped fruit-bodies on the fruit-bodies of agarics. *Sphaerobolus stellatus* (1g) is minute (to 1.5 mm diam.) and easy to overlook on dung or rotting wood. Spores are produced in a peridiole (a solitary version of the 'eggs' in a bird's nest fungus), which is shot off by eversion of a membrane. This membrane ends up looking like a bladder protruding from the basal peridium, which breaks around the edge to form star-like rays. *Melanophyllum haematospermum* (1h) has a veil so fragile that merely looking at it seems to cause it to fall away. The veil forms delicate scales around the cap edge. Gills are deep reddish-brown, producing an unusual green spore print (when fresh, fading to brownish).

Ping-pong bat pair

Ping-pong bat is an apt common name for *Dictyopanus pusillus* (2b), which forms small (to 5 mm radius) fruit-bodies on wood, often in large troops. From above, *Panellus stypticus* (2a) is almost identical, but has gills, and a rather broad stipe. The two species are also very similar in microscopic characters, and are often now

placed in the same genus (*Panellus*), showing that pores and gills, once used to distinguish different major groups of fungi, can be present in closely related species.

Fungi are variable

Fungi vary immensely, through their development, and according to environmental conditions. Ghost Fungus *Omphalotus nidiformis* (2e) is particularly variable, with expanded caps varying from almost pure white, to completely dark brown, often with blue or purple tints, but typically with the darker colour restricted to the cap centre. The young fruit-bodies illustrated show a rich purple tint to the stipe, and dark brown caps with purple tints. Sometimes variation can indicate that more than one species is present. *Dermocybe splendida* (2f) has intense paprika gills, with this colour extending downwards from the stipe apex, but with the stipe base (and basal mycelium) always a bright yellow. Recent work by Rod Jones has shown that similar forms with a red stipe base and red basal mycelium are a different species (*Dermocybe erythrocephala*). *Hygrocybe graminicolor*, with slimy cap and stipe, is green initially, but in age, and especially on drying becomes orange (2j).

Beautiful targets

Podoserpula pusio (3e) produces delicate tiered caps on a common stipe, and is aptly named Pagoda Fungus. *Piptoporus australiensis* (1j) forms thick brackets on wood, often on stringybark eucalypts after fire. It has a curry odour, and when fresh the surface can be covered with water droplets (1i). The lower pore surface is often more strongly coloured (orange) than the pileus. The much more common *Pycnoporus coccineus* forms relatively thin brackets with uniformly bright orange-red cap and pores, and does not smell of curry.

Familiar, fearsome and fantastic

One target species which most people will recognise is the Fly Agaric *Amanita muscaria* (3b), with its familiar white-spotted red cap. The only species with which it can be confused is the native *Amanita xanthocephala*, which is smaller, and has yellow rather than white spots on the cap, lacks a ring and has a coloured rim around the basal volva. *Amanita muscaria* produces abundant fruit bodies under exotic trees, particularly pine and birch. It was introduced from the Northern Hemisphere in the first half of the twentieth century and is now widespread in south-eastern Australia. Unfortunately it has also become a weed in native Cool Temperate Rainforest, and could cause significant problems in displacing native fungi in these forests. There are some highly distorted forms of *Amanita muscaria*, one form (3a) where the red colour is absent, and a small cap sits atop the stipe, the surface of which is broken into coarse scales, and another form where the upper cap is as normal, but gills are lacking. These forms grow alongside normal forms. Whether these distorted forms are genetic mutations or viral infections is yet to be established.

(CONTINUED ON PAGE 11)



PLATE 1. **a:** *Psathyrella asperospora* (Simon Lewis), **b:** *Lactarius eucalypti* (Simon Lewis), **c:** *Simocybe phlebophora* (Tom May), **d:** *Endoptychum wariatodes* (Tom May), **e:** *Podoscypha petalodes* (Simon Lewis), **f:** *Barya agaricicola* (Simon Lewis), **g:** *Sphaerobolous stellatus* (Tom May), **h:** *Melanophyllum haematospermum* (Tom May), **i:** *Piptoporus australiensis* - water droplets on upper surface (Ian Stone), **j:** *Piptoporus australiensis* (Peter Koster & Cathy Cheadle).



PLATE 2. **a:** *Panellus stypticus* (Simon Lewis), **b:** *Dictyopanus pusillus* (Kevin Thiele), **c:** *Vibrissa dura* (Kevin Thiele), **d:** *Beenakia dacostae* (Simon Lewis), **e:** *Omphalotus nidiformis* (Paul George), **f:** *Dermocybe splendida* (Simon Lewis), **g:** *Microporus affinis* (Veronika Gazdik), **h:** *Tubaria rufofulva* (Kevin Thiele), **i:** *Tubaria* sp. (Tom May), **j:** *Hygrocybe gramicicolor* (Patricia Jordan).



PLATE 3. **a:** *Amanita muscaria* - distorted form (Sally Green), **b:** normal form (Tom May), **c:** *Amanita chlorophylla* (John Eichler), **d:** *Rozites metallica* (Simon Lewis), **e:** *Podoserpula pusio* (Kevin Thiele), **f:** *Stereum hirsutum* - lower surface (Paul George), **g:** upper surface (Paul George), **h:** *Stereum ostrea* (Peter Koster & Cathy Cheadle).

THE 11TH INTERNATIONAL FUNGI AND FIBRE SYMPOSIUM

Katrina Syme

The 11th International Fungi and Fibre Symposium (IFFS) ended on July 18th. A more detailed description of the event, with loads of images, will appear (at some time in the future!) on Dorothy Beebee's 'Art of Mushroom Dyeing' website: www.sonic.net/dbeebe/.



Various dye colours obtained from caps and stems of *Dermocybe splendida* (used separately; with varying pH), on alum mordanted wool.

The campus was full of people wearing the most exquisite jumpers dyed with fungi. The entire Finnish contingent, led by Kirsti and Martti Palmén, wore machine knitted jumpers designed by Kirsti – the women in shades of yellow, orange and brown with an overall pattern of fungi; Martti's pullover was in shades of green featuring fir trees.

The Symposium was opened by Dr Judy Edwards, MLA, Minister for the Environment, who flew down to Denmark for the occasion. Those of you who saw the ABC TV program 'Reality Bites' on ABC TV in early July, which featured Botanical Artist Philippa Nikulinsky and Stephen Hopper (Director, Kings Park and Botanic Garden, Perth) will appreciate our visitors' delight at hearing the fascinating talk on biodiversity in south-western Australia and its Gondwanan heritage given by Dr Hopper on the opening day of our Symposium. This was followed by a wonderful visual display and talk on fungi given by Dr Richard Robinson, which included pictures of dye fungi and unusual species such as *Laccocephalum mylittae*, which were of particular fascination to overseas mycologists.

The fungi forays yielded a wide range of species, including *Dermocybe splendida*, *D. austroveneta* (both yellowish green and emerald green varieties), *D. kula* and *D. austrosanguinea*. Susan Hopkins and Dorothy Smullen (USA) both gave invaluable assistance in sorting and labelling the fungi, and there were some lively debates between the US & Norwegian contingents over the names assigned to some of the bracket fungi. It also became a point of comment that the most common fungus in Australia was 'sp.'!

On one of the field excursions, my group was thrilled to find a number of different wax cap fungi near a carpet of translucent, maroon *Corybas recurvus* (Helmet orchids) in the sand dunes. To top off a most satisfying morning, we went home via the Ocean Beach lookout, where to my great surprise, a large collection of battleship-grey *Banksiamyces* was discovered on fallen *Banksia quercifolia* cones! I have not seen it in WA before, although I do believe it has been found somewhere north of Esperance.



The three species of *Pisolithus* produced different shades of brown. Workshop run by Kirsti Palmén, Finland.

Piptoporus australiensis, *Ganoderma australe*, *Trametes lilacinogilva* and *Phaeotrametes decipiens* were all used for the first time to make paper and gave very exciting results. Tutor Anna King found that *Ganoderma australe* behaved quite differently to the species of *Ganoderma* she has used at home in Scotland.



The Hon Dr Judy Edwards MLA (right), Minister for the Environment, Western Australia, with Anna King (left) & Katrina Syme, at the Symposium Exhibition.

An interesting and varied exhibition of works included large wall hangings featuring paper made from fungi and

tiny, exquisitely manufactured, fungi paper sample books by Anna King. Nalda Searles (Australia) displayed her bush jewellery using found objects including emu feathers, sandalwood and quandong nuts strung on knotted fungi-dyed strips of silk. There were 'pebble' rugs made by Carol and Carl Lee (USA), fungi-dyed silk scarves (Betsy Samuelsen, Norway), gossamer-like felted scarves (Jeanette McKeown, Scotland) and a fascinating display from Finland which included a newly-invented collapsible lightweight fungi drier which is designed to utilise the heat provided by a small fan heater or even hairdryer! There were fungi paper bowls (Andrea Marks, USA) and Mycostyx – a new drawing and fabric decorating medium made from fungi (Miriam Rice, USA). Intricate tapestries (Patricia Gow) were pinned up above a collection of whimsical felted and dyed sporrans made by her and other Scots. Monica Svensson (Sweden) brought a selection of interesting goods for sale, including hats and bags made from the bracket fungus *Fomes fomentarius* and cunningly-contrived collapsible plastic-handled fungi collection baskets made from Hessian and dowelling (see her website: www.informedia.nu/svamp/).

A most impressive display was that mounted by Hjördís Lundmark, Hans Marklund and Mattias Andersson from Sweden. The main section was taken up with Hans' wonderful fungi photographs with corresponding samples of wool dyed by Hjördís. Together, these comprise the pictorial body of work which will be published in their new book. Hjördís' passion is for the colours produced by species of *Dermocybe* and she was excited by the opportunity to experiment with stems and caps (used separately) of *Dermocybe splendida* in her workshop. She and Mattias (an industrial chemist) teach one of the many mycology courses at the University of Umeå and we were able to see some of the experimental work carried out by students in which fungi pigments had been used to dye polyesters.

There were many, many interesting workshops and great events, such as the bush dance and Symposium dinner, but it's time to hand over to Roz Hart for her report on the terrific workshops given by her and Mark Brundrett!

Roz Hart

Mark and I arrived at the IFFS on Wednesday to conduct microscopy workshops and found an impressive and varied collection of specimens awaiting us. With three good microscopes and a number of experienced Scandinavian and American mycologists we had two very interesting afternoon sessions where at times we were bouncing new ideas off each other. International experience across different fungi groups can help us make more sense of the unique species we have here. Mark had everyone fascinated with his technique of photographing spores directly down the microscope eyepiece using his digital camera, a technique that was quickly adopted by those with digital cameras. We examined different groups of fungi and were able to see a very interesting variety of spores and the effects of different stains and their diagnostic uses. We had a veritable sponge for knowledge in young local Jarred Pedro who displayed a keen interest and aptitude for microscopy.

Katie and her Denmark cohorts did a wonderful job organising and hosting this very successful international Symposium.

FLAVOURS OF FUNGIMAP (FROM PAGE 6)

Common but overlooked?

The polypore *Microporus affinis* (2g) is found in forests near the Great Dividing Range right along the east coast of Australia, according to herbarium specimens, but there are very few Fungimap records. Perhaps this is because the illustration used in the Fungimap CD-ROM is incorrect (it is probably a species of *Polyporus*!). *M. affinis* has tiny pores and a short, lateral stem. The cap surface is often zoned, in shades of brown. *Microporus xanthopus*, another target species, has a central stipe with a broad, yellow 'foot'.

Rare and interesting

Vibrissa dura (2c) has stalked fruit bodies with a spherical apex. The texture is fleshy, which distinguishes it from slime moulds, where the spore mass becomes powdery at maturity. *Beenakia dacostae* (2d) is a rarely-recorded target species of wet forests. It has olive spines on the underside of the cap, and the whole fruit body is quite soft (unlike other stalked spine-fungi such as *Phellodon*). *Amanita chlorophylla* (3c), from eastern Australia, has green tones to cap, gills and stipe, and is very similar to *Amanita auroviridis* from Western Australia. *Rozites metallica* (3d), found only under *Nothofagus*, is always an exciting find, with its marvellous metallic blue cap.

A tale of two parchments

The genus *Stereum* forms thin brackets on wood, with a smooth spore-producing layer on the underside. The common name coined for the genus in the forthcoming Fungimap book is 'parchments' and this aptly describes the tough yet thin texture. Two Fungimap targets are *Stereum ostrea* and the *Stereum hirsutum* group. *Stereum ostrea* (3h) forms wide brackets, often with concentric zoning above, usually on large fallen timber in wet forests, while *S. hirsutum* (3f, 3g) has a much narrower bracket, which is often undulate at the margin (to highly ruffled), and with the upperside distinctly hairy.

Tubarias are not always tedious

Arora (*Mushrooms Demystified*) distinguishes between the Totally Tedious Tubaria and the Not So Tedious Tubaria, emphasising the frustration that many feel in trying to get to know small brown fungi in genera such as *Tubaria*, *Galerina* and *Conocybe*. These small brown fungi can indeed be difficult to identify, but we are fortunate that *Tubaria rufofulva* (2h) has lovely deep brownish red tones, grows on wood, and has a distinct ring. Other Tubarias in native forests, such as *Tubaria* sp. (2i) often look rather like species of *Laccaria*, but can be distinguished by the brown spore print, and the presence of veil remnants around the cap margin.

Acknowledgments

Thanks to Prof. Jim Ross, RBG Melbourne, for encouragement and support of Fungimap, and for facilitating the colour printing in this issue; to Gudrun Evans for efficient management of the Fungimap photo databases; and to John Eichler, Veronika Gazdik, Paul George, Sally Green, Patricia Jordan, Peter Koster & Cathy Cheadle, Simon Lewis, Ian Stone and Kevin Thiele, for permission to reproduce their photographs.

NEWS FROM ACT

Heino Lepp (ACT Regional Coordinator)

There has been a fungal addition to the website of the Australian National Botanic Gardens at Canberra. There's still more to come over the next few months, but there's already a lot of information (and pictures) loaded. You can find it at: <http://www.anbg.gov.au/fungi/>.

Over 7 weeks in the June/July period I ran a fungal course for the public. There was one lecture a week with supplementary microscope sessions and walks to look at live fungi in the botanic gardens. Attendances ranged from 30-50 people, with many able to attend all sessions. The course was aimed at people with no knowledge but who were interested in some depth. So the attendees were (painlessly!) introduced to concepts such as hyphae, mycelia, asci, basidia, dikaryons, asexual reproduction as well as ecological and historical aspects. They now know that Michelini was a far better fungal taxonomist than was Linnaeus! Naturally, I put in a good word for Fungimap and emphasized how easily the attendees could contribute. The course will be on again next year - probably expanded slightly.

NEWS FROM QUEENSLAND

Locon Wall

With growing interest in fungi in southern Queensland, a fungi workshop was held at The Thynne Centre, Mary Cairncross Scenic Reserve, Maleny, on 24th May. The workshop was presented by Dr. Tony Young (consulting mycologist) and Nigel Fechner of the Queensland Herbarium.

The workshop, attended by about 35 people, covered field recognition for some major species, collecting techniques and toxicology, and introduced the Fungimap project. It finished with a wide ranging and extended question time followed by a short walk in the rainforest.

There was much enthusiasm which generated applications for membership of Fungimap. We hope to run a similar workshop later this year and a specialised identification workshop for a small number of people in February next year. If you are interested in participating in either of these please contact me by email: fibriwood@bigpond.com.

Finally, anyone who could offer voluntary (unpaid) assistance to Fungimapper Vivien Nash at the Queensland Museum Loans section, particularly with collecting and identifying fungus species, should contact Rae Sheridan on (07) 3406 8344. The Museum Loans section is located at 122 Gerler Road, Hendra.

NEWS FROM SA

Pam Catcheside (SA Regional Coordinator)

The Adelaide Fungal Studies Group has been busy. Between May and July 2003 we have had five forays: to Mount Lofty Botanic Garden, Deep Creek Conservation Park, Belair National Park, Kuitpo Forest, Mount Crawford Forest and Cromer Conservation Park.

At Mount Lofty Botanic Garden in May, *Armillaria luteobubalina* (Australian Honey Fungus) was in abundance at the bases of living *Eucalyptus obliqua* (stringybark) and on cut, dead stumps. Small specimens of *Dictyopanus pusillus* (Ping-pong Bats) were found at the base of a Stringybark.

Later in May, the group went down to Stringybark Walking Trail, Deep Creek Conservation Park, which is a very rich fungal site. It was visited by the Fungimap Coordinators in June 2002 during their conference. The AFSG recorded 55 species including Fungimap species *Armillaria luteobubalina* (Australian Honey Fungus), *Gymnopilus junonius* (Giant Gold Caps), *Mycoacia subceracea* (Golden Spine Splash), *Cortinarius rotundisporus* (Elegant Blue Cortinar), *Dermocybe austroveneta* (Green Dermocybe), *Amanita xanthocephala* (Vermilion Amanita), *Fistulina hepatica* (Beefsteak Fungus) and *Mycena interrupta* (Blue Pixies Parasols).

In June we surveyed Long Gully, Belair NP, also visited by the Fungimap Coordinators last year. Weeds seemed to be having a negative effect on fungal fruiting and we wondered what the area would have been like in J.B. Cleland's day – possibly carpeted with fungi. This was one of his richest sites. Fungimap species found included *Amanita muscaria* under Araucaria, *Amanita xanthocephala* (Vermilion Amanita), *Lepista nuda* (Wood Blewit) and *Tremella fuciformis* (White Jelly).

In early July Kuitpo, another site noted for fungal diversity, was surveyed. Interesting finds were *Dermocybe splendida* (Splendid Red Dermocybe), *Dictyolus cinnamomeus* (in Cleland's handbook, 'Toadstools and Mushrooms of South Australia'), illustrated in Ian McCann's book, 'Australian Fungi Illustrated' as *Panellus ligulatus*. This is an attractive small orange spoon-shaped agaric. The visit to Mount Crawford Forest and Cromer CP later in July encompassed pine woods and native woodland. Species included a little brown mushroom on grass, possibly *Pholiota graminum* and *Gloeoporus dichrous*, a white 'shelf' fungus with an attractive pink-brown lower surface and growing on pine logs.

Meetings have included stimulating and interesting talks by Professor Sally Smith on Mycorrhizal Fungi and by Mitch Hodgkinson on Mushroom Cultivation.

David and I continue to carry out surveys of South Australian fungi. We are in the midst of our survey season. In June we monitored parks on Kangaroo Island. Not only was this a most enjoyable visit but, with the help of the Rangers, we made some very interesting finds, including *Macrotyphula juncea* (Fairy Hair), *Leucopaxillus lilacinus* (Purple Turnover) and *Anthracophyllum archeri* (Orange Fan Brackets).

NEWS FROM TASMANIA

Sapphire McMullan-Fisher (TAS Regional Coordinator)

Finally we've had a reasonably 'normal' fungi season. I hope you've all been out there enjoying nature's mycological delights. As you will have seen in the rest of

the newsletter the second Fungimap Conference was a great success. I hope more Tasmanians will make it to the next conference – hands on makes learning almost easy! Look out for it in 2005.

I'm glad to see that fungi enthusiasts have been getting together in the north of the state; they call themselves **FLAG (Fungi Lovers Adventure Group)**. I hope to make it north for one of their forays as I love getting out in the bush with people who delight in fungi.

For those who will be in Hobart for the last weekend in August please come along to the Fungi evening advertised in the events calendar.

Sarah Lloyd (FLAG)

A new group called FLAG (Fungi Lovers Adventure Group) started activities in mid fungi season this year and so far has had one field trip focusing solely on fungi. (Two others have focused on birds and fungi). The fungi season is drawing to a close, however one (or perhaps two) more field trips will be planned for this year depending on favourable conditions during spring and summer.

To keep up to date with FLAG's activities, please contact Sarah Lloyd by phone on (03) 6396 1380, or by email: sarahlloyd@iprimus.com.au.

The inaugural outing of FLAG to the Meander Falls area on June 28th inspired this poem and comments from Alison and Angus Moore:

*Earth stars creamy softness nest in dogwood mulch,
Nearby, Wolf's farts gather at myrtle boles,
Jelly fungi tremble nervously as we stroll past,
While Dead Mans fingers stolidly sit branch-fast,
Witches butter slides down towards the
Chocolate-brown Earth's tongues whose delicate
fingers lick upwards
Close by Horsehairs stretch to light...*

These wondrous living organisms were under close inspection and serious photographic onslaught by twelve or so FLAG'ers on their first outing to see fungi in the lower reaches of Meander Falls Reserve on the last Saturday in June. Colours, shapes and textures so varied that each fresh footstep brought calls of "Have a look at this!" and "Wow, what's this?" Sarah's explanations were digested and memorised until the next specimen of these fascinating organisms was discovered a minute later. We VERY SLOWLY perambulated around a soft ferny streamside track crowded with *Dianella tasmanica* clumps, numerous *Libertia pulchella*, (Pretty Grass Flag Iris) and wet, dripping lichen-encrusted *Pomaderris apetala* and *Nothofagus cunninghamii*.

A terrific introduction to some of the fungi family; thank you Sarah, and see you next time,

Alison and Angus.

NEWS FROM VICTORIA

Teresa Lebel & Tom May (RBG Melbourne)

RBG Melbourne Fungi Open Day

A Fungi Open Day was held at Royal Botanic Gardens Melbourne on Wednesday 18th June. This annual event is a chance for people to bring in specimens and photos for identification, and also provides the RBG mycologists with an opportunity to look out for new and interesting material. Because it is impossible for the mycologists to be in the field all the time (much as they would like this!), these occasions always throw up some fascinating collections. Among this years treasures were (1) large specimens of what appears to be *Stropharia rugosoannulata*, looking rather like a species of *Agaricus*, but with attached gills; (2) a white-gilled agaric with gills staining red, which also looked rather like an *Agaricus* from above, but is likely to be a species of *Leucoagaricus*; (3) two separate collections of a *Cortinarius* species with a dry stipe with blue tints (observed for the first time only a few weeks previously by Katie Syme at the Fungimap Conference); (4) collections of what appears to be a new truffle genus; and (5) a very large specimen of the luminous Ghost Fungus *Omphalotus nidiformis*, about 30cm in diameter. Some 40 people (including famous faces John Clarke and Sam Neill) browsed the display tables and reference material, used the Fungimap CD-ROM and prototype FunKey, or sat around the identification table as photos and specimens were displayed and proclaimed over by RBG Mycological staff Teresa Lebel, Tom May and Simon Lewis, with the help of visiting mycologist Dr Wes Colgan (Louisiana Tech., USA). More than 300 photographs and 50 specimens were identified.

NEWS FROM WA

Katrina Syme and Roz Hart

The WA Fungimap group is limping back after a shattering time. A HUGE thank you to those who have stepped into the breach and kept events going so capably. The WA FSG has had an eventful and successful Fungi season this year with forays organized at Dwellingup (report in this newsletter), Warwick, Bungendore Park (Armidale), Shenton Bushland and Gooseberry Hill. Attendances have been higher than anticipated. We have been delighted to combine community forays with Neale Bouger this year. We have also held two microscopy sessions.

We have a good list of target species to report to Fungimap from these forays. The collection of Fungi books in the WA Naturalists' Club library is increasing at a satisfying rate.

The 11th International Fungi & Fibre Symposium at Denmark was a great success, with 84 registrants from all over the world. Katie Syme was complimented on her ability to control the weather. Rain poured down impressively on the day of talks then the sun shone (there was ice on the cars in the morning) for the next 6 days of foraying! A full report will come later. The 12th International Fungi & Fibre Symposium, 2005 will be held in "the other Denmark" – in Scandinavia!

WA FUNGI STUDY GROUP: NANGA FORAY REPORT

Karen Clarke & Mark Brundrett

The WA Fungi Study Group held their long weekend Foray from May 30 - June 2 at Dwellingup, based at the Nanga Bush Camp. It was a great success with 33 people attending the full weekend and a number of others joining activities for a day. We all stayed under one roof at the 'Woodshed' which provided an excellent space to run workshops, hold talks, eat, drink and be merry. We even had ghost fungi just down the path that obligingly glowed in the dark for those brave enough to go out in the cold and wet.

Those who arrived on Friday night were treated to a slide show by Richie Robinson (from DCLM Manjimup) and we quickly learnt that it was best to set up the slide projector so that we could all sit around the big wood stove! Saturday we established a routine of field survey and collecting in the morning, followed by identification workshops in the afternoon and informative talks in the evening. Our four faithful leaders, Katie Syme, Richie Robinson, Elaine Davison and Mark Brundrett, backed up by recorders in each of their groups, guided us through the searching, listing and careful collecting of fungi at each site we visited. Sandra Thomas gave us a look at the world of truffles and Kevn Griffiths ably lead the field group on Monday morning. After lunch each day the collections were sorted into the major fungi types by the participants. Then Katie *et al.* spoke about what we'd found. The collections were then used to illustrate how to identify and describe fungi and examine their key features under the microscope. These sessions resulted in the description and drying of over 30 fungi collections for vouchering at the WA Herbarium. Thank you to Richie and his able assistant Kirsten Pearce for the follow up work required to lodge these collections. A competition was run for the best description by a novice, with tough competition that resulted in a three-way draw. A great many other fungi were identified, photographed and even painted. Kevn Griffiths, Trevor Thomas and our young Nats Chris and Kelly Saueraker formed their own thriving artist's corner. We were also able to view digital photographs from excursions earlier in the day thanks to Mark, Will Libby and Trevor.

An added delight was the opportunity to see our shy native mammals. Rodney Armistead, a PhD student at Murdoch University studying the effect of Jarrah Dieback on small mammals, kindly offered to set his trap lines overnight and take small groups out early in the morning to see the results. We were only a few kilometres away from his study sites so it was an ideal opportunity. Rod and three of his fellow students, Melissa, Julie and Kylie had all come to the weekend to learn about fungi to help them with their research. Both Saturday and Sunday morning groups got to see Chuditch and Mardo. Peter Davison was even able to catch them on film before they dashed for freedom. To help Rod's research we surveyed the fungi of his study

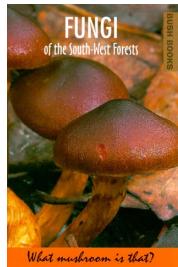
sites as he had been finding fungi spores in even the scats of the carnivores.

Altogether four sites in the northern Jarrah Forest were surveyed and we made 22 recordings of 13 Fungimap target species (*Stereum hirsutum*, *Amanita xanthocephala*, *Boletellus obscurcoccineus*, *Leucopaxillus lilacinus*, *Armillaria luteobubalina*, *Xerula australis*, *Agaricus xanthodermus*, *Podoserpula pusio*, *Fistulina hepatica*, *Anthracophyllum archeri*, *Omphalotus nidiformis*, *Tremella aurantia*, *Tubaria rubriflava*). These records are being submitted to the Fungimap office at the Royal Botanic Gardens in Melbourne to contribute to the national database.

On Sunday morning, we were joined by Professor Steven Stephenson (Professor of Biology at Fairmont State College, West Virginia, USA), Margaret Brims and their partners for a look into the world of slime moulds. These cryptic organisms have many forms and play a key role in the decomposition of organic matter in our natural ecosystems. Despite being called moulds, they are not fungi and belong to a completely different kingdom of life dominated by mostly single-celled organisms. At certain times, the cells of some types of slime mould coalesce into a multi-celled plasmodium and then later transform into fruiting bodies to sexually reproduce. It is these fruiting bodies we most often see. Prof. Stephenson is working on a worldwide survey of slime moulds and this was his first look at WA. Dwellingup provided him with some unique and exciting finds.

We would especially like to thank all the group leaders and organisers of the weekend for their efforts and guidance Karen Clarke, Roz Hart, Margaret Langley, Katie Syme, Richie Robinson, Elaine Davison, Mark Brundrett, Sandra Thomas, Kevn Griffiths and all those who attended to make it such a success. Our deepest sympathy goes to Roz and her family over Ray's tragic death. Roz was sorely missed during the weekend and we were delighted that she was able to join us for the day on Sunday.

FUNGI OF THE SOUTH-WEST FORESTS BY RICHARD ROBINSON



A new (2003) publication by the Department of Conservation and Land Management (WA) in the Bush Books series, this pocket-sized book is an introduction to the world of fungi featuring species found in south-west WA. As many species of fungi are wide-spread, the book is likely to be of use to people in the eastern states also.

The fungi are presented in easily-understood groups, with general information, description, and notes on spores, habitat, fruiting time and edibility, together with clear colour photographs. Species are named with both common and scientific names. An excellent introduction to fungi.

Cost: \$6.50 (GST inclusive) plus \$2.50 postage = **\$9.00**
Available from Fungimap.

FORTHCOMING EVENTS

Please note that these activities are not organised by Fungimap

Event	Date	Place	State	Contact
Adelaide Fungal Studies Group Foray Leader: Pam Catcheside	Saturday 9 th August 2003, 10am	Para Wirra RP	SA	Pam Catcheside Ph: (08) 8222 9379 (w)
Adelaide Fungal Studies Group meeting Specimens: identification and discussion.	Tuesday 12 th August 2003, 7:30pm	Plant Biodiversity Centre, Adelaide	SA	Pam Catcheside Ph: (08) 8222 9379 (w)
Friends of the Royal Botanic Gardens Melbourne Speaker: Tom May: 'A Mycological Mystery'	Thursday 14 th August 2003, 10.30am	Mueller Hall, RBG Melbourne	VIC	Friends of the RBG Ph: (03) 9650 6398
The Geographical Society Presents: Fungi in Ecosystems & Fungal Follies and Foibles Refreshments available.	Friday 29 th August 2003, 5:20pm	Geology Lecture Theatre (211), Geology & Geography Building, University of Tasmania. Parking: Earl St carpark.	TAS	Sapphire McMullan-Fisher Ph: (03) 6226 7612 Fax: (03) 6226 2989 Email: smcmulla@utas.edu.au
Sydney Fungal Studies Group Workshop Leader: Pam Catcheside	Saturday 30 th August 2003	University of NSW, Sydney	NSW	Donald Gover Ph: (02) 9661 4898
Adelaide Fungal Studies Group Foray Leader: Pam Catcheside	Saturday 13 th September 2003, 10am	Scott Creek CP	SA	Pam Catcheside Ph: (08) 8222 9379 (w)
Adelaide Fungal Studies Group meeting Specimens: identification and discussion.	Tuesday 16 th September 2003, 7:30pm	Plant Biodiversity Centre, Adelaide	SA	Pam Catcheside Ph: (08) 8222 9379 (w)
Adult Education course in Burnie Fungi Identification for Beginners Tutor: Sarah Lloyd Cost: \$47.30 full price, concessions available.	Saturday 11 th October 2003, 10:00am	Adult Education Centre, 4 North Terrace, Burnie (includes field trip)	TAS	Sarah Lloyd Ph: (03) 6396 1380 Email: sarahlloyd@iprimus.com.au
Adelaide Fungal Studies Group meeting Speaker: to be announced.	Tuesday 14 th October 2003, 7:30pm	Plant Biodiversity Centre, Adelaide	SA	Pam Catcheside Ph: (08) 8222 9379 (w)
Central North Field Naturalists AGM Speaker: Sapphire McMullan-Fisher, Fungimap Regional Coordinator for Tasmania, will be showing slides and talking about Fungi. A fantastic Indian meal will also be provided.	Saturday 18 th October 2003, 6:00pm	Weegena Hall, (north-west of Deloraine)	TAS	Sarah Lloyd Ph: (03) 6396 1380 Email: sarahlloyd@iprimus.com.au

FNCV FUNGI FORAY: BUNYIP STATE FOREST

Geoff Lay (This article also appeared in *Field Nats News*)

The weather was sunny and mild, and we met at the Mortimer Picnic Ground on the 11th May 2003. After an introductory talk by our leader, Jenny Tonkin, we proceeded on the nature trail.

As is typical of fungi forays, there was a prolific display of fruiting bodies to observe, and the distance covered was quite short while the leeches were plentiful.

Seeing four Fungimap targets within 20 metres of the cars was a foretaste of the delights ahead and we saw thirteen targets for the day. There were many gregarious troops of *Armillaria luteobubalina*, a very active parasite, and massive mounds of *Gymnopilus pampeanus*. These contrasted starkly with the delicate wiry red stems of the *Mycena viscidocruenta* and the brilliant pale blue of the *Mycena interrupta*. *Mycena hispida* is a tall elegant species found among forest leaf litter, usually associated with masses of white mycelial cords. The medium species included maroon *Tubaria rufosalva*, steel-blue *Cortinarius rotundisporus* and white gilled *Oudemansiella radicata*. On fallen logs we were treated to the white jelly fungus, *Tremella fuciformis*, tiny ping-pong bats *Dictyopanus pusillus*, the resupinate yellow *Mycoacia subceracea* and the large ochre brackets of *Stereum hirsutum*. Under its

plain looking cover the hidden delights of the tiny jelly teeth of *Pseudohydnum gelatinosum* was another highlight. Also hiding under their lateral caps were *Campanella olivaceonigra* and a *Resupinatus* sp. Another target which was confirmed later from the photos was the silver grey caps of *Nyctalis mirabilis* growing on top of an old Russulaceae fruit body. Tom May was quite excited as there was no *Nothofagus* in the vicinity as there had been at earlier sightings.

There were plenty of other spectacular fungi as well – the 25 cm wide caps of *Amanita ochrophylla* were impossible to miss and there were some boletes, with pores rather than gills, almost as big. The deep green discs of *Chlorociboria aeruginascens* contrasted with the brown and purple of *Stereum illudens*, white *Mycena* and *Amanita* species, the bright purple of *Cortinarius archeri* and several colours of coral-shaped bodies of *Clavaria* species including *Clavaria piperata* and single white fingers of *Clavulinula rugosa*. There was also the black cap with white edged *Phellodon* sp and the white rimmed brown massed brackets of *Podoscypha petalodes*.

Over lunch, Jenny was led to a group of about ten green *Russula* species, which she is studying.

Not surprisingly for this time of year there were few plants in flower, but *Bauera ruboides* and *Banksia marginata* were seen in the drier areas away from the creek. Both the coral ferns, *Gleichenia dicarpa* and *G. microphylla*, were intertwined alongside the boardwalk.

Acknowledgments: Fungimap Recorders

NSW		
Barry Kemp	10	Joan F Kottek
Janine Koppel	6	Geoff Lay
SA		
Adelaide FSG	28	Dorothy Mahler
Uni Carnegie	1	& Noel Schleiger
Pam & David Catcheside	3	Ivan Margitta
Robert Hancock	2	Ian McCann
VIC		
Arthur & Denise Carew	32	& Thelma Argall
Judith Cooke	18	Dave & Lyn Munro
Julia Davis	18	Josephine Peake
Valda Dedman	6	Lois Prictor
John Eichler	76	Glenys Purkis
Pamela Faragher	1	Nigel Sinnott
Helen Fernandes	1	Kevin Thiele
Paul George	43	Glen Thomas
Pat & Ed Grey	41	WA
Virgil Hubregtse	62	Margaret Langley
Niels Klazenga	1	Jarred Pedro
Peter Koster & Cathy Cheadle	99	Mavis Sowry

Fungimap Book

Pat and Ed Grey are still searching for a small number of images for the Fungimap book:

- ◆ *Agaricus xanthodermus* – ID shot (close up)
- ◆ *Amanita phalloides* - ID shot (close up)
- ◆ *Coprinus comatus* – view (in habitat)
- ◆ *Cortinarius radicatus* - view (in habitat)
- ◆ *Cortinarius rotundisporus* - ID shot (close up)
- ◆ *Dermocybe splendida* - view (in habitat)

If you can help please contact Pat and Ed at edandpat@iprimus.com.au, or phone: (03) 9435 9019.

Note for Digital Camera users

If you are taking photos of fungi with a digital camera and want to submit these for consideration for inclusion in the Fungimap book, please contact Leon Costermans to discuss the resolution and file size needed for reproduction for printing at lcost@bigpond.com, or phone: (03) 9783 5015.

Plant Conservation: approaches and techniques from an Australian perspective

This manual, which includes a chapter on “Conservation of Australian Fungi: Knowledge is the Key” by Tom May, is now available. Cost: \$55.

To order contact the Australian Network for Plant Conservation.

Email: anpc@anbg.gov.au, phone: (02) 6250 9509.

Website: <http://www.anbg.gov.au/anpc>

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Fungimap Newsletters are available in colour on-line at our website:

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