fungimap newsletter 29

AUSTRALIA'S FUNGI MAPPING SCHEME

Inside this Edition:

NEWS FROM THE FUNGIMAP PRESIDENT

After the wonderful rainy start to the fungus season in southern Victoria in April and May, the following months have been extremely dry. However, even when conditions are not great for fungi, there always seems to be something of interest.

On a foray to the Brisbane Ranges in early July I saw a good display of post-fire fungi, such as *Pholiota carbonaria* and *Psathyrella* aff. *pennata*, and several disc fungi including *Anthracobia* and *Peziza*. In unburnt forest, the rich red of *Cortinarius erythraeus* was one of the few brightly coloured larger fungi, but this meant that more attention could be paid to searching for smaller and less obvious fungi. Intermixed with some tiny, pale *Lichenomphalia* (the Omphalinas that grow on algal mats) was a very fine *Xylaria*, with the club only a few millimetres in diameter, and with a pointed apex. The base of the fruit-body extended a long way into the soil, but it was too fine to see if it was attached to buried wood or some other substrate. Unfortunately, the specimens were sterile, but they are possibly *Xylaria readeri*, described from material collected in the Wimmera district of Victoria by Felix Reader in the late 1800s and rarely seen since.

Just as new and interesting fungi are always out there to be discovered on a foray, so too the data on the Fungimap target species can always be amplified and extended. The maps in *Fungi Down Under* give a good idea of the general distribution of most species, but there are many gaps to be filled within the broad distribution, and no doubt extensions to ranges as well. Some species, such as Fly Agaric *Amanita muscaria*, have been on the list of targets for about 10 years, but new information continues to arrive. Recently Mark Luxton and Jayden Mays sent a batch of records from the Johns River district on the NSW coast, near Port Macquarie, amongst which was a report of *Amanita muscaria*, under planted pines. This location extends the distribution by more than 200 km from the previous northernmost record in the Fungimap database on the NSW coast, at Kulnura, just north of Sydney.

We are working on increasing the number of target species, to add interest to those who have been looking out for targets for a while, and also to track newly introduced fungi, such as the Orange Ping Pong Bat, *Favolaschia calocera*, now known from several sites in Melbourne (Ivanhoe, Lower Plenty, Menzies Creek), Gippsland, and also sighted at Lamington National Park.

Fungimap Co-ordinator Sarah Jacob has been updating the Fungimap website, and information on the new targets can now be found on the website.

I am very pleased to let Fungimappers know that the **Fungimap IV Conference** will be held at Camp Bornhoffen, in far south-east Queensland, 31st May to 5th June 2007. This Conference is being organised jointly with the Queensland Mycological Society. Watch out for details in the next Newsletter.

Tom May, RBG Melbourne

CONTACTING FUNGIMAP

Fungimap Central
Royal Botanic Gardens Melbourne
Private Bag 2000
South Yarra VIC 3141

Fungimap Coordinator: Sarah Jacob
Telephone: (03) 9252 2374
E-mail: fungimap@rbg.vic.gov.au
Website: http://www.rbg.vic.gov.au/fungimap/

Fungimap Committee

President
Tom May
Royal Botanic Gardens Melbourne
Private Bag 2000
South Yarra VIC 3141
E-mail: Tom.May@rbg.vic.gov.au

Secretary
Teresa Lebel
Royal Botanic Gardens Melbourne
Private Bag 2000
South Yarra VIC 3141
Email: Teresa.Lebel@rbg.vic.gov.au

Committee Members
Pam Catcheside
72 Eve Road
Bellevue Heights SA 5050
E-mail:
Catcheside.Pam@saugov.sa.gov.au

Vice President
Katrina Syme
RMB 1020
South Coast Hwy
Denmark WA 6333
E-mail: syme@westnet.com.au

Treasurer
John Carpenter
C/-Royal Botanic Gardens Melbourne
Private Bag 2000
South Yarra VIC 3141
Email: johncoz@fastmail.com.au

Sarah Lloyd
999 Denmans Road
Birralee Tas 7303
E-mail: sarahlloyd@iprimus.com.au

FUNGI INTEREST GROUPS

NSW

Sydney Fungal Studies Group
Fungi forays, talks and workshops in the Sydney area.
Secretary: Donald Gover, Ph: (02) 9661 4898
Email: dgover@bigpond.net.au

Central Coast Fungi Group
Fungi forays in the Central Coast region of NSW.
Contact: Pam O'Sullivan, Ph: (02) 4362 1543
Email: pamos@ccregion.com.au

Qld

Queensland Mycological Society Brisbane
Contacts: Karalyn Herse, Ph: 0419 716 851
Email: fungiqld@yahoo.com.au
Sapphire McMullan-Fisher: sapphire@flyangler.com.au

SA

Adelaide Fungal Studies Group
Monthly meetings and forays during the fungi season.
Contact: Pam Catcheside, Ph: (08) 8222 9379
Email: Catcheside.Pam@saugov.sa.gov.au

Tas

Fungi Lovers Adventure Group (FLAG)
Fungi activities in northern Tasmania.
Contact: Sarah Lloyd, Ph: (03) 6396 1380
Email: sarahlloyd@iprimus.com.au

Vic

Field Naturalists Club of Victoria, Fungi Group
Forays, monthly meetings & presentations.
Contact: Geoff Lay, Ph: (03) 9898 4816
or Arthur Carew (03) 5968 4505
Web: http://www.vicnet.net.au/~fncv then Calendar of Events

WA

Perth Urban Bushland Fungi Project
Fungi workshops, walks, surveys in Perth Urban bush areas.
Contact: Roz Hart, Ph: (08) 9334 0500, Sarah de Bueger.
Email: pubf@iinet.net.au
Web: http://www.fungiperth.org.au

WA Naturalists' Club,Fungi Study Group
Fungal forays, workshops, identification evenings and talks, based in Perth.
Contact: WA Naturalists' Club
Email: wanats@iinet.net.au
Web: www.fungiperth.org.au

William Bay National Parks Association,Fungi Studies Group
Fungi forays around Denmark.
Contacts: Katrina Syme email: syme@westnet.com.au
Dale Fewings: mtromance@wn.com.au

FROM THE EDITOR

It would be lovely to have every issue as a colour issue. Alas! Not possible. However, we hope you enjoy reading news about fungi and fungi groups from around the country. This newsletter contains an article by **Steve Stephenson** on the Myxomycetes in Australia. Steve has produced a wonderful book on the Myxomycetes of New Zealand and is presently working on one for Australian taxa. We thank Steve for providing information for our 'Myxotargets' (see Newsletter 28, pages 8, 10, 11). Thank you, too, to the scribes from the different regions of Australia – all providing us with their insights and enthusiasm for the fungi they come across. Finally, we include the Annual Report for Fungimap for 2005, including the financial statements for Fungimap Inc. Our Treasurer, John Carpenter, has done a sterling job in providing these.

Please continue to send us material related to fungi, including images, questions, puzzles, comments, reviews, and quirky bits of news. Articles should be no more than 800 words, news items no more than 600 words; images should preferably be jpg, resolution at least 300dpi and submitted in at least the size that they are to be published. Avoid images larger than 1Mb* (which are preferably to be posted on CD-ROM). Please send your contributions to Pam (Catcheside.Pam@saugov.sa.gov.au) or Fungimap, RBG Melbourne, Private Bag 2000, South Yarra, Victoria 3141 (fungimap@rbg.vic.gov.au). The deadline for the next issue, Fungimap Newsletter 30, is Friday, 20th October 2006.

Finally, errors in Fungimap Newsletter 28: Two images on page 10 (**d & e** of *Stemonitis* sp.) were incorrectly ascribed to Paul George. They were taken by David Catcheside. Apologies to Paul and David. And * 1Mb (not 1kb!).

Pam Catcheside

Call for Expressions of Interest in the position of Senior Editor or Assistant Editor of the *Australasian Mycologist*

The Council of the Australasian Mycological Society welcomes Expressions of Interest from people interested in undertaking a position as Senior Editor or Assistant Editor of the Society's journal the *Australasian Mycologist*. Although the positions are without remuneration they offer applicants a creative opportunity for personal or career development. Importantly, they provide an ideal opportunity to make a contribution to the development of the Society.

The following qualifications and/or experience would be considered advantageous:

- Experience in editorial procedure necessary for the publication of a scientific journal and society newsletter;
- Ability to handle electronically transmitted manuscripts with accompanying illustrations in black and white and colour;
- Ability to disseminate information via the web as newsletters or electronic versions of the journal;
- A substantial record of publications in major scientific journals;
- An understanding of the dynamics of the mycological community in Australasia;
- A genuine interest in progressing the cause of mycological endeavour in Australasia.

Applicants are invited to submit a Cover Letter outlining their suitability for the position, as well as a Curriculum Vitae documenting relevant employment and publication history.

Expressions of Interest should be submitted in writing to:
Dr Geoff Ridley,
Chair AMS Publications Working Group,
ERMA, NEW ZEALAND
P.O. Box 131,
Wellington, New Zealand

For further information regarding the positions contact Dr Geoff Ridley.
Geoff.Ridley@ermanz.govt.nz

Vale Pat Jordan

Fungimappers were saddened to hear of the recent death of Patricia Jordan, of Bundanoon, NSW. Pat was one of the very early contributors of Fungimap records, sending in her first batch in 1996. Pat attended the Australian Network for Plant Conservation Conference in Albury in 1999, where there was a workshop about mapping fungi. I recall being impressed by the fact that she had come all the way from Bundanoon, and by her evident enthusiasm for fungi. It was great to see the eagerness of participants at that workshop to share their passion and knowledge about fungi (Pam Catcheside, Pat and Ed Grey, Heino Lepp, Bettye Rees and Margery Smith were also there). This lively interchange was an important part of realising that there was more to Fungimap than just the mapping scheme. Pat Jordan also attended the 2004 Cryptogamic Extravaganza at the Grampians.

In 2000, Pat's keen eye spotted an unusual structure in a Coachwood Rainforest which turned out to be a new species of the very rare plant genus *Thismia* (see her article in *Fungimap Newsletter* 14: 'Fungi don't have leaves , do they?'). Pat contributed more than 400 records to Fungimap; many were accompanied by excellent photographs, some which appear in *Fungi Down Under* and on the Fungimap CD-ROM.

Tom May, Royal Botanic Gardens Melbourne

MYXOMYCETES IN AUSTRALIA

Steve Stephenson
University of Arkansas

The myxomycetes (plasmodial slime moulds or myxogastrids) are fungus-like organisms usually present and sometimes abundant in nature. Members of the group have been known from their fruiting bodies since at least the middle of the seventeenth century, when the first recognizable description of a myxomycete (the very common species now known as *Lycogala epidendrum*) was provided by the German mycologist, Thomas Panckow. However, there are suggestions that humans have been aware of myxomycetes for much longer. In writings from the ninth century attributed to the Chinese scholar Twang-ching-shih, there is reference to a certain substance "Kwei hi" (literally "demon droppings") that is of a pale yellowish color and grows in shady damp conditions. It is thought by some mycologists that this very likely refers to a myxomycete, perhaps a species such as *Fuligo septica* (NL28, page 11), which often achieves a size that makes it readily conspicuous.

Myxomycetes are characterized by a relatively complicated life cycle that was not understood completely until less than a century ago. In brief, the myxomycete life cycle consists of two very different trophic (or feeding) stages along with a reproductive stage that bears no resemblance whatsoever to either of the trophic stages. The first of the two trophic stages consists of uninucleate (single-nucleus) amoeboid cells that may or may not be flagellated. These amoeboid cells, derived from myxomycete spores that have germinated, feed and divide by binary fission to build up large populations in the microhabitats in which they occur. Myxomycetes spend this portion of their life cycle as true eukaryotic microorganisms, when their very presence in a given microhabitat can be exceedingly difficult, if not impossible, to determine. Ultimately, the amoeboid cells give rise to a second trophic stage, which consists of a distinctive multinucleate structure, called a plasmodium. (The common name "plasmodial slime moulds" often used for myxomycetes is derived from the latter term.)

The transformation from one trophic stage to the other in the myxomycete life cycle is in most cases the result of fusion between compatible haploid amoeboid cells, which thus function as gametes. The fusion of the two cells produces a diploid zygote that feeds, grows, and undergoes repeated mitotic nuclear divisions to develop into the plasmodium. Plasmodia have no cell walls and exist as thin masses of protoplasm, which often appear to be streaming in a fanlike shape in the larger, more commonly encountered examples. Bacteria represent the primary food resource for both trophic stages, but plasmodia are also known to feed upon yeasts, algae, cyanobacteria and fungal spores.

Myxomycete plasmodia usually occur in situations in which they are relatively inconspicuous, but careful examination of the inner surface of dead bark on a fallen log or the lower surface of a piece of coarse woody debris on the ground in a forest, especially after a period of rainy weather, often will turn up an example or two. Most of the plasmodia encountered in nature are relatively small, but some species of myxomycetes are capable of producing a plasmodium that can reach a size of more than a metre across. Under adverse conditions, such as drying out of the immediate environment or low temperatures, a plasmodium may convert into a hardened, resistant structure called a sclerotium, which is capable of reforming the plasmodium upon the return of favorable conditions. Moreover, the amoeboid cells can undergo a reversible transformation to dormant structures called microcysts. Both sclerotia and microcysts can remain viable for long periods of time and are probably very important in the continued survival of myxomycetes in some habitats, such as the arid areas of central Australia.

Ultimately, under suitable conditions, a plasmodium gives rise to one or more fruiting bodies containing spores. The spores of myxomycetes are for most species apparently wind-dispersed and complete the life cycle by germinating to produce the uninucleate amoeboid cells. The fruiting bodies of myxomycetes (NL28, pages 10, 11) are somewhat suggestive of those produced by some fungi, although they are considerably smaller (usually no more than 1-2 mm tall). Although fruiting bodies can achieve macroscopic dimensions, those of most species tend to be rather inconspicuous or sporadic in their occurrence and thus not always easy to detect in the field. Moreover, fruiting bodies are relatively ephemeral and do not persist in nature for very long. Identification of myxomycetes is based almost entirely upon features of the fruiting bodies.

Because of their life-history strategy and relatively small size, myxomycetes tend to be overlooked in nature. However, careful searching of suitable substrates, especially after a period of rainy weather, almost invariably will yield fruiting bodies of several different species. Although "slime mould" is not a particularly attractive common name, fruiting bodies produced by members of the group exhibit incredibly diverse forms and colours and are often objects of considerable beauty. Moreover, since those of many of the more common species achieve macroscopic dimensions, they can be collected and preserved for study in much the same way as the sporocarps of larger fungi or even specimens of bryophytes, lichens, and vascular plants. If handled carefully, properly stored myxomycete fruiting bodies will remain suitable for study for many years.

MYXOMYCETES IN AUSTRALIA (contd.)

Approximately 875 species of myxomycetes are known worldwide, and less than a third of these have been reported from Australia. A monograph on the group for Australia is currently being developed, but there are many regions of the country for which few records exist, so there is still much work to be done. For example, until recently, there were almost no records of "snowbank" (or nivicolous) myxomycetes from Australia. The snowbank myxomycetes are a special ecological group restricted to alpine areas of the world where there is sufficient snowfall to produce snowbanks that persist into late spring and early summer. However, a two-week collecting trip by the author to the Snowy Mountains during October of 2004 yielded more than two hundred collections of snowbank myxomycetes, including a number of species previously unknown to Australia.

FUNGAL NEWS

News from Tasmania

Sarah Lloyd

Fungi and black cockatoos

Thismia gully is a favourite foray site because it's shady and damp and many trees, particularly dogwoods, but also blackwoods and eucalypts, have been uprooted and litter the ground. The logs, at various stages of decay, are biodiversity hotspots. They support a wonderful array of mosses and liverworts, periodic flushes of fungal fruits and a labyrinth of tunnels hidden deep within the wood.

The tunnels are the work of invertebrate larvae (mostly beetles) that in some cases have a symbiotic association with a fungus which softens the wood and is food for the grubs. For example, the female ambrosia beetle bores into wood and deposits eggs inside the tunnel. But before laying eggs, she inoculates the tunnel walls with mycelium and fungal spores she carries in a special body cavity called a mycetangium. Fungal mats soon cover the tunnel walls and the yeasts (ambrosia) provide a food source for the larvae. This activity goes largely unnoticed unless a gang of Yellow-tailed Black-cockatoos drops by and you just happen to be there for the experience.

Several sentinel birds watching from the blackwood canopy screeched their rhythmical call. This almost masked the other sounds; the unoiled hinge of heavy metal interspersed with resonating knocks as the feeding birds ripped the wood apart. I walked slowly, keen not to disturb them, but my movements were immediately detected. The screeching changed in pitch and rhythm and the more familiar cry rang out; the feeding cockatoos went still.

The following day I went to check the "damage" and marvel at the strength of this bird's bill. The cockatoos had systematically worked their way down the gully. They had targeted the dogwoods and revisited those logs with the characteristic marks of previous encounters. It was interesting to see that the interiors of the logs were dry despite enough recent rain to cause the ephemeral creek to flow.

What a wealth of species inhabits one log! There was a pink splash of *Hypoxylon rubiginosum* and a blackwood leaf, dotted with *Torrendiella eucalypti*, suspended in a glowing *Stereum ostrea*. The complex odour of *Junghuhnia rhinocephala* was a reminder of field discussions and the importance of detecting particular odours that identify some species. At the base of the log, where mosses and liverworts had taken hold before it fell, there was second flush of *Galerina* and a scattering of tiny white, decurrent-gilled *Mycenas*.

Reference:

Hudler, G. (1998) *Magical mushrooms, mischievous molds: the remarkable story of the fungus kingdom and its impact on human affairs*. Princeton University Press, Princeton.

News from Western Australia

Perth Urban Bushland Fungi Project

PUBF team: Neale Bougher, Roz Hart & Sarah de Bueger

Perth is experiencing a record winter of dry weather which is having a terrible effect on the fruiting of the local fungi! Despite this there are fungi around to be found if you look hard, so the Project continues to inform and educate the public about fungi.

Our first public workshop was at Whiteman Park on 18 June. One foray group had the unusual opportunity of catching a local Whiteman Park train. A notable collection from this workshop was the Gondwana fungus, *Cortinarius phalarus* (Volvate Cortinar), which was previously found by the Project in 2004 at our Forrestdale workshop. Information about this very interesting Gondwanan relic can be viewed on the Project website at www.fungiperth.org.au. We were joined on the day by visiting Mycologist, Dr Roy Halling from the New York Botanical Garden.

Roy gave an extremely interesting talk the next evening, Monday 19 June, concerning the connection between fungi occurring on a north-south line from North to South America, through Costa Rica where he has done a lot of work. Connections between species occurring in regions which had formed adjacent parts of Gondwana were also emphasized. It was very timely to find the Volvate Cortinar when Roy was with us!

PUBF (contd.)

The Project is conducting three Biological surveys in Regional Parks this winter, in Paganoni bushland (part of Rockingham Lakes RP), at Yellagonga Regional Park and in Brownman Swamp and adjacent bushland, Henderson, part of the Beeliar Regional Park. Unfortunately *Armillaria luteobubalina* was fruiting massively in Paganoni bushland, which has repercussions for management of this Regional Park. Some of our fungi leaders are able to be available on weekdays and they assist on these surveys, enabling maximum collecting.

Our second public workshop was held at Trigg bushland on Sunday 2 July. There were more attendees than ever before, more than we had expected! As in other events during this dry winter, we were not overwhelmed with fungi. Fortunately our fungi leaders are now so experienced and good at finding fungi that they were still able to collect enough material for the afternoon's descriptive session.

Two public walks have been held to date, at Koondoola bushland and at Modong bushland in Oakford. At Koondoola, despite dry sunny conditions, we found lovely large specimens of both *Amanita* and *Russula*. Neale Bougher showed how easily people can learn to differentiate between these two similar looking, large fungi. Conditions were better for the Modong walk, however in most winters this Swamp is too wet to walk in! We found a good selection of fungi and were kindly hosted by Nancy Scade at the Oakford Farm Trees nursery for a lovely morning tea and discussion session.

There are two public walks to come, at Maida Vale and at Queens Park at the end of July. For the first time we are conducting workshops catering specifically for Local Government Officers. These are the Environment, Revegetation and Bushcare Officers employed by local Councils to look after our local bushland. It is a great opportunity to be able to educate these employees about the importance of fungi in maintaining the health of the bushlands they manage.

William Bay National Park Fungi Group

Dale Fewings

A small group began the fungi forays at the beginning of May and has been continuing each week. This season, we have been describing fewer specimens but spending more time on distinguishing between the characteristics of fungi which help in accurate identification. Using "keys", we have noted such things as gill attachment, spore print colour, presence of a ring or volva, texture of stem and shape of cap. Although we are not always able to identify the exact species, unless the specimen is a well known fungus, we are usually able to key out the specimen to identify the genus. We have photographed the fungi both in the field and as a collection back at the Ranger's House, dissecting the specimens, recording the characteristics and drying them in a dehydrator. The dried specimens will be lodged at the Perth Herbarium. Feedback from the Herbarium will clarify our observations and increase our knowledge and provide a more sophisticated record for the WBNPA.

Katie Syme joined the group for the first few weeks and her enthusiasm for the project stimulated our interest and commitment to the task. Julie Fielder, who joined us for a few weeks, was also a valuable resource. Julie is now working with Richard Robinson. We had hoped to use the microscope more but we found that without someone who had real expertise in this area, we were too short of time and personnel to do so. We were able to borrow a microscope from the Denmark Environment Centre, for which we were very grateful and it is hoped that next year, if we re-instate the fungi forays, we can find someone to organize this side of the work. It would greatly increase our knowledge to be able to routinely view specimens in this way.

However, the small number of committed would-be mycologists who venture out weekly, sometimes in the rain, have covered a lot of ground from Mazzoletti's Track to Lake Byleveld, to the Bibbulman off Madfish Bay Rd, to the forest near the Ranger's House. We can tell a Cortinarius from an Amanita from a Russula. We can instantly recognize a number of unique looking Boletes, such as *Austroboletus occidentalis* and *Boletellus obscurecoccineus*; we can exclaim over a colourful field of *Hygrocybe polychroma* or *Clavulinopsis* aff. *aurantia*; nod sagely at a *Dermocybe splendida* or a *Hydnum repandum* or even a *Phellodon* aff. *niger*. So we're not doing too badly.

We shall continue with our forays until the end of July. The finding of the fungi, alone, is interesting – I could even say exciting, except some readers might find this odd* – and requires someone to carry the multiple containers we take with us, another to wrap the specimens in wax-paper, another to note the GPS reading, another to note the surrounding vegetation, another to take the photographs and note the photograph number and yet another to record all this with a brief description of the specimens.

We have put together a file with lists of fungi seen, descriptions of selected fungi and photographs of many of them. This will be another resource to hold at the Ranger's House for members to access. The card index which a group of us made in 2004 with descriptions and photographs is also available as a resource at the Ranger's House.

*Editor's note: not at all! Seems perfectly normal.

News from Victoria

Ed. Grey

The Fungi Group of the FNCV has continued its regular forays with five being run to the end of June. The Group has produced a second CD ROM of species that can be identified in the field. There are now 109 species and over 780 images and the CD is available through the FNCV.

Our first foray was to Mortimer Reserve, Bunyip State Park (east of Melbourne) and one of the first finds was quite exciting – the rare, silvery-capped parasitic *Asterophera mirabilis* growing on an old Russula. This is Australia's only Agaric that grows on another Agaric and is a Fungimap target. One of our members then pointed to a number of the blue-grey discs of *Banksiamyces macrocarpus* growing on cones of *Banksia spinulosa*. These were the largest specimens the group had seen (diam to 20 mm) and prompted much photography.

On a wet day at Emerald Lake Park, in the Dandenongs, in an area given over to old plantings of exotic trees, we found the introduced *Lactarius plumbeus* (Ugly Milk Cap) with its brown funnel-shaped cap and whitish gills growing under a Silver Birch. The distinctive, purple-violet colour was rapidly produced when the cap was treated with 5% KOH. This species is always associated with exotic trees, especially Birch and, interestingly, this location was close to the site of the old Nobelius nursery from where it is believed *Amanita muscaria* started its spread in Australia, having been brought in with plants imported from Europe.

At the Doctors Creek Track, Upper Yarra Dam (near Warburton) we were joined by the FNCV Juniors who with their keen eyes and questions kept members busy. On a fallen log was a number of the toothed jelly *Pseudohydnum gelatinosum* while on another was a large group of *Galerina patagonica* with smooth orange-brown caps, decurrent gills (with a tooth) and a small ring on the stem. This species has an interesting distribution – South America and New Zealand as well. At the end of the day a collection of *Hebeloma victoriense* was made to be sent to Bettye Rees for her work on this genus. This species was growing in large groups near Tea-tree and showed typical *Hebeloma* features - creamy-coloured caps and pink gills.

This season has seen an abundance of *Cortinarius* species and the foray at Green's Bush on the Mornington Peninsula found *C. abnormis, C. archeri, C. fibrillosus, Dermocybe austroveneta* and nine unidentified *Cortinarius* species. New to us was a bright orange *Amanita*. This had pale scales on an apricot-orange cap, a stout stipe with wonderfully apricot-peach tints, no volva, a large pendulous striate annulus and adnexed, nearly free gills, crowded and white with orange near the margin of the cap. It was identified as *A.* aff. *armeniaca*.

A dry day, albeit wet underfoot, saw us at Big Pat's Creek (near Warburton) and we noted that the recent cold spell had reduced the numbers of fungi and also that there appeared to be substantial damage to the bush caused by deer. Again *Cortinarius* species were most common and we found numbers of a smaller version of *C. rotundisporus*, with cap diameters to about 25 mm and height to about 60 mm. These led us to wonder if there might not be a *C. rotundisporus* group but reference to C. Grgurinovic's 'Larger Fungi of South Australia' showed this size to be at the lower end of the range for this species.

Some members of our group have continued to improve their microscopical skills, and this will enable us to be more confident with identification of confusing species in the future.

Arthur Carew sent in this interesting snippet:

A friend of a friend recently noticed some white 'eggs' in the garden bed near the front door. Upon closer inspection one had a small split revealing a dull yellowish jelly with a white line through it. Ah! *Ileodictyon*. As he was going on holiday and didn't want to miss the 'hatching', the obvious action was to take it on holiday as well. Carefully digging up an 'egg' , with substrate (Eucalypt and Ornamental Pear mulch), it was placed in a container, put in the car, and off to Beechworth for a week. After careful nurturing, day 3 saw the emergence of *Ileodictyon gracile*. It is pleasing to report that the holiday was enjoyed by all.

Happenings in South East Queensland (SEQ)

Sapphire McMullan-Fisher

I am pleased to announce that the Queensland Mycological Society (QMS) has officially become incorporated. Things are on track for getting insurance sorted out so, hopefully, QMS members can soon begin fungal forays – assuming the recent rain continues.

A fungal foray was held in the Mapleton State Forest on 17 June 2006 with the Barung Landcare Group. A great morning was had by all, and about 26-34 taxa were found. Many 'little rotters' particularly Polypores in a diversity of forms: resupinate, with stems, without stems, large pores, small pores – most had cream coloured pores, but the vibrant orange *Pycnoporus coccineus* meant we got at least one Polypore named. I was surprised to see some mycorrhizal taxa, *Laccaria* and a *Cortinarius* purple/brown and very glutinous, but it had a dry stem so was not *Cortinarius archeri*.

Happenings in SEQ (contd.)

Yesterday (26 June 2006), I was delighted to see my first SEQ *Amanita xanthocephala,* today there were three more. Pam O'Sullivan says they have recently appeared on the central NSW coast – strange how it happens at the same time, it must be the right combination of factors. I'm afraid I couldn't find any ant nests nearby – Sarah Lloyd mentioned that she often found *Amanita xanthocephala* near *Myrmecia* sp. nests (FN26).

The June speaker at the monthly QMS meeting was Professor Roger Kitching Chair of Ecology at Griffith University. He is leading the 'Biodiversity at the Heights' (BATH) project which is an international study of biodiversity in Lamington National Park in the Gold Coast hinterland. The project hopes to obtain data on the biodiversity of plants, invertebrates and fungi. It will be looking for patterns of change over a range of altitudes in the sub-tropical forest. Researchers will be coming from around the world, many of whom are entomologists and the like, but already a bryologist from NSW is attending. The more the merrier. It seems that Roger invited QMS as a group to see if they could work on the fungal side of the project. But any individual with an interest can get involved by contacting r.kitching@griffith.edu.au or see http://www.gu.edu.au/text/centre/cics/IBISCA/IBISCAQueensland.html for more information. We'll keep you posted about any fungal BATH projects that QMS might get started.

News from SA

Pam Catcheside

The Adelaide Fungal Studies Group has been on four forays and had five meetings this season. Forays were to Mount Lofty Botanic Garden, Deep Creek, Porter Scrub and Kaiserstuhl Conservation Parks.

The year started well with frequent, although not substantial, rains. We recorded 50 species on our annual April visit to Mount Lofty Botanic Garden, more than on any of our previous surveys (2002: 11 spp., 2003: 21 spp., 2004: 29 spp., 2005: 23 spp.) – perhaps because we are getting better at finding and identifying fungi, but more likely because of the earlier rains. However, although we found 60 species on the foray to Stringybark Walking Trail, Deep Creek Conservation Park, it was not the largest number we had recorded. 2003 had been a bumper year with 65 species (2004: 45 spp., 2005: 46 spp.).

Porter Scrub near Lobethal was new ground for us. The park is mainly old *Eucalyptus obliqua* woodland. Our 54 recorded species included *Amanita farinacea*, its cap edged with a beautiful flimsy white margin, leaving a copious floury deposit on the ground. Other finds were *Barya agaricicola*, a tiny bright yellow parasitic ascomycete growing on a *Galerina*, small yellow lumps of another ascomycete, *Hypocrea citrina* with its asexual green, mould-like phase, *Trichoderma* sp., and *Mycena austromaculata*, its white gills spotted with red-brown stains.

The recent foray to Kaiserstuhl CP, with the South Australian Field Naturalists Society was cut short by torrential rain but we managed to record 38 species. Clustered cups of the stalked Orange Peel Fungus, *Aleuria rhenana*, were abundant amongst moss, while bare patches of soil were sprinkled with the small yellow funnels of *Omphalina chromacea*, Yellow Navel.

Cortinarius australiensis has been particularly abundant and large this year, with cap diameters extending to almost 30 cm. At Kuitpo Forest the fruit bodies were riddled with tunnelling maggots and were obviously much visited by fungus flies, whereas fruit bodies of similar size at Porter Scrub, approximately 100 km from Kuitpo, were almost pristine, although the flies sitting on them seemed similar to those at Kuitpo.

THE MUSHROOM OF IMMORTALITY AT THE NGV

Katrina Syme

While in Melbourne in late April, I visited the National Gallery and, after spending long hours at the wonderful Pissarro exhibition, wandered into a temporary Chinese exhibition called 'Mountains and Streams'. Housed in a glass case near the entrance is a beautiful jade sculpture from the Qing dynasty (1736 – 95) labelled *Chinese Miniature Mountain with immortals,* which depicts symbols of immortality. *Ganoderma lucidum*, Linghi, or Ling Chi, is one such symbol and is represented in the form of the clouds at the top of the mountain.

Linghi is also traditional Chinese medicine for the immune system and images of it were found in a Han dynasty tomb in Szechwan province and a first century AD Mongolian tomb at Noin Ula. It can also be found in paintings and on ceramics.

MEMBERSHIP FEES 2006

Fungimap membership fees are due each year on the anniversary of joining. A reminder form will be sent out for memberships due each month. 2006 membership fees remain the same as 2005.

Ordinary	$30
Concessional	$25
Associate	$10

(additional member at same address)

Fungimap Inc.

Reg. No. A004722281

Annual Report
Year ending 31 December 2005

PRESIDENT'S REPORT

Fungimap was incorporated at a special meeting at the third Fungimap Conference at Gowrie Park, Tasmania, on 1st May 2005. In the lead up to incorporation, Cassia Read and John Carpenter, in particular, dealt with much of the necessary preliminaries. Cassia finished up a very successful spell as Fungimap Co-ordinator in June, to take up postgraduate studies. For the remainder of the year the Fungimap Office was without a Co-ordinator, due to delays in recruitment, and the need to build up sufficient funds. The organisation is now on a sound financial footing, with 203 members (177 full and 26 associate) at the end of the year, and substantial revenue from book sales.

In the Fungimap Office a team of dedicated volunteers, including Geoff Patterson, Wendy Cook, Libby Read and Geoff Lay, worked alongside Teresa Lebel and myself to kept things running smoothly. There were some delays in filling orders for the Fungimap CD-ROM, which sold out, but this has now been reprinted in house. Otherwise, memberships and book orders were generally followed up promptly. In addition, the office team has been able to keep up with the many general enquiries about fungi, and make inroads into the backlog of records to be added to the Fungimap database.

In December Jim Ross accepted an invitation to be Fungimap Patron. Jim, recently retired as Chief Botanist at the National Herbarium of Victoria, has been a longtime supporter of Fungimap.

The Fungimap Committee has been functioning very well, despite our geographic spread, and has met regularly by telephone hook-up. Pam Catcheside took on responsibility for editing the Fungimap Newsletter, and two issues were published in August and November 2005. Katie Syme prepared some successful grant applications, and Sarah Lloyd worked on a new brochure for Fungimap and organising the 2006 Tarkine Expedition. Treasurer John Carpenter has put in much work to get finances onto a solid footing, as regards regular stocktakes of books, production of quarterly income/expenditure statements and also the set of accounts presented in this annual report.

The most significant events of 2005 were the very successful Fungimap III Conference at Gowrie Park, with 93 attendees, and the launch of *Fungi Down Under*, written by Pat and Ed Grey, with Leon Costermans. The book has been very well-received, and by the end of the year, more than 600 copies had been sold, already paying back the printing costs. Orders continue to arrive, including from booksellers and library suppliers.

Royal Botanic Gardens Melbourne continues to give major in-kind support in the form of facilities for the Fungimap Office, and also provided some significant financial support around the time of incorporation.

This first period of Fungimap as an incorporated organisation has been a time of consolidation. The new organisation is now running smoothly as far as administration and finances, and this will allow expansion of activities next year.

Tom May, President

Fungimap Inc No. A 0047228L

Report of the Committee of Management

Your committee is pleased to submit the financial accounts of Fungimap Inc for the six months July to December 2005.

The names of the directors in office at the date of this report are:
S Lloyd T Lebel P Catcheside K Syme
J Carpenter T May. The Public Officer of Fungimap Inc is Mr J Carpenter.

The principal activities and objects of Fungimap Inc. are to promote and support the study and conservation of Australian macrofungi.

The net surplus for the six month period is $4,267. No provision for income is required, as Fungimap Inc has been self-assessed as income-tax exempt.

No office holder has received or become entitled to receive, during or since the end of the reporting year, a benefit because of a contract made by Fungimap Inc with the office holder or any entity with which the office holder has a substantial interest.

During or since the end of the reporting year, Fungimap Inc has not entered into any mortgage or other arrangements affecting any of the property of the association. Fungimap Inc has not created any trusts, and is not a trustee of any trust.

Signed on 26/4/06, in accordance with a resolution of the Committee of Management.

T May (President)

Carpenter (Public Officer and Treasurer)

Statement by the Committee of Management

The office holders declare:
(1) that the following financial statements and notes give a true and fair view of the financial position of Fungimap Inc for the six month period 1 July 2005 to 31 December 2005, and of the financial performance of Fungimap Inc for that period.;

(2) that at the date of this statement, there are reasonable grounds to believe that the association will be able to pay its debts as and when they fall due;

(3) that in the intervening period between 31 December 2005 and the date of this declaration, there have been no material changes to the affairs of the association.

Signed on 26/4/06., in accordance with a resolution of the Committee of Management.

T May (President)

J Carpenter (Public Officer and Treasurer)

Fungimap Inc No A 0047228L
Statement of Financial Perfomance
July - Dec 2005

INCOME		
Memberships		$1,975
Booksales:		
"Fungi Down Under" -Retail	$6,694	
"Fungi Down Under" -wholesale	$1,491	
Books not "Fungi Down Under"	$844	$9,029
Fungimap CD-ROM		$142
Sales of other stock		$105
Handling and Postage: payment received		$575
Other Income		$211
Donations		$185
Total Income		**$12,222**
EXPENDITURE		
Cost of Stock sold:		$4,958
Newsletter No25:	$440	
Newsletter No26:	$295	$735
Insurances:		
Fungimap Volunteers		$1,501
Administration Expense:		
Reimburse FNCV for GST Liability	$215	
Reimburse RBG for Workcover	$219	
Purchase of ISBN numbers	$114	
Stationery	$38	
Bank Fees	$67	$653
Other Expenditure:		
Donation to FNCV		$108
Total Expenditure		**$7,955**
Net Profit/(Loss)		**$4,267**

Fungimap Inc No A 0047228L
Statement of Cash Flows

July - Dec 2005

Net Cash Flow			
Closing Balance 31 December 2005		$22,387	
Opening Balance 30 June 2005		$11,424	
			$10,963
Cash Flows from Operating Activities			
Inflows			
Memberships	$1,975		
Book sales	$9,029		
Other sales	$247		
Other income	$786		
Donations from members	$185		
		$12,222	
Outflows			
Replenish Stock	$1,464		
Newsletters	$735		
Insurances:	$1,501		
Administration Expense:	$653		
Launch of 'Fungi Down Under'	$127		
Reimburse Australia Mycological Sociey	$559		
Donation to FNCV	$108		
		$5,147	
Net Cash Flow from Operating Activities			**$7,075**
Cash Flows from Investing Activities			
There were no investing activites during the reporting period			**$0**
Cash Flows from Financing Activities			
Inflows			
There was a major donation from the Royal Botanic Gardens, Melbourne		$3,888	
There were no Financing Activity Outflows during the reporting period			
Net Cash Flow from Financing Activities			**$3,888**
Total Net Cash Flow			**$10,963**

Fungimap Inc No A 0047228L
STATEMENT OF FINANCIAL POSITION

31 December 2005

ASSETS			
CASH AND AT BANK			
Petty Cash:			
(held at the Fungimap office, Royal Botanic Gardens Melbourne)			**$100**
Cash at Bank:			
Bendigo Bank Account 633-000 125124321			**$5,519**
Royal Botanic Gardens Melbourne, Fungimap Account (GST inclusive)			
Balance 31 December:	$16,082		
Cheques etc transmitted to RBG but not banked. Includes reconciliation adjustment.	$686	$16,768	**$16,768**
TOTAL CASH AND AT BANK:			**$22,387**
OTHER ASSETS:			
Stock of Books held at RBG:			
(Inventory taken 31 December, Books valued at 60% of RRP)			**$11,930**
TOTAL ASSETS:			**$34,317**
LIABILITIES			
Members Equity:			
B/f 30June 2005		$26,162	
Donation by Royal Botanic Gardens		$3,888	
Surplus/(Loss) from 'Financial Performance'		$4,267	**$34,317**
TOTAL LIABILITIES			**$34,317**

ACKNOWLEDGMENTS: FUNGIMAP RECORDERS AND OFFICE VOLUNTEERS

AUSTRALIA
(state not known, by email)
Louis Bialy 1
Sharon Greenaway 1
Danielle Hawker 1
Hannah Jenkins 1
Tristan Nieto 1
Randall Robinson 1
Luke Webber 1

NSW
Jo Cameron 1
Jamie Derkenne 1
Wayne Jeffrey 1
Barry Kemp 6
Mark Luxton 7
Edith Macaulay 2
Jackie Miles 5
Teresa van der Heul 29

QLD
Betsy Jackes 1
Jacqueline Stockdale 1

SA
Thelma Hall 5
Robert Hancock 5

TAS
Patricia Harrisson 70
Roger Hay 11
Helen Jones 27
Roy Skabo 13

VIC
Judy Allen 5
Robert Bender 39
Diana Berwick 1
Judith Cooke 31
Valda Dedman 13
Robin Dzedins 3
Sally Green 10
Ken Harris 140
Sheila Houghton 8
Virgil Hubregtse 50
Niels Klazenga 1

VIC (cont.)
Brigitte Kny 2
Geoff Lay 97
Jean Lightfoot 3
Ivan Margitta 122
Tom May 14
Debra McAndrew 1
Dave & Lyn Munro 27
Carol Page 11
Joan Patrick 12
Graham Patterson 8
Elizabeth Pearce 1
Lorraine Phelan 8
Field Naturalists Club of Victoria 323
Alister Shew 1
Nigel Sinnott 85

WA
Jolanda Keeble 1
Grant McKinnon 1
William 1

FUNGIMAP OFFICE
Thanks to Wendy Cook and Graham Patterson for entering batches of records into the Fungimap database and for answering correspondence and handling books sales and membership. Thanks also to Graham for his invaluable assistance with the Fungimap bookstall at the International Mycological Congress in Cairns

Thanks to Royal Botanic Gardens Melbourne for providing office and administrative support

Royal Botanic Gardens Melbourne

TO CONTACT FUNGIMAP

FUNGIMAP
Royal Botanic Gardens Melbourne
Private Bag 2000
South Yarra Victoria 3141

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

FUNGIMAP WEBSITE:

http://www.rbg.vic.gov.au/fungimap/
The Fungimap Website is in the process of being updated.

© 2006 Fungimap Inc.
Vic Cert Inc A00472281

This Fungimap Newsletter was edited by Pam Catcheside, Teresa Lebel & Tom May.

Registered by Australia Post PP No. 325649-00087

SURFACE MAIL

POSTAGE PAID AUSTRALIA

FUNGIMAP NEWSLETTER 29

FUNGIMAP
Royal Botanic Gardens Melbourne
Private Bag 2000
South Yarra Victoria 3141