fungimap newsletter 33

fungimap

AUSTRALIA'S FUNGI MAPPING SCHEME

Inside this Edition:

NEWS FROM THE FUNGIMAP CO-ORDINATOR

After the busyness and excitement of the Fungimap conference earlier this year, things have returned to normal at the Fungimap office and we are working on making the office run more efficiently. To this end, the Treasurer John Carpenter and I have recently successfully migrated the Fungimap financial data to a dedicated financial management package, which will help to simplify management of the organisation's finances.

I would welcome any members local to Melbourne who would like to volunteer in the Fungimap office - in the areas of book sales and management of the Fungimap image collection. If you are interested in becoming involved and have skills in these areas, please contact me at sarah.jacob@rbg.vic.gov.au.

Our office volunteers have also mentioned that they are need of an old copy of a Sydney street directory. If you have one that you would like to donate to Fungimap, please let me know, it would be most appreciated!

I am also pleased to announce that Fungimap has been granted Deductible Gift Recipient status, which means that all donations over two dollars made to the Fungimap Austral Fungi Fund are now tax-deductible.

Please continue to send in any fungi events so they can be put on the Fungimap website.

Sarah Jacob

FROM THE EDITOR

The fungal community seems to get busier each year with conferences, forays, surveys and meetings – and just enjoying the fungi for themselves. The results of some of these activities are reported here. We hope you enjoy this 'bumper' edition of the newsletter, with its articles and colour insert. Thanks to all who have contributed and to Karen Dankiw, Librarian at the State Herbarium, Adelaide, for her help with the colour section.

Instructions to authors are on page 13 of this Newsletter. Please continue to send in your articles, photos, queries, news and information on future events. For the next issue I am particularly interested in hearing about the planned fungal events for 2008 and interesting results from the 2007 fungal 'season'. I am also collecting photos for the annual 'bumper' edition for later in 2008.

The deadline for the next issue of the Fungimap Newsletter is Monday, 3rd March 2008.

Pam Catcheside

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FUNGI INTEREST GROUPS

NSW

Sydney Fungal Studies Group

Fungi forays, talks and workshops in the Sydney area.
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Web: www.sydneyfungalstudies.org.au

Central Coast Fungi Group

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

Qld

Sapphire McMullan-Fisher: sapphire@flyangler.com.au

Queensland Mycological Society Brisbane

Contact: Michael Powell
Email: fungiqld@yahoo.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: Arthur Carew, Ph: (03) 5968 4505
Web: http://www.vicnet.net.au/~fncv then Calender of Events

WA

Perth Urban Bushland Fungi Project

Fungi workshops, walks, surveys in Perth Urban bush areas.
PUBF Team: Neale Bougher, Roz Hart, Sarah de Bueger, Brett Glossop.
Contact: Roz Hart, Community Education Officer.
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: http://www.wanats.iinet.net.au/fungigroup.html

Fungimap WA

Contact: Katrina Syme email: syme@westnet.com.au

William Bay National Parks

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THE UPSIDE OF DOCUMENTING FUNGI IN THE SOUTH COAST NRM REGION OF WA

Katrina Syme

At national Fungimap gatherings, amusement is often expressed at WA place names ending in 'up', but I love them. They are certainly unique and I only wish that the town in which I live had the name given it by the original Noongar inhabitants of the area – Koorabup, instead of it being named 'Denmark' after some obscure ship's surgeon. The town is better known now and more often than not, mail finds its way directly here. When we first arrived in the 1970s, however, it often came via Europe, arriving with 'AUSTRALIA' emblazoned in large red letters on our letters and parcels.

I have been carrying out fungi surveys as part of a biodiversity inventory project in the South Coast Natural Resource Management (NRM) Region of W.A. This year, I have enjoyed having Biodiversity project Technical officer Janet Newell working with me. Although the winter has been very dry again, we have seen some interesting fungi, particularly in the 'ups'. Since March, over 1,200 sightings of fungi have been recorded and 266 herbarium collections made.

In May, my husband Alex and I attended a weekend of events marking the twentieth anniversary of the founding of the Walpole-Nornalup National Parks Association. We left early so I could record fungi on the way. On Sunday, we enjoyed a boat cruise from Walpole to the mouth of Nornalup Inlet. Near the ocean, the boat moored at a small jetty and we followed a narrow track through sand dunes to the Southern Ocean. Fortunately, I never go anywhere without my GPS, notebook and collecting gear so, on the way, I was able to record Fungimap target *Xerula australis* (*Oudemansiella radicata*) and collect a group of brown-capped, pale brown gilled *Amanita* I'd never seen before, fruiting in large numbers under *Spyridium globulosum*.

The target of our field work during this year's survey has been towards the centre of the region, from Two Peoples Bay Nature Reserve east of Albany, to the region's northern-most boundary near Ongerup. In June, I took up an offer to join a team going to Chereninup, a private conservation reserve which forms part of the proposed Gondwana Link wildlife corridor between the Stirling Range and Fitzgerald River National Parks. There had been heavy rain in the region, but it seemed to have remained largely near the coast, not extending far enough inland to quench the drought-stricken target area. I found dried remnants of *Omphalotus nidiformis* and collected tiny pale cream-coloured, black-rimmed cup fungi on *Allocasuarina* needles amid granite boulders near spectacular rock-strewn Corackerup Creek.

At Two Peoples Bay Nature Reserve, the fungi season had a late start and on the first trip the Noisy Scrub Birds were only making tentative attempts at their magnificent songs. (It's sheer bliss to collect fungi while they are singing.) During our visits to the Reserve, many species were seen, including bright orange-capped *Lactarius* (Plate 1a), the Australian oyster fungus *Pleurotus australis* and a pretty, large-bulbed *Cortinarius* with serrulate-edged violet gills (Plate 1b). On one sandy track, we found three lovely *Agaricus* with shaggy stems. (Plate 1c). Some weeks later, different species had emerged, including robust *Entoloma* - yellow gilled with brown caps and others in white and charcoal. A group of sweetly-scented *Hygrocybe* were poking through the damp moss not far away (Plate 1d). Three large white *Entoloma* (Plate 1e) were discovered under peppermint (*Agonis flexuosa*) only a couple of metres from the edge of the Bay. Small pale yellow *Camarophyllopsis*, smelling strongly of mothballs, were near one track. In his *Fungi of Australia* treatment of Hygrophoraceae, Dr Tony Young mentions a similar species from Tasmania.

On the way to the Stirling Range, a quick side trip was made to Porongurup National Park to see if any post-fire fungi had appeared. Most of the Park was closed because of the danger of falling trees after the terrible wildfire there some weeks earlier. We found ascomycetes and mycenas.

One day, we made a day trip to the north and west of Denmark. Wamballup Nature Reserve we found rather uninteresting (for fungi) and kept going on the Boyup Road to Warrinup Nature Reserve, where there is a small lake. It was almost dry but, erupting through the wide, rush-fringed black loam at its margin, dozens and dozens of three species of *Cortinarius* and 16 fruiting bodies of a yellow and brown bolete (Plate 1f) were recorded. On the way home, we saw black swans but very few fungi on Lake Nunijup.

In July, on our third foray into Stirling Range National Park (also known by the Noongar name Koi Kyenu-ruff), diminutive red capped *Cortinarius erythraeus* (Plate 1g) were widespread, including at Talyuberlup picnic area. We'd come via Kendenup to the Tambellup road, and found a gorgeous grey *Cortinarius* at Pootenup Nature Reserve near the largest Quandong (*Santalum acuminatum*) tree I'd ever seen. Coming down to the northern boundary of the range, at Yetemerup, fungi including a small brown *Cortinarius* with a wrinkled cap (Plate 1h) were abundant under *Eucalyptus wandoo* and Mallee. Diggings alerted us to the presence of a good number of *Gastroboletus* (Plate 2a, b) which were new to me (at least), while nearby, the white tops of *Torrendia grandis* (Plate 1i) another sequestrate species, were collected not far away.

In August, we went to Gondwana Link country again, to Peniup, where only a few species were recorded. In this country, you really need to be resident and know exactly where rain has fallen and be on the spot when the fungi begin to emerge. After the rain there had been warm sunny days with drying winds and some of the fungi were completely desiccated. At Corackerup, on Cowallelup Rd, were truffle-like *Dermocybe* similar to, but not the same colour as, *D. globuliformis* and a good number of sticky white *Descomyces*, (another truffle) in deep leaf litter under Corackerup Moort, a beautiful small mallee.

The *Gastroboletus* (if that is what it is) has been one of the most interesting finds of the year. Up to 55 mm broad, it is one of the largest of the truffle-like fungi I've collected in WA. The fruit bodies are yellow, with some red staining on the outside, while underneath is a red 'boss' of tissue with a small sterile base at its centre. When cut, a columella is seen extending to the top of the fruit body surrounded by long, narrow, empty tubes which remains entirely enclosed by the peridium. When handled or cut, all of the fungus bruises blue to some extent.

Field work has been completed and I'll be starting on the microscopy in earnest, in an attempt to identify the unknown species. I think I'll begin on the *Gastroboletus*!

FIRST FUNGIMAP RECORD OF CORDYCEPS GUNNII IN WESTERN AUSTRALIA

Richard Robinson
Department of Environment and Conservation, Manjimup, WA

In early August Jamie Flett, a regular volunteer and casual employee for the Department of Environment and Conservation, collected the first sample of *Cordyceps gunnii* recorded in Western Australia since 1925. Jamie was helping out on truffle surveys in Boyicup forest approximately 45 km east of Manjimup when he found the specimen. He is a keen naturalist and collected it because he had not seen anything like it before and was curious as to what it was. The site was jarrah forest and the specimen was under *Gastrolobium biloba*, but unfortunately the parasitised caterpillar was not collected.

There are few detailed publications on Australian *Cordyceps*, but species identification was confirmed using keys and notes from Willis (1959) and Fuhrer (2005). The elongated, dusky black, fertile head (Plate 2c) was 50 mm tall with perithecial ostioles protruding above the surface. The stem was grey on the above ground portion and faded to white on the below ground portion. There was no yellow colouring associated with the stem as noted in Willis and Fuhrer and as I have also seen in specimens from Tasmania. The fertile head was also covered with white cotton-like strands of spores (Plate 2c), a feature noted by Barker (1999) to occur following a period of fine weather. The multi-septate ascospores appeared to be about 130 µm in length, but were often fragmented as they easily broke up into cylindrical part-spores 4.5-6 (= 5.3) x 2-3 (= 2.4) µm in size (Fig. 1), which also made it difficult to ascertain the number of spores in each ascus.

Only two other collections of *C. gunnii* are listed in the WA herbarium. One was collected by H. Lansdell in Plavins forest, about 24 km SE of Dwellingup, in 1925. The other has no collection details attached to it. Neither collection notes the identity of the host, but the large size of the mummified larvae suggests it may have been a species of *Abantiades* (Hepialoidea), ghost moths that are widespread in WA (A. Wills, pers. comm.). Several specimens from these collections display a clearly demarcated coffee-brown fertile head and non-protruding, closely spaced perithecia suggesting they may be mixed collections of *C. hawksii* and *C. gunnii* (Willis 1959). However, more detailed taxonomic investigation is needed to confirm their identity. For now, we can assume Jamie's collection is the first to be made in WA for over 80 years. It is also the first Fungimap record of the fungus for WA.

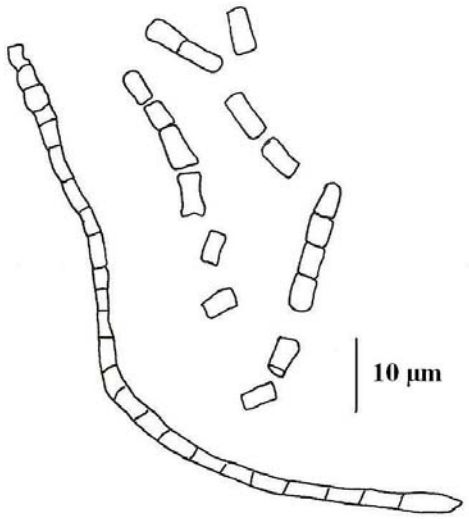


Fig. 1. Part-spores of *Cordyceps gunnii* recently collected from Western Australia.

References

Barker, R. (1999). The *Cordyceps* update. *The Victorian Naturalist* 116: 42-43.

Fuhrer, B.A. (2005). *A Field Guide to Australian Fungi*. Bloomings Books, Melbourne, Australia.

Willis, J.H. (1959). Australian species of the fungal genus *Cordyceps* (Fr.) Link. *Muelleria* 1: 67-89.

A RUSSULA LOST!

Patrick Leonard

It was late afternoon, and after a long winding drive from Lake Pedder we wanted a short walk. The staff at the Lake St Clair information centre recommended a short walk along the lake to a hide overlooking a creek where platypus could be seen on a fine April evening. I guess we had gone less than a kilometre when I spotted what appeared to be a purplish grey mushroom on the path some way ahead. Two trampers were approaching from the other direction and were closer to it than we were, but I thought that they would not be interested in fungi, and were unlikely to kick it over as they were past the exuberance of youth.

As they approached the mushroom I was surprised to see a full grown Wallaby hop out of the bush, look both ways like a well brought up child and then, rather than crossing the road, it bent down and smelt the fungus, just like a French mycologist. The trampers rummaged in their day sacks and cameras appeared, they were now less than 5 metres from the unperturbed Wallaby, who started to nibble at the fungus enthusiastically (Plate 4a). Despite quickening our pace we must have still been 50 metres away, and thinking that the Wallaby was bound to be intimidated by two more humans approaching and fumbling in their day sacks, we slowed down. It took no notice and continued eating, occasionally breaking a bit off the fungus neatly, straightening up and munching it whilst eyeing up its audience. In my excitement I forgot to turn off the flash, but even this had no effect and the meal continued. The way it broke bits off the fungus confirmed it was a Russula, but all that remained now was a purplish grey stipe, which it proceeded to eat down to the ground. The trampers, who were also visitors to Tasmania, were very interested in what sort of Wallaby they had seen and were clearly disappointed by my obsession with what kind of mushroom it had eaten. We shall never know the answer, but I strongly suspect it was a Bennet's Wallaby eating *Russula lenkunya*.

Further down the track there was evidence of other eaten Russulas, although those in the *R. foetens* group seemed intact. So are their taste buds like ours? Do they eat only nice mild nutty Russulas and leave the acrid ones alone. This sparked an inquiry into the marsupial digestion system which threw no light on the question. So it was with considerable delight that I listened to the lecture by Karl Vernes at the Fungimap IV conference which confirmed that many marsupials consume fungi and Russulas clearly form a part of that diet. This is good news for the animal and bad news for the mycologist, who forms the completely false impression that acrid tasting Russulas are common in Tasmania. It is rather like trying to compile a frequency and distribution chart for fungi in a French forest after a party of mycophagists have been through it.

VARIATION IN *PLECTANIA CAMPYLOSPORA*

Patrick Leonard

Newsletter 32 contained an item from Katrina Syme on the variation in *Dermocybe splendida* specimens collected in different locations. At the recent Queensland Mycological Society foray at the Maroochydore Bushland Botanic Garden, Ken Cowell found a splendid black cup fungus growing on a fallen branch. Not only did we see a fully mature fruit body, but there were a number of younger cups at various stages of development, and all were uniformly black. The QMS does not as yet have a member specializing in ascomycetes, so *Fungi Down Under* was consulted without outcome and the specimen was handed to the foray leader for his attention. Well, there were no interesting mycorrhizal fungi collected so the asco was subjected to rather closer scrutiny than might otherwise have been the case (Plate 2d). It keyed out clearly to the genus *Plectania* in Dennis (1960). According to Rifai (1968) there are three species of *Plectania* in Australasia. The three species are also mapped by Australia's Virtual Herbarium (http://www.rbg.vic.gov.au/avh/).

1. *Plectania campylospora*, which is a Fungimap target, is dark brown, occasionally blackish (Grey & Grey 2005).
2. *Plectania platensis* is dark reddish brown. It was described by Spegazzini (1899) from Argentina, albeit growing on a *Eucalyptus* tree.
3. *Plectania rhytidia* is red brown. *Plectania platensis* has now been synonymized with this species.

Microscopically the Queensland specimen is closest to *Plectania campylospora* (with smooth spores rather than the transversely ornamented spores of *P. rhytidia*). So the supposition must be that *Plectania campylospora*, although noted in *Fungi Down Under* as almost black only at maturity, can be black at all stages of development, at least in Queensland.

References

Dennis, R.W.G. (1960). *British Cup Fungi*. The Ray Society.

Grey P. & Grey E. (2005). *Fungi Down Under*. Fungimap. p 109.

Rifai, M.A. (1968). The Australasian Pezizales in the Herbarium of the Royal Botanic Gardens Kew. *Verh K Ned Akad Wet Afd Natuurkd Tweede Reeks* (sect. II) 57(3): 1-295.

Spegazzini, C. (1899). *Anales del Museo Nacional de Buenos Aires*, Ser. 2, 6: 310-311.

WHAT'S BEEN HAPPENING IN CANBERRA?

Heino Lepp

In autumn I gave a talk to the Wildlife and Botanical Artists Incorporated group. The members aim to produce anatomically correct illustrations and at times are commissioned to illustrate taxonomic works. I was asked to talk about what to note when drawing or painting fungi. I intermixed slides of fresh fungi with those of published illustrations produced over the past few hundred years to demonstrate aspects such as colours, textures, the importance of showing upper and under sides (where the fruiting bodies have both), the colour of the flesh (and to look for any bleeding or colour changes when a fruiting body is damaged), substrate and surrounding habitat. A very important tip I gave them was NOT to paint the **Fly Agaric** (*Amanita muscaria*) - because everybody does that and there are so many other attractive fungi in Australia.

The 2007 fungal course at the Australian National Botanic Gardens (ANBG) went well and several participants bought the ***Fungi Down Under*** book. I have run this annually for some years now and in 2007 there were 10 sessions. These assumed no prior fungal knowledge and dealt with various topics including what fungi are (introducing the concepts of hyphae and mycelia), basidiomycetes/ascomycetes, ecology and the history of fungal study from the 16th to 19th centuries. In addition there were walks in the ANBG grounds to look at fungi in situ as well as sessions in the herbarium to look at micro-structures (such as spores, basidia, asci and cystidia) and the uses of stains and reagents (such as Melzer's iodine solution). The aim of the herbarium sessions is to let people see some of the ways in which a mycologist would study dried specimens. Ten weeks is a large commitment of time and each year there are people who cannot come for the whole 10 weeks. Some who had attended parts of the 2006 course were back in 2007 to pick up what they missed last year. There were also a couple of people this year who have said they will come back in 2008 to pick up what they missed this year. This year there were about 20 people who attended all sessions. One of the 2007 participants, who did attend all sessions, double-checked part way through as to when it would all be over. His reason was that he didn't want to take his holidays until the course was over. Now that's dedication!

There's one area a little outside the ANBG grounds that I walk past often. It has some *Acacia* and *Melaleuca* in a woodchip-mulched garden bed, a footpath alongside and a gravelled area and then some *Grevillea* shrubs and woodchip mulch on the other side of the footpath. Over the past few years it has produced a few fungi that I've collected for herbarium specimens. In early winter the *Acacia*/*Melaleuca* side produced at least 30 white **Smooth Cage** (*Ileodictyon gracile*) fruiting bodies. Before then I had never seen that species there and I have never before seen that species in such profusion. At roughly the same time the *Grevillea* area on the other side of the path produced some fruiting bodies of *Langermannia gigantea*. The fruiting bodies are more-or-less spherical and can reach over 40 cm in diameter. At maturity the interior holds powdery spores in a cotton-wool-like matrix. I had been watching the earliest of the fruiting bodies grow from the size of a tennis ball to about the size of a soccer ball, but still too immature for a herbarium specimen. I was wondering how long it would last before somebody picked it for eating. It was growing in a very visible area and, sure enough, during one weekend it disappeared - along with another that had reached about 15 cm in diameter. I was totally cheesed off and harboured some very uncharitable thoughts about the unknown culprit. There was another fruiting body coming along very well nearby, but also in the open. Some much less advanced fruiting bodies were amongst the *Grevillea* bushes. I didn't want to lose any of the remaining fruiting bodies. I piled up some soil and gravel in front of the exposed fruiting body and put some dead branches and leaf litter over them all. Now, if you were looking from a distance you might think there were no fungi there and that, in the exposed area, the branches and leaf litter were directly on the gravel surface. I checked daily and was able finally to collect some mature fruiting bodies for the herbarium at the ANBG. The *Langermannia* and *Ileodictyon* were also very effective 'show-and-tell' specimens at a couple of the fungal course sessions.

***Coprinus* ink**

Caps of the mushroom commonly known as **Lawyer's Wig** or **Shaggy Inkcap** (*Coprinus comatus*) dissolve into an inky mess. If it's inky, why not use it as ink? I've seen a statement that the Frenchman Jean Baptiste François Bulliard (1752-1793), more commonly known as Pierre Bulliard, published a recipe for *Coprinus* ink in 1792. I haven't yet looked for this reference so I don't yet know what Bulliard's recipe is.

I collected several caps of *Coprinus comatus* and left them to dissolve in some plastic tubs. From time to time I'd drain off the ink, aiming to extract only liquid and to leave tissue fragments behind. I then used that 100% *Coprinus* ink. For interest sake I scanned an example using *Coprinus comatus* ink for the ANBG fungal website. You can find it at the following link. In the picture the dark black ink is commercial printer's ink and the paler ink is from *Coprinus comatus*:
http://www.anbg.gov.au/fungi/images-misc/coprinus-ink-large.jpg

I'd rate the ink as medium to good when it comes to its waterproof quality. It loses a little intensity when the paper it's on is immersed in water and then rubbed. However, the writing is still easily readable. I'd left some ink in a beaker and forgotten about it for a while. In that time the ink had become a dry crust in the bottom of the beaker. The crust broke off easily into fragments, so I've stored those fragments in a stoppered vial. It's a simple matter to create new ink by dissolving some of those fragments in a little water.

PERTH URBAN BUSHLAND FUNGI PROJECT, SEPTEMBER 2007

PUBF Team: Neale Bougher, Roz Hart, Sarah de Bueger and Brett Glossop

This year the Perth Urban Bushland Fungi Project conducted 11 events, assisted by 12 Fungi Leaders and involving a total of 440 members of the public. Until data processing is completed we can't give exact numbers of recorded fungi but we can report that over 320 fungi were vouchered into the WA Herbarium, a task made possible with the assistance of a large number of volunteers.

Six PUBF fungi leaders attended the recent Fungimap Conference in Queensland, of a total of 14 Western Australians. It was a great opportunity to meet other Australian fungi enthusiasts, photograph very different rainforest fungi and learn more about fungi. With so many Fungi Leaders absent, the Perth Urban Bushland Fungi season started late and the traditional WA Fungi June long weekend was not organised.

Highlights of 2007 were holding our first workshop out of the Perth Metropolitan region, and having an overwhelming 84 people rock up to one particular rainy morning PUBF fungi walk.

The Environmental Research Group Augusta worked with the Perth Urban Bushland Fungi Project to jointly organise a Fungi education weekend. A public workshop was held all day Saturday and a morning walk and afternoon vouchering session was conducted on Sunday. Thirty five people took part, mostly local people. Eight PUBF Fungi leaders travelled from Perth to assist Neale Bougher and Roz Hart on the weekend and it was a wonderful opportunity to trial PUBF protocols with new volunteers out of the metropolitan area.

The first Herbarium Fungi Day was organised on a weekday for WA Herbarium staff and volunteers with the encouragement and support of our new Western Australian Herbarium Director/Curator, Kevin Thiele. Weather and fungi wise it was very successful. Storms were forecast for the day, to the consternation of most, however we enjoyed hunting fungi during lovely calm sunny conditions and the forecast storms came up black and threatening just as we were leaving the bushland at Brixton Reserve. It poured all afternoon while we were inside learning how fungi are vouchered into the Herbarium. It was interesting for Herbarium people to see how differently fungi are processed compared to plants. Some great fungi were found, including Fungimap Target species *Amanita xanthocephala*, *Tremella mesenterica* group, *Colus pusillus* and *Ileodictylon gracile*, as well as some large and very beautiful *Cortinarius archeri*, lovely *Dermocybe clelandii* and large fresh specimens of *Amanita umbrinella*.

PUBF undertook Biological surveys for DEC Regional Parks; this year at Canning River Regional Park, Modong Nature Reserve in Jandakot Regional Park and Port Kennedy in Rockingham Lakes Regional Park. Park Managers assisted in the surveys gaining knowledge and biodiversity information for their areas.

With less resources available, PUBF experimented with online Perth Urban Bushland Fungi event information instead of receiving phone bookings. At all events we had ample turnouts. However, our walk at Lightning Swamp on 8 July was very well advertised and organised by Kirsten Tullis. We were overwhelmed on the morning with 84 people! It was wonderful that so many people were keen to come fungi hunting on a rainy morning. We do wonder just how many would have turned up if the weather had been fine! Our resources were stretched to the limit and we hope to avoid having such large numbers in the future. Members of the Friends of Lightning Swamp hosted a lovely lunch provided for participants by the City of Bayswater and provided space for examining and talking about specimens out of the rain after the walks. It was a most successful day, however fungi leaders and the PUBF team were really exhausted afterwards.

Herbarium group finding fungi in Brixton Street Reserve.
Photo: Roz Hart

Back in the lab from Murdoch Fungi walk.
Photo: Roz Hart

FUNGAL COLLECTIONS FROM THE NORTHERN SIMPSON DESERT

Elaine Davison
e.davison@curtin.edu.au

In July 2007 I was very fortunate to visit the Northern Simpson Desert as a member of the Australian Geographic Society's Simpson Desert Scientific Expedition. It was a unique opportunity to visit this remote region, made possible through the generosity of AGS, and Lindsay Bookie and his family, the traditional owners.

The expedition was based at Batton Hill, in open eucalypt woodland on the bank of the Hay River, but there were satellite camps amongst sand dunes near Lake Caroline and in mulga and Stinking Gidgee woodlands at Mt Tietkens. I spent time at each camp, and so collected from these different ecological communities.

I collected anything and everything that was mycological, ending up with 140 collections. These included many different types of puffballs, brackets and resupinates, leafspots from various hosts, euro and rabbit dung for analysis for fungal spores, and bark for moist chamber incubation for myxomycetes. Some of these collections have been forwarded to colleagues for processing and identification. I am working my way through the rest.

There were two Fungimap species: Black Powderpuff (*Podaxis pistillaris*), and Tall Stiltball (*Battarrea stevenii*). *Podaxis pistillaris* was widespread, although not abundant. *Battarrea stevenii* was only found in the mulga and gidgee woodlands. Other fungi that have been identified so far include *Bovista gunnii, Disciseda* spp. and *Geastrum* aff. *clelandii*.

The most surprising finds were myxomycetes fruiting on fallen bark. Plasmodiocarps of *Physarum cinereum* were in abundance on shed bark from *Eucalyptus papuana*. I found a few sporangia of *Didymium dubium* on Coolibah bark and a few sporangia of *D. squamulosum* on unidentified bark. These fruitings had probably developed after heavy rain earlier in the year.

The collections will be deposited in the Northern Territory Herbarium, with any duplicates going to PERTH.

CENTRAL COAST NEWS

Pam O'Sullivan

As our season is over except for occasional finds, activities in our region have centred on presentations and displays. Again the enthusiasm for fungi in the community is amazing and so motivating! A great day was had with the Green Point Garden Club's luncheon for many of the region's other clubs. At the Scone and District Garden Clubs Kara Watson brought along some beautiful specimens of *Volvariella speciosa* and photos of *Armillaria luteobubalina* and *Amanita muscaria* as well.

The NSW Coastal Volunteers Forum 2007 was very successful with over 200 people attending from all around the country. Yet again, there was great enthusiasm for knowledge about fungi. The realisation of how important fungi are in our fragile coastal ecosystems has left people from the North Coast to South Coast wanting to establish a network of people involved in coastal dunes systems to look at fungi! They want to work together to compile information on fungi in these systems and exchange that information with the different regions as well as seeking professional advice on identification of species and their ecological roles. Some great projects here for Universities!! So if there is anyone out there that feels they could help or contribute in any way please contact me (see page 2 for contact details).

This enthusiasm was also brimming over with the students from Newcastle University, members of the University of the Third Age (U3A) and the wider community at the Spring Flora Festival. Some great specimens of *Ileodictyon gracile* were brought along, in their various stages of development, by members of the U3A. This year there seems to be an increased awareness of fungi and the roles they play in the environment and our day-to-day lives. At all of these days there was amazement that there are 'truffle-like' fungi in Australia. The Forgotten Flora's 'truffle' poster has been a great hit and is often the one that people gravitate to and it starts them asking many questions about the fungi found in Australia. It also helped when an ABC TV show 'The Cook and the Chef' featured an episode, during the Spring Flora Festival, on the 'black truffle' they had collected from a truffle farm in WA!

Skye Moore, whom many of you will remember from the Fungimap Conference with Mick and their two delightful daughters Zoe and Ava, found a huge array of fungi, including many *Hygrocybe*, after the recent floods. Skye lives in the Lower Hunter Valley. Hopefully, when things quieten down for her we will be able to go through the specimens and be able to let everyone know some of the species she has found in that area.

The only thing on the calendar now is a presentation to the Department of Primary Industry at the Narara Research Station on Fungi on the Central Coast. This is timed for the week after we come out of our 50 day quarantine with Equine Influenza !!

***HIDDEN IN PLAIN VIEW - The Forgotten Flora* Touring Exhibition**

WHAT DO **FUNGI** AND STONEWASH JEANS HAVE IN COMMON?
WHAT HAS A **MOSS** GOT TO DO WITH THE TYROLEAN ICEMAN?
HOW CAN **LICHENS** HELP US TELL THE AGE OF A ROCK?

The answers to these questions are found in this remarkable exhibition from the State Botanical Collection, Royal Botanic Gardens Melbourne

Past Venues	Horsham Regional Art Gallery (**9 Jan – 4 Mar)** McClelland Gallery + Sculpture Park, Langwarrin & Australian Garden, RBG Cranbourne (**7 Apr – 11 Jun)** Swan Hill Regional Art Gallery (**20 Aug – 7 Oct)**
Present & Future Venues	Gippsland Art Gallery Sale (**13 Oct – 11 Nov)** Domain House, RBG Melbourne **(24 Nov – 17 Dec 2007)** National Museum of Australia, Canberra **(13 Mar – 8 Jun 2008)** Queen Victoria Museum and Art Gallery, Launceston **(16 Aug – 16 Nov 2008)** Museum of Economic Botany, Botanic Gardens Adelaide (**5 Jun – 30 Sep 2009)**

We hope to see you there! Teresa Lebel, Pina Milne and Karen Beckmann

NEWS FROM SOUTH AUSTRALIA

Pam Catcheside

The Adelaide Fungal Studies Group has had mixed success this year: from July onwards, dry soil and leaf litter were too dry for production of many above-ground fungal fruit bodies. Early in July we visited Kuitpo Forest where there are pine and mixed eucalypt plantations. Seventy-seven species were listed, including some magnificent specimens of *Leucopaxillus eucalyptorum* and *L. lilacinus*, both fruiting in their usual localities. Some very large (up to 15 cm diameter) specimens of *Lactarius clarkeae* were almost hidden by the deep build-up of eucalypt leaves, perhaps accounting for their rather pallid orange caps. In the nearby pine plantation we compared the orange milk of *L. deliciosus* with the white milk of its neighbour. The thick brackets of *Postia pelliculosa*, with their dark brown furry upper surfaces, had absorbed recent rains, making the texture firm but rather spongy.

The two later forays to Porter Scrub, a recently gazetted Conservation Park of remnant *Eucalyptus obliqua*, and Scott Creek CP yielded far fewer species than in previous years: 22 and 14 respectively. Truffles were the most interesting finds, an *Endogone* sp. at Porter Scrub and *Hydangium carneum*, *Descomyces albus* and *Labyrinthomyces varius* at Scott Creek. There was some excitement when a large 'truffle' was found which later turned out to be young, yet-to-emerge specimens of the Collared Earthstar, *Geastrum triplex*.

NEWS FROM W.A.

Jolanda Keeble

I was looking for wildflowers in nature reserves in the wheatbelt region east of Perth in early September and noticed that the occasional shower was still bringing out some fungi. Our main fungi season in Perth runs from June to August, so seeing fungi in September is a rare delight. I came across several puffballs, a large gathering of *Coltricia cinnamomea*, *Anthracophyllum archeri*, a species of *Phellinus*, a bolete species with bright yellow pores, species of *Tubaria*, *Galerina*, *Amanita*, *Laccaria* and a slime mould.

AND LAST, BUT BY NO MEANS LEAST

Congratulations to **Jarred Pedro** for winning the WA State Science Talent Awards in the biological investigation category for his project on the population and diversity of fungi in long unburnt and recently burnt bush. Jarred's investigation now goes into the National awards. We wish him every success.

Jarred's report will be in the next issue of *Fungimap Newsletter*.

INSTRUCTIONS TO AUTHORS

Members and non-members of Fungimap are welcome to publish in *Fungimap Newsletter*. Articles should be no more than 800 words, news items no more than 500 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 (preferably copied to CD-ROM and posted). Send your contributions to Pam Catcheside (Catcheside.Pam@saugov.sa.gov.au) or Fungimap, RBG Melbourne, Private Bag 2000, South Yarra, Victoria 3141 (fungimap@rbg.vic.gov.au). Articles submitted for publication in *Fungimap Newsletter* should not be submitted to any other journal or newsletter awaiting publication or have been previously published in another Newsletter or journal. Authors submitting manuscripts are responsible for obtaining the copyright holder's permission to reproduce any material for which the author does not hold copyright.

BOOK REVIEWS

CHASING THE RAIN

by Taylor F. Lockwood (2007)

Published by the author. 127 pp, numerous colour illustrations. ISBN 978-0-97009449-2-4.

Reviewed by Tom May, Royal Botanic Gardens Melbourne

Renowned fungi-photographer Taylor Lockwood documents his global 'treasure hunt for the world's most beautiful mushrooms' through more than 500 excellent full-colour photographs. Lockwood has an eye for the unusual, in textures and shapes, especially the elegance of ordered lamellae. Among the photos every colour of the rainbow is represented, all wonderfully lit. There is plenty of glistening glutinosity, and all sorts of other interesting textures from the hairy *Lentinus bertieri* to a marvellously rivulose *Boletus*. Keen photographers will find useful information on how Taylor achieves such luscious images, including use of the 'jiffypop pan' [a metallic pop-corn popping pan]. It is hard to chose the most interesting or unusual fungus depicted, but my favourite is the South African stinkhorn *Kalchbrennera corallocephala*, with its numerous bizarrely-shaped protuberances.

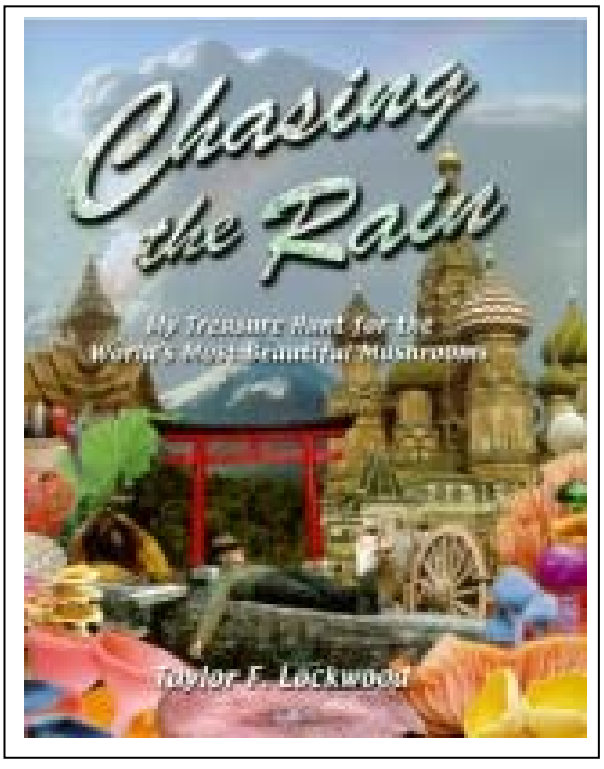
The photographs are interspersed with anecdotes from Lockwood's travels, such as tales of hair-raising bus rides in India. These can be rather detailed at times, but do contain interesting anthropological snippets — from morel mania in the American midwest to *Sarcodon*-sellers in Tibet. Taylor brings his quirky sense of humour to the text and photos, with my favourite non-fungus photo being the public toilet in Xining, China, with an uncanny resemblance to a Fly Agaric.

The book spans the globe from the Amazon to Tibet, and includes chapters on Australia and New Zealand. The section on Australia features several Fungimap targets including *Mycena interrupta* and *Boletellus obscurecoccineus*, and great shots of *Podaxis beringamensis* on termite mounds, along with rarely photographed fungi such as the slender downward cascades of *Deflexula subsimplex*. The New Zealand chapter includes a page of 'pouch fungi'; the false-truffles in genera such as *Gallacea*, *Weraroa* and *Paurocotylis*. For some countries where field guides are not readily available, the book acts as a very useful snapshot of the larger fungi for comparison against our local mycota, and this is especially so for Chile, South Africa, Zimbabwe and Nigeria.

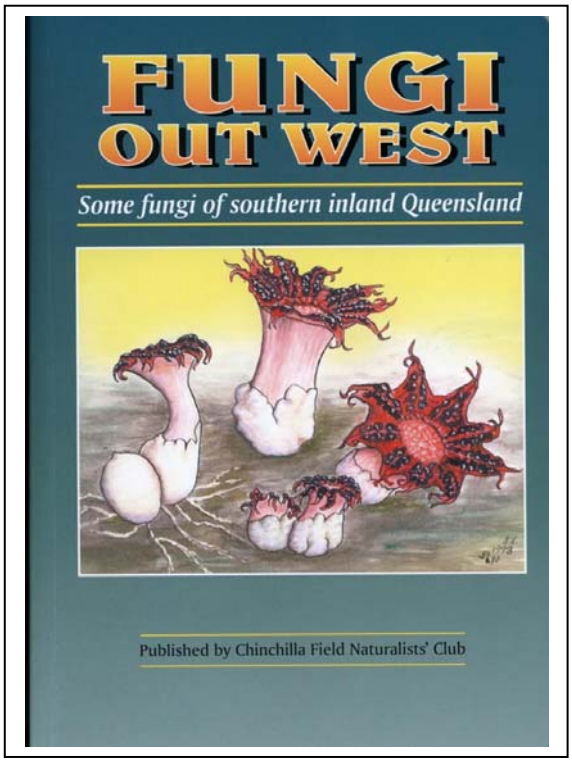
This book is an excellent sample of beautiful and strange fungi from around the globe and captures the adventure of 'chasing the rain' for new and exciting fungi.

Ordering Chasing the Rain

Fungimap will not be stocking this book (due to the complexities of importing books wholesale) but it can be ordered directly from Taylor Lockwood.
Visit: http://www.kingdomoffungi.com



FUNGI



OUT WEST: SOME FUNGI OF SOUTHERN INLAND QUEENSLAND

Editor: Ross Tait

Publisher: Chinchilla Field Naturalists' Club, Chinchilla Qld. 2007. Paperback. 154 pages. ISBN: 978098038240

Reviewed by Graham Patterson

You may not think of the dry interior of South-west Queensland as a hotbed of fungal diversity, but members of the Chinchilla Field Naturalists' Club have been finding, photographing and drawing fungi in the region for over forty years. This book is, as editor Ross Tait calls it, the 'fruiting body' of their enthusiasm. Chinchilla is about 250 km west of Brisbane, and most of the fungi depicted here come from a vast area stretching from the Great Divide west towards the South Australian border. Dry country seems to favour the puffballs, and they feature in this book. But it may come as a surprise that many of the fungi in this book are familiar to inhabitants of wetter parts of the country. Thirty or so Fungimap target species are included.

The introductory sections include a description of the book's geographical focus which encompasses interesting places such as the Bunya Mountains and the granite belt around the Queensland–New South Wales border. There is a useful illustrated coverage of the major vegetation types.

The range of ecological roles played by fungi — parasitic, saprophytic and mycorrhizal — is explained, as well as the fungal component of lichens. The role of fungi in soil conditioning is discussed, and there is a fascinating story about the succession of fungi that grow on different kinds of animal dung when incubated.

Most of the book consists of illustrations and descriptions of about 150 species of fungi from the region. The designers have paid a compliment to the Fungimap book *Fungi Down Under* by adopting features of its layout. There is a pictorial index to help the reader to home in on the correct group of fungi, colour-coded pages and usually one page per species. Even the title echoes *Fungi Down Under*.

It's good to see a few entries for slime moulds, including two of the new Fungimap targets. A couple of pages of lichens have snuck in 'because many people see the lichens and confuse them with fungi'.

The illustrations vary greatly in quality. There are some lovely photos, including some of species that are rarely illustrated, such as *Lentinula lateritia* our own 'shiitake' mushroom, *Oudemansiella australis* and *Stropharia rugosoannulata*. And Grace Lithgow's drawings and paintings have some charm. But some of the pictures are unclear or unhelpful as aids to identification. There are also superfluous illustrations which add nothing to others on the page.

Unfortunately there are too many errors of identification, for example:

- '*Amanita xanthocephala*' should not have a ring and should have a yellow-orange rim.
- '*Marasmius elegans*' lacks the rich colour and two-toned stem. The species illustrated looks more like *Marasmius oreades*.
- '*Tricholomopsis rutilans*' looks to have a rusty spore-print more like a *Gymnopilus* and its stem is not as solid as *Tricholomopsis.*
- The *Russula* photos seem to have been mixed up: the photo labelled '*Russula purpureoflava*' looks more like *R. persanguinea* with its white stem.
- Some of the *Geastrum* illustrations are also confused. The photo of *Geastrum fornicatum* is correct but the painting lacks the basal 'cup' of this species and is probably *Geastrum pectinatum.* However the photo for '*Geastrum pectinatum'* looks more like *Geastrum triplex.*

The descriptions of the species are clear and quite helpful. It is a pity that the very useful character of spore-print colour is sometimes not given. There is a handy reference to other illustrations of the species.

Proof-reading seems to have been thorough. I noticed only one spelling error, for *Panellus longinquus* (and the photo seems to have too long a stem). The lichen genus *Teloschistes* doesn't make it to the index.

To quote Pat Grey in an earlier review 'There can never be enough books with illustrations of Australian fungi'. This is because the incomplete state of fungal knowledge means that flipping hopefully through books of pictures is the only feasible method of identification for amateurs. Despite its drawbacks, this book would make a useful addition to your collection of pictures. Don't be put off by its narrow geographic focus. Very few fungi seem to have a very restricted distribution. It is so easy for spores to blow around that we can almost say that if the habitat suits a species, it will be there. So most of the arid zone fungi covered in this book will be found all over the dry inland of Australia, especially when it's wet!

Now available from Fungimap at $25 plus P&H

ACKNOWLEDGMENTS: FUNGIMAP RECORDERS AND OFFICE VOLUNTEERS

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FUNGIMAP OFFICE

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