



# THE QUEENSLAND MYCOLOGIST

Bulletin of  
The Queensland Mycological Society Inc.

The Queensland Mycologist is issued quarterly. Members are invited to submit short articles or photos to the editor for publication. The deadline for contributions for the next issue is May 21, 2009.

Please ensure that the Secretary ([secretary@qms.asn.au](mailto:secretary@qms.asn.au)) always has your current email address.

## SOCIETY OBJECTIVES

The objectives of the Queensland Mycological Society are to:

1. Provide a forum and a network for amateur and professional mycologists to share their common interest in macro-fungi;
2. Stimulate and support the study and research of Queensland macro-fungi through the collection, storage, analysis and dissemination of information about fungi through workshops and fungal forays;
3. Promote, at both the state and commonwealth levels, the identification of Queensland's macrofungal biodiversity through documentation and publication of its macro-fungi;
4. Promote an understanding and appreciation of the roles macro-fungal biodiversity plays in the health of Queensland ecosystems; and
5. Promote the conservation of indigenous macro-fungi and their relevant ecosystems.

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**QMS WEBSITE: [www.qms.asn.au](http://www.qms.asn.au)**

Have you logged onto the QMS website lately? If not then it is time you did!! Many thanks to Andrew Kettle for getting the site up and running. Please provide feedback to the Committee about any ideas you may have for the site.

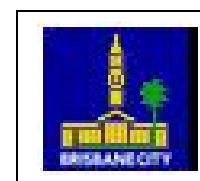
**OFFICE BEARERS 2008**

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To assist those not in attendance at meetings, notes on the addresses given are included in issues of the Queensland Mycologist. However, the notes never do justice to the topic as they do not reflect the enthusiasm of the speaker or cover the questions and discussions that were raised on the topic. So remember, where possible it is far better to attend the meetings, get the information first hand and participate in the invaluable information sharing opportunity.

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QMS acknowledges and appreciates the sponsorship that has been given to the Society by the Queensland Herbarium, SEQ Catchments and Brisbane City Council.



## QMS CALENDAR

**Members are reminded that 2009 subscriptions (\$20 pp) are now overdue.**

Payment can be made by cheque mailed to the Treasurer, Queensland Mycological Society Inc., PO Box 295, Indooroopilly Qld 4068 or directly to the Treasurer at the next meeting. A Membership Renewal Form is included on page 17.

Meetings are held in the Bailey Room at the Herbarium, Mt Coot-tha, commencing at 7pm on the second Tuesday of alternate months from February, unless otherwise scheduled.

There will be a foray meeting at 6 p.m. at the Herbarium at Mount Coot-tha for those who attended forays. Photographers are asked to bring all images preferably renamed by field number\_initials\_shot\_type\_number e.g. 15SMFF2 = field number 15, initials, type of image (F = field shot) and the second image.

### QMS MEETING PROGRAMME

- 14 April 2009** - Springbrook & Bunya Mt reports Speaker: Dr Sapphire McMullan-Fisher "Surrogates for Cryptogam Conservation Planning - a Tasmanian Trial."
- 12 May 2009** - QMS AGM Members bring a plate to share. Speaker: Dr Roderick Rogers "Lichens."
- 9 June 2009** - Foray reports + Speaker: Dr John Dearnaley "Mycorrhizal Fungi and Plant Conservation."
- 11 August 2009** Foray reports + Speaker: Dr David Holdom "Entomophthorales – Fungal Insect Pathogens."
- 13 October 2009** Foray reports + Speaker: Lesley Francis "Fungi & Timber Biodeterioration."
- 8 December 2009** Festive season celebration + Foray reports. Bring a plate to share.

### SUPPER ROSTER:

April: Fran Guard & Kim Nguyen.  
 June: Andrew Kettle & Matthea Paulus  
 August: Annitta Hearle & Jutta Godwin/Rachel Griffiths  
 October: Diana Leemon & Marie Fisher  
 May AGM & December Xmas Party: All to bring a plate

### QMS FIELD TRIP PROGRAMME

- 27-29 Mar 2009** Bunya Mountains. Leader: Sapphire McMullan-Fisher
- Sat 25 Apr 2009** QMS Foray Leader: John Wrench
- Sat 30 May 2009** QMS Foray TBA

## 2009 FUNGIMAP CONFERENCE V

Organised in conjunction with:

**Sydney Fungal Studies Group, Sydney, NSW** Black Gold Country Cabins, Wallerawang (near Lithgow) in the Blue Mountains region of NSW.

Conference V will run from **Thursday 21st May to Tuesday 26th May 2009**.

These dates allow members to attend our Fungimap Conference after the meeting held in NZ by the **Australasian Mycological Society (Sun 10th to Sat 16th May 2009)**.

For conference details, including conference speakers, workshops and forays, visit:

[http://www.rbg.vic.gov.au/fungimap\\_/welcome/](http://www.rbg.vic.gov.au/fungimap_/welcome/)

### QMR – QUEENSLAND MYCOLOGICAL RECORDS

To increase the knowledge about the diversity and distributions of local macrofungi a subgroup of QMS members was formed in June to try and create a recording system and data base. By improving the recording sheets and guidelines we hope to improve the quality of the macrofungal observations made by QMS, particularly during forays. Once the database has been created, tested and data read into it we should be able to produce reports and maps based on our records and in the longer term we might be able to see trends and associations of different macrofungi.

The members of this subgroup are Andrew Kettle, Karalyn Herse, Patrick Leonard, Sapphire McMullan-Fisher, Megan Prance, Klaus Querengasser and Kim Nguyen. We've coined the abbreviation for the sub-group 'QMR' which stands for Queensland Mycological Records. QMR has so far had three meetings in person and many often technical emails. Creating a database is a huge task if we want to be able to get the maximum amount of data out of it but I'm confident that with the ingenuity and determination of the members will create an elegant database. If you have any ideas or comments you can contact the QMR members by emailing [president@qms.asn.au](mailto:president@qms.asn.au) or [patbrenda.leonard@bigpond.com](mailto:patbrenda.leonard@bigpond.com).

### THE FIRST QMS BABIES!



#### **Congratulations Karalyn & Ciaron!**

Violet Ruth Chapman was born at 2:35 pm on January 28, weighing 3.48 kg.

"Violet because we liked it and thought it suited her, and Ruth after one of my Grandmothers"

Karalyn says: "Will make a visit with Violet to a QMS meeting sometime down the track (just as soon as I find the baby-handling manual... Violet seems to have lost hers)"

#### **Congratulations also to Andrew and Helen!**

George Ouroboros Kettle (a brother for Hannah) was born at 5:55am on February 8 weighing 4.23kg at the Royal Brisbane Woman's' Hospital.

Best wishes to you all!

## QMS PRESIDENTS REPORT

Greetings Fungi Folk, I can't believe we are quarter of the way through 2009! Already we have had two successful forays: Mt Glorious in January and the beginning of March to Palm Grove, part of Mt Tamborine NP. Thanks to Ken, Floss, Ruth and Jon for making these forays happen. In case you haven't heard we need a new foray co-ordinator ASAP, so please if you are willing to help coordinate people, events and data files please contact Jon Atkinson or me to find out what the role involves.

On the subject of keeping QMS running we also need a new Secretary and Treasurer. We need to fill the Secretary position very soon as Ruth Thomson needs to hand over before the AGM in May as she is off travelling. Ideally we would like a Secretary to start for the April meetings, the QMS Executive meets at 4:00 the afternoon of the QMS meeting. So please if you are an organised person with access to email please think about and contact me or Ruth ASAP. We are only a small society and a secretary's coordination is vital to our continued success. Rachel Griffiths is also standing down, she has been our treasurer since QMS's inception and has put in a sterling effort in keeping our finances in order. Luckily for us Diana Leemon has offered to step up to the financial plate.

We've also come along way with improving our record keeping. We have a new image naming system, which was tested by photographers at the Mt Glorious foray and at the Foray meeting before the main QMS meeting in January, where we got more images for our records than ever before. Please read the article about the naming system and feel free to contact me if you have any questions. This naming system was developed over the last few months and was honed at our first Working Bee in January. I'm hoping that we might have a few more Working Bees as our forays and trips away are creating a lot of data, images and collections that we need to identify and curate. See the Springbrook report to see how much data can be compiled over a couple of days.

To facilitate our record keeping QMR also want members to allocate the initials they would prefer be used. Initials are used in the file names of images, on foray sheets and other records. Initials need to be unique and ideally three units long, and could either be just letters or a combination of letters and numbers for example I use SMF (Sapphire McMullan-Fisher) but Megan Prance is using MP3 as we already have two members with the initials MP! At the next meeting we will have a membership list and will try to get peoples preferred initials organised.

Megan Prance has successfully applied for a group QMS collecting permit, more details follow about how fungi may be collected and the records that need to be kept. It is important that we follow the EPA guidelines very carefully to ensure we operate within Queensland law. Negotiations with Brisbane City Council are also underway for permission to collect on council properties, like local parks. To be able to collect members will need a copy of the permits, the permit also lists places covered by the permit. So if you are likely to pick up fungi for identification or interest please contact Megan. Megan has done a fabulous job getting the permit and the job does not end there as collections need to be recorded for the annual report to the EPA! I think all of Megan's work managing our data should be recognised by awarding her the title as 'Data Coordinator Extraordinaire'! Seriously I am inspired by the commitment and capability of the entire QMS executive and organisational team, don't forget we have a data group (QMR), librarian and foray coordinator. I hope these marvellous efforts will continue and in the long term improve the profile and understanding of fungi.

A Mycoblitiz was held on the Atherton Tablelands at the end of February. Fran, Gretchen, Klaus, Noreen, Ray and I all attended this exciting event. The Blitz was coordinated by Sandra Abell-Davis from James Cook University and the new Tropical Herbarium in Cairns. She successfully organised eight cars, about forty fungal enthusiasts for five days of fungal forays, photographs, collections and identifications. We were all ferried, fed and watered successfully and apart from a few leech bites and stinging tree encounters a great time was had by all.

There was some serious mycological knowledge participating in the Blitz with Ceri Pearce and Roger Shivas (DPI&F) plus a group of students from UQ collected data on microfungi, particularly tar spots, rusts and smuts. Elaine and Peter Davidson (WA) collected and identified slime moulds, which belong to a group of fungus-like organisms in a group called the Myxomycetes. Matt Barrett also from WA seemed to specialise in trying to get names for the weirdest fungi of the day, for example the yellow hydroid fungus (Figure 1 & 2) found at Davies Creek, we may have to wait until Matt gets time to do some DNA analysis to find out this specimen's genus. There were also about half a dozen American professional mycologists, some were working on Ascomycetes (Amy Rossman and Priscila Cheverri), particularly ones which infect other fungi, while Anatheia Brooks concentrates on truffles and global conservation.

In the evenings there were talks given on mycological topics. We now should know more about fungal groups Boletaceae (Roy Halling), Entolomataceae (David Largent) and *Ramaria* (Nigel Fechner). We also learnt about fungal hotspots (Bruce Fuhrer), tropical truffles and the threatened northern bettong (Sandra Abell-Davis), phylogenetic diversity of some Australasian agarics (Rytas Vilgalys), Australian smuts and rusts (Roger Shivas) and we took a tour of the macrofungi of the Australian Kimberly region (Matt Barrett). I also gave a summary my findings on surrogates for cryptogam conservation planning from my Tasmanian PhD (to find out more see <http://eprints.utas.edu.au/8282/>).

Not only did we have fun and get educated, but we also collected over 1000 records. Preliminary data was collected with images for about 80 species plus fungi identified to genus (~85), family (~21) and phylum (~4). This included 86 records from 24 Fungimap Targets, with 10 new targets being recorded for the Cairns region. These new target records were *Anthracoxyllum archeri*, *Bolbitius vitellinus*, *Boletellus obscurecocciceus*, *Calostoma fuscum*, *Gymnopilus junonius*, *Helvella villosa*, *Laccocephalum mylittae*, *Mycena austrororida*, *Pseudohydnum gelatinosum*, and *Tremella mesenterica*. It just goes to show you what fungal enthusiasts can achieve when they work together!



**Figure 1.** Unusual yellow hydroid (toothed) specimen from Davies Creek: upper surface



**Figure 2.** Unusual yellow hydroid (toothed) specimen from Davies Creek: hydroid hymenium.

## QMS COLLECTING PERMIT

Yes, this major milestone has been reached. As of 16 Jan 09 we have an Ecoaccess permit to collect fungi. The EPA officer responsible has been extremely helpful and worked very quickly to get the paperwork approved. Thanks Jacqui!

Before you get too excited and go off and collect every interesting specimen you see--- READ CAREFULLY! The EPA conditions are very stringent. We have a permit to collect in **Non-protected** areas of South East Queensland. However, you also need the permission of the land owner, if this is your local council that requires another permit. I am in the process of obtaining this for Brisbane city. A full list of conditions for the non protected area is listed below. We also have a permit to collect in a number of the National Parks mostly in S E Qld, including Bunya National Park. Further, we can collect in certain of the State Forests and forestry reserves-this last one has further conditions and I will address that later.

As the Queensland legislation is not geared for groups such as us, the permit is in my name and I have a number of "Research assistants". These are the financial members who have submitted their date of birth to our secretary. I will update this list with EPA each year in Feb/March as our membership list is updated. **A copy of the permit must be carried with you when you are out collecting!** Our project is called "Queensland Mycological Society Educational Collections".

The requirement that the specimens we collect go to the Herbarium is quite specific. Also the report that the EPA requires is very detailed. So before you collect **ANYTHING**, be prepared to do the curation and fill in the required report! My report will be submitted each year in January. The information required for this includes the location, associated vegetation, slope, aspect, scientific name, common name, how many were collected and the herbaria where lodged. So I ask each of my research assistants to keep detailed notes of their collections that are made away from our QMS forays. Using our current field sheets and vegetation sheets will (I believe) enable me to meet the reporting requirements of the EPA. I will email or mail a full package to each "research assistant" shortly.

What follows is part of the permit for collecting in the Non protected areas.

### **ecoaccess**

#### ***environmental licences and permits***

#### **Scientific Purposes Permit**

**issued by** the Environmental Protection Agency (EPA)

***This permit is issued under the following legislation:***

***S12(E) Nature Conservation (Administration) Regulation 2006***

#### **Scientific Purposes Permit**

**Permit number:** xxxx

**Valid from:** 15 JAN-2009 to 14 JAN-2012

#### **Permit Details**

#### **Location (s)**

Non protected areas - South East Queensland

1 Permit includes licences, approvals, permits, authorisations, certificates, sanctions or equivalent/similar as required by legislation administered by the Environmental Protection Agency and the Queensland Parks and Wildlife Service.

**Schedule Category Quantity** Maximum 30 per species Herbarium Specimens

**Activity** Research on non-protected areas for scientific purposes

## Conditions of Approval

Agency Interest: Biodiversity

**PB1** Before commencing work, the Principal Holder must contact the Senior Ranger/ Ranger in Charge for each State Forest/Forest Reserve to be visited. Contact should be made during business hours (Mon-Fri 8am-4pm) at least one week prior to entering the park. Details of actual times, proposed locations on the State Forest/Forest Reserve and vehicle registration details shall be given.

**PB2** The Principal Holder is to ensure that a current Permit to Collect is held for this project. The Principal Holder and any authorised assistants must comply with all conditions listed on the Permit to Collect.

**PB3** For areas other than State Forests and Forest Reserves permission must be obtained from the landholder prior to conducting activities.

**PB4** One (1) complete set of specimens must be lodged with the Queensland Herbarium giving precise location data, date of collection and name of collector.

**PB5** A single standard herbarium specimen is defined here as the minimal quantity required for identification purposes. No more than 10% of the colony of a species may be removed for this purpose.

**PB6** Environmental impact is to be kept to a minimum.

**PB7** Vehicle access is restricted to existing formed roads and car park areas.

**PB8** Collecting activities are to be effected away from public view.

**PB9** Unless otherwise specified the work must not be carried out on or immediately adjacent to any formed track or other area commonly used by the visiting public.

**PB10** This permit (or a copy plus proof of identity) must be carried on the park/s.

**PB11** To minimise the risk of spreading weeds, all collection and handling equipment, items of clothing (including footwear) and vehicles must be cleaned before and after each separate collection activity.

**PB12** All practices and procedures undertaken pursuant to this permit are to be in accordance with those details contained in and attached to the Application for a Scientific Purposes Permit signed by the Principal Holder on 15 December 2008.

The Principal Holder must notify the Project Officer (Scientific Permits) Toowoomba, of any additional collectors or assistants authorised.

A report on all work undertaken in relation to this permit and a copy of any resulting publication from this research is to be provided to the Project Officer Scientific Permits, Queensland Parks and Wildlife, PO Box 731 Toowoomba Upon completion of fieldwork, a list of material collected is to be supplied to the Project Officer Scientific Permits, Queensland Parks and Wildlife, Toowoomba. The list is to show numbers of specimens of each species, the type of habitat and specific locality or localities where they were collected as per the approved form.

All activities must be undertaken in accordance with the provisions of the laws in force from time to time in the State of Queensland. A law shall be taken to be a law in force in the State of Queensland notwithstanding that it applies to only part of the State.

Megan Prance

## **QMS IMAGE NAMING**

QMS needs to keep images for our foray records and to use for our website and possibly in the future for publications. In an effort to keep good records QMR would like the naming system described below to be the basis of our image files.

Ideally data and images will be shared at the Foray meetings held at 6 pm before the main QMS meetings. Please name images from forays for the meeting held after the foray. The draft foray field sheets will hopefully be available to people who attended the foray soon (~ 1 week) after the foray

### **Role of photographers**

The photographers have several important roles. They are taking images which are very useful in the naming and recording the scientific data of fungal species. Many of these species have not been recorded before. Good images are important in teaching people to recognise different fungi. Our difficulty up to now has been linking the image with the species identification. For this reason the link between the date and the field number is vital. Taking a photo which includes a label with the field number for each fungus should also enable the linking and naming of the different images. It doesn't matter if the fungus is a bit blurry, try and get the field number in focus. Other shots of the fungus don't need the label. It is usually a bit easier if the label is consistently the first or the last shot of each fungus.

Assuming photographers are able to use this naming system, which is basically: date, a letter, field number, photographers initials, type of shot and the number of the image. QMR should then be able to link the photos with the data sheets and hence names!

### **QMS Member Initials**

A person's initials are important both for keeping track of photographers, collectors and who attended forays. To assist in this each member's initials need to be unique. QMR prefer three initials to be used, this usually would be the first letters of first, middle and surnames. Where members' initials coincide the earliest member takes priority, letters and numbers may be used where no sensible combination of letters only can be found. Please send your preferred initials to the QMS secretary and once confirmed please use only these initials for all QMS events, data and images.

### **Naming Images from QMS forays**

#### **Example 1 Image file name = 2080606Q54SMFF2**

This is broken down into:

- 2 = 3rd millennium
- 080606 = 6 June 2008 (date in the format yymmdd)
- Q = QMS Survey
- 54 = field number 54 (unique for the day or trip)
- SMF = photographers initials
- F = Field shot
- 2 = number of picture (just number your series of pictures from one onwards)

#### **Example 2 Image file name = 2100606Q04KPQF2**

This is broken down into:

- 2 = 3rd millennium

- 100606 = 6 June 2010
- Q = QMS Survey
- 04 = field number 4 (unique for the day or trip-two digits, hence leading 0)
- KPQ = photographers initials
- F = Field shot
- 2 = number of picture (sequential from 1 onwards)

### Naming Other types of Images

There are a number of types of images we can keep. The current suffixes used for images are:

F = field shot

L = Lab shot

N = notes

M = notes on microscopic characters

A = aesthetic or artistic

P = people

H = habitat shot

**L = Lab shot**

This is a shot of a fungal collection, laid out with a ruler, tag, is taken under good light conditions.

**N & M = Notes**

This is a scan of the notes and drawings of a fungal collection. Similarly M = scan of the notes and drawings on microscopic characters. This can also be a scan or image of the notes of a herbarium specimen.

**A = aesthetic or artistic**

These are particularly aesthetic or appealing images. These could be used for the website or in future publications.

**P = people**

These are shots of people on forays or other QMS events.

**H = habitat shot**

These are images of the habitat or environment fungi are growing in. This can be particularly important if they show the substrate or the type of vegetation.

**For example** these are images names of the same specimen collected during the Springbrook foray in November 2008: 2081129Q11MPFF4.jpg, 2081129Q11SMFL1.jpg, 2081129Q11SMFN.jpg. They are the field shot, the lab style shot and a scan of the collection description note, with the first 10 characters identifying the fungus, i.e. 2081129Q11 and the rest the photographer and shot details. Once we decide how to label QMS collections this collection number will be added to the end of the file name.

### Naming Images with collections

If you are just supplying images but are not the person with the collection please just name your image in the standard way. QMR will annotate your file name with the collection number.

If you are a person who has a collection please give us the details of your standard initials and your collection number. These collections will have the collectors initials and number at the end.

**Example 3 Image file name = 2080606Q09SMFF8SMF2335**

- 2 = 3rd millennium
- 080606 = 6 June 2008
- Q = QMS Survey

- 09 = field number 9 (unique for the day or trip)
- SMF = photographers initials
- F = Field shot
- 2 = number of picture F8 = field shot number 8
- SMF2335 = collector and collection number 2335 (collection numbers should be unique for each individual)

**Example 4 Image file name = 2081129QMP3P1**

This is a photo of people or a person on the Springbrook survey (date 29/11/2008) taken by Megan.

**Naming Images from individual or special events**

If you are giving data and images to the QMS database rather than having a Q after the date please put a P. These are likely to be fungi you have seen in your backyard or on individual trips etc.

**Example 5 Image file name = 2090101P01SMFF1SMF2351**

This is a personal record from photographer SMF and there is also an accompanying collection (SMF2351). The date the image was taken was 1 January 2009.

On paper it seems all a bit complicated but QMRs testing suggests that this naming system will work and although renaming images takes a bit of time initially for long term ease of finding and understanding images collections this system should save a lot of time. In the longer term when we find out the names of previously unnamed fungi we should be able to update the data sheets but not have to go back a rename images. Good luck and please feel free to contact any of the QMR members to get help on naming images.

**FUNGUS LESSENS SERIOUS GRAPEFRUIT-DRUG REACTION**

Scientists in Florida report that adding an edible fungus to grapefruit juice may help to reduce the serious side effects that can occur when people taking certain prescription drugs drink grapefruit juice.

Chemicals (furanocoumarins , or “FCs”) found in grapefruit and some other citrus block a key enzyme critical for or breaking down some prescription medications. This “grapefruit/drug” interaction or “grapefruit effect” can turn normal drug doses into toxic overdoses.

Researchers Kyung Myung and colleagues, had previously discovered that an inedible fungus can be used to remove most of the FCs from grapefruit juice, but they have now found that the related edible fungus *Morchella esculenta* removed most of the furanocoumarins from the grapefruit juice, reducing the grapefruit juice’s inhibition of the drug-metabolising enzyme by 60 percent. The dried fungus also worked.

For the full story, go to

<http://www.sciencedaily.com/releases/2009/01/090128214017.htm>

## QMS SPRINGBROOK WEEKEND – NOVEMBER 2008

Report by Megan Prance and Sapphire McMullan-Fisher

On the weekend 28-30 November 2009 QMS members: Annitta Hearle, Gretchen Evans, James Hansen, Klaus Querengasser, Lil Spadijer, Megan Prance, Ruth Thomson, Sapphire McMullan-Fisher, Till Lohmeyer, and Dr Uta Kunkele stayed at the Mountain lodge, Springbrook.



Figure 1: Dr Aila Keto & Till Lohmeyer

The Queensland Government has bought back a number of properties with the aim of returning it to native rainforest and including these in the Springbrook National Park. The Australian Rainforest Conservation Society (ARCS) is managing the land this is called the “Springbrook Rescue Project”. We were hosted by Dr Aila Keto and Dr Keith Scott, the dynamic forces behind the Springbrook Rescue Project.

Three sites were surveyed during the weekend. On Friday evening a brief survey of ‘The Lodge Loop’, which was below the Mountain Lodge where we were staying. Saturday morning took us down Repeater Station Road to the Stevenson’s property. A few specimens were recorded along the way. At Stevenson’s we followed a switchback path almost down to the creek. Sunday took us to ‘Warblers in the Mist’ property. Each of these sites was surveyed in our previous visit in May 2008.

On the Saturday evening after a delicious and convivial dinner our hosts Aila and Keith, came to the Lodge to see some of the fungi images we had taken so far – they were impressed with the diversity even though we thought it was quiet low. Aila also gave us a presentation explaining the Springbrook rescue goals.

<http://www.rainforest.org.au/arcsinfo.htm>

During the weekend 46 taxa were recorded (Table 1), including ten named species including five Fungimap targets: *Cyptotrama asparatum*, *Favolaschia calocera*, *Lycogala epidendrum*, *Marasmuis elegans*, *Schizophyllum commune* and *Stereum ostrea*. Despite the recent rain all fungi were saprotrophs except for the tiny red parasitic *Nectria* sp. We gratefully used the knowledge of Till Lohmeyer for many of our identifications. Seventeen collections were made, descriptions of these were written and these collections were dried

during the weekend. Six collections will have their photographs printed out and then will be lodged at the Brisbane Herbarium (BRI). A further eleven collections need more work to identify them to at least genus before they can be lodged.

QMS and its members have been invited back to Springbrook to help with the rescue effort and to increase the knowledge about the fungi of Springbrook. If we can find a member or two who are willing to organise another trip – I'm sure we'll have another great weekend. In the meantime if individual members would like to visit to record fungi and or get involved in the revegetation efforts please contact Dr Aila Keto, President:

[aila.keto@rainforest.org.au](mailto:aila.keto@rainforest.org.au).

### Mycological Highlights

The find of the weekend was a delightful icicle shaped coral fungus with a lilac tint, more work needs to be done to identify the collection but it may be in the family Hericiaceae as it is similar to *Mucronella* (Figure 2).



Figure 2: 2081129Q18KQA057

We also saw what we think are two different *Campanella* species – the eccentrically attached gilled fungi have peculiar 'pastie'-shaped spores. One taxa was smaller and had an olivaceous tint to the cap and may be *Campanella olivaceonigra* while the other was larger and paler (Figure 3, image 2081129Q27KQA132QMS0008).

Thanks to the sharp eyes and knowledge of Till Lohmeyer, most attendees got to see the tiny red parasitic fungus *Nectria* sp. We were impressed that Till spotted it – it was hard to see without the magnification of the dissecting microscope!



Figure 3: 2081129Q27KQA132QMS0008 *Campanella* sp.

An exciting find at the end of the survey of the Stevenson's property was a lovely white *Stereum* which 'bled' when touched (Figure 4). Till told us there were a couple of 'bleeding' *Stereum*'s in Europe like *Stereum sanguinolentum*. When the photos are printed and notes completed for this collection, it will go to Gretchen Evans who is specialising in *Stereum*. Hopefully she will be able to work out if this is a named or new species for Australia. Eventually the collection will be deposited at the Brisbane Herbarium (BRI). At the February QMS meeting Diana, Ray and Noreen all remembered seeing a brown 'bleeding' *Stereum* during the IBISCA surveys at site 11.11.06 IQ1100.C1.0001 at Lamington National Park. We shall have to try and match up the two collections, and hopefully have a name once the IBISCA collections are databased at BRI.

A beautiful corticoid (patch or paint) fungus species was seen on a branch at Warblers. It was the deep purple velvety *Peniophora* (Figure 5).

One of the lowlights was seeing *Favolaschia calocera* (Common name = Orange Ping Pong Bats) at least three times on the Stevenson's property (Figure 6). This small weedy fungus seems to be spreading along human tracks and may be able to compete with local saprotrophic fungi because of its ability to produce antibiotics and it's broad substrate preferences (Vizzini, Zotti, Mello 2009). There is more on this fungus on page 25.



Figure 4: 2081129Q43MP3F11QMS0011 *Stereum* sp.



Figure 5 2081130Q62KQF324QMS0016 *Peniophora* sp.



*Figure 6: Favolaschia calocera*

**Reference**

Vizzini, A. Zotti, M. and Mello A. 2009 Alien fungal species distribution: the study case of *Favolaschia calocera*. *Biological Invasions* 11:417–429

**Species list**

Table 1. Summary of fungal names by site including Fungimap targets (T), fungal phyla, lifeforms and taxa, substrate and function. Locations from Springbrook: LL = Lodge loop, 317 Repeater Station Rd; S = The Stevenson's property, Repeater Station road; and W = Warblers, off Bilborough Court.

T	Phyla – Lifeform - Taxa	Substrate Classes	LL	S	W	Function
	<b>Deuteromycota</b>					
	Anomorph sp. "Megan's Pink"	wood 1-25 cm diam.	1	1		S
	<b>Ascomycota</b>					
	<i>Nectria</i> sp.	Parasitic on pyromycetes			1	pa
	<b>Clubs</b>					
	<i>Xylaria</i> aff. <i>apiculata</i>	wood 1-5 cm diam.	1	2		S
	<i>Xylaria</i> aff. <i>polymorpha</i>	wood 1-5 cm diam.		1		S
	<i>Xylaria</i> sp.	wood 1-5 cm diam.		1		S
	<b>Cup &amp; Disc fungi</b>					
	Discomycete spp. 'yellow'	wood 1-5 cm diam. Frond of on a tree fern, <i>Cyathea</i>	1	6		S
	<i>Hyaloscyphacear</i> sp.	trunk & fronds		1		S
	<i>Lachnum</i> sp. white	wood 1-5 cm diam.			1	S
	<i>Mollisia</i> sp.	wood 1-5 cm diam.			1	S
	<b>Myxomycota</b>					
	<b>Slime mould</b>					
FM	<i>Lycogala epidendrum</i>	Wood - dead tree 40-60 cm diam.		1		S
	<b>Basidiomycota</b>					
	<b>Jelly</b>					
	<i>Auricularia cornea</i>	Wood		1		S
	<i>Calocera</i> or <i>Dacrymycete</i>	Wood		1		S
	Jelly fungus 'grey'	wood 1-5 cm diam.		1		S

T	Phyla – Lifeform - Taxa	Substrate Classes	LL	S	W	Function
	Jelly fungus 'pink fan form'	wood 5-25 cm diam. + mossy		1		S
	<b>Coral &amp; club fungi</b>					
	Hericiaceae aff. <i>Mucronella</i>	Wood - buttress rough bark of rainforest tree		1		S
	<b>Corticoid &amp; Thelophores</b>					
	<i>Byssomerulius</i> sp.	wood 5 - 25 cm diam.			1	S
	Corticoid sp. 'cream'	wood 5 - 25 cm diam.		1		S
	<i>Peniophora</i> sp.	wood 1-5 cm diam.			1	S
FM	<i>Stereum ostra</i>	wood 5 - 25 cm diam.		2		S
	<i>Stereum</i> sp. 'bleeding'	wood 5 - 25 cm diam.		1		S
	<b>Eccentric &amp; stipitate</b>					
FM	<i>Favolaschia calocera</i>	wood 5-25 cm diam.		3		S
	<b>Gilled fungi</b>					
	<i>Coprinus</i> sp.	wood 5-25 cm diam.		1		S
FM	<i>Cyptotrama asparatum</i>	Wood <1 - 1 cm diam.	1	2		S
	<i>Lepiota</i> sp.	soil		1		S
		Litter - leaves <i>Leptospermum</i> sp.;				
	<i>Marasmius</i> spp.	wood 1-5 cm diam		1	1	S
FM	<i>Marasmuis elegans</i>			1		S
		Bark Eucalypt; Wood <1 - 1 cm diam.;				
	<i>Mycena</i> spp.	Leaf litter		4	1	S
	<i>Psythyrella</i> sp.	Wood		1		S
	<i>Stropharia</i> spp.	Dung - herbivore			1	S
	<b>Gills - eccentric</b>					
	Agaric aff. <i>Crepidotus</i>	wood	2			S
	<i>Campenella</i> sp. 'larger'	Wood <1 - 1 cm diam.		2		S
	<i>Campenella</i> aff. <i>olivaceonigra</i>	wood	1	1		S
	<i>Crepidotus</i> aff. <i>eucalyptorum</i>	wood 5-25 cm diam.		1		S
	<i>Gymnopilus eucalyptorum</i> complex	wood 5 - 25 cm diam		1		S

T	Phyla – Lifeform - Taxa	Substrate Classes	LL	S	W	Function
	<i>Melanotus hepatochrous</i>	wood - woody liane <1 - 3 cm diam.;	1	2		S
		wood 1-5 cm diam.				
	<i>Melanotus</i> aff. <i>hepatochrous</i> 'pale form'	Wood <1 - 1 cm diam.; Butress of tree		1		S
FM	<i>Schizophyllum commune</i>	wood 5 - 25 cm diam.			1	S
	<b>Polypores</b>					
	<b>Brackets &amp; eccentric</b>					
	<i>Ganoderma</i> sp.	Tree > 25 cm diam.			1	S
	Polypore spp.	wood 1 - 25 cm diam.		1	1	S
	<i>Pycnoporus coccineus</i>	wood 1-5 cm diam. - <i>Leptospermum</i> sp.			1	S
	<i>Stecchericium/Trametes</i> spp.	wood 1-5 cm diam. - <i>Leptospermum</i> sp.			1	S
	<i>Trametes hirsuta</i>	wood 1-5 cm diam. - <i>Leptospermum</i> sp.			1	S
	<i>Tyromyces</i> sp.	wood 1-5 cm diam. - <i>Leptospermum</i> sp.			1	S
	<i>Phellinus</i> spp.	wood 5 - 25 cm diam. - <i>Leptospermum</i> sp.			1	S
	<b>Polypore - stipitate</b>					
	<i>Microporus</i> sp. 'aff. young <i>xanthopus</i> '	wood 1-5 cm diam.		1		S
	<b>Stinkhorns</b>					
	Stinkhorn – immature	soil		1		S

## MT GLORIOUS FIELD TRIP

24/01/09  
K. Cowell.

The QMS field trip on the 24 January 2009 was held at Maiala Rainforest area Mt Glorious on a fine but cloudy day starting 09:00 to 12:00. The previously advertised site at Nudgee was too dry and very few fungi were present a week prior to the foray.

20 participants started by examining the grassy picnic area immediately up hill from the car park at Maiala. They then proceeded to the rainforest circuit for about 600 meters until 12:00, at the first board walk on the upper circuit, the trip was declared over. Some participants continued the rainforest walks, most returned back along the same path.

The area had rain over the preceding 2 days, after a short dry period. The ground was moist but not wet.

Most of the fungi were on wood.

5 fungi found in the picnic area, only 1 in the grass, the rest in or about the litter under tree islands in the picnic area.

38 fungi were found along the rainforest circuit.

18 were identified to species level by Sapphire.

10 were fungimap targets.

There were numerous examples of some fungi.

4 samples were collected.

The only fungus found in the grass was a *Conocybe* species.



Two species of *Auricularia* were found, *A. cornea*, and *A. auricula-judae*. The hairy upper surface of *A. cornea* (below left) was the major differentiating feature species.



Two boletes were found (below). The one on the left is a typical bolete, with red pores, and on the right is a yellow gilled bolete in the genus *Phylloporus*.



*Amauroderma rude* (below), a Fungimap target, was found low on a tree stump. It is characterised by staining red if the pored surface is scratched, later turning black.



I would like to thank our trip organiser Jon and all those who participated.  
A special thank you to our president Sapphire for the identifications made during and after the trip.

### List of specimens found.

#	Name	Descriptive Features	Substrate & Assoc	Site ID
1	<i>Conocybe</i> spp.	Pale rust on older spec, Pale	Mowed lawn grass near	Picnic Area
2	<i>Auricularia comea</i>	Hairy cap, pale grey tops, dark	Rotting tree stump 8 cm diam.,	Picnic Area
3	<i>Mycena</i> sp.	Small white		Picnic Area
4	<i>Ceratiomyxa fruticulosa</i>	Creamy white slime mold	Rotted limb 5mm to 100 mm	Picnic Area
5	<i>Microporus</i> sp.	Pale lemon basal disc	Rotted stick 30 mm diam. in leaf	Picnic Area
6	<i>Cymatoderma elegans</i>	Small	Small rotted log	Rainforest
7	<i>Microporus xanthopus</i>	Funnel shape	Long rotted log. 10cm. diam. In	Rainforest
	<i>Microporus affinis</i>	Bracket	Long rotted log. 10cm. diam. In	Rainforest
8	<i>Schizophyllum commune</i>	several small specimens	Small rotted log 4 cm x 30 cm.	Rainforest
9	Jelly	4 x yellow/orange lumpy jelly,	Long rotted log 10 -15 cm.	Rainforest
10	<i>Trametes lactinea</i>	4x Cream / white brackets	Large rotting log 15 – 20 cm.	Rainforest
11	<i>Gymnopilus</i> aff. <i>eucalyptorum</i>	6 x Small pale apricot	Small dead branch on tree.	Rainforest
12	<i>Cyptotrama aspratrum</i>	1 x Very small on dead log.	Dead log 8cm.diam.	Rainforest
13	Jelly - <i>Calocera</i> sp.	Pale orange jelly, fingers. 1-2	Dead log 8cm.diam.	Rainforest
14	Polypore	White corticoid polypore.	Rotted tree stump base in a	Rainforest
15	<i>Trametes</i> aff. <i>versicolor</i>	Old spec.	8 cm. diam. Rotted wood	Rainforest
16	Polypore	Creamy / yellow cap, slightly	Rotted wood.	Rainforest
17	Bracket	Numerous specimens, 5 –	Large rotted log , some sections	Rainforest
18	<i>Marasmius</i> sp.	Numerous >20 specimens.	Rotting Hoop pine needles/	Rainforest
19	<i>Crepidotus</i> aff. <i>eucalyptorum</i>		Rotted log 4 cm. diam.	Rainforest
20	Jelly polypore	Bracket shape: partially	Undersurface, rotted ,	Rainforest
21	Polypore	Light yellow polypore with darker	Decomposed wood / soil / leaf	Rainforest
22	Mycenoid	Very small. Cap 2mm, grey.	Decomposing Hoop Pine twigs.	Rainforest
23	<i>Anthracoxyllum archeri</i>	Dried up spec.	Small twig.	Rainforest
24	<i>Cymatoderma elegans</i>	Twig had fallen from tree above,	Rotted twig branched. 4 – 5 cm.	Rainforest
25	<i>Auricularia auricula – judae</i>		Live tree root. Fungi in mossy	Rainforest
26	<i>Mycena austrororida</i>	Gregarious, > 30 in a 10cm. X8	Rotted log 15 – 20 cm. diam.	Rainforest
27	<i>Ganoderma</i> sp.	Large 15 cm. Dia. Very old spec.	Live buttress root near damp	Rainforest
28	<i>Microporus</i> sp.			Rainforest
29	Agaric	eccentric agaric	On Podocarpus elatis	Rainforest
30	Agaric		On rotted wood	Rainforest
31	<i>Clavaria</i> sp.	Orange colour	On rotted root. 16 cm. diam.	Rainforest
32	Discomycete	2 – 6 mm. Yellow	On rotted branch 10 cm. diam.	Rainforest
33	<i>Auricularia auricula – judae</i>		On rotted branch 10 cm. diam.	Rainforest
34	Bracket	shaped bracket, brown	Dead branch 10 cm. diam.	Rainforest
35	<i>Tyromyces</i> sp.	Blue / black staining reaction	Sticks, twigs, leaves litter	Rainforest
36	<i>Sterum ostrea</i>		Rotted log. 5 – 10 cm. diam.	Rainforest
37	<i>Panellus</i> sp.	No pink tint	Lian. Native yam. Ripogonum	Rainforest
38	<i>Dictyopanus pusillus</i>		Rotted Bangalo palm frond.	Rainforest
39	Bolete	Stem reticulate. Flesh yellow,	On root of rainforest tree but	Rainforest
40	<i>Phylloporus</i> sp.	Gilled bolete. Stains navy blue	At base of rainforest tree but	Rainforest
41	Puff balls	7 x Grey puff balls. 2- 3 cm	Large rotted log. 80 cm. diam.	Rainforest
42	<i>Amauroderma rude</i>	Red bruise stain.	On tree base.	Rainforest
43	<i>Stereum</i> sp.		Dead stem.	Rainforest

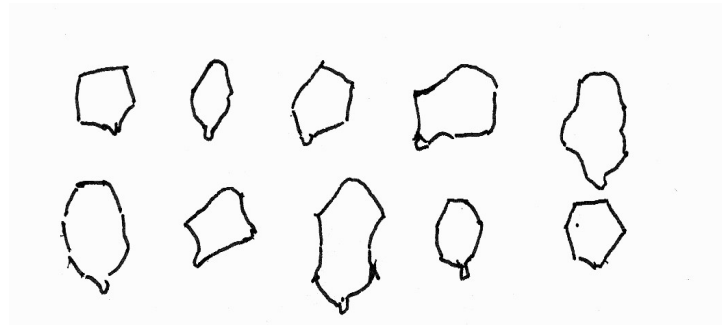
## HOW TO RECOGNISE AN *ENTOLOMA*

Cap typically medium to small, conical or flat with a central umbilicus. Colours include white, grey, brown, pink, yellow, olivaceous, green, violaceous, lilaceous and blue. Stipe usually central and quite tall in comparison to cap diameter, a few laterally attached. Gills free, adnate, adnate decurrent or decurrent, usually with a **pink or reddish tinge** when mature. Gill edge can be a darker and a different colour. Traces of veil generally absent. **Spore print pink or pinkish brown.**



*Entoloma hochsteteri* © Pat Leonard

**Spores with angular outlines when seen from all sides.** Pentagonal, cuboid and many other geometric shapes, but not ornamented or roughened. No reaction with Melzer's reagent.



*Entoloma booranodes*- Note pink gills. © Pat Leonard

Cap cuticle a cutis, ixocutis, trichoderm or hymeniderm, with intracellular, parietal or encrusting pigments or combinations of these. Clamps present or absent. Habitats vary widely, most are terrestrial, saprophytic, growing in humus, but a few grow on wood and some are suspected to be mycorrhizal. They seem to fruit over an extended season in Queensland from October to July. There are probably well over 50 species of *Entoloma* in Queensland.

**Critical characters: Spore print pink or pinkish brown and spores angular.**

Patrick Leonard

## THE ATLAS OF LIVING AUSTRALIA

Earlier in 2008, the QMS received a request to participate in a survey on our collection and need for scientific data and the committee agreed to respond. The survey was conducted as the first part of a project looking at all the data on biodiversity held in Australia.

The *Atlas of Living Australia* is a five-year project funded under the Australian Government's [National Collaborative Research Infrastructure Strategy](#) (NCRIS).

Its mission is to develop a biodiversity data management system which will link Australia's biological knowledge with its scientific and agricultural reference collections and other custodians of biological information.

This system should be:

- Authoritative** - guiding users to the most relevant data resources and well-researched information for each species
- Freely accessible** - delivering services, tools and content for free use by all
- Distributed and federated** - integrating existing systems and networks to bring together the most current and complete content

The project aims:

- To integrate information on all Australian species, including data on **specimens** held by Australia's natural history collections and data from field **observations** of living organisms
- To support the management and integration of biological data from all areas of research (**molecular to ecological**)
- To develop search interfaces and web services to facilitate **discovery** of biological information resources and to support the **use** of biological data in scientific research, policy-making and education
- To ensure that data relating to Australian organisms is well-managed for **present** needs and organised to meet **future** information requirements

The survey asked about what biodiversity data we use, where we look for that & what do we use the data for. It also asked about biodiversity data we create, do we make it available to others and in what form.

Having completed the survey form, we received an invitation for a follow up meeting from John Tann, the project officer for the ALA. Patrick and I attended at Qld Museum boardroom on Monday September 22nd. We were met in the foyer by John Tann and were joined by another attendee Wayne Martin from EPA. Two other groups failed to show. Linda and Paul, the other members of the team, were waiting in the Boardroom. Similar meetings have been held all over Australia with a large number of other groups, but as far as John knew, the Sydney Fungi group was the only other Mycological Society to attend.

The meeting was well structured with the ALA team enquiring deeply into our "work" processes and why we do what we do. We discovered Wayne looks after the flora and fauna collections data for the EPA – no doubt including the dreaded "returns" we have to complete as part of our collecting permits. He explained the many headaches he has when he receives forms that have not been correctly completed. Inconsistency of units of data was another issue. Listening to him highlighted the frustrations

experienced by people who have responsibility for cleansing data before uploading into a database.

Pat explained the state of Mycology in Qld being similar to Flora studies in about 1850. With only one taxonomic mycologist employed in QLD, the situation is not going to improve any time soon. He mentioned we may have as many as 5500 fungi in Qld and probably only half have been described. Megan commented about the need to incorporate in our database the ability to record and search for our unnamed species that we find on our forays. For example a pretty little yellow *Pluteus* was found at Mt Hobwee recently. When we go back next time, if we find another pretty little yellow fungus, we want to know if it is the same unnamed species.

Pat also mentioned the need to collect field data so as to understand the frequency of distribution of fungi. Herbaria records tend to over represent the rare and uncommon species, because collectors tend to think that there is no point in sending in collections of the common species.

Megan explained the difficulty beginners have in accessing information to allow them to identify fungi. The first two questions people ask are "What is it?" and "Can I eat it?" Mostly I have been relying on picture books to point me in the direction of an identification, but recently when I started seeking papers from the DPI&F library I found the \$18 fee per paper to be prohibitive.

It seemed that other groups have also expressed the need for lists of Australian species with correct nomenclature, correct authorship, synonyms and history of names and ideally a PDF of the paper that contains the description of the fungus could be attached.

Also mentioned was the desirability to be able to identify other people or groups who may be researching or have specialist knowledge relevant to our interest. As a case example Megan mentioned the story of the Betongs and Potaroos, as much as 80% of their diet is fungi at some times of year. The people studying these species may have distribution and identification data relevant to us. Currently there is no easy way to identify or communicate with these people or groups

Another field example of the need to link data relates to linking information on mycorrhizal trees with that on fungi so that we can better understand their associations. This is of value to land managers, for example, revegetation programs in the wheat belt in WA have included fungi in the plans and the success of these plantings has been much better than those where mycorrhizal partners were not used.

There was a discussion on whether ALA should contain photographs and we all agreed that it should. We asked what information should be held, but it was too early in the project for them to offer advice. Paul mentioned that the technology for holding information on cameras was still changing fast and as an example cited Nokia who were introducing new software that collected information, held it in a database with the image and had the ability to print the information on the back of the photograph.

We were asked for blue sky ideas, what we would really like to see in any new system. We opted for an interactive fungal key as part of the ALA, an Aussie version of MykoKey that had been developed in Europe (You can see it on the net at [www.MykoKey.com](http://www.MykoKey.com)). Similar requests had been made by other groups.

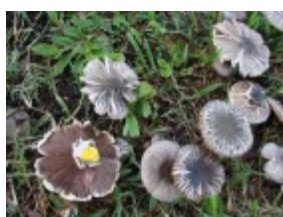
Overall the meeting was very interesting. We presented a strong case for Mycological data to be made available via the Living Atlas of Australia. When the limited amount of data that is known can be gathered to a central point, there will be big benefits for all.

John announced that he was becoming quite enthusiastic about fungi and he is going to go on a foray with the Sydney group.

What we didn't get was any advice on how to set up our database.

Megan Prance

### **CORRECTION: THE *AGARICUS XANTHODERMUS* THAT WASN'T**



In the December newsletter, I included a photo that I labelled as *Agaricus xanthodermus*. This got an immediate reaction to indicate that it was something else entirely. To quote Patrick: "It might be *Agaricus moelleri*, although in your picture I must say it looks more like the images of *Agaricus rotalis*, described from Hawaii and recently reported from Western Australia. The difference between the two species in essence depends on whether young specimens are almost black, whether the hyphae in the pileipellis are inflated and whether radial splitting occurs. It is certainly not *Agaricus xanthodermus*, which has a predominantly white cap".

In hindsight, the differences from textbook illustrations of *A. xanthodermus* should have raised alarms. I had noticed the differences, but fell for the "yellowing stem = *A. xanthodermus*" trap. These differences are the dark cap, the splitting around the cap, and (not evident from the photo) the tendency for the yellow stem colouration to appear only in more mature specimens. Conclusion: we can't even take such "well known" genera as *Agaricus* for granted! This one probably isn't edible either.

David Holdom

### **FAVOLASCHIA CALOCERA: BEAUTIFUL...AND A WEED**



*Favolaschia calocera* is an attractive orange fungus that is, unfortunately, a rapidly spreading weed. A recent paper in the Journal *Biological Invasions* (vol 11, pp 417-429) described the use of DNA analysis to trace its origins and spread. The work was prompted by the discovery of *F. calocera* near Genoa, Italy in 1999.

*F. calocera*, first described from Madagascar, was found in New Zealand in 1969, and has also been found in Australia, Thailand, China, Kenya, and Reunion Island. The authors compared specimens from several sites around Genoa with those found elsewhere in the world. The greatest genetic diversity was in collections from Asia (Thailand, southern China) and Madagascar, while the Italian specimens clustered with those from New Zealand, Norfolk Island and Reunion Island. In Madagascar the fungus is not common (only two collections including the original discovery in 1933).

The fungus appears to have originated in either Madagascar or in Asia and spread from there. Its ability to spread may be in part due to its ability to colonize a wide range of species. The authors of this paper suggested that it was especially common in disturbed habitats where competitors may be less common, and they quote New Zealand sources (Johnston et al 2006) as suggesting that though it can colonise dead wood very rapidly, it is a relatively poor competitor with native fungi. It is described as being of “paleotropical” distribution, but I have seen it in quantity in undisturbed bushland at about 250m altitude in the south-west of the North Island, New Zealand in the middle of winter, indicating that it can grow well over a wide temperature range (New Zealand in winter is most definitely NOT tropical). The attached photo was taken in New Zealand in June 2007.

Assuming that the relative rarity of *F. calocera* in its native range is real, and not a function of limited study, some interesting questions are raised. For many introduced pests such as insects and weeds, lack of natural enemies is an important factor in their becoming common and widespread. Could this be the case with fungi? If so, is there potential for biological control of exotic fungi? A virus, while not inhibiting the spread of chestnut blight (*Cryphonectria parasitica*) in Europe, has allowed trees to recover, while in North America, where the virus was not present, trees died. Unfortunately, very little is known about diseases of fungi outside of cultivation, or for that matter the biology of fungi other than plant pathogens (Despres-Loustou *et al*, 2006). Without such knowledge, any proposals to use biological control against exotic fungi in natural habitats have little chance of proceeding.

The Italian site of introduction coincides with an area into which significant quantities of timber were imported from New Zealand, strongly suggesting a link with international trade and spread of the fungus.

The spread of *F. calocera* around the world illustrates the threats posed by international trade that need to be balanced against the benefits, and raises the need for more research on the biological origins of pest species, and the potential for biological control, as ever more exotic species become established where they do not belong- and the fungi appear to be the most ignored of all of those.

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- Johnston, P.R., Whitton, S.R., Buchanan, P.K., Park, D., Pennycook, S.R., Johnson, J.E., Moncalvo, J.M. (2006) The basidiomycete genus *Favolaschia* in New Zealand. *New Zealand Journal of Botany* **44**(1): 65–87.

David Holdom

**Queensland Mycological Society Inc**

ABN 18 351 995 423

**Membership Renewal 2009**

**Surname:** .....

**Given Names** .....

**Address** .....

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**PostCode** .....

**Phone** .....

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**Email Address:**.....

**Date:** .....

**Amount due:** \$20.00 per person

**Due date:** 1<sup>st</sup> January 2009

**Amount paid:** \$.....

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The Treasurer  
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PO Box 295  
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