

We welcome you to this special issue of our newsletter, devoted to the Kingdom Fungi and edited by Alison Pouliot and Valérie Chételat. Our Wombat Forest delights us all with its fungal diversity and abundance and in this issue our contributors from far and wide share with us their unique impressions. Congratulations Alison, Valérie and all contributors for this exciting and thought-provoking edition of the Wombat Forestcare newsletter. Gayle Osborne (editor) and Angela Halpin (design)

The Wombat Forest - A Fungal Treasure

by David Minter

President, International Society for Fungal Conservation - <u>www.fungal-conservation.org</u>

In the recent Fruits of the Forest article I noted that the Wombat Forest is a remarkable place and you - the members of Wombat Forestcare - have a very special role protecting it. Living in Britain, I have never had the good fortune to visit this forest, but I can at least learn about it through the Internet and other resources. Your website reveals that the people responsible for its community care - I mean you - understand the value of your wonderful ecosystems which are so rich in animals, fungi, microorganisms and plants. Superb photographs document that wealth and, best of all, show the world some of the wonderful fungal diversity in your forest. Through my own studies, I know that well over a thousand species of fungi are associated with Eucalyptus alone. You can be sure that your fungi are important. Without them, none of the forest's animals and plants could exist.

Given that fungi have been placed in their own separate biological kingdom since at least 1970, it is incredible that conservation policies and legislation virtually all over the world overlook these beautiful and valuable organisms. For nature conservation to be meaningful, that must change. By recognizing the importance of fungi and the need to protect them, Wombat Forestcare provides a model of good practice. I only wish our governments would learn from it. Your achievements as members of Wombat Forestcare are admirable. You have the challenge to help others along the same path.



A fleshy-pore fungus - *Austroboletus lacunosus* Photography @ Angela Halpin

Haiku for Mycena interrupta by Lois Blackhirst



Blue eyes on soft wood spindly parasols peep out, digesting forest.

Editorial

Guest Editors: Alison Pouliot & Valérie Chételat

Dear Readers

We are thrilled to have a whole issue of the Wombat Forestcare newsletter devoted to the 'Third F', the 'Forgotten Kingdom', otherwise known as Kingdom Fungi. As far as we know Wombat Forestcare is setting a precedent in being the first Victorian, possibly Australian, conservation group to give these curious and wonderful organisms the spotlight in a newsletter.

Why does it matter so much? Because fungi so often slip through the cracks of biodiversity conservation in Australia, indeed globally, despite being so very important to the health and resilience of the Wombat Forest, to all terrestrial ecosystems. Fungi provide the connective matrix that unites plants, animals, kingdoms, soils, ecosystems and more — without which there would be no Wombat Forest.

We would like to thank all of you who took the trouble to write to us and respond to the reader survey, or sent your articles, impressions, poetry and images. The many interactions we've had in response to our request for contributions tell us that you DO care about fungi and recognise their significance to the Wombat Forest along with their curiosities and aesthetics. This is heartening and inspiring especially at a time when the current political climate presents unprecedented challenges to protecting our unique megadiversity.

The Wombat Forest is a reservoir of biodiversity, a curiosity cabinet, a place of great significance for so many reasons.

We hope you enjoy this special issue on fungi and welcome your impressions and feedback.

Alison Pouliot & Valérie Chételat



Above – "Yellow Fungi - I found this lovely yellow fungi next to our woodpile" [Hypholoma fasciculare] **Below** – "Messy Fungi - I found it in the wet forest on a walk" [Grifola colensoi]



Above - "Tree Fungi - we were camping and these fungi were in our campsite" [Omphalotus nidiformis] Photography © Ari Scheltema



Ari Scheltema

Age 6

is the youngest contributor to this special issue.

Ari is interested in fungi because "they pop up everywhere and they glow in the dark and they are fun to take photos of."

A Worthwhile Tumble

By Cathy Newing

So it was that I ended up an undignified bruised heap on the forest floor... but that is putting the mushroom before the hyphae and the cart before the horse that was very nearly needed to carry my injured body home.

We had had a lovely day bird watching in the Wombat. A perfect spring day with like-minded souls, all eyes directed towards the canopy of towering Candlebarks.

Yet my attention was divided betwixt and between. While I look up and wander I may miss something notable on the ground. The forest is furnished with terrestrial orchids in spring, but generally it is not the season of fungi. Nonetheless it needs three of me to take in all the forest offers.

Given the necessity for Nomadic Eye Syndrome (NES) my concentration is never directed towards how, where and why I place my body. Towards the end of the day we were pursuing a Rufous fantail on the shores of Lake Jubilee when I spied a most interesting fungus totally covering the underside of a massive fallen elm. It defied description but an attempt may suggest the roof of a cave covered in honeycombed stalactites.

Aware that the group was already well ahead, out of sight, I hurried to take a photograph. It wasn't easy. The elm trunk was about waist high and was propped up by a

Below - Antrodiella zonata - Photography © Cathy Newing

multitude of entangled branches that hindered access to the deep dark recesses below where this fungus thrived. I clambered into the litter of limbs and promptly propped my entire weight on an advantageously positioned bough that would allow me to place my camera beneath the elm. In a trice, creak, snap, bang, I hit the ground, inverted indignantly. The log I had perched on was in an advanced state of decay. Nature's processes were in the right order.

Driving home I contemplated these processes; that decomposition is as important as composition, degradation is as important as growth, and the processes we don't see are as important as those we do. For each opposite creates the circle of life.

I have long been troubled by reduction burning, quotas and the constant human need to interfere, believing we know best and we need to manage everything to care for ourselves.

Give a thought to the magnitude of hidden activators, the fungi that complete the cycle of life. Burning interrupts this activity, destroys the ability of the forest to manage its own cycles, simply because the fungi are destroyed. Burning is a knee jerk simplistic response to our own protection and in time I have no doubt it will be recognised as such.

The shores of Lake Jubilee are not subjected to reduction burning as it is a recreational area. Hence, I suspect, we find something as special as *Antrodiella zonata*.



Waxcaps of the Wombat

By Les Hanrahan

When you are looking through a field guide, have you ever seen a photo or photos of a plant, bird or fungus species and said I would like to see one of those? I know that I have felt that way. I have an interest in fungi and when I saw the colourful photos of the Waxcaps *Hygrocybe* species, I was keen to find them.

The Waxcaps are small to medium sized gilled mushrooms. The cap is usually smooth, often viscid and brightly coloured. The gills are soft, waxy, usually thick, and well spaced. They are fragile and easily damaged when one is trying to photograph them.

I have not found the Waxcaps common in the Wombat forest. Where I have found a species one year, I could not find it the next. The most common months when I have found them are June and July. One spot where I have over the years seen at least four species is along the Great Dividing Trail between Cairns Road and Rat Hole Track near Korweinguboora. I have also seen three species, *Hygrocybe apricosa*, *H.chromolimonea* and *H. astatogala* near the Garden of St. Erth, Blackwood.



Hygrocybe lewellinae Photography © Les Hanrahan

The first Waxcap I found was *Hygrocybe cheelii*. The specimen that I saw was a pale mauve, with gills extending down the stem. I have seen deeper coloured ones elsewhere. The bright yellow *Hygrocybe chromolimonea* has caps up to 20mm across with crenulated margins. I have found this species near wombat burrows. I have only seen one specimen of the mauve *Hygrocybe lewellinae* in June 2012. In one field guide it stated that it was usually found in coastal heaths and woodlands, but occasionally found in wet forest where the colour is more intense. The caps of this species tend to split radially.

Some of the Waxcaps change colour as they mature. The caps of *Hygrocybe astatogala*

change from orange, yellow or red to black with age. Near the Great Dividing Trail under a group of Hazel Pomaderris I have found some orange-red hygrocybes similar to the photo of *Hygrocybe saltorivula* in 'A Field Guide to Australian Fungi' by Bruce Fuhrer.

There are many beautiful fungi species in the Wombat Forest. The Waxcaps are among the best. ■

[Hygrocybe lewellinae is a Fungimap Target species and its name has recently been updated to Porpolomopsis lewellinae].

Common Prettymouth (Calostoma fuscum)

By Lyn and Dave Munro

Lyn and Dave Munro are two incredibly knowledgeable and inspired individuals who have tramped all over the state and have a great knack for spotting an unusual fungus. Lyn and Dave have also contributed hundreds of fungus distribution records to Fungimap. Although they live a good way from the Wombat Forest they know it well and we are very pleased to have their contribution. A few years back they visited the Wombat Forest not far from Sailor's Falls - here's their story.

"We were told that a really strange fungus was growing in a woodheap among the chips. We went along



Calostoma fuscum – also known as the Common Prettymouth – is a stalked puffball. Its temporary cap can be seen resting beside it on the ground.

Photography © Dave and Lyn Munro

not expecting much but were delighted to find a *Calostoma fuscum* (Common Prettymouth) with its operculum lying beside it. It is a Fungimap "target" species, which we rarely come across.

Remarkably there were three other Fungimap 'targets' within a few metres – *Lepista nuda* (Wood Blewitt), *Dictyopanus pusillus* (Ping Pong Bats) and *Amanita muscaria* (Fly Agaric).

And there was more! We found another seven species of fungi close by. A most successful visit".

Unexpected Finds

Words and images by John Walter

The Wombat Forest is full of fungi, some common, some rare and some that seemingly should not be there. The rarest of all is the toothed species *Auriscalpium* "Blackwood" which has only been found on a single tree near Blackwood, but being rare does not necessarily imply such a limited distribution. The *Sarcodon* sp. we first reported in June 2011 has not been seen since despite some careful searching even though it was found in several locations that year. The fruiting of many fungi is dependent on the season and perhaps for the *Sarcodon*, rare means "rarely seen" which would be the case if it only fruited in very wet seasons.

I have previously report the finding of *Cortinarius* perfoetens in the Wombat which was thought to be associated with Myrtle Beech trees. As the Beech is not found in the Wombat, this fungus was certainly an unexpected find. There is another *Cortinarius*, also reported as being from Beech forests, which I believe I have found in the Wombat. This unnamed species was reported by Fuhrer and is illustrated as No. 62 in his field guide. The appearance of a volva (cup) at the base of the stem and the remains of a veil on the cap along with the unusual colouring makes this a relatively easy species to recognise it if you are lucky enough to find it. The photos illustrate a remarkably

Top right - *Cortinarius* sp. from Yankee Rd (Excuse the quality, I was dodging bull ants at the time)

Below - Image is from Lyonville



similar species found at two locations in the Wombat in 2011. I have not found this species or *C. perfoetens* since 2011, once again suggesting a fruiting pattern dependent on wetter years.



little blue

by Bronwyn Lay

Single small beauty is the forest's still small voice, Poised above the earth on crumble wood, You are turquoise lover trying to give cover. You bring waves inland so a spot of sea is seen in the biotic debris.

Petite wonder among the giants, Your soft canvas holds a regal head waiting to be taken by the wind. Until the body breaks its blue Through soil's centre. But for now, in this quiet, Knowing you will vanish, I breathe close to spores Wee colour that feeds the world. Little friend suspended. Forgive me, I think I might have Perhaps, Maybe, fallen in love.

Rhubarb Bolete (Boletellus obscurecoccineus)

by Angela Halpin

My greatest fungus moment was last year when I found a Rhubarb Bolete on an ancient log near home in the forest just north of Lyonville. It was so lurid in colour from a distance I assumed it was plastic litter and was rather cross.

I was walking with a friend as evening approached and when we realised what it was we were overwhelmed by its extraordinary luminous appearance. The top was as round as a drink can with a brilliant red and yellow crackled effect that appeared vivid orange from a distance. The red rhubarb stalk disappeared under the log. The underside was a bright green gelatinous colour. It was love at first sight. Fungus hunting has been elevated to a whole new level of excitement. Farm chores are forgotten and I like to find more outrageous fungi... especially blue fungi. Even near the house, I then found what I think is an Emperor Cortinar and then the tiny blue Pixie Parasols were right next to the boundary line.





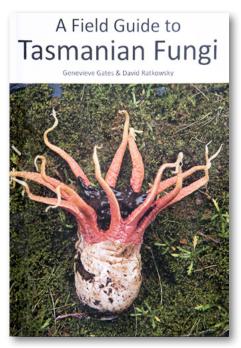
... a few days later....

Iust checked the forest behind us this evening and the Rhubarb Bolete from last year is back on her log. Same place exactly. So excited to know this is 'her log'. I feel huge need to protect her area now we have met twice like this. Very special. And the other huge fine fungus (see front page) was standing out on his own on my way to the bolete's log. Lots of cool heads appearing up from the fungi kingdom in the Wombat Wonderland. Nice and misty here and getting colder. ■

Top - The Rhubarb Bolete (Boletellus obscurecoccineus) **Left** - The Emperor Cortinar (Cortinarius archeri) Photography © Angela Halpin

New Field Guide for Fungi

Australian fungus field guides are still under-represented relative to animal and plant field guides, so a new publication - A Field Guide to Tasmanian Fungi - by Genevieve Gates and David Ratkowsky is a welcome addition.

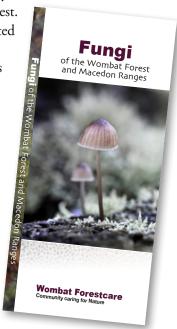


A Field Guide to Tasmanian Fungi

Although the guide is to Tasmanian fungi, many of these species are also found in the Wombat Forest. The guide illustrates over 600 species and resulted from over 1000 forays during a 15-year period. Genevieve Gates also discovered 70 new species during this time. Who knows how many species may also be awaiting discovery in the Wombat Forest!

The book retails at \$39.95 and is available through the Fungimap online bookshop at http://fungimap.org.au

Also, a reminder that Wombat Forestcare has produced its own little guide to 108 of the more familiar species of the Wombat Forest. The guide costs \$6 and is available through Wombat Forestcare and Fungimap.











A Walk on Pronk

As the motor slows I spy the first species Beefy Boletes with burgundy bellies, then Kissing Cortinars in pure white-violet, and Bellicose buttons of Amanita are found

Puffing pears ride the slippery slopes, and Yellow water carriers ooze crystalline delight There, salmon colours display as perfect coral And the crimson polypore envelope all

Deep in the gully the white fan cools the Flaming velvet foot and the Pink-stacked Pagoda strings pearls on spider's fine wires While the grass coloured imposter, skulks on the floor

Marasmius species are revival experts, both
The tiny horsehair and the heart-stopping blue
Poisonous bells bunch attractively on wood, and
When the honey of death tolls, the forest-giants fall

Blue Pixies-parasols will lighten the mood, and Bright coloured bonnets display on beds of green moss Some hide in shadows where none see their ware, but The yellow-stemmed beauty parades in a show

It's time to leave Pronk, and tomorrow I'll go To Nolan or Lyonville for another great show I turn for the car but before I go far, beautiful Persplendidus stands up and says whoa.

Words and images © John Walter







































Some ancient new friends in the Wombat

By Alexis Pitsopoulous

As the wetter seasons approach, this year I'm looking forward to further exploring the world of polypore and jelly fungi. There are a few that I have studied up on and experimented with a bit and found growing locally in and around the Wombat Forest and a few I have heard grow here and would like to find.

Over the last year or two I have found and tried using: Trametes versicolor (Turkey tail)
Auricularia auricula-judae (Wood-ear)
Tremella spp. (Orange-jelly or Orange-brain fungus)

Others I would love to find include: *Fistulina hepatica* (Beefsteak fungus..!)

- apparently a good edible.

Grifola frondosa (Hen-of-the-woods or Japanese "Maitake")

- another good edible.

Piptoporus betulinus (Birch polypore)

 used medicinally and practically for things like staunching wounds and burns and lighting fires since pre-historic times.

Ganoderma spp.

- the "Reishi" of Chinese and Japanese high repute.

Many polypore fungi have been used medicinally and for some other very interesting uses throughout the world since prehistoric times. The polypores also have a strong reputation throughout Asia at least as life-improving medicine and are associated with longevity and even immortality. Modern medical research is confirming elements of truth behind these traditions and some polypores have been adopted for use at the forefront of modern western medicine and science. For example, many if not all of the fungi listed above are being used as immune system boosters for people having x-rays, chemotherapy and other debilitating drug treatments for conditions such as cancer and AIDS, organ transplants, drug and alcohol addiction and post-surgery.

So how can we utilise these mushrooms with their wonderful properties straight from our local natural environment?

One polypore that grows locally and is used in cooking throughout Asia is the Wood-ear, also sometimes called Jew's-ear or Tree-ear (*Auricularia* spp.) It is pretty safe to say that most Chinese would eat this mushroom at least a couple of times a week. It's easy to imagine from the texture of wood ears the traditional Chinese and modern scientific claim that consuming wood-ear helps lubricate and encourage the flow of blood platelets in a way that is described as similar to aspirin without any side-effects.

Consuming wood-ear regularly in one's diet has a strong reputation for being helpful in preventing stroke and other conditions related to problems with blood flow like thrombosis and high blood pressure. It is also said to be useful for diabetes.

In China the Trametes "turkey tail" is commonly used in medicinal soup and tea preparations. *Trametes versicolor* is an extremely common fungus, which seems to grow on almost any type of wood in natural settings or otherwise. I have collected turkey tails from willow, let them dry out, powdered them in an electric coffee grinder (very effective) then simmered the powder in water for about 15min. The resulting tea tasted pretty much like mushroom cuppa soup. It would certainly make a really good stock or gravy base.

There are some questions about the tree type that I really want to find out more about, for example, what is known about the differences between similar mushrooms and fungi growing on different wood or other growing mediums? How much do their properties and qualities (nutritional, medicinal, toxicity etc.) change with different hosts/mediums? I have read about people being poisoned by eating mushrooms that were normally edible growing under pines for instance but became poisonous when growing under different trees like oak. Also I've seen these turkey tails growing on treated pine. I'd be highly dubious about eating anything growing on treated pine, even something as protective and transformative as *Trametes* fungus.

These fungi have some amazing nutritional/medicinal/dietary benefits to offer that held a very important but now somewhat forgotten part in our evolutionary diet and medicine chest, forgotten in the west at least until very recently. A quick rundown of the medicinal properties attributed commonly to the polypore and jelly fungi includes; anti-coagulant, cardiovascular-supporting, anti-inflammatory, tonic, anti-viral, anti-bacterial, immune-boosting and enhancing, tumour-suppressing, anti-oxidant and the list goes on and on... So you can see how they might well be described as elixirs of longevity or immortality as they have been in some very ancient legends, folklore, medicine and magic traditions.

Some of these fungi are extensively commercially cultivated in Asia (Wood-ear, Reishi, Maitake, Trametes) and there is no reason why they couldn't be here too. They are still (quite possibly literally) on our doorstep and all around us while we're too busy to notice them, but it might be in our interests to rekindle our relationship with them.

[Deadly fungi exist in the Wombat Forest and identification requires a high level of expertise.]

Seeking Wombat Forest's Most Alluring Fungus

Results from the Reader Survey

by Alison Pouliot & Valérie Chételat

In the last edition of the Wombat Forestcare Newsletter (Issue 27) we asked readers to nominate the Wombat Forest's "most alluring fungus" from this collage of 12 candidates. 30 readers responded and the results were very interesting. Here they are:

In third place was the jelly fungus, *Tremella fuciformis* (no. 4) with three votes.

Second place was shared, with four votes each, by the lichen, *Flavoparmelia* sp. (no. 3) and the morel, *Morchella elata/conica* (no. 5).

The winner – with a landslide victory – was ... *Mycena interrupta* or the pixies' parasol (no. 10) with 14 votes.

Tally

1 Armillaria luteobubalina	0
2 Russula clelandii group	0
3 Flavoparmelia sp.	4
4 Tremella fuciformis	3
5 Morchella elata/conica	4
6 Ramaria capitata var. capitata	2
7 Amanita muscaria	1
8 Hypocreopsis amplectens	1
9 Agaricus xanthodermus	0
10 Mycena interrupta	14
11 Omphalotus nidiformis	1
12 Psilocybe subaeruginascens	0
TOTAL	30

What does it all mean? What makes this tiny blue fungus so appealing? Is it about colour or fragility or simplicity? Is it about beauty or "otherness" or so many other potential reasons some of which we may not understand? To give us some clues about this fungus and the many others that readers found alluring, we've quoted a selection of readers' responses below:

"My favourite fungus is picture 10, which I think is *Mycena interrupta*. This mushroom grows on my place at Little Hampton but it's like an old friend. I first saw it in 1971 at Frenchman's Spur, near Woods Point. I love its colour and aliveness. It reminds me of tripping around the forest with friends back then, when we noticed its tiny blue eyes watching us from under logs". **Lois Blackhirst**

"I like No 3 [*Flavoparmelia* sp.] because it reminds me of the Art Nouveau patterns in Gustav Klimt's paintings". **Ron Cattanach**

"Number 10 [Mycena interrupta]. These tiny little beauties with their perfect form and amazing colours remind me how much of our forests can go unnoticed and unappreciated. I am fascinated by these delicate miniature fungi hiding in the cracks of a log or perched on a shed piece of bark amongst the litter". Cat Nield

"If I must pick then I think no. 5 [Morchella elata/conica] looks the most fascinating to me. But aren't they all! All so interesting. Thank you for raising this amazing subject". **Angela Halpin.**

"A difficult question ... I wonder what exotic insects have hatched and flown away in number 3 - the two tiny spots that fell off the red fungi in number 7 - obviously are running away from home? And Dad, Mum and the kids in number 9 give off a sense of family attachment,



and a bunch of alien hands in no 6, but this is no help to you, so its number 5 [Morchella elata/conica] that I really like - it's so very statuesque and promotes a sense of strength with its earthy colours and texture; it knows it's in control and knows it belongs in an Australian landscape". **Judy Crocker**

"Number 10 [Mycena interrupta] looks most alluring to me. Not because its blue color almost matches my eyes... but because it looks so very fragile yet stands solid on that single point of contact on its wooden host, putting its blue head up into the universe, proud, shiny and self-confident. Although it's small, it's as if it knows it's still a very important part of the circle of life". **Dominik Abt**

"Number 5, the morel, appeals to me most. I like the distinctive shape, the colour combination of pale orange and mid grey, and the long honeycomb textured cap. Also the fact that you can eat it".

Bronwyn Silver

"Who is the fairest of them all? How to choose? I have several favourites - the verdigris lichen (3), the gorgeous salmon coral (6), the glassy blue cap (10) that looks like it was hand blown in Murano and the dotty red fairy stools (7). If I have to choose one, then it is number 4 [*Tremella fuciformis*]— so delicate & ethereal, like a ghostly shroud". **Linda Cusack**

"My favourite among your selection would be the little blue (number 10 - Mycena interrupta), I especially love the rich dark blue blob from which the mushroom arises, and while I find it readily, I am always looking for an ideal set to photograph to try and get the "perfect" image". John Walter

"No. 4. [*Tremella fuciformis*]. The translucent ghost like quality of this fungus takes me to another world. Imagine it as an enormous entity, floating through space or holding it up to the light and seeing the forest through its milky membrane. Its simplicity is its beauty – a spirit being of the forest floor". **Kim Percy**

"Very difficult to choose just one but I love No.10 - the beautiful blue one - *Mycena interrupta*? So elegant in form, and a great colour".

Margaret Phillips

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"Mycena interrupta (No. 10) because blue in nature is elusive and fungi do it better than any organism!". **Cathy Newing**

"I am really taken with the Ramaria [no. 6] - the delicacy of the colours is what attracts me, especially the subtle transition from the pale pink/ apricot base to the paler yellow tips. That the tips are softly rounded adds to the gentle beauty". **Paul George**

"No 10 [Mycena interrupta] gets my vote, mainly because of the colour, but also the size associated with it. In a world where our supermarket shelves are being loaded with large quantities of packets of chemically dyed food in a range of colours that nature rarely shows in abundance, to enjoy these little forest treasures requires more than just a "jump out of the car and into the supermarket" view of the world – you have to take the time and care to find them but when you do it is a very private 'viewing' of one of natures treasures". Susan Walter

"I find the fungus no. 3 [Flavoparmelia sp.] the most alluring because it is the most 'unfungus' looking of them all. Seeing this in the wild would not make me think 'fungus', I'd be more likely to think Banksia serrata cone". **Glenn Mack**

"I like number 10 [*Mycena interrupt*a] best because of its delicacy and its glistening, graduated colour, from deep, dark blue, through paler blue to white". **Anneke Deutsch**

"Number 3 [Flavoparmelia sp.] is the most alluring. Why? Because I am a jeweller. It is as if it is made out of tiny little silver pixie cups that in reality would take days and days to make. I love the contrast of the light and dark and the irregularity of the shapes. All unique and different like whorls on a fingerprint". Lisa Male-Robertson

"Well, that's a very hard question! They are all beautiful but I'll say photo 4 [*Tremella fuciformis*]. Just because I kept coming back to it.... I love its delicacy, like the petals of a flower". **Gayl Morrow**

A story for each fungus

The choice of "the most alluring" fungus seems to have been inspired by a multitude of reasons including familiarity, unfamiliarity, aesthetic qualities, knowledge, experiences among others. Each of these fungi has its own story; perhaps a peculiar habit or a desirable quality. Did you know the following about these species?

- 1. *Armillaria luteobubalina* (Australian honey fungus) is a parasitic species that causes root rot in trees. Although parasites are sometimes regarded negatively, they play very important roles in the Wombat Forest's ecology.
- 2. *The Russula clelandii* group contains important ectomycorrhizal fungi found in association with various *Eucalyptus* species. By forming a mantle around the tree's roots and increasing the surface area, the fungus maximises the tree's capacity to uptake nutrients and water.
- 3. *Flavoparmelia* sp. is a crustose (crust-forming) lichen. Lichens have been on the planet for hundreds of millions of years and are a symbiosis between an alga and a fungus (and sometimes also a cyanobacterium) and are known as "extremophiles" as they can survive in very harsh conditions.

- 4. *Tremella fuciformis* is an important saprobic (decomposing) species responsible for recycling of nutrients in the Wombat forest and found on the undersides of fallen logs. It has been used as a medicinal and culinary species in China for centuries.
- 5. *Morchella elata/conica* (black morel) is a saprobic species that typically fruits in spring and often after fire.
- 6. *Ramaria capitata* var. *capitata* (coral fungus). Various *Ramaria* species are found in the Wombat (we think this one might be *R. capitata* var. *capitata*) and form mycorrizhal (mutually beneficial) relationships with *Eucalyptus* species.
- 7. *Amanita muscaria* (fly agaric) is perhaps the most mythologised species in the world. It grows in association with exotic trees and is only found it the Wombat (mostly on its edges) where an odd pine or other European broad-leaved tree is found.
- 8. *Hypocreopsis amplectens* (tea-tree fingers) is possibly the most rare species in the collage. It is the only (non-lichenised) fungus listed under the Flora & Fauna Guarantee Act (listed as vulnerable) and has been recorded at three locations in Victoria on old unburnt Tea-tree. Although there are some patches of Tea-tree this species has not been recorded in the Wombat Forest.
- 9. *Agaricus xanthodermus* (yellow stainer) is a poisonous species that is sometimes mistaken for the edible field mushroom, *Agaricus campestris* and causes most fungal poisonings in Victoria.
- 10. *Mycena interrupta* (pixie's parasol) is a saprobic fungus with a Gondwanan distribution (it's also found in New Zealand, New Caledonia and Chile) and was first described in 1859.
- 11. *Omphalotus nidiformis* (ghost fungus) is a bioluminescent fungus that glows a pale green and is found commonly at the base of the trunks of *Eucalyptus* in the Wombat. It is also a poisonous species and a powerful emetic! Scientific trials have found it also has cytotoxic properties against cancer cells.
- 12. *Psilocybe subaeruginascens* (blue meanie or golden top) is a psychoactive fungus that contains psilocybin and psilocin. It is a saprobic species found growing amongst leaf litter.

Most of these species are Fungimap Target Species (except for *Russula clelandii* group, *Flavoparmelia* sp. and *Ramaria capitata* var. *capitata*). Fungimap is a non-profit organisation that through the contributions sof hundreds of volunteers is mapping the distribution of Australian fungi. These distribution records provide information necessary to the research and conservation of Australian fungi. If you spot any of these species in the Wombat Forest or elsewhere, let Fungimap know by sending in your records and in doing so contribute to the growing knowledge of Australian fungi.

Further information can be found at http://fungimap.org.au

Huge thanks to all those readers who took the interest and time to respond. You're all helping us to understand our relationship with this often misunderstood and little known kingdom.

Wombat Forestcare Membership research • education • action

Wombat Forestcare Inc. is dedicated to preserving the biodiversity and amenity of the Wombat State Forest by utilising the skills and resources of the community. By becoming a member you will have input into our activities and projects, and give support to caring for our forests.

For memberships and further information contact Gayle Osborne, (03) 5348 7558 or email info@wombatforestcare.org.au Membership fees are only \$15 single and \$20 family. Visit our website - www.wombatforestcare.org.au