Issue 31 - March 2015

Wombat Forestcare Newsletter

Autumn is the breeding season for Powerful Owls and good time to hear the male call. When walking in the forest look for large areas of white splash under Blackwoods and then check high in the foliage for owls. They mate for life, over 30 years in some cases. It is also the season for fabulous fungi. The Wombat has hundreds of species in a multitude of colours and shapes. Enjoy your autumn walks.
Gayle Osborne (editor) and **Angela Halpin** (design)

Eastern Pygmy-possum *Cercartetus nanus*

By Gayle Osborne

This beautiful little creature is only 70 – 110mm long with a tail the same length. Only slightly larger than a Feathertail Glider, it will fit in the palm of your hand.

We set a motion-sensing camera in an area of long unburnt, heathy dry forest a few kilometres north of the Lerderderg State Park in the hope of obtaining images of Brush-tailed Phascogales. The forest is open with much fallen timber, gum and peppermint eucalypt species with many hollows, Silver Banksias, poas and lomandras. We felt there was great potential for a number of interesting species.

Motion-sensing camera image of an Eastern Pygmy-possum

The first look through the images was disappointing, no phascogale. We were amazed to find many images of creature that didn't quite look like the very common Agile Antechinus. The ears were big and the eyes particularly large and bulging. We sought help from a scientist and our identification of an Eastern Pygmy-possum was confirmed.

We set our cameras for 10 images per second, which means that we can have endless images of common species such as Agile Antechinus to examine, however, when the camera captures an unusual species there are enough images to make the identification.

Eastern Pygmy-possums are primarily nectar feeders, using a brush-tipped tongue to obtain nectar from banksia and eucalypt flowers. They also eat a variety of insects, including moths, spiders and beetles.

This find is particularly exciting as it seems to be the only record of this threatened species for the Wombat State Forest. There is a record from 1970, mapped a few kilometres from our camera position, but on closer examination may be for Nolan's Gully in the Lerderderg State Park.

These long unburnt areas of forest are important for many threatened species including Spotted-quail Thrush. It is to be hoped that since the discovery of the Eastern Pygmy-possum, listed as Near Threatened in Victoria, that this area will not be included for a fuel reduction burn.

To see some images of this little mammal - http://museumvictoria.com.au/about/mv-blog/aug-2014/eastern-pygmy-possum/

Ref: *The Mammals of Australia* Edited by Ronald Strahan ISBN 187633488-6

Burning Leaf Litter

By Gayle Osborne

Many questions arise regarding fuel reduction burns and one of these is the loss of the leaf litter and hence the creatures which inhabit it. Our knowledge of invertebrate species is woefully deficient with very many species not yet identified and their responses to fire barely studied.

Bacteria, fungi and invertebrates help decompose organic material and release nutrients for new growth. The leaf litter also assists with moisture retention and maintenance of soil structure. Litter is a vital component of the life cycle of the forest.

Important decomposers of litter include species of beetles, cockroaches, millipedes and surprisingly moths. Amongst the leaf litter we find dead leaves that have been skeletonised by moth and beetle larvae.

In many places decomposition occurs mainly when litter is wet, however, in Australia's dry sclerophyll forests nature has developed species to deal with dry litter. Sclerophyll is a Greek word meaning hard-leaved (sclero – hard and phyllon - leaf).

Of particular interest are moths of the *Oecophoridae* species. Their larval habits are diverse, but many feed on dead Eucalyptus leaves on the forest floor. There are thought to be over 5,000 Oecophoridae species in Australia but fewer than half of these have been scientifically recognized and given names.

An entomologist recently pointed out that there are a number of unstudied moths of the *Anthelidae* species, the caterpillars of which feed in the winter, and aestivate underground in summer, so avoiding natural summer fires. Burning when they emerge from their safe refuges underground is rapidly making these species extinct before they have even been sampled and named. It is so sad.

Skeletonised Eucalyptus leaf. Photography © Gayle Osborne

Garrha demotica, a moth of the *Oecophoridae* family. The caterpillar of this species grows to a length of about 1 cm and lives in a portable case made from oval pieces food plant leaves joined with silk. Photo taken in the Cape Liptrap Coastal Park.

Ted Edwards (co-author Moths of Australia and retired CSIRO scientist) has written a number of articles on fuel reduction burns. He writes, "What is relevant to the control burning method of managing forests and woodlands is that the macro-invertebrates, micro-invertebrates and the rest that are essential in leaf litter breakdown in Australian forests are entirely vulnerable to fire. Fire kills them all. The normal way that these invertebrates deal with fire is to repopulate from unburnt refuges following the fire."

The theory is that fuel reduction burns will be patchy allowing for recolonisation from the patches, and in places they are patchy. However large sections of many burns are 'scorched earth' with absolutely no chance of recolonisation for insects, reptiles and small mammals.

Ted Edwards also notes, "From a philosophical point of view a technique (control burning), which kills all the biological agents of litter breakdown, is very unlikely to be an efficient or effective way to control litter."

Researchers from La Trobe University have just published a report showing that Lyrebirds reduced forest litter by a massive 1.66 tonnes per hectare over a nine-month period. Their foraging turns over the litter and speeds up decomposition. This makes interesting reading for the Wombat Forest, we don't have lyrebirds but we do have 'bush chooks'. Families of White-winged Choughs constantly scratch their way through our bush, moving large areas of litter around. To a lesser extent many other birds and animals such as Bassian thrushes and Echidnas also shift litter. We have lost other digging and scrathing species such as bandicoots and bettongs.

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We need to ask whether these burns are a short-term fix that make our landscape more fire prone? Are we loosing all the complicated natural mechanisms that keep litter in check?

A recent example of 'scorched earth' at Spargo Creek. Photography © Gayle Osborne

Although there is a proposition for benefits of planned burns in the event of a wildfire these benefits reduce significantly after four years. According to McCarthy & Tolhurst (2001)- Effectiveness of Broadscale FRB, "surface fuels appear to re-accumulate to pre-burn levels within the first 4 years" and reduced bark is effective for between 4 and 10 years. The report also notes that "Only about 1 in 20, on average, of the fires sampled in conjunction with FMZ 3 ran into a 'helpful' FRB. This result suggests that in the current circumstances the impact of FMZ 3 treatment is close to that of random fuel management."

FMZ3 refers to the zone furthest from human habitation and the McCarthy and Tolhurst research shows that the assistance these burns provide in controlling a wildfire is arbitrary.

The ABC recently reported "Scientists warn that the wrong fire patterns could see more losses of threatened species across the country." Reports published by the CSIRO and BirdLife Australia cite "inappropriate fire regimes" as threatening more than 50 Australian mammal and 50 Australian bird species.

It is often said, particularly by government fire agencies, that Australian flora, fauna and fungi are 'adapted' to fire, but I prefer to see it as 'adjusted' to fire. Having adjusted (adapted) to occasional burning does not mean that species will survive repeated burning such as delivered by the current fuel reduction burn regimes.

Tolerable fire intervals have been developed for many vegetation communities; these are based on the time it takes for flora species to set viable seed. In the 2013 Victorian State of the Environment Report, the commissioner found that in 2012, 40% of native vegetation was burnt below the tolerable fire interval.

The answers are not simple, but there is no doubt that fire is being used excessively and that our understanding of the complexities of natural litter decomposition is poorly understood and studied.

Time to pause and review. ■

Reference:

Ted Edwards - http://www.npaact.org.au/res/File/2009/Fire2.pdf

2013 State of the Environment Report - https://www.ces.vic.gov.au/publications/state-environment-report-2013

http://www.theage.com.au/victoria/not-just-a-pretty-tail-the-lyrebird-is-a-superb-firefighter-20150303-13tg3o.html

Through a childs eyes

By Ari Scheltema

"I found these little white daisies. I thought they looked pretty"

Cinderella Plants 2 – Small Daisies and a Touch of Botany

Words and images by John Walter

The plants featured in this second article on Cinderella Plants fit into the small inconspicuous plants or flowers category and like the Olearias of the first article; they belong to the Asteraceae or "Daisy" Family.

The Solenogynes are one of the smallest daisies with a basal rosette of toothed leaves and a few short thick stalks; each 1.5 to 2 cm long with a single flower head. Individual flower heads vary from 4mm to 7mm in diameter and can contain as many as 60 individual florets, depending on the species. The disc florets in the centre of the flower head are bisexual but the ovary fails to develop. They are surrounded by the tiny but more numerous tubular female florets which sit atop the much larger cypselas, a dry single seeded fruit found in daisies. Older texts use the term "achene" to describe this fruit but that term is now reserved for fruit that forms above the base of the petals (superior ovary) while a cypsela forms below the petal base (inferior ovary).

The position of the ovary is an important botanical feature and all daisies have an inferior ovary by definition. This feature is shared by a great many other plant families such as the Orchids and the last two photographs in this article are included to illustrate the different positions of the ovary. The ovary swells to form the fruit or seed pod or cypsela once its flower has been fertilised.

We have two Solenogyne species in the Wombat Forest region, *Solenogyne dominii* is known as the Smooth Solenogyne while *Solenogyne gunnii* is the Hairy Solenogyne. The name is derived from the Greek, *solen* meaning a pipe or channel and *gyne* meaning female, a reference to the very narrow hollow or tubular female florets. The species names *gunnii* and *dominii* are both references to botanists.

The next group are the Bottle Daisies or *Lagenophora.* You will find different spellings for this genus with *Lagenifera* also being used, but the current accepted usage is *Lagenophora*. The term Bottle Daisy is very apt as *lagen* means a flagon or wine jar while *phora* translates from the Greek as bearing or carrying. The alternative *fera* is the Latin version also meaning bearing. The cypselas of this genus are flagon shaped, although the shape reflects the style in use in 1815 when the genus was first named, not the more familiar "goonie" I remember from my youth and still occasionally find as an empty shell near old bush camps.

I can imagine some readers are looking more than a little quizzical at the term "goonie", so I jumped onto the online Macquarie Dictionary for some guidance and found the

Small rosette of *Solenogyne dominii* and falling cypselas - one fully developed flower head on the right of the top image (partly obscured) and remnant female florets on far right of the second image

Rosette and flowers of *Lagenophora stipitata* (different colour forms)

following comment: - "Used this term in the mid 70's as a uni student in Melbourne - a $2 flagon - flagoon - goonie. Cheap wine and chinese take-away - oh to be 18 again!"

The most common "goonie" species in the Wombat is the Blue Bottle-daisy *Lagenophora stipitata* which is

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widespread and the Slender Bottle-daisy *Lagenophora gracilis* can also been found. A little to the north around Drummond you also find the Coarse Bottle-daisy, *Lagenophora huegelii*. These species are largely separated by their level of hairiness (as we were in the 70's) and other obscure features that would require several more botany lessons to explain.

Our last daisies are small creeping herbs that once again have tiny flowers. The first group are the Cotulas and we have three species in this district although a fourth was collected back in the 1870's but has not been seen since. A great many plant species have undergone numerous name changes as our botanists developed a greater understanding of the relationships between species. For example the *Solenogyne* species above were once identified as *Lagenophora* species. Similarly the *Cotula* species have been revised and some species are now known as *Leptinella*.

Our local Cotula species are *Cotula australis* also known as the Common Cotula which is very widespread, and *Leptinella filicula*, the Mountain Cotula which I have found along the creek near St Erth. The flower heads of *C. australis* are on long stems that stand above the leaves while the stems on *L. filicula* are shorter than the leaves, partly concealing the flowers.

The flower heads on the related Common Sneezeweed are sessile, meaning they are stem less. Mueller renamed the Common Sneezeweed as *Cotula cunninghamii* in 1874 but this has not withstood scrutiny and the test of time has returned it to the name *Centipeda cunninghamii* first given to it in 1867 (based on a former name *Myriogyne cunninghamii* applied in 1837). While the botanists battled over the names and species groupings and sub groupings, the Aboriginal people concerned themselves more with the medicinal properties of the plant.

According to Beattie (2009) it was traditionally used to make teas and other preparations which could be taken orally to treat a number of illnesses including tuberculosis. Cooled tea was used as a bath to treat eye infections and inflammations; while binding the fresh herb around the head provided relief from colds. All these treatments plus its use as a skin lotion are commonly reported online and in other texts however Beattie explores the anti-inflammatory and antioxidant capacity of our Common Sneezeweed. The results showed *Centipeda cunninghamii* extracts were comparable to the positive controls used which included Ibuprofen for an anti-inflammatory response and the active ingredient in green tea for an antioxidant response. Before you race off to your dam margin or a nearby creek for some material to make a tea, I suggest you ponder the words of Wally Cooper, quoted by Zola & Gott. "It tastes horrible but it's very good." ■

Empty "goonie" shell in Lauriston NCR and the white-necked burgundy coloured flagons of *Lagenophora huegelii*

Leptinella filicula on left and *Cotula australis* on right

Centipeda cunninghamii and flower head enlargement

Left – The green superior ovary stands out on *Dianella admixta* the Black Anther Flax-lily
Right – All orchids have inferior ovaries which look like a thickened stem below the flower of *Thelymitra pauciflora*

References

Beattie, Karen D (2009) *Phytochemical studies and bioactivity of Centipeda and Eremophila species* PhD thesis, Southern Cross University, Lismore NSW

Zola, N & Gott, B (1992) *Koorie Plants Koorie People traditional Aboriginal food, fibre and healing plants of Victoria*

Combating Amnesia - The Wombat Forest and Shifting Baselines Syndrome

By Alison Pouliot

Are blackened trunks and early understorey colonisers the new norm for younger generations?

Old trees captivate many of us. I've been trying to meet as many as I can before the worms engage me. A few years back, while out in the Wombat Forest with local forester George Howard, I asked him to show me the oldest trees. He took me to meet a few impressive old-timers but commented 'You should have seen 'em back then... there's not many left like that any more'. Many of us have had experiences in the Wombat or elsewhere when someone has reminded us of how the situation was once otherwise. Perhaps when the Campaspe jumped with Murray cod, or when farm paddocks were flush with field mushrooms before fertiliser use. Or even earlier, when the forest was puckered with gold mines and reverberated with the sound of axes. The Wombat has a long history of ecological deterioration and improvement on multiple spatial and temporal scales. George is no longer with us, and took with him his knowledge of old trees and how the Wombat was in 'his time'.

It's sometimes hard for us to imagine beyond the present to a time when things were different. Change may be enormous and cataclysmic such as during the goldrush, or insidious and incremental. What is certain is that change constantly occurs. Our first perceptions of a place usually form our benchmark or baseline. This idea underlies the concept of Shifting Baselines Syndrome (SBS). Not only may species and ecosystems be threatened due to shifting baselines, but knowledge extinction also occurs. As time progresses and historical environmental conditions recede further into a distant past, so our references and expectations also change.

This article briefly explores how SBS might be a useful tool – despite its assumptions and limitations – in conservation initiatives in the Wombat. It also advocates for greater inclusion of historical perspectives and local observations as a way of detecting and understanding ecological change.

What are shifting baselines?

Shifting baselines describe the gradual changes in accepted norms for ecological conditions. Shifting Baselines Syndrome results from our failure to recognise the occurrence and/or scale of change. Changes may be chronic, yet not readily perceptible. While the more attuned may be aware of small-scale changes and historic differences, we are often oblivious to accumulative effects over time. Consequently, our expectations change often accompanied by an incremental lowering of standards, which results in each successive generation being unaware of historical environmental conditions. Ecological change in the Wombat may therefore be more extreme than contemporary scientific data suggest.

Conservation scientist Elanor Milner-Gulland and colleagues have examined two different types of shifting baselines, referred to as generational and personal amnesia. The word amnesia is pertinent in that it implies the loss of information, without awareness of the loss. The difference between them is essentially about time and scale. Generational amnesia occurs when knowledge is not passed between generations. Personal amnesia is a more accelerated form occurring within one's lifetime. For example, one may not remember that a species once frequently sighted, is now sighted less often. If the change is not recognised, the new 'infrequency' of the species becomes the baseline. It's as if we lack the fine-tuning knob to detect this creeping disappearance. Our short life-spans and faulty (and sometimes selective) memories mean we're poorly equipped to detect the extent to which the Wombat has been changed.

While SBS has mainly been used to describe issues in marine systems and fisheries, it has also been broadened to other ecosystems as well as conservation. However the idea itself is not new and scientists have used baselines for over a century, for example to estimate populations of game species.

Thinking bigger about the Wombat Forest

SBS is far from being a perfect concept with many inherent assumptions. However, it could provide us with other ways of contemplating the Wombat Forest by questioning our perceptions, observations, expectations and approaches to conservation. SBS essentially involves two types of baseline shifts. The first is a shift in ecological condition, and the second

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is a shift in cognitive perception. Whether we're looking at decline or improvement in ecological condition, the underlying principle of SBS is about change. Vegetation ecologist Ian Lunt asks why it matters how landscapes looked historically. While one might argue that it's not necessary to re-create historic situations to conserve ecosystems, Lunt reminds us that a 'primary goal of history is to create morality plays for the future' and that 'our knowledge of past landscapes informs not just the content, but also the scale, of our visions for future landscapes' and hence encourages more comprehensive thinking.

Scientists can somewhat ironically be their own worst enemies in contesting the historical condition of an environment, because the historical 'evidence' may not be considered valid by today's scientific standards. The development of increasingly rigorous ecological models often demands new and specific data sets, thus perpetuating the contemporaneity of scientific data. The history of the Wombat's ecological condition may be informed as much by people's collective historical impressions as quantitative scientific data. While constructing histories from fragmentary and oral records inevitably involves guesswork and extrapolation, anecdotal accounts are often an undervalued source of knowledge.

Implications for conservation of the Wombat Forest
What does it mean to lose knowledge of the Wombat over time, moreover, to not realise what knowledge we're losing? If we're unaware of what we're losing, do we risk inadvertently standing by as the Wombat deteriorates? Could our shifting baselines result in a lowering of standards that once would have been unacceptable?

If we are to effectively conserve the optimal ecological condition of the Wombat, we need to recognise the scope and extent of environmental change. Without understanding perceptions, conservation actions may be misguided and ineffective, or worse, have unintended negative consequences. Shifting baselines add a further challenge to conservation, as it's inevitably difficult to convince people of decline, if they perceive the situation differently. If losses are not personally witnessed, justifying conservation can be very difficult.

As an example, current burning regimes in the Wombat have resulted in vast areas of blackened forest and the loss of understory and leaf litter layers. Younger generations may recognise this as the norm and consequently are less likely to question the ecological impacts of fire as a management tool. The government's roadside propaganda placards that remind us how fuel-reduction burns save lives (which lives?) reinforce this unquestioned endorsement of fire use.

Conservation needs a solid grounding in science, but also a wider collaborative approach that involves those living in close association with the forest. Conservation also needs this intimate knowledge – the personal anecdotes, observations, impressions and memories of those who have witnessed it being other. Such historical reflection can help make invisible processes become visible. Conservation frameworks that incorporate this profound first hand historical knowledge help consolidate SBS so that change can be effectively understood and evaluated. While conservation initiatives often target the young, SBS is a reminder of the valuable contributions of older folk in understanding how things once were.

Assumptions and challenges
The concept of SBS inevitably has limitations. Conservation biologist Lisa Campbell and colleagues describe some of the assumptions of SBS; the first is establishing whether baselines do actually exist, and secondly in finding agreement and accurately describing them. A further argument questions whether 'original states' can be restored.

A key issue of conservation discourses in the past few decades is the separation of nature and culture. Campbell recognises that this separation is a major assumption in human-environment relations underlying SBS as baseline conditions are often defined as those existing prior to human contact. The premise of fixing an historical point in time as a conservation goal is problematic given the changeable nature of ecosystems. Hence restoring 'original states' is probably unachievable. It might make more sense to establish historical ecosystem processes within cultural landscapes that allow for a continuum of change, than supposedly pristine pre-contact conditions.

Ecologist Heidi Alleway suggests one way of understanding the implications of SBS is to effectively 'time bound' ecological histories. By documenting an historical chronology of events in the Wombat such as mining, logging, fire and conservation initiatives, we could then extrapolate ecological changes likely to have occurred in association with these events. A spatial and temporal map of ecological change in the Wombat Forest could then be developed to assist in conservation planning.

The Wombat's history and future
Ecosystems can't be conserved without history as a guide. Historically informed approaches are necessary to incorporate the complex layers of ecological, cultural and political histories. This needs to include human histories and contributions at a local scale. The recognition of SBS can be useful in reinforcing the importance of local ecological knowledge, participatory monitoring and community-based conservation. It may also help to provide a way to understand the intersections of scientific data, personal observations and policies.

Recasting historical knowledge to understand the complexities of ecological change may be more valuable than establishing baselines. However, SBS might be a useful tool to help us better understand the human interface of conservation when developing priorities and actions for the Wombat. ■

New Wombat Trail to Old Trentham Racecourse

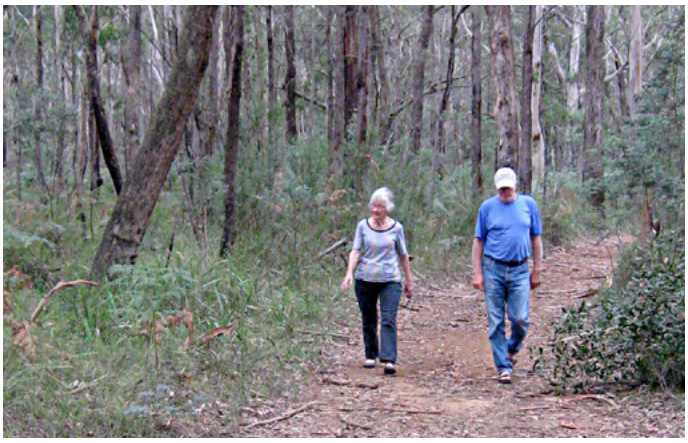
By Andy Robertson

The Trentham Racecourse was gazetted as a recreation reserve in 1880. The course was laid out that year, and was immediately in regular use. The admission charges [6d at first]were put towards the construction of a grandstand, built about 1889, and a saddling paddock was added in 1891.

Race day was Monday, and special meetings were held on Boxing Day, New Year's Day and other public holidays. By 1882, the local papers judged the Boxing Day meeting as a complete success, and in December 1888 an attendance of 'over 3000' was recorded. On both these occasions the program included men's foot running and a tug of war as well as horse races.

By the start of World War One all this racing activity had declined. The Trentham racecourse had not been used since 1907, and the buildings fell into disrepair. The Racing Club disbanded, but the Committee of Management for the Racecourse reserve continued to be elected on a three year rotation, and suggestions to sell the land were all rejected.

The track is one mile [approx 1600m] in length and there are traces of the stump holes of the original grandstand still visible near the finish line.



Judy Weatherhead and Andy Robertson strolling on the Wombat Trail. Photography © Jan Robertson

The present committee has recently fulfilled an ambition to combine this historic site with a forest walk. The new Wombat Trail is an easy walk, approximately nine km long, which links the Quarry Street, Stoney Creek and Bath Street Reserves in the township of Trentham with the old Trentham Racecourse in the Wombat State forest.

The walk takes in new walking paths, together with long standing logging and vehicle access tracks, with the major part of the trail being within the Wombat Forest.

The trail starts and finishes within the Quarry Street reserve

Wombat Trail signage. Photography © Jan Robertson

and provides a link to both the early history of the town and the more recent development, which is changing Trentham.

The walk passes through the Stoney Creek reserve, which has been undergoing a major regeneration and revegetation program over the past six years, passes along the western side of the Trentham cemetery and continues south until reaching the Trentham-Blackwood Road.

A short distance south from the crossing point, the trail heads east along the fence line adjacent to Countess Road until it meets with the DEPI access tracks. Approximately 750m from here access on to the old Racecourse can be made. A circuit around the one mile [1.6km] length of the Racecourse brings you back to the entry point from where the walker can retrace his/her steps to Quarry Street reserve, or follow the optional shorter return through the forest and then along quiet residential streets to the Bath Street Reserve and then Quarry Street.

The concept for the Wombat Trail was presented to Hepburn Shire Council in 2010 and was received favourably at that time. Following persistent lobbying by the local community for several years, funding for regrading badly damaged tracks, spraying and clearing of gorse, broom and blackberry and signage was obtained in 2013. Directional signage has been installed and several historical reference signs and promotional brochures are currently being finalised.

The small group of local activists involved with developing this trail would like to acknowledge the assistance received from the Trentham Historical Society, Art Attack [directional and historical signage design], Graeme Barnes [Project Manager from the Hepburn Shire Council] and the contractor [Matt Keogh] without whom this project could not have been completed.

There are many other opportunities to further develop the extent of designated and signed walks within the Wombat State Forest and around Trentham and hopefully these will come to fruition over the next few years. ■

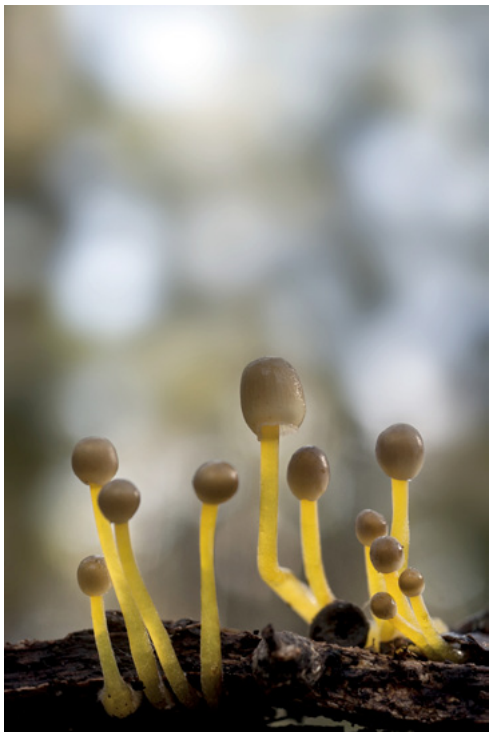
What lies beneath?

Words and images by Alison Pouliot

With autumn just around the corner it's fast approaching that fungal time of year again! While many animals and plants may be turning inward for the cooler seasons ahead, there are rumblings beneath the forest floor. Mushrooms will soon festoon the Wombat with their great array of colours and forms.

Armillaria luteobubalina

Putting names on mushrooms is tricky business. This first requires knowing where and in what they grow. Some fungi grow in soil, others in wood, and some prefer the nutritional medium of herbivore dung. It then requires keenly tuned senses to detect and differentiate the fungal palette of scents – from those resembling dried fish to bubblegum to aniseed and beyond. Textures are also important. Some are felty, others are rubbery and some are impossibly slippery. Others have their own idiosyncrasies such as changing colour when bruised or growing only where old bones are found. Knowing what's underneath the cap, be it gills, pores or spines along with the colour of its spores are also vital features.



Mycena epipterygia

Once we've assembled a set of characteristics we can begin to work through dichotomous keys and field guides to help determine an identity, keeping in mind that many fungi are yet to be formally named. Information about the whereabouts of fungi contributes to the mapping of Australian fungi as well as their conservation. But names also aren't everything. The imaginative lure of the forest can be more than enough to enjoy a fungal foray on an autumn afternoon. If you're keen to know more about the ecological significance of this curious kingdom or just fancy a forest stroll in the company of mushrooms, you may like to partake in a foray or workshop in the Wombat this autumn. ■

Further details: www.alisonpouliot.com

Spectacular Cuckoo Bee

By Gayle Osborne

This beautiful bee is not so pleasant. It sneaks into the nests of Blue-banded Bees, *Amegilla* sp, and like cuckoos of other species, lays its egg in the nest. The newly hatched Cuckoo Bee proceeds to eat the stored pollen, leaving the blue-banded young to starve.

Also known as the Cloak and Dagger Bee, it is in the genus *Thyreus* of which there are a number of species in Australia.

Photo of Cuckoo Bee taken near the Quarry Street lake in Trentham. Photography © Sue McBratney

Spotting the Spotted Quail-thrush

By Trevor Speirs

The Spotted Quail-thrush *Cinclosoma punctatum* is a fascinating all year round resident of the Wombat Forest, with its beautiful markings blending superbly with the surrounding bush.

Listed as Near Threatened in Victoria, this shy and secretive ground dweller favours less disturbed habitat of fallen trees and associated bush litter.

At three separate locations, two south east of Trentham and the other south of Bullarto, we have captured images of a Spotted Quail-thrush on our motion sensor cameras. On a more pessimistic and worrying note, a fox and a feral cat were also caught on camera at the Bullarto site during the same period.

Spotted Quail-thrushes have wonderfully camouflaged nests, with the incubating female melding in with the bark and leaves of the forest floor, and newly fledged chicks have a similar cryptic plumage, giving them some protection against these introduced pests and natural predators like the Laughing Kookaburra.

Of the numerous visits into the Wombat over the past 5 or 6 years, I have only seen a Spotted Quail-thrush on three occasions. On a bushwalk last year I inadvertently flushed one from virtually beneath my feet. With a whirring of wings and a flash of white edged tail feathers, it flew quickly 80 or so metres away and dropped to cover. ■

FOOTNOTE

In the Mt. Lofty Ranges, east of Adelaide, an isolated subspecies of the Spotted Quail-thrush Cinclosoma punctatum anachoreta was a common bird in the early part of the 20th century, but has suffered such a drastic decline that it has not been seen since 1984. Habitat loss (90% forest cover gone), fire, and to a lesser extent predation are thought to be the main reasons for their apparent demise.

A Spotted Quail-thrush fortuitously pops into the frame of a motion-sensing camera. The attracting bait in the tea infuser is to entice mammals.

A big 'Thank you' to Hepburn Wind and Trentham Bendigo Community Bank for their generous grants to purchase our motion-sensing cameras, making this important project possible.