Issue 68 - June 2024

Wombat Forestcare Newsletter

Welcome to our winter edition. The national park is on the way, but other areas will remain state forests. Lynda Wilson has written a terrific article on indigenous bees with fantastic images. Have you ever wondered about orange growth on the bark of many trees in the Wombat? John Walter explains.
Gayle Osborne (editor) and **Angela Halpin** (design)

Destructive salvage logging continues

By Gayle Osborne

The destructive salvage logging continues in the Wombat Forest and it would seem that not even the protection usually guaranteed by a Special Protection Zone and the prescription to avoid heavy machinery near a Powerful Owl breeding or roosting site will stop the onslaught.

"Special Protection Zones (SPZs) are managed specifically for conservation values, forming a network designed to complement the formal conservation reserve system. Timber harvesting operations are excluded from SPZs."[1]

The SPZ on the west side of Osbourne Road was created for the protection of Powerful Owls and included in the prescription for their protection is "Within 250-300 m of nesting or roosting site, exclude timber harvesting operations, road construction and burning during the breeding season."[2] The breeding season is 1 May to 30 November.

The works in the SPZ were carried out in June and it is not clear whether adequate surveys for the owls were carried out.

A few weeks ago, storm debris works were carried out on a site on the Leonards Hill-South Bullarto Road only about a kilometre from the records of nine EPBC listed endangered Mountain Skinks *Liopholis montana*. VicForests submitted these records for the coupe known as 'Silver Queen'. It has not been established whether comprehensive surveys were undertaken for Mountain Skinks at this new site, but we consider this unlikely.

An area at the south end of the Bullarto Reservoir where Kangaroo Creek enters the reservoir. Either side of the creek and along the track has been marked for salvage works. Photography © Gayle Osborne.

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The blatant disregard for the protection of threatened species should not be permitted to continue. Under the emergency powers given to the Chief Fire Officer, Forest Fire Management Victoria (FFMVic) management do not have to establish that the works that are being carried out will reduce fire risk. There is no independent oversight of FFMVic works, and the government needs to put in place a strong regulatory body with legislative powers to ensure that the environment is protected from inappropriate management activities.

An area at the south end of the Bullarto Reservoir, where Kangaroo Creek enters the reservoir has been marked for salvage works (storm work zone 26). The protection of the catchment should take priority over timber removal, particularly where there is a high likelihood of soil particles entering the waterway. This area is also a Special Protection Zone.

We are seeing a tragic failure of environmental management. The logs that have been removed would have been future habitat and soil; shaded and protected emerging seedlings and as they rotted they would have absorbed moisture and helped keep the forest floor damp. Instead, they are being trucked throughout the state for firewood.

The thick mats of shredded debris that are being left on the forest floor is possibly increasing the fire risk rather than reducing it. The department's *Overall Fuel Hazard Assessment Guide 4th ed*. for surface fine fuels that are completely connected and thicker than 35mm, rates the fuel hazard as 'Extreme'.

The large machinery has left the Wombat Forest for the winter. Despite a request to Forest Fire Management Victoria, we have been unable to ascertain where and when the 'heavy debris management' will resume. On Mapshare Vic, a department interactive mapping application, the works are listed to continue until 2026/27.

It is time to stop treating the Wombat as a resource and allow the natural regenerative processes to flourish. ■

Notes

1. Department of Environment, Land, Water and Planning (2022) Forest Management Zoning Accountability Framework 2022, Melbourne, DELWP, p 12.
2. Department of Environment, Land, Water and Planning (2022) Code of Practice for Timber Production 2014 (as amended 2022) Schedule 1: Management Standards and Procedures for timber harvesting operations in Victoria's State forests, Melbourne, DELWP, p 68.

Reference

Overall Fuel Hazard Assessment Guide (DELWP)
https://www.ffm.vic.gov.au/__data/assets/pdf_file/0005/21110/Report-82-overall-fuel-assess-guide-4th-ed.pdf

Flume track salvage works with large logs removed. How is this reducing the fire risk? Photography © Gayle Osborne.

Encounters with native bees

Words and images by Lynda Wilson

As the lingering warmth of summer and a very mild autumn are well and truly behind us, aside from the gloom that can so easily take hold in the greyness of winter, I'm also a bit sad to have farewelled what is probably the last of our native bees for several months.

It was in the peak of summer heat earlier this year, while getting on with the typical garden chores that summer entails … watering ... watering ... and more watering … that I first encountered a mysterious looking bee doing circuits around the vegie and raspberry patch. Every few minutes, after a lot of to-ing and fro-ing, it would eventually land on some very green and supple raspberry leaves. Each time it alighted it appeared to be carrying something. On closer inspection I could see that each time it landed, in just a few seconds, it had cut a clean section of leaf before flying off with the leaf cargo in tow.

Female Leafcutter bee *Megachile maculariformis* cutting her way through a supple raspberry leaf. Inset: Male *M. maculariformis* feeding on *Westringia fruticosa* 'Wynyabbie Gem' – distinguished from the female by the distinct orange bulbous swelling on the forelegs.

Thanks to a mobile phone camera and the iNaturalist phone app, this vegie watering session proved to be my first close encounter with a very industrious leafcutter bee *Megachile maculariformis*. Over the summer months I would find the same bees cutting uniform circles from leaves of nearby *Wisteria sinensis*, rose bushes, Chinese lantern (*Abutilon* hybrid), and apparently the only suitable native species, *Hardenbergia violacea* to weave into their nest burrows. I haven't yet managed to track down their nest sites but they are likely to be in existing holes in trees and shrubs such as old borer holes, under bark, in dead hollow stems, or small tunnels within rocks and logs and other nooks and crannies. *M. macularifomis* will also dig shallow burrows under mulch or in loose soil.

Around the same time, again while accessing a hose reel to do more watering, I noticed a bee or wasp-like insect circumnavigating the hose reel, eventually disappearing into its deep plastic moulded bolt holes. Having the luxury of time and appreciating the cool of the shade, I watched and waited … and waited … eventually capturing images of two more native bee species, *Megachile aurifrons* and *Megachile erythropyga*, known as resin bees, as well as three native wasp species entering these bolt holes. I was a bit anxious when a bee-parasitising wasp (Genus *Gasteruption*) or a small fluorescent green cuckoo wasp (Genus *Primeuchroeus*) was seen monitoring the regular bee movements in and out of the nest holes just waiting for the opportunity to insert their eggs while the *Megachiles* get on and do all

Resin bee *Megachile aurifrons* (female) feeding on *Westringia fruticosa* 'Wynyabbie Gem'. Inset: (a) *M. aurifrons* (female) working on her hose reel nest with masticated leaf matter. (b) *Megachile erythropyga* approaching her hose reel nest.

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the work. Over the ensuing weeks, all 28 bolt holes were occupied by either bees or wasps and filled with either mud, resin and/or masticated leaf matter as their nests were constructed.

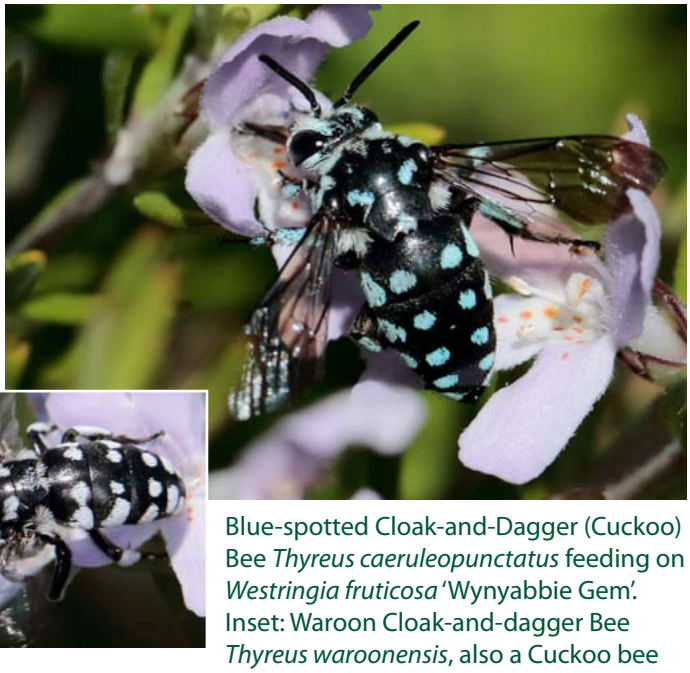
Since the hose reel encounter, masked bees of the Genus *Hyleaus* have been seen utilising gaps in the mortar of our brickwork for their nest sites. So-called 'lodger' bees can utilise existing hollows of various substrates such as hollow grass stems, beetle borer holes, disused nests of other insects, or artificial structures.

Ground-nesting native bees from Genera *Leioproctus*, *Lasioglossum* and *Amegilla*, including the ever-charming Blue-banded bees, have been observed digging their burrows in our garden beds, in bare soil amongst the gravel on the driveway and adjacent to garden pathways. A little desktop 'digging' revealed that around 70% of Australia's native bees actually nest in the ground, with one *Ctenocolletes* species of more arid areas known to dig tunnels over two metres deep! Incredible!

Tiny *Lasioglossum exlautum* on *Hakea* hybrid leaf.
Inset: (a) An aggregation of roosting *L. exlautum* settling in for the evening on native Tree Violet *Melicytus dentatus.*
(b) *Lasioglossum urbanum* (female) emerging from one of several burrows in the middle of our gravel driveway. The burrow opening is not much wider than a pin head. A traffic witch's hat now stands watch by the burrows.

Blue-banded Bee *Amegilla asserta* feeding on *Salvia microphylla* 'Hotlips'.
Inset: Blue-banded Bee *Amegilla chlorocyanea* soaking up some sunshine from her burrow after a chilly autumn morning.

All of this bee activity has certainly sparked my interest in a new aspect of the insect world. Up until a few months ago, I had absolutely no appreciation of the beauty and diversity of the native bees in this country and am astounded to read that there are over 1700 species of native bees in Australia. The attached images showcase just a handful of the two dozen or so native bee species I've been fortunate enough to photograph in and around



Blue-spotted Cloak-and-Dagger (Cuckoo) Bee *Thyreus caeruleopunctatus* feeding on *Westringia fruticosa* 'Wynyabbie Gem'.
Inset: Waroon Cloak-and-dagger Bee *Thyreus waroonensis*, also a Cuckoo bee but with white spots and pale eyes. Like their feathered namesakes, the cuckoo bees don't bother building a nest. These particular cuckoo bees utilise the nests of blue-banded bees. I'm hoping that the presence of cuckoo bees and bee-cuckoo wasps is an indicator of a healthy local native bee population.

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the home garden, again, thanks to the luxury of time and garden chores. Some have been enjoying the native vegetation on offer while others are making the most of some exotic ornamentals and food plants.

Most Australian native bee species are solitary and unlike the Western or European honeybee *Apis mellifera* are not suitable for commercial honey production, the exceptions being the social stingless or sugarbag bees of genera *Austroplebeia* and *Tetragonula* of northern and eastern Australia. Native bees are, however, vitally important to the pollination of native vegetation which is essential for overall ecosystem health and in providing habitat for so many native species. While I haven't taken the time to have a good look for native bees in the Wombat Forest, I can't help but wonder about the bee activity up in the canopy of those tall flowering trees, in the mid-storey wattles and shrubs, or in the various understorey flowering plants. Where do the ground-nesting, plasterer, leafcutter and resin bees hang out in the forest?

My encounters also make me realise how much we don't know or appreciate until we have a good look and tune in to what's going on in the natural world, and how the impacts of actions in the forest and at home cannot be effectively assessed without that knowledge.

I am reassured a little that with the extent of non-pristine or artificial habitat and ecosystems that have taken over the globe, including in our backyard, at least some native bee and wasp species are managing to successfully exploit the various resources that are available to them. ■

Clark's Leioproctus *Leioproctus clark*i on *Westringia fruticosa* 'Wynyabbie Gem'. Inset: *Leioproctus* sp. emerging from her burrow adjacent to a garden path about 10 centimetres from the *Amegilla chlorocyanea* burrow pictured above.

Yellow-collared Masked Bee *Hylaeus euxanthus* (male) enjoying the delights of *Callistemon* 'Pink Champagne'. Inset: Cloudy Masked Bee *Hylaeus nubilosus* emerging from her mortar nest.

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References

Houston, Terry (2023) *A Guide to Native Bees of Australia*. CSIRO Publishing, Clayton South, VIC

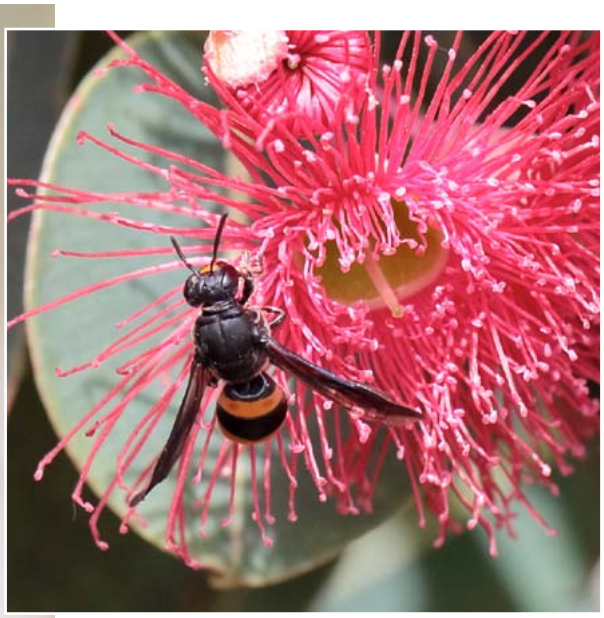
With input from Megan Halcroft of https://www.beesbusiness.com.au/

https://www.wheenbeefoundation.org.au accessed 31/5/24

Other interesting sites

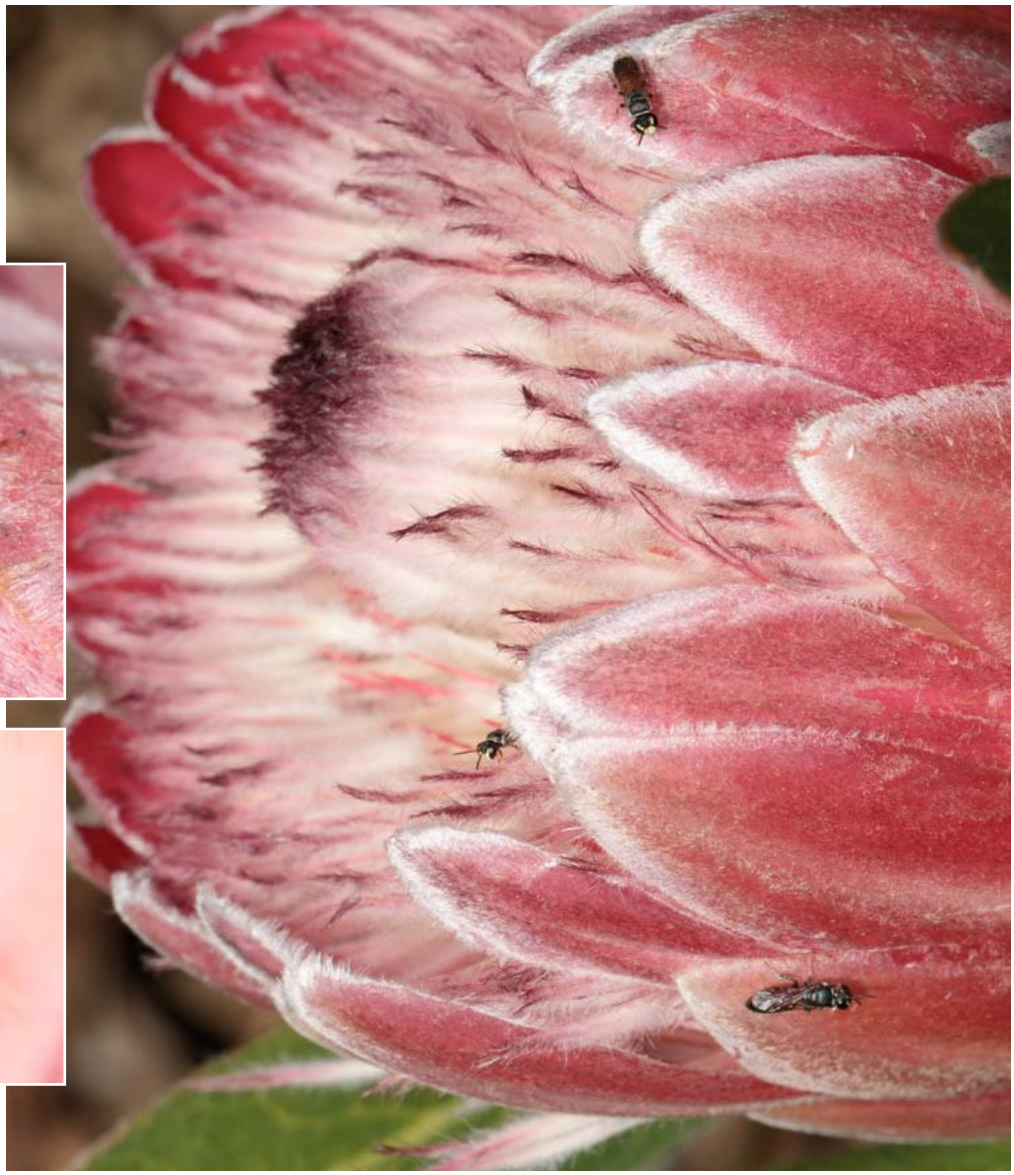
https://www.aussiebee.com.au/index.html

https://www.facebook.com/groups/beeawareofyournativebees



Common Wasp-mimic Bee *Hyleoides concinna* (yellow mask indicates a male) on Callistemon leaf. Looking like a wasp could be a deterrence to predators as wasps tend to be more aggressive. Inset: Female *H. concinna* (with orange mask) feeding on *Corymbia ficifolia*.

Several tiny Littler's Masked Bees *Hylaeus littleri* would take a while to exhaust the offerings of this relatively giant Protea 'Pink Ice' flower. Insets: (a) Male and (b) Female *H. littleri*.



What's that Orange Stuff?

By John Walter

I am sure many readers will have seen large masses of an orange growth on the trunks of trees in the Wombat Forest. It can be found pretty much anywhere, but it is very prolific on the trees along Camp Road and the Blackwood Ridge Road. While it is often thought to be a lichen, it is actually a green alga belonging to the genus *Trentepohlia*.

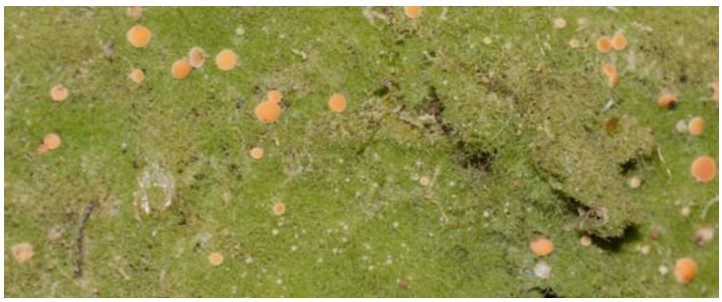
Trentepohlia sp. on Blackwood Ridge Road

I can hear the clamour of voices asking, "Why is it orange if it is a green alga?" The orange colour is the result of large quantities of carotenoids which mask the green of the chlorophyll. While the carotenoids cannot directly engage in photosynthesis, they do capture light and pass it chemically to the chlorophylls where photosynthesis occurs. I have seen studies that indicated an increase in the quantity of carotenoids in *Trentepohlia* species as the plant ages and thereby increasing the colour intensity.

Australia has 15 species of *Trentepohlia*, three of which have been moved to the newer and closely related genus *Printzina*. Microscopic examination is necessary for species identification, so most posts on forums like iNaturalist and human observations on the Victorian Biodiversity Atlas that go to species level, should be treated with caution. The genus *Trentepohlia* has worldwide distribution and most of the 48 recorded species are also found across the world along with the 9 species of *Printzina*. The greatest number of species are tropical and subtropical with a handful occurring in the temperate zones. There are 36 specimens listed in the Virtual Herbarium of collections made in Victoria, but only seven have been identified to species level and they represent just three species, *T. arborum* (4), *T. aurea* (2) and *T. odorata* (1).

Trentepohlia sp. at Mait's Rest in the Otways. The yellow spots are a lichen, most likely a *Chrysothrix* sp. which has a different alga as its photobiont.

While *Trentepohlia* is not a lichen, it is a very commonly recorded as the photobiont in lichen species. Only 100 or so alga and cyanobacteria species are recorded as photobionts and the incredible diversity in lichens is due to the large number of fungal species (mycobionts) that partner with them. One example of a lichen utilising *Trentepohlia* is *Coenogonium* which retains the appearance of an alga, whereas the *Graphis* species and related genera show no resemblance to the *Trentepolia* held within. ■



Coenogonium implexum, a lichen with the appearance of an alga.

Graphis sp. with its script-like spore-producing ascomata on teatree in the Otways.

Notes

Numerous research papers by A. B. Cribb and others were utilised while preparing this article, too many to list here, however the AlgaeBase website, located at https://www.algaebase.org/ deserves special mention as does the Virtual Herbarium at https://avh.chah.org.au/

The Spotted Quail-thrush, a cryptic survivor

By Trevor Speirs

The Spotted Quail-thrush *Cinclosoma punctatum* is a beautifully marked ground-dwelling bird that can be found in suitable habitat throughout the Wombat Forest. Although sometimes seen in moister habitats, it's the drier and more open areas of the forest with lots of ground litter that the Spotted Quail-thrush prefers, and they are often observed crossing tracks and roads in this type of bush. The Spotted Quail-thrush, unless nearly stood on, is reluctant to fly to cover when encountered, much preferring to move stealthily across the ground until safely out of sight. This differs to two other Wombat "ground birds", the Brush Bronzewing *Phaps elegans* and Common Bronzewing *Phaps chalcoptera*, which both take to the air with a clatter of wings when disturbed from their ramblings on the forest floor.

Spotted Quail-thrush *Cinclosoma punctatum* caught on motion-sensing camera in Lerderderg State Park.

There are seven species of quail-thrush in Australia, but only the Spotted Quail-thrush is found in a forest type such as the Wombat, all the others preferring habitats ranging from dry, scrubby woodland to harsh desert. Interestingly, the Eastern Whipbird *Psophodes olivaceus*, a furtive ground feeding bird of the country's eastern wet forests, belongs to the same family, Psophodidae, as the Spotted Quail-thrush.

A noticeable observation over the years in the Wombat and surrounding forests, is that the Spotted Quail-thrush often inhabits the same areas that are occupied by Red Foxes, and to a lesser extent the feral cat. As these birds nest on the ground, usually against a log or tree, you would think they would be easy prey for a feral pest and surely some must be taken at times. What the Spotted Quail-thrush does have going for it however is excellent camouflage with its muted earthy plumage blending nicely into the surroundings, and the nest, being a loose structure of untidy bark and fallen leaves, both playing a role in the survival of the species. However, anecdotal evidence by way of Wombat Forestcare's remote motion-sensing cameras and personal observations does point to an increase in fox numbers throughout the forest in recent years. Although the Spotted Quail-thrush would have developed survival tactics having been exposed to predators like the Spot-tailed Quoll over millennia, an increase in feral pest control by the relevant authorities should be a top priority.

Several years ago, the *Flora Fauna Guarantee Act* (FFGA) had a now defunct advisory list where species considered in decline would sit until they met the criteria to be listed as a threatened species. The Spotted Quail-thrush did appear on this list but was never elevated onto the official FFGA listing which could possibly be construed as good news. While it is heartening that in the Wombat and Lerderderg the Spotted Quail-thrush can still be found in good numbers in suitable forest, because of the scarcity of old data and surveys we really do not know how well they are faring. It's of note that they were once found in southerly Victorian districts such as Frankston and Mornington and also in some outer eastern suburbs of Melbourne until the mid-1900s. A South Australian population in the Mt Lofty ranges region is believed to have become extinct relatively recently with land clearing and predation by cats being considered to be two of the main reasons.

Should you make the Spotted Quail-thrush a target bird in a day's bird watching, relying on their call might not be the best plan of attack. Mainly thought to call early morning and at dusk, many of their calls possess a ventriloquial quality which can definitely make tracking down the owner difficult. Anyone who has tried locating by call the Crested Bellbird *Oreoica gutteralis*, found a little to the north of the Wombat and a master ventriloquist, will know how incredibly frustrating these marvellous songbirds can be. Also, the Spotted Quail-thrush's contact call, its most common, is so highly pitched it can be audible only to the keenest human ear. Early spring, when the male's piping whistle is emitted when perched on a log or low branch is probably the best chance of locating these shy, inconspicuous birds by sound. And while observations will most likely only be fleeting, seeing these wonderful Wombat natives makes a day's bird watching well worth it. ■

Great promises but no action

By Gayle Osborne

In 2021, the Victorian government undertook to create three new national parks and a number of other parks and reserves, but three years later we are still waiting. There is now an undertaking that the Wombat-Lerderderg and Mt Buangor National Parks will be legislated later this year, however, further enquiries revealed that this did not include the regional and conservation parks. The Wombat Forest is 45,000 hectares, of which 24,000 hectares will be added to the Lerderderg State Park to form our national park.

The remaining 21,000 hectares that was to be legislated as regional and conservation parks will remain a state forest and will continue to be managed for its resources, such as salvage works for commercial firewood.

It needs to be pointed out that the Lerderderg State Park is already protected by legislation under the National Parks Act 1975. Like national parks, state parks are also managed for conservation and compatible recreation.

Similarly, the Mt Buangor National Park will be comprised of the existing Buangor State Park that is 2,498 hectares and only 1,406 hectares from the Mount Cole State Forest will be added. This only represents 16% of the Mount Cole State Forest. Now that native forest logging has ceased the government could easily include the rest of Mt Cole and all Mt Lonarch in a new regional park.

The claim by the government that "more than 65,000 hectares of new National Parks secured" is quite a stretch. If 15,000 hectares for the promised Pyrenees National Park is included, we estimate that approximately 41,000 hectares will be added to the already protected state parks.

In the extensively cleared landscape of the central west investigation area these areas of public land provide habitat for about 375 threatened species. It is important that this public land is managed by Parks Victoria to preserve its natural values.

There is no indication from the Victorian government regarding when they intend to create all the promised bushland and nature reserves and all the regional and conservation parks. Three years on and we are still waiting. ■

The existing Ben Major Flora Reserve is 820 hectares. The promised Ben Major Nature Reserve will be 3229 hectares. When will the Goverment act to protect this rich biodiverse area? Photography © Gayle Osborne.

Splendid Cortinars

Words and images by Gayle Osborne

World-wide there are more than 1,000 species in the *Cortinarius* genus with many of them still unnamed. They have cortinas covering their gills when young and as they mature and the cap opens, tiny fibres remain on the stipe. As the rusty brown spores are released, they gather in the fibre and form a distinctive rim. Due to this many *Cortinarius*s are easy to identify to genus.

Cortinarius sinapicolor

Unidentified *Cortinarius* species

Unidentified *Cortinarius* species

Cortinarius archeri

Wombat Forestcare

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Wombat Forestcare Inc. is dedicated to preserving the biodiversity and amenity of the Wombat State Forest, Central Victoria, Australia, 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: $15 single and $20 family. Visit our website - www.wombatforestcare.org.au

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