Issue 58 - December 2021

Wombat Forestcare Newsletter

Welcome to our summer edition. In this issue we take a look at some of the threatened species of the Wombat Forest and other public land to the north. The Wombat contains over 40 Critically Endangered, Endangered or Vulnerable species and given the largely intact nature of the Wombat and its size, there is the opportunity for these species to thrive. **Gayle Osborne** (editor) and **Angela Halpin** (design)

Common Dunnart *Sminthopsis murina*
© Queensland Museum

Team effort reveals very uncommon sighting

By Trevor Speirs

Earlier this year Wombat Forestcare joined up with the Upper Campaspe Landcare Network (UCLN) to carry out motion sensor camera surveys on public and private land to the north east of Daylesford. UCLN is an active Landcare network and had received a Federal Government Communities Environment Program grant that would enable them to do the camera surveys as well as spotlighting and other conservation-based activities. Unlike the Wombat Forestcare's camera project in the Wombat, we did not have a permit to use a bait station so it was going to be a bit hit and miss as to what would wander into the camera's view. Nevertheless, many species were captured on camera, ranging from the familiar Eastern Grey Kangaroo and Black-tailed Wallaby to the Brush-tailed Phascogale, a vulnerably listed species.

One of the survey areas was the Metcalfe Nature Conservation Reserve (NCR) and on the third and last proposed round of surveys a small mammal popped into view, albeit only for a few seconds, which looked a little different from the norm. Only slightly smaller than an Agile Antechinus but with much larger ears, it meant that in this region it could really only be one of two things, a House Mouse or the elusive Common Dunnart. Both mammals are about the same size, the main difference probably being the long pointed snout of the dunnart as opposed to the blunter snout of the mouse. The Common *continued next page ...*

Dunnart also has an elongated and narrower hind foot than the House Mouse. The small number of camera images that the mammal appeared on weren't totally definitive but after much consideration we settled on a Common Dunnart and thankfully this was later confirmed by an expert in mammal identification.

This is a very significant discovery as Common Dunnarts, a threatened species, have been recorded only rarely in this region and apart from some recent sightings near Lancefield, some 30 kilometres to the south east, most records are from many years ago. Although once considered common, since European settlement and the subsequent loss of much of its woodland habitat, the Common Dunnart *Sminthopsis murina* has declined in occurrence and is listed as vulnerable to extinction under the *Victorian Flora and Fauna Guarantee Act 2019*. In Victoria its main stronghold is the Mallee region of the NW but it is also found in scattered locations throughout the western and central parts of the State. As well as Mallee heath, the Common Dunnart can also inhabit dry forests and woodlands with an open grassy understorey. The Common Dunnart is one of three dunnart species found in Victoria, (the other two are the Fat-tailed and the White-footed Dunnart), and being carnivorous marsupials all are members of the Dasyuridae family.

The camera sighting occurred in mid-May, and as the Common Dunnart is known to enter periods of torpor during cold temperatures, we decided, pending Covid 19 restrictions, to do some extra surveys towards the end of winter. This time of year also coincides with the start of their breeding season therefore promising an increase in activity. As there were no previous records in this area, more surveys could hopefully give us a rough estimate of the mammal's abundance in the reserve. Under some conditions, female Common Dunnarts can breed more than once during a breeding season (polyoestrous) producing 8 to 10 young per litter. Unlike other dasyurids of our region, such as the Brush-tailed Phascogale and our three Antechinus species; Agile, Dusky and Yellow-footed, the male Common Dunnart does not die soon after mating, although they do not survive into the next year's breeding season. All these local dasyurids do however share a similar diet of terrestrial arthropods; cockroaches, beetles, moths, spiders etc.

Common Dunnart – camera survey Metcalfe NCR

Thanks to the relaxation of Covid 19 rules in regional Victoria, several more rounds of surveys were undertaken in the Metcalfe NCR and further sightings of the Common Dunnart were caught on camera. Some of these sightings were as far as 1.4 kilometres apart, which does indicate there is a good population occurring throughout the reserve. The one negative was the occasional Red Fox sighting, an obvious predator of small mammals. Interestingly, at all of the UCLN survey sites just north and east of the old Calder Highway (including the Metcalfe NCR) no Agile Antechinus images, an abundant small mammal in the wetter Wombat Forest, were captured on camera. There were however good numbers seen at Fryers State Forest, only a few kilometres to the west of the old Calder.

The predominant ecological vegetation class at Metcalfe NCR is grassy dry forest. With some rocky outcrops, many fallen logs and most importantly an abundance of Red-anther Wallaby-grass, it provides good cover and protection for small mammals. Apart from a bushfire in 1986, of unknown severity, and a small bushfire in 1990, there have been no recent planned burns carried out in the reserve and it remains relatively undisturbed. Some studies however, have shown Common Dunnarts can benefit from periodic, patchy burns, with numbers increasing 4 to 5 years after fire.

In 1981 the Land Conservation Council recommended the area, about 300 hectares, to be a flora reserve describing it as "an old-growth forest of red stringybark, yellow box and long-leaf box on the ridges and slopes. The gullies contain a community of messmate and manna gum that is not found extensively in the study area." Following a 2001 Victorian Environmental Assessment Council investigation into Victoria's Box/Ironbark forests, the area received greater protection when it became a Nature Conservation Reserve.

Camera surveys by Wombat Forestcare haven't revealed any Common Dunnart sightings in the Wombat Forest as yet, although there is similar habitat to Metcalfe NCR in the Hepburn area and possibly in the eastern part of the forest, closer to Lerderderg State Park. There are 30 year old records in the Pyrete section of Lerderderg State Park, which is not far from this eastern section of the Wombat. There is often a degree of luck with camera surveys. If the camera which captured the first dunnart image was placed only 20 to 30 metres to the left or right we would probably be none the wiser. Hopefully these exciting sightings at Metcalfe NCR can assist in the management of this important nature reserve and this threatened marsupial can continue to exist and thrive for many years to come. ■

References

Fox, B.J., Whitford, D. 1982. Polyoestry in a predictable coastal environment: Reproduction, Growth and Development in *Sminthopsis murina* (Dasyuridae, marsupialia). *Carnivorous Marsupials*. Royal Zoological Society of New South Wales. Sydney. pp. 39-48.

Strahan, R. (ed.) 2004 *The Mammals of Australia* 2nd edn, Reed New Holland: Sydney, NSW, pp. 150-151

Threatened Species update

Words and images by Gayle Osborne

Barking Owls *Ninox connivens* are now listed as Critically Endangered. Photography © Gayle Osborne.

It is shocking that, in Victoria, over 2,000 flora, fauna and fungi species are listed as threatened with extinction. There are probably many more species that are at risk of extinction that, due to insufficient data regarding their decreasing populations, have not been listed.

The Victorian Auditor General recently released a damning report into Department of Environment, Land, Water and Planning's performance and accountability framework for halting threatened species decline. The Auditor General found that "DELWP cannot demonstrate if, or how well, it is halting further decline in Victoria's threatened species populations." [1]

This is not at all surprising as the government's biodiversity strategy, *Protecting Victoria's Environment – Biodiversity 2037*, does not contain specific actions and goals to ensure that these species have recovery plans that are effectively implemented. The strategy is big on getting people into nature and weak on actions to protect and enhance biodiversity, let alone meaningful measures to demonstrate whether or not the proposed strategies are effective.

In June 2021 the *Flora and Fauna Guarantee Act 1985* (FFG Act) was amended to include a consistent national approach to assessing and listing threatened species.

Species will now be considered for listing as threatened under the FFG Act in accordance with the intergovernmental Common Assessment Method. This will see the categories and criteria of the International Union for the Conservation of Nature (IUCN) Red List of threatened species adopted for listing threatened species.

There is a transition to an alignment of taxa with those that are also listed under the *Commonwealth Environment Protection and Biodiversity Act 1999* (EPBC Act).

The new *Flora and Fauna Guarantee Act – Threatened list* includes many species that are found in the Wombat State Forest, elevating some of them to the Endangered and Critically Endangered categories. Barking Owls *Ninox connivens* are now listed as Critically Endangered.

On the other hand, some species may not be given the attention previously afforded by the *Advisory List of Threatened Vertebrate Fauna-2013*, which included a category for fauna that were considered to be Near Threatened.

The Near Threatened category was used when a species was evaluated as not qualifying for listing as Critically Endangered, Endangered or Vulnerable, but was close to qualifying for, or was likely to qualify for, a threatened category in the near future. Although this category did not carry any legal protections, it did create an awareness of their vulnerable status.

This designation has now been dropped from the Victorian Biodiversity Atlas (VBA), which is used by DELWP to assess forest management activities and planning applications.

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One of the majestic Brooker's Gums in the Stony Creek Reserve, Trentham, now listed as Endangered. Photography © Gayle Osborne.

Female Spotted Quail-thrush in the Lerderderg State Park.

It should be noted that *Protecting Victoria's Environment – Biodiversity 2037* includes the aim that "A net improvement in the outlook across all species by 2037 with the expected outcome that no vulnerable or near-threatened species will have become endangered." It is not clear how the Near Threatened species will be protected if they are not designated as such on the VBA.

One species in the Wombat that was categorised as Near Threatened is the Spotted Quail-thrush *Cinclosoma punctatum*. Birdlife Australia considers that their numbers are declining.

There is a population of Spotted Quail-thrush, a ground dwelling and nesting bird, within a proposed planned burn, south of Blackwood. The effect of this burn on their ability to survive in this area is unknown. Their Near Threatened status, which never carried a legal protection, is no longer brought to the attention of DELWP staff, who could have been able to consider some mitigation measures.

A lack of knowledge of the true status of many species could contribute to their demise. For a species to be listed as threatened, evidence needs to be provided to the FFGA Scientific Committee (SAC) of a small population, a declining population, and restricted range, among other criteria.

A few years ago, the Eastern Pygmy-possum *Cercartetus nanus* was considered ineligible for listing as threatened by SAC, as the taxon did not satisfy any of the primary listing criteria. There have been few studies of this possum in the field and the lack of data would have meant that a true assessment of their status would not have been able to be considered by SAC.

Eastern Pygmy-possums have only been recorded at a few locations in the Wombat Forest. These records were the result of motion sensing camera surveys being carried out by Wombat Forestcare. Their main food sources are nectar and pollen and they are threatened by inappropriate fire regimes that can remove nectar-producing understorey plants and tree hollow habitat.

Conference notes from a presentation by Peter Menkhorst (Arthur Rylah Institute for Environmental Research)

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reported: "The Eastern Pygmy-possum is widespread but only abundant in the coastal areas of East Gippsland which contain Coast Banksia. The Eastern Pygmy-possum has had a significant decline in the Box-Ironbark Forests and may no longer be present. Populations are thought to be fairly stable in the Eastern Highlands, Otways, Lower Glenelg and Grampians." [2]

As well as species for which there is insufficient data to know whether they are at risk of extinction, there are also species that should be considered as regionally significant. These are species that may be common in some regions but are found in very few locations in other regions. For example, the Dog Rose *Bauera rubioides*, common in Gippsland and other areas, is only found at few locations in the Wombat Forest, mainly near Lyonville. A process needs to be in place that recognises regionally significant species and can ensure their protection.

At present, nearly all DELWP management activities are assessed by a biodiversity officer, which includes checking the VBA for records of threatened species (known as a 'desktop assessment'). Therefore, any threatened species that may be present on a site, but not recorded, in most cases is assumed to be absent. It is obvious that this is not good enough.

The system lacks flexibility; biodiversity officers need to be empowered to make conservation decisions that are guided by precautionary principles.

In order to protect our extraordinary biodiversity, the government should introduce more flexible systems that prioritise species protections and fund the conservation of threatened species appropriately.

References

DELWP, 2017, Protecting Victoria's Environment – Biodiversity 2037, Victorian Department of Environment, Land, Water and Planning, East Melbourne.

DELWP, 2021, Flora and Fauna Guarantee Act – Threatened list, Victorian Department of Environment, Land, Water and Planning, East Melbourne.

DSE, 2013, Advisory List of Threatened Vertebrate Fauna - 2013, Victorian Department of Sustainability and Environment, Melbourne.

Notes

1. https://www.audit.vic.gov.au/report/protecting-victorias-biodiversity
2. https://www.swifft.net.au/cb_pages/video_conf._notes_11_feb_2016_-_threatened_possums__gliders.php

Eastern Pygmy-possum caught on camera in the Wombat Forest

A number of flora species in the Wombat Forest are now considered at greater risk. The following species are all now categorised as 'Endangered'.

Brooker's Gum *Eucalyptus brookeriana*

Creeping Grevillea *Grevillea repens*

Hairy Beardheath *Leucopogon microphyllus* var. *pilibundus*

Pennyleaf Flatpea *Platylobium rotundum*

Swamp Bushpea *Pultenaea weindorferi*

Tasman Fan-fern *Sticherus tener*

Wiry Bossiaea *Bossiaea cordigera*

Swamp Bushpea *Pultenaea weindorferi*.
Photography © Gayle Osborne.

Finding a critically endangered wattle

Words and images by John Walter

As a regular visitor to our forests, woodlands and grasslands, I can report that one of the great pleasures that one can receive is the finding of a new plant or fungus during your field trip. New does not have to be new to science to make it exciting, it could simply be a new species that you have not seen before or perhaps a species that you have not seen in a particular district.

In my role with the Upper Campaspe Landcare Network, I have been spending a lot of my time chasing down as many of our insect pollinator species as I can. In September, I became the entire survey team for the project as Covid lockdowns prevented the core team from travelling interstate and up from Melbourne.

While finding and photographing new and interesting insects is exciting enough for me, on September 7 I was looking for an ideal location in the Fryers Ranges to conduct the first of our early spring pollinator surveys. The flowers at my proposed site were plentiful but the day simply was not warm enough to make the insects active so I walked a little further into the woodland to see what else might be flowering.

Clusters of bright yellow flowers caught my eye and I quickly realised I was looking at an Acacia species that I had never seen before. I knew of Ern Perkins' record for *Acacia sporadica* and had previously attempted to locate those plants without success, and as these plants were about 500 metres away from Ern's record, I had my suspicions that the new plants would prove to be *Acacia sporadica*. The plants were growing in clusters ranging from 10 stems up to 150 stems in each cluster. I located 17 clusters plus a number of apparently single stemmed plants that might prove to be additional plants or perhaps an outlier from one of the main clusters. In all, I counted over 600 stems and virtually all of them carried the bright golden flowers making quite a sight against the glaucous foliage.

A small cluster of around 12 stems, probably one plant.

Massed flowering as seen on virtually all stems in this population.

Flower detail and Inset shows the apparent early formation of seed pods 40 days later. The pods only formed on one stem out of the entire population, and most had fallen off after a further 40 days whilst those remaining had not developed further.

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I confirmed my suspicions regarding the identity of these plants once I returned home, and then discovered that *A. sporadica* is listed as critically endangered in the June 2021 threatened species listings. Finding the location of such a large population was very exciting and this species is only found in two other locations, one near Howqua and the other near Myrtleford in north-east Victoria. It suckers, forming clumps or clusters of stems up to 9 metres in diameter and apparently only rarely sets seed. One clump in the new population had over 150 stems and was easily 4 or 5 metres in diameter. This new population would make the Fryers Ranges population the second largest and greatly increases the known population of this beautiful but endangered species. The new population has now been recorded on the VBA and been brought to the attention of Senior Botanists at the Herbarium. ■

Phyllode detail.

Reference

Walsh, Neville G (2004) Two new wattles endemic to Victoria *Muelleria* 19: 3-8

Blowing in the wind

Words and image by Trevor Speirs

The June storm really wreaked havoc through some sections of the Wombat Forest but there have been some pleasant surprises in its aftermath. While many large habitat trees have come to grief some of the Wombat's Powerful Owls *Ninox strenua* have still been able to breed successfully. Fortunately many parts of the forest escaped the worst of the wind's destructive effect, and at least three known pairs of owls have been able to produce young.

In the breeding cycle of the Powerful Owl, it takes about thirteen weeks from the laying of an egg to the fledging of the chick. In all our observations over the years of various pairs of breeding Powerful Owls in the Wombat, the chick(s) has always left the nesting hollow between mid-September and early October. If this was the case again this year, as it appears to be, most egg laying would not have started until the second half of June, thereby avoiding the storm's wrath on the 9th.

The timing here is interesting when you consider a family of Powerful Owls, the adults and two chicks, that have been in residence at the Castlemaine Botanical Gardens this year. Some Castlemaine locals told me that they had seen the four family members roosting together in exotic pines in mid-August, very early by Wombat standards. ■

A juvenile Powerful Owl, newly fledged, roosts in a small pine plantation. Photography © Trevor Speirs.

Will Gang-gangs be listed as Endangered?

Words and image by Gayle Osborne

Gang-gang Cockatoos *Callocephalon fimbriatum* seem reasonably common in our area and it was a surprise to find that they are being assessed by the Threatened Species Scientific Committee to be eligible for listing under the national EPBC Act.

According to an EPBC Facebook post "The main factor that appears to make the species eligible for listing in the Endangered category is that the population has declined by between 15% and 69% in the last three generations (approximately 21 years) (Bird et al. 2020; Cameron et al.) In addition to this continuous decline in population numbers, the species also suffered mortality and habitat loss during the 2019/2020 wildfires."[1] It is thought that the wildfires caused the population to be further reduced by a fifth.

They also face the growing threats from the climate crisis and future bushfires.

In NSW they were listed as Vulnerable in 2005, due to a dramatic population decline probably caused, in part, by landscape scale habitat loss and fragmentation. It is thought that logging over many decades has also contributed to their decline due to a loss of hollow-bearing trees.

Gang-gangs are only found in south-eastern Australia. Most of the literature says that they spend the winter in lower altitudes and move to the forests of the Great Divide to breed in summer, however, here in the forest, near Glenlyon a family of Gang-gangs remains all year and even persisted through the June storm and the cold and rainy winter.

Female Gang-gang in the Wombat Forest (taken in early December this year), possibly immature as the crest appears rudimentary and the feathers are washed green on the underparts. Photography © Gayle Osborne.

One day, alarmed by much screeching and loud 'creaky door' Gang-gang calls; I looked up to see three Sulphur-crested Cockatoos harassing the Gang-gang family. It was a shocking sight as the Sulphur-crested Cockatoos are about a third larger than the Gang-gangs. Eventually the Sulphur-crested Cockatoos left.

Like so many Australian birds, Gang-gangs require hollows for breeding. In the Wombat Forest there is considerable competition for these hollows, including from breeding Sulphur-crested Cockatoos, which seem to be increasing in number throughout the forest.

Locally, groups of Gang-gangs can be seen feeding on Hawthorn berries in the summer, and it is possible that they are not suffering the population declines that are occurring elsewhere.

If we want our Gang-gangs to survive and to thrive, we need to protect their habitat, both on private property and on public land.

We need the State government to put on their running shoes and speedily legislate the promised National and other parks in the Wombat. ■

Note

1. https://m.facebook.com/EPBCnotices/posts/4238985366155147?locale2=ne_NP

Reference

Consultation Document on Listing Eligibility and Conservation – *Callocephalon fimbriatum* (Gang-gang Cockatoo), Department of Agriculture, Water and Environment.

Jewel Beetles
Pollinators with Pizazz

Words and images by John Walter

When you mention pollinators most people think of the European Honeybee or butterflies or perhaps one of our beautiful honeyeaters. Many will know of the Blue Banded Bees but perhaps do not realise that Australia hosts almost 2000 native bee species. Others might know that many flies and wasps are also pollinator species, and a few might consider the pollination capabilities of some of our mammal species. There is, however, another insect group that plays a major role in pollination and that is the beetles, and the most dazzling of these are the Jewel Beetles.

While my recent activities hunting pollinator species have led me to seven species, I have a long way to go with over 1200 species recorded in Australia. Some are difficult to photograph as they hide in the foliage or quickly fly or sometimes drop to the ground as though dead where they become lost in the leaf litter.

The local Teatree species, *Leptospermum*, are attractive to many *Castiarina* species and many are also seen on the flowers of *Calytrix tetragona*. I have also located two *Castiarina* species on the flowers of *Chrysocephalum baxteri* which is a little unusual as they tend to favour the Myrtaceae family and only rarely visit Asteraceae. The *Melobasis* species that I have seen have all been on Acacia. ■

References

Lang, Peter J, (Accessed 7th December 2021) Buprestidae of South Australia http://syzygium.xyz/buprestidae/introduction.php

Castiarina australasiae on *Leptospermum continentale.*

Castiarina octomaculata on *Leptospermun myrsinoides.*

Castiarina xanthopilosa on *Calytrix tetragona.*

Castiarina sp. on *Ozothamnus obcordatus.*

Castiarina decemmaculata on *Chrysocephalum baxteri.*

Castiarina bicolor, found on *Chrysocephalum baxteri*, photographs show pinned specimen. The blue underside readily distinguishes this species from *C. australasiae.*

Melobasis obscurella on *Acacia verticillata* and mounted on a card point.

Greater Gliders at greater risk?

Words and images by Gayle Osborne

Five years after the Commonwealth Government listed Greater Gliders *Petauroides volans* as Vulnerable, the Threatened Species Scientific Committee is assessing its eligibility for listing as Endangered.

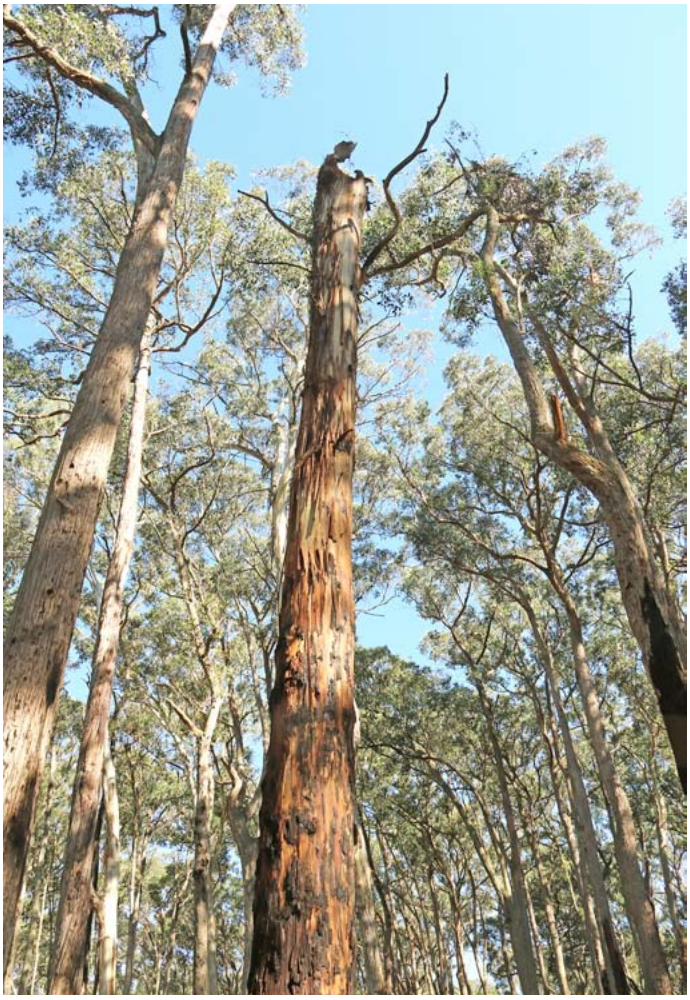
Since the initial listing in 2016, it is now recognised that *P. volans*, is now considered to be two separate species: *P. volans* (Greater Glider (southern)) in the south and *P. minor* (Greater Glider (northern)) in the north.

According to the Threatened Species Scientific Committee: "The main factors that make the species eligible for listing in the Endangered category are an overall rate of population decline exceeding 50 percent over a 22-year (three generation) period including population reduction and habitat destruction following the 2019–20 bushfires."[1]

In Victoria, since the listing of Greater Gliders in 2016, 4,917 hectares of Greater Glider habitat has been logged. The full impact of the 2019-20 bushfires on the Greater Glider has not yet been determined but the population has probably been greatly reduced. There is also evidence of population declines in some sites that were unaffected by the fires.

In the Wombat Forest, due to road and track closures, it has not been possible to fully assess the impacts of the wind events on glider habitat, however some areas such as the Loddon River Road have been massively damaged. Other areas appear to be reasonably intact.

The upper section of the tree on the ground showing the destroyed hollow. Prior to the burn a Greater Glider was spotlit at this location.



A tall hollow-bearing gum after a planned burn near Blakeville. Sparks had entered the hollow and created a fire resulting in the collapse of the upper section of the trunk.

The conservation advice lists inappropriate prescribed burning practices as a threat, noting "Consequence: severe" and "Trend: increasing". Large trees with hollows are lost in prescribed burns and post burn, and trees are removed for safety reasons along roads and tracks.

One of the research priorities in the conservation advice is to "Investigate the numbers and densities of mature hollow-bearing trees required for population viability."[2] Knowing whether the hollow-bearing tree density in the Wombat Forest can support a viable population could help establish whether our glider population would benefit from the installation of nest boxes. ■

Notes

1 & 2. Department of Agriculture, Water and the Environment 2021, *Conservation advice for Petauroides volans (Greater Glider (southern))*, Canberra.

Wombat Forestcare — research • education • action

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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