

Fire and Tree Hollows

Rod Bird
Hamilton, Victoria

The compilation of articles for the supplement to *Wingspan* (September 2005) on "Fire and Birds – fire management for biodiversity" was most impressive. However, there was little mention of the impact of current fire suppression tactics on hollow-bearing trees in our woodlands.

We have been concerned for some time over the impact that fire suppression activities have on birds and mammals that depend on hollows for shelter and breeding. Our concern was further elevated recently when CFA and DSE crews mopped up during and after a fire that started in the Fulham Reserve near Balmoral in February 2005. The fire burned through woodlands of Yellow Gum, Yellow Box, Callitris and heathland, including a substantial part of the Black Range State Park.

There are 3 main causes of losses of hollow-bearing trees resulting from wildfires:

- Many large, old trees catch fire, particularly where there is much debris at the base and where the tree is damaged from previous fires
- Bulldozers are used during a fire to push over large, old trees along the boundary of the fire – this is a routine strategy, intended to prevent sparks from blowing onto unburnt areas. Bulldozers are brought in now to control every large fire and no account is taken of biodiversity values of the trees that are pushed over, or other options considered.
- Chainsaws and bulldozers are used in the aftermath of a fire (the next day or many days later) to fall trees that have caught fire and are still alight or smouldering – this action is done for reasons of safety (where the tree is near a track) or to prevent a relight of the fire in subsequent days or weeks (where the tree is close to unburned country).

Fires in the first instance are regrettable if they result in significant trees burning down, although they can also initiate the development of new hollows. Where a woodland area is to be control-burned the damage can be much reduced if the debris beneath significant trees is raked away before the fire is lit. That approach has not been widely used although it is one that we ought to insist upon when fuel-reduction burns are proposed.

In the past 30 years the emphasis in fire-fighting has been on the rapid containment of fire to prevent economic loss to property – little emphasis seems to have been paid to tactics that protect environmental values. I recall well, after an arsonist lit a fire on New Years Eve in 1981 in the Mount Napier forest near Hamilton, that the major damage resulting from the fire was that of large Manna Gums that were subsequently cut down, ostensibly because they could have provided a source of cinders in later days. These trees were well inside the burned forest, posing no danger to distant farmland, but the local fire authority took the opportunity to use this fire as a training exercise for the fire crews. We noted that nothing had changed 25 years later, when a fire started in the Fulham Reserve near Balmoral. Bulldozers had laid waste to dozens of old, large, hollow-bearing trees in the reserve, both during the fire and after. This has severely added to the damage done by the fire, in that perhaps 20% of the significant large trees have been lost in one event. If that was to be repeated after every wildfire then it is clear that within 50 years there would be few such trees left to provide habitat for wildlife.

Hollows are critical for the survival of many bird and mammal species, including Powerful Owl and other species of owl, Red-tailed Black Cockatoo and other parrots, Brown Treecreepers, Yellow-bellied Gliders, Sugar Gliders, Brush-tailed Phascogales, Ring-tailed possums and other Possums. The loss of hollows is a loss of habitat.

The attached photograph shows the fate of one large Yellow Gum in the Black Range State Park. There are very few other trees there of that dimension and age. A fire had started in the upper part of this tree and someone decided to fall it during the mop-up operations, rather than

trying to extinguish the fire in the upper branches. The tree was 30 m clear of a track, all around had been burned, and the nearest patch of unburned, open farmland was 300 m distant – it should not have been a target. Note that this tree is solid almost to the core and would have lasted for perhaps another 300 years had it been left to stand.

There is currently a Review of the Code of Forest Practice on Fire Management of Public Land in Victoria. We have proposed that the DSE and CFA tighten up their protocols and also develop alternative ways of dealing with valuable habitat trees that have caught fire. One approach could be to use a "cherry-picker" in conjunction with a fire tanker to extinguish fires in such trees. Clearly, more thought has to be given to the protection of habitat values afforded by large, hollow-bearing trees because these take so long to develop.

Despite the current acceptance of the need to protect environmental values, we are not confident that any notice will be taken of our submission. It seems that bird observers and other environmentalists will need to keep a close watch on the policy and behaviour of fire managers and be prepared to protest when biodiversity values are needlessly squandered.

Photo – Lyn Munro and Penny Moon survey a large, hollow-bearing *Eucalyptus leucoxylon* that was needlessly cut down instead of having a fire near the crown extinguished.



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Postscript – a fire at Bryans Swamp on 30 November 2006 set fire to over 100 mature River Red Gums and these were saved from the bulldozer when the DSE fire manager from Horsham, Geoff Evans, took action to save as many as possible. This was acknowledged later as being an exceptional event for DSE and the CFA, since such trees were invariably felled. In this case the crews worked together to save the majority of the old trees. Hopefully that commendable action will be followed elsewhere in future.