

Before you prune, consider roosting bats!



What do I do if I find a bat while pruning?

1. If you notice microbats while pruning a tree – stop work immediately!
2. Avoid handling bats if possible, as they may carry the Australian Bat Lyssavirus, but if unavoidable use gloves to avoid being bitten. Put bats into a cloth bag or other secure container until help can be obtained.
3. If you find bats within a section of lopped branch or trunk, lower the section to the ground or lean it against another tree, and leave it for at least 24 hours, to give any uninjured bats the chance to escape.
4. Do not leave bats out in the open or exposed on the ground, as they are vulnerable to predators such as birds and cats.
5. If there are any bats that appear injured or do not fly away, contact a wildlife shelter for assistance (call 'Help for Wildlife' – 0417 380 687 or 'Wildlife Victoria' – 1300 094 535). The bats can be collected and assessed for injuries and then released that night.

Fun Fact!

How did biologists find out where bats roost in Melbourne? They attached tiny radio-transmitters to the bats and tracked them all over the city!!



Other examples of roost trees used by Gould's Wattled Bats in Melbourne



Loose bark on eucalypt trunk provided a roost site for an individual male bat.



A colony of females roosted in one of the crevices in the trunk.



A colony of bats used the spout on this tree underneath these noisy bells!

Photos: Caroline Wilson.

Australasian Bat Society



A freetail bat leaving a tree hollow used as a roost.
Photo: A Natural History of Australian Bats – Working the Night Shift

Dead trees and branches in our gardens, parks and bushlands can pose a risk to human safety – but they are also important roosts for bats.

Here's some advice on how we can protect people and property from falling limbs and still provide vital habitat for bats.

Why do bats need a roost?

- In Australia, most "microbats" (small, insect-eating bats) rely on shelters like tree hollows as a place to roost, where they can rest and find protection from predators and extreme daytime temperatures.
- Bats use roosts for shelter during the day, and also at night when they rest between feeding excursions. During the breeding season, female bats will group together in maternity roosts to raise their young.
- Many bats like to use a number of roost sites, moving between them on a regular basis, so it's important to have many suitable roost trees for bats to use.

Why is it important to keep tree hollows for bat roosting sites?

- Hollows in dead trees and/or branches are perfect roosting sites for bats, but it can take over 100 years for hollows to form.
- The number of hollow-bearing trees is declining across Australia, in forests, bushland and in cities, as more and more large old live and dead trees are being removed.
- As the number of roost sites decrease, bat populations are likely to decline. Without adequate numbers of roost sites for shelter, bats may be more vulnerable to predators and less able to successfully rear their young.
- Information on where bats roost is important for understanding the impact of disturbance on bat populations and to provide a focus to conservation efforts for bat species.
- Hollow-bearing trees are an important part of our ecosystem. They are also used by other animals such as possums, gliders, birds and insects.



When this tree was pruned the branches were lopped on an angle to avoid filling with water. Photo: Caroline Wilson.

Did you know there are bats all over Melbourne, even in the city centre!

Bats are widespread across the city and suburbs. Good places for them include city parks and bushland reserves.

City parks

Bats are common in European-style parklands close to the city centre (e.g. Melbourne's Royal Botanic Gardens, Fitzroy Gardens and Fawkner Park). In the city parks, bats (particularly groups of breeding females) mainly roost in the dead fronds of cabbage tree palms and within crevices of Californian cypress pines. Palms and pines are most likely used by bats because native gum trees are no longer common in the city's parklands.

In Melbourne, Gould's Wattled Bats (*Chalinolobus gouldii*) often roost under the dead fronds on cabbage tree palms. The arrow indicates the roost entrance point.
Photo: Caroline Wilson



Bushland reserves

Bats are also common in bushland reserves in the south-eastern suburbs of Melbourne (e.g. Blackburn Lake). In these reserves, bats prefer to roost in hollows, mostly in dead trees. Groups of breeding females are often found within the trunks and branches of these trees, while males find shelter under the shedding bark. Even small dead trees (as little as 15 cm in diameter) can be used by our urban bats!

Typical bat roost in a dead tree in Melbourne. The arrow indicates the entrance to the roost.
Photo: Caroline Wilson



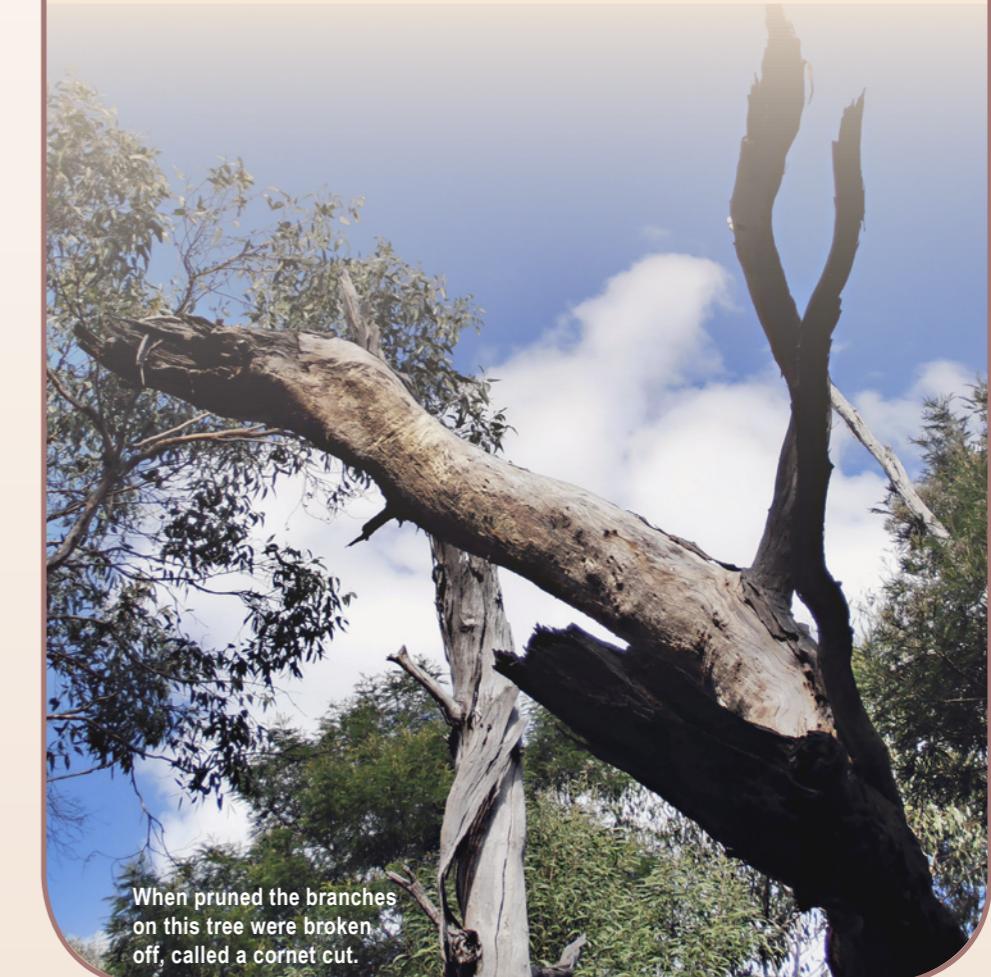
Guidelines for pruning trees

- Where dead branches or trees pose a risk to human safety, they may need to be pruned or completely removed. However, there are alternatives to removing branches or trees, and ways to prune potential roost trees effectively so that they still provide some habitat for microbats and other animals.
- If a dead tree is not close to a building, walking track, or a place where people frequent, pruning may be unnecessary and consideration should be given to protect the tree. Signage could be used to provide information about the significance of these trees and their importance to microbats and other native animals.
- Where appropriate, fence off dead trees to keep people from venturing under their branches. If there are a number of dead trees along a path, limit access to the area by re-directing the path.
- If a dead tree is on a path edge where it might pose a public safety risk, only prune the side of the tree facing the path. This will remove hazardous branches that may fall onto walking tracks, and the weight of the remaining branches will encourage the tree, if it collapses, to fall away from the path.
- Avoid pruning trees when female bats may be using the hollow as a maternity roost (November – January), because large groups of females and their dependent young (potentially hundreds of bats) may be killed when the branch or tree is felled.
- The fronds of cabbage tree palms (common bat roosts in our city parks) are often pruned so that trees appear tidier and dead fronds are not shed onto walking paths. When pruning palms, remove just the outer dead fronds from cabbage tree palms, or only remove fronds that are overhanging pedestrian walkways. As an alternative to removing dead fronds, signage could be used to inform the public about falling dead fronds and resultant debris on walking tracks.

Tips for pruning branches!

- DO leave as much of the branch as feasible while still considering public safety, and only remove branches that are considered unstable or prone to failure.
- DO check for any hollows on the branch, and cut the branch well above any hollow you find.
- DON'T remove the entire branch at its base, because leaving a stump may provide a hollow that bats and other species can use.
- DO cut branches on an angle so that any remaining hollows don't fill with water when it rains.
- DO try coronet cuts instead of traditional chainsaw cuts which result in an unnatural flat-plane surface. Coronet cuts are designed to mimic natural branch breakage, and provide more opportunities for micro-organisms to colonise and aid hollow development. Branches can be partially cut and then left to fall naturally, or where tree limbs are removed, a chainsaw can be used to carve a range of shapes which imitate natural fractures.

For more information on this technique, see the Arboricultural Information Exchange (<http://www.aie.org.uk/vault/nfp.htm>).



When pruned the branches on this tree were broken off, called a coronet cut.

Photo: Caroline Wilson