



## Terrific trees

### High rise living

A range of native animals use tree hollows. These include gliders, possums, ducks, owls, parrots, kestrels, falcons, kingfishers, frogs, reptiles, echidnas and bats. Even fish use hollow logs in streams for shelter and egg laying.

### Hollows

In Victoria, 75 species of wildlife depend on tree hollows to survive. In total 143 species are known to use hollows. A hollow large enough for a cockatoo or owl to nest in can take more than 200 years to form.

### How does water reach the leaves of a tall tree?

The tree has specialised tissue called xylem which acts like a straw carrying water in a column from the roots to the leaves. Even when the canopy is 40 metres in the air!

### Gentle giants

Australia is home to the tallest flowering plant in the world. *Eucalyptus regnans* known as the mountain ash can grow to more than 100 metres tall and live for over 300 years. Mountain ash forests, found in cool, mountainous areas, store the greatest amount of carbon of any forest type. A mature forest can hold more than 2,000 tonnes of carbon per hectare.

### Carbon storage

100,000 native trees could offset 15,000 tonnes of carbon emissions which is equal to taking 5,000 cars off the road.

### Caps off

Eucalypts have a unique flower which is enclosed by a cap called an operculum which covers the flower when in bud. The force of the hundreds of stamens beneath the cap pop it off as the flower blossoms!

### Microbats see with their ears

Microbats use sonar echolocation to navigate and find food in the dark. They emit high pitched sounds and listen to the echoes produced when sound waves bounce off solid objects in their path. These high-pitched sounds are often inaudible to the human ear.

### Hard leafed

The leaves of eucalypt trees are suited to a hot dry climate. They are thick, leathery and tough due to lignin and do not easily wilt. This enables them to survive hot and dry conditions. The leaves also tend to hang vertically on the tree to help reduce exposure to the sun's heat and to reduce water loss.

### Microbats

A microbat can eat about 600 insects in one hour and mosquitoes are one of their favourite foods. Microbats play an important role in keeping insects under control.

### Urban heat island effect

In urban areas the air temperature is warmer than surrounding rural areas because of the activities of humans and this is known as the heat island effect. Buildings, roads, cars and machines produce heat in cities. Trees in urban areas can help to lower temperatures as much as 4°C on a hot day.



Courtesy: Natureshare.org

### Citizen science

You can be a 'citizen scientist' and record trees you see at <https://inaturalist.ala.org.au/>. You can do this from your own back yard with your family members, or at school with your teacher or other students.

