



## BREAKING DOWN MYTHS ABOUT MISTLETOE

### What is Mistletoe?

Mistletoe is a semi-parasitic plant that grows on a host tree or shrub. The Mistletoe gets its water and nutrients from the host plant but produces its own energy through photosynthesis.

They are generally found in dense clumps in the crown of the host tree.

A feature of Mistletoes is their long flowering and fruiting season. Due to Mistletoes tapping their roots into their host, they can continue to flower and produce fruit even in dry times, making them a dependable food/nectar resource for fauna when little else is available. Mistletoes provide excellent habitat for many animals especially birds, possums and gliders. Animals and insects using Mistletoes as a resource are often important pollinators and pest controllers across the broader landscape.

Mistletoes mostly rely on birds (some use insects) for pollination and seed dispersal. The Mistletoebird (*Dicaeum hirundinaceum*) is one of the main seed dispersers, found in the Hunter region.

To break down myths about Mistletoe we've highlighted a few myths and facts for you. Read on!

### MYTH: Mistletoe is only found in Europe

**FACT:** Mistletoes grow worldwide across different habitats and all continents except Antarctica. There are over 1500 species with approximately 90 being found in Australia.



A dead Mistletoe clump in a tree. Mistletoes are fire sensitive and do not resprout after fire. (Photo credit: Kristy Peters)

### Mistletoe Trivia

- 1 Which Australian State or Territory has no native Mistletoe species?
- 2 How many Mistletoe species are found in Australia?
- 3 Which Australian Mistletoe species is the largest in the world?
- 4 Are all the Mistletoe species occurring in Australia native or introduced?

(see last page for Answers)



A male Mistletoebird eating Mistletoe fruit. (Photo credit: Chris Tzaros)



## MYTH: Mistletoe kills trees

**FACT:** In general, Mistletoe does not kill its host tree as it needs the host alive for its own survival. The host tree can sometimes defend itself by dropping the infested branch.

Often trees die as a result of multiple factors, and not only from Mistletoe infestations. Tree health can deteriorate due to :

- changed soil nutrient levels from: fertiliser application
- soil compaction eg: stock camps under trees
- changed soil water and fire regimes
- Phytophthora Dieback disease
- increasing salinity
- soil erosion.

In remnant native bush areas, Mistletoes are rarely seen in heavy infestations. Mistletoe may be more noticeable in open and altered agricultural landscapes due to the low numbers or absence of native predators such as possums/glider/insects that keep the Mistletoe in check.

## MYTH: Mistletoe should be removed from trees

**FACT:** In general, Mistletoe should be left to grow in their host trees.

The host plant will usually remain in a healthy condition despite having a few Mistletoes attached to it. Keeping Mistletoe provides many habitat benefits for local native wildlife:

- They provide animals with food, shelter and nutrient-rich leaf litter.
- They boost wildlife population numbers in agricultural landscapes especially insect eating birds.
- 33 Australian bird species have been recorded feeding on Mistletoe fruit and 41 species on Mistletoe flowers.
- 245 bird species have been recorded nesting in Mistletoe clumps.
- Mistletoes succulent leaves provide valuable nutrients to a wide variety of invertebrates such as beetles, spiders, caterpillars, moths and butterflies including the critically endangered Regent Honeyeater (*Anthochaera phrygia*) which also feeds on the nectar.
- The leaves are also a favourite food for possums and gliders.
- Mistletoes have a high-water content making them weighty, resulting in host tree branches falling after storms.



*Large paddock trees laden with Box Mistletoe. (Photo credit: Chris Tzaros)*

This can assist development of hollows which, along with the fallen branches, become valuable habitat for native animals, such as microbats who are excellent insect controllers.

- Densely branched clumps of Mistletoes can offer a cool respite during the heat of the day for many animal species.

**Mistletoes provide broad-scale habitat and ecosystem services in a landscape and should be retained for both environmental and agricultural benefits.**



*The Vulnerable Painted Honeyeater's diet is composed mainly of Mistletoe fruit. (Photo credit: Chris Tzaros)*



*A Regent Honeyeater sitting on its nest within a Mistletoe clump. (Photo credit: Andrew Zoneff)*



## TRUTH: Mistletoe benefits agricultural landscapes

**FACT:** Mistletoe should be considered a sign of a diverse, healthy and resilient ecosystem which supports a broad range of ecosystem services as mentioned above.

- Mistletoes can encourage insect eating birds to move into your area, giving you some natural pest control.
- Mistletoes provide excellent habitat for many animals especially birds, possums and gliders, that are important pollinators and pest controllers.
- They provide extra dense shade and shelter, in the host tree's canopy for stock.

## TRUTH: Traditional owners used Mistletoe as a bush food

**FACT:** Mistletoe is familiar to Indigenous people throughout mainland Australia. It is known that Mistletoe was used as a source of food and for medicinal purposes. The sweet sticky fruits were eaten as an occasional snack (especially by children as a treat called 'snotty gobble'). The fruit was also steeped in water to make a sweet drink.

The sticky fruits and, in some areas, the leaves were used to treat illnesses such as colds and external sores. In some groups, Mistletoe was specifically used to ease menstrual cramps and referred to as 'women's medicine'.

## COMMON MISTLETOE SPECIES OF THE HUNTER REGION



### Needle-leaf Mistletoe (*Amyema cambagei*)

Left: Almost exclusively parasitic on species of Casuarina. The leaves closely resemble Casuarina needles making them hard to distinguish except when in flower. (Photo credit: Dean Ingwersen)

Right: Plant in River Sheoak



### Box Mistletoe (*Amyema miquelii*)

Left: Most widespread Australian Mistletoe. Foliage is green but can take on a bronze or yellow look. Widespread throughout the Hunter Valley in open Eucalypt forests and woodlands. Recorded on 110 Eucalypt species and occasionally on Acacia species. (Photo credit: Carol Proberts)

Right: Box Mistletoe on Grey Box (Photo credit: Chris Tzaros)





## Grey Mistletoe (*Amyema quandang*)

Left: Parasitic on Grey Box trees and many species of Acacia. Widespread distribution especially in inland NSW. (Photo credit: Mick Roderick)

Right: Grey Mistletoe on host near the Merriwa River. (Photo credit: Mick Roderick)



## Long-flowered Mistletoe (*Dendrophthoe vitellina*)

Left: Main hosts are Angophora, Callistemon, Eucalyptus, Macadamia and Melaleuca species. Flowers are usually orange, but can be yellow, and northern populations can have bright red flowers. Usually found in the Lower Hunter Valley and North Coast regions. (Photo credit: Mick Roderick)

Right: Long-flowered Mistletoe whole plant (Photo Credit: Mick Roderick)

## More information

**Books:** Watson D.M. (2019) *Mistletoes of Southern Australia* 2nd Ed. CSIRO Publishing.

**Websites:**

Australian National Herbarium  
<https://www.anbg.gov.au/mistletoe/>

**Contact: Your Local Land Services Office**

**1300 795 299**

[www.lls.nsw.gov.au/i-want-to/contact-my-local-office](http://www.lls.nsw.gov.au/i-want-to/contact-my-local-office)

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## Trivia Answers

1. Tasmania. 2. 97. 3. Western Australian Christmas Tree (*Nuytsia floribunda*). Grows up to 10 m in height. 4. Native.



Local Land Services



National Landcare Program

