Wellington Conservancy
June 2001

Mistletoes in Wellington

What are mistletoes?

Mistletoes are semi-parasitic plants. They have leaves or stems for photosynthesis but also obtain water and nutrients from a host (a tree or shrub). There are nine species native to New Zealand. Three species occur mainly in beech forest, the red mistletoe (*Peraxilla tetrapetala*), the scarlet mistletoe (*P. colensoi*), and the yellow mistletoe (*Alepis flavida*). The small-flowered mistletoe (*Ileostylus micranthus*), the white mistletoe (*Tupeia antarctica*) and the three dwarf or leafless mistletoes (*Korthalsella salicornioides, K. lindsayi* and *K. clavata*) all occur in lowland forest and scrub. One species (*Trilepedia adamsii* or Adams's mistletoe) is presumed extinct and is the only native mistletoe never to have been recorded in Wellington. One exotic mistletoe (*Viscum album*), a native of Europe, was once recorded from the Wairarapa but has not been seen for many years.

Left: Red mistletoe, *Peraxilla tetrapetala.*
Right: Yellow mistletoe, *Alepis flavida.*
Photos: John Smith-Dodsworth.

Where do mistletoes occur?

Small-flowered mistletoe occurs throughout New Zealand and is the most abundant species in Wellington. White mistletoe is also found throughout New Zealand, but is rare in Wellington. Locally, both these species grow on a range of native and exotic trees and shrubs, often in regenerating shrubland or in areas with high light levels such as forest edges and road margins. In Wellington, small-flowered mistletoe occurs mainly on totara and *Coprosma propinqua*, but it is also found on several other native and exotic host species. White mistletoe grows on host trees such as lemonwood and white maire. Populations are scattered, with each population consisting of only a small number of plants.

The three beech mistletoes are found throughout New Zealand. They are known for their masses of red or yellow-orange flowers in summer. They have been found in small numbers in the Tararua and Rimutaka ranges, although yellow mistletoe is now thought to be extinct in the Wellington region. In the past, red and yellow mistletoe have also been recorded from the eastern Wairarapa beech forests.

The two dwarf mistletoes *Korthalsella salicornioides* and *K. lindsayi* are most common in the Wairarapa although were once far more widespread. *K. clavata* has only recently been discovered in the region at Turakirae and east of Lake Wairarapa. Adams's mistletoe was once found in Auckland on Great Barrier, Waiheke Island and the Hunua Ranges, but is now thought to be extinct.

Left: Small-flowered mistletoe, *Ileostylus micranthus.*
Photo: Aalbert Rebergen.
Right: White mistletoe, *Tupeia antarctica.*
Photo: John Smith-Dodsworth.

Department of Conservation
Te Papa Atawhai

Why are we concerned about mistletoes?

New Zealand mistletoe species are not common, and many are in decline. The decline has been most drastic since the early 1900s, mainly due to possum browse, loss of habitat through vegetation clearance, and decline in the range and abundance of native bird species that pollinate mistletoes and disperse their seed. If this decline continues, more local populations may disappear and, in the long term, species could go extinct nation-wide.

Right: Scarlet mistletoe, *Peraxilla colensoi.* Photo: John Smith-Dodsworth.

Mistletoe conservation

The Department of Conservation has undertaken surveys to determine the status of all mistletoe species in the region. Host trees supporting red, scarlet and white mistletoes have been banded to protect them from browsing possums. On the mainland, possum control is undertaken to allow the mistletoes to flower and fruit. White mistletoe and *Korthalsella salicornioides* grow on possum-free Kapiti Island. Physical and legal protection of land has been undertaken at some key mistletoe sites.

Experiments have been undertaken to translocate mistletoes to new sites. This has involved "planting" mistletoe seed on potential hosts. This has been done successfully with red mistletoe and small-flowered mistletoe and may prove to be one way of ensuring mistletoe survival.

The Department of Conservation has recently prepared a national recovery plan to co-ordinate conservation effort and to ensure the long-term survival of mistletoes throughout New Zealand.

Leafless mistletoe, *Korthalsella salicornioides*. Photo: Andrew Townsend.

How you can help

If you have mistletoe plants on your property the following actions will help to sustain and enhance current populations:

- Take care not to remove mistletoe plants or their host trees or habitats during vegetation clearance/trimming.
- Wrap aluminium bands around host tree trunks to prevent possums climbing trees and browsing on plants.
- Control possums and other pest species to allow mistletoe survival. The added benefit of sustained possum, rat and mustelid control is the increase in native bird populations, crucial for dispersal of mistletoe fruit.
- Do not pick mistletoes as they can take many years to replace lost branches.
- Report sightings of mistletoes to your nearest Department of Conservation office. While all can be found throughout the year, beech mistletoes tend to be more visible during summer (December–January) when they are flowering.

The information contained in this factsheet has been taken from "*Mistletoes in Wellington Conservancy: Current status and management requirements*" by John Sawyer & Aalbert Rebergen published in 2001 by the Department of Conservation.

Further information

For further information about mistletoes please contact:
Wellington Conservancy
Department of Conservation
P.O. Box 5086
Wellington
Phone (04) 472 5821

Right: Leafless mistletoe, *Korthalsella lindsayi.* Photo: Andrew Townsend.