



1. Habit of a cultivated plant. 2. Purple leaf underside. 3. Paired leaves with prominent veins. 4. Branched clusters of white flowers.



Miconia (*Miconia calvescens*)

Introduced

Class I

Miconia is a member of the Melastomataceae plant family that is native to parts of Central America and tropical South America. It has been cultivated in many other parts of the world due to its attractive foliage, but it has become extremely invasive in rainforests on several Pacific islands.

Distribution

Miconia has been recorded at a several locations in coastal northern Queensland (e.g. in the Cairns, Mission Beach, Innisfail, Tully, Babinda, Mossman and Kuranda areas). It has recently been recorded in far northern NSW, including at Tomewin on the border with south-east Queensland. This species is also naturalised in Sri Lanka, Melanesia, French Polynesia, New Caledonia and Hawaii.

Description

A small tree usually growing 4-10 m tall, but occasionally reaching up to 15 m in height. The younger stems are greenish in colour and bear leaves arranged in pairs. These very large leaves (usually 20-60 cm long and 7-25 cm wide, but sometimes reaching up to 1 m long) are borne on stalks 2-6 cm long. They have green upper surfaces and distinctive purplish coloured undersides. The leaves are somewhat oval in shape with pointed tips and entire or finely toothed margins. They also have three distinct veins that run almost parallel from the base to the tip of the leaf.

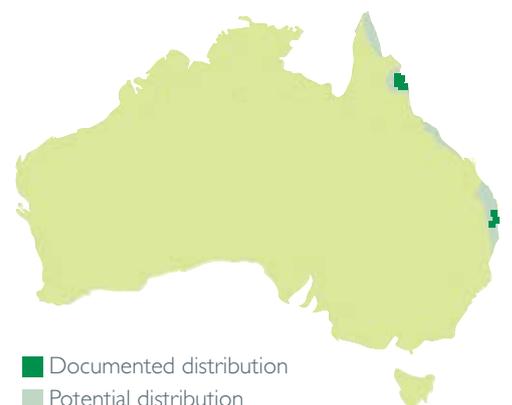
The small flowers are borne in large branched clusters (20-50 cm long) at the tips of the stems. These flowers (about 5 mm across) are short-lived and borne directly on the branches of the flower clusters. They have five tiny sepals (1-3 mm long) and five white or pinkish coloured petals (2-3 mm long). Small fleshy berries (about 6-7 mm across) are produced in clusters containing up to 500 fruit. These berries turn from green to reddish and then black or purplish in colour as they mature. Each of these small fruit contains around 150-200 tiny seeds.

Quick Facts

- > A small tree usually growing 4-10 m tall.
- > Very large leaves (usually 60-70 cm long) with bright purple undersides
- > Small white flowers borne in large clusters at the tips of the branches.
- > Small fleshy fruit that turn black or purplish when mature.

Habitat

Miconia is a potential weed of tropical and sub-tropical rainforests. It also invades other closed forests, forest margins, roadsides and riparian vegetation in higher rainfall areas.





1. Infestation in Tahiti. 2. Cluster of fruit at various stages of maturity.

Reproduction and Dispersal

Miconia produces vast quantities of seeds which are primarily dispersed by fruit-eating birds. The seeds can also be spread by other animals (e.g. small mammals), by water, and in mud on shoes and vehicles. Vegetative reproduction via layering and re-sprouting sometimes also occurs.

Why is it an Emerging Threat?

Miconia has had a devastating impact on the ecology of several Pacific islands, including Tahiti and Hawaii, where it is considered to be the most highly invasive and damaging of introduced plant species. It eventually forms dense thickets that displace native species and block sunlight from reaching the forest floor. In addition, the superficial root system of Miconia is believed to contribute to landslides.

Control Methods

Miconia plants less than three metres tall can be removed by hand, but larger plants cannot usually be removed in this fashion. In Tahiti and Hawaii, larger trees are usually cut down and their stumps are treated with herbicide (either triclopyr or glyphosate), so they will not resprout. Aerial spraying from helicopters has also been used in Hawaii to control infestations in remote and difficult terrain using the ester formulation of triclopyr.

There are no herbicides currently registered in Australia for the control of Miconia, but some chemical products can be used on off-label permits in Queensland and NSW. Larger trees have been successfully treated with cut stump and frilling methods. However, with larger infestations, removal of adult trees often results in a massive germination from the soil seed bank. Due to its potential impacts in rainforest areas, Miconia has been declared under state legislation in Queensland and NSW. A national eradication program was also commenced in Australia in 2001. For this reason it is important to report any potential sightings. In Queensland, all suspected infestations of any Miconia species should be reported to Biosecurity Queensland, who will develop a site-specific eradication program with the relevant landholder. In NSW, if you find something that may be Miconia, please contact your Council Weeds Officer or NSW Agriculture immediately.

Look a-likes

Miconia calvescens is similar to three other introduced *Miconia* species that have also recently become naturalised in northern Queensland (i.e. *Miconia nervosa*, *Miconia racemosa* and *Miconia cionotricha*). However, it can be readily distinguished by its very large leaves with bright purple undersides.



Top. The green leaves of *Miconia racemosa*

Bottom. The smaller hairy leaves of *Miconia nervosa*

The control methods referred to in Weed Watch™ should be used in accordance with the restrictions (federal and state legislation and local government laws) directly or indirectly related to each control method. These restrictions may prevent the utilisation of one or more of the methods referred to, depending on individual circumstances. While every care is taken to ensure the accuracy of this information, Technigro does not invite reliance upon it, nor accept responsibility for any loss or damage caused by actions based on it.

This information has been developed with the assistance of Dr Sheldon Navie. Photographs are also courtesy of Dr Sheldon Navie, Queensland Department of Agriculture, Fisheries and Forestry and Jean-Yves Meyer. © Technigro Australia Pty Ltd 2013