



1. Infestation at Pinjarra Hills 2. Close-up of leaves with finely toothed margins. 3. Smooth grey bark and upright branches. 4. Growing in a recently flooded creek.



Pencil Willow (*Salix humboldtiana* 'Pyramidalis')

Introduced

Class 3

Pencil willow is a tall and slender tree that is cultivated as an ornamental or screening plant. It has recently become naturalised along waterways in the sub-tropical and warmer temperate regions of Australia. *Salix humboldtiana* is native to southern Mexico and Central and South America. The form known as Pencil willow (i.e. *Salix humboldtiana* 'Pyramidalis') is a cultivar of this species developed in horticulture.

Distribution

Pencil willow is widely grown as an ornamental tree in Australia, and is often planted as a screen along fence lines and driveways. It has only been recorded as becoming naturalised on a handful of occasions (e.g. in coastal central Queensland and along coastal NSW). Specimens of this plant are rarely collected because it grows in difficult to reach sites (i.e. in the middle of waterways) and it very seldom flowers. Hence its actual distribution is probably greatly under-estimated by herbarium records. For example, even though there are no specimens from south-eastern Queensland, it has been sighted numerous times in this region in recent years (e.g. on the Gold Coast and in the Brisbane suburbs of Stafford, Fig Tree Pocket, Toowong, Redbank, Bardon, Everton Hills, Mitchelton and Pinjarra Hills).

Description

This tall and slender tree grows up to 15 m high. Its main trunk is usually smooth and greyish in colour, while its slender branches are very upright. Younger branches and twigs are flexible and crack easily. They are yellowish-green or reddish-green when young, often becoming bronze-coloured as they age.

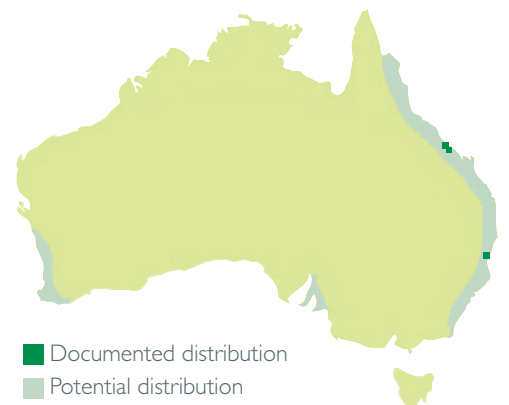
The long and narrow leaves (9-15 cm long and 6-10 mm wide) are alternately arranged along the stems and borne on short stalks. They are mostly hairless with finely toothed margins and pointed tips. Their upper surfaces are bright green, while their undersides are usually paler green in colour. Only male flowers are known to be produced in Australia, and flowering rarely occurs in the form that is cultivated and naturalised here. When present, these tiny flowers are produced in elongated clusters (3-10 cm long and 6-10 mm wide) called catkins.

Quick Facts

- > Tall and slender tree usually with very upright branches
- > Smooth grey bark and narrow leaves with finely toothed margins
- > Usually growing in smaller waterways
- > Twigs snap off easily during floods and spread downstream

Habitat

Like other willows, Pencil willow usually becomes naturalised in wet situations. It is primarily found growing along waterways, but may occasionally also invade marshes, wetlands, and the margins of water bodies (e.g. lakes, dams and ponds).





1. Branch with narrow leaves. 2. Cultivated as a screen.

Reproduction and Dispersal

This species only reproduces vegetatively in Australia as female plants are not present here. However, its pollen can fertilise the female flowers of other willow species leading to the production of hybrids. Pencil willow often grows in waterways and its flexible twigs crack easily, often resulting in spread downstream during floods.

Why is it an Emerging Threat?

Willows are significant environmental weeds in Australia and are regarded as a "Weed of National Significance". They have invaded riverbanks and wetlands in temperate Australia, occupying thousands of kilometres of streams and replacing native riparian vegetation. Due to its ability to adapt to growing in warmer climates, Pencil willow has the potential to cause similar problems in the warmer temperate and sub-tropical regions of Australia.

Control Methods

Small or immature specimens can usually be removed manually, especially in soft and moist soil conditions, however care must be taken to ensure none of the root system is left behind. All fertile plant material should be bagged and disposed of properly (i.e. not into green waste).

The use of herbicides for the control of Pencil willow and other *Salix* species is well documented and many application methods can be utilised. Foliar application is usually restricted to small specimens due to the fact that Pencil willows are often located adjacent to waterways and the potential for contamination is often high. Due to this risk, foliar application is generally best restricted to formulations of Glyphosate with registration for use in aquatic environments.

For other methods of application such as cut and paint, basal barking and stem injection, Pencil willow is susceptible to a range of herbicides including Glyphosate, Picloram, Triclopyr and Dicamba. Some formulations of these products such as Picloram gel are registered for the control of Willow species, however it is recommended that prior to use, all operators consult individual product labels for details regarding registration and application methods permitted within their state. In Queensland, the previously mentioned range of herbicides can be used to control environmental weeds such as Pencil willow via the APVMA off-label permit no. 11463 (<http://permits.apvma.gov.au/PER11463.PDF>).

Look a-likes

Numerous other willows are present in Australia, and many of these have similar leaves and flower clusters. However, the distinctive column-shaped habit of Pencil willow means that it is rarely confused with other willows, such as Weeping willow (*Salix babylonica*).



Top. Rough bark on trunk
Bottom. Habit of weeping willow

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 Navie. © Technigro Australia Pty Ltd 2010

Your Provider of Vegetation Management Solutions

Brisbane: 3, 128 South Pine Road, Brendale, QLD. 4550

Gold Coast: 2-10 Rudman Parade, Andrews, QLD. 4220

Post: PO Box 2038, Burleigh BC, QLD, 4220

T: 1800 678 611 www.technigro.com.au