



1. Habit with spreading flower stems. 2. Leaves with prominent veins running lengthwise. 3. Close-up of white flowers. 4. Dense infestation in the paperbark swamp at Mackenzie.



## Creeping burrhead (*Echinodorus cordifolius*)

Introduced

Not Declared

Creeping burrhead is a long-lived aquatic plant that grows on lake margins, along waterways and in other damp sites. This native of the USA, Mexico, the Caribbean and South America is sometimes also known as Radican's sword. It is occasionally cultivated in other regions of the world as an aquarium or ornamental pond plant.

### Distribution

In recent years, this species has become naturalised in a few waterways in the Brisbane and Gold Coast areas in south-eastern Queensland. The first confirmed record was in March 2004, from a drainage line in Lawnton in the northern suburbs of Brisbane. Creeping burrhead has since been recorded along Breakfast Creek in Newmarket and in Coombabah Lake Conservation Park (about 3 km from Helensvale). In February 2010, an infestation covering an area of 6m<sup>2</sup> was reported in a creek in the Brisbane suburb of Mackenzie. This infestation has since grown to cover at least several hundred square metres and is growing into the understorey of a melaleuca swamp and creek on both side of Mount Petrie Road, demonstrating the invasive potential of this plant.

### Description

This long-lived water plant forms clumps of upright leaves that emerge up to 1m above the water surface. These clumps are usually connected to each other by spreading underwater stems that are rooted to the soil or creek bottom. The leaves are borne on very long stalks (17.5-45cm long) that are ridged. They are somewhat spade-shaped or narrowly oval (6.5-30 cm long and 2.5-20cm wide) with entire margins and 3-5 distinct veins running lengthwise.

The very long flowering stems (up to 1.5m long) are arching in nature or spread outwards across the water surface. There are several clusters of 3-15 flowers arranged at widely separated intervals along each of these slender stems. The white flowers are about 25mm across when fully open and are borne on long stalks (2-7.5cm long). Each flower has three small greenish sepals and three broad white petals. They also have about 20 small yellow stamens in the centre. Several small fruit (2-3.5mm long) are produced by each flower. These fruit are 3-4 ribbed and have a short beak at the tip. Flowering usually occurs during late summer and early autumn.

### Quick Facts

- > A spreading aquatic plant growing up to 1m tall.
- > Usually grows along waterways and in other damp sites.
- > Leaves have prominent parallel veins and are borne on long stalks
- > Arching or spreading stems bearing clusters of white flowers at intervals.

### Habitat

Creeping burrhead forms large and dense clumps along waterways, around the edges of lakes, in swamps and marshes, and in ponds. It also commonly grows along drainage ditches and in other damp sites.





1. Clumps of emerging leaves. 2. A cultivated form with variegated leaves known as *Echinodorus cordifolius* 'Marble Queen'

## Reproduction and Dispersal

Clumps or segments of the underwater stems can separate from each other and form new colonies after being spread downstream during floods. However, plants are most often spread by the deliberate dumping of unwanted plants into waterways.

## Why is it an Emerging Threat?

This plant is often grown as an ornamental in garden ponds, aquariums and water features in the tropical and sub-tropical parts of Australia. However, in recent years it has started to become established along creeks and other water bodies in south-eastern Queensland. It quickly spreads via its creeping underwater stems and forms dense clumps that out-compete native species.

## Control Methods

Prevent further spread of the weed to other areas of the water body by avoiding fragmentation of stem and root material which usually results from the use of mechanical harvesters or similar equipment. Individual specimens or small infestations can be removed manually taking care to ensure that no stem and root material remains floating or attached to the substrate. Once collected, all plant material should be removed from the site and disposed of in a sanitary manner.

In the case of larger infestations or where access is more difficult, the use of herbicides to control infestations may be required. While there are no herbicides currently registered for the control of Creeping burrhead within Australia, research shows that this species is susceptible to a range of herbicides although government regulations prohibit the use of many of these products. Spot spraying or wiping of foliage with glyphosate is one available option. Within Queensland, the use of aquatically registered formulations of Glyphosate 360 is permitted for the spot spraying of environmental weeds such as *Echinodorus cordifolius* in non-crop situations via off-label permit 11463 (<http://permits.apvma.gov.au/PERI1463.PDF>). Before applying this method of control within other state boundaries, it is recommended that all operators consult any relevant permits or government legislation.

## Look a-likes

Creeping burrhead is very similar to *Sagittaria* (*Sagittaria platyphylla*), another introduced water weed. However, *Sagittaria* leaves only have a single prominent central vein. It also has relatively thick upright flowering stems with flowers always arranged in threes.



Top. *Sagittaria* flowers.

Bottom. Habit of *Sagittaria*.

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.

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