

# *Myriophyllum integrifolium*



Image by Timothy Leaman

**FAMILY:** HALORAGACEAE

**BOTANICAL NAME:** *Myriophyllum integrifolium* (Hook.f.) Hook.f., *Bot. Antarct. Voy. III. (Fl. Tasman.)* 1: 123 (1856)

**COMMON NAME:** Tiny watermilfoil

**COMMONWEALTH STATUS (EPBC Act):**  
Not Listed

**TASMANIAN STATUS (TSP Act):** vulnerable

## Description

*Myriophyllum integrifolium* is a diminutive annual herb in the raspwort family. Its stems are erect or procumbent, 2 to 5 cm long, branched, and rooting only at the base. The leaves are arranged alternately along the stem; they are linear to terete, 1.5 to 7 mm long with entire margins. Plants are monoecious, flowers occurring singly in the leaf axils: the upper flowers are male, with four reddish petals 0.4 to 0.5 mm long, no sepals and 2 to 4 stamens; the lower flowers are female, each with four carpels and short stigmas (and no petals or sepals). Fruitlets four, ovoid-oblong, 0.6 to 1 mm long, smooth; each fruitlet has a single seed. (Description from Curtis & Morris 1975, Walsh & Entwisle 1996). Flowers may appear from August to January, the timing depending on seasonal conditions. **Confusing species:** *Myriophyllum glomeratum* is similar in leaf arrangement, morphology and habit, but its flowers occur in clusters rather than singly, and its fruit are cylindrical with an oblique collar; it has been recorded at only one site in Tasmania and is listed as presumed extinct.

## Distribution and Habitat

On mainland Australia *Myriophyllum integrifolium* occurs in South Australia and Victoria (Walsh & Entwisle 1996). In Tasmania the species occurs mostly in the Northern Midlands, with isolated populations in the State's north, northeast and south. It grows at the margins of wetlands and in seasonally wet places, including depressions associated with gilgai features. Typical associates in the Northern Midlands may include the following rare flora: *Aphelia gracilis*, *Isoetes drummondii* subsp. *drummondii*, *Schoenus latelaminatus*, *Stylidium despectum* and *Trithuria submersa*.

## **Key Sites and Populations**

Epping Forest, Powranna, Smiths Lagoon, Effingham, Waterhouse.

## **Known Reserves**

Powranna Nature Reserve, Tom Gibson Nature Reserve, Trevallyn Nature Recreation Area and Waterhouse Conservation Area. Several subpopulations in the Northern Midlands occur on private land covered by conservation covenants under the Tasmanian *Nature Conservation Act 2002*.

## **Ecology and Management**

As an annual species, numbers may fluctuate considerably from year to year depending on conditions pre- and post-germination. Survival through unfavourable periods will depend upon the presence and persistence of a soil seed-bank; its fruit does not have obvious dispersal aids, so any movement will generally be associated with water flow and/or animals. The species' ephemeral nature means that the risk of inadvertent habitat destruction is high, as environmental impact assessments may not be conducted at optimal times for detection.

Significant areas of habitat for *Myriophyllum integrifolium* in Tasmania's Northern Midlands and elsewhere are likely to have been lost to land clearance since European settlement. Potential threats to the species and its habitat include changes to local and broader hydrological processes, stock trampling, nutrient enrichment associated with stock and fertiliser application, and weed invasion.

## **Conservation Status Assessment**

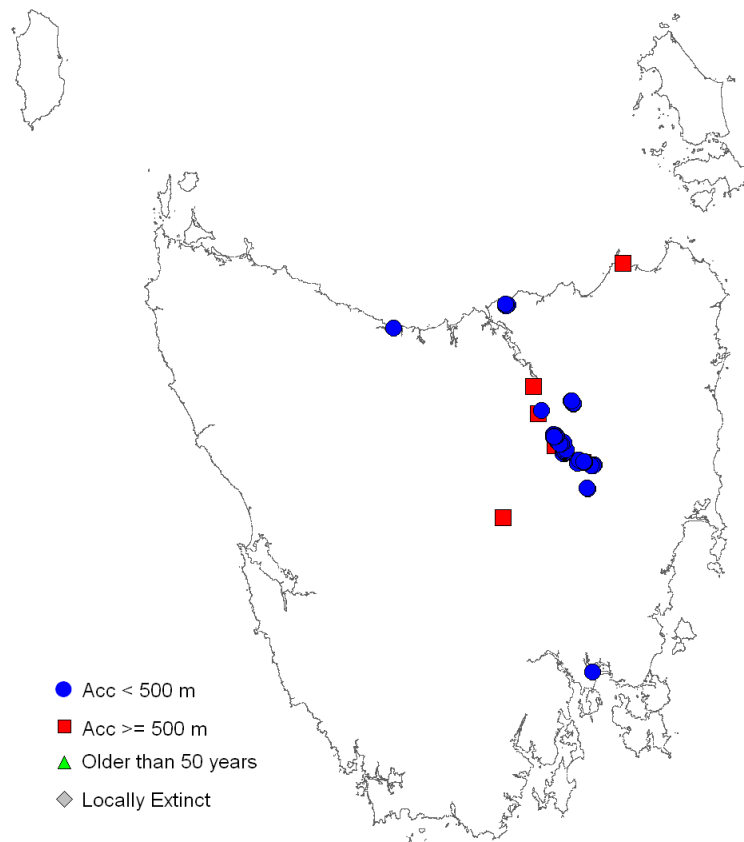
*Myriophyllum integrifolium* was listed as vulnerable on the original schedules of the Tasmanian *Threatened Species Protection Act 1995* — about ten sites had been recorded in Tasmania at that time. The number of sites has been doubled in the interim, with a marked improvement in the species' reservation status in the Northern Midlands, and it is considered highly likely that additional sites will be uncovered given a targeted survey effort. The species may warrant down-listing, though the current status of many of the older sites needs to be established before a meaningful re-assessment can be undertaken.

## **Further Information**

- Curtis, W.M. & Morris, D.I. (1975). *The Student's Flora of Tasmania, Part 1. (Second Edition)*. Government Printer, Tasmania.
- Walsh, N.G. & Entwisle, T.J. (1996). *Flora of Victoria: Volume 3: Dicotyledons Winteraceae to Myrtaceae*. Inkata Press, Melbourne.

## Tasmanian Distribution

(As per Threatened Species & Marine Section records, December 2013)



### 1:25 000 Map Sheets

Blessington, Cleveland, Conara, Cressy, Delmont, Diamond, Hobart, Jacobs, Launceston, Longford, Low Head, Nile, Ulverstone, Waterhouse, Wihareja.

Date last modified: 23/12/2013

### View

<http://www.dpipwe.tas.gov.au/threatenedspecieslists>

### Contact details

Threatened Species and Marine Section, Department of Primary Industries, Parks, Water & Environment, GPO Box 44, Hobart, Tasmania, Australia, 7001. Phone (03) 6165 4340; fax (03) 6233 3477.

### Permit

It is an offence to collect, disturb, damage or destroy this species unless under permit.