

Myriophyllum muelleri



Image by Grant Daniels

FAMILY: HALORAGACEAE

BOTANICAL NAME: *Myriophyllum muelleri* Sond., *Linnaea* 28: 233 (1856)

COMMON NAME: hooded watermilfoil

COMMONWEALTH STATUS (EPBC Act):
Not Listed

TASMANIAN STATUS (TSP Act): rare

Description

Myriophyllum muelleri is a slender, glabrous, monoecious aquatic herb. Its stems are up to 60 (–100) cm long, rooting at the lower nodes and then ascending. Leaves are arranged decussately, that is, they are opposite one another with the pairs alternating at right angles up the stem (though the lowermost ones may rarely be in 3s and the uppermost ones sometimes alternate); leaves pectinate (‘like the teeth of a comb’) with 12 to 16 pinnae, the lamina mostly 5 to 11 mm long. Flowers solitary: male flower terminal on a slender peduncle to 20 mm long, with 4 vestigial sepals, 4 red-coloured petals 2.1 to 2.2 mm long, and 8 stamens, at first enclosed in a deeply concave maroon-red hood 3 to 4 mm long, the hood reflexing at anthesis; 2 to 4 female flowers sessile in leaf axils below the male flower, sepals and petals absent. Ovary 4-celled, stigmas smooth. Fruit cylindrical, silvery-grey to reddish, with 4 smooth nutlets (mericarps) 1.7 to 1.8 mm long. Flowering from September to February. (Description from Aston 1973, Orchard 1990, Walsh & Entwisle 1996)

Confusing species: *Myriophyllum muelleri* can be distinguished from the other species of *Myriophyllum* in Tasmania by its decussate pectinate leaves, and its pedicellate male flowers subtended by a hooded bract (see overleaf). Other native species with ‘feathery’ foliage, such as *Myriophyllum salsugineum*, *Myriophyllum simulans* and *M. variifolium*, have leaves that are arranged in whorls of three to six.

Distribution and Habitat

On mainland Australia *Myriophyllum muelleri* occurs in Victoria, South Australia and Western Australia (Orchard 1990). In Tasmania the species is restricted to the far north-east and Bass Strait Islands, where it is found growing in (or at the fringes of) brackish or freshwater pools and lagoons (Harris et al. 2001, Walsh & Entwisle 1996).

Associated species recorded in northeast Tasmania include *Lepilaena cylindrocarpa*, *Lilaeopsis polyantha*, *Limosella australis*, *Mimulus repens*, *Ruppia polycarpa* and *Chara* sp.

Key Sites and Populations

King Island: Cask Lake and Lake Flanagan; Furneaux Group: Cape Barren Island, Clarke Island, Long Island and Vansittart Island; mainland Tasmania: Cape Portland.

Known Reserves

Long Island Conservation Area, lungatalanana Indigenous Protected Area (Clarke Island), Vansittart Island Conservation Area, Cape Portland Private Sanctuary.

Ecology and Management

Under ‘normal’ conditions, the stems and feathery foliage of *Myriophyllum muelleri* lie mostly below the water surface, with only the flowers emergent (Plate 2). When water levels recede the species may persist at the wetland’s damp margins, adopting a prostrate form with finger-like leaves (Plate 3). Pollinators are unknown. Many species of *Myriophyllum* are capable of surviving extended periods of drought due to their underground rhizomes and soil-stored seed. Dispersal of seed is likely to be by waterbirds.



Plate 1. Wetland habitat of *Myriophyllum muelleri* near Cape Portland, 4 February 2017;
Plate 2 (bottom left): fertile submerged plant; **Plate 3** (bottom right): exposed plant.
(images by Richard Schahinger)

The major threat to *Myriophyllum muelleri* is loss of its wetland habitat, either through clearance or changes to hydrological processes. Other threats include stock browsing/trampling and nutrient enrichment. As noted above, the species may not emerge during dry periods, sometimes for many years, meaning that inadvertent losses may occur. The species would benefit from the retention of buffering vegetation surrounding its wetland habitat, and known occurrences would also benefit from stock management.

Conservation Status Assessment

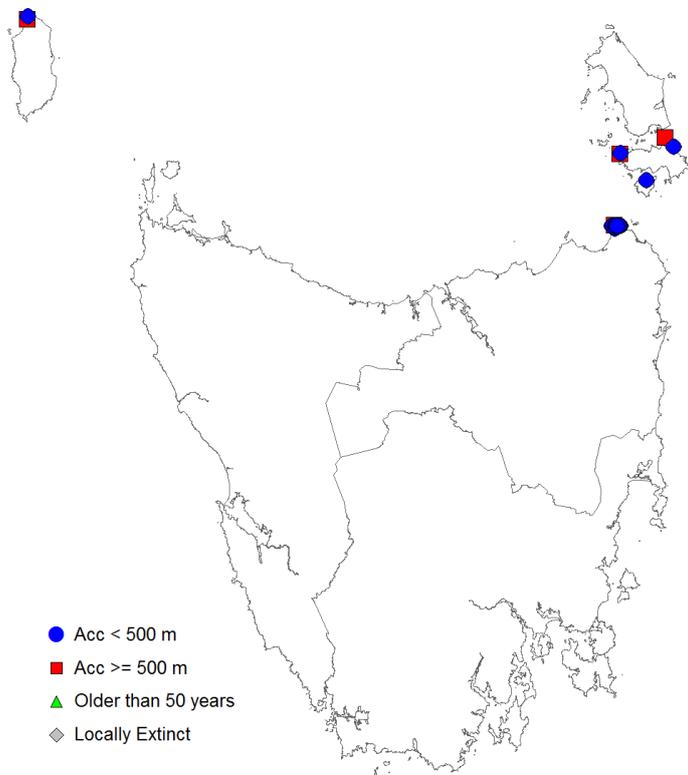
Each of the sites noted above were known at the time of the listing of *Myriophyllum muelleri* on the original schedules of the Tasmanian *Threatened Species Protection Act 1995*, the associated records dating from the period 1979 to 1986. Targeted surveys in February 2017 of wetlands in the Cape Portland area revealed the species to be relatively common and locally dominant in a number of brackish wetlands, consistent with collection notes from October 1983. However, the status of the other sites is unknown, with no additional records in the interim and no new sites. Surveys to determine the status of previously recorded sites, as well as surveys of potential habitat, are required before a meaningful reassessment of the species' conservation status can be undertaken.

Further Information

- Aston, H.I. (1973). *Aquatic Plants of Australia*. Melbourne University Press.
- Harris, S., Buchanan, A. & Connolly, A. (2001). *One Hundred Islands: The Flora of the Outer Furneaux*. Tasmanian Department of Primary Industries, Water and Environment, Hobart.
- Orchard, A.E. (1985). *Myriophyllum* (Haloragaceae) in Australasia. II. The Australian species. *Brunonia* 8: 173–291.
- Orchard, A.E. (1990). Haloragaceae, *Flora of Australia* 18: 5–85.
- 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 Section records, March 2017)



1:25 000 Map sheets

Anderson, Fisher, Lyme Regis, Preservation, Puncheon, Wickham.

Date last modified: 20/03/2017

View

www.dpipwe.tas.gov.au/threatenedspecieslists

Contact details

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Permit

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