

Hydrilla verticillata

COMMON NAME

hydrilla

FAMILY

Hydrocharitaceae

AUTHORITY

Hydrilla verticillata (L.f.) Royle

FLORA CATEGORY

Vascular – Exotic

STRUCTURAL CLASS

Herbs - Monocots

CONSERVATION STATUS

Not applicable

BRIEF DESCRIPTION

Submerged, rooted, perennial aquatic plant in the oxygenweed group. It can grow to water depths of 9 m and forms dense monospecific stands. The stems of hydrilla are green up to several metres long either creeping or erect. The leaves typically in whorls of 4, although numbers may vary. Leaves are up to 20 mm long and 4 mm wide. They are generally green, but often have some reddish colour, particularly on the midrib. The margin is strongly toothed, visible to the naked eye. Small white flowers occur in the leaf bases during summer.

DISTRIBUTION

Locally naturalised in the Hawke's Bay, and known from only four lakes in that region. All subject to a national eradication programme.

HABITAT

Aquatic: Submerged. Grows in sites with low-high fertility in coastal and lowland and montane habitats. The areas at risk of invasion by hydrilla are warm fresh water ponds, canals and slow-moving streams. Only known from lake environments in New Zealand, but grows in flowing waters in other countries.

DETAILED DESCRIPTION

Submerged, bottom rooting perennial, growing to about 9 m. Stems slender (1mm diam.) and brittle, occasionally branched. Leaves in whorls of 3-8, margins distinctly toothed. Small tubers and turions, 6-12 x 2 mm, translucent dark green. Male flowers only in NZ. No seed set in NZ.

SIMILAR TAXA

Hydrilla verticillata is most similar to egeria (*Egeria densa*) and Canadian pondweed (*Elodea canadensis*). *Hydrilla* is most easily distinguished from these two species by its toothed leaf margins and reddish midrib on the leaves.

FLOWERING

Summer/autumn.

FLOWER COLOURS

White

FRUITING

Only male plants in NZ.



a picture of Hydrilla verticillata. Photographer: Auckland Regional Council, Licence: Public domain.



Shoot of Hydrilla verticillata. Photographer: Rohan Wells, Date taken: 09/08/2012, Licence: All rights reserved.

LIFE CYCLE

Perennial. The plant is a dioecious perennial, with only male plants are present in New Zealand and no viable seed produced. The plant reproduces vegetatively from turions, tubers and broken fragments.

The most common method of spread is from stem fragments. Hydrilla also spreads via tubers and turions, underground rhizomes, and above ground stolons. Stem fragments and turions spread within catchments via water flow. New catchments invaded via contaminated boats and trailers (occasionally motor cooling water), eel nets, livestock, diggers. Birds unlikely to be a factor.

YEAR NATURALISED

1963

ORIGIN

Asia, Europe, Africa and Australia

REASON FOR INTRODUCTION

Presumably introduced as an aquarium plant.

CONTROL TECHNIQUES

Notify Ministry for Primary Industries if found.

TOLERANCES

The plant resprouts from broken branches, fragments and rhizomes, tubers and turions after physical damage and grazing.

NATIONAL PEST PLANT ACCORD SPECIES

This plant is listed in the 2020 National Pest Plant Accord. The National Pest Plant Accord (NPPA) is an agreement to prevent the sale and/or distribution of specified pest plants where either formal or casual horticultural trade is the most significant way of spreading the plant in New Zealand. For up to date information and an electronic copy of the 2020 Pest Plant Accord manual (including plant information and images) visit the [MPI website](#).

ATTRIBUTION

Factsheet prepared by Paul Champion and Deborah Hofstra (NIWA).

REFERENCES AND FURTHER READING

Champion et al (2012). Freshwater Pests of New Zealand. NIWA publication.

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Sculthorpe, CD (1967). The biology of aquatic vascular plants. Edward Arnold Publisher, London, 610pp.

MORE INFORMATION

<https://www.nzpcn.org.nz/flora/species/hydrilla-verticillata/>