Hydrilla verticillata

COMMON NAMES
hydrilla

BIOSTATUS
Exotic

CONSERVATION STATUS
Not applicable

CATEGORY
Vascular

STRUCTURAL CLASS
Herbs - Monocots

SIMPLIFIED 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.

FLOWER COLOURS
White

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.

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.

GENUS
Hydrilla

FAMILY
Hydrocharitaceae

AUTHORITY
Hydrilla verticillata (L.f.) Royle

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.

FLOWERING
Summer/autumn.

FRUITING
Only male plants in NZ.

YEAR NATURALISED
1963

ORIGIN
Asia, Europe, Africa and Australia

REASON FOR INTRODUCTION
Presumably introduced as an aquarium plant.

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

CONTROL TECHNIQUES
Notify Ministry for Primary Industries if found.

LIFE CYCLE AND DISPERSAL
Perennial. The plant is a dioecious perennial, with only male plants are present in New Zealand and no viable see 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.

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.

REFERENCES AND FURTHER READING
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ATTRIBUTION
Factsheet prepared by Paul Champion and Deborah Hofstra (NIWA).

MORE INFORMATION
https://www.nzpcn.org.nz/flora/species/hydrilla-verticillata/

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