



Invasive Plant Atlas of New England

Catalog of Species Search Results



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Myriophyllum spicatum

(Eurasian watermilfoil
spiked watermilfoil)

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COMMON NAME

Eurasian watermilfoil
spiked watermilfoil

FULL SCIENTIFIC NAME

Myriophyllum spicatum L.

FAMILY NAME COMMON

Watermilfoil family

FAMILY SCIENTIFIC NAME

Haloragaceae

IMAGES



Inflorescence



Incursion



Incursion II



Habit

NOMENCLATURE/SYNONYMS

Synonyms: None

DESCRIPTION

Botanical Glossary

Myriophyllum spicatum is a submerged, aquatic perennial that can have green, reddish-brown or whitish pink stems 1.8-6 m (6-20 ft.) long. The leaves are olive green in color, and less than 5 cm (2 in.) long. They are soft and feather-like in texture, and each mature submerged leaf has a central midrib with 12-20 filiform segments on each side.

There are both male and female flowers on the same inflorescence. The female flowers are basal while the male flowers are located distally. The female flowers have a 4-lobed pistil and lack sepals and petals. The male flowers have 4 pink petals and 8 stamens. The globular fruit are indehiscent, 2-3 mm (0.08-0.11 in.) long and contain 4 seeds.

Page References Crow & Hellquist 194, Fernald 1073, Gleason & Cronquist 308, Holmgren 290, Magee & Ahles 772. See reference section below for full citations.

SIMILAR SPECIES

Myriophyllum sibiricum Komarov. (*Myriophyllum exalbescens* Fern.)
(Northern watermilfoil)

M. verticillatum L. (Whorled watermilfoil)

Character	<i>Myriophyllum spicatum</i>	<i>M. sibiricum</i>	<i>M. verticillatum</i>
Turion (winter bud)	Absent	Present	Present
# of leaf segments on submerged mature leaves	Greater than or equal to 14 paired leaf segments	Less than or equal to 12 paired leaf segments	Less than or equal to 10 paired leaf segments
Emergent leaves	Usually less than twice	Usually less than	Usually more than

(bracts)	the length of flowers; margins entire or minutely toothed	twice the length of flowers; margins entire or minutely toothed	twice the length of flowers; margins deeply lobed
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REPRODUCTIVE/DISPERSAL MECHANISMS

The main mechanism of dispersal is the breaking off and relocating of vegetative parts. The seeds can germinate, but may remain dormant for long periods of time.

DISTRIBUTION

Myriophyllum spicatum is native to Europe, parts of Asia and North Africa. In Canada it is present in British Columbia, Ontario and Quebec. In the United States, there are varying distributions reported for *Myriophyllum spicatum*; It has been reported from all states except Hawaii, Wyoming and Maine. In New England it has been reported from Vermont, New Hampshire, Massachusetts, Connecticut and Rhode Island.

HISTORY OF INTRODUCTION IN NEW ENGLAND

The first report of this plant in the U.S. was in 1942 in a small pond in Washington, DC. Since then, it has been reported from most states rather sporadically, indicating multiple introductions. These introductions were either via the dumping of aquaria into local waterbodies, escape from cultivation or by being attached to boats. It has been present in New England since at least 1962. The first record for Connecticut was in 1979 in East Thompson, though it may have been here earlier.

HABITATS IN NEW ENGLAND

Aquatic
Lake or Pond
River or Stream
Salt Marsh

Myriophyllum spicatum will grow in water from 0.5-4.5 m (1.6-15 ft.) deep, but is often in the lower end of this range. It can grow in both still and running water. This plant can tolerate highly alkaline water and prefers eutrophic conditions. It can even tolerate brackish water.

THREATS

Myriophyllum spicatum forms extremely dense mats of vegetation

that can crowd out native aquatic plants. It can tolerate high alkalinity and eutrophic conditions. Mosquitoes find good breeding ground among the mats of vegetation. When these dense mats of plants decompose the oxygen levels in the waterbody are reduced. These dense mats can also alter the temperature profile of a pond or lake. *Myriophyllum spicatum* plants have a negative affect on bird and fish habitat because of the reduction of oxygen, change in temperature, and change in pH that they cause. These plants can tolerate brackish water, making them a threat in coastal situations as well. The roots overwinter, allowing their persistence in northern climates. Since new plants can grow from fragments, the plant is easily dispersed by boats and waterfowl. This plant impedes recreational activities such as swimming, fishing and boating.

Myriophyllum spicatum is known to hybridize with the native *M. sibiricum*, and encroaches on the range of this native species. The hybrid also forms monotypic invasive populations, but has not yet been identified in New England.

MANAGEMENT LINKS

[Wisconsin Department of Natural Resources](#)

[Washington State Department of Ecology](#)

[University of Minnesota Division of Fisheries and Wildlife](#)

[New Hampshire Department of Environmental Services](#)

[Ohio Division of Natural Areas and Preserves](#)

[Environment Canada- Canadian Wildlife Service](#)

[Plant Conservation Alliance fact sheet](#)

Includes management information.

DOCUMENTATION NEEDS

[Documentation required](#): Herbarium specimen or mounted snippet of the branch.

[Best time for documentation](#): Summer, fall.

ADDITIONAL INFORMATION

[Integrated Taxonomic Information System](#)

Has general taxonomic information about the species.

[The PLANTS database](#)

General information and a map

[Center for Aquatic and Invasive Plants, University of Florida](#)

General information and photographs

[Washington State Department of Ecology](#)

General information including control

[US Army Corps of Engineers, Waterways Experiment Station](#)
General information and a map

[US Geological Survey- Nonindigenous Aquatic species](#)
General information, maps and detailed distribution

[Vermont Department of Environmental Conservation- Water Quality Division](#)
Drawings and general information

[University of Minnesota Division of Fisheries and Wildlife](#)
General information including control

[Virginia Native Plant Society](#)
General information

[Minnesota Sea Grant](#)
Photographs, general information, advice to boaters

[New Hampshire Department of Environmental Services](#)
General information, control, and advice to boaters

[Ohio Division of Natural Areas and Preserves](#)
General information including control

[Invasivespecies.gov](#)
Additional links

[Environment Canada- Canadian Wildlife Service](#)
General information including maps and control

[Wisconsin Department of Natural Resources](#)
General information and control

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DATA RETRIEVAL

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- Formatted display as table
- Export as comma-delimited text file

MAPS OF PLANT DISTRIBUTION IN NEW ENGLAND

Select a study area by clicking the radio button and then click "Submit Selection."

- The whole New England area
- One or more states
- One or more counties
- One or more towns (county sub-divisions)

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