



Bulletin #2531, Maine Invasive Plants: Eurasian Milfoil, *Myriophyllum spicatum* (Water Milfoil Family)

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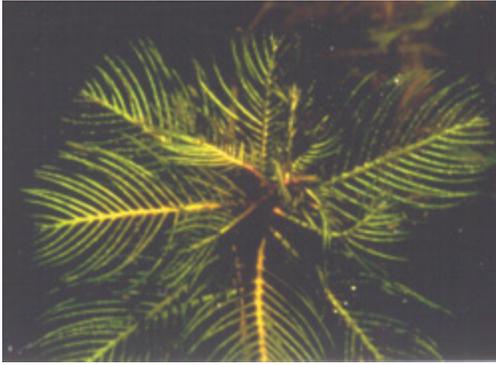
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Threats to Native Habitats

Eurasian milfoil is a highly aggressive aquatic plant that can form dense mats which congest waterways and crowd out native aquatic plants. Thick growth can impair recreational uses of waterways including boating, swimming, and fishing. The dense growth of Eurasian milfoil can alter and degrade the habitat of native fish and other wildlife. Some stands have been dense enough to obstruct industrial and power-generation water intakes. The visual impact of the flat, yellow-green of matted vegetation on milfoil-dominated lakes often creates the perception that the lake is “infested” or “dead.” Cycling of nutrients from sediments to the water column by Eurasian milfoil may lead to deteriorating water quality and algal blooms on infested lakes. Eurasian milfoil is readily spread by plant fragments, which are abundant in infested waterways. Fragments may be carried downstream by water currents or inadvertently picked up by boaters. Milfoil is readily dispersed by boats, motors, trailers, bilges, live wells or bait buckets, and can stay alive for weeks if kept moist.

Description



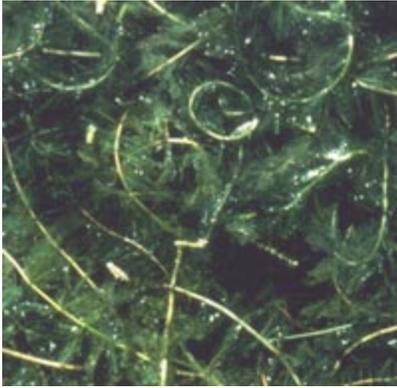
Eurasian milfoil (photo by Holly Crosson, courtesy of the New England Wild Flower Society)

Eurasian watermilfoil is an herbaceous perennial plant with a trailing growth habit. Narrow stems grow to the water surface, usually extending three to ten feet, although sometimes much longer. They frequently form dense mats. Stems of Eurasian milfoil are usually branched, and become leafless toward the base. New plants may emerge from each node (joint) on a stem, and root upon contact with mud. Leaves are finely divided and occur in whorls of three or four. Eurasian milfoil produces small yellow flowers on a spike that projects two to four inches above the water surface. Most regeneration of Eurasian watermilfoil is from rhizomes, fragmented stems and axillary buds that develop throughout the year. Although seeds are usually viable, they are not an important means of reproduction.

Habitat

Eurasian milfoil grows best in fertile, fine-textured, inorganic sediments. In less productive lakes it is restricted to areas of nutrient-rich sediments. It is an opportunistic species that prefers highly disturbed lake beds, lakes receiving nitrogen and phosphorus-laden runoff, and heavily used lakes. High water temperatures promote multiple periods of flowering and fragmentation. Habitat for Eurasian milfoil includes lakes, ponds, slow-moving streams, reservoirs, and estuaries. Many of Maine's ponds, lakes, and rivers are vulnerable to infestation by this species.

Distribution



Dense growth habit of Eurasian milfoil (Holly Crosson)

Eurasian milfoil is native to Europe, Asia, and northern Africa. It was introduced to the U.S. in the 1940s. The source of the original introduction is unclear. Now Eurasian milfoil occurs in nearly every state in the U.S. and several Canadian provinces. Spread is mostly attributed to boating activity, although there have been some deliberate introductions. A number of populations found in Oklahoma were introduced by earthworm farmers who packed their product in Eurasian milfoil. As of 2002, there are no documented occurrences of this plant in Maine.

Prevention and Control

The best way to control this species, or any aquatic invader, is to prevent it from being introduced in the first place. Anyone engaged in activities in Maine's waters should be aware of the potential for spreading invasive plants and take steps to prevent their introduction; your actions can make a difference. Simple things to do include inspecting boats, motors, and trailers at the boat ramp before launching and again after hauling them out. Prevent plant material from getting into bait buckets and live wells, and from getting tangled up in anchor ropes or fishing gear. Plants cleaned from boats and gear should be disposed of in a trash receptacle or away from the water on dry land.

Once established, invasive aquatic plants are extremely difficult to eradicate. Control experiments have been attempted with water level manipulations, mechanical control, and herbicides. In most cases, these plants have survived attempts at control. Biological controls for invasive aquatics are still being researched and may help limit the growth of some species in the future. Note that the use of herbicide in Maine waters is strictly regulated. Only licensed professionals with a permit from the Department of Environmental Protection may carry out herbicide treatments in Maine's waters. Hand-pulling of invasive aquatic plants also requires a permit. Also note that in Maine it is illegal to possess, import, cultivate, distribute or transport *Myriophyllum spicatum* (Department of Environmental Protection, Chapter 722 – *An Act to Prevent the Spread of Invasive Aquatic Plants*). If you think you have found an invasive aquatic plant, contact ME DEP at 1.800.452.1942 or the Maine Natural Areas Program at 1.207.287.8041.

VIDEO: How to Get Rid of Invasive Plants (YouTube)



This fact sheet was researched and written by William Moody, a student in the Plant and Soil Technology Program at Southern Maine Community College. Additional editing by Don Cameron, Maine Natural Areas Program.

References

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Gleason, H.A. and A. Cronquist. *Manual of Vascular Plants of Northeastern United States and Adjacent Canada, Second Edition*. New York: New York Botanical Garden, 1991.

For more information or for a more extensive list of references on invasive species contact:

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