Farwell's Water-milfoil

Close-up of Myriophyllum farwellii

Photo credits: *Troy Weldy*

Scientific Name *Myriophyllum farwellii* Morong

Family Name Haloragaceae Water-Milfoil Family

Did you know?
The genus name Myriophyllum comes from the Greek, murios (myrios), "countless, infinite", and fullon (phyllon), "leaf; foliage"; hence "many leaved". The specific name farwellii, honors the American botanist Oliver Atkins Farwell (1867-1944). Small fish and aquatic invertebrates use this plant for shelter. Most populations in New York are large and contain thousands of plants.

Summary

Protection Threatened in New York State, not listed federally.

This level of state protection means: listed species are those with: 1) 6 to fewer than 20 extant sites, or 2) 1,000 to fewer than 3,000 individuals, or 3) restricted to not less than 4 or more than 7 U.S.G.S. 7 ? minute topographical maps, or 4) listed as threatened by U.S. Department of the Interior.

Rarity G5, S2

A global rarity rank of G5 means: This species is demonstrably secure globally, though it may be quite rare in parts of its range, especially at the periphery.
A state rarity rank of S2 means: This plant is threatened/imperiled in New York because of rarity (typically 6-20 populations or few remaining individuals) or is vulnerable to extirpation from New York due to biological factors.

Conservation Status in New York

There are seven known populations and at least six historical populations. There are numerous Adirondack lakes that should be surveyed. The current threats are minimal and the presumed long/short-term trends are stable.

Short-term Trends

Few of New York's populations have been surveyed more than once so trends are difficult to assess. Our best guess though is these populations are relatively stable.

Long-term Trends

This plant has always been rare in New York and many historical localities have not been checked. The number of plants has probably not changed appreciably in the last 100 years. With the continued acidification of lakes, there is a chance that this plant will become more common within the state.

Conservation and Management

Threats

Motorized water craft likely have a negative impact on this plant. The spread and growth of various aquatic invasive species could also have an impact, but this has not been verified. More work is needed to determine the direct and indirect threats.

Conservation Strategies and Management Practices

Qualitative evidence suggests that motorized water craft cuts this plant into fragments and creates enough wave action to negatively impact shoreline populations. More work is needed to determine the long-term impacts of these activities and ways to minimize the impacts. Canoes and other such water craft seem to cause little to no harm.

Research Needs

Research is needed to determine population fluctuations over time.

Habitat

An aquatic plant of acidic ponds, lakes, and shorelines. These often have gravelly, sandy, or silty bottoms (New York Natural Heritage Program 2004). Small ponds and lakes, marsh borders (Voss 1985). Acid ponds and streams (Crow and Hellquist 1983).

Associated Ecological Communities

Other Probable Associated Communities

Cultural eutrophic lake
Eutrophic pond
Marsh headwater stream

Associated Species

Seven-angle Pipewort (*Eriocaulon aquaticum*)
Algae-like Pondweed (*Potamogeton confervoides*)
Ribbon-leaf Pondweed (*Potamogeton epihydrus*)
Schoenoplectus Subterminalis (torrey) Soj (*Schoenoplectus subterminalis*)
Eastern Purple Bladderwort (*Utricularia purpurea*)

Identification Comments

This is an aquatic plant that grows entirely underwater. It has long intertwining stems with delicate feathery leaves about 1-2.5 cm long that are arranged alternately. The flowers are

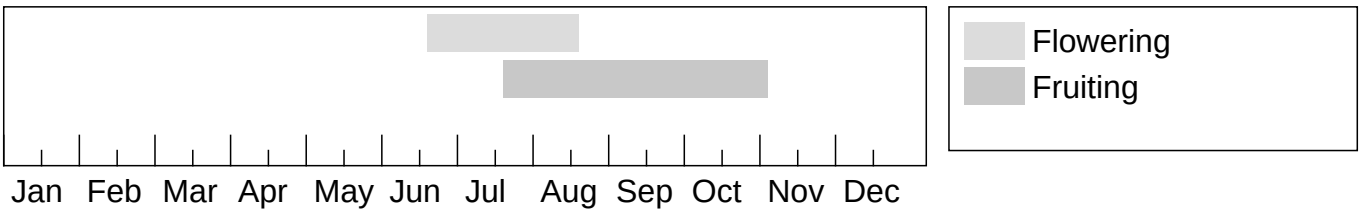
not in separate spikes but arise individually along the stem just above each leaf. The small hard fruits have vertical rows of small projections or thick hooks along the outside.

Best Life Stage for Identifying This Species

Leafy stems with mature fruit are needed for proper identification.

The Best Time to See

Fruits are present from late July to early October. This is also when surveys should be conducted.



The time of year you would expect to find Farwell's Water-milfoil in New York.

Similar Species

Positive identification for most water milfoil species (*Myriophyllum* spp.) requires fruit. When sterile, *Myriophyllum farwellii* is nearly impossible to separate from *Myriophyllum heterophyllum* unless turions are present. The fruits of *Myriophyllum heterophyllum* appear on very distinct stalks that stick above water, while *Myriophyllum farwellii* fruits appear on non-distinct submersed stems. Vegetative plants of *Myriophyllum humile* and *Myriophyllum alterniflorum* may also resemble *Myriophyllum farwellii*.

Taxonomy

Kingdom Plantae
└ **Phylum** Anthophyta
└ **Class** Dicots (Dicotyledoneae)
└ **Order** Haloragales
└ **Family** Haloragaceae (Water-Milfoil Family)

Additional Common Names

Farwell's Milfoil

Additional Resources

Links

USDA Plants Database
http://plants.usda.gov/java/nameSearch?mode=sciname&keywordquery=MYRIOPHYLLUM+FARWELLII

NatureServe Explorer
http://natureserve.org/explorer/servlet/NatureServe?searchName=MYRIOPHYLLUM+FARWELLII

Google Images
http://images.google.com/images?q=MYRIOPHYLLUM+FARWELLII

New York Flora Atlas
http://www.newyork.plantatlas.usf.edu/Plant.aspx?id=1580

Best Identification Reference

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