



## Natural Heritage & Endangered Species Program

[www.mass.gov/nhesp](http://www.mass.gov/nhesp)

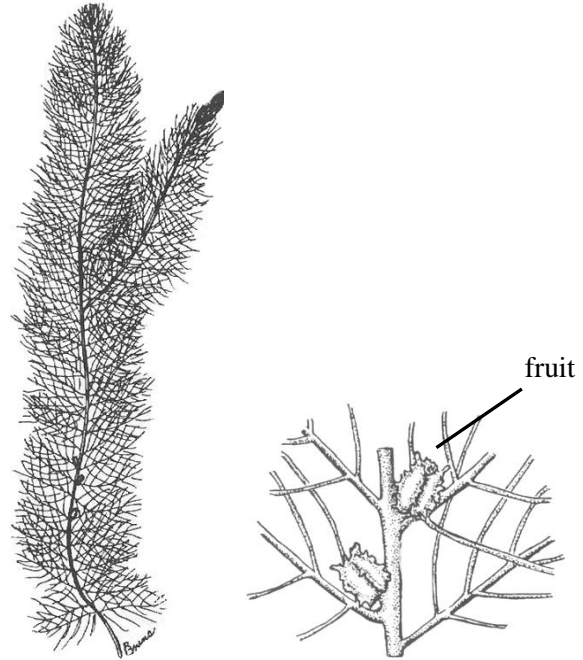
Massachusetts Division of Fisheries & Wildlife

## Farwell's Water-milfoil *Myriophyllum farwellii* Morong

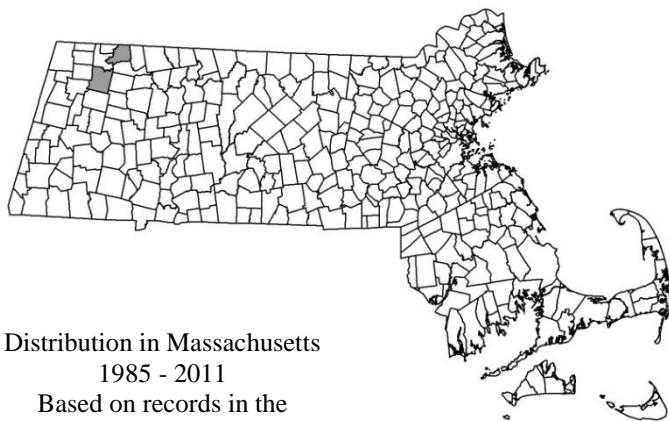
State Status: **Endangered**  
Federal Status: **None**

**DESCRIPTION:** Farwell's Water-milfoil (*Myriophyllum farwellii*) is an aquatic herb of the Haloragraceae family. The plant grows wholly submersed in water. Inconspicuous, sessile flowers are arranged in the axils of the finely dissected foliage. The stems are elongate and narrow. Unlike most members of this genus in the Northeast, this species is wholly submerged and does not produce a terminal inflorescence of flowers. Instead, flowers are born in the axils of the leaves. Another feature less common in this genus is the presence of turions, which are small, bulb-like propagules that allow the plant to spread vegetatively. In this species, the turions are produced at or near the tips of the stems. Additionally, the backs of each fruit bear a bumpy ridge. The combination of these characters, plus the presence of alternate, sub-opposite, or scattered leaves (not whorled), serves to distinguish this species from the other milfoils in Massachusetts.

**SIMILAR SPECIES:** Common water-milfoils could be confused with Farwell's Water-milfoil. However, the two invasive species of water-milfoil, Eurasian Water-milfoil (*Myriophyllum spicatum*) and Variable Water-



Crow, G., and C.B. Hellquist. 2000. *Aquatic and Wetland Plants*. Volume 1. University of Wisconsin Press, Madison, Wisconsin.



milfoil (*M. heterophyllum*), both have whorled leaves. In addition, these species both produce emergent, terminal inflorescences of flowers rather than axillary flowers. Lowly Water-milfoil (*M. humile*), a common native water-milfoil, also has axillary flowers, but differs in having smooth fruits.

**RANGE:** Farwell's Water-milfoil is primarily a northern species, and approaches the southern limit of its range in Massachusetts. The species ranges from Newfoundland west to Alaska, south to Pennsylvania and Minnesota. Our occurrences of this species are in the northwestern part of the state.

*A Species of Greatest Conservation Need in the Massachusetts State Wildlife Action Plan*

## Massachusetts Division of Fisheries & Wildlife

1 Rabbit Hill Rd., Westborough, MA; tel: 508-389-6300; fax: 508-389-7890; [www.mass.gov/dfw](http://www.mass.gov/dfw)

Please allow the Natural Heritage & Endangered Species Program to continue to conserve the biodiversity of Massachusetts with a contribution for 'endangered wildlife conservation' on your state income tax form, as these donations comprise a significant portion of our operating budget.

[www.mass.gov/nhesp](http://www.mass.gov/nhesp)

**HABITAT:** In Massachusetts, Farwell's Water-milfoil is found in shallow waters of cold acidic ponds. It has been found growing in association with Purple Bladderwort (*Utricularia purpurea*), Water Shield (*Brasenia schreberi*), Spatterdock (*Nuphar variegata*), and Floating-leaved Bur-reed (*Sparganium fluctuans*).

**THREATS:** Liming to counteract acid rain impacts, which has occurred in nearby ponds, could disrupt this species. Broad herbiciding to control aquatic plants may also threaten this species. Hand-pulling of aquatic invasive species is recommended around populations of rare aquatic species.

**Flowers or Fruit Present**

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

Updated 2015

**A Species of Greatest Conservation Need in the Massachusetts State Wildlife Action Plan**

Please allow the Natural Heritage & Endangered Species Program to continue to conserve the biodiversity of Massachusetts with a contribution for 'endangered wildlife conservation' on your state income tax form, as these donations comprise a significant portion of our operating budget.