Natural Heritage &
Endangered Species
Program

Commonwealth of Massachusetts
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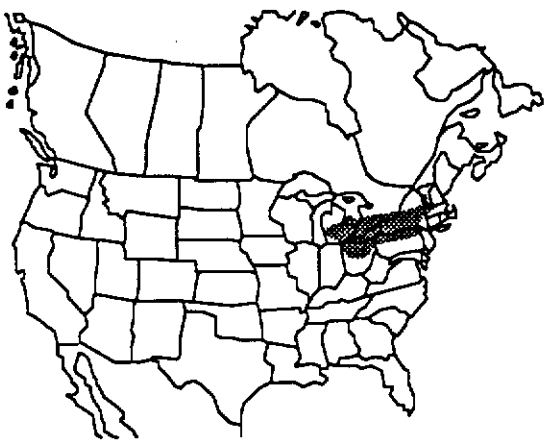
MASSACHUSETTS PLANTS OF SPECIAL CONCERN

HILL'S PONDWEED
(*Potamogeton hillii* Morong)

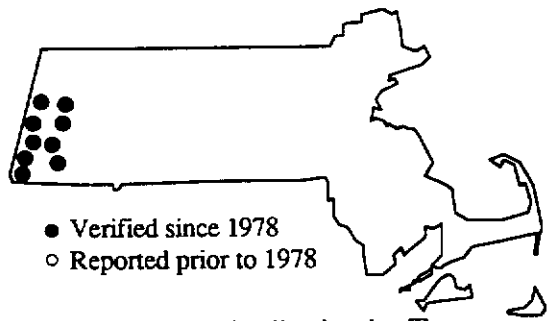
Gleason, H. A. The New Britton and Brown Illustrated Flora of the U.S. & Adjacent Canada. NY Botanical Garden, 1952.

Description

Hill's Pondweed, a member of the Pondweed family (Potamogetonaceae), is an herbaceous, submersed aquatic plant with very slender stems. The branched stems reach up to 1 m (3 1/4 ft.) in length, and both stems and leaves are entirely beneath the surface of the water. The genus name comes from the Greek words *potamos* and *geiton*, meaning *river* and *a neighbor*, respectively. (Slow-moving streams are one of the plant's typical habitats.) *Potamogeton hillii's* pale green, three-nerved leaves are 3-7 cm (1 1/5 - 2 3/4 in.) long, linear in shape and only 1-2.2 mm (1/25 - 2/25 in.) wide. (These leaves may occasionally have five nerves, as well.) Most of the leaf tips end in bristles. On each side of the mid-rib of the leaves are 1-2 rows of translucent tissue called lacunae. The stipules (appendages at the base of leaf



Documented Range of Hill's Pondweed



Massachusetts Distribution by Town

stalks or leaves) are fibrous and whitish. *Potamogeton hillii*"s small inflorescence consists of 1-4 small, crowded flowers. The buoyant 3-3.6 mm (3/25 - 7/50 in.) long fruits mature in August.

Range

Hill's Pondweed has been documented as occurring in Ontario, Vermont, New York, western Connecticut, Michigan, western Massachusetts, Pennsylvania and Ohio. It is very local in distribution and one of the least common pondweeds in the United States.

Similar Species

Both Leafy Pondweed (*P. foliosus*) and Straight-leaved Pondweed (*P. stricti-folius*) could be mistaken for Hill's Pondweed. Of the two, only Leafy Pondweed is typically associated with *P. hillii*. In contrast to Hill's Pondweed, Leafy Pondweed has 4-6 flowers in its inflorescences. In addition, its fruits are smaller than those of *P. hillii*--only 1.5-2.7 mm (3/50 - 1/10 in.). Both the leaves and branches of Straight-leaved Pondweed are rigid. Also unlike Hill's Pondweed, Straight-leaved Pondweed has distinct glands where the leaves grow out from the stem and a distinctive, bold margin around the leaves.

Habitat in Massachusetts

Hill's Pondweed lives in cold, clean, alkaline bodies of water, where it provides a source of food for waterfowl and shelter for various aquatic organisms. Some examples of the Massachusetts habitats of Hill's Pondweed are swamps, marshy areas, rivers, and various ponds--including farm and beaver ponds. Associated species include Floating Pondweed (*Potamogeton natans*), Leafy Pond-weed (*P. foliosus*), a Spike Rush (*Eleocharis flexilis*), White Water Lily (*Nymphaea odorata*), and Naiad or Bushy Pondweed (*Najas flexilis*).

Population Status

Hill's Pondweed is a "Special Concern" species in Massachusetts. The "Special Concern" status means that, although the species is not presently endangered or threatened in the state, it is rare, and the species could become threatened--due to a continuing decline, small numbers of plants, or limited habitat. All thirty current populations (verified since 1978) occur in Berkshire county. About one-third of all stations of Hill's Pondweed occur in Massachusetts. Hill's Pondweed is also considered rare in Connecticut, Michigan, Ohio, Pennsylvania, and Vermont. Potential threats include degradation of water quality from agricultural and highway runoff, septic leachate, or industrial waste and the dredging, draining, or general development of its habitats.

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