Natural Heritage & Endangered Species Program

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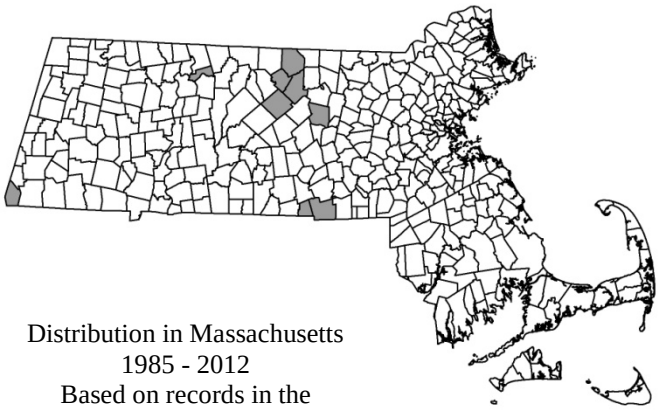
Massachusetts Division of Fisheries & Wildlife

Tuckerman's Pondweed
Potamogeton confervoides
Reichenb.

State Status: **Threatened**
Federal Status: **None**

DESCRIPTION: Tuckerman's Pondweed is a delicate aquatic member of the Pondweed family (Potamogetonaceae) that grows completely submerged in lakes and ponds. It grows as fans of highly branched thread-like stems with long, flaccid, thread-like leaves. The upright stems, which are so delicate they collapse into a clumped mass when removed from the water, are arranged along elongate rhizomes (horizontal underground stems). Long peduncles (flower and fruit-bearing stalks) emerging from the tips of the stems each have a small (5–12 mm diameter) globular fruiting head. The species reproduces by seed, clonal expansion from rhizomes, turions (vegetative buds that detach from the parent plant and disperse through the water), and probably from stem fragments. Although the pondweeds (*Potamogeton* spp.) are the largest and most technically challenging group of aquatic plants in our flora, Tuckerman's Pondweed is distinctive and readily identified in the field.

Tuckerman's Pondweed has thread-like stems and leaves, with long peduncles tipped by fruiting heads (right side of photo). Photo by Jennifer Garrett.



Distribution in Massachusetts
1985 - 2012
Based on records in the
Natural Heritage Database

AIDS TO IDENTIFICATION:

- **Leaves** are exceptionally fine, 1.8 to 6.5 cm long x 0.1 to 0.5 mm wide
- **Peduncles** are 5 to 25 cm (~2–10 inches) long, much longer than other Pondweeds
- **Leafy stems** are widely spaced along rhizomes

SIMILAR SPECIES: The combination of very fine thread-like leaves and long peduncles bearing globular fruit clusters is distinctive. When not fruiting, several other fine-leaved aquatic species might be mistaken for Tuckerman's Pondweed and surveys should be undertaken in mid-summer when fruit are normally present. Surveyors seeking to document the size and extent of local populations should be aware that the frequently co-occurring Snail-seed Pondweed (*Potamogeton bicupulatus*) is easily mistaken for Tuckerman's Pondweed when (as is often the case) the latter's characteristic floating leaves are absent.

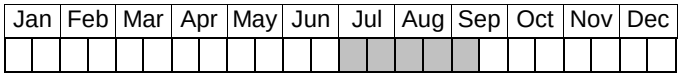
POPULATION STATUS IN MASSACHUSETTS: Tuckerman's Pondweed is listed under the Massachusetts Endangered Species Act as Threatened. All listed species are protected from killing, collecting, possessing, or sale, and from activities that would destroy habitat and thus directly or indirectly cause mortality or disrupt critical behaviors. Tuckerman's Pondweed is currently known from Berkshire, Franklin, and Worcester Counties and was known historically from Middlesex, Norfolk, Bristol and Plymouth Counties. Extant populations are concentrated in Worcester County.

RANGE: Tuckerman's Pondweed is rare throughout much of its range, which is centered on the Atlantic coastal plain from Labrador and Newfoundland south to South Carolina. Outlying populations are found in the northern Great Lakes region.

HABITAT: Tuckerman's Pondweed is limited to acidic water bodies including mill ponds, reservoirs and natural lakes and ponds. One population is in flowing water in a rocky-bottomed brook. In other parts of its range Tuckerman's Pondweed is often found in tannin-rich bog ponds, and the species might be looked for in similar habitat in Massachusetts. Tuckerman's Pondweed is a habitat generalist (except for its intolerance of alkaline waters) and can be found growing on a variety of substrates ranging from soft muck to mineral substrates. Exposures range from sheltered coves to wave-swept shores. Populations occur in water bodies with varied nutrient regimes, from sparsely vegetated, clear oligotrophic lakes to densely vegetated, moderately eutrophic ponds.

THREATS AND MANAGEMENT RECOMMENDATIONS: Although the competitive ability of Tuckerman's Pondweed is unknown, there is concern about the long-term persistence of populations in eutrophic ponds where dense beds of aggressive aquatic plants occur. Two historic populations where the species has not been relocated in recent surveys were in ponds that are now eutrophic and heavily overgrown with native and introduced species. Populations in densely vegetated ponds should be monitored regularly, and management to reduce the density of other aquatic species should be considered if declines are documented. All active management of rare plant populations (including invasive species removal) is subject to review under the Massachusetts Endangered Species Act, and should be planned in close consultation with the Massachusetts Natural Heritage & Endangered Species Program.

Fruiting in Massachusetts



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Updated 2019

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