



**Natural Heritage
& Endangered Species
Program**

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Massachusetts Division of Fisheries & Wildlife

**American Waterwort
Elatine americana
(Pursh) Arn.**

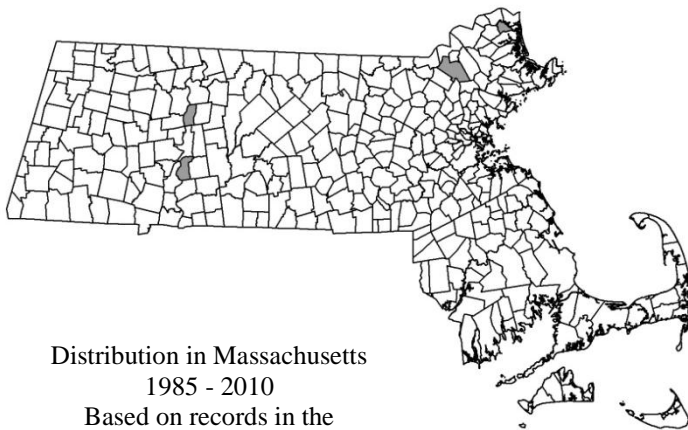
State Status: **Endangered**
Federal Status: **None**

DESCRIPTION: American Waterwort (*Elatine americana*) is a minute, broad-leaved, annual species of freshwater mudflats. Plants are tufted with creeping or submersed stems (0.5–2.5 cm long) and small (3–8 mm long, 1–4 mm wide) opposite leaves. Leaf blades are mostly obovate in shape, rounded at tip, toothless, and sessile. Flowers are minute (≤ 4 mm long), three-parted, and produced singly in the leaf axils. Fruits are three-lobed capsules and membranous (thin-walled), revealing the enclosed seeds.

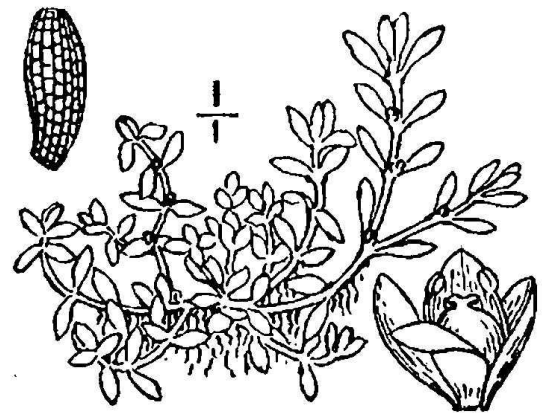
AIDS TO IDENTIFICATION: American Waterwort is a small, delicate plant that can be easily overlooked. Stems usually grow prostrate and form dense mats (up to 200 cm wide). Waterwort species (family Elatinaceae) are very similar and most easily identified when in fruit, especially since levels of exposure (emergent versus submerged) can greatly influence their general appearance. Mature seeds (under magnification) are critical to correctly identify the species. Seeds are



*American Waterwort in its aquatic habitat.
Photo: Bruce A. Sorrie, NHESP.*



Distribution in Massachusetts
1985 - 2010
Based on records in the
Natural Heritage Database



*Line drawing of American Waterwort: USDA-NRCS PLANTS
Database / Britton, N.L., and A. Brown. 1913. An illustrated flora of
the northern United States, Canada and the British Possessions. Vol.
2: 538.*

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

Massachusetts Division of Fisheries & Wildlife

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cylindrical in shape with pitted seed coats. American Waterwort seeds have rows of elongated, angular (six-sided) pits, with the pits becoming smaller towards ends of the seed. Fruits mature in late summer.

SIMILAR SPECIES: Lesser Waterwort (*Elatine minima*) is a more common, mat-forming species occurring on muddy pond shores and sometimes intertidal mudflats. It is distinguished from American Waterwort by its smaller (<5 mm long, <3mm wide), more linear to spatulate leaves, two-lobed fruits, and seeds with rounded pits that are uniform in size. American Waterwort also resembles water starworts (*Callitriche* spp.). Water starworts differ by longer (usually > 5 cm) stems, unisexual flowers (lacking perianth), two-lobed fruits, and more widely-spaced pairs of leaves. Foliage of Water Starworts is often dimorphic too, with a rosette of floating, spatulate leaves accompanying the submersed, linear leaves.

RANGE: American Waterwort occurs from eastern Quebec and Nova Scotia, south through most of the Atlantic and Gulf States to Louisiana, and then scattered into western states.

HABITAT: American Waterwort occurs on open muddy shores of ponds or tidal rivers and tributaries. Plants found in association with American Waterwort include Common Arrowhead (*Sagittaria latifolia*), Grass-leaf Arrowhead (*Sagittaria graminea*), Red-footed Spike-sedge (*Eleocharis erythropoda*), and Water Smartweed (*Persicaria amphibia*).

POPULATION STATUS IN MASSACHUSETTS: American Waterwort is listed under the Massachusetts Endangered Species Act as Endangered. 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. This species is currently known from Essex, Franklin, and Hampshire Counties, and is historically known from Hampden, Middlesex, and Nantucket Counties.

MANAGEMENT RECOMMENDATIONS: As for many rare species, exact needs for management of American Waterwort are not known. However, because this plant occurs on open pond margins and tidally influenced stream banks, presumably any alteration in the hydrologic regime or erosion and sedimentation rates could impact the species. Competition from invasive wetland species could also reduce the available habitat of American Waterwort. 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.

Flowering time in Massachusetts

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

Fruiting time in Massachusetts

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

REFERENCE:
 Crow, G.E., and C.B. Hellquist. 2000. *Aquatic and Wetland Plants of North America*. Vol. 1. University of Wisconsin Press, Madison.

Updated 2015

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