



## Natural Heritage & Endangered Species Program

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## Pygmyweed *Crassula aquatica* L.

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

**General Description:** Pygmyweed (*Crassula aquatica*) is a tiny, annual, fleshy herbaceous aquatic plant that grows on coastal or freshwater shores. A member of the Stonecrop family (Crassulaceae), these plants have tiny, single white flowers that appear in leaf axils from July through September. These inconspicuous plants grow either in low-spreading, sprawling mats on mud flats or elongated and partially submerged in water.

**Aids to identification:** Pygmyweed's slender stems arise from the plant's base, then branch and curve upward (to 2-6 mm high in its low form and up to 10 cm in its elongated form). The leaves are fleshy, entire, and linear (2-7 mm long). They are arranged oppositely on the stem, and are not merely sessile, but actually join at the stem to form a boat-shaped cup at the point of attachment. Inconspicuous white or greenish-white flowers (1 mm wide) emerge singly from the leaf axils on short stalks. Each flower has (usually) four narrow petals. Flower stalks elongate as the fruits mature into follicles containing 8 to 10 seeds. Minute, brown, oblong-shaped seeds have pits between striated lines on their surfaces that can be seen under magnification.



Holmgren, Noel H. 1998. *The Illustrated Companion to Gleason and Cronquist's Manual*. New York Botanical Garden.

**Similar species:** Other small, low-growing shore plants with tiny opposite leaves that could be confused with the Pygmyweed in Massachusetts are the waterworts (*Elatine* spp.), and the aquatic form of Northern Dwarf St. John's-wort (*Hypericum boreale* forma *callitrichoides*). However, the leaves of these other plants are not fleshy, nor are they linear (they are broader in shape). Also, the leaves do not form a boat-shaped cup at the point of attachment along the stem as in the Pygmyweed.



Distribution in Massachusetts  
1984-2009  
Based on records in  
Natural Heritage Database

**Habitat:** Pygmyweed occurs along both fresh and tidal brackish water, including such habitats as the margins of freshwater ponds and rivers, and on tidal mud flats or along salt ponds. This species favors sandy and/or muddy wet soil. In freshwater habitats, the Pygmyweed grows among low herbaceous plants such as Mud Hedge-hyssop (*Gratiola neglecta*), Water Purslane (*Ludwigia palustris*), Low Cudweed (*Gnaphalium uliginosa*), and Pennsylvania smartweed (*Persicaria pennsylvanica*). In brackish habitats, it has been found growing with Lilaeopsis (*Lilaeopsis chinense*), Water-pimpernel (*Samolus valerandi* ssp. *parviflorus*), and Atlantic Mudwort (*Limosella australis*).

**Range:** Pygmyweed is known from 23 states across America, in a sporadic pattern, with many miles between occurrences. In the north, the species is found in all New England states, New York, Delaware, Pennsylvania, and Maryland. Westward, it is found in Minnesota and in the pacific coastal states of Washington, Oregon, California, and Alaska. Its southern range encompasses Georgia, Alabama, Louisiana, Arkansas, Oklahoma, Texas, New Mexico, and Utah.

**Population status in Massachusetts:** Pygmyweed 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. There are nine current populations (i.e., those recorded after 1984) in the coastal regions of Plymouth, Bristol, Dukes, and Nantucket counties, in the central part of the state in Hampshire County, and in the north central area of Franklin County.

**Management recommendations:** As for many rare species, exact needs for management of Pygmyweed are not known. However, preserving the integrity of its habitat is a logical first step. This may involve restricting recreational shore use to avoid trampling and compaction of shorelines, and maintaining existing hydrology. Field notes suggest that populations may decline with high water levels, and that the natural opening and flushing of salt pond habitats once every year or two may benefit populations. Further research is needed to determine precise ecological requirements of this species.

### Flowers Present

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

Updated 26 February 2009