



## Natural Heritage & Endangered Species Program

Massachusetts Division of Fisheries & Wildlife  
1 Rabbit Hill Road, Westborough, MA 01581  
tel: (508) 389-6360, fax: (508) 389-7891  
www.nhesp.org

## Pondshore Knotweed *Persicaria puritanorum* Fern.

State Status: **Special Concern**  
Federal Status: **None**

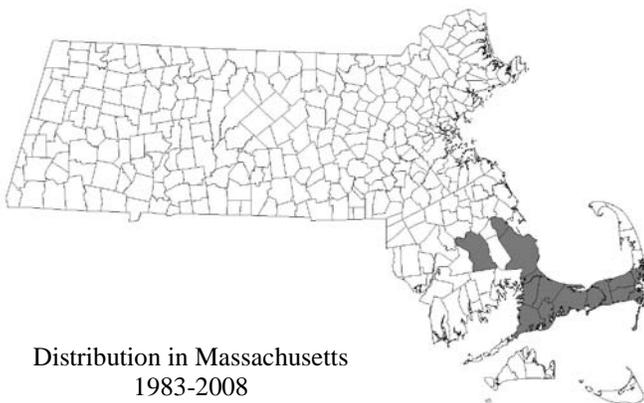
**Description:** Pondshore Knotweed (*Persicaria puritanorum*) is a globally rare, trailing annual wildflower of the buckwheat family (Polygonaceae), found on the upper shores of coastal plain ponds of the Northeast.

**Aids to identification:** Pondshore Knotweed is a prostrate to ascending plant, with a stem 10 to 60 cm (4–24 in.) in length, which is somewhat branching at the base. The leaves are alternate, lance-shaped, 3 to 10 cm (1.2–4 in.) long, and up to 1.5 cm wide (0.6 in.); they are short-petioled to nearly sessile. The ochrea (the sheath at base of the leaf characteristic of buckweats) are cylindric, with a fringe of straight hairs. The flowers are rose-pink, and very small, borne on very dense, long-stalked, axillary spikes. Flowers are present from midsummer to early fall. The fruits, or achenes, are black, smooth, and shiny, and 2 mm long.

**Similar species:** Pondshore Knotweed closely resembles Lady's Thumb (*Persicaria maculosa*), an exotic species that occupies a wide variety of disturbed habitats throughout the state. Unlike Pondshore Knotweed, Lady's Thumb has a distinctive dark blotch on each leaf; further, it is a more erect plant than Pondshore Knotweed, and has larger achenes.



Britton, N.L. and A. Brown. 1970. *An Illustrated Flora of the Northern United States and Canada*, Second Edition. Dover Publications, Inc. New York.



Distribution in Massachusetts  
1983-2008  
Based on records in Natural  
Heritage Database

**Habitat:** In Massachusetts Pondshore Knotweed inhabits the sandy, peaty, or cobble upper shores of acidic, low-nutrient coastal plain ponds. It requires pronounced water level fluctuation, acidic, nutrient-poor water and substrate, and an open, exposed shoreline, free from major soil disturbance. Associated species include Dwarf Bulrush (*Lipocarpus micrantha*; Threatened), Golden Hedge-hyssop (*Gratiola aurea*), Hyssop Hedge-nettle (*Stachys hyssopifolia*), Plymouth Gentian (*Sabatia kennedyana*; Special Concern), Rose Coreopsis (*Coreopsis rosea*), Slender-leaved Goldenrod (*Euthamia tenuifolia*), and Toothed Flatsedge (*Cyperus dentatus*).

**Threats:** Threats include any activities that change the natural hydrology, water quality, or soil integrity of its habitat. Examples include water table drawdown from local wells, eutrophication resulting from nutrient inputs from septic systems and lawns, and trampling and soil disturbance due to recreational use of pondshores (i.e., hiking, sunbathing, swimming, fishing, boat-launching, and raking or digging).

**Range:** Pondshore Knotweed is regionally endemic, ranging from Nova Scotia and Maine to southeastern Massachusetts and Rhode Island.

**Population in Massachusetts:** Pondshore Knotweed is listed under the Massachusetts Endangered Species Act as a species of Special Concern. All listed species are legally protected from killing, collection, possession, or sale, and from activities that would destroy habitat and thus directly or indirectly cause mortality or disrupt critical behaviors. Pondshore Knotweed is currently known from Barnstable, and Plymouth Counties, and is historically known from Dukes and Worcester Counties.

**Management recommendations** Preservation of Pondshore Knotweed requires protection of the natural hydrology, water quality, and soil integrity of its habitat. Like other coastal plain pondshore plant species, it requires pronounced water-level fluctuations, and acidic, nutrient-poor water and substrate, free from major soil disturbance.

Pondshore Knotweed populations should be monitored regularly to identify possible threats. Protection of Pondshore Knotweed may require exclusion of new wells and septic systems, prohibitions on fertilizer use, and restrictions on recreational use of the pondshores. Recreational activities such as swimming, fishing, and boat-launching should be diverted from plant population locations by providing alternative locations for these activities.

Also, habitat should be monitored for exotic plant species invasions. The nature of coastal plain ponds makes them generally inhospitable to many exotic plants, but they can become established at sites that have major soil disturbance or heavy nutrient inputs. Exotic species that could establish along the shoreline of coastal plain ponds include Common Reed (*Phragmites australis* ssp. *australis*), Gray Willow (*Salix cinerea*), and Purple Loosestrife (*Lythrum salicaria*).

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

Updated March 2012