



Natural Heritage & Endangered Species Program

www.mass.gov/nhesp

Massachusetts Division of Fisheries & Wildlife

Culver's-root *Veronicastrum virginicum* (L.) Farw.

State Status: **Threatened**

Federal Status: **None**

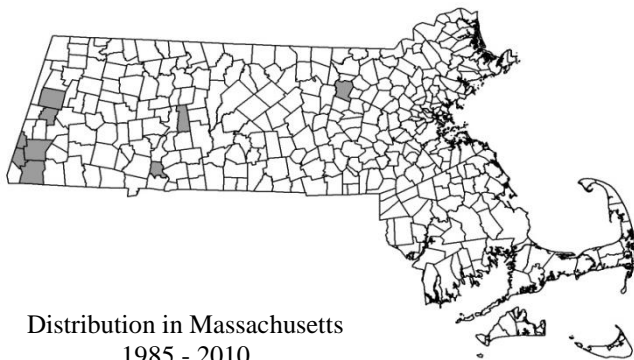
DESCRIPTION: Culver's-root is an herbaceous perennial wildflower with several erect stems 8 to 20 dm (~2.6–6.5 ft.) in height, each terminating in showy, candelabra-like arrays of pink or white flowers. The stems bear numerous whorls of three to six leaves, which are narrow and somewhat stiff.

AIDS TO IDENTIFICATION: Culver's-root has several stems, unbranched to the inflorescence, bearing whorls of lanceolate, finely serrate leaves that are usually slightly hairy beneath. Flowers are borne in branched, tapering terminal spikes 5 to 15 cm (2–6 in.) long. The flowers are tubular in shape, 7 to 9 mm long, and densely crowded on each spike.

SIMILAR SPECIES: There are many native, naturalized, and cultivated species with showy terminal white or pink inflorescences, but none with Culver's-root's combination of tall stature, unbranched erect stems, narrow whorled leaves, and candelabra-like inflorescence.



*Culver's-root showing the long inflorescence and whorled leaves.
Photo Jennifer Garrett, NHESP.*



Distribution in Massachusetts
1985 - 2010

Based on records in the
Natural Heritage Database

HABITAT IN MASSACHUSETTS: In Massachusetts, Culver's-root typically inhabits moist, sunlit meadows, often formerly cultivated, with alkaline soils. Populations have also been found along a roadside and in a moist utility right-of-way. Associated species include goldenrods (e.g., *Solidago canadensis*, *S. altissima*), asters (*Symphotrichum* spp.), Spotted Joe-Pye-Weed (*Eutrochium maculatum*), Wild Bergamot (*Monarda fistulosa*), Sensitive Fern (*Onoclea sensibilis*),

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

Massachusetts Division of Fisheries & Wildlife

1 Rabbit Hill Rd., Westborough, MA; tel: 508-389-6300; fax: 508-389-7890; www.mass.gov/dfw

Please allow the Natural Heritage & Endangered Species Program to continue to conserve the biodiversity of Massachusetts with a contribution for 'endangered wildlife conservation' on your state income tax form, as these donations comprise a significant portion of our operating budget.

www.mass.gov/nhesp

and other wet meadow species. Associated shrubs may include Northern Arrowwood (*Viburnum dentatum* var. *lucidum*), Witherod (*V. nudum* var. *cassinoides*), willows (*Salix* spp.), and alders (*Alnus* spp.). Habitat is often kept open by some form of disturbance such as periodic flooding, mowing or grazing.

RANGE: Culver's-root is known throughout much of eastern and central North America from Nova Scotia and New England west to Manitoba and the Dakotas, south to Texas and the Gulf states. It is of conservation concern in 13 states and two provinces, and has been introduced in Maine and Nova Scotia.

POPULATION STATUS: Culver's-root 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. It is currently known from Berkshire, Hampden, Hampshire, and Worcester Counties. Sites in which the plant may have been introduced are not regulated.

MANAGEMENT RECOMMENDATION: In Massachusetts, Culver's-root faces a number of threats. These include development of habitat, predation by deer, invasion by exotic plants, competition from native woody plants, soil bank erosion in riparian habitats, impact from agricultural herbicides, poorly timed mowing, and road runoff.

Exotic buckthorns (*Rhamnus cathartica* and *Frangula alnus*), honeysuckles (*Lonicera* spp.), Multiflora Rose (*Rosa multiflora*), Japanese Barberry (*Berberis thunbergii*), Privet (*Ligustrum* sp.), Autumn Olive (*Elaeagnus umbellata*), Asiatic Bittersweet (*Celastrus orbiculatus*) and Purple Loosestrife (*Lythrum salicaria*) have been noted at population locations; these species and native woody plants (e.g., alders) can potentially outcompete Culver's-root. Woody plants should be monitored and, if deemed necessary, a vegetation management plan should be developed in consultation with the Massachusetts Natural Heritage and Endangered Species Program. Mowing should be timed to allow completion of flowering and fruiting of Culver's-root, and if possible, should take place during the growing season to better control woody plants; therefore, spring and autumn (post-fruiting) are the best times to mow. Sites should also be monitored for deer browse, and if necessary, measures such as fencing may be used to protect plants. Where erosion is a problem, it may be necessary to expand habitat away from eroding banks through vegetation management. 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 and Endangered Species Program.

Flowering time in Massachusetts

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

Updated 2015

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

Please allow the Natural Heritage & Endangered Species Program to continue to conserve the biodiversity of Massachusetts with a contribution for 'endangered wildlife conservation' on your state income tax form, as these donations comprise a significant portion of our operating budget.