



Natural Heritage & Endangered Species Program

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Massachusetts Division of Fisheries & Wildlife

Spurred Gentian *Halenia deflexa* (Sm.) Griseb.

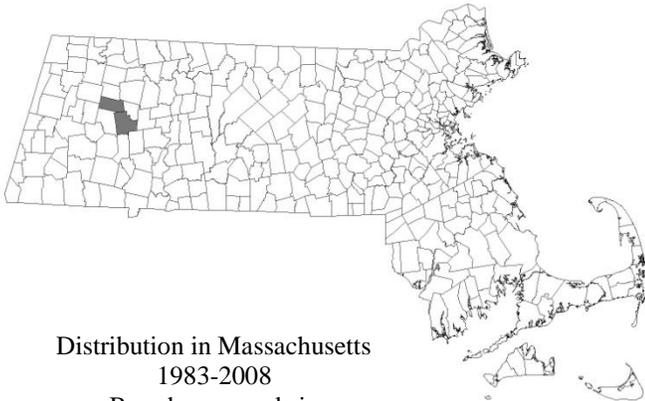
State Status: **Endangered**
Federal Status: **None**

DESCRIPTION: Spurred Gentian (*Halenia deflexa*) is a distinctive annual wildflower of the gentian family (Gentianaceae), with greenish-purple spurred petals. It is more common to the north and is at the southern edge of its range in Massachusetts.

AIDS TO IDENTIFICATION: Spurred Gentian is an erect and sometimes branching plant, 20 to 90 cm (4–24 in.) in height. It has opposite, egg-shaped to lance-shaped, nearly sessile stem leaves, 2 to 5 cm (0.8–2 in.) long. The flowers are borne in loose, terminal and axillary clusters, each with 5 to 9 flowers. Pedicels are up to 4 cm (1.6 in.) in length. The flowers are five-lobed, with acute purple-green petals and downward-pointing spurs that extend below the sepals. Spurred Gentian blooms mid-July into August.



Photo from Superior National Forest



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

SIMILAR SPECIES: When observed in flower, Spurred Gentian is very distinctive and is not likely to be confused with a different species. Closed Bottle Gentian (*Gentiana clausa*) and Andrew's Bottle Gentian (*G. andrewsii*) look superficially similar, but the petals of these species remain closed at the apex, and lack downward pointing spurs.

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

Massachusetts Division of Fisheries & Wildlife

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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.

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HABITAT: In Massachusetts, Spurred Gentian inhabits moist cool woods and thickets, especially in semi-shaded, mossy margins of rocky river shores. Associated species include Lesser Purple Fringed Orchis (*Platanthera psycodes*), Closed Bottle Gentian, Canadian Burnet (*Sanguisorba canadensis*), and Smooth Rose (*Rosa blanda*).

THREATS: Spurred Gentian is threatened by heavy recreational uses, such as hiking, picnicking, and sunbathing in areas along the river where it occurs. These activities can cause physical damage to the plants, disrupting the completion of their reproductive cycle and reducing their seed production. Further, compaction of the soil from foot traffic could make the site less hospitable for germination and seedling establishment. An invasion of exotic plant species, such as Japanese Knotweed (*Fallopia japonica*), Garlic Mustard (*Alliaria petiolata*), and Japanese Barberry (*Berberis thunbergii*), which are known to inhabit cool, rich sites preferred by Spurred Gentian could pose a severe threat to the species; once established, these exotic plants effectively out-compete many native herbs.

RANGE: The range of Spurred Gentian spans most Canadian provinces, and reaches south to Massachusetts, New York, the Great Lakes states, South Dakota, and Wyoming.

POPULATION IN MASSACHUSETTS: Spurred Gentian is listed under the Massachusetts Endangered Species Act as Endangered. 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. Spurred Gentian is currently known only from Hampshire County.

MANAGEMENT RECOMMENDATIONS: As with many rare species, the exact management needs of Spurred Gentian are not known. Spurred Gentian locations that receive heavy recreational use (e.g., hiking, ORV use, picnicking, sunbathing) should be carefully monitored for physical damage to the plants, and for soil compaction and erosion; trails and other recreational activities should be re-directed to protect the rare plant population. In addition, Spurred Gentian habitat should be monitored carefully for invasions of exotic plants, particularly Japanese Knotweed, Garlic Mustard, and Japanese Barberry. If an exotic plant invasion is identified in Spurred Gentian habitat, a plan should be developed, in consultation with the Massachusetts Natural Heritage & Endangered Species Program to eradicate the invaders. 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 2015

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