Natural Heritage & Endangered Species Program

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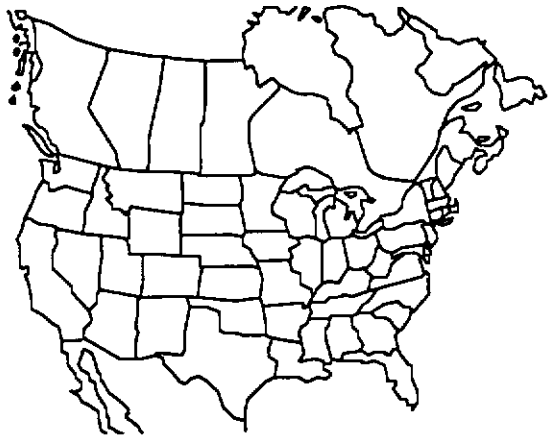
MASSACHUSETTS ENDANGERED PLANTS

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

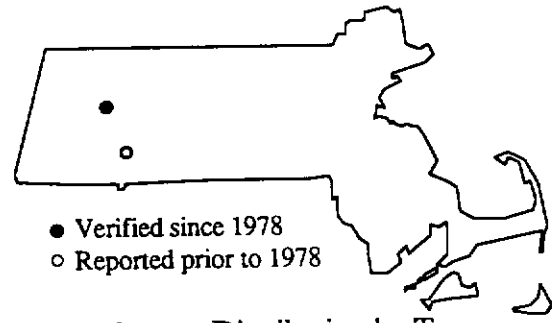
DESCRIPTION: Spurred Gentian is a slender, erect annual in the Gentian family (Gentianaceae). Its stem reaches from 2 to 9 dm (8 to 36 in.) high and may either be unbranched or sparsely branched near the top. Its leaves are opposite with three to five nerves. The lowest leaves are stalked and are oblong-spatulate in shape. The stem leaves are lanceolate to egg-shaped, stalkless or nearly so, and 2–5 cm (0.75–2 in.) long. Spurred Gentian's purplish-green, four-lobed flowers occur in loose clusters of 5–9 blossoms at the summit of the stem or in the leaf axils. The 10–12 mm (about 0.5 in.) long flowers have four downward-pointing spurs, one at the base of each corolla lobe. The spur distinguishes this gentian from other gentians in Massachusetts. Spurred Gentian blooms from mid-July through August.

RANGE: The documented range of Spurred Gentian extends from Labrador and Newfoundland west to British Columbia, south to Massachusetts, New York, Michigan, Minnesota, Montana, north Illinois and the mountains of Mexico.

Gleason, H.A. The New Britton and Brown Illustrated Flora of the US & Adjacent Canada. NY Botanical Garden, 1952.



Documented Range of Spurred Gentian



Massachusetts Distribution by Town

HABITAT IN MASSACHUSETTS: Spurred Gentian is a plant of cool, damp woods and bogs. In Massachusetts, this gentian occurs in cool woods and thickets, especially in the semi-shaded, mossy margins of rocky streams. Associated plant species at the state's sole current site (rediscovered in 1984) include Smooth or Meadow Rose (*Rosa blanda*), Bottle Gentian (*Gentiana clausa*), Canadian Burnet (*Sanguisorba canadensis*), Creeping Spikemoss (*Selaginella apoda*), Pale St. John's-wort (*Hypericum ellipticum*) and Small Purple-fringed Orchis (*Platanthera psycodes*).

POPULATION STATUS IN MASSACHUSETTS: Spurred Gentian is presently listed as Endangered in Massachusetts. As with all species listed in Massachusetts, individuals of the species are protected from take (picking, collecting, killing...) and sale under the Massachusetts Endangered Species Act. One current station (discovered in 1868 and relocated in 1984) and one historical station (unverified since 1978) are known in the Commonwealth. Massachusetts is at the southern edge of the plant's range (except for a disjunct Mexican mountain population), a fact which accounts, in part, for its rarity here. Spurred Gentian is also considered rare in New Hampshire, New York, North Dakota, Montana, and Wyoming. It was present historically in Vermont.

MANAGEMENT RECOMMENDATIONS: Since the spurred gentian has only one current site in Massachusetts, it is virtually impossible to say what habitat conditions would be most favorable in this state. Of the current site, Sorrie (1987) did note that it "was found locally where conditions of moisture, shading, and *lessened competition form other herbs and shrubs* are favorable." Management recommendations from other states indicate its need for canopy cover and protection of its current moisture regime. The combination of needing some shade and not being a good competitor with other herbs, suggests that an undisturbed forest with limited shrub or herbaceous layer may be the best habitat.

References cited:

Sorrie, Bruce A. 1987. "Notes on the Rare Flora of Massachusetts." Rhodora, vol. 89, no. 858.

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