



Natural Heritage & Endangered Species Program

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Massachusetts Division of Fisheries & Wildlife

Narrow-leaved Gentian *Gentiana linearis* (Froel.)

State Status: none
Federal Status: none

DESCRIPTION: Narrow-leaved Gentian is an uncommon perennial herb with distinctive, bright blue flowers that bloom from late July to mid-September. It is narrow leaves and grows up to 80 cm in height (31 inches) but can be as short at 20 cm (8 inches). Like the closely related Andrews' Bottle Gentian (*Gentiana andrewsii*), this species has flowers that do not appear to open. Thus, pollinators are restricted to the powerful bumblebees that can force their way in to the flower.

AIDS TO IDENTIFICATION: Narrow-leaved Gentian can be distinguished in Massachusetts from other bottle gentians by having entire, smooth leaves (no teeth) even at the margins. Other species have cilia at the margins. Cilia are fine hairs, visible with 5-power or more magnification. This species also has narrow leaves that rarely are as wide as 1 cm (less than a half inch). The leaves are dark green and up to 9 cm in length (3.5 inches). They are narrowly lanceolate and narrow toward the base.

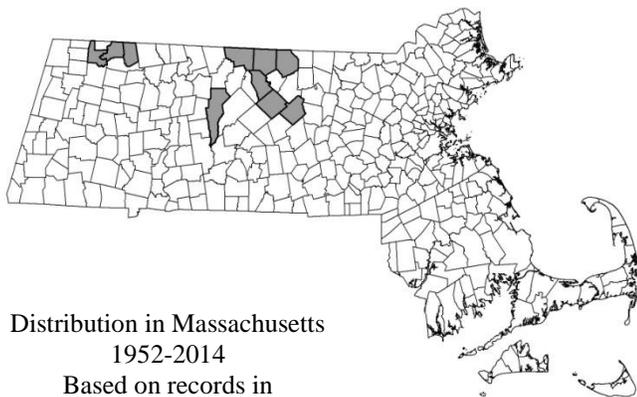


Photo by Paul Somers

SIMILAR SPECIES: Narrow-leaved Gentian is similar to the other two bottle gentian species in Massachusetts, *Gentiana andrewsii* (Andrews' Bottle Gentian) which is a state-Endangered species, and *Gentiana clausa* (Closed Gentian), both of which have abundant cilia on the leaf margins.

HABITAT: Narrow-leaved Gentian prefers, but is not always found in, wet habitats, sometimes along wet road edges. It is found in acidic wetlands, boggy habitats, as well as floodplains, wet meadows, and the shores of lakes and rivers, including beaver ponds. It has a wetland status of FACW in the New England states.

POPULATION STATUS IN MASSACHUSETTS: Narrow-leaved Gentian has been found in 12 locations since 1952, including several in 2007, the last year it was reported. It is not listed under the Massachusetts Endangered Species Act, but is considered uncommon in Massachusetts.



Distribution in Massachusetts
1952-2014
Based on records in
Natural Heritage Database

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

Massachusetts Division of Fisheries & Wildlife

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RANGE: Narrow-leaved Gentian is primarily a species of New Hampshire, Maine, and eastern parts of Canada, but also ranges rarely down into the southern Appalachians.

THREATS: Since this is a wetland species, threats to the Narrow-leaved Gentian include disruption of the natural hydrologic regime, as well as habitat loss, deer browse, invasive species, and climate change. Inputs of nutrients from farm or lawn fertilizers, as well as excess flooding and siltation may increase the abundance of invading exotic (or aggressive native) plants such as Purple Loosestrife (*Lythrum salicaria*), Common Reed (*Phragmites australis ssp. australis*), cattail (*Typha* species) and Reed Canary Grass (*Phalaris arundinacea*).

Prepared by R.W. Wernerehl, 2015

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