



RARE PLANTS OF NEW HAMPSHIRE

Fringed Gentian

Gentianopsis crinita (Froel.) Ma **Synonyms:** *Gentiana crinita*; greater fringed gentian

Gentian family (Gentianaceae)

What Does It Look Like?

A branched annual or biennial herb, fringed gentian reaches about 30 - 80 cm (1 - 3 ft.) tall. Plants may be difficult to identify until they flower in the fall.

Leaves: The leaves are simple, opposite, sessile (not stalked), and entire (edges not toothed).

Flowers: The deep blue-purple flowers, about 5 cm (2 in.) in length, are individually stalked on a long peduncle. The four wide petals at the top of the throat of the flower are rolled up in a spiral cone shape in bud. The flowers open in the sun and close in the shade. The petal edges are fringed with feathery narrow tapering teeth. Flowering is from September to October.

Fruit: A spindle-shaped capsule with a slender beak producing many seeds. The seeds bear numerous tiny projections which make them easily dispersed by the wind.

Key features: Distinctive flower in moist early-successional habitat.

Similar species: The most common species of gentian in New Hampshire is closed or bottle gentian (*Gentiana clausa*). The clusters of light (not dark) blue flowers appear as though they never fully open but really just have very short petals that tend to point inward at the top of the long tubular throat. Stiff gentian (*Gentianella quinquefolia*) has similar leaves to fringed gentian but very different flowers: they are narrow, with tiny petals, and they are found in clusters on each stem. This species is also rare in New Hampshire.



Where Is It Found?

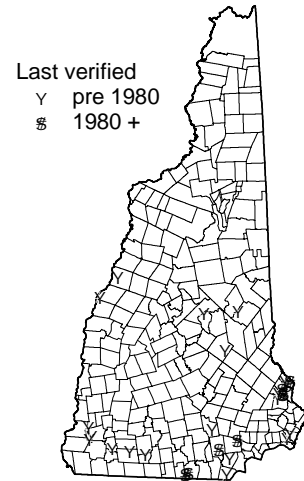
Fringed gentian is found in low woods, in wet meadows, and on brook banks. Plants have also been found in low wet areas along roadsides and under power lines. These are moist early-successional habitats usually found in sunny locations. Flowers are pollinated by bumble bees. Seeds are blown to new locations by the wind. Perpetuation of this species appears to rely on the seeds finding new suitable habitat, since populations at any one site are not usually long-lived.



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Conservation status: Fringed gentian is threatened in New Hampshire. Of 28 known locations, only the nine southern and coastal populations have been recently verified. Nineteen historical records exist from as far north as Lyme, Wolfeboro, and Laconia.

Range: Maine south to Maryland and the mountains of Georgia, west to Iowa, and north to Manitoba.



Why Is It Rare?

The early-successional habitat of this species has declined in New Hampshire due to reforestation. The state was about 30% less forested 100 years ago than it is now, having been cleared mostly for sheep farming and other agricultural purposes. Climate may also have an adverse affect on this species, particularly since plants flower late in the season.

Conservation Considerations:

The early-successional habitat required by fringed gentian is currently threatened. It is being displaced by development and other human activities or it is being overgrown by shrubs and other woody species. Natural patterns of disturbance such as wildfire, spring flooding, or periodic beaver flooding, that naturally perpetuate open habitats, have been changed by human activities.

Restoring natural disturbance patterns would help to maintain populations of this species. If this is not feasible, woody vegetation can be removed or suppressed by mechanical means (e.g., mowing). Care must be taken to avoid these plants during the time of greatest plant growth, flowering, and fruiting in late summer and fall. Since plants do not flower until the fall and can be easily overlooked during most of the growing season, population areas should be carefully determined prior to planning and implementing any management activities.

The information in this fact sheet is current as of December 2002. It is based on a database maintained by the NH Natural Heritage Program, a bureau in the Division of Forests & Lands in the Department of Resources and Economic Development. NH Natural Heritage is a member of NatureServe, which represents an international network of Heritage programs. Illustration by Anne Rogelberg. Reprinted with permission from The New York Botanical Garden Press. Originally published in H. A. Gleason, *The New Britton and Brown Illustrated Flora of the Northeastern United States and Adjacent Canada*, Vol. III, p. 62, copyright 1952, The New York Botanical Garden.

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