## Fringed Gentian, Gentianopsis crinita

While hiking along the southwest shore of Manitoulin Island (in Lake Huron on the Canadian side), my family and I encountered strikingly beautiful, intense blue, trumpet-shaped flowers with delicately fringed petals. It wasn't until we were back in GR that we discovered how lucky we were to have witnessed Fringed Gentians in bloom!

Fringed Gentians can be an annual or a biennial (living 1 or 2 years) and are among the last wildflowers to bloom: August-October. Initially, the plant forms only a low rosette of leaves near the ground. Later, or in the 2nd year, it sends out erect, 8-24" tall, flowering stalks. The flowers are solitary, 1-2 inches wide, with 4 fringed petals. They open only in full sun and



close at night or on cloudy days. When closed, the flowers twist into a showy spiral bud. Upon opening, the petals spread almost horizontally.

This wildflower reproduces primarily by seed. Two-part capsules contain many seeds, each of which has numerous tiny projections which make them easily dispersed by wind or water. The leaves are 1-2 inches long, opposite, ovate, stalkless, yellow-green, with prominent central veins and slightly succulent.

The main pollinators of Fringed Gentians are robust bumblebees that often manage to force their way into the flowers even when closed. Some scientists believe that the fringes on the petals provide some protection from ants, which are highly attracted to the nectar. The plant's bitter foliage is rarely bothered by insects or herbivores.

Native to eastern U.S. and Canada, including Michigan, Fringed Gentian are nevertheless uncommon throughout its range and is listed as threatened in some states. The plant is restricted to moist early-successional sites with nearly neutral pH soils, reduced competition from other plants, and where certain bacteria or fungi are present in the soil. Therefore, Fringed Gentian should never be picked or transplanted!

Research at Cornell University suggests that Fringed Gentian may be a remnant species from the late-glacial period of eastern North America, before forest cover developed 12,000 years ago. The plant would have been ideally suited to growing on unstable calcareous substrates (underlying chalk or limestone rock) often found along ice margins. The genus is known to have been present at the time, and the current range of this plant is largely within regions that were once glaciated. As forests came to dominate, habitat suitable for Fringed Gentians appears now to be restricted to relatively few edge areas.

The Fringed Gentian's fleeting, exquisite beauty has drawn the attention of artists and poets. It is cited in works by Henry David Thoreau, William Cullen Bryant, and Emily Dickinson.

More information and photos at: http://plants.usda.gov/core/profile?symbol=GECR2 http://www.illinoiswildflowers.info/wetland/plants/fr\_gentian.html http://www.nhdfl.org/library/pdf/FS-FringedGentian.pdf To the wildflower enthusiast, the word gentian says "blue" and perhaps brings to mind one of the stanzas of "To the Fringed Gentian" by William Cullen Bryant.

## To the Fringed Gentian

BY WILLIAM CULLEN BRYANT 1794-1878

THOU blossom bright with autumn dew,

And colored with the heaven's own blue,

That openest when the quiet light

Succeeds the keen and frosty night,

Thou comest not when violets lean O'er wandering brooks and springs unseen, Or columbines, in purple dressed, Nod o'er the ground-bird's hidden nest.

Thou waitest late and com'st alone, When woods are bare and birds are flown, And frost and shortening days portend The aged year is near his end.

Then doth thy sweet and quiet eye Look through its fringes to the sky, Blue—blue—as if that sky let fall A flower from its cerulean wall.

I would that thus, when I shall see The hour of death draw near to me, Hope, blossoming within my heart, May look to heaven as I depart.