



Natural Heritage & Endangered Species Program

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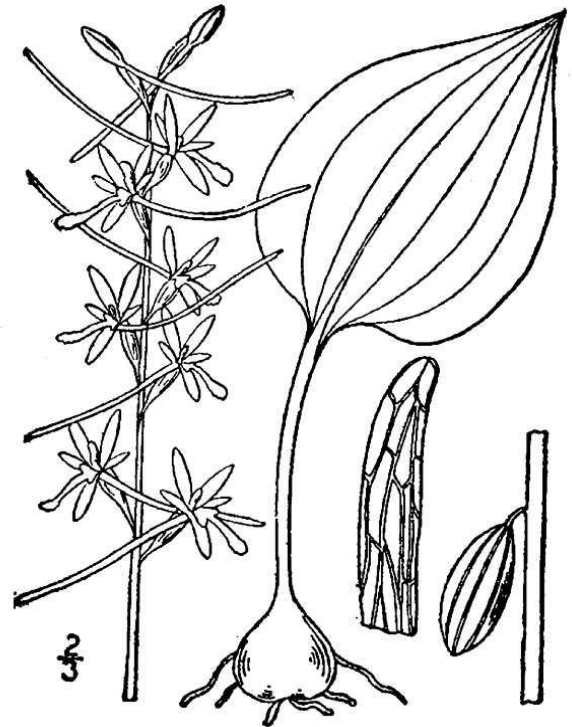
Massachusetts Division of Fisheries & Wildlife

Cranefly Orchid *Tipularia discolor* (Pursh) Nutt.

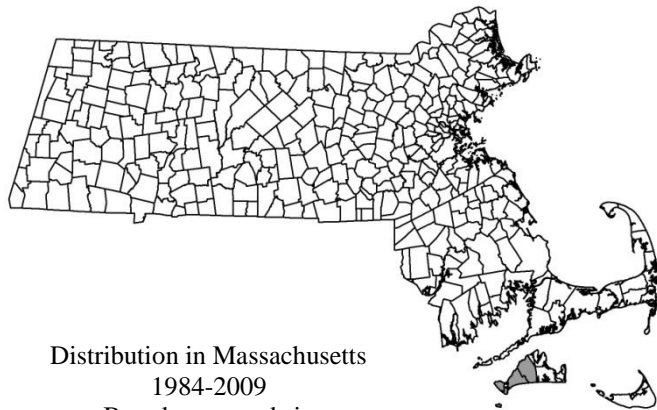
State Status: **Endangered**

Federal Status: **None**

DESCRIPTION: Cranefly Orchid is a perennial herb in the Orchid family (Orchidaceae) which produces a single basal leaf and a slender flower stalk. The solitary leaf is dark green and, often, purple-spotted above, dark purple beneath, ovate, and measures 8-10 cm x 6-7 cm (3.1-4 in. x 2.4-2.8 in.). However, in Massachusetts, leaves are usually smaller, mostly 1 to 1 1/2 in. long. The leaf is erect at first, but soon lies more or less flat on the leaf litter. Cranefly Orchid's inflorescence is slender, erect, and forms a 10-20 cm (4-8 in.) long, loose raceme (an unbranched, elongate grouping of stalked flowers) with 20 to 40 tiny blossoms (often fewer in Massachusetts). Sepals and petals are a pale brownish-greenish color with purple veins, measure 4-8 mm x 1.5-3 mm (0.16-0.32 in. x 0.06-0.12 in.), and are arranged asymmetrically, with one petal overlapping the dorsal sepal. The pale purple lip (lowermost petal) is three-lobed with a 1.5-2 cm (0.6-0.8 in.) long horizontal spur at the base. The flowers are horizontal to somewhat drooping. Each plant produces round tubers below ground which split off to produce new plants. Cranefly



USDA-NRCS PLANTS Database / Britton, N.L., and A. Brown. 1913. *An illustrated flora of the northern United States, Canada and the British Possessions*. 3 vols. Charles Scribner's Sons, New York. Vol. 1: 573.



Distribution in Massachusetts
1984-2009
Based on records in
Natural Heritage Database

Orchid thus often grows in clusters that originated from a single plant. The growth pattern of Cranefly Orchid differs from that of most flowering plants in that its leaf appears in fall, winters over, photosynthesizes (unless snow-covered), provides food for the tubers, and dies back in the late spring. There is a brief period of a few weeks, from late May-June, when nothing is visible above ground. The scape then emerges in mid-June in the north (or September in Florida). The plant subsequently develops buds, comes into flower in mid-July, puts out fruit, and dies within a period of 2-3 months. The best time to look for Cranefly Orchid is in the fall.

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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RANGE: The documented range of Crane-fly Orchid extends from southeastern Massachusetts and Long Island, New York, to southern Indiana, south to Florida and eastern Texas. Massachusetts is the only New England state where this species occurs.

SIMILAR SPECIES: Within its range in New England, there is no other similar orchid. Puttyroot (*Aplectrum hyemale*) has similar biology, but its basal leaf is long-elliptical, pleated lengthwise, and devoid of purple color. Canada Mayflower (*Maianthemum canadense*), a common woodland plant in the Lily family, has a single, medium green basal leaf when immature, but this leaf has no purple coloring.

HABITAT IN MASSACHUSETTS: Crane-fly Orchid is found in mesic-damp woods with filtered light. On Martha's Vineyard, it is found in deciduous woodlands near maple-tupelo swamps, near open bodies of fresh water and in mesic, hardwood forests in perched wetlands. Surrounding trees and shrubs may include oaks (*Quercus* spp.), Red Maple (*Acer rubrum*), Sweet Pepperbush (*Clethra alnifolia*), Black Gum (*Nyssa sylvatica*), Sassafras (*Sassafras albidum*), American Holly (*Ilex opaca*), Beech (*Fagus grandifolia*), viburnum (*Viburnum* spp.), and Swamp Honeysuckle (*Rhododendron viscosum*). Associated ground plants may include Beech-drops (*Epifagus virginiana*), Carrion-flower and Greenbrier (*Smilax* spp.), and Indian Pipe (*Monotropa uniflora*).

POPULATION STATUS: Crane-fly Orchid is currently listed as Endangered in Massachusetts. There are eight current stations in five towns and three historical stations (unverified since 1984) in the Commonwealth. The plant is also considered rare in Illinois, Michigan, Missouri, New York, New Jersey, Pennsylvania, and Oklahoma. Reasons for the plant's rarity in Massachusetts include the fact that it is at the northeastern limit of its range here. Also, excessively wet weather on Martha's Vineyard in the past may have created problems for the plant. Future threats in Massachusetts include encroaching developments, a possible road-widening plan, and, possibly, browsing by over-abundant deer.

Updated 2015

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