Natural Heritage &
Endangered Species
Program

Commonwealth of Massachusetts
Division of Fisheries & Wildlife
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MASSACHUSETTS THREATENED PLANTS

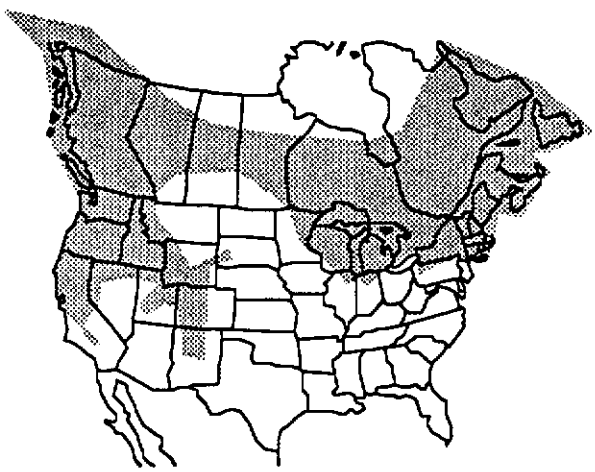
LEAFY WHITE ORCHIS

(*Platanthera dilatata* <Pursh> Lindl. ex Beck =
Habenaria dilatata <Pursh> Hook)

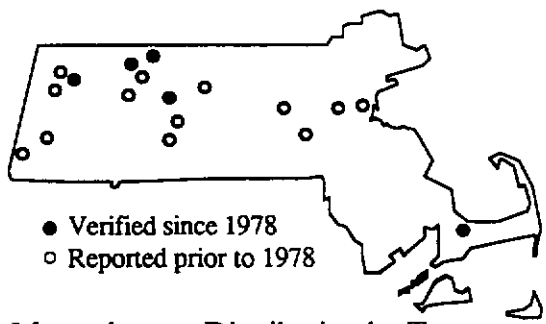
Newcomb, Lawrence. Newcomb's Wildflower Guide. Little, Brown and Company, Boston. 1977.

Description

Leafy white orchis--or bog candles--is a tall, leafy-stemmed, stout or slender perennial in the Orchid family (Orchidaceae) that rises from fleshy roots and ends in a slender spike of white flowers. It is erect, hairless, and reaches up to 1 m (3 1/3 ft.) in height. The lanceolate leaves number about 12 and become progressively smaller toward the top of the plant. Leafy white orchis's small flowers are generally bright white and are arranged in a 1-3 dm (1/3 to 1 ft.) long spike. Their delightful fragrance has been likened to cloves. The 5-10 mm (0.2 - 0.4 in.) long lip, or lowermost petal, widens near the base and has five to seven prominent veins. The spur (a hollow extension of the flower) is about as long as the lip. Leafy white orchis's fruit is a 12 x 6 mm (0.47 - 0.24 in.), ellipsoid capsule (a fruit that is formed from a compound pistil and that contains many seeds). In Massachusetts, the plant blooms from mid June through July.



Documented Range of Leafy White Orchis



Massachusetts Distribution by Town

Range

The North American range of leafy white orchis has been documented as extending across Labrador to Alaska and south to New Jersey, Wisconsin, South Dakota, New Mexico and California.

Similar Species

The white-fringed orchis (*Platanthera blephariglottis*) and the clubspur orchis (*Platanthera clavellata*)--two white to whitish-flowered orchids of somewhat similar habitats--could be confused with leafy white orchis. However, in our area, the lip of white-fringed orchis is deeply fringed. And the clubspur orchis is both shorter--1-4 dm (1/3 to 1 1/3 ft.)--and, generally, has only one well-developed leaf on its stem. Finally, northern green orchis (*Platanthera hyberborea*) is extremely hard to distinguish from leafy white orchis and often hybridizes with it. In contrast to leafy white orchis, it has green or greenish-white flowers. (Some authorities consider *Platanthera hyperborea* to be a green-flowered form of *Platanthera dilatata*.)

Habitat in Massachusetts

Leafy white orchis is a plant of sunny, wet areas, including bogs, seepage slopes and wet woods, especially where cold water surfaces to form springs. It prefers non-acid soil conditions. In Massachusetts, habitats include a cold, muddy and springy seep; a wet spot near a road; an area of sphagnum and rich muck, with springs and streamlets; a wet, sedgey open area; and an open, springy seep adjacent to a tributary. Plant species associated with leafy white orchis include sphagnum moss (*Sphagnum* spp.); various horsetails (*Equisetum* spp.), willows (*Salix* spp.) and alders (*Alnus* spp.); marsh fern (*Thelypteris palustris*); royal fern (*Osmunda regalis*); and yellow sedge (*Carex flava*).

Population Status

Leafy white orchis is presently listed as "Threatened" in Massachusetts. There are seven current stations (discovered or relocated since 1978) in five towns and 15 historical stations (unverified since 1978) in 14 towns. (One town has both an historical and a current station and is represented by one solid dot on the Massachusetts distribution map.) Reasons for the plant's rarity in Massachusetts include loss of habitat--due both to development and forest succession--and scarcity of suitable habitat. Leafy white orchis is also considered rare in Indiana, South Dakota and Wisconsin. It was present historically in Pennsylvania and Connecticut. The species is quite common in the far North, but becomes rare in the southern portions of its range.