



**Natural Heritage
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Program**

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Massachusetts Division of Fisheries & Wildlife

Loesel's Twayblade
Liparis loeselii (L.) L.C. Rich.

State Status: **None**
Federal Status: **None**

DESCRIPTION: Loesel's Twayblade is an orchid that is widespread across New England but generally rare throughout. The plant can be as diminutive as 8 cm (3.2 inches) in height and as tall as 28 cm (11 inches). A pair of light to pale green, glossy, fleshy, elliptic to somewhat lanceolate leaves ascend from the base of the plant and typically have a distinctive keel or mid-vein. The stem is slightly ridged along the length and holds the flowers well above the leaves. The number of flowers varies from two to twelve; they are pale green throughout. The flowers are delicate, with a distinctive downward curving lip or labellum. The ovary of the flower appears alongside, as if fused with the pedicel, which is 4-10 mm (roughly 1/4 inch) in length at flowering time. The sepals and petals are somewhat threadlike. The plant is a short-lived perennial. It overwinters as a pseudo-bulb right next to the stem and just below the soil surface. Loesel's Twayblade flowers from late June to mid-July and fruits (ellipsoid tan-colored capsules) mature by mid-October. Interestingly, this species appears to mostly self-pollinate through raindrops falling on the pollen-bearing structures (pollinia).

AIDS TO IDENTIFICATION: Loesel's Twayblade looks a bit like Lily-leaf Twayblade (*Liparis liliifolia*, Threatened in Massachusetts) if only the leaves are present. If flowers are present, the labellum or lip of the Lily-leaf Twayblade is a distinctive pale purple and quite flat, not curving as in Loesel's Twayblade. The habitat for the Loesel's Twayblade is much more likely to be wetland.

HABITAT: Loesel's Twayblade is found most often in wetlands, especially calcium-rich fens. These can be habitats that are recovering from a past disturbance. McMaster (2001) found a sizeable population (over 200) in a wetland that had been excavated 20 years prior to his study. He lists a number of associated species which



Photo by Robert Wernerehl

were both woody and herbaceous. It is also found at the edges of lakes, ponds and rivers, and sometimes in upland fields. It is likely that prior to European settlement, this species inhabited recently abandoned beaver ponds that had begun to re-grow vegetation.

POPULATION STATUS IN MASSACHUSETTS: Loesel's Twayblade is widespread throughout New England; however, it is still a very rare plant and in any one year, there may be extremely few sightings. In Massachusetts, it has been found historically in every county except Suffolk.

RANGE: Loesel's Twayblade is found throughout the northern latitudes from Quebec to British Columbia, south from North Carolina to Arkansas. It also occurs in

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

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England and across continental Europe, Scandinavia, and Russia.

THREATS: Although this species tolerates considerable natural disturbance, this must be episodic disturbance, not continual. It grows best where the water supply is kept constant, which means that disturbances to the natural hydrological regime will threaten this species. Additionally, deer will eat the plant, and invasive species at a site, such as Reed Canary Grass and Giant Reed Grass can crowd out this plant.

MANAGEMENT RECOMMENDATIONS:

Management recommendations for Loesel's Twayblade include further survey work to document the presence and distribution of this species, and continued management protection of sites where it is found, especially removal of invasive species and control of herbivores.

REFERENCE:

McMaster, R.T. 2001. The Population Biology of *Liparis Loeselii*, Loesel's Twayblade, in a Massachusetts Wetland. *Northeastern Naturalist* 8, no. 2 (2001): 163–78.

Prepared by RW. Wernerehl 2015

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