



Natural Heritage & Endangered Species Program

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Massachusetts Division of Fisheries & Wildlife

Hooded Ladies'-tresses *Spiranthes romanzoffiana* Cham.

State Status: **Endangered**

Federal Status: **None**

DESCRIPTION: Hooded Ladies'-tresses is a 1 to 4 dm (4-16 in.) tall perennial herb. This member of the Orchid family (Orchidaceae) has long, narrow leaves growing from the bottom of the plant, and may have small, scale-like leaves on the upper stem. White or cream flowers are ornate and fiddle-shaped, and grow in a spike around a thick stem. Hooded Ladies'-tresses typically grows in swamps, bogs, and along wet shores.

AIDS TO IDENTIFICATION: Hooded Ladies'-tresses is a short, compact plant with a stout stem. The leaves are narrow, 10 to 20 cm (4-8 in.) long, and are basal, if present at all. Any leaves on the upper part of the stem are highly reduced and scale-like. The flowers are white or cream-colored, occur in dense racemes, and are organized in three ranks around the stem. The flowering spikes are 4 to 8 cm (1.5-3 in.) long. Sepals and lateral petals are ovate (egg-shaped). One enlarged petal forms a lip, ovate in outline and narrowed towards the middle (fiddle-shaped). Plants flower from July until September, producing a capsular fruit with many small seeds.

SIMILAR SPECIES: Several other species of Ladies'-tresses (genus *Spiranthes*) occur in Massachusetts and across North America and are very similar to Hooded Ladies'-tresses. Slender Ladies'-tresses (*S. lacera* var. *gracilis*) and Little Ladies'-tresses (*S. tuberosa*) can be distinguished by their egg-shaped leaves, either basal or absent, and grow in fields and open forests. Both have one-sided racemes of white flowers. Slender Ladies'-tresses has a floral lip with a green center, bordered by white. Nodding Ladies'-tresses (*S. cernua*) has white horizontal or nodding flowers, arranged in multi-sided racemes. It has long, narrow leaves, and is typically found in moist woods, meadows, and marshes. Grass-leaved Ladies'-tresses (*S. vernalis*) also has long, narrow leaves, but white flowers are present only on one side of a slender, twisting stem. Grass-leaved Ladies'-tresses,



Hooded Ladies'-tresses flower racemes. Photo: B.A. Sorrie, NHESP

listed as Threatened in Massachusetts, is found in open fields and meadows.

HABITAT AND ASSOCIATED SPECIES: In Massachusetts, Hooded Ladies'-tresses typically grows in wet calcareous or circumneutral areas, and in rocky soils with peat. It is found in swamps, bogs, calcareous fens, and meadows, and can occur in damp woodlands, often in the vicinity of small streams and seeps. It is often found with Grass-of-Parnassus (*Parnassia glauca*), Fen Cotton-grass (*Eriophorum viridicarinatum*), and Spike Rush (*Eleocharis* spp.). Other associated species may include Shrubby Cinquefoil (*Dasiphora floribunda*), Round-leaved Sundew (*Drosera rotundifolia*), and various species of sedge (*Carex* spp.), rush (*Juncus* spp.), and sphagnum (*Sphagnum* spp.).

POPULATION STATUS IN MASSACHUSETTS: Hooded Ladies'-tresses is listed under the Massachusetts Endangered Species Act as Endangered. All listed species are protected from killing, collecting, possessing, or sale, and from activities that would destroy habitat

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

Massachusetts Division of Fisheries & Wildlife

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and thus directly or indirectly cause mortality or disrupt critical behaviors. All six current sites are located within the western half of the state, in Berkshire, Franklin, and Hampshire Counties. It was historically known from eight other towns in the same counties.

RANGE: Hooded Ladies'-tresses extends across North America, from Labrador and Newfoundland to Alaska, and from New England to Michigan, Colorado and California. Its range continues southward in the United States through Pennsylvania and Louisiana. NatureServe considers the species to be Globally Secure, G5. In New England, Hooded Ladies'-tresses is Historic in Connecticut and rare in Vermont.

MANAGEMENT RECOMMENDATIONS: As for many rare species, exact needs for management of Hooded Ladies'-tresses are not known. The following comments are based primarily on observations of populations in Massachusetts. Hooded Ladies'-tresses grows in the disturbance-sensitive habitats of circumneutral to alkaline calcareous fens, as well as wet swamps, woods, and meadows. It is small and sensitive to trampling. Any disturbance such as a change in water levels or chemistry of the habitat, logging, or development should be minimized, and trail access should be limited near habitat sites to prevent trampling. Hooded Ladies'-tresses may also be subject to shading by canopy trees and large shrubs, or competition from invasive, non-native species such as Spearmint (*Mentha spicata*) or Glossy Buckthorn (*Frangula alnus*). Removal of the invasive species in such cases may improve the survival and growth of Hooded Ladies'-tresses. All active management of rare plant populations (including invasive species removal) is subject to review under the Massachusetts Endangered Species Act, and should be planned in close consultation with the Massachusetts Natural Heritage & Endangered Species Program.

Flowering time in Massachusetts

| Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep | Oct | Nov | Dec |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
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REFERENCE:

NatureServe. 2010. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available <http://www.natureserve.org/explorer>. (Accessed: January 27, 2011).

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