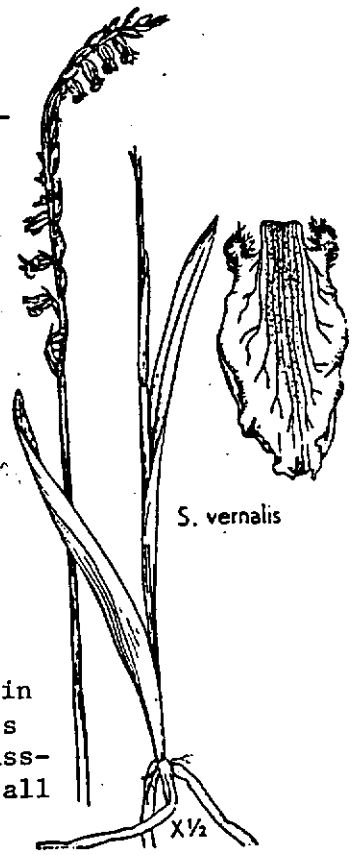
Natural Heritage & Endangered Species Program
Division of Fisheries & Wildlife
Route 135
Westborough, MA 01581
(508)792-7270, ext. 200

Massachusetts Natural Heritage Program

MASSACHUSETTS RARE AND ENDANGERED PLANTS

GRASS-LEAVED LADIES'-TRESSES

(Spiranthes vernalis Engelm. & Gray)



Gleason, H.A. The New Britton and Brown Illustrated Flora of the Northeastern U.S. and Adjacent Canada. New York Botanical Garden, 1952.

DESCRIPTION

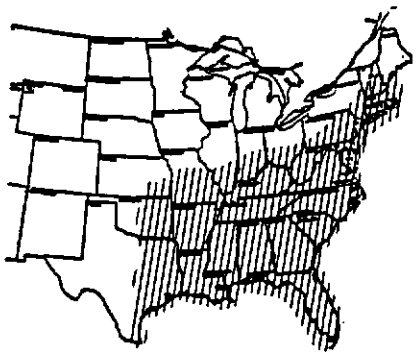
Spiranthes vernalis is a slender, inconspicuous member of the orchid family, ranging in overall height from 8 to 36 inches (20-90 cm). Single, wand-like stem (1/3" diameter) is pale green, usually very glandular-pubescent (hairy) above and leafy. Basal leaves, linear, 2½ to 6" long and 1/3" wide, are most visibly developed in May and June, but are withered by flowering time in August. Above leaves are closely appressed bracts with lower ones tubular and sheathing at the base. Flowering spike is strongly spiral, 2½ to 6" long with yellowish-white flowers ¼" long with red down in the inflorescence. The lip (lower petal) is oval shaped and pubescent underneath.

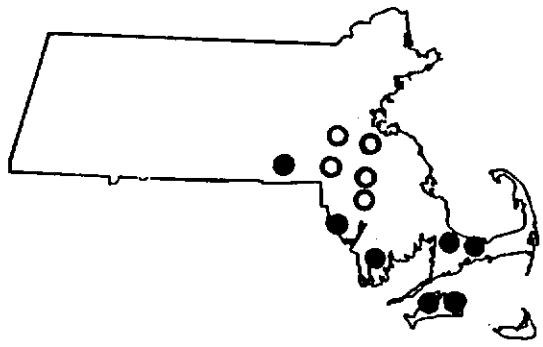
SIMILAR SPECIES

Spiranthes cernua, Nodding Ladies'-Tresses, although similar to S. vernalis, has larger flowers (½" long), is smaller in overall height (6 to 24"), and prefers much wetter soil.

HABITAT

In Massachusetts, Grass-leaved Ladies'-tresses primarily occurs in the coastal plain region. It favors dry, sandy or gravelly soils and is found in open, dry, grassy fields; sparsely vegetated grasslands; and dry, grassy areas of pond shores. S. vernalis, like all orchids, lives in association with and is dependent on a root fungus in the soil which helps to provide necessary nutrients. It is often associated with Andropogon scoparius dominated old fields where there has been periodic disturbance over time such as mowing, grazing, etc. Co-occurring species include Spiranthes lacera, Juncus greenei, Carex pensylvanica, and Rosa caroliniana.





● Verified since 1978
○ Reported prior to 1978

Distribution in Massachusetts by Town

(continued overleaf)

RANGE

S. Vernalis is distributed from southern New England to eastern Kansas, south to Florida and eastern Texas. In Massachusetts, at the northern edge of its range, with few exceptions it is known from very small, scattered populations in the coastal plain. It is found more frequently and in larger populations in the Andropogon dominated old fields of the extreme southern states.

POPULATION STATUS

Grass-leaved Ladies'-tresses is presently considered a species of "Special Concern" in Massachusetts. Ten occurrences have been reported since 1978; six other occurrences were recorded prior to 1978. Reasons for rarity and potentially threatening factors include: loss of habitat due to development, vegetational succession, suppression of natural disturbances, cessation of grazing, and too much or too little mowing.