



Common Name: SHORT-LIPPED LADIES-TRESSES

Scientific Name: *Spiranthes brevilabris* Lindley var. *brevilabris*

Other Commonly Used Names: Texas ladies-tresses, downy slender ladies-tresses

Previously Used Scientific Names: *Spiranthes gracilis* (Bigelow) Beck var. *brevilabris* (Lindley) Correll

Family: Orchidaceae (orchid)

Rarity Ranks: G3G4T1/SH

State Legal Status: Special Concern

Federal Legal Status: none

Federal Wetland Status: FACW-

Description: Perennial **herb** with a basal rosette of overwintering leaves. **Leaves** $\frac{3}{4}$ - $2\frac{3}{8}$ inches (2 - 6 cm) long and up to $\frac{3}{4}$ inch (2 cm) wide, 3 - 6 in number, in a rosette at the base of the stem, oval, yellowish-green, present during flowering. **Flower stalk** up to 16 inches (40 cm) tall, with several sheathing bracts; a single row of 35 or fewer, yellowish flowers spirals around the stem with 8 - 10 flowers per cycle of the spiral (flowers rarely may be all on one side of the stem rather than spiraled); flower stalk covered with gland-tipped hairs. **Flowers** about $\frac{1}{4}$ inch (4 - 5 mm) long, yellowish-white, very hairy; 2 petals and 3 sepals are similar in size and shape and curve forward; the **lip petal** curves slightly downward, with a yellow center and a wavy or fringed edge. **Fruit** an oval capsule, less than $\frac{1}{4}$ inch (5 mm) long, with many tiny seeds.

Similar Species: Several species of ladies-tresses produce overwintering leaf rosettes and bloom in late winter or early spring in south Georgia. Short-lipped ladies-tresses is distinguished by its hairy, yellow flowers and hairy flower stalk.

Related Rare Species: See Florida ladies-tresses (*S. floridana*) and Great Plains ladies-tresses (*Spiranthes magnicamporum*) on this website. Three other species of ladies-tresses are considered rare in Georgia: Eaton's ladies-tresses (*S. eatonii*), northern oval ladies-tresses (*S. ovalis* var. *erostellata*), and long-lipped ladies-tresses (*S. longilabris*).

Habitat: Frequently burned pine savannas and flatwoods; roadsides and cemeteries.

Life History: Short-lipped ladies-tresses produce rosettes of leaves during the winter; the leaves are still visible when flowers open early in the spring, but wither soon after. Ladies-tresses' flowers are pollinated by bumblebees and halictid bees. Self-pollination is discouraged by two sequences of events. First, when a flower opens, a tiny structure at the center of the flower (the column) is pressed against the flower's lip, covering the stigma and leaving only a narrow space into which a bee can insert its tongue in search of nectar. While the stigma is covered, the flower can't be pollinated. As the bee sips nectar, two pollen packets stick to its proboscis. Once the bee exits the flower, carrying with it that flower's pollen packets, the column lifts up, exposing the stigma. The next bee that comes along to sip nectar – possibly carrying pollen packets from another plant – may brush against the exposed stigma and deposit the pollen. Second, in order to discourage the movement of pollen between flowers on the same plant, the flowers in a spike open from the bottom to the top of the spike. Bees always work their way from the bottom to the top of a flower spike as they gather nectar. If they pick up pollen from flowers at the bottom of the spike, flowers on the same spike nearer the top will not yet be open and receiving pollen. Instead, the bee flies to an open flower on another plant, gathers nectar and deposits its pollen load, thus cross-pollinating the flower. If pollinated, the flowers produce small capsules containing many dust-like seeds that are dispersed by the wind. As with all species of orchid, the seeds of short-lipped ladies-tresses require the presence of certain species of fungi to germinate and support seedlings.

Survey Recommendations: Surveys are best conducted during flowering (late February–April).

Range: Georgia, Florida, Louisiana, and east Texas. Only one population of this species – in north Florida – is currently known.

Threats: Habitat loss from clearing and draining its habitat has brought this species to the brink of extinction.

Georgia Conservation Status: One population of this species was discovered in Georgia, in the early 1900s. It has not been seen since then.

Conservation and Management Recommendations: Apply prescribed fires every 2 - 3 years during the growing season; avoid use of herbicides on roadside rights-of-way.

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