



Common Name: FLORIDA ADDER'S-MOUTH ORCHID

Scientific Name: *Malaxis spicata* Swartz

Other Commonly Used Names: none

Previously Used Scientific Names: *Malaxis floridana* (Chapman) Kuntze, *Microstylis floridana* Chapman, *Microstylis spicata* (Swartz) Lindley, *Achroanthes floridana* (Chapman) Green

Family: Orchidaceae (orchid)

Rarity Ranks: G4?/S1

State Legal Status: Special Concern

Federal Legal Status: none

Federal Wetland Status: OBL

Description: Perennial **herb** 3 - 18 inches (7 - 35 cm) tall (usually less than 8 inches/20 cm tall in Georgia) with 2 - 5 leaves sheathing the stem. **Leaves** $\frac{7}{8}$ - 4 inches (2 - 10 cm) long, oval, alternate, dark green, smooth, and glossy, with a conspicuous midvein. **Flower stalk** bears a spike of 6 - 150 flowers. **Flowers** are less than $\frac{1}{4}$ inch (3 - 5 mm) long; with 3 green, back-curved **sepals**; 2 very narrow, green **petals** that overlap at the back of the flower; and a yellow, erect **lip petal** with a flaring base that nearly surrounds the central column. **Fruit** an erect capsule, about $\frac{3}{8}$ inch (8 mm) long.

Similar Species: Green adder's-mouth (*Malaxis unifolia*) occurs largely in the Piedmont in upland forests. One leaf (sometimes 2) encircles the middle of the stem. Its green flowers are in a small, flat-topped spike that elongates as flowers open; the lip petal has 2 - 3 teeth at the tip. Other leafy-stemmed, green-flowered orchids in Georgia include little club-spur orchid (*Platanthera clavellata*), which has a half-inch spur, and tubercled orchid (*P. flava*), which has a rounded, down-pointing lip petal.

Related Rare Species: More than 30 species of Georgia's orchids are rare.

Habitat: Low hammocks, floodplains, spring-fed river swamps, usually in soils high in calcium or magnesium; often grows on tree stumps and bases.

Life History: Leaves of Florida adder's-mouth orchid emerge in the spring from a pea-sized pseudobulb (the base of the previous year's plant). The flower spike arises in midsummer, eventually producing 6 - 150 tiny flowers which open successively as the spike elongates. Each flower is twisted 360° on its stalk; after fruit formation, the stalk untwists. The flowers are probably pollinated by flies, but only the occasional flower is fertilized and forms fruit. The seeds are minute and dust-like, and are dispersed by gravity and wind. The tiny seeds contain no stored food reserves, and must land on a patch of soil containing a specific fungus that provides nutrients for germination and subsequent plant growth.

Survey Recommendations: Surveys are best conducted during flowering (August–September).

Range: Georgia, Florida, South Carolina, North Carolina, Virginia, Bahamas, and West Indies.

Threats: Ditching and draining of wetlands. Clearing and logging of habitat. Conversion of habitat to pine plantations, agriculture, and developments. Invasion of exotic pest plants. Alteration of stream hydrology.

Georgia Conservation Status: Three populations are known, two recently seen, the other last seen in 1936. Only one occurs on conservation land.

Conservation and Management Recommendations: Avoid clearcutting, draining, or filling in wetlands. Eradicate exotic pest plants. Maintain historic flows in rivers.

Selected References:

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Date Compiled or Updated:

L. Chafin, June 2008: original account

K. Owers, Feb. 2010: added pictures



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