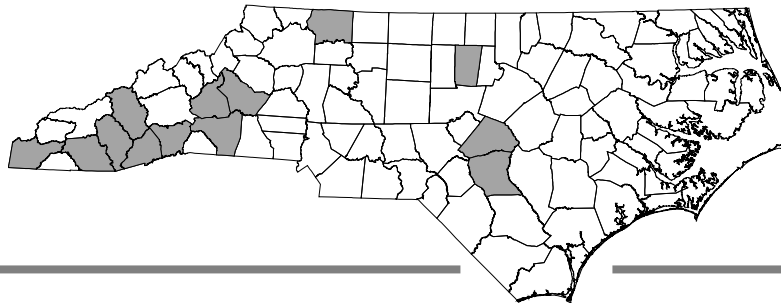


Small whorled pogonia

Isotria medeoloides

(Green five-leaved orchid, small-whorled crest-lip)

Threatened (November 7, 1994;
originally Endangered, September 10, 1982)



Description: This orchid is a slender, perennial herb, 4-10 inches (9.5-25 cm) tall, with a greenish-tinged (rarely purplish) single hollow stem. The roots, slender, fibrous, and hairy, radiate from a crown or rootstock. At the apex of the stem is a whorl of five or six pale, dusty green leaves with parallel veins. Leaves droop, are 0.8-3.3 inch (2-8.5 cm) long and 0.4-1.6 inches (1-4 cm) wide, and may be coated with a whitish bloom (powdery layer). Growing above the leaves are one or two irregularly-shaped flowers, yellowish-green in color. The sepals are long and thin; petals are more rounded, up to 0.7 inch (1.7 cm) long and pale green. The lip (bottom petal) of the flower is greenish white, veined with green, and is three-lobed. The fruit is a dry, erect, dehiscent ellipsoid capsule, 0.7-1.2 inches (1.7-3 cm) long. Large-whorled pogonia (*I. verticillata*) often has a purplish stem, dark maroon or brown sepals, and its leaves do not droop.

Life History: Flowering occurs May-June. This plant may remain dormant underground for several years. It is usually found in colonies. Indian cucumber root (*Medeola virginiana*) often grows nearby. In the vegetative stage, the two plants look very similar, thus the name *medeoloides*, means “medeola like.” It may appear in any of four different states: vegetative (non-reproductive), with an abortive flower, flowering, or dormant. The flowering plant is tallest and has a wider whorl than the other three with a vegetative plant being the smallest in size. Plants that are large usually reproduce (flower) the next year unless some event prevents them from storing adequate energy supplies. An individual plant may retain a flower for 4-14 days. Dormancy may last from 1 to 10-20 years. Requires a symbiotic root/fungus association; seeds that germinate become established only on substrate containing the suitable mycorrhizal fungus.

Habitat: Highly variable in North Carolina, occurring in young as well as maturing forests (second to third

successional growth). Typically grows in open, dry deciduous woods and areas along streams with acid soil. Also grows in rich, mesic woods in association with white pine (*Pinus strobus*) and rhododendron (*Rhododendron* spp.). Prefers leaf litter and decaying material but may be found on dry, rocky, wooded slopes, moist slopes or slope bases near vernal streams.

Distribution: Scattered from mountains to western coastal plain in Burke, Cherokee, Cumberland*, Harnett*, Haywood, Henderson, Jackson, Macon, Orange*, Surry*, and Transylvania counties.

Threats: Habitat destruction and collection are main threats. Habitat is destroyed by recreational use, residential and commercial development, road construction, and herbivory from browsing deer, rabbits, and other animals.

Management Recommendations: Protection of habitat and education of landowners on management of habitat and existing colonies.

* No record has been reported in this county in the past 20 years.

Sources: Murdock pers. com.; Radford et al. 1964; USFWS 1992a, 1992e, 1994.

