



Common Name: SMALL WHORLED POGONIA

Scientific Name: *Isotria medeoloides* (Pursh) Rafinesque

Other Commonly Used Names: none

Previously Used Scientific Names: *Isotria affinis* (C.F. Austin) Rydberg, *Pogonia affinis* C.F. Austin ex A. Gray

Family: Orchidaceae (orchid)

Rarity Ranks: G2/S2

State Legal Status: Threatened

Federal Legal Status: Threatened

Federal Wetland Status: FACU

Description: Perennial **herb** with a waxy, pale green **stem** 1½ - 10 inches (4 - 25 cm) tall, topped by a whorl of 4 - 6 leaves. **Leaves** ⅝ - 3⅜ inches (1.7 - 8.5 cm) long and ¼ - 1½ inches (0.8 - 4 cm) wide, pointed, waxy. **Flowers** 1 - 2, on very short stalks rising from the center of the leaf whorl. Flowers with 3 green **sepals** (1 erect, 2 spreading) ½ - 1 inch (1.2 - 2.5 cm) long; 2 round-tipped, yellow-green **petals** that curve forward over the center of the flower, and a down-pointing, 3-lobed **lip petal** with dark green veins and a yellow-green crest. **Fruit** an erect capsule up to 1 inch (2.8 cm) long, on a stalk elongated to about ½ inch (0.5 - 1.7 cm) long.

Similar Species: Large whorled pogonia (*Isotria verticillata*) has dark green leaves with purple veins, a greenish-purple stem, flower stalks up to 2 inches (5 cm) long, purplish-brown sepals, and a purple-streaked lip. Indian cucumber-root (*Medeola virginiana*) has 6 or more whorled leaves, and a wiry stem covered with cobwebby hairs; its lily-like flower is tiny, nodding, and pale yellow. Both sometimes occur with small whorled pogonia.

Related Rare Species: More than 30 species of orchids are rare in Georgia. On this web site, see: many-flowered grass-pink (*Calopogon multiflorus*), pink lady's-slipper (*Cypripedium acaule*), Kentucky lady's-slipper (*Cypripedium kentuckiense*), yellow lady's-slipper (*Cypripedium parviflorum*), green-fly Orchid (*Epidendrum conopseum*), Michaux's spider orchid (*Habenaria quinqueseta*), Appalachian twayblade (*Listera smallii*), Florida adder's-mouth orchid (*Malaxis spicata*), southern white fringed-orchid (*Platanthera blephariglottis*), Chapman's fringed-orchid (*Platanthera chapmanii*), large purple fringed-orchid (*Platanthera grandiflora*), monkeyface orchid (*Platanthera integrilabia*), purple fringeless orchid (*Platanthera peramoena*), crestless plume orchid (*Pteroglossaspis ecristata*), downy slender ladies-tresses (*Spiranthes brevilabris*), Florida ladies-tresses (*Spiranthes floridana*), Great Plains ladies-tresses (*Spiranthes magnicamporum*), three birds orchid (*Triphora trianthophora*).

Habitat: Acidic soils of mixed hardwood-pine forests on lower slopes and stream terraces, often with chestnut oak, red maple, hemlock, white pine or Virginia pine, lowbush blueberry, Indian cucumber root, and New York fern.

Life History: In the southeastern U.S., small whorled pogonia emerges from winter dormancy in April, flowering later that month and throughout May. Non-flowering plants emerge somewhat later. Larger plants flower more frequently than smaller plants. Small whorled pogonia is self-pollinated and lacks the flower characteristics, such as fragrance, pollination guides, and nectar, that attract insects. A given plant may stay in flower 4 - 14 days. Shortly after pollination, the fruit begins to develop, reaching maturing in late summer and splitting open in the fall. Seeds are dust-like and are primarily dispersed by wind and gravity. Seed production is considered low to moderate compared to other orchids. Small whorled pogonia seeds, like those of other orchids, must develop a mycorrhizal relationship with a fungus in order to germinate and develop into a mature plant. Small whorled pogonia plants are known to lie dormant for as many as four years but viability is reduced in these plants once they emerge from dormancy. It is not known to reproduce vegetatively.

Survey Recommendations: Surveys are best conducted during flowering (May) and fruiting (June–August). Plants often wither soon after flowering.

Range: Georgia, South Carolina, Tennessee, and 18 other states north to Maine and Ontario and northwest to Missouri.

Threats: Conversion of habitat to pine plantations and developments, logging or other mechanical clearing, overbrowsing by deer, invasion by exotic pest plants.

Georgia Conservation Status: About 20 populations are known, most in the Chattahoochee National Forest. Most are small and declining.

Conservation and Management Recommendations: Avoid logging, trampling, and mechanical clearing. Control deer populations and exotic pest plants such as Japanese honeysuckle.

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