Small-whorled pogonia
Isotria medeoloides

Small-whorled pogonia, USFWS

Status: Threatened

Description: Small-whorled pogonia has a greenish-white stem that grows between three and thirteen inches tall. It gets its common name from the five or six grayish-green leaves that are displayed in a single whorl around the stem. When the leaves are well developed, a single flower or sometimes a flower pair rises from the center of the circle of leaves. The flowers are yellowish-green with a greenish-white lip. Each flower has three sepals of equal length that spread outward. The flowers are scentless, lack nectar, and are primarily self-pollinating. It produces fruit which ripens in the fall. The seeds contain very little food reserves and therefore need to fall on soil containing with mycorrhizal fungi in order for the seed to germinate and seedlings to become established. An over-wintering vegetative bud may form in late August or September. Occasionally small whorled pogonia will reproduce vegetatively, without the use of seeds.

Habitat: Small whorled pogonia can be limited by shade. The species seems to require small light gaps, or canopy breaks, and generally grows in areas with sparse to moderate ground cover. Too many other plants in an area can be harmful to this plant. This orchid typically grows under canopies that are relatively open or near features that create long-persisting breaks in the forest canopy such as a road or a stream. It grows in mixed-deciduous or mixed-deciduous/coniferous forests that are generally in second- or third-growth successional stages. The soils in which it lives are usually acidic, moist, and have very few nutrients.

Range: Small-whorled pogonia is found sporadically across the Eastern United States and Canada.

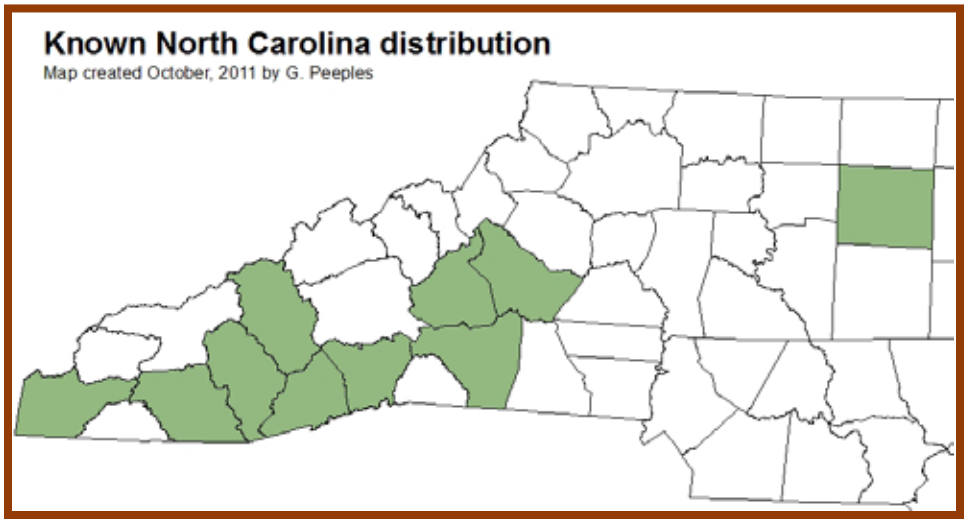
Threats: Habitat destruction is the primary threat to small whorled pogonia. Commercial and residential development have encroached upon populations and eliminated what once was productive habitat. Development has also decreased the amount of available habitat for deer, concentrating their numbers, and which in turn increases deer herbivory on these plants. Small-whorled pogonia also appears to suffer from low rates of seedling establishment, meaning new plants do not replace older ones as they die.

Listing: As endangered, September 9, 1982. 47 FR 39827 39831. Downlisted to threatened October 6, 1994. 59 FR 50852 50857

Critical habitat: None designated

Why should we be concerned about the loss of species? Extinction is a natural process that has been occurring since long before the appearance of humans. Normally, new species develop (through a process known as speciation) at about the same rate as other species become extinct. However, because of air and water pollution, forest clearing, loss of wetlands, and other humaninduced environmental changes, extinctions are now occurring at a rate that far exceeds the speciation rate.

All living things are part of a complex and interconnected network. We depend on the diversity of plant and animal life for our recreation, nourishment, many of our lifesaving medicines, and the ecological functions



they provide. One-quarter of all the prescriptions written in the United States today contain chemicals that were originally discovered in plants and animals. Industry and agriculture are increasingly making use of wild plants, seeking out the remaining wild strain of many common crops, such as wheat and corn, to produce new hybrids that are more resistant to disease, pests, and marginal climatic conditions. Our food crops depend on insects and other animals for pollination.

Healthy forests clean the air and provide oxygen for us to breathe. Wetlands clean water and help minimize the impacts of floods. These services are the foundation of life and depend on a diversity of plants and animals working in concert. Each time a species disappears, we lose not only those benefits we know it provided but other benefits that we have yet to realize.

What you can do to help:
Tread lightly and stay on designated trails. On some popular mountains, the vegetation has virtually been destroyed by human trampling.

Do not disturb or touch small whorled pogonia. The salts on your hands may attract slugs, which are serious pests for the orchid.

Visit arboretums, botanical gardens, and parks and learn all you can about endangered plants and the causes of their decline.

Don't collect or buy plants collected from wild populations.

Participate in the protection of our remaining wild lands and the restoration of damaged ecosystems.

Be careful with the use and disposal of pesticides and other chemicals, especially near sensitive habitats.

Recycle as much as you can. As landfills become full, new ones are often placed in uninhabited areas, causing the destruction of hundreds of acres of wild habitat.

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