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Conserving South Carolina's At-Risk Species:

Species facing threats to their survival

Southern hognose snake (*Heterodon simus*)



Southern hognose snake/Savannah River Ecology Lab

Description

The southern hognose snake is the smallest of the hognose snakes, a group of snakes that possess a sharply upturned snout. This species averages from 36 to 51 cm (14 to 20 inches) in length. The southern hognose snake is typically tan-brown with darker blotches running down the back. The colors of this snake are typically less variable than its more common relative, the eastern hognose.

Range

Southern hognose snakes were historically found in the Coastal Plain of the eastern United States from southern North Carolina to southern Mississippi and in most parts of Florida. However, this species has declined in recent years and is now only found in scattered locations in South Carolina, North Carolina, Georgia, and Florida. In South Carolina, the species has been documented from 16 counties: Aiken, Allendale, Beaufort, Berkeley, Charleston, Chesterfield, Colleton, Dorchester, Georgetown, Horry, Jasper, Kershaw, Lexington, Marion, Richland, and Saluda.

Habitat

Although both species of hognose snake

prefer sandy areas, southern hognose snakes are found almost exclusively in sandhill, pine flatwood, and coastal dune habitats. They can be found in the same habitat types that support gopher tortoise populations. This species is both fossorial and cryptic spending a good portion of its life using underground shelters such as stump holes, rodent burrows, root channels or gopher tortoise burrows. The longleaf pine habitat provides open canopies with abundant stump holes, some created when pine trees are blown over by storms or killed by lightning.

Status

Southern hognose snakes have apparently declined in recent years and are of conservation concern throughout their range. They have not been found in Alabama or Mississippi since the 1970's and are restricted to scattered locations in the states where they still occur. In the past 15 years, the species has only been documented in 40 counties across its entire southeastern range; this represents 31.7% of its historical extent. The southern hognose snake is listed as a Species of Concern in South Carolina. The U.S. Fish and Wildlife Service was petitioned to list the species in July 2012 and published a substantial 90-day finding in September 2015 indicating listing may be warranted.

Threats

Potential threats include habitat loss due to conversion for agriculture, silviculture, mining, and commercial/residential development. Longleaf pine habitat has been greatly reduced both in extent and in quality. Introduction of the nonnative fire ant throughout the southeastern United States has been implicated as a potential reason for the apparent decline of the southern hognose snake. Intensive or

chronic soil disturbance may also pose a threat to fossorial snake species. Fire suppression, stump removal and short timber rotations may limit population numbers by reducing availability of nesting sites and large stump holes for refugia. Excessive collecting may be a threat in some areas as well as persecution and direct killing of snakes.

Management/Protection Needs

Protect upland habitat utilized by this species. Maintain open characteristic of habitat through use of prescribed fire and encourage restoration of large tracts of longleaf pine and wiregrass ecosystem, managed on long rotations and with large stumps remaining after harvest for underground refugia and hibernation sites. Determine the root cause of the decline of southern hognose snakes (e.g. - effects of fire ants on population). Continue to inventory and monitor known populations. Continued outreach and education is encouraged.

References

NatureServe. 2015. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Available <http://explorer.natureserve.org>.

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South Carolina Department of Natural Resources—State Wildlife Action Plan: 2010-2015.

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