Conserving South Carolina’s At-Risk Species:
Species facing threats to their survival

Eastern Diamondback Rattlesnake
(Crotalus adamanteus)

Description
The Eastern diamondback rattlesnake is the largest of the 32 species of rattlesnake currently recognized. They are large, heavy-bodied snakes with large, broad heads with two light lines on the face. Adults are usually 33-72 in (84-183 cm) long. Mature snakes can weigh 10 lbs. or more. The background color is brown, tan, or yellowish and covered with brown diamond-patterns surrounded by lighter scales. Males are larger than females.

Range
Diamondback rattlesnakes are restricted to the Lower Coastal Plain of the Southeast, from southern North Carolina to eastern Louisiana. In South Carolina, the species has been recorded from Beaufort, Berkeley, Charleston, Clarendon, Colleton, Dorchester, Hampton, Jasper, and Orangeburg Counties.

Habitat
Eastern diamondback rattlesnakes usually inhabit dry sandy areas, palmetto or wiregrass flatwoods, pinewoods, coastal dune habitats, or hardwood hammocks. They generally avoid wet areas but sometimes live along the edges of swamps. They are accomplished swimmers and even travel through saltwater to and from barrier islands. In many locations this species relies heavily on gopher tortoise (Gopherus polyphemus) burrows during winter months.

Status
Eastern diamondback rattlesnakes are not currently protected by the Endangered Species Act. The U.S. Fish and Wildlife Service (Service) was petitioned in August 2011 to list the species. A 90-day finding by the Service found that listing may be warranted. In South Carolina, the Eastern diamondback rattlesnake is listed as a Species of Concern. Once believed to be common and widespread, it is now primarily restricted to the lower terraces of South Carolina’s Coastal Plain. The South Carolina Department of Natural Resources has been conducting population monitoring studies and collecting life history data in order to assess management strategies relative to the Eastern diamondback rattlesnake and its habitats.

Threats
The primary threat confronting Eastern diamondback rattlesnakes is habitat fragmentation and loss. Vast acreages of longleaf pine have been converted to agriculture and/or loblolly pine plantations in South Carolina, resulting in the loss of key components such as stumpholes and open canopy conditions required by the species. Intensive and/or chronic soil disturbance may also pose a threat to the species. Mortality from automobiles is of particular concern for large snakes, especially since they are long-lived animals with large home ranges. Maintaining viable populations becomes more difficult when habitat fragmentation is coupled with increasing road networks. Threats from take/collection for the pet trade and from venom research also exist. Direct killing of snakes by humans affects populations, as well.

Management/Protection Needs
Increase protection efforts for the Eastern diamondback rattlesnakes on large tracts of public land and private plantations in combination with Longleaf Pine/Wiregrass Ecosystem protection and restoration efforts. Continue to survey and monitor populations.

References


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

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