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Conserving South Carolina's At-Risk Species:

Species facing threats to their survival

Carolina gopher frog

(*Lithobates capito capito*)



Carolina gopher frog / USDA - Forest Service

Description

The Carolina gopher frog is a member of the family Ranidae, the true frogs. Its closest relatives include the bullfrog, leopard frog and bronze frog. This species can reach sizes of 6 to 9 cm (2.4 to 3.5 in.). It has the body shape of a typical frog, but is a little plumper than other frogs with proportionately shorter legs. Carolina gopher frogs are typically light to dark brown with heavy blotching and numerous warts, giving it the appearance of a toad instead of a true frog.

Range

The range of the Carolina gopher frog in South Carolina is generally believed to have included the entire Coastal Plain. Currently, the Carolina gopher frog is only known to occur in Aiken, Barnwell, Berkeley and Charleston Counties, although historic records included Bamberg, Dorchester, Hampton, and Orangeburg Counties. Recent records indicate they are only present on large, public properties such as the Savannah River Site (owned by the US Department of Energy and managed by the US Forest Service); Francis Marion National Forest (owned and managed by the US Forest Service);

and Santee Coastal Reserve (owned and managed by the South Carolina Department of Natural Resources). Carolina gopher frog breeding has been documented within the last decade at these sites, with evidence of successful reproduction at both the Savannah River Site and Santee Coastal Reserve.



Habitat

Carolina gopher frogs typically breed or live in isolated, temporary freshwater wetlands which are referred to as breeding ponds. Examples of these naturally occurring ponds include Carolina Bays, limesinks, flatwoods ponds and other such related features. Typical breeding ponds are isolated from flowing streams, particularly any inflows. Occasionally such ponds will have an outflow "stream" that only flows when exceptionally heavy rains fill the pond above full pool. Adults spend most of their lives in terrestrial habitats as fossorial (underground) species, inhabiting crayfish holes, root channels, rodent burrows and other subterranean structures. They move to breeding ponds in late winter where they deposit eggs. The aquatic larva of these species may spend several months in a pond before metamorphosing to the adult form. Newly metamorphosed individuals move away from breeding ponds; they only return to these ponds when they become reproductively mature adults.

Status

The Carolina gopher frog is not currently protected by the Endangered Species Act. The U.S. Fish and Wildlife Service (Service) was petitioned to list the species in 2012. A 90-day finding by the Service found that listing may be warranted. The state of South Carolina currently lists the Carolina gopher frog as endangered.

Threats

Threats to the species include: alteration of wetlands (drain and fill); alteration of wetland hydroperiod; conversion of wetlands to other uses such as agriculture or development; exclusion of fire in longleaf pine forests; conversion of longleaf forest to loblolly pine plantations; conversion of longleaf forest to agriculture; and commercial and residential development.

Management/Protection Needs

The species benefits from programs to preserve and enhance wetlands. Such programs should be encouraged for conservation of the Carolina gopher frog. Continue to survey, monitor, and protect known populations. Expand survey work to identify new populations.

References

Center for Biological Diversity - Petition to List 53 Amphibians and Reptiles, July 2012.

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

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