

Dusky Gopher Frog Fact Sheet

(Rana sevosa)

Endangered Species Listing:

In 2001, the dusky gopher frog (DGF) distinct population segment (DPS) was listed under the Endangered Species Act (Act) as an endangered species. A DPS is a discrete and significant conservation sub-unit of a species. An endangered species is one that is in danger of becoming extinct throughout all or a significant portion of its range. After an endangered species is identified and protected under the Act, the U.S. Fish and Wildlife Service endangered species program begins the work of restoring the species and its habitat through the recovery process.

Appearance:

The dusky gopher frog (DGF) is a mid-sized, stocky, frog with a total body length of about three inches. Its back is covered with dark spots and warts, and ranges from black to brown or gray in color.



photo: ©John Tupy

Adult dusky gopher frog (DGF)

Tadpoles are dark greenish brown with spotted round bodies and long, wide tails. They are difficult to tell apart from tadpoles of the more common leopard frog.

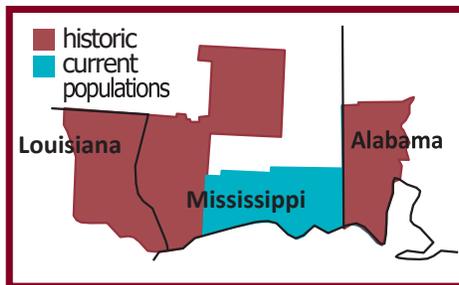


photo: ©John Tupy

DGF tadpole

Range:

The DGF is thought to have occurred in at least nine counties or parishes from Louisiana's lower coastal plain east of the Mississippi River to the Mobile River delta in Alabama. It has not been observed in Louisiana since 1965 or in Alabama since 1922. The Dusky gopher frog is presently known to survive in only Harrison and Jackson counties in Mississippi.



Threats:

The primary threats to the DGF are habitat fragmentation/destruction, fire suppression, the low number of remaining individual frogs, and environmental variability. Outside of occupied habitat and those areas managed as future translocation sites, potential gopher frog habitat continues to decline through fragmentation and destruction, primarily as a result of urbanization from residential and commercial development. Frequent fires are necessary to maintain the open canopy and ground cover vegetation of dusky gopher frog habitat. However, the use of fire as a management tool has declined due to concerns about smoke and public safety in expanding urban areas. The low numbers of frogs in the existing populations have increased the potential of genetic isolation and inbreeding. The combination of decreasing amounts of suitable habitat and low population numbers makes the Dusky gopher frog's survival more difficult in the face of extreme environmental events such as drought.

Habitat:

The dusky gopher frog's habitat includes both upland forested areas, historically dominated by longleaf pine, and temporary wetlands imbedded within the forested landscape. Adult and juvenile gopher frogs spend the majority of their lives underground in forests with an open canopy and abundant ground cover. They currently use abandoned mammal burrows and holes in and under old pine tree stumps as below-ground retreats. In the past, dusky gopher frogs also used active and abandoned gopher tortoise burrows. However, due to the rarity of the tortoise, their burrows are not currently available in habitat occupied by the frogs. Gopher frog breeding sites are isolated ponds which dry out completely at certain times of the year giving them a temporary presence in the landscape. Substantial winter rains are needed to ensure that the ponds are filled sufficiently to allow hatching and development of juvenile frogs. The timing and frequency of rainfall are critical to the successful reproduction and recruitment of the DGF.



photo: ©John Tupy

DGF upland habitat



photo: Linda LaClaire

DGF breeding habitat

What has been done to work towards dusky gopher frog recovery?

The U.S. Fish and Wildlife Service has been worked on a number of recovery projects with the following partners: the Memphis Zoo along with other zoos involved in the American Zoo Association's program for the species, the U.S. Forest Service, the U.S. Army Corps of Engineers, Natural Resources Conservation Service, Mississippi Natural Science Museum, The Nature Conservancy, and researchers with Southeastern Louisiana University, University of Southern Mississippi, Eastern Carolina University, and Eastern Kentucky University. The recovery projects include:

- Raising frogs from tadpoles in tanks placed adjacent to breeding sites.
- Improving occupied sites through controlled burning and shrub removal.
- Restoring currently unsuitable temporary ponds for use as relocation sites.
- Holding a genetically diverse population in zoos and working on captive propagation.
- Establishing new populations in the wild.
- Tracking gopher frogs in their upland habitats using fluorescent powder and radio-telemetry.



photo: Ed Moody

Restoring ponds for use as DGF relocation sites



photo: ©John Tupy

Tracking DGF at night using fluorescent powder



photo: ©Mike Sisson

A newly constructed potential DGF breeding pond



photo: ©John Tupy

Tracking DGF during the day using radio-telemetry (transmitter is black object at rear of frog)

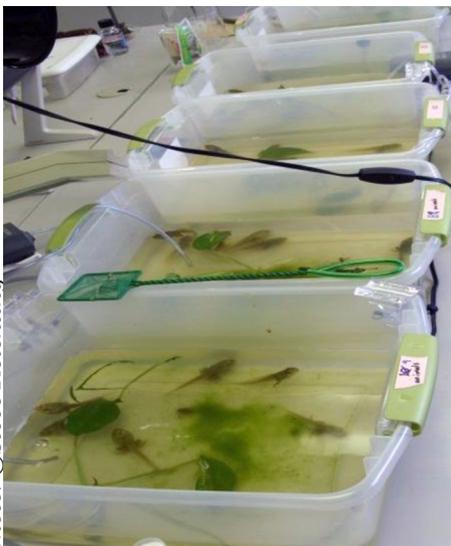


photo: ©Steve Reichling

DGF tadpoles held in zoos



photo: Linda LaClaire

Tanks for raising DGF tadpoles

How many dusky gopher frogs remain in the wild?

At this time, there is only one viable breeding population of the dusky gopher frog. Currently, six ponds are occupied by the dusky gopher frog as a result of efforts to establish a population by translocating frogs from the primary breeding pond. The total dusky gopher frog population in the wild is estimated a minimum of 135 adults. The viability of this population is yet to be determined.

