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Public and private land managers visit restored dusky gopher frog habitat at DeSoto National Forest in Mississippi. © TNC

Saving a Species The future of the dusky gopher frog hinges on regaining lost habitat.

At the heart of The Nature Conservancy's work is ensuring that our planet remains habitable for all living things. In that spirit, our scientists are exploring the prospect of preparing a portion of TNC's Talisheek Pine Wetlands Preserve in St. Tammany Parish to potentially welcome a federally endangered and globally imperiled species back to Louisiana.

"We are involved because TNC is one of the only private landowners in the state who manage property harboring potentially ideal habitat—longleaf pine woodlands interspersed with seasonal wetlands—for this species," says Seth Blitch, TNC's director of conservation in Louisiana.

Native to parts of Louisiana, Mississippi and Alabama, the dusky gopher frog (*Lithobates sevosus*) now only survives at a handful of locations in south Mississippi. This decline is primarily due to the loss of longleaf pine habitat, a fire-dependent ecosystem that has gradually disappeared throughout the southeastern United States. According to Blitch, TNC delivers periodic controlled burning to mimic this historic natural disturbance to improve the health and resilience of longleaf pine woodlands at



Dusky gopher frog © TNC

its preserves. The frog also needs shallow, seasonally flooded depression ponds embedded within these woodlands in order to breed.

While formal arrangements for bringing the frogs back to Louisiana are

not yet secured, TNC plans to restore a portion of the Talisheek Preserve identified as having conditions key to supporting dusky gopher frogs. For starters, TNC's staff convened with the U.S. Fish and Wildlife Service, the Louisiana Department of Wildlife and Fisheries, and the U.S. Forest Service to learn about how to prepare a site for these fragile amphibians. The meeting took place at the De Soto National Forest in Mississippi, near a site where remaining populations of the frog continue to survive.

"It's an involved process, from using Light Detection and Ranging (LiDAR) remote sensing technology for siting ponds to studying the area's hydrology and soils," explains Blitch. "It's exciting to be involved with recovering an endangered species. This would be our first time reintroducing a vertebrate on a TNC property in Louisiana. We look forward to reporting back as the project unfolds."



A flatwoods pond/depression pond at De Soto National Forest known to host dusky gopher frogs in the past. © TNC

A Recipe for Success

Conditions for returning to Louisiana have to be "just right."

At just over three inches in length and covered in wrinkles, spots and warts, the federally endangered dusky gopher frog (*Lithobates sevosus*) prefers living a quiet life among the sandy soils, seasonal ponds and longleaf pines characterizing the coastal plain that stretches from west of Mobile Bay, Alabama to eastern Louisiana. Most of this frog's life is spent inside downed trees or underground in vacant animal burrows. However, during winter, the frogs emerge to breed in temporary, seasonal wetlands where a female might lay more than 2,000 eggs in a single mass.

But it can't be just any wetland. It has to be small enough (up to one or two acres) and shallow and temporary enough to deter the establishment of fish populations that might consume the eggs. While this frog has not been seen in Louisiana for decades, the formula exists in several locations for its eventual return. One of The Nature Conservancy's Louisiana preserves might be one of them!

Benefits to Biodiversity

Restoration of ephemeral ponds at the TNC's Talisheek Pine Wetlands Preserve also potentially benefit other rare species, including amphibians like the ornate chorus frog and eastern tiger salamander, rare plants such as coastal plain lobelia and pineland yellow-eyed grass, a variety of grassland birds and the flatwoods crawfish, which is endemic to southern Louisiana and Mississippi.



Sedge Wren © Andy Reago and Chrissy McClarren/Creative Commons

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500 miles

The distance birds travel across the Gulf of Mexico before landing at TNC's Lafitte Woods Nature Preserve on Grand Isle.

Grand Isle Bird Festival

This year, the Grand Isle Migratory Bird Festival gets underway for its 27th year on April 25 and April 26. The weekend will feature birding tours led by expert guides, educational displays, guest speakers, nature-themed artisans and other events curated for bird enthusiasts visiting from around the world.



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Visit nature.org/Louisiana to support and learn about our efforts to protect nature in the Pelican State.



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