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NORTHERN CALIFORNIA'S LARGEST NEWSPAPER

Endangered gopher frogs found at new breeding spot

By JANET McCONNAUGHEY
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NEW ORLEANS (AP) — The snoring noise near a shallow pond in a Mississippi national forest was meant to make female frogs sit up and take notice, but it got biologists even more excited. The noise indicated that dusky gopher frogs — one of the world's most endangered species — had found a new breeding spot.

The animals, also called Mississippi gopher frogs, live underground and breed only in rain-fed ponds so shallow that they dry up in summer. Three spots in Mississippi hold an estimated total of 100 to 200 frogs, but eggs and tadpoles have consistently shown up in only one, called Glen's Pond, in the DeSoto National Forest near Saucier.

The U.S. Forest Service, the U.S. Fish and Wildlife Service, and others have been working since 2000 on pond makeovers designed to please gopher frogs, which typically breed at night after heavy rain in winter or early spring.

At a renovated pond less than a mile from Glen's Pond, Western Carolina University researcher John Tupy heard the frogs on Feb. 27.

Since 2009, Tupy said, he's spent chilly winter and spring nights in the forest, slogging around Glen's Pond and others within reasonable hopping distance. Until then, the frogs had called only at Glen's Pond.



Saturday, Jan. 23, 2010 photo provided by Western Carolina University shows a dusky gopher frog, one of the world's most endangered species, in the DeSoto National Forest in Mississippi. The picture was taken by Western Carolina University biologist John A. Tupy, the first person to learn and document that some frogs had found a new breeding pond within a mile of what had previously been the only spot they were known to breed. Photo: Western Carolina University, John A. Tupy

"Once I finally believed that this was really happening, I was really excited," he said. "I called my wife. I called fellow researchers. And made a recording to make sure that people actually believed me."

One of Tupy's calls was to biologist Linda LaClaire of the U.S. Fish and Wildlife Service, who is coordinating efforts to help the species recover.

She said the move is the frogs' first natural migration and reproduction since biologists discovered them in 1988. It confirms the stability of the population in and around Glen's Pond, she said, and proves that ponds not suitable for the frogs can be modified.

"The frogs voted with their feet," LaClaire said.

Noah Greenwald, endangered species director at the Center for Biological Diversity, had a more sweeping view: “It confirms something we’ve known for a long time, which is that the Endangered Species Act does work” by protecting species and requiring work to help them recover.

He said the news also undercuts a Louisiana landowner who has sued to keep 1,500 acres of private forestland in St. Tammany Parish from being named critical habitat for the frog — something that would require U.S. Fish and Wildlife Service consultation for federal permits.

The center asked U.S. District Judge Martin Feldman on Thursday to add it as a defendant to the lawsuit, and said it planned to do the same in two suits brought by other landowners in the area.

One argument brought by Edward Poitevent’s Markle Interests LLC and attorney Edward Hopper of the Pacific Legal Foundation is that the land is unsuitable for the frogs.

Greenwald said it’s now clear that “with a little bit of work to recover the health of forests and restore them, the gopher frog can come back, too.”

The Forest Service and other partners are working to restore a dozen other ponds in Mississippi, LaClaire said. Four are in the DeSoto National Forest in Harrison County, and eight are in Jackson county.

The spot where Tupy heard the frogs is named Pony Ranch Pond, for a nearby road. There, the Forest Service planted longleaf pines and used controlled fires to limit underbrush, biologist Ed Moody said. Then, during the dry season in 2010, crews bulldozed brush and stumps from the pond and built a low wall around part of the bank so it would hold water longer. Grasses covered the bottom almost immediately and have since been replaced by aquatic grasses, he said.

“Hence now we have gopher frogs that have found it on their own and are breeding there,” he said.

Males that haven’t yet found a mate do the calling. At least one was clearly successful: Tupy found three masses of eggs the day after he heard the frogs. He took a sample from each for DNA testing.



Sunday, March 25, 2012 photograph provided by the U.S. Forest Service shows the temporary pond where gopher frogs mated and laid eggs after several years of renovation by the Forest Service, U.S. Fish and Wildlife Service and other partners, in DeSoto National Forest in Mississippi. Photo: U.S. Forest Service

“We’re pretty confident they’re (from) three different females” but don’t know how many males were involved, he said.

Two adult females and six males were later caught using drift nets to guide the frogs to traps as they left the pond. One was a female hatched in 2008 at Glen’s Pond.

Tupy estimated that 99 percent of the eggs laid in Pony Ranch Pond have hatched into tadpoles.

They’re getting company. Biologists had already been planning an experiment at Pony Ranch Pond to see whether either of two tadpole stages or newly hopping froglets are most likely to survive when released into a pond. About 2,100 will be released, beginning this week and next.

That experiment will show scientists whether the Pony Ranch Pond hatch is a true success, LaClaire said.

“It’s great that they breed there, but we want to make sure frogs will metamorphose out,” she said.