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Tiny owl could be bred in captivity

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other possible alternatives

Other proposed tools for rebuilding the population of the cactus ferruginous pygmy owl in Southern Arizona:

- Relocating owls from Mexico, where they are more common.
- Installing nest boxes to attract owls, which the U.S. government recently did on the Buenos Aires National Wildlife Refuge.
- Removing an owl pair's first batch of eggs from a nest in hopes that they'll lay a second batch.
- Capturing owls seven weeks after they leave the nest and moving them to areas that authorities believe are more suitable.
- Putting juvenile birds hatched in captivity into wild birds' nests.

Pygmy owls, numbering barely two dozen known adults in Southern Arizona, might be bred in captivity starting this spring.

The Arizona Game and Fish Department and the U.S. Fish and Wildlife Service are considering breeding 10 owls, five per sex, now living two to a cage in a wildlife rehabilitation center north of Phoenix.

In the wild, the rust-colored, cream-streaked owls nest in saguaro cavities. The tiny birds — less than 7 inches tall and weighing 2.5 ounces — need about 280 acres of territory, where they prey on creatures including lizards, rodents and birds. But they live in lush Sonoran Desert areas where people want to build, and where competition is the apparent reason behind the owls' diminished numbers.

If an advisory body of scientists and other interested parties supports the idea, captive propagation could start about a year after the wildlife service removed the bird from the endangered species list — citing a healthy population in nearby Mexico — in April 2006.

The breeding is hardly a new technique, having been done with dozens of endangered species around the country.

But like virtually every government action involving the pygmy owl since it was listed as endangered in 1997, captive breeding appears likely to be steeped in controversy.

The debate centers on whether other steps should be taken first and whether more action is needed to improve the owl's desert habitat, including ironwood forests and streamside vegetation, so captive-bred birds can survive in the wild.

Authorities captured the 10 cactus ferruginous pygmy owls last June out of concern that they would die during that period's extremely dry weather. Nine were fledglings in the Altar Valley, southwest of Tucson.

The 10th was the last adult, a male, known to live on Tucson's Northwest Side. It is seven years and seven months old, the oldest known pygmy owl in Southern Arizona, said Chantal O'Brien, a Game and Fish official. Lacking a female to mate with, the male was "a dead bird," Game and Fish says.

Surveyors counted 28 adult pygmy owls last year in Southern Arizona. Since 1997, surveys have found no more than 41 in the Arizona wild during a year.

Next month, the advisory group of scientists and other recovery experts will meet in Phoenix to discuss captive breeding and other possible steps to increase owl numbers.

Captive breeding has helped many well-known species, such as the California condor, the peregrine falcon, the Sonoran pronghorn and the whooping crane, which had been on the verge of extinction.

In Arizona, a dozen endangered fish species have been bred in captivity. Pygmy owls have successfully bred at the Arizona-Sonora Desert Museum and at the Johannesburg Zoo in South Africa, the wildlife service has said.

Pygmy owls are good candidates for captive breeding, state and federal officials say, because their numbers are low and because many young don't survive after leaving the nest.

"We think it would be a quicker way to improve population numbers than to rely upon breeding in the wild and the inherent dangers that come with living in a wild situation," said O'Brien, Game and Fish's research chief.

The advisory group would recommend when and where to return captive-bred owls to the wild. Agencies have commissioned a study of 26 known nesting sites in Pima, Pinal and Santa Cruz counties to identify potential release sites.

Officials would want at least two years of breeding to gauge success before releasing any owls, said Ray Schweinsburg, Game and Fish's research program supervisor. "It has worked for many species — it seems logical it would work for this animal," he said.

But the wildlife service's policy says captive breeding should be done only after all other fixes for species' problems have failed, or experts conclude that they will fail, said Aaron Flesch, a University of Arizona biologist who has studied the pygmy owls in Mexico.

There are also many cases where captive breeding hasn't worked, with one prominent example being the masked bobwhite quail in Southern Arizona, said environmentalists with the Tucson-based Center for Biological Diversity.

The bobwhite hasn't recovered in the Buenos Aires National Wildlife Refuge, southwest of Tucson, despite the release of 25,000 quail since 1985.

The Center for Biological Diversity doesn't oppose captive breeding but believes the agencies are rushing into it without long-term financing or adequate planning for where the owl would go, said Kieran Suckling, the group's science director.

"Before they pulled the condors into captivity, they … raised millions of dollars and built an entire bureaucracy devoted to the condor," he said.

Biologist Noel Snyder ran the wildlife service's field conservation program for the condor back in the 1980s. Now retired and living in Portal in Southeast Arizona's Chiricahua Mountains, he has supported numerous captive-breeding programs. But he co-authored a 1997 study that said captive breeding is done far too often for species that don't need it and fails more than it succeeds.

"You just don't turn loose the doors and expect them to survive," Snyder said. "Breeding is one thing. Getting them re-established in the wild is entirely different."

Jenny Neeley of the Defenders of Wildlife said the Northwest Side's ironwood forests need more protection. And retired UA professor Roy Johnson, who has studied owls for 50 years, said barren riverfront areas need restoration before captive breeding can succeed.

Scott Richardson, a wildlife service biologist, agreed that captive breeding should be a last resort but said Arizona's pygmy owls are at that point.

Captive breeding can produce lots of pygmy owls, and that could help adults fare better against predators such as screech owls, he said.

Service biologists and other scientists studied captive breeding for the pygmy owl for three years, so they are hardly doing things without thinking them through, Richardson added.

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