

Southwest

Rare Predator Returns to a Southern Arizona Conservation Area

On May 16, 36 young northern Mexican gartersnakes, a non-venomous snake, slithered into the wild on the Bureau of Land Management's Las Cienegas National Conservation Area in southern Arizona. It was the second release by a multi-partner, conservation effort to help recover the species. The first release was in October 2012, also on the Las Cienegas National Conservation Area.

The northern Mexican garter-snake, newly listed as a threatened species under the Endangered Species Act, can grow to 44 inches, and lives along the banks of streams or in the shallows of wetlands in Arizona. It used to be found throughout the southern half of Arizona, extreme western New Mexico, and the Sierra Madre Occidental and Mexican Plateau in Mexico.

Once a common predator, the gartersnake has declined primarily because of nonnative species such as bullfrogs, crayfish and predatory sportfish. These species prey on garter-snakes and compete with them for food.

Efforts to control nonnative predators and restore native aquatic and riparian communities could significantly benefit both gartersnakes and other imperiled native fish and amphibian species throughout their range. In addition to the northern Mexican gartersnake, many projects at Las Cienegas have focused on native riparian and aquatic species such as the Gila topminnow, Gila chub and Chiricahua leopard frog. Over the years, activities have included habitat improvement, nonnative species removal and reintroductions of at-risk species. Such projects were made possible, in part, by a growing and positive working relationship the Service has with local private landowners, livestock grazing permittees, local scientists and

Biologist Jeff Servoss holds a northern Mexican gartersnake.



conservationists, the Arizona Game and Fish Department, and the Bureau of Land Management.

The released gartersnakes were born in captivity, raised and cared for by the husbandry staff at the Arizona-Sonora Desert Museum, one of the world's premier "living" museums. Captive snakes in the propagation program are fed a diet of fish and amphibians, and brumated (the hibernation-like state that cold-blooded animals use during very cold weather) seasonally to induce reproductive hormones and behaviors. This program began in 2006 with the start of the Gartersnake Conservation Working Group, a coalition representing 26 public, private and academic institutions from Arizona and New Mexico dedicated to working together to conservation and recovery of northern Mexican and narrow-headed gartersnakes.

On the scheduled day of the release, the snakes were measured and marked for record-keeping and identification, and set free.

Because each release location has previously been the focus of native fish and frog recovery efforts, a reliable prey base is present to support the newly released gartersnakes.

Efforts like these enable the Service to strengthen what has been lost or weakened in many areas in the southwestern United States, a wholly native aquatic ecosystem. □

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Surrogate Woodpecker—What one biologist does for species recovery!

Robert Allen, a wildlife biologist at the East Texas Sub-office in Nacogdoches, climbs ladders and builds artificial nest and roost cavities for the endangered red-cockaded woodpecker as part of a recovery effort to enhance nesting habitat in the four national forests in east Texas.

Allen builds these artificial cavities to promote population growth because natural cavity excavation commonly takes several years for the woodpecker to complete.

Unlike other woodpecker species, red-cockaded woodpeckers are highly social and cooperative breeders, living in family clusters comprising the breeding pair and helper males (previous year's offspring). Most, if not all, red-cockaded woodpeckers in the group have their own cavity, all of which are in live pine clustered in close proximity, hence the term "cluster."

Red-cockaded woodpeckers require open pine woodlands and savannahs with large, old pines for nesting/roosting habitat. Large, old pines are used as cavity trees because the woodpecker excavates completely within the heartwood in order to keep the cavity interior free of the resin the tree produces, which can entrap the birds. Also, old pines are preferred because of the higher