

By Jeremy Voeltz

El Coronado Ranch

Collaborative conservation on private lands



Jeremy Voeltz/USFWS

Jason Kline, Arizona Game and Fish Department (l), and Marty Underwood, U.S. Fish and Wildlife Service, beam over finding a Mexican stoneroller in West Turkey Creek.

It's a cool October morning in the Chiricahua Mountains of southeast Arizona mere miles from Mexico. The gentle repetitive beeps from a backpack electrofisher nearly mask the conversation of biologists as they wade through West Turkey Creek on El Coronado Ranch. The beeps warn fishery workers that DC current is pulsing in the water that flows over their waders. The electricity briefly stuns fish, so they may be caught. As they move toward a pool scoured by water pouring over a mass of tree roots, there is suddenly some excitement in their voices and in their actions.

“There they are!” says an excited Jason Kline, a fisheries biologist with the Arizona Game and Fish Department. Water splashes as he quickly moves to sweep the silvery fish into a long-handled net.

The “they” that’s enlivened the morning are three kinds of fishes: the rare Yaqui-form of the longfin dace, Mexican stoneroller, and the federally endangered Yaqui chub. All three have a safe home in West Turkey Creek and in several ponds on the picturesque El Coronado Ranch. But, the ranch wasn’t always a safe-haven for native fishes.

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Yaqui chub and longfin dace were first collected in 1895 from West Turkey Creek, known then as Morse Cañon, by 29-year-old Cloud Rutter. He was a young biologist employed in the U.S. Fish Commission, the predecessor of the U.S. Fish and Wildlife Service, an agency four years younger than he. Rutter and others like him in the Fish Commission cataloged what fishes lived in the West. Over time, what fishes Rutter had found in West Turkey Creek went missing.

Over the next several decades following Rutter’s finds, overgrazing,

excessive logging, water diversions, and competition from non-native fish species eliminated the Yaqui chub from West Turkey Creek and much of its natural range. The species was listed as endangered by the U.S. Fish and Wildlife Service in 1984.

Something else significant occurred about the same time, Josiah and Valer Austin purchased El Coronado Ranch. The ranchlands were badly degraded from some of the things that also ruined fish habitat. The streams were eroded and severely down-cut. The Austins envisioned running a cattle ranch that mended



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The Yaqui chub is an endangered species.

the land—and its waters— something many at the time considered impossible. “It’s harder in the short term, sure,” Josiah says. “But if you let the land and the species tell you how to ranch, the better rancher you’ll become, and the more likely the ranch is to survive in the long run. I want this to be a cattle ranch not just for my lifetime, but for multiple generations, whether it’s in my family or not.”

Over the last 25-plus years, the Austins have spent well over \$1 million to restore ecological health to El Coronado. Over 20,000 stone gabion structures have been built in West Turkey Creek and its ephemeral tributaries to slow down the water and let it seep into the ground. That’s

repaired grasslands and riparian areas. The gabions trap silt and nutrients, providing a growing area for native vegetation, which in turn attracts wildlife.

In 1986, nearly 100 years after they were first collected, the endangered Yaqui chub was put back into the West Turkey Creek watershed. That could have created a dilemma for the Austin ranching enterprise. Because of the protections found in the Endangered Species Act, ranching at El Coronado could have been stopped if it were damaging the chub.

But the Austins *wanted* the imperiled fish on their ranch.”Many people think you should just get rid of endangered species,” Josiah said.



A Yaqui longfin dace were caught by U.S. Fish Commission biologist, Cloud Rutter, in the 1890s.

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“That is the exact thing I did not want to happen. What we wanted to do was show ranchers and landowners that endangered species did not have to be a liability.”

Their conservation resolve would be tested. By the mid 1990s, a suite of non-native fishes had established themselves throughout the ranch, and the Yaqui chub and longfin dace declined. “It would have been easy to let the non-native fish continue to take over,” said Josiah, “but that would have meant the loss of the native fish. The late Arizona State University ichthyologist Dr. W.L. Minckley really encouraged us to work with the agencies to restore the native fish community in West Turkey Creek.”

That encouragement led to Arizona’s first Habitat Conservation Plan, or HCP. It’s a voluntary agreement and permit between the U.S. Fish and Wildlife Service and landowners that allows them certain land use, in this case, ranching, that might otherwise affect listed species in a negative way. The 25-year HCP started in 1998, outlined what needs doing to restore the native fishes in the West Turkey Creek watershed while cattle ranching continued. The HCP was very much in synch with the desires of ranch owners.

Since then, a fish barrier built on the lower West Turkey Creek on El Coronado Ranch prevents non-native fishes from swimming upstream. The stream and the stock tanks



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The Yaqui catfish looks similar to a channel catfish, but has a different bone structure, and lives in the Yaqui River basin in extreme southeast Arizona and northern Mexico.



were renovated with the piscicides rotenone and antimycin-A, non-native fish removed and Yaqui chub, longfin dace, and the threatened Yaqui catfish returned to waters of El Coronado. And finally, in 2007, Mexican stoneroller were transplanted from Rucker Creek in the Chiricahua Mountains to West Turkey Creek. That transplant was value-added, lending the rare nearby Rucker Creek fish population more security.

This native fish restoration project has truly been a partnership with too many individuals and institutions to name them all. The U.S. Fish and Wildlife Service's Arizona Fish and Wildlife Conservation Office monitors the West Turkey Creek fishery in cooperation with the San Bernardino National Wildlife Refuge and the Arizona Game and Fish Department. The Arizona Ecological

This Mexican stoneroller is a handful, caught from a pond on El Coronado Ranch. The 'horns' on top of its head indicate that it is ripe for breeding.

Jeremy Voeltz/USFWS



A trio of U.S. Fish and Wildlife Service biologists use an electrofisher to catch fish on El Coronado Ranch.

Chris Lohrengel/USFWS

Services Field Office prepared the HCP and has regulatory authority over the HCP. San Bernardino National Wildlife Refuge is one of the few refuges that exists mainly for fishes, and the Yaqui fishes have refuge there. Refuge biologists assist the Austins with their conservation work, which has included emergency fish salvage due to drought. The Coronado National Forest surrounds the deeded El Coronado, and the Austins lease and manage several grazing allotments from the U.S. Forest Service.

In addition to native fish work, the Austins are active in Gould's turkey and thick-billed parrot reintroductions, as well as being gracious hosts for a multitude of research and management projects on El Coronado Ranch, including a 20-plus year study on Sonoran mud turtles, and an annual hummingbird banding project.

The Austin's commitment to conservation has not gone unnoticed. In 2008, they received the "Conservationist of the Year" award from the AZ/NM Chapter of the American Fisheries Society, and the 2008 National Wetlands Award for landowner stewardship.

The beeps from the electrofisher, the splashing water, and Kline's excitement herald things to come. It's good to see those native fish splashing silver in the creek as Cloud Rutter may have seen them 115 years ago. ♦

Jeremy Voeltz is a Fishery Biologist with the U.S. Fish and Wildlife Service. He says his work with the El Coronado Ranch has been a most rewarding experience.



Chris Lohrengel/USFWS

Jeremy Voeltz, U.S. Fish and Wildlife Service, counts fin rays on a Yaqui catfish.



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Rancher Joe Austin receives the 2008 Conservationist of the Year award from the Arizona/New Mexico Chapter of the American Fisheries Society, presented by Marty Underwood, U.S. Fish and Wildlife Service.