

A Road Trip for Recovery

by Craig Springer

*I*t's slow going down a rocky back road to the Pecos River. Stiff springs on the four-wheel drive jostle me around the cab. The corrugated road bisects low hills rounded off by incessant winds. Only stiff, scrubby creosotes that stand unyielding to the wind break a monotonous view. You can see for miles across this part of New Mexico, and it looks the same in any direction. Were it not for landmarks like the river, one could easily get lost.

The shallow Pecos River makes a wide swath across the landscape. It is typical of plains streams: slow flowing over a low gradient, and lined with sandy banks. The bottom is sand, too, and it's transitory, always moving. The river elbows its way into the foot of a hill, eroding in one place, depositing in another. Only the non-native salt cedar (*Tamarix* sp.) that rims the river hold the banks in place, and even these plants are temporary.

Another alien species, the object of our foray, lives here as well. The Arkansas River shiner (*Notropis girardi*) was brought to the Pecos via an inadvertent 'bait bucket' introduction some 22 years ago. It has become established here, but in its native range—the Arkansas River from Kansas down to Arkansas—this small fish is headed for extinction. Dwindling water, poor water quality, and reservoirs have all contributed to the species' decline, which led to its listing as a threatened species in 1998.

The Pecos River itself is a reservoir—a reservoir of Arkansas River shiners. I've made the trip with other biologists from the U.S. Fish and Wildlife Service's Oklahoma and New Mexico Fishery Resources Offices, our Oklahoma Ecological Services Office, and the New Mexico Game and Fish Department for what could be a milestone in the



shiner's road to recovery. Our purpose: to collect shiners and carry them back alive to the Tishomingo National Fish Hatchery in Oklahoma for propagation.

"Hatcheries are increasingly important to endangered species conservation," said Brent Bristow, of our Oklahoma Fishery Resources Office. "Witness the successes with paddlefish in the Mississippi basin or trout in the Southwest. There's a hatchery component to all, but hatcheries cannot go at it alone. In front of any successful conservation project is habitat restoration."

Advancing ridges of sand across the stream bottom are where you find Arkansas River shiners. Summer freshets flush and erode the sand, keeping the ridges moving. "These transitory ridges provide two things, a place to eat and a place to rest," said Chris Hoagstrom, biologist for our New Mexico Fishery Resources Office. "Flows with the right amount of turbulence are paramount to maintain habitat for this animal. The turning sand turns up food for shiners that lie in wait. Stop the flows and you essentially stop feeding fish."

While the Service works to restore habitat for the shiner, biologists at Tishomingo learn to feed and spawn it in captivity. It's never been done before

Habitat losses caused downward trends in threatened Arkansas River shiner populations. Biologists hope to raise shiners in hatcheries for release into protected habitats.

Photo by Ken Collins/USFWS

with this species. The learning curve is steep and the stakes are high.

In the end, after 3 days of seining, 300 shiners made the 500-mile (200-kilometer) trip to the hatchery, where they are doing quite well. It's a long way from southeast New Mexico to the hatchery in Oklahoma. Long, too, is the road to recovery for the Arkansas River shiner, but conservation efforts like this one can get us there.

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