U.S. Fish & Wildlife Service

Fish Tales

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A Pre-Historic Fish Struggles to Survive in the Modern World

by Ken Burton, USFWS

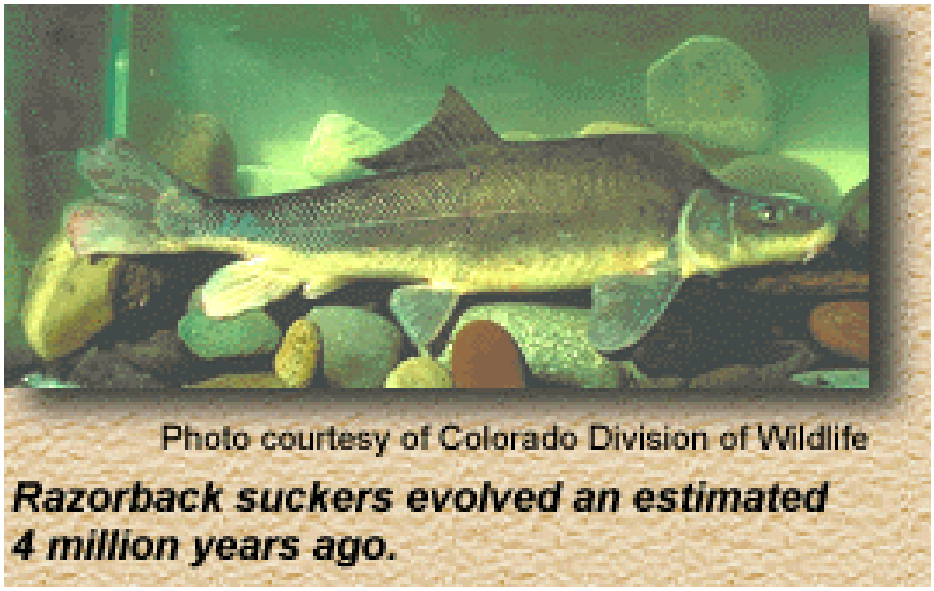

Photo courtesy of Colorado Division of Wildlife

Razorback suckers evolved an estimated 4 million years ago.

The **razorback sucker** hasn't had it easy.

It once was so plentiful in the Colorado River Basin – where it evolved and the only place on Earth it is found – that farmers harvested the fish to grind it into livestock food or fertilizer. Later, its river channels were altered, stream flows were changed, dams were built, pollution increased and its habitat was badly fragmented. Over the years, 40 new fish species were introduced into its Colorado River home, transforming a placid existence into one of fierce competition. Razorbacks that did survive wound up literally being eaten alive. The future looked grim; by 1991, to no one's surprise, **the fish officially became an endangered species.**

But the **U.S. Fish and Wildlife Service's and its partners** didn't give up. For years, biologists have put in long days and longer hours, trying to find a way for the razorback sucker to come back into its own. Their efforts were met largely with discouragement and frustration.

And when they recently discovered the fish spawning again in the wild, they were ecstatic: some of the spawning razorbacks were hatchery-bred, and they were returning to a favored habitat, in the wild. On their own. Plus, they were mingling with the few wild razorbacks still out there.

"To say we were excited is a considerable understatement," said Tom Pruitt, manager of the **Ouray National Fish Hatchery** in Vernal, Utah. "We're absolutely convinced that this is the breakthrough we've been waiting for. These fish are a long way from being out of harm's way. But it's a significant beginning. I can hardly begin to tell you how significant."

Ouray National Fish Hatchery, part of the Service's **Fisheries Program**, was established in 1996 to provide refugia, propagation, and technical development to assist in the recovery of the four endangered Colorado River fish: razorback sucker, Colorado pikeminnow, bonytail, and humpbacked chub. Hatchery facilities include rearing ponds, solar conditioning reservoir, fish culture building, well field, and an ozone water treatment facility.

The razorback's survival is also supported by the **Vernal Colorado River Fishery Project office**, also part of the Service's Fisheries Program. This office assesses impacts of water development projects on endemic fish species of the Upper Colorado River system, including the middle Green, White, Duchesne, and Yampa Rivers. Species include the endangered Colorado pikeminnow, bonytail, humpback chub, and razorback sucker. Project activities include Basin-wide monitoring programs for the endangered fishes and their habitats, management-oriented research activities, instream flow assessments and recommendations, database management and data analyses, and experimental population augmentation and restoration programs.

Several thousand older razorbacks still spawn in Lake Mohave, but few of their offspring survive. If eggs are not eaten by predators, those that become young razorbacks in turn become meals for sunfish and other species.

A similar fate had befallen razorbacks in the Green River, a Colorado tributary, over the years, but Pruitt said considerable work helped to finally turn the tide — corrective measures that included removing predator fish, working to curb pollution and changing water flows all are making a marked difference.

Since 1994, the Service's Fisheries Program has stocked at least 10,000 razorbacks when they attained a length of between 6 and 16 inches. The improved conditions allowed enough of those hatchery fish to survive to begin mingling with the estimated 300 wild razorbacks. Eventually, a sizeable number headed back to the Escalante bar in the Green River, and last May, Service biologists confirmed the spawning.

"The whole point here is not to keep stocking the river or the tributaries with razorback," said Pruitt. "The point is to give the fish a chance to build its own self-sustaining population. If we can achieve that, we can pull this species off the endangered species list and apply what we've learned to other native fish that are in trouble. We want to get far enough ahead of the curve that we can avoid listings altogether. What we're seeing now with the razorbacks is extremely promising. This is solid progress."

It's also a success story that points to the importance of wetlands: one of the fish found on the spawning bar had been stocked in a wetland a year before. The female had remained there until she knew it was time to head far downriver. "Without those wetlands, you wouldn't have this story," said Pruitt. "The functions wetlands provide and the life they support is staggering. And this is one more example."

The razorback sucker — *Xyrauchen taxanus* — is a swimming fossil, a fish that has been around for nearly a million years. It can weigh up to 12 to 14 pounds, attain a length of two to three feet and can live for 40 years. It has an unusual body shape — a keel-edged, bony hump on the back that rises immediately behind the head — the result of an evolutionary dance with the raging Colorado River, which suits it well for its life on the bottom. Native Americans and early settlers braved the razorback's bones to make a meal. Likewise for river families during the Depression of the 1930s, and **old timers still tell tales** of filling gunnysacks with razorbacks.

"This is a species has been here since before people arrived," said Pruitt. It's survived all the ravages of nature and all the abuse of humans, all the wars, all the pioneers — you name it. It's part of the heritage of this entire hemisphere."

The plight of the razorback, and the determination to help the species attain sustainability, is considered important enough that a total of 15 Federal, State and private agencies and organizations have signed on to participate in the **Upper Colorado River Endangered Fish Recovery Program**. Besides the Service, partners include the U.S. Bureau of Reclamation, Western Area Power Administration, National Park Service, the States of Colorado, Utah and Wyoming, Environmental Defense Fund, National Audubon Society, Colorado Wildlife Federation, Wyoming Wildlife Federation, Colorado Water Congress, Utah Water Users Association, Wyoming Water Development Association and the Colorado River Energy
Distributors Association.

"We're 'jump-starting' a fish population," said Pruitt. "And for the first time, we feel like we're swimming upstream."

The **U.S. Fish and Wildlife Service** is the principal Federal agency responsible for conserving, protecting and enhancing fish, wildlife and plants and their habitats for the continuing benefit of the American people. The Service manages the 93 million acre National Wildlife Refuge System which encompasses more than 530 national wildlife refuges, thousands of small wetlands and other special management areas. It also operates 66 national fish hatcheries, 64 fishery resource

offices and 78 ecological services field stations. The agency enforces Federal wildlife laws, administers the Endangered Species Act, manages migratory bird populations, restores nationally significant fisheries, conserves and restores wildlife habitat such as wetlands, and helps state, tribal, and foreign governments with their conservation efforts. It also oversees the Federal Aid program that distributes hundreds of millions of dollars in excise taxes on fishing and hunting equipment to state fish and wildlife agencies.

For more information on the razorback chub and other endangered fish of the Upper Colorado River, visit **http://www.r6.fws.gov/coloradoriver/**. For more information on the Mountain-Prairie Region Fisheries Program, visit **http://www.r6.fws.gov/fisheries**.