

By Rick Smaniotto

# Backyard Ponds Grow Razorback Sucker

*Private-public partnerships advance endangered fish conservation*



Rick Smaniotto/USFWS

*Razorback sucker grow here, the Beswick Gravel Pit Pond, near Grand Junction, Colorado.*

It's an odd-looking fish, reclusive and rare. The razorback sucker is one of four fishes native to the Colorado River system that are currently listed as threatened or endangered by the Endangered Species Act. The others—the Colorado pikeminnow, humpback chub, and bonytail—share not only unusual names, but also a multitude of threats to their existence. The razorback sucker, however, benefits from partnerships with an unlikely set of allies and cooperators that are helping to nudge the species down the road to recovery.

The U.S. Fish and Wildlife Service's Colorado River Fish Project Office (CRFP) based in Grand Junction, Colorado, implements the Upper Colorado River Endangered Fish Recovery Program. Along with partners, the CRFP monitors populations of these endangered fishes, and strives not only to improve habitat, but also reduce threats to the species, such as removing and relocating non-native fish that prey on the imperiled native fish. Increasing the populations of the endangered fish in the Colorado and Gunnison

rivers is a desired outcome. Achieving natural, self-sustaining populations of endangered fish so that they no longer require protection under the federal Endangered Species Act is the ultimate goal. Captive breeding of the razorback sucker is one such step toward reaching that ultimate goal.

The captive breeding operation includes the use of a dozen or more grow-out ponds scattered throughout the Grand Valley of western Colorado. Your conventional hatchery has most of its physical structure in

one place—its tanks, ponds, raceways and support buildings are all found in one locale. The “hatchery” conducted by the CRFP is different, raising razorback sucker in a variety of ponds in all shapes and sizes from one end of the valley to the other.

In 1991, the razorback sucker was listed as endangered after almost 30 years with little evidence of successful natural spawning. Over time, biologists found fewer and fewer young fish. At the same time, they noted the numbers of adult fish in the wild declining significantly. To prevent extinction, two new facilities were developed, one at the Ouray National Wildlife Refuge in Utah and the other, the Grand Valley Endangered Fish Facility in Grand Junction, Colorado, with accompanying broodstock ponds located within the Horsethief Canyon State Wildlife Area in nearby Fruita, Colorado. The latter facility was created from an old Bureau of Reclamation warehouse, while the accompanying broodstock ponds were built specifically for propagation purposes in the wildlife area.

But these facilities were not enough. A call went out in search of private landowners who would be willing to lease the use of their ponds to raise the endangered razorback sucker. The call was quickly answered, and the requests came pouring in—some people even volunteering the use of their backyard basins to help recover the razorback sucker. It was an eclectic mix—ranchers and real estate developers, environmentalists and construction companies—that offered up their waters.

These newly acquired ponds act as stepping-stones on a walk toward life in the river. They give the fish an opportunity to adjust to life on their own before ultimately being released into the muddy and malevolent Colorado, Green, and Gunnison rivers. The fish learn to naturally forage on invertebrates and other plant material lying on the pond bottoms. Their immune system strengthens, providing additional defense to external parasites and pathogens found in the wild. And finally, the fish are allowed ample opportunity to flourish, up to six months and sometimes longer, in a relatively competition- and predator-free environment. As a result, these private ponds frequently turn out fatter, more robust fish, better fit to survive life in the wild.

The ponds themselves are a rather motley assortment of old abandoned gravel pits, swimming holes, and farm ponds scattered from Palisade, Colorado, on the east end of the valley to Fruita on the west. They range in size from half an acre to over 15

acres. Irrigation runoff, groundwater, and direct draw from the valley’s extensive canal network feed them. The ponds are as varied as the people who offered up their use. Some are deep and vegetation-free, others shallow and overgrown with aquatic flora. A handful require supplemental aeration to keep oxygen in the water for fish to breathe, while others depend upon carefully calculated applications of aquatic herbicide to control excessive algae and plant growth. And yet others need supplemental food and nutrients to stimulate increased growth and kick-



Michelle Shaughnessy/USFWS

*Despite easy car access, harvesting fish is confounded by pond-side vegetation.*



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*The “razorback” behind the fish’s head is thought to be an adaption to life in fast-flowing water.*

*The Upper Colorado River Endangered Fish Recovery Program is a voluntary, cooperative program whose purpose is to recover the endangered razorback sucker, humpback chub, bonytail, and Colorado pikeminnow while water development proceeds in accordance with federal and state laws and interstate compacts. For more information call Michelle Shaughnessy, 970-245-9319, ext. 19, or visit [www.coloradoriverrecovery.org](http://www.coloradoriverrecovery.org).*



*Rick Smaniotto (l) and Michelle Shaughnessy put PIT tags in razorback sucker before releasing them into the Colorado River:*

start the food chain. It's an incredibly dynamic and diverse system that requires constant attention and careful consideration by biologists.

Getting fish out of the water and into the river is another variable from pond to pond. In the larger, deeper, and un-drainable basins, nets with long mesh leads stretching to shore guide fish into a baited trap, and are checked throughout the week during harvest time. Fish that manage to elude the nets simply fatten up another year.

Ponds that can be drained are slowly lowered over a couple days each October, gradually congregating the unsuspecting fish into the remaining water at the deep end of the pool. At that point cautious biologists slip into neoprene chest waders and enter the frigid willow, large seine in tow, and wrangle the reluctant razorback sucker towards their new home. Every fish is gathered, and the pond

left to dry over the winter months, the entire process starting anew come spring.

Post-razorback-roundup, there's a quick stop back at the shop where each fish is weighed, measured and tagged with a tiny Passive Integrated Transponder, or PIT tag. These PIT tags hold a unique code that allows biologists to monitor individual fish throughout their development over time. Once tagged, the whole writhing mass is moved to the river's edge and sent swimming on their way downstream. It's yet one more new beginning for this ancient species edging toward recovery.

The work seems to be paying off. Last spring, biologist caught about 600 stocked razorback sucker in the Colorado and Gunnison rivers. Roughly one-sixth of those fish had survived in the river for more than a year, and half of those fish were in spawning condition. Larval fish have

been showing up too, a bellwether sign that fish are spawning and eggs are hatching. It's a success story that owes as much to the tenacious and resilient razorback sucker as it does to the eclectic mix of pond-owner conservationists who answered the call for help many years ago. ♦

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Rick Smaniotto is a Fishery Biologist at the Grand Junction Colorado River Fish Project, Grand Junction, Colorado. He's an avid outdoorsman and adventurer, and recently traveled to Antarctica for two months to help study penguins around the Palmer Archipelago.



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*Biologists pull a seine through Horsethief Broodstock Pond.*



Rick Smaniotto/USFWS

*Razorback sucker grow out in ponds of various sizes and shapes, such as this irregularly shaped Feurborne Gravel Pit Pond in Grand Junction, Colorado.*