



**UNITED STATES OF AMERICA  
DEPARTMENT OF THE INTERIOR  
FISH AND WILDLIFE SERVICE  
ENDANGERED SPECIES PROGRAM**

**TELEPHONIC INTERVIEW Time (6:41)**

**UPPER COLORADO RIVER ENDANGERED FISH RECOVERY PROGRAM  
(HOST – SARAH LEON WITH ANGELA KANTOLA)**

This transcript was produced from audio provided by FWS Endangered Species Program

**P R O C E E D I N G S**

(Music plays.)

MS. LEON: This is Sarah Leon for the U.S. Fish and Wildlife Service and I'm on the phone today with Angela Kantola on the line to tell us more about the four "big-river" fishes—Colorado pike minnow, razorback sucker, humpback chub, and bonytail—all of which are federally endangered. Angela is the Assistant Director for the Upper Colorado River Endangered Fish Recovery Program. What can you tell our listeners a little about these four unique fish species?

MS. KANTOLA: Well, Sarah, these four fascinating fishes are found only in the Colorado River Basin, Sarah. They're large, long-lived, warm-water species that are thought to have evolved some 3-5 million years ago. Three of the species are in the minnow family: those are the humpback chub, the bonytail, and the Colorado pikeminnow. The fourth species is the razorback sucker.

The Colorado pikeminnow is the largest minnow in North America. Historically, it was known to grow to nearly 6 feet long and weigh up to 80 pounds. It's the top native predator in the Colorado River ecosystem and was called "white salmon" by early settlers due to its migratory behavior. Of the four species, Colorado pikeminnow have the most stable populations, and we could be looking at downlisting them from endangered to threatened within a few years.

Humpback chub are distinguished by the abrupt, fleshy hump behind their head. This fish likes deep, swift-water canyon habitat and is found in smaller, more localized populations. Some of those populations appear to have declined in the last few years,

possibly due to increased numbers of nonnative fish and habitat changes associated our recent drought.

The razorback sucker is identified by its sharp, bony "razorback" hump. This is another big fish, growing up to 3 feet long. Razorback sucker were nearly extinct, but they seem to be coming back around thanks to our stocking programs and work to improve their habitat.

The bonytail has a body that becomes pencil-thin near its tail. This is the rarest of the four species. We're also working to restore its populations through stocking. We haven't yet seen the kind of results with bonytail that we've seen with stocked razorbacks, and so we may be furthest from recovery with this species.

These fishes are endangered due to the effects of human activity on their river habitat. Dams, diversions, loss of floodplains and introduction of nonnative fishes all have taken their toll.

MS. LEON: Tell us about the Upper Colorado River Endangered Fish Recovery Program. How is this ongoing partnership with state and federal agencies, water and power organizations and Tribes aiding the recovery of these four endangered species?

MS. KANTOLA: We actually have a pair of recovery programs. The Upper Colorado River Endangered Fish Recovery Program, established in 1988, covers the Colorado River above Glen Canyon dam in the states of Colorado, Utah, and Wyoming. To recover the fish in the San Juan River in Colorado, New Mexico and Utah, the San Juan River Basin Recovery Implementation Program, was established in 1992. These two long-term partnerships are working to recover the endangered fishes while water use and development continue to meet human needs. The partners are state and federal agencies, including the Fish and Wildlife Service, as well as environmental groups, water users and power customers, and in the San Juan River, American Indian Tribes. The programs undertake a host of different recovery activities to address the threats to these endangered species.

One area of emphasis is improving river flows. For example, we've modified operations of federal dams, helped enlarge a reservoir on the Yampa River in northwest Colorado to augment flows in the late summer, and entered into a number of different cooperative agreements to enhance flows.

We've also constructed five fish passages around dams and diversions on the Colorado, Gunnison and San Juan rivers. These passages restored fish access to more than 375 river miles of designated critical habitat. And we've installed fish screens to prevent fish from getting caught in irrigation canals. We've also restored about 2,700 acres of floodplain habitat.

Predation or competition by nonnative fish species is a serious threat to the endangered fishes and perhaps the most challenging to manage. Currently, we're focusing on

control of nonnative smallmouth bass and northern pike for in the Green and upper Colorado River systems and in the San Juan River, channel catfish and common carp are targeted.

We're also raising fish in hatcheries and stocking them to reestablish naturally self-sustaining populations. We do this for the razorback sucker and bonytail in the upper Colorado River system and razorback sucker and Colorado pikeminnow in the San Juan River.

MS. LEON: What about climate change? The region is in for a hotter, drier future. How is water secured today providing a safety net for future climate change?

MS. KANTOLA: Climate change could certainly have significant impacts to the basin's aquatic ecosystem, Sarah. We could see higher water temperatures from increased air temperature; changes in the timing of peak flows from an earlier snowmelt; and potentially lower runoff peaks because of reduced snowpacks. Current scaled-down models suggest that the northern part of our basin may get wetter and the southern portion drier. But that moisture could come in the form of more spring rains and less winter snow.

The water we've secured for the endangered fishes over the years has helped see their populations through some pretty serious drought periods, and this water should help us be able to face the challenges of climate change. Our Program partners have developed a number of innovative solutions to provide instream flows. For example, The Bureau of Reclamation operates Flaming Gorge Dam in Utah to help meet flow and temperature recommendation for the fish. And operators of a number of reservoirs upstream of critical habitat on the Colorado River have coordinated water releases to provide more than a million acre-feet of water over the last 14 years to enhance spring and summer flows to improve downstream habitat.

We believe that the groups who currently manage these various sources of water will be the folks best suited to identify available flexibility to continue to meet flow needs of the endangered fish in the face of changing flow and temperature regimes. The Recovery Programs operate under an adaptive management approach, and that will be a vital tool to address climate change impacts.

Partners in the Upper Colorado and San Juan River Recovery Programs have made important strides toward recovery of the endangered Colorado River fishes. But climate change can be expected to bring new challenges to these recovery efforts. And it's the strong working relationships formed in these Recovery Programs that will provide the platform for addressing the effects of changing river flow and temperature anticipated with climate change.

Certainly the Programs will need increasingly fine-tuned climate data to inform their water resource management decisions. With their existing landscape-level approach to

conservation, these two Recovery Programs on the Colorado River also will be key components in the Southern Rockies Landscape Conservation Cooperative.

The recovery programs arose out of conflict between the Endangered Species Act and water use. Very long story short, folks realized that this conflict was a symptom of the root problem, which was that the fish were endangered. The solution was to recover the fish, and everybody realized that the only way to do that was to work together instead of wasting time and effort blaming and suing one another.

Both patience and perseverance are key in endangered species recovery and in partnerships, which are the very things that form our context.

All these recovery activities are what provide Endangered Species Act compliance for e for more than 2,100 federal, tribal, and non-federal water projects in the Upper Colorado and San Juan River basins.

MS. LEON: This is Sarah Leon for the U.S. Fish and Wildlife Service. Thanks for listening.