

BY STAFF AID

COLORADO PIKEMINNOW

Recovery Program research

Colorado's Ocean Journey aquarists lent their expertise to the Recovery Program this spring as they joined U.S. Fish and Wildlife service employees in Vernal, Utah, to help tag fish and obtain population estimates. The Ocean Journey staff placed coded wire tags on more than 7,000, 4- to 5-inch razorback suckers at the Ouray National Fish Hatchery (NFH). They transferred the tagged fish to nearby wetlands where scientists hope the fish will reproduce in the wild. The aquarists were Gregg Harris, Debbie Hutchinson, Jeremy Lord and Colleen McCann.

"Tagging the fish is an important part of the recovery process," Ouray NFH Manager Tom Pruitt explained. "To consider an endangered species recovered, we have to demonstrate that the species is self-sustaining. The tags

help us differentiate between wild and hatchery-raised fish when we capture them in the rivers and wetlands as part of our population studies."

A few weeks after the tagging and stocking were completed, Gregg and Colleen returned to Vernal to participate in a population sampling study. (See cover story.) Their colleagues, Robert Brynda and Jeff Krenner, came a few weeks later to help complete the project.

"We really appreciate the volunteer support the Ocean Journey staff provided," said Colorado River Fishery Project Leader Tim Modde. "Their expertise, enthusiasm and willingness to work hard enabled us to further our Recovery Program efforts. They were some of the best volunteers we have ever had."

Now celebrating its first anniversary, Ocean Journey is the region's

only saltwater aquarium. Located in Denver, Colorado, the aquarium displays more than 15,000 specimens representing 300 species of plants, birds, fish, mammals and invertebrates. Last year, aquarium employees established a volunteer Conservation Committee that raises money to fund field work that helps endangered species on exhibit at the aquarium.

"An important part of Ocean Journey's mission is to support conservation efforts that help protect critical habitats and endangered fish and animals," Associate Curator of Fish Neil Allen said. "It is good experience for our staff to go out in the field and observe and work with endangered species in their natural environment. They are able to translate what they learn into improved exhibits and visitor experiences at the aquarium." ⇐

Aquarists' adventure yields capture

(continued from page 1)

Thursday, April 27

We launched from camp at 8:20 A.M. from Bonanza. The water is brown as opposed to the green color it has been. We went about 17 miles today, traveling through White River Canyon. We saw vultures and a lot of bird nests and beaver holes. It was about 80 degrees, but it felt hotter because we were dressed in rubber and plastic (waders and boots.) I got blisters on my feet. The discomfort was worthwhile, though, when we caught the largest Colorado pikeminnow of the week. It was a new capture that was 1,240 millimeters (about 49 inches) long! We guessed the fish was 30 to 40 years old and weighed about 47 pounds. (We later learned that this is the largest Colorado pikeminnow that has been captured since the Recovery Program began.) We caught and released 14 more Colorado pikeminnow before we made camp at 7:00 P.M. I was a little nervous crawling into the tent tonight after seeing signs of a bear nearby.

Ongoing projects nearing completion include:

- Final flow recommendations for the Gunnison River are slated for completion this fall.
- The Yampa Management Plan and Programmatic Biological Opinion are well under way with completion anticipated for late fall.
- Draft recovery goals are expected to be available for public comment this fall. These detail the criteria necessary to begin the process of removing a species from Endangered Species Act protection.
- The Duchesne River study should be completed next spring. Findings will be used to develop flow recommendations.

With these projects well underway, the Recovery Program is stepping up the pace to construct fish passageways and fish screens at diversion structures in Colorado's Grand Valley and along the Green River in Utah.

As you can see, it is an exciting time for the Recovery Program. It is with mixed emotion that I announce that I am leaving the Recovery Program to assume a position with the U.S. Fish and Wildlife Service in Salt Lake City, Utah. During my three years as program director, it has been rewarding to see the cooperation and dedication of so many individuals and organizations. I strongly believe that species recovery can only be achieved through this type of cooperation. As I leave, I remain secure in the knowledge that the Recovery Program will continue to seek innovative solutions to complex problems and move forward to accomplish the Program's mission. I offer my personal thanks to each individual for his or her commitment to this important effort and wish you the best in the future. ⇐

By R. Maddux



FWS FISHERIES TECHNICIAN DAVE BEERS IS KNOWN AS A "SUPER CAMP COOK"

hill. By then we were just about out of drinking water and it was hot! Finally, we got everything taken out and reassembled. Our week on the river was over.

Epilogue

I feel lucky to have had the opportunity to go out in the field to observe the endangered fish in their natural environment. I learned a lot about their behavior in the wild that will help me at my job at Colorado's Ocean Journey. It was interesting to see the different species of fish that live together in the river and to study where different populations live. For example, the mountain whitefish live upstream whereas the roundtail chubs live downstream. Fish look different in the wild than in an exhibit. Their colors are different as they acclimate to their backgrounds. The large fish are amazing. Observing Colorado pikeminnow in their natural environment confirmed that our exhibit at Ocean Journey is an accurate depiction of their natural habitat.

Friday, April 28

We woke to the sound of coyotes howling this morning. We broke camp at 8:25 A.M. We didn't get off to a very good start. At first Mark and Gregg's equipment didn't work. Eventually that got fixed. It was a shorter day on the river. We only went about 10 miles. Overall, the fish populations seemed about the same. We caught a total of six Colorado pikeminnow. We came ashore at 2:00 P.M. There was a boat ramp, but it wasn't a good one. The top of the ramp was about six feet up from the bottom. We had to disassemble the rafts and carry them up the

Wetlands play important role in endangered fish recovery

New pieces of the life history of razorback suckers may help complete a picture for recovery. Biologists learned that the larvae of wild razorback sucker drift from the spawning areas and can reach the floodplain wetlands where some are able to survive and grow. During 1995 and 1996, 73 young razorbacks measuring 3- to 5-inches in length were collected from Old Charlie Wash, a floodplain wetland located 60 miles downstream from the spawning bar near Dinosaur National Monument in northeastern Utah. These fish are thought to have drifted into the wetland as larvae during high spring flows. They survived despite a large number of nonnative fishes.

Research also shows that young razorback suckers can remain in floodplain wetlands where they grow to

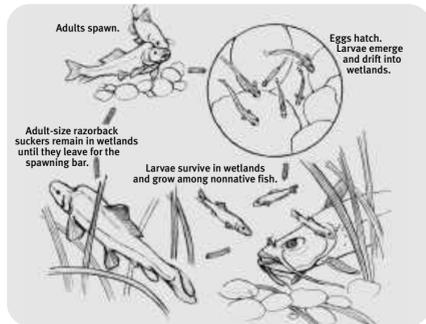
adult size. In April 1999, about 6,000 hatchery-raised razorback suckers measuring 3- to 5-inches in length were stocked into three Green River wetlands. In September 1999, approximately 1,100 of these fish were retrieved. They averaged 14 inches in length. Razorback suckers captured in the wetlands this spring appeared healthy, suggesting that they can survive the winter in wetlands.

Studies show that once they reach adult size, razorback suckers leave the wetlands and migrate to the spawning bar. In May 1999, researchers found four previously stocked, hatchery-raised razorback suckers. This year, a hatchery-raised razorback sucker was discovered at the spawning bar that was stocked in the Baeser Bend wetland the previous fall. Of the 19 razorback suckers found at the spawning bar this spring, 11 were stocked fish.

"These results demonstrate that restoration of floodplain wetlands may ultimately result in self-sustaining populations of razorback suckers," said Recovery Program Habitat Restoration Coordinator Pat Nelson. "Stocking razorback suckers into wetlands, and directly into the river, helps accelerate recovery progress."

Recently, U.S. Bureau of Reclamation construction crews lowered levees at the upstream end of the wetlands along the Green River to allow drifting razorback sucker larvae to enter the wetlands. Next spring, biologists will try to capture drifting larvae in these areas to confirm their theory. In addition, the Recovery Program will stock more hatchery-raised razorback suckers into the wetlands and monitor their movement to confirm that they reach the spawning bar.

"If we can verify the life cycle of



the razorback sucker as it relates to wetlands, we can replicate the type of environment in which they thrive, thus contributing to the recovery of this

species," Nelson said.

For more information, contact Pat Nelson, 303-236-2985, ext. 226, pat_nelson@fws.gov. ⇐

One fish, two fish . . . looking beneath the water's surface

Counting fish is no easy matter, especially in the muddy and highly inaccessible reaches of the Green River. Unlike their colleagues who work with endangered species on land, fishery biologists cannot simply fly over an area and count numbers of individuals they see on the ground or in trees. They must spend multiple hours on the river, using various sampling techniques that enable them to "look" beneath the water's surface to locate the endangered fishes.

Research techniques vary. In some instances scientists use radio telemetry. In this process, certain fish are implanted with a radio tag and their movement is tracked with computerized monitors. In other cases, biologists use a process called electrofishing in which an electric current is placed in the water, causing fish

to rise to the surface where they are netted for study and released alive.

During the Recovery Program's first decade, biologists relied on trend data obtained with these techniques to tell them how the fish were doing and where they are primarily located. This data helped shape the management techniques the Recovery Program developed and implemented to improve habitat and river flows to benefit the fishes.

Based on the numbers of fish collected this spring, efforts made during the past 10 years to improve habitat and change flows appear to have benefited Colorado pikeminnow populations. These improvements have given scientists renewed hope that the endangered fishes can become self-sustaining and no longer require Endangered Species Act (ESA) protection.

This year, the Recovery Program increased efforts to obtain a more accurate count of the numbers of fish.



UDWR DIVISION OF WILDLIFE RESOURCES USES A RESEARCH PROCESS CALLED ELECTROFISHING TO STUDY COLORADO PIKEMINNOW IN THE GREEN RIVER NEAR VERNAL, UTAH.

This number will be required when the time comes to consider removing the species from ESA protection.

The Recovery Program launched a full-fledged effort this spring to obtain a comprehensive population estimate of endangered fishes in the middle Green, White and Yampa rivers. Crews from the Utah Division of Wildlife Resources (UDWR), Colorado State University's Larval Fish Laboratory (CSU) and the Fish and Wildlife Service (FWS) were needed to sample about 300 miles of river.

UDWR biologists sampled the middle Green River, where they captured 796 Colorado pikeminnow. FWS biologists captured 299 Colorado pikeminnow in the White River. (See related cover story.) CSU biologists captured 93 Colorado pikeminnow in the Yampa River. Using a formula that considers

new captures (fish that have never before been captured or tagged) and recaptures, biologists will use this data to develop a population estimate for each river.

Biologists will maintain the same level of sampling next year. Similar counts will be made on about 300 miles of the lower Green River. "Results from these two efforts will be combined to give us our best estimate of the actual numbers of Colorado pikeminnow in the Green River subbasin," said Kevin Christopherson, native aquatic species biologist, UDWR.

Methods used on the Green River subbasin to obtain population numbers were patterned after similar work performed by biologists on the Colorado River. For more information, contact Tom Czaplá, 303-236-2985, ext. 228, tom_czapla@fws.gov. ⇐



swimming upstream

Upper Colorado River Endangered Fish Recovery Program

Aquarists' adventure yields capture of largest Colorado pikeminnow in Recovery Program's history

By Colleen McCann

Aquarist, Colorado's Ocean Journey

Ocean Journey aquarists Colleen McCann and Gregg Harris spent a week on the White River this spring helping U.S. Fish and Wildlife Service staff obtain population estimates of the endangered Colorado pikeminnow. Here is their story as told by Colleen.

Monday, April 24

We met at the Fish and Wildlife Service (FWS) shop in Vernal at 7:00 A.M. to load our gear and pick up the rafts. Shortly after noon, we launched our rafts into the White River at Taylor Draw Dam near Rangely, Colorado. My coworker, Gregg Harris, was in one raft with Mark Fuller. I was in another raft with Dave Beers, who we would soon learn is a super camp cook. Chris Kitcheyan completed our crew. He staffed a third raft that carried our supplies and extra equipment.

Our goal for the week is to capture as many endangered fish as we can and to record data such as their size, weight and whether or not they are tagged. With this data, the Recovery Program makes population estimates. To find the fish, we use a process called electrofishing. We create an electric field in a 14-foot circle around the raft. When fish enter this field, a harmless amount of current causes them to rise to the surface where we capture them with a large dip net. We collect our data and return the fish to the river as quickly as possible to reduce the fish's stress.

Gregg and I were the spotters and netters. We stood on a platform at the

front of each raft and watched the water for signs of fish rising. When we thought we saw an endangered fish, we captured it with the net. If the fish wasn't endangered, we immediately released it.

Using this process during the next 14 miles, we identified six species of fish, including mountain whitefish, flannelmouth suckers, roundtail chubs, common carp, channel catfish and Colorado pikeminnow. We captured, tagged, weighed and measured 14 Colorado pikeminnow. Some were recaptures. At night, the temperature dropped from 70 to a bone-chilling 20 degrees. We set up camp at 7:30 P.M. Dave prepared a delicious meal of chicken stir-fry. With our stomachs full, we crawled into our tents for a much-deserved rest.

Tuesday, April 25

After spending a cold night in the tent, the morning sun was a welcome sight. Today we traveled through Cowboy Canyon where the water was slower than before. We saw a few whitefish and many more roundtail chubs and channel catfish. We caught 15 Colorado pikeminnow, mostly in the eddies* or just downstream of the eddies. Their average size was smaller than yesterday's and they were mostly new captures. I began to feel the effects of standing in front of the raft for 10 or more hours a day netting fish and took any opportunity I could to sit down.

Gregg and I are getting better at identifying the type of fish in the water based on the splash they make before breaking the water's surface. We've



ABOVE: GREGG HARRIS LEFT BEHIND HIS WORK AT COLORADO'S OCEAN JOURNEY AQUARIUM TO HELP RECOVERY PROGRAM BIOLOGISTS OBTAIN COLORADO PIKEMINNOW POPULATION ESTIMATES IN THE WHITE RIVER.



LEFT: OCEAN JOURNEY AQUARIST COLLEEN MCCANN FOUND A 49-INCH COLORADO PIKEMINNOW IN THE WHITE RIVER. THIS IS THE LARGEST OF THIS SPECIES RECORDED BY RECOVERY PROGRAM SCIENTISTS.

started a friendly competition between rafts to see who can catch the most and largest endangered fish. A friendly dog followed us downstream about one mile. Gregg caught and released two rainbow trout. The weather was beautiful with temperatures reaching 75 degrees. We are very sunburnt! The canyons were beautiful. We traveled about 17 miles and camped at 7:00 P.M.

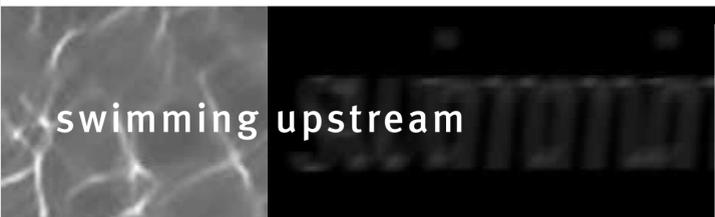
There are more bugs at this camp. Hamburgers are for dinner tonight.

Wednesday, April 26

We launched from camp at 8:20 A.M. and traveled through Cowboy Canyon again. It's very beautiful. We hit some rapids at Hell's Hole. We saw fewer fish today. Those we did see were juveniles of catfish, roundtail chubs and suckers.

(continued on page 5)

*A river eddy is a current moving contrary to the main current, especially in a circular motion.



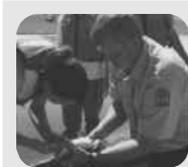
swimming upstream



Upper Colorado River Endangered Fish Recovery Program

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Editor's note: Colleen McCann, 23, is an aquarist for Colorado's Ocean Journey. Before that she worked at the Florida Aquarium in Tampa. She has a bachelor's degree in marine science from the Richard Stockton College of New Jersey in Pomona, New Jersey. Gregg Harris, 25, is also an aquarist for Ocean Journey. Prior to that he worked at Sea World of Texas in San Antonio. He has a bachelor's degree in aquatic biology from Stephen F. Austin State University in Nacogoches, Texas.



Youth raise fish in golf course ponds, p. 2

Students contribute to razorback sucker recovery through unique science course.



Rare endangered bonytail fish reintroduced, p. 3

Bonytails are stocked into state of Colorado waters for the first time in history.



Duchesne River study proceeds, p. 4

Utah Indian Tribe helps Recovery Program obtain data for flow recommendations.



Program director's message, p. 6

Significant accomplishments have been made toward recovering endangered fishes.



One fish, two, fish...looking beneath the surface, p. 4

Scientists count numbers of fish to help determine their recovery status.

Youth raise endangered fish in golf course ponds

An opera singer. A cardiologist. A biologist. In Page, Arizona, high school seniors dream about their futures. Various career interests will take them down different paths of life, but all will share at least one common factor—an appreciation for preserving the earth's ecosystems, including endangered species.

The youth learned this lesson well in Lori Shaw's classroom. That's where juniors and seniors gain experience with improving ecosystems through monitoring water quality and working toward recovering endangered species. The unique, award-winning science course was established four years ago as a partnership among Page High

School, the National Park Service (NPS) at Glen Canyon National Recreation Area, the City of Page, the Utah Division of Wildlife Resources (UDWR) and the U.S. Fish and Wildlife Service.

"The course provides an opportunity for students to work with scientists and education specialists to address certain environmental problems that our community might face," teacher Lori Shaw explained.

Students primarily participate in two projects. First, they test the water in Lake Powell for E. coli, a bacteria that indicates the possible presence of pathogens in fresh water. Students routinely test water samples from local beaches along Lake Powell inside the recreation area and provide their data to the NPS. If students report high levels of E. coli, the NPS retests the water to confirm whether a health risk exists that requires closing the beach to swimming.

The second project occurs in ponds at the City of Page golf course. Students work with biologists from UDWR's Wahweap Fish Hatchery to monitor endangered razorback suckers. Students feed, weigh and measure the fish and record data in a computer program they created for this purpose. They also tag the fish for monitoring in the ponds and later in the wild.

"I am impressed with the dedication the students bring to this effort," said Quent Bradwisch, fisheries biologist, Wahweap Fish Hatchery. "It's a lot of work to take care of these fish. The students have to come to the ponds no matter what the weather conditions or how tired they might be. They know they are responsible for the survival of these fish and they take that responsibility seriously."

The golf course ponds are an ideal location to raise endangered fish because they are close to the school and the water temperature and natural food sources in the ponds contribute to the fishes' rapid growth.

Students present information on their work to groups like the local Rotary Club, parents and younger students in their community. They teach resource preservation from personal experiences.

"These students are excited about what they are learning and they bring this excitement into the community," said Joelle Doty, science education specialist, NPS. "A strong community steeped in environmental education will further protect our lands as well as endangered species for future generations."

Since the program began in 1996, nearly 300 razorback suckers raised in the ponds have been reintroduced to their native habitat in the San Juan River. This fall, students and biologists will stock out an additional 150 razorback suckers from the ponds to the San Juan River to continue efforts to re-razorback sucker and Colorado pikeminnow. Another 3,000 young razorback suckers have been stocked into the golf course ponds to provide fish for future stockings and studies. These fish were raised at the Recovery Program's 24 hatchery in Grand Junction.

Students gain more than technical scientific skills through this course. "The students get to see the big picture," Page High School Principal David Wilmes explained. "They see the legal aspects of handling endangered species and working with different types of government agencies. I'm really proud of our students and our instructor Lori Shaw. I think the more our kids know about the issues related to endangered species, the better off we're all going to be."

Busch Gardens/Sea World recognized Page High School for this science program with its prestigious Environmental Excellence Award in the category of Wildlife Partners. Several students traveled to San Diego in April to accept the award. In addition, student Jayrene June received the American Museum of Natural History Young Naturalist Award for environmental research she is conducting for the NPS on the effects of grazing on native Indian rice grass.

As the Page High School class of 2000 graduates, classmates will go their separate ways but they will always have memories of their work with endangered species. "No matter where these students go in the future, natural resource issues will be relevant to their lives," Doty observed. Whether singers, doctors, or biologists, each student can be proud of his or her contribution toward improving the quality of life in their community. ☞

Rare endangered bonytail fish reintroduced

For the first time in nearly 40 years, one of the west's rarest fish species, the bonytail (*Gila elegans*), is swimming the waters of the Green and Yampa rivers through some of Colorado's most scenic lands in Dinosaur National Monument. Ten thousand bonytails were introduced in July through stocking procedures established as part of the Upper Colorado River Endangered Fish Recovery Program's efforts to recover the species. This is the first time bonytails have been stocked in Colorado waters.

"A great deal of important habitat restoration work has been done over the past few years, but bonytails are extinct in Colorado," said Greg Walcher, executive director, Colorado Department of Natural Resources. "Therefore, stocking must be part of any successful recovery program, and this important first step is vital to our eventual success."

Stocking the bonytail is a cooperative effort of federal and state agencies including the U.S. Fish and Wildlife Service, the National Park Service, the Colorado Division of Wildlife and the Utah Division of Wildlife Resources. The Colorado legislature authorized stocking bonytails through legislation passed this spring.

The fish were raised and tagged at the Utah Division of Wildlife Resources' Wahweap Fish Hatchery near Page, Arizona. The Colorado Division of Wildlife,



BIOLOGISTS TAKE BONYTAILS TO A RELEASE SITE AT THE COMBINED OF THE GREEN AND YAMPA RIVERS NEAR ECHO PARK IN DINOSAUR NATIONAL MONUMENT.

with assistance from the National Park Service and the U.S. Fish and Wildlife Service, stocked 5,000 fish each at Echo Park and Brown's Park in northwestern Colorado. The fish were confined in netted holding areas in backwaters for 24 hours to allow them to acclimate before they were released into the river.

"The fish appeared very healthy and transfer into the backwaters went smoothly," said Tim Modde, project leader,

U.S. Fish and Wildlife Service, Vernal. Bonytail were abundant in these areas until the early 1960s. The introduction of nonnative fish and changes to the fishes' habitat led to the bonytails' near extinction in the wild.

In Utah, more than 33,000 bonytails have been stocked in the Green and Colorado rivers since 1996. Up to an additional 64,000 bonytails will be stocked into those areas this fall. ☞



Bonytail (*Gila elegans*)

Distinguishing characteristics

- Dark gray or olive colored back, silver sides and white belly
- Small head, large fins; streamlined body that becomes pencil-thin before the tail
- Generally 16 to 18 inches long but have been known to reach 22 inches

Specifics

- Thought to have evolved 3 to 5 million years ago
- Have been known to live nearly 50 years
- Capable of spawning at an age of 5 to 7 years; spawns in early spring and early summer
- Feeds on insects and plant matter
- Natural habitat is thought to be in large rivers of the Colorado River Basin, particularly canyon-bound reaches

Status

- Given full protection under the Endangered Species Act in 1980; listed as endangered
- Endangered under Colorado law since 1976
- Listed as "protected" under Utah law since 1974
- Populations are being reintroduced through stocking in the upper Colorado, Green, Yampa and lower Colorado rivers
- Rarest of the four endangered fish
- No known reproducing populations in the wild



Ute tribe conducts Duchesne River study

Ute Indian Tribe Fisheries Technician Bart Powaukee retrieves data from a radio telemetry station located along the Duchesne River, a tributary of the Green River near Ouray National Wildlife Refuge in northeastern Utah. The station enables biologists to record the movement of tagged Colorado pikeminnow and razorback sucker. These data are critical to the understanding of the behavior of these species. Study findings will be used to develop flow recommendations for the Duchesne River. For more information, contact Michael Montoya, 435-722-5511, ext. 406, utefish@ubtanet.com. ☞

CSU scientist receives researcher award

Darrel Snyder, research associate and curator of collections at Colorado State University's Larval Fish Laboratory, is this year's recipient of the Upper Colorado River Endangered Fish Recovery Program's Outstanding Researcher Award. The award is presented annually at the Upper Basin Researchers Meeting to an individual who has demonstrated a longstanding commitment to the recovery of the endangered fishes and who has made significant contributions to understanding their biology and environmental needs.

Darrel began his studies of the endangered and other fishes in the Upper Colorado River Basin in the mid-1970s, and ever since has shown a tireless devotion to these pursuits. He is best known for his work on the identification and classification of fish during early life stages, but his research interests vary.

"Much of what we know about the ecology of fishes in the upper basin and many of the management and monitoring activities for the endangered fishes are based on our ability to identify their young," Recovery Program Instream Flow/Nonnative Fishes Coordinator Bob Muth said during the award presentation. "That ability can be largely credited to the meticulous descriptions of fish



DARREL SNYDER (LEFT) RECEIVES THE OUTSTANDING RESEARCHER OF THE YEAR AWARD FROM BOB MUTH.

early life stages provided through the efforts of Darrel Snyder. He also has advanced our knowledge of effects of electrofishing on the endangered fishes, effective sampling techniques for fish larvae and methods to study the reproductive and early life biology of fishes. Darrel was one of my mentors at CSU, and I can truly say I have never been associated with a more devoted scientist."

Following thunderous applause from the more than 100 in attendance, Snyder expressed his appreciation.

"I am extremely honored and truly treasure your expression of appreciation," he said. "There are so many of you here that I personally would consider more deserving. I salute all of you. With your permission, I would like to consider the award not just for me, but for the Larval Fish Laboratory as a whole." ☞

Recovery Program news and updates

swimming upstream



Upper Colorado River Endangered Fish Recovery Program

Swimming Upstream is a publication of the Upper Colorado River Endangered Fish Recovery Program. The Recovery Program is a cooperative program involving federal and state agencies, environmental groups and water and power-user organizations in Colorado, Utah and Wyoming. Its purpose is to recover endangered fish while allowing development of water resources for human uses. The four endangered species of fish are Colorado pikeminnow, razorback sucker, humpback chub and bonytail.

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Colorado Water Congress
Environmental Defense
State of Colorado
State of Utah
State of Wyoming
The Nature Conservancy
U.S. Bureau of Reclamation
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Utah Water Users Association
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Wyoming Water Association

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Researchers exchange knowledge

More than 100 researchers gathered in Moab January 25-26, to learn the results of research projects related to river ecosystems and recovering endangered fishes.

Organized by the Utah Division of Wildlife Resources, the event featured presentations on topics ranging from a panel discussion about the states' perspectives on nonnative fish control to sediment monitoring and floodplain restoration.

Reed Harris, field supervisor, U.S. Fish and Wildlife Service, Salt Lake City, had the last word. "We are saving more than the fish. We are saving ecosystems. I believe we can strike a fair balance with water developers. As they use the water to which they are entitled, we can save the fish." ☞



Recovery agreements signed

The City and County of Denver and the Colorado River Water Conservation District signed recovery agreements with the U.S. Fish and Wildlife Service earlier this year. The agreements formalize a commitment from east and west slope water users to work with the Recovery Program to provide water from Williams Fork, Ruedi and Wolford Mountain Reservoirs to the 15-Mile Reach near Grand Junction, Colorado, to benefit the endangered fish.

Through the agreement, the Recovery Program offers assurances to water user organizations that they can use the anticipated levels of water depletions necessary to serve their customers' needs without jeopardizing the fish. ☞



Legislative update

At press time, Congress was considering passage of federal legislation to extend funding for the Upper Colorado River Endangered Fish and Wildlife Service recovery programs. In the upper basin, the legislation extends capital expenditures through 2005, operation and maintenance through the life of capital projects and research through 2011.

The legislation establishes a method for cost sharing between Congressional appropriations, water and power users the states of Colorado, Utah, Wyoming and New Mexico. ☞



Green River recommendations finalized

The Green River is considered vital to the recovery of humpback chub, bonytail, Colorado pikeminnow and razorback sucker.

The Recovery Program conducted research to assess flow-habitat relationships of the endangered fishes and to develop flow and temperature recommendations. Research findings are detailed in a synthesis report entitled, "Flow and Temperature Recommendations for Endangered Fishes in the Green River Downstream of Flaming Gorge Dam." The U.S. Bureau of Reclamation has initiated the environmental impact statement (EIS) process to evaluate the impacts of modifying dam operations to meet the report's flow recommendations. The EIS is slated for completion in 2001. Contact Kerry Schwartz, 801-379-1167, kschwartz@ucusr.gov for more information. ☞



Refuge management plan to benefit endangered fish

The Ouray National Wildlife Refuge in northeastern Utah protects riparian woodlands, wetlands and grasslands bordering the Green River. Established in 1960, the refuge provides habitat for migratory birds and other wildlife species.

With the listing of the razorback sucker and the Colorado pikeminnow, new management considerations under the Endangered Species Act were necessary. Ouray's Comprehensive Conservation Plan, a 15-year refuge management guide, outlines strategies to help the Recovery Program recover endangered fish. This plan deemphasizes waterfowl production and shifts management emphasis toward riparian and wetland enhancement for waterfowl, other migratory birds and endangered fish.

For more information, contact the refuge manager at 435-545-2522. ☞



Hatchery updates

The 24 Road Hatchery in Grand Junction, Colorado, reached capacity this spring, exceeding Recovery Program expectations. The hatchery is currently raising 200,000 of this year's razorback suckers and 45,000 of last year's fish. In addition, 77,000 razorback suckers from the hatchery are thriving in growout ponds throughout the Grand Valley. These fish will be captured this fall and released into their native habitat in the Colorado and Gunnison rivers. An additional 6,500 razorback suckers were stocked into the Colorado River earlier this year.

Although the Ouray National Fish Hatchery near Vernal, Utah, is not yet fully operational, the hatchery is raising 28,000 razorback suckers. Some

of these fish will be raised at the hatchery to produce future young for stocking. The rest will be stocked in the Green River in accordance with the state of Utah's stocking plan. The hatchery is expected to become fully operational next spring.

The Wahweap Fish Hatchery in Page, Arizona, raised 100,000 bonytails last year. Of those, 10,000 were reintroduced into the state of Colorado this summer (see *related story on page 3*) and 35,000 were stocked into the Green and Colorado rivers in Utah. The others will be stocked into the lower Green River and the Colorado River near Moab this fall. The hatchery is currently raising 300,000 of this year's bonytails.

For more information, contact Tom Czaplá, 303-236-2985, ext. 228, tom_czaplá@fws.gov. ☞



Canal improvements to benefit endangered fishes

Canal checks will be installed in the Government Highline Canal later this year to reduce the amount of Colorado River water used by the Bureau of Reclamation's Grand Valley Project. The checks (small dams) will not affect deliveries of irrigation water to project water users. The checks will reduce the loss of water in the canal that typically occurs during late summer months when water delivery demands decrease and spills increase. The "saved water" in the Colorado River is a potential benefit to the 15-Mile Reach which is considered critical habitat for endangered fishes.

"These improvements would not be possible without the voluntary cooperation of the Grand Valley Water

Users Association and, particularly, their manager Dick Proctor," said Brent Uilenberg, Bureau of Reclamation, Grand Junction. "It's a credit to both canal operators and water users that we are able to move forward with this installation."

The improvements are the first of many that will occur over the next several years in the 15-Mile Reach which encompasses the Colorado River above the confluence with the Gunnison River. These improvements are detailed in a final environmental assessment. Contact Brent Uilenberg, 970-248-0641, builenberg@uc.usbr.gov for more information. ☞

