



Survey camp along the Colorado River, Grand Canyon. Biologists from USFWS, USGS, AGFD, University of Florida and WAPA spent 18 days in September sampling along Colorado River for native fishes, including the endangered Humpback Chub.

**AZFWCO Staff**

***Flagstaff***

- Jess Newton, Project Leader
- Kirk Young, Project Coordinator
- Randy Van Haverbeke, Senior Fish Biologist
- Dennis Stone, Fish Biologist
- Michael Pillow, Fish Biologist
- Jim Walters, Biological Technician
- Rick Deshler, Biological Technician
- Vic Scott, Administrative Officer

***Pinetop***

- Vacant, Assistant Project Leader
- Jeremy Voeltz, Project Coordinator
- Jennifer Johnson, Fish Biologist
- Vacant, Partners for Fish and Wildlife Biologist
- Vacant, Fish and Wildlife Biologist
- Vacant, Office Assistant

***Parker***

- Mitch Thorson, Fish Biologist
- Brad Buechel, Fish Biologist
- John Naugle, Biological Technician
- Sean O’Kray, Pest Control Worker



## Aquatic Species Conservation and Management

Randy Van Haverbeke, Kirk Young, and Michael Pillow participated on a Colorado River trip through Grand Canyon in order to monitor aggregations of Humpback Chub. The trip incorporated various sampling gears including hoop nets, remote PIT tag antennas, seines, and some electro-fishing. Major findings were the presence of multiple age classes of Humpback Chub in western Grand Canyon, suggesting that chub have possibly been spawning somewhere in western Grand Canyon for several years. Alternatively, this phenomenon could also be linked to a decline of Humpback Chub in the Little Colorado River (LCR) during spring 2015 (i.e., fish of various size classes were displaced out of Little Colorado River and dispersed far downriver).

Dennis Stone, Michael Pillow, Jim Walters, and Rick Deshler participated in the first of two fall Humpback Chub monitoring trips in the Little Colorado River. The monitoring crew was also made up of partners from Arizona Game and Fish Department and a graduate student and her advisor from New Mexico State University and the



**Jennifer Johnson (AZFWCO) holds a Bluehead Sucker at Whiskey Creek in New Mexico.**

New Mexico Cooperative Fish and Wildlife Research Unit. The crews set hoop nets to capture and mark (PIT, VIE tags) all chubs and suckers. The



**Kirk Young (AZFWCO) displays a Humpback Chub captured in a hoopnet during sampling of the Colorado River in Grand Canyon.**

trip was characterized by lower turbidity and higher overall chub captures than a typical September monitoring trip.

Along with Bureau of Reclamation, the National Parks Service, and Southwestern Native Aquatic Resources and Recovery Center; John Naugle, Sean O’Kray, and Brad Buechel (AZFWCO) took part in a translocation of Bonytail Chub. The chub were raised at SNARRC and translocated to the lower Colorado River at Laughlin Lagoon. Some fish (283 individuals) were slightly under the 300 mm minimum target length and thus were stocked into the off-channel High Levee Pond at Cibola NWR for additional growth.

Jennifer Johnson assisted the Navajo Nation Department of Fish and Wildlife and New Mexico FWCO with Brown Trout removal in Whiskey Creek. This effort is expected to benefit native Bluehead Sucker and Speckled Dace.

Jennifer Johnson assisted the Navajo Nation Department of Fish and Wildlife with the annual survey of Wheatfields Lake. The crew



**Sean O’Kray, John Naugle (AZFWCO), and Ty Wolter (USBR) release Bonytail Chub into High Levee Pond in Cibola NWR.**

collected 183 Rainbow Trout, averaging 11.9 inches and 0.7 pounds. This was the highest number of Rainbow Trout collected in recent years.

Randy Van Haverbeke continued to analyze and incorporate findings from the spring 2015 Little Colorado River monitoring trip into an annual report due to GCMRC in January.

## Aquatic Habitat Conservation and Management

A new Cooperative Agreement between AZFWCO and Arizona Game and Fish Department (AGFD) is now final! The Agreement is titled "Bear Wallow Fish Exclusion Structure Modification" and the purpose is to modify and repair this barrier to prevent fish movement upstream and facilitate recovery/conservation actions for threatened Apache Trout, endangered Loach Minnow, and other listed or sensitive species. AZFWCO is contributing staff and our Region 2 Office is contributing \$40,000 to the project as part of our region's Mogollon Rim Emphasis Area initiative. This month Jess Newton, Kirk Young, RO staff, and the State worked to finalized all contracting requirements. Jeremy Voeltz coordinated and led the site visit for the engineering contractor, who will now complete the formal engineering design.

Jeremy Voeltz and Jess Newton worked with staff from the Regional Office, New Mexico FWCO, and Executive Committee of the Desert Fish Habitat Partnership to refine the scope of work for an FY15-funded project to improve/protect riparian habitat on the Black Bob Allotment on the Gila National Forest. The project will benefit Loach Minnow, Narrow-headed Gartersnake, and other sensitive riparian species.

Mitch Thorson and Brad Buechel began a predator and nuisance species removal project in Emerald Canyon Golf Course off-channel habitats in Parker, Arizona. A large number of crayfish body parts (likely consumed by avian species) were observed around the perimeter of these habitats. Since endangered Razorback Sucker and Bonytail Chub

are stocked into these ponds, an initial trapping examination was undertaken to observe crayfish numbers in these habitats. With five traps set in three ponds, more than 110 crayfish were captured. This abundance of crayfish has warranted concern. Future nuisance species removal efforts will continue until numbers decline to a point non-detrimental to fish introductions.

Mitch Thorson introduced Brad Buechel to the water quality sampling areas in both Topock Marsh and Alamo Lake. At Topock Marsh, they discovered that the buoys installed by Rob Randall at the beginning of the project have since been either removed or have rotted away. New buoys will be installed to replace the lost and

damaged ones. John Naugle and Sean O'Kray conducted water quality assessments at Three Fingers Lake and High Levee Pond, which are off-channel habitats for Razorback Sucker and Bonytail Chub.

John Naugle and Sean O'Kray with assistance from USBR conducted regular visual surveys for the invasive aquatic plant, Giant Salvinia, in backwater habitats along the lower Colorado River corridor. No new invasions of Giant Salvinia were observed, however it was found in small quantities south of Mitchells Camp, along the Palo Verde Irrigation District (PVID) outflow drain, and near the north and south channels that feed through Imperial National Wildlife Refuge and into Martinez Lake.



Photo: Texas Parks and Wildlife Department

Giant Salvinia is an aquatic invasive plant that forms floating mats that can grow and expand rapidly, replacing native plants, blocking sunlight, and altering water chemistry to the detriment of aquatic ecosystems.

## Partnerships and Accountability

Kirk Young, Randy Van Haverbeke, and Jess Newton provided final comments on the cooperating-agency Draft Environmental Impact Statement for the Glen Canyon Dam Long-Term Experimental and Management Plan.

AZFWCO staff participated in the monthly Fishery Coordination meeting among AZFWCO, A-WC NFH (Alchesay-Williams Creek National Fish Hatchery), & WMAT-WORD (White Mountain Apache

Tribe-Wildlife & Outdoor Recreation Division).

Mitch Thorson and Brad Buechel are developing a management plan that will help Emerald Canyon Golf Course with their off-channel native

## Partnerships and Accountability (continued)



Shannon Claw and Ferlin Begay (NNDFW) with a Rainbow Trout collected during the annual survey of Wheatfields Lake.

fish habitats. The golf course staff and AZFWCO are collaborating to hold and grow native fish in three of their ponds. AZFWCO will be responsible for monitoring water quality and native fish stocking, while the removal of cattails and water level maintenance will be the responsibilities of the golf course.

Kirk Young and Randy Van Haverbeke participated in a

### Cooperation with Native Americans

Jess Newton drafted a Memorandum of Understanding (MOU) with the San Carlos Apache Tribe (SCAT) to expand our collaborative fisheries work on the San Carlos Indian Reservation. The MOU focuses on surveys for

conference call brainstorming possible responses and solutions to the establishment of Green Sunfish in a slough above Lees Ferry on the Colorado River, Glen Canyon. Green Sunfish represent a threat to native fish in the Grand Canyon, including Humpback Chub, if the fish move downstream and establish populations in sensitive areas such as Little Colorado River. Mechanical

Headwater and Roundtail Chub as well as expanded work with sportfish and other native aquatic species. The document is currently under review by SCAT.

Jeremy Voeltz, Jess Newton, and staff from A-WC NFH worked on a

### Public Use and Outreach

Jennifer Johnson participated in the 10th annual Woodland Wildlife Festival. Jennifer was available to answer questions about Apache Trout recovery work and provide information on the U.S. Fish and

Wildlife Service.

Did you know AZFWCO has a facebook page? We post information on our staff, upcoming projects, educational events, and volunteer

removal has not worked and it appears that piscicide treatment is among the few viable alternatives for removal. NPS is taking the lead in working with partners to develop a response plan.

Brad Buechel and Sean O’Kray, along with the Friends of the Bill Williams River, Havasu National Wildlife Refuges, Desert River Outfitters, Jerkwater Canoe Company, Western Arizona Canoe & Kayak Outfitters, and numerous volunteers took part in the third annual Castle Rock Water Trail Paddle and River Cleanup along the Havasu National Wildlife Refuge shoreline, in Lake Havasu, Arizona. Volunteers of all different kayaking abilities assisted in the cleanup and aesthetic improvement of the refuge waterways and shorelines by picking up trash and delivering it to our USFWS pontoon. Following the cleanup, everyone gathered for a little hotdog luncheon. It was a great time with a great turn out, and participants are looking forward to next year.

Dennis Stone calibrated a Hach 2100-Q turbidimeter and loaned it to Nick Voichick (GCMRC) for a laboratory study he is conducting on LCR water.

AZFWCO staff completed FY2015 Accomplishment reporting in FIS.

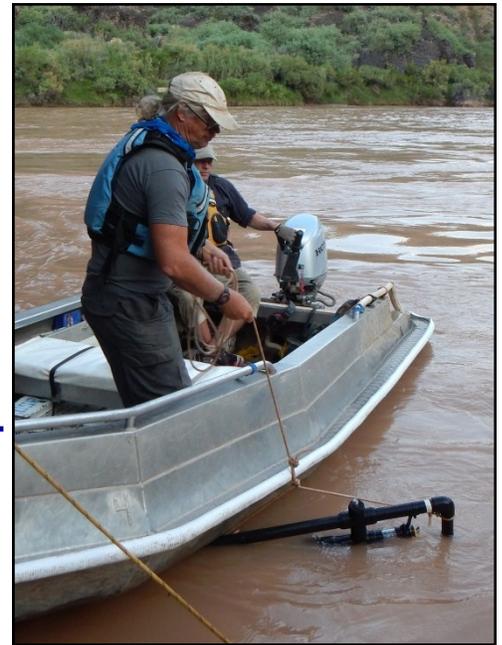
letter to be sent from the Regional Director to the White Mountain Apache Tribe’s Chairman to discuss ways to improve the genetic condition of the Apache Trout brood stock maintained at Williams Creek NFH.

opportunities across the state. We currently have 624 “likes” from 20 countries. Check us out at [www.facebook.com/AZFWCO](http://www.facebook.com/AZFWCO).

## Leadership in Science and Technology

Jeremy Voeltz (with Jennifer Johnson as a co-author) presented at the national American Fisheries Society meeting in Portland, Oregon. His talk discussed ~10+ years of mechanical removal of nonnative trout found in Apache Trout recovery streams on the Fort Apache Indian Reservation. Brown Trout have been eliminated, or nearly eliminated from four streams.

Brad Buechel participated in a career fair for university students held at Bill Williams NWR. He talked with the students about his career as a fisheries biologist. In attendance were students from Northern Arizona University, Arizona State University and the University of Arizona who are interested in working for the U.S. Fish and Wildlife Service.



## Workforce Management

Jess Newton worked with Human Resources to prepare the vacancy announcement to fill AZFWCO's Assistant Project Leader position. The vacancy announcement will be open from October 5th to the 9th on USAJOBS.gov.

Jeremy Voeltz completed his required FY2015 Diversity and EEO training.

Randy Van Haverbeke and Kirk Young conducted on-the-ground helicopter sling logistics for the crew flying into the LCR for the September monitoring trip.

Mitch Thorson worked with Brad Buechel on his Individual Development Plan (IDP).

Dennis Stone provided a few more comments on Jennifer Johnson's final draft of a Job Hazard Analysis (JHA) for hoop-netting in the LCR.

Jennifer Johnson worked with IRTM and regional office property staff to properly recycle excess computers and electronics.

John Naugle and Sean O'Kray performed regular maintenance on Salvinia watercraft and vehicle.

AZFWCO's hydro-labs that were sent to HACH Company, were fixed, recalibrated, and returned. We were able to resume water quality sampling of off-channel habitats.

Sean O'Kray completed the following training courses in September: Construction Safety Awareness, Safety DOT Highway, DOT Waterway, Excavations, Welding & Cutting, Electrical Design, First Responder, Cranes & Rigging and Natures Notebook.

Michael Pillow worked with Vic Scott to coordinate with volunteers and

Randy Van Haverbeke (AZFWCO) collects a submersible, remote PIT tag antenna that was deployed overnight during sampling of Colorado River fishes in Grand Canyon. These remote antennas provide additional information on local tagged fish not captured in our standard gear at a particular site.

process paperwork for the October Little Colorado River monitoring and Humpback Chub translocation trip. Dennis Stone assisted Mike Pillow with packing and preparing for the September 2015 Humpback Chub monitoring trip in the LCR.

## Upcoming Events

**October 22- November 2:** Little Colorado River Humpback Chub monitoring trip (Randy Van Haverbeke, Dennis Stone, Michael Pillow, Jim Walters, Rick Deshler)

**November 19-22:** The Desert Fishes Council annual meeting in Death Valley, CA. (Randy Van Haverbeke, Jeremy Voeltz, Jess Newton)

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