



Location: Grand Falls

Photo Credit: Michael Pillow (USFWS)

**AZFWCO Staff**

***Flagstaff***

Jess Newton, Project Leader

Kirk Young, Assistant Project Leader

Vacant, 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***

Jeremy Voeltz, Project Coordinator

Jennifer Johnson, Fish Biologist

Tim Grosch, Partners for Fish and Wildlife Biologist

Stephanie Vail-Muse, Fish and Wildlife Biologist

Vacant, Office Assistant

Louis Eastwood, Apache Trout Crew

Jake Washburn, Apache Trout Crew

***Parker***

Chase Ehlo, Fish Biologist

Mitch Thorson, Fish Biologist

Brad Buechel, Fish Biologist

John Naugle, Biological Technician

Sean O'Kray, Pest Control Worker

## Conserving Aquatic Species

The Apache Trout crew completed population estimates for Apache Trout in Crooked, Deep, and Hughey creeks. This month the crew was joined by Brad from Parker AZFWCO. Together Brad and the Apache Trout crew conducted backpacking electrofishing surveys that will be used to help clarify current population estimates of the native Apache Trout in the White River drainage. The crew also completed barrier evaluations on Paradise and Smith creeks.

Jennifer Johnson downloaded images and performed maintenance on ten trail cameras installed at fish barriers on Apache Trout recovery streams. The cameras were installed to evaluate barrier performance under a variety of flow conditions.

Chase Ehlo deployed six remote PIT tag scanners into Cibola High Levee Pond. The purpose of these deployments is to estimate survival of Bonytail and Razorback Sucker that were stocked into Cibola in September and December 2015 respectively. Efforts resulted in 3828 contacts in which there were 188 individual fish. Thirty-three of these fish were from the most recent Razorback Sucker stocking and 15 were from the most recent Bonytail stocking. Survival estimates for these stocking cohorts will be calculated in Program Mark over the ensuing months.

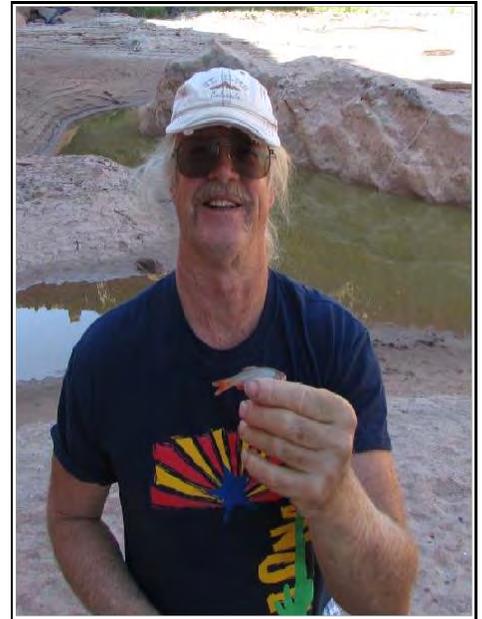
Kirk Young and Randy Van Haverbeke met with Ecological Services (ES) to discuss technical aspects of the LTEMP Biological Assessment.

ES is the lead in development of the Biological Opinion for this large and complex Environmental Impact Statement (EIS) for the future operation of Glen Canyon Dam.

Kirk reviewed and provided comments on draft-three of the Humpback Chub Species Status Assessment. The SSA is guided by the Science Advisory Recovery Team that Kirk and Randy are members of; it is authored by Rich Valdez and under contract by Region 6.

Chase received and addressed internal comments on the draft work plan for a telemetry study in Topock Marsh and sent the work plan to the Lower Colorado River Multi-species Conservation Plan (MSCP) program. Comments were addressed and the plan was updated to include twenty additional telemetry tags on top of the existing twenty with plans to stock a cohort of smaller hatchery fish alongside the larger wild Razorback Sucker. The purpose of the study is to look at movement patterns and habitat utilization of adult Razorback Sucker in Topock Marsh in order to effectively monitor current and future populations within the backwater. The project will be initiated in November 2016.

Chase sent out the 2014 annual report for the Colorado River Indian Tribe (CRIT) sonic telemetry study for internal review. Once comments are addressed, the draft



**Randy with a Red Shiner Photo Credit: Michael Pillow (USFWS)**  
copy will be sent out to MSCP partners for review and then finalized.

Chase made a preliminary site visit to Hart Mine Marsh on Cibola National Wildlife Refuge to assess the feasibility of stocking native fish into the backwater. Backwaters are important habitats for native fish and the combination of complex habitat within the backwater and the high turbidity may make it ideal for endangered fish.

Dennis Stone wrote a draft manuscript concerning nonnative fishes in the Lower Colorado River (LCR). Afterwards, Dennis sent it out for review by coauthors, and then made final revisions.

Randy continued working on a manuscript about the Chute Falls translocation of Humpback Chub in the LCR. He also developed an oral presentation for the Native American Fish and Wildlife Society's annual Meeting titled the Humpback Chub of the LCR. The Presentation will focus on the natural history of Humpback Chub as well as monitoring and recovery efforts.



**AZFWCO staff seining in Grand Falls**

**Photo Credit: Michael Pillow (USFWS)**

## Conserving Aquatic Species (*Continued*)



Kirk, Dan, and Jess touring a riparian restoration project on the Gila River near Safford.

Photo Credit: Tim Grosch (USFWS)

Sean O’Kray and Mitch Thorson monitored monthly water quality at High Levee Pond and Three Fingers Lake; both facilities are being managed as native fish habitats.

Michael finalized the trip report for the spring LCR monitoring trips by incorporating the comments and changes suggested by Dennis, Kirk, and Randy. He then delivered the lower LCR spring monitoring report and the translocation monitoring report to GCMRC (USGS) along with the data in partial fulfillment of AZFWCO contractual obligations.

Michael worked with Randy to build a capture history database for all Humpback Chubs that have been translocated above Chute Falls in the LCR. This database is being used to model survivorship of these fish both above Lower Atomizer falls in the LCR and below.

Michael also worked with Randy to generate catch per unit effort estimates for Bluehead and Flannelmouth Suckers captured in the LCR in the spring of 2016.

Kirk reviewed data from a USGS study of Visual Implant Elastomer tagging of small Humpback Chub in the LCR. There are concerns over fish handling during the late-June study period. This is

a stressful time of year due to warm water and hot air temperatures. The group will be discussing ways to minimize fish handling related stress during this time of year.

This decline appears to be in part, or wholly, the result of a decrease in recruitment (i.e., lower recent annual abundances within the smaller size classes).

Randy developed two presentations to deliver for the upcoming Protocol Evaluation Panel being sponsored by the Grand Canyon Monitoring and Research Center (GCMRC). This is a panel of experts tasked with reviewing the merits, strengths, and weaknesses of fisheries projects that fall under the purview of the Grand Canyon Monitoring and Research Center (GCMRC). The presentations will cover monitoring and translocations of Humpback Chub in the LCR.

Stephanie Vail-Muse continued working with Western Native Trout Initiative (WNTI), Texas Parks and Wildlife, and the Southern Rockies LCC (SRLCC) to find funding for the Rio Grande Fish Assessment. The SRLCC has agreed to fund \$44,000 for the assessment and to assist the Desert Fish Habitat Partnership (DFHP) and WNTI on setting up workshops after the assessment is completed.



AZFWCO staff work together to gain valuable data during this summers field season.

## Conserving, Restoring, and Enhancing Aquatic Habitats

Jess Newton spent a day with Russell Benford, Senior Wildlife Biologist for the Gila River Indian Community (GRIC). Traveling throughout the Reservation, the two inspected five current or potential aquatic habitat restoration sites and discussed possibilities for native or recreational fish introductions. The two discussed partnership opportunities among GRIC, AZFWCO, Desert Fish Habitat Partnership (DFHP), and the Partners for Fish and Wildlife Program (PFW).

Tim Grosch is AZFWCO's PFW biologist and currently has several private-land habitat projects in progress. Tim, Jess, PFW Regional Coordinator (Don Wilhelm), and PFW State Coordinator (Kris Randall) spent two days together visiting Tim's projects and talking strategy for FY2017.

Tim and Arizona Game and Fish Department (AGFD) Landowners Relation Program (LRP) continue coordination on a riparian restoration project along Eagle Creek. The area receives a high amount of trespass cattle which degrade the river system and

surrounding landscape. Our intent is to fence the riparian area thereby restoring it from over grazing and other damage these trespass cattle may cause. The western perimeter has already been re-fenced. Tim continued to coordinate efforts on Battle Tank Grassland restoration project. This project is ongoing and will enhance local grassland communities. Cultural surveys have been completed and we are waiting for the selected brush management company to finish up at another project. Summer monsoons have postponed the work, however, we are gearing up to begin on-the-ground work soon. Tim conducted a site visit near Portal on Cave Creek in southern Arizona and met with 5 landowners that live in the canyon. These landowners expressed flooding concerns due to the recent fires that have occurred in the Chiricahua Mountains.

The landowners have created a series of Chiricahua Leopard Frog refugia ponds along the Cave Creek system and are worried that more flooding could damage or blow out the ponds, endangering the frog meta-populations.

A stream bank stabilization contractor was hired to best address any future flooding events and the groups of landowners are eager to begin the project once a plan is in place.

Parker AZFWCO continued to pump out and monitor Office Cove Pond for its water exchange study. Brad continued off-channel habitat water quality surveys on Emerald Canyon Golf Course Ponds, High Levee Pond, Office Cove, Parker Dam, Three Fingers Lake, Three Mile Lake, and Topock Marsh.

Chase, Kirk, and Brad wrote and submitted an outreach summary of a Fish Passage Project (FPP) on Moovalya Marsh on the lower Colorado River.

The project was successful in reestablishing connection between the River and the Marsh which was lost due to cattail encroachment and beaver activity. This will provide habitat to both Razorback Sucker and Bonytail.

Stephanie continued to monitor current and past DFHP projects. Point-of-Contacts for the three DFHP-funded projects for FY16 are all currently working on their cooperative agreements and are set to begin their individual projects in August 2016.

Previously funded DFHP projects that have been completed or are currently in progress are going well. Those project officers will be sending Stephanie updated project reports, photos, and copies of their cooperative agreements.



NNDFW staff electrofishing Wheatfields Lake

Photo Credit: Jennifer Johnson (USFWS)

## Managing Aquatic Invasive Species

Kirk Young, Randy Van Haverbeke, Dennis Stone, Brad Buechel and Michael Pillow sampled below Grand Falls on the Little Colorado River using overnight hoopnet and minnow trap sets as well as

seine hauls. Semi-permanent pools below the falls harbor nonnative fish transported from upstream sources and many end up in the Grand Canyon. The survey yielded seven species: Channel

Catfish, Black Bullhead, Red Shiner, Fathead Minnow, Common Carp, Green Sunfish and native Flannelmouth Sucker. Channel Catfish, Green Sunfish and Flannelmouth were not captured in

## Managing Aquatic Invasive Species (*Cont.*)

previous surveys in 2005. The survey results inform much of what we are seeing in the lower Little Colorado River (LCR) and will be included in a manuscript on abiotic controls of nonnative fish in the LCR.

Sean O’Kray and John Naugle conducted three different surveys monitoring Giant Salvinia along the Palo Verde Irrigation District’s drain canal. Sean is proud to say to this day, that NO Salvinia has been detected anywhere on the drain. Sean and Mitch observed Salvinia in an off-channel habitat and proceeded with the process of mixing and spraying to eliminate the invasive Salvinia.



Jake and Louis with Brown Trout removed from Paradise Creek.  
Photo Credit: Jennifer Johnson (USFWS)

## Fulfilling Tribal Trust Responsibilities

The Navajo Nation Department of Fish and Wildlife (NNDFW) requested AZFWCO assistance collecting Rainbow Trout from Wheatfields Lake for a fish health assessment. Jennifer, along with staff from NNDFW collected the fish and Jennifer delivered them to Dave Hampton, Southwestern Native Aquatic Resources and Recovery Center.

Jennifer loaned a water quality probe to the San Carlos Apache Tribe. The tribe will be collecting water quality data in preparation for the upcoming Channel Catfish stocking in August. Jennifer also submitted three draft trip reports (Cienega Trap Tank water quality update, Boni Tank fisheries survey and Bobcat Tank fisheries survey) for

internal review. 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).

## Enhancing Recreation Fishing and Public Use of Aquatic Resources

AZFWCO has the lead coordination responsibility to bring together National Fish Hatcheries, Arizona Tribes, and AZFWCO to enhance recreational fishing opportunities on Tribal lands. This month Jennifer, Jeremy, and Jess focused on making final preparations for the annual August stocking of Channel Catfish into

waters of the San Carlos Apache Indian Reservation and Fort Apache Indian Reservation. Pre-stocking logistics (e.g., water quality sampling) were finalized and Inks Dam National Fish Hatchery will be delivering the Channel Catfish on August 16. AZFWCO has dual responsibilities to conserve native

aquatic species and enhance recreational fishing, while ensuring all activities are compatible. This month Jess, Jeremy, and Jennifer provided timely guidance and recommendations to key partners to help ensure native and recreational trout programs are congruent.

## Workforce Management, Training, and Scientific Capacity

Jess and Vic Scott submitted AZFWCO’s budget request for upcoming FY2017. They also completed job interviews for the Administrative Support Assistant position and submitted their selection package to Human Resources.

Dennis Stone and Michael Pillow compiled all data sheets, Access and Excel files, and the two trip reports affiliated with the spring 2016 monitoring efforts in the LCR. These documents were then delivered to GCMRC, in partial fulfillment of our contractual obligations.

Michael Pillow worked to coordinate and recruit volunteers for the upcoming Colorado River Aggregation Monitoring Trip and the Fall LCR monitoring trips. Michael also completed Equal Employment Opportunity (EEO) and Diversity training.

Michael inventoried the AZFWCO, Flagstaff office and storage area for all chemicals requiring Safety Data Sheets (SDS) and updated the hazard communication notebook with the most recent SDS and made them available to everyone in the office via Google Drive.



Ryan Fletcher with a Brown Trout he collected from Hughey Lake

## Partnerships and Accountability

Stephanie Vail-Muse led the DFHP bi-monthly conference call. Subjects discussed included the Texas Barrier App that Mike Montagne from the Texas FWCO presented on the National Fish Habitat Partnership (NFHP) conference call. The App is called ArcGIS Collector and can be found on your device's App store. This subject was brought up to encourage Region 2 to develop a tool to identify and map all fish barriers and track fish barrier projects. The National Fish Passage Program's (NFPP) funding allocation methodology is based, in part, on the number of barriers in each State and this App could help ensure an accurate accounting of barriers. This App requires maps be downloaded prior to going out into the field. Additional subjects discussed on the DFHP call were the current and past DFHP funded projects, the Rio Grande Assessment funding by the SRLCC, the National Fish Habitat Fund, and the NFHP workshop being held in Florida this October.

Stephanie participated in the NFHP conference call, the joint Fish Habitat Partnership (FHP)/Federal Caucus conference call, the Desert Landscape

Conservation Cooperative (DLCC) conference call, and the Diversity Change Agent (DCA) conference call. The NFHP call focused on the 10th year anniversary of NFHP, the national coordinator's workshop in October, and NFHP project funding. A new partnership was brought into the fold during this call, bringing our nationwide total to 20 partnerships. Stephanie worked with the NFHP Communications Committee and shared the new NFHP infographic for the 10 year anniversary campaign. Stephanie reviewed the DLCC's new draft storyboard that they will be using on their website to talk about the DLCC, their goals and their current and past projects.

Stephanie worked with Mike Pillow to attain previously recorded raw footage of the DFHP Executive and Steering Committees interviews for the DFHP website. That footage has been sent to Nick Hoover from

Sage Lion Media to be turned into a short 2-3 minute video to be used on the DFHP website. Stephanie received the Spanish translation version of the website and approved the updated DFHP brochures for printing. Stephanie continued improving the DFHP website. Come check it out at <http://www.desertfhp.org/>

Stephanie also continued work on the new DFHP database that will track all projects, accomplishments, and deliverables across years.



**Elk checking out a fish barrier on Squaw Creek**

## Increase Staffing Levels, Technical Capabilities, and Natural and Physical Assets to Fully Meet Our Mission:

Jeremy Voeltz continued a temporary job detail as Region 1's National Fish Passage Program and Habitat Partnerships Coordinator. The detail ran through the end of July.

Jake Washburn, Student Trainee (Biological Science Technician), attended the Southwest Region FY 2016 Intern Wrap-Up Workshop in Albuquerque. Jake gave a brief presentation on what he has been working on this summer.

Ryan Fletcher, Regional Office employee, and Levi Hartzler, student at Wheaton college, volunteered to help our Apache Trout crew. Their assistance was very much appreciated.

Stephanie completed the 4 helicopter safety trainings and the telework 101 training. Stephanie visited Vic Scott in Flagstaff where she was able to clarify USFWS procedures, policies, and Concur training.

Stephanie also has been diligently working through the additional materials provided by the Diversity Change Agent (DCA) training program to more effectively work as a Change Agent.

Jess, Jeremy, and Stephanie are working together to update the DFHP website so that it is available in English and Spanish.

## Educate and Engage the Public

Kirk Young continues weekly calls with Tamika Wright, his Career Discovery Internship Program (CDIP) mentee. Tamika is an intern at Uvalde NFH.

Stephanie has created DFHP E-News Shout Outs! Sign up to be on our Newsletter subscription list. Join now at <http://www.desertfhp.org/>

Instagram: <https://www.instagram.com/desertfhp/>  
Twitter: [https://twitter.com/desert\\_fhp/](https://twitter.com/desert_fhp/)  
Check out #DesertFishFriday on the DFHP Facebook page: <http://www.facebook.com/pages/Desert-Fish-Habitat-Partnership/193053497376208?ref=hl>

Did you know AZFWCO has a Facebook page? We post information on our staff, upcoming projects, educational events, and volunteer opportunities across the state. We currently have 987 "likes" from over 20 countries. Check us out at [www.facebook.com/AZFWCO](http://www.facebook.com/AZFWCO).

# Upcoming Events

## DFHP RFP Announcement:

If you are interested in submitting a desert fish habitat restoration proposal for FY16 funding, please contact the DFHP Coordinator Stephanie-Vail-Muse at [stephanie\\_vail-muse@fws.gov](mailto:stephanie_vail-muse@fws.gov) or follow the link directly to this year's DFHP Request For Proposals

[http://media.wix.com/ugd/834bd0\\_30e1f243a65a45bd87188ee097c50929.pdf](http://media.wix.com/ugd/834bd0_30e1f243a65a45bd87188ee097c50929.pdf)

- ❖ August 2-4: Glen Canyon Dam Adaptive Management Program Fisheries Protocol Evaluation Panel, Flagstaff
- ❖ August 9-11: Native American Fish and Wildlife Society Southwest Regional Conference, Flagstaff
- ❖ August 16: Recreational Channel Catfish stocking on Tribal lands
- ❖ August 15-18: Monthly water quality at High Levee Pond and Three Fingers Lake and four barrier removal surveys, West Fork Black River, Salt River watershed
- ❖ August 19: MSCP Three Fingers Lake Planning Meeting, Flagstaff
- ❖ August 22: Quarterly Giant Salvinia surveys
- ❖ August 23-24: Native Fish Work Group mid-year meeting
- ❖ August 24-25: Glen Canyon Dam Adaptive Management Program Adaptive Management Work Group, Flagstaff
- ❖ August 27-September 13: Mainstem Grand Canyon Humpback Chub Monitoring, hoop nets
- ❖ September 23- October 7: Mainstem Grand Canyon Juvenile Humpback Chub monitoring, seines
- ❖ September 20-30: Little Colorado River Humpback Chub Monitoring Trip III
- ❖ September 30: DFHP RFP Deadline
- ❖ October 18-19: Glen Canyon Dam Adaptive Management Program Technical Work Group, location TBD
- ❖ October 18-28: Little Colorado River Humpback Chub Monitoring Trip IV
- ❖ October 24-25: Joint Fish Habitat Partnership-Science and Data Committee workshop, Panama City, FL
- ❖ October 26-27: National Fish Habitat Partnership: Beyond the Pond & Fish Habitat Partnership workshop, Panama City, FL

“Like” AZFWCO on  
Facebook!  
CLICK HERE

facebook



Arizona Wildflowers and pollinators.



Photo Credit: Stephanie Vail-Muse (USFWS)

