



AZFWCO Apache Trout Crew Jennifer, Louis, and Jake with assistance from WMAT-WORD staff, collecting environmental DNA in Crooked Creek.

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



AZFWCO Mission: Working with others to conserve, protect, and enhance fish and other aquatic organisms and their habitat in Arizona and the Southwest.

Conserving Aquatic Species

The Apache Trout Crew (Jennifer, Louis, and Jake) completed the first pass of nonnative trout removal efforts on two Apache Trout streams on the FAIR (Fort Apache Indian Reservation). A total of 733 nonnative trout have been removed and 309 Apache Trout were counted in the streams. Brad Buechel spent a week helping the Apache Trout crew.

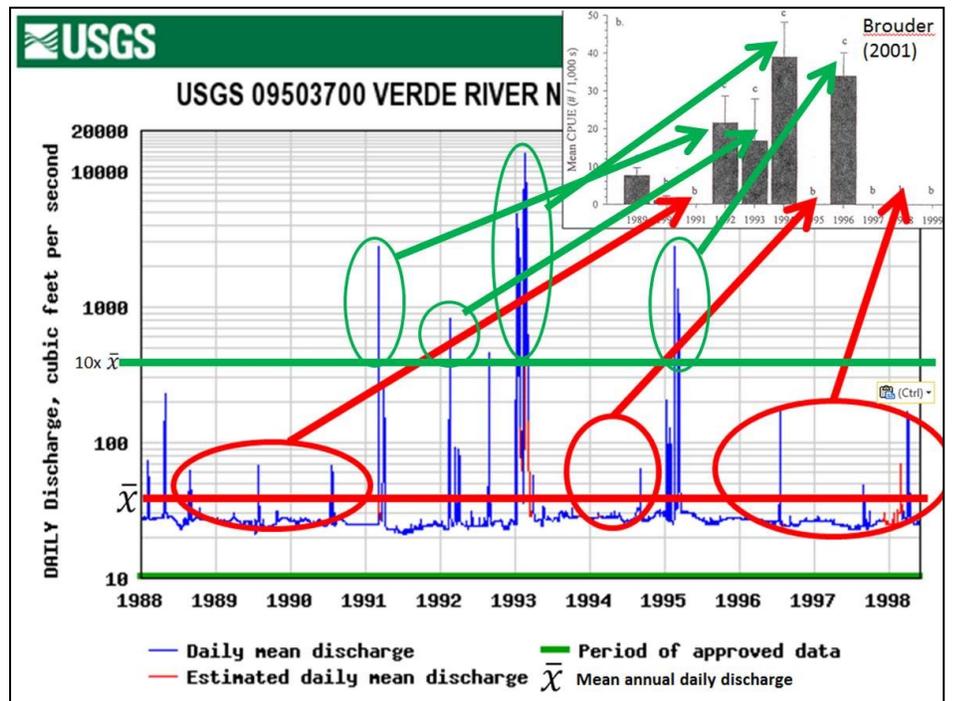
Kirk Young attended the Glen Canyon Dam Adaptive Management Program (GCDAMP) Technical Work Group (TWG) meeting in Salt Lake City. Noteworthy discussions included concerns by some TWG members over continuing to fund several projects because they were believed to be beyond the scope of the GCDAMP. TWG agreed that this discussion would have been more useful when the budget and work plan were first developed. Second, planning has begun for a Protocol Evaluation Panel to review the science conducted in the program. The panel includes: Dr. James Peterson (Oregon State University), Dr. Andrew Casper (University of Illinois Urbana), Dr. Frank Rahel (University of Wyoming), Dr. Donald Jackson (University of Toronto), and Dr. Keith Gido (Kansas State University).

Kirk Young reviewed a draft manuscript from our office entitled: Effects of Floods, Suspended Sediments, and Dissolved Carbon Dioxide on Controlling Nonnative Fishes in the Little Colorado River, Arizona. Lead author of the manuscript is Dennis Stone.

Jeremy Voeltz participated in an expert elicitation meeting as part of the Species Status Assessment process for Roundtail Chub and Headwater Chub. Jeremy was one of several experts from state and federal agencies, academia, and other knowledgeable individuals whose tasks were to evaluate certain defined metrics (such as chub abundance and recruitment, nonnative species, and water availability) and their impacts on chub populations, currently and into the future.

Randy Van Haverbeke wrote a draft proposal to augment (translocate) Humpback Chub into the mainstem Colorado River in Western Grand Canyon. He also continued work on a manuscript about the abundance, survival, and growth of Humpback Chub that were translocated above Chute Falls in the Little Colorado River.

Randy began developing a presentation for the Native American Fish and Wildlife



Jeremy Voeltz' analysis of the correlation between flooding and Roundtail and Headwater Chub reproduction/recruitment data. The work built on data published by USFWS employee Mark Brouder in "The Southwestern Naturalist" in 2001.

Society annual meeting. The presentation will focus on general life history and population dynamics of Humpback Chub in the Little Colorado River.

Jess Newton and Jeremy Voeltz participated in a regional conference call with the National Wildlife Refuge (NWR) program and Fish and Aquatic Conservation (FAC) program to discuss conservation strategies and captive propagation for Yaqui Catfish. There are a few remaining Yaqui Catfish in the United States and those occur near our border with Mexico, on or around the San Bernardino NWR. Currently NWR program is the lead with assistance from FAC.

The University of Arizona (UA), FWS (including Jess Newton), and Forest Service had our Kickoff Meeting for two research projects led by UA/USGS fisheries scientist, Scott Bonar. Two new graduate students arrived on scene this month and are gearing up to start fieldwork. Once our graduate students are up and running, AZFWCO will join them periodically in collecting field data and in reviewing theses, manuscripts, etc. This research focuses on the impact of riparian habitat and hydrograph characteristics on

native and nonnative fish populations.

Stephanie Vail-Muse worked with Western Native Trout Initiative (WNTI) and the Southern Rockies Landscape Conservation Cooperative (SRLCC) to find funding for the Rio Grande Assessment. The SRLCC has agreed to fund \$44,000 for the assessment and to assist DFHP and WNTI on setting up workshops after the assessment has been completed. The assessments model species distributions with landscape factors and anthropogenic stressors by subwatershed to create a conservation prioritization framework. DFHP, WNTI, and partners have completed these assessments in the Upper Colorado region and Lower Colorado region. The Great Plains Landscape Conservation Cooperative (GPLCC) and a Scientific Working Group (SWG) recently completed the Rio Grande and Pecos in Texas.

Stephanie also collaborated with members from the US Forest Service, WNTI, and SRLCC to coordinate efforts between the Rio Grande Assessment and the US Forest Service in their mission to collect eDNA samples from the Rio Grande to help identify critical species within the Rio Grande Basin and their distribution, in an attempt to revive a fisheries research program in the SW. The

Conserving Aquatic Species (*continued*)



Louis and Jake collected environmental DNA samples in Crooked Creek in order to potentially detect Brown Trout presence. eDNA samples were taken from several sites along the stream to complement the on-going Brown Trout removal efforts.

primary species focus is the Loach Minnow and the Spikedace.

As a follow up to our two spring monitoring trips targeting Humpback Chub in the Little Colorado River; Randy, Dennis, and Mike processed and analyzed data for each of our four camps. Mike completed a draft trip report that included the following information: In spring 2016, biologists and volunteers set 1,060 nets and recorded 3,317 Humpback Chub captures. The submersible PIT-tag antennas that were deployed in the LCR in Boulders reach detected 603 unique Humpback Chubs, which is more than 57% of the total number

of unique chubs that we captured in hoop nets in that reach. Captures included one chub that was last seen in 1995 (21 years ago) and two chubs that had not been captured in more than 10 years. Dennis wrote a draft trip report for monitoring efforts above Lower Atomizer Falls, sent it out for internal review, and then made final revisions. Randy began work on the LCR 2016 annual report.

Conserving, Restoring, and Enhancing Aquatic Habitats

Kirk Young, Randy Van Haverbeke and Michael Pillow met with USGS staff to plan the August Humpback Chub aggregation trip. The 18-day trip will include seining, hoop nets and PIT antennas, and will sample several new locations.

Jeremy Voeltz presented his investigation of the effect of flooding on Roundtail Chub and Headwater Chub reproduction/recruitment to Jess and Kirk. The work built upon data published by USFWS employee Mark Brouder in “The Southwestern Naturalist” in 2001. The information may prove helpful in focusing some of the on-going research efforts by

staff and graduate students from the University of Arizona Cooperative Unit who are looking at biotic/abiotic factors affecting chub persistence in the presence of nonnative aquatic species.

Tim Grosch conducted a site visit at a forest restoration project near Vernon, AZ. The area had previous tree thinning done to open the forest canopy in the meadow habitat areas. The landowner had contacted Tim to inform him of an unidentified frog species that had recently come back to the property. This was the second visit with no frogs visible which leads us to believe that what was actually

observed may have been some type of toad species.

Tim Grosch continued 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 leaving the remaining area to be completed in partnership among FWS, Arizona Game and Fish Department (AGFD), and the landowner.

Conserving, Restoring, and Enhancing Aquatic Habitats (*continued*)

Other projects Tim has been working to develop include the Battle Tank Grassland restoration project and potential habitat enhancement projects located near Snowflake, AZ. The Battle Tank project 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. The Snowflake projects include a landowner who has been working on installing solar wells to distribute water but is also seeking technical assistance for other areas of his property. This project will benefit migratory birds along with other native wildlife. We are currently in the process of project evaluation and ranking.

Stephanie Vail-Muse maintained contact with the project officers in charge of the

three habitat restoration projects funded by Desert Fish Habitat Partnership (DFHP) in FY 16. All three projects received their funding this month and are currently working on their individual cooperative agreements. All three projects are on schedule and ready to begin project implementation in August 2016. The FY16 projects are:

#1 Project: Goose Creek Allotment Pipeline Project

#2 Project: Upper Sycan River Aquatic Habitat Restoration

#3 Project: Bitter Creek Drop Structure

Stephanie also solicited updates and documents from project officers in charge

of FY15-funded projects such as the Black Bob Allotment Project.

Brad Buechel 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.

Parker AZFWCO staff continued to pump out and monitor Office Cove Pond for its water exchange study. This study attempts to find ways to improve water quality parameters in the pond in order to increase survival and growth of Razorback Sucker.

Managing Aquatic Invasive Species

Brad Buechel assisted the Pinetop AZFWCO e-fishing crew with the removal of non-native Brook Trout (*Salvelinus fontinalis*) and the conservation of native Apache Trout (*Oncorhynchus apache*) in the headwaters of the West Fork Black River.

Fulfilling Tribal Trust Responsibilities

Sean O’Kray, Mitch Thorson and Brad Buechel continued removing water restrictions and began maintaining the inlet of Moovalya Lake, near Parker, AZ. Moovalya Lake is on the Colorado River Indian Tribes Reservation. Maintenance included widening the inlet and removing woody debris and cattails to reduce beaver dam building materials. To date the lake has risen 1+ meters and restored water to the lake and adjacent marsh.



Pictured: Moovalya Lake inlet looking north of culvert pre and post maintenance, respectively.

Enhancing Recreation Fishing and Public Use of Aquatic Resources

Jennifer, Louis, and Jake assisted staff from Williams Creek National Fish Hatchery (NFH) in collecting trout that had escaped raceways and were still in the hatchery system. The trout were stocked into Bog Tank prior to the White Mountain Apache Tribe's annual youth fishing derby.

Partnerships and Accountability

AZFWCO staff participated in the monthly Fishery Coordination meeting among AZFWCO, A-WC NFH (Alchey-Williams Creek National Fish Hatchery), & WMAT-WORD (White Mountain Apache Tribe-Wildlife & Outdoor Recreation Division).

Jeremy Voeltz participated in several conference calls with the USFWS Roundtail Chub and Headwater Chub technical team working on the final listing decision for Headwater Chub and Distinct Population Segment of Roundtail Chub.

Tim Grosch participated in a Region 2 Partners for Fish and Wildlife (PFW) conference call. During the call the group discussed standardized monitoring efforts, monarch initiatives, strategic planning and several other topics pertaining to the program.

Tim participated in the annual Rocky Mountain Bighorn Sheep surveys located in Game Management Unit 27. Arizona Game and Fish led the surveys and hosted folks from several agencies and wildlife groups. Tim and Jeremy spent a fair amount of time working on PFW budgets.

Stephanie Vail-Muse collaborated on nine coordinator calls this month including the Bluehead and Bonneville conference call with WNTI and Sage Lion Media and the National Fish Habitat Partnership (NFHP) Conference call. The Bluehead and Bonneville Campaign is being edited this month to create a 4-5 minute video that will showcase the different partnership collaborations that have been working toward the preservation of two native fish species on the Weber River; the Bluehead Sucker and the Bonneville Cutthroat Trout. This inspiring video will have a permanent presence on the internet that will be used by DFHP and WNTI as an anchor for other education/outreach materials that we want to share about these species and our partnerships in order to attract other partners and donations/funding. This project is being funded by the 2015 Multi State Grant that DFHP/WNTI was awarded. To further assist in the campaign Trout Unlimited (TU) has given permission to Stephanie to use these amazing images as well as many



A Bluehead Sucker captured during filming for the DFHP/WNTI-sponsored Bluehead and Bonneville Campaign. (Photo Credit: UT Trout Unlimited)

others on the DFHP website and social media accounts.

Stephanie Vail-Muse participated in the NFHP Conference call. The NFHP conference call focused on the 10-year anniversary of NFHP, the October workshop that is being held in conjunction with the 501c3 non-profit workshop, NFHP project funding, and the funding allocations to 18 of the FHP's. A new FHP was brought into the fold during this call, bringing FHP numbers from 19 to 20. Stephanie joined the NFHP Communications Committee and reviewed the NFHP draft infographic that will be used as a part of the 10-year anniversary campaign being done by the NFHP 10th year Anniversary Committee. Stephanie Vail-Muse worked with Jess Newton and Jeremy Voeltz in establishing a scope of work for DFHP funds. This scope of work includes purchasing new DFHP education/outreach materials, education/outreach templates, and contracting with Sage Lion Media to edit a DFHP "Who We Are" video vignette as well as providing professional photos for the DFHP website and education/outreach materials.

Stephanie worked with FWS Stephanie Byers to provide Shoshone pupfish photos to Ryan Roberts for NFHP usage. Stephanie also supplied Desert Sucker,

Sonora Sucker, and Apache Trout images of our Whiteriver office to be used for Through the Fishes Eye report currently being created.

She also continued to work on the DFHP database that focuses on funded projects the DFHP has worked on over the last 10 years. Stephanie Vail-Muse continued improving the DFHP website. Come check it out at <http://www.desertfhp.org/>

Workforce Management, Training, and Scientific Capacity

Kirk Young and Chase Ehlo submitted a proposal to the Bureau of Land Management to monitor and evaluate habitat enhancements for the Amargosa Pupfish and Amargosa Dace in the Amargosa and Mojave Rivers.

The Whiteriver office had their annual safety assessment completed by John Fenslage of Williams Creek NFH.

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

Chase Ehlo participated in a Supervisory Skills Workshop in Portland, OR. The purpose of the training was to provide new supervisors the skills needed to effectively manage the workplace.

Chase received six remote PIT scanners from the Multi-Species Conservation Program (MSCP) to be deployed throughout the lower river.

Randy helped the Grande Canyon Monitoring and Research Center (GCMRC) make more hoop nets for the Little Colorado River (LCR), and lined out GCMRC personnel on camp needs for their June/July LCR monitoring trip.

Jess Newton and Stephanie Vail-Muse attended the 4-day Diversity Change Agent training. The training examined personal and societal stereotypes, biases, and prejudice and explored ways to create a more diverse, inclusive, and engaging work place. They are now certified Diversity Change Agents and have taken the Dignity and Respect Pledge.

Jess Newton attended a national conference call to discuss annual field-station work plans. AZFWCO's annual work plans guide our fish conservation efforts on a daily basis and set clear goals and objectives to shoot for each year. The conference call summarized work plans for FWCO's across the country and we

discussed ways to improve these for next year.

FWCO advertised one vacancy announcement this month on USAJOBS.GOV. This vacancy was for our Administrative Support Assistant position.

Dennis and Randy participated in 3 hours of Active Shooter training, presented by Andy Mullinnix (Prescott National Forest law enforcement officer), on June 14, 2016.

Brad Buechel took an electrofishing online safety course and renewed his Department of Interior electrofishing safety credentials.

Michael Pillow worked with Vic Scott to gather and compile the appropriate documentation for travel reimbursement from the May LCR volunteers.

Michael and Brad attended the OSHA 600 Collateral Duty Safety Officer (CDSO) training course in Tempe, AZ. This OSHA course was the first step in becoming an official CDSO.

Public Education and Engagement

Kirk Young has had weekly calls with Tamika Wright, his Career Discovery Internship Program (CDIP) mentee. Tamika is an intern at Uvalde NFH and Kirk has been providing literature on species cultured there as well as a GoPro for documenting her internship.

AZFWCO donated 20 fishing poles to the White Mountain Apache Tribe's annual youth fishing derby for prizes.

Jennifer put on an electrofishing boat demonstration for several members of the White Mountain Youth Corps and WMAT-WORD student interns. The White Mountain Youth Corps empowers young people by engaging them in meaningful community service, job training and education, environmental stewardship, and adventure experiences.

The Weber River project submitted by Stephanie and WNTI to the NFHP has been nominated as a Legacy Project!

Stephanie Vail-Muse posted the first monthly DFHP E-News Shout Out. Sign up to be on our Newsletter subscription list and get monthly Shout Outs where we share with you what the DFHP is up to that month. Join now at <http://www.desertfhp.org/>



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Stephanie Vail-Muse continued working on new education/outreach media to be used on Social Media.

Did you know AZFWCO has a facebook page? We post information on our staff, upcoming projects, educational events, and volunteer opportunities across the state.. Check us out at www.facebook.com/AZFWCO.

Public Education and Engagement (*continued*)



DFHP Legacy Project: Weber River, UT—Photo Credit: Paul Burnette, TU Biologist

Upcoming Events

- ♦ **September 20-30:** Little Colorado River Humpback Chub Monitoring Trip III
- ♦ **October 18-28:** Little Colorado River Humpback Chub Monitoring Trip IV
- ♦ **August 27-September 13:** Mainstem Grand Canyon Humpback Chub Monitoring, hoop nets
- ♦ **September 23-October 7:** Mainstem Grand Canyon Juvenile Humpback Chub monitoring, seine



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DESERT FISH HABITAT
PARTNERSHIP



Through a Fishes Eye Photo Submission of a Desert Sucker (left) and AZFWCO J. Voeltz and J. Johnson Apache Trout sampling in the AZ White Mountains.

