# Desert Fish Habitat Partnership

Vol 2 No 3
August-October 2011

## DFHP 2012 Projects Chosen

The Desert Fish Habitat Partnership (DFHP) received 11 project proposals, totaling over $344,114, in response to the FY12 RFP. From the many worthy proposals, the Steering Committee has recommended these projects for funding: Shoshone Pupfish Pond, NV, which will restore springs ponds for a highly imperiled DFHP species, Condor Canyon Meadow Valley, NV, which will restore and improve habitat for three DFHP species, and Alamito Creek Restoration, TX, which will restore and maintain stream flows for five native fish species through grassland restoration. These projects will provide restoration work in DFHP's Rio Grande, Basin and Range, and Lower Colorado River drainages and will benefit many DFHP habitats (rivers, stream, and cíenegas/springs). Thanks to everyone who submitted proposals and helped to review and rank them.

**Bringing together people and organizations with a common interest in voluntary conservation of desert fishes and their habitats**

*Bluehead sucker*
*Photo by Jeff Sorensen*

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## Cooperative Conservation Efforts for Native Fish on the White River

Justin Jimenez, BLM

The National Fish Habitat Action Plan nominated the Green River Basin (including the White River) as one of the "10 Waters to Watch" in February, 2010. The Desert Fish Habitat Partnership (DFHP) recognized the outstanding aquatic resources of the Green River Basin, including the White River. The White River is occupied by native desert fishes including the bluehead sucker, the flannelmouth sucker, and the roundtail chub, collectively referred to as the "three species". The Utah Bureau of Land Management (BLM) has entered into assistance agreements with the Utah Division of Wildlife Resources (UDWR) to allow for cooperative conservation efforts for native fish. The work accomplished through this agreement involves completing many activities relating to three species conservation including: habitat surveys to gain knowledge on current distribution, movement and life history studies, genetic studies, potential reintroductions into historical habitats, work to maintain water in important habitats, and habitat restoration/ improvements, which help conserve the Three Species.

Through the assistance agreements the BLM UT provided $26,000 of funding in 2011 to the Northeast region office to conduct White River three species monitoring. The main objectives of this study are to: (1) investigate three species spawning dynamics during spring sampling, (2) evaluate the overall size of resident three species populations during summer sampling, and (3) determine fall recruitment of young-of-year (YOY) three species to assess reproductive success. Objective 1 was not scheduled for this year based on our rotational sampling schedule. July 18-22, 2011 the BLM Utah assisted UDWR in sampling the White River specifically looking for Three Species to obtain summer distribution and population data which included a 3-pass mark-recapture population estimate to address objective 2. The young of year (YOY) sampling occurred in late September and involved seining slackwaters (slow water areas) of the main channel and backwaters. The percent of native species found was higher than other areas sampled in the Green River and most other upper Colorado River basin areas. For the White River there was a higher catch per unit effort for YOY bluehead and flannelmouth suckers than previous sampling and for roundtail chub YOY catch stayed about the same. For the third consecutive year, the numbers of three species discovered were clear indications the White River is an important spawning area and nursery habitat for the three species. A final report detailing these activities (UDWR Statewide Monitoring for Three Species) is in review and will be available shortly. The Northeast Region did not receive 2011 funds until later in the year, so they were only partially expended and future work will be reported.

The BLM Utah partnered and recently provided a letter of support for the White River Three Species population monitoring proposal submitted by UDWR to the National Fish and Wildlife Foundation Upper Colorado River Native Fishes Keystone Initiative.

*White River*

*White River roundtail chub*

# Restoration Planning on the San Rafael River

Justin Jimenez, BLM

The National Fish Habitat Action Plan nominated the Green River Basin (including the San Rafael River) as one of the “10 Waters to Watch” in February, 2010. Both the Desert Fish Habitat Partnership (DFHP) and the Western Native Trout Initiative have recognized the outstanding aquatic resources of the Green River Basin, including the San Rafael River, which is identified as a demonstration project for the DFHP. The San Rafael River drains 4,500 km2 in central Utah, flows southeast 175 km and terminates at the confluence with the Green River just upstream of the confluence with the Colorado River. The Bureau of Land Management is largest land owner followed by State and private ownership.

In January of 2011 the BLM UT submitted the San Rafael River restoration planning proposal to the National Fish and Wildlife Foundation and it was recently identified that the project and associated funding ($75,000) was approved. Given the presence of endangered and imperiled desert fishes including the three species, the San Rafael River is an area of high restoration priority. The primary activity associated with this proposal is the development of a science based restoration, conservation and monitoring plan for the San Rafael River. This plan will identify and utilize population distribution and life-history information, with an emphasis on movement patterns and habitat use, to guide restoration, conservation and monitoring activities for imperiled and endemic fish species in the San Rafael River.

Ongoing research in the San Rafael River identifies that the three species are limited by inadequate habitat, lack of habitat complexity (mosaics of pools and riffles). Additional research has been conducted to determine the primary causes of geomorphic change. This research includes analysis of floodplain stratigraphy using dendrochronology, historical records at USGS gage, and analysis of aerial photographs to quantify the magnitude and rate of geomorphic change in the river. The combination of methods employed will provide a robust perspective of geomorphic change over a range of temporal and spatial scales. In combination, these results will be incorporated into the plan and utilized to develop restoration activities which restore physical habitat and rehabilitate the San Rafael River by tamarisk eradication, in-stream flow augmentation, and reconnection of channel and floodplain habitats.

*San Rafael River*

*Diversion dam and upstream sea of tamarisk*

# DFHP Project Updates

**Phantom Lake Spring Cíenega Habitat Restoration, Texas .**
Thjs project is modifying the existing cíenega to make it larger, more natural, more reliable, and will establish temporary captive stocks of four of the five species of concern.

A new pool at Phantom Lake Spring has been completed and will now act as a refuge that will hold water. Also, a new "spring" has been installed near the old pool and at the beginning of the new pool. That makes two springs to supply the water to the pools. The old dam boards on the check dam into the cave were removed and some cinder blocks were mortared in and capped with native stones to add a more natural look. The concrete was then roughed up in spots and covered with stucco to match the natural color of the rocks. The liner is now completely covered with rocks, boulders, sand and gravel with some dirt thrown in as well. This has created a diversity of habitats for the different species found at the site.

The team has also built a kiosk to display posters that explains the history of the site and the life history of the species that live there.
*Update provided by Gary Garrett, TXPWD.*

*Project site prior to restoration*

*Project site after restoration with artificial spring*

**Raymond Wildlife Area Refugia Pond Construction, Arizona.** This project will provide a viable refugia for the East Clear Creek Strain of the Little Colorado spinedace by constructing a well fed refugia pond on Raymond Wildlife Area. The pond will include a short stream section to provide spawning habitat for the spinedace and a shallow marshy area to provide habitat for Northern leopard frogs. A solar pump will be used to provide flow in the stream. After completion the pond will be stocked with spinedace from the wild.

The liner for the pond has been ordered and will be installed at the end of December 2011.
*Update provided by Scott Rogers, AGFD.*

*Refugia pond on Raymond Wildlife Area being constructed*

## DFHP Project Updates *(continued)*

**Mountain View Creek Nonnative Species Barrier, Nevada.** This project is designing and constructing a barrier that prevents or slows the invasion of nonnatives. The Nevada Department of Wildlife will be sending out an informal RFP within the next week and will be contacting a number of environmental design/consulting firms asking for a brief proposal and design ideas for the barrier. Proposals need to be submitted by the end of January. The final design of the barrier is expected to be completed by the end of June 2012. *Update provided by Matt Maples, NDOW.*

*Downstream of the proposed barrier*

*Upstream of the proposed barrier*

**Moapa dace Apcar Box Culvert, Nevada.** This project is replacing the current culvert with a box culvert, thus removing a velocity barrier and restoring connectivity to this portion of Moapa dace habitat.

After receiving support from DFHP, the Moapa dace Apcar box culvert project received the balance of funds needed to meet its budget from the US Fish and Wildlife Service's Fish Passage program. A contractor has been chosen and is working on design details prior to final paperwork and implementation. The associated Moapa dace population both upstream and downstream from the road (constriction point) is being actively monitored on a fish-specific basis by the USGS as part of a multi-year ecological study of the species. Abundance, growth, survival, and length-frequency (population) relationships are all being quantified before and after project implementation. This research will provide an exceptional opportunity to monitor the response of this endangered fish to removal of the constriction point (undersized culvert), thus connecting upstream (breeding) habitat with downstream (holding) habitat. *Update provided by Lee Simons, USFWS.*

*Moapa dace*

*Lower Apcar springbrook (below project in holding habitat)*

*Current culvert*

## Partnership Activities

Kayla Barrett and Megan Bean participated in the Western Fish Habitat Partnerships meeting and the NFHP Symposium in conjunction with the American Fisheries Society 141st Annual Meeting, 1-8 September, Seattle, WA. Kayla coauthored a presentation titled, “Western Fish Habitat Partnerships: Western Fisheries Habitat Data Confusion,” that was presented by the Western Native Trout Initiative coordinator at the NFHP Symposium.

Kayla Barrett, Jennifer Fowler-Propst, Stephanie Carman, and Jeff Sorensen participated in the National Fish Habitat Partnership Board meeting in Albuquerque, NM. Kayla presented a talk titled, “Desert Fish Habitat Partnership” to the Board. The presentation went through a general overview of the DFHP, challenges the DFHP faces and what the Board can do to help.

The DFHP completed the NFHP Habitat Protection Questionnaire and submitted to NFHP Coordinator.

Kayla Barrett sent information on the DFHP to overlapping the USFWS’s Landscape Conservation Cooperatives (LCCs). There are five LCCs that overlap the DFHP geographic scope; Desert LCC, Great Basin LCC, California LCC, Great Northern LCC, and Southern Rocky LCC. The DFHP hopes to coordinate with these LCCs in an effort to conserve native desert fishes and their habitats.

## NFHAP NEWS

The National Fish Habitat Board met on October 19-20 in Albuquerque. Coordinators of the Desert Fish Habitat Partnership and the Western Native Trout Initiative briefed the Board on their activities and accomplishments. The Board weighed in on plans for updating the National Fish Habitat Action Plan, and for the 2015 assessment of fish habitats. The Action Plan update is nearing completion, and the 2015 assessment plan will be out for review by FHPs and others early in 2012. The Board expressed support for new "terms of reference" for the Science and Data Committee, which will include an increased number of FHP representatives on the Committee. The Board was briefed on plans to "test drive" the new FHP performance measures and evaluation process, with a report expected in mid-2012, and approved a "funding allocation framework", applicable to any future funds under control of the Board. A methodology for generating economic benefits of NFHP projects was approved for the purpose of communication and advocacy; boilerplate language and numbers will be provided to all NFHP partners for their use. Finally, the Board approved a communications plan for 2012, and guidance on the "enhanced brand" and logo for the National Fish Habitat Partnership. If you have questions on the Board meeting, contact Tom Busiahn at 703-358-2056 or tom_busiahn@fws.gov.

# FUN NEWS

**The Desert Fish Habitat Partnership has a Facebook page!** If you are not one of the 500 million users on Facebook, you should be. The DFHP Facebook page has public friendly information posted, pictures, DFHP Newsletters, RFPs, reports, and much more. As of November, the DFHP Facebook page has been viewed 8,200 and viewed in 8 countries. So check us out because I know it is something that everyone will "like."

Congratulations to Jeff Sorensen and his wife Joy! They are expecting their first baby in August 2012.

We are welcoming Kai-T Bluesky to the DFHP as the Tribal Liaison for the Executive Committee. Kai-T started off in this field as a project coordinator with Ecoservants/Americorps and a fisheries biologist with Mescalero National Fish Hatchery, NM from 2007-2009. Now Kai-T is a fish and wildlife biologist with the Pueblo of Tesuque Environmental Department where he oversees and manages habitat restoration projects and provides outreach and collaboration with community and educational institutions.

# Upcoming Events

AZ/NM Chapter of the American Fisheries Society Meeting

2-4 February 2012, Phoenix, AZ

NFHP Board Meeting

17-18 April 2012, Washington, DC

# For More Information:

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www.nature.nps.gov/water/DFH_partnership.cfm

To learn more about the Desert Fish Habitat Partnership, please visit our website.

www.facebook.com

To view DFHP photos, download documents, and learn more, visit the DFHP Facebook page.

www.fishhabitat.org

To learn more about Fish Habitat Partnerships, please visit the National Fish Habitat Action Plan website.

DFHP Purpose: *To conserve aquatic habitat in the arid West for desert fishes and the American people by protecting, restoring and enhancing these unique habitats in cooperation with and in support of, state fish and wildlife agencies, federal agencies, Native American tribes, conservation organizations, and individuals.*