FY 2014

TXFWCO Activity Report: January

Newly created Pecos pupfish habitat at Rillito Spring.

Texas Fish and Wildlife Conservation Office

U.S. Fish & Wildlife Service

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Fish and Wildlife Conservation Office January Activities

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National Fish Passage Program (NFPP)

Uvalde County Low Water Crossing

The Uvalde County Road Department has continued to make progress on the low water crossing on County Road 416. The only remaining work is forming and pouring the concrete for the road surface and slopes on the east side of the low water crossing.

Uvalde County continues to make progress on the low water crossing at CR 416.

Ottine Dam Removal Project

The dam removal project has been delayed several times due to contracting issues, flooding, and equipment delays. The original contractor did not have the specified equipment that they were contracted to provide. The contract for the heavy equipment rental needed for the removal was cancelled in January. After the cancellation, the money was returned to the general fund as the two years had passed since allotment of the funds.

The Ottine Dam Removal Project continues to face delays and set backs.

Desert Fish Habitat Partnership (DFHP)

Alamito Creek

The TXFWCO has partnered with the Trans Pecos Water and Land Trust (TPWLT), TPWD, the Partners for Fish and Wildlife Program (PFWP), and others to restore habitat on the Alamito Creek Preserve (The Preserve). TPWD has recognized The Preserve's segment of Alamito Creek as meeting the criteria as an Ecologically

Unique River and Stream Segment. The Preserve has been named by the National Fish Habitat Partnership as one of its ten “Waters to Watch” in 2012.

The Alamito Creek Preserve Team seeks to restore the grassland in the Alamito Creek watershed by removing approximately 100 acres of mesquite and other non-natives, and reseeding with native grasses where needed. The invasive vegetation is thought to be lowering the water table and reducing flows in the creek. The Preserve hopes to showcase a healthy West Texas stream environment and inspire other protection and restoration efforts by expanding outreach in the region to the public, adjoining landowners, regional decision-makers and other key visitors, to participate in a watershed cooperative with conservation as its goal.

The team has completed the fifth and final mesquite removal trip. The team was able to remove 90% of the mesquite from approximately 15 acres of riparian habitat. Unfortunately, due to the continued drought conditions and continued lowering of the water table in the creek, results of the removal were impossible to measure.

Mesquite removal at Alamito Creek.

Rillito Spring Pecos Pupfish Project

On 27-30 January 2014, the TXFWCO and Kenny Saunders (TPWD) constructed two new pools at Rillito Spring to prepare for introduction of Pecos pupfish (*Cyprinodon pecosensis*). The existing narrow channel was widened and deepened in two locations. The pool was then lined with pond liner to reduce the maintenance required to keep it free of cattails. The liner was covered with gravel and larger rocks to create spawning substrate. The pools will be stocked with pupfish from Salt Creek in March of 2014.

Quarterly monitoring of Pecos pupfish on Salt Creek was also conducted in conjunction to the habitat modifications at Rillito Spring. Pure Pecos pupfish are imperiled, existing in only one mile of Salt Creek, and are not found anywhere else in Texas. The pupfish are imperiled due to hybridization with sheepshead minnow (*Cyprinodon variegatus*), loss of habitat due to drought, and ground and surface water pumping.

A Conservation Agreement (CA) between TPWD, New Mexico Department of Game and Fish, New Mexico Energy, New Mexico Department of Agriculture, New Mexico Interstate Stream Commission, New Mexico State and Land Office, the U.S. Bureau of Land Management, and the USFWS, is currently being formulated to affirm the mutual goal of the agencies of securing and protecting the Pecos pupfish within its currently occupied and known historical range in the States of New Mexico and Texas. The Rillito project will address one of the immediate measures identified to secure populations by establishing additional off-channel populations of Pecos pupfish within the known historical range. The Pecos pupfish monitoring will also address one of the conservation needs tasked to TPWD and USFWS.

The team created two new pools at Rillito Spring to prepare the habitat for the introduction of Pecos Pupfish.

Big Bend Reach Science Team

In December 2013, representatives from Texas Parks and Wildlife Department (TPWD), the National Park Service (NPS), and the United States Fish and Wildlife Service (USFWS) (the Agencies) met in Alpine Texas to discuss future monitoring efforts on the Rio Grande and begin to build a framework for future monitoring. In attendance were Kenny Saunders (TPWD), Jeff Bennett (NPS), Pete Diaz (USFWS), and Mike Montagne (USFWS). The framework developed at the meeting was sent to all partners for review.

The team developed the framework within the bounds of available funding to the agencies and partners who work on the Lower Rio Grande in Texas. The team developed both core tasks that the Agencies can achieve, within staffing and funding restrictions, and tasks that are wider reaching and could be tasked to partners if funding or opportunities become available. The three agencies have accepted the responsibilities of monitoring the Big Bend Reach of the Rio Grande despite lack of direct funding to do so. The core framework described within this document includes work that the Agencies have agreed to work together on to accomplish, as well as recommendations that they

would like to see accomplished, probably by partners, based upon the availability of funding.

The Agencies have determined this work on the Rio Grande to be important in that it is an international border river with equivalently protected areas in Mexico (Monumento Del Rio Bravo), the state has designated it as an ecologically significant stream segment, and has been designated as a Wild and Scenic River.

Salamander Toxicity Project

The TXFWCO, the Arlington Ecological Services Field Office, Austin Ecological Services Office, TPWD, USGS, and the City of Austin have partnered for a project, funded by a Science Support Program Grant, to examine the relationship between the federally endangered Barton Springs salamander, (*E. sosorum)*, threatened San Marcos salamander, (*E. nana)*, candidate Georgetown salamander, *(E. naufragia)*, candidate Jollyville Plateau salamander, *(E. tonkawae)*, a candidate species Salado Springs salamander, (*E. chisholmensis)*, Texas salamander, (*E. neotenes)*, the Blanco River Spring salamander, (*E. pterophila)*, and an as yet unnamed salamander from Val Verde Co., the Devils River Spring salamander, (*Eurycea* sp.), and land use including, impervious cover and other urban multi-metric indicators in the Edwards Plateau region.

The project is a screening-level assessment to identify the contaminants that may bioaccumulate in salamander tissue. The study will provide some of the first information on bioaccumulation of contaminants in populations of central Texas aquatic *Eurycea*, and how these populations may be affected by future anthropogenic modifications. The results from this study will aid in the current proposed listing process for the candidate species and in the reviewing process for listed species. The study objectives will be accomplished through a combination of geographic watershed analysis, field surveys, and tissue analysis. Examining the concentrations of bioaccumulative and persistent pollutants (metals and organic chemicals) directly in salamanders may provide insight into the decrease of salamander densities surrounding areas affected by human land use.

Test results and data continue to come in and are being reviewed and analyzed. The team is awaiting the return of the Polar Organic Chemical Integrative Sampler (POCIS) water quality data, the final data set for the analysis for year one of the two year study.

Clear Creak Gambusia Genetic Sampling

In December 2013, the TXFWCO and Kenny Saunders (TPWD) conducted a sampling trip to Wilkinson Spring in Menard Texas. Genetic samples (fin clips) were collected from Clear Creak gambusia (*gambusia heterochir*) specimens that visually appeared free of hybridization with *gambusia affinis*. Genetic samples were collected from what looked to be pure *gambusia affinis* to aid in the genetic analysis. The samples were submitted to Dijar Lutz-Carrillo (TPWD) for genetic analysis to determine the extent of the introgression with *gambusia affinis*. Results will be available in April of 2014.

February Schedule of Activities:

18-20 February 2014: Implant radio tags in paddlefish at Tishomingo NFH
February 2014: Construct and test telemetry towers for Paddlefish Project
February 2014: Enter surrogate species data into National Data Tool for GCP LCC