

# FY 2015

## TXFWCO Activity Report: June



### Rio Grande Monitoring in Boquillas Canyon

Texas Fish and Wildlife Conservation Office  
U.S. Fish & Wildlife Service

# Texas Fish and Wildlife Conservation Office

## Monthly Report

### Fish and Wildlife Conservation Office Activities

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## *Emphasis Areas*

The U.S. Fish and Wildlife Service is charged with a large responsibility to steer conservation of myriad species in a multitude of ecosystems - the conservation issues that persist or will arise in the southwest region are varied and diverse and require a focused attention to address. The Southwest Region identified five geographies or “Emphasis Areas” whereby we can best achieve meaningful and measurable outcomes for fish and wildlife conservation: The Mogollon Rim, the Rio Grande, the Great Plains, the Gulf Coast, and the East Texas/Oklahoma areas.

The Southwest Region is currently steering resources to these five geographies that encompass much, but not the entire Region. Each area has been assigned leadership teams to develop conservation priorities and projects that support strategic conservation in each of the areas.

## **Rio Grande Emphasis Area Project**

The Rio Grande Big Bend Recovery and Restoration Project has been selected as one of the initial priority projects of the Rio Grande Emphasis Area. The Rio Grande silvery minnow (*Hybognathus amarus*; RGSM) is one of the most endangered fishes in North America. Creating a self-sustaining population of RGSM in the Big Bend reach of the Rio Grande (Big Bend reach) could ultimately lead to the down-listing of the species. Reduced flows and sediment surplus together with invasive plant species have led to increased channelization of the main channel and reduced aquatic and riparian habitat diversity. Efforts to reestablish this endangered fish in the Big Bend reach will be enhanced by aquatic and riparian habitat restoration through reforestation of riparian zones. This project also contributes to conservation of other trust resources, such as migratory birds and mussels.

We propose to meet the stocking recommendations for the Big Bend reach of an additional 182,000 RGSM and have begun captive propagation at Uvalde National Fish Hatchery (UNFH) to support the Big Bend effort. The Rio Grande team will monitor the success of the restocking effort, as well as other ecological and habitat parameters throughout the 300-mile Big Bend reach. The collection of habitat use data during ecohydrology monitoring, as well as habitat restoration, will benefit RGSM and other imperiled fish species like the Chihuahua shiner (*Notropis Chihuahua*), and the Rio Grande shiner (*Notropis jemezanus*), and may help to prevent listing of these species in the future.



**Figure 1**The TXFWCO and TPWD inspect the results of a seine haul in Boquillas Canyon.

The team conducted an eco-hydrology monitoring trip through Boquillas Canyon, a proposed RGSM stocking site, on 2-6 June 2015. The current team had not previously sampled in Boquillas Canyon and used this opportunity to reconnoiter and establish

ecological monitoring sites to include: fish collections, geomorphic surveys, habitat measurements, aquatic invertebrate collections, measure discharge, map spring locations, perform basic geological mapping, and establish photo points to document channel condition. Both invertebrate and fish numbers were lower than would have been expected, and no RGSM were captured or seen.

## **East Texas and Oklahoma Emphasis Area**

The Cypress River Basin and Caddo Lake Watershed Project has been selected as one of the initial priority projects of the East Texas/Oklahoma Emphasis Area. The only natural lake in Texas, Caddo Lake encompasses many habitats including bottomland hardwood forests and Bald Cypress swamp. The wetlands of Caddo Lake, part of Bird Conservation Region 25 (BCR 25 West Gulf Coastal Plain/Ouachitas), are very important to migratory bird species and have been globally recognized as an important bird area. The team was excited to learn of the selection and will meet in July to discuss the direction of the project.

## **Salado Salamander Monitoring**

Salado salamander monitoring continued in June 2015. Systematic monitoring by the TXFWCO began on March 24, 2015 at the Salado Spring Complex, in Bell County. A total of four systematic surveys will be completed by December of 2015. Sampling will be conducted once a week for a three-week period. This allows time for the sites to reset before sampling again. This type of systematic sampling is completed to calculate probabilities of detection of salamanders for each site and determine availability of habitat within the spring systems.



Figure 2 Salamander captured at Big Boiling Spring.

## **Pecos Pupfish Monitoring**

The TXFWCO and TPWD conducted quarterly monitoring of the Pecos pupfish (*Cyprinodon pecosensis*) at Salt Creek near Orla, TX. In addition to the normal sampling, the crew took 30 DNA samples from young of the year pupfish to determine if the flooding in 2014 allowed the introduced sheepshead minnow (*Cyprinodon variegatus*) past the barrier assumed to be keeping them from hybridizing with the pupfish. A TPWD film crew accompanied the team and plans on airing a special on the pupfish on the Texas Parks and Wildlife Television Show.

The team also visited Rillito Spring, the artificial refuge for the Pecos pupfish that was created with funding from the Desert Fish Habitat Partnership. The fish were doing fine and had obviously been reproducing and were found throughout the spring run.

## **Devils River Minnow Monitoring**

On 29 June – 1 July 2015, the TXFWCO, with help from TPWD, and the Partners for Fish and Wildlife Program, conducted Devils River minnow (*Dionda daboli*: DRM) sampling activities at Pinto and San Filipe Creeks. Due to recent rain events, Pinto Creek had more water than usual and was even flowing in spots. We were only able to gain access to the upper portion of the creek, which is usually devoid of any water, but was now flowing in spots. Unfortunately no fish were found in the upper most site, and only a few Texas shiners (*Notropis amabilis*), and a few Western mosquitofish (*Gambusia*

affinis), were found in the middle section and they were being heavily preyed upon by the piscivores in those pools. It is unlikely that the pools will remain through the summer.

The crews also sampled San Filipe Creek and were able to capture many DRM were captured, including at the Canal Street site, the farthest we have captured downstream in years. There had been a recent scouring event due to heavy rains in the area and much of the usual vegetation had been removed, but there was still more flow than usual, and water was flowing farther upstream than usual.

## Phantom Spring

On 17 June 2015, the TXFWCO and TPWD made a site visit to Phantom Spring to check on the condition of the repairs made to the spring pool caused by the 2014 flooding. The concrete had set and the repairs seemed to have solved the leaking problem of the old pool. The area was covered in huge sunflowers and looked beautiful. Unfortunately, a hive of aggressive, likely Africanized bees attacked the crew and we were forced to flee. The Bureau of Reclamation has promised to remove the aggressive bees soon.



Figure 3 Concrete repair inside of Phantom Cave. Pool has been sealed.

## **July Schedule of Activities:**

14-17 July 2015: Caddo Lake/Big Cypress Bayou partners meeting

8 July 2015: Ottine Dam Site Visit

27-30 July 2015: Camp Maxie fish community structure surveys

July 2015: Continue Emphasis Area priorities, goals, and objectives development

July 2015: Continue Salado salamander monitoring