

FY 2015

TXFWCO Activity Report: July



Searching for Salado Salamanders

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.

The teams continue to refine their priority conservation goals and the measurable objectives to attain these goals. The teams are conducting conference calls once a week and working in sub-groups to complete this task.

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.

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.

On 14-16 July 2015, Biologists from the TXFWCO, and its partners in the project conducted a site visit to the oxbow that we wish to reconnect to the Big Cypress Bayou. During the trip, the TXFWCO collected the data loggers from the radio telemetry towers from Phase one of the project. They will be redeployed for Phase two once it begins. The TXFWCO also met with representatives from the Collins Academy to discuss the outreach and education portion of the project and to help with the required paperwork.

Camp Maxey Community Structure Survey

A fish community and structure survey at two lakes on Camp Maxey was initiated on 27-30 July 2015. Officials of the Texas Military Forces would like to know the community composition and populations of fishes within two lakes in order to better manage their fisheries, and to promote recruitment of native mussel populations. Mapping of the lakes and habitats have been conducted and all that remains is survey the fish populations which will occur during the fall.



Figure 1 Diego Araujo sampling at Camp Maxey.

Salado Salamander Monitoring

Systematic sampling had been scheduled for June of 2015, however due to intense rainfall in May and early June, sampling was rescheduled for July. Sampling was conducted once a week for a three week period (July 9th, 16th, and the 24th). We conducted an opportunistic sampling on 24 June 2015, however the system was still in recovery from the large pulse due to heavy rainfalls within the area and the decision was made to reschedule the systematic sampling. Semipermeable membrane devices (SPMD) were deployed at Robertson Spring and at the Stage Coach Inn cave on 14 May 2015, and were retrieved on 2 July 2015. The samples were sent to the USGS Columbia Missouri Office for processing. Data from these samplers will include levels of polycyclic

aromatic hydrocarbons, organochlorines, polybrominated diphenylethers, and polychlorinated biphenyls present within the water.

Additional sampling was conducted to increase the chances of capturing salamanders within each site and expanding the knowledge about subsurface populations and surface population interactions. Drift nets and/or bottle traps were deployed at Robertson Spring, the Stage Coach Inn cave, Anderson, Benedict, Little Bubbly, and Big Boiling depending upon the characteristics of the site. One salamander was captured in the drift nets at Robertson Spring, the first capture of a salamander there since February of 2014.



Figure 2 Drift nets set at Big Boiling Spring.

National Fish Passage Program (NFPP)

Coastal Fisheries Biologist Chris Chapa met with Chad Stinson (Corpus Christi Ecological Services) and NRCS engineer Kim Graf (Natural Resources Conservation Service) at Buttermilk Slough to assess its potential as a fish passage project. The project area is a 600+ acre wetland drainage of Buttermilk Slough which drains into Turtle Bay, south of Palacios Texas, where the landowners are looking to preserve and enhance the tidal connection. The area is protected from Turtle Bay by a levee which is eroding due to wave action and storm damage, most notably tropical storm Bill.



Figure 3 Wave action during tropical storm Bill caused damage to the levee and culvert system that connects the slough to the bay.

August Schedule of Activities:

10-14 August 2015: Camp Maxie Fish Community Project

19-21 August 2015: East Texas/Oklahoma Emphasis Area meeting at Hagerman NWR

August 2015: Continue Salado salamander monitoring

August 2015: Begin Ottine Dam removal (water permitting)