

# SOUTHWESTERN NATIVE AQUATIC RESOURCES AND RECOVERY CENTER

## December 2015 Monthly Activity Report



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### STAFF

Center Director.....Manuel Ulibarri  
Deputy Center Director.....Vacant  
Administrative Officer.....Maria Bullard  
Administrative Technician.....Michelle Bell  
Office Assistant.....Casey Booth  
Fish Biologist.....William Knight  
Fish Biologist.....Ian Paige  
Fish Biologist.....Colby Crouse  
Fish Biologist.....Vacant  
Animal Caretaker .....Cecilia King  
Maintenance Mechanic.....Brian Hadlock  
Maintenance Worker.....Ty Terry  
Maintenance Worker.....Vacant

### RESEARCH

Research Unit Leader.....Wade Wilson  
Research Fish Biologist...Michael Schwemm  
Fish and Wildlife Biologist.....Tracy Diver  
Fish Biologist (Genetics).....Sandra Bohn  
Fish Biologist (Genetics).....Vacant

### FISH HEALTH

Fish Health Leader.....Martha Keller  
Fish Health Biologist.....Marlene Rodarte  
Fish Health Biologist.....Jason Woodland  
Fish Health Biologist.....David Hampton  
Fish Biologist.....Ashlie Peterson  
Fish and Wildlife Biologist .....Vacant



Ponds, Southwestern ARRC  
USFWS Photo

### Partnerships and Accountability

Fish health staff provided training and an overview of lab practices used to isolate *Myxobolus cerebralis* (causative agent of whirling disease in trout) to Joe Marcino, Arizona Game and Fish Department, Fish Pathologist. Mr. Marcino also received a tour of the Center and was provided a list of general laboratory supplies needed for conducting virology, parasitology, and isolation of *Myxobolus cerebralis* by pepsin-trypsin digest.



Joe Marcino, USFWS Photo

The Center had 2 visitors in the month of December.

## Aquatic Species Conservation Management

No fish were distributed during the month of December.

Approximately 500 individuals from each refuge species were collected from the ponds and brought indoor for the winter months. Bird netting was installed on nine C-series and four D- series ponds. These management actions insure survival of species during cold winter months and protect them from fish-eating birds that migrate through the area.

The secondary bonytail broodstock was harvested from the rearing ponds in preparation for sorting, data collection and shipping to their new holding site in late spring. Approximately 2,500 young of year Chihuahua chub were moved to the middle bay tanks in the Fish Culture building in preparation for release into the Mimbres River, NM in the spring of 2016.

Three shipments of ovarian fluid were received from Williams Creek NFH as part of their annual aquatic animal health inspection. These samples were received for screening of *Renibacterium salmoninarum* and other targeted viral pathogens. The Fish Health Lab also received two diagnostic cases; White Sands pupfish from Dr. Colleen Caldwell of New Mexico State University and fountain darters from the San Marcos Aquatic Resources Center .

Martha Keller and Jason Woodland participated in a conference call with staff from the San Marcos Aquatic Resources Center to coordinate future research, national wild fish health survey work, annual aquatic animal health testing and the recent findings of a diagnostic case involving fountain darters from the Comal River, TX.

## Leadership in Science and Technology



*N. amabilis* Preserved Developmental Series,  
USFWS Photo

An early life stage developmental series was completed for the Texas shiner (*Notropis amabilis*), a Pecos River Cyprinid. This work is part of a project to develop an illustrated guide for the cypriniform (minnows and suckers) fish larvae of the Pecos River, NM and TX. Nine species were identified and prioritized for culture, spawning and collection from 2012-2015. In 2012-2013 Southwestern ARRC staff completed series collections for roundnose minnow (*Dionda episcopa*), speckled chub (*Macrhybopsis aestivalis*), Arkansas River shiner (*Notropis girardi*), Rio Grande shiner (*Notropis jemezianus*), and Pecos bluntnose shiner (*Notropis simus pecosensis*). In 2014-2015 developmental series were completed for the Tamaulipas shiner (*Notropis braytoni*) and Chihuahua shiner, (*Notropis chihuahua*). The sole remaining species, Manantail roundnose minnow (*Dionda argentosa*), will be collected in the spring of 2016. The series consist of approximately 36 collections of 8 to 10 larval fish at designated timeframes over a

four-five month period. The samples are used to develop an illustrated guide essential for field and lab identification of larval fishes. This project is a collaborative effort with the Bureau of Reclamation, Museum of Southwestern Biology - University of New Mexico, American Southwest Ichthyological Researchers and USFWS Texas and New Mexico Fish & Wildlife Conservation Office's.

Research staff started to develop a study plan to examine the reproductive ecology of a Western chub species on station. They have been collaborating with other members of the facility for insight and scheduling. In addition, they have discussed aspects of the experiment with Dr. Colleen Caldwell (USGS/NMSU) to gain her insight and expertise for conducting fecundity studies.

## Leadership in Science and Technology cont.

Tracy Diver completed data collection for her pilot study that examines the source of lesions on San Juan River native fishes. She also submitted an abstract for the Annual Upper Basin Researchers Meeting to be held in Durango, CO in January. Sandra Bohn and Tracy Diver tested a new quantitative PCR (qPCR) protocol for the detection of *Renibacterium salmoninarum* the causative agent of Bacterial Kidney Disease (BKD). Assistance was provided by staff from the Southwestern ARRC Fish Health and the Northeast Fish Health Center (Lamar, PA). Part of the quality control/validation process for this project entailed the screening of 8 kidney samples that are also being screened at other U.S. Fish and Wildlife Fish Health laboratories across the country.



Michael Schwemm communicated with Nevada Division of Wildlife and USFWS Southern Nevada Ecological Services Field Office staff on proposed management actions for the Pahranaगत roundtail chub (*Gila robusta jordani*). Discussions included clarifying Southwestern ARRC's role in future collaborations related to captive propagation, stocking, genetic analyses of the broodstock and wild populations, and identification of habitats to maximize recruitment. Michael also traveled to southern Nevada and assisted with the collection of tissues samples from 70 adult fish captured at the Key Pittman Wildlife Management Area.

Michael Schwemm, Pahranaगत Roundtail Chub Fin Clipping, USFWS Photo

## Workforce Management

Brian Hadlock, Maintenance Supervisor (Maintenance Mechanic) began working at the Center on December 28. Brian recently retired from the United States Army after serving over 22 years. His last position with the military was as a Contracting Officer Representative/Contracting Quality Assurance NCO for the 401<sup>st</sup> Army Material Command (Kuwait). Brian has served in a variety of positions while in the US Army. Key assignments include, Contracting Officer Representative, Control Supervisor, Maintenance Supervisor, Shop Foreman and an Instructor Writer. Mr. Hadlock has been involved in many campaigns during his career in the Army from Operation Sea Signal in Cuba to Operation Iraqi Freedom in Iraq. Brian has enjoyed 11 years of marriage with his wife Khaoula, they have one son Zeyad. Welcome to the Southwestern ARRC Brian.

Sandra Bohn attended the 2015 New Mexico State University Fish and Wildlife Research Cooperative meeting in Las Cruces, NM. She had the opportunity to learn about ongoing research projects in the area and meet researchers involved in fish and wildlife conservation in NM. Sandra also submitted an abstract on White Sands Pupfish (*Cyprinodon tularosa*) population genetics for the Arizona/New Mexico chapter meeting of the American Fisheries Society that will be held in Flagstaff, AZ in February.



BRIAN HADLOCK, USFWS Photo

Administrative staff participated in conference calls with the Regional Office FAC program related to the review and comments provided on the *draft* FAC Administrative SOP's.

## *Workforce Management cont.*

Center staff attended numerous training, seminars and conference calls this month. Michael Schwemm viewed an Advanced Topics in Conservation Genetics seminar series titled, “Turning up the heat on invasive hybridization: Implications for native trout conservation in western North America.” Wade Wilson, Manuel Ulibarri, Martha Keller, and William Knight attended the annual Regional Fish and Aquatic Conservation (FAC) project leaders meeting in Albuquerque, NM. In addition, Wade Wilson and Martha Keller attended a National FAC meeting in Onalaska, WI. This meeting included Assistant Regional Directors and representatives from each Technology and Fish Health Center. The purpose of the meeting was directed towards setting short-term and long-term goals that relate to the new FAC Strategic Plan.

Fish Health and MEL staff members continued revising and drafting new SOPs and chain of custody forms for laboratory and field work.

William Knight, Ian Paige, Colby Crouse and Ty Terry completed the S-212 Wildland Fire Chainsaw training conducted at Bitter Lake NWR in Roswell, NM. Manuel Ulibarri, Ian Paige, Colby Crouse, Cecilia King and Ty Terry completed the Off-road Utility Vehicle Safety Training (ORUV) conducted at Southwestern ARRC. William Knight attended a Pesticide Applicators refresher course in Albuquerque, NM to renew his applicators license.



L—William Knight and Ian Paige, Chain Saw Training, R—ORUV Safety Training, USFWS Photos

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## *Additional Activities*

Precision Air of Roswell, NM worked on the boiler in the fish culture building and replaced the coil on the unit. Equipment sold on GSA Auctions was picked up; two pieces were sold a 2008 Chevrolet truck and 1250 John Deer tractor.

Ambient temperatures dipped into the single digits in December. Fish culture and maintenance staff finished winterizing all buildings, volunteer housing and vehicles prior to the cold snap. General maintenance of facilities and grounds included; mowing around the entrance area, ponds and roadsides. Maintenance staff also built new PVC stands and assisted in putting up cable and bird netting over ponds in the C and D series.

The Center recycled 150 lbs. of cardboard; 100 lbs. of paper; 60 lbs. of plastic; 17 lbs. of aluminum cans and 1lb. of empty printer toner cartridges this month.

### *Additional Activities cont.*

Winter storm “Goliath” hit the southeastern part of NM on December 27-29. Described as the storm of the century it dropped over 18 inches of snow, and blizzard like conditions created 6 to 8 foot drifts making roads impassable. Staff was able to clear a small section of the entrance road and parking area to monitor facilities and fish. Following the storm the ponds froze over and no immediate fish losses or facility damage was observed. Once the snow melts, staff will assess any damage caused by the storm.

A holiday luncheon and white elephant gift exchange was held on December 14<sup>th</sup> for all staff. In keeping with tradition, an “oops” SNAFU award was also voted on and provided to this year’s recipient Michelle Bell. Congratulations to the lucky winner!



Winter Storm “Goliath” , USFWS Photos

Staff Holiday Luncheon , USFWS Photo

### **Upcoming Activities**

- January 6-7 - Colorado River Aquatic Biologist (CRAB) Meeting, Laughlin, NV
- January 12-13 - 37th Annual Researchers Meeting of the Upper Colorado River Endangered Fish Recovery Program and the San Juan River Basin Recovery Implementation Program, Durango, CO
- January 13-14 - Gila Trout & Chihuahua Chub Recovery Team meeting, Albuquerque, NM
- January 25-29 – Rocky Plains Fish Pathologist Meeting, Geyserville, CA
- January 26-28 - Rio Grande Sucker and Rio Grande Chub Conservation Team Meeting, Taos, NM