

SOUTHWESTERN NATIVE AQUATIC RESOURCES AND RECOVERY CENTER



February 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.....Stephanie Callicutt

Fish Biologist.....William Knight

Fish Biologist.....Ian Paige

Fish Biologist.....Garrad Poole

Fish Biologist.....Tracy Diver

Bio Science Technician.....Vacant

Maintenance Mechanic.....David King

Maintenance Worker.....Ty Terry

Maintenance Worker.....Vacant

RESEARCH

Research Unit Leader.....Wade Wilson

Research Fish Biologist.....Renee Martin

Fish and Wildlife Biologist.....Vacant

Fish Biologist (Genetics)..Morgan Robinson

Fish Biologist (Genetics).....Vacant

FISH HEALTH

Fish Health Leader.....Teresa Lewis

Fish Health Biologist.....Marlene Rodarte

Fish Health Biologist.....Jason Woodland

Fish Health Biologist.....David Hampton

Microbiologist.....Linda Vannest

Fish and Wildlife Biologist...Ashlie Peterson



Mentorship with Tracy Diver, Renee Martin and Clare Shea USFWS Photos



Partnerships and Accountability

Tracy Diver and Renee Martin continued to mentor Goddard High School (Roswell, NM) student Clare Shea. Clare received hands on instruction with isolating DNA from fin clips, quantifying DNA using a Nanodrop spectrophotometer, setting up polymerase chain reactions, and running the amplified products using agarose gel electrophoresis. She also accompanied Tracy on a one day trip to attend the 48th Joint Annual Meeting of the AZ/NM Chapter of The Wildlife Society and Chapters of the American Fisheries Society (AZ/NM TWS/FWS) held in Las Cruces, NM. Clare was able to learn about research being conducted by students and professionals in the fields of wildlife and fisheries. Upon returning to the Center she was mentored on internship opportunities, resume writing, and job qualifications.

Renee Martin presented an oral presentation on the development of Colorado pikeminnow microsatellite markers at the 48th annual AZ/NM TWS/FWS joint meeting. She also participated

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Melissa Mata from the NM Ecological Services Field Office manages the information table at the AZ/NM TWS/FWS meeting. USFWS Photos

in the Student-Mentor lunch event while at the conference, where she provided encouragement and career guidance to both undergraduate and graduate students.

Manuel Ulibarri participated in a regional recruitment team for Pathways, Directorate Fellowship and Career Discovery Internship Programs. The team initiated their recruitment efforts with a visit to New Mexico State University (NMSU) on February 4-7. Information was provided to several hundred students during the NMSU Fish & Wildlife student chapters meeting; in multiple fish and wildlife biology and ecology classes, and during the AZ/NM TWS/FWS joint meeting. In addition, the team set up and manned an information table and display at the exhibitor's session. This was the highlight of the recruitment effort and garnered a tremendous amount of attention, questions and information exchange.

Aquatic Species Conservation Management

No fish were distributed during the month of February.

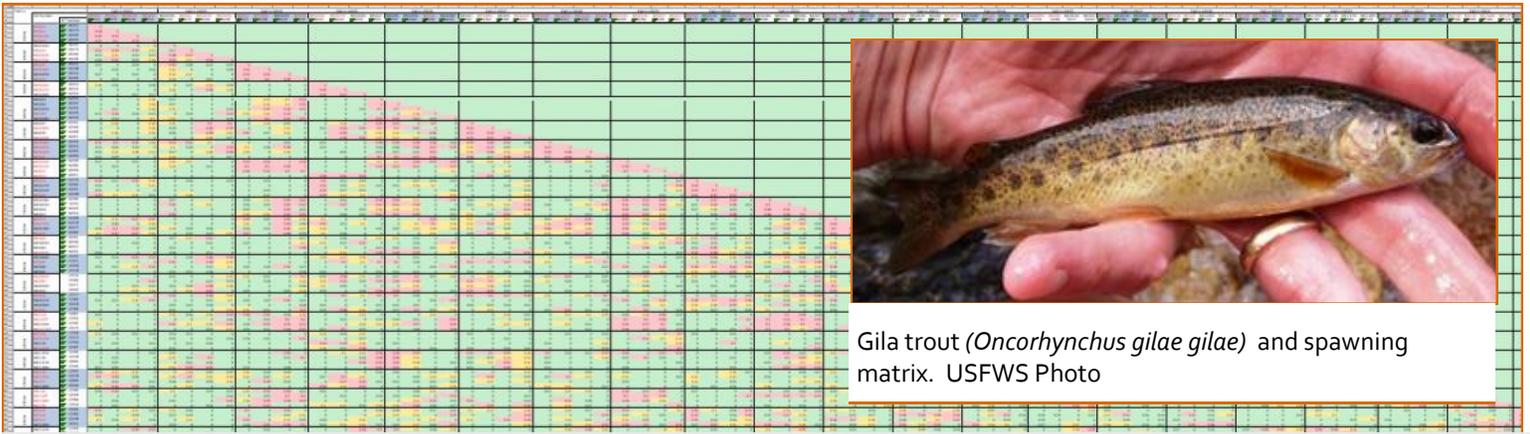


The Fish Health Unit partnered with staff from Oklahoma Department of Wildlife Conservation and Texas Parks and Wildlife Department to conduct wild fish health surveys on Lake Texoma on February 18. In total, 264 fish were sampled which included striped bass, gizzard shad, white bass, blue catfish, channel catfish, golden eye shiner, long nose gar black crappie and white crappie. Tracy Diver assisted with the survey and shadowed fish health biologists in the laboratory during the parasite screening of the samples.

On February 23, the Fish health Lab conducted the annual inspection of the Mescalero Tribal Fish Hatchery. Five lots of rainbow trout were sampled. Fountain darters samples from the San Marcos and Comal Rivers in Texas were provided by the San Marcos Aquatic Resources Center were for quarterly parasite examination. Of particular concern is the gill parasite *Centrocestus formosanus* and muscle parasite *Haplorchis pumilio*. Both are digenetic trematode parasites that utilize the invasive red-rimmed Melania snail as intermediate host.



Teresa Lewis and Linda Vannest processing samples at Lake Texoma. USFWS Photo

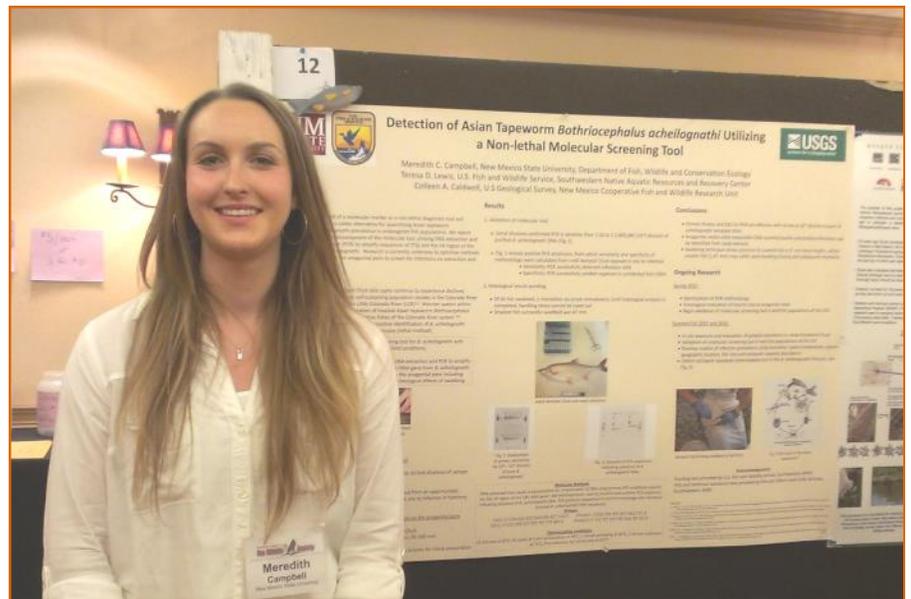


Gila trout (*Oncorhynchus gilae gilae*) and spawning matrix. USFWS Photo

Leadership in Science and Technology

Molecular Ecology Laboratory (MEL) staff completed genotyping Gila trout (*Oncorhynchus gilae gilae*) samples from the Main Diamond broodstock at Mora National Fish Hatchery to assist with creating a spawning matrix for the 2015 spawning efforts. In addition, a portion of the mitochondrial genome was sequenced for the Iron Creek population being maintained at the facility. Colorado pikeminnow (*Ptychocheilus lucius*) samples collected from Southwestern ARRC's broodstock were also genotyped along with 16 samples from the Green River and Desolation Canyon. The 10% QAQC and secondary scoring were also completed, and the data will be used as part of a project to compare the wild and captive populations. MEL staff also isolated DNA from 150 White Sands pupfish (*Cyprinodon tularosa*) collected from the Tularosa Basin at Holloman Air Force Base near Alamogordo, NM. The samples will be genotyped utilizing the microsatellite markers designed at Southwestern ARRC and data used to compare future translocations between Lost River and Salt Creek. The 10% QAQC and secondary scoring for the White Sands pupfish primer note was also completed this month. Cross species amplification was also characterized for three additional *Cyprinodon* species.

Preserved humpback chub and Rio Grande silvery minnow samples were sent to Dr. Wolfgang Vogelbein at the Histopathology Laboratory at the Virginia Institute of Marine Biology. He is a collaborating researcher working with the Center as a histopathology expert. The humpback chub samples are part of Meredith Campbell's graduate thesis research investigating the development of a non-lethal screening method for Asian tapeworm with utility for susceptible species of conservation concern in the Southwest. Meredith is a graduate student at New Mexico State University advised by Dr. Colleen Caldwell of the USGS Cooperative Unit who is collaborating with Center staff on this project. The Rio Grande silvery minnow samples were collected as part of on-going research to monitor for an amoebic pathogen recently described in this species.

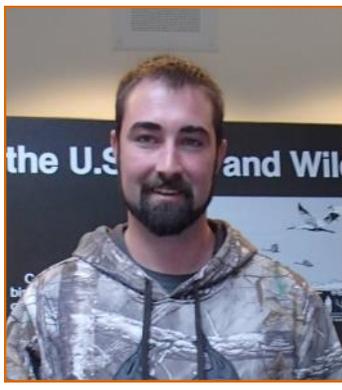


Meredith Campbell and her research at the poster session (AZ/NM TWS/FWS meeting) USFWS Photo

Morgan Brizendine, graduate student from the University of Arizona visited Southwestern ARRC to scan adult humpback chub (*Gila cypha*) as part of her thesis research, "Use of ultrasonic imaging to evaluate egg maturation of humpback chub in the Grand Canyon". The work is being conducted to develop methods and baseline to aide in determining egg development and maturation in humpback chub.



David King USFWS Photo



Ty Terry USFWS Photo

Workforce Management

Southwestern ARRC welcomed 2 new hires this month. David King started work on February 8 as Maintenance Mechanic, and Ty Terry started on February 22 as Maintenance Worker.

David comes to Southwestern ARRC from the National Parks Service (NPS). He was born and raised in Washington State. David is a distinguished military veteran and has lived in Texas, Wyoming, Colorado, Washington, North Carolina, New Mexico and Alaska. He earned an MBA in 2005 from

Alameda University in Boise, ID, and was hired in 2007 by the Fish and Wildlife Service at Kodiak NWR, Alaska, as a Maintenance Mechanic. In 2011, he began working for NPS at Mt. Rainier National Park in Washington State as a snow plow diver and heavy equipment operator. He received a Congressional Medal of Merit and Beyond the Call of Duty Medal in 2014. Ty Terry was born in Texas and grew up in Roswell, NM. He graduated from Goddard High School in Roswell, and began working with a local contractor. Ty has worked as a HVAC service tech and in commercial plumbing. He has an EPA license and a journeyman plumbing license. His hobbies include fishing and home improvement. Welcome to Southwestern ARRC, David and Ty!



Stephanie Callicutt, Michelle Bell and Maria Bullard at the Administrative Workshop. USFWS Photo

During the week of February 9-13, Maria Bullard, Michelle Bell and Stephanie Callicutt attended the Region 2 Administrative Workshop in Albuquerque, NM. They also attended an 8 hour webex on Records Management on February 26. Ashlie Peterson and Jason Woodland completed training at the National Conservation Training Center this month. Ashlie attended the Coldwater Culture course and Jason attended the Negotiation Skills for Conservation Professionals course. Tracy Diver continued to train in the Molecular Ecology Laboratory. Faith Warren, undergraduate intern from Texas Tech University, continued training in the Fish Health Unit learning molecular methods used for PCR confirmatory testing and protocols used for detection of *Myxobolus cerebralis*, the causative agent of whirling disease in salmonids. She also received an overview of the microsatellite and sequencing protocols used in the labs and travelled to the Mescalero Tribal Fish Hatchery to assist with sample collections.



Faith Warren and Morgan Robinson train in the MEL. USFWS Photo

DOI Learn on-line training completed by Center staff this month included; the Veteran Employment Training for Hiring Managers, the Uniformed Services Employment and Re-employment Rights Act and the 2015 FISSA training.

Planning for the upcoming Fish Health Biologists meeting that will be hosted by the Center continued with staff finalizing details related to the agenda, meeting logistics and the facility tour that will be provided. Center staff also participated in a number of meetings and conference calls this month, including the Region 2 Fisheries and Aquatic Conservation monthly call; Fish Health project leader call; the Southwest Region Emphasis Area activities call; the initial planning call for the 2015 Biologist Meeting; the Virgin River Recovery Team meeting and Grand Canyon Monitoring and Research Center humpback chub call and in the Advanced Topics in Conservation Genetics Webinar series.

On February 4, Stephanie Callicutt held an outreach meeting with Supervisors, discussing and scheduling upcoming events. Stephanie continues communication and planning with multiple local schools, venues and groups.

Additional Activities

Routine and preventive maintenance projects completed in February include pressure washing outdoor raceway #4; cleaning and storing bird netting removed from 18D, 19D, and 23D in preparation for pond harvest; sweeping and removing organic material from the B, C and D series ponds; cleaning and removing gypsum/calcium buildup and stains from fish culture fiberglass tanks, followed by permanent labeling of individual tanks for tracking purposes. Repairs were completed to the damaged skirting at volunteer quarters #2 and #3. Staff fueled up all generators on station and repaired 2 security lights on the maintenance building.

Riley Industrial Services Inc. of Farmington, NM completed rehab on the fish culture building water tower on February 12. Michael Zamora, Construction Inspector, USFWS Regional Engineering was on site February 2, conducting the final inspection on the project. The contractor recommended the system stay dry for two weeks to allow the new paint to cure. Southwestern ARRC staff plumbed and painted new PVC water lines from the sand trap to the packed column, replaced deteriorated gaskets, flanges and valves on the intake and water distribution lines servicing the fish culture building. The lift station pumps received an oil change and new belts prior to restarting the system on February 25.

Precision Air of Roswell, NM installed a new boiler in the Administrative building and replaced the air separator tank on the boiler system in the Fish Culture building. Journey Electric of Roswell, NM replaced a burned out fuse on the main power line to the isolation building.

Maintenance staff enclosed a doorway in the Bacteriology lab, providing additional wall space for equipment and better soundproofing for one of the Fish Health offices. They also painted the heating/cooling supply line covers on the Fish Health building HVAC system for UV protection. A new cover for the pond 2A valve box was constructed and the entrance area to the facility was mowed. A substantial amount of cleaning and organizing was completed to the Maintenance shop.

Maria Bullard installed three of the seven new computers during the week of February 23-27, including two new computers for Fish Health unit staff. Michelle Bell inventoried all the Desktop computers. Many thanks to Maria Bullard, local IT Administrator, and various staff from the Southwest Region's IRTM Office for their technical assistance.

Below average ambient temperatures continued in Southeastern NM this month. The Center received 3 inches of snow, .2 inches of rain and 12 visitors for the month of February.



Completed water delivery station USFWS Photo



William Knight helping with the sand trap reinstallation U.S.FWS Photo



New valve box cover at pond 2A. USFWS Photo

UPCOMING EVENTS

March 3	<i>Willow Beach NFH annual health inspection</i>
March 5-6	<i>Woundfin (VIE) tagging</i>
March 9-10	<i>Woundfin stocking, Virgin River, St. George, UT</i>
March 11-13	<i>Razorback sucker (PIT) tagging</i>
March 17-19	<i>Fish Health Biologists Meeting at Southwestern ARRC</i>
March 23-27	<i>Bonytail tissue collection-Research Unit Center staff; LCR MSCP/UNM/Southwestern ARRC collaborative project (Genetics and recruitment in off-channel water bodies of the Colorado River)</i>
March 24	<i>Rio Grande Silvery Minnow Genetic Management and Captive Propagation Workgroup Meeting</i>
March 26	<i>Razorback sucker spawning</i>
March 31	<i>Wild fish health survey in Fort Gibson, OK</i>
March 31	<i>Bonytail Refuge population meeting at Southwestern ARRC</i>



USFWS Region 2 Fish and Aquatic Conservation Staff and Admins that attended the Administrative Conference: (back) Jennifer Fowler-Propst, Nicole Osborn, Mark Dietrich, Julie Burks, Karen Welsh, Maria Bullard, Denise Jennings, Lisa Griego-Iyon, Carrie Gregory, Stephanie Karpowicz, Melanie Dabovich, Marta Estrada, ARD Stewart Jacks, Stephanie Callicutt, and DRD Joy Nicholopoulos (front) Kimberly Flowers, Nate Wiese, Vic Scott, Michelle Bell, and Lori Casados