

Southwestern Native Aquatic Resources and Recovery Center

May 2016

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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.....	Jesse Trujillo
Fish Biologist.....	Aaron Schmidt
Fish Biologist FONS	Vacant
Animal Caretaker.....	Cecilia Lamb
Maintenance Mechanic.....	Vacant
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 Biologist FONS.....	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



Endangered Species Day,
USFWS Photo

Endangered Species Day

The Southwestern Native Aquatic Resources and Recovery Center participated in Endangered Species Day on May 20, from 2:00 p.m. to 4:00 p.m. The Center had a total of 69 guests from the local community. All departments had educational activities for the children and parents to participate in, including learning the physical characteristics of threatened and endangered fish housed at the Center; measuring and mixing different elements of the periodic table to learn what outcomes can be created; “build-a-pupfish” craft, chalk art using basic fish outlines, mock-ups of fish parasites in petri dishes; “Build your own fish” event to teach children basic fish anatomy; displays of a razorback sucker, Colorado pikeminnow, Rio Grande silvery minnow, and Pecos bluntnose shiner; and a display of distribution trucks and tractors to demonstrate how the hatchery transports, distributes, feeds, and cultures the Center’s current population of threatened and endangered fishes.

Conserving Aquatic Species



Cecilia Lamb and Jason Woodland, Holdenville State Fish Hatchery Inspection, USFWS Photo



Humpback Chub Stocking, Havasu Creek, Grand Canyon National Park, USFWS Photo

Fish Health conducted the annual aquatic animal health inspection for the Uvalde National Fish Hatchery, Uvalde, Texas and the Holdenville State Fish Hatchery in Oklahoma. In addition the lab received and processed Apache trout samples provided by Williams Creek NFH and 120 fountain darters provided by the San Marcos Aquatic Resources Center for diagnostic testing. The fountain darters were tested for parasitology and virology as part of an ongoing study of fish collected from the Comal River and San Marcos River, Texas. Sandra Bohn completed molecular virus screenings for three fish health cases.

Woundfin broodstock were stocked into spawning ponds with gravel spawning beds and Colorado pikeminnow broodstock were harvested and sorted for spawning in June. Bonytail, Pahrangat roundtail chub and Rio Grande silvery minnow were spawned this month to meet partner fish requests,

research activities and Southwestern ARRC’s annual commitments. Pahrangat roundtail chub and Rio Grande silvery minnow larvae were stocked into their summer growout ponds and an additional 140,000 Rio Grande silvery minnow were provided to the Uvalde NFH. A total of 74,000 bonytail larvae were distributed to multiple state and federal partners and 697 bonytail (>300mm in total length) were stocked into Reach 2 of the Lower Colorado River (LCR) on behalf of the Bureau of Reclamation and the LCR Multi-Species Conservation Program. On May 18, Center staff hauled 305 Passive Integrated Transponder (PIT) tagged humpback chub from the 2015 year class to the South Rim of the Grand Canyon for translocation into Havasu Creek in the Grand Canyon National Park. In addition, Comanche Springs pupfish, Pecos bluntnose shiner, razorback sucker and bonytail broodstock were moved to their summer holding ponds.

Fish Distribution during the month of May

Species	Number	Size	Agency	Site
Bonytail	5,000	Larvae	STG	Aquatic Research & Conservation Center, AZ Game and Fish
Bonytail	15,000	Larvae	USFWS	Willow Beach NFH, Willow Beach, AZ
Bonytail	14,000	Larvae	USFWS	Upper Colorado River Endangered Fish Recovery Program, Ouray NFH- Grand Valley Unit, Grand Junction, CO
Bonytail	20,000	Larvae	USFWS	Upper Colorado River Endangered Fish Recovery Program, Ouray NFH – Randlett Unit, Vernal, UT
Bonytail	20,000	Larvae	STG	Wahweap SFH, Big Water, UT
Bonytail	697	316 mm	BOR	Lower Colorado River- R2 (Laughlin Lagoon Multi-Species Conservation Program, Lake Mohave, Arizona
Colorado pikeminnow	25	50 mm	USFWS	Upper Colorado River Endangered Fish Recovery Program, Ouray NFH- Grand Valley Unit, Grand Junction, CO
Humpback chub	305	130 mm	NPS	Havasu Creek, Grand Canyon, AZ
Rio Grande silvery minnow	140,000	Larvae	USFWS	Uvalde NFH, Uvalde, TX

Scientific Capacity

Tracy Diver attended the San Juan River Recovery Implementation Program's annual meeting held on May 13, in Durango, CO. At the meeting she presented a scope of work from the Research Unit that would estimate the effective number of breeders for both razorback sucker (*Xyrauchen texanus*) and Colorado pikeminnow (*Ptychocheilus lucius*) in the San Juan River using molecular techniques.

A total of 188 additional Neosho smallmouth bass (*Micropterus dolomieu velox*) were genotyped by Sandra Bohn using seven microsatellite markers. Mike Schwemm completed the secondary scoring and Tracy Diver will be conducting the QA/QC analyses. This project is in conjunction with the Oklahoma Cooperative Fish and Wildlife Research Unit. Research staff collected fin clips from adult Rio Grande silvery minnow (*Hybognathus amarus*) and preserved whole larvae (offspring) in an effort to examine parental contribution of spawned individuals. This management strategy was suggested by the Peer Review Group of the Middle Rio Grande ESA Collaborative Program, RGSM Genetics Project.

Sandra Bohn processed nine water samples collected from the Albuquerque BioPark Aquatic Conservation Facility. She centrifuged a 50 mL subsample from each sample and filtered the remaining water samples. The processed samples will be extracted and screened for *Microcystis*, a cyanobacteria genus that can create toxic blooms.

Fulfilling Tribal Trust Responsibilities

Martha Keller took part in the New Mexico Tribal ESA Working Group meeting on May 5th. A portion of this meeting was devoted to discussing the issues regarding the Bacterial Kidney Disease findings at Mescalero Tribal Fish Hatchery as well as at Williams Creek and Alchesay NFHs. Martha Keller gave an update regarding the findings and answered questions from concerned partners regarding future stocking of fish from these affected facilities.

Workforce Management & Training

Aaron Frater-Schmidt accepted a position with the Southwestern ARRC as a Fish Biologist. Aaron received his Bachelor of Science in Biology at Northland College in Ashland, WI and has worked at several private, state and federal fish culture facilities in the past. His aquaculture career began at the Mote Marine Lab in Sarasota, FL; followed by working at the NM Department of Game and Fish, Los Ojos Hatchery, and Prince William Sound Aquaculture Corporation in Cordova, AK. Most recently he joined the U.S. Fish

and Wildlife Service at the Gavins Point National Fish Hatchery in Yankton, SD, in 2015. Aaron is originally from Canyon, TX, and in his free time likes to hike, mountain bike, back pack and play sports. Welcome to Southwestern ARRC Aaron!

Cecilia Lamb began a two month cross-training detail in Fish Health this month. Cecilia works in the Fish Culture section and expressed interest in gaining experience in the fish health field. She has been training in virology, parasitology, and bacteriology and assisted with several site inspections at state and federal hatcheries.

Martha Keller attended the International Association for Aquatic Animal Medicine Conference in Virginia Beach, VA. She presented a case investigation regarding work she did while in the Cayman Islands. Michelle Bell attended the Leadership and Management for Non-Managers and Aspiring Supervisors from May 2-6 and Jason Woodland completed the online training for the Endangered Species Act of 1973 - Overview on May 19.



Aaron Frater-Schmidt,
USFWS Photo

Center staff participated in the Region 2 Fisheries & Aquatic Conservation (FAC) Monthly Conference call; the Virgin River Program Joint AC/TC meeting; the NCTC Warmwater Fish Culture Course development conference call; the NCTC "Field and Laboratory Techniques" course development call; the Grand Canyon Fisheries Conference Call; the National Wild Fish Health Survey & Database Committee Conference call, and the Southwestern ARRC outreach planning meeting.

Engaging and Educating the Public and Our Partners

Center staff participated in the Dexter Middle School's 6th grade science classes. On May 11-12, Fish Health and Molecular Ecology (MEL) staff conducted hands-on demonstrations with 82 students. Fish Health had a fish dissection wet lab with the students and MEL staff provided a lesson on fish anatomy, genetics and how genes can interact with the environment. Each student created a unique fish based on their envelopes of fish DNA. In the dissection session, trout and catfish were provided to students. Staff members assisted the students in identifying the major organs and comparing fish anatomy between species. The rainbow trout and channel catfish were provided by the NM Department of Game and Fish Rock Lake State Fish Hatchery in Santa Rosa, NM. Casey Booth and Michelle Bell assisted the Fish Health and MEL staff with their demonstrations.

Center staff participated in the spring meeting of the Rio Grande silvery minnow Genetics Management and Captive Propagation Work Group. This meeting updated all partners (Bureau of Reclamation, Interstate Stream Commission, U.S. Fish and Wildlife, and University of New Mexico) about recent and future propagation and genetic monitoring activities. The next meeting will be held in September.

The Center received 1" of rain and 87 visitors for the month of May; 69 participated in Endangered Species Day.

ENDANGERED SPECIES DAY &

DEXTER MIDDLE SCHOOL'S 6TH GRADE SCIENCE CLASS



USFWS Photos

Additional Activities

Keith Kohn (Thermo Fisher Scientific) conducted annual maintenance service for the 3130xl genetic analyzer. Rhoads from Roswell, NM, serviced the ice machine in the Fish Culture building. Fish health sent all necropsy gear into Corte Instruments for repair and/or sharpening and Tracy Diver performed basic freezer maintenance - cleaning filters and clearing ice from the chest freezers.

Light bulbs were replaced in the fish culture building. Weeds and grass were cut around all ponds, kettles and water valve cans and dirt and debris were cleaned out of ponds. Spawning substrate was added to the adult woundfin ponds prior to filling. Modifications were completed to the concrete cement lip at the front opening of pond 7A kettle structure for better drainage. In preparation for filling ponds, maintenance staff cut new stop logs and wedges for 12 ponds and repaired aluminum 1/8 inch mesh kettle screens where loose or damaged.

Additional Activities cont.

Sedona Contracting Incorporated from Ruidoso, NM, began the parking lot rehab project on May 9. The existing asphalt swale was cut, subgrade compacted and a new concrete valley gutter installed. Desert West a local subcontractor, completed the crack cleaning and filled/sealed them with rubber asphalt material followed by application of an asphalt emulsion sealcoating to the entire lot. Once completed it was allowed to cure for 48 hours and restriped. The final inspection of the project will occur in early June by the Regional Engineering Office.

On May 17-18, Manuel Ulibarri participated in a site visit to the Planet Ranch property near Parker, AZ, with representatives from the Bureau of Reclamation (BOR) offices in Nevada and Utah and USFWS personnel from Willow Beach NFH and the Flagstaff Arizona Fish and Wildlife Conservation Office. BOR is examining the feasibility of adding capacity to rear razorback sucker and bonytail at the Planet Ranch property on the Bill Williams River, recently acquired by the Lower Colorado River Multi-Species Conservation Program (LCR MSCP). In an attempt to meet future MSCP fish augmentation goals, this site has been identified as a potential location to build fish ponds; not a hatchery per se, but specifically designed to rear native fishes to stocking size in more of a logistical and natural way.

The Center recycled 200 lbs. of cardboard, 1 lb. of empty printer ink cartridges and 4 tires that were replaced on the 2013 Chevy-2500 extended cab truck.

Upcoming Activities

- June 1 – Lake Coulee Wild Fish Health Survey
- June 2 – Colorado pikeminnow spawning
- June 4 – Milkman Triathlon
- June 7 – Tishomingo NFH Annual inspection
- June 8 – Durant SFH (OK) Annual inspection
- June 14 – San Marcos ARC Annual inspection
- June 16 – Annual Station Safety Assessment



Asphalt Project, USFWS Photo



Planet Ranch, AZ, USFWS Photo