

SOUTHWESTERN NATIVE AQUATIC RESOURCES AND RECOVERY CENTER

March 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



Fish Health Biologists meeting attendees. USFWS Photo

Partnerships and Accountability

Southwestern ARRC hosted a national Fish Health Biologists meeting March 17 – 19. All USFWS Fish Health Centers were represented, as well as the Southwest Region Regional Office and Headquarters Fisheries and Aquatic Conservation Program. Agenda highlights included an envisioning exercise for the National Fish Health program, discussion and work planning regarding the future of the National Wild Fish Health Survey and database and revision efforts for the USFWS Aquatic Animal Health Policy. Meeting sessions were convened at the Bitter Lake National Wildlife Refuge and Southwestern ARRC. Staff provided the visitors with a tour of the facilities and hosted a fish fry/potluck luncheon the last day of the meeting.

A multi –agency meeting to discuss the newly created bonytail refuge population was held at Southwestern ARRC on March 31. Partners from throughout the Colorado River basin participated in person and by conference call. Center staff discussed the process used to create and maintain the stock; fish health monitoring and biosecurity requirements; identification of potential holding facilities and the criteria to be used to evaluate the facilities.

The semi-annual meeting of the Rio Grande Silvery Minnow Genetics Management and Captive Propagation Work Group was convened at the New Mexico Fish and Wildlife Conservation Office in Albuquerque, NM on March 24. Multiple partners attended the meeting and provided updates on their work with the species. Programmatic needs for 2015 were also discussed.



Clare Shea assists with Pecos River sampling. USFWS Photo

Matt Peralta, Fisheries Biologist with the New Mexico Department of Game and Fish, trained with the Fish Health Unit the week of March 30. Matt leads the agency's Fish Health program and provides health management and inspection services to New Mexico's state fish hatcheries.

Tracy Diver and Renee Martin continued to mentor Goddard High School student Clare Shea. This month Clare trained in the field and in the Molecular Ecology Laboratory where she was instructed on setting up multiplex PCR and genotyping White Sands pupfish samples. Outside of laboratory instruction, Clare discussed career paths and administrative operations with Maria Bullard and Stephanie Callicutt. She learned the importance of support staff and the roles they fill within the U.S. Fish and Wildlife Service. On March 18th Clare participated in field work with the opportunity to shadow staff from



Fish Culture staff harvest bonytail. USFWS Photo

the New Mexico Fish and Wildlife Conservation Office during their spring sampling of the Pecos River. Clare enthusiastically participated by seining and recording data which included depth measures and seine haul lengths. She enjoyed her experience and was excited to learn about the local fishes in southeastern New Mexico. The second field trip was to the Albuquerque Biopark Conservation Facility and Aquarium. While at the Biopark, she received a comprehensive behind the scenes tour of the facilities and discussed staff career progression. We thank the staff at the Biopark who graciously offered their time to talk with our student and her family.

Aquatic Species Conservation Management



NMSU students William Lubenau and Dominique Lujan assisted in Razorback sucker spawning. USFWS Photo

Warmer temperatures marked the start of the spawning season. Adult razorback sucker were harvested from their winter holding pond, sorted and 30 pairs spawned on March 26. Fish culture staff were extremely busy harvesting 8 ponds, prepping an additional 4 ponds to receive fish, and delivering several groups of fish this month. The first were 14,000, one year old bonytail to Achii Hanyo Native Fish Rearing Facility in Parker, AZ. The fish will be held at Achii Hanyo for grow-out and eventual stocking into the lower Colorado River on behalf of the Multi Species Conservation Program and Bureau of Reclamation. In addition, 8,750 Visible Implanted Elastomer (VIE) tagged woundfin were stocked into the Virgin River near St. George, UT and 4,037 were provided to the Wahweap SFH in Big Water, UT to hold for fall stocking.

FISH DISTRIBUTION FOR MARCH 2015

SPECIES	NUMBER	SIZE	AGENCY	SITE
Bonytail	14,000	80-90mm	USFWS	Achii Hanyo Native Fish Rearing Facility, AZ
Woundfin	8,750	65-75mm	STG	Virgin River near St. George, UT
Woundfin	4,037	65-75mm	STG	Wahweap State Fish Hatchery, UT

Wild fish health survey was completed at Grand Lake o' the Cherokees in Oklahoma in partnership with Oklahoma Department of Wildlife Conservation (ODWC) and the Oklahoma Fish and Wildlife Conservation Office. Sampling focused primarily on paddlefish, white bass, American shad, and mixed sunfish. The paddlefish were collected by local anglers and processed at the ODWC Paddlefish Research and Processing Center which collects biological data, processes the meat for anglers, and salvages paddlefish eggs as part of the regular sport season for the species.

Fish Health staff conducted the annual fish health inspection at Willow Beach NFH on April 7. Three lots of razorback sucker were sampled. Reproductive fluids from razorback sucker spawned at the Southwestern ARRC were submitted for virus screening as part of the Center's annual health testing. The lab also received Gila trout samples for virology and Bacterial Kidney Disease testing from four different lineages (Main Diamond, South Diamond, Whiskey Creek, Iron Creek) spawned at the Mora NFH. Two diagnostic cases were submitted by Uvalde NFH in March. Comanche Springs pupfish were screened for parasites and fountain darters were submitted to determine the effects of treatment for *Ichthyobodo necator* infection.

Leadership in Science and Technology

Several in-house studies were started this month. The studies will examine the correlation (if any) of gender, growth and reproductive readiness. Research and Fish Health staff examined the 2014 bonytail and 2013 woundfin and record length, weight, and gender morphometrics.

One hundred fish were examined to determine the potential for selection bias during the sorting of fish by size to meet the target stocking lengths. The second project entailed examination of two year old woundfin (*Plagopterus argentissimus*) to determine gender and extent of breeding tubercles. Length data collected in the field has been used to estimate size of sexual maturity of wild fish. The data collected from this study will be analyzed in the near future and provided to the Virgin River Recovery Program, Utah. The data for both projects will also inform Fish Culture staff on how early gender can be determined for each species.

Molecular Ecology Lab (MEL) and Fish Culture staff collected fin clips from 480 bonytail (*Gila elegans*) for the University of New Mexico. These samples are part of an independent research study that is examining natural recruitment of bonytail released into backwater habitats in Lake Havasu, AZ. Fish culture staff sorted the fish by sex and size, PIT tagged and collected length weight data prior to the fish being shipped.

Limited Rainbow trout sequences are archived on Genbank. In order to estimate introgression and hybridization of rainbow trout with Gila trout, Renee Martin and Tracy Diver sequenced the mitochondrial ND4 gene for 6 Rainbow Trout strains. The sequences are being used as a reference to compare with other trout.



Fish Health Staff process samples at Grand Lake o' the Cherokees, OK. USFWS Photo



Research and Fish Health staff conduct necropsy and gender identification of bonytail. USFWS Photo

Workforce Management

Tracy Diver continued to train with Molecular Ecology Laboratory (MEL) staff. Tracy was introduced to the basics of ArcGIS, data analysis, laboratory safety, and laboratory equipment maintenance.

Teresa Lewis, Wade Wilson, Maria Bullard and David King attended the EEO/Diversity training offered at Bitter Lake National Wildlife Refuge in Roswell, NM on March 4. Two hours of each type of training were provided by Bobbea Cadena, EEO Specialist from the regional Diversity and Civil Rights Office.



Linda Vannest, Microbiologist in the Fish Health Unit, received her 20 year certificate and pin at the fish fry/potluck luncheon at the Center on March 19. Her employment anniversary date is March 5. Faith Warren (volunteer) from Texas Tech University started working in fish culture on March 9th. New Mexico State University students Dominique Lujan and William Lubenau volunteered in fish culture assisting in razorback sucker spawning and PIT tagging bonytail during their Spring break from classes.

All staff completed the 2015 FISSA Training in the month of March. Michelle Bell took the first two Records Management tests, and Maria Bullard submitted the Administrative portion of the Annual Report for BFY 2014. David King and Ty Terry PIT tagged fish, and both received their USAccess Credentials cards.

The Outreach team met on March 10 to finalize the details of upcoming outreach events. A group of 16 recreational vehicle (RV) travelers visited the Center on Friday, March 20. Wade Wilson and Teresa Lewis each gave a presentation about the Center and Health Unit, then answered questions from the group.

Linda Vannest was presented her 20 year certificate and pin. USFWS Photo

Center staff participated in a number of meetings and conference calls this month, including the Region 2 Fisheries and Aquatic Conservation monthly call; the Virgin

River Recovery Team meeting; The San Juan River Biology Committee Conference Call; the USFWS Ecological Services and Los Lunas Rio Grande silvery minnow refugium 2015 permit and operations review call, and the Bureau of Reclamation, Salt Lake, UT call to discuss the razorback sucker and Colorado pikeminnow larval fish study at the new Hogback diversion weir on the San Juan River.



Fish Culture and Maintenance staff repair pond liners. USFWS Photo

Additional Activities

Riley Industrial Services Inc. of Farmington, NM returned to Southwestern ARRC to repair small leaks on the refurbished sand trap. Greenfield Electric of Dexter, NM replaced two cooling fans on the water tower lift station variable flow device (VFD).

Staff conducted general up-keep and maintenance of Southwestern ARRC grounds and facilities; including cleaning ponds, pond liner repairs, mowing, weed eating, tree removal / trimming and cleaning buildings. The lawn mowers, weed eaters, tractors, backhoe and brush hog were serviced. An electrical problem in one of the on-site housing trailers and

damaged fence was repaired. Two projects at the Fish Health building were completed; a wall was rehabbed in one of the offices, and a condensation drain line from the cooling system was installed on the exterior of the building. A number of ballasts were replaced in the fish culture building repairs were completed to the plastic liner on pond 4C. The Center also received its new dump truck that was ordered last year and recycled 200lbs of cardboard and 40 lbs. of plastic.

Ambient temperatures began warming up this month. The area received .35" of rain and the Center had 70 visitors in March, including students and families that were on spring break.



New Freight Liner dump truck USFWS Photo

UPCOMING EVENTS

April 7	<i>Alchesay NFH fish health inspection</i>
April 18	<i>Earth Day Celebration at the Carlsbad Living Desert Zoo</i>
April 20-24	<i>Chihuahua chub spawning</i>
April 22	<i>Williams Creek NFH fish health inspection</i>
April 27-30	<i>Bonytail spawning</i>
April 29	<i>POS-i-tive Change Fair at Dexter High School</i>