



U.S. Fish & Wildlife Service

Currents

Fiscal Year 2012
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REGION 2 – SOUTHWEST REGION

Fisheries Program Highlights

(October – December 2011)

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Edited by Jeremy Voeltz, Arizona FWCO



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Interior Secretary Ken Salazaar assisted with the stocking of Rio Grande silvery minnow in the Rio Grande, Big Bend National Park, Texas

Read the complete story on page one

Rio Grande Silvery Minnow Stockings at Big Bend National Park



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Dexter NFHTC spawned, grew, and transported Rio Grande silvery minnow for stocking into its native range

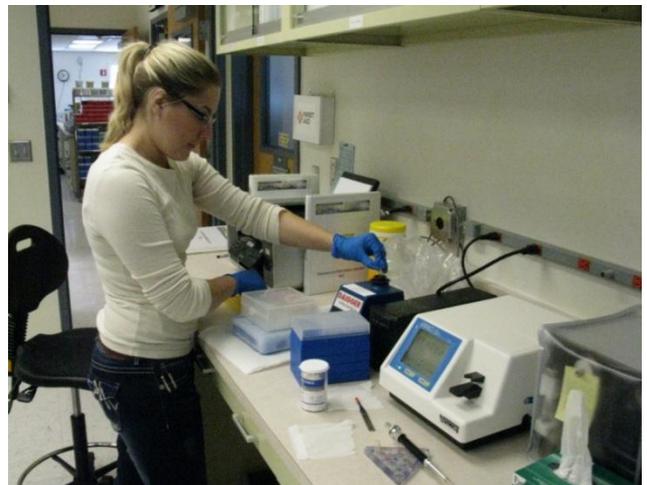
In October 2011, New Mexico FWCO personnel with assistance from Texas FWCO, Dexter NFHTC, Austin Ecological Services Field Office, and private, state, federal, and international collaborators completed the fourth of five initial releases of endangered Rio Grande silvery minnow into the Rio Grande in Texas. During this effort, a total of 304,651 Rio Grande silvery minnow were released at four locations in the Rio Grande within and Near Big Bend National Park, Texas.

Since 2008, over 1.7 million Rio Grande silvery minnow have been released under this recovery program. Recent monitoring efforts have documented spawning activity, recruitment, along with survival and dispersal of stocked Rio Grande silvery minnow. We are excited about the continued success of this recovery project that is resulting in demonstrable, on the ground improvement of this endangered species' status.

Jason Remshardt, New Mexico FWCO

Dexter NFHTC Trains Graduate Student

During the Fall 2011 semester, Dexter NFHTC provided hands-on laboratory training to a graduate student from Lehigh University in Bethlehem, PA. She is working towards completion of a distance learning Molecular Techniques course and received training necessary to meet the laboratory requirements of the course. Under guidance from the Dexter staff, she learned basic lab techniques and safety procedures used in the Molecular Ecology and Physiology & Pathobiology Laboratories. She also assisted with several ongoing station projects.



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A Lehigh University graduate student receives training at Dexter NFHTC

Renee Martin, Dexter NFHTC

San Marcos NFHTC Maps Endangered Species Habitat

San Marcos NFHTC and Texas FWCO are working with Texas Parks and Wildlife Department, Edwards Aquifer Authority, San Antonio Water System, and USGS to map and measure Comal Springs' multiple spring orifices, upwellings, and seepage areas for future hydrological and ecological studies. Despite their significance, no database or maps of the various springs that make up Comal Springs exist. This project aids instream riparian restoration efforts and refines rare species habitat sampling as part of continued monitoring and adaptive management.



Cheryl Barr

Comal Springs, New Braunfels, Texas is an important habitat for four endangered aquatic species

Comal Springs is the largest spring in the southwestern United States, providing an average of 188 million gallons of water per day. These springs flow from the Edwards Aquifer which is the primary source of water for the City of San Antonio and various other communities. They also provide habitat for four endangered species.

Randy Gibson, San Marcos NFHTC

New Mexico FWCO Partners with Local Charter School



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NMFWCO partnered with Amy Beihl Charter High School and several other partners to develop the Rio Grande Silvery Minnow Sanctuary Environmental Education Center located in Albuquerque, New Mexico. In October 2011, 10 freshman students spent the afternoon removing and learning about invasive vegetation. Students will continue to spend time each month for the 2011-2012 school year at the sanctuary volunteering to remove non-native species and sedimentation, designing and planting pollinator gardens, protecting cottonwood trees from beavers, and designing and constructing trails.

Joaquin Baca, Regional Office Fisheries

Students remove invasive plant species from the nature sanctuary

Fish Passage Project Completed in Oklahoma



USFWS

Box culverts on the Little River in Oklahoma allow unrestricted fish movement

A Fish Passage Project was recently completed on Watson Creek, a tributary to the Little River in southeastern Oklahoma. This project is part of a larger effort within the Little River drainage to restore the natural function of this river, where fish (specifically leopard darter and Ouachita shiner) and other aquatic species can move freely within all stream segments while still allowing for the responsible harvest of timber in the area. The refurbished crossing was completed in December 2011 by replacing the embedded culvert structure with a box culvert structure. Partners included the Oklahoma FWCO, John Hancock Forest Industries, U.S. Forest Service, and Oklahoma Department of Wildlife Conservation.

Clayton Porter, Oklahoma FWCO

Record Number of Rio Grande Silvery Minnow Tagged

In November 2011, Dexter NFHTC staff and partners from the New Mexico FWCO, City of Albuquerque Bio-Park, and New Mexico Interstate Stream Commission - Los Lunas Refugium tagged more than 135,000 Rio Grande silvery minnows using visible implanted elastomer (VIE) tags. The 10-person crew tagged over 27,000 fish a day, over the five day period, to meet the 2011 augmentation goal for the Middle Rio Grande. Though the process is tedious and time consuming because each fish is handled individually, the daily tagging totals exceeded previous tagging efforts by 100%! VIE is one of four common marking methods used by fish biologists to uniquely identify captive reared versus wild caught fish. Once tagged the silvery minnow were stocked into six locations in the Middle Rio Grande, New Mexico.



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Prior to stocking, these Rio Grande silver minnows are tagged with a yellow VIE tag

Kim Yazzie, Dexter NFHTC

Tishomingo NFH Displays Paddlefish for the Public in October

During October 2011, Tishomingo NFH participated in a month long outreach event at a local farm themed park designed for children of all ages. Hatchery staff retrofitted a fiberglass circular tank with a new wire mesh lid and a small pump to circulate water, designed a stand-alone poster to be displayed beside the tank, and visited the site once per week to clean the tank and exchange the two paddlefish with other paddlefish from the hatchery to keep stress at a lower level. Each weekday in October was booked solid with bus loads of local children and their families visiting the site. Other attractions included a hay ride, pumpkin patch, petting zoo, corn maze, giant slide, tricycle derby, corn bins, General Store, and refreshments. This event served as an excellent way for families to enjoy the outdoors, and for us to foster local partnerships while we provided hands-on activities for local children.



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Two large adult paddlefish lurk beneath the surface of the display tank at Tishomingo NFH

Mary Davis and Ralph Simmons, Tishomingo NFH

Fish Health Facility Expansion at Dexter NFHTC



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The new Fish Health facility at Dexter NFHTC

A 700 sq ft. addition to the Dexter NFHTC Fish Health building was completed in December, adding much needed space to the bacteriology and parasitology laboratory. This expansion will enhance the Service's scientific capacity, and the added capacity will help ensure that the Service does not accidentally move diseased fish into our facilities from efforts to rescue aquatic species impacted by drought and wildfire.

Bill Williams, Dexter NFHTC

New Pond Liners at Uvalde NFH



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In September and October 2011, Uvalde NFH received funding to install reinforced EPDM lining in two of the one-acre ponds at the hatchery. The placement of the lining material will save water, reduce chemical use, and prevent potential loss of endangered fish due to excessive aquatic vegetation growth. Prior to the pond lining staff had to remove vegetation from the pond by hand. The EPDM lining material was selected due to its durability and easiness to repair. In addition, the pliable liner is also textured, which makes it safer to walk on, and does not buckle as readily as other pond lining materials.

Karin Eldridge, Uvalde NFH

New pond liners at Uvalde NFH will conserve water and provide a safer walking surface

Razorback Suckers Stocked in Lake Mohave, Arizona

In November, 500 five-year old razorbacks, weighing an average of 2.5 pounds each, were loaded into a dual tank stocking trailer and transported 750 miles from Dexter NFHTC to Willow Beach NFH in Arizona. The fish were then moved to a Willow Beach NFH stocking truck and acclimated to Colorado River water with the assistance from Willow Beach NFH staff before being stocked into Lake Mohave. All the fish were tagged with a passive integrated transponder (PIT) tag one month prior to transport. A PIT tag is a low frequency transponder, just bigger than a grain of rice, which is injected under the skin giving each fish a unique identification number for future tracking in the wild. This work is part of an ongoing effort to restore razorback suckers to their native waters.

Ian Paige, Dexter NFHTC



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Razorback suckers are PIT-tagged before their long journey from Dexter NFHTC to Arizona

Dexter NFHTC Fish Health Unit Receives Fisheries Award



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In October 2011, Region 2 Fisheries ARD Mike Oetker presented the Fish Health staff at Dexter NFHTC with a Fisheries Conservation Award for their work efforts related to viral pathogen surveillance in the region in 2010. The framed award has bonytail and razorback sucker prints by artist J. R. Tomelleri along with two commemorative U.S. Fish and Wildlife Service buckles. The plaque now hangs in the Fish Health office building.

Tours of the Fish Culture, Fish Health, and Research facilities on station were provided to the Regional Office staff by personnel from the various units with an emphasis on program overviews and science capacity at Dexter NFHTC.

Teresa Lewis, Dexter NFHTC

Gila Trout Stocking on Mount Graham in Arizona



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In November, staff from the Arizona Game and Fish Department, U.S. Forest Service, and Arizona FWCO stocked Gila trout into Frye Creek on Mount Graham in Southeastern Arizona. This was the third and final stocking of Gila trout in the creek which has resulted in an established recovery population.

Fish were provided by the Mora NFHTC and a large portion of the funding for this project came from the 2009 Reinvestment and Recovery Act.

Jeremy Voeltz, Arizona FWCO

Staff from the Arizona FWCO hike Gila trout in 5-gallon buckets to the stream to be stocked

Volunteers Honored at Inks Dam NFH Dedication Ceremony



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In October, Inks Dam NFH gave out USFWS Volunteer Awards at the dedication of the newly finished Environmental Education Building. For the 2011 Fiscal Year, 33 volunteers donated more than 2,000 hours working on administrative tasks, outreach, outdoor education, hatchery operations, and construction work. The top 14 volunteers provided more than 1,800 hours total of volunteer time, which shows the amount of dedication these folks have in assisting not only the Service and the facility, but also visitors and youth in Central Texas. Others in attendance at the awards ceremony and Environmental Education Building dedication included the Region 2 Deputy Regional Director, Inks Dam NFH Friends Group, Highland Lakes Master Naturalists, and staff from Balcones Canyonslands NWR.

Paul Dorman hands out awards for the dedicated volunteers at Inks Dam NFH

Paul Dorman, Inks Dam NFH

Winter Volunteers at Uvalde NFH

In December, Patricia Schenk and Thomas Jetzer, from Indiana, arrived at the hatchery to volunteer for the winter. Their projects included working on the hatchery's living quarters, maintaining vehicles, caring for the Texas wild rice plants, assisting with tagging fish, and assisting with harvesting ponds. The volunteers are a welcomed addition to the Uvalde NFH team, and they are planning to come again next year. This was the third year in a row Uvalde NFH had winter volunteers.

Karin Eldridge, Uvalde NFH



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Volunteers from Indiana enjoyed their winter at Uvalde NFH

Eagle Scout Project at Uvalde NFH

Uvalde NFH partnered with a local Boy Scout from Troup 81 in Uvalde, Texas, to assist with the completion of an Eagle Scout project. The project entailed the construction and installation of over 30 wildlife information and education signs around the Uvalde NFH's new wildlife trail. The Eagle Scout candidate was responsible for organizing and managing all aspects of the project to complete the sign installations. In return, the hatchery provided all the materials necessary (the sign posts, signs, concrete, tools, and wood preservative).

Grant Webber, Uvalde NFH



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A Boy Scout installs outreach signs at Uvalde NFH

Paddlefish Population Monitoring at Eufaula Lake in Oklahoma



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This large adult paddlefish was sampled recently in a survey of Eufaula Lake

The Oklahoma FWCO has been conducting a paddlefish population assessment on Eufaula Lake in Oklahoma to assess restoration efforts ongoing since 2007 in cooperation with the Tishomingo NFH and Oklahoma Department of Wildlife Conservation. Stocked fish are doing well, with growth rates that are comparable to other paddlefish populations in Oklahoma. Males are reaching sexual maturity and females should be nearing sexual maturity within two years. This is an indication that the population should begin natural spawning and recruitment.

Clayton Porter, Oklahoma FWCO

Aquatic Temperature Monitoring in Leopard Darter Habitat



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Staff from the Oklahoma FWCO collect water temperature data loggers in the Little River Drainage

The Oklahoma FWCO established two additional aquatic habitat monitoring sites in the Little River drainage to gather additional information about the habitat of the threatened leopard darter.

Temperature monitors were set in two areas where known leopard darter populations are located. These devices collect temperature data on an hourly basis throughout the water column which documents diurnal and seasonal fluctuations throughout the water column. The two sites are located on the Glover and Mountain Fork Rivers of the Little River drainage in Southeastern Oklahoma, which are two of the five rivers where leopard darters are found.

Clayton Porter, Oklahoma FWCO

Tishomingo NFH Hosts SCEP Employee

In December, Tishomingo NFH hosted a Student Career Experience Program (SCEP) participant. Aaron White, a military veteran and student attending Rogers State University in Claremore, Oklahoma assisted the hatchery for three weeks between school semesters. Duties included equipment repairs, water monitoring, and pond repairs, making excellent use of his capabilities learned from previous military and private sector jobs.

SCEP was established to recruit high quality employees into the Federal Service, support equal employment opportunity objectives, provide exposure to public service, and promote education.

Ralph Simmons, Tishomingo NFH



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Aaron White, a USFWS SCEP employee, assisted at Tishomingo NFH

Alligator Snapping Turtle Sex Determination Techniques

Because juvenile alligator snapping turtles lack secondary sex characteristics, the only non-lethal method to determine gender is with the use of a surgical laparoscopic technique. The Tishomingo NFH is currently assisting Dr. Day Ligon from Missouri State University and Dr. Kay Backues, DVM, Director of Animal Health of the Tulsa Zoo, in generating an age-specific description of juvenile alligator snapping turtle gonads and genitalia. Twelve turtles from three age classes were examined using endoscopic and cloacoscopic procedures performed by Dr. Backues. Images of each turtle were captured and sex determined by the presence or absence of egg follicles, which resemble bubble wrap. Cloacal exams were also performed to determine the age at which turtles' genitalia begin to differentiate. The new techniques will allow hatchery biologists to stock known sex ratios of alligator snapping turtles into the wild, furthering the conservation management of the species by stocking a proper sex ratio.



Endoscopic image of the lung (top), ovary (middle) and intestine (bottom) of a yearling alligator snapping turtle.

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Brian Fillmore, Tishomingo NFH



Southwest Region Fisheries Division

National Fish Hatcheries

The National Fish Hatcheries (NFH), at Willow Beach, Alchesay-Williams Creek, Uvalde, Tishomingo, and Inks Dam develop and maintain brood stocks of important fish species, both sport fishes and critically imperiled non-game fishes. The hatcheries are the source of fish and eggs distributed to partners with similar aquatic conservation missions, such as native fish restoration or fulfilling federal mitigation responsibilities. Hatcheries are often called upon to provide a place of refuge for imperiled aquatic organisms, such as aquatic plants and amphibians.

Fish and Wildlife Conservation Offices

The Fish and Wildlife Conservation Offices (FWCO) in Arizona, New Mexico, Oklahoma, and Texas evaluate wild native fish stocks and their habitats, and work with partners and other Service programs to restore habitats and fish populations.

These offices provide technical fish and wildlife management assistance to tribes and other partners with a primary focus on native aquatic species.

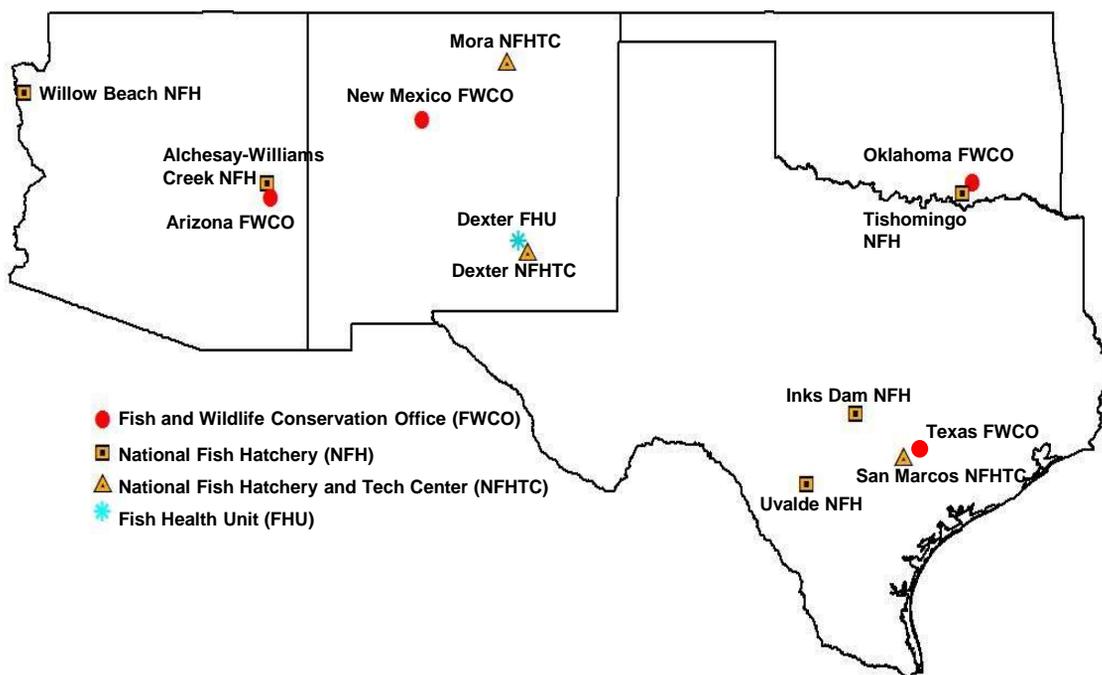
Fish Technology Centers

The Fish Technology Centers (NFHTC) at Dexter, Mora, and San Marcos develop leading-edge technology for use by tribal, state, and federal fish hatcheries and fishery biologists to make fish culture more productive, cost-effective, and scientifically sound.

Technology improves hatchery efficiency, helps assure the genetic integrity of fishes, at the same time minimizing the effects of hatchery fish on wild fish stocks.

Fish Health Unit at Dexter

The Fish Health Unit (FHU) at Dexter assesses the well-being of fish that live in the wild or are raised at hatcheries. Fish health biologists are highly trained in various scientific disciplines, like immunology, epidemiology, toxicology and genetics. They apply that knowledge in fish health assessments that might lead to early detection of potentially devastating diseases, prescribing preemptive measures.



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