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REGION 2 – SOUTHWEST REGION

Fisheries Program Highlights

(January – March 2010)

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Edited by Jeremy Voeltz, Arizona FWCO

Biologists in the Region 2 Fisheries Program have recently implemented creative ways to connect youth and young adults with nature

Read the complete story on page 1

Connecting Young People with Nature

Throughout its history, the Fisheries Program of U.S. Fish and Wildlife Service has created and supported opportunities to catch fish and to spend time outdoors. We engage local communities to help us provide hands-on learning experiences for youth in those areas. We work side by side with states, Native American tribes, conservation organizations, and the recreational fishing industry in pursuit of our shared goals to get youth outdoors. As part of these programs, we are striving to improve our efforts, guided by our Strategy for Connecting Young People with Nature.

Mike Oetker, Assistant Regional Director – Division of Fisheries and Aquatic Resource Conservation

Region 2 Fisheries Develops New Education Program

Jennifer Johnson (Arizona FWCO) and Rebecca Fillmore (Tishomingo NFH) were recently chosen as Co-Coordinators for the development of the Region 2 Recreational Fishing and Outdoor Education Program (RFOEP). Our RFOEP will implement new, creative ways to energize youth and instill a life-long commitment to protect, preserve, and enjoy our natural environment and cultural treasures. The Fisheries Program will focus its efforts on connecting youth (ages K-12th grade) and young adults with nature. The RFOEP will be one way in which the Fisheries Program will promote fishing and aquatic resource awareness to learn about the Southwest's aquatic environments.

Jennifer Johnson, Arizona FWCO

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Region 2's new outreach program

NMFWCO Conducts Outreach for Tribal Students

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New Mexico FWCO staff show college students the native fishes of the Rio Grande.

Staff from the New Mexico FWCO participated in an outreach workshop at the Southwestern Indian Polytechnic Institute to provide an opportunity for Native American college students to learn about job and internship opportunities available within the Department of the Interior. Approximately 500 college students participated in the workshop.

New Mexico FWCO staff described their job duties, including monitoring and management efforts for endangered and threatened fish species, recreation and native species restoration on tribal lands, and salvage efforts for the Rio Grande silvery minnow. Staff also presented a live fish display which included the native fishes of the Rio Grande River basin.

Angela James, New Mexico FWCO

Youth Hiring at Uvalde NFH

A new requirement for students in the wildlife management program at Southwest Texas Junior College is to volunteer eight hours per week in a wildlife related position. Uvalde NFH received several inquiries, and Katrina Huerta was chosen to volunteer her time. She has quickly learned the routine of the hatchery, and carried out assigned responsibilities effectively and independently.

The good experience that we had with Katrina inspired us to pursue paid employment opportunities for students interested in biological careers, such as the Student Temporary Employment Program, in addition to the existing Youth Conservation Corps program at the hatchery.

Rick Echols, Uvalde NFH

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A student from Southwestern Texas Junior College assists with hatchery operations at Uvalde NFH

Tishomingo NFH Helps with Easter Egg Hunt

The Tishomingo NFH participated in this year's Tishomingo Easter Egg Hunt at the end of March hosed by local Emergency Medical Services, fire and law enforcement departments. Tishomingo NFH's educational display attracted more than 150 children and 75 adults, and all were excited to view four different species of live turtles native to Oklahoma. Children were offered sport fish posters and the Service activity book, "Fishing A B C's", in hopes of furthering their interest in the outdoors. The alligator snapping turtle, by far, was the star of the show with one child even naming the turtle "Flapjack"! Five different age groups including "kids" over 50 years old participated in the Easter egg hunt. The Tishomingo NFH appreciates working with local partners and will likely be sharing the spotlight with Easter bunnies and colorful eggs in the future.

Rebecca Fillmore, Tishomingo NFH

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Staff from Tishomingo NFH display Oklahoma's native turtles

Angling Opportunities for Gila Trout in New Mexico

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Retired Gila trout broodstock from the Mora NFHTC are stocked into streams for angling opportunities.

In February, 495 Gila trout were stocked into the mainstem Gila River and Sapillo Creek in New Mexico, helping to establish and a maintain a recreational Gila trout fishery for the first time in nearly 50 years. Gila trout used in these stockings were the were reared at Mora NFHTC, and were produced in excess of recovery needs.

The species was downlisted to threatened in 2006, which allowed for the Service and state of New Mexico to create unique sportfishing opportunities found no where else in the world.

Dustin Myers, New Mexico FWCO

American Reinvestment and Recovery Act

The U.S. Fish and Wildlife Service will use more than $4 million in American Reinvestment and Recovery Act funding to improve fish habitat and Fisheries facilities in the Southwest Region. The Recovery Act projects will upgrade and rehabilitate many 1930s era facilities, create safe and efficient work environments, and improve energy efficiency to save money and reduce our carbon footprint.

Mike Oetker, Assistant Regional Director – Division of Fisheries and Aquatic Resource Conservation

Raceway Rehab at Alchesay-Williams Creek NFH

Alchesay-Williams Creek NFH received funding through the American Reinvestment and Recovery Act of 2009 to refurbish two banks of raceways at Alchesay NFH and five banks at Williams Creek NFH. The work will include repairing the damaged concrete so it has a smooth finish and then painting the surface with epoxy paint which will extend the life of the raceways another 25 to 30 years. The epoxy coating will also reduce the amount of staff time needed to clean the raceways, and will also reduce wear to the fins of the fish, improving fish health and providing better looking fish.

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Crumbling raceways at Alchesay NFH will be refurbished using ARRA funds

Phil Hines, Alchesay-Williams Creek NFH

Energy Efficient Windows Installed at Uvalde NFH

Through funding provided by the American Reinvestment and Recovery Act of 2009, 32 energy efficient windows were installed at Uvalde NFH during March 2010. The new windows have a Solar Heat Gain Coefficient (SHGC) value of 0.30, meaning they block 70% of the sun's heat. The U-Factor is the rate of heat transfer indicating how well the window insulates. The new windows will help to reduce total energy consumption at the hatchery.

Karin Eldridge, Uvalde NFH

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Energy efficient windows will save electrical costs at Uvalde NFH

Recovery Act Projects at Inks Dam NFH

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The new filtration unit at Inks Dam NFH

Inks Dam NFH received funding under the American Reinvestment and Recovery Act of 2009 to complete four projects to upgrade infrastructure at the hatchery. Ponds will be rehabilitated; energy inefficient doors and windows will be replaced; drains and water lines will be repaired; and most notably, a new 50 micron water filtration system will be installed.

The new filtration system will filter water from Inks Lake, and this filtration size will eliminate the potential for aquatic invasive species to enter the hatchery from Inks Lake, significantly reducing the chance of moving invasive species to other locations.

Marc Jackson, Inks Dam NFH

Tishomingo NFH Goes Solar

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Solar panels installed at Tishomingo NFH provide renewable electricity

In February the staff of the Tishomingo NFH raised the first of four solar lights into place at the entrance gates to the hatchery. In additional three solar lights will be strategically placed around the hatchery to enhance security, while saving money on monthly utility bills.

The lights use photovoltaic cells to charge a 12-volt battery which is then regulated to turn on and off at dusk and dawn, respectively. The new lights and their advanced technology represent the first steps towards using alternative power at the Tishomingo NFH.

Ralph Simmons, Tishomingo NFH

Friends of Inks Dam Lend a Helping Hand

The Friends of the Inks Dam NFH have taken charge in rehabilitating a 1940s residence into an interpretive center. The 70-year old structure was in need of a new roof, windows and doors; interior floors; paint; and landscaping.

In March, Friends members and volunteers rolled up their sleeves and supplemented Inks Dam's Visitor Facility Enhancement Funds with manpower. The Friends have logged in 298 hours revamping the old building inside and out. The interpretive center now boasts new structural beams, framed windows, new flooring and landscaping because of their efforts. The interpretive center's grand opening is planned for 2011 and will showcase the hatchery's history, fish production, flora and fauna, conservation, while also being used as a bookstore and educational facility.

Cindy Fronk, Inks Dam NFH

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Friends of Inks Dam helps with hatchery improvements

Paddlefish Spawning at Tishomingo NFH

Tishomingo NFH staff began their 2010 paddlefish production by coordinating with the Oklahoma Fish and Wildlife Conservation Office and Oklahoma Department of Wildlife Conservation to capture paddlefish brood stock from Grand Lake O' the Cherokees and Fort Gibson Lake in late March, which were then transported to the Tishomingo NFH. Milt was collected from the male paddlefish and used to fertilize eggs collected from ovulating females. Once hatched, these fish will remain on station for approximately four months or until reaching 12 inches in length, at which time each fish will be tagged and stocked. This year's effort will represent the fourth year of a ten year stocking plan for Lake Eufaula.

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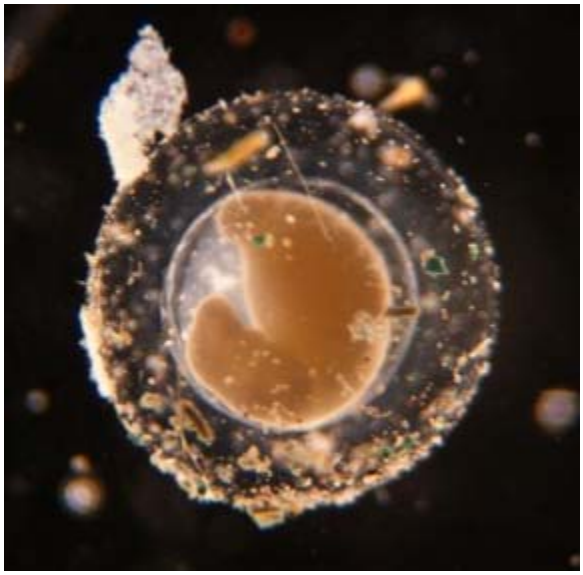
Paddlefish eggs at placed in hatching jars

Brian Fillmore, Tishomingo NFH

Egg Development in Salamanders Studied at San Marcos NFHTC



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A 15-day old San Marcos salamander egg from the San Marcos NFHTC

In order to develop and improve captive propagation practices for salamanders, the San Marcos NFHTC conducted early viability experiments on *Eurycea* salamander species to establish which husbandry practices will most efficiently affect egg fertilization. Over 800 eggs were examined under a microscope with each egg characterized by cleavage formation, inner and outer membrane intactness, yolk size, and color. Eggs then were individually deposited in a numbered chamber and development was monitored. Yolk size and color were an early indicator as to whether an egg was fertile or infertile, with yolks larger than normal tending to be infertile as with yolks that were very dark or pale in color. We now can fairly accurately predict egg viability at the hatchery without the aid of a microscope which allows for staff to focus on husbandry of fertile eggs.

Patricia D. Grant, San Marco NFHTC

2nd Annual R2 Fisheries Biologists Workshop

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R2 Fisheries Biologists enjoy a glass bottom boat ride on the headwaters of the San Marcos River.

Over 30 participants attended the 2nd annual Region 2 Fisheries Biologists Workshop in January; hosted this year by the San Marcos NFHTC. The workshop serves as an opportunity for networking and problem solving, information sharing, and training our biologists on current methodology. Topics of discussion included assisted migration as a management tool for climate change, the use of visible implant elastomer tagging, and prevention of spread of aquatic invasive species. In addition, three invited speakers gave presentations: Gary P. Garrett, Texas Parks and Wildlife Department, discussed partnering with landowners to conserve fishes; Chris M. Barnhart, Missouri State University, discussed propagation of mussels; and J.R. Shute, Conservation Fisheries, Inc., presented success stories of culture of threatened and endangered non-game fishes.

Catherine Phillips and Joe Fries, San Marcos NFHTC

Captive Refuge of Clear Creek Gambusia at Inks Dam NFH

Later this fall, Inks Dam NFH will collect endangered Clear Creek gambusia to be held in refuge at the hatchery. The only known location for this species is in the upper most pool of Clear Creek, and the population is threatened with hybridization from nonnative western mosquitofish which are found downstream of a 100-year old failing dam, which is currently the only barrier isolating the species.

Prior to bringing the fish onto the hatchery, staff developed a HACCP plan, and the Clear Creek Gambusia Recovery Team collected fish for gut content, fish health, and genetic analysis.

USFWS

The only known habitat for the Clear Creek gambusia

Marc Jackson, Inks Dam NFH

New Grass Carp Regulations in Oklahoma

Beginning this year, Oklahoma has imposed regulations to prohibit the importation, possession, and stocking of diploid grass carp. While the state has traditionally been a market for grass carp, the Service and other agencies recognized the need for regulating this nonnative fish to minimize its ecological impact on aquatic ecosystems. Sterile grass carp are produced by shocking the diploid eggs with pressure or temperature, thus producing a sterile fish.

USFWS

Participants of the National Triploid Grass Carp Inspection and Certification Program in Arkansas

In order to implement the new regulations, staff from the Tishomingo NFH attended the National Triploid Grass Carp Inspection and Certification Program in Arkansas so that inspection services will be available to commercial fish producers within the state

Rebecca Fillmore, Tishomingo NFH

CONSERVING AMERICA'S Fisheries

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.

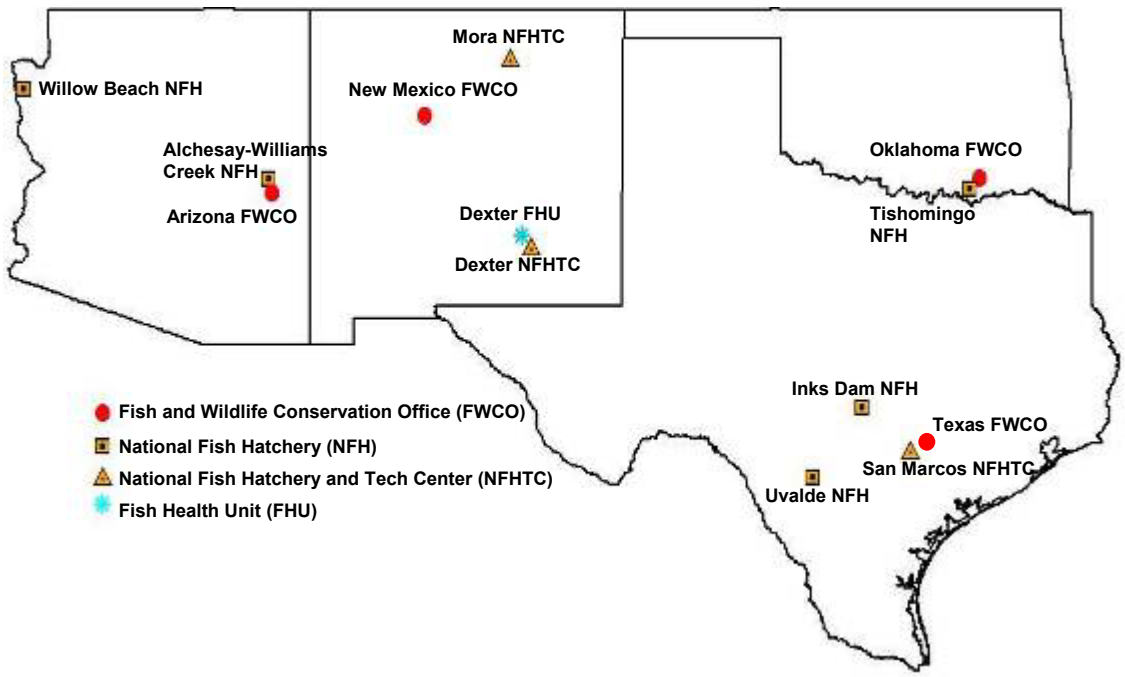
Fish Technology Centers

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.



SOUTHWEST REGIONAL FISHERIES OFFICES

Regional Office, Division of Fisheries and Aquatic Resource Conservation
PO Box 1306, Albuquerque, NM 87103
Mike Oetker, Assistant Regional Director (Mike_Oetker@fws.gov)

Arizona

Alchesay-Williams Creek National Fish Hatchery
PO Box 2430
Pinetop, AZ 85935
Phil Hines (Phil_Hines@fws.gov)
928-338-4901

Arizona Fish and Wildlife Conservation Office
PO Box 39
Pinetop, AZ 85935
Stewart Jacks (Stewart_Jacks@fws.gov)
928-338-4288

Willow Beach National Fish Hatchery
25804 N. Willow Beach Road
HC 37, Box 17
Willow Beach, AZ 86445
Mark Olson (Mark_Olson@fws.gov)
928-767-3456

New Mexico

Dexter National Fish Hatchery and Tech Center
PO Box 219
Dexter, NM 88230
Manuel Ulibarri (Manuel_Ulibarri@fws.gov)
505-734-5910

Mora National Fish Hatchery and Tech Center
P.O. Box 689
Mora, NM 87732
John Seals (John_Seals@fws.gov)
505-387-6022

New Mexico Fish and Wildlife Conservation Office
3800 Commons NE
Albuquerque, NM 87109
Jim Brooks (Jim_Brooks@fws.gov)
505-342-9900

Oklahoma

Oklahoma Fish and Wildlife Conservation Office
5701 W. Highway 7
Tishomingo, OK 73460
Brent Bristow (Brent_Bristow@fws.gov)
580-384-5710

Tishomingo National Fish Hatchery
5503 W. Highway 7
Tishomingo, OK 73460
Kerry Graves (Kerry_Graves@fws.gov)
580-384-5463

Texas

Inks Dam National Fish Hatchery
Route 2, Box 32-B
Burnet, TX 78611
Marc Jackson (Marc_Jackson@fws.gov)
512-793-2474

San Marcos National Fish Hatchery and Tech Center
500 E. McCarty Lane
San Marcos, TX 78666
Tom Brandt (Tom_Brandt@fws.gov)
512-353-0011

Texas Fish and Wildlife Conservation Office
500 E. McCarty Lane
San Marcos, TX 78666
Mike Montagne (Mike_Montagne_fws.gov)
512-353-0011

Uvalde National Fish Hatchery
754 Country Road 203
Uvalde, TX 78801
Grant Webber (Grant_Webber@fws.gov)
830-278-2419

Questions or comments regarding *Currents* can be addressed to Jeremy Voeltz, Arizona Fish and Wildlife Conservation Office; PO Box 39 Pinetop, AZ 85935; 928-338-4288; Jeremy_Voeltz@fws.gov