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Currents

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REGION 2 – SOUTHWEST REGION

Fisheries Program Highlights

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An alligator snapping turtle hatchling from Tishomingo NFH that will be used in diet studies at Natchitoches NFH

Read the complete story on page 6

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.

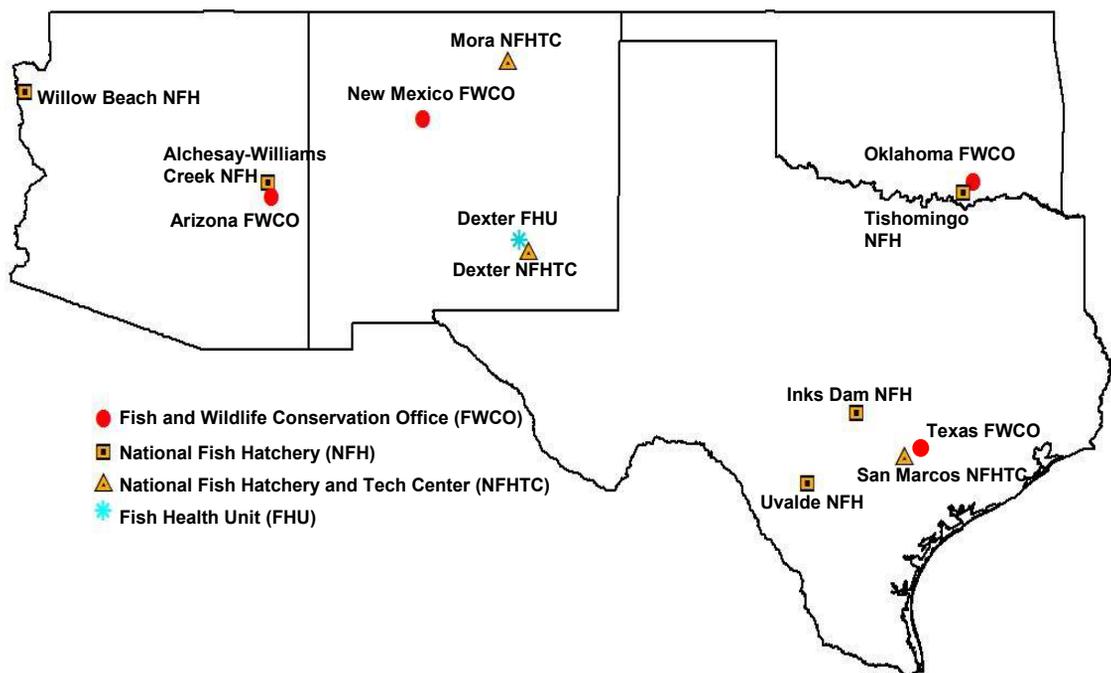
Fish Technology Centers

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.



Tishomingo NFH Supports Recreational Fishing



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Channel catfish are collected from Tishomingo NFH for stocking in Oklahoma

Tishomingo NFH stocked more than 115,000 six-inch channel catfish into federal and Tribal waters in Oklahoma in 2008. Channel catfish went into Seminole Nation and the Kickapoo Tribe's ponds for fishing derbies and to provide recreational fishing opportunities for tribal members and their families. In addition, the hatchery stocked channel catfish into ponds at the Tishomingo National Wildlife Refuge (NWR), Great Salt Plains Lake on the Great Salt Plains NWR, Fort Sill Military Reservation, the McAlester Army Ammo Depot and other federal lakes managed by the Army Corps of Engineers.

Rebecca Fillmore, Tishomingo NFH

Inks Dam NFH Produces Smiles – One Fish at a Time

Inks Dam NFH continued to support fishery programs in Texas by stocking 19,200 channel catfish in several U.S. Forest Service lakes. The hatchery also provided the Texas Parks and Wildlife Department's (TPWD) Urban Fishing Program with 19,000 catfish for stocking in Austin-area lakes and Miller Pond in San Antonio. Once again, Inks Dam NFH assisted our partners and supported the Highland Lakes Boys and Girls Club Fishing Day by providing 150 catfish in the 5-to-8 pound range. Hatchery staff also harvested and distributed 1,700 largemouth bass for the Zuni Tribe and Navajo Nation and 18,000 channel catfish to the Navajo Nation to support Tribal sportfishing programs. In addition, the Regional Distribution Unit shipped endangered Colorado pikeminnow from Dexter NFHTC to the San Juan River in New Mexico.

Marc Jackson, Inks Dam NFH



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A young girl is very happy after catching a channel catfish produced at Inks Dam NFH

Alligator Snapping Turtle Building Expansion

The Tishomingo NFH completed an extensive addition to the alligator snapping turtle rearing facility, providing extra space for new rearing tanks and a new water recirculation system. The total size of the turtle building was increased by 750 square feet, and will be used to house 30 additional rearing tanks. The project was completed by Tishomingo NFH staff and maintenance personnel from Deep Fork NWR, Great Salt Plains NWR, Hagerman NWR, Little River NWR, and the Tishomingo NWR.



Crews work on the foundation for the turtle building expansion

Rebecca Fillmore, Tishomingo NFH

National Fish and Wildlife Foundation Assists in Apache Trout Recovery



The 2008 Apache trout field crew

During October and November 2008, the Arizona FWCO employed five Bio-Aids (through a National Fish and Wildlife Foundation Grant) to assist with Apache trout recovery in Arizona. These employees mechanically removed non-native brown trout from Apache trout recovery populations, inspected artificial fish barriers, fin-clipped non-native fish below fish barriers to evaluate barrier effectiveness, and established a new population of Apache trout in the South Fork of the Little Colorado River.

Jennifer Johnson, Arizona FWCO

A Minnow's Historic Journey Home



Biologists transfer Rio Grande silvery minnow into holding nets in the Rio Grande, at Big Bend National Park, Texas.

On December 16, 2008 the Rio Grande silvery minnow was released back into its historic range at Big Bend National Park, Texas. The species had not been present in this stretch of the Rio Grande River since the 1960s. Dexter NFHTC provided 250,000 age-0 and 150,000 age-1 Rio Grande silvery minnows. Five stocking trucks from Dexter NFHTC, Mora NFHTC, and Alchesay/Williams Creek NFH embarked on a 10-hour trip to Big Bend National Park. Once there, the fish were acclimated for 24 hours in net-pens in the river before they were released into their historic habitat.

William Knight, Dexter NFHTC

Mexican Stoneroller Reestablishment a Success

In October 2008, the Arizona FWCO coordinated the annual monitoring of West Turkey Creek under the El Coronado Ranch Habitat Conservation Plan (HCP). Populations of longfin dace and endangered Yaqui chub have rebounded following severe drought conditions in 2006 that required salvage efforts by the San Bernardino NWR and El Coronado Ranch. Mexican stonerollers, stocked in June 2007, have successfully reproduced and expanded throughout West Turkey Creek.

The HCP is a collaborative effort among El Coronado Ranch, San Bernardino NWR, Arizona FWCO, Arizona Game and Fish Department, Arizona Ecological Services Field Office and the U.S. Forest Service.

Jeremy Voeltz, Arizona FWCO



A Mexican stoneroller from West Turkey Creek, Arizona

Tishomingo NFH Partners with Natchitoches NFH for Alligator Snapping Turtle Diet Study

The Tishomingo NFH and the Natchitoches NFH are working together on a diet study for alligator snapping turtle hatchlings comparing two different commercial feeds. The Tishomingo NFH supplied 100 hatchling turtles to the Natchitoches NFH for the study. The purpose of the study is to identify a preference in food selection and to optimize growth in the first year of life. The hatchlings were randomly separated into groups of 25 and placed into four, three-foot circular tanks at the Natchitoches NFH.



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Rebecca Fillmore, Tishomingo NFH

Alligator snapping turtles are held at Natchitoches NFH during a diet study

New Population of Threatened Apache Trout Started



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Young Apache trout are stocked into the South Fork of the Little Colorado River

The White Mountain Apache Tribe's Wildlife and Outdoor Recreation Department, Arizona Game and Fish Department, and Arizona FWCO started a new population of threatened Apache trout in the South Fork of the Little Colorado River, on the Apache-Sitgreaves National Forest. The Arizona FWCO and the Tribe collected 121 Apache trout from a natural population on the Fort Apache Indian Reservation and transported them to the South Fork of the Little Colorado River where nonnative trout were previously removed above two constructed fish barriers. This project was funded largely through the National Fish and Wildlife Foundation's "Apache trout keystone initiative." Apache trout are one step closer to recovery after this project was completed in 2008.

Jennifer Johnson, Arizona FWCO

Native Fish Return to Bonita Creek in Arizona



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An Arizona FWCO biologist measures sodium permanganate, used to neutralize the rotenone applied to Bonita Creek

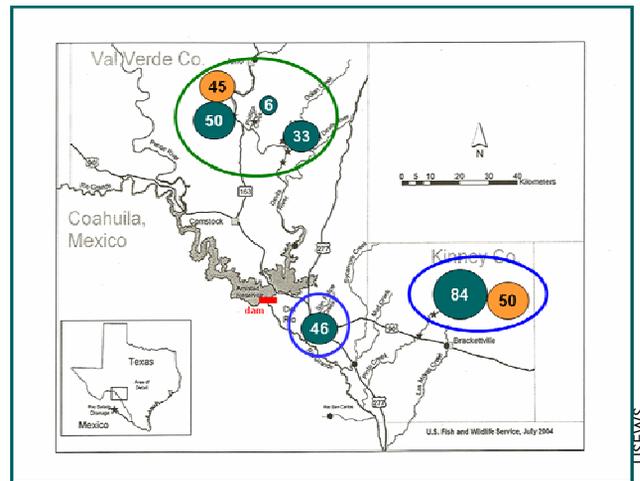
In October 2008, a multi-agency team removed nonnative fishes from Bonita Creek with rotenone after the U.S. Bureau of Reclamation built a fish barrier on the creek's lower reach to protect the restored reach from reinvasion of non-native fishes. Native fishes (including endangered Gila chub), lowland leopard frogs, and Sonoran mud turtles, salvaged before the renovation, were returned to the stream following the treatment. Following detoxification and monitoring to ensure a complete fish kill, the stream was stocked with four threatened and endangered fishes – loach minnow, spokedace, Gila topminnow, and desert pupfish. This project was a cooperative effort involving the Arizona Game and Fish Department, U.S. Bureau of Reclamation, U.S. Bureau of Land Management, City of Safford, and the U.S. Fish and Wildlife Service.

Jeremy Voeltz, Arizona FWCO

Population Genetics Completed for Endangered Texas Fish

The Molecular Ecology Laboratory at the Dexter NFHTC, in collaboration with the San Marcos NFHTC, conducted the first-ever analysis of genetic variation within captive-bred and fragmented wild populations of endangered Devils River minnow. The lab developed genetic markers to analyze samples from five locations in the Rio Grande basin and captive-bred stocks at San Marcos NFHTC. The results indicated that the three geographic areas currently treated as separate management units are genetically isolated and that the captive-bred populations are genetically similar to their wild sources.

Molecular Ecology Lab, Dexter NFHTC



USFWS

Map of genetically-identified populations of Devils River minnow in the Rio Grande River basin in Texas

Inks Dam NFH to Develop Outdoor Discovery Zones

Inks Dam NFH, in cooperation with several partners, is developing the first-ever Outdoor Discovery Zones plan at a NFH. The Service's Washington D.C. Office, RJ Richey Elementary School, Burnet County Tourism, Highland Lakes Master Naturalists, the Interface Recycling Facility and Texas Parks and Wildlife Department are sharing great ideas, resources, and free materials.

The plan coordinates the efforts of Service employees, students, and community and youth organizations as they develop outdoor hands-on learning areas. Phase-I will see interpretative trails that incorporate bird watching stations, plant identifications, visible wildlife tracks, wildflower plots, an erosion study area, sundials, and weather stations.



An overview of the planned Discovery Zones at Inks Dam NFH

Cindy Fronk, Inks Dam NFH

Fossils and Artifacts Found in the San Marcos River



A mammoth tooth and arrowheads are among the items found recently in the San Marcos River

During an invasive water trumpet plant removal project on the San Marcos River, staff from the San Marcos NFHTC made some interesting discoveries. They found petrified mollusks, arrowheads, antique bottles, and a fossilized mammoth tooth (identification confirmed by archeologists from Texas State University). According to Dr. D. La Vere, a history professor at the University of North Carolina, mammoths were an important food source for the Clovis Indians who occupied the San Marcos area dating back to the late Pleistocene period (about 10,000 years ago). Once enough information is gathered about the fossils and artifacts, they will be displayed at the San Marcos NFHTC.

Valentin Cantu and Joe Fries, San Marcos NFHTC

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