

Hatchery Highlights

U.S. Fish & Wildlife Service Warm Springs NFH News and Updates



January-March 2013

Lake Sturgeon

On January 23rd and 24th 2013, agencies and partners of the Southeast Lake Sturgeon Working Group, dedicated to restoring lake sturgeon populations throughout their southern historical range, met in Knoxville, TN. Carlos Echevarria and Haile Macurdy participated in the meeting representing Warm Springs. Topics covered at the meeting included: reviewing hatchery production data from 2012; in-depth discussions covering lessons learned with the trotline assessment techniques used for rivers sampling; and setting production and assessment goals for 2013. Additionally, the 2006 “Management Plan for Restoration of the Upper Tennessee River Lake Sturgeon Population” was reviewed and updated.

Carlos participated in a multi-agency outreach event for lake sturgeon at the TN Aquarium, Chattanooga, TN on March 22nd.



Unlike 2012, early spawning of lake sturgeon is not anticipated until late April. Reading equipment and water supplies never-the-less got under way in March. A ½ acre pond dedicated to providing pond water to the lake sturgeon building was filled. Culture tanks, bio-filters, chilling equipment were de-winterized and powered up during March in anticipation of April culture work. Fish food purchases were made for lake sturgeon culture work projected through the rest of the year.

Working in cooperation with Kayla Kimmel and Glenn Constant, FWS, Baton Rouge, LA the hatchery obtained fifteen Vemco VR2W acoustic receivers and ten V-16 acoustic tags to be use in our assessment work scheduled for Summer 2013 and Fall 2014. Multiple year classes of stocked lake sturgeon are being collected through ongoing sampling efforts. Tracking movement of these sturgeon and habitat they choose can be

accomplished using tagged lake sturgeon. The tagged fish will provide valuable information to aid in fine tuning sampling efforts, distribution and seasonal patterns of lake sturgeon throughout the Upper TN River. A study plan was developed by the WSNFH that will incorporate sex identification and staging, telemetry and evaluation of stomach content for this assessment process. Supplies needed to service the Vemco receivers were obtained ahead of deployment later in the year.

Striped Bass

Carlos participated in the annual Morone Meeting in Crawfordville, FL Feb. 13th. and 14th. Participation included review of 2012 restoration efforts along with setting management and production goals for 2013.

Pond fertilization schedules were developed for FY 2013 Phase I production at Warm Springs. Organic fertilizer utilized to produce zooplankton for the young striped bass was purchased during the Quarter.

Ponds scheduled to produce fingerling striped bass in April and May were made ready in preparation for filling with water. Air-stones utilized to provide supplementary aeration during the culture season were cleaned, pressure washed and reinstalled on airlines. Sediment was removed from in and around harvesting basins of the ten ½ acre ponds typically used for producing striped bass.

Sicklefin Redhorse

Sickefin are a sucker in the *Moxostoma* genus, their status as a distinct species is currently under review. Our work with Sicklefin redhorse represents a cooperative effort by programs at Warm Springs Regional Fisheries Center, the Eastern Band of Cherokee Indians, USFWS Ecological Services, Ashville, NC, Conservation Fisheries Inc. and others to rear fingerling sickefin redhorse for tagging, assessment & other studies. These studies are developing under the research agenda created by members of the Sicklefin Redhorse Research Partnership, conservation agreements with Duke Energy Carolinas, LLC and the draft genetic management plan for the species.

Sicklefin fry brought on station in FY 2012 were transferred to a larger circular tank equipped with an automatic feeder as the fish grew. They now average 2.75 inches in length.



Alligator Gar

Advance planning and purchase of commercial feeds utilized for culture of fingerling alligator gar was purchased during the Quarter. Approximately 75 FY-12 alligator gar overwintered at Warm Springs are being held for research uses, and/or distribution.

Carlos facilitated and provided input for regional, national and international efforts directed towards restoration of alligator gar through its historical range. Due to travel limitations no one from Warm Springs traveled to participate in the SDAFS Technical Committee meeting in Nashville, TN. Staff however developed an annual alligator gar production report based on FY-12 accomplishments, including an evaluation and results improving survival percent of fry 48-72 hours after shipping, and sent it for presentation at the meeting.

Invasive Species Monitoring and Saint Mary's River Water Quality Project

Chad Shirey participated with other FWS Fisheries staff with a fish inventory in proximity to the mouth of the Savannah river, February 17th through the 22nd. An effort to identify and quantify invasive aquatic species was a goal of this effort.

Haile Macurdy, WSNFH and Andy Jackson, Welaka NFH traveled to the Saint Marys River on January 8th to retrieve all three deployed Hydrolab sondes. This ended data collection efforts aimed at documenting effects of storms and other high water events on selected water quality parameters in the river. A deployed cage used to stabilize a Hydrolab at the Reeds Bluff location was pulled while PVC protective enclosures installed on the I-95 Bridge and upriver at White Oak Plantation were left in place. The four sondes used in this project were downloaded, cleaned, calibrated and stored for future use. Data was compiled for submission to the Saint Mary's Fisheries Restoration Committee.

Mussels & Small Stream Fish

Due to anticipated funding and staffing reductions most work within these two programs has been set aside for the time being. Warm Springs NFH biologist Bill Bouthillier

assisted Jaci Zelko with collection of paper pondshell mussels to be utilized with a study at WSFTC.

Training and Administrative

Hatchery staff participated in a WSRFC Quarterly meeting February 21st outlining work activities through the rest of 2012. Also included were updates on safety and EMS.

Staff took several training classes during the Quarter. In addition to the annual online required courses, additional online courses completed by staff included the heavy equipment refresher course and blood-borne pathogens. Arrangements were made to provide Center staff training opportunities in defensive driving, first aid and CPR. A six hour combination CPR and first aid course sponsored by the American Heart Association was held at the Warm Springs Roosevelt Institute for Rehabilitation on Tuesday, March 5th for available staff. Additionally, a six hour defensive driving class, sponsored by AARP was held Monday, March 19th at WSRFC.

Maintenance and Operations

Staff focused on preventative maintenance, repairs and construction activities during the Quarter. Our shop building (portions build by the Civilian Conservation Corp in 1938) was due for some preventative maintenance. Following repairs initiated last year to the shop building's garage doors, work shifted in 2013 to energy savings projects, addressing some safety concerns and painting portions of the wooden exterior sidewalls. Quotes were obtained to install storm windows in the office area. Pictured below are Bill Bouthillier, Josh Simmons and Chad Shirey, priming the wood surfaces and sealing existing windows seams.



The office area of the building is largely un-insulated and efforts are being made to improve energy conservation in this section of the building by sealing air leaks and eventually adding storm windows. Staff also removed accumulated and unused stuff from the loft in March and reorganized the available space for continued use. This effort reduced clutter and potential fire hazards while lessening weight on the loft.

Quarters 3 was evaluated for replacement windows or added storm windows as an energy conservation project. In addition, ceiling fans were replaced and the basement was

cleaned out. The building currently has single pane windows and energy savings would be achieved by upgrading these windows. Repairs were also made to another residence set aside for interns and visiting biologists. Appliances in the bathroom were upgraded, the house was cleaned and shutters were repaired.

Most heating and cooling units were maintained during the Quarter at the offices, aquarium and residences onsite.

Hatchery staff pressure washed buildings' walls and sidewalks removing accumulated dirt and algae growth that had built up over time. Areas maintained included the residences, shop, Administrative building, Aquarium and feed house.

Work was completed on re-roofing and making some roof repairs to the Administrative Building in January. Pictured below is the building near the end of the project. Previous storm damage had caused leaks into the building at several locations.



Staff conducted area maintenance on grounds, trimming trees, removing limbs and leaves from ditches, roadways and levees prior to Spring rains.

Buildings, water processing and treatment equipment was serviced during the Quarter. Both the liquid sodium hydroxide storage tower and the bulk crushed limestone storage tower were filled in March.

Equipment was serviced and cleaned for Spring production and assessment work. This included: working on boats, building trot lines for lake sturgeon assessment work, repairing screens and air stones used for pond / tank culture.

Chad assisted the Technology Center installing a powered ventilator at the genetics lab and with a welding project on a temperature controlled incubator to be used with mussel studies.

Pond harvesting kettles used for striped bass production were cleaned ahead of the Spring production season. Associated aeration equipment to the 11 ½ acre ponds was serviced. Three water supply ponds dedicated to the holding house, lake sturgeon and mussel buildings were conditioned and refilled prior to use in April. Several ponds of forage goldfish were harvested for use with the Aquarium and display pool.

Outreach

Dr. Randall Colvin of La Grange College brought his Water Issues Class (15 undergraduates) to visit WSRFC to meet Greg Moyer and discuss conservation genetics and water issues regarding freshwater mussels in the AFC Basin. Bill Bouthillier gave the class a tour of the mussel building, provided a briefing on mussel biology and showed them specimens of mussels being impacted by water issues in the ACF. The students enjoyed seeing and holding relic purple bankclimbers and fat three ridge mussels.

On March 15, 2013, Bill Bouthillier participated in the annual science day at the Dimon Magnet Academy, an inner city school in Columbus, Georgia. Bill spoke about water pollution; it's effects on aquatic species and also set up touch tanks with turtles, crayfish, frogs and tadpoles. Over 80 third graders and 6 teachers attended the program.

On March 22, Carlos attended the Tennessee Aquarium's WOW's and How's – The Science Behind Aquatic Conservation: From Colorful Fish to River Giants – Night Event. While there, Carlos and Jason Hennegar (TWRA) manned the sturgeon touch tank and table to chat about rearing young sturgeon and the annual monitoring program. They displayed equipment and other items dealing with sturgeon production and assessment work.

Warm Springs NFH staff, along with all Warm Springs RFC staff welcomed three visiting biologists from China as part of an International Cross-Training and Technology transfer program hosted by Washington International Affair (FWS) and co-sponsored by the Southeastern Region. Chinese biologists accompanied by USFWS Steven Kohl, Washington office arrived late on March 25 for three weeks of fisheries science and training exchange.



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