Hatchery Highlights

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

January-March 2014

Lake Sturgeon

The Southeast Lake Sturgeon Working Group held their annual meeting on February 10th through the 12th in Knoxville, TN this year. Carlos Echevarria participated, providing hatchery production data from 2013. Topics also included in-depth discussions covering lessons learned with the trotline assessment techniques used for rivers sampling, management plan updates, radio tagging and tracking work, production and assessment goals for 2014.

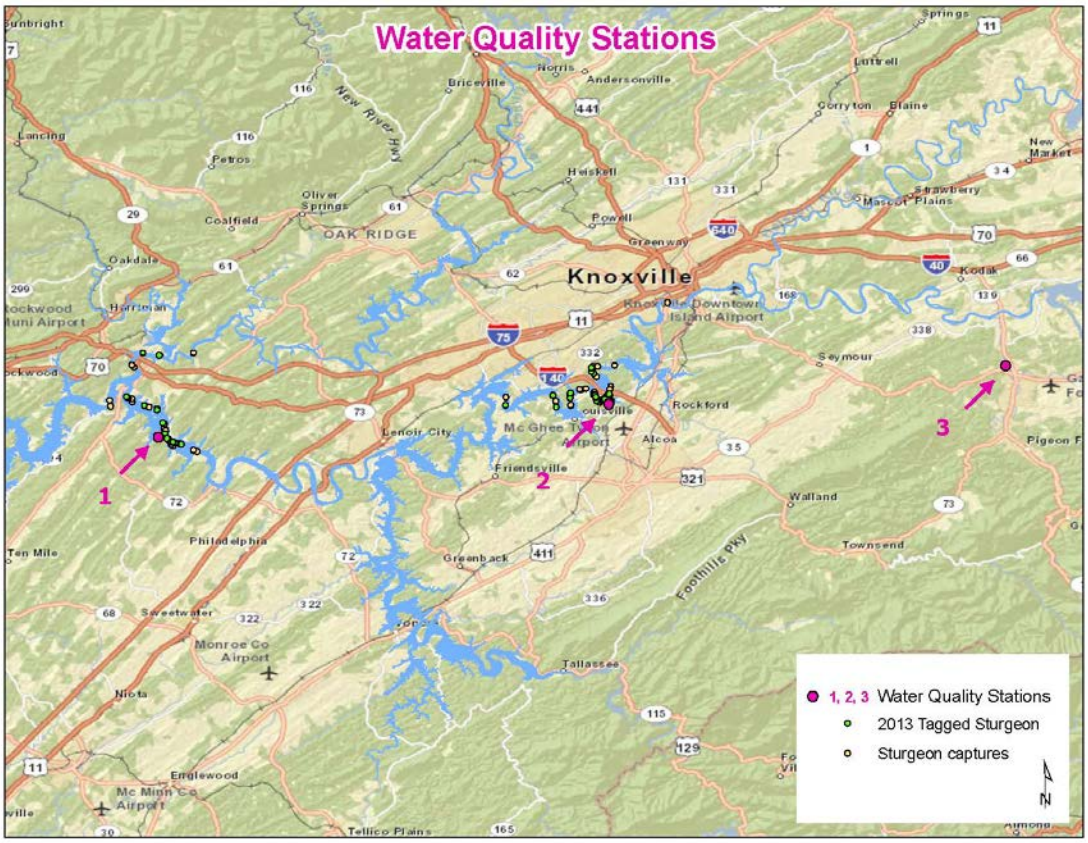
The restoration program continues to expand. Additional watersheds may be stocked this year, such as into the French Broad above Asheville where historical records show the fish once were. A habitat monitoring project initiated by TWRA and supported by FWS titled: Southeast Lake Sturgeon Recovery: Reintroduction, Monitoring Movement Patterns and Determining Habitat Usage is in development for 2014.

As the information gained on the daily and seasonal movement of lake sturgeon increases with the trotline and telemetry work underway, additional efforts will be made assessing and understand environmental factors that influence or correlate with habitat use and movement of lake sturgeon.

Mark Cantrell, Ashville ES Office, developed a water quality sampling plan bracketing seasonally important habitat identified from telemetry and trotline information. Accordingly, WSNFH staff are preparing four Hydrolab DS5X water quality measuring sondes for deployment this spring in conjunction with this project.

John Galvez, Peninsular Florida Fisheries Office (FWCO), supplied two sondes for this project along with the two currently at Warm Springs. The sondes will be deployed to collect data at three sites with the fourth used in rotation and for grab sampling.

The following map prepared by Mark shows the suggested sample sites sturgeon recapture and telemetry data. After initial deployment of the sondes by WSNFH staff in May, training will be provided to an intern working under the Directorate Resource Assistants Fellows Program (DFP) to continue data collection, sonde maintenance and programing during the remainder of the deployment timeframe.



Preparation of equipment and supplies for production of lake sturgeon fry at Warm Springs this year got under way in February. As in 2013, cold weather in Wisconsin this spring delayed anticipated spawning of lake sturgeon and collection of fertilized eggs until later in April. Preparations included filling a ½ acre pond dedicated to providing pond water to the lake sturgeon building. Culture tanks, bio-filters, chilling equipment were de-winterized, disinfected and powered up in anticipation of culture work in April. Feed purchases were made for culture work projected through the rest of the year.

Striped Bass

Carlos participated in the annual Morone meeting, Crawfordville, FL on Feb. 5th and 6th. Topics included review of 2013 restoration efforts along with setting management and production goals for 2014.

Josh Simmons developed pond fertilization schedules for FY 2014 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 were made ready in preparation for filling with water in early April. While the ponds were empty, they were seeded with rye grass. Air-stones, utilized to provide supplementary aeration during the culture season, were cleaned, pressure washed and reinstalled. Sediment was removed from in and around harvesting basins of the 12 ponds typically used for producing striped bass.

Sicklefin Redhorse

Carlos Echevarria participated in the annual meeting of the Sicklefin Redhorse Research Partnership, February 26th, at Western Carolina University, located near Asheville, NC. Topics covered included reviews of propagation and culture techniques, genetics, tagging and telemetry studies, and classification updates by Dr. Jenkins.

As currently listed, sicklefin, in the *Moxostoma* genus, are a sucker whose status as a distinct species is currently under review. Our work with sicklefin focuses on rearing them for tagging, assessment & other studies.

Studies are developing under the research agenda created by members of the Partnership**.** A draft Memorandum of Understanding was created among the participating agencies to formalize coordination of work activities.

Sicklefin redhorse are currently confined to the Hiwassee and Little Tennessee rivers of the upper Tennessee River basin as reported in: Propagation and Reintroduction Of Sicklefin Redhorse (Moxostoma sp.) to the Tuckaseegee and Oconaluftee Rivers, North Carolina: Final Report for 2013 by: M.A. Petty, P.L. Rakes, C.L. Ruble, and J.R. Shute, Conservation Fisheries, Inc. February 25, 2014. Future tagging and telemetry studies will evaluate habitat use and movements within these basins.

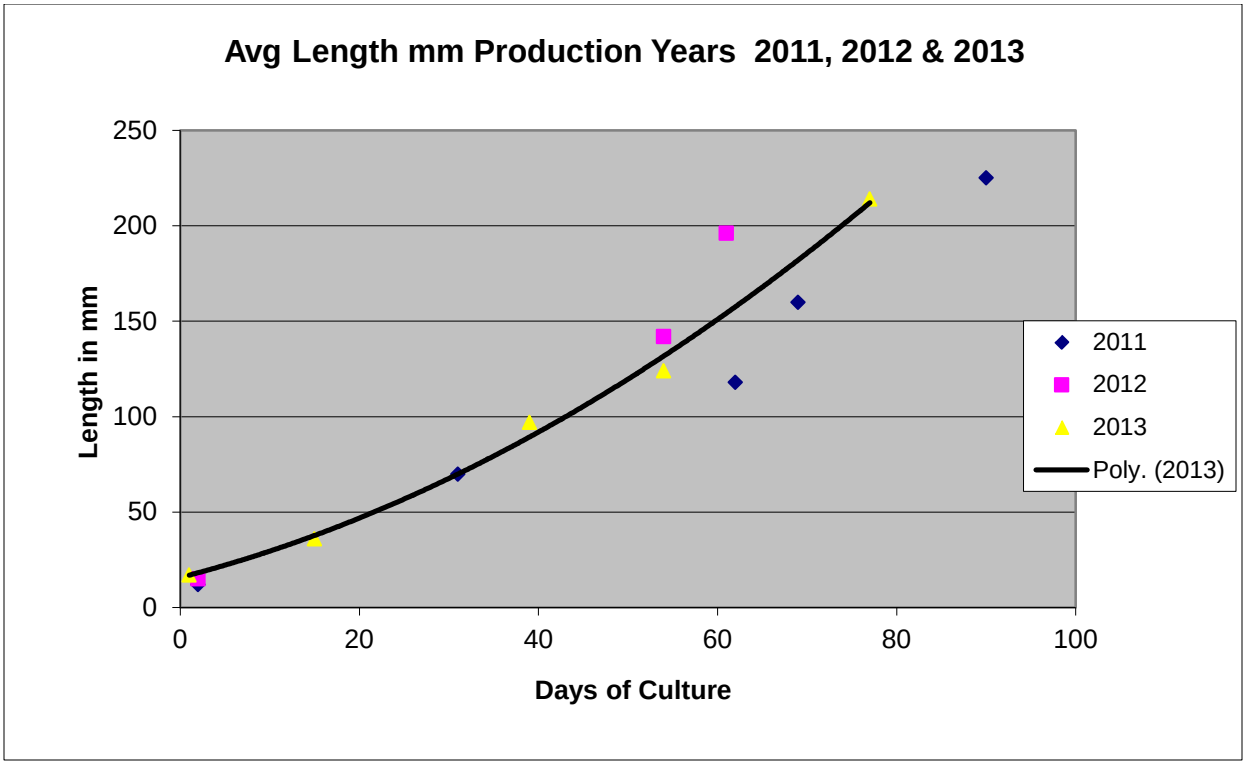
WSNFH staff will expand participation in 2014 by undertaking egg incubation and fry rearing of sicklefin redhorse at Warm Springs. We will be working to produce greater numbers of larger fish suitable for tagging and telemetry studies. To accommodate this work, egg incubation systems, fry and fingerling culture tank systems in our wetlab were customized for the upcoming production season. These incubation, fry and fingerling culture systems were successfully used in years past with robust redhorse culture.

The 16 2012 YC sicklefin currently at Warm Springs range from 3 to 6 inches in length and average 4.6 inches overall.

Alligator Gar

Staff developed a 2013 production summary for alligator gar work at Warm Springs. Carlos participated in the annual SDAFS Technical Committee meeting in Charleston, SC Jan. 22 -24th , reviewing accomplishments and goals for the coming year and presenting a summary of our 2013 work at Warm Springs. The following graph summarizes average growth over the past three productions years at Warm Springs NFH.

Staff setup forage production ponds and purchased commercial feeds needed for culture of alligator gar.



For additional information on related alligator gar projects see the Gulf Coastal Plains LCC Projects weblink below:

GCPO
Gulf Coastal Plains & Ozarks
Landscape Conservation Cooperative

Alligator Gar Priority Tool
A model is being developed to identify areas within the Mississippi Alluvial Valley that are suitable for alligator gar. St. Catherine Read More

Watershed Management Planning and WebEx meetings:

WSNFH staff began work on plans for two priority Southeastern watersheds. Potential watersheds were previously identified and ranked according to directives of the Fisheries Management Team. Resources and associated plans referenced were obtained from Will Duncan, ES Athens, Jimmy Evans, GA DNR and others during this project. Warm Springs staff dedicated considerable time to initiate plans for:

Wheeler Lake watershed, HUC 06030002 (AL & TN)
Upper Flint River Basin, HUC 03130005 (GA)

In addition to the watershed plans, staff not able to travel to meetings participated via WebEx presentations. These included:

Lake sturgeon meeting, Feb. 11th
Jim Woodruff Lock & Dam Fish Passage Meeting, Jan. 28th
Sicklefin redhorse meeting, Feb. 26th
NOAA Fish Habitat Programs, Mar 6th

Mussels & Small Stream Fish

Work got underway to evaluate an alternative juvenile mussel production technique at Warm Springs this year. Host largemouth bass will be infected with purple bankclimber glochidia and then held in submerged wire cages. The work is required in order to evaluate a potential augmentation technique for producing transformed juvenile mussels. If successful, this technique would be included within a future propagation plan for the species. Working in cooperation with Panama City ES staff, gravid purple bankclimbers will be collected and used to infect the largemouth bass at Warm Springs. Infected fish will be held in the lab, in submerged cages in a pond and also in submerged cages at the collection site for comparative purposes. The goal is to evaluate relative percent success across the different sites. Brood mussels will be marked prior to their release. Four enclosed aluminum cages were constructed for deployment in late April or early May.

Training, Safety and Administrative

Recent changes in staffing at the Warm Springs complex significant shifted administrative workloads. FBMS training was initiated by Carlos and Haile in order to fill in gaps left by Lawrence Ford retiring. Lawrence has continued to volunteer with us while we slowly get up to speed with FBMS data submission and record keeping requirements. Changing fleet and energy data collection and submission requirements were addressed for future entry into FBMS.

Staff participated in several WebEx broadcasts related to hatchery allocations and budget discussions. All staff completed required annual IT requirements.

Bill Bouthillier assisted the Fish Health Center with three triploid grass carp inspection trips Feb 26, Mar 12th and Mar 26th.

Personal Property Inventory and Reconciliation updates and certifications were completed in March.

All EMS files were updated as required during the Quarter. Work has begun on annual reviews and updates to safety plans. Haile completed one required safety training course during the Quarter.

Pesticide use proposals and 2012 annual pesticide use data was prepared and submitted. An updated Section 7 permit for pesticide use at Warm Springs was submitted to ES Office, Fort Benning, approved and attached to all pesticide use proposals.

Annual station wide fire extinguisher inspections, service and updates were conducted in Jan.

Chad Shirey attended heavy equipment instructor training and certification at Wheeler NWR Feb 24th – 28th.

Maintenance and Operations

Staff focused on preventative maintenance, repairs and construction activities during the Quarter. Plastic composite wood was purchased to replace existing wooden dam boards for several ponds. Using the plastic boards should reduce water leakage past the board / concrete wall interface within a pond's harvesting basin.

Assistance was provided over several days to Warm Springs Technology Center designing and building tank stands for study plan use during 2014.

The City of Warm Springs is now required to modify their water treatment process in order to address slightly elevated radium levels in the water supply. Carlos and Chad attended a pre-construction meeting Jan. 14th at City Hall, meeting with City representatives and the construction company. Access, existing structures and other topics were covered with regards to constructing an additional treatment building adjacent to the existing facilities and water supply infrastructure. Construction is currently underway with the project.

Staff assisted the Fish Health Center and Friends of Warm Springs with site and building maintenance. A new metal storage building was installed on station in the proximity of our student quarters at 5346 Spring Street.

As a result of several ice storms in January and February, a lot of downed trees and limbs were cleaned up on station grounds over several days during the Quarter.

Buildings and culture systems were de-winterized in March in preparation for use this spring. Such activities included putting recirculation systems back into production, cleaning and disinfecting culture systems, and conditioning water supplies for culture work. This work was undertaken in the wetlab, holding house, lake sturgeon and mussel buildings.

A 25 ton shipment of limestone was received for use with our water treatment system. Specialized feeds for use with alligator gar and lake sturgeon were purchased as was organic fertilizer for use with the striped bass program.

Utility carts, mowers and vehicles were serviced this Quarter. One utility cart was sent in for an engine overhaul and other needed repairs. Staff utilize small carts in lieu of full sized vehicles for most on station work, while maintaining vehicles for highway and specialized uses, thus reducing fuel consumption and extending the life of fleet vehicles.

Modifications to the lake sturgeon egg transport system were initiated with an upgraded generator.

New batteries were purchased for our electric forklift in use at the alkalinity building.

Energy savings were evaluated following several months of operation with new variable speed controllers installed on water pumps at the alkalinity building. In comparison with the same time period a year ago, savings over several months are averaging approximately 35% below 2013 expenditures for this site.

Fine mesh filter screens for the aquarium overflow pipes were manufactured for use with the lake sturgeon and sicklefin culture systems.

Water supply ponds dedicated to the holding house and lake sturgeon buildings were conditioned and refilled prior to use in April. Several ponds of forage goldfish were harvested for use with the aquarium building and display pools. Brood goldfish were stocked out into ponds for production of forage, intended for use with the upcoming alligator gar program later this year.

Outreach and volunteers

Haile attended a planning meeting, Jan. 10th in Greenville to discuss pending Meriwether County site visits by the Georgia Tourism Product Development Team. The planning meeting was attended by city and community representatives within Meriwether County. Haile provided an overview of programs and facilities at Warm Springs during a Jan. 13th visit by the product development team, consisting of GA State officials and others focusing on tourism at a county wide scale.

Carlos provided a Manchester Star Mercury newspaper reporter program and site information during an interview in March. A subsequent article was published in the papers annual March Year in Review edition which provided an overview of programs and activities ongoing at Warm Springs NFH. For information on obtaining the article contact: news@star-mercury.com. As a result of the article we recruited a number of new volunteers.

We continue to receive volunteer assistance from several area students who assist us while working around their school schedules. Carlos met with a Columbus State University student in Jan. to discuss volunteer opportunities and development of a study associated with our alligator gar program.

WSNFH assisted Oxbow Meadows Environmental Education Center, Columbus, GA in Feb., provided them several fish species for their displays.

Friends of Warm Spring National Fish Hatchery met on Mar 4th. The group is in a state of transition with membership changes taking place. Hatchery staff met with the group and discussed opportunities and challenges in the months ahead.

Carlos discussed the upcoming annual kids fishing event in June and service project opportunities with the Benning Bass Club, a group who has provided great assistance with previous projects and events.

Bill Bouthillier updated our Station brochure to address recent changes in program alignment and current species priorities.

On Feb 4th Bill participated as a judge in the regional science fair in Columbus, GA. Bill also provided a wounded warrior station tour for uniformed service personnel on Jan. 21st.

Staff provided recommendations on many occasions to our visiting public, area youth leaders and groups about visiting Warm Springs NFH. Staff also frequently provided sources of information on pond management to area landowners looking for advice.

U.S. Fish & Wildlife Service
Warm Springs National Fish Hatchery
5308 Spring Street
Warm Springs, GA 31830
706-655-3382 Fax 706-655-9034
http://www.fws.gov/warmsprings/FishHatchery