

Natchitoches News

U . S . F I S H & W I L D L I F E S E R V I C E



You are cordially invited to a retirement party honoring
Karen Kilpatrick
Manager of the Natchitoches National Fish Hatchery



After 33 years of dedicated service, Karen retired from the Fish and Wildlife Service on December 3, 2011 and joined the rank and file of those folks with "time on their hands".

Please join us on Thursday, January 12, 2012
from 6:00-8:00 pm @ the NSU Recreation Complex Pavilion
as we give her a great send-off and show her what she has
meant to all of us over the years.



As part of the celebration of all things Karen,
you are invited to share your favorite stories, anecdotes or
photos, etc.



The menu for the evening will consist of
Chicken-n-Sausage Gumbo, Catfish St. Denis, Salad,
French Bread, Beverages, Dessert. (Cash Bar Available)

Meal Tickets will be \$10 per person
Please R.S.V.P. no later than January 3rd, 2011
for dinner reservations.

Mail money for dinner reservations, gift donations, cards, notes, stories to be read aloud, pictures, or videos you wish to share to:

Cathy Davis ,Vice President of F.I.S.H.
(Friends in Support of the Hatchery)
P.O. Box 757 Natchitoches, LA 71458
Checks should be made payable to F.I.S.H.
call 318.352.5324 for more information



ELECTRICAL CHECK IN THE CHICAGO ASIAN CARP BARRIER

BY: JAN DEAN

Hatchery assistant manager Jan Dean assisted personnel of the Carterville Illinois Fish and Wildlife Conservation Office make electrical measurements in the Chicago Sanitary and Ship Canal (CSSC) October 27, 2011. There are a series of electrical barriers composed of large electrode arrays on the bottom of the canal. These electrode arrays are energized by power houses adjacent to the canal and its electrodes. The purpose of the electrical barriers is to prevent the movement of fish between the Mississippi River and Lake Michigan and the rest of the Great Lakes. Of major concern now is the movement of Asian carp such as Silver carp and Bighead carp from downstream into Lake Michigan. Asian carp were imported into this country in the 1960s and 1970s for use in pond fish culture. They es-

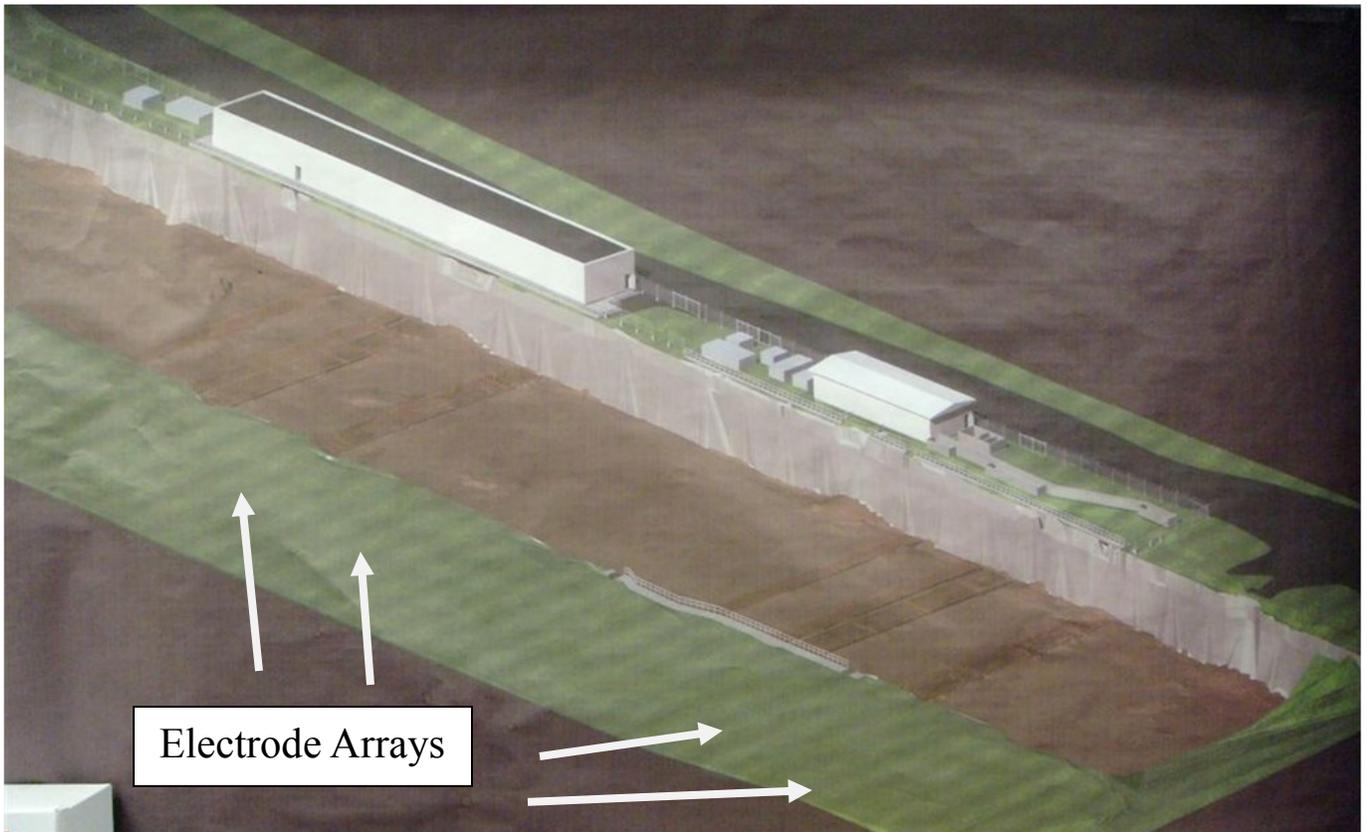


Overview of the Chicago Sanitary and Ship Canal Electrical Fish Barrier.

caped and are now in high abundance in many rivers such as the Illinois River not far from the CSSC and Lake Michigan. Many people think it is extremely important to keep these invaders out of the Great Lakes, and the electrical barriers are a line of defense against their movement if the CSSC remains open to barge traffic.

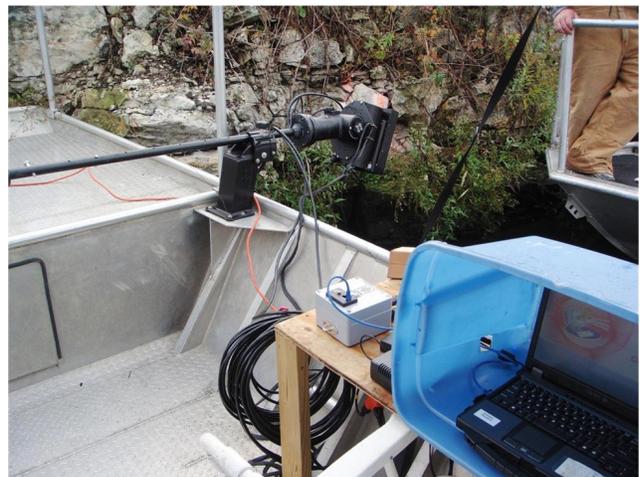
Jeff Stewart and Sam Finney of the Carterville FWCO met with Jan to make measurements of voltage gradients (volts per cm of water) within the barriers. Boat position is critical to making these measurements, and that is no easy task in the current and wind, not to mention the frequent barge traffic. Chicago is called the Windy City for good reason, and the north-south canal acts as a wind tunnel.

Sam operated the boat while Jeff and Jan located the various electrode arrays using DIDSON, an acoustical camera. The locations were marked on the canal wall for later use in positioning the boat while taking electrical measurements. Jeff had built a voltage gradient probe which was mounted onto the boat and which could be moved to various lateral and depth positions for taking measurements. The probe was connected to a Fluke scopemeter which Jan operated to measure the voltage gradients as Jeff positioned the probe and Sam kept the boat in place.



Schematic of the CSSC Electrical Fish Barrier showing the electrode arrays

Dr. Alan Temple of the Fish and Wildlife Service National Conservation Training Center and lead for the FWS Electrofishing Course, sent the scopemeter as well as a special voltage gradient probe and meter for use in making these measurements. Another step planned by the Carterville FWCO is to mount a fish cage to the side of the boat in the mounts used for the probe and to place surrogate fish into the cage and move it through the electrical fields while their behavior is monitored underwater with the DIDSON camera. Natchitoches National Fish Hatchery was glad to assist with this important project. It was a learning experience for all.



DIDSON acoustical camera for locating the electrode arrays on the bottom of the canal

NATCHITOCHEES NFH CELEBRATES WITH THE RED RIVER NATIONAL WILDLIFE REFUGE

By: Tony Brady

The Red River National Wildlife Refuge (RRNWR) like many of the other National Wildlife Refuges invited the public to visit the refuge and celebrate the recreational uses of the national wildlife refuges such as birding, nature hikes, hunting and fishing. On 15 October, 525 people from all across Northwestern Louisiana found their way to the headquarters of the RRNWR where they got to participate in a number of activities such as building a birdfeeder, learning about Native American culture, and the learning about the different animals you can find on the refuge. Natchitoches National Fish Hatchery was pleased to be a part of this celebration by hosting a booth about freshwater mussels. Clams, as most folks call them, are actually freshwater mussels



The minnow fishing lure of a freshwater mussel.

and can be found in numerous locations in the Red River as well as in most of the larger rivers in the state. Louisiana is home to over 60 mussel species of which four are listed under the Endangered Species Act. As part of the ongoing work at NNFH to develop mussel programs, education about mussels is a key component to getting public and political support for these programs. Most of the time, people only find the shells of mussels that have washed up on the river bank and never know about the exciting lives mussels live under the water. Did you know that some mussel make their own fishing lures? Some mussels are good enough to even lure a fish into their shell and then capture the fish. These mussels are not eating the fish they attract, but they are exposing their larva called glochidia to the gills and fins of the fish. The glochidia must undergo a metamorphosis, and they do that while attached to the fish. The fish acts as a nursery and a distribution vessel to spread the mussels to new locations in the river. It is this interaction between mussels and fish that has held my attention for nearly 15 years and still continues to excite me when I have a chance to experience a new mussel species and learn what methods they use to complete this amazing life cycle.

ELECTROFISHING CLASS AT THE “BASS FISHING CAPITAL OF THE WORLD”

By: Jan Dean

Assistant manager Jan Dean served as an instructor for the FWS Electrofishing Course in Eufaula, Alabama November 14-18. Of the 26 class participants, 19 were from the Division of Wildlife and Freshwater Fisheries of Alabama’s Department of Conservation and Natural Resources. The rest were from the Geological Survey of Alabama and the Fish and Wildlife Service. The class was held at the Lakepointe State Park Resort. The facilities were the finest we’ve seen for this course; the resort underwent a \$12 million renovation in 2009. On the schedule board were a retirement party and a wedding. That is a far cry from some EF classes long ago where the instructors had to stay in a tent. The state park was on a tributary of Lake Eufaula, a 45,181 acre impoundment of the Chattahoochee River; Lake Eufaula has been dubbed the “Bass Fishing Capital of the World.”

Besides the regular class instruction, we were afforded the opportunity to evaluate a couple of new electrofishing equipment items and to assess the Alabama District Fisheries electrofishing fleet. Midwest Lake Electrofishing Systems sent us their Infinity pulsator box for electrofishing boats plus the means (isolation transformer, load bank, floor mat switch and color oscilloscope) to demonstrate its capabilities and waveforms to class participants in the classroom using line voltage. Smith-Root, Inc. sent us their new Power Standardization System to measure the output of their GPP boat electrofishers. The PSS is a box which fits between the GPP and the electrodes and connects to a laptop computer for reading output peak voltage and peak current so that GPP units can be used for standardizing electrofishing by peak power output to the water. The PSS thus overcomes a lack of such capability by the standard GPP ammeter.



Dr. Alan Temple mapping voltage gradients around a backpack electrofisher. The Alabama EF boat fleet is in the background.

Most EF classes include electrofishing boats from a myriad of agencies. Rarely, we get to assess a fleet of boats, as we were able to in this class. In comparing data from these boats and from the Louisiana fleet earlier this year, which used boats with typical anode arrays plus those with prod poles, we are beginning to look at electrofishing peak power requirement in a novel way. After gathering more fleet data, we may propose a new way of standardizing by power. Being able to see electrofishing boats from around the country allows us this unique opportunity.

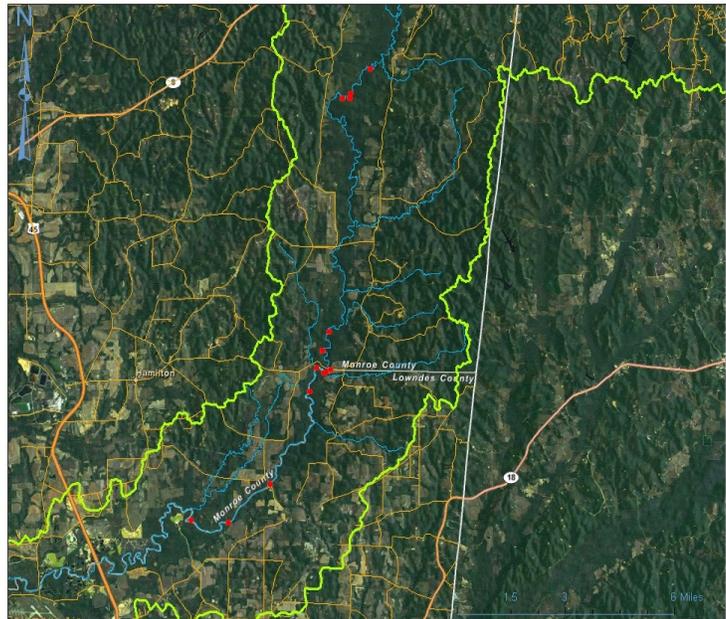
WE'RE ON THE WEB
WWW.FWS.GOV/NATCHITOCHEES
WWW.FACEBOOK.COM/NATCHITOCHEESNFH



**U . S . F I S H &
W I L D L I F E
S E R V I C E**

615 South Drive
Natchitoches , LA 71457
<http://www.fws.gov/natchitoches/>
<https://www.facebook.com/natchitochesnfh>

Phone: 318-352-5324
Fax: 318-352-8082
E-mail: tony_brady@fws.gov



Saving the world, one species at a time

A map of the Buttahatchee River. The three groups of red dot show the sections of river that was surveyed during this trip.

WORKING TOGETHER TO IMPROVE THE BUTTAHACHEE RIVER

BY: TONY BRADY

In the Southeast, November means that college football is in full swing and can pit even the best of friends against each other when rival schools clash on the gridiron. However, this November saw rivalries put to the side as biologists from Louisiana and Mississippi joined forces to start working on the Buttahatchee River. The Buttahatchee River flows westerly out of Alabama into Mississippi where it empties into the Tennessee Tombigbee Waterway. The mussel biologist from Natchitoches National Fish Hatchery (NNFH) spent three days working with biologists from Private John Allen National Fish Hatchery (PJANFH), the Mississippi Ecological Services Field Office (MESFO) and Wildlife Mississippi, a non-government organization, to assess the condition of the Buttahatchee River and to determine what would be needed to conduct a fish passage study that would cover over 20 miles of river. The Buttahatchee River has few access points for launching boats, and it contains numerous downed trees that stretch from bank to bank, limiting the initial surveying to short stretches of river. In total, the initial surveying covered about seven miles of river broken up into three small segments, as seen on the map. In those seven miles, one area was identified as a potential fish passage issue that will be addressed in full

detail when the full survey is finished. In addition to the fish passage survey, Wildlife Mississippi was interested in the current state of the freshwater mussels living in the Buttahatchee River. The last reported survey was conducted in 1990 by Paul Hartfield, currently with MESFO, and Robert Jones with the Museum of Natural Science in Jackson, MS. While the initial focus of this current trip was to address access to the river and fish passage, we did take time to pick up mussel shells that had washed up on gravel bars. We collected 20 of the 37 mussel species reported by Hartfield and Jones, including three species that are listed under the Endangered Species Act. Plans are being made for the NNFH biologist and one additional partner to finish the fish passage survey this summer and then combine all of our resources to conduct a more detailed mussel survey with help from the folks at the Alabama Aquatic Biodiversity Center. Information from the fish passage and mussel survey will help managing agencies and NGOs make the best possible management decisions for the Buttahatchee River.