

# Hatchery Highlights

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

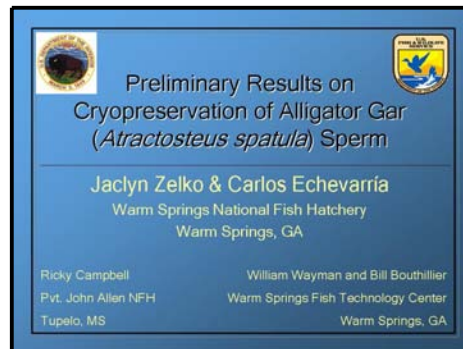


Winter 2007 & Spring 2008

**We apologize for not sending out Hatchery Highlights earlier.....  
We have been up to our elbows in fish this year!!!!!!!**

### HATCHERY STAFF ATTEND ALLIGATOR GAR MEETING IN LOUISIANA

Hatchery personnel Carlos Echevarria and Jaci Zelko recently attended the 2008 Alligator Gar Working Group Meeting held in Thibodaux, LA held February 21-22, 2008. More than 60 people, including bowfishing guides, state and federal biologists, a commercial angler, a commercial producer, university faculty members, and undergraduate and graduate students attended the meeting. The program included nineteen speakers presenting a range of topics from genetics to telemetry to feed trials. Jaci gave a presentation titled "Preliminary results on the cryopreservation of alligator gar (*Atractosteus spatula*) sperm". She updated participants on the current research of cryopreservation and fertilization trials conducted in partnership with Pvt. John Allen NFH, Warm Springs Fish Technology Center, and our own biologists. Invited speakers and guests from Monterrey and Villahermosa, Mexico, shared the results of their many years of experience and knowledge working with alligator gar and tropical gar.



The meeting was a huge success!! Both Carlos and Jaci are excited to be members of this hard-working and talented group. Carlos hopes that what he learned from other gar researchers can be applied to the successful culture of alligator gar at our station. The Working Group also decided to change their formal name to the Lepisosteid Research and Management Committee and also hold their next meeting as a special session within the 2009 Southern Division of AFS in New Orleans in January 2009.

### HATCHERY MAKES ENHANCEMENTS TO ATTRACT BIRDS

Friends of Warm Springs Hatchery, Warm Springs Regional Fisheries Center employees and Student Conservation Associates worked together to install purple martin house rack systems, wood duck boxes, bird feeders, and blue bird boxes on hatchery ground for Audubon's Great Backyard Bird Count, February 15-18, 2008. Tourism in the Warm Springs area has steadily grown with people from all walks of life enjoying the natural beauty and history of the area. Birders can now make a designated stop at the Warm Springs National Fish Hatchery as the natural setting has been enhanced for our feathered friends. Future work days to upgrade public areas around the hatchery are planned.



A wood duck box, blue bird house,  
and purple martin rack system.  
Photo by Rosla Plant.

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## HATCHERY HOSTS SERVICE BIOLOGISTS FOR GENETIC WORKSHOP

The hatchery and the Conservation Genetics Lab of the Warm Springs Fish Technology Center recently hosted a workshop (the second of two workshops) on conservation genetics. The first workshop was previously held at the Ecological Services Office in Panama City, Florida. The workshop included such topics as genetic terminology, genetic variation, micro-satellites, population genetics, drift, effective population size, demography/extinction, hybridization, and captive breeding.

The workshop held at our facility showed participants a non-invasive technique to sample tissue from threatened and endangered freshwater mussels for genetic analysis. Eleven Service people, a visiting professor from Appalachian State University in Boone, North Carolina, and a biologist from the Georgia Department of Natural Resources attended. Biologists swabbed mussels to collect cells from the viscera and foot of the mussels. This technique and several others are being tested by the Fish Technology Center to evaluate DNA extraction techniques and mussel mortality rates. Results from this study will help determine which sampling technique is the most efficient in providing high quality DNA for applications in conservation genetics of threatened and endangered freshwater mussels.



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## STAFF TRAVEL TO WISCONSIN FOR THE 8<sup>TH</sup> YEAR

Staff members Carlos Echevarria, Chad Shirey, and Jaci Zelko, traveled to Wisconsin to spawn lake sturgeon in the Wolf River. This is the eighth year that we traveled to the Wolf River to collect eggs and bring them back to the hatchery. Warm Springs also collected eggs that are incubated at other hatcheries: Pvt. John Allen in Tupelo, MS, Summerville State Fish Hatchery, GA and Genoa NFH in Genoa, WI.



Carlos is cleaning "muck" from fertilized eggs. Muck is used to keep the eggs from sticking.



Wisconsin DNR staff injects a PIT tag into a male. PIT tags help track population levels.

Over 70,000 eggs from six females were collected and fertilized. The weather was exceptionally warm this year, and since we showed up in our cold weather gear, we quickly had to shed some clothes in order to work comfortably. The camaraderie between Wisconsin DNR personnel and our own biologists has grown over the past eight years, so we don't really mind driving all that way to do a little fish work because we know we are going to have a great time.



Even though the 4-day trip is exhausting and we encounter several small problems along the way, the extraordinary effort will produce about 35,000 lake sturgeon fry to be distributed at 4 hatcheries. Fish will be raised for 6 months, then stocked at the Lower French Broad in the Upper Tennessee River; Cumberland River in TN; and Coosa River, GA. These preservation and recovery efforts are part of collaborations with the Wisconsin DNR, Tennessee Wildlife Resource Agency, Tennessee Valley Authority, the Service, and 12 other agencies to begin restoring this species in portions of its historic range in the Southeast.

Ed Scott, former TVA employee, has traveled with us for the past several years. He is holding up the remnants of a trailer tire that blew on our way up north. We always have fun on this trip!!

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## ALLIGATOR GAR SPAWNING

In May, our hatchery staff, cooperating with Private John Allen NFH and other partners, spawned alligator gar. Our staff members have offered assistance in developing protocols for the collection of eggs and sperm from brooders for the past couple of spawning seasons. Jaci Zelko, fish biologist, has worked on developing protocols for storing alligator gar sperm for short time periods (up to 10 days). Cryopreservation procedures were also refined. Sperm from this species is cryopreserved and placed in a repository for long-term storage. Our staff also worked in conjunction with staff from the Warm Springs Fish Technology Center on an egg de-adhesion study. Information gathered from this year's spawning effort will be incorporated into the alligator gar spawning protocols.



Biologists from Alabama DNR, Pvt. John Allen NFH, and Warm Springs NFH work together to spawn gar.



An alligator gar swimming along waiting for its turn to be spawned at Pvt. John Allen NFH, Tupelo, MS.

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## OUR FIRST TRY: BIOLOGIST - IN - TRAINING PROGRAM

Jaci Zelko, our Biologist-In-Training leader for the hatchery conducted her first program in April. "I was really nervous but also very excited. I was mostly worried that I wouldn't be able to put my training for this program into use. I wanted the kids to have a hands-on experience."

A group of home-schoolers from Columbus, GA, were the "guinea pigs" for this program at our hatchery. Eighteen kids, and plenty of moms, participated in the program. Even though the kids were younger than the targeted age for the BiT Program, they were still able to draw fish and name fish parts.



Biologist, Jaci Zelko, conducts the BiT program in a classroom and then takes the group of home-schooled children outdoors for a more hands-on lesson.

Jaci says that she has learned the most important part of environmental education is to have fun and be flexible. "A couple of the moms were very hesitant to let their children explore and play in the stream. But, by the end of session, everyone including those moms was in the water. I couldn't seem to get the adults out of the water!!"

Based on this success, the hatchery is moving forward with the BiT program.



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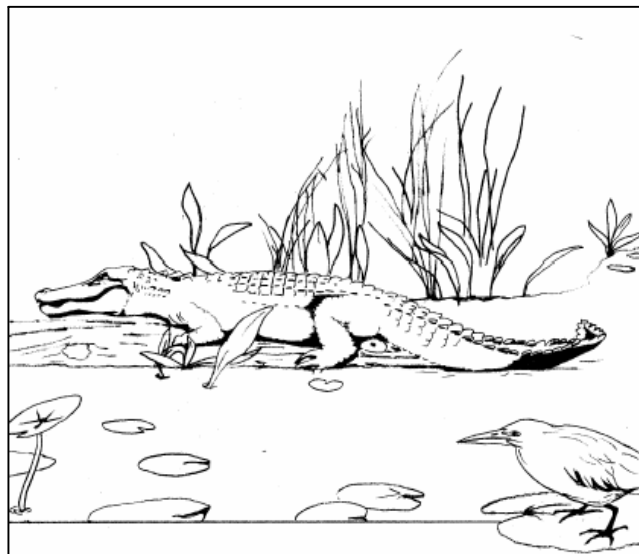
## HATCHERY CELEBRATES ENDANGERED SPECIES DAY

The hatchery held a coloring contest during the month of April in celebration of Endangered Species Day. This year, Endangered Species Day was designated for May 16th. Endangered Species Day is an opportunity for people young and old to learn about the importance of protecting endangered species and everyday actions that people can take to help protect our nation's disappearing wildlife and last opening remaining space. The contest was open to all children ages 4 to 12. A tri-fold display was set-up in our aquarium. The display contained info such as the meaning of "endangered", how citizens from local communities can help, and it showcased eight endangered species. Many entries were received and one winner was selected from all the beautiful artwork. Alex Smith, of La Grange, GA, was the winner. Alex received fishing tackle, a certificate of appreciation for participating in the contest, and lots of educational pamphlets and brochures. The winning artwork was displayed in our aquarium for all visitors to see.

Kids chose from coloring pages featuring eight species: Shortnose Sturgeon, American Alligator, Bald Eagle, Polar Bear, Grizzly Bear, Green Pitcher Plant, Florida Manatee, and Eastern Indigo Snake.



Alex Smith shows the certificate she received from fish biologist, Jaci Zelko.



This is one example of the endangered species coloring pages kids could choose from to participate in the contest.



Alex's beautiful rendition of a green pitcher plant was selected as the winning entry.



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