



# Tishomingo National Fish Hatchery

## Monthly Staff Report for May 2014



### Aquatic Species Habitat Conservation and Management



*Volunteers harvest alligator snapping turtle eggs.*

Alligator snapping turtles began the nesting process on May 19<sup>th</sup>. Biologist volunteers from Missouri State University (MSU) and Oklahoma State University (OSU) have retrieved eggs from nineteen nests to date, washing and drying each egg before placing in a plastic tray of vermiculite for incubation. When each egg is 48 hours old, the egg is held above a bright light to “candle” the egg. At this stage, the embryonic disk is visible through the top of the egg, which is an indicator of a developing egg. The eggs are measured, weighed, and kept moist during the 90-day incubation period in an environmental chamber. **(CSF 5.2.1)**

The 2014 year class of paddlefish fry are continuing to thrive averaging four inches in length. Tank cleaning and disbursing the paddlefish to avoid overcrowding still remains an important daily task, along with assessing health issues in each tank. **(CSF 5.2.1)**



*Paddlefish are monitored several times per day.*



*Alligator gar fry received at Tishomingo NFH.*

Alligator gar fry were sent to Tishomingo NFH from the Private John Allen NFH in Mississippi for growing to advanced sizes to fulfill a commitment to the state of Missouri for assistance in re-establishing alligator gar populations. This species is considered to be extirpated in Missouri. Varieties of diets are being evaluated to determine successful means of intensive culture of alligator gar. **(CSF 5.3.1; CSF 5.2.1)**

## Volunteers

Denise Thompson, from OSU, and Dr. Day Ligon, professor from MSU, are visiting the hatchery for the summer months performing studies on the alligator snapping turtles, population assessments, nesting studies, and predation studies. In addition, Dr. Ligon has a graduate student and research assistant with him to assist in turtle studies. Assessment studies are being conducted in Tishomingo NWR along drainage areas of Lake Texoma. **(CSF 52.1.2)**



*Denise Thompson and Dr. Day Ligon recording data on alligator snapping turtles.*



*OSU's new study of aging paddlefish.*

An OSU professor and graduate student have started a new paddlefish study at Tishomingo NFH. The study will attempt to age the paddlefish in days using the otolith of the paddlefish. Using fiberglass tanks, the fish are immersed in a solution containing tetracycline which colors the otolith allowing it to be viewed more easily. **(CSF 52.1.2)**

## Outreach

Tishomingo NFH gave a presentation with photo displays to 4<sup>th</sup> graders from surrounding counties at the Love County Nature Festival on Lake Murray. Children were shown alligator snapping turtles and common snapping turtles as the differences in the two species were discussed to promote easier identification of the alligator snapping turtle. The children were also given extra time to challenge our staff with some well-thought out questions. (CSF 15.4.8)



*Outreach presentation at Love County Nature Festival by Brian Fillmore.*

The Arbuckle Simpson Nature Festival was the site of another outreach event this month for the Tishomingo NFH. School children enjoyed spending the day viewing alligator snapping turtles, a common snapping turtle, a Mississippi mud turtle, and red-ear slider turtle. Two alligator gar were also displayed in an acrylic tank for the children to see. About six hundred elementary students passed through our booth and were encouraged to be good stewards of the environment.

(CSF 15.4.8)



*Comparing alligator snapping turtle to common snapping turtle – an important teaching tool in outreach.*

A class of Freshwater Fish Ecology students from the University of Oklahoma Biological Station toured the hatchery. Their instructor, Dr. Bill Shelton, was quite impressed with the paddlefish culture program, as well as the alligator snapping turtle culture program. (CSF 15.4.12)



*Alligator snapping turtle nest showing indentions where eggs were deposited.*

## Work Force

Forklift Training was conducted at the Tishomingo NFH by Jay Noel of Hagerman NWR for those employees needed that segment of Heavy Equipment Certification. Two of our staff successfully completed this course.

Ralph Simmons attended Diversity Training at Hagerman NWR as required to meet supervisory standards. The training was presented by Bobbea Cadena from the Regional Office.

The Tishomingo NFH welcomes our Career Discovery Intern, Mr. Antonio Jackson, this month. Antonio is a pre-med student at Morehouse College in Atlanta, Georgia. After undergoing station and safety orientation, Antonio has harvested alligator snapping turtle eggs from a nest, performed water quality measurements, and learned to feed and care for tanks of paddlefish and alligator gar.

*Alligator gar assessment requires work force cooperation.*



**U.S. Department of the Interior  
U.S. Fish & Wildlife Service**

<http://www.fws.gov/southwest/fisheries/tishomingo/index.html>

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*Photos courtesy of FWS staff.*



**Fisheries  
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