



## Oklahoma Fish and Wildlife Conservation Office



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### August Events

- 8/2 Chickasaw internet installed
- 8/3-8/4 Light trapped and gill netted at Webb Creek
- 8/5 K. Sardina presented with Early Career Professional of the Year Award at Annual Regional Award Ceremony
- 8/5-8/6 Stocked 100 ASTs at Big Cabin Creek with TNFH
- 8/5-8/6 TNFH borrowed OKFWCO truck to stock Channel Catfish at west Texas Refuges
- 8/9 Overhead Doors did repairs and installed weather stripping on boat barn and garage doors
- 8/10 Mississippi Gap Analysis on Paddlefish, Alligator Gar, Pallid Sturgeon, and Yoknapatawpha Darter conference call
- 8/10-8/11 AST habitat assessment on Pryor Creek and stocked ASTs in Chouteau Creek with TNFH
- 8/12 OKFWCO met with LMRFWCO for FY22 invasive carp planning
- 8/13 S. Hannabass habitat assessment meeting with MSU researcher, K. Voves
- 8/13 IAA completed for Buffalo Creek project on Ouachita National Forest
- 8/16 K. Sardina Tribal Wildlife Grants panel reviews and selections
- 8/16 TNFH borrowed OKFWCO truck to stock Channel Catfish at TNWR
- 8/16 Arkansas River receiver downloads
- 8/17 Silver Carp otolith extraction
- 8/18 D. Alberson removed old axles from War Eagle Trailer

### Krissy Sardina awarded Early Career Professional of the Year

Early this month, our very own, Krissy Sardina, received the Early Career Professional of the Year award at the Annual Southwest Region Awards Ceremony. Krissy has been heavily involved with every project OKFWCO is committed to since being hired as a term Biological Sciences Technician in September of 2019. Krissy was quickly promoted to a permanent Fish Biologist by April 2020, because of her exceptional work ethic, drive, and professionalism which is exhibited as she leads the OKFWCO in current and future projects. She has been a vital component to our office's successful involvement in invasive carp projects by completing multiple project proposals, collaborating with a variety of state and federal agencies, as well as establishing and maintaining relationships with private landowners and anglers that have been critical to our daily field operations. In addition to her invasive carp work, Krissy also serves as mentor to our Recent Graduate employee, is often the lead during field work, and frequently volunteers for tasks within the Service like the Tribal Wildlife Grant Selection Committee. Krissy is always looking for ways that our office can improve and never settles for doing the bare minimum on anything.



The criteria for the Early Career Professional of the Year award are as follows: "This award is presented to a current Service employee every year who has demonstrated a commitment and passion for the work of the Service regardless of the program. The employee's achievements further the mission of the Service and have a tangible impact on the employee's program on a one time or ongoing basis." Congratulations, Krissy, on a well-deserved award!



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### August Events

- 8/19 Jet boat to Arbuckle Sports for repairs
- 8/19 Completed FY21 FIS Accomplishment Reports
- 8/20 A. White welded spring pads on new trailer axles for War Eagle Trailer
- 8/23 B. Fillmore and volunteer, C. Thomas, installed new trailer axles
- 8/23 Culp's replaced War Eagle trailer tire
- 8/24 K. Sardina completed No Fear training and Fleet Card training
- 8/24 B. Fillmore completed MOCC refresher
- 8/24 Sexed invasive carp specimen
- 8/25 Chevy truck to Durant Chevy for repairs
- 8/25-8/26 Stocked 100 ASTs in Neosho River
- 8/27 Sikes Act conference call about future projects in Oklahoma
- 8/27 & 8/30 S. Hannabass aided TNFH with AST nest excavation
- 8/31 FAC Project Leaders conference call
- 8/31-9/1 Stocked 75 ASTs in Neosho River

### Larval invasive carp sampling

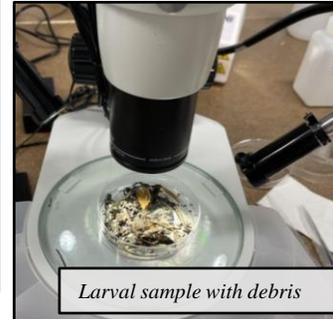
OKFWCO staff wrapped up their larval invasive carp sampling at the beginning of August with a final trip to a Red River tributary, Webb Creek. Bowfisherman and partner, Stephen Banaszak, notified OKFWCO staff that he had seen Silver Carp on Webb Creek earlier that week, so efforts were focused there for our final sampling trip. We used Quadrafoil light traps to catch phototactic larval fishes and preserved the samples for later identification.



Water Buffalo greets staff at entrance of private boat ramp



Fish in light trap tray



Larval sample with debris

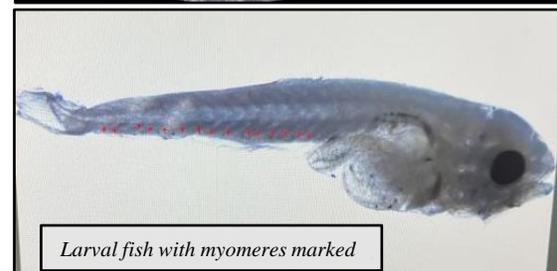
### Larval fish sorting and identification

After wrapping up larval invasive carp sampling, OKFWCO staff began sorting the samples that were collected. Many of the samples contained a plethora of plankton and aquatic invertebrates that needed to be sorted through for larval fish. Once the larval fish were extracted from the dense field samples, we started identifying them. Identification requires the use of several larval fish keys, specialized features of our new Nikon dissecting microscope, and a lot of patience. We start by measuring the fish, counting myomeres, and observing several other features like fins—if they are still present after the rough sample collection process—and mouth shape.

The goal of this process is to identify all larval fish caught throughout the summer to determine if invasive carp are actively reproducing in the Red River basin. Any fish identified as an invasive carp species—Bighead, Silver, Grass, and Black Carp—will be genetically confirmed by the Southwestern Native Aquatic Resources Recovery Center. Any specimen that are too degraded to visually identify will be blended together and genetically sampled.



Ich tow sample with debris, plankton, and fish egg



Larval fish with myomeres marked

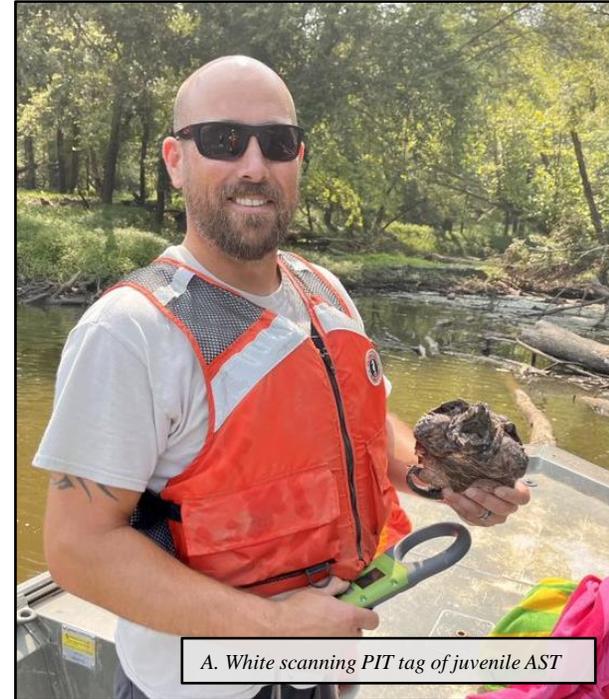


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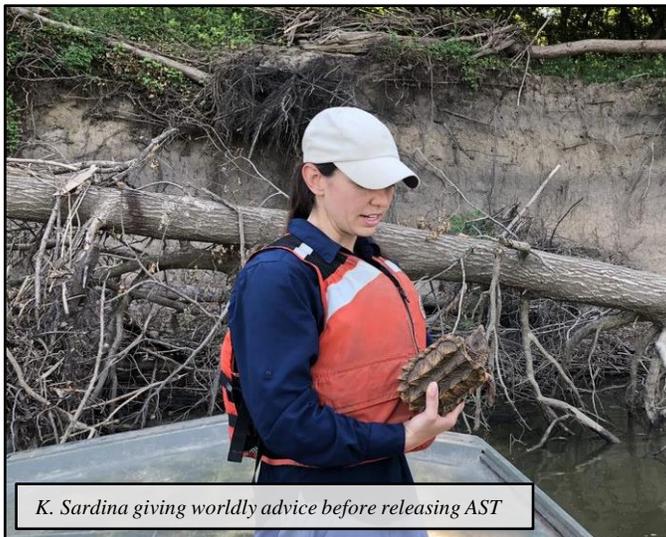


### Alligator Snapping Turtle stocking and habitat assessment

This month, Krissy Sardina and Sam Hannabass aided the Tishomingo National Fish Hatchery in their efforts to release over 300 head-started Alligator Snapping Turtles back into their historical range in Oklahoma. The Alligator Snapping Turtle program at TNFH began in 1999 to headstart hatchlings to a size that greatly reduces their risk of predation. Once the turtles have reached an appropriate size—usually after 2–5 years—they are released into rivers to supplement the current population or reintroduce the species back into waters they were previously extirpated from. This year, Alligator Snapping Turtles were released in Big Cabin Creek, Chouteau Creek, and the Neosho River.



A. White scanning PIT tag of juvenile AST



K. Sardina giving worldly advice before releasing AST

Before turtles are released, sites are analyzed for suitability to ensure Alligator Snapping Turtles will be well supported in the system. The criteria for a suitable release site include the presence of a robust aquatic turtle community (this indicates resources, such as food, are available in the system), that appropriate habitat exists (lots of submerged woody structure and steep banks for nesting), and human disturbance is low (based on the number of anglers/boats seen while surveying and human structures along the river). While out releasing turtles on Chouteau Creek, we did a habitat assessment on Pryor Creek, where the aquatic turtle community had previously been sampled. We utilized the side-scan sonar feature of our Lowrance Elite Ti<sup>2</sup> to quantify submerged woody structure—a.k.a. logs. A high number of submerged logs creates structure for Alligator Snapping Turtles to wedge themselves under and gives them a good place to hang out and hunt. Additionally, we recorded various bank measurements such as the steepness of the bank, the height, and percent overstory coverage. Alligator Snapping Turtles prefer to nest on tall, steep banks, so this is an important consideration for habitat suitability of a population we hope will eventually be self-sustaining.



A. White estimating bank height



A. White measuring bank angle



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Naturally incubated AST hatchling

### Alligator Snapping Turtle nest excavation

August is a big month in the world of Alligator Snapping Turtles at TNFH, and OKFWCO staff were also able to help with experimental nest excavation activities. Typically, TNFH staff searches for Alligator Snapping Turtle nests each morning during nesting seasons, which are then harvested as soon as they are found so the eggs can be incubated in climate-controlled incubators. This year, however, several nests were initially excavated to ensure the area of disturbance was an actual nest (Alligator Snapping Turtles frequently dig “test” nests before actually laying eggs), a data logger was placed inside, and the nest was re-covered with dirt and a metal screen was placed over each nest to eliminate the risk of predation by mammals. Alligator Snapping Turtles begin hatching in August, so these naturally incubated nests were excavated to collect hatchlings and any remaining eggs to reduce additional predation risk.



### Sexing adult invasive carp

In August, OKFWCO staff found a publication to determine sex of invasive carps and were able to assess the sex of all adult carp captured so far this year (“A rapid assessment approach for evaluating silver carp gender” Wolf et al. 2018). Male Silver and Bighead Carp have pronounced ridges on the dorsal side of their pectoral fin rays. Since all fish were frozen, we used a hair dryer to thaw the pectoral fins to determine the presence or absence of ridging. We determined our most recently collected fish were males: four Silver Carp and one Bighead Carp. This method was a quick and easy way to document the sex of these fish and should provide an easy way to assess sex in the field.



Ridging on pectoral fin of Silver Carp

