



Tennessee Chapter American Fisheries Society Newsletter



Winter 2017 - 2018

President – Brian Alford
President-elect – Brenda Pracheil

Treasurer/Secretary – Kathlina Alford
Past President – Chris Morton

President's Message

Greetings colleagues! I hope you have had a safe and productive 2017 on the water. Before addressing our chapter's concerns, I'd first like to extend to our friends in Texas and Puerto Rico, many of whom we work with through the Southern Division of AFS, our deepest concerns for their well-being following the hurricanes this past summer. With this in mind, I am proposing that during our next annual meeting in 2018, the chapter donate a portion of its silent and live auction funds to an organization(s) that are involved in hurricane recovery in these areas. If approved by the chapter, we can discuss how to dispense the funds during the business meeting.

Well, 2017 has been an outstanding year for the Tennessee Chapter. The annual meeting in Knoxville was one of the largest we've had in a while, with 23 students and 90 total registrants. The workshops were a great success, so we will continue to host these education opportunities at future meetings. Participants came from all over to learn about using R to conduct fisheries statistics, and how to identify Tennessee's crayfish and mussels. A big thank you goes out to Dan Walker from the University of Tennessee Dept. of Forestry, Wildlife, and Fisheries for instructing the R workshop, to Carl Williams from TWRA Region 4 for his instruction on crayfish taxonomy, and to Gerry Dinkins and Kristin Irwin, from the

UTK McClung Museum of Natural History and Culture for teaching us how to identify mussels.

Also, thanks to a new resolution passed at the meeting intended to support our student members, we were able to fund partial travel for our best poster award winner (Isabel Papaniku, Tennessee Tech University) so that she could present her poster at the AFS parent society meeting in Tampa, FL in August. Don't forget: students who volunteer to work at the annual chapter meeting in 2018 will get their registration paid.

The annual meeting in 2018 is scheduled for January 23-25 in Knoxville at the UT Conference Center again, with the hotel block being at the Holiday Inn at World's Fair Park (right across the street). Continuing education workshops will be held on Intro to R, Basic Graphics and GIS in R, mussel identification and fish identification. Don't worry: this is not a Groundhog Day scenario. We attempted to schedule a joint meeting with the Arkansas chapter, but it fell through at the last second. The abstract submission deadline for oral and poster presentations is January 1, 2018. Send those to President-elect Brenda Pracheil (pracheilbm@ornl.gov).

One of most important chapter outreach activities in recent years has been the Kid's Fishing Derby events held across the state each summer and sponsored by TWRA.

This year the chapter provided \$3,000 to 8 events. Student sub-unit members from Tennessee Tech and University of Tennessee-Knoxville volunteered to organize and run some of the events. A good time was had by all, and many young people across the state were introduced to world of fishing. Another effective way to introduce folks to our society and fishing is through social media and our website. We have a wonderful Facebook page full of photos, videos, job announcements, and other news related to fisheries in Tennessee, so please like and follow us. However, after the crash of the Southern Division website, we had to move to a different location under the auspices of the parent society, who has much more efficient hacking safeguards. The chapter is now soliciting volunteers to be the new webmaster for our chapter webpage. All the information from the old site is currently uploaded to the new site. It just needs to be populated and made to look spiffy. So, if you can handle Word Press, please reach out to me at jalfor12@utk.edu to volunteer your services.

In closing, I'd like for our membership to be aware of a congressional bill that hopefully will be voted on and approved during this year's federal legislative cycle. The bill is called the Recovering America's Wildlife Act. The intension of this bill is to provide the U.S. states and territories with over \$1.3 billion annually from oil and gas sales on federal properties to specifically fund research, monitoring and restoration projects for imperiled non-game wildlife species (read more about it here:

<https://www.nwf.org/Our-Work/Wildlife-Conservation/Policy/Recovering-Americas-Wildlife-Act>). These funds would be administered through the U.S. Fish and Wildlife Service and dispersed through the state wildlife agencies who will be responsible for managing these resources. We all know how important Tennessee is with respect to its aquatic biological diversity and endemism. We live in the epicenter of the North American "Amazon". If you feel this legislation is important

enough to support with your voice, I urge you to contact your congressional representative and urge them to vote yes on house bill H.R. 5650.

I hope you have a wonderful holiday season and hope to see you in Knoxville for the annual chapter meeting.

Best Wishes,

--Brian Alford, President of the Tennessee Chapter of the American Fisheries Society

Chapter Annual Meeting: January 24– 25, 2018, UT Conference Center Knoxville

Registration:

Usual technical sessions will begin at noon on January 24 in the auditorium of the UT Conference Center. Early registration ends January 1, 2017. Please visit our [Square Store](#) to purchase your registration. A registration form will also need to be sent to Chris Morton (or brought to the meeting) to complete your registration. With the move of the meeting to Knoxville, we were able to keep registration rates the same as last year!

Registration rates:

Early bird professional (until January 1): \$60

Late professional: \$70

Student early bird (until January 1): \$35

Student late: \$40

Abstracts:

Deadline to submit abstract is January 1, 2017. We are accepting abstracts for both oral and poster presentations. Oral presentations should be no more than 15 minutes with 5 minutes for questions. Student presenters are invited to compete for the Best Student Paper and Poster Awards (1st-3rd prizes for both).

All abstracts and questions about the meeting should be submitted to Brenda Pracheil (pracheilbm@ornl.gov). Please use the following formatting

guidelines for all abstract submissions:

TITLE OF PRESENTATION (upper case letters)

Author(s) names (last name followed by first name and initials). Presenting author's name underlined

Full professional address(es) (no academic titles or official positions)

E-mail address of presenting author

Text of the abstract (250 word limit)

Oral Paper / Poster (Please indicate which is preferred)

Continuing Education Workshops:

We are excited to again offer optional Continuing Education Workshops to attendees! Courses offered will be Tuesday, January 23rd and Wednesday morning, January 24th at the UT Conference Center and will consist of Intro to R (Tuesday am), Basic Graphics and GIS in R (Tuesday pm), Mussel ID (Tuesday pm), and Fish ID (Wednesday am). The Basic Graphics and GIS in R course is designed such that no previous R experience except for the Intro to R course will be needed. The mussel ID and Graphics and GIS in R take place at the same time so it is not possible to take both courses.

There will be a \$25 fee per course to build up a CE budget so that we can continue to offer quality CE opportunities to our membership. We are in the process of having the courses certified through AFS so that CE credits count towards certified fisheries professional certification.

Please direct questions about continuing education courses or the meeting to Brenda Pracheil at pracheilbm@ornl.gov. Looking forward to seeing you all at the meeting!

Nominations and Awards

The Tennessee Chapter of the American Fisheries Society Nominations and Awards Committee is soliciting nominations for the following awards:

- 1) Lifetime Achievement Award
- 2) Outstanding Fisheries Scientist
- 3) Distinguished Service Award
- 4) Friends of Fisheries Award

Award nominations are open until December 15th. Please send nominations to Will Collier at <mailto:Will.Collier@tn.gov>

TWRA Region I Fisheries

Region I continued maintenance of deep water fish attractors established lakewide and established additional shallow water fish attractors in September. Those programs are very popular with anglers. We also planted cypress trees in the Paris Landing area and cypress tree monitoring continued with historic plantings in the New Johnsonville and Eagle Creek area with diameter, height, and survival measurements.

Region I just completed the third year of Florida largemouth bass stocking in Harmon Creek, Blue Creek, and Eagle Creek.. Approximately 180,000, 150,000, and 150,000 FLMB were stocked in 2015, 2016, and 2017, respectively. Future sampling efforts in these embayments will focus on growth rates and percent FLMB collected compared to baseline data. Regional fisheries personnel also collected additional LMB fin clips at Pickwick Reservoir for baseline data.

The silver carp populations have continued to increase on the Mississippi River. As reported last year, silver carp have been collected in all Mississippi River tributaries, below the spillway at Reelfoot Lake and below Cheatham Dam. We have also collected silver carp below Pickwick Dam and commercial fishers have continued to collect bighead/silver carp in the Big Sandy area. The Agency is currently working with commercial fishers and private industry to determine commercial sale of Asian carp to China or to local markets. Several wholesale fish dealers have been established along the Mississippi and Ohio Rivers in Kentucky. Although the leading distribution edge has

been documented to Pickwick Dam, densities have not increased in the area.

Region I obtained funding from the USFWS to hire two interns to conduct larval light trap surveys and larval egg tows on Kentucky and Barkley reservoirs in 2017. Collections are currently being evaluated to determine successful reproduction of Asian carp within Kentucky or Barkley reservoirs. The Agency will be contacting several universities in 2018 to hire two more interns to continue sampling efforts.

In addition to silver carp, bighead carp, and grass carp, black carp fingerlings have also been documented in the Mississippi River. Black carp pose a threat to the native mussel populations. Zebra mussel reproduction also increased dramatically this past summer and was attributed to the cooler water temperatures and possible increases in calcium levels. Zebra mussel collections exceeded 1,000 zebra mussels per quarter meter quadrat in some areas.

Region I personnel have also attended MICRA and LMRCC meetings to discuss sampling strategies and funding possibilities to determine densities and reproduction of Asian carp. Although adult populations have been documented in Region I waters, reproduction has not been recognized.

The stream crews completed assigned surveys (sampled 30 streams and small rivers) and have established the “leading edge” of silver carp distribution in the major rivers, creeks, and streams feeding Kentucky Reservoir. As you may remember, crews collected silver carp in the 150 to 225 mm range in Kentucky Reservoir last year. Fish were collected as far south as Beech River, but the largest numbers were collected in the Big Sandy river area. As previously mentioned, larval light traps were set in Kentucky Reservoir in 2017 in an attempt to collect larval Asian carp, but young-of-year fish were not collected in Fall 2016 or Spring 2017 electrofishing surveys. However, age 2+ fish were collected in both

Kentucky and Barkley Reservoirs at significant densities (length collected > 600 mm). Asian carp will be our biggest management issue for the future and we are working with private industry and commercial fishers to develop harvest plans.

Sauger populations improved in 2014 - 2016 but anglers were not able to take advantage of the increased densities because of high discharge rates during the entire sauger season. We initiated a sauger stocking program in 2011 and that has continued for five years. Sauger were not stocked in 2017 to determine if sauger can sustain a harvestable population without stocking.

The state lakes and hatchery crews have worked to improve state lake facilities and visitation remains good. The Humboldt Hatchery is the largest in Tennessee and has been assigned the Florida Largemouth Bass program. The crew completed the FLMB rearing facility and produced 500,000 fingerling fish in their first year of production. Sauger, catfish, blacknose crappie, sunfish, Florida LMB are the primary species raised at Humboldt and trout and alligator gar are also received and stocked from the hatchery. New stocking strategies may allow the hatchery to begin rearing striped bass and/or hybrid striped bass.

The winter trout program has also been a success in Region I and the Agency stocks approximately 12 small ponds throughout Region I with over 12,000 trout. This is also a popular program with the anglers. We are currently evaluating stocking strategies and will be utilizing trail cameras to evaluate usage.

We are also working on developing new small impoundment stocking strategies to determine if lower numbers can continue to provide good densities, especially with catfish. In addition we have been working with Shelby Farms providing pond management strategies and technical assistance for newly renovated ponds. Lone

Oak is a 1,200 acre University of Tennessee facility in Hardeman County designed to serve as a 4-H camp. The Region I fisheries crew has also worked with Lone Oak to provide technical assistance and pond management recommendations for area ponds.

--Tim Broadbent

TWRA Region 3



The Roaring River flows freely for the first time in over 40 years as its only dam came down last August. At roughly 220 feet wide and 15 feet high, the Roaring River Dam was the largest dam to be removed for river and stream restoration purposes in Tennessee. It impounded a section of the Roaring River, a state scenic river, about five miles upstream of Cordell Hull Reservoir in Jackson County.

The dam, built in 1976 by the U.S. Army Corps of Engineers (USACE), was targeted for removal because its base was eroding in what is known as a “head cut,” creating a risk that the dam might fail. Rather than repair it, the Tennessee Wildlife Resources Agency (TWRA) and USACE determined that it would be best to have it removed. The dam was originally built at TWRA’s request to keep reservoir species from moving upstream into areas inhabited by stream fish.

“With the dam failing, it has provided an opportunity to enhance the connectivity within the Roaring River Watershed,” said Mark Thurman, TWRA Region 3 Fisheries

Coordinator. “While the barrier has not excluded reservoir species, it does still function as a barrier through most of the year. Removing the dam will open up the river for fish such as white bass, sauger, smallmouth bass and redhorse. It will also benefit other species such as the eastern hellbender, whose numbers have declined across the species range.”

“We know of more than 2,000 of these dams in Tennessee’s rivers and streams. Many have outlived their intended purpose and fallen into disrepair. There is a growing recognition that removing these old dams results in safer rivers for recreation and healthier habitat for wildlife,” said Rob Bullard, Tennessee and Cumberland Rivers Program Director with The Nature Conservancy.

Partners in the joint effort to remove the aging dam include TWRA, USACE, The Nature Conservancy, U.S. Fish and Wildlife Service, Tennessee Department of Environment and Conservation, and the Southern Aquatic Resources Partnership.

--Will Collier

Tellico Hatchery Update

2017 has been an exciting year at the Tellico Hatchery, as the staff has faced and overcome a multitude of challenges to provide excellent fish for the watersheds they service. 2017 started with the hiring of Jon Ellis as the new Tellico Hatchery Manager. Jon previously worked on TWRA’s Region 3 Reservoir crew.

Although the season began with unfavorable water conditions; which were the result of the historic drought the previous year, recent rain events seem to be improving the overall condition of the aquifer, and hopefully will provide more stable water conditions for the 2018 season. The overall quality and health of the fish reared at the Tellico Hatchery this year was outstanding. The average stock size Rainbow Trout for the 2017 season

weighed slightly over three quarters of a pound, with some stocked later in the year averaging over 1.29 pounds. The large average size and excellent condition of the fish leaving the hatchery, as well as our continuation of the Tellico Trophy program, resulted in an outstanding fishing season, with many nice limits and some excellent trophy fish being caught. We are currently entering the delayed harvest season, and are hopeful the improved water conditions will be conducive to providing a stable winter fishery.

The hatchery has continued its tradition of being an educational facility by hosting a large number of school, Boy and Girl Scout, Trout in the Classroom, and private tours at the hatchery. During these events, members of the hatchery staff have established individual stations that participant's visit, which cover topics such as trout anatomy, ANS, establishing feeding regiments, maintaining fish health, and basic stocking procedures. The hatchery and staff also provided a base for Florida's Scientastic Institute which not only toured the facility, but also took environmental measurements during the solar eclipse, the data from which was used by NASA.

Furthermore, long time hatchery employee Rob Theurer has been selected as the 2017 Fisheries Technician of the Year. Rob, who has worked for TWRA for 23 years, is an integral part of hatchery operations. His unparalleled dedication to the hatchery and its mission to provide quality fish throughout the region is an essential component to the hatchery's success. Congratulations Rob, on a job well done!

Other major developments include the tragic crash of a Navy T-45 Goshawk training jet which went down just upstream of the hatchery in early October. Hatchery manager Jonathan Ellis, as well as two members of the U.S. Marine Corp, were the first to arrive on the scene. Mr. Ellis assisted the Navy and Marines throughout the extraction and investigation process, and played a significant role in recovery efforts.

Hatchery technician Rob Theurer, also actively participated in the response to the incident, by applying his knowledge of the local terrain, and assisting in the development of a road to the crash site, as well as helping with jet recovery efforts. For their help, both Mr. Ellis, and Mr. Theurer were awarded Naval Letters of Commendation, as well as Bronze and Silver Challenge Coins. Both these honors are awarded to military personnel and civilians, who are deemed to have played an essential role in the completion of a military mission. Additionally, hatchery technician Jessica Matoy, provided vital support to all those based at the hatchery, which served as a command center for the operation. While other staff members were being utilized in recovery efforts, Jessica ensured that all hatchery fish were well cared for, and never missed a scheduled stocking day throughout the incident.

As the hatchery enters our winter season, we are concentrating on making improvements to the hatchery grounds, and the systems used in our fish rearing process. Currently, the trout in the hatchery are exhibiting outstanding growth, which should provide some really nice fish for next season. The Tellico Trophies are looking great, and should provide ample trophy opportunities to anglers during the delayed harvest, as well as the upcoming 2018 trout season.

--Travis Scott

University of Tennessee-Knoxville Student Sub-Unit

The University of Tennessee sub-unit of the American Fisheries Society tries to engage students in both the classroom and in the field. We see this unit as a great way to gain valuable field experience and to network with numerous professionals in this field. Our goal is to make our students stand out by encouraging attending professional conferences and volunteering any chance they get. We pride ourselves in taking

advantages of opportunities that many other universities may not be able to provide. We feel that these opportunities will be extremely beneficial in furthering our professional careers.

What Has Heen Going On

During this fall semester, the society participated in the annual Sturgeonfest held at Seven Islands State Birding Park. The students worked alongside the Tennessee Valley Authority and Tennessee Wildlife Resources Agency to release juvenile Lake Sturgeon (*Acipenser fulvescens*) into the Tennessee River. We met with the public as well to educate them about the recovery efforts of this great species.

Also, we were able to send six of our students to the annual Southeastern Fisheries Council meeting in Chattanooga, Tennessee. Here, these students listened to some of the best graduate student research projects across the southeast. This was also a great way for the students to network and get to know professionals and to obtain information pertaining to graduate school opportunities.

Looking Toward the Future

During the first week of December, members of the sub-unit will be going out with the Southeast Lake Sturgeon Working Group to conduct annual sturgeon monitoring in the Tennessee River. We will be setting gill nets and trot lines with the goal of capturing some of these fish to pit tag, take fin clips for genetics analysis, remove pectoral rays for age determination, and perform colonic flushes to assess diet.

This will allow us to assess population recovery and if the species is stabilizing itself in its reintroduced habitat. In addition, to this project, students are volunteering with Fred Heitman to install fish attractors in ponds. This effort will ultimately aid anglers by increasing recruitment and fishing success. In February, we will be hosting our Wild Game Dinner. This event brings in over 500 people annually, and each

year we raise over \$8,000 that goes towards student outreach projects, travel to professional meetings, and participate in the annual Southeastern Wildlife Conclave.

--Austin Archer

In Closing...

The flows are up
the temperatures have plummeted
Fish now dwell deep -
winter home to keep
The waders are idle
the seine all but dry
All surveys amended
Another season has ended...

--Submitted by Joyce Coombs

Thanks to all who submitted material for our Newsletter!

--Richard Strange, Editor