

# The Lateral Line

Arkansas Chapter of the American Fisheries Society

Spring 2019 Edition

### **President's Message from Matt Schroeder**

My fellow fisheries professionals,

Were you one of the 38 million Americans who fished in a stream, river, or lake last year? I hope the answer is YES. I know that I didn't get to fish as much as I would have liked, but I still managed to get on the water about 15 to 20 times. More importantly, were you able to take a youngster or novice fishing with you? If not, you may be surprised to learn the following information:

From 2006 to 2016, participation in freshwater fishing among anglers 6 years old and older decreased from 43.1 million to 38.1 million<sup>1</sup>. This is an 11.6% decrease, despite the population of the US increasing by 8.4% over the same time frame<sup>2</sup>. In Arkansas, from 2014 to 2018, resident fishing license sales decreased 11.9%<sup>3</sup> despite the population increasing 2.4% over the same time period<sup>4</sup>.

Maybe you are asking yourself, "Why is this important?" Fishing license sales make up  $\sim 11\%$  of the Arkansas Game and Fish Commission budget<sup>3</sup>, which is a funding source for the conservation and management of habitats and species in the state. Additionally, through the 1950 Federal Aid in Sport Fish Restoration Act, fishing tackle manufactures pay a federal excise tax on all fishing tackle sold. Another funding source is generated by the sale of fuel for boat motors (Marine Fuel Tax). What do these conservation funding sources all have in common? They are dependent upon YOUR participation in this past time AND passing the torch to future generations.

Currently 79% of school aged kids play video games on a typical day<sup>5</sup>. Contrast this with only 18% of school aged kids fishing at least once in a year<sup>1</sup>. However, there is an opportunity to turn that trend around, as 51% of school aged kids indicated that they were either an occasional or avid angler AND would like to fish MORE often<sup>1</sup>. Kids also indicated that their main reason they wanted to fish was to be with family and friends (65%)1. It is often up to YOU to take a kid fishing.



The third goal/objective of our Chapter is to "Increase the public's awareness of Arkansas' aquatic and fisheries resources and expand their participation in fisheries related projects and issues including habitat maintenance and improvement work, protection of sensitive area resources, and the promotion of wise management of all of Arkansas aquatic resources." As a group and as individuals, we do a pretty good job with this goal/objective. However, we could do better. My challenge to the members of this Chapter is to go fishing AND bring a novice with you. Funding that affects our hobby, profession, and passion is at risk, but if we make a concerted effort, we can make a difference!

(President' Message continued on next page...)

Jacob Schroeder, Matt's son, poses with a nice crappie!

#### Also in this **Edition:**

- Officer and Committee Reports (Pgs. 2-4)
- SDAFS 2020 Update (Pg. 5)



- Student Subunit **Reports** (Pgs. 6-8)
- Student Featured Article (Pgs. 9-10)



- Science Fair Results (Pgs. 11-12)
- Catfish 2020 Workshop (Pg. 12)
- 2019 Chapter Meeting Highlights (Pg. 13)

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President's Message Cont...

This objective is important to me in my tenure as Chapter President, which is why this year, I will be forming a committee to organize the inaugural Arkansas Chapter AFS *Lepomis*Fishing Tournament (tentative date: May 9<sup>th</sup>, 2020 (full moon on the 7<sup>th</sup>). I see this event(s) as a great way for the Chapter's members to interact with each other outside of our annual meeting, AND this would be a great event to bring a kid (or big kid) fishing with you. Let's all pitch in to do our part and keep this sport alive. If you are interested in assisting with this effort, please send me an email or give me a call. Thank you!

<sup>1</sup>Recreational Boating and Fishing Foundation: 2017 Special Report on Fishing:

https://www.takemefishing.org/getmedia/ad9 0c199-3758-44ca-9bed-efe565fa807e/2017-Special-Report-on-Fishing final2.pdf

<sup>2</sup>US Census Bureau 2018:

https://www.census.gov/data/tables/time-series/demo/popest/2010s-national-total.html

<sup>3</sup>AGFC unpublished data

<sup>4</sup>Arkansas Population. (2019-04-01). http://worldpopulationreview.com/states/arkansas/

<sup>5</sup>Pew Research Center 2015, Parenting in America:

https://www.pewsocialtrends.org/2015/12/17/5-childrens-extracurricular-activities/

Matthew.Schroeder@agfc.ar.gov 501-470-3309 ext. 1204

#### Ideas for next Lateral Line?

Thanks to everyone who provided information for this edition of the LL. As always, I encourage you, Chapter members, to give me ideas and share your suggestions for future editions. This fall, I'd like to get more information on subunit activities (especially pictures!) and information to do featured articles again. Chapter members are doing a lot of good work- Let's share it! Thanks!

-Christy Graham. Newsletter Editor

# The Lateral Line

**Spring 2019** 

# Officer and Committee Reports

### Past-President's Message- Mike Eggleton

I want to begin by congratulating current president, Matt Schroeder, and everyone else involved, for hosting another great annual meeting in Hot Springs. I thought the Arlington was a great choice for our meeting, and I think everyone enjoyed their time there. As usual, the Chapter meeting contained a great collection of presentations and posters, which made for a memorable event. Thus far, I've enjoyed my 2 years on the Chapter's Executive Committee, which has enabled me to get better acquainted with my fellow officers and many other Chapter members. You have all been a great bunch of people to work with. I'm also grateful to all those other folks who stepped up (oftentimes on the spot) to help the Chapter continue to have great meetings, judge science fairs, etc. every year. I do not have the space here to name all of these people.

For now, I take on a new role for the Chapter. As part of my Past-President duties, I will be soliciting officer and award nominations this summer and in our fall newsletter. However, in the meantime, I would appreciate any early nominations for the Joe Hogan Award for Individual Achievement and the Robert M. Jenkins Award for Outstanding Conservation Achievement. Please email me your nominees at <a href="mailto:eggletonm@uapb.edu">eggletonm@uapb.edu</a>.

Finally, don't forget that the Chapter is hosting the 2020 Southern Division AFS meeting in Little Rock alongside the Catfish 2020 Symposium. It should be two great meetings in the same week. I look forward to working with many familiar faces as we get the old band back together at the Marriott to host the divisional meeting. Until then, everyone be careful out there this summer and I hope you have a great field season.

# Did you hear?? The Alligator Gar is now the official State Primitive Fish!

Congrats to young Mr. Henry Foster on his efforts to promote the Alligator Gar for State Fish.

For more information and videos about his efforts, check out his "GARkansas" Facebook Page!

#### Raffle Committee

*Justin.Powers@agfc.ar.gov* 

Fellow Members, I would like to thank everyone who participated in this year's silent auction and raffle during the annual chapter meeting in Hot Springs. We were fortunate to have numerous products and services on the silent auction table, supplied by vendors from all over the state. The silent auction brought in \$1,402, while the raffle brought in \$1,300, for a grand total of \$2,702 raised for our chapter. This coming year (2020) is going to be a little different than our normal chapter meetings. As most of you know, we will be hosting the Southern Division AFS annual meeting in Little Rock. We are still planning on doing some fund raising for the event, only this round, we will be looking at doing things slightly different in order to cater to the larger attendance. We are currently working on all of the details, so stay tuned to later newsletters about updates and happenings. Thank again, to all who put their time, effort, and money into this past event. -Eli Powers, Raffle Committee Chair

#### **Education Committee**

THANK YOU to all this year's science fair judges, Jessica Feltz, Chris Naus, Kent Coffey, Aaron Kern, and the UAPB subunit. Without all your time and expertise there is no way that we would be able to provide positive feedback for the great work these students are doing in fisheries and aquatics. Once again, THANK YOU SO MUCH!!!!

My quest of seamless communications between the chapter and the subunits yielded some improvements, yet I feel there is still much work to do. I feel this mission not only serves the Chapter, but the students as well. As always, any ideas from the subunits or the Chapter on things they want to see come out of the Education Committee, please don't hesitate to contact CHELSEY SHERWOOD!!!!

I have enjoyed the challenges of serving as education liaison but felt the role might be better suited for a more recent college graduate. I will still serve on the committee and aid Chelsey as she takes over the reins. She is fully capable and will serve the chapter well. I will turn my focus to my true skill set, acquiring and sampling refreshments for the enjoyment of my colleagues.

-JJ Gladden, Education Committee Chair

JJ.Gladden@agfc.ar.gov

# Environmental Affairs Committee Report Committee Members: Jessie Green, Jim Peterson, Forrest Payne, and Steve Filipek

The Arkansas Chapter of the American Fisheries Society expressed opposition to Senate Bill 550 which would have amended the law regarding liquid animal waste utilization. The primary concern was the ramifications of moving responsibility for regulation of liquid animal waste from the Arkansas Department of Environmental Quality (ADEQ) to the Arkansas Natural Resources Commission (ANRC). Within this proposed move several specific concerns included differences in ADEQ and ANRC administrative procedures. Specifically:

- Public notification requirements, public oversight during the permitting process, and transparency throughout the life of the permit will be eliminated or weakened;
- ANRC will not accept anonymous complaints, and considers only notarized complaints, about Concentrated Animal Feeding Operations (CAFOs) which will be a deterrent to citizen reporting;
- Enforcement capabilities will be severely limited because ANRC will require 72-hour notice before conducting a site visit; and
- ADEQ's Regulation 5 requirements could be weakened or eliminated completely when ANRC assumes responsibility for regulation of liquid litter. Even if no changes were implemented, an unnecessary "learning curve" would be required as responsibility is transferred from one agency to another.

Due to controversy and concern surrounding the bill, SB550 was pulled down by one of the sponsors before the House Agriculture, Forestry, and Economic Development committee vote. The bill will be sent to interim study and could resurface in a future legislative session.

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Balance brought forward (February 1, 2018):	\$26,983.44
INCOME	
Interest (Simmons Bank), Feb 2018-Mar 2019	\$30.79
Misc. income from 2018 meeting	\$145.00
PayPal transfer (June 2018)	\$2,863.33
Square Card reader transfer (Feb 2018)	\$62.58
2019 Chapter pre-meeting income (reg. & dues)	\$750.00
2019 Chapter meeting (registration, dues, silent auction & raffle)	\$10,441.46
Misc. income during 2018	\$10.02
Income recovered from 2016 & 2017 Chapter meetings**	\$1,005.00
Total Income	\$15,308.18
SUBTOTAL	\$42,291.62
DISBURSEMENTS	
Chapter student, subunit & science fair awards for 2017-18	\$500.00
AFS certifications, renewals & officer dues for 2018	\$415.00
2018 Chapter meeting expenses (Pine Bluff/UAPB)	\$5,374.43
2020 Little Rock SDAFS seed funding	\$5,000.00
Donation - FLOW 2018 Workshop	\$500.00
Donation - Catfish 2020 Symposium	\$500.00
Donation - WR Waterkeeper event	\$500.00
Wild Apricot annual subscription	\$972.00
AFS-required insurance	\$150.00
Tax preparation fee	\$75.00
Spring and Fall 2018 EXCOM meeting expenses	\$190.85
Chapter student, subunit & science fair awards for 2018-19	\$700.00
2019 Chapter pre-meeting expenses	\$1,528.19
2019 Chapter meeting - direct expenses	\$11,648.40
2019 Chapter meeting - indirect expenses	\$193.08
Misc related to card readers	\$0.01
Misc unknown	\$25.00
Total disbursements	\$28,271.96
Balance on-hand (April 23, 2019):***	\$14,019.66
Prepared by Mike Eggleton & Casey Cox	Ψ14,017.00

<sup>\*</sup> This is the second revised report that reconciles all 2019 meeting income and expenses. The only outstanding expense is a single \$50 check (#1025, Kayleigh Smith) awarded at the meeting that has not been cashed.

# Would you like to join the Arkansas Chapter AFS??

If you are interested in joining or renewing your membership to the Arkansas Chapter of the American Fisheries Society, please visit the Chapter web site, or contact Matt Horton at Matt.Horton@agfc.ar.gov. If your e-mail address has changed recently, please let us know!

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To view Business Meeting minutes from the January 2019 Chapter Meeting or EXCOM meeting minutes, please visit the Chapter website:

http://sdafs.org/arkafs/AFS/

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# Getting in Touch: Current Officers

President: Matt Schroeder;

Matthew.Schroeder@agfc.ar.gov

President Elect: Justin Homan;

Justin.Homan@agfc.ar.gov

Secretary: Dustin Lynch;

<u>Dustin.Lynch@arkansas.gov</u>
<u>Treasurer:</u> Matt Horton
<u>Matthew.Horton@agfc.ar.gov</u>

Past-President: Mike Eggleton;
eggletonm@uapb.edu

<sup>\*\*</sup>Additionally, we recovered an additional \$1,005 from several un-cashed checks left over from the 2016 & 2017 meetings.

<sup>\*\*\*</sup>This balance is \$50 less than the Simmons Bank website due to the uncashed check listed above.

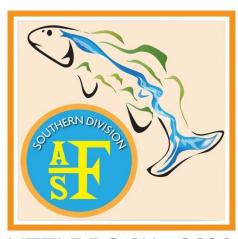
# Update from the SDAFS 2020 Planning Committee

General Meeting Chair, Ben Batten, and his planning team have been steadily making progress on what is to be a great Southern Division meeting. The major update since the Chapter meeting is the completion of the contract with the Marriott Hotel and Convention Center. The team recently met with representatives of the Third International Catfish Symposium (Catfish 2020) who are meeting jointly with Southern Division. The local arrangements team will be submitting proposed registration costs to Southern Division EXCOM by the end of the month for approval. Once approved, we will post to our meeting website

(https://sd.fisheries.org/little-rock-2020/). Our goal is to have registration go live by early July. We are quickly approaching the point that the team will meet almost monthly from herein and, thus the need for more volunteers from the Chapter is also upon us. Planning team structure is provided in the table below. The team's next big task will be soliciting sponsors and fundraising. If you have any interest, please contact Ben Batten or Tate Wentz. Dr. Mike Eggleton graciously agreed to be our meeting treasurer and has prepared a draft budget based on the 2013 AFS Annual meeting in Little Rock. Current attendance estimate ranges from 350 to 450 attendees.

From the program side, Dr. Steve Lochmann and his team have been active as well. The first call for symposia will be in August and the first call for abstracts will be in September. Upcoming dates and deadlines will be posted to the SDAFS website and shared with SDAFS newsletter and listserv editors.

SDAFS Annual Meeting - Little Rock 2020				
President	Scott Bonar			
Southern Division President	Wes Neal			
Chapter President	Matt Schroeder (matt.schroeder@agfc.ar.gov)			
Chapter Past-President	Mike Eggleton (eggletonm@uapb.edu)			
General Meeting Chair	Ben Batten (Ben.Batten@agfc.ar.gov)			
Program Committee				
Program Chair and Workshops	Steve Lochmann (lochmanns@uapb.edu)			
Symposia	Jonathan Spurgeon (spurgeonj@uapb.edu)			
Contributed Papers	Brett Timmons (brett.timmons@agfc.ar.gov)			
Poster Session	John Jackson (jjackson@atu.edu)			
Master	Matthew Anderson (manderson 09@fs fed us)			
Scheduler/Accommodations	Matthew Anderson (manderson08@fs.fed.us)			
Local Arrangements				
Committee				
Co-Chairs & Committees				



LITTLE ROCK • 2020

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Ben Batten (ben.batten@agfc.ar.gov)		JJ Gladden (jj.gladden@agfc.ar.gov)		
Fundraising	LAC	Breaks	Jim Wise (wise@adeq.state.ar.us)	
Trade Show	Micah Tindall (micah.tindall@agfc.ar.gov)	Grand Social	Ginny Adams (gadams@uca.edu)	
	Sean Saunders (sean.saunders@agfc.ar.gov)	Socials/Crawl	JJ Gladden (jj.gladden@agfc.ar.gov)	
Budget and Finance	Mike Eggleton (eggletonm@uapb.edu)	Entertainment	Kent Coffey (kent.coffey@agfc.ar.gov)	
		Hospitality	Charlie Gagen (cgagen@atu.edu)	
Tate Wentz (nathan.wentz@agfc.ar.gov)		Darrell Bowman (LRVCB Liaison; darrell.bowman@agfc.ar.gov)		
Audio Visual Aids/Student	Sean Lusk (sean.lusk@agfc.ar.gov)	Communications	Jessica Feltz (jessica.feltz@agfc.ar.gov)	
Workers		and Promotion		
Welcome and Protocol	Jon Stein (jonathan.stein@agfc.ar.gov)	Signs	Brie Olsen (olsen@adeq.state.ar.us)	
Raffle	Tim Burnley (tim.burnley@agfc.ar.gov)	Registration	Dylan Hann (dylan.hann@agfc.ar.gov)	
	Eli Powers (justin.powers@agfc.ar.gov)		Christy Graham (christy.graham@agfc.ar.gov)	

## The Student Subunit Section

#### **UCA Subunit:**

Subunit activities kicked off last summer as members participated in the annual Joe Hogan State Hatchery Fishing Derby in Lonoke. It was a great experience to interact with future anglers of Arkansas, and we look forward to doing the event this summer. In August, we helped collect algae samples for the Whiteriver Waterkeeper with a Buffalo River float trip. We hope to participate in future events that help protect the United States' first National River.

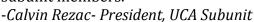
In October, we participated in a local community outreach festival called EcoFest, which promotes environmental sustainability and conservation for our community. At the event we displayed a fish tank with native fishes to educate the public on the state's fish biodiversity. As winter break approached, we invited Dr. Ginny Adams to speak to subunit members about pursuing a career in the field of conservation, how to organize a resume, and ways to get involved.

During the spring semester, we volunteered at a Science Night event at Bob Courtway Middle School in Conway. We learned that middle school children are full of energy and enjoy learning about native fishes, aquatic invertebrates, and reptiles in their own backyard. We also held our first Reptile Night developed for children with autism on the UCA campus. We received amazing feedback from the parents that brought their children and we hope to expand this event in future years. We would like to thank Lori Monday of AGFC for donating her time and resources in attending this event.

This year we had a number of UCA FWS members attend meetings and present their research throughout United States and Canada. Jennifer Main, Chance Garrett, and Blake Mitchell presented at this year's annual Arkansas AFS meeting in Hot Springs. Chance and Blake won awards for best student oral presentation and best student poster. Congrats you two! Four members presented during the Southeastern Fishes Council at Hickory Knob State Park in South Carolina including 2 oral presentations and 2 poster presentations. Members also presented at conferences for the National Entomological Society of America in Vancouver, ESA Southeastern Branch in Virginia, Missouri Herpetological Society, Arkansas Wildlife Society, and Arkansas Academy of Science. This summer members are presenting at Society of Freshwater Science and the Joint Meeting of Ichthyologists and Herpetologists.

Our subunit also invited two speakers to give seminars during the spring semester. In February, Dr. Lori Neuman-Lee (Arkansas State University) gave a seminar about Endocrine and Immune Interactions in Reptiles. A few months later, Dr. Mo Donnelly (Florida International University) presented on Amphibian Conservation in the New Century: Mitigation of Disaster. We are grateful to all of our speakers for bringing conservation issues to our attention.

Overall, the year was a busy one that also included subunit grill outs, spring break retreats to the Kings River, and guided canoe floats through flooded timber on Grassy Lake. In May, we voted on new leadership and would like to thank past President Jennifer Main and Vice President Danielle Braund for their efforts in organizing club activities throughout the past year. Next year we hope to continue our efforts in community outreach and tailor professional development and practical skill events to the diverse interests of our subunit members.





Calvin Rezac collecting algae samples on the Buffalo River.

#### **UAPB Subunit:**

During the 2018-2019 school year, our subunit fostered the continual intellectual growth of its members by bringing in a diverse array of guest speakers to give talks to our subunit. These included Dr. Kendall Moles (AGFC), Mr. Jason Olive (AGFC), Mr. Qianfeng Luo (foreign exchange graduate student from China), Mrs. Oma Fukui (UAPB Study Abroad Office), and Dr. Komal Gosh (UAPB Postdoctoral Research Associate). We also participated in the AGFC Delta Rivers Nature Center annual Boo on the Bayou event and provided guest judges to the annual SE Arkansas Regional Science Fair in Monticello. We also sponsored a holiday food drive in November. Subunit members also attended multiple conferences, including the parent society conferences of the AFS (Atlantic City, NJ) and World Aquaculture Society (New Orleans, LA), the Southern Division AFS Meeting (Galveston, TX), the 19th Biennial Meeting of the Association of 1890 Research Directors (Jacksonville, FL), the state chapter meeting in Hot Springs, and the UAPB Annual Research Forum. Congratulations are due to subunit members Nathan Egnew, Jamie Kindschuh, Derek Owens, April Surratt, Micah Tindall, Katie McCann, and Nabin Babu Khanal, who won numerous awards at these conferences. Our subunit was honored to participate in the AFS Student Subunit Symposium at the parent society AFS meeting in Atlantic City, where it was represented onstage by Joseph Kaiser. We are also happy to announce the successful thesis defenses of Nathan Egnew, Trevor Luna, and Christopher Laskodi. We wish them strong winds and fair seas as their life voyage continues.

Jeremiah Salinger, President, UAPB Subunit

# The Lateral Line

Spring 2019

#### Dear Graduate Students,

The Bella Vista Fly Tyers, a conservation, education and community service group, has a scholarship/internship grant program for which we are now accepting applications. The grant pays up to \$2,000 to the successful applicant. Applicants must be working towards an advanced degree (M.A. or Ph.D.) in fisheries or aquatic biology to be considered for this grant. It is expected that the successful applicant will attend a Fly Tyers meeting in Bella Vista to present their proposed plan of work and accept their check, and the next spring to present the results of this work.

To apply, an applicant needs to electronically send me a letter that includes a brief background on their education, any relevant work experience, their major for their graduate degree, their goals after their degree, a brief summary of their proposed/ongoing research, and a copy of their resume. To be considered, letters of application may be no more than two pages in length plus a resume. To be considered, Letters of Application should be sent to the below e-mail address and received by 15 July 2019. Awardees'(s) will be notified by 15 August 2019 of the status of their application.

Sincerely,
Jack Wingate
Fisheries Research Biologist, Retired
Minnesota Department of Natural Resources
Fellow of the American Fisheries Society
pwingate@cox.net

#### ATTENTION SUBUNIT OFFICERS!

Remember to e-mail Chelsey Sherwood ASAP with any changes to your list of current subunit officers.

Please remember to take **pictures** at subunit events so we can include them in the LL!

*Hey Students!* Do you want to share your research in future editions of the Lateral Line? Your project doesn't have to be complete to share with others- if you are excited about your project, others will be too. I'll be looking for a project to

#### ASU Subunit:

This year has been the most successful year of our Subunit to date. While it is difficult to judge the size of our club (because, in lieu of meetings, we attempt to host as many events as possible), we have 99 members subscribed to our mailing list with 85 of those being ASU affiliated.

During the Spring 2018 semester we had the strong student involvement in club planning and events, primarily from graduate students. In Fall 2018, we attempted to reach out to more undergraduate students to begin transitioning the club leadership to primarily undergraduates. We have been very successful in reaching out to majors outside of the College of Science and Mathematics, as well as engaging with members of the community through the use of the AState Daily Digest and local media outlets to promote our meetings and events. The activities we hosted this past year (discussed below) encompassed a wide variety of themes—education, research, recreation, club promotion—and were all highly successful considering this is the second full year our club has been established as independent from the AState Wildlife club.

Activities we participated in included the Earth Day Event at Arkansas State University, hosting an information booth with preserved specimens to educate people about our club and its events, an end of the academic year fishing event, and an afternoon with club members fishing and picnicking on a private pond. We also participated in the CSM Club Fair, a community fair booth, and hosted two booths with an interactive fishing game that educated participants about various topics in fisheries science (overfishing, catch limits, invasive species, etc.) and signed up new members. In September we hosted an electrofishing event to survey the AState Pavilion Pond. Fish were identified, weighed, and measured using a bump board. This was an educational and research-based event that was documented by a local television station and attended by a variety of non-science members interested in the process. Some members also participated in BioBlitz at Bearitage Field Station.

We also hosted two fishing tournaments at Pavilion Pond. The first was on Halloween. The club arranged for catfish to be stocked immediately before the event, which was geared to involve members of the club, university, and community. Participants wore costumes for a reduced entry fee to the tournament, and the winner received 20% of the pot. Turnout was moderate due to poor weather. The second tournament was in January. The club arranged for trout to be stocked immediately before the event. This event was better promoted in advance of the tournament, which had the same rules as the previous event. More than 30 people attended with over 20 people who fished. Two local newspapers reported the event.

During the school year, we also participated in a Boater Education class, hosted an EarthDay booth, and created both Instagram and Snapchat accounts to promote club activities. We also created an official club email with a continually updated email list. We also designed club t-shirts to sell at events (and wear to promote our club) and designed a club banner to display at events so the club can be easily recognized. Officer meetings were held on a weekly basis to continually develop ideas for events in our future. In the near future, we will be participating in a trailer towing and boating workshop.

-Emma Martin, President, ASU Subunit

# **Student Section Featured Article:** Joseph Kaiser, University of Arkansas Pine Bluff **Evaluating the effects of Silver Carp on age-0 fish**

Silver Carp are widely established within the Mississippi drainage, and have been reported to have negative effects on native fishes in the U.S. Primarily, reports of decreases in relative abundance and condition have been documented for native planktivores, such as Bigmouth Buffalo and Gizzard Shad adult populations. However, their effect on native age-0/juvenile fishes has scantly been researched. It is important to evaluate effects of a nuisance species, such as Silver Carp, on native fishes at different life history events in Arkansas and other parts of the U.S. Ultimately, evaluating more comprehensively may assist in better management and directing research efforts at a state and national level.

We sampled 15 oxbow lakes within the Dale Bumpers White River National Wildlife Refuge (WRNWR), which encompasses 65,000 ha of bottomland hardwood forest floodplain habitat. Oxbow lakes were sampled during July-August (summer) and October-November (fall) 2017. From past research done in the WRNWR, fish assemblages generally had not changed as far as diversity and richness. However, something interesting we have observed was some decreases in certain widely utilized sportfishes, such as White Crappie and Bluegill. These shifts within fish assemblages from historical sampling may be due to other abiotic factors within the WRNWR, but may also be due to shifts brought on by high Silver Carp abundances in certain oxbow lakes compared to others. On a broad temporal scale, Silver Carp would appear to be one of the more pervasive influences that have arisen within the last 15 years (since historic sampling was conducted). Some analyses that have been done also seem to demonstrate assemblages are organized along a Silver Carp abundance gradient, but this gradient is not necessarily the main factor influencing the organization of fish communities in the WRNWR. (Continued on next page...)



Figure 1. Dale Bumpers White River National Wildlife Refuge (WRNWR) sign in the south unit of the refuge.



Figure 2. From left to right: Bighead Carp, Cody Salzmann, Silver Carp, and Suzie Frawley pose for a group picture on Little Moon Lake in the north unit of the WRNWR.

Featured Article cont...

As with the overall fish assemblage, relationships between Silver Carp abundance and different characteristics of age-0 fish may suggest an interactive nature between environmental and morphological characteristics of oxbow lakes and Silver carp abundance within these same lakes. When looking at simple relationships, certain juvenile species showed contradictory trends to what is reported in the literature. For example, we experienced greater sized Gizzard Shad in oxbow lakes with greater Silver Carp abundance. When a more complex, multivariate approach was taken, analyses suggested that temperatures during the summer and mean water depth greatly influenced the size of Gizzard Shad within sample lakes. Results from this research suggest that Silver Carp abundance is related to different characteristics of age-0 fish in the WRNWR, but that these relationships may not be as straightforward as observed through simple, single variable regression models. The overall environmental and morphological characteristics within the WRNWR may either work with or independently from Silver Carp abundance to influence abundance, size, and condition of juvenile fishes.

I would like to acknowledge the University of Arkansas at Pine Bluff and the U.S. Fish & Wildlife Service (USFWS) for funding, equipment, and facilities. Also, a big shout out to Jimmy Barnett, Shannon Smith, Suzie Frawley, Jeremiah Salinger, and Kyler Hecke for helping Mike, Cody and I conduct our field work.

For more information on Joe's project, e-mail him at: Joseph.Kaiser@agfc.ar.gov

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Above, UCA Subunit President, Jennifer Main, educates the public about Arkansas Wildlife.



Above, UCA Subunit members attending Science Night at Bob Courtway Middle School in Conway.

## Additional Student Scholarship Opportunity:

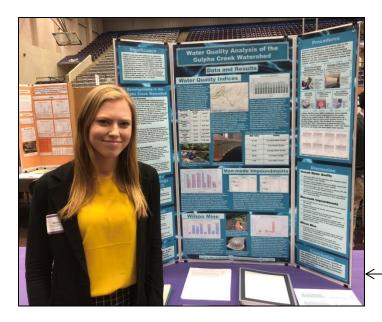
• The North Arkansas Fly Fishers offer annual scholarships to students majoring in fisheries or a related field. More information can be found on their website: <a href="http://www.northarkansasflyfisher.org/scholarships.html">http://www.northarkansasflyfisher.org/scholarships.html</a>

# Once Again...Chapter members helped with SCIENCE FAIRS!

Chapter members always devote <u>a lot</u> of time to judging science fair projects at State and Regional fairs in the spring. Here are some of the results:

The <u>South-West Regional Science Fair</u> was held in March at Southern Arkansas University in Magnolia. The winners were: Junior Division-Melissa Gunnels of Columbia Christian School for the project "Water Water Everywhere"; Senior Division- Chris Shackelford of Emerson High School for the project "The Effects of Water Pollutants on Soybeans".

The <u>South-East Regional Science Fair</u> was held in March at Gibson University Center in Monticello. The winners were: Junior Division-Hunter Cook of Cornerstone Christian Academy for the project "Does Soil Affect the pH of Water?" Senior Division-Chandler Saul of Stuttgart High School for the project "Fishy Business".



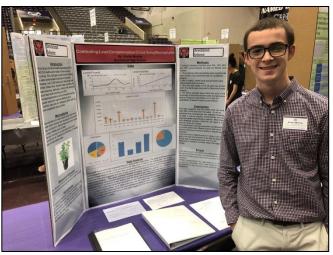
The <u>Central Arkansas Regional Science Fair</u> was held in March at UALR in Little Rock. The winners were: Junior Division- Suhana Mushaq of Lisa Academy Chenal for the project "How does Acid Rain impact Aquatic Plants"; Senior Division- Celia Patterson of Central High School for the project "Analysis of Maternal Brood Care of Female Blue Crab, *Callinectes sapidus*".

The West Central Arkansas Regional Science Fair was held in February at the AR Math and Science School in Hot Springs. The winner of the Senior Division was Rachel Stahl for the project "Water Quality Analysis of the Gulpha Creek Watershed Within the Upper Ouachita River System".

The 65th Annual Southwestern Arkansas Science and Engineering Fair was held in March in Conway on The University of Central Arkansas Campus. High School students (grades 9 -12) who were winners from regional fairs were invited to exhibit projects on their research in the State Science Fair, which is affiliated with the Society for Science & the Public, Washington, D.C. Recognition for excellence is made in eighteen categories. Teams of professional scientists serve as judges and choose category winners, recipients of special awards, and overall state winners. The winner of the Senior High Division was Rachel Stahl of the AR Math and Science School in Hot Springs for her project "Water Quality Analysis of the Gulpha Creek Watershed Within the Upper Ouachita River System". Honorable mentions were awarded to Austin Murray of Brookland High School and Celia Patterson of Central High School.

For the second year in a row, State Science Fair winner, Rachel Stahl, poses with her winning project. At right, State
Science Fair
Honorable
Mentions, Celia
Patterson and
Austin Murray, pose
with their projects.





First Call for Papers and Posters
Catfish 2020: The Third
International Catfish Symposium
February 18-20, 2020, Little Rock, AR



You are invited to attend and participate in the 3rd International Catfish Symposium to be held February 18-20, 2020 in Little Rock, Arkansas, in conjunction with the AFS Southern Division Annual Meeting. This is our first call for oral platform and poster presentations at the symposium, including those to be considered for publication within the resulting peer-reviewed proceedings. This meeting will provide a forum for the exchange of information about the biology, ecology, management and conservation of worldwide populations of both game and nongame catfish species. Previous publications from the First and Second Symposia continue to sell and have been solid reference sources for managers and researchers alike.

The theme for the 3rd International Symposium is "Communicating Catfish Science" and will bring together the last decade's work on the conservation, ecology and management of worldwide catfish populations and their habitats. We encourage you to submit your research findings on any topic pertinent to management of catfishes, and are actively seeking presentations pertaining to conservation and management challenges. Individuals interested in developing topical review papers are encouraged to contact the Program Committee Co-Chairs to assist with topic coordination.

To submit a presentation and for the most up-to-date information on the symposium, please visit the web site at www.catfish2020.com. Bookmark it now and return often for updates! The presentation abstract submission deadline is September 27, 2019. Optional manuscripts will be due prior to the symposium. Don't miss being a part of this important gathering of scientists, educators, administrators, and managers interested in what the next decade will bring for catfish science.

Submitted manuscripts will be considered for publication in a special issue of North American Journal of Fisheries Management.

Visit <u>www.catfish2020.com</u> for updated information, guidelines for oral and poster presentations and symposium deadlines.

## And Finally...Highlights from the 2019 Arkansas Chapter Meeting

#### The EXCOM would like to congratulate the following Individuals and Chapter Members on their awards:



President-Elect, Matt Schroeder (far left), and President Mike Eggleton (far right), present Amanda Brogdon (second from left), with the 2019 Joe Hogan Individual Achievement Award.



Chapter Members Darrell Bowman, Jon Stein, Sean Saunders, and Mike Eggleton, present Becky Roark of the Beaver Watershed Alliance with the 2019 Robert M. Jenkins Award













Clockwise (from top left)- Chapter President, Mike Eggleton, presents Outstanding Subunit Member awards to Emma Martin (ASU), Brandon Plunkett (ATU), Jennifer Main (UCA), and Kayleigh Smith (UA). Not pictured: Nathan Egnew (UAPB)

Below, Chapter President Mike Eggleton presents the 2019 best poster and presentations awards to (from left to right): Jamie Kindschuh (Graduate Poster), Chance Garrett (Undergraduate Presentation), Micah Tindall (Graduate Presentation), and Kendall Moles (Professional Presentation).







