

**AUGUST 2021 ISSUE**

# **UNDER THE DOCK**

**NEWSLETTER OF THE GEORGIA CHAPTER OF  
THE AMERICAN FISHERIES SOCIETY**

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Photo Contributed by Pete Sakaris



# DOCKSIDE

## AREN'T ALL PEOPLE WHO WORK FOR DNR A GAME WARDEN?

BY REBECCA BROWN

Misconceptions can be barriers to understanding science and possibly create unpleasant predicaments when communicating with the public about fisheries science. Misconceptions are preconceived notions or conceptual misunderstandings where something a person knows or believes goes against what is generally accepted by the scientific community.

There are many factors that contribute to the formation of misconceptions.

- They can be formed from personal observations and everyday experiences. For example, anglers believing that adding hydrilla to a lake will improve the largemouth bass fishery because they had more success catching largemouth bass on lakes that have hydrilla.
- They can come from people trying to make sense of the world around them with a limited understanding of scientific concepts. Take for example that some people believe cold water has less oxygen than warm water because the deeper you go in a lake or the ocean there is less oxygen and they learned deep water is cold.
- Everyday language can lead to misconceptions. Some people believe pesticides cause algal blooms because the “weed and feed” added to their lawn helps their grass grow.

## Southern Division of the American Fisheries Society 2020 Small Chapter of the Year



Correcting misconceptions is very challenging. We are all wired to hold on to our beliefs even in the face of confrontation. An effective way to address a misconception is to create a setting that allows the person to come to their own conclusion that the misconception contradicts the scientific evidence. We must be mindful of people's backgrounds and beliefs and never tell people they are wrong because that is an ineffective way to correct a misconception. And remember a conceptual change will not occur if the person does not want or see a need for their view to change. This is difficult to do in a classroom and even more difficult when addressing misconceptions when talking to an angler at the boat dock or talking about a management plan for a particular lake at a public meeting. The easiest thing to do is not address the misconception, but you then become part of the problem.

A teacher would first identify the misconception by using a formative assessment but this is not an option for the fisheries professional. But the fisheries professional can compile a list of common misconceptions they may encounter

Continued on next page



as part of their job and prepare themselves as to how they can best address each of these misconceptions. Remember you need to allow the person to come to their own conclusion because they may not even know their ideas are false or incorrect.

Here are a few strategies a fisheries professional can use to address a misconception.

- When talking to an individual it is important to be a good listener. Do not tell them they are wrong, but initiate a conversation and take an honest interest in what they have to say. You can ask open-ended questions to get a better understanding of why the person believes what they do and listen carefully to their explanations. Ask them to give evidence to support their explanations because this may help you pinpoint the cause of the misconception. Provide examples and facts that can help them understand the scientific concept. And if you have pen and paper handy draw diagrams to help them visualize the science. If the conversation becomes confrontational you will not change their mind and you might as well walk away.
- Set up a tent at public events or plan a visit to a school classroom to address a few common misconceptions. Create learning experiences for your audience by carefully selecting a few demonstrations that allow you to lay out the facts before addressing the misconceptions. It will be more effective if you are able to include audience members as part of your demonstrations. Remember to never make your audience feel dumb because they do not understand the science. Never say this is easy because it is not easy for some people.

Effectively correcting misconceptions can take days to weeks and a fisheries professional does not have that option. Even though you might not change their mind, you will give them something to think about.

**The newsletter is interactive - click on anything underlined or highlighted for more information and click on a laptop image for a video**



## **Submit your favorite photograph to be considered for the front cover of the newsletter**


**Don't forget to nominate someone for the Professional and/or Student Spotlight**

**Professional Spotlight Nomination Form**  
<https://forms.gle/T4cwW4A1zxkmzs7X6>

**Student Spotlight Nomination Form**  
<https://forms.gle/Xger4SyZozZx8fUg7>

**We welcome a broad range of submissions that address research and ideas relevant to marine and freshwater finfish and shellfish and their respective fisheries and environments. Submissions are due on the 23rd of each month unless told otherwise. Contact Rebecca Brown (georgiaafs@gmail.com) if you have questions about content and suitability. We also welcome suggestions for a species of fish to highlight, safety tips, and ideas for the section Did You Know.**





# Georgia Chapter of the American Fisheries Society 2022 Annual Meeting February 1 - 3

***Exchanging Ideas, Removing  
Barriers, and Forging Partnerships  
for Healthy Aquatic Ecosystems***

**Join us as we share research and ideas relevant  
to marine and freshwater finfish and shellfish  
and their respective fisheries and environments**

**CALL the Villas by the Sea Resort on Jekyll Island to make reservations  
(912) 635-2521 Room rate # 514539**

**Visit our website for more information  
[gaafs.org/2022-annual-meeting/](https://gaafs.org/2022-annual-meeting/)**



# Committee Reports

## Scholarship Committee

The GA-AFS Chapter is proud to offer an annual scholarship program open to both undergraduate and graduate students. The Ronnie J. Gilbert Student Scholarship provides \$500 to one outstanding student who is a member of the Georgia Chapter of the American Fisheries Society at the time of their application.

The GA-AFS Chapter is pleased to offer an Undergraduate Travel Stipend to attend GA-AFS annual meetings. The undergraduate travel stipend will provide lodging and meeting registration to attend the GA-AFS annual meeting. We will be awarding 12 undergraduates with the travel stipend for the 2022 annual meeting.

Students must be a member of the Georgia Chapter to qualify for either the academic scholarship or the undergraduate travel stipend. Information about how to become a member of the Georgia Chapter is on our website. <https://gaafs.org/membership/>

**Information about our scholarships and the application forms**  
**<https://gaafs.org/students/>**

## Membership/Student Affairs Committee

During the last GAAFS EXCOM meeting, it was brought up that many of the colleges wouldn't have enough students to make a subunit sustainable into the future. Lauren has been thinking of ways to get all Georgia AFS student members more involved without creating more student subunits. The new UGA Subunit EXCOM plans to continue a hybrid format in the future where they can offer both in-person and virtual events, making the knowledge and information shared accessible to all students who want to participate. Current Georgia AFS student members can expect an email from Lauren with more information. When school starts back this Fall we will contact potential new student members to offer them this great opportunity to join UGA Subunit meetings and workshops.



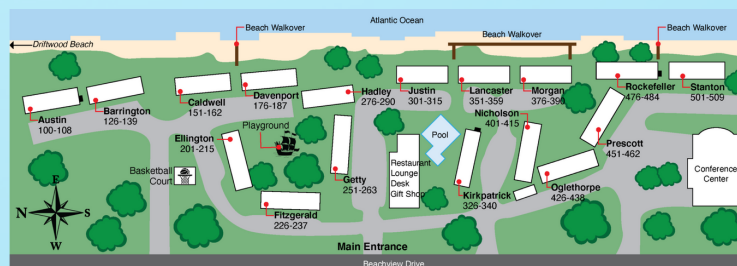
# 2022 ANNUAL MEETING

[gaafs.org/2022-annual-meeting/](http://gaafs.org/2022-annual-meeting/)

Please visit our website for up-to-date information as you make plans for attending the 2022 annual meeting. You must call the front desk of Villas by the Sea at (912) 635-2521 to make your hotel reservations. Let them know you are with GA AFS and provide them with our room block number 514539. Do not try to make reservations online. We suggest you look at the map of the resort when making your reservations if you want to request a room closer to the conference center.

Please contact us if you have any questions (georgiaafs@gmail.com).

[www.parker-kaufman.com/villas-map/](http://www.parker-kaufman.com/villas-map/)



[gaafs.org/villas-by-the-sea-information/](http://gaafs.org/villas-by-the-sea-information/)

Room Type	Island-side Room Rate	Oceanside Room Rate
Mini Villa/Studio	\$89	---
One Bedroom Villa	\$109	\$129
Two Bedroom Villa	\$149	\$169
Three Bedroom Villa	\$179	\$199

## ABSTRACT SUBMISSION

We welcome topics including, but not limited to, fisheries management, aquatic invasive species, fish health, aquaculture, endangered species, genetics, economics, fisheries ecology in the urban interface, and all topics relevant to marine and coastal fisheries. This is a wonderful opportunity to share your knowledge and research with various professionals and students.

Interested individuals are encouraged to email their abstracts to Carolyn Belcher (Carolyn.Belcher@dnr.ga.gov) by **January 6, 2022**. Abstracts (300 words max) should be submitted as an attachment in a Word document and include the following information:

- Presentation Title
- Presenting Author (with contact information; work address and email)
- Co-authors (with contact information)
- Abstract (300 words max)
- Presentation type: Oral or Poster (Posters should be 48" x 36")
- Please also indicate if you are a student presenter

*Oral presentations are 15 minutes (10 minutes for presentation and 5 minutes for Q&A)*

*Poster presentations will take place during the Tuesday Night Social*



# NEWS & UPDATES

## Decades of Detective Work Highlighted on the SciShow

Last year Susan Wilde, professor at the University of Georgia Warnell School of Forestry and Natural Resources, along with an international research team finally discovered the cause of avian vacuolar myelinopathy (AVM).

This mystery began in 1994 when dozens of dead bald eagles were discovered along DeGray Lake in Arkansas. During a necropsy, lesions were discovered on the brain around the myelin sheath which impacted communication to the nerve cells.

The cause of AVM was a mystery. It seemed to occur only in some freshwater reservoirs in the southeastern part of the United States. Scientists focused on the environmental conditions in AVM-positive waters. They suspected a connection between the non-native invasive aquatic plant *Hydrilla verticillata* and AVM. Susan later identified a cyanobacterium on the leaves of the hydrilla in 2005. She named the bacterium *Aetokthonos hydrillicola* ("eagle killer that grows on Hydrilla"). They suspected eagles were preying upon coots and other animals that fed upon the hydrilla and then themselves succumbing to the effects of AVM. The problem was they could not reproduce the toxin in the lab.

Using a more sensitive spectrometer, Timo Niedermeyer, a chemist with the University of Halle-Wittenberg in Germany, was able to identify a substance that is only made on the leaves where the cyanobacteria grow. He revealed the presence of a brominated molecule. The production of this toxin depends on the bromide in the water. This compound was named aetokthonotoxin ("poison that kills the eagle").

The next step - find out where the bromide is coming from.



SciShow, a web series hosted by Hank Green with over 6 million subscribers, on June 21 published a short video about this story



More information: [Case closed on decades old mystery of American bald eagle deaths](#)

## Shoal Bass (*Micropterus cataractae*) Production at Go Fish Education Center

By Tim Blue



Native to the Chattahoochee and Flint River basin and introduced into the Ocmulgee, hard fighting shoalies are a fun fish to target in flowing water via kayaks, bank fishing, or wading. WRD Fisheries has been working to supplement wild populations to create a self-sustaining fishing resource for future generations of anglers. The Go Fish Education Center Hatchery has been enjoying a successful first shoal bass spawning season in a newly constructed concrete raceway. The concrete raceway is an interior recirculation system

allowing us to control water quality and temperature creating a beneficial spawning environment. A couple of dozen broodfish from Dawson Hatchery were received and the shoal bass was in the raceway for less than a month before favorable conditions led to our first spawns. Late May through mid-June we had 18 separate spawns that gave us around 14000 fry. We hope to continue our success in the future.



## Georgia DNR Coastal Resources Division CoastFest 2021



The Coastal Resources Division of the Georgia Department of Natural Resources is excited about CoastFest 2021. **This free in-person event takes place from 10 a.m. to 4 p.m., Saturday, Oct. 2, 2021,** at Mary Ross Waterfront Park at the corner of Gloucester and Bay streets in Brunswick.

CoastFest features a variety of environmental, research, and educational exhibitors from across Georgia and the Southeast. These exhibitors provide attendees with free opportunities to learn about natural resources, wildlife, climate science, litter prevention, and dozens of other topics. In addition to the exhibitors, there is live entertainment, marine-life touch tanks, historical demonstrations, games, and much more!

The Georgia Chapter AFS is an exhibitor this year and will need a few energetic volunteers to help educate the adults and kids that visit our tent. Our exhibit is about Georgia's aquatic invasive species.

You can email Rebecca Brown ([georgiaafs@gmail.com](mailto:georgiaafs@gmail.com)) if you are interested in being part of this great opportunity.

<https://coastalgadnr.org/CoastFest>

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## Using Marine Aquaculture to Feed a Growing World Population



The American Fisheries Society (AFS) and National Oceanic Atmospheric Administration (NOAA) Fisheries presented a congressional briefing on how responsible marine aquaculture has the potential to increase the resilience of the global food system and mitigate climate change and continue to feed a growing population. Compared to the production of chicken, pork, and beef aquaculture has a smaller carbon footprint and requires fewer freshwater inputs.

Kelp and bivalve farming can mitigate climate change and provide ecosystem services by improving water quality, regulating ocean acidification, storing carbon, protecting coastlines, and providing habitat for other species.

The world population is growing and so is the demand for protein. Sustainable aquaculture can increase food security, sequester carbon, and stimulate economic growth.

Learn More: [Marine Aquaculture: A Tool for U.S. Climate Action](#)

Click on the laptop to watch a recording of the briefing





## American Fisheries Society Annual Meeting



**Registration:** <https://afsannualmeeting.fisheries.org/registration/>

Early registration is open now and will close on August 31

### You can register to attend in-person or virtually

Due to bandwidth limitations at the venue, they are planning to live-stream the plenary sessions and two concurrent symposia sessions per day. Almost all other presentations will be available in an on-demand, pre-recorded format. Virtual attendees will have access to the online attendee hub and special virtual networking events.



### Are you a member of the American Fisheries Society?

- Membership to the Georgia Chapter is separate from being a member of the American Fisheries Society (AFS). Please visit the AFS membership website to learn more about being part of the largest professional society of fisheries scientists in the world.



<https://fisheries.org/membership/types-of-membership/>

Some benefits for becoming a member of AFS:

- Free online and mobile app access to AFS publications
- Discounts on books in the AFS bookstore
- Discounted registration fees
- Opportunities for AFS travel grants
- Attend continuing education courses at reduced registration rates
- Access to online webinars
- Able to vote on Society and Chapter business

Learn more about AFS: <https://fisheries.org/about/>



Click on the laptop to watch a video

# **Upper Coosa Conservation Summit**

**October 20, 2021  
Berry College, Rome, GA**

The Coosa River Basin is a hotspot for freshwater biodiversity and the focus of substantial research and conservation effort. Join partners throughout the Upper Coosa to learn about ongoing research, conservation efforts, and future strategies for the basin

**Registration** for the 2021 Upper Coosa Conservation Summit is now open! Register by Friday, Sept 3rd to be included in the lunch count.

A virtual attendance option via Zoom will be available.

**Abstract submission** for contributed talks, breakout sessions, and the poster session is now open. Abstracts are due Friday, September 3rd.

**More information:** <https://rivercenter.uga.edu/upper-coosa-river-mini-conference/>

[Tentative Program](#)



# Guiding a COVID-19 Cohort Into Uncharted Waters

By  
Hunter Roop  
Georgia DNR WRD



It is no secret at this point that Georgia's fishing and boating industries have experienced significant positive growth throughout the COVID-19 pandemic. This is reflected in Georgia DNR hunting and fishing license sales, which increased substantially during 2020 as more Georgians sought respite through outdoor recreation when they weren't hunkering down at home. In 2020, regular fishing and hunting license sales increased by 14% (\$4.3 million), lifetime license sales increased by 32%, and vessel registrations increased by 10%. License sales continue to surpass pre-COVID levels, even as widespread vaccination and waning COVID-19 mandates bring us closer to a return to "normal". Taking this all into account, it may not be hyperbolic to suggest that we are experiencing a recreational paradigm shift, where fishing is now a viable contender with those various forms of pixelated entertainment that threatened the future of fishing participation not so long ago. Consider data from the 2016 Survey of Fishing, Hunting, and Wildlife-Associated Recreation as a reference to the pre-COVID participation trends challenging our industry. Although the decade-long (2006-2016) comparison of nationwide fishing participation demonstrated a significant (19%) increase in angler numbers, the total fishing days had stagnated, suggesting that while fishing participation had increased, the fishing effort had not. The five-year (2011-2016) comparison indicated no positive changes in fishing participation, effort, or fishing-related expenses, save a 167% increase in "auxiliary equipment." At that same time, human dimensions scientists were concerned about the sociodemographic trend of declining per-capita participation rates in outdoor recreation among youth, females, and minority anglers (Murdock et al. 1996, Poudyal et al. 2007) that represent



the future of fishing and hunting (and, whose license sales and associated expenditures would dictate the size of future budgets for natural resource management agencies like Georgia DNR). However, now emerging from the COVID-19 pandemic is an entire cohort of recently recruited anglers, including an appreciable constituency of “non-traditional” (i.e., non-white, non-male) anglers. This is especially true in Georgia, according to data by Brandt Information Services and LeadMD (2020), which highlighted Georgia as attracting a new, high-value cohort of anglers during 2020 that included substantial numbers of Hispanic, youth, and female anglers. This new group of anglers represents a tremendous opportunity to reach audiences we have been actively trying to recruit to fishing for years. Now the challenge becomes retention of this “COVID cohort,” which may be accomplished through various forms of outreach, education, mentoring, and other forms of fisheries management and marketing that (we hope) will continue to pique their interest in fishing. As the old haunts of pre-COVID yore call ever louder with their “reopening” siren songs, it will be interesting to see if fishing participation maintains its current momentum in this new phase of the pandemic.



<https://www.gooutdoorsgeorgia.com/>

There are other major changes afoot that work firmly in the favor of the recreational fishing industry. For example, in March of 2020 Georgia became the fifth state in the nation to offer bass fishing as a sanctioned high school sport, and on May 8th of 2021, Jayden Faulkner and Davis Madden of Evans High School became Georgia's first Bass Fishing State Champions in a 68-boat tournament on Lake Lanier. Even the online



*Jayden Faulkner and Davis Madden showcasing their championship-worthy 20 lb 3 oz bag.*

presence of fishing has exploded on popular platforms like Youtube (e.g., the Fish North Georgia channel, Googancast), and via new, fishing-specific apps (e.g., Fishbrain, ANGLR) where anglers can share favorite fishing locations, techniques, log trip data, and of course post their best fishing photos for the



*New online programs like the Fish North Georgia podcast & YouTube channel have increased their subscribership during the pandemic.*

*The Fishbrain app provides the tools and knowledge to help anglers get better at fishing*







*Social media-based fishing apps like Fishbrain and ANGLR give anglers a platform to explore new fisheries, share data, and show off their catch.*

world to see. There is also an example of legislation that has already passed or is under consideration that proposes to allocate funds for wildlife habitat restoration and fisheries management projects into the future. All of this positive growth within the industry means more demand for quality fishing experiences and reinforces the need for sound fisheries management in Georgia. This is exciting news as state agencies like GA DNR were really just beginning to recover from the longstanding budgetary impacts of the 2008 economic recession before COVID-19 came along, and it is beginning to look like the pandemic may have served as an accidental catalyst to budgetary rebuilding. I hope we can leverage the current momentum to carry this new generation of anglers into the future, into a new era of fisheries management, with folks like GA AFS members serving as go-to guides for all things fishing and conservation-related. With new, less-traditional anglers, we may need to further tailor our public discussions to include a younger and generally less-experienced audience. This may require eliminating assumptions about constituents' understanding of basic fisheries management as a result. We may also need to cater our messaging to appeal to a more

diverse group of stakeholders altogether, and consider management goals for fisheries that incorporate their preferences. With a larger and more diverse constituency, there will no doubt be challenges associated with this rapid change, but of course, we welcome a challenge, especially compared to the alternative challenges associated with budget cuts!

*Hunter Roop is a fisheries biologist with the Georgia Department of Natural Resources WRD Fisheries*

## References:

Brandt. 2020. Georgia License Holder Insights. Technical report by LeadMD. August 2020.  
U.S. Department of the Interior, U.S. Fish and Wildlife Service, and U.S. Department of Commerce, U.S. Census Bureau. 2016 National Survey of Fishing, Hunting, and Wildlife-Associated Recreation.

Steve H. Murdock, David K. Loomis, Robert B. Ditton & Md. Nazrul Hoque (1996) The implications of demographic change for recreational fisheries management in the United States, *Human Dimensions of Wildlife*, 1:4, 14-37, DOI: 10.1080/10871209609359076

Poudyal, N. C., Cho, S., & Bowker, J. M. (2007). Demand for resident hunting in the Southeastern United States. *Human Dimensions of Wildlife*, 13(3), 158-174.  
<https://doi.org/10.1080/10871200801922965>



*Baylin Rankin enjoys fishing with his parents*



## Professional Spotlight

**Matt Kenworthy**

Matt has been working the past year and half as a NOAA Living Marine Resources Cooperative Science Center (LMRCSC) post-doctoral fellow at Savannah State University. Savannah State University is one of seven partnering institutions within the NOAA LMRCSC. He is overseeing research funded by the NOAA LMRCSC and the GADNR Coastal Incentive Grant Program. Matt's research will help inform management initiatives for conserving and restoring critical living marine resources within Georgia estuaries.



### What got you first interested in fisheries science?

*I started out my undergraduate education studying to be an engineer at NC State University. I was doing well in my classes but was not feeling passionate about the topics. I had to take a science elective and considering I was a fisherman and grew up on the water, I decided to take Intro to Oceanography with Dave Eggleston. When I found myself enjoying this oceanography class on Friday afternoons more than my engineering classes I realized it was time for a change of major. Owing to my passion for fishing, I decided fisheries science was the best path for me.*

### Where did you go to school and what did you study?

*I received my undergraduate degree from NC State University where I earned a degree in Oceanography with a concentration in Marine Science. After receiving my B.S. I moved to the Gulf of Mexico coast and attended The University of South Alabama (USA) and earned a M.S. degree in Marine Science. During my time at USA and the Dauphin Island Sea Lab (DISL) I evaluated how temporal variability in predation risk influenced the foraging activity and behavior of blue crabs and mud crabs. Most recently I attended The University of North Carolina at Chapel Hill (UNC-CH) where I earned my Ph.D. in Ecology. During my time at UNC-CH I conducted multiple acoustic telemetry studies quantifying fish movement and habitat use. These projects evaluated the level of habitat connectivity caused by red drum movement over time at the estuarine scale, fine scale habitat type and location specific preferences within a saltmarsh embayment, and the value of man-made oyster reefs as habitat for fish.*



### Describe the most rewarding experience you have had during your career.

*One of my most rewarding experiences was receiving the University of North Carolina at Chapel Hill Impact Award. This award recognizes graduate students and recent graduate alumni whose research directly contributes to the educational, economic, physical, social, or cultural well-being of North Carolina citizens. Having my work recognized by an interdisciplinary group of faculty members across multiple departments and knowing that my research is contributing meaningful data towards the management of fisheries resources was very rewarding.*



## Professional Spotlight Continued

### Describe one or two projects you are currently working on as part of your current position.

*I am currently focusing on two projects.*

- *Despite a general appreciation for the importance of high-quality habitat in promoting healthy fisheries, there remain many questions about what exactly constitutes high-value, even critical, habitat for juveniles. The objective of this research is to quantitatively describe the nursery function of Georgia estuaries for recreationally and commercially important white shrimp (*Litopenaeus setiferus*). Specifically, we are examining the influences of landscape-scale habitat characteristics on juvenile white shrimp distribution (abundances), condition, and relative growth (measured by RNA:DNA ratios). In this study, landscape context considers three primary metrics: 1) saltmarsh continuity (patchy vs continuous), 2) marsh platform elevation (tidal inundation), and 3) quantity of alternative available habitat (e.g., oyster reef). Additionally, we are evaluating the use of stable isotope signatures to examine potential putative nursery areas within the estuary.*
- *Concerns associated with the limited availability of hardscape (relic shell) and difficulty of working in challenging environmental conditions (soft sediment habitat) highlight the pressing need to identify new innovative materials and techniques for conducting oyster habitat restoration in Georgia. Colleagues in North Carolina have developed an alternative biodegradable hardscape broadly used for creating and restoring oyster habitat. This alternative hardscape (hereafter referred to by its trade name Oyster Catcher™) is a composite of plant fiber cloth infused with mineral-based binders that are wet formed into a wide variety of modular shapes and sizes. The overarching objective of the proposed project is to evaluate the viability of using Oyster Catcher™ material to successfully restore oyster habitat in Georgia estuaries. The main goals of this study are to: 1) Quantify the trajectory of oyster reef growth and development following construction for traditional (bagged shell) and novel (Oyster Catcher™) oyster habitat restoration applications, and 2) Quantify the response of the nekton community (fish and crustaceans) to reefs constructed using the two restoration applications.*



### What do you most enjoy about your current position and what do you find most challenging?

*I believe what I enjoy most about my current position is also the thing that is most challenging. As a Postdoctoral Fellow I have enjoyed opportunities to serve as a mentor both in the classroom and around the lab to a diverse group of graduate and undergraduate students. Not too long ago I was the student who was always pressing my advisors and professors for answers. Now I find myself in a position where students are asking me to share knowledge and advice. I am constantly challenged with finding new ways to communicate scientific knowledge to students. Every student is unique and I have learned to be flexible and adaptive with my teaching and mentoring strategies. It's been very rewarding to watch students grow as a scientists under my advisement.*



## Professional Spotlight Continued


**What advice would you give to someone pursuing a profession in fisheries science?**

*My biggest advice for early-career scientists is to obtain as much exposure and experience with a variety of fisheries science topics as possible. Doing so will not only make you a more well-rounded scientist but will also help you define your career path. I suggest being flexible and trying new things. If your education was in freshwater fisheries maybe explore a summer job in marine fisheries. Consider working in a new region (e.g. Atlantic Ocean vs. the Gulf of Mexico). Take some risks and get out of your comfort zone. Doing this early in your career will help you discover what you're most passionate about and help structure your future path.*


**What is your favorite quote?**

*"The edge of the sea is a strange and beautiful place."*

~ Rachel Carson

*Simple but so true. Our estuaries are dynamic, complicated, and each one is unique. I don't think I will ever get tired of learning more about how our estuaries impact fisheries resources.*



*Matt is a multidimensional thinker who develops research goals with a transformational perspective. It has been a pleasure to work with him and watch him embrace the research community within Georgia and the Southeast Fisheries Science Center, sharing his skills and developing new ones in support of our mission. I see no limit to what he will accomplish.*

~ Dionne Hoskins-Brown, Fishery Biologist, NOAA Fisheries and Director, NOAA Sponsored Programs, Savannah State University

**What is something about yourself that others may be surprised to know about you?**

*I'm a sucker for musical theatre. I'm always intrigued with how well producers can integrate songs, spoken dialog, acting, and dance to tell a story. Unfortunately, I do not get as many opportunities to see good musicals where I live.*





## Student Spotlight

Kris Howard

Kris Howard is doing his master's thesis research at Savannah State University focused on turtle excluder devices on crab pots. He is currently funded by the NOAA Living Marine Resources Cooperative Science Center, is active in the Black in Marine Science group to promote diversity in our field, has worked as a groundfish observer in the North Pacific, and is a former GA Sea Grant State Fellow. Kris anticipates graduating this December.



### What attracted you to pursue a degree in fisheries science?

*I have always loved being outside and have been an avid fisherman for as long as I can remember. I like to think that my fisheries science career started in the second-grade science fair. Where I won first place with a project I designed to see which bait performed best at our local lake and ever since then I've been hooked. Fisheries science has taken me from small tributaries of the Ohio River to the Bering Sea in Alaska and beyond. I've always found it fascinating trying to understand what drives the population of fishes and what we can do to ensure the health of our oceans, rivers, and streams. My passion for this field continues to grow every day and I couldn't imagine myself doing anything else.*

### Describe your current research project(s)?

*I am currently working on two projects. First, my thesis which is a fishing gear efficiency study looking into how terrapin excluder devices affect blue crab catch. The diamondback terrapin is a common bycatch species for the blue crab fishery and terrapin excluders aim to mitigate the loss of terrapins due to drowning in crab pots. The second is with the NOAA Southeast Fisheries Science Center in Beaufort, NC looking at which biotic and abiotic factors are driving the range expansion of tropical fishes into the South Atlantic Bight (SAB). The goal of this project is to try and predict which tropical species are most likely to expand their home range and begin settling in more temperate climates.*



*Kris was our inaugural GA Sea Grant State fellow and worked tirelessly to advance our understanding of connectivity at Gray's Reef National Marine Sanctuary (GRNMS). He interacted with several of the long-standing partners at GRNMS and represented us with grace and professionalism rarely seen in young career scientists. His year with us was filled with challenges and opportunities, and Kris adapted and provided creative solutions to keep things running smoothly. He also put his expert fishing skills to work in advancing our acoustic telemetry project and helped us catch several of our tagged fish. We are excited to watch Kris continue to contribute to science and conservation and are proud to be part of his journey.*

~ Kimberly Roberson, National Oceanic and Atmospheric Administration



## Student Spotlight Continued

### What is one of your favorite memories as a Savannah State University student?

*Some of my favorite memories at Savannah State come from running trawls to show grade school kids the diversity of marine life in the waters around them. For many of them, it is often their first time on a boat let alone seeing some of the incredible fish species we have along the Georgia coast.*



### In 10 years, what would you like to have accomplished?

*10 years from now I would like to be in a position where I can have a hand in species and ecosystem conservation. Whether it be actively working in the field or helping to draft legislation I just want to do my part in protecting our earth resources.*

### What advice would you give other students?

*Some of the best advice that I've received, and love to pass to others is to not be afraid to step out on a limb. I always want to say yes to as many opportunities as I can. Being open to trying new things can lead you to passions you didn't know you had. I feel very strongly that my not being afraid to step out on a limb and try new things has gotten me to the position I am today. With this attitude, I've been able to conduct fisheries science everywhere from the frigid waters of the Bering Sea to the tropical waters of Belize.*

*Kris Howard was Georgia Sea Grant's first State Fellow. During his fellowship year with Grays Reef National Marine Sanctuary (GRNMS), Kris contributed to advancing science, policy planning, and resource protection. In addition, he was a member of the GRNMS' in-house dive and research team. Kris' stellar contributions strengthened our partnership with the Sanctuary, and helped us grow our State Fellowship program. We couldn't be more proud of his achievements.*

~ Mona Behl, Associate Director Georgia Sea Grant

### What are some of your favorite extracurricular activities?

*Fishing is my favorite pastime by far! I try to get out on the boat or in my kayak whenever I have any free time. Other than fishing I just love being outside. Whether I'm hammocking in the park or hanging out in the backyard playing cornhole I enjoy myself most out in the sunshine.*



### What is your favorite quote?

*"The worst thing that can happen to you today is nothing because anything else whether good or bad can help you learn"*

~ Mohith Agadi

*This quote reminds me that everything happens for a reason. If there is some fellowship or job I apply for and don't get it's natural to feel down about it. But, I can take those experiences and learn from them and try to do better in the future.*

### What is something about yourself that others may be surprised to know about you?

*Something about me that people may be surprised to know is that in 2018 I spent more time at sea than I did on land. That was my first year as a Bering Sea fisheries observer and would spend three months at a time aboard commercial fishing vessels sampling catch. Being an observer was the perfect bridge for me while I researched graduate schools.*



# GEORGIA CHAPTER OF THE AMERICAN FISHERIES SOCIETY

## 2022 GEORGIA CHAPTER AFS ANNUAL MEETING SPONSORSHIP LEVELS

**Platinum Sponsorship: \$1000 or more**

**Gold Sponsorship: \$500 - \$999**

**Silver Sponsorship: \$250 - \$499**

**Bronze Sponsorship: \$150 - \$249**

	Bronze Sponsor	Silver Sponsor	Gold Sponsor	Platinum Sponsor
Recognition in the 2022 conference program and throughout the year in our website, social media sites, and monthly newsletter	Yes	Yes	Yes	Yes
Free advertisement for your organization (or other fisheries-related content) throughout the year in our monthly chapter newsletter	1/4 Page	1/4 Page	1/2 Page	Full Page
Complimentary registrations	No	1	2	3
Conference table space	No	One 6 ft table	One 6 ft table	Two 6 ft tables
Conference presentation time (10 minutes) for your organization	No	Yes	Yes	Yes

### **Friends of GA AFS (\$50)**

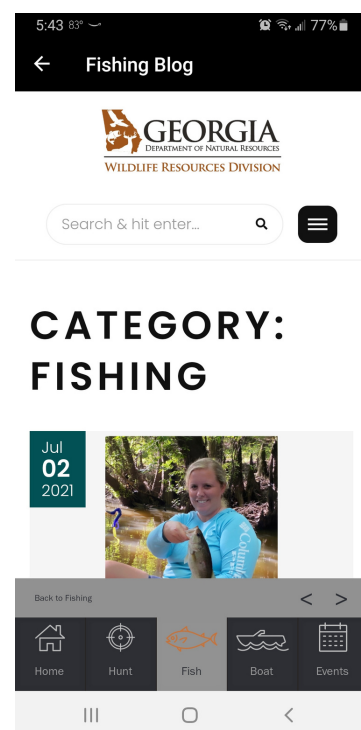
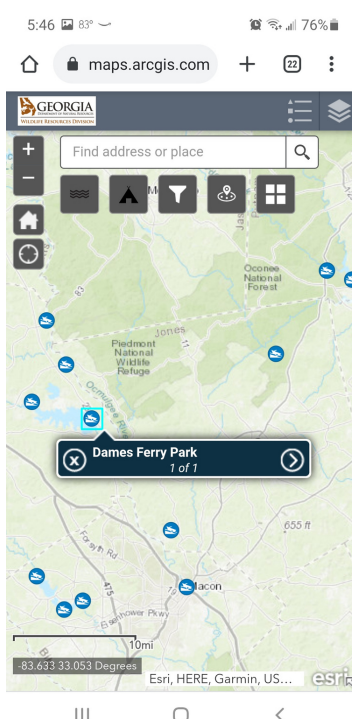
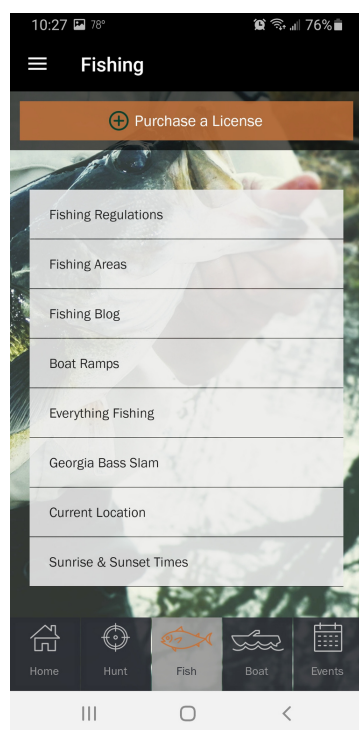
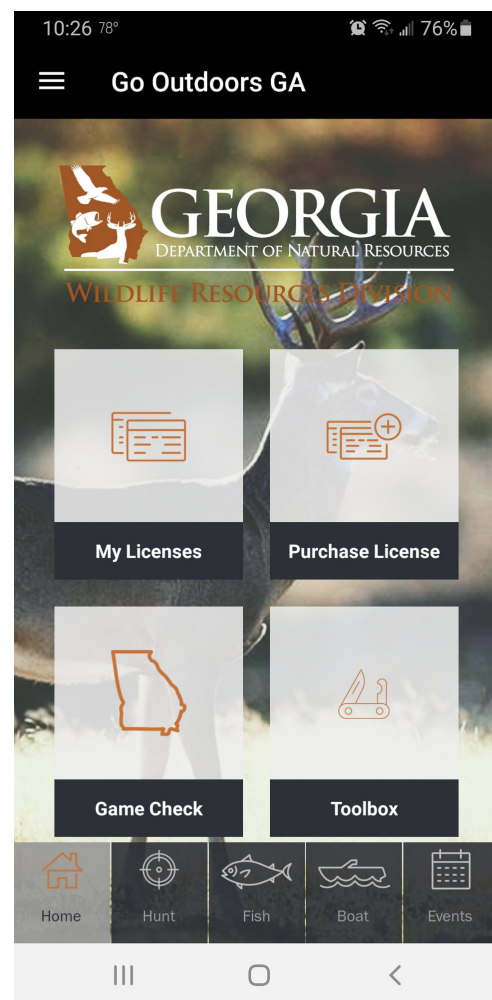
Recognition in the 2022 conference program and throughout the year in our website and monthly newsletter

241 Apple Ridge 2  
Dawsonville, GA 30534  
georgiaafs@gmail.com

Fundraising Chair: Jackson Sibley (oceansibly@gmail.com)  
Executive Secretary-Treasurer: Rebecca Brown (georgiaafs@gmail.com)

## Have you tried the Go Outdoors GA app?

The Outdoors GA app, free in [Google Play](#) or [Apple store](#), has multiple uses, including purchasing and storing fishing licenses, finding fishing areas, the weekly [GA DNR WRD Fishing blog](#), and help to locate boat ramps. (and it has hunting info too)





Each year at our annual meeting our Chapter hosts a raffle and silent auction to raise funds to support the Chapter's mission. Proceeds from the annual fundraiser support our aquatic education outreach projects, student scholarships, habitat restoration projects, and continuing education workshops.

### Individual Contributors

Captain Bert Deener  
Steven Patrick  
Camm Swift  
Carolyn Belcher  
Kady Lyons  
Chris Harper  
Richard Schulte  
Kevin Cavallaro  
Lauren Carroll  
Dan Marotta  
Rebecca Brown

*Thank you all who donated and/or participated in our annual fundraiser*

Our members can help our fundraising efforts by personally contributing an item or soliciting from a local business, organization, or person. Items may include guided fishing trips, handmade flies, custom-made fishing rods, fishing rod/reels, kayak/whitewater rafting trips, original artwork, prints, or other cool fish and wildlife-related items.

Since we are a 501(c)3 nonprofit organization, all donations are tax-deductible.

You can contact our fundraising chair, Jackson Sibley, for more information: oceansibley@gmail.com

## 2021 Georgia Chapter AFS Sponsors

### Platinum Sponsor



### Silver Sponsor

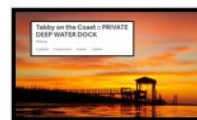


### Bronze Sponsor



Warnell School of Forestry  
& Natural Resources  
UNIVERSITY OF GEORGIA

## 2021 Georgia Chapter AFS Fundraising Donors



# Reflections of a Georgia DNR Intern

**By Sterling Brumbaugh**



I knew going into my third year of school at Abraham Baldwin Agricultural College (ABAC) I wanted to fill my summer break with valuable experience. At ABAC I am a wildlife major and want to pursue a career in fisheries as a biologist. Fisheries have always seemed like a clear career path for me due to my passion for fishing and my appreciation for everything in the aquatic world. I also feel like I have a strong curiosity for needing to find out what lies beneath the surface.

I was blessed enough this summer to be hired by Georgia's Department of Natural Resources: Wildlife Resources Division to help with their Flathead Catfish Removal Project. The internship lasts about 2-3 months and is located in the city of Waycross. The position is a 40 hour a week paid position and even offers basic housing for the interns.

The main focus of the internship is to aid in the removal of non-native Flathead catfish and Blue catfish out of the Satilla River via electrofishing. My responsibilities mostly consisted of capturing as many invasive catfish as possible, processing and collecting basic data on captured fish and then preparing for the field activities of the next day. Preparation for fieldwork consisted of refueling and repairing the crew and I broke while on the river. Most weeks consisted of at least three days of electrofishing along with maintenance days when we were not sampling. However, Flathead removal was not my only job in the field. I assisted in juvenile shade seining surveys, along with multiple kids' education events which I found to be the most rewarding task I had. My supervisor also allowed me to assist the Coastal Resource Division in conducting their- long line red drum/shark surveys.

This internship had its fair share of challenges. However, I personally enjoyed it when a challenge arose. Challenges we faced included mechanical failures, battling nature (wasps, high water, etc.). and working around obstacles we needed to cross on the river. I like how everyone thought critically and used logic to complete a task to pursue a common goal. When a challenge popped up it usually offers a great learning experience for and the other interns and me.

Continued on next page



I feel my most significant accomplishment is that I was able to help remove such a large number of non-native catfish. I realize that we may never totally remove all of the Flatheads from the river, but our efforts reduce Flathead predation, aid native species, and give fishermen a higher chance of successfully catching native fish.

My experience here allowed me to see first-hand what working in fisheries is like, which provided me with even more motivation to pursue my degrees so I end up in fisheries. This internship has given me new skills that are not taught in any classroom. The skills I developed, I feel, will make me a better candidate for other internships and any careers I wish to pursue. Everyone I worked with this summer had very strong skillsets and work ethic, which was contagious. If I started a task, I soon had other hands helping me and likewise, I found myself constantly trying to be useful while working. This internship has been the best way to gain experience and learn more complex yet critically important skills. Skills I was able to learn and hone included boat trailer maneuvering, fish identification, boat trailer, and small engine repair, basic electrical skills, and a vast amount of other useful trades I learned during my time here. This internship is one that made me a sharper and more well-rounded fisheries professional and has served to further solidify my choice for my career path.



Stomach contents of a flathead catfish

## **IMPROVE YOUR CANDIDACY WHEN APPLYING FOR A FISHERIES-RELATED JOB**

Besides having a strong educational background, people seeking a fisheries career require these very important qualifications.

- Strong critical thinking and problem-solving skills
- Good written and oral communication skills
- Well-developed people skills
- Practical field skills

Volunteer work, internships, and short-term fish technician positions are good ways to gain valuable training that can give you an edge in the competitive job market.

Ideal candidates have assisted in the development of fisheries project and study plans as well as guidelines for projects such as preparing maps of survey areas, selecting applicable methods, determining equipment needs, and assessing measurements outside the normal tolerance range.

**Be sure to check out these resources  
for more information**

**<https://gaafs.org/fish-careers/>**



**Sterling Brumbaugh  
GA DNR 2021 Intern**

# EXPERIENCE IS THE BEST TEACHER

By Ben Mathis



As a rising senior studying fisheries at the University of Georgia, I knew I wanted to spend my last summer in college gaining as much fisheries experience as I could. I grew up with a fascination for fish and wildlife and knew a career in fisheries would allow me to work in an area that satisfied me. I knew when I saw the opportunity to work at Georgia DNR's Wildlife Resources Division for the summer that I wanted to be there. I was excited for the opportunity to work out of Waycross at the fisheries unit on their flathead catfish removal project in the Satilla River. This would give me the chance to see what it was like to work for a state agency and learn the day-to-day operations of working in fisheries.

The main project I have worked with over the summer has been the flathead removal project. While working on this project, I have become familiar with boat electrofishing and how to correctly set up and operate the boats and shock boxes that are used for it. I have also been able to learn about how different species of catfish react to the electricity in the water and how to identify native from invasive species before they get in the boat. After collecting fish, I have been able to gain experience taking measurements such as length and weight as well as learning to sex I.D. the fish and pull their otoliths for age. While the flathead removal project has been the largest portion of my internship, I have been able to participate and learn through other activities.

Along with the fish collection side of the flathead project, I have been able to learn and help in general equipment management. The boats and equipment used on the project and around the shop have to be worked on and maintained. I have also gained practice storing data in databases such as Microsoft Access and learned how to properly record the data as I store it. When I am not working on the flathead project, I have been able to take part in other events like DNR education events, where I have been able to gain experience talking to others about what we do as far as the fisheries division is concerned. It was valuable to experience such a range of activities from talking to young kids about fisheries to collecting fish from the river. These are a few of the experiences that this summer internship has allowed me to gain.

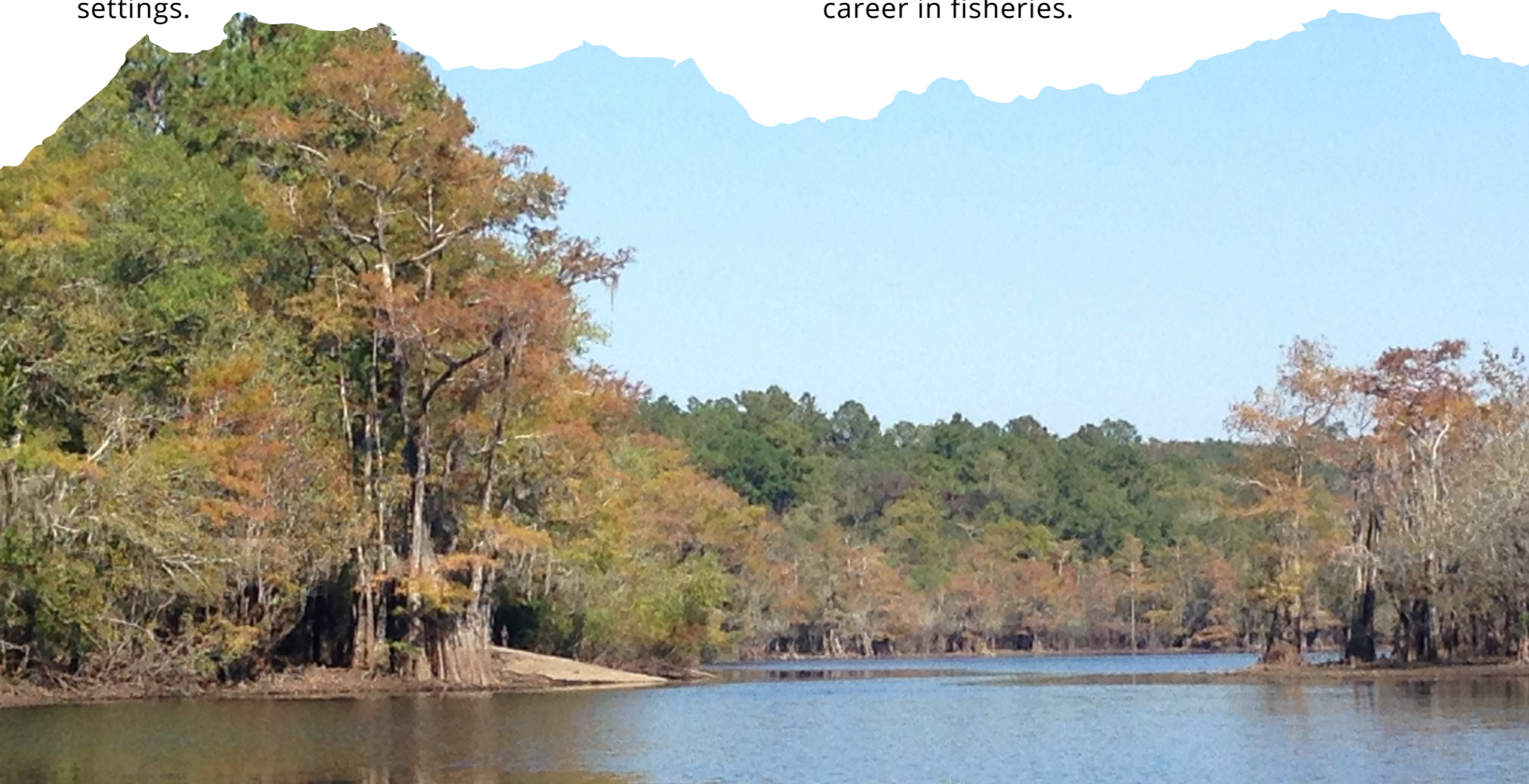


One way I have been able to gain additional experience through this summer internship is by visiting and working for different fisheries departments during my time in South Georgia. I have had the opportunity to work at Evans Public Fishing Area as well as with the Coastal Resources Division. From clearing dams and trails at the public fishing area to tagging and surveying sharks with the Coastal Resources Division, I have been able to see many sides of fisheries work in the state. This experience has been extremely valuable to me especially since I knew I wanted to work in fisheries but didn't know exactly where. Being put in these positions allowed me to find jobs I really enjoyed doing.

Coming into this internship, I had had my fair share of classes relating to fisheries, but I had never actually been in a fisheries work setting. The biggest challenge for me when I started was getting used to the kind of work we were doing. I had never really been a part of anything like boat electrofishing or handling sharks before so there was some adjusting in that regard. This internship has been the best way for me to get experience doing work I was unfamiliar with as well as getting more comfortable working in new settings.



So far this summer, the skills and experience I have been able to pick up have been really helpful in pairing with what I have learned at UGA and steering my future goals. I have now seen and worked on many aspects of fisheries I learned in class which has strengthened my knowledge. I can now solidify my aspiration to work in a fisheries-related field after this internship because of how much I have enjoyed the work. I have been able to learn many skills this summer from identifying fish and their sex, correctly pulling otoliths, educating others about fisheries, and working with state agency officials to collect and analyze data. These are the skills I plan to take carry with me as I continue my career in fisheries.





# DID YOU KNOW

GEORGIA BOASTS ONE OF THE MOST DIVERSE FRESHWATER MUSSEL FAUNAS IN THE WORLD AND IS HOME TO OVER 120 SPECIES—OVER 10% OF ALL FRESHWATER MUSSEL SPECIES WORLDWIDE



***Elliptio spinosa* is one of the rarest mussels in Georgia and occurs nowhere else in the world**

The Altamaha Spiny mussel is endemic to the Altamaha River basin in Georgia and is one of only three species in North America to produce spines. It is believed that the spines allow the mussel to stabilize itself in loose sandy conditions.

***Megaloniaias nervosa* is the only member of the genus *Megaloniaias* and are one of the largest freshwater mussels in the world**

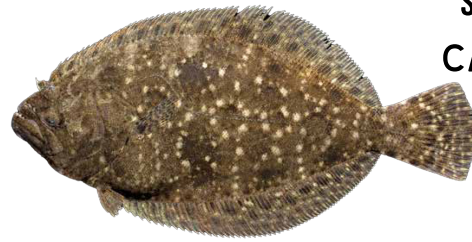


Known as the Washboard mussel, it can grow up to nearly 12 inches and several pounds. This species was popular for making pearl buttons before the invention of plastics.

**More information:**

**<https://georgiawildlife.com/FreshwaterMussels#identification>**

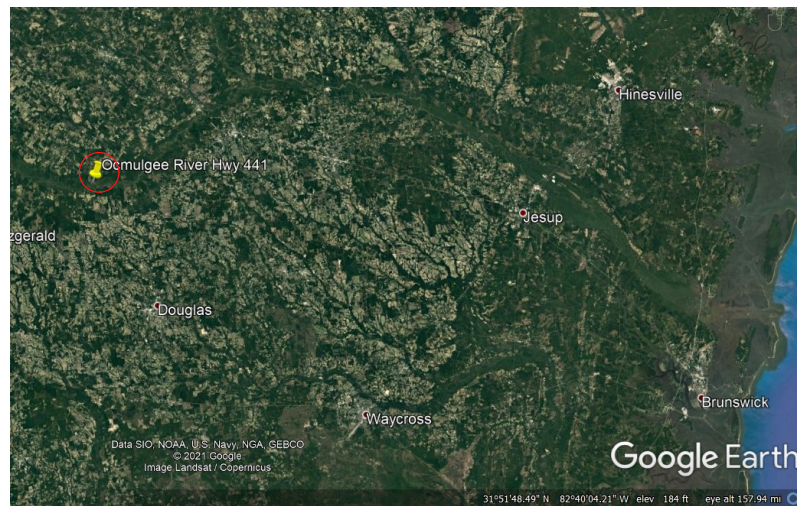
Photos by Georgia DNR Wildlife Resources Division



**SOUTHERN FLOUNDER CAN SURVIVE IN "PURE" FRESHWATER**

On June 30th of this year, an angler caught a flounder on the Ocmulgee River just below the Highway 441 bridge near the Telfair/Coffee County line.

<https://www.gon.com/fishing/ocmulgee-river-flounder-caught-200-miles-from-coast>



Most southern flounder, *Paralichthys lethostigma*, are "left-handed" which means both eyes are on the left side. During the larval stage, their eyes are located on opposite sides of the head.

Like other flounders, it can change colors to mimic its substrate to allow it to hide from predators or to conceal itself as it waits for prey.



# Props!

Don Harrison



Bert Deener



Bryan Fluech



Faye Payne  
Age 3



Steve Sammons



Jay Shelton



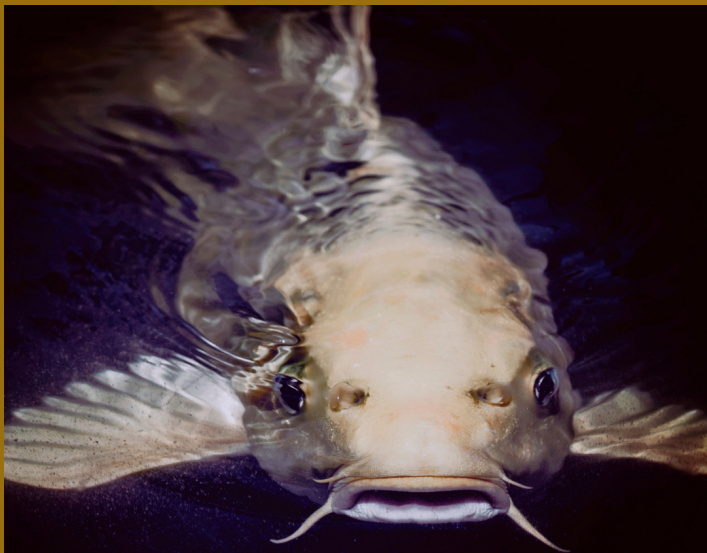
Do you have a picture of a fish you recently caught and want to share? Send your pics to Rebecca Brown at [georgiaafs@gmail.com](mailto:georgiaafs@gmail.com)



# BUBBA'S PLACE

## COFFEE BREAK

Advice from from Go Fish Education Center fishing camp participants to those interested in learning how to fish or those going fishing for the first time.



**"LEARN HOW TO HOLD A FISH, IN CASE YOU  
GET LUCKY."**

**"Cast soft and  
you'll cast  
far."**



## BUBBA RECOMMENDS

*Capt. Clay Cunningham's*  
***Catching Not Fishing***  
*Lake Lanier Guide Service*  
**770-630-2673**

Catching Not Fishing Guide Service owned and operated by Captain Clay Cunningham is a full-time Lake Lanier Fishing Guide Service. Catching Not Fishing Guide Service is open year-round and seven days a week on Lake Lanier.

<https://www.catchingnotfishing.com/>



Follow on Facebook:

<https://www.facebook.com/CatchingNotFishing/>



## Safety Tip

from Bubba Bass



Weather can change very rapidly and create unexpected emergencies for boat and PWC operators. You should always watch for changes in the weather and monitor the weather forecast. As an operator, it is your responsibility to take appropriate action based on the weather.



Be alert to weather conditions. Accumulating dark clouds, shifting winds, and graying skies all may be indications of danger. Listen for distant thunder.

**AND DON'T FORGET TO GIVE YOUR FLOAT PLAN TO A FRIEND OR FAMILY MEMBER**

<https://www.boat-ed.com/georgia/studyGuide/10101102/>

## Fin and Games



What do these two fish have in common?



### **Brainteaser**

During a 5-day tournament, a professional angler caught 30 fish. Each day the angler caught 3 more fish than the day before. How many fish did the angler catch on the first day?

(answer on last page)

## Bubba's Friends

### **American Eel (*Anguilla rostrata*)**

Slimy and undesirable. Perhaps no other 2 words have been used more often when talking about one of nature's most fascinating critters: the American eel. The American eel is catadromous, spending the majority of its life in fresh or brackish water before migrating, like the European eel, to the Sargasso Sea to spawn. After spawning, adult eels die, and their hatched eggs continue developing and take on a "leaf-like" shape. This transparent larval form, or leptocephalus, metamorphoses into a "glass eel" as it takes on eel characteristics, eventually entering the continental shelf where it is then carried on ocean currents and randomly distributed along the coast of North America. As they enter our coastline and develop pigmentation, glass eels transform into "elvers" as they move into inland waters. Once fully pigmented, these sexually immature eels are known as "yellow eels", a phase in which they will remain until they reach sexual maturity in 5-25 years. Once sexually mature, they are known as "silver eels", where they undergo a morphological and physiological transformation in preparation for their long migration to the Sargasso Sea. In this final phase, eels cease eating and rely on stored lipids as they complete the eel lifecycle by migrating back to the Sargasso Sea to spawn.



# SUGGESTIONS? LET MINNOW!

**You can contribute. We need your input. Help keep the GA AFS members connected.**

Are you working on an interesting project you'd like to share with other Georgia AFS members? Do you have news to share with colleagues? Please make note of upcoming events, projects, personnel changes, issues, or anything else of interest to other Georgia AFS members, and pass them on to us for inclusion in the next newsletter.

Do you have any pictures you want to share with us to use on our website or newsletter? We are always looking for fish pictures, pictures of you working, aquatic scenic pictures, etc.

Do you have someone you want to nominate for the professional or student spotlight?

Have you caught a fish recently you want to submit for our "Props!" page? We also welcome immediate family members pictures of fish they recently caught.

You can send your nominations, requests, pictures, suggestions, and comments to Rebecca Brown at [georgiaafs@gmail.com](mailto:georgiaafs@gmail.com).

## Stay Connected

### GAAFS Website

[gaafs.org](http://gaafs.org)

### Facebook

[facebook.com/groups/georgiaafs.org](https://facebook.com/groups/georgiaafs.org)

### Twitter

@GeorgiaAfs

### Instagram

@georgiaafs

### Newsletter Editorial Board

Rebecca Brown

Jamie Roberts

Marion Baker

Kevin Cavallaro

Jim Page

Answer to trivia question: 0 on the first day, 3 on the second day, 6 on the third day, 9 on the fourth day, and 12 on the fifth day