

JULY 2021 ISSUE

# UNDER THE DOCK

NEWSLETTER OF THE GEORGIA CHAPTER OF  
THE AMERICAN FISHERIES SOCIETY

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Photo by Bryan Fluecht



# DOCKSIDE

## WHAT DO YOU GET WHEN YOU BECOME A GAAFS MEMBER?

BY REBECCA BROWN

Several years ago I had some Chapter members ask me what do they get for their membership. At that time I really did not have a great answer. We did not offer an annual meeting registration discount and we had not started offering any training workshops for our members. My response was your membership dues help to support our mission.

I am thankful for those two that asked because it motivated me to improve the information on our website and really start thinking about how are your membership dollars being used to support the chapter's mission.

In the past, your membership dollars helped support the mission by allowing us to provide a monetary award to our student presenters at the annual meeting and make various donations to support events sponsored by the Southern Division of AFS or donate money for the Jimmy Pigg Memorial Scholarship. But thanks to our intensive fundraising efforts your membership dollars today are used to only support fish conservation efforts in Georgia. Thanks to our members we are able to make an annual donation to the Go Fish Education Center classroom to support their kids' fish education programs. And we provide monetary support to other aquatic education outreach programs such as the printing of the aquatic nuisance species workbook that has been delivered throughout the state to be used by environmental educators to teach kids (and adults) about the impact invasive species has on our aquatic ecosystems.

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



What are the benefits of becoming a member of the Georgia Chapter?

- Reduced Annual Meeting registration fees
- Leadership opportunities to serve as an officer or chair a committee
- Reduced fees for training workshops
- Student members pursuing a degree in fisheries or a related field can apply for one of our scholarships
- Developing relationships with others who have similar interests
- Supporting fish conservation efforts in Georgia
- Supporting aquatic education outreach programs in Georgia

Information: <https://gaafs.org/membership/>

Membership in the Georgia Chapter of the American Fisheries Society is open to anyone interested in the progress of fisheries science and education in Georgia in addition to the conservation and management of fisheries and aquatic ecosystems in Georgia.

**The newsletter is interactive - click on anything underlined or highlighted for more information**



# 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

## Arrangements Committee

The Arrangements Committee has already begun the planning for the GAAFS 2022 Annual Meeting. The Chapter is allowed to do our own catering and we will need some members to help with setting up the breaks we plan in-between sessions. This includes setting out food and beverages for each break, restocking food and beverages as needed, and cleaning up at the end of the breaks.

We also need volunteers to help coordinate the setting up of student posters, and someone to be our student volunteer coordinator to assign students to help with our audio-visual needs, setting up breaks and/or social, and cleaning up the hospitality suite at the end of the meeting. You can contact either Kevin Cavallaro ([cavallaro@fultonschools.org](mailto:cavallaro@fultonschools.org)) or Brent Hess ([Brent.Hess@dnr.ga.gov](mailto:Brent.Hess@dnr.ga.gov)) if you are interested in joining this committee.

## 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.

## Program Committee

The theme for the 2022 annual meeting is "Exchanging Ideas, Removing Barriers, and Forging Partnerships for Healthy Aquatic Ecosystems." Do you have a symposia idea or a suggestion for a panel discussion that can benefit our members? Contact Carolyn Belcher ([carolyn.belcher@dnr.ga.gov](mailto:carolyn.belcher@dnr.ga.gov))



# NEWS & UPDATES

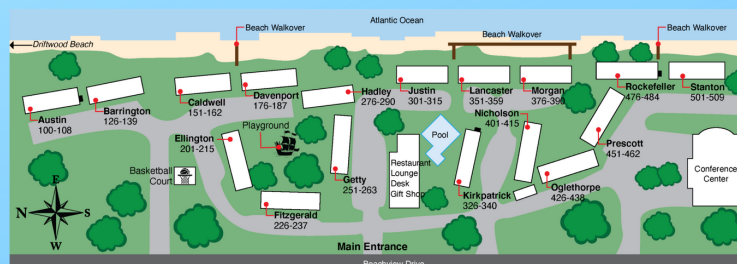
## Annual Meeting Information

[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](mailto:georgiaafs@gmail.com)).

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



We have provided information on our website about Villas by the Sea and the room rates and floor plans to help you plan your stay.

[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

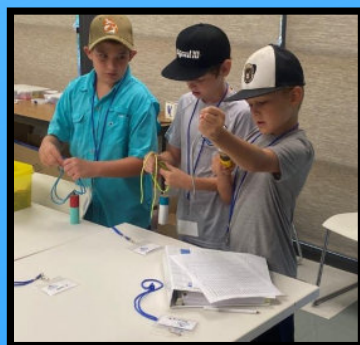
## Kids Fishing Camp at Go Fish Education Center



Go Fish Education staff, Marion Baker and Chrystal Sherwood hosted Go Fish's first fishing camp of the summer, which lasted three days.

Participants caught over 300 fish and learned how to fish with various types of baits and when and where to use them. They also learned skills such as fish cleaning, casting, proper handling and measurement of fish, knot tying, lure building, etc. Other topics incorporated into camp activities included angler ethics, fish habitat, anatomy, adaptations, fishing regulations, types of fishing, safety, conservation, and more.

Campers received behind-the-scenes tours and competed in a fish identification challenge, termed "Social Fish-tancing." Camp ended with awards and each camper received a fishing rod and casting game of their own.





## Kicking off Summer Break with Kids Fishing Events



What a great way to kick off the beginning of summer break with the kids. Last year Kids Fishing Events (KFEs) were canceled because of COVID, but not this summer.

Numerous organizations around Georgia kicked off the start of National Boating and Fishing Week with a KFE on June 5th.

KFEs provide fishing lessons to both children (under age 16) and parents from knowledgeable instructors.

Many KFEs are held around the state throughout the year, with the majority of them taking place in the spring and summer (April through September).

Are you interested in volunteering to help with a KFE?

Search for a KFE near you either by visiting their [website](#) or using your [Go Outdoors GA](#) app. The contact information for each event coordinator can be found when you click on the event name.

For more information:

<https://georgiawildlife.com/KidsFishing>

## 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

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



Click on the computer screen to watch a video



## Gary Grossman awarded Meritorious Teaching Award in Ichthyology

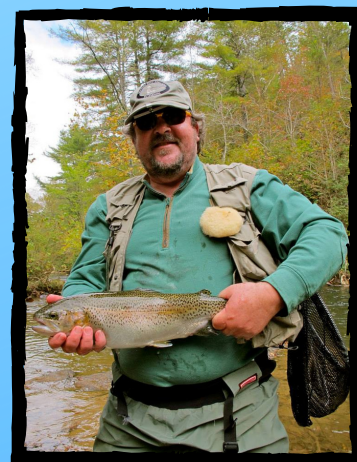


Dr. Gary Grossman, professor University of Georgia Warnell School of Forestry and Natural Resources was chosen by the American Society of Ichthyologists and Herpetologists and the American Elasmobranch Society to receive the 2021 Meritorious Teaching Award in Ichthyology. The committee was impressed by Gary's lengthy and distinguished career, as well as his varied and creative approach to educating students about the ecology and conservation of fishes.

This award recognizes superior teaching effectiveness and mentoring of students in the area of ichthyology and provides members of ASIH and AES with the

opportunity to honor individuals who have made significant contributions to ichthyological education, in either the classroom or mentoring student research endeavors. Winners of the award will be encouraged to become active members of the ASIH, which will facilitate the continuity and longevity of the ASIH and AES, not to mention the maintenance of the standards by which future awards are bestowed.

The award recipient receives 1) a cash prize of US \$500, 2) recognition in the form of an official letter from ASIH and AES (a copy of the letter will also be forwarded to the chief academic administrator at the recipient's host institution), and 3) a plaque identifying the award, year, and recipient's name.



**The Congress will be a hybrid event allowing delegates to participate both in person or online**, so the Congress can continue to connect the global fisheries and aquaculture community.

World Fisheries Congress is an event not to be missed.

<https://wfc2021.com.au/>

## ***SHARING OUR OCEANS AND RIVERS – A VISION FOR THE WORLD'S FISHERIES***

Held every four years, the 8th World Fisheries Congress will be the largest gathering of research, industry and management sectors to discuss the latest advances in fisheries world-wide. The World Fisheries Congress is the key international fisheries conference.

Aiming to foster cooperation and engagement in commercial, recreational and indigenous fisheries. Providing insightful presentations and inspiring forums on key developments needed to ensure the future sustainable development of the world's oceans, lakes, estuaries and rivers.



### ***A Study on Culturing Largemouth Bass for Stocking***



The Walton Hatchery spent three weeks feed training or conditioning largemouth bass to eat pelleted fish food. Over that 3-week period, the fish went from 35 mm to 58 mm in length and more than quadrupled in weight from 1.37 ounces per 100 fish to 6.45 ounces per 100 fish. Of these feed trained bass 500 were stocked into a tank and 1,900 were stocked into a production pond. This study will help determine the feasibility of producing larger quantities of advanced size largemouth bass with fish food rather than relying on live forage.

### **Cultivating Aquatic Plants for Shoreline Protection**

Some of you may recall from the 2019 annual chapter meeting Scott Robinson giving a presentation on reservoir habitat enhancement in Georgia. Scott highlighted several shoreline protection projects and explained the benefits of the new greenhouse located at the Walton Hatchery donated by Yamaha.

This year the Walton Aquatic Greenhouse is in full swing and staff have been actively potting, planting, and shipping out plants. By mid-June, Walton staff have planted and shipped out over 2,500 aquatic plants. These plants have gone to Lake Richard B. Russell, Hard Labor Creek Regional Reservoir, Rhodes Jordan Park (Gwinnett County), and Burton Hatchery.

The fisheries staff in Armuchee have also been busy cultivating plants for shoreline restoration.

Approximately 250 button bushes are being cultured at Arrowhead WMA. The cuttings were obtained from wild bushes back in February and subsequently rooted in moist potting soil. The bushes will continue to grow for the next two years before they are permanently planted on the shoreline of Allatoona Lake. This native wetland shrub provides many benefits to local ecology, including hosting pollinators, reducing shoreline erosion, and providing habitat for fish and other aquatic organisms.



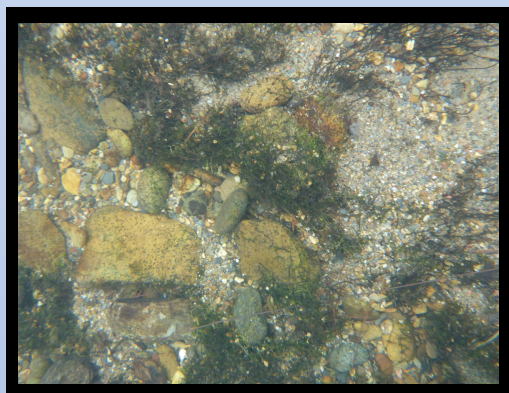


# HOPING FOR RECOVERY WITH THE COOSA MOCCASINSHELL

By Neeley Keeton and Ani Escobar,  
GADNR, Freshwater Biodiversity  
Program



Coosa Moccasinshell



Conasauga River mussel habitat



Putty/adhesive used to tag the  
mussels

The Coosa Moccasinshell (*Medionidus parvulus*) was once found across the Coosa Drainage in Alabama, Georgia, and Tennessee. Identified by corrugations on its shell, the Coosa Moccasinshell is typically found in swift riffles and runs in gravel substrates, occasionally in those sandy pockets that form behind boulders. As with many of our native mussels, this species has experienced significant declines and is now found only in the Conasauga Drainage in Tennessee and one Conasauga tributary in Georgia. The US Fish and Wildlife Service listed it as endangered in 1993 under the Endangered Species Act.

The increasing rarity of the Coosa Moccasinshell led partners to come together with a plan of action. Georgia Department of Natural Resources (GADNR) has partnered with the Tennessee Wildlife Resource Agency (TWRA) and the Alabama Aquatic Biodiversity Center (AABC) to develop a project to work towards the recovery of this rare mussel. Over the past decade, TWRA has reliably found 1-2 individuals in the Tennessee portion of the Conasauga Drainage. AABC has successfully propagated offspring from many of these individuals and has even reintroduced Coosa Moccasinshell to a site in the Cahaba Watershed (Alabama). Given these past successes, the group of partners decided to intensively survey the historic locations of Coosa Moccasinshell in Georgia and Tennessee, collect gravid females for propagation efforts, and assess sites in Alabama and Georgia for reintroduction potential.

The mussel gods have smiled on these efforts thus far. Since March of 2021, surveys in the Conasauga have produced 19 individuals in the genus *Medionidus*\*, five of which were used for broodstock by AABC and two of which were detected in the Georgia portion of the mainstem Conasauga, the most downstream *Medionidus* records since the early 2000s! The AABC has produced over 3000 juvenile mussels, which are growing out into a releasable size. Once suitable sites are identified and the mussels are large enough, more Coosa Moccasinshell will be restored to rivers and streams where they have been extirpated.

\* How many species of *Medionidus* in the Coosa? As of now, there are two described species: *Medionidus parvulus* and *Medionidus acutissimus*, both of which are rare in Georgia. Genetic swabs have been taken from each individual encountered and sent to the US Geological Survey lab in Gainesville, FL, who is undertaking a genetic study of the genus. We hope to have a better understanding of the genetic and phenotypic differences (if any) between these two species in the next year or so.



# Upper Coosa Conservation Summit



**Save the Date:**  
**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.

Stay tuned for registration and abstract submission details.

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



# **Using CUREs to expand undergraduate research opportunities in fisheries**

By  
Dr. Johnathan Davis  
Young Harris College



You probably have many fond memories of your undergraduate career. Maybe some of you reading this are still pursuing your B.S. degree and are developing these memories right now! I vividly remember many aspects of my undergrad, even 20 years later. I remember the 10-day cruise aboard a NOAA vessel for my fisheries science course, the weekend sampling trips for ichthyology, and the electrofishing surveys in a local lake in fisheries management. These memories have a commonality – they were impactful experiential learning opportunities provided by great professors. (I don't remember much about their lectures!) Fisheries programs provide numerous opportunities for faculty to implement engaging experiential learning opportunities. One underutilized experiential learning opportunity is undergraduate research (UR). At larger institutions, research is often conducted by graduate students with perhaps a few talented undergraduates also conducting research. Overall, only a small percentage of undergraduates in the sciences graduate with authentic research experience. Because of the numerous advantages of UR, this is a missed opportunity. I have sought to actively incorporate UR into my courses as a professor at Young Harris College, which has led to undergraduates completing research experiences and presenting findings at professional meetings.

UR is a high-impact practice in higher education. It engages curious learners, delves into relevant issues within a field, requires handling and analysis of data, teaches instrument skills and field methods, generates discipline-specific knowledge, and creates mentorship opportunities with faculty and professionals. Academically, UR enhances intellectual skills,



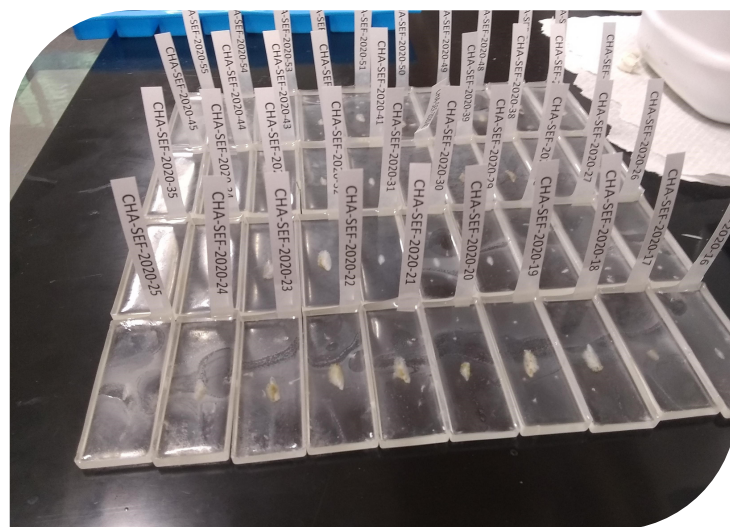
such as inquiry and analysis, reading and understanding primary literature, and written and oral communication. Students experience gains in soft skills, such as resilience and grit, the ability to work independently, self-confidence, self-efficacy, and academic identity. Simply stated, an UR experience makes a better student and prepares them for success after graduation.

Some students may face barriers to participation in UR, and these barriers tend to be more significant for minorities and first-generation students. For example, students with financial burdens may take on multiple jobs, leaving little time for mentored research with faculty. First-generation students, who are less familiar with higher education, may simply lack information about UR opportunities. Faculty and professionals may erect barriers by focusing primarily on producing and publishing novel results and selecting only well-prepared students with pre-existing backgrounds in research or the highest achieving students from their courses. Thus, UR often overlooks students who may benefit the most from the opportunity.

An effective method for overcoming these barriers and offering UR opportunities to a diverse and wide-range of students in course-based undergraduate research experiences (CUREs). CUREs utilize authentic research opportunities (i.e., not your ordinary cookbook lab) within a course and employ active learning strategies that provide relevant, discipline-specific experiences that engage undergraduates within their chosen field. The learning environment of a CURE is inquiry-based and can be adapted to introductory and upper-level courses and may be small or large in scale

depending upon structure, resources, and cost. As part of a course, CUREs can serve as a gateway that introduces students to research and prepares them for more intensive, one-on-one, research experiences with faculty. In return, faculty and professionals work with students who are more capable and independent.

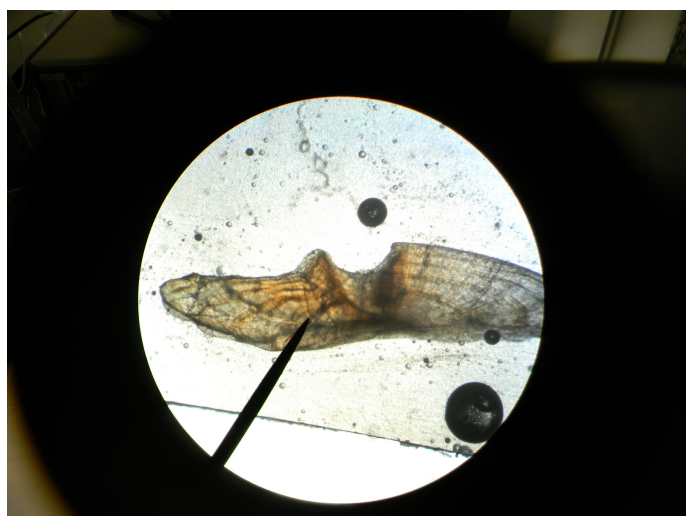
CUREs are well-suited for fisheries programs, which often include classes with relatively small class sizes and require laboratory experience. Labs offer a longer session to conduct more intensive and authentic experiences. A smaller class size makes trips to intriguing field sites practical and is more manageable for the instructor. In these courses and indeed throughout entire programs, students are required to develop content knowledge but also achieve proficiency in lab skills, field methods, and data handling and analysis. For the instructor, a CURE is an opportunity to design a more creative and engaging course, while studying a research question of interest and collaborating with fisheries professionals in the region.



*Thin, rectangular epoxy molds made by students for otolith sectioning.*



CUREs can take many forms, but I will provide one example from a fisheries science course that I offered in Spring 2020. The course was offered to biology and environmental science majors and consisted of 3 1-hour lecture periods and 1 3-hour lab period weekly. Before the semester, I acquired Alabama bass otoliths from 3 reservoirs in north Georgia (Lanier, Chatuge, and Nottely) from the GADNR Region 1 fish biologist, and I was tasked with aging these fish. This collaboration resulted in an opportunity for students in the course. All students learned the process of mounting, sectioning, and aging otoliths – a valuable skill to learn – during the first half of the semester in labs. The resulting data was the age, total length, and reservoir of origin for each individual bass. In the lecture, topics such as individual growth, mortality, and recruitment, which are based upon age data, were covered. This included homework assignments where students used R to conduct analyses using example data.



*An example of an otolith thin section produced by students.*

Now, this is where the experience became interesting for the students. The students in the course were divided into groups, and each group developed a research question based upon the data and knowledge gained in the

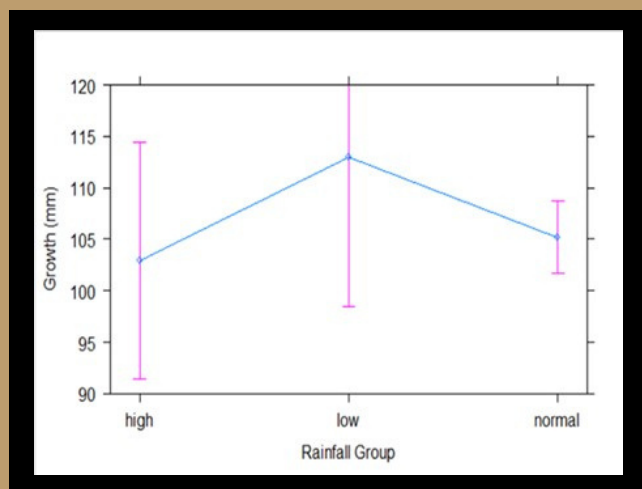
course. The question needed to be relevant to the field and authentic; answering the question required use of analytical tools (via R); and questions needed to be practical based upon available data. The expectation was that the project could lead to presentation at a suitable conference, such as the annual Georgia chapter meeting. Students faced great difficulty in doing this, and some required extensive mentoring, especially in finding other data sources to pair with lab data, writing code for R, and interpreting results. This was magnified by the fact that students didn't return from spring break due to the start of the pandemic.

None of the projects from the course resulted in publication or presentation at a conference (the pandemic!), but students did develop interesting questions, applied course material, and wrestled with the meaning of the results. In my opinion, the outcome of the project is not what matters, but it is the struggle and journey that students go through in completing the project. This is the value of the CURE. Perhaps the most interesting project was developed by students that paired course data with data on reservoir hydrology to ask the question as to whether reservoir hydrology impacted annual growth rates of Alabama bass.

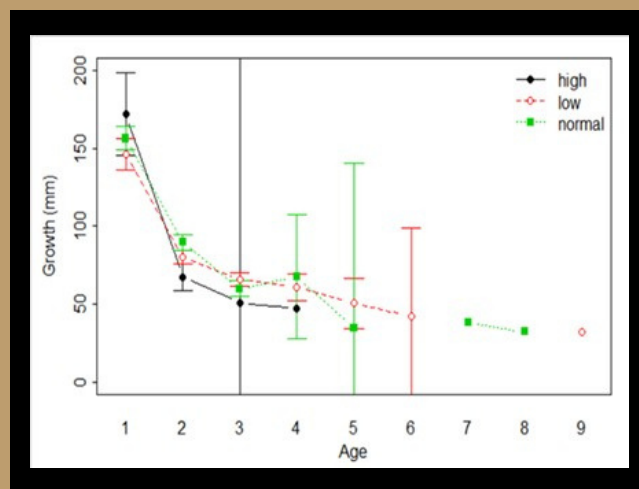
Students measured growth increments between annuli on otoliths, assigned a year to each increment measurement, and matched this with reservoir water levels. They calculated mean reservoir water level based upon the previous 10 years of data and assigned each year a water level of low, average, or high based upon 1.5 standard deviations around the mean. When this provided no conclusive relationship, they looked at the data based upon seasonal water levels and fish age to ask additional questions,



such as “Does reservoir water level affect age-0 growth?” and “Does spring water level influence annual growth in Alabama bass?”. Although results were not significant, they asked interesting questions that would be important to fisheries biologists tasked with managing these fisheries. They had an engaging experience, used the methods of the field, and developed self-confidence that they could be a fisheries scientist and work in this field.



*A graph produced by students showing that there was no significant difference ( $P = 0.480$ ) in mean growth among spring water level groups.*



*A graph produced by students showing the relationship of mean growth of Alabama bass from Nottely Reservoir. There were no significant interactions ( $P = 0.246$ ) between annual water levels on growth between ages.*

I hope that you would engage undergraduates in your research or work, whether as faculty or professionals and seek out collaborations with others to facilitate these experiences. CUREs are effective for teaching and developing the next generation of fisheries biologists. They create attractive, experiential opportunities that can enhance fisheries courses and programs offered throughout Georgia.

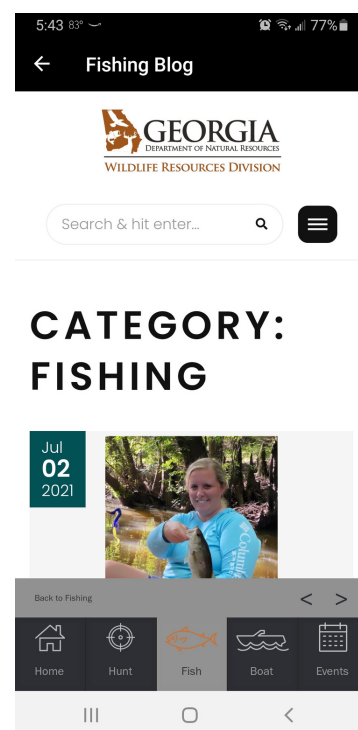
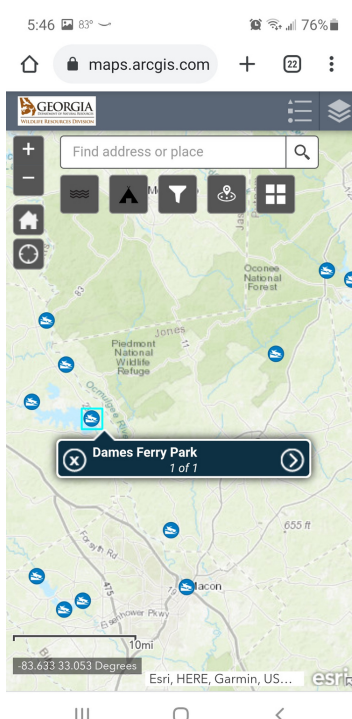
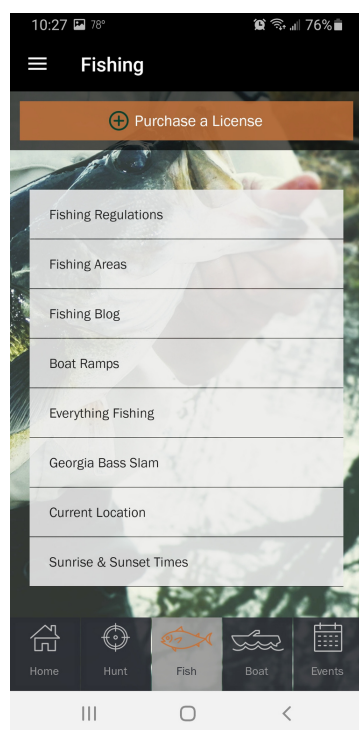
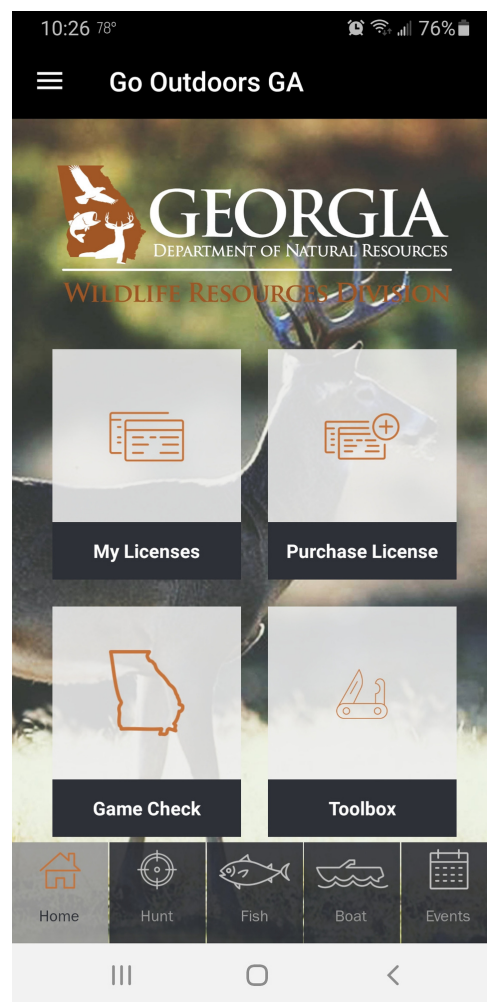
*Johnathan Davis is an associate professor of biology and incoming chair of the biology department at Young Harris College. He has mentored numerous undergraduate research projects and serves as Director of the Undergraduate Research for the Common Good program at the college.*





## 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)



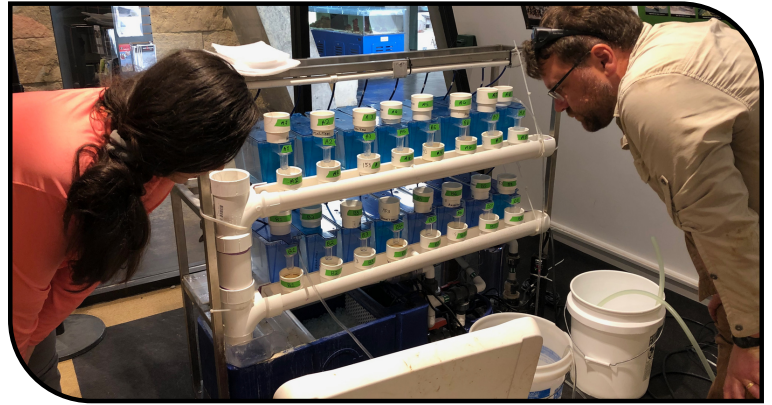


# COLLABORATIVE LEARNING IN THE FLINT BASIN

By Matthew Rowe, GADNR, Freshwater Biodiversity Program  
Photos contributed by Peter Hazelton

Understanding the relationships between fish and mussels is integral in understanding freshwater mussel biology and ecology. Native freshwater mussels or “unionids” (Order: Unionida) share an obligate parasitic relationship with fish and utilize them as a means of dispersal for their young. Unionids are recognized as one of the most imperiled groups of animals in the world due to numerous impacts from human activities. These impacts can be doubly damaging for unionids because they are sensitive not only to direct influences but also to factors affecting their hosts.

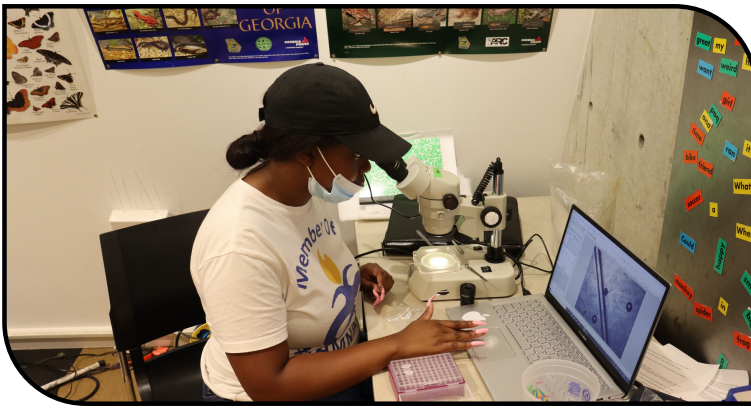
Despite considerable effort over the past several decades to understand the mussel-host relationship, there are still considerable gaps in our knowledge and the host/parasite relationship for most unionid species remains poorly understood. Unfortunately, it’s not as simple as “any old fish will do” with mussel species having evolved along with their hosts to create specific partnerships where only certain species of fish will allow a mussel species to successfully metamorphose from a larva to a juvenile. But which species are compatible? The most common method for determining this relationship has been to collect larvae from female mussels, expose various fish species in a lab, and observe them to see which allow the mussel to successfully develop. This method has been used extensively to identify relationships, however, there are several significant drawbacks. Do these fish species really interact with the mussel in the wild? Do they utilize the same habitats during the mussel’s breeding season? Is the mussel’s lure attractive to the host fish? Do fish react differently to realistic light



parasite loads encountered in the wild vs the high densities seen in lab trials?

To answer some of these questions and identify new or poorly understood associations between mussels and their hosts, a collaborative project was initiated using a more difficult, but more informative, method to identify host fishes. Wild fish from a variety of species will be collected from sites with known, diverse mussel populations during the period when most mussels are gravid. Researchers will observe these fish in tanks and collect larvae that develop. The mussel species will then be identified using modern genetic barcoding techniques. The project focuses on the Lower Flint Basin in southwest Georgia, which is home to diverse mussel and fish populations including numerous state and federally listed species. Data collected from this “wild inoculation” study will identify true mussel-host relationships in the ACF and provide invaluable information for conserving mussel populations in Georgia. This project, however, goes beyond simply working to answer questions about mussel-host relationships, it also provides an exciting opportunity to expose students from multiple universities and the public to a plethora of field and lab techniques and real, ongoing scientific research.





How did this project start? A partnership between Albany State University (ASU) and the Flint RiverQuarium (referred to as Partnership here on out) was formalized in 2017 to enhance educational and research opportunities at both institutions, and in 2019, the ASU-RiverQuarium Partnership hosted a workshop with participants from Georgia Department of Natural Resources (GADNR), Jones Center at Ichauway, the US Fish and Wildlife Service (FWS), and others interested in aquatic conservation in the Flint River Basin. The workshop identified a pilot study of mussel host fishes as one of the most promising research activities for the Partnership. The Partnership's coordinator subsequently worked with lead faculty from the University of Georgia (UGA) and ASU to design the project and recruit graduate and undergraduate students. Funding for the pilot project is provided through the Partnership, an existing education grant, and the FWS Panama City Field Office.

Host fish trials are very labor-intensive prospects, and a principal challenge is finding staff to collect fish, care for them, and monitor them to collect developed larva from the tanks for genetic testing. This is where students from ASU and UGA come into play! Undergraduate students from ASU and graduate students from UGA are participating in every aspect of the project including collecting fish in the wild using a variety of techniques, transporting them to the

RiverQuarium, monitoring tanks, collecting the developed juvenile mussels, isolating them for processing, recording data, and employing the molecular techniques need to identify the mussel species. Additionally, the entire process is on display at the Flint RiverQuarium for the public to observe! Guests can see the tank system and watch students at microscopes diligently working through samples with the microscope view displayed on a screen.



This undertaking started as a pilot project in June of 2021 to determine if the methods, logistics, and outcomes would be fruitful and will hopefully be expanded in the future to continue identifying mussel-host relationships in the Flint Basin. Despite many challenges and the very real possibility of failure, the project to date has been a resounding success with numerous students actively engaged in important conservation research and collection of valuable data. Mussel larvae have been collected from several fishes, and students are in the process of identifying mussel species. With the success of this pilot project, the collaborators hope to expand to include another round of fish collections in the Fall of 2021 with more students participating and with more research possible into the future.





## Professional Spotlight

**Scott Robinson**

Scott Robinson is the Chief of Fisheries for the Georgia Department of Natural Resources, Wildlife Resources Division (GADNR WRD). He has served as a WRD fisheries biologist for 26 years in a variety of roles in fish hatcheries, fisheries management, habitat conservation, and aquatic education. Part of that time, nine years, Scott was the WRD fisheries biologist for the Southeast Aquatic Resources Partnership (SARP). Scott is a very active member of the Georgia Chapter of the American Fisheries Society. He has served as a Chapter President and in addition to donating items for our annual raffle, Scott is also one of our Chapter's sponsors.



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

*Since I was a little kid I wanted to be a scientist and I have always been fascinated by water and aquatic organisms. My Dad, Uncles, and both Grandfathers all liked to fish so I grew up fishing and having a good time doing it. My friends and I also spent a lot of time playing in the local creeks, turning over rocks to see what lived there. When I went to college and found out that I could do fisheries science for a living, I was all in.*



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

*I attended Clemson University and earned Bachelor's and Master's of Science degrees in Fisheries and Wildlife Biology. My Master's thesis work was evaluating the effects of a severe hydrilla infestation on water quality in the Santee-Cooper system in the coastal plain of South Carolina. We also evaluated the efficacy and effects of using grass carp to control the hydrilla. I spent a year traveling that huge system of swamps, rivers, and reservoirs in a small aluminum boat, tracking grass carp and measuring water quality. It was fascinating.*



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

*We are working on expanding our Community Fishing Program and our work with State Parks as part of our angler recruitment efforts. I am excited about making fishing better close to home at easy-to-access places like state and municipal parks. We are increasing our fisheries management and stocking efforts on small impoundments at these parks and also recruiting and training parks staff on how to host Kids Fishing Events, fishing classes, and fishing camps.*



## Professional Spotlight Continued

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

*I have been fortunate to work on a lot of rewarding projects and it would be hard to pick just one. Working on the National Fish Habitat Plan and really raising the bar on fish habitat work through SARP (Southeast Aquatic Resource Partnership) was very rewarding and is something I am still passionate about. Georgia DNR has also made some significant advances in the way that we approach fish habitat enhancement and the emphasis we place on it, and I am glad I was able to play a part in that. The Native Black Bass Initiative and all the progress we made as a state and in the southeast with native black bass conservation is another effort that I felt made a real difference and was also a lot of fun. I also enjoyed being the state hatchery and stocking coordinator for the past five years or so in my previous position and working on some much-needed hatchery renovations and improvements.*



*"I have learned so much from Scott over the past few years and I'm excited about what the future holds as he leads the Fisheries Management Section. Scott's knowledge of fisheries in Georgia is matched only by his desire to care for and protect our natural resources. What becomes even more evident with every interaction is that Scott truly cares about each person that works alongside him. He has a tough job ahead of him but I know he will rise to the occasion. After all, he is a Clemson Tiger!"*

~ Chris Harper, Assistant Fisheries Chief Georgia Department of Natural Resources, WRD

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

*I enjoy working at a statewide level and at a fast pace and this job provides all that. The people that I work with and the interaction with our staff and partners around the state is something I really enjoy, along with helping people advance in their careers and knowledge. I am also really enjoying developing and improving our aquatic education and Angler R3 efforts. The most challenging thing is probably the administrative workload, processes and procedures, and all the "stuff" that has to be done working for a state agency.*

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

*Get engaged and stay active with AFS, and don't be afraid to put yourself in situations where you are challenged and even uncomfortable. The biggest advancements in my career usually came when I took a risk or was doing something really challenging.*

### What is your favorite quote?

*"The only man who never makes mistakes is the man who never does anything."*

~Theodore Roosevelt



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

*I sat in Charlie Elliott's den with Mr. Elliott and listened to his hunting and fishing stories as he helped re-create his den at the Charlie Elliott Wildlife Center.*





## Student Spotlight

Joel Yeager

Joel is in his second year as a Master's student at the University of Georgia under the direction of Dr. Marty Hamel. Joel's thesis has 2 parts: 1) Studying the movement and habitat dynamics of Suwannee Bass in the Withlacoochee River, Georgia; and 2) Evaluating angler exploitation of Suwannee and Largemouth Bass in the Ochlockonee and Withlacoochee Rivers of South Georgia. Joel expects to defend his thesis in November 2021. Prior to coming to UGA, he worked for the U.S. Geological Survey at the Columbia Environmental Research Center after completing his undergraduate degree at the University of Missouri in 2017.



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

*It is difficult to pin down any one reason I was attracted to a career in fisheries science. I began my undergraduate studies as a biochemistry major and had planned to pursue a career in the medical or pharmaceutical fields. However, at some at some point I realized that I would not be satisfied with a career that would have me spending all my days indoors - despite my fondness of the research aspects associated with those fields. This realization was certainly due to spending a good deal of time fishing and boating growing up in rural Iowa. At the time, I saw these activities as simply "the only thing to do" and lamented the lack of more exciting ways to spend my free time. Looking back, these memories of days on the water laid the groundwork for an appreciation of fisheries science and conservation and led to where I am today.*

*"Joel has demonstrated a remarkable level of understanding of his project and has left no stone unturned. It didn't matter what the task was, he had done his homework; From sewing up bass with telemetry tags, to tracking fish for several days, to interviewing anglers, he knew what he was doing". "Furthermore, "As a result of navigating almost all of his field work during the height of the COVID 19 pandemic.", he showed a high level of resiliency typically only seen in veteran professionals".*

~ Tim Bonvechio, Fisheries Biologist Georgia Department of Natural Resources, WRD





## Student Spotlight Continued

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

*I am currently studying the movement dynamics, life-history attributes, and angler exploitation of Suwannee bass in southern Georgia. I conducted radio telemetry on 28 adult Suwannee bass in the Withlacoochee River from Feb. – Sep. 2020 and will use those spatial data to describe the movement dynamics of the species and use them in conjunction with side-scan sonar imagery to investigate any habitat associations. Additionally, I tagged Suwannee and largemouth bass in both the Withlacoochee and Ochlockonee rivers in Georgia with bounty tags to investigate the angler exploitation of both species and compare exploitation rates between species and rivers. Although I was able to present some of my research to the members of Georgia AFS virtually in 2021, I look forward to sharing the complete findings of my study with the chapter in 2022.*

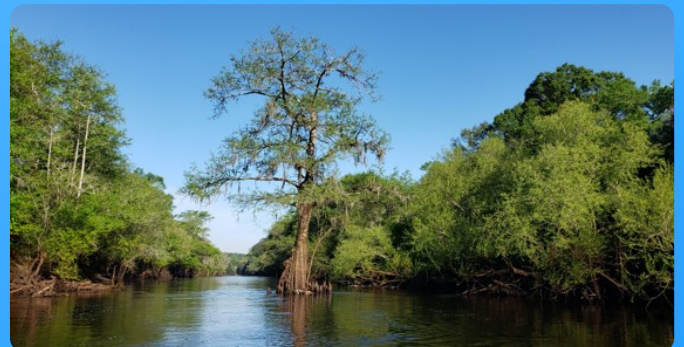


### What is one of your favorite memories as a UGA student?

*My lab-mate and I were working the overnight shift of a 24-hour diel movement tracking event for my research, and at around 2:00AM or so I began noticing numerous pairs of orange glowing reflections along the banks of the river. Prior to this, I had only seen one (wild) alligator in the previous 27 years of my existence – which was just a few weeks prior while I was conducting my normal weekly telemetry during the daytime. I was shocked to find out how many alligators there actually were in the river I had been spending so much time in!*

### What advice would you give other students?

*Try not to get lost in the weeds when you are feeling overwhelmed. Personally, separating long processes into smaller tasks and creating a prioritized list helps me stay focused on what is immediately relevant.*





## Student Spotlight Continued

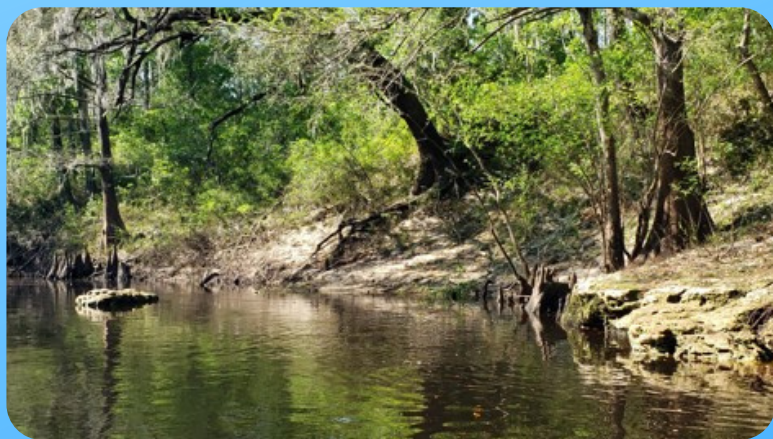
### In 10 years, what would you like to have accomplished?

*After completing my M.S., I plan to pursue a PhD and obtain a research-focused biologist position with a federal or state agency. Other than those two criteria, I remain open-minded as to what the future has in store. In 10 years, if I am doing research that interests me and it meaningfully contributes to fisheries science, I will consider my goals accomplished.*



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

*I like to spend what little free time I have at my disposal kayaking, fly fishing, or in cases of poor weather, tying flies.*



### What is your favorite quote?

*"For a successful technology, reality must take precedence over public relations, for Nature cannot be fooled."*

~ Richard Feynman

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

*I possess a hobbyist-level of programming knowledge and have built and programmed a handful of USB devices – mainly computer keyboards.*



# Who is Bubba Bass?



Once upon a time, a lonely Bass went home with Rob Weller after a Georgia Chapter AFS annual meeting in 2010. That year Mr. Bass, who later became known as Bubba Bass, spent time with Rob and his colleagues at a GA DNR WRD Regional Office where he learned what it takes to work in fisheries science. At the 2011 annual meeting, Rob created a PowerPoint to showcase Bubba's adventures that previous year. Each year a new person or group volunteers to host Bubba and this has allowed him to travel around the state every year trying different jobs and even attempting to further his fisheries knowledge by attending different colleges and universities around the state.

Bubba was with the GA DNR Stream Team in 2020: [youtube.com/watch?v=6U5KA\\_MMAI](https://www.youtube.com/watch?v=6U5KA_MMAI)

## PICS FROM BUBBA'S PAST ADVENTURES





# 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)





## **GEORGIA POWER FOUNDATION, INC. WATERS FOR GEORGIA PROGRAM**

The Georgia Power Foundation, Inc. is inviting proposals for the Waters for Georgia Program. Through this funding program, the Georgia Power Foundation, Inc. seeks to invest in water quality improvement projects that result in measurable benefits to environments and communities across the state of Georgia.

The Georgia Power Foundation will grant awards of \$25,000 and up, with a total anticipated investment of \$1 million for projects that will be implemented and begin delivering benefits by December 31, 2023. The Foundation will consider smaller investments for projects that promise exceptional water stewardship benefits to the community.

To ensure that funding is directed where it is most needed, proposed projects must be focused on waters of Georgia that are currently listed as impaired under Section 303(d) of the Clean Water Act.

Further, successful projects should focus on reducing the source(s) of impairment and include actions that will contribute to the de-listing or down-listing of the impaired waters. All projects must have a clear link to watershed and ecosystem health. Additional consideration will be given to projects benefitting majority Black, Indigenous, and people of color (BIPOC) and underserved communities.

The Georgia Power Foundation, Inc. will consider proposals from governmental agencies or organizations that have an active 501(c)3 tax designation and described in Section 509 of the Internal Revenue Code except for any organization described in Code Section 509(a)(3)(B)(iii) that is not “functionally integrated” with its supported organization.

For more information, visit <https://www.georgiapower.com/community/apply-grant/environmental-water-grant.html>.

**Proposal due date  
midnight July 30, 2021**



Waters for Georgia

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

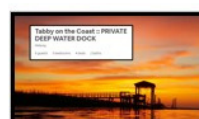


### Bronze Sponsor



Warnell School of Forestry  
& Natural Resources  
UNIVERSITY OF GEORGIA

## 2021 Georgia Chapter AFS Fundraising Donors





# Conservation of the Gulf Striped Bass

By Rob Weller, GA DNR, WRD



The Gulf striped bass, *Morone saxatilis*, is genetically distinct from the Atlantic race of striped bass. It was once common to the Gulf of Mexico rivers, ranging from Lake Pontchartrain, Louisiana, to the Ochlockonee River, Florida. These fish were historically important in the bays and estuaries of the Gulf of Mexico, contributing to both commercial and recreational landings. By the 1960s, the native Gulf race striped bass population had declined significantly due to loss of habitat, including blocked access to historical spawning areas and summer thermal refuges, and to water quality degradation. The last naturally reproducing Gulf race striped bass populations survive in relatively low numbers in the Apalachicola-Chattahoochee-Flint (ACF) river system in Florida, Georgia, and Alabama.

As the need arose for conservation measures, agency directors and commissioners from Florida, Georgia, Alabama, and the U.S. Fish and Wildlife Service signed a Cooperative Agreement in 1987 to establish by mutual consensus for the restoration of striped bass in the ACF river system. The restoration efforts consist mainly of stocking, population monitoring, and habitat restoration. GA DNR monitors the brood fish population by diving several springs in the Flint River that provide thermal refuge during the warm summer months. Striped bass over 10 pounds cannot survive for long in water warmer than 78 degrees. This survey allows DNR to determine the relative abundance of the larger Gulf striped bass in the population over time.

Gulf striped bass populations have remained relatively stable the last several years, but can be negatively affected by droughts, loss of thermal refuge habitat, and poor juvenile recruitment.

Click on the  
computer screen to  
watch a short video



# Trophy Bass Management of the Ocmulgee Public Fishing Area



Ocmulgee PFA is a 106-acre lake within the boundaries of Ocmulgee Wildlife Management Area between Hawkinsville and Cochran, GA.

The lake is managed for trophy bass, but it also provides an abundance of bluegill, redear sunfish, and white crappie. Anglers can easily fish from the bank or by boat.

The current lake record is held by Orville Newlin who caught a 10 pound 10.56 ounce largemouth in May of 2020.

Ocmulgee PFA is **catch and release only**. If an angler believes they have caught a trophy largemouth bass in excess of 10lbs, there is a release cage on the floating dock and the hotline numbers are on a sign at the cage on the dock.

Information:

<https://georgiawildlife.com/ocmulgee-pfa>



Google Earth image of Ocmulgee PFA

This past spring while conducting a routine sampling fish survey of the Ocmulgee PFA, the Georgia DNR Fisheries Staff caught the largemouth bass seen above being held by fisheries biologist Tim Bonvechio. This trophy bass weighed 12 pounds 12 ounces and was 25.2 inches in length. The fish was scanned for a pit tag revealing that it was 6 years old meaning she was from the 2015 original year-class. This indicates she had an average growth rate of well over 2 lbs per year to reach that current weight. Literature states it typically takes 10 years for largemouth bass to reach 10 pounds.

Did we mention that Ocmulgee PFA has been stocked with only female largemouth bass? Georgia DNR fisheries management staff select largemouth brood fish from their best largemouth bass populations and spawns them to produce fingerlings that are stocked throughout the state. The largemouth bass stocked in Ocmulgee PFA are sexed to ensure they are stocking only female bass into the lake.

Check out this research article written by Tim Bonvechio and Joseph Rydell that was published in the Journal of the Southeastern Association of Fish and Wildlife Agencies (2016): **[Use of Female-only Stocking Strategy to Establish a Trophy Largemouth Bass Fishery in a Georgia Small Impoundment](#)**



# DID YOU KNOW



## Cannonball jellyfish are part of Georgia's commercial fishery

People who have walked along Georgia's coastal beaches most likely have come upon a cannonball jellyfish (*Stomolophus meleagris*). Some locals call it cabbagehead jellyfish, but most refer to it as a "jellyball."

Most jellyfish fishermen, or "jellyballers," are shrimpers who swap out their nets at the close of shrimp season in preparation for jellyball trawling.

After several days of processing the jellyfish are packaged and shipped overseas where they undergo final processing before being consumed.

Jellyfish have a crunchy texture and can be served hot, cold, cooked or raw. They essentially take on the flavor of the other food or condiments they are served with. Jellyfish are commonly cut into strips and served in salads, but they can also be used in egg rolls, stir-fry, and sushi wraps.

Source: [UGA Marine Extension and Georgia Sea Grant](#)



The trawl nets used by "jellyballers" have a larger mesh size than nets used for shrimping.

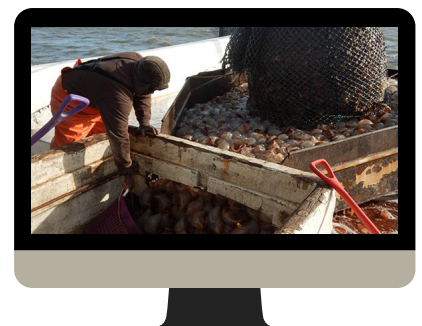


The first Turtle Excluder Device (TED) was built by shrimper Sinkey Boone in the late 1960s to exclude the detested jellyball. Now new TEDs are being designed to target the larger and more valuable jellyballs.

The jellyball fishery is one of Georgia's cleanest fisheries. The bycatch is low for the commercial jellyball trawl fishery as compared to the bycatch associated with the commercial food shrimp trawl fishery.

Reference: [Characterization of Bycatch in the Cannonball Jellyfish Fishery in the Coastal Waters off Georgia](#)

Click on the screen for a short film on how jellyballs are processed





# Props!



Melchor Fabillar  
Age 6



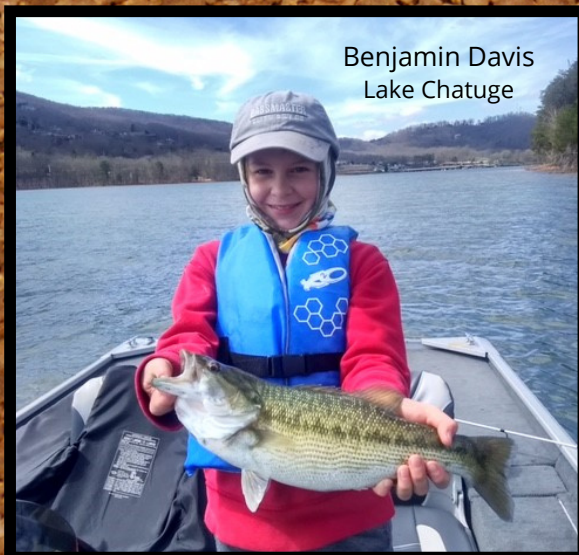
Chalisa Fabillar



Jackson Sibley



Faye Payne  
Age 3



Benjamin Davis  
Lake Chatuge



Cecil Jennings

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)



# Props!

Jay Shelton



Finn Kalinowsky



Bert Deener



Collin George



Bryant Bowen  
and  
Fisher Bowen



Fisher Bowen

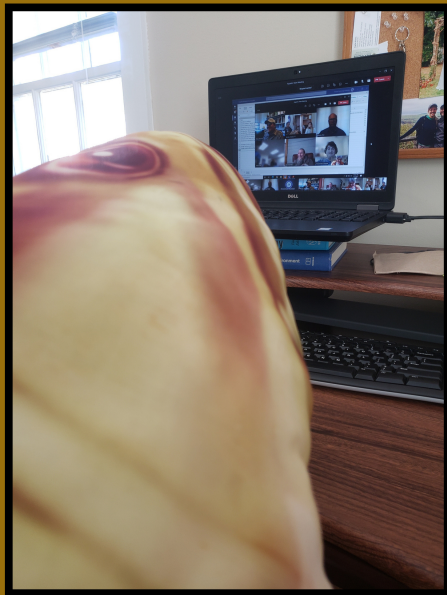




# BUBBA'S PLACE

## WHERE'S BUBBA?

Bubba has been working with Ani Escobar in NW Georgia since leaving Chad Kaiser and the GA DNR Stream Team.



Here is Bubba participating in yet another Microsoft Teams Meeting. These meetings are entertaining, but he does find himself daydreaming about the days he was at the Go Fish Education Center and met his idol.



## BUBBA RECOMMENDS

Are you looking for a trout fishing guide? Two of our fundraising donors have some great fishing guides to lead you to fish and teach you a trick or two.



Guide service and a fly shop  
<http://www.unicoioutfitters.com/>

Check out Unicoi Outfitters Facebook page for tips and fishing reports  
<https://www.facebook.com/unicoioutfitters/>



Trout fishing guide service  
<https://riverthroughatlanta.com/>



## **Safety Tip**

from Bubba Bass



Proper fueling procedures are very important in preventing onboard fires. Gasoline vapors are heavier than air and can spread rapidly into enclosed spaces. You should check the bilges and all closed compartments for gasoline vapors. The sniff test is the most effective method for detecting fuel leaks. ([boat.us.org](http://boat.us.org))

Evaporating gasoline creates vapors or fumes that are heavier than air. These fumes settle to the bottom of the boat where they could explode if enclosed areas, such as the bilge, are not ventilated properly to remove fumes.



Even if you are not required to take a boater safety course you should at least read through a boating study guide or take one of the free courses offered by GA DNR.

<https://gadnrle.org/boating-education>

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

## **Fin and Games**

### **The Very Unique Plainfin Midshipman**

- Is in the toadfish family
- Native to eastern Pacific Ocean
- Adults usually live in depths of around 400m
- Breed in shallow intertidal locations
- Males produce a loud humming noise during the mating season and can be heard by people on land nearby  
(<https://www.youtube.com/watch?v=BwUT778RovI>)
- Can breathe through their skin



**Do you want to know more about the plainfin midshipman?**

<https://www.youtube.com/watch?v=ETMyrPyAIHM>

**What is the name of the Dr. Seuss book that includes humming fish?**

(answer on last page)

## **Bubba's Fish Spotlight**

### **Spotted seatrout (*Cynoscion nebulosus*)**

Also known as speckled trout, the spotted seatrout is a valuable recreational saltwater fish in Georgia. When you catch one you want to watch out for the pair of large canine teeth at the tip of their upper jaw. They are opportunistic carnivores whose feeding habits vary with size. Anyone wishing to catch a big one might use other fish for bait such as mullet, pinfish, or menhaden.

They are found primarily in estuaries but move into nearshore ocean waters during cold periods. In general, spotted seatrout appear to be non-migratory and spend their entire life within five to ten miles of their natal estuary.



Photo courtesy of Jackson Sibley

The most important nursery grounds for the young are small tidal marsh creeks and shallow grass beds, while larger juveniles are widely distributed in estuarine areas and along coastal beaches.



# 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

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