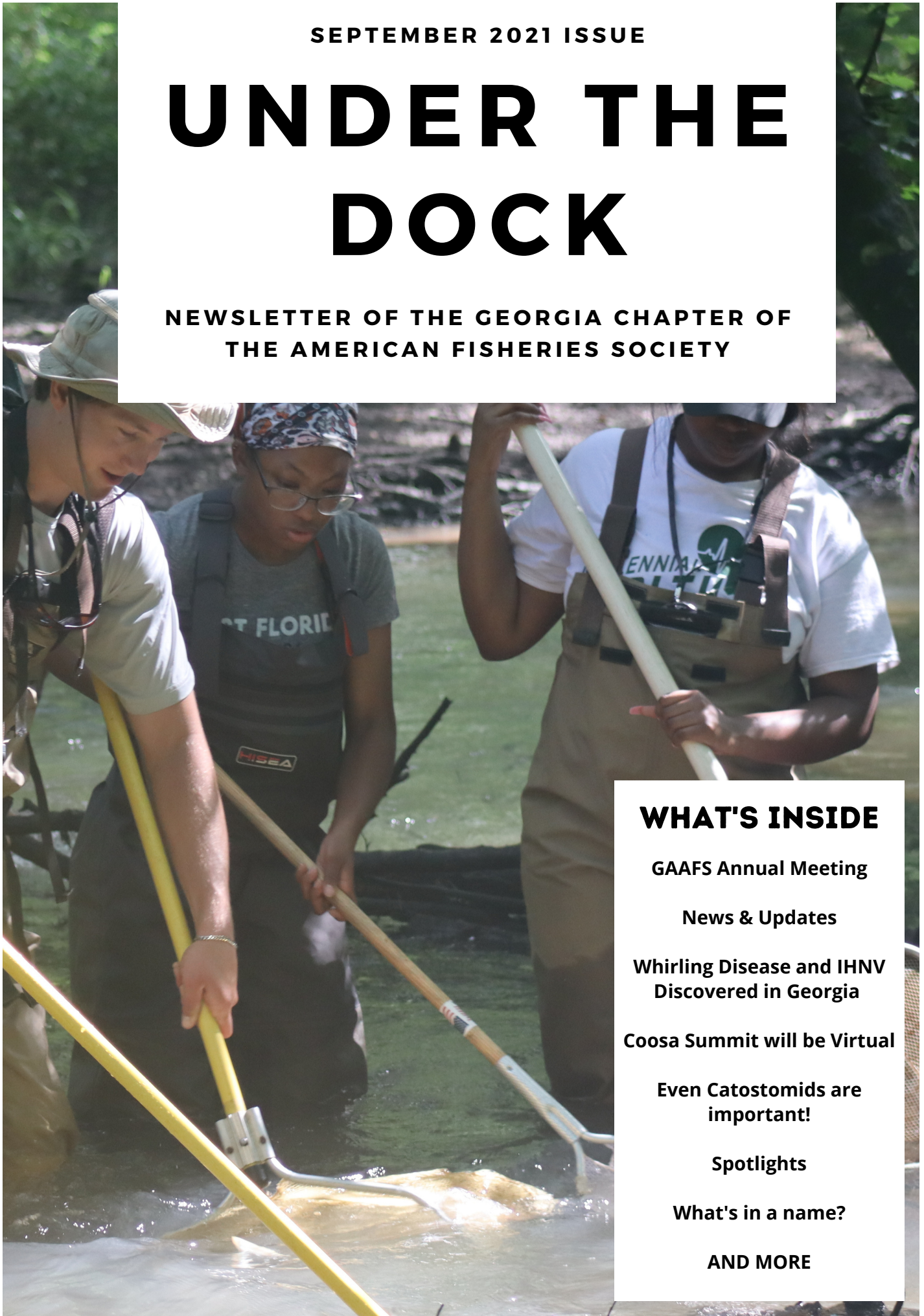


SEPTEMBER 2021 ISSUE

UNDER THE DOCK

NEWSLETTER OF THE GEORGIA CHAPTER OF
THE AMERICAN FISHERIES SOCIETY



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News & Updates

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DOCKSIDE

Ideas Inspire, Action Achieves: Georgia Chapter receives award from the American Fisheries Society

Last month the Chapter was notified that we were the recipients of the 2021 Outstanding AFS Small Chapter Award. The Outstanding Chapter Award recognizes outstanding professionalism, active resource protection, and enhancement programs, as well as a strong commitment to the mission of the Society.

The award will be officially announced during the business meeting at the 2021 AFS Annual Meeting in Baltimore.

This prestigious award is a tribute to many people's hard work and dedication, particularly the 2020 ExCom and Committee chairs. The rest of the country is learning what many of us have known for some time- we have a truly inspiring and talented group of fisheries professionals committed to conserving, managing, and improving our aquatic resources for today and the future.

As part of the application process, we had to answer the question - What makes your chapter unique and why is it outstanding? Our answer...

The Georgia Chapter possesses a unique sense of cohesiveness and can-do spirit among its professional, faculty, and student members, which helped us not only "get through" an unprecedentedly difficult year but rise to the

challenges by adopting new modes of communication, education, and networking. As a result, our membership rolls, meeting attendance, outreach footprint, fundraising, and sense of camaraderie hardly missed a beat in 2020. In fact, we were able to reach an even larger audience, including citizens and potential fisheries recruits whom we might not have reached under traditional circumstances. Although every unit of AFS faced similar Covid-related issues, we are particularly proud of what we were able to accomplish in 2020. These accomplishments are detailed in the sections below and the attachments provided. In brief, they include (1) ramping up our information-dissemination campaigns through adding active Twitter and Instagram accounts (we already had Facebook) and periodic blog posts on topics like aquatic nuisance species and aquatic connectivity, (2) working with the GA DNR to develop and fund educational media (digital flyers, posters, and teaching workbooks) on various fishy topics, (3) developing a new set of web-based resources to connect Georgia high-school and college students to fish-related programs and faculty at colleges throughout the state, and to better understand what skills are needed for different careers in the fisheries field, and (4) for our student subunit at UGA, broadening the monthly seminar series to a much more geographically widespread field of guest speakers, thanks to using a Zoom virtual meeting format. Although we hope 2021 sees the restoration of more in-person interaction, we learned a number of useful lessons and skills in 2020 that we think maintained our effectiveness as a chapter and will enhance our relevance and reach moving forward.

Student Scholarships and Travel Stipend Awards

Information and the application forms
<https://gaafs.org/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 undergraduate travel stipend will provide lodging and meeting registration for student members of the Georgia Chapter to attend the GA-AFS annual meeting.

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



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>

2022 Georgia Chapter 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.

All memberships are for a calendar year. New memberships and renewals received after September 1, 2021 will be processed for a full membership beginning January 1, 2022.


Additional information is on our website.
<https://gaafs.org/membership/>

Georgia Chapter 2022 AFS Membership Form
<https://forms.gle/Nm8AnHsLfQCo6sLV7>

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/**

2022 ANNUAL MEETING

gaafs.org/2022-annual-meeting/

Join us February 1 – 3 at the Villas by the Sea Resort on Jekyll Island as we share research and ideas relevant to marine and freshwater finfish and shellfish and their respective fisheries and environments. Our annual fundraising raffle and silent auction will take place at the same time. Proceeds from the annual fundraiser support our aquatic education outreach projects, student scholarships, habitat restoration projects, and continuing education workshops.

REGISTRATION

Each individual attending the meeting needs to complete the [electronic registration form](#).

A word document registration form is available on our website for those who need a copy.

Payment can be made by check or credit card using our online store.

Details about the 2022 annual meeting can be found on the website.

Member Type	Before January 21, 2022	After January 21, 2022
PROFESSIONAL		
AFS and GAAFS Member	\$75	\$75
GAAFS Member Only	\$80	\$100
Not Member of GAAFS	\$90	\$110
STUDENT		
AFS and GAAFS Member	\$30	\$30
GAAFS Member Only	\$35	\$50
Not Member of GAAFS	\$45	\$60
RETIRED		
AFS and GAAFS Member	\$45	\$45
GAAFS Member Only	\$50	\$50
Not Member of GAAFS	\$60	\$60
ONE-DAY REGISTRATION		
Professional GAAFS Member	\$50	\$50
Professional Non-member GAAFS	\$60	\$60
Student GAAFS Member	\$20	\$20
Student Non-member GAAFS	\$30	\$30
* Non-member rates include Georgia Chapter AFS membership dues		

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

2022 ANNUAL MEETING

gaafs.org/2022-annual-meeting/

HOTEL ACCOMMODATIONS

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 check our website for more information about the different room types so you can plan accordingly.

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

Timeless Achievement Deserves Timeless Recognition

AWARD NOMINATIONS

The Georgia Chapter of the American Fisheries Society values its members and all those who work to improve the conservation and sustainability of our fishery resources and aquatic ecosystems. Randy Pausch once said, "Showing gratitude is one of the simplest, yet most powerful thing humans can do for each other." One way our Chapter shows its gratitude is by presenting outstanding individuals or organizations for their achievements and excellence in support of the Chapter's mission and objectives.

We are currently updating our guidelines for nominating a person or organization to be considered for a GAAFS award. More information coming soon!

Visit our website for more information about each award: <https://gaafs.org/awards/>

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)

NEWS & UPDATES

A multi-dimensional look at estuary health using juvenile sharks as bioindicators

Kennesaw State University graduate student, Allyson Stiles, spent part of her summer gathering data for her master thesis looking at sharks as sentinels of community health of estuaries. Allyson's research is being supported by the Georgia Aquarium and she is working with Georgia Aquarium research scientist Kady Lyons. Georgia Southern University and the UGA Marine Extension and Georgia Sea Grant are providing additional support.

Her research will take a multi-dimensional look at estuary health using juvenile sharks as bioindicators. The plan is to collect data not only from sharks, but also from water and sediment data as well in three different Georgia coastal sites - Wassaw Sound, Ossabaw Sound, and Doboy Sound. Each of these estuaries varies in their degree of anthropogenic influence (pollution, overfishing, and habitat loss) ranging from low to high. Allyson's research can possibly show how sharks can be used as "canaries in a coal mine" to let us know something is not right with the estuary.



Photo courtesy of UGA Marine Extension Georgia Sea Grant

Allyson's research was recently highlighted on GPB Environmental News Radio.

<https://www.gpb.org/news/2021/08/12/sharks-offer-snapshot-of-coastal-waterways-health>



The Climate Ambassadors Program

<https://climate.fisheries.org/meet-our-climate-ambassadors/>



Administered by the American Fisheries Society, the Climate Ambassadors Program provides a specialized communication skills training program that focusses on climate change. This training will then be applied to informing and educating others about climate change and the impact on aquatic environments. Founded on the latest research on science communications, program trainings will be in-depth, interactive, and provide the tools for fisheries scientists to more effectively communicate with thought leaders, journalists, stakeholders, and lay audiences.

Climate ambassadors are passionate and dedicated aquatic scientists that want to reach a variety of audiences and expand their thinking on the impacts that humans have on our aquatic environments.

Objectives of the Climate Ambassadors Program

- Build a team of aquatic scientists to partake in a communication training program specialized for climate change.
- Apply this training to inform target audiences on the critical issues of our changing climate and the impacts this has on fish and fisheries. This will include the development of outreach materials, presentations, and speaking engagements.
- Share the methods and skills gained through this program to train successive classes of ambassadors to build a network of skilled science communicators.



First Documented Occurrence of Whirling Disease and Infectious Hematopoietic Necrosis Virus in Georgia

The Georgia Department of Natural Resources Wildlife Resources Division (WRD) announced on August 21, 2021, they are investigating Whirling Disease (WHD) and Infectious Hematopoietic Necrosis Virus (IHNV) in the hatchery-raised trout at both the Buford and Summerville trout hatcheries. Preliminary test results were positive for both hatcheries. Georgia WRD is taking steps to prevent the spread of these infectious diseases and has temporarily suspended the stocking of trout and is collecting more samples for disease analysis from the hatchery fish as well as wild populations in the Chattahoochee River downstream of the Buford Hatchery. Additional steps being taken include investigating the source for both pathogens and identifying disinfectant methodologies for treating the hatcheries. These are the first documented cases in Georgia.

Whirling disease is an infectious disease of salmonid fish, caused by *Myxobolus cerebralis*, a microscopic parasite, was first discovered in the U.S. in 1958 and is currently found in several states. Up until now, the closest outbreak to Georgia is when it was discovered in North Carolina's Watauga River in 2015. Physical symptoms of WHD include blackened tail, whirling behavior, and deformities of the head and spine. Whirling disease does not infect humans, mammals, or fish that are not members of the salmonid family.

The disease IHNV is an infectious disease of salmonids. It was first recognized in the 1950s in sockeye and Chinook salmon. Young fish are more susceptible, and those that survive may become carriers of the virus and shed IHNV virus particles in their feces, urine, and external mucus. Symptoms of fish infected by IHNV include darkening, protruding eyes, pale gills, lethargy, distended abdomen, and abnormal swimming behavior. Humans are not susceptible to becoming infected by IHNV and fish with IHNV can be consumed.

Both of these diseases can be detrimental to Georgia's trout species. Mortality rates are very high in both hatchery-raised trout as well as our wild trout populations. Visit the WRD website for more information about these invasive diseases and learn more about what you can do to help prevent the spread of WHD and IHNV. <https://georgiawildlife.com/ans#diseases>

Other Resources

- [USGS Whirling Disease](#)
- [USGS Infectious Hematopoietic Necrosis Virus](#)

Doc Talk: Dr. Hal Schramm on
"Whirling Disease And You"





JASM 2022

GRAND RAPIDS, MICHIGAN, MAY 16 - 20

The meeting will be held at the DeVos Place convention center and it is organized by the Consortium of Aquatic Science Societies (CASS), which includes:

American Fisheries Society

Association for the Sciences of Limnology and Oceanography

Coastal and Estuarine Research Federation

Freshwater Mollusk Conservation Society

International Association for Great Lakes Research

North American Lake Management Society

Phycological Society of America

Society for Freshwater Science

Society of Wetland Scientists

Call for Proposals: Symposia, Integrative Events, and Workshops

The 2022 Joint Aquatic Sciences Meeting (JASM) will be held in Grand Rapids, Michigan, May 14-20, 2022.

The JASM Program Committee invites proposals for symposia, pre-conference workshops/professional development courses, and integrated events which support the conference theme:

Rapid Changes ~ Collaborative Solutions

Proposal Deadline: September 24, 2021, 11:59 EDT

More information:

<https://jasm2022.aquaticsocieties.org/>

Even Catostomids are important!

By
Tim Bonvechio

It may have come to you as a surprise that I recently published a research paper with my fellow fisheries scientist (and wife!) on a species that was not a bass. Rather the study subject was a forage species, the Lake Chubsucker *Erimyzon succetta*.

(Proposed Standard Weight (Ws) Equation and
Standard Length Categories for Lake Chubsucker.)
[Request PDF \(researchgate.net\)](#)



Decades ago, while in graduate school at the University of Florida, I learned from state fisheries biologists (See Crawford et al. 2002) that there were certain population characteristics that make up successful trophy bass fisheries in Florida. Biologists gathered information on trophy bass (10lbs or greater) from taxidermists all over the state. They ended up obtaining 822 trophy Largemouth/Florida Bass caught from 1987 to 1993 from 211 water bodies. From these fish, they learned that age varied significantly for a 10-lber, ranging from 4 to 16 years but averaging 10 years. Not surprisingly, accelerated growth, longevity, and strong year-classes were very important factors for trophy bass production in many systems. At the time, a little more of a head-scratcher for me was one waterbody in particular, Lake Pasadena. High availability of Lake Chubsucker, low abundance of competitive predators (few Gar and Bowfin), and reduced angling vulnerability were important parameters in a higher than normal trophy bass production scenario (1 trophy/10 ha) for this lake. Furthermore, Crawford et al. (2002) and Cailteux et al. (1996) showed that Lake Chubsucker was the preferred prey species of adult largemouth bass greater than 450 mm TL and 560 mm TL, respectively. Similarly, Bennett & Childers (1966) also showed in Illinois ponds that fish had better than average size and condition in systems that contained Lake Chubsucker. I still believe to this day, these biologists came upon one of the best kept secrets for forage options for trophy bass management in the Southeast. The bioenergetic value of this species is high because of its cylindrical and slurpable body shape, which allows big trophy bass to consume very large prey items, up to 57% of the bass's length in that particular study. I have personally observed 15-inch lake chubsuckers in 24-inch bass (62.5%).



Ocmulgee
Public Fishing
Area 24 inch
bass with a 15
inch Lake
Chubsucker in
its mouth.

Previous studies suggest that Lake Chubsucker abundance increases with decreases in trophic state (Bachmann et al 1996) and it prefers weedy systems filled with submersed and emergent aquatic vegetation, such as Cabomba (native) and Hydrilla (exotic). While still in graduate school working on many of the infertile but somewhat weedy Ocala Forest lakes, we stumbled on several giant trophy Florida bass exceeding 10lbs, many with partially digested dinners (Lake Chubsuckers) swallowed head first, sticking out the bass's mouth or down their gullet.

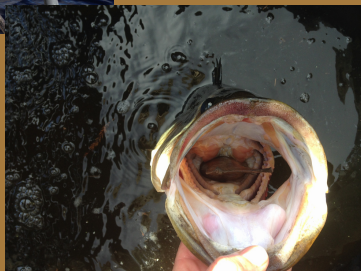
several other Georgia DNR fisheries biologists questioning if we should stock this native species for supplemental forage in our intensively managed fisheries where trophy bass are one of the main management priorities. Soon, we began tinkering with Lake Chubsucker propagation at the Bowen's Mill Fish Hatchery. Unfortunately, only moderate numbers of fry could be produced (Eberts et 1998) because fecundity is low and somewhat variable (between 3,000 and 20,000 eggs) (Carlander 1969). Also, suggesting to a hatchery manager that you would like a pond on their hatchery to be weedy is not recommended!

Nonetheless, we gave it a try, but our efforts have had varying successes. It's unclear why one year we might get 10 to 15,000 lake chubsuckers out of a pond and the next year only a couple of hundred individuals. However, based on experience, we recommend collecting preferred to memorable size (10 to 12 inches) brood fish, because they are highly fecund and more resilient for spawning. Larger trophy size (greater than 15 inches) size Lake Chubsucker should be avoided, as they are reaching the end of their lifespan when fecundity has begun to decline and they are less likely to survive the trip to the hatchery, let alone attempt a spawn. Despite various rearing success, we were able to stock them as supplemental forage in Ocmulgee PFA (Bonvechio and Rydell 2016), where a higher biomass of large available prey was required to feed the trophy bass. Because of our somewhat new and innovative approach to stocking forage soup in our female-only bass lake, one journalist referred to our recipe as the "Jurassic Park Approach." I kind of like that! If you want to grow "teeners" and try to defend Georgia's world record bass, it's important to think a little outside the box.



Lake Lindsay
Grace bass

Lake Chubsucker
down it's gullet



Later in my career, this foraging occurrence continued in Georgia while I was working on the blackwater systems of Lake Lindsay Grace, Evans County PFA, Banks Lake, Reed Bingham State Park, and to a lesser degree, Laura Walker State Park. All these experiences had me and

Electrofishing sampling in fall 2017 and 2018 determined the lake chubsuckers had taken well to the newly flooded lake of nothing but habitat, popping up like popcorn, everywhere! It appeared to have been a success. I knew it wouldn't be long because the big girls were growing fast. With those early samples, we saw 4 to 6 lb. bass that was only 2-year olds! That's right; we were seeing 2 to 3 lbs. a year growth! Subsequent sampling expeditions revealed 3-year-old fish that were 8 and 9-lb specimens in 2019, 11 and 13-lb fish that were only 4 and 5-year olds in 2020! This past year we had a 6-year-old that weighed 12.75 lb.



One remedy for sure that can't hurt is stocking more Lake Chubsuckers!

Back to our recent standard weight equation paper, an idea spawned from the great ideas and work referenced above. Because of this paper, biologists now have a tool to assess the size structure, and body condition of Lake Chubsucker throughout its range, whether wild or those being propagated for stocking purposes. This new equation also ensures the proper conservation of an imperiled and threatened population in the northern half of its native range. Selfishly, by collecting well-conditioned Lake Chubsucker broodstock for propagation here in Georgia, fish can then be used for supplemental stocking into trophy bass lakes like Ocmulgee PFA. So, I guess you could say I indirectly worked on bass through the Lake Chubsucker.



Brood Lake Chubsuckers for the hatchery



There's a cautionary tale to be told, however. For one, fishing effort has drastically increased due to the desire to catch one of these large fish. Currently, the lake record stands at 10 lbs and 10.56 oz caught by Orville Newlin of Bonaire, but the quest for an even larger record continues. We have also started receiving a few complaints that catch rates have slowed some and fish are dying. Despite catch and release angling to limit mortality, some fish are morbidly hooked or being held out of water too long especially in the summer. Unfortunately, male largemouth bass has also gotten into the system, so it is no longer a female-only system. This has led to an increase in abundance in our electrofishing samples this past fall and spring, so there will be more competition from both sisters and now brothers to get big.

On a final note, like anything in science, there is always something to build upon. If we don't write up our failures and successes in peer-reviewed publications, then we are simply leaving our future scientists with reinventing the wheel. I challenge each one of you in this chapter to pick up an old data set and write up some of those findings that are otherwise collecting dust. If you are lacking the confidence to write it up, we have plenty of bright folks in our chapter that would be willing to offer assistance.

A little about the author:

Tim is a veteran senior fisheries biologist with the Georgia DNR for almost 15 years and 3 years prior with the Florida Fish and Wildlife Conservation Commission. He received both his master's and bachelor's degrees from the University of Florida. In Tim's free time, he likes to pursue trophy Largemouth Bass and Whitetail Deer and cheer on his mighty Florida Gators. Tim and his wife Kim have two daughters, Hannah and Lily.

If you have any questions, Tim can be reached at: Tim.Bonvechio@dnr.ga.gov



4-year-old 13lb fish

References:

- Bennett, G. W., and W. F. Childers. 1966. The Lake Chubsucker as a forage species. *The Progressive Fish Culturist* 28:89-92.
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- Cailteux, R. L., W. F. Porak, S. Crawford, and L. L. Connor. 1996. Differences in largemouth bass food habits and growth in vegetated and unvegetated north-central Florida lakes. *Proceedings of the Annual Conference of Southeastern Association of Fish and Wildlife Agencies* 44:126-136.

UPDATE

Upper Coosa Conservation Summit

**October 20, 2021
VIRTUAL**

Please note that due to the rise in COVID-19 cases, the Coosa Summit has been moved to a virtual format with a reduced program. Coosa Summit hopes to host an in-person gathering in Spring of 2022.

Registration is free for the 2021 Upper Coosa Conservation Summit. Register by October 18 to receive the link for the meeting

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/>



Professional Spotlight

Donna McDowell

Donna McDowell is a marine biologist with the Georgia Department of Natural Resources Coastal Resources Division (GADNR CRD). For the past 20 years, she has enjoyed the challenges and adventures that come with working with Georgia's coastal fishery resources. Besides serving on the Georgia Chapter's Scholarship Committee, Donna is also one of our valued, and much appreciated workshop facilitators. She along with Pete Sakaris and Tim Bonvechio have taught several of our Chapter members how to extract, mount, and read otoliths to age different fish species. Besides being an excellent training facilitator, she is also pretty good at fixing small engines. She rebuilt the carburetor on her old rear-tined rototiller.



What got you first interested in fisheries science?

I grew up on the coast of Georgia. I am the daughter of a Georgia shrimper and my mom's family owned a fish market. While growing up I spent a lot of time on the water or helping my grandmother on the farm. This might explain why I have a small farm today though I live in an "official" neighborhood.

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

*I attended Savannah State University where I earned a BS in Marine Sciences and an MS in Marine Sciences. My thesis, "Age, growth, and reproductive biology of Southern Kingfish, *Menticirrhus americanus*, in Georgia.*

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

I am the lead biologist on the Coastal Longline Survey. Sharks and Red Drum are tagged and released from Doboy Sound down to St Marys from June to December since 2007. Nearly 9,000 individual sharks have been encountered on this survey. And I also run the Cooperative Angler Tagging Project where about 35 volunteer anglers tag and release Red Drum, Black Drum, and Tripletail. Over 12,000 fish have been tagged since 1988 and nearly 3,000 recaptures.



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

I really enjoy being out on the water. It is very calming. Mornings are my favorite because everything is new and fresh and I get to start the day the way I want. I find it rewarding to train my new hires each year. For some of the people, I hire this is their first "real" science job and I have the honor of training and mentoring them. The most challenging part of my job is juggling fieldwork with office work.



Professional Spotlight Continued

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

One of my most rewarding experiences is when I get to train my new hourly workers every year. When they start applying for full-time jobs they list me as a reference. The other rewarding experience is when my Cooperative Taggers get so nerdy about the fish they tag. They really get into tagging and start competing with one another. And you should see their excitement when their tagged fish gets recaptured. It is a joy to watch others enjoying their job.



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

My advice to others pursuing a career in fisheries is that your path may not look like other's paths and it's not always a straight line. And that is OK! You must do what is best for you and what feels right. Try and learn skills whenever possible within the fisheries field and be willing to try new things. It is important to understand that there may be more than one method to get to an end result.



I have worked closely with Donna during most of her career with CRD. During her tenure, she has been involved in several different projects and is known for her work with fish ageing, the cooperative tagging project, and assisting with weighmaster responsibilities at various saltwater fishing tournaments. Her customer service skills with Georgia anglers are top-notch. Donna is a hard worker and always willing to step up to a challenge, whether it's working full-time and completing a Master's degree or assuming the lead biologist responsibilities for the Coastal Longline Survey. She has mentored several hourly employees and represents CRD at numerous high school career events. She is well thought of by her peers and is a promising junior professional in the Marine Fisheries Section.

~ Carolyn Belcher, Marine Fisheries Chief, GA DNR CRD

What is your favorite quote?

I have several favorite quotes:

- "A jack of all trades is a master of none, but oftentimes better than a master of one"
- It's not the size of the dog in the fight, it's the size of the fight in the dog. ~ Mark Twain
- And from my favorite movie: Dying ain't much of a living, boy. (Outlaw Josey Wales)

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

As mentioned before, I have a garden, and I compete with my chihuahua for the vegetables because she eats tomatoes (happily) and green beans from the garden. I am also big into fitness and working out. Working out helps make the body strong and it's good for the mind too.





Student Spotlight

Allyson Stiles

Allyson is a first-generation college and graduate student in her family. Born and raised in GA, she grew up fishing with her father and has a love of conservation and Georgia's wetlands. She is currently a graduate student at Kennesaw State University and expects to graduate in May 2022. Her current Master's project will take a multi-dimensional look at estuary health using juvenile sharks as bioindicators. This past summer she did a lot of shark data collection in conjunction with Georgia Aquarium and UGA Marine Extension Georgia Sea Grant.



What attracted you to pursue a degree in fisheries science?

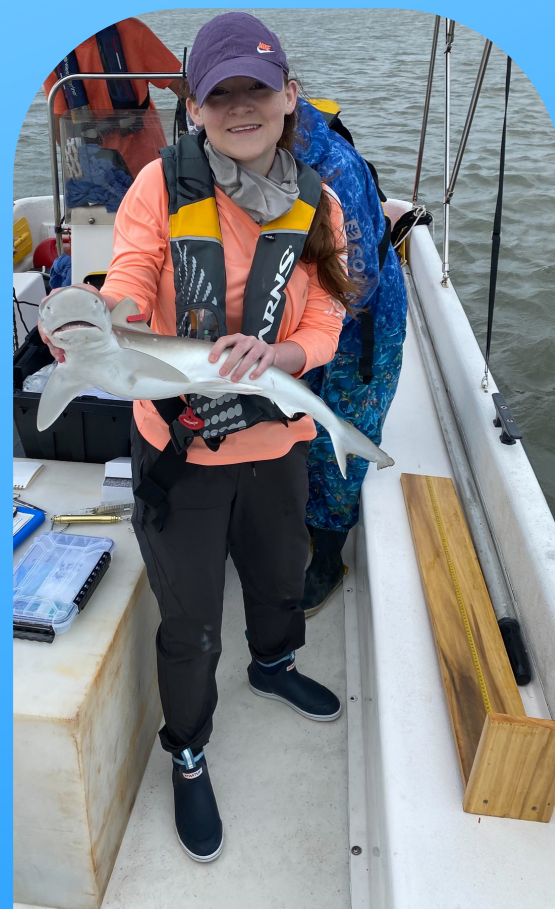
I have always loved science and nature, especially animals. During my undergraduate degree, I interned in the Research and Conservation department at the Georgia Aquarium under the leadership of Dr. Kady Lyons. During my internship, I became more and more interested in fish, especially sharks, and that is what led me into my current degree and research project studying these amazing animals.

Describe your current research project(s)?

I am comparing a variety of metrics from three Georgia estuaries with presumably different levels of human influence. This includes sediment contaminants, water bacteria load, and a few indicators of health in juvenile sharks such as their body condition and mercury in their tissues.

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

My favorite memory happened this July; I brought four of my undergraduate research assistants into the field with me. It was great to see their excitement and enthusiasm for fish and conservation. For many of my students, their time in the field confirmed that they want to work in marine conservation.



Student Spotlight Continued



What advice would you give other students?

My best advice for other students is to take advantage of available volunteer and intern opportunities. By taking advantage of these opportunities, you're getting hands-on experience and insight into careers that you may have no clue exist. There are many opportunities out there and sometimes all you must do is ASK!

"Allyson started volunteering with Georgia Aquarium's Research and Conservation Department by "cold calling", which clearly showed that even as an undergraduate she demonstrated drive and passion for marine conservation. Since then, Allyson has been involved in a number of research projects with the Aquarium that has led her to pursue her own research through a Master's degree. Over the past 3 years I have been working with her, Allyson has shown the dedication and passion it takes to make significant contributions to helping conserve Georgia's beautiful coastline!"

~ Dr. Kady Lyons, research scientist Georgia Aquarium

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

My dream is to be settled into a career that is centered around estuary conservation. I hope to be in a position that allows me to educate people on the ecological importance of estuarine ecosystems. I would also like to continue shark research along the coast of Georgia!



What is your favorite quote?

"We don't own the planet Earth; we belong to it. And we must share it with our wildlife." -Steve Irwin

What are some of your favorite extracurricular activities?

I love to go hiking in the North Georgia mountains. There's nothing more fun than exploring a new trail with family and friends.



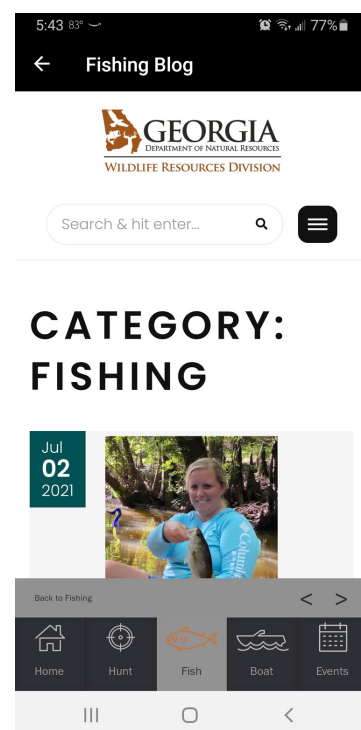
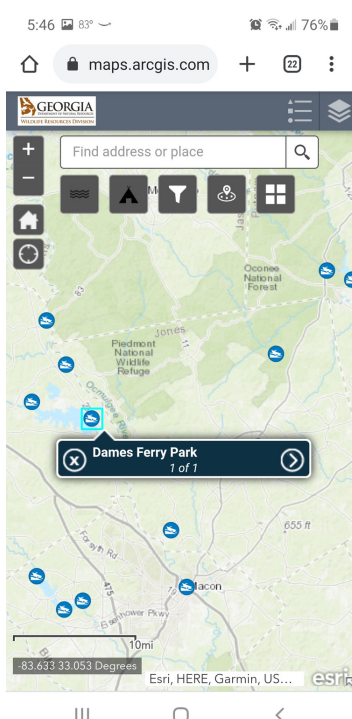
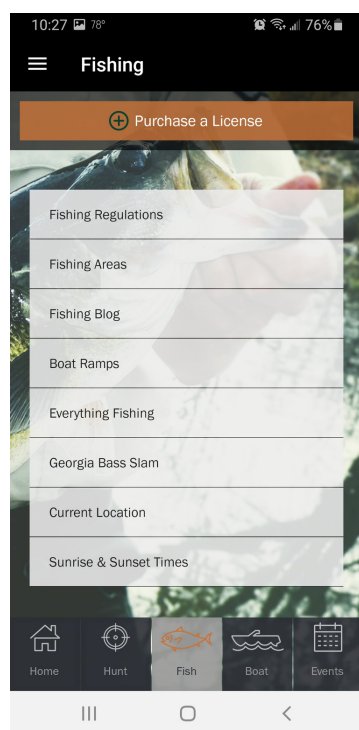
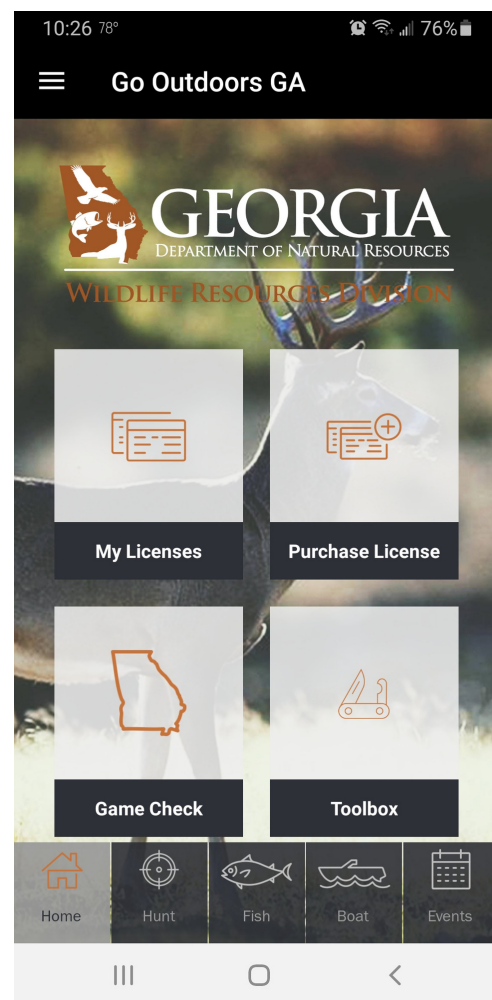
What is something about yourself that others may be surprised to know about you?

In Fall 2018, I took a semester off from school to live in and explore the island country of Grenada. During my time there, I traveled all over the island hiking through their rainforest, visiting gorgeous waterfalls, and swimming in the clear, blue waters of the Caribbean Sea. It was an experience that I will never forget.

All photos courtesy of UGA Marine Extension Georgia Sea Grant

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)



We simply cannot function without the generous support of our sponsors and fundraising donors. We greatly appreciate everyone who help make our annual meeting a success and assist with our efforts to improve the conservation and sustainability of fishery resources and aquatic ecosystems in Georgia.

Individual Contributors

Captain Bert Deener
Steven Patrick
Camm Swift
Carolyn Belcher
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Richard Schulte
Kevin Cavallaro
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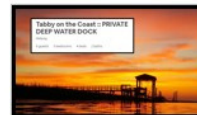


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& Natural Resources
UNIVERSITY OF GEORGIA

2021 Georgia Chapter AFS Fundraising Donors



GEORGIA CHAPTER AFS AMERICAN FISHERIES SOCIETY

2022 GEORGIA CHAPTER AFS ANNUAL FUNDRAISING DONATION APPRECIATION

We would like to extend our appreciation to those who donate items for our annual fundraiser. The value of your donated item(s) will determine your donation level.

Organizations or individuals whose donations are valued at less than \$50 are recognized in the 2022 conference program and throughout the year on our website, social media sites, and monthly newsletter.

Sharks: Item(s) valued more than \$300

Minnows: Item(s) valued \$201 - \$300

Sunfish: Item(s) valued \$101 - \$200

Drums: Item(s) valued \$50 - \$100

	Drums	Sunfish	Minnows	Sharks
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	No	1/4 Page	1/2 Page	Full Page
Individual shout outs on our social media sites and/or selected as one of our <i>RECOMMENDS</i> for the monthly newsletter	Yes	Yes	Yes	Yes
Conference table space	No	No	No	One 6 ft table
Complimentary registrations	No	No	No	1

Proceeds from the annual fundraiser support our aquatic education outreach projects, student scholarships, habitat restoration projects, and continuing education workshops.

Fundraising Chair: Jackson Sibley (oceansibly@gmail.com)

Executive Secretary-Treasurer: Rebecca Brown (georgiaafs@gmail.com)

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

GA AFS 2022 ANNUAL FUNDRAISER



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.

Our members can help our fundraising efforts by personally contributing an item or soliciting from a local business, organization, or person. Items may include artificial lures, gift certificates, coolers, tackle bags, event passes, guided fishing trips, handmade flies, custom-made fishing rods, fishing rod/reels, kayak/whitewater rafting trips, original artwork, prints, or other 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

FUNDRAISING DOLLARS SUPPORT



Restoring the
Chattahoochee River
One Tributary
at a Time

What's in a name? It does matter!

By Rebecca Brown

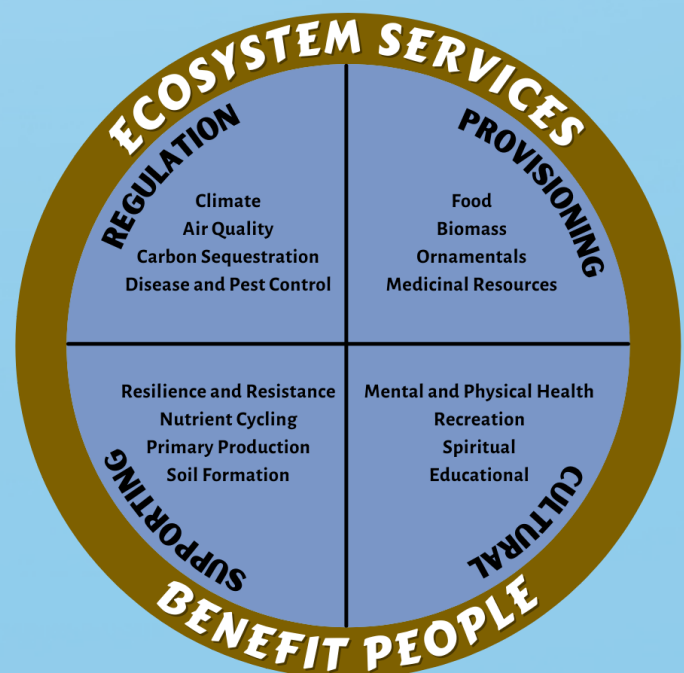
A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise.

~ Aldo Leopold



Paddlefish and sturgeon were once identified as trash fish and had no protection from being overharvested for their eggs (caviar). Due to overfishing and habitat loss, these long-lived fish are now protected as either a sportfish or as a federally protected species. Some states still allow sport and commercial fishing for paddlefish, while other states have it listed as a protected species.

Native fish species not identified as gamefish are perceived as unimportant by many people. Calling them “trash fish”, “rough fish”, or “junk fish” adds to the misconception. Native nongame fish species provide many ecosystem services that directly or indirectly benefit people. Ecosystem services include provisioning services such as food and clean water; regulating services such as disease control and carbon sequestration; supporting services such as nutrient cycling and primary production; and cultural services such as recreational and scientific knowledge.



Northern hogsuckers and other benthic feeders contribute to nutrient cycling when foraging for food. The eggs and waste products of migratory suckers have been shown to contribute large amounts of nutrients, especially phosphorus, to streams during spawning migrations. The producers that benefit from the nutrients are foraged upon by insect larvae and snails. The insect larvae and snails are a source of food for crayfish that are then consumed by shoal bass, a gamefish pursued by many anglers.

The Alligator gar is an apex predator and helps with maintaining the resilience and stability of an ecosystem. They are essential in preventing the overabundance of primary consumers such as carp and shad. Some states are researching the potential of alligator gar as a natural predator in controlling invasive silver carp species that have not only impacted our native fish species but have cost millions of dollars to control. Other “nongame” predators like bowfin and other species of gar likely perform the same role in food webs where they occur.



Alligator gar (photo courtesy of Zach Moran)

Some nongame species even provide health benefits to humans. Mosquito fish and minnows feed upon mosquito and black fly larvae that we as humans despise because of their nuisance and health threats. Toadfish are being studied to learn about potential ways to fight cardiomyopathy. The toxin produced by pufferfish is being used by researchers to develop new medicines to help cancer patients get through the pain caused by chemotherapy treatments.

Mental health benefits provided by nongame fish include the recreation and inspiration provided by sportfishing, microfishing, and snorkeling. Many anglers enjoy pursuing large nongame fish like bowfin and gar because they are violently strong fighting fish. Microfishing and snorkeling are gaining popularity as a way for fish enthusiasts to explore the underwater world of rivers and streams and its impressive fish diversity.

It does matter what name we label fish. Native fish that are labeled as a nongame or unregulated species are not a nuisance and do provide services more than just bait or forage for gamefish. Each fish species in an aquatic ecosystem has its role, some we know and some we have yet to discover. It is important to communicate that all native fish species have value and provide important services that benefit humans. As you communicate with colleagues, students, and the public about fish and fishing, pay attention to the language you’re using, and see if you can shine a positive light on our nongame diversity!

DID YOU KNOW

The Georgia Department of Natural Resources (DNR) has six license plates, each funding a different conservation program.

80 percent of the \$25 fee goes directly to wildlife programs (\$19 the first year, \$20 with every renewal). Only \$5 goes to the State of Georgia General Fund.

Georgia's fishes benefit from four of these tags: Give Wildlife a Chance (Butterfly and Eagle), Trout Unlimited, and Support Fish Habitat.

More information:

<https://gadnr.org/license-plates>

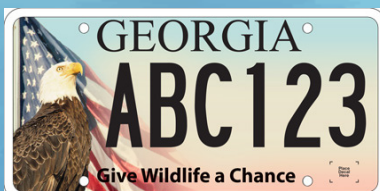
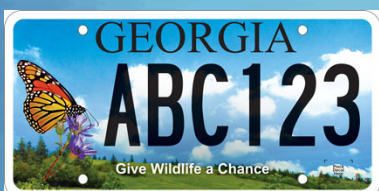
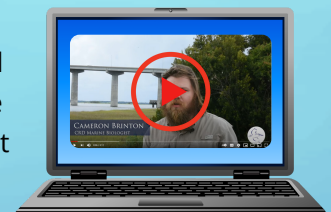


The Trout Unlimited license plate supports Georgia's trout conservation and management programs. The trout tag has funded stocking trucks, trout feed, equipment, raceway enclosures, and hatchery seasonal labor. Wild trout have benefited from habitat improvements, sampling equipment and seasonal labor hired through funds provided by this tag. Additionally, trout map printings and satisfaction surveys funded by the trout tag have provided better customer service for Georgia's anglers.



Funds raised through the sale of this unique plate are used in coastal conservation to enhance and restore oyster reefs, provide more fish habitat through artificial reefs offshore and construct nearshore artificial habitats in Georgia's tidal rivers and creeks.

Georgia DNR CRD in June placed approximately 140 tons of loose oyster shell in Jointer Creek, west of Jekyll Island.



Funds from both of these license plates go to Georgia's Wildlife Conservation Fund, which was established by state law for this work. In addition to supporting conservation, education, and population monitoring and restoration efforts, these funds help acquire thousands of acres of wildlands open to Georgians.

Props!

Will Albanese



Brett Albanese



Bryan Fluech



Jackson Sibley



Robert Bringolf



Rob Weller



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



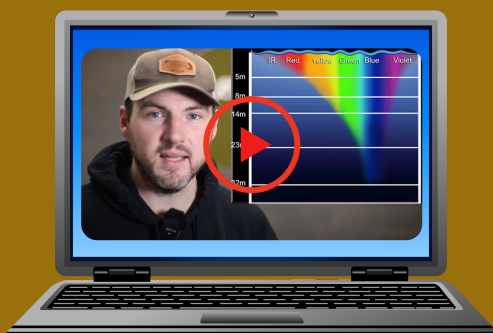
WHERE'S BUBBA?

Bubba led the Institute for Georgia Environmental Leadership on a field trip to Amicalola Creek to show off some native wildlife!



BUBBA'S VIDEO PICK

Does Lure Color Matter? What colors of baits can bass actually see?



BUBBA RECOMMENDS

As the weather begins to cool a little you might want to check out these adventure opportunities.



Historic Banning Mills offers a variety of adventure opportunities such as zip lining, climbing wall, kayaking, horseback riding, and more.

<https://www.historicbanningmills.com/adventures/>

Historic Banning Mills was the first Zip Line and Aerial Adventure Park in North America!



SouthEast Adventure - OUTFITTERS -

St. Simons Island, Georgia
(912) 638-6732 - (912) ME-TO-SEA
Coastal Georgia's Outdoor Headquarters since 1994



They offer a variety of kayak tours around St. Simons and Jekyll Island.

<https://southeastadventure.rezdy.com/catalog/35500/tours>



Enjoy a 4-hour fishing kayak charter with one of their knowledgeable fishing guides through the marshes of St. Simons Island or Brunswick!
<https://southeastadventure.rezdy.com/38427/4-hour-kayak-fishing-charter>

Safety Tip

from Bubba Bass



A boating safety law authorized by the U.S. Coast Guard officially went into effect on April 1, 2021 as part of the National Defense Authorization Act. This legislation requires recreational boaters to use a kill switch, or engine cutoff switch, on vessels less than 26 feet in length. A kill switch allows the engine to turn off in the event of an emergency, like if the operator of the boat falls overboard.



Remember, failure to adhere to rules and regulations may expose you to liability if you are involved in a boating accident.

Fin and Games



How well do you know your fishes of Georgia? Unscramble each of the words to reveal the name of a Georgia fish.

One word

1. **LIBUGELL**
2. **EALYWLE**
3. **RCHOOHGKE**
4. **NRPAOT**
5. **AELPTTRILI**
6. **HAESSHEPDE**

Two words

7. **LSSOHAASB**
8. **RTOGEDSPTA**
9. **SOSIACEDDERY**
10. **ERRRAEDGTNTIAEN**
11. **TGSLUNOKAREE**
12. **KAIEGHSRTR**

(answer on last page)

Bubba's Friends **Bowfin (*Amia calva*)**

People often refer to the bowfin as a living fossil. This fish traces back to the Jurassic Period, though I don't recall seeing them in any of the Jurassic Park movies!!! Detested by some and loved by others, this notoriously strong fighting fish is known by several names: mudfish (schlammfisch in German), swamp bass, dogfish, cypress trout, and swamp trout. They prefer living in oxbows and swamps and can survive in warm, low-oxygenated waters. Like lungfish and gars, bowfin are capable of bimodal respiration, as their air-bladder can function as a lung allowing them to inhale air from the surface. They are edible and are best if consumed fresh, often being served smoked or fried as fish patties. However, because they are long-lived apex predator that can accumulate heavy metals in their tissue, people should use caution when eating them.

DID YOU KNOW.....The native bowfin is sometimes confused with another predatorial fish that is not native to Georgia: the Northern snakehead. Learn how to tell the difference between the 2 species when you visit [Northern Snakehead Information.pdf](http://georgiawildlife.com/NorthernSnakeheadInformation.pdf) (georgiawildlife.com)



FISHY NEWS AROUND THE WORLD

Yale School of the Environment

RIVERS ARE LARGEST GLOBAL SOURCE OF MERCURY IN COASTAL OCEANS

Previous thoughts focussed on atmospheric mercury being deposited in the open ocean and being carried by currents to coastal environments. A recent study by Peter Raymond from the Yale School of the Environment indicates the main source of mercury in the oceans is transported via rivers. Guess which rivers in the world are the top three contributors of mercury in our oceans?

University of Delaware

UD STUDY LOOKS TO BETTER UNDERSTAND THE DIET AND HABITAT OF THE ELUSIVE COOKIECUTTER SHARK

University of Delaware assistant professor Aaron Carlisle led a study published in Scientific Reports that uncovered the potential diet and habitat of Cookiecutter sharks, a small, under-studied shark that is distributed throughout the world's tropical and subtropical oceanic waters. The Cookiecutter sharks are unique because they feed on everything from the biggest, toughest apex predators — like white sharks and orcas — down to the smallest creatures in the ocean. Guess what they used to evaluate the stomach contents of the cookiecutter sharks?

NOAA Fisheries

PROTECTING LARGEST, MOST PROLIFIC FISH MAY BOOST PRODUCTIVITY OF FISHERIES, NEW RESEARCH FINDS

Management of many of the largest fisheries in the world assumes incorrectly that many small fish reproduce as well as fewer large ones with similar total masses, a new analysis has found. That can lead to overharvesting the largest, most prolific fish that can contribute the most to the population.

University of Reading (Berkshire, England)

CLIMATE CHANGE 'DOUBLE WHAMMY' COULD KILL OFF FISH SPECIES

New research suggests that fish like sardines, pilchards and herring will struggle to keep pace with accelerating climate change as warmer waters reduce their size, and therefore their ability to relocate to more suitable environments.

Tel Aviv University

FISH ON THE EDGE: A META-ANALYSIS REVEALS EDGE EFFECTS WITHIN MARINE PROTECTED AREAS

Edge effects degrade the effectiveness of no-take MPAs on a global scale. Improving the planning and management of MPAs can increase their performance and benefits for surrounding fisheries.

University of Malta

WHO EATS THE INVADERS?

A landmark scientific study involving marine biologists from Greece, Turkey, Cyprus, Libya, Italy, Tunisia, the UK, the US and even Malta, documenting instances where native Mediterranean species have preyed upon two highly invasive marine fish – the Pacific red lionfish and the silver-cheeked toadfish.

American Fisheries Society Annual Meeting



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

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.

Discover the Charms of Baltimore**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

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.

Stay Connected

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7- SHOAL BASS
8- SPOTTED GAR
9- ROSYSIDE DACE
10- TANGERINE DARTER
11- LAKE STURGEON
12- TIGER SHARK

Answer to Fin and Games: