Under the Dock

May/June 2024



Newsletter of the Georgia Chapter of the American Fisheries Society

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Mark Your Calendar

- May 30
 - Georgia AFS Lunch-n-Learn
 - Careers in Fisheries
- June 1 9
 - National Fishing and Boating Week
- July 10 14
 - American Society of Ichthyologists and Herpetologists Annual Meeting
 - Pittsburgh, PA
- September 15 19
 - o AFS Annual Meeting Honolulu, HI
- October 5
 - · GA DNR CRD CoastFest
 - Mary Ross Waterfront Park
- October 12 16
 - SEAFWA Augusta, GA
- February 17 21, 2025
 - SDAFS Annual Meeting Asheville, NC

OUR MISSION

The mission of the American Fisheries Society and the Georgia Chapter is to improve the conservation and sustainability of fishery resources and aquatic ecosystems by advancing fisheries and aquatic science and promoting the development of fisheries professionals.

You can help support our mission by becoming a member of Georgia AFS, joining the American Fisheries Society, becoming a Georgia AFS Sponsor, donating to our annual fundraiser, or participating in our annual meeting. Visit our website for more info.

https://gaafs.org/

The newsletter is interactive - if the font is blue or underlined you can click on it for more information. Click on laptop images for a video



We are looking for high-quality photos to use for the newsletter cover page. We are in need of pictures showing fisheries professionals and students working (lab, fieldwork, etc.).



Do you have an idea for an article?

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. Articles range from 250 to 1200 words.

Contact us at GeorigaAFS@gmail.com if you have questions. We also welcome suggestions for an aquatic species to highlight, safety tips, and ideas for the sections *Did You Know* and *The Bookshelf*.

NEWS & UPDATES

Georgia AFS Lunch-n-Learn May 30th

Calling all career-seekers and education-advancing individuals! Join us for our informative Lunch-n-Learn mini-workshop, aptly titled "Navigating Your Fisheries Career Path." Our skilled facilitator Hunter Roop will lead the event, joined by a panel of four knowledgeable guest speakers. These experts will provide essential guidance and share their expertise to assist you in navigating your career path. Hunter will share valuable tips on how to excel in job interviews, ensuring you make a lasting impression.

Each of our four esteemed guests will provide an in-depth overview of their respective organizations or employers. They will discuss their mission and work goals, outlining the various career paths available within their establishments. Additionally, they will highlight the sought-after skills and qualifications required for these positions. To



provide a comprehensive understanding, they will also delve into the application process, offering insights and practical advice.

The workshop will conclude with a brief Q&A session, providing participants with the opportunity to interact with the speakers and seek further clarification or guidance.

When: May 30, 2024 (11am - 12pm)

Registration form: May 30 Lunch n Learn Form

Notes: Please complete the registration form so we can send you the link to join the virtual meeting.



Dr. Jamie Roberts
Professor of Fisheries
Georgia Southern University

Dr. Kady Lyons Research Scientist Georgia Aquarium

Mr. Chris Harper Assistant Fisheries Chief Georgia DNR, WRD Mrs. Nicole Rankin
Manager, Division of
Conservation and
Classification
USFWS

Reviewing of the Georgia AFS Bylaws

We ask that all of our chapter members read through the **Georgia AFS bylaws** and submit to Dawn Franco (Dawn.Franco@dnr.ga.gov) any amendments they believe need to be made. Send your suggestions to Dawn by May 17th.

Reviewing and amending our bylaws is a process that will take several months to complete.

- 1. Policy, Bylaws, and Resolutions Committee members review and discuss proposed amendments
- 2. Amendments to the bylaws are submitted to the AFS Constitutional Consultant to review and edit
- 3. Present amended bylaws to Southern Division AFS President
- 4. Present amended bylaws to chapter membership for approval
- 5. Send copy of final amended bylaws and decision of chapter membership to the AFS Constitutional Consultant to bring before the AFS Governing Board
- 6. And we then wait for Governing Board review and Excecutive Director notification

Aquatic Plant Managment Summer Workshop

Georgia AFS is collaborating with UGA Warnell (Jay Shelton and Wesley Gerrin) to plan an aquatic plant management workshop for this summer, mid-July. We will send out a registration form once we finalize the date and location. We are making arrangments for participants to earn credits to use toward the renewal of their pesticide applicators license.

Workshop participants will learn the basics of aquatic plant identification, management techniques for aquatic plant species, how to read product labels and general PPE considerations, how to implement a treatment plan for chemical control options, BMPs when applying aquatic pesticides, and more.



AFS Search for Next Executive Director

The American Fisheries Society has launched a nationwide search for a new Executive Director to lead the staff and operations of the more than 150-year-old scientific society. After over 10 years at the helm, current Executive Director Doug Austen has announced his retirement later this year. President Cecil Jennings has formed an Executive Director Search Committee, which is now accepting applications. Deadline to apply May 15





Other AFS News



President Cecil Jennings Visits Japanese Society of Fisheries Science

AFS President Cecil Jennings attended the 2024 Spring Meeting of the Japanese Society of Fisheries Science (JSFS) held in Tokyo, Japan, March 27-30.



AFS Urges Passage of Bipartisan Resilient Coasts and Estuaries Act

A letter was sent to the House Natural Resources Committee stating our support for the bipartisan Resilient Coasts and Estuaries Act (H.R.6841) and to encourage the committee to advance this legislation.



AFS Requests Changes to Culvert Removal Grant Program

A letter was sent to the Secretary of the US Department of Transportation asking to improve equitable access to the Programs and a need for the inclusion of minimum design standards in the NOFO.



AFS Calls for Improvements to Infrastructure Implementation

A letter was sent to President Biden to address some remaining areas of concern with the implementation of the Bipartisan Infrastructure Law or "BIL" and the Inflation Reduction Act (IRA).

National Fishing & Boating Week: June 1-9, 2024

In Georgia, there are two FREE fishing days held during National Fishing and Boating Week: June 1 & June 8, 2024. Georgia also offers one additional FREE fishing day on September 28, 2024, on National Hunting and Fishing Day!

Georgia DNR will be hosting several Kids Fishing Events around the state. This is a great time to take the kids fishing. Check their calendar of events to find a KFE near you.

National Fishing & Boating Week is also a great time for you to review water and boating safety with your family and friends.



Happy anglers at McDuffie PFA

How can you assist Georgia AFS achieve its mission?

A list of suggestions as to how you can contribute to Georgia AFS and its mission:

- Become a member of Georgia AFS and AFS
- Throw your name in the hat to be a chapter officer
- Volunteer to help with a committee
- Share your expertise as a facilitator of a workshop or virtual Lunch-n-Learn
- Participate in our workshops and virtual Lunch-n-Learn mini-workshops
- Write something for the chapter newsletter
- Be a mentor for a fisheries student or young professional
- Give a presentation at the annual meeting
- Recognize excellence by nominating a colleague for one of the chapter awards
- Volunteer to be a member of the aquatic education outreach team
- Be a chapter sponsor or donate an item for the annual fundraiser
- Invite colleagues to partcipate in the chapter's annual meetings/workshops
- Volunteer to be a judge of student presentations at the annual meeting
- Volunteer to be a moderator at the annual meeting
- Participate in our surveys your opportunity to contribute ideas and provide feedback

Find your niche...or create one. Email us at GeorgiaAFS@gmail.com

Public Input on Proposed Changes Regarding Black Bass Fishing Regulations

Anglers and other interested citizens are invited to provide input on proposed fishing regulations amendments regarding shoal bass length limits, and modification of daily creel limits for native black bass species with limited range and populations.

Changes to the existing rules are responsive to customer desires related to shoal bass, according to the <u>Georgia</u> <u>Department of Natural Resources' Wildlife Resources Division</u>.

Comment Deadline: Public Comment Submission Deadline is close of business (4:30 p.m.) on May 27, 2024.



The public comment period is currently open for two items:

- Proposed Regulation Changes regarding black bass species: Anglers and other interested
 persons are encouraged to provide input regarding proposed fishing regulations amendments
 regarding shoal bass length limits, and modification of daily creel limits for native black bass
 species with limited range and populations.
- Proposed Repeal of Rule 391-5-9-.08: The comment period for the proposed repeal of submerged cultural resources regulations, Subject 391-5-9.

Public Comment opportunities include a live Virtual Public Meeting (for black bass fishing regulation changes) via the <u>Georgia DNR Wildlife Resources Division Facebook Page</u> scheduled for May 21, 2024 (7 pm).



Have you downloaded the

Go Outdoors GA app?

The Outdoors GA app, free in <u>Google Play</u> or <u>Apple store</u>, has multiple uses.

- Fishing locations
- · Purchase your fishing license
- Fishing regulations
- Boat ramps
- Tide information
- GA DNR Fisheries Blog
- and more



Georgia Fishing License



Join the American Fisheries Society and Georgia AFS to continue the work of those who came before us and and strenghten the foundation for those who will come after us

As you immerse yourself in the intricacies of your work, take a moment to reflect on the remarkable contributions made by fisheries professionals who have preceded us. These pioneers played a pivotal role in shaping the field of fisheries science, paving the way for future generations to build upon their legacy.

Imagine the dedication and passion that drove these scientists to embark on their groundbreaking journeys. They may have spent countless hours conducting meticulous research, venturing into uncharted waters to unravel the mysteries of aquatic ecosystems. Their thirst for knowledge and unwavering commitment led to the discovery of new species, the understanding of complex ecological interactions, and the development of innovative techniques for sustainable fishing practices.

Moreover, these pioneers recognized the importance of advocating for the conservation and management of fisheries and aquatic resources. They tirelessly worked to influence legislation and policies, ensuring that future generations would inherit a healthy and vibrant aquatic environment. Their efforts have had a lasting impact on the regulations and guidelines we use today to protect and sustain our fisheries.

While we acknowledge the significant contributions of these pioneers, it is essential to remember that their work is far from complete. The challenges facing fisheries and aquatic resources in the 21st century are complex and require the collective efforts of fisheries professionals from all backgrounds. By honoring the legacy of those who came before us and embracing their spirit of innovation and collaboration, we can continue to build upon their achievements and ensure a sustainable future for our fisheries and aquatic ecosystems.



If I have seen further it is by standing on the shoulders of giants.

~ Isaac Newton

Membership Link





Membership Link







The benefits of being a member of the American Fisheries Society:

- Build your professional network support: you have access to more contacts, more
 resources, and more information; chances are, someone in AFS has "been there/done that";
 you can participate in one of the AFS Sections to connect with others who are likeminded
 and/or working in the same niche you are
- Demonstrate your professionalism: your membership demonstrates a commitment and dedication to your profession; you serve as a role model for those entering the field as well as have an opportunity to share your own insights and expertise with peers and colleagues
- Build your own skills: AFS has opportuinities for you to take on a leadership role that might
 not yet be available at work; participate in AFS workshops and webinars; present at
 conferences; write a newsletter article; become a mentor
- Have a voice: one of the important roles AFS is advocacy that is, helping decision makers understand what members
 do in the workplace and why it is important; a larger group
 has a louder voice
- Give yourself an advantage: build your professional reputation and boost your credibility; build your resume; connect with more experienced professionals



MORE ABOUT AFS



AFS PUBLISHES
JOURNALS



AFS ADVISES POLICY





AFS HAS A VARIETY
OF SECTIONS YOU
CAN JOIN
DEPENDING ON
YOUR INTERESTS



AFS SUPPORTS THE HUTTON JUNIOR FISHERIES BIOLOGY PROGRAM

Sponsor Highlight

Our sponsors are critical to the success of our annual meeting and our efforts to promote the conservation and sustainability of our fishery resources and aquatic ecosystems in Georgia.



TNC is a big organization with a big vision. They work in the most critical places so that they can have a lasting impact. Nowhere is that more true than right here in Georgia. TNC in Georgia protects more than 400,000 acres, safeguard the rivers that traverse our state, and care for our envied coast.



Visit their website for more information

The Nature
Conservancy
in Georgia

Explore TNCs
Conservation Success in
Georgia in 2023:

2023 ANNUAL REPORT

Georgia AFS Membership



Our Chapter's mission is to improve the conservation and sustainability of fishery resources and aquatic ecosystems by advancing fisheries and aquatic science and promoting the development of fisheries professionals. Your paid membership helps us to support that mission.

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 and the conservation and management of Georgia's fisheries and aquatic ecosystems.

Benefits of being a member of Georgia AFS

- Developing relationships with others who have similar interests
- Leadership opportunities to serve as an officer or chair a committee
- · Reduced fees for training workshops
- Student scholarships
- Supporting fisheries and aquatic conservation efforts in Georgia
- Supporting aquatic education outreach programs in Georgia



Membership Dues: \$10 annually

Georgia AFS Membership dollars help support ...















Membership in an AFS Chapter does not automatically make someone a member of the American Fisheries Society. To serve as an officer of Georgia AFS you need to be a member of AFS.



EPHEMEROPTERA: MORE THAN A BIOINDICATOR

By Rebecca Brown

How many species of mayflies can you name? Did you know there are more than 3,000 species of mayflies worldwide? The United States is home to more than 600 species of mayflies and more than 150 are found in Georgia's freshwater ecosystems.

To a freshwater aquatic biologist, the mayfly is an indicator species when testing the environmental quality of freshwater ecosystems. Mayfly nymphs have external gills that make them vulnerable to siltation and other pollutants. Therefore, mayfly abundance and diversity will be much lower in polluted freshwater habitats.

Mayflies are more than a bioindicator species. Mayflies provide a variety of ecosystem services. Ecosystem goods and services produce the many life-sustaining benefits we receive from nature such as clean air and water, fertile soil, pollination, and flood control. These services are important for environmental and human health.

Provisioning

Any type of benefit to people that can be extracted from nature - food, timber, clean drinking water, fuel



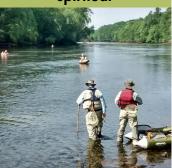
Regulating

The benefit provided by ecosystem processes that moderate natural phenomena - water purification, carbon sequestration, flood control



Cultural

A non-material benefit that contributes to the development and cultural advancement of people - recreation, learning, aesthetics, spiritual



Supporting

The services which
enable other services to
function - soil
formation, nutrient
cycling



Mayfly nymphs play a supporting role in the cycling of nutrients and energy throughout the aquatic food web. As primary consumers, mayfly nymphs feed on detritus and other plant material in aquatic ecosystems. The energy and nutrients of the nymph are passed to secondary and tertiary consumers such as fish, birds, bats, reptiles, and mammals.

We must not overlook the cultural importance of the mayfly. A quick search on the Internet will reveal the mayfly is the muse for many a poet. Maybe it is because the mayfly's life after it emerges from the water is short-lived. Although mayflies can live in the nymph stage for up to 2 years, they only live from a few hours to two days after they emerge as an adult.

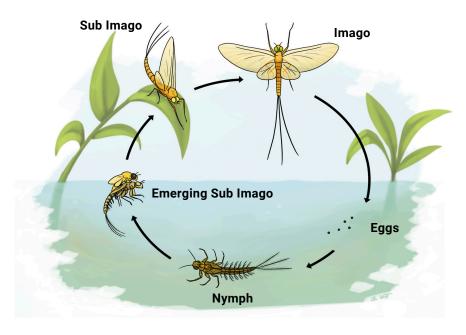
Mayflies have played a critical role in freshwater fishing for hundreds and possibly thousands of years. Anglers have benefited from knowing the life cycle of the mayfly. Roman author Claudius Aelianus wrote in the year 200 about Macedonian anglers using lures made of red wool tied to a hook and feathers of roosters. It is believed the anglers

were creating lures that imitated the adult mayflies they observed fish feeding upon on the Astraeus River.

Claudius Aelianus was the first written work describing the use of artificial lures to catch fish, but we know there was some hook-and-line fishing as early as 7000 BC. Perhaps ancient freshwater anglers used the art of observation during a mayfly hatch to let them know mayflies make good bait.

Today's fly anglers preach "know the hatch" when deciding which artificial flies to use when they arrive at their favorite fishing spot. Flipping rocks and watching the water's surface provides the anglers with knowledge they need to select the best fly for the day. Deciding which fly to use depends on which stage of the mayfly life cycle they are Mayflies trying to mimic. undergo metamorphosis, hemimetabolous meaning they have no pupal stage. Their life cycle has four stages - egg, nymph, subimago, and imago. Anglers will tie flies that mimic the different stages of the mayfly.

The Life of a Mayfly



Know the Hatch

Mayfly nymphs are divided into swimmers, clingers, crawlers, and burrowers. Most mayfly nymphs are very similar in pattern but are fished at different depths and different styles. Anglers should attempt to match their flies to the shape, size, and color of the nymphs they find when checking the stream. Trout will feed on mayfly nymphs below the surface all season.

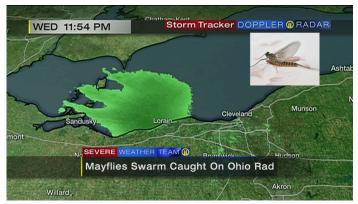
Anglers will use mayfly emergers to imitate the mayfly as it transitions between nymph and adult mayfly or dun. When a mayfly nymph is ready to move to the adult stage its body fills with air and they begin to ascend toward the surface of the water. While they are ascending, they break away from their exoskeleton and untuck their wings to prepare to take flight once they reach the surface of the water. When fish are feeding on emergers you often only see the tail of the fish breach the surface of the water, not their head.

A dun is what fly anglers call the subimago stage of the mayfly. During this stage, the mayfly emerges from the surface of the water and flies to the bank where they shelter on the underside of leaves or in the grass. Before taking flight, they can be observed floating on the water because their wings must dry before they can fly. This explains why anglers can observe the heads of fish popping out of the water devouring the easy prey.

Depending on the species, the subimago will take a few minutes or a few days to shed its exoskeleton for the last time and become a sexually mature adult (imago). The imago mates and dies within a few hours to a day. This short adult life is what gives the order its name from the Greek ephemeros meaning "lasting but a day."



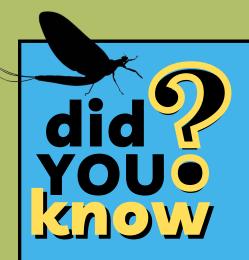
Anglers call mayflies in the imago stage spinners. During this time spinners use all their energy looking for a mate and reproducing. Some swarms of spinners are so large and dense that they are detected by National Weather Service radar (Figure 3). After mating females will return to the water and lay their eggs before dying.





Mayfly swarm over Lake Erie

The mayfly is not the only macroinvertebrate in our aquatic ecosystems, but it is one of the most unique. An important food source for a diversity of species, a cycler of nutrients, an inspiration for a variety of artists, and bait for a variety of anglers. If you are lucky enough to experience a swarm of mayflies sit back and enjoy the show. After all, the mayfly is about to end its journey so another can begin theirs.



- Considered the oldest surviving flying insect, mayflies have been around since the Permian Period (250 – 290 MYA).
- Mayflies are the only living insects that molt again after they have wings.
- Despite their name, mayflies are active all year, not just
 May. They emerge as adults during the warmer months.
- Mayflies are found on every continent except Antarctica







Local Fishy Stuff

Click on title to access the article

Lawsuit alleges Calhoun, Georgia company has been contaminating water for years



Walker County Angler Reels in A New State Record Fish: New Species Added to The State Record List



Ranger Nick: Caviar Delicacy from Sturgeon (video)



DNR Commissioner
Places Priority on
Outdoor Recreational
Opportunities for the
Mobility Impaired



All New Virtual Learning Journey Explores Georgia's Water New Georgia DNR Leadership Team Passionate About Hunting & Fishing



THE LESSER-KNOWN SPORTFISH: THE FLIER

By Tim Bonvechio

Fisheries Biologist
Georgia Department of Natural Resources, WRD

As a 20 year veteran, gray-haired fisheries biologist, I have developed an appreciation for the lesser-known sportfish species. Yes, everyone has seen me and the big bass photos. Well, not this time! This time we are going to talk about the Flier, *Centrarchus macropterus*. The name in itself is interesting. *Centrarchus* means anal-spined, referring to the long anal spines. *Macropterus* means long fin. A sunfish from the family Centrarchidae is endemic to the lowland southeastern United States. It is the only species in the monospecific genus *Centrarchus*.

Like most charismatic sunfish, it has several names and nicknames such as: The Flier Bream, The Government Bream, Crying Bream, Round Bream, Depression Bream, Round Sunfish, Millpond Flier, The Flutter Perch, and Fly Perch.

The Flier is a small sunfish that has a compressed, deep, round body and small mouth. The coloration is greenish or silvergreen to brown on the back and sides with a cream or yellowish belly with a brown dot on each scale giving the appearance of numerous rows of dots. But honestly, the color can vary considerably depending on the system you catch them. Young fish have a large black spot surrounded by bright orange in the soft rays of the dorsal fin, called an ocellus. It has been suggested (Freshwater Fishes of Virginia) the coellus along with the large real eye combine to appear as the face of a larger menancing animal. A dark vertical streak is present below the eye and extends extends vertically across the cheek. The dorsal and

anal fins are nearly symmetrical. Some folks get the Flier confused with black and white crappies since all are highly compressed and somewhat speckled. However, they differ in number of dorsal spines. A Flier has 11 to 13 dorsal spines while crappies have 5 to 8 dorsal spines. On the contrary, some folks also think they look like bluegill also, but bluegill has fewer anal spines (3) than the Flier (7 to 9).



Flier (credit: Kevin Dockendorf)

Fliers are widely distributed in the lowlands from Maryland down the Southeastern Coastal Plain to central Florida over to east Texas and Oklahoma and then up the Mississippi River and its drainages to Southern Illinois and Indiana (Carlander 1977, Page and Burr 2011). This species is popular for angling and abundant in a few States along the Atlantic and Gulf of Mexico Coastal Plain from the Dismal Swamp of North Carolina and its drainages of Virginia and North Carolina to the Okefenokee Swamp and Suwannee River of Georgia (Herrington et al. 2004). Conversely, their sporadic occurrence in several other states on the fringe of their western and northern distribution including Missouri where they are a species of conservation concern (mdc.mo.gov/discovernature/field-guide/flier), makes this fish have limited appeal in some states (Metee et al. 1996). Yet, they are occasionally caught by anglers targeting sunfish and crappie (Ross et al. 2001). For their size, this scrappy little sunfish puts up a good fight on light tackle. Fliers can be targeted around vegetation using crickets, worms, beetlespins, and other colorful jigs. Jenkins and Burkhead (1993) say, despite their small size, Flier are good eating.



Photo Credit: Kevin Dockendorf

Fliers are mostly found in clear, acidic water such as swamps, sloughs, roadside ditches, canals, oxbows, and flowing creeks and streams. As the retired fisheries biologist Bert Deener says, "Fliers thrive in Lemon juice!". He is referring to the very low pH water quality of the very popular angling destination, the Okefenokee Swamp, where 50 to 100 fish catches are common in the spring, summer, and fall.



Kevin Dockendorf (left) and Tim Bonvechio (right) with some Okefenokee Swamp Flier caught this past December on a guided trip with Capt. Bert Deener.

Fliers thrive in areas with higher amounts of submersed aquatic vegetation. The spawning season for this fish is a tad bit early, starting in February and going till April, maybe May, when water temps reach 57 F or higher. Females can lay up to 35,000 eggs at a time. Similar to most sunfish species, are colonial nesters, nesting in aggregations with the nests spaced closely to one another. The male guards the eggs and the fry once they hatch. Flier's average size is around 5 inches and 3 ounces. The world record Flier was caught in a private pond in Jackson County, Florida in 2015 by Twila Gates, and this fish was 12 inches long and weighed 1lb and 5.5 ounces. The Georgia state record Flier was caught by Curt Brooks in a Lowndes County Pond in 1996 and weighed 1lb and 4 ounces.

Honestly, the real reason for this short write-up on the Flier is the call for more total length (mm) and weight (g) data! Yes, myself, Kevin Dockendorf (North Carolina Wildlife Resources Commission) and Dr. Marty Hamel (University of Georgia) are working on the Standard Weight Equation and Proportional Stock Densities (PSD's) for this fish. We believe we have successfully secured enough data from twelve states (Alabama, Arkansas, Florida, Georgia, Illinois, Indiana, Maryland, North Carolina, Virginia, South Carolina, Texas, and Tennessee). We welcome more data from those states, as no amount is too much. But, where we need data is for these 5 states (Louisiana, Missouri, Mississippi, Kentucky, and Oklahoma). If you know anyone who samples lesser-known swamps, creeks, or waterbodies in these states, please have them get in touch with me at: Tim.Bonvechio@dnr.ga.gov. We are hoping to wrap up the data collection portion of this project by July, so we can do the analysis and write up!



Literature Cited:

Carlander, K. D. 1977. Handwook freshwater fish biology, volume 2. Iowa State University Press, Ames.

Herrington, S. J., K. J. Popp, H. N. Blalock-Herod, J. Herod, and L. Jenkins 2004. Ten-year Assessment of the Unique Fishery of the Okefenokee Swamp. Proc. Annu. Conf. Southeast. Assoc. Fish and Wildlife Agencies 58:150–161.

Jenkins, R. E. and N. M.Burkhead. 1993. Freshwater Fishes of Virginia. American Fisheries Society, Bethesda, MD xxiii + 1079 pp.

Metee, M. F., P. E. O'Neil, and J. M. Pierson. 1996. Centrarchus macropterus, Flier, Pages 524 - 525 in Fishes of Alabama. Oxmoor House Inc., Birmingham.

mdc.mo.gov/discover-nature/field-guide/flier

Page, L. M. and B. M Burr. 2011. Peterson Field Guide to Freshwater Fishes of North America north of Mexico. Houghton Mifflin Harcourt, Boston, MA xix + 663 pp., 57 plates

Ross, S.T., W. M. Brenneman, W. T. Slack, M.T. O'Connell, T. L. Peterson and D. G. Ross. 2001. Centrarchus macropterus (Lacepede), Flier Pages 406-407 in The Inland Fishes of Mississippi. The University Press of Mississippi, Jackson.

Plugged In

Take a mental break and listen to your favorite podcast or try one of the podcasts listed below.



Career reflections with Dr. Don Orth

Preston catches up with Dr. Don Orth, who recently retired as a professor from Virginia Tech. They talk about Don's numerous research topics throughout his career, how teaching changed during his time at VT, two recently published books, and some advice for current and future fisheries professionals.



Fly Fishing for Shoal Bass

You'll be hooked when you meet this shoal habitat specialist and Apalachicola-Flint-Chattahoochee River native. Learn how to think like a shoalie, understand the importance of knowing its prey, and pursue it safely in class 3 rapids on foot or from a raft. Fly tier extraordinaire Fletcher Sams and Shoal Bass enthusiast Jay Shelton are our guests.



Smallmouth Bass movement and North Carolina fisheries with Seth Mycko

Preston catches up with Seth Mycko, a sportfish biologist with the North Carolina Wildlife Resources Commission. They discuss the movement and abundance of a southern riverine Smallmouth Bass population, hybrid crappie, and NCWRC's angling outreach efforts.



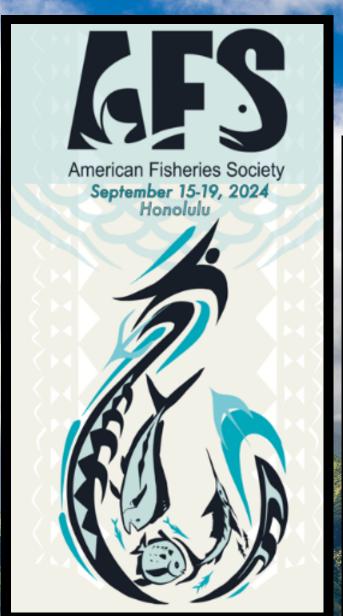
Inspiring Story: Linda Greenlaw's Journey as a Female Commercial Swordfisher and Best-Selling Author

Speaking with Linda Greenlaw, the only female commercial swordfisherman on the East Coast, and a best-selling author. Linda shared her incredible journey from growing up on the coast of Maine, learning to fish at an early age, to becoming a passionate commercial fisherman. We dove into her experiences in sword fishing, including her first catch and the challenges she faced working in the industry.



Trees are for Fish

Habitat, such as standing timber, blow downs, snags, and cypress trees are popular places to fish in lakes and streams. But what about when the river leaves the riverbed and enters the bottomland forest? It turns out that this "flooded forest" habitat is critical for many fish species.



Conserving Fishes and Fishing Traditions through Knowledge Co-Production

American The Fisheries Society President Cecil Jennings, the AFS Western Division, and AFS Pacific Islands Chapter are excited to host the 154th AFS Annual Meeting, September 15-19, 2024 in Honolulu, Hawai'i. The theme "Conserving Fishes and Fishing Traditions through Knowledge Co-Production" will stimulate a wide range of sessions focusing on the past, present, and future of fisheries conservation and management as we bring together professionals from across North America, the Pacific Islands, and countries throughout the world. The Honolulu Program Committee invites proposals for symposia, workshop/continuing education courses, and innovative sessions that support the theme and look to advance the fisheries profession.

American Fisheries Society 154th ANNUAL MEETING REGISTRATION OPEN





Jackson Sibley...

For me it's a primal tapping into hunter-gatherer roots. Our society has been carefully crafted to provide comfort and convenience, and fishing provides a reconnection with our basic human biology. Even if the product is catch-and-release, I leave the river with a sense of accomplishment, resolve, and self-sustainability.

Jay Shelton...

If you fish, but haven't read <u>The Longest Silence</u>, by Thomas McGuane, you really should. He it like this: "Early on, I decided that fishing would be my way of looking at the world. First it taught me how to look at rivers. Lately it has been teaching me how to look at people, myslef included."

It would be silly for me to describe fishing as a hobby. For me it si more like a disease, with several progressive stages. Early on, my love of fishing evolved into an obsession with fly fishing. Next I had to tie my ownd flies, then build my own fly rods. Now I try to infect others with the illness. I fish because I know no better way to unify my mind, body, and soul, regardless of what the world has planned for me.

Jamie Roberts...

People have been fishing as long as there have been people, so fishing means keeping up an ancient tradition that feeds my family and connects me to the land, the water, and my ancestors.

Rebecca Brown...

As I cast my line, memories of past fishing excursions with loved ones come flooding back. The act of fishing grants me a respite from the demands of everyday life, offering a serene escape. The thrill of the chase invigorates me as I meticulously select the perfect lure, one that will prove irresistible to the elusive fish beneath the surface.

Tim Bonvechio...

I cut my teeth on my father's drift-fishing boat. Ever since I could fit in a 5-gallon bucket, I was carried to work and from that my love of fishing was fostered. My father's business was conducted out of Palm Beach, Florida from December 1975 until January 2004. When I went off to school at the University of Florida, I knew I wanted to do something related to fishing and being outdoors. From the moment I stepped foot on an electrofishing boat in my Fisheries Techniques class, I was hooked and knew that I wanted to be a fisheries biologist.



Chapter Spotlight

Kevin Cavallaro

Kevin Cavallaro is an esteemed high school science educator with over two decades of dedicated service. He is currently teaching Anatomy and Environmental Science at Milton High School in Milton, Georgia. Kevin's association with Georgia AFS began in 2015, and he became a prominent member of AFS in 2020.

Kevin has been an indispensable member of the Chapter since attending his inaugural meeting, which took place when Georgia AFS hosted the Southern Division AFS annual meeting. For the SDAFS meeting, Kevin assisted in preparing meeting packets and managing the registration desk. Kevin currently serves as co-chair of the Georgia AFS Arrangements Committee and is a member of the Awards Committee, Ballot Committee, and Communications Committee.

Through his active participation and commitment, Kevin has been instrumental in fostering the growth and success of the Chapter.



What inspired you to become a member of Georgia AFS?

In 2015, I attended my first Georgia AFS meeting, having been persuaded by a friend to volunteer to help manage the registation table at the SDAFS conference. The welcoming and friendly atmosphere immediately impressed me, and I realized that this was the organization for me. Despite my lack of formal fisheries science background, I have always felt welcomed and included in the group. Over the years, I have had the privilege of connecting with many remarkable and interesting individuals through my involvement in Georgia AFS.

What do you enjoy about being a member of Georgia AFS?

As a member of the Georgia AFS, I enjoy interacting with and learning from scientists about their research. I appreciate the organization's inclusiveness, which welcomes a wide range of perspectives and viewpoints.

My membership has enabled me to attend workshops, gaining insights into the work of fisheries professionals. The knowledge I acquire at these events is incorporated into my classroom teachings, benefiting my students.

Georgia AFS has a tradition of holding its annual meeting in various locations each year. While this approach becomes more challenging as the organization grows, it has provided me with opportunities to explore different parts of Georgia.

Chapter Spotlight Continued



Describe a project you are currently working on for Georgia AFS.

I'm currently collaborating with the planning team to select a venue for the 2025 annual meeting. As discussed earlier, Georgia AFS prioritizes rotating meeting locations around the state. Our last meeting in Athens was in 2014, and it was a memorable experience for the attendees despite the snowfall.

During our recent meeting at Great Wolf Lodge, we successfully tested the live streaming of presentations. Building upon this success, our team aims to elevate Georgia AFS by offering a hybrid annual meeting in 2025, combining in-person and virtual participation.

What has been your most meaningful accomplishment volunteering with Georgia AFS?

In 2021, during the COVID pandemic, I had the exceptional privilege of collaborating with an extraordinary team to successfully host the Georgia AFS annual meeting virtually. My technological abilities were challenged during the preparation phase of the virtual meeting. We were generously granted permission by Georgia DNR to utilize the house at the Richmond Hill Hatchery as our command center. The team arrived a day in advance and meticulously set up and tested the equipment to ensure everything was operational for the live broadcast the following day.

One of our goals was to replicate some of the traditional events associated with our annual meeting. As part of my responsibilities, I was tasked with organizing a virtual social. I created a virtual Trivia Night as a way to bring meeting participants together (virtually) in a fun and interactive way.



What is your favorite quote?

Immature people make excuses, mature people make changes. ~ Jon Taffer



If you were a fish, what fish would you be?

I would be a largemouth bass because I do put up a good fight now and then.

Chapter Spotlight Continued

What was your most memorable vacation?

One of my favorite trips was to Costa Rica with my family. My wife is also a science teacher and we visited a variety of different ecosystems, went for a nightwalk through the rainforest, and tried thermal springs of different temperatures. The food was amazing and I especially enjoyed eating pineapple straight from the plant.

What is something you've always wanted to try or learn?

I would like to know how to play the harpsichord and the theremin.



If you could do another job for just one day, what would it be?

I would want to be a professional chef. This way I can create a fabulous meal from whatever I can find in my pantry. And I like to eat.

Share two truths and a lie...mix them up.

Was a scuba instructor

Played football in Washington State University Stadium - Go Cougars!

Worked in a dental lab making dentures and crowns



What kind of hobbies or interests do you have outside of work?

I like to play video games. Most of the video games I play include racing. Every now and then I race Rebecca Brown in Gran Turismo.

I like to watch NASCAR for the science and drama.

And when I want to relax I play my guitar.



DID YOU KNOW?

The dorado catfish (*Brachyplatystoma rousseauxii*) of the Amazon River basin holds the record for the world's longest exclusively freshwater fish migration.



The Dorado catfish travels almost 7,200 miles up and down the Amazon River. Its life cycle relies on the free flow of this freshwater ecosystem.

Born in the headwaters of the Andes, juvenile dorado catfish are carried downstream to the Brazilian Amazon estuary. They will feed in the estuary for 2 - 3 years before migrating back up stream to spawn.

The dorado catfish can reach a length of 4 or more feet. They are an important source of protein for communities that live along the Amazon River. Hydropower development along the Amazon River is a threat to the dorado catfish and the people that depend on it for food.



Want to Know More?



The Dourada Catfish: An Amazonian traveller with no borders



An Epic Journey - The great Migration of the Dorado Catfish, Connecting Life Throughout the Amazon

Sources: Dorado Catfish: Protecting an Epic Migration, Scientists confirm dorado catfish as all-time distance champion of freshwater migrations, Goliath catfish spawning in the far western Amazon confirmed by the distribution of mature adults, drifting larvae and migrating juveniles

Stay Safe - Avoid Heat Stress

People need to take precautions to maintain their body temperatures during hot weather. It's important to understand heat safety tips because they can help you prevent instances of heat exhaustion, heat stroke, and other types of heat-related illnesses.

HEAT SAFETY TIPS

- · Wear light-colored clothing and light-weighted clothing
- Drink plenty of **WATER** before and during work (Don't wait until you are thirsty)
- Shorten work times with frequent breaks (adjust work schedule when possible)
- Wear a wide-brimmed hat to prevent direct sun exposure
- · Use a cooling cloth on the back of your neck
- · Use a buddy system check on each other
- Understand the signs of heat-related illnesses

HEAT-RELATED ILLNESSES

WHAT TO LOOK FOR

WHAT TO DO

HEAT STROKE

- High body temperature (103 F or higher)
- · Hot, red, dry, or damp skin
- Fast, strong pulse
- Headache
- Dizziness
- Nausea
- Confusion
- Passing out

- Call 911 immediately (medical emergency)
- Move the person to a cooler place
- Help lower the person's temperature with cool cloths or a cool bath
- **DO NOT GIVE** the person anything to drink

HEAT EXHAUSTION

- Heavy sweating
- Cold, pale, and clammy skin
- Fast, weak pulse
- Nausea or vomiting
- Muscle cramps
- · Tiredness or weakness
- Dizziness
- Headache
- · Passing out

- Move to a cool place
- Loosen your clothes
- Put cool, wet cloths on your body or take a cool bath
- Sip water

GET MEDICAL HELP RIGHT AWAY IF

- · You are throwing up
- · Your symptoms get worse
- Your symptoms last longer than 1 hour

Fishy News Around the World

Click on title to access article

IMPACT OF CLIMATE CHANGE ON MARINE LIFE MUCH BIGGER THAN PREVIOUSLY KNOWN

Fish and invertebrate animals are far more affected by warmer and more acidic seawater than was previously known. This is the conclusion of a study co-led by NIOZ marine biologist Katharina Alter, based on a new analysis method and published in the scientific journal Nature Communications.

FOREST, STREAM HABITATS KEEP ENERGY EXCHANGES IN BALANCE, GLOBAL TEAM FINDS

Findings of a new study recently published in <u>Ecology Letters</u> sheds new light on the relationship between forests and streams. The researchers analyzed data from 149 studies of coupled forest-stream ecosystems around the world.

TROPHIC LENGTHENING TRIGGERED BY FILAMENTOUS, N2-FIXING CYANOBACTERIA DISRUPTS PELAGIC BUT NOT BENTHIC FOOD WEBS IN A LARGE ESTUARINE ECOSYSTEM

Eutrophication, increased temperatures and stratification can lead to massive, filamentous, N2-fixing cyanobacterial (FNC) blooms in coastal ecosystems with largely unresolved consequences for the mass and energy supply in food webs.

ADULT FISH STRUGGLE TO BOUNCE BACK IN MARINE PROTECTED AREAS

In a new study published in *Global Change Biology*, scientists looked at the age breakdown of reef fish in marine protected areas for the first time. They discovered in almost all of them, adult fish populations have either flatlined or declined.

WE NEED FASTER, BETTER WAYS TO MONITOR NZ'S DECLINING RIVER HEALTH, AND USING ENVIRONMENTAL DNA CAN HELP

In a partnership between the eDNA company <u>Wilderlab</u>, the Department of Conservation, the Ministry for the Environment and regional councils, they harnessed this holistic ecosystem data to develop a new index to measure river health called the <u>Taxon-Independent Community Index</u>, or TICI.

GO FISH: DECLINE IN POLEWARD-MOVING FISH

An extensive international study led by researchers from Tel Aviv University found a decline in the abundance of marine fish species that move rapidly toward the poles to escape rising sea temperatures. The researchers explain that many animal species are currently moving toward cooler regions as a result of global warming, but the velocity of such range shifts varies greatly for different species.

BUBBA'S PLACE

BUBBA'S VIDEO PICKS

The simple way to inspire your team | David Burkus | TEDxReno



This is worth 11 minutes of your time

Mike Rowe Helps Breed Oysters: The "Kidneys" of the Chesapeake Bay | Somebody's Gotta Do It



BUBBA BASS RECOMMENDS

Make sure you get in some good fishing before it gets too hot!

Full list of our donors are just a few pages away

Click the logo to visit their website

Do you need to replace that rod you recently broke?







You can never have enough fishing supplies!









Are you needing to replace some of your fly fishing equipment or need to upgrade?



ORVIS





BUBBA BASS SAFETY TIP



Like many things, if you don't use your skills frequently, they're often easy to forget. How often do you review your First Aid and CPR training?

According to the American Red Cross Scientific Advisory Council, half of CPR re-certification course participants can pass a skills test one year after training.

The first week of June is not only National Fishing and Boating Week, it is also CPR and AED Awareness Week. The first week of June is a good time to review not only CPR, but your First Aid training as well.

Review Videos



CPR & AED Refresher
Course with Nurse Eunice



CPR in Action | A 3D look inside the body



Heat exhaustion and heat stroke from the National Safety Council

Bubba's Friends Striped Mullet (Mugil cephalus)

The most abundant species in the mullet family, striped mullet are found around the globe in coastal tropical to warm temperate water. They are considered an excellent food fish in some states. Because several marine fish prey upon striped mullet, anglers use them as bait.

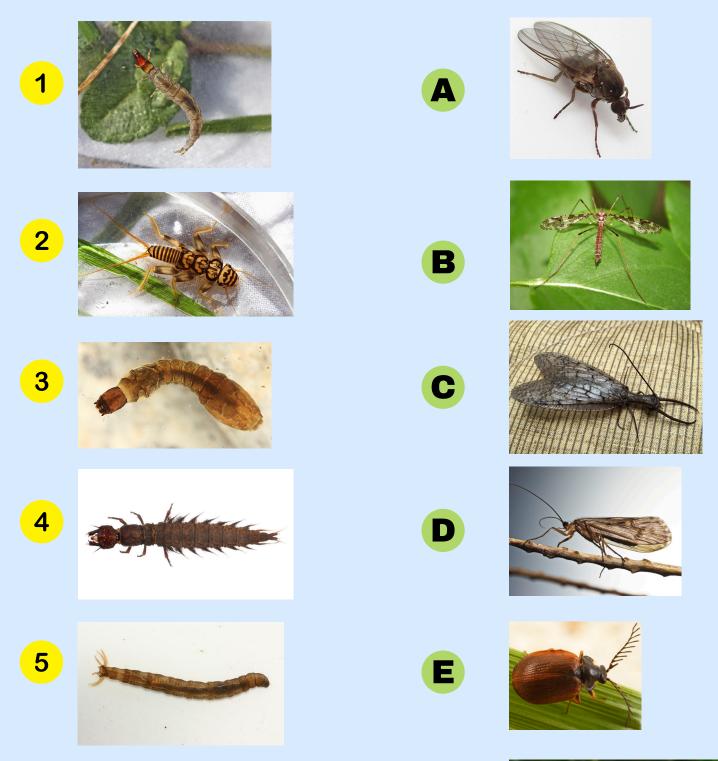
The striped mullet is catadromous, that is, they spawn in saltwater yet spend most of their lives in freshwater. During the autumn and winter months, adult mullet migrate far offshore in large aggregations to spawn.



- Their diet includes zooplankton, benthic organisms and detritus, and small invertebrates
- Many species depend on them for food marine mammals, birds, fish
- Can grow up to 48 inches and reach a weight of 18 pounds (more common to catch 1 3 pounders)
- They are often spotted leaping out of the water
- Some consider it a keystone species because of its importance to the health of the marine ecosystem in which it lives

Fin and Games

Match the larva/nymph with the adult







F



PROPS



BJ Hilton



Laurel Hilton



Hayes Hilton



Jay Shelton



Bert Deener Enjoying retirement



Rodney Tumlin



Tim Bonvechio and Reid (nephew)

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Reid Bonvechio



Matthew Hamil

Thank you for your Support!

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ATLANTA BOTANICAL GARDEN









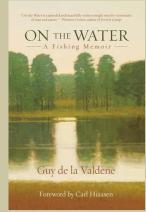








ADULT Non-Fiction SECTION



On the Water: A Fishing Memoir

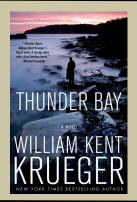
By Guy de la Valdene

On the Water is a gorgeously written collection of essays that all take place on or near the water and pay tribute to the flora and fauna associated with those ecosystems.

Learn More Link



ADULT FICTION SECTION



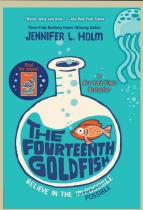
Thunder Bay By William Kent Krueger

When detective Cork O'Connor agrees to unravel a mystery for his old friend Henry Meloux, he gets caught in a blistering crossfire of jealousy and revenge that dates back decades.

Learn More Link



YOUNG READER SECTION



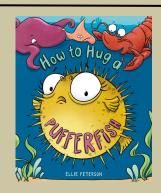
The Fourteenth Goldfish By Jennifer L. Holm

Believe in the possible . . . with this New York Times bestseller by three-time Newbery Honor winner Jennifer L. Holm. A perfect read about a child's relationship with her grandfather!

Learn More Link



EARLY READER SECTION



How to Hug a Pufferfish **By Ellie Peterson**

A picture book about a group of underwater friends who learn to ask for permission before showing their prickly, pufferfish pal some love.

Learn More Link

Georgia AFS Leadership



Georgia AFS 2024-25 EXCOM and Committee Chairs

Executive Committee

Chapter President: Chad Kaiser

President-Elect: <u>Jackson Sibley</u>

Recording Secretary-Treasurer: Dawn Franco

Executive Secretary-Treasurer: Rebecca Brown

Past-President: Ani Escobar

UGA Subunit President: <u>Joey Nolan</u>

Committee Chairs

Membership and Student Affairs: Adam Fox and Laura Wenk

Fundraising: Zack Brock and Jackson Sibley

Annual Meeting Arrangements: Kevin Cavallaro and Brent Hess

Continuing Education Committee: Peter Sakaris and Hunter Roop

Policy, Bylaws, and Resolutions: <u>Dawn Franco</u>

Student Presentation Awards: Chalisa Fabillar and Kimberly Clements

Professional Awards: Rebecca Brown and Jim Page

Chapter Scholarships & Travel Awards: <u>Donna McDowell</u> and <u>Justin Bythwood</u>

Ballot: Aaron Gray and Kevin Cavallaro

Nominations: <u>Don Harrison</u> and <u>Chad Sexton</u>

Hutton Junior Fisheries Biology Program: Marion Baker and Caroline Cox

Communications: Rebecca Brown and Dawn Franco

Program: Carolyn Belcher

Audit: Clint Peacock and Kyndale West

Environmental Concerns: Jordan Steele

SDAFS/ASFS Liason: Cecil Jennings



Visit the Chapter website for more details about each of the committees

gaafs.org/committees

AFS/SDAFS MEETINGS

Future AFS Annual Meetings



- 2024 Honolulu, HI: September 15-19
- 2025 San Antonio, TX: August 10-14
- 2026 Columbus, OH: August 30 September 3

Volunteer to Serve on an AFS Committee

Any active member of the American Fisheries Society (AFS) is welcome to serve on AFS Committees.





sd.fisheries.org/

Future SDAFS Meetings

- 2025 Asheville, North Carolina: February 17-21
- · 2026 New Orleans, LA (Date TBD)
- 2027 Alabama (Location and date TBD)
- 2028 Mississippi (Location and date TBD)

Information

Support for Fisheries Conservation and Sustainability









Do you have a specialty license plate that supports the conservation of Georgia's fisheries and aquatic ecosystems?

More information: https://gadnr.org/license-plates

Click on the license plate for more information

80 percent of that \$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.







Certified Fisheries Professional

There are many reasons for seeking professional certification. For some it represents achievement of a career goal while for others it represents a credential necessary to perform their job.

Frequently Asked Questions about certification

AFS Application Process and due dates

Pesticide Applicator License

If you wish to purchase or use a restricted use pesticide (RUP), you or your supervisor must have a pesticide applicator's license from the Georgia Department of Agriculture.

Georgia Dept. Agriculture Pesticide License Information

UGA Extension Pesticide Safety Education

Pesticide License Exam Study Videos

Job Hunting

AFS maintains an excellent Career Center page on its website. AFS provides several resources to help you find that fisheries job you want.

AFS Career Center

Do you want to improve your chances of getting that dream fisheries job?

Georgia AFS Fisheries Career Tips

Internships

Internships are a great way to gain valuable work experience employers look for in potential new hires.

Georgia AFS maintains a list of internships for fisheries students on its webpage.

GAAFS Internship listing page

Help us spread the word about interesting and insightful information about the conservation and sustainability of fishery resources and aquatic ecosystems.

The Chapter newsletter is designed to spread the word about the exciting work being done by fisheries professionals and students, deliver information about upcoming meetings and events, and provide other useful information for fisheries professionals and students. 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 can range from a paragraph to 3 pages. Let us know if you have an idea for an article but are not sure if it is suitable for the newsletter. Topics for the newsletter can include any of the ideas listed below.

- · Fisheries science research updates or innovative ideas
- Articles with advice for students and young professionals
- Accomplishments such as recently publishing a research paper, giving a talk at a community event, being interviewed for a podcast series, and anything in the realm of communications and outreach
- · Environmental concerns related to fisheries and aquatic ecosystems
- Safety tips for fisheries professionals and students

Send your submissions to Rebecca Brown at GeorgiaAFS@gmail.com.

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gaafs.org

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@georgiaafs

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Rebecca Brown
Jamie Roberts
Marion Baker
Kevin Cavallaro
Jim Page
Brent Hess
Dawn Franco
Camm Swift

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Answers to hin & Games