

Under the Dock

April 2022



Newsletter of the Georgia Chapter of the
American Fisheries Society

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Mark Your Calendar

- **April 9**
 - Registration deadline Watercraft Inspection and Decontamination training workshop
- **April 13**
 - Artemis Fireside Chat – Marion Baker
- **April 22**
 - Earth Day
- **May 16 - 20**
 - Joint Aquatic Sciences Meeting in Grand Rapids, MI
- **May 21**
 - World Fish Migration Day
- **June 25**
 - National Catfish Day
- **August 21 - 25**
 - AFS National Meeting in Spokane, WA

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 Chapter 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 - click on anything underlined or highlighted for more information and click on a laptop image for a video



Send us your fish photos for the Props! bulletin board



While fishing in the Bahamas, John Damer caught this barracuda with a whopper plover.

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. Submissions are due on the 21st of each month unless told otherwise.

Contact Rebecca Brown (georgiaaafs@gmail.com) if you have questions. We also welcome suggestions for an aquatic species to highlight, safety tips, and ideas for the section *Did You Know*.

DOCKSIDE

OUR COMMITMENT TO CLEAN WATER

Not that long ago domestic sewage and industrial pollution ruined the water quality in many of Georgia's fishing streams. As cities outgrew their sewage treatment facilities, they released raw sewage into streams. And as Georgia transitioned from a rural state to an urban state chemical waste discharged into our streams and rivers increased. Siltation and water pollution led to many of Georgia's waters being unable to support a fishery. During the early 1960s fisheries biologists with the Georgia Game and Fish spent a great deal of their time cleaning up after massive fish kills in streams and rivers.

In 1962 Georgia Game and Fish Director Fulton Lovell said "Unless money and muscle are thrown behind a sensible pollution abatement program, Georgia's image as a recreational area will soon be destroyed. We are fooling ourselves if we can think we can get all of this without proper and wise use of our natural resources, with great emphasis on water conservation."

Water pollution was not just a problem in Georgia. It was a problem everywhere. Furthermore, air pollution, overexploitation of our natural resources, and illegal dumping of toxic waste were growing problems nationwide as there was a lack of enforceable regulations. Senator Gaylord Nelson saw a need for change

and with the help of Congressman Pete McCloskey organized the first Earth Day that took place on April 22nd, 1970. Events were planned across the United States, and it is estimated that 20 million Americans participated in the first Earth Day. The common goal was a cleaner environment for all to enjoy now and in the future. These events demonstrated the public's concern to put environmental protection on the national agenda.

Some call the 1970s the "Environmental Decade." President Richard Nixon established the Environmental Protection Agency in 1970 with the mission to protect human health and



Flint River Shoal Lilies
(Image: Georgia Game and Fish Commission early 1970s)

the environment. That same year the Clean Air Act was signed. Two years later the Clean Water Act and the Ocean Dumping Act were created. These three are just a few examples of the many federal environmental laws that were enacted during the 1970s. These three protect our aquatic ecosystems as well as our fishable waters. As a result, the water quality, biodiversity, and quality of many water bodies throughout our nation, including Georgia, dramatically improved since the “bad old days” of widespread domestic and industrial pollution.

Today, Earth Day is celebrated globally as billions of people participate in events such as planting trees, cleaning up trash, creating a pollinator garden, or hosting a teach-in to educate others about environmental issues. The theme for Earth Day 2022 is “Invest in Our Planet.” John Muir once said, “When we try to pick out anything by itself, we find it hitched to everything else in the universe.” The land, water, and air are connected. We cannot protect one without protecting them all. The non-angler who is participating in a project to reforest a park is connected to the angler who wants to catch more fish from the river. Forested land helps protect our waters from siltation and other pollutants.

So, what will you do on Earth Day this year? Most everyone who reads this newsletter is an environmental leader, an environmental educator, or you work in a job to conserve and manage our natural resources. Wherever you are, you are in a position of influence, and you choose what influence you will make. Choose to do something on Earth Day that you normally do

not do as part of your job. It can be a big event working alongside dozens of other people, or it can be as simple as picking up trash alongside the road. Whatever way you choose to participate, take advantage of the opportunity to help make a difference and leave the Earth a little better than you found it.



American Fisheries Society Climate Change Resources

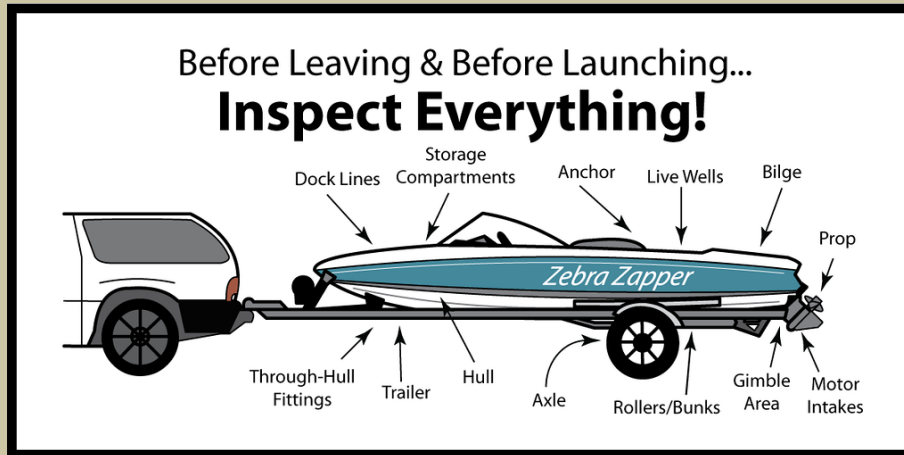
We are connected to fish through our recreational activities and the food we eat, but a rapidly changing climate is threatening the balance of nature.

AFS has created a website that serves as a hub for resources to educate fisheries stakeholders on how climate change is affecting fish and their habitats.

<https://climate.fisheries.org/>

ON THE CALENDAR

Deadline Extended for the FREE Watercraft Inspection and Decontamination training workshop



Deadline to register is April 9, 2022

<https://georgiawildlife.com/ans#Training>

Anyone who utilizes or works with boats should consider attending this workshop that takes place May 3-4, 2022 at Red Top Mountain State Park.

Artemis Georgia Fireside Chat: The Chase of Bass with Marion Baker

April 13, 2022 (7-8 pm)

Register for the virtual event: <https://gwf.org/artemisgaevents/>



Artemis Georgia focuses on building community, one-on-one mentorship, and helping women to become more confident in the outdoors. It is supported by Georgia Wildlife Federation in collaboration with Artemis National and the National Wildlife Federation. The mission of Artemis Georgia is to ENGAGE, EMPOWER, and ENCOURAGE women in conservation through hunting, fishing, and shooting sports.



NEWS & UPDATES

Spawning Season!

Georgia fisheries professionals have been very busy! The search for broodstock is a task handled by many of the biologists and technicians around the state. The collection and transport of broodstock require a lot of planning. Fish are collected as they move toward their spawning grounds and fish don't use a calendar. Once the broodstock are collected they are delivered to a specific hatchery for spawning, hatching, and rearing. Broodstock can travel hundreds of miles from where they are collected to the hatchery. For example, walleye collected in north Georgia are delivered to the Go Fish Hatchery in Perry and white bass and striped bass collected from the Coosa River in Rome are taken to the Richmond Hill Hatchery on the coast.

Thanks to Georgia's fisheries professionals anglers can escape to a river, reservoir, or lake to unwind and enjoy all the benefits of fishing.



Fish raised in Georgia hatcheries include:

- Largemouth bass
- Smallmouth bass
- Shoal bass
- Bluegill
- Redear sunfish
- Black Crappie
- Rainbow trout
- Brown trout
- Brook trout
- Walleye
- Striped bass
- Hybrid striped bass
- Channel catfish
- White bass
- Lake sturgeon
- Golden shiners
- Lake Chubsuckers

Pictures provided by Georgia DNR WRD fisheries professionals

Crayfish Creek Restoration Project

Information provided by Jay Shelton

In 2019, two Trout Unlimited chapters in Georgia (Upper Chattahoochee and Oconee River), received a relatively small (\$7,000) grant through the Embrace A Stream (EAS) program. EAS is a matching grant program administered by Trout Unlimited that awards funds to TU chapters and councils for coldwater fisheries conservation. Through the development of an effective stakeholder partnership, the project team has turned this small seed grant into a \$250,000 project which has energized a large and diverse aquatic conservation community. To date, the official project partners include 17 organizations,

including the National Park Service, GA DNR, US Forest Service, and the University of Georgia to name a few. The logistics of this process, include the mobilization of a large volunteer workforce, the engagement of stakeholders as in-kind contributors of essential skills, and effective fund-raising. One important goal of this project is to inspire and engage the next generation of aquatic natural resources professionals. This project can serve as a model for future stream restoration projects in Georgia.



Last month over 60 individuals gathered at the Crayfish Creek restoration site for a stream restoration workday. Accomplishments from this two-day project included the construction of seven stream structures and the placement of several tons of rock by hand to control areas of bank erosion.

More information about the Crayfish Restoration Project can be found on the following websites:

<https://crayfishcreek.org/>

For current updates:

[Upper Chattahoochee Trout Unlimited Chapter](#)

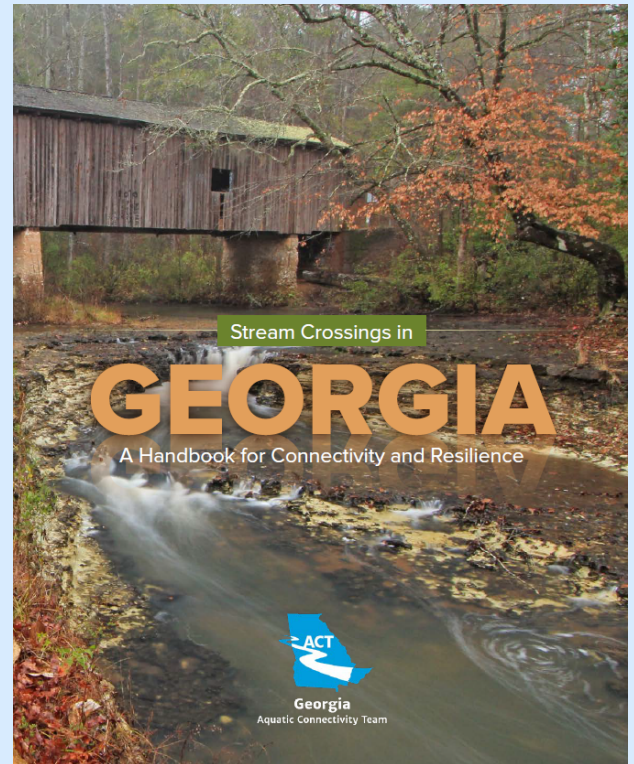
<https://www.facebook.com/orctu>

Updated and Revised Stream Restoration Handbook

Information provided by Sara Gottlieb

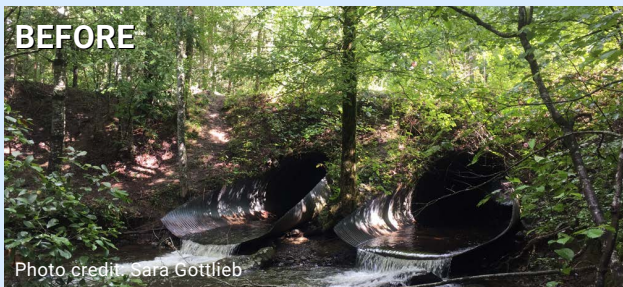
The Georgia Aquatic Connectivity Team has recently published an updated and expanded handbook on stream crossings in Georgia to increase public knowledge about the widespread impacts of this infrastructure on our rivers and streams, and to provide resources for everyone involved in road building and maintenance to implement better designs.

This handbook is intended to encourage the proper design and implementation of all new stream crossings in Georgia to maintain stream connectivity, improve stream health, provide for public safety, improve water quality, and create more resilient aquatic communities. Originally published in 2012, this 2021 update represents the work of 18 authors representing State and Federal Agencies, NGOs, academia, and private firms.



Stream Crossings in Georgia: A Handbook for Connectivity and Resilience builds on the original document published 10 years ago, with updated information on design, regulation, funding, and construction. With frequent storms causing more flooding around Georgia, stream crossings designed to enable fish passage are also more likely to withstand extremely high flows, and they require less maintenance over time. Better stream crossings are better for rivers and streams, and they are better for the aquatic communities that depend on these corridors.

The Stream Crossings handbook: <https://ga-act.org/georgia-stream-crossing-handbook/>



The Mill Creek Fish Passage Project was a joint effort between The Nature Conservancy, U.S. Forest Service, U.S. Fish and Wildlife Service, and Georgia DNR. A damaged culvert was replaced with a bottomless arch culvert (pictured). The streambed of this popular trout stream was restored to its natural condition. Several threatened and endangered aquatic species like the Blue shiner and the Georgia Pigtoe will now be able to utilize the several miles of valuable habitat located upstream of the Rocky Flats trail.

Parasite Found on Gulf Striped Bass

Recently some of the Gulf Striped Bass collected by Georgia DNR were infected with the parasitic copepod *Achtheres*. *Achtheres* have been observed for several years in the Apalachicola-Chattahoochee-Flint River Basin, but this is the first time Georgia fisheries biologists have observed them on the Gulf Striped Bass in the Flint River. Although the parasitic copepod does not normally kill its host, Georgia DNR will monitor the fish because *Achtheres* can add to the stress of the fish when water quality is less than optimal.



Achtheres infect the gills of freshwater fish and are easily visible when it matures and moves into the fish's mouth and gill arches. It has been seen in other fish species, including largemouth bass. The parasite does not pose a human health risk.

Tagging Black Bass on the Flint River



A two-year bass tagging project on the Flint River conducted by the Georgia Department of Natural Resources' Wildlife Resources Division (WRD) and Auburn University is currently underway. Through this project, biologists are tagging shoal and largemouth bass that are 12 inches or longer in the Flint River between Warwick Dam and Lake Seminole. Radio tags were inserted in both shoal bass and largemouth bass on the lower Flint River. The researchers are hoping to learn more about bass movement, habitat use, exploitation, and recruitment. An additional 100 bass were tagged with plastic anchor tags. These tags have

individual identification numbers and contact information so anglers can report their catch. Anglers that call in the tag information or return the tag will receive a custom ball cap with an image of a shoal bass, some native black bass stickers, and will be entered into a drawing that will be conducted at the end of each year. Winners of the drawing will receive a framed numbered print of a Shoal Bass drawn by renowned fish artist Joe Tomelleri.

Two More State Records

Rachel Harrison of Adairsville, GA caught a longnose gar on March 19 on the Coosa River near Rome. According to the Georgia Department of Natural Resources' Wildlife Resources Division, her fish set a new Georgia longnose gar record weighing in at 31 lbs, 2 oz.



Timmy Woods of Kite, GA captured a new state record for Hickory Shad while fishing in the Ogeechee River last month. According to the Georgia Department of Natural Resources' Wildlife Resources Division, his catch weighed 2 lb, 10 oz

Georgia Angler Award Program

The Georgia Angler Award Program recognizes anglers in Georgia who catch exceptional fish in Georgia waters. It also allows DNR to collect information on the genetics, age, growth, and habitats of big fish to help manage our fisheries to their greatest potential.

ANGLER AWARD (Adult and Youth categories)

Adults and youth can be rewarded for catching quality size fish (kept fish or catch-and-release) that meet or beat a specific weight or length.

TROPHY BASS AWARD

The Trophy Bass Category will provide data on the heaviest largemouth bass caught in Georgia each year. The bass must weigh at least 10 pounds.

PUBLIC FISHING AREA RECORD AWARDS

The Public Fishing Area Records will be for largemouth bass, crappie, bluegill, redear sunfish, and channel catfish caught at a Georgia PFA.

More information: <https://georgiawildlife.com/fishing/anglerawards>



Georgia's Public Fishing Areas

When Governor Carl Sanders took office in 1963 he pledged to increase the number of public fishing areas for Georgians. The goal was to make Georgia a sportsman's paradise. Georgia's population was increasing and there was a shift from a rural state to an urban state and Georgians needed more public access to fishing areas that were not large reservoirs or rivers. Public fishing areas needed to be easily accessible by automobile ("drive-in fishing") and available in all parts of Georgia. The idea was to create public fishing areas as a place for sportsmen to "get away from it all." Each PFA had to be designed to be handicapped accessible, provide fishing areas for the elderly and children, have access for bank anglers, and be well-stocked with fish and intensively managed.



Governor Carl Sanders fishing at McDuffie PFA on opening day (photo: Georgia Game and Fish Commission)



Georgia DNR WRD Fisheries Biologist Jay Payne fishing at McDuffie PFA Kid's Fishing Event with his daughter

In 1963 the state of Georgia purchased McGahee Hatchery near Augusta. This would later become what we know today as the McDuffie Public Fishing Area and Hatchery. McDuffie PFA was opened to the public in 1965. During the first three days, it was opened to the public over 1,800 anglers visited the PFA and caught more than 1,900 fish.

Georgia now has 11 PFAs throughout the state that are intensively managed by the Georgia Department of Natural Resources' Wildlife Resources Division to provide anglers with memorable fishing experiences.

Boats are not necessary to catch fish at each of the PFAs, but there are boat ramps available. Georgia PFAs also offer other family-friendly activities such as hiking, bird watching, picnicking, and camping.

Each of the PFAs has a website where you can find information about the type of fish you can catch, boat ramp access (PFAs with numerous ponds may not have



boating access for all ponds), list of accommodations and facilities, fish attractor data, and more. Anglers can download the coordinates to help them find the fish attractors or they can look at the interactive map.

The information you need is just a click away...

GA DNR PFAs: <https://georgiawildlife.com/AIIPFAs>

[Georgia Fishing Regulations for PFAs](#)

[Go Outdoors GA app](#)

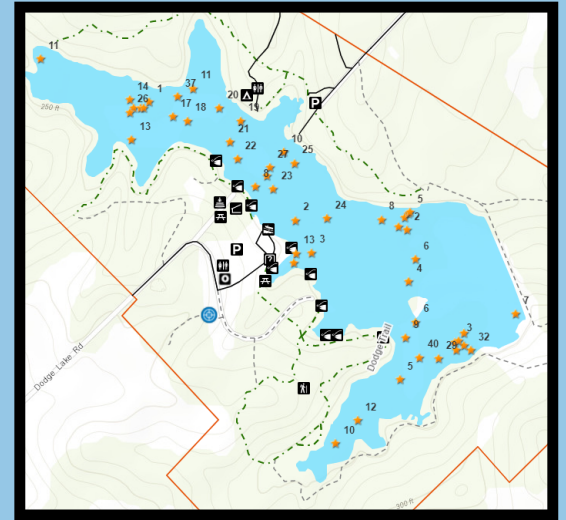


Image of the interactive map for Dodge County PFA. Each of the orange stars represents a fish attractor. Click on the image above to visit the interactive map.

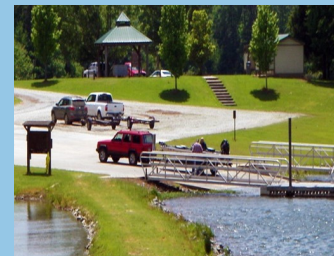
McDuffie Public Fishing Area (Georgia's First PFA)



Located in Georgia's upper coastal plain, McDuffie Public Fishing Area offers anglers 7 ponds ranging in size from 5 to 37 acres. Visitors may fish for Largemouth Bass, Bluegill, Channel Catfish, and Redear Sunfish while enjoying the longleaf pines and sandy soils. A great place to bring the family and fish or walk along the nature trails and enjoy the peace and quiet of being outdoors. As one walks around they are sure to see one of the many fox squirrels clambering up a longleaf pine or a bald eagle flying overhead looking for a meal. There is a small campground with 7 tent, trailer, and RV site-specific campsites for those who want to stay overnight. (<https://georgiawildlife.com/mcduffie-pfa>)

Big Lazer Public Fishing Area

Big Lazer PFA, which opened to the public in 1989, is a 195-acre lake located within Big Lazer WMA. The main fishing opportunities include Largemouth bass, bluegill, channel catfish, and crappie. However, two canoe launches on the area provide great access to the Flint River and Big Lazer creek shoals which are a popular Shoal Bass fishery. Two primitive campsites are available at Big Lazer PFA. The PFA also has two fishing piers as well as a quarter-acre pond for our two yearly kid's fishing events. (<https://georgiawildlife.com/big-lazer-creek-pfa>)



Paradise Public Fishing Area



Paradise Public Fishing area is situated on just over 1,300 acres of land in Berrien County approximately 9 miles east of Tifton, GA. Paradise PFA was formerly a privately operated pay-to-fish facility before it was purchased by the state in 1989. The area underwent extensive renovations before the Department of Natural Resources re-opened it to the public in 1990. There are currently over 50 lakes and ponds in the area that vary in size from less than 0.5-acres to the 114-acre Lake Patrick. Nine of these lakes have boat ramps and service piers. The numerous lakes provide a wide variety of fishing opportunities that include quality fishing for largemouth bass, channel catfish, panfish, and hybrid striped bass. Over the last few years, the area has had approximately 100,000 visitors annually. (<https://georgiawildlife.com/paradise-pfa>)

Marben Public Fishing Area

Featuring 20 ponds totaling 295 acres, this is an angler's dream location. Several of the larger lakes have public boat ramps and all of the lakes have well-maintained bank access. Lakes are managed in a variety of ways to satisfy many angler groups. The area also features a firearms and shotgun range, archery range with 3-D archery trail, multiple hiking trails, visitor's center with a museum, education center, conference center, and lodging. (<https://georgiawildlife.com/marben-pfa>)



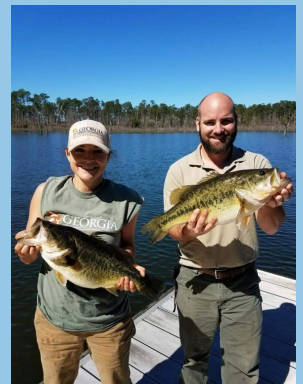
Flat Creek Public Fishing Area



Flat Creek Public Fishing Area is located on 852 acres, south of Perry, Georgia in Houston County near I-75. This 102-acre intensively managed public lake offers excellent fishing opportunities where anglers can fish from an extensive open shoreline or launch a boat. The area offers the opportunity to see many types of wildlife, including a variety of bird species that frequent the large grassland or lake shoreline. Hunting opportunities for whitetail deer, turkey, hogs, and waterfowl are available at Flat Creek PFA (see current Hunting Regulations for specific dates and seasons. Visit Flat Creek PFA for exceptional fishing or outdoor experience with friends and family. (<https://georgiawildlife.com/flat-creek-pfa>)

Silver Lake Public Fishing Area

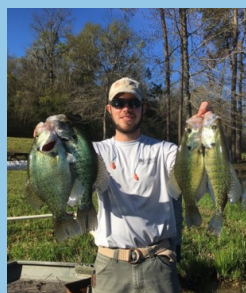
Silver Lake Public Fishing Area is a unique piece of public land nestled between the crystal clear waters of Spring Creek and the murky back water cuts of Lake Seminole. The area occupies 9,400 acres of planted loblolly stands and longleaf pine savannas with the odd towering live oak scattered throughout. The name sake lake is over 250 acres and sports numerous game fish species for anglers to target: largemouth bass, black crappie(speckled perch if you're local), bluegill, redear sunfish, and channel catfish. There are more than thirty ponds on the property, and the PFA staff actively manage the four largest ponds. Panic pond is a regionally famous trophy bass pond with many double digit weight bass on its resume. Cutoff pond offers a balanced bass and bluegill fishery. House pond has been recently renovated, restocked, and managed to produce trophy bluegill. Frog pond is a local catfish hotspot with several ten plus pounders harvested in 2021. If you are a seasoned pro angler, a beginner, or somewhere in between, there is a fishing hole for you at Silver Lake PFA. (<https://georgiawildlife.com/silver-lake-pfa>)



Ocmulgee Public Fishing Area



Nestled in flooded bottomland forests along the Ocmulgee River, Ocmulgee Public Fishing Area mirrors trophy bass habitat fished by George Perry ninety years ago. Anglers visiting this area can expect to see an explosion in the water as their fishing lures are attacked by double-digit Florida-strain largemouth bass! I encourage any angler looking for excitement to give this area a chance. Your next cast could be the catch of a lifetime. (<https://georgiawildlife.com/ocmulgee-pfa>)



Dodge County Public Fishing Area

Dodge County PFA is a 104-acre lake located in Eastman, Georgia that is intensively managed for maximum sportfish production. It has a rich history of trophy bass production, including the lake record 15lb & 8.5-ounce fish caught in 2002. Secondly, the black crappie fishery is also hands down one of the best in the state, producing 2+lb fish annually. Let's not forget about the wildlife in the area, which includes Alligators, Bald Eagles, Turkeys, Whitetail Deer, Squirrel, Quail, Gopher Tortoises, Blue herons, Geese, Sandpipers, Black Indigo Snakes, and Diamondback Rattlesnakes. For the hunter in you, we have a full-scale archery range in the area which boasts 25+ targets to practice your skills. So, come on out and Go Fish Georgia! (<https://georgiawildlife.com/dodge-county-pfa>)



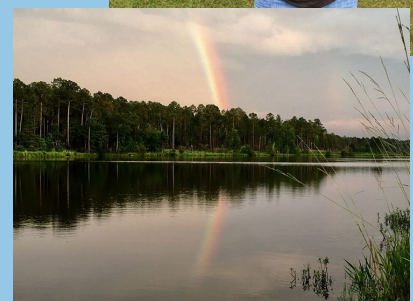
Rocky Mountain Public Fishing Area

Rocky Mountain Recreation and Public Fishing Area is located in NW Georgia, 25 minutes North of Rome. Owned by Oglethorpe Power, the property is managed by the Georgia Wildlife Resources Division, Fisheries Department Region 1 Office located in Armuchee, GA. The three lakes on the property are intensely managed to provide the anglers outstanding opportunities to catch Largemouth Bass, Black Crappie, Redear Sunfish, Channel Catfish and Walleye. Out of the three lakes Heath Lake is also managed as a Trophy Bass Lake and fishing is only allowed on the first 10 days of each month. East and West Antioch are open 365 days a year and the property is open from Sunrise to Sunset. In addition to fishing, RMRPFA offers a Swimming Beach, hiking trails and camping. (<https://georgiawildlife.com/rocky-mountain-pfa>)



Hugh M. Gillis Public Fishing Area

Hugh Gillis PFA located just east of Dublin, the property contains a large 109-acre lake surrounded by 640 acres of timber with a mixture of long leaf/wiregrass and planted pine with hardwoods scattered throughout. The lake is managed to provide excellent fishing for both the bank and boat angler. The lake consists of numerous coves, submerged humps/trees, and standing timber to attract fish. We even have an area to clean your catch if you don't want to haul them home. We have excellent picnicking areas which include a large pavilion with 6 tables, fans, and bathrooms for your outdoor parties. We are now open 24 hours a day 7 days a week come out to enjoy our night fishing as well. (<https://georgiawildlife.com/hugh-m-gillis-pfa>)



Evans County Public Fishing Area

The Evans County Public Fishing Area (ECPFA), located near Claxton, is one of the first fishing areas to be developed in Georgia. The PFA sits on a 372-acre tract containing 122 acres of water among three lakes, with unique fishing opportunities in each. These lakes offer anglers the opportunity to catch largemouth bass, channel catfish, bluegill/redear, hybrid striped bass crappie, and several other fish species native to the coastal plain. In addition to excellent fishing, the PFA also offers facilities for visitors to engage in a variety of other outdoor activities. Home to the largest camping area among Georgia's public fishing areas, ECPFA offers campsites with electricity, water, and even full RV service in some sites. Visitors often utilize the area's nature trails that meander through sandhill forests, wetlands, and creek bottoms which are wonderful places to view wildlife. The area offers archery opportunities with an easily accessible static/3D range and a challenging 18-lane archery trail. Waterfowl hunting is also offered during annual quota hunts which are usually very successful. In addition, ECPFA also has covered and open picnic areas and an Event Center consisting of a large open gathering room, an extensive porch area, a full commercial kitchen, and a grilling area. From an afternoon on the lakes fishing to hosting family reunions and small weddings, ECPFA is a place where all Georgians can come and enjoy the state's great outdoors. (<https://georgiawildlife.com/evans-county-pfa>)



BENEFITS OF FISHING

Contributes to conservation

Decrease in stress/anxiety

Creates social bonds

Boosts economy

Burns calories

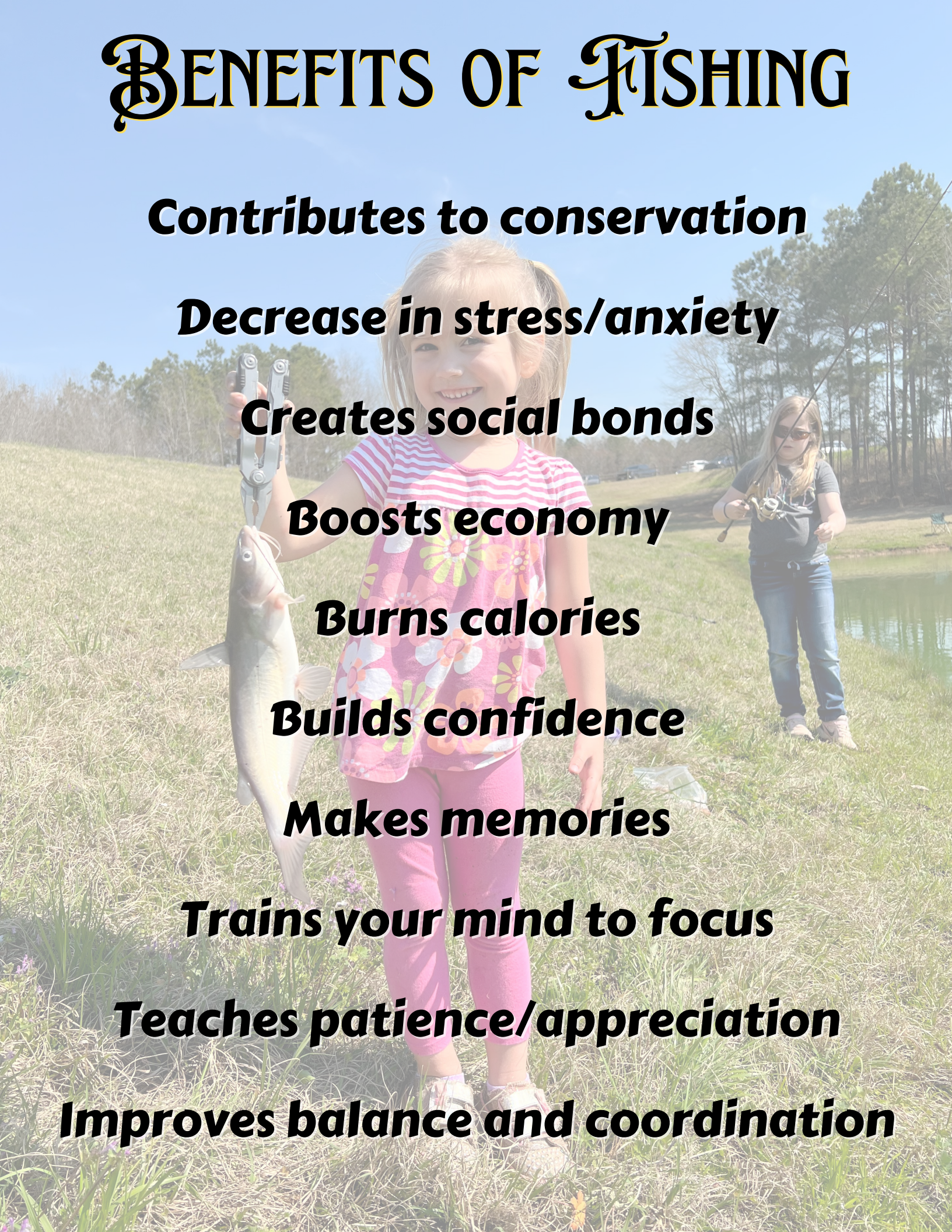
Builds confidence

Makes memories

Trains your mind to focus

Teaches patience/appreciation

Improves balance and coordination



SDAFS AQUATIC PLANT TREATMENT PLANS

The **Small Impoundments Technical Committee** is planning to host an aquatic plant workshop at the 2023 SDAFS annual meeting. Our goal is to provide identification as well as up-to-date control information for the most problematic aquatic species we are faced with within the Southeast. By polling SDAFS representatives from each state, we have developed a list of the top 23 problematic aquatic plants in southeastern impoundments. As new products and techniques are being used to control aquatic vegetation in both private and public water bodies in the Southeast, the informational literature is outdated. Therefore, we are polling professional applicators across the Southeast to gather more up-to-date control information that can be available to applicators. Please use this form and answer the questions for each plant listed below based on your own personal experiences, and in as much detail as you are willing.



<https://forms.gle/TEoQRESKwq1Eonrh9>

NOTE: Obviously, choosing the best, comprehensive weed control program for a particular body of water can be very subjective and requires a level of experience literature can't provide. This poll is just intended to provide the best biological and chemical tools available to battle each plant species. Thus, for now, there is no need to mention other techniques such as retreatment, combining biological and chemical, shading with fertilization or dyes, deepening shallow areas, nutrient reduction, etc. There is no need to indicate any state restrictions for biological control or chemical control agents. Applicators should be aware of this already. Also, refrain from listing specific chemical application rates or possible water quality/toxicity issues as this information is listed in the product label and should be left to the discretion of the applicator in each situation.

ANOTHER NOTE: You will be asked to provide the most effective chemical treatment for each plant; however, a different chemical treatment may be more practical or affordable in some situations. Provide that info in the "Additional Notes or Comments" section at the bottom. Also, if your control information for one plant is the same as another plant on the list, then you can just indicate that besides the plant's name. If you have no experience controlling a particular plant, just leave blank.

Alligator weed

American Lotus

Bluegreen Algae

Brazilian Elodea

Cattails

Coontail

Duckweeds

Eurasian Watermilfoil

Filamentous Algae

Fragrant Water Lily

Giant Salvinia

Hydrilla

Muskgrass (Chara sp.)

Parrot Feather

Pondweeds (Potamogeton spp.)

Southern Naiad

Spatterdock (or Cow lily)

Water Hyacinth

Water Lettuce

Water Pennywort

Water Primrose

Watermeal

Watershield

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.



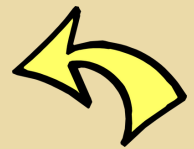
Georgia Aquarium is a scientific institution that entertains and educates, features exhibits and programs of the highest standards, and offers engaging and exciting guest experiences that promote the conservation of aquatic biodiversity throughout the world. As a leader in aquatic research and exceptional animal care, they are dedicated to fostering a deeper appreciation for our ocean and the animals that call it home.

Alongside other accredited facilities, their team conducts crucial research by working with animals both in human care and in their natural habitats to improve husbandry methods, develop innovative and exciting new exhibits, contribute to the understanding of the underwater world and apply new discoveries to the conservation of aquatic life.

Visit their website for more information



<https://www.georgiaaquarium.org/>



Thank you for your Support!

GAAFS 2022 Sponsors

Click on image to visit website

Platinum

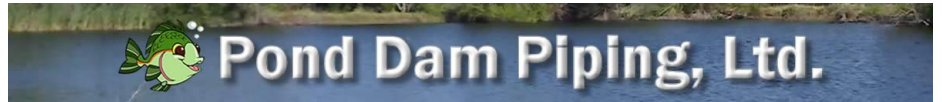


Georgia
Power

Gold



Silver



Marine Extension and
Georgia Sea Grant
UNIVERSITY OF GEORGIA



Bronze



In-Kind
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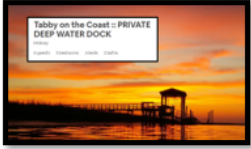


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HIGH MUSEUM OF ART ATLANTA



Pesticide Exposure

Understand the cause to avoid exposure

There are four ways toxic materials can be taken into the body.

They are: oral, dermal, inhalation, and ocular exposures, with dermal be the most common type of exposure. These types of exposures are explained in the chart below.

Type of Exposure	Definition	Cause of Exposure
Oral Exposure	Swallow or ingest a pesticide	<ul style="list-style-type: none">• Not washing hands before eating, drinking, smoking, or chewing tobacco.• Mistaking a pesticide for food or drink.• Accidentally applying pesticides to food.• Splashing pesticide into the mouth through carelessness or accident.
Dermal Exposure	Having pesticide on your skin	<ul style="list-style-type: none">• Not washing hands after handling pesticides or their containers.• Splashing or spraying pesticides on unprotected skin.• Applying pesticides in windy weather.• Wearing inadequate personal protective equipment while handling pesticides or their containers.
Inhalation Exposure	Breathing in a pesticide	<ul style="list-style-type: none">• Prolonged contact with pesticides in closed or poorly ventilated spaces.• Breathing vapors from fumigants and other pesticides.• Breathing vapors, dust, or mist while handling pesticides without appropriate protective equipment.• Inhaling vapors immediately after a pesticide is applied.• Using the wrong respirator, or an improperly fitted respirator, or using filters, cartridges, or canisters that are "full" of chemicals, dust, etc.
Ocular Exposure	Pesticide gets in the eye	<ul style="list-style-type: none">• Splashing or spraying pesticides in eyes.• Applying pesticides in windy weather without eye protection.• Rubbing eyes with contaminated gloves or hands.• Pouring dust, granules or powder formulations without eye protection.

Source:



Chapter Spotlight

Patrick O'Rourke

Patrick is a Fisheries Biologist with Georgia Power Company, a role he has had since 2015. One of his main job responsibilities is to serve as the company's subject matter expert on fisheries issues. Much of his work centers around the Federal Energy Regulatory Commission (FERC) relicensing and compliance for Georgia Power hydropower projects, but he occasionally gets brought in for issues in other parts of the company (nuclear, coal, renewables, transmission, etc.). He also gets to do a lot of corporate environmental stewardship work on behalf of the company.



What got you first interested in fisheries science?

I had a tenth-grade science teacher who was a fly-fishing mentor when I was just learning the sport. His son was majoring in fisheries at UGA at the time and that first piqued my interest. I grew up just down the road from the Buford Trout Hatchery and set up a meeting with Bill Couch (former hatchery manager) to discuss career opportunities, and not long thereafter declared my major on my application to UGA. Years later, after I started working for GA WRD, I ran into Bill again and he laughed, asking "I couldn't talk you out of it?"

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

I majored in Fisheries and Aquaculture at the University of Georgia (Warnell) along with a minor in Agribusiness. After a couple of years of wearing suits in Washington, DC, I decided to go to graduate school and ended up getting my MS in Fisheries and Aquatic Sciences at the University of Florida in the Allen Lab. I wore far more red and black in Gainesville than anyone else on campus. I've also taken some electrical utility technology classes at Lanier Tech since coming to work for the power company.

Describe a project you are currently working on as part of your current position.

The most exciting project we have going right now is the surrender of our FERC licenses for the Langdale and Riverview hydro projects on the Chattahoochee River between LaGrange and Columbus. We're working to ultimately remove three aging mill dams from the river which will open up 11 miles of mainstem river to fish passage in an area that is critical for shoal bass conservation. It has also been extremely gratifying to help set up a program for the Georgia Power Foundation that is now on its second cycle of \$1 million in grants to help restore 303(d)-listed watersheds in Georgia.



Chapter Spotlight Continued

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

Right after I started with WRD, I was tasked with studying the wild brown trout population in the Chattahoochee River. Due to budget constraints at the time, I was without a full-time technician and had to partner with local Trout Unlimited chapter volunteers to get help in the field. While it took more work on the front end, having all of those different folks helping me on an electrofishing boat paid dividends for the rest of the time I worked for the state. The opportunity to educate anglers in-depth on our shared resources was invaluable in forging relationships and gaining trust. That project ultimately resulted in three peer-reviewed papers and a lot better understanding of the fish population as well as how to manage it going forward.

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

I enjoy the opportunity to work at many different levels of the profession. One day I may be a toil-worn craftsman, working in the field or doing maintenance on a boat, and then the next day I may be helping make major decisions that will impact fishery resources in Georgia for decades or longer with inspired thinkers. I'm also very fortunate that my employer supports my desire to stay active in AFS. Sadly, I don't get to spend as much time in the field as I did in my previous job as a state biologist, and I miss the spring rush of shocking, stocking, and full weeks spent outdoors.



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

Finding out what you don't want to do is just as important as figuring out what you do want to do. Get out in the field ASAP and get as much different experience as you can. It's far better to realize you don't like a certain part of the profession before you get too far down the academic and professional track into a narrow realm of expertise. Along those lines, diversify your base of knowledge. Learn something that is tangential to the profession but not common among other people with your background; mine was learning the policy world through two different jobs at the federal and state level before I became a biologist. Finally, forge relationships with mentors. I've learned different skills and lessons from all of my direct supervisors, but I've also learned a lot from people with whom I've never worked for or even alongside. A good mentor will find growth opportunities to help you work in the right direction and to focus on the duty that lies nearest.

Chapter Spotlight Continued

How have you benefited from being a member of the American Fisheries Society?

It would probably take another page or two to list everything. I learned of my first job via an old AFS listserve, I was able to meet WRD senior staff at GA AFS meetings before ever applying for a job with the state, and I spent a year working closely with Joey Slaughter in planning the Savannah SDAFS meeting before he hired me at Georgia Power. AFS meetings have provided the opportunity for me to hone my public speaking skills, starting in grad school and continuing today. Finally, active involvement in AFS has helped me with personal leadership skills and given me a network of experts across the state, the southeast, the nation, and even internationally that I can call on for help.



What is your favorite fish and why?

The shoal bass is a fascinating species that sits at the intersection of game fish and rare species. It's also just an amazing fish, and the more we learn about its behavior the more amazing it seems. I grew up hearing stories about my grandfather catching them (in true Henshallian fashion he called them smallmouth bass) on the Chattahoochee River before Lake Lanier was filled behind Buford Dam, and decades later I've been able to contribute to multiple projects on that same river aimed at conserving the descendants of those same fish that he once caught. In a way, the shoal bass transcends space and time for me on a personal level.

What is your favorite quote?

"To the Minnow every cranny and pebble, and quality and accident, of its little native Creek may have become familiar: but does the Minnow understand the Ocean Tides and periodic Currents, the Trade-winds, and Monsoons, and Moon's Eclipses; by all which the condition of its little Creek is regulated, and may, from time to time (unmiraculously enough), be quite upset and reversed? Such a minnow is Man; his Creek this Planet Earth; his Ocean the immeasurable All; his Monsoons and periodic Currents the mysterious Course of Providence through Æons of Æons."

~Sir Thomas Carlyle, Sartor Resartus



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

Right after I finished undergrad, I went to professional umpire school in Florida for five weeks. In hindsight, fortunately, I did not get a job in professional baseball, which would have significantly delayed my fisheries career, but I was able to umpire a lot of games all the way up to the collegiate level before I finally hung up my mask.

DID YOU KNOW

Is it a sea or is it a lake?

Do you know the difference between a lake and a sea? Is the Caspian Sea a lake or a sea? Is the Great Salt Lake really a sea? When asked to distinguish between a lake and a sea most people would most likely say a lake contains freshwater and a sea contains saltwater. There are fundamental differences between a lake and a sea.

A lake

- is enclosed on all sides by land and does not have an outlet
- can be salty or freshwater

A sea

- typically they are partially enclosed by land and connect to the ocean
- only salty water

These are LAKES



Great Salt Lake

No outlet



The Dead Sea

No outlet



Lake Michigan

Has outlet, but freshwater

A SEA or a LAKE?





COFFEE BREAK

What fish lives in the deepest waters of Earth?

The Mariana Snailfish (*Pseudoliparis swirei*)

The snailfish lives in the Marianas Trench.

<https://theconversation.com/the-deepest-dwelling-fish-in-the-sea-is-small-pink-and-delicate-88991>



BUBBA'S VIDEO PICK

This Fish Has a Serious Case of the Blues (SciShow)



BUBBA'S PLACE

BUBBA BASS RECOMMENDS

Are you looking for some new fishing equipment? Shop with one of our 2022 annual fundraiser contributors. **Click** on the image to visit their website.



Safety Tip

from Bubba Bass



The severity of the effects varies depending on the formulation, concentration, toxicity, and route of exposure to the pesticide. It is important to know both the type of pesticide you are using and the signs and symptoms associated with poisoning from it.

Symptoms may include

- headache
- pin-point pupils
- blurred vision
- weakness
- nausea
- cramps
- diarrhea
- chest discomfort

The key to surviving and recovering from pesticide poisoning is rapid treatment. Take emergency action immediately when you suspect pesticide poisoning.

The basic rule to remember is "dilute the pesticide."

- *Wash exposed skin with soap and large amounts of clean water*
- *Flush the eyes with a gentle stream of clean water for 15 minutes*
- *If inhaled, move the individual to open, clean air*
- *If ingested, rinse out the mouth and follow the pesticide label for first aid. SOME LABELS SAY NOT TO INDUCE VOMITING.*

For specific information on treatment, refer to individual pesticide labels or call the Poison Control Center. In an emergency, always take the pesticide label with you to the emergency medical facility and have it available when calling the Poison Control Center.

Bubba's Friends

Coelacanth (Latimeriidae)

The coelacanth once believed to be extinct, is a rare marine fish that is a living representative of an ancient lineage of formerly common fishes. At one time coelacanths were a large group comprising about 90 valid species that were distributed worldwide in both marine and freshwaters. Today, there are two known living species, *Latimeria chalumnae* and *Latimeria menadoensis*.

Coelacanths are unique:

- They live in the twilight zone of the Indian Ocean
- They are the only living animals to have a fully functional intercranial joint
- They have a rostral organ in their snouts that is part of an electrosensory system
- They have paired fins that move in a similar fashion to human arms and legs
- Not sexually mature until after 20 years and reproduce via internal fertilization
 - Eggs are about the size of a baseball and hatch internally
 - The gestation period is 13 months
 - Give birth to live young (5 - 25 fry at a time called "pups") that are relatively well-developed



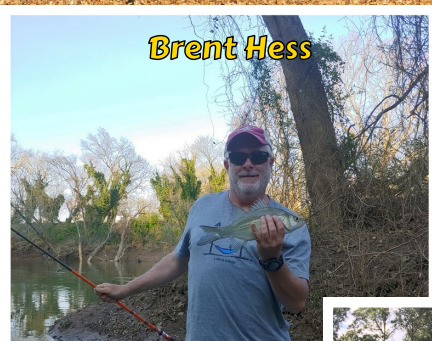
Fin and Games

According to the Recreational Boating and Fishing Foundation, the number of anglers, six years and older, has grown steadily to 54.7 million in 2020. Together they spend over \$50 billion annually on equipment, licenses, trips and other fishing-related items or events.

How well do you know your fishing equipment? Match the fishing equipment on the left with the name of the inventor/company on the right.

- | | |
|---|-----------------------------------|
| 1. First plastic worm for fishing | A. Heddon |
| 2. First crankbait - Creek Chub Wiggler | B. Skeeter |
| 3. Spoon lure | C. William Shakespeare Jr. |
| 4. First fully modern fly reel | D. Julio T. Buel |
| 5. First commercially manufactured spincast reels | E. Nick Creme |
| 6. First manufactured bass boat | F. Rapala |
| 7. First gear-driven electric trolling motor | G. O.G. Schmidt from North Dakota |
| 8. First level-wind fishing reel | H. Zero Hour Bomb Company |
| 9. First known outboard motor | I. Charles Orvis |
| 10. Floating minnow - featured in Time magazine in 1962 as "a lure fish can't pass up." | J. Evinrude |

(Answer on last page)



Brent Hess



Tim Bonvechio



Lexie Gibbons



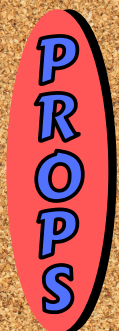
**Dean and
James Barber**



PaisleyAnn Barber

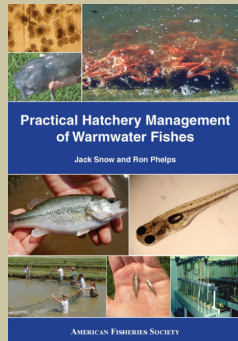


John Damer



The Book Shelf

PROFESSIONAL RESOURCE SECTION

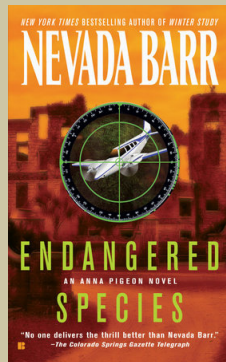


Practical Hatchery Management of Warmwater Fishes

Jack R. Snow and Ronald P. Phelps

<https://fisheries.org/bookstore/all-titles/professional-and-trade/55082c/>

FICTIONAL SECTION



Endangered Species

By Nevada Barr

Cumberland Island, off the coast of Georgia, is a breathtaking setting for tedious fire suppression duty. But Anna's boring routine is shattered when two men die in a plane crash, victims of sabotage.

[Learn More Link](#)



YOUNG READER SECTION



The Fishing Chronicle Series

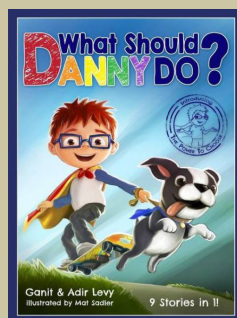
By Lane Walker

Captivate your kids to read more and get them excited about the outdoors with this 5 book series. Adventures from a river raft camping & fishing trip, to entering the local ice fishing contest in order to save the family bait shop. Each book contains a new main character.

[Learn More Link](#)



BEGINNING READER SECTION



What Should Danny Do?

(Power to Choose)

By Adir Levy and Ganit Levy

"Danny is a real-life superhero in training, learning about his most important super power of all: 'the power to choose.' In this book, YOU decide how the story will end by making choices for Danny.

[Learn More Link](#)



FISHY NEWS AROUND THE WORLD

University of Vermont

NATURE STUDY: OCEAN LIFE MAY ADAPT TO CLIMATE CHANGE, BUT WITH HIDDEN COSTS

A new study shows that some ocean animals may be able evolve their way out of troubles caused by climate change -- but at a high cost.

Oregon State University

OREGON STATE RESEARCHERS CREATE TOOL TO HELP PROTECT NATIVE FISH FROM HYBRIDIZING WITH NON-NATIVES

Oregon State University researchers have created a tool to assess the risk of hybridization among native and non-native fish, a development that could aid natural resource managers trying to protect threatened or endangered freshwater fish species.

Cary Institute of Ecosystem Studies (New York)

ENSURING SUSTAINABLE RECREATIONAL FISHERIES IN THE FACE OF SOCIAL CHANGE

The observation that 'the fishing's not what it used to be' ranks up there with 'the one that got away' as a story that has crossed over from folk wisdom to folklore. But what if there is truth in it? New research suggests that slow but steady degradation of recreational fisheries may be common, and points to actions that anglers and fisheries managers can take to help stabilize and improve fisheries today and for future generations.

University of Nevada

WORLD'S LARGEST, MOST ENDANGERED FRESHWATER FISHES RELEASED IN CAMBODIAN LAKE

Working to save some of the world's most critically endangered fish, an international team of scientists and fisheries professionals led by Hogan released as many as 1,500 of several iconic fish species into a fish reserve in the Tonle Sap, Southeast Asia's Great Lake, which is connected to the Mekong River.

Environmental Defense Fund

INCLUSIVITY & AQUACULTURE: AN INTERVIEW WITH IMANI BLACK

A sustainable aquaculture industry in the United States has the potential to provide both environmental and economic benefits — and EDF is committed to supporting legislation that prioritizes strong regulations while supporting the industry's efforts to make sure those benefits are felt broadly.

Orange Coast College

SEEKING SUSTAINABILITY: EXPLORING OCC AQUAPONICS

This semester marks the first time the greenhouse has been up and running with students learning and working on projects inside.

NOAA Fisheries

IDAHO LANDOWNERS KEEP RIVER FLOWING AS DROUGHT THREATENS SNAKE RIVER SALMON

Strong relationships and Bonneville Power funding help save imperiled fish.

AFS INFORMATION



What Do Fish Mean to Us? Perspectives Above and Below the Water

The American Fisheries Society, President Leanne Roulson, the AFS Western Division, and the Washington – British Columbia Chapter are excited to host the 152nd AFS Annual Meeting, August 21–25, 2022, in the second largest city in Washington State, Spokane. The city of Spokane is on the Spokane River, part of the Snake and Columbia River system, making it ideal for examining the variety of roles and meanings of fish in science and culture. The Spokane area, part of the unceded lands of the Spokane Tribe, is rich in resident and migratory fish and wildlife important to indigenous peoples of the area. We hope that you will take advantage of this opportunity to experience and explore this focal area for fish, fisheries conservation and management, and human resource use.

We will bring together professionals from across North America and countries around the world under the theme of “What Do Fish Mean to Us?”. In the spirit of exploring differing perspectives, we are soliciting symposia topics, collaborative efforts, contributed papers, and posters that exemplify the latest research in fisheries science and that will benefit a range of audiences with the aim of advancing the science of fisheries ecology, conservation, and management.

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

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

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 about fish/fisheries/ and science. 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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