

CONFLUENCE 2020 AGENDA & SESSION DESCRIPTIONS



Friday, March 27th

5:00 - 9:00	Dogwood Room
	Check-in and Social
	Dinner, Water Science Poster Session
	Adopt-A-Stream Water Trivia

Saturday, March 28th

7:30-8:30	Registration-Exhibit Area Open						
Session 1	Master Hall 1	Master Hall 4	Fireside Room 1	Fireside Room 2		Dogwood Room	
8:30 - 9:30	Clean Water Act 101	Coastal Topics	Explore and Analyze Data	Freshwater Turtles of GA		Adopt-A-Stream Junior - Let's Get WET!	
			Building Water Trails				
9:30 - 9:45	Break						
9:45	Opening Remarks in Master Hall						
10:00	Keynote: Joe Cook, Paddle Georgia Coordinator and River User's Guide Author						
10:45	Break and disperse to Session 2						
Session 2	Master Hall 1	Master Hall 4	Fireside Room 1	Fireside Room 2			
11:00-12:00	Legislative Update	Ocean Acidification	Mapping Your Watershed Online	Birds of Prey			
	Protecting Georgia's Waters						
12:00	Lunch in Master Hall, Free Time						
12:45	AAS Year in Review & AAS Awards						
1:50	Break: Disperse to Session 3						

	WORKSHOP	PRESENTATION	FIELD SESSION	<i>Participant Capacity in Italics</i>			
Session 3	Master Hall 1	Master Hall 4	Meet in Fireside Lobby	Fireside Room 1	Meet in Board Room	Meet by Upstairs Fireplace	Dogwood Room
2:00-4:00	Aquatic Habitat Connectivity	Streams of Plastic in Georgia	Wetland Monitoring and Delineation	Native Fishes of Georgia	Aquatic Macroinvertebrate Ecology and Life History	Stream Restoration	Adopt-A-Stream Junior - Let's Get WET!
4:30 – 5:30	Announce Silent Auction, Closing Remarks						
5:30	Dinner on your own						
7:30	Special Presentation and Hidden Rivers documentary screening in Dogwood						

Sunday, March 29th

Session 4	Chattahoochee River	Smith Creek at Unicoi	Driving Tour	
9:00- 12:00	Duke's Creek Falls Hike	Fly-Casting 101	Stream Restoration Tour (\$10)	

Participant Capacity in Italics

	WORKSHOP	PRESENTATION	FIELD SESSION	
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***Session locations are currently TBD and will confirmed before the conference.**



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~~~~ Friday, March 27<sup>th</sup> ~~~~~

## Water Science Poster Session

This session during the Friday evening social provides a platform for students and volunteers to share water science research or monitoring projects, receive recognition throughout the water quality monitoring community, and interact with peers and professionals in the field. View previous participants' abstracts and posters on the [Water Science Poster Presenters & Winners](#) page on the AAS website.

## Adopt-A-Stream Water-Themed Trivia!

Join the Friday evening Social for networking, dinner and Adopt-A-Stream Water-Themed Trivia! Test your water knowledge of all kinds with teams of volunteers, veteran trainers, students, and those new to AAS for chances to win great prizes! There will be several rounds of water related trivia questions with differing levels of difficulty and multiple opportunities to win a prize for your group. Questions span topics from Adopt-A-Stream monitoring protocol to pop culture. All attendees are welcome, and anyone can win!

~~~~ Saturday, March 28<sup>th</sup> ~~~~~



Keynote Speaker: Joe Cook

Georgia River Network

Paddle Georgia Coordinator and River User's Guide Author

Joe Cook grew up in Atlanta rafting the Chattahoochee River, as was popular in the late 1970s and early 1980s, a time when men were men and women regularly jumped off the fabled Diving Rock naked. It's where he first fell in love with rivers. As an adult, he traveled the length of the Chattahoochee and Apalachicola rivers on a 540-mile, 100-day voyage and became involved with Chattahoochee Riverkeeper. He later traveled the length of the Etowah River with his three-year-old daughter and her mother. In 2004, he began a stint as Executive Director and Riverkeeper with the Coosa River Basin Initiative in Rome and worked with the organization through 2018. In 2005, he began working with Georgia River Network to create Paddle Georgia, an annual week-long canoe/kayak adventure that takes place on a different Georgia river each year. While serving as Paddle Georgia coordinator since 2005, he also has authored Georgia River Network's River User's Guidebook series, including guides to the Etowah, Chattahoochee, Flint, Broad and Oconee rivers. He is currently at work on the Ocmulgee River User's Guide. A nature/landscape photographer, his writing and photographs have been published in numerous national and regional magazines and is featured in three other books, *Wildflowers of the Appalachian Trail*, *Wildflowers of the Blue Ridge and Smoky Mountains* and *River Song-A Journey Down the Chattahoochee and Apalachicola Rivers*. He is a 1988 graduate of Berry College.

Keynote Address

10:00 am – 10:30 am

Malcolm X, Eugene Talmadge and Naked Yankees in Georgia Rivers: Tall tales from the shoals, sandbars and sloughs of our state.

Joe Cook has traveled thousands of miles on Georgia's rivers and along the way has dug up some interesting, unusual and unexpected stories about those rivers and our relationship to them. He believes that if everyone digs around long enough in the rocks, sand and mud of Georgia's rivers, they will find some personal connection to them. He even traces his own conception to Morgan Falls Dam and the South River...you can find out how--and more--including semi-useful yarns about Georgia's rivers. For example, you'll learn the answers to questions like: what's Malcolm X's connection to the Flint River? What prompted a crowd of 20,000 to gather on the banks of the Oconee in rural Johnson County in 1939? And, how in the world did a swarm of American eels shut down a textile plant in northwest Georgia in the late 1800s? Cook will provide the answers and show us how our rivers have risen and fallen with our culture. Cook promises a wildly entertaining voyage...but not one that can actually match the thrill of being on a real river.

Session 1

8:30 am – 9:30 pm

Clean Water Act 101 (Classroom)

Lisa Perras Gordon will give an overview of how rivers, streams, lakes and estuaries are protected under the Clean Water Act and why it is her favorite environmental statute. Walk away with a better understanding of how your volunteer work fits into the bigger picture for protecting water in Georgia. As we celebrate EPA's 50th anniversary, she'll also briefly discuss the major accomplishments that have been achieved under the Act.

Coastal Topics (Classroom)

Adopt-A-Wetland Coordinator Luke Roberson will lead a session on several issues pertaining to the 100-mile Georgia Coast. These valuable coastal wetlands filter pollutants from our waterways, stabilize sediments, protect properties from erosion and storm surge, and provide recreational opportunities for residents and visitors. Katie Higgins (UGA Marine Extension and GA Sea Grant) will talk about volunteer monitoring of marine phytoplankton and harmful algal blooms.

Explore and Analyze Data + Building Water Trails (Classroom)

➤ **Explore & Analyze Your Watershed with Web Maps**

Using web maps such as the EPA's WATERS GeoViewer and EnviroAtlas or the US Geological Survey's Stream Stats or National Map, you can learn a wealth of information related to a stream or watershed. Jon Becker of EPA will explain the features of these web maps and their map layers such as permitted dischargers, waters designated as impaired, land cover classifications and much more. They also provide analytical tools which can calculate the drainage area that flows to a given point and summarize numerous environmental databases for that area. These easy-to-use tools can help you better understand what may be impacting water quality at a monitoring site. If time allows, we'll also cover some other emerging EPA data sets and analytical tools related to water quality and watershed characterization.

➤ **Realizing Your Community River as an Economic Asset ~ Build a Water Trail!**

Georgia River Network's Water Trails Program supports a statewide network of water trails and provides technical assistance and resources to communities who want to build water trails in their watershed. In this workshop Gwyneth Moody, GRN's Director of Water Trails and Outreach, will describe Georgia's established and developing water trails, the many ways in which water trails can benefit your community from tourism/economic development to river conservation/ restoration, and the useful tools available to help build a successful trail.

Freshwater Turtles of Georgia (Classroom)

Join Dr. Ken Fahey, retired teacher and herpetologist, as he discusses the identification, life history and conservation of the 20 freshwater turtles found in Georgia's fresh-water ecosystems. Learn how to identify these native turtles, where they are found, and what their habitat requirements are. Also learn about their dependence on clean water, what problems they face, and the importance of monitoring their populations. This session will include a hands-on component for identifying live native turtles.

Adopt-A-Stream Junior - Let's Get WET! (Classroom and Field)

K-5th grade children of Confluence attendees are invited to participate in a special session designed just for them! This session will feature Project WET activities, guest speakers, live animals, crafts and a nature hike. For a \$10 registration fee, students can sign up for the morning session (8:30-12), afternoon session (2:00-4:00) or both and the cost of lunch is included (students will meet with their parents for lunch and free time from 12:00-2:00). Participants should dress according to the weather as activities will be held both inside and out. Join us for a fun day of learning about our water world!

Session 2

11:00 am – 12:00 pm

Water Policy, Protection & Planning (Classroom)

➤ **Legislative Updates in Georgia**

Join Kevin Jeselnik, General Counsel for Chattahoochee Riverkeeper, to learn about recently passed or currently proposed legislative updates that affect water quality protection in Georgia.

➤ **Protecting Georgia's Waters**

In this session, Dr. Ania Truszczynski, Assistant Branch Chief in the Environmental Protection Division's Watershed Protection Branch, will provide an overview of EPD's efforts to protect Georgia's waters through existing regulatory and non-regulatory programs, and updates regarding rule making changes that address water quality, water efficiency, and drought protection in Georgia.

Ocean Acidification: What Is it and Why Should I Care? (Classroom)

Ask a roomful of people what impact burning fossil fuels is having on our planet and a large percentage of them will answer correctly that it is affecting climate and causing the Earth to warm up. In contrast very few, if any, will know that burning fossil fuels is also causing the world's oceans to become more acidic, a process known as ocean acidification. Danny Gleason, Director of the Institute for Coastal Plain Science at Georgia Southern University will provide a summary of the basic chemistry behind ocean acidification, outline some of the unusual and significant ways ocean acidification is affecting marine organisms, and provide some recommendations on what we can all do to decrease the rate at which the oceans are acidifying.

Mapping Your Watershed Online (Classroom)

Join Dr. Christopher Kodani, Associate Professor of Biology at Clayton State University, to learn what a watershed is, and how it can be easily and quickly mapped using ArcGIS Online. Participants can bring a web-enabled device, such as a laptop or a tablet to create a basic map showing their sampling site, and then we can combine these maps into a large, interactive watershed map that will contain everybody's watershed.

What to bring: Tablet or laptop

Birds of Prey (Classroom)

Have you ever wondered how an owl can turn his head so far, or how an eagle can find fish under water? Join Kathy Church, of Georgia's Department of Natural Resources, in a high-flying discussion on Birds of Prey. Learn how these precision aerial hunters impact all of Georgia's ecosystems. Through mounted specimens, a PowerPoint, informative discussion, and a smattering of humor you may be surprised to learn how perfectly these majestic animals are adapted for hunting superiority!

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Session 3

2:00 pm – 4:00 pm

Aquatic Habitat Connectivity (Classroom & Field) (limited to 25 participants)

Every time you cross a stream on a road or trail, there is a structure in place to enable that crossing – many of these structures are poorly designed or have become degraded over time so they cut off the ability of aquatic organisms to move between habitats, and they can be unstable/prone to failure during storm events. Join staff from The Nature Conservancy to learn why aquatic habitat connectivity is so important to fishes, amphibians, mussels, and other species and how to assess the level of barrier presented by culverts under road crossings. We will spend a short time in the classroom going over the basics of aquatic connectivity and the methods used for measuring barriers. Then, we will visit several structures to apply what you learned, and how you can incorporate culvert assessment in your data collection workstream.

What to bring/wear: boots for wading in a stream and wear appropriate clothing for being outdoors. If you have a clipboard, bring it; we will provide as many as we can.

Stream of Plastic in Georgia (Classroom)

Join experts from Athens-Clarke County and the University of Georgia for a session packed with all the information you've been searching for when it comes to plastics. Topics include recycling, practical applications, plastics in our waterways, new methods for remanufacturing, and more!

Talks and presenters include the following:

- Plastics in the Recycling Stream in Georgia
 - Suki Janssen, Director Athens-Clarke County Solid Waste Department
- Plastics in Our Streams and Waterways (Monitoring with Marine Debris Tracker)
 - Jambeck Research Group, University of Georgia
- Technology to Keep Plastics Out of the Waste Stream (Solution Framework, Can I Recycle This)
 - Jambeck Research Group, University of Georgia
- Keeping the Stream of Plastics Out of Our Homes (Repair Cafes and more)
 - Mason Towe, Program Education Specialist Athens-Clarke County Solid Waste Department
- New Methods to Remanufacture Plastics
 - Dr. David Blum, University of Georgia, Director Bioexpression and Fermentation Facility and Master of Biomanufacturing and Bioprocessing

Wetland Monitoring and Delineation (Field trip) (limited to 15 participants)

Stream-associated wetlands are vital habitats for a wide diversity of plant and animal life. Jurisdictional wetlands are protected by law. Come to this workshop and learn from experts, Al Tate and R. Michael Carter, about the basics of how to recognize ecological and jurisdictional wetlands as defined by vegetation, soils and hydrology in the field.

Native Fishes of Georgia (Classroom & Field) (limited to 25 participants)

Join Ani Popp, GA DNR Fish Biologist, Michael Wolfe of the North American Native Fishes Association and Camm Swift, Emeritus Ichthyologist at Natural History Museum of Los Angeles County, for an experience exploring a headwater stream and observing its native fishes. During this session, they will demonstrate and discuss sampling and viewing techniques. There will also be opportunities to get firsthand experience with the diversity of native fishes that are right here in our streams.

What to bring/wear: boots for wading in a stream and wear appropriate clothing for being outdoors.

Aquatic Macroinvertebrate Ecology and Life History (Field) (limited to 25 participants)

Interested in strengthening your identification skills and getting more experience with benthic macroinvertebrate identification? Come join experts Damon Mullis, Ogeechee Riverkeeper, and Dr. Checo Colon-Gaud, Georgia Southern University, as they provide tips and guidance as well as information on the life history and ecology of this amazing aquatic community.

What to bring/wear: waders or boots for wading in a stream and appropriate clothing for the outdoors.

Streambank Restoration (Field) (limited to 40 participants)

This session will occur along a sparsely vegetated section of Smith's Creek adjacent to some popular fishing cabins within the park. A nearby road that makes it easy to fish from the banks has led to denuded vegetation; constant mowing of the adjacent riparian corridor has allowed runoff to undercut the old crib structures built along the toes several decades ago. (Impacts from road runoff in the middle of a state park? Who'd a-thunk it?) In this session, Jack White will provide an overview of the basic principles of streambank stabilization and demonstrate some techniques that volunteers may be able to use on their own property or community project, rural or urban.

What to bring/wear: Gloves are nice, and water to drink. If you have waders or hip boots, into beautiful Smith's Creek you may go, assuming the water levels and temperatures cooperate. There's also plenty to do on top of the bank and in the corridor. Clothes you can get dirty and perhaps cleaner ones to change into afterwards will do the trick.

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More Events

Awards Ceremony: AAS volunteers, watershed groups, and trainers will be honored for their efforts at our annual awards ceremony, which will be held during the lunch break.

Informal Social, Special Presentation by Freshwaters Illustrated and Hidden Rivers Documentary Screening:
New this year, Saturday night will hold another opportunity for networking and education. Jeremy Monroe, Executive Director of Freshwaters Illustrated, will be with us to discuss upcoming projects and the making of the Hidden Rivers documentary with a screening to follow.

[Documentary Description](#): Hidden Rivers is a 1-hour film that explores the rivers and streams of the Southern Appalachian region, North America's most biologically rich waters. The film follows the work of conservation biologists and explorers throughout the region - revealing both the beauty and vulnerability of this aquatic life - and how many people are finding ways to protect these ecosystems.

~~~~ **Sunday, March 29<sup>th</sup>** ~~~~

## Session 4

9:00 am – 12:00 pm

### **Group Hike (Field)**

Join in for a wonderful hike along the headwaters of the Chattahoochee River at [Duke's Creek Falls](#). Please be aware of the parking fee (cash only) and the location. Carpool is encouraged as parking is limited at the National Forest lot.

*What to bring/wear:* boots for hiking, appropriate clothes for being outside in the weather.

### **Fly-Casting 101: Learn to Fly-Cast (Field): 9am - 11am**

*Smith Creek, ages 10 and above*

Join the Upper Chattahoochee Chapter of Trout Unlimited for fly casting lessons for new casters and those with limited experience. A Certified Casting Instructor will focus on fly casting basics and improving your technique with assistance from Trout Unlimited volunteers. Participants will meet at the field adjacent to Smith Creek parking lot (called "the bottoms" by Unicoi staff). State park pass required for parking (included if you book a room and stay at the Lodge), \$5 at Lodge front desk if you don't have one.

Note: You will not be fishing but will be able to discuss many aspects of fly fishing outside of the casting session.

*What to bring/wear:* appropriate clothes for being outside in the weather, fly rods (if you have them, otherwise provided), eyeglasses or sunglasses for safety.

### **Streambank Restoration Tour (Field) (minimum of 6 participants, maximum of 12 participants) Cost: \$10**

This 3-hour van tour will showcase stream, lake shoreline and riparian restoration projects in the Hiwassee River watershed. The tour will be led by MountainTrue staff members, Callie Moore and Tony Ward.