

ADOPT-A-STREAM CONFLUENCE



CONFLUENCE 2024 SPONSORS

Thank you for helping support our annual conference!

CONFLUENCE LEVEL





WATERSHED LEVEL









HEADWATERS LEVEL











TRIBUTARY LEVEL

Alliance Theater & Center for
Puppetry Arts
Atlanta Gladiators
Atlanta Botanical Garden
Bear Creek Nature Center
Blue Ridge Scenic Railway
Booth Western Art Museum
Brasstown Valley Resort & Spa

Broad River Outpost
Callie & Phillip Moore
Cane Creek Vineyard
Elachee Nature Center
Etowah Meadery
Georgia Power
GIAIM

Gibbs Gardens Heartfeltary Studio Len Foote Hike Inn Marlow's Tavern Mountain True Okaboshi Orvis

Pure Bliss Organics
Six Flags/White Water
Soaps by Sheryl
Stroud Water Research
Science Center
Tellus Museum
Xocolati

Phinizy Swamp & Nature Center

SCHEDULE OF EVENTS

FRIDAY, MARCH 22ND

Beach House at
Unicoi State Park

5:00 PM-9:00 PM Adopt-A-Stream Social

Registration, Dinner, Water
Science Poster Session, WaterThemed Trivia

SATURDAY, MARCH 23RD Lodge at Unicoi State Park

7:15 AM-8:15 AM Coffee and Networking

Main Hall Lobby

7:30 AM-8:30 AM Registration and Breakfast

Main Hall Lobby

8:30 AM-9:30 AM Welcome and Keynote

Main Hall

9:40 AM-10:40 AM Session One

Various Locations

11:00 AM-12:00 PM Session Two

Various Locations

12:00 PM-12:30 PM Lunch

Main Hall

SCHEDULE OF EVENTS

SATURDAY, MARCH 23RD

Lodge at Unicoi State Park

12:45 PM - 1:45 PM

Adopt-A-Stream Year in Review and Awards Ceremony

Main Hall

2:00 PM - 4:00 PM

Session Three

Various Locations

4:30 PM - 5:30 PM

Closing Remarks

Main Hall

Announce Silent Auction and Raffle Winners

Main Hall

5:30 PM - 6:30 PM

Networking and Drinks

Smith Creek Tavern

SUNDAY, MARCH 24TH

Lodge at Unicoi State Park

9:00 AM-12:00 PM

Session Four

Various Locations

FRIDAY SOCIAL

5:00 PM-9:00 PM

Friday, March 17th

WATER SCIENCE POSTER SESSION



This session during the Friday 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 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!

CONFLUENCE SUSTAINABILITY

Be sure to bring your own mug, reusable water bottle and straws, as well as any other tools and ideas to make Confluence the most sustainable it can be!

Check out the Green Team table for raffle tickets and special sustainable prizes for contributing to Confluence's green efforts!

WELCOME & KEYNOTE PANEL 8:30 AM-9:30 AM

Saturday, March 23rd

CHRIS KODANI

PROFESSOR OF BIOLOGY, CLAYTON STATE UNIVERSITY

RUTH MEAD

EDUCATION DIRECTOR, PHINIZY CENTER FOR WATER SCIENCES

CALLIE MOORE

WESTERN REGIONAL DIRECTOR, MOUNTAIN TRUE







Join three seasoned Adopt-A-Stream volunteer trainers with highly diverse backgrounds in academic research, environmental education and watershed management to discuss how they utilize citizen science and Adopt-A-Stream in their environmental careers.

Dr. Chris Kodani has been AAS certified since 2002. Serving as the local coordinator for Clayton County, he's a previous winner of the Innovation in AAS Award for a published research project using AAS data that focused on macroinvertebrate community health and the imperviousness of their watershed.

Ruth Mead has served as an AAS trainer since 2004 and is currently on the GA AAS Advisory Board. A master naturalist and awarded educator, Ruth has been instrumental in developing and implementing environmental programs at Phinizy Swamp since 2000.

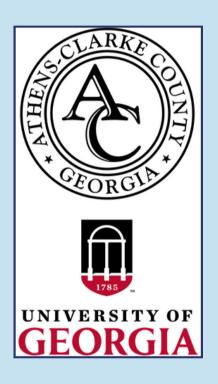
Callie Moore's experience includes serving as the Director of the Hiwassee River Coalition for 17 years and as a river basin planner for the North Carolina DNR. In her current role with Mountain True, she builds support for environmental issues in the region and oversees all programmatic activites, including their water quality monitoring programs.

SESSION ONE

9:45 AM-10:45 AM

Saturday, March 23

GEORGIA PLANTS & WATER WILDLIFE



NATIVE & INVASIVE PLANTS

Jessica Warren

County Extension Coordinator, University of Georgia

Join UGA Extension Agent Jessica Warren to learn about Georgia's native plants and their importance of natives to ecosystem health, wildlife and pollinators. We'll discuss how to get started on your own native plant garden, and common obstacles including where to purchase native plants, HOA restrictions, and other limiting factors.

In the second half of this session, join Jessica to learn about the invasive plant species affecting Georgia's ecosystems and how you can make a difference in your landscape and beyond. We'll discuss specific species, the threats they pose, and what is being done to combat them.



WONDERFUL WATER WILDLIFE

Kathy Church Wildlife Interpretive Specialist, GA DNR

Join Kathy Church with GA DNR Wildlife Resources to look at some of the cool animals that rely heavily on waterways and why, such as eagles, otters, raccoons, and snakes. Learn how their interactions affect the aquatic systems themselves, and plan to see some regal specimens in person!

SESSION ONE

9:45 AM-10:45 AM

Saturday, March 23

EXPLORING DAM REMOVAL & WETLANDS

DAM REMOVAL IN GEORGIA

Ben Emanuel

Director, Southeast Conservation, American Rivers



Few things have such a fundamental impact on a river as a dam. Dams block the movement of fish and other aquatic life, inundate river habitat, impair water quality, and alter the flow regime necessary to sustain river life. Selective removal of dams, particularly those that are outdated or unsafe, can be an economical and effective solution for eliminating dam-owner liability and improving river health. Come and learn the latest about the growing dam removal community and practice across the country and here in Georgia!

IDENTIFICATION OF DOMINANT WATER SOURCES TO WETLANDS

Bruce A. Pruitt Hyrdroscape



Wetlands are classified using three major properties, including dominant water source(s). Major classes of wetlands such as riverine, depression, and tidal fringe will be illustrated, and wetland classifications will be presented with an emphasis on the dominant water source(s) common to each class. Join us to discuss a wide range of topics related to wetlands and leave with a better understanding of wetland ecology including the relationship between organisms and their environment, assessing physical, chemical and biological functions of wetlands, wetland functions and wetland regulations.

CONFLUENCE 2024 SESSION ONE 9:45 AM-10:45 AM

Saturday, March 23

CITIZEN SCIENCE TOOLS



INTRODUCTION TO ADOPT-A-STREAM

Ruth Mead Education Director, Phinizy Center for Water Sciences

Join seasoned Adopt-A-Stream trainer and environmental educator Ruth Mead as she introduces you to the State water quality volunteer monitoring program – also known as citizen or community science. Ruth will guide you through how to get started in the program, the different ways you can engage in water monitoring and protections, and why it's so important!



VIRTUAL HABITAT ASSESSMENT

John Butler

Water Resources Outreach Manager, Gwinnett County

In the second half of this session, John Butler will introduce virtual tools for investigating stream habitat assessments. Being able to understand the health of a stream through visual assessment is an important skill; learning about these tools will help you bring the world of habitat assessments to virtually anyone.

SESSION ONE

9:45 AM-10:45 AM

Saturday, March 23

ADOPT-A-STREAM JR.



AAS JR. - LET'S GET WET!

Monica Kilpatrick Coordinator, Georgia Project WET

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 sessions (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).



What to bring/wear: 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!

CONFERENCE REMINDERS

SILENT AUCTION

Thanks to the 2024
Fundraising Committee,
AAS has numerous
handmade items, tickets,
weekend getaways, and
more available at our
silent auction.

The auction will open Saturday morning and close at 4:15pm on the same day. Be sure to get those bids in so you don't miss out on these special opportunities!

COVID GUIDELINES

AAS staff are so looking forward to joining back together for an in person Confluence this year!

While COVID incidents have subsided, please be mindful of others – regularly sanitize and understand that we follow the CDC's guidelines for staying safe. Let's make this a safe environment for everyone!

VOLUNTEER

This conference wouldn't be possible without our volunteers!

Your assistance throughout the conference would be much appreciated. To learn more about how you can help out, you can talk to a conference volunteer, AAS staff member, or get additional information at the registration table. Thank you!

SESSION TWO

11:00 AM-12:00 PM

Saturday, March 23

WATER POLICY, PROTECTION, & PLANNING



PROTECTING GEORGIA'S WATERS

April Lipscomb Senior Attorney, Southern Environmental Law Center

April Lipscomb, Staff Attorney with the Southern Environmental Law Center, will provide a brief overview of the federal Clean Water Act and the types of water bodies that are protected under federal law. In this session, you will also learn which water bodies may lose protection or gain protection under the Clean Water Act, based on efforts by the EPA to change the definition of "waters of the United States." Participants will also learn the difference between state waters, which are protected by Georgia law, and waters of the United States.

LEGISLATIVE UPDATES

Ania Truszczynski Watershed Protection Branch Chief, GA EPD



In this session, Ania Truszczynski, Branch Chief of 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 rulemaking changes that address water quality, water efficiency, and drought protection in Georgia.

SESSION TWO

11:00 AM-12:00 PM

Saturday, March 23

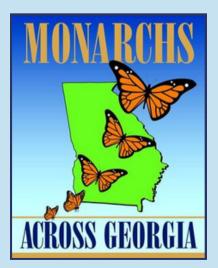
GEORGIA'S WILDLIFE



BATS OF GEORGIA

Emily Ferrall Wildlife Biologist, Wildlife Resources Division

Bats are elusive creatures of the night, but they occur throughout all of Georgia. Join a Georgia DNR bat biologist to learn about the 16 bat species in the state, how they are tied to water, the threats they face, and ways to help Georgia bats. Listen in and learn how the Georgia bat team is working together with aquatic biologists to survey for bats while reporting on stream crossing and connectivity issues under Georgia roadways.



MONITORING MONARCHS

Susan Meyers Board Member, Monarchs Across Georgia

While monarchs are intrinsically important, the actions we take to sustain their populations are also water stewardship practices. Creating pollinator habitats in floodplains and riparian buffers can provide shelter and food for a variety of organisms, as well as protect our aquatic ecosystems and the precious water that we rely on for recreation and survival. Discover the best native plants to install to provide nectar and pollen in three bloom seasons, to slow runoff and reduce contaminants from reaching our waterways.

SESSION TWO

11:00 AM-12:00 PM

Saturday, March 23

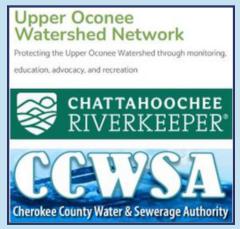
NATURAL INFRASTRUCTURE & SCIENCE COMMUNICATION



CONSTRUCTED WETLANDS

Percy Nolan
Regional Manager, ESG Operations an
Inframark Company
Constructed wetlands plat a vital role in
removing nutrients and pollutants from waste
water treatment facilities. They also provide
incredible wetland habitat to a diversity of
flora and fauna. Attend this session to learn
more about how and why you should support
these incredible functional green facilities!

ENGAGING YOUR CITIZEN SCIENTIST PANEL



Julia Schmitz, Debra Dooley & Megan Robertson Upper Oconee Watershed Network

Jess Sterling Technical Programs Director, Chattahoochee Riverkeeper

Lori Forrester Public Information Specialist, Cherokee County Water & Sewage Authority

Join communications experts from throughout the state to learn how to attract and retain citizen science volunteers, and how to better communicate science in your communities, classrooms and beyond!

SESSION TWO

11:00 AM-12:00 PM

Saturday, March 23

ADOPT-A-STREAM JR.

AAS JR. - LET'S GET WET!



Monica Kilpatrick Coordinator, Georgia Project WET

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 sessions (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).



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CONFLUENCE SUSTAINABILITY

Change starts with us and the simple choices we make each day. If we want healthier ecosystems and cleaner water, the choices we make now matter.

-Jessica Warren, AAS Board, Green Team Committee, Confluence Speaker

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Check out the Green Team table for raffle tickets and special sustainable prizes for contributing to Confluence's green efforts!

SESSION THREE

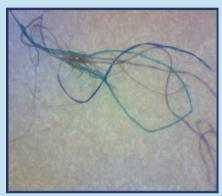
2:00 PM-4:00 PM

Saturday, March 23

MICROPLASTICS

MICROPLASTICS IN OUR WATERS

Callie Moore, Mountain True & Jessica Sterling, Chattahoochee Riverkeeper



Plastics, particularly microplastics, are a pervasive issue in our waterways and have been shown to have profound consequences on both ecosystem and human health. In this session, participants will learn about the harmful impacts of plastics in the environment and projects to quantify microplastics in the Chattahoochee and Hiwassee watersheds. Speakers will also provide recommendations on how the information can be used to inform the public and local officials about the plastics problem and ways to reduce your plastic footprint. In the lab, participants will receive training to collect, filter and quantify microplastics in their waterways.

GEORGIA BEES



NATIVE BEE BOX WORKSHOP

Jessica Warren

County Extension Coordinator, University of Georgia

Join Jessica Warren to learn about our native bees and their habitat needs. Participants will construct, decorate, and take home a nesting box for solitary nesting bees. We will be using drills and hammers, but no experience is required!

SESSION THREE

2:00 PM-4:00 PM

Saturday, March 23

FIELD SESSIONS

STREAMBANK RESTORATION (FIELD SESSION)

Jack White

This session will focus on tactics for streambank restoration, where participants will get the opportunity to work on an actual stream restoration project! Both biodegradable (geotextile mats and wattles) and natural materials (rocks and tree limbs) will be used to establish a vegetated riparian corridor and stable streambanks. It aspires to provide an overview of restoration techniques that will be effective in a variety of urban and rural settings. This is an expansion of a project begun last year and will begin with an examination of what worked and what didn't.

What to bring/wear: Waders or boots for working in a stream, field clothes for working in the dirt and a change of clothes for afterwards.

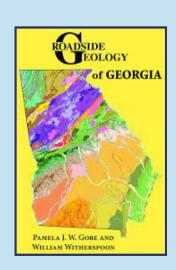


Bill Witherspoon

The geology of your adopted watershed helps determine its sediment load, the conductivity and pH of its waters, and of course, the kinds of rocks and minerals you will encounter while monitoring. Bill Witherspoon, co-author of the popular guide *Roadside Geology of Georgia*, introduces the geologic regions of Georgia and their influences on streams. The latter part of this workshop will include a caravan to Anna Ruby Falls Visitor Center, about 15 minutes from the meeting, to enjoy the geology along lovely Smith Creek.







SESSION THREE

2:00 PM-4:00 PM

Saturday, March 23

FIELD SESSIONS

AQUATIC MACROINVERTEBRATE ECOLOGY & LIFE HISTORY (FIELD SESSION)

Dr. Checo Colon-Gaud, Georgia Southern University & Damon Mullis, Ogeechee Riverkeeper



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. Feel welcome to bring your own nets and trays if they have them, but nets and trays will be provided.

HABITAT ASSESSMENT SURVEY (FIELD)

Dr. Chris Kodani, Cody Jones & Bob Bourne



Come learn how to complete the Stream Habitat Survey with experienced trainers on a beautiful stream in one of North Georgia's most scenic state parks! Your voluntary participation in this 2-hour workshop is greatly appreciated, as the data collected will help in an Adopt-A-Stream research study on how accurate our volunteers are in scoring stream habitats. By interacting with experienced trainers, you can expect to be a more accurate and precise stream habitat assessor!

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

SESSION THREE

2:00 PM-4:00 PM

Saturday, March 23

ADOPT-A-STREAM JR.

AAS JR. - LET'S GET WET!



Monica Kilpatrick Coordinator, Georgia Project WET

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CONFERENCE REMINDERS

T-SHIRTS

Don't forget to stop by the registration table to pick up your Confluence 2024 t-shirt (must have registered by March 6th).

MEALS

Remember, you are responsible for your own meals on Saturday evening and Sunday morning.

Confluence registration only includes Saturday breakfast and lunch.

MERCH

AAS will also have limited quantities of custom hats available for purchase at the registration table. Be sure to check these out and support future conferences with your purchases.

SESSION FOUR

9:00 AM-12:00 PM

Sunday, March 24

ART AND NATURE

WATERCOLOR PAINTING: THE JOYS OF CAPTURING NATURE THROUGH WATERCOLOR

Alexa Robinson



Join Alexa Robinson, fellow nature lover and amateur artist, in studying the basics of painting nature and using watercolors. This workshop is as much about the joy and therapy of creating as it is about learning to paint. We will look at different drawing and painting techniques involving watercolor paint, allowing participants to potentially try something new or just take joy in creating. No drawing or painting experience needed!

What to bring/wear: Comfortable clothing, remember that you may get paint on them. Feel free to bring other supplies you may want to work with, and a chair if you have one.

NATURE PHOTOGRAPHY

Anne Ledbetter



Join local photographer and Adopt-A-Stream volunteer Anne Ledbetter to learn some simple ideas that will give your photographs a real boost in this hands-on nature photography workshop. This session is good for all photography levels, whether you use your cellphone or a camera with interchangeable lenses. In the workshop we will discuss how to really see your subject and composition, ways to really make your subject standout, and how to look for elements that will take away from your picture.

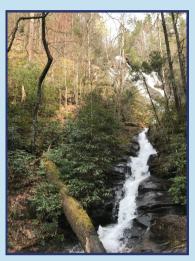
What to bring/wear: Bring your camera/device. We will start inside then move outdoors, so bring clothes suitable for the weather.

SESSION FOUR

9:00 AM-12:00 PM

Sunday, March 24

EXPERIENCES IN NATURE



DUKES CREEK NETWORKING WATERFALL HIKE (FIELD)

Join Adopt-A-Stream staff and your fellow clean water advocates for a relaxed, short hike to the beautiful falls on Dukes Creek, a world famous trout stream. Plan to carpool and bring cash to pay for parking!

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

THANK YOU!

This conference wouldn't be possible without the support from our sponsors and silent auction donors, our expert speakers, the guidance from the Adopt-A-Stream Advisory Board and Confluence Conference Committee, and the commitment of all AAS volunteers.

Thank you for your dedication and support.

Special Thanks to the Confluence 2024 Conference Committee Members:

Bob Bourne
Jean Brown
R Michael Carter
Lacey Davis
Greta Donato
Will England
Lori Forrester

Harold Harbert
Mike Kahle
Monica Kilpatrick
Chris Kodani
Erin Lincoln
Cecilia Nachtmann
Luke Roberson

Alexa Robinson Javier Sayago Jess Sterling Jessica Warren Jack White

NETWORKING OPPORTUNITIES

Want to meet other water-minded individuals from throughout the state and beyond? Join us for our Saturday morning coffee hour from 7:15-8:15 AM, the Saturday evening happy hour, and/or breakfast on Sunday morning for the chance to network with your fellow AAS volunteers, trainers, coordinators, and more! Please note that Sunday morning breakfast will not be included in the cost of registration.

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.

CONFLUENCE 2024 POSTER SESSION PRESENTERS

ADOPT-A-STREAM VOLUNTEER

Assessment of the Reliability of Escherichia coli and Enterococci as Indicators of Fecal Contamination in Freshwater and Marine Water Joshua Pate
Altamaha Riverkeeper

GRADUATE

A Spatial Analysis of Sanitary Sewer Pump Stations Near Adopt-A-Stream Sampling Sites in Gwinnett County Imani Vincent Georgia State University

UNDERGRADUATE

Water Quality Analysis of Ten Douglas County Streams that Feed into the Chattahoochee River

Cost Efficient Remote Automated Monitoring System Afrah Ayim-Darko Kennesaw State University

AJ Williams, Henry Armstrong, Cole Meyers, Dr. Tien Yee Kennesaw State University

CONFLUENCE 2024 POSTER SESSION PRESENTERS

UNDERGRADUATE

Investigating the Impacts of Human Interaction on Water Quality of Petey Creek

Water Quality Monitoring in the Kinchafoonee-Muckalee Watershed

Ogle Creek: An Investigation into Diminished Water Quality

Integrative Conversation: Designing Water Quality Monitoring to Address Citizen Concerns

Mackenzie Roberson, Alicia Walker, Lyla Gomez

Oglethorpe University

Devin Fincher
Georgia Southwestern State
University

Priscilla Omotara and Edwin Meyer

Oglethorpe University

Jasmine Longmire

The University of Georgia, The Board River Watershed Association

HIGH SCHOOL

How Does Human Development Affect an Urban Wetland?

GOFeO-Fluid: A Novel Method to Remove Microplastics

Catherine Blackburn

Decatur High School

Hannah Coley
Rockdale Magnet School of
Science & Technology

THANK YOU FOR JOINING

CONFLUENCE 2024

SEE YOU NEXT YEAR!



Volunteer Water Quality Monitoring

Please send any feedback, questions and/or future ideas to AAS@dnr.ga.gov

We value your input!