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COMMUNITY FEATURE: SAFE WATER TOGETHER



Photo: Community volunteer scientist using Adopt-A-Stream methods to assess local water quality

One of Georgia's original eight counties, Glynn County in Southeast Georgia is home to charming communities, robust history and beautiful natural resources including coastline, barrier islands, and marshes. It's also home to four EPA Superfund Sites listed by the U.S. Government to have high levels of pollution. While both public and private groups monitor pollution levels around Glynn County, the hazards of recreational use such as fishing or swimming in polluted waters have historically not been effectively communicated to the surrounding communities - especially minority black and brown communities. With many residents collecting their own seafood due to economic hardship, geographic proximity and lack of environmental education, this is both a health and environmental justice problem impacting the everyday lives of community members in towns like Brunswick, Georgia.

"Safe Water Together at Glynn County" is a community-based participatory research project based in Brunswick that was recently formed to address the environmental justice and scientific inclusion issues that have a negative effect on the communities most susceptible to environmental hazards. Sponsored by the Partnership for Inclusive Innovation (PIN), this endeavor is a partnership between the Institute for Water & Health at Georgia Southern University, Glynn County, the City of Brunswick, Community First Planning Commission, and citizen scientists.

Under Safe Water Together at Glynn County, the Safe Water Ambassador Group (SWAG) is a minority-lead team of trained, paid community members who collect water chemistry and bacterial data using Georgia Adopt-A-Stream (AAS) monitoring methods and protocols. Equipped with a community-owned, advanced IDEXX lab set up in downtown Brunswick and all the materials needs to collect and analyze data, SWAG has been routinely monitoring their local water quality since early May 2024. After data collection, volunteers partner with the Institute for Water & Health researchers, students, and PIN summer interns to analyze and interpret the data together for dissemination to their communities. The group is actively overcoming traditional barriers in science communication by addressing the following questions head-on: 1.) Who gets to do science? and 2.) What does a scientist look like? This data is collected by the people, for the people, and is relayed in an innovative way with hopes that the science can be translated into actionable results towards improving the health and environment of black and brown residents in Brunswick.

The data collected by this community research team using AAS protocols will be used to assess how hazardous waste impacts the environment and human health, and how implementing a black and brown science program will improve water stewardship in communities. Follow along and get to know Safe Water Together volunteers on the Institute for Water & Health YouTube channel!

CONFLUENCE 2024: RECAP



Photo: Confluence 2024 Award Winner River Rocks, painted by Linda Albrecht

Thank You!

Thank you to everyone who joined us at Confluence 2024, and a special thank you to our wonderful volunteers who worked hard to make it such a success! We had a fantastic time connecting with the AAS community, attending interesting field sessions, workshops, poster talks, and lectures. Thank you to our keynote panelists, Dr. Chris Kodani, Ruth Mead, and Callie Moore. We loved hearing how Adopt-A-Stream and citizen science is important and useful in your careers and lives. Thank you to Unicoi State Park and Lodge for hosting us again in the beautiful Appalachian Mountains. Check out more photos from our annual conference in the GA Adopt-A-Stream 2024 Confluence Album on Facebook and send your pictures to be added to the album to AAS@dnr.ga.gov! Finally, thank you to our amazing and dedicated Adopt-A-Stream volunteers from all around the state who continue to make our program successful; we couldn't do it without you!

We can't wait to see you all again in 2025. Please stay tuned for an email announcement regarding Confluence 2025 location and dates, soon!

TOTAL ATTENDEES

23 WORKSHOPS & SESSIONS

SPEAKERS

NETWORKING EVENTS

Thank you to our 2024 Confluence Sponsors! For a complete list of event sponsors, please visit the <u>Adopt-A-Stream website</u>.

CONFLUENCE 2024 SPONSORS

Thank you for helping support our annual conference!

CONFLUENCE LEVEL





WATERSHED LEVEL









HEADWATERS LEVEL



Steven Blackburn & Melissa Stevens



Jacobs





THE IMPORTANCE OF AMPHIBIANS IN WATERSHED MONITORING



Amphibians are a diverse group of cold-blooded vertebrates that are classified into three main groups: Anura (frogs and toads), Caudata (salamanders and newts), and Gymnophiona (caecilians). The word "amphibian" means double life, which rings true for most species in the class Amphibia. Many species have a multi-phasic life cycle across aquatic and terrestrial environments with metamorphosis separating their larval, juvenile, and adult stages.

Amphibians have survived more than 300 million years through numerous and drastic environmental changes, which is why scientists are alarmed by their recent and rapid decline around the world.

Amphibians are particularly sensitive to changes in their environment due to their complex life cycles, permeable skin, and reliance on water. Most species require a water source for survival and reproduction - laying their eggs either directly in water or on land in moist places. With no hair, scales, or other barriers for protection, their skin is highly vulnerable to pollutants and toxins that can be found in waterways and to disturbances like drought. For these reasons, they can serve as excellent biological indicator species, whose absence or presence and health in an ecosystem can give scientist insight into their environment and environmental changes on both large (e.g. pathogens) and small scales (e.g. fertilizers and sewage spills).

Georgia Adopt-A-Stream program offers an Amphibian Monitoring Workshop where volunteer citizen scientists learn how to monitor for frogs through passive methods, such as vocalizations, to assess populations. Volunteers will also learn about general life history, active sampling methods, and the importance of gathering baseline life history data for conservation planning. The Adopt-A-Stream state team are currently working on a partnership to expand and update our amphibian monitoring program, so please stay tuned for more and contact your <u>local</u> <u>coordinator</u> or the state office at AAS@dnr.ga.gov to learn more about how you can help monitor and protect Georgia's 85+ amphibian species!



UPCOMING WORKSHOP OPPORTUNITIES



Get certified or recertified in an AAS monitoring program! You can find workshop opportunities and details on the <u>workshop calendar</u> on the AAS website, or contact your <u>local coordinator</u> or AAS@dnr.ga.gov to set up a workshop in your area.

- Thursday, August 8: Bacterial QA/QC Workshop with Cobb County Water Systems (6:30pm - 9:00pm)
- Thursday, August 8: Bacterial QA/QC Workshop with Gwinnett Clean & Beautiful (3:00pm - 6:00pm)
- Thursday, August 15: Chemical QA/QC Workshop with Cobb County Water Systems (6:30pm - 9:00pm)
- Saturday, August 17: Chemical & Bacterial QA/QC Workshop with Ogeechee Riverkeeper (9:00am - 4:00pm)

- Saturday, August 24: Chemical QA/QC Workshop with Keep Forsyth County Beautiful (9:00am - 12:00pm)
- Saturday, August 24: Bacterial QA/QC Workshop with Keep Forsyth County Beautiful (1:00pm 4:00pm)
- Tuesday, August 27: Bacterial QA/QC Workshop with Cobb County Water Systems (6:30pm - 9:00pm)
- Saturday, September 7: Chemical QA/QC Workshop with Gwinnett Clean & Beautiful (9:00am 12:00pm)

WELCOME NEW ADOPT-A-STREAM GROUPS!

These groups monitored for the first time in April - June, 2024!

Welcome to the AAS team!

- Sedalia Park Panthers
- Ami Gomes
- PIN Intern Team



West Atlanta Watershed Alliance

View the WAWA event calendar here

Georgia Conservancy

View events by the Georgia Conservancy including workshops, weekend adventures and paddle trips here

GA DNR

<u>Click here</u> to check out the Go Outdoors Georgia events calendar by the GA DNR Wildlife Resources Division

Birds Georgia

<u>Click here</u> for the Birds Georgia event calendar for bird lover events such as webinars, field trips and book club

Science for Georgia

View the Science for Georgia event calendar here

Trees Atlanta

Click here to check out the various events offered by Tress Atlanta

Georgia River Network Paddling Trips

Click here to check out various dates and locations throughout 2024!

If you'd like to become an AAS trainer, please contact the <u>State Office</u> for workshop information.

Visit our online calendar for monitoring workshops and AAS events!

