CONFLUENCE 2017 AGENDA & SESSION DESCRIPTIONS

Georgia Adopt-A-Stream
Volunteer Water Quality Monitoring

Friday, March 24th

5:00 - 9:00	Check-in and Social
	Dinner, Water Science Poster Session
	Featured Speakers: Dr. Tony Martin, Emory University & Ruth Schowalter, Artist and Interplay Leader

Saturday, March 25th

8:00-9:00	Registration-Exhibit Area Open							
9:00-9:10	Welcome-Opening Remarks							
9:10-9:45	Keynote: Dr. Alan Covich, UGA Odum School of Ecology							
10:00-10:10	Break: Disperse to First Session							
Session 1	**Lab** *(25 participants)*	**Room 36** *(25 participants)*	**Room 23**	**Blue Planet Room**	**Room 32: Water Policy, Protection & Planning**	**Room 31**	**Room 35** *(30 participants)*	**Field Trip** *Meet at flagpole in parking lot (40 participants)*
10:10-10:40	**Advanced Macroinvertebrate Identification**	**Native Fishes of Georgia**	no session	**Boots in the Water: The Role of Citizen Science in Watershed Conservation**	**Legislative Updates in GA**	no session	**Rain Garden Demonstration**	**Tour of F. Wayne Hill Center**
10:40-11:10					**Protecting GA's Waters**			
11:10-12:10					**Tips for Grants and Funding**			
12:10-1:10	Lunch, Basin Breakout Meet & Greet, Poster Viewing, Free Time							
1:10-2:10	AAS Year in Review & AAS Awards							
2:10-2:20	Break: Disperse to Second Session							
Session 2	**Lab**	**Room 36** *(25 participants)*	**Room 23** *(30 participants)*	**Blue Planet Room**	**Room 32**	**Room 31: Watershed Tools in Action** *(25 participants)*	**Room 35** *(40 participants)*	**Field Trip** *Meet at flagpole in parking lot (15 participants)*
2:20-3:20	no session	**Native Fishes of Georgia**	**Monitoring Georgia's Amphibians**	no session	**Ichnology & Life Traces**	**Mapping Your Watershed Online**	**Streambank Restoration**	**Wetland Monitoring and Delineation**
3:20-4:20						**Augmented Reality Sand Tables**		
4:20-5:00	Announce Silent Auction and Door Prize Winners, Closing Remarks							
			WORKSHOP	PRESENTATION	FIELD SESSION	*Participant Capacity in Italics*		

⇩ SCROLL DOWN FOR SESSION DESCRIPTIONS ⇩

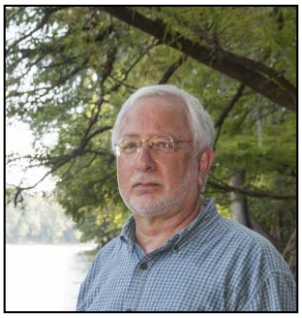
CONFLUENCE 2017 SESSION DESCRIPTIONS

~~~~ Friday, March 24th ~~~~

Water Science Poster Session (Classroom)
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 Science & News page (scroll down).

Ichnology & InterPlay (Classroom)
Dr. Tony Martin, an Emory professor in the Department of Environmental Sciences, is a paleontologist, educator, and author, specializing in the field of ichnology. Ichnology is the study of modern and fossil traces which can be used to interpret behavior. Ruth Schowalter is an artist, InterPlay facilitator, and creativity consultant specializing in Science communication, American English fluency, and creativity. Join these co-leaders for a playful workshop in which participants will improvise on what they know or don't know about Georgia's ecology, engaging participants in moving and speaking imaginatively. The improvisational activities are something anybody can do. Bring your sense of fun and wonder!

~~~~ Saturday, March 25th ~~~~



Keynote Speaker: Dr. Alan Covich

University of Georgia
Odum School of Ecology
Professor, Graduate Faculty

UGA Faculty Profile, Dr. Alan Covich

Keynote Address
9:10 am – 9:45 am

In the keynote address, Dr. Alan Covich, graduate faculty with the Odum School of Ecology at UGA, will discuss impacts of drought on aquatic species diversity. Georgia has a long record of monitoring water quality that reflects strong public concern for environmental quality and protection of the regional biodiversity. From some of the earliest studies on the Savannah River to the ongoing work by agencies and citizen scientists, the documentation of changes in rivers has led to important policies and improvements in habitat quality. However, data on water chemistry and species diversity will be increasingly important given that more extreme variability in rainfall is predicted for the Southeast in the decades ahead. Floods will likely accelerate eutrophication as the intensity of rainfall results in more soil erosion and nutrient runoff to streams. More frequent droughts will reduce habitat connectivity and decrease dissolved oxygen in many small streams. Concern for water storage to avoid impacts of prolonged droughts is generating interest in construction of more dams and reservoirs. Many rivers and streams are already impounded so additional development will have long-lasting impacts on species now living in free-flowing waters. Therefore, innovative means of coping with highly variable flows are needed to provide an opportunity to learn more about how natural patterns of river flows affect life cycles of many species. Join Dr. Covich and other featured speakers for a subsequent two hour workshop and panel discussion on the role of citizen science in watershed conservation.

Session 1

10:10 am – 12:10 pm

Advanced Macroinvertebrate Identification (Lab) *(limited to 25 participants)*
Interested in strengthening your identification skills and getting more experience with benthic macroinvertebrate identification? Come join experts Dr. Checo Colon-Gaud, Associate Professor of Biology at Georgia Southern University, and Damon Mullis, Research Scientist at the Phinizy Center for Water Sciences, as they provide tips and guidance as well as life history about this amazing aquatic community. Feel free to bring photos of specimens from your own site to get confirmation for identification.

Native Fishes of Georgia (Classroom & Field) *(limited to 25 participants)*
Join Amos Tuck, consultant, Larry Eldridge, retired water pollution expert from the Savannah River Site (SRS), 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 Ivy Creek and observing native fishes. They will demonstrate and discuss sampling and viewing techniques and there will 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.

Boots in the Water: The Role of Citizen Science in Watershed Conservation (Classroom)
Join Dr. Alan Covich and Dr. Carol Couch for this featured session moderated by Dr. Stephen Golladay. The purpose of this session is to discuss the value of Citizen Science in contributing to research and conservation needs in the face of future uncertainty. It will focus on water resources in the southeastern US. Challenges moving forward include increasing human needs, continued land development, alteration of water quality, and climate uncertainty. Experts familiar with water resources from a research, policy, regulatory, and conservation perspective will comment on their experiences with Citizen Science. They will also present ideas for how Citizen Science contributes to addressing water resources challenges. Presentations will be followed by a moderated panel discussion.

Dr. Alan Covich is a professor of ecology and former director of the Institute of Ecology in the Odum School of Ecology at the University of Georgia, is a past-president of the International Association of Ecology, the Ecological Society of America, the American Institute of Biological Sciences, and the North American Benthological Society. He chaired Colorado State University's Department of Fishery and Wildlife Biology and was on the faculty of the University of Oklahoma and Washington University-St Louis.

Dr. Carol Couch has thirteen years of experience as a leader and manager of integrated environmental research, including ten years with the United States Geological Survey (USGS), and three years leading Australia's national water research program. She is a former Director of the Georgia Environmental Protection Division (EPD) and member of the faculty of the University of Georgia where she taught ecology and environmental studies.

Dr. Stephen Golladay is an aquatic ecologist with twenty five years' experience as a professor and scientist at the Joseph W. Jones Ecological Research Center and the Odum School of Ecology at the University of Georgia. Dr. Golladay also has assisted in the development of programs to enhance the natural resource awareness of regional educators in cooperation with regional Georgia Youth Science and Technology Centers and is a longstanding member of the Georgia Adopt-A-Stream Advisory Board.

Water Policy, Protection & Planning (Classroom) *(limited to 70 participants)*

- **Legislative Updates in Georgia**
  Join Dr. Chris Manganiello, Water Policy Director at Chattahoochee Riverkeeper, to learn about legislative updates that affect water quality protection in Georgia.
- **Protecting Georgia's Waters**
  In this session, Jennifer Welte, Program Manager for regulatory development and regional water planning 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 rulemaking changes that address water quality, water efficiency, and drought protection in Georgia.
- **Tips for Grants and Funding**
  - **Funding Opportunities**
    In this session, participants will learn about available resources to fund a variety of AAS efforts for small community groups to regional programs. Hear from experts about funding opportunities through the 319(h) Grant Program.
  - **Fund Your Monitoring! Get Grants to Fund Your Adopt A Stream Work**
    Are you a staff member, board member, volunteer or intern that would like to get grants to fund your monitoring and water protection work, but you're not sure where to start? This workshop will demystify the grant-seeking, grant-writing, and grant-getting process and teach you what you need to know to get grants to fund your work. The truth is that there are no special tricks or talents required to get a grant, but there are a few important steps to follow. We'll learn what those steps are, how to navigate them, and how to get grants to fund your projects and programs. *About the instructor:* April Ingle is a 16-year veteran of environmental nonprofits and has sought, written, and received many, many grants for the nonprofits she's led. You can learn more about April here http://www.ingleconsulting.com/about-april.html.

How to Build a Rain Garden (Classroom & Field) *(limited to 30 participants)*

A rain garden is specially designed to capture and clean stormwater runoff before it impacts our streams. At all scales, this natural technique is one of the easiest, most attractive and effective ways of reducing the effects of stormwater on our streams. This hands-on workshop will be led by a team of experts who will teach the basic processes of rain events, designing your rain garden, site selection, soil preparation, plant selection, and maintenance. ***What to bring/wear:*** field clothes and boots for working in the dirt and appropriate clothing for being outdoors.

Tour of F. Wayne Hill Water Resources Center (Field trip) *(limited to 40 participants)*

On this Wastewater Adventure, you will follow the steps of wastewater treatment and see it all, from the grimy, gritty beginnings of the influent to the crystal clear effluent water that is returned to the environment. Discover how the wastewater treatment process can provide us with fuel and fertilizer nutrients, and learn how reclaimed water is used around the county and right here at the EHC. This tour takes two hours to complete. Please wear closed-toe shoes and bring a reusable water bottle. This guided tour requires stairs and time outside. Tour is led by Sandy Aceto, Educator with the Environmental and Heritage Center. Please meet at the front doors of the EHC and we will carpool over to the Facility together.

Session 2

2:20 pm – 4:20 pm

Native Fishes of Georgia (Classroom & Field) *(limited to 25 participants)*
Join Amos Tuck, consultant, Larry Eldridge, retired water pollution expert from the Savannah River Site (SRS), 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 Ivy Creek and observing native fishes. They will demonstrate and discuss sampling and viewing techniques and there will 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.

Monitoring Georgia's Amphibians (Classroom) *(limited to 30 participants)*
Join Mark Mandica of the Amphibian Foundation, Inc., as he shares life history, identification techniques, and conservation efforts of amphibians found in our local ecosystems. In this session you will learn about recognizing frogs and salamanders by adult, larvae and egg stages, as well as frogs by call. Also discussed is the reliance of amphibians on clean water systems, the importance of monitoring them, and what you can do to get involved. This session will include a hands-on component for identifying a collection of native frogs and salamanders.

Ichnology & Life Traces (Classroom)
Ichnology is the study of modern and ancient traces caused by animal behavior, such as tracks, trails, burrows, and nests. Join paleontologist and geologist Dr. Tony Martin, professor in the Emory University Department of Environmental Sciences, for an introduction to basic concepts in ichnology using several examples from the Georgia coast as well as discussion about traces in Georgia riparian zones. In this interactive session, you'll learn about tracks and burrows as well as other traces that are studied in this interesting field.

Watershed Tools in Action (Classroom) *(limited to 25 participants)*

- **Mapping Your Watershed Online**
  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.
- **Augmented Reality Sand Table**
  Join Wendy Seigler, educator and Program Supervisor at the Environmental and Heritage Center, as she leads a demonstration and interactive tour using this versatile hands-on watershed model and topography maps.

Streambank Restoration (Field) *(limited to 40 participants)*
A team of experts will lead this session, focusing on three crucial aspects of stream protection: stormwater impacts at the source, the slope and the banks of the stream. This session will provide an overview and demonstration of basic principles of streambank restoration, reviewing previous year's efforts while engaging new participants in the project. Join us and learn some simple actions that every homeowner can learn and implement to protect urban streams and see how this project has developed on site over the years!
What to bring/wear: boots for working in a stream, field clothes for working in the dirt and a change of clothes for afterwards.

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 about the basics of how to recognize ecological and jurisdictional wetlands as defined by vegetation, soils and hydrology in the field.
Note: Please meet at the front doors of the EHC and we will carpool over to the field site together.

More Sessions

Basin Breakout Meet & Greet: Want to meet other AAS volunteers, trainers, and coordinators in your watershed? Come to meet, share ideas, and see who is doing what in your watershed. A leader who works in the watershed will guide each basin breakout session. Exchange of contact information will be facilitated to encourage post-conference partnerships.

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