

## **FRIDAY MORNING SESSIONS 10:00 TO 12:00**

### **SCHOOLYARD BOTANY**

Steve Bowling, Botanist

Discover the stories behind the plants along the chain link fence, across the soccer field, or anywhere native and naturalized plants exist on your campus. Learn the plants, their historic uses such as medicines, dyes, ink, etc. and other fascinating details in the fun, informative, and easy-going session.

### **PLANT BY NUMBERS — A GARDEN WORKSHOP THAT USES OBSERVATION, MEASUREMENTS, AND BASIC MATH TO DETERMINE WHEN AND HOW MANY PLANTS TO SET INTO THE GARDEN**

Amy Whitney, *Small Garden News*; garden communicator; *Monarchs Across Georgia*

Amy will, with help from the group, demonstrate how garden observation, a thermometer, a calendar, frost-date information, and days-to-maturity data are used to determine planting dates for garden crops. Then, we will consider how changes in plant spacing affect productivity of the garden.

### **CITY SLICKERS — AN INTRODUCTION TO ATLANTA'S FROGS AND SALAMANDERS**

Mark Mandica, *Founder and Executive Director of the Amphibian Foundation in Atlanta*.

The Georgia Piedmont is home to a rich biodiversity including 28 species of amphibians. The Amphibian Foundation, in Buckhead, engages enthusiasts of all ages through a community science program which monitors the amphibians in local parks, streams and neighborhoods. This presentation, which includes live frogs and salamanders, is an introduction to these incredible species, many of which still persist in our urban landscape.

### **TREES ARE TERRIFIC**

Penny Hightower, *Naturalist, Environmental Educator*

Discover great activities that use trees as an exciting vehicle and catalyst for learning. Drawing on curriculum activities from Project Learning Tree and National Wildlife Federation's NatureScope; this fun and informative session will introduce you to ways to use the trees on your campus as great educational resources. Trees are amazing. Join us and discover just how amazing.

### **INVESTIGATING A POND COMMUNITY**

Jerry Hightower, *Park Ranger, Environmental Education Coordinator for the Chattahoochee River National Recreation Area*

Even the smallest garden pool can be a wealth of learning opportunities. In this session we will investigate the macroinvertebrates and the macrovertebrates of the small Garden School pond. We will use nets to acquire materials to investigate and then use identification sheets, hand lens, thermometers, microscopes, and more to identify our critters. What will we catch in our minnow traps? Join in this very exciting investigation and find out.

## **FRIDAY AFTERNOON SESSIONS 1:15 TO 3:15**

### **YOUR LOCAL ROCKS AND HOW THEY FIT THE BIG PICTURE**

Bill Witherspoon, Ph.D., [geogiarocks.us](http://geogiarocks.us), retired geologist and coauthor of *Roadside Geology of Georgia*

Can you identify the most common stones of Atlanta and the surrounding Piedmont and Blue Ridge? Can you explain how they fit into the plate tectonic history that made them, and the weathering and erosion history that exposed them? Use a Kids Rock!™ game to improve your identification skills, see a slide show with animations to grasp the movement of plates and emergence of landscapes in Georgia, and step outside to apply your knowledge.

### **NATIVE BEES AND OTHER BENEFICIAL INSECTS IN THE GEORGIA GARDEN**

Becky Griffin, University of Georgia Extension's Community & School Garden Coordinator

In this session we will explore all aspects of attracting and retaining native bees and other beneficial insects to our gardens.

Native bees are an underrated resource in our gardens. Leaf cutter bees and mason bees are pollinator powerhouses with an anatomy built for pollination. Building pollinator gardens and providing nesting habitat attracts these bees and creates a sustainable pollinator population. These habitat elements also attract other beneficial insects like parasitoids and predators. Discovering the wonders of our native insects is an excellent avenue for educators to provide lessons in engineering (how these bees construct their nests), ecology (which plants attract which insects), and insect diversity (wow!). During this session we will explore how to create the perfect pollinator habitat using Georgia research-based information. We will also create a bee home that you can take to your garden and replicate with your students. I will discuss how to make a classroom insect collection. Closing out the session I will provide you with information on how you, and your students, can participate in the 2019 Great Georgia Pollinator Census (<https://GGaPC.org>), a citizen science project.

### **THE SECRET LIVES OF INSECTS & WHY THEY ARE SO COOL TO TEACH SCIENCE**

Duane M. Jackson, Ph.D, Professor of Psychology and Chair of the Division of Science & Mathematics, Morehouse College

Power Point presentation dealing with a brief overview of insects, followed by scientific experiments that can be done using insects, k-5. Live insects and simple apparatus will be presented. Teachers will have some hands-on experience in the classroom with insects and simple apparatus. We will also go outside, if weather permits, and collect data on insect visitation and look for correlation between insect body type and flower petal type.

### **TEACHING MUSIC IN THE OUTDOORS**

Stefan Moss, Outdoor Afro, Musician, Hiker, Fruit Forager, Environmental Scientist

Music is often described as a universal language. In this session, environmental educators will listen to an array of songs inspired by the natural world and will learn how to develop lesson plans that integrate music into their environmental/earth science classroom activities. The session will provide useful tips on how to engage students using songs from multiple genres of music and how to connect song lyrics to topics like pollution, water conservation, biodiversity, etc.

## **(FRIDAY AFTERNOON SESSIONS 1:15-3:15 CONTINUED)**

### **DRAWDOWN**

Mark Horne, Chair of the Environmental Task Force, Emerson Unitarian Universalist Association

Going beyond carbon-neutrality, the term “Drawdown” refers to the condition where Carbon Dioxide levels in the atmosphere begin to decline. Based on the book edited by Paul Hawken, [Drawdown: The Most Comprehensive Plan Ever Proposed To Reverse Global Warming](#), this session will explore the approach used by the research fellow and the approximately 100 solutions, most already in use today that would enable the citizens of the world to achieve a state of drawdown by 2050. We’ll explore the key findings including many land use and farming solutions.

### **PARTNERING WITH YOUR LOCAL WATER UTILITY TO CREATE A UNIT ON WETLANDS**

Jennifer McLaurin, Environmental Quality and Education Manger, Fulton County Public Works-Water Resources

Hannah Penn, Environmental Education Coordinator, Fulton County Public Works-Water Resources

Join Environmental Educators from Fulton County Public Works to learn about how you can create a standards-based unit on watersheds that is place-based for your school. This lesson planning partnership will help provide an overall view of how human water-use plays into a river ecosystem and will include a project that will engage students in environmental stewardship in their own watershed.

## **SATURDAY WORKSHOPS 9:00AM TO 3:00PM**

### **WOW, WONDERS OF WETLANDS CERTIFICATE WORKSHOP**

*Jerry Hightower, Park Ranger, Environmental Education Coordinator for the Chattahoochee River National Recreation Area*

Join nationally recognized naturalist and environmental educator, Jerry Hightower, and experience 6 exciting hours of first hand, hands-on instruction in the successful environmental education activities found in the *Wonders of Wetlands* curriculum guide. Participants will make their own wetland plant identification wheel, wetland soil identification chart using Crayola crayons, and discover cool interdisciplinary activities that are easy and inexpensive. Much of the workshop will be given outdoors. Participants should dress for outdoor activities and wear comfortable shoes. Everyone will receive excellent educational posters, resource materials, a 330 page *Wonders of Wetlands* Curriculum Activity Guide, a training certificate from the National Park service, and additional lesson plans. There is a \$25.00 fee for the curriculum activity guide.

### **THE WORK THAT RECONNECTS**

*Beth Remmes is a Facilitator for The Work That Reconnects, leader of the Earth Care Team at Unity Atlanta, a member of the Unity Worldwide Ministry Earth Care Team, is on the Board of Directors for Georgia Interfaith Power and Light, and co-founder of The Four Directions Fund.*

This participatory workshop is based on over four decades of community work with thousands of people around the world. It is designed to help you transform fear and despair about the state of the natural world, into inspiration and a sense of empowerment.

During our time together you will have a chance to:

- Connect with joy and gratitude
- Know and honor your feelings about what is happening in our world
- Experience and understand Earth as a living presence, sensing your interconnectedness with other life-forms
- Connect to a deepened sense of purpose in taking action on behalf of Earth

This will be a restorative experience for you as well as provide you with activities that you can take back to your classroom.

### **GETTING LITTLE FEET WET**

**3 HOUR WORKSHOP 9:00 – 12:00 ONLY**

*Monica Kilpatrick, State Coordinator, Georgia Project WET*

Join Monica for a fun-filled session showcasing the latest Project WET publication “Getting Little Feet WET”, Project WET’s Early Childhood Education Guide. Developed specifically for educators working with young learners (ages 3-6) and in coordination with early childhood experts, the Guide contains several interactive, hands-on activities for exploring different aspects of water.