

2019 EEA Annual Conference

From Garden to Table

March 8-10, 2019

Merry Acres Inn & Event Center and Flint RiverQuarium Environmental Education Center

SCHEDULE

Thursday, March 7

7:00-8:00 Thronateeska Heritage Center Planetarium Show
This is a complimentary visit to the museum and Planetarium show screening to EEA members and conference attendees

Friday, March 8

8:00 Check in, Breakfast on your own
9:00 Welcome & Announcements
9:30-11:40 Research Symposium
Monarchs in the Classroom Educator Workshop
Guidelines for Excellence Workshop
Field Trips
12:00-1:30 Lunch (*on your own or with/at field trip location*)
1:30-3:40 Research Symposium
Monarchs in the Classroom Educator Workshop
Project WILD Session (1:30-4:30)
Guidelines for Excellence Workshop
Field Trips
3:45-5:00 Harvest of the Month Presentation
6:15-6:30 Shuttle Services Available to RiverQuarium
6:30 Dinner at RiverQuarium and Social Time

Saturday, March 9

7:30 Check in, Breakfast in Merry Acres Restaurant (or on your own)
8:00 Welcome & Announcements
8:30-8:45 New Member Informational Session
8:45-10:15 Sessions First Block
10:25-11:50 Sessions Second Block
12:00-12:45 Lunch in Merry Acres Restaurant
12:50-1:10 ATEEG Graduation and Dragonfly Grant Recipient Presentation
1:15-2:00 Keynote Address by Rashid Nuri with Truly Living Well
2:30-4:00 Sessions Third Block
4:15-5:45 Sessions Fourth Block
6:00 Dinner in Merry Acres Ballroom
Silent Auction, Awards and Presentations

Sunday, March 10

9:00-1:00 Wildlife Appreciation Festival Activities in Flint RiverQuarium Plaza
9:15-10:45 Dissection of a Rotten Log
Backyard Birders- Think Outside the Nest Box
10:00-11:15 #nofilter Nature Photography
Living Wild Wildlife Presentation

FRIDAY SESSION DESCRIPTIONS

Monarchs in the Classroom Educator Workshop: \$25

Meet at Flint RiverQuarium in the Lab Classroom (9:30-4:30)

LIMIT: 15 persons. This workshop will give educators the information and tools needed to teach pollinator conservation in the classroom using pollinator gardens and citizen science opportunities. Monarch biology and ecology will be the major focus. Monarchs in the Classroom is appropriate for educators of Grades K-8. The \$25 registration fee includes the curriculum guide (K-2nd, OR 3-6th, OR Middle/High grades) and additional resources for each participant.

Guidelines for Excellence Workshop

Meet at the Bridge House, Downtown Albany (9:30-4:30)

In the spring of 2017, NAAEE published the latest in its Guidelines series, *Community Engagement: Guidelines for Excellence*. These guidelines outline steps for creating more inclusive working environments that support social equity, effective partnerships and coalitions and long-term change. This workshop will provide an overview of the Community Engagement Guidelines, by exploring them through several hands-on activities and discussing opportunities to use these guidelines in a variety of professional settings and situations.

Research Symposium (Morning Sessions 9:30-11:40) *Merry Acres Ballroom*

Aquaponics

Mikaela Graf and Kendall Dixon, Davidson Fine Arts School (9:30-10:30)

Aquaponics is a system of aquaculture in which waste produced by fish supplies nutrients for plants grown hydroponically, which in turn, purify the water. This session will discuss the research and methods of an aquaponics system in which lettuce plants were grown. Using smallmouth and shoal bass, 16 plants were grown in just 53 days. The focus of this experiment is to grow lettuce quickly and efficiently without the use of soil, comparing the aquaponics growth to other methods of cultivation.

Agriculture and Pollinators

Jason Schmidt, University of Georgia (10:40-11:40)

Studies show that agricultural land requires investment in the habitat management of non-cropped areas to support healthy beneficial arthropods and the ecosystem services they provide. We will discuss recent research on remotely estimating the benefits of floral resources for pollinators and predatory arthropods. A variety of data was collected from small plots around the Tifton area from small native wildflower plots on UGA experimental farms. We will discuss findings obtained from the floral plots indicating areas with greater blooming flowers contained higher numbers of pollinators. We will also discuss the importance of increasing the amount of native wildflower areas in Georgia landscapes for the future of sustainable agriculture.

Research Symposium (Afternoon Sessions (1:30-3:40) *Merry Acres Ballroom*

What's in Our Water?

Delaney Lann, Clemson University (1:30-2:30)

Through the "What's in Our Waters?" (WOW) educational outreach program, university students work with local high school students to educate them about the human impact on local water systems, demonstrate techniques for water quality sampling, and communicate the results of a water quality study at a local science conference. In this creative inquiry, the undergraduate students act as mentors

in the WOW program, develop instructional videos of field sampling protocols and analyze the survey results from the high school students' participation in the program. From these results, outliers were found to determine what topics were not clearly grasped by students and to determine what was understood by everyone. Students' knowledge from before and after the program were also compared to determine what learning points had the biggest changes or no changes at all. To see how their perspectives of science, biology and the environment changed, pre/post assessments were given to compare their growth.

Destination Ag

Kelly Scott, Georgia Museum of Agriculture (2:40-3:40)

Destination Ag, an agricultural and natural resource program, began using online pre/post assessments to help determine the program's impact to visiting students. This online tool focuses on students' knowledge and attitudes towards agriculture and natural resources and has the capability for becoming a longitudinal study. Is this a possible means to assess environmental education field trip programs? This presentation will review the current project and hopefully lead to a discussion of the assessment's future possibilities.

Project WILD Facilitator Refresher Session: \$30

Meet at Flint RiverQuarium in the Classroom (1:30-4:30)

Kim Morris-Zarneke, Project WILD, DNR Wildlife Resources Division

National Project WILD, with support from several states, revised the terrestrial and aquatic Project WILD Activity guides. As a result, Georgia Project WILD is holding refreshing training sessions for all Project WILD Facilitators to attend and maintain their facilitator status. We will explore the changes made to the guide including layout, forms, resources and new components, such as *In Step with STEM Connections* and *Wild Works*. This three hour session will include a demonstration of two of the new WILD activities as well as a discussion about Flying WILD and Growing Up WILD Activity Guides. The \$30 charge covers books and resources given during the session. *Please note: this is not a session to become a WILD Facilitator, rather an updating session for those already at Facilitator status.*

Harvest of the Month Kits Presentation Session (3:45-5:00) Merry Acres Ballroom

Diana Myers, Georgia State University Coordinated Nutrition Master's Program

Research tells us that a young child's food preferences develop within the first few years of life as an infant transitions from eating one food to a multitude of foods with varying flavor profiles. With the understanding of a young child's influential years, early care facilities have the ability to target these young years and help influence dietary preferences in a healthy, engaging and positive way. For my Capstone Master's Project, four Harvest of the Month (HOTM) Kits were created to be used in Early Care and Education settings with three-to-five-year-olds. These HOTM Kits are to be correlated with Georgia's Department of Education's kindergarten through twelfth grade Harvest of the Month resources. Each kit combined a locally grown Georgia fruit or vegetable, recipe to prepare the seasonal produce, nutritional activity to tie in learning, children's literature connection, handout to send home and a local procurement handout. The purpose of these kits are to provide a hands-on learning experience to enhance children's knowledge of fruits and vegetables through activities and literature connections, allow them an opportunity to try new fruits and vegetables through taste testing and empower them in the kitchen through recipe creations. This presentation will describe these kits, how they tie in necessary standards for early care and education and the implementation of them in classroom settings.

FRIDAY FIELD TRIPS

Providence Canyon & Florence Marina State Park Hike and Boat Tour: \$15 (9:30-5:00)

Come and join on a hike through Georgia's "Little Grand Canyon" and explore the waters of the Chattahoochee River. The cost covers State Park admission, Boat ride and lunch. *Participants will need to carpool or arrange their own transportation.*

White Oak Farm Tour: \$10 (9:30-3:00)

Bring your own lunch OR purchase at White Oaks Farm

Join us as we take a tour of one of southwest Georgia's hidden gems. White Oak Pastures is a radically traditional, zero-waste farm located in Bluffton, GA. Home to ten species of livestock, White Oak is a family farm committed to staying true to the farm production systems they know to be better for the environment, the animals and for the people who eat the animals. After the tour, take a while to peruse the General Store or grab some lunch with locals and farm hands under the Dining Pavilion. *Participants will need to carpool or arrange their own transportation. Please wear close toed shoes.*

Behind the Scenes Tour of Chehaw Zoo: \$10 (9:30-12:00 & 1:30-4:00)

Take a behind the scenes look at Albany's Chehaw Zoo Park from the African Veldt Ride. See how the keepers and educators maintain a healthy and fun environment for both the animals and the visitors. There will be two tours each time block, each with a LIMIT of 60 persons. *Participants will need to carpool or arrange their own transportation.*

SATURDAY SESSION DESCRIPTIONS

Sessions First Block (8:45-10:15)

Grow Your Own Milkweed- Georgia Room

Mary Beth Cary, MAG Steering Committee

Are you planting milkweed but not having any luck getting the seeds to grow? This session will teach you the techniques to have a successful crop that will entice mama monarchs to lay eggs all over your plants! Seeds will be provided and the first steps of propagation will be completed during the session.

Global Growers- Plantation 1 Room

Yarrow Koning, Global Growers

After arriving in the United States, refugees face barriers to growing and eating healthy, culturally relevant food. Global Growers connects refugees with agricultural experience to a network of community gardens and commercial farm sites. Global Growers also works across culture and language barriers to provide agricultural training and garden-based workshops for refugee growers. This interactive session will share stories and strategies for engaging refugees in community garden programs.

Science & Math Integration for a Sustainable Planet- Plantation 2 Room

Ruth Mead, Phinizy Center for Water Sciences

In this hands-on workshop, participants engage in innovative activities that illustrate the science and math behind real-world ecology concepts such as human population growth, carrying capacity in nature, natural resource use and how humans are changing Earth's landscape, habitats and biodiversity. Presented strategies will include creating representational models with manipulatives, cooperative group problem-solving challenges, graphing and analysis and role-playing simulations. This session is

perfect for upper elementary through high school formal and non-formal educators. Participants will receive electronic lesson plans matched to Georgia Performance Standards.

Tried, True & Tested: School Garden Lesson Plans- Dougherty Room

Wick Prichard, The Grow It, Know It Program, University of Georgia

The Grow It Know It program has developed school garden lesson plans, using one vegetable as a jumping-off point to learn more about plant families, growing conditions, soil health, socio-cultural studies and of course health and nutrition. We have dubbed our lesson plans “digestifs” because we feel their short delivery time coupled with an emphasis on touching several learning styles makes these lessons ideal for teacher delivery and student retention of knowledge. As ‘student’ participants, attendees to our session will be introduced during the first half to three of our “digestif” lesson plans, complete with hands on art, theater, music, language arts and food and nutrition components. In the second half of the session, the attendees will be aided as we create a new “digestif” lesson plan to take back to the classroom. Attendees will leave the session with copies of six of our lesson plans, tried, true, and tested on literally thousands of students from the Clarke County and Barrow County School Districts and beyond.

Adventure through Botanical Illustration- Gazebo

Olivia Carlisle, Carlisle Illustration

LIMIT 15 persons: After looking at natural science illustrations, participants will learn to closely observe live plants, stems, roots and seeds, then draw what they see. Several preliminary exercises in both graphite and color pencils will establish a foundation for further research and closer observation that will establish accuracy in their illustrations for seed packets, labels, even note, information and greeting cards. Each participant will make an Art Seed Packet with an inside seed envelope, perhaps two!
Supplies provided by generous suppliers, retailers and other donors.

Sessions Second Block (10:25-11:50)

Outdoor Kitchen to the Classroom- Georgia Room

Kyle Fletcher, Youth Villages AmeriCorps, Inner Harbour Campus

Taking what has been learned and practiced at Youth Villages, this session will guide participants in planning recipes that adhere to a variety of dietary limitations and incorporate items found in a community garden. The session will also guide participants in engaging and educating youth and community members in Garden to Table concepts.

Reaching Our Community Through Kindness, Education, Togetherness and STEM- Dougherty Room

Melinda Miller, UGA Extension Tifton and Crystal Perry, UGA 4H Sumter County

ROCKETS project is currently underway in Sumter Co Schools led by the 4-H Extension staff and school personnel. The goal is to enable 4th-8th graders with disabilities inclusion opportunities to build positive relationships, learn workforce development skills in science disciplines and enhance their educational experiences in an effort to reduce crime-like behaviors. The ROCKETS Project focuses on STEM education as a content area which aligns with the Research, Education, and Economics role to “cultivate, recruit and graduate the next generation of a highly-skilled diverse workforce that will contribute to innovations, food, agriculture, natural resources and human sciences” (USDA Research, Education and Economic Strategic Plan, 2014). Students with special needs are increasing their agricultural and nutrition literacy through this program by actively developing and working in school gardens.

Pot, Spot, Plot! Garden Based Learning in the Classroom- Plantation 1 Room

Heather Ledet, Hawthorne Elementary

Whether you have a pot in the window, a small spot outside your classroom, or a large plot of land, you can make agricultural learning happen! Garden-based learning can cover many standards and keep students engaged. These lessons show the real life problems and solutions that humans encounter and students can be the scientists to help solve these problems! Math, writing, reading, and even social studies can be covered with garden-based learning.

Gardening Across Curriculums – Plantation 2 Room

Keisha Hobbs and Laura Gerlach, Furlow Charter School

Embedding gardening and food into the classroom comes as second nature in our teaching. This is a project-based learning experience we use to enhance the curriculum taught, not just a standalone activity we do at school. We create cross-curriculum learning opportunities related to planting food. Our students experience gardening through the eyes of Ruby Lavender and her mother in the book *Love, Ruby Lavender*. Measuring soil depth, charting temperatures, creating coordinate grids for planting rows, discovering the area of garden beds and determining the volume of raised beds has the kids getting hands on with math. Students make decisions about what types of seeds to plant in the class garden beds based on research they do. Gardening has impacted the ways we teach and the ways our students learn. Being able to share our "Garden to the Table" knowledge with our peers will have a valuable impact on ways other educators can incorporate all subject areas into gardening.

Fresh Local Food for All – Gazebo

Fredando Jackson, Flint River Fresh

Fredando "Farmer Fredo" Jackson will talk about his experience with organizing school and community gardens, working with local farmers and providing access to fresh foods in food deserts. Participants will learn about the highs and lows of developing a local food movement with limited resources in Southwest Georgia.

Sessions Third Block (2:30-4:00)

Master Gardeners SPROUTS Program-Georgia Room

Kelli Cody, University of Georgia Extension

Created by UGA Extension, Master Gardener Extension Volunteers and Georgia 4-H, this is a six session program that focuses on six different horticulture based children's books with accompanying activities. These activities are for ages six to eight, focusing on hands on learning through horticulture and activities align with Georgia State Standards of Excellence. Program can be done weekly at a library or community center, in a formal classroom, as an after school club, or as day camp. It is a great program to get the little ones playing in the garden!

Project Learning Garden- Dougherty Room

Tasha Gomes, Captain Planet Foundation

Our organization furnishes schools with complete gardens, environmental education-related curricula and materials for hosting taste tests on campus using fresh produce (ideally harvested from school gardens). We offer these materials through Project Learning Garden (PLG), a school grant program that also provides online teacher training and collections of lessons aligned to content standards. Our program's overarching goal is to increase student awareness and active participation in the preservation of the health of their communities and the natural environment. In this session, learn how our current lessons can be extended and adapted to support schools' unique STEM- and STEAM- education initiatives. This session will also highlight a pathway for teachers who are not PLG grantees, but

interested in using their campus green spaces as outdoor learning laboratories for STEM education, for connecting students to food origins, the relationship between community wellness and nutrition and our local and industrial food systems.

Athens Forest Kindergarten- Plantation 1 Room

Sarah Whitaker, Founder, Amy Zvonar, Lead Educator, Athens Forest Kindergarten

Every time we immerse ourselves in the forest, we observe our children making connections with how food grows and how what we eat gets from the outdoors to our table! We have planted seeds that we found on the forest floor and wondered what they would grow into, observed animals eating berries and worms and wondered if we could too, and compared the food we eat outside at snack and lunch to what we see growing naturally in the forest. We also compost and visit a community garden on our site! We will use photos, children's art work, and stories we have recorded to inspire other educators to find garden inspiration in the forest! We will also plan two to three hands-on activities for attendees to engage with and learn more about how to facilitate learning about gardens, food and what we eat when playing outside.

Using Environmental Education to Nourish a Community- Plantation 2 Room

Lotus, Garden Glow Wellness

Since 2015, the Farm to School movement has gained nationwide popularity. The movement has done much to bring awareness to, change the attitude of and encourage action when it comes to child nutrition and community health. Using the fundamental principles of environmental education and farm to school, this session will show you how to impact the minds and lives of those in need.

Community Gardens in Urban Environments- Gazebo

Emily Howard, School at North Decatur Preschool

Focusing on understanding short and long term goals and how to use local resources to help build your community garden, this session will share stories of how the garden at the School at North Decatur (SAND) began. Principles of how to create a working community garden in a dense urban space will be discussed using stories from the SAND garden creation as an example. Participants will also receive information and handouts on how to make a community garden possible in their own urban areas.

Sessions Fourth Block (4:15-5:45)

Young Urban Farmers Program- Georgia Room

Renee Smith, Athens Land Trust

The Young Urban Farmers program is a work-based learning program for high school students to learn technical gardening skills, gain exposure to new foods through culinary arts, and explore entrepreneurial endeavors. This session will present our program's approach that focuses on environmental education, but is rooted in community involvement through various ways with the goal of developing civically minded young citizens.

Connecting with Your School Garden: It's not just about growing food- Dougherty Room

Tania Herbert, Urban Agriculture Coordinator, The Paideia School

The Paideia School's Urban Agriculture program (PiUA) was established in 2012 to connect our students to where food comes from, provide hands-on opportunities to learn about and practice sustainable agriculture and deliver healthy produce to food-insecure communities around Metro Atlanta. Since our inception, PiUA has supplied thousands of pounds of organic fruits and vegetables, along with a number of cooked meals, through partner organizations that work in food-insecure communities. This year, we are all learning how to share our accumulating knowledge and skills by developing a long-term partnership with an elementary school located across town. In this collaboration, we are working

together to transform an underused field into a productive school farm that will become a robust educational platform. In this session, our farmers, teachers and students will share a broad range of experiences across elementary, junior high and high school contexts and across neighborhood contexts to help cultivate a broader perspective on how school-based farms can link students to academic, environmental and social issues.

Loose Parts in the Garden- Plantation 1 Room

Lauren Reynolds, Blue Heron Nature Preserve; Amy Zvonar, Athens Forest Kindergarten; Linda Reed

As part of Reggio philosophy, loose parts are used in the foundation of the learning process- and gardens are full of loose parts! Presenting items like flowers, seeds, leaves and soil invite children to manipulate, explore and play with them without instruction or guidance. In this session, participants will discuss how through these creative interactions, students are already forming ideas and questions, and making connections and inferences. For example, a seed and soil exploration can provoke questions and ideas of how plants are started, leaf and flower observations for color and texture, and providing produce can start a conversation on plant structure and form, etc. These observations are then used to shape the lesson to best fit the interests and needs of the group.

Cultivating your Credentials- Plantation 2 Room

Stacy Smith, Keep Athens-Clarke County Beautiful

Advanced Training for Environmental Education in Georgia (ATEEG) offers the only nationally accredited professional certification for environmental educators in Georgia. Certificate Advisory Board members and ATEEG graduates, Nicki Thomas and Stacy Smith, will demystify the ATEEG program. They will cover the basics of achieving certification, share the exciting projects and accomplishments of the program's graduates and outline the benefits of participation in ATEEG for professionals and organizations. Come listen, learn and ask your questions. Find out what the program has to offer and if it is right for you!

Gardening for Wildlife- Gazebo

Breanna Walker, Interpretive Ranger Providence Canyon/Florence Marina State Park

Using the newly restored garden at Providence Canyon as an example, this session will go in depth on the various elements that should be included in a wildlife garden, and how to easily set one up at your school, park, nature center or other organization.

SUNDAY WILDLIFE FESTIVAL ACTIVITIES

9:00 am – 1:00 pm

All activities will be held in the Flint RiverQuarium Plaza, unless otherwise indicated

Dissection of a Rotten Log (9:15-10:45)

Meet in the Golly Gee Garden

Jerry Hightower, Chattahoochee River Nat'l Recreation Area, NPS

LIMIT: 30 persons. It's more than just a rotten log! It is a very complex interconnected array of organisms from multiple families, all utilizing the decomposing log as an apartment, cafeteria, nursery, and more. We will focus on the role of the FBI (fungi, bacteria, and invertebrates) in recycling nutrients back into the environment as we discover the hidden excitement on and within a decomposing log. There will be a focus on the role and results of bacteria and fungi in digesting cellulose and lignin. Also, participants will learn a bit more in the decomposing log's role in the carbon cycle and the nitrogen cycle. Beginning by observing the log's exterior and then carefully dissecting subsequent layers, participants will observe, record, identify and occasionally collect organisms. From carnivorous arthropods and fungi to herbivorous isopods and insects, you will be amazed at the fantastic investigations offered by this easy to obtain teaching aid. We will use "kitchen drawer" dissecting tools,

hand lens, journals, identification guides, microscopes and collection containers. Educators will use digital microscopes to view the organisms collected, the components of the decomposing log specimens, lichens, and other components found in their investigation. Participants will record their findings in provided journals with descriptions, and sketches. Care and respect for living organisms will be stressed and all living materials will be returned to the collection site.

Backyard Birders- Think Outside the Nest Box (9:15-10:45)

Bob Sargent, Program Manager, Wildlife Conservation WRD DNR

LIMIT: 20 persons. "If you build it, they will come!" may remind you of the movie *Field of Dreams*, but it also applies to cavity-nesting songbirds. Participants will construct their own bluebird nest boxes to take home. They will also learn how to attract birds to their yards, how to contribute to the science of bird conservation and find out about opportunities to learn how to become a birdwatcher. Seeing birds raise families in your nest boxes is exciting, but you can make the experience even more meaningful by collecting and contributing bird observation data to scientists. Attracting birds to your yard can also be the start of your initiation into the fun and beautiful world of bird watching, which is one of the most popular outdoor hobbies in the country. We will discuss how to enter your bird observation data to the online NestWatch and eBird databases. We will also discuss how you and your family can become birdwatchers and citizen scientists through involvement with local birding clubs, Christmas Bird Counts, as volunteers assisting scientists, and through birding competitions, camps, and scholarships.

#nofilter Nature Photography (10:00-11:00)

Meet in Lab Classroom

Amanda Williams, former classroom teacher

Learn how to use natural lighting, colors and shapes for artistic and instructional photographic success. This session workshop will show participants personal examples and "go into the field" to practice lessons and tips learned. *Participants will need to bring their own smart phone or camera. This session is not suitable for professional cameras/lenses, flip-phones or disposable cameras.

Wildlife Presentation with Turtleman (10:00-11:15)

Chris Adams, Living Wild

Come and join the Turtleman as he shares about all things wild and winged! You will have the opportunity to get up close and personal with some of the residents of the Flint RiverQuarium and maybe meet a few creatures you have never seen before!

Additional Presenters in Plaza (9:00-1:00)

Flint Riverkeepers

Oxbow Meadows Environmental Learning Center

Albany Audubon

Albany Master Gardeners

Flint RiverQuarium Animal Ambassadors