2017 Annual Conference Program
AGAPE MAP

This map highlights the area in most heavy use during the conference. A complete Agape map is available at the registration desk if you wish to go hiking.

A: Woodlands Center. The main site of the conference, this is where you’ll find the registration desk, the dining hall, several of the sessions, and the meeting places for field trips, hikes, the Research Symposium, etc. This building includes: Dining Hall, Castor Chapel, Parker EE Classroom, Deck, Lobby, and Agape Camp Store.

B: Lodge. This building is a lodging area as well as a conference session location. Lodge Upper, Lodge Lower, and the Yount Meeting Room are located here.

C: Nature Center. A short hike from the Woodlands Center will take you to the Nature Center, location of several sessions.

D: Retreat House. Lodging for attendees

E: Gerhard Cabin. Lodging for attendees.

F: Campground. Lodging for attendees.

G: Lakeside Chapel. Sunday Devotional

H: Pine Fire Circle. Stories and S’mores
It is my great pleasure to welcome you to the 26th annual conference of the Environmental Educators of North Carolina here at the beautiful Agape’ Center for Environmental Education.

This year’s conference theme, “For the Love of EE: Our Time, Our Place, Our Challenge” was chosen after much discussion amongst our board members. We sought a theme that would capture where it is we find ourselves this moment and offer a means to connect with a common purpose. As environmental educators we find ourselves serving as important a calling as ever. We are needed to present the public with the knowledge of our impact on the natural environment and the solutions that can lead us in a more sustainable direction. We are needed to connect an ever ecologically-disconnected population with experiences away from screens and media and instead immersed in the calm and connection afforded by the outdoors. We are needed to find means of doing more with less and to work together to get important things done. And, we are needed to articulate the importance of what we do for those who have the ability to fund or defund the work we love.

And so, we gather together. We do so in a beautiful and biologically diverse setting that allows us to integrate the outdoors in our sessions, workshops and networking opportunities. You will find within our schedule many opportunities to enjoy our conference site as you attend this conference and I want to thank Mir Youngquist-Thurow for welcoming us to her workplace. Many of you are familiar with Mir’s work as a tireless advocate for environmental education in our state. She has been a vital player within our organization as well, and not only serves as our current historian but is a life member, former board member and recipient of the Melva Fager Okun Life Achievement award as well as Outstanding Practitioner and Outstanding Service awards on behalf of EENC. Mir exudes a spirit of positivity, enthusiasm and collaboration that are, in my opinion, components that are necessary to meet any challenge.

As we find ourselves in this time and place of uncertainty it is the relationships we cultivate among our peers that provide a lasting tool. They remind us that we are not alone in our struggles, and that by finding means of working together we can effect meaningful change despite the steepness of the slope. Our keynote speaker, author Mary Ellen Hannibal, has documented efforts that illustrate how everyday citizens have collaborated to do what they can for conservation in the time and place they find themselves. In “Citizen Scientist: Searching for Heroes and Hope in an Age of Extinction”, Hannibal proves that the modest efforts of many, armed with notepads and smartphones, can translate into not only important data, but an expanding population of engaged and invested citizens. Please consider joining our third annual Naturalist Challenge as we document the diversity of our conference site and join the ranks of citizen scientists while you enjoy this conference. Likewise, you will find many opportunities to learn how to engage your participants in similar citizen science projects within our lineup of sessions and activities.

It is my hope that you will find our combination of structured sessions and less formal activities and social opportunities as a valuable resource to strengthen your skills and knowledge while at the same time support and recharge your resolve to do the work you love. Thank you for joining us, and for doing what you do.

Sincerely,

Jonathan Marchal
President, Environmental Educators of North Carolina
2017 CONFERENCE KEYNOTE:
Mary Ellen Hannibal

After getting her start writing for literary magazines in New York and the corporate world of California, Mary Ellen Hannibal turned to science writing. Currently a freelance science writer and author of five books, her most recent book is *Citizen Scientist: Searching for Heroes and Hope in the Age of Extinction*. The book is a personal dive into the world of citizen science and the many ways that today’s citizen scientists are making a difference in science, nature, and the environment. Mary Ellen considers it her job to understand the science she writes about and translate it into something everyone can understand, building on her experience in literature to make it engaging to all.

2017 Naturalist Challenge

Love nature? Want to help us document species at Agape for science? **Compete to be the ultimate EENC naturalist in the 2017 Naturalist Challenge!**

**Participation is easy:**
1. Create an account on iNaturalist (Android/Apple app or online at inaturalist.org)
2. Take photos of any living thing you see between 5pm Friday and 5pm Saturday.
3. Upload your sightings to iNaturalist through the app or the website. You don’t have to know what it is to submit it.
4. Get extra points for helping your fellow attendees identify the species they’ve submitted!

Sightings are worth 3 points and identifications are worth 1 point. The three people with the most points as of 5PM Saturday will be recognized at the awards ceremony and receive prizes.

**Follow along with the project by joining the 2017 EENC Naturalist Challenge on iNaturalist:** [http://www.inaturalist.org/projects/2017-eenc-naturalist-challenge](http://www.inaturalist.org/projects/2017-eenc-naturalist-challenge).
You’ll see the following conference strands throughout the program:

**EE Essentials.** These sessions focus on skills that enhance EE programs, including field methods, natural history content, and outdoor education experiences.

**Paving the Path:** These sessions are aimed at recent graduates or those new to EE.

**Lessons Learned:** Learn from the experiences of other NC EE professionals! Topics may include business and fundraising models, program development, organization, marketing, or how to tie programs to educational standards.

**Diversity and Inclusion:** EE programs, techniques, and initiatives with a focus on reaching underserved populations.

**Tried and True:** Participants will leave these sessions with tangible takeaways that can be implemented immediately.

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**FRIDAY, SEPTEMBER 29**

7:00am - 6:00pm. Registration desk open (Woodlands Center Lobby)

8:00 - 9:00am. Breakfast (Woodlands Center Dining Room, food served 8:00-8:30am)

**HIKES (Drop-ins welcome!)**

8:30 - 11:30am: Geology of Agape (meet at Woodlands Center)
Agape is located on the Fall Line, the boundary between the Piedmont and the Coastal Plain geographical regions. As such, there is a veritable plethora of geological wonders to behold! Join us on a hike as we visit a magnetite mine glory hole, quartz veins, Meditation Rock (it’s exfoliating!), and more. (*Randy Bechtel and Mir Youngquist-Thurow, NC Geological Survey and Agape Center for EE*)

1:30 - 4:30pm: Historical Discovery Hike (meet at Woodlands Center)
Explore the trails of Agape and learn about the pre-Agape history. Log cabin, slave cemetery, WWII plane crash, moonshine… these are all part of the fascinating history of this land from when the first person to settle here after the Native Americans arrived. (Fun fact – his name was Peter Parker.) And, of course, there are many discoveries to be made of the natural world as we hike through a variety of ecosystems. Be ready for hiking about five miles over varied terrain. Located on the Fall Line and next to the Cape Fear River, Agape has a lot of hills, streams, and a variety of ecosystems to explore. Good hiking shoes and a water bottle recommended. Walking stick, cameras, and anything else to carry are optional. (*Mir Youngquist-Thurow, Agape Center for EE*)
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FIELD TRIPS (Pre-registration required)

9:00am - 3:00pm: Canoeing the Cape Fear's Story
Meet in front of the Woodlands Center at 9:00am to carpool to canoe launch. (Erin Lineberger and Brad Daniel, Cabarrus County Soil and Water Conservation District and Montreat College)

9:00am - 4:30pm: Early Childhood Nature PlaySpaces: A Raleigh TACO Sampler
Meet in front of the Woodlands Center at 9:00am. Transportation to all sites is provided by the field trip leaders. (Jan Weems, Dawn Mak, Beth Cranford, and Sarah Saffley)

12:00 - 4:30pm: Raven Rock Exploration
Meet at Woodlands Center at 11:45am to carpool to the park. (Brittany Hurtado, NC State Parks)

WORKSHOPS (Pre-registration required)

10:00am - 5:00pm: It’s Our Air
Parker EE Classroom, Woodlands Center (Keith Bamberger and Jonathan Navarro, NC Division of Air Quality)

9:00am - 4:00pm: Excellence in EE: Using the NAAEE Guidelines
Castor Chapel, Woodlands Center (Renee Strnad, NCSU)

12:00 - 1:00pm: Lunch (Woodlands Center Dining Hall, food served 12:00-12:30pm)

3:00 - 5:30pm: Naturalist Challenge orientation (Woodlands Center—drops in welcome!)

3:00pm: Silent Auction opens (Woodlands Center)

5:00 - 6:00pm: Agape Camp store open (Woodlands Center)

6:00 - 7:00pm: Welcome and Dinner (Woodlands Center Dining Hall, food served 6:00 - 6:30pm)

7:00 - 8:00pm: Section Social/Meetings (meet at Parker EE Classroom, Woodlands Center)

Evening Activities (Drop-ins welcome!)

8:00 - 9:00pm: Learn to Tie Your Own Flies (Parker EE Classroom, Woodlands Center)
8:00 - 9:00pm: Birding at Dusk/Intro to eBird (Deck)
8:00 - until?: Stories and S’mores (Pine Fire Circle)
9:00 - 10:00pm: Night Hike (meet at Parker EE Classroom, Woodlands Center)
9:00 - 11:00pm: Stargazing (outside Woodlands Center)
9:00 - 11pm: Evening Entomology (outside Woodlands Center)
SATURDAY, SEPTEMBER 30

7:00am - 6:00pm: Registration Open (Woodlands Center Lobby)

7:00 - 8:00am: Birding and Coffee with EENC President (Deck at Woodlands Center)

8:00 - 9:00am: Breakfast (Woodlands Center Dining Hall, food served 8:00-8:30am)

*Extended conference sessions with the time underlined overlap the following session in some cases. Please take a moment to determine whether a session you’d like to attend is a regular or extended!*

**Concurrent Session A**

**9:00 - 9:45am: Program Evaluation Partnerships: Findings from NCSU and Muddy Sneakers (Lodge, Upper)**

Researchers at NC State partnered with Muddy Sneakers to evaluate their EE program for elementary students. Come learn about the program, the partnership, the research results, and their implications. Particular emphasis will be placed on program effects in regard to traditionally low-achieving students (minorities, females, students with learning disabilities). *(Rachel Szczytko, NCSU)*

**9:00 - 9:45am: Connecting Students to the World Through Explorer Backpacks (Nature Center)**

Learn how Abbotts Creek Elementary School developed the Explorer Backpack program to extend NCESS concepts to the environment outside the classroom, encouraging families to connect. This program fosters a stronger family community, and brings student’s prior environmental knowledge to a greater audience while they continue to explore and learn. *(Krista Brinchek, Abbotts Creek ES)*

**9:00 - 9:45am: Developing Curriculum Based Environmental Education Programs and Field Trips (Parker EE Classroom, Woodlands Center)**

This a introduction to experiential hands-on activities that engage students, promote stewardship, and address North Carolina’s Essential Standards. Participants will learn how to use materials like play-doh and baking soda to teach landforms, weathering, rock cycles and erosion. This session will also examine the benefits and methods that may be used to correlate park programs to NC Essential Learning Standards. *(Thomas Randolph, NC State Parks)*

**9:00 - 10:15am: How big is your tree? (Lodge, Lower)**

Forestry, and tree measurement in particular, lends itself to practical use of math applications in the field. This session will introduce participants to the variety of tools used to measure trees. We will then take our measurements and apply them to carbon storage and sequestration models. *(Renee Strnad, NCSU)*

**9:00 - 10:15am: Virtual BioBlitzes: Putting iNaturalist to Work For You! (Castor Chapel, Woodlands Center)**

Want to do a bioblitz at your site, but don’t have the staff, time, or resources for it? Create a simple virtual bioblitz with iNaturalist! This session covers iNaturalist basics, including how to set up and advertise projects and lessons learned, so you can develop your own bioblitz at your site. *(Chris Goforth, NC Museum of Natural Sciences)*

**10:15 - 11:00am: Break—coffee and snacks (Woodlands Center Dining Hall)**

**Concurrent Session B**

**10:00 - 10:45am: Effective Communication in Environmental Education (Castor Chapel, Woodlands Center)**

Why are some messages effective and others are not? Is your message crafted to reach the right
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audience? Are you taking advantage of social media? In this session, we will discuss the basics of effective communication and will look at effective marketing campaigns and innovative ways to spread your message. (Lisa Tolley, NC Office of EE)

10:00 - 10:45am: Using Themed Discovery Packs to Facilitate Self-Directed Outdoor Learning & Play (Nature Center)
Come explore some ways in which discovery packs can be used to enhance outdoor learning and play! Participating educators will view images of packs being used by young learners, play with sample materials, use a template to create original pack designs and exchange ideas for implementation in our own contexts. (Kelly Cosby, Kidzu Children’s Museum)

10:00 - 10:45am: EE Activities for a Very Popular Planet (Parker EE Classroom, Woodlands Center)
Discover lively, interdisciplinary activities that help elementary students understand the human ecological footprint and the challenges of sharing finite resources as our population grows. Build math, literacy and critical thinking skills while fostering global and civic awareness. (Jayne Young, Hoke County Schools)

10:30 - 11:45am: Ten Games to Teach Leave No Trace That Your Participants Won’t Forget (Lodge, Lower)
This session will highlight time-tested activities that are fun, engaging, and will make Leave No Trace ethics stick with participants. Come ready to play as this session will offer opportunities to learn by doing. (Ruby Compton, Muddy Sneakers)

10:30 - 11:45am: Citizen Science Sampler: Projects You Can Implement at Your Site (Lodge, Upper)
The North Carolina Arboretum engages a corps of adult volunteers in monitoring the flora and fauna of our 426-acre campus. Learn how these projects can be implemented at your own site as we explore the methodology, tools and best practices of each. Will include monitoring monarch larva, plant phenology, reptile and amphibian study plots, and more. (Ericka Hincke, The NC Arboretum)

Concurrent Session C

11:00 - 11:45am: Learning from each other: challenges and insights from scientist-educator networks (Castor Chapel, Woodlands Center)
Explore existing scientist-educator networks and some common challenges for these collaborations and tips on overcoming them. Participants will practice science communication techniques and learn how to access scientist-developed lesson plans, how to connect with scientists, and how to set a scientist visit up for success. (Rebecca Lauzon and Corie Hlavaty, Duke University)

11:00 - 11:45am: How to Build an Engaging Instructional Kit (Nature Center)
Who wants to redesign a lesson when the content is already there? The trick is to create a framework that hits on all areas of motivation. A framework is helpful to create consistency in activities and in the lesson planning. In this session, I will use John Keller's ARCS model for Instructional Design to provide a framework to craft instructional lessons. (Lauren Daniel, The Science House at CMAST)

11:00 - 11:45am: The Leopold Society - Inspiring the Next Generation of Conservationists (Parker EE Classroom at Woodlands Center)
The Land Trust for Central NC’s Youth Initiative, The Leopold Society, is a conservation based passport program that enlightens youth in grades 6 to 12 about the natural world and conservation issues. Participants learn conservation techniques, outdoor skills, and hands-on natural resource stewardship and service through class based and independent projects. (Michael Nye, Land Trust for Central NC)

12:00 - 1:00pm: Lunch (Woodlands Center Dining Hall, food served 12:00-12:30pm)
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1:00 - 2:00pm: Business Meeting (Castor Chapel, Woodlands Center)

Concurrent Session D

2:00 - 2:45pm: Connecting Culture and Citizen Science (Castor Chapel, Woodlands Center)
Join us to learn a variety of ways to explore culture through Citizen Science opportunities of all kinds. Ready to use, hands-on activities, resources and lesson plans will be provided. Focus is on Native American cultures, but others will be included. Both local and national programs will be highlighted. (Jessica Metz-Bugg, New Kituwah Academy)

2:00 - 2:45pm: Incorporating Literacy in your outdoor education classes (Nature Center)
Find simple but effective ways to incorporate language arts standards in your classes. Participants will use storybooks and journals to incorporate language arts standards in outdoor education classes. (Tammi Remsburg, Carolina International School)

2:00 - 2:45pm: Getting Your Ducks in a Row: Tips and Tricks of the Trade (Parker EE Classroom, Woodlands Center)
Organization. That’s the key to keeping any program running smoothly. Learn how to manage details of implementing an environmental education program including staffing, scheduling, communication with clients, equipment and supplies, marketing, and more. (There’s always more.) Organize your way to excellence! (Mir Youngquist-Thurow, Agape Center for EE)

2:00 - 3:15pm: TheLand: A Resource Management Game (Lodge, Lower)
This resource is filled with natural, cultural and imaginal history. Junior Resource Managers use, trade, grant, make choices and take chances with 12 resources in one of 17 Homelands. “The game” comes to life on trails, in gardens and fields through nature art, math and science events. Bring a trail map of your site or park you visit. (Thomas Shepherd, Piedmont Environmental Center)

2:00 - 4:45pm: Trail Camera Mini-Workshop (Lodge, Upper)
Join NC Wildlife Resources Commission staff for an introduction to trail cameras and their many uses for exploring and monitoring wildlife populations. Participants will learn how to program and deploy trail cameras and how to download and interpret the photos. We will also explore citizen science opportunities such as the Candid Critters program, and discuss research conducted by NC Wildlife Resources Commission. Participants will learn how to install cameras and retrieve photos outside - please wear outdoor clothing and footwear. Eligible for Criteria II or III credit, CEU credit. (Tanya Poole and Kevin Hining, NC Wildlife Resources Commission)

2:45 - 3:30pm: Break - Coffee and Snacks (Woodlands Center Dining Hall)

Concurrent Session E

3:00 - 3:45pm: Lessons from Research to Practice (Castor Chapel, Woodlands Center)
Looking to improve your program? Find methods that work? Better understand how research can help you day-to-day? Come to this crash course in EE research! We will go over broad trends and specific case studies, as well as highlight resources to find research that benefits you. (Rachel Szczytko, NCSU)

3:00 - 3:45pm: Nurturing A Sense of Wonder (Nature Center)
Children need to form a fun, playful connection to the natural world in order to become the stewards of tomorrow. Find creative ways to tap into a young child's sense of wonder using natural items found in parks and backyards everywhere. Learn ways to connect children to their natural surroundings while engaging in learning activities that enhance their development. (Sandy Dixon, Pockets Full of Nature Fun)
Environmental education has traditionally focused on school children, but has recently focused more resources on early childhood and adult education. This presentation will explore best practices in adult environmental education by intersecting environmental education with adult learning theory, and will connect participants to theory via real world examples. (Shelby Gull Laird, Stephen F. Austin State University)

**Concurrent Session F**

**4:00 - 4:45pm: Beyond the Standards (Castor Chapel, Woodlands Center)**
Come see how a special education teacher and occupational therapist paired up to extend content standards with field trips across North Carolina using grant funding! Video footage, materials, and work samples will be shared and discussed. You’ll learn where grant funding can be obtained and will write your own grant. (Jessica Kellermann, Hoke County Schools)

**4:00 - 4:45pm: Balance in the Estuary (Nature Center)**
The North Carolina Coastal Federation works to protect and restore coastal water quality and habitats, including estuaries. Learn more about estuaries and how living shorelines work to control erosion and provide habitat along their shores. Several interactive lessons will be outlined and provided. (Rachel Bisesi, NC Coastal Federation)

**4:00 - 4:45pm: Story Stones for Educators (Parker EE Classroom, Woodlands Center)**
This workshop will demonstrate how you can use story stones to enhance delivery of environmental education. Using the natural materials of river rock, we will paint unique story stones. Bring a favorite story book for inspiration, or use some of our ideas! (Stacie Hagwood, City of Raleigh PRCR)

**4:00 - 4:45pm: Keeping the Natural Sciences in STEM (Upper, Lodge)**
The emphasis of STEM often seems to be on the T and E elements. Learn how outreach education at the NC Museum of Natural Sciences received grant support that facilitated the development of two new programs to better connect the natural sciences with the framework of STEM education. (Martha Fisk, NC Museum of Natural Sciences)

5:00 - 6:00pm: Cocktail Hour and Research Symposium Poster Session (Yount Meeting Room, Lodge - see page 12 for a complete list of posters presented)

5:45pm: Silent Auction Closes (Yount Meeting Room, Lodge)

6:30-7:30pm: Banquet (Woodlands Center Dining Hall)

7:30-8:30pm: Keynote: Mary Ellen Hannibal (Castor Chapel, Woodlands Center)

8:30pm - until?: Awards Reception and Live Auction (Castor Chapel, Woodlands Center)
Research Symposium (Castor Chapel, Woodlands Center)

9:00am - 12:00pm. Turn the page for the full Research Symposium agenda and schedule!

**Concurrent Session G**

**9:00 - 9:45am:** Environmental Chemistry (Parker EE Classroom, Woodlands Center)
Explore formal education NGSS strands and how to engage students in environmental chemistry. *(Dorothy Holley, Clayton High School)*

**9:00 - 9:45am:** Expeditionary Science Outcomes and Best Practices (Nature Center)
Join former MSEE graduate students to discuss the concept of expeditionary science and learn more about the results of two research studies that focused on the impacts of the programs. Many of the best practices that lead to responsible environmental behavior and connectedness to nature will be introduced and shared. *(Dottie Shuman, Misty Varnell, Blair Ogburn, Montreat College)*

**9:00 - 10:15am:** Communicating With Schools So They Will Listen (Lodge, Lower)
Environmental educators are missing the mark when communicating and marketing our programs to schools. Participants will walk away from this session with an understanding of how we can get our foot in the door with schools to get more students outside and how to retain your customers from year to year. *(Ruby Compton, Muddy Sneakers)*

**Concurrent Session H**

**10:00 - 10:45am:** What on Earth Are We Doing? (Lodge, Upper)
The extent and the complexity of environmental issues are overwhelming. Because of this, environmental educators often do not know where to begin. We must introduce topics to elementary students in a manner that does not frighten them, yet relays their importance. Middle school ages can process more complexity, but can not focus on problems that are presented too negatively. *(Phyllis Weatherly-Rosner, Kaleideum)*

**10:00 - 10:45am:** Ecological Knowledge and Cherokee Myth: What is proto-observation? (Nature Center)
Myth is not just make believe. It teaches right attitude and action but is not void of factual information, interjected by a concept called “proto-observation.” The character, trickster, facilitates these lessons for young and old. We will explore these ideas and how to use them in formal and informal classrooms. *(Stacy Brooks, Cradleboard Interpretive Services)*

**10:00 - 10:45am:** Let’s Rock Our Work (Parker EE Classroom, Woodlands Center)
We will get our hands on a bunch of rocks and minerals through various geoscience activities for multiple age levels with links to resources. Also, weather permitting, we will go on a short hike and discuss how to interpret the geology of your area. *(Randy Bechtel, NC Geological Society)*

**Concurrent Session I**

**11:00 - 11:45am:** Marine CSI: Coastal Science Investigations (Lodge, Upper)
Marine CSI: Coastal Science Investigations is two lesson plan books dedicated to coastal sciences. Each lesson has been adapted for either a K-8 or high school book. Attendees will participate in two hands-on lessons, one from each book. Resource books will be available to all participants for free. *(Kimberly Belfer, Marine CSI: Coastal Science Investigations)*

**11:00 - 11:45am:** How to Choose A Community Partnership Project for Your Environmental Education Certification (Nature Center)
Having trouble selecting a community partnership project for your environmental education
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certification? Join a panel of certified educators as they discuss their community partnership projects, provide tips for developing successful projects and discuss how to select a project that can enhance your current career or professional development goals. (Lisa Tolley, NC Office of EE)

11:00 - 11:45am: Teaching Science with Technology: Using EPA’s EnviroAtlas in the Classroom (Parker EE Classroom, Woodlands Center)
U.S. EPA’s EnviroAtlas provides a collection of web-based, interactive tools for exploring ecosystem services: an Interactive Map, which provides access to 300+ maps at multiple extents for the U.S., and an Eco-Health Relationship Browser, which displays the linkages between ecosystems and human health. This session introduces the free EnviroAtlas curriculum. (Jenna Hartley, ASPPH/U.S. Environmental Protection Agency)

12:00 - 1:00pm: Lunch (Woodlands Center Dining Hall, food served 12:00 -12:30pm)

12:45 - 1:15pm: Closing Gathering (Parker EE Classroom, Woodlands Center)

Safe travels as you head back home!

Research Symposium Agenda

We are excited to host the 5th EENC research symposium, providing opportunities for environmental education researchers to learn about each other’s work, discuss the latest research in the field, and foster collaborative relationships. Our program includes five research presentations and a poster session highlighting work from four different colleges, universities, and EE centers. The research symposium is an excellent opportunity for researchers, professors, students, and practitioners to learn about the latest EE research and its application to practice.

Poster Session

Saturday, September 30th, 5:00 - 6:00pm (Yount Meeting Room, Lodge)
The poster session will occur during the cocktail hour prior to the banquet.

Impacts of Environmental Education on Students with Emotional and Behavioral Disabilities
There are over 3.7 million students with reported emotional and behavioral disabilities in the US; parents want alternative methods to treat their child. EE both decreases symptoms and improves EE outcomes. This study looks at the impacts of an EE program on behavior, attention, connection to nature, science efficacy, and knowledge. (Rachel Szczytko, Kathryn Stevenson, Nils Peterson, and Sarah Carrier, North Carolina State University)

A Scientist-Educator Network to Improve K-12 Science Literacy
After working with educators to develop curriculum-correlated lesson plans based on cutting edge research, scientists feel more qualified to do outreach and develop lessons on their own. Educators gained valuable experience teaching complex scientific concepts and built a network of scientists to draw on in their teaching. (Rebecca Lauzon and Corie Hlavaty, Duke University)
Environmental Justice in North Carolina: Past and Present
The poster provides a thorough literature review of research and policies related to environmental justice (EJ) in North Carolina that will inform future research pertinent to achieving EJ through strategic environmental education. Our research goals are to educate environmental educators on EJ and empower practitioners through environmental education. (Sarah Carrier and Katlyn May, North Carolina State University)

Presentations
Sunday, October 1st, 9:00am - 12:00pm (Castor Chapel, Woodlands Center)

9:00am: Welcome

All sessions will consist of a 20 minute presentation and 10 minutes for questions and discussion, during which time we will switch presenters

9:15 - 9:45am: The Sacred Art of Fly Fishing: Intersubjective, Intergenerational, Intentional
Deep experiential storytelling threads of interwoven connections exist between contemplative ecological presence and people's lived fly fishing experiences. Our world is shaped by stories we tell as told from experiences we encounter. This presentation outlines my vision to create an eco-contemplative fly fishing practice for families while connecting with nature. (Eric Landon McDuffie, Antioch University New England)

9:45 - 10:15am: Pathways from Outdoor Recreation Activities to Connection to Nature
Researchers have identified common childhood formative experiences for engaged adults, such as time alone in nature and socialization with peers. Yet, how children become and stay engaged is not well understood. Using decision trees, we modeled fifth-grade students’ connection to nature based on their recreation habits. (Rachel Szczytko, Kathryn Stevenson, and Nils Peterson, North Carolina State University)

10:00 - 10:25am: An Investigation of Teens’ Connectedness to Nature after the MYLES Science Program
After directing the MYLES of Science program for two summers, I decided to do research on the teens in the program and connectedness to nature. Connectedness to nature is a term for how much a person relates nature to his/her self. Teens in the MYLES program spent one week doing expeditionary science in the Great Smoky Mountains National Park. The purpose of my research was to determine if the students' connectedness to nature changed after MYLES. A secondary purpose was to find out what may have caused a change. (Blair Ogburn, Montreat College)

10:15 - 10:30am: Break

10:30 - 11:00am: Teacher’s Decision Making Regarding Attending Climate Change Professional Development Opportunities
This presentation discusses the results of a survey examining why teachers chose not to attend a climate change professional development opportunity. Additional questions were asked to identify what makes professional development opportunities for teachers appealing. Results will be discussed as well as recommendations for future workshops related to climate change. (Megan Ennes, Kathryn Stevenson, Nils Peterson, and Danielle Lawson, North Carolina State University)

11:00 - 11:30am: Can Intergenerational Transfer Lead to Increased Climate Literacy?
Although promoting an environmentally friendly future is admirable, many of our current environmental problems demand action today rather than the future. Throughout our poster presentation we will discuss the results of a new climate communication strategy through the pathway of intergenerational transfer. (Danielle Lawson, Kathryn Stevenson, and Nils Peterson, North Carolina State University)

11:30-12:00pm: Discussion and wrap up
# EENC 2017 Conference Schedule at a Glance

## Friday (Items in **BOLD** require pre-registration)

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>7:00am - 6:00pm</td>
<td>Registration Open</td>
<td>Woodlands Center Lobby</td>
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<td>8:00 - 9:00am</td>
<td>Breakfast (food served 8:00-8:30am)</td>
<td>Woodlands Center Dining Hall</td>
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<td>8:30 - 11:30am</td>
<td>Hike: Geology of Agape (drop-in)</td>
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</tr>
<tr>
<td>12:00 - 1:00pm</td>
<td>Lunch (food served 12:00-12:30pm)</td>
<td>Woodlands Center Dining Hall</td>
</tr>
<tr>
<td>1:30 - 4:30pm</td>
<td>Hike: Historical Discovery Hike (drop-in)</td>
<td>Meet at Woodlands Center</td>
</tr>
<tr>
<td>3:00 - 5:30pm</td>
<td>Naturalist Challenge Registration and Orientation (drop-in)</td>
<td>Woodlands Center Lobby</td>
</tr>
<tr>
<td>3:00pm</td>
<td>Silent Auction Opens</td>
<td>Yount Meeting Room at</td>
</tr>
<tr>
<td>12:30 - 4:30pm</td>
<td><strong>Field Trip: Raven Rock Exploration</strong></td>
<td>Meet at Woodlands Center</td>
</tr>
<tr>
<td>5:00 - 6:00pm</td>
<td>Agape Camp Store Open</td>
<td>Woodlands Center</td>
</tr>
<tr>
<td>6:00 - 7:00pm</td>
<td>Welcome and Dinner (food served 6:00 - 6:30pm)</td>
<td>Woodlands Center Dining Hall</td>
</tr>
<tr>
<td>7:00 - 8:00pm</td>
<td>Section Social/Meetings</td>
<td>Meet at Parker EE Classroom</td>
</tr>
<tr>
<td>8:00 - 9:00pm</td>
<td>Learn to Tie Your Own Flies</td>
<td>Parker EE Classroom, Wood.</td>
</tr>
<tr>
<td>8:00 - 9:00pm</td>
<td>Birding at Dusk/Intro to eBird</td>
<td>Deck</td>
</tr>
<tr>
<td>8:00 - ??</td>
<td>Stories and S'mores</td>
<td>Pine Fire Circle</td>
</tr>
<tr>
<td>9:00 - 10:00pm</td>
<td>Night Hike</td>
<td>Parker EE Classroom, Wood.</td>
</tr>
<tr>
<td>9:00 - 11pm</td>
<td>Evening Entomology</td>
<td>Outside Woodland Center</td>
</tr>
</tbody>
</table>

## Saturday

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00am - 6:00pm</td>
<td>Registration Open</td>
<td>Woodlands Center Lobby</td>
</tr>
<tr>
<td>7:00 - 8:00am</td>
<td>Birding and Coffee with EENC President</td>
<td>Deck at Woodlands Center</td>
</tr>
<tr>
<td>8:00 - 9:00am</td>
<td>Breakfast (food served 8:00-8:30am)</td>
<td>Woodlands Center Dining Hall</td>
</tr>
</tbody>
</table>

### Concurrent Session A

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 - 9:45am</td>
<td>Program Evaluation Partnerships</td>
<td>Lodge, Upper</td>
</tr>
<tr>
<td>9:00 - 9:45am</td>
<td>Connecting Students to the World Through Explorer Back-Nature Center</td>
<td>Nature Center</td>
</tr>
<tr>
<td>9:00 - 9:45am</td>
<td>Developing Curriculum Based Environmental Education</td>
<td>Parker EE Classroom, Wood.</td>
</tr>
<tr>
<td>9:00 - 10:15am</td>
<td>How big is your tree?</td>
<td>Lodge, Lower</td>
</tr>
<tr>
<td>9:00 - 10:15am</td>
<td>Virtual Bioblitzes: Putting iNaturalist to Work For You!</td>
<td>Castor Chapel, Woodlands</td>
</tr>
<tr>
<td>10:15 - 11:00am</td>
<td>Break—coffee and snacks</td>
<td>Woodlands Center Dining Hall</td>
</tr>
</tbody>
</table>

### Concurrent Session B

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00 - 10:45am</td>
<td>Effective Communication in Environmental Education</td>
<td>Lodge, Upper</td>
</tr>
<tr>
<td>10:00 - 10:45am</td>
<td>Using Themed Discovery Packs to Facilitate Self-Directed</td>
<td>Nature Center</td>
</tr>
<tr>
<td>10:00 - 10:45am</td>
<td>EE Activities for a Very Popular Planet</td>
<td>Parker EE Classroom, Wood.</td>
</tr>
<tr>
<td>10:30 - 11:15am</td>
<td>Ten Games to Teach Leave No Trace</td>
<td>Lodge, Lower</td>
</tr>
<tr>
<td>10:30 - 11:45am</td>
<td>Citizen Science Sampler</td>
<td>Castor Chapel, Woodlands</td>
</tr>
</tbody>
</table>

### Concurrent Session C

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:00 - 11:45am</td>
<td>Learning from each other</td>
<td>Castor Chapel, Woodlands</td>
</tr>
<tr>
<td>11:00 - 11:45am</td>
<td>How to Build an Engaging Instructional Kit</td>
<td>Nature Center</td>
</tr>
<tr>
<td>11:00 - 11:45am</td>
<td>The Leopold Society</td>
<td>Parker EE Classroom, Wood.</td>
</tr>
</tbody>
</table>

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## EENC 2017 Conference Schedule at a Glance

### Saturday

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>12:00 - 1:00pm</td>
<td>Lunch (food served 12:00-12:30pm)</td>
<td>Dining Hall at Woodlands</td>
</tr>
<tr>
<td>1:00 - 2:00pm</td>
<td>Business Meeting</td>
<td>Castor Chapel, Woodlands</td>
</tr>
</tbody>
</table>

### Concurrent Session D

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>2:00 - 2:45pm</td>
<td>Connecting Culture and Citizen Science</td>
<td>Castor Chapel, Woodlands</td>
</tr>
<tr>
<td>2:00 - 2:45pm</td>
<td>Incorporating Literacy in your outdoor education classes</td>
<td>Nature Center</td>
</tr>
<tr>
<td>2:00 - 2:45pm</td>
<td>Getting Your Ducks in a Row: Tips and Tricks of the Trade</td>
<td>Parker EE Classroom, Wood.</td>
</tr>
<tr>
<td>2:00 - 3:15pm</td>
<td>TheLand: A Resource Management Game</td>
<td>Lodge, Lower</td>
</tr>
<tr>
<td>2:00 - 4:45pm</td>
<td>Trail Camera Mini-Workshop</td>
<td>Lodge, Upper</td>
</tr>
<tr>
<td>2:45 - 3:30pm</td>
<td>Break- Coffee and Snacks</td>
<td></td>
</tr>
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### Concurrent Session E

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:00 - 3:45pm</td>
<td>Lessons from Research to Practice</td>
<td>Castor Chapel, Woodlands</td>
</tr>
<tr>
<td>3:00 - 3:45pm</td>
<td>Nurturing A Sense of Wonder</td>
<td>Nature Center</td>
</tr>
<tr>
<td>3:00 - 3:45pm</td>
<td>Best Practices to Connect Adults with EE</td>
<td>Parker EE Classroom, Wood.</td>
</tr>
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</table>

### Concurrent Session F

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>4:00 - 4:45pm</td>
<td>Beyond the Standards</td>
<td>Castor Chapel, Woodlands</td>
</tr>
<tr>
<td>4:00 - 4:45pm</td>
<td>Balance in the Estuary</td>
<td>Nature Center</td>
</tr>
<tr>
<td>4:00 - 4:45pm</td>
<td>Story Stones for Educators</td>
<td>Parker EE Classroom, Wood.</td>
</tr>
<tr>
<td>4:00 - 4:45pm</td>
<td>Keeping the Natural Sciences in STEM</td>
<td>Lodge, Upper</td>
</tr>
<tr>
<td>5:00 - 6:00pm</td>
<td>Cocktail Hour and Poster Session</td>
<td>Yount Meeting Room at Lodge</td>
</tr>
<tr>
<td>Until 5:45pm</td>
<td>Silent Auction Closes</td>
<td>Yount Meeting Room at Lodge</td>
</tr>
<tr>
<td>6:30-7:30pm</td>
<td>Banquet</td>
<td>Dining Hall at Woodlands</td>
</tr>
<tr>
<td>7:30-8:30pm</td>
<td>Keynote: Mary Ellen Hannibal</td>
<td>Castor Chapel, Woodlands</td>
</tr>
<tr>
<td>8:30pm - ?</td>
<td>Awards Reception and Live Auction</td>
<td>Castor Chapel, Woodlands</td>
</tr>
</tbody>
</table>

### Sunday

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 - 10:00am</td>
<td>Registration Open</td>
<td>TBD</td>
</tr>
<tr>
<td>7:00 - 8:00am</td>
<td>Morning Yoga OR Tai Chi</td>
<td>Lakeside Chapel</td>
</tr>
<tr>
<td>7:00 - 8:00am</td>
<td>Devotional</td>
<td></td>
</tr>
<tr>
<td>8:00 - 9:00am</td>
<td>Breakfast (food served 8:00-8:30am)</td>
<td>Woodlands Center Dining Hall</td>
</tr>
<tr>
<td>9:00am - 12:00pm</td>
<td>Research Symposium</td>
<td>Castor Chapel, Woodlands</td>
</tr>
</tbody>
</table>

### Concurrent Session G

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:00 - 9:45am</td>
<td>Environmental Chemistry</td>
<td>Parker EE Classroom, Wood.</td>
</tr>
<tr>
<td>9:00 - 9:45am</td>
<td>Expeditionary Science Outcomes and Best Practices</td>
<td>Nature Center</td>
</tr>
<tr>
<td>9:00 - 10:15am</td>
<td>Communicating With Schools So They Will Listen</td>
<td>Lodge, Lower</td>
</tr>
</tbody>
</table>

### Concurrent Session H

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>10:00 - 10:45am</td>
<td>What on Earth Are We Doing?</td>
<td>Lodge, Upper</td>
</tr>
<tr>
<td>10:00 - 10:45am</td>
<td>Ecological Knowledge and Cherokee Myth</td>
<td>Nature Center</td>
</tr>
<tr>
<td>10:00 - 10:45am</td>
<td>Let’s Rock Our World</td>
<td>Parker EE Classroom, Wood.</td>
</tr>
</tbody>
</table>

### Concurrent Session I

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>11:00 - 11:45am</td>
<td>Marine CSI: Coastal Science Investigations</td>
<td>Lodge, Upper</td>
</tr>
<tr>
<td>11:00 - 11:45am</td>
<td>How to Choose A Community Partnership Project for Your</td>
<td>Nature Center</td>
</tr>
<tr>
<td>11:00 - 11:45am</td>
<td>Teaching Science with Technology</td>
<td>Parker EE Classroom, Wood.</td>
</tr>
<tr>
<td>12:00 - 1:00pm</td>
<td>Lunch (food served 12:00 - 12:30pm)</td>
<td>Woodlands Center Dining Hall</td>
</tr>
<tr>
<td>12:45 - 1:15pm</td>
<td>Closing Gathering</td>
<td>Parker EE Classroom, Wood.</td>
</tr>
</tbody>
</table>
Thank you!

Special thanks to the following businesses for their donations support of the 2017 conference:

**Fair Game Beverage • Ponysaurus • Sweet Sands of Salvo**

Thanks also to the following individual conference sponsors:

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**EENC Fall Donation Drive**

EENC is taking part in the Southeastern Environmental Education Alliance-led Razoo fundraising drive again this year. This fall, look for information about our online Razoo campaign to share with your social networks, or consider making a donation of your own. A couple of bucks or many - any amount is welcome and appreciated! This year’s campaign begins November 17 and lasts through the end of the year.

See you at the 2018 conference!

September 27-29, 2018
Doubletree, Atlantic Beach, NC