Wednesday, March 6, 2019
Hogan Campus Center, College of the Holy Cross
Worcester, Massachusetts

massachusetts environmental education society
Massachusetts Environmental Education Society Presents:

2019 Annual Conference
#massmees2019

<table>
<thead>
<tr>
<th>Conference Schedule</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 a.m. — 8:45 a.m.</td>
</tr>
<tr>
<td>⇒ Registration</td>
</tr>
<tr>
<td>⇒ Coffee &amp; Breakfast</td>
</tr>
<tr>
<td>⇒ Exhibits</td>
</tr>
<tr>
<td>8:45 a.m. — 9:00 a.m.</td>
</tr>
<tr>
<td>⇒ Welcome</td>
</tr>
<tr>
<td>⇒ Annual Meeting</td>
</tr>
<tr>
<td>9:00 a.m. — 9:30 a.m.</td>
</tr>
<tr>
<td>⇒ Keynote Speaker</td>
</tr>
<tr>
<td>9:45 a.m. — 11:00 a.m.</td>
</tr>
<tr>
<td>⇒ Session A</td>
</tr>
<tr>
<td>11:15 a.m. — 12:30 p.m.</td>
</tr>
<tr>
<td>⇒ Session B</td>
</tr>
<tr>
<td>12:30 p.m. — 1:30 p.m.</td>
</tr>
<tr>
<td>⇒ Lunch</td>
</tr>
<tr>
<td>⇒ Exhibits</td>
</tr>
<tr>
<td>1:45 p.m. — 3:00 p.m.</td>
</tr>
<tr>
<td>⇒ Session C</td>
</tr>
<tr>
<td>3:15 p.m. — 4:30 p.m.</td>
</tr>
<tr>
<td>⇒ Session D</td>
</tr>
</tbody>
</table>

REGISTRATION | 8:00 a.m.—8:45 a.m.

Registration begins at 8:00 a.m. in the foyer of the Hogan Campus Center. Please visit the registration table to collect your name tag and a schedule. Once registered, please enjoy coffee and breakfast and feel free to mingle with conference attendees and our great Exhibitors.

WELCOME | 8:45 a.m.—9:00 a.m.

Please find a seat in the Ballroom by 8:45 a.m. MEES President Ann Gisinger will provide opening remarks and manage the MEES Annual Meeting.

Following the welcome there will be announcements from the North American Association for Environmental Education (NAAEE) and the New England Environmental Education Alliance (NEEEA).

KEYNOTE | 9:00 a.m.—9:30 a.m.

Michael Dietze, Associate Professor in the Earth & Environment Department at Boston University, will address ecological forecasting and its application to citizen science.

Biography: Michael Dietze leads the Ecological Forecasting Laboratory, the mission of which is to better understand and predict ecological systems. He is interested in the ways that iterative forecasts can improve and accelerate basic environmental science, while at the same time making that science more directly relevant to society. Much of the current work in the lab is organized under two broad umbrellas, the Near-term Ecological Forecasting Initiative (NEFI) and the PEcAn project (Predictive Ecosystem Analyzer). NEFI is focused on addressing overarching questions about ecological predictability, while developing forecasts for a wide range of ecological processes and advancing statistical and informatic tools for ecological forecasting. PEcAn is focused more specifically on the terrestrial carbon cycle, improving our capacity for carbon monitoring, reporting, verification, forecasting, data assimilation, and multi-model benchmarking and calibration within the land component of Earth System models.
Double Session A+B: Growing Up Wild: Exploring Nature with Young Children

Kathleen Mahoney and Amy Coulthard, Massachusetts Division of Fisheries and Wildlife

Experience this early childhood education program that builds on children’s sense of wonder about the natural world and invites them to explore wildlife and the world around them. Through a wide range of interactive, hands-on activities and experiences you will discover how to lead your young learners on an exploration of the natural world outside your classroom while they gain valuable knowledge and academic skills. Connect with nature and many of its wonders through music & movement, play, home connections, and art. Activities involve social, emotional, physical, language, and cognitive domains that correlate to STEM, Head Start, and NAEYC standards.

A1: Highlights in EE Research and Evaluation

Evan Kuras, University of Massachusetts Amherst; Jeff Perrin, Lesley University; Lucy Gertz, Mass Audubon

EE research and evaluation can provide useful insights, but with diverse questions and methods available to educators, how does one choose what to measure and how? Panelists will present their relevant endeavors: What do people know about actions they can take to solve environmental problems? How do students follow up on EE experiences? What are the trends in Connection to Nature research and how is it being applied? We'll discuss opportunities, challenges, and resources for educators and facilitate small group conversations around specific evaluation/research interests and needs. Participants will leave equipped and inspired to gain greater insights about their work.

A2: Make Your Own Storybook Walk

Marjorie Turner Hollman, MarjorieTurner.com; Kathryn Parent, MA Department of Conservation and Recreation

Make Your Own Storybook walks are a simple concept with multiple applications. While simple, the program is not simplistic. The concept is to offer an experience, outdoors if possible, but adaptable to indoor environments if needed, to explore the senses: touch, taste, hearing, sight, and smell. Including all these senses in the outing enriches story possibilities, engages participants, and promises richer stories as a result. We will begin by talking about the power of partners, teaming up, and working together. Appropriate for friends, parents/children, older/younger, sighted/visually impaired. Simple concepts for story creation will be covered.

A3: Climate Change Educational Games

Laura Beltran and Patti Steinman, Mass Audubon, Arcadia Wildlife Sanctuary

We will teach participants different active educational games and activities to understand the concept of climate change. We will debrief each activity and discuss ways to incorporate into programs. We will also share ideas for extensions and how climate change may be a topic that can be part of many different lessons. This workshop will focus on outdoor/informal educators and classroom teachers who teach 4th grade and up. We will discuss effective climate change education and how to stay positive. Additionally, we will have hand-outs describing the background and step by step instructions for activities. Our presentation will be active and loud, come prepared to play!
A4: Environmental Education in Urban Green Space: Understanding Educator Practice

Jennifer Klein, Mass Audubon

Environmental educators need to understand cities as ecosystems. Urban EE has become a core area of focus in environmental education, however, do we understand the ways in which urban environmental educators should approach this work? This session highlights the teaching methods, approach and content of environmental education in cities.

A5: The Power of Nature

Sophie Wadsworth and Taylor Eagan, The Nature Connection

The Power of Nature will present best practices and evidence for the benefits of nature-based interventions for children and adults of all abilities, especially those with disabilities or who are at-risk. Workshop will include a PowerPoint presentation and hands-on demonstration of how to incorporate sensory and nature-based activities, such as touching a tortoise’s hard, ridged shell while learning about the animal’s methods of defense, adaptation, or life cycle. Through group modeling and case examples, participants will learn new techniques for mindful, engaged communication. Activity guides for designing nature-based activities, both one-on-one and in groups, will also be provided.

A6: Weather, Climate and Resilience

Rebekah Stendahl, New England Aquarium; Alexandra Vecchio, Mass Audubon

Many communities in our region are already working on climate action plans, but community engagement is generally underdeveloped. Massachusetts’ Municipal Vulnerability Preparedness (MVP) program is one tool that cities and towns are using to advance this work. Community engagement needs to be designed to engage larger and more diverse groups of citizens – including youth and adults – in paying attention and getting involved with community resilience-building efforts and the Environmental Education field is well positioned to support this effort through work in the classroom. Mass Audubon has been working closely with the State to support this plan and work with municipalities as MVP providers. The New England Aquarium is engaged in several community engagement projects to explore issues related to climate resilience. Integrating input from climate resilience experts and planning professionals into formal and informal curricula will simultaneously enrich student learning while helping many students discover how they can play a role in addressing key issues facing their communities. This workshop will break down the components of the student work to provide tools and materials for implementation.

A7: Securing Support for School Sustainability Initiatives

Rachel Oliveri, Arlington Public Schools; Charlotte Milan, Town of Arlington

This workshop will focus on the Arlington Public Schools (APS), a 2018 U.S. Department of Education Green Ribbon School District Sustainability Awardee. APS provides an example of how gaining town support and successfully applying for a Massachusetts DEP School Recycling Assistance Grant made it possible for the district to secure a School Sustainability Coordinator and expand its sustainability initiatives.

APS received national recognition for their many district-wide resource conservation and waste reduction initiatives, including classroom recycling audits, lunchroom food waste collection, textile recycling, and solar panels on school buildings. The district encourages environmental health and wellness through green cleaning policies, air filtration systems, no-idling in front of schools, and fitness and nutrition programs. Sustainability education is integrated into the curriculum at all grade levels, from Earth and Space Sciences in kindergarten to Environmental Science and Public Policy classes in high school. Arlington’s student Green Teams have also played a key role in bringing environmental learning and action to their school communities. Take a deep dive into one school district’s sustainability journey and make a road map to success for your own school district!
B1: You Are What You Eat – Agriculture & Climate Justice
Zachary Darbeloff, Mass Audubon’s Drumlin Farm

How does the food we grow and eat affect global environmental health? Environmental action and climate justice in the coming decade will be inextricably tied with agriculture as both a cause and victim of climate change. Our growing practices and affordable access to food and water may be challenged as climate change causes extreme weather across the globe. Understand why climate change is such a threat to our global farming infrastructure, why Americans are largely at fault, and how we can shift our teaching paradigms to better address the issue. Go home with activities and talking points to teach on your own.

B2: Starting an After School Nature Play Group
Meg Taylor, Field & Forest Education Services

Research shows that active, free time in Nature on a regular basis is the antidote to a host of childhood developmental deficiencies and health issues. With thoughtful planning and design, an after school nature play group can happen in nearly any green space – meadow, woodlot, or urban park. In this hands-on workshop, educators will experience a replicable framework and some core Nature Play routines for bringing children outdoors after (or during) school. Meg Taylor, Director of Field & Forest Education Services, will share her experiences starting and leading after school Nature Play groups in any season for children ages 3-12.

B3: Using an Inventory of Current Practices to Improve Environmental Education
Jeanine Silversmith, Rhode Island Environmental Education Alliance

Rhode Island Environmental Education Association (RIEEA) will share results from a statewide survey of K-12 administrators /teachers entitled Environmental Education: Inventory of Current Practices. The survey, which reached over 700 educators, helped us understand attitudes and values towards environmental education as well as current and desired supports and resources available in the formal education context. Using the survey results, RIEEA member organizations are able to develop programs aligned to the needs reported by school districts, strengthen existing partnerships, and engage new and underrepresented communities. Successful partnerships will be highlighted as an avenue towards maximizing EE effectiveness and a more equitable, diverse field.

B4: Creating Successful Lessons with Challenging Standards
Kirstie Beaton and Katy Carchedi, Natural Resources Trust of Easton

With the introduction of the new Massachusetts Science and Technology/Engineering Curriculum Frameworks in 2016, Massachusetts educators have been tasked to develop new curriculum aligning with these standards. In this workshop NRT educators will present activities aligned with second and third-grade life science standards (2-LS2-3MA; 3-LS3-1-2; and 3-LS4-2-4), which address how plants and animals rely on their environments for survival and the inheritance and variation of traits, respectively. NRT educators will demonstrate highly interactive activities that are easily adaptable for indoor and outdoor spaces; illustrate different techniques for honing students’ observational skills; and show creative ways to incorporate learning through play.
**SESSION B | 11:15 a.m.—12:30 p.m.**

**B5: Civic Engagement in Environmental Education**

*Will Snyder, UMass Extension; Kris Scopinich, Mass Audubon*

How can Massachusetts environmental educators use the new Act to Promote and Enhance Civic Engagement to strengthen our work with schools and communities? Join SAGEEE members for an assessment of environmental education possibilities under the law, which requires secondary schools to provide students with opportunities for student-led civics projects. We will highlight examples of existing Mass EE programs that fit civic education expectations, noting best practices as well as connections to the new Mass History & Social Sciences standards. We will tap participants’ experiences and invite continued conversation in an Environmental Literacy Professional Learning Network focused on civic engagement.

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**B6: Youth Climate Summits**

*Brittany Gutermuth, Mass Audubon; Colleen Kelley, Hitchcock Center for the Environment*

Youth Climate Summits, designed by the WILD Center, create youth climate leaders by connecting high school students with climate experts, like-minded peers, and real world solutions. Come learn about the 2 different successful Summits organized by the Hitchcock Center for the Environment and Mass Audubon’s Arcadia Wildlife Sanctuary, identify resources in your community, find out if a Summit is already being planned in your region, and leave with the confidence and excitement to host/connect with your own Youth Climate Summit.

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**B7: Close Encounters—Making the Most of Children’s Encounters with Animals**

*Jill Canelli and Rina Zampieron, Mass Audubon—Drumlin Farm Community Preschool*

One of the best ways to introduce children to environmental education is through animals. Young children have a natural affinity for animals and can be taught very early to be gentle with them and understand their needs. Purposeful activities that involve the children as naturalists and caretakers can instill values of the humane treatment of animals.” (Excerpt from NAAEE - Early Childhood Environmental Education Programs: Guidelines for Excellence). This session will focus on three different types of animal encounters (domestic animals, wildlife in the classroom and serendipitous encounters with wildlife in nature), with the idea of maximizing the curricular impact of these experiences. We will share documentation from our program that will highlight several real curriculum studies have been inspired by various interactions with animals big and small with our preschool students. Our overall goal is to empower programs to both implement planned animal encounters and capitalize on spontaneous events, in a way that fully integrates these experiences into the curriculum and daily explorations of their participants .
Please use the lunch hour to walk through the exhibit hall, network with your fellow Environmental Education colleagues, and enjoy a delicious lunch. Vegetarian and vegan options are provided.

Stick around to find out if you’ve won a great door prize from our donors!

C1: Teaching with i-Tree: Real-World Applications to Your Location

*Gini Traub and Mollie Freilicher, MA Department of Conservation and Recreation*

Explore Project Learning Tree's free, on-line, Teaching With i-Tree curriculum. Its activities and the free i-Tree Design on-line tool help students and others discover the ecosystem services provided by trees and analyze dollar benefits of actual or proposed trees in the built environment of your site, your school or your town. Receive the i-Tree unit hard copy, other handouts, and information on Project Learning Tree educational materials. Please bring a laptop or tablet, if you have one.

C2: The Ropes of Ecology

*Shawn Moriarty, A Single Footstep / Mass Audubon*

The Ropes of Ecology workshop presents participants with a series of activities that they can use to teach ecological literacy, group development, and sense of place. This program uses mobile initiatives and other activities to teach a wide range of ecological topics. The Ropes of Ecology is an interactive workshop that provides participants a set of activities and initiatives that can be used in classrooms, outdoors, or in conjunction with a low ropes course. You do not need to have a low ropes course at your site to use the activities.

C3: Community Engagement: Guidelines for Excellence

*Libby McCann, Jean Kavira, and Cynthia Espinosa Marrero, Antioch University New England, NAAEE ee360*

As environmental educators, we work in and with communities ranging from workplace teams and neighborhoods to regional partnerships and beyond. During this interactive workshop, participants will learn the structure and development process of the North American Association for Environmental Education’s (NAAEE) Community Engagement: Guidelines for Excellence. Join us to explore key characteristics, resources and engagement strategies to design more effective community-based programs. The intent of this session—and the Guidelines themselves—is to facilitate more authentic, inclusive communities through social equity, effective partnerships and long-term change.
C4: Universal Access—Include People with Disabilities in Your Programs

Marcy Marchello and Kathryn Parent, MA Department of Conservation and Recreation

Audiences of ALL abilities can discover the benefits of being immersed in nature. Presentation will include experiential piece describing successful programs that have been offered in State Parks. Topics covered will be: etiquette and customer service, key principles, basic how-to and building blocks of a successful accessible program, outreach strategies, an overview of DCR’s Universal Access Program. Workshop will cover how to modify current programming to fit various needs, and field-tested hands on activities will be shared. Workshop will conclude with a networking and sharing session - come prepared with your success stories and questions.

C5: Solving Problems Outdoors: The Affordances of Adversity

Karen First, Mass Audubon Ipswich River Nature Preschool

Stories from Mass Audubon's Nature Preschools illustrate how outdoor challenges provide perfect provocations for short and long term investigations that incorporate science, math, art and social learning. We will think together about how leaning into challenges and find the learning embedded in problems we encounter outdoors. We'll look at several different kinds of problems. 1) Problems that stretch children's thinking 2) Problems related to engineering and design 3) The challenge of collaboration and 4) Environmental problems encountered through direct experience. Participants will share problems that they encounter in their outdoor settings and explore the potential for turning their problems into projects.

C6: Using Technology to Engage the Community in Citizen Science Opportunities

Jennifer Maltese, Zoo New England

Citizen science projects make science accessible to everyone. In this workshop, we will learn about the power of the iNaturalist app to collect and curate local biodiversity data along with the benefits of engaging communities in place-based biodiversity research. We will explore some of the local citizen science projects that you can incorporate into your lessons and classrooms using iNaturalist. We will also look at how this simple app can be used to participate in the City Nature Challenge (CNC), an annual, international 4-day biodiversity observation competition.

C7: Secretary’s Advisory Group on Energy and Environmental Education Meeting

Kris Scopinich, Mass Audubon & SAGEE

The purpose of SAGEE, the Secretary’s Advisory Group on Energy and Environmental Education, is to foster environmental literacy within the Commonwealth of Massachusetts, to support the Secretary of the Executive Office of Energy and Environmental Affairs (EOEEA) on opportunities related to energy and environmental literacy, and to serve as a coordinating forum among agencies and organizations concerned with the environment in the Commonwealth. Our current work aims to support, recognize, and promote best practices in building environmental literacy across Massachusetts.

This SAGEE meeting is an opportunity for the team to share our latest efforts and accomplishments in Massachusetts. If you want to get engaged in what’s happening with promoting environmental literacy in Massachusetts, please join this session.
D1: Increasing Program, Event, & Facility Accessibility for Individuals with Autism  
*Jennifer Karow-Charette and Cheryl Vieira, Roger Williams Park Zoo*

Teams across departments at Roger Williams Park Zoo have been intentionally working to increase accessibility of programming, events, and facilities to children and adults with autism. This session will discuss partnerships with three autism-support organizations, share replicable tools & resources that have been implemented as a result of those partnerships, and allow time for participants to collaboratively evaluate their own programs and facilities for opportunities to increase accessibility.

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D2: Earth Circles: An Environmental Curriculum for Today  
*Janet Powers, Maureen Oates, and Donald MacIver, First Parish in Bedford Unitarian Universalist*

It matters what we teach our children! It matters that people know the basic workings of planet Earth and understand our use of its resources - not at the advance science level, but at the everyday living-our-lives level. Join us as we demonstrate hands on activities and tell stories from Earth Circles, a values based curriculum where we explore basic science concepts in the context of environmental justice. We’ll conclude our session by circling back to the heart and consider why what we learned matters.

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CANCELLED D3: Supporting Future Leaders: Fostering a healthy non-profit culture to attract and retain millenial and Generation Z Talent  
*Samantha Polon, Roger Williams Park Zoo*

In this workshop, we will address common stereotypes plaguing the younger workforce, and discuss strategies to recruit and retain talent in the EE field. Expect to explore the needs of millennials and Generation Z employees and come away with tools to support an age-diverse workforce. Participants will dig into the social background of 18 to 35-year-olds, and develop strategies to increase communication between management levels. Our time will also be devoted to discussing and re-evaluating the credentials and needs for “entry level” positions. We will look strategically at the employee culture of your organization as a springboard for this work.

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D4: Better Environmental Education Teaching, Learning, and Expertise Sharing (BEETLES)  
*Erin Kelly, Mass Audubon*

Better Environmental Education Teaching, Learning, and Expertise Sharing (BEETLES) is a professional learning resource designed by University of California’s Lawrence Hall of Science. The goal of BEETLES is to infuse environmental education programs across the country with research-based approaches to science teaching and learning. BEETLES provides instructors with useful tools and activities to continually improve their environmental education programs. The complete BEETLES curriculum with its research-based approaches to science teaching is free for everyone. In this session, participants will be given an overview of the BEETLES curriculum while participating in hands-on nature activities.
D5: Foraging our Fields and Forests for Food, Art and Function

Aimee Gelinas and Daniel Cohen, The Tamarack Hollow Nature and Cultural Center

Participants will learn about native and non-native trees, plants and shrubs from local forest and field through photos, discussion, hands on examples and taste testing. Samples will be on hand along with project examples and simple, easy to harvest creations such as evergreen needle tea for participants to try. Tips about identifying, sustainably harvesting and utilizing plants, berries, roots and bark to create teas, dyes, skin care and snacks will be shared including what time of year is best to collect. Handouts and book suggestions will be provided.

D6: STEM-ulating Activities on Human Ecology

Susan Bryant, Population Connection

Discover innovative ways to teach middle school students about human-environmental interactions, while also building STEM skills through problem solving, mathematical modeling, interactive technology and more. Interdisciplinary topics include human population growth, land and ocean use, climate change and biodiversity. Receive electronic lesson plans for use in classrooms and nature centers.
REGISTRATION INFORMATION

REGISTRATION CLOSES MONDAY, MARCH 4—NO WALK-IN REGISTRATIONS PLEASE.

CANCELLATIONS WILL RECEIVE A FULL REFUND THROUGH WEDNESDAY, FEBRUARY 27. AFTER FEBRUARY 27 ANY CANCELLATIONS WILL RECEIVE A REFUND LESS A $25 CANCELLATION FEE.

Registration fee includes conference attendance and lunch. REGISTER NOW

Early Bird Rate—$85
If registered by Friday, February 8

Registration Rate—$105
For those registered between February 9 and March 4

Student Rate—$35
Applies to high school, undergraduate, and graduate students.

SCHOLARSHIP PROGRAM
MEES offers a generous scholarship program, open to anyone identifying a need. The reduced scholarship rate is only $35 and is available to all who apply. Scholarships are provided on a first-come, first-served basis—there are 40 available. To apply, please email the Scholarship Coordinator Marley O’Neil and put “Scholarship Registration” in the subject line: events@massmees.org.

EXHIBITORS
Exhibitors register at the conference attendee rate (see above) and add $20 for a table or $10 for a full table. (Tables are six feet in length.) Registration includes your attendance at conference workshops, breakfast, and lunch. Please contact Kathryn Parent to register as an Exhibitor and put “Exhibitor Registration” in the subject line: events@massmees.org.

PRESENTERS
Presenting a Workshop? You are still required to register online! REGISTER NOW

Workshop LEAD Presenter—FREE Conference Registration—Includes attendance at workshops and lunch.
Workshop Additional Presenter(s)—$40—Includes attendance at workshops and lunch.

If the conference is cancelled for any reason, MEES is unable to provide a refund.

Cancellation information will be announced via email to those who registered online, as well as on the MEES website: www.massmees.org and the MEES Facebook Page

Questions? Concerns? Comments?
Please email: events@massmees.org

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