



*March 5, 2014  
College of the Holy Cross  
Hogan Campus Center  
Worcester, Massachusetts*



# **Environmental Literacy for the Next Generation**

# Environmental Literacy for the Next Generation

## Massachusetts Environmental Education Society 2014 Conference

### Conference Schedule

8:15–9:00 am  
Registration  
Coffee  
Exhibits



9:00–10:15 am  
Session A  
Exhibits



10:30–11:45 am  
Session B  
Exhibits



12:00–12:45 pm  
Lunch  
Annual Meeting



12:45–1:15 pm  
Exhibit Session



1:15–2:30 pm  
Session C  
Exhibits



2:45–4:00 pm  
Session D  
Exhibits

Join us for our annual conference in Worcester, Massachusetts! The theme for 2014, **Environmental Literacy for the Next Generation**, offers opportunities to dive into today's most pressing environmental topics and explore exciting new venues for reaching learners in all settings.

This year, we have developed descriptive strands to help you identify the most relevant workshops more efficiently.

**Classroom Teachers (CT):** Workshops by teachers or for teachers that clearly align with the Massachusetts Curriculum Frameworks or highlight lessons that lend themselves particularly well to a formal classroom setting.

**Environmental/Outdoor Educators (EOE):** Workshops lead by experts in the natural history field and informal education fields.

**Administrator (A):** From “Greening” your organization to fundraising and social media, these workshops focus on our work behind the scenes.

**Non-Strand (NS):** Valuable information and enriching activities outside the listed strands.

Join fellow environmental educators and advocates in a day of problem-solving and discussion. Rebuild your excitement and commitment to our natural world and gain a fresh new perspective. Looking forward to seeing you there!

*Board of Directors*



Registration begins at 8:15 am; tables are located on the Third floor as you enter the Hogan Campus Center. Lunch begins at noon in the Ballroom on the same floor.

\*Please note: Main Entrance is on the third floor.\*

**A1: From Carrots to Conifers: Teaching Kids Science Through the Wonder of Plants (CT, EOE)**

*Jamie Samowitz, Youth Education Coordinator, Berkshire Botanical Garden*

Use the engaging and tactile world of plants to bring science to life! Participants will be guided through interactive activities focused on plant propagation, the origins of our food, and facilitating self-guided journeys through a natural ecosystem. Lesson plans targeted for elementary and middle school will be provided.

*Workshop Format: Hands-On*

*Audience: Elementary School, Middle School, Informal*

**A2: No Child Left Inside in the Era of Security, Common Core, NGSS and Educator Evaluation (CT)**

*Louise Levy, Science Teacher, Belchertown High School*

Join us for a discussion of logistics and tactics that we've used to get kids outside. Let's share our experiences providing kids with engaging, enriching outdoor learning experiences. We'll share the joys we've had successfully partnering elementary and high school students. It's not easy, but it is absolutely worth it!

*Workshop Format: Discussion*

*Audience: Elementary School, High School, Informal*

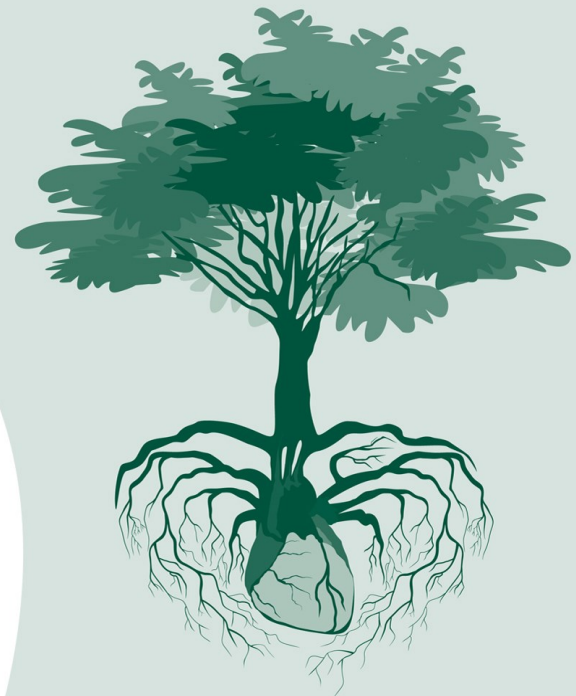
**A3: What's Beyond Environmental Literacy? (CT, EOE, A, NS)**

*Adrian Ayson, New England Environmental Education Association & Dawn Chavez, Boston Youth Environmental Network*

Imagine this: in the not too distant future, all our environmental literacy work succeeds, and the next generations grow up understanding how natural and human systems work and interact with one another. Can we then put up the "mission accomplished" banner? Or is there much more work to do? Join us for a look at how *EECapacity (Expanding Capacity in Environmental Education)* – a national EPA-funded environmental education training project, is helping environmental educators explore new directions for EE. In New England and eleven states across the country, *EECapacity Regional Consortia* are working to strengthen and diversify EE's reach and focus by connecting leaders from a wide array of organizations, engaging them with unfamiliar and thought-provoking perspectives and strategies for communities, nature, and the environment.

*Workshop Format: Presentation*

*Audience: All*



**Strands Abbreviation Key**

**CT:** Classroom Teacher

**EOE:** Environmental/Outdoor Educator

**A:** Administrator

**NS:** Non-Strand

*Continued...*

**A4: A New Approach to Climate Change Communications (EOE, A)**

*Amy Fleischer, Mass Audubon's Wellfleet Bay Wildlife Sanctuary*

The National Network for Ocean and Climate Change Interpretation convenes informal science interpreters to learn communications strategies based on social, cognitive, and scientific research, to empower audiences to engage as citizens. Practice incorporating our methods into your teaching practice to engage positively and productively with students on climate change issues.

*Workshop Format: Hands-On*

*Audience: Middle School, High School, Admin*

**A5: Green is Groovy: Using Environmentally-themed Children's Books to Address the Common Core (CT)**

*Melissa Stewart, Children's Book Author*

Author-educator Melissa Stewart introduces a broad range of environmentally-themed nonfiction children's books that combine engaging text and innovative art and design in ways that delight as well as inform young readers. The titles are paired with fun, innovative activities and teaching strategies that directly address the goals of CCSS RIT #1-9. Attendees go home with a flash drive full of CCSS-related teaching ideas.

*Workshop Format: Presentation*

*Audience: Elementary School*

**A6: Greengineering the Future (CT, A)**

*Steve Chinosi, Chief Innovation Officer, Newton Public Schools*

Join us to collaborate on the big ideas, lessons learned, and action plans for creating an inspired, inquiry-based integration of art, science, and engineering through the flipped and blended Greengineering program.

*Workshop Format: Demonstration*

*Middle School, High School Educators, Admin*

**A7: Teacher Efficacy in Outdoor Education for the Very Young (CT, EOE)**

*Diana Stinton, Professional Development for Teacher Efficacy*

Children spend less time outside than ever before. Many young children spend 40 or more hours a week in childcare settings. Even with all the known benefits of playing and learning outside, many childhood settings do not offer young children extended outdoor time to explore. Pre School Teachers lack efficacy in teaching outside and therefore are reluctant to take children outside. Their lack of confidence is directly related to limited knowledge of natural environmental systems and resources to support continued growth in outdoor skills. In this workshop young childcare teachers will investigate a Hand-On Manual of basic scientific information that can be applied in any setting. Activities meet current early childhood frameworks in science and Pre STEM guidelines.

*Workshop Type: Presentation, Demonstration, Hands-On*

*Audience: Pre-School*



**B1: Hydroponics as a Gateway to Learn Scientific Research (CT, EOE)**

*Mike Barnett, Professor, Boston College*

In this session we will overview our hydroponic project. We will share a draft of our curriculum built around hydroponics and how one can use hydroponics to engage youth in doing scientific research.

*Workshop Format: Presentation, Demonstration*

*Audience: High School*

**B3: Bring Climate Change Education into the Classroom with Interactive Teaching Techniques (CT, EOE)**

*Rebecca Lofgren, Park Ranger, Lowell National Historical Park/ Tsongas Industrial History Center*

How can teachers make climate change relevant for middle schoolers?? The Tsongas Industrial History Center at Lowell National Historical Park has created a new one-hour, curriculum-based interactive program for middle school students to learn about climate change and how it has been influenced by the Industrial Revolution.

*Workshop Format: Demonstration*

*Audience: Middle School*

**B5: Watersheds for the Next Generations (CT, EOE)**

*Jim Lafley, Education Coordinator, DCR Water Supply*

Watersheds are important to all generations and will impact future environmental decisions. Achieving environmental literacy by integrating science, math, literature, geography, art, and history into a watershed unit will enable educators to approach the topic from many perspectives and to include many learning styles.

*Workshop Format: Presentation, Hands-on*

*Audience: Elementary, Middle School, Informal*

**B2: Changing Your Classroom Climate (CT, EOE, A)**

*Maggie Shar, Educator, Fiddlehead Education*

Transforming indoor/outdoor classroom culture through the Nurtured Heart Approach. Hands on tools, techniques and games designed to reduce behavior problems and increase a sense of community and connection.

*Workshop Format: Presentation, Hands-On*

*Audience: Pre-school, Elementary, Informal, Admin*

**B4: Hopping into Citizen Science (CT, EOE)**

*Jen Collier, Conservation Education Specialist, Buttonwood Park Zoo*

In today's world getting people outside to connect with nature can be a challenge. FrogWatch USA allows participants to make that nature connection and turn it into real life science investigations. Join us to learn more about FrogWatch USA and how this project might be able to add an extra hop in your programs!

*Workshop Format: Presentation, Demonstration, Hands-on*

*Audience: Middle School, High School, Informal*

**B6: Ocean Science in the Classroom (CT, EOE)**

*Nicole Scola, Supervisor of Teacher Services, New England Aquarium*

Teachers participated in summer institutes to learn about how to incorporate oceans into their classrooms. During the school year, they implemented lessons with their students. Join us as they share their ideas, challenges, and activities they used to increase ocean literacy in their classroom that also align with the state standards.

*Workshop Type: Presentation*

*Audience: Elementary, Middle, High School, Informal*



**B7: The Massachusetts Environmental Literacy Plan and You (CT, EOE, A)**

*Brock Adler, North American Association for Environmental Education and Robin Organ, Chair, SAGEE*

The development and implementation of the Massachusetts Environmental Literacy Plan (ELP), is by necessity and by design a "bottom up" process. As this tool is being developed, it will be up to us, the practitioners, to develop how the ELP applies to our work, and share this new knowledge with our colleagues and our students. This session will feature several educators, curriculum developers, etc. from the field, presenting ways they are, or anticipate, putting the Massachusetts ELP into practice by using their experiences implementing other environmental and education guidelines.

*Workshop Format: Roundtable discussion*

*Audience: All*

**B8: Boreal Forests of the Berkshires & Climate Change (EOE, NS)**

*Aimee Gelinis M.Ed., Founder/Director,*

In an interpretive photo show & hands-on presentation, see examples of and learn about the unique ecology, fauna, flora and early American industries of high elevation Boreal forests of Western MA found only in microclimates above 2000ft. Learn how climate change affects these unique forest types more drastically than others.

*Workshop Format: Presentation, Hands-on*

*Audience: All*



## LUNCH 12:00 – 12:45 PM

Enjoy a delectable lunch prepared by the College of the Holy Cross while mingling with old friends, making new ones and participating in the MEES annual meeting.

## EXHIBIT SESSION 12:45 – 1:15 PM

Browse exhibit tables of products and programs that supplement, promote, and support EE!

## SESSION C 1:15 – 2:30 PM

### **C1: Games to Illustrate Human Sensation, Perception, Assumptions, Learning, Decision Making and Responding (CT, EOE)**

*Dr. Ronald G. Shapiro, Education By Entertainment*

Understanding the natural environment and designing man-made environments and tools is enhanced by understanding how we gather information about the environment, process, and respond to it. Learn how people gather, process, and respond to information in the environment; Acquire 10 to 15 highly interactive activities; Have a ton of fun!!!

*Workshop Format: Hands-on*

*Audience: Middle School, High School, Informal*



### **C3: Integrating Social Media into your Marketing Strategy (A)**

*Ann Gisinger, Director of Operations, Environmental Business Council of New England*

Integrating social media into the overall marketing strategy of an organization is a daunting task. What social media platforms are best? Who should be responsible for pushing content? Who has the time? This roundtable will encourage discussion of strategies and solutions to social media integration.

*Workshop Format: Roundtable Discussion*

*Audience: Administrator, Informal*

### **C2: Steps to Starting an Enrichment Green Team (NS)**

*Olga Feingold, Program Manager, Thomson Island Outward Bound*

Hands on experience is the next step after comprehension of environmental literacy. Learn how to start a group or jobs program so students can maintain and further understanding while giving back to their community. We will discuss how to create a successful enrichment group either in your school or larger community. We will explore the difference between green team and youth jobs program and which one is better for you. Discussion will include student management, rules, roles, and resources. You will leave with a big picture for your ideal program to begin gathering approval and projects.

*Workshop Format: Presentation, Hands-on, Roundtable Discussion*

*Audience: All*

### **C4: What We Love: Emphasizing Connectedness in the Classroom (CT)**

*Chelle Salvucci, Instructor of Biological Sciences, Cushing Academy*

Using the literature of great writers and naturalists instructors at all levels can blend history, science, and conservation in the classroom. By using techniques from across the curriculum, we can break down the academic silos and engender a love of Nature in our children, both young and old.

*Workshop Format: Presentation with group work*  
*Audience: Pre-school, Elementary, Middle School, High School*

*Continued...*

**C5: Exploring the Garden Ecosystem (EOE)**

*Tara Laidlaw, Farm Director, South Shore YMCA/  
Camp Burgess*

In this workshop, participants will get their hands dirty and their hearts pumping with activities that highlight how a garden functions as an ecosystem. Topics will include predator/prey relationships, energy transfer in a food chain, decomposition and nutrient cycling, and more.

*Workshop Format: Presentation, Hands-on*

*Audience: Elementary, Middle School, High School, Informal*

**C6: The Stories Birds Tell: From Bird Language to Migration (CT, EOE)**

*Alex Dunn, Education/Development, EcoTarium*

Birds are an accessible and familiar entryway to the natural world. This session will demonstrate how classroom teachers and educators can unlock the stories birds tell through literacy, technology and field observations. We will explore both schoolyard bird language and international conservation efforts offering curriculum ideas, print and digital resources.

*Workshop Format: Presentation, Hands-on*

*Audience: Pre-school, Elementary, Middle School, High School, Informal*

**C7: How Can I Help? Empowering Students with Citizen Science (NS)**

*Loree Griffin Burns, Children's Book Author*

Scientist and author Loree Griffin Burns explores citizen science as a means of empowering students and teachers in an age of environmental uncertainty.

*Workshop Format: Presentation*

*Audience: Pre-school, Elementary, Middle School, High School, Informal*

**C8: Teens Talk: "Let me tell you what I've learned..." (EOE)**

*Jenna Sigmond, Coordinator of Youth*

*Development, New England Aquarium*

Converse with teens from The New England Aquarium about how informal science learning about the oceans has influenced their classroom learning and beyond. Take away perspectives and tips about connecting with teens about your curriculum.

*Workshop Format: Roundtable Discussion*

*Audience: Informal*





**D1: Data and Analysis of Outdoor Programming: Understanding How to Quantify the Outdoor Education Experience (A)**

*Alex Chu, Program Director, Thompson Island Outward Bound Education Center*

Discover how you can use data and analytics to quantify the impact of your environmental program. In the current climate of accountability, it's no longer enough to just use testimonials to validate the power of the environmental experience for your students. In this section, we'll discuss how to create simple assessment tools that will impress funders and reveal the strengths and weaknesses of your program.

*Workshop Format: Presentation, Demonstration, Hands-on*

*Audience: Administrator*

**D2: Best Practices for Developing Environmentally Literate Students! (NS)**

*Robin Organ, Executive Director, Green Schools*

Learn the recipe for success when developing Environmentally Literate Students for the 21st Century! This workshop showcases multiple Award-winning EE programs for the Environmentally Literate Student & Teacher/ Informal Educator. Learn how to deliver best practices when it comes to experiential education in Environmental Education through service learning opportunities that truly engage K-12 students in innovative projects that impact our schools and communities.

*Workshop Format: Panel Presentation, Interactive*

*Audience: All*

**D3: It's Out There, It's In Here, It's Everywhere: Place/Community-based Learning in the Elementary and Middle Grades (CT)**

*Tom Julius, Antioch University New England*

How to bring the community into your classroom and take your classroom out in the community? This workshop will explore the curriculum design elements that make for effective place/community-based learning. Participants will gain practical ideas for effectively using local resources to meet learning outcomes in the classroom and out.

*Workshop Format: Presentation*

*Audience: Elementary School, Middle School*

**D4: ecosyS.T.E.M.s: Using Ecology as an Integrating Context for STEM Education (CT, EOE)**

*Meg K. Edstrom, Outreach Director, Ferry Beach Ecology School*

This workshop will demonstrate how a hands-on immersion in field ecology provides the ultimate setting for a relevant application of real world STEM skills. A systems-based approach will provide an authentic context between the interactions during the scientific process, the use of technology, and the application of the Next Generation Science Standards.

*Strand: CT, EOE*

*Workshop Format: Presentation, Hands-on*

*Audience: Elementary School, Middle School, Informal*



**Do your part to curb climate change: Carpool or take transit to the conference!**

<http://www.holycross.edu/directions/hogan.html>

**D5: Salt Marsh Science (CT)**

*Liz Duff, Education Coordinator, Mass Audubon*  
 How are humans impacting local salt marshes?  
 Can we improve their health? Middle and high school students are working in partnership with Mass Audubon, collecting long term data to help find out. Learn about these authentic learning experiences, and ways that you can utilize data and curriculum resources available on line.  
*Workshop Format: Presentation, Hands-on*  
*Audience: Middle School, High School*

**D6: Animal Tracking in All Seasons (CT, EOE)**

*Cynthia Menard, Founder, Withywindle Nature*  
 Many of us associate animal tracking with the winter months, when snow cover makes looking for tracks and signs easiest. But tracking can be a fun, engaging activity for students of all ages in any season. And bringing its lessons into your classroom or program easily incorporates math, statistics and language arts in addition to ecology and biology.  
 Tracker and Naturalist Cynthia Menard will take a group out tracking around the grounds and teach participants how to look for tracks without the benefit of snow cover, and the basics of track & sign identification for teaching purposes.  
*Workshop Format: Presentation, Hands-on*  
*Audience: Elementary, Middle School, Informal Educators*

**REGISTRATION INFORMATION**

Register On-line at

<https://mees.wufoo.com/forms/mees-2014-conference-and-exhibits/>

Registration fee - Includes conference, lunch, and annual MEES membership: **\$75.00** by 01/31/14

**Note: Fee Paid is date dependent. Register early and save \$15.00.** **\$90.00** by 02/26/14

OR

Lead Presenter -

Includes annual membership, conference and lunch on us!

**FREE**

All other presenters for this workshop must pay registration fee!

OR

Student - Includes conference, lunch and student rate for MEES membership: **\$60.00**

OR

Exhibitor - Includes table, lunch for one person:  
(please add \$20 for each additional person)**\$65.00****SCHOLARSHIPS:** Assistance is available on a first-come, first-served basis.Please contact Kathryn Parent at [treasurer@massmees.org](mailto:treasurer@massmees.org)**REGISTER ON-LINE AT [www.massmees.wordpress.com](http://www.massmees.wordpress.com)**

or send registration form and check (payable to MEES) to: MEES, c/o Teacher Resource Center  
 New England Aquarium  
 Central Wharf, Boston, MA 02110

**ALL REGISTRATIONS MUST BE SUBMITTED BY:****QUESTIONS??**

Email Nicole at  
[nscola@massmees.org](mailto:nscola@massmees.org)

**February 26, 2014!!****Cancellations and Refunds:**

If the conference is cancelled for any reason, we will be unable to provide refunds. Cancellation information will be announced on the website –

[www.massmees.wordpress.com](http://www.massmees.wordpress.com)

# MEES 2014 CONFERENCE MATRIX

SESSION A: 9:00–10:15 AM		SESSION B: 10:30–11:45 AM	
A1: From Carrots to Conifers: Teaching Kids Science Through the Wonder of Plants		B1: Hydroponics as a Gateway to Learn Scientific	
A2: No Child Left Inside in the Era of Security, Common Core, NGSS, and Educator Evaluation		B2: Changing Your Classroom Climate	
A3: What's Beyond Environmental Literacy?		B3: Bring Climate Change Education into the Classroom with Interactive Teaching Techniques	
A4: A New Approach to Climate Change Communications		B4: Hopping into Citizen Science	
A5: Green is Groovy: Using Environmentally-themed Children's Books to Address the Common Core		B5: Watersheds for the Next Generation	
A6: Greengineering for the Future		B6: Ocean Science in the Classroom	
A7: Teacher Efficacy in Outdoor Education for the Very Young		B7: The Massachusetts Environmental Literacy Plan and You	
		B8: Boreal Forests of the Berkshires and Climate Change	
SESSION C: 1:15–2:30 PM		SESSION D: 2:45–4:00 PM	
C1: Games to Illustrate Human Sensation, Perception, Assumptions, Learning, Decision Making and Responding		D1: Data and Analysis of Outdoor Programming: Understanding How to Quantify the Outdoor Education Experience	
C2: Steps to Starting an Enrichment Green Team		D2: Best Practices for developing Environmentally Literate Students	
C3: Integrating Social Media into your Marketing Strategy		D3: It's Out There, It's In Here, It's Everywhere: Place/Community-based Learning in the Elementary and Middle Grades	
C4: What We Love: Emphasizing Connectedness in the Classroom		D4: ecosyS.T.E.Ms: Using Ecology as an Integrating Context for STEM Education	
C5: Exploring the Garden Ecosystem		D5: Salt Marsh Science	
C6: The Stories Birds Tell: From Bird Language to Migration		D6: Animal Tracking in All Seasons	
C7: How Can I Help? Empowering Students with Citizen Science			
C8: Teens Talk: "Let me tell you what I've learned..."			