

35th Annual
MAEOE Conference

Exploring Connections: Linking Nature, People & Mindfulness



Ocean City, Maryland
February 6-9, 2020

HIGHLIGHTS

Thursday Professional Development Workshops ★ Thursday Night Social ★ Friday
Pre-Conference Workshops ★ First Timers' Welcome ★
★ Friday Conference Opening and Happy Hour ★ Exhibit Hall & Silent Auction ★
50+ Saturday Workshops ★ Exhibitor Presentations ★ Saturday Night Social ★
Field Experiences

MAEOE is very happy to announce, Ali Smith, Keynote Speaker for the 2020 Conference!

Ali Smith co-founded the Holistic Life Foundation in 2001, where he currently serves as Executive Director. He is a native of Baltimore, Maryland and graduate of the Friends School of Baltimore and the University of Maryland, College Park, receiving a BS in Environmental Science and Policy with a Biodiversity specialization. He has over 17 years of experience teaching yoga and mindfulness to diverse populations around the globe, with a focus on underserved communities in Baltimore City. Through his work at the Holistic Life Foundation he has helped develop and pilot yoga and mindfulness programs at public and private schools, drug treatment centers, juvenile detention centers, mental crisis facilities, and retreat centers, nationally and internationally. Ali has authored a series of children's books, and co-authored several yoga and mindfulness based curriculums, as well as developed numerous workshops and trainings. His work with the Holistic Life Foundation has been featured on *CBS News*, *NBC Nightly News* as well as in *Oprah Magazine*, *Yoga Journal*, and many other publications.



Special Conference Activities

Exhibit Hall

Connect with a variety organizations, agencies, businesses and vendors offering a range of information and resources, as well as, products for sale. The Exhibit Hall opens Thursday afternoon for a sneak-peek and is open throughout the day on Friday and Saturday. Do not miss the Friday evening social in the Exhibit Hall. Come to explore and network, desserts and cash bar available.

Donate to Our Silent Auction!

We need your donations of books, gift certificates, arts and crafts, environmental or educational objects or just fun and zany items! Funds generated from the silent auction benefit the MAEOE conference scholarship fund. To donate items please contact Melissa Boyle at melissa.boyle@maryland.gov .

The Robert Finton Outdoor Educator of the Year Award

MAEOE will present the Robert Finton Outdoor Educator of the Year Award to an individual who demonstrates leadership and innovation in environmental and outdoor education. Bob Finton personified enthusiasm, innovation and excellence in the field of environmental education and this award honors his memory by rewarding a non-formal practitioner of outdoor education who strives to match these qualities. **For more information and to submit a nomination, please visit <https://maeoe.org/professional-development/conference/robert-finton-award>**

Nominations due by 5:00PM on December 7, 2019.

MAEOE Trivia Challenge

Join your MAEOE friends and meet new ones at our annual trivia night. This year it will be held in Schooners Restaurant so you can have dinner, enjoy a beverage and play a free trivia game. Prizes available to winners.

Yoga Classes!

Join a local yoga instructor to improve your flexibility and mind-body awareness. Classes will be offered both Friday and Saturday mornings from 6:45 – 7:45 AM in the Atrium on the 2nd floor. Be sure to book your spot early through registration for \$5 a person (35 person limit)! Drop ins will be accepted (as space permits) for a cost of \$10 per person. Bring your own mat or beach towel to participate.



Friday & Sunday Field Experiences

Expand your personal knowledge of natural and historic wonders of the Eastern shore! Check out the variety of field experiences we have to offer this year: Friday: Indian River Life-Saving Station, Harriet Tubman Underground Railroad State Park Field Experience, Sunday: Local Birding, Ocean Bathing.

2020 MAEOE Challenge -- Become an Environmental Superhero!

Have you ever dreamt of being a superhero? Of conquering villains and inspiring citizens justice and education and goodness in your community. Whether you're still dreaming of being a superhero when you grow up or you're already out there making a difference, this is your moment—bring your inner superhero to life for the 2020 MAEOE Conference Challenge! Work either as an individual or a team to create your own environmental superhero. Be as creative as you can to create a hero who's as unique and complex as you are. See the MAEOE website for more information on challenge participation and submission.



The Future Needs Creativity

It's 2020!! A new year and the start of a whole new DECADE!!!! If ever we were to participate in the creation of the future -- a future we want to inherit -- a future we envision -- now is the time. One exceptionally important skill we will need is creativity. Not limited to artistic ventures and musical expression; creativity is vital for science, math, emotional and social intelligence. The more creative we are the better we are at solving problems, generating solutions, innovating and building resiliency. Creativity cultivates flexibility, enabling students and communities to be more adaptable to changes and to see new opportunities in all that they do. Here in Maryland, progressive strategies to using the outdoors as an integrative context for learning make for an easy platform for cultivating creativity. From Meaningful Watershed Educational Experiences (MWEE) to Nature Play Spaces, Green Schools to the power of the Student Voice, how are we actively developing the skill of creativity, and how can we make this next decade a renaissance of creatives, supporting each other in pushing past “business as usual” models? We must embrace and develop our creativity. Join Coreen Weilmeister for a lunch time talk to discuss this exciting new topic!

Saturday Conference Highlights

PLT & Green Center Breakfast Meetings

Saturday breakfast, look for the MAEOE PLT meeting in Eleuthra and the Green Center meeting in Dominica to get program updates and discuss needs and questions from 7:30 - 8:30 A.M.

Saturday Sessions

Over 50 workshops offering a wide variety of topics, presenters and strands. Workshop descriptions are found on page 16.

Purposeful Pause

Take a moment...To sit, ponder, think, reflect, recharge, wonder, remember, recollect and enjoy. Join Carly Miller from the Carroll County Outdoor School in the atrium after lunch on Saturday for a guided activity and take a moment for YOU.

Community Meetings

Saturday after lunch, look for a “community” gathering that may benefit you or your organization. This year our “communities” will discuss Mindfulness and other top priorities. The format is small group, facilitated discussion. Choose from the following:

- Early & Elementary Education
- Secondary & Higher Education
- Outdoor Education Centers
- Young Professionals
- Diversity, Equity, and Inclusion
- Sustainable Schools

There is no fee, but you must sign up for a group during registration so that we know the numbers for planning purposes. A great way to start and continue discussions with your peers.

MAEOE Maryland Green School & Green Center Application Sessions and Review Opportunity

Is your school or center working on an application to become a Maryland Green School or Green Center in 2020? Regardless of how far along you are in the process, check out all of the sessions on Friday and Saturday (Greening your Schools strand) that can help you achieve your Green School status. You should also consider attending the review session at the end of the day on Saturday for an informal chat with application reviewers. Learn what your school or center needs to do to receive this prestigious recognition. Bring any documentation and receive feedback from our experienced review team.

Saturday Night Celebration

To help you celebrate a successful conference with new and old friends, join a great DJ for a wide variety of music, light snacks and cash bar. Nature-inspired costumes are encouraged but not required. Do not miss this great evening full of fun and friends!



SCHEDULE AT A GLANCE

Date	Time	Event	Location
Thursday, Feb. 6, 2020	9:00 a.m. - 2:00 p.m.	Registration and check in (closed during lunch)	Princess Royale Hotel and Resort
	10:00 a.m. – 5:00 p.m.	Full Day Workshops	Princess Royal
	12:00 p.m. – 3:30 p.m.	Exhibit Hall Set-up	Exhibit Hall
	1:00 p.m. – 2:00 p.m.	Lunch	Schooner’s
	2:00 p.m. – 5:00 p.m.	Half Day Workshops	Princess Royal
	5:00 p.m. – 6:00 p.m.	Exhibit Hall Networking	Exhibit Hall
	7:00 p.m. – 9:00 p.m.	Welcome and MAEOE Trivia Challenge	Schooner’s
Friday, Feb. 7, 2020	6:45 a.m. – 7:45 a.m.	Yoga Class	Atrium – 2 nd Floor
	7:30 a.m. – 5:30 p.m.	Registration/Information Desk Open (closed during lunch)	Princess Royale Hotel

	7:30 a.m. – 9:30 p.m.	<u>Friday Exhibit Hall Hours:</u> 7:30 a.m. – 9:00 a.m. 11:00 a.m. – 1:30 p.m. 4:00 p.m. – 5:00 p.m. 8:30 p.m. -- 9:30 p.m.	Exhibit Hall
	7:45 a.m. – 9:00 a.m.	Breakfast for Workshop Participants	Exhibit Hall
	9:00 a.m. – 4:30 p.m.	Full Day Workshops	Princess Royale - Check Schedule
	9:00 a.m. – 12:00p.m.	Morning Half Day Workshops	
	12:00 p.m. – 1:00 p.m.	Lunch for Workshop Participants	Atrium – 2 nd Floor
	1:30 p.m. – 4:30 p.m.	Workshops - Full Day Workshops continue	Princess Royale
		Afternoon Half Day Workshops	
	1:00 p.m. – 4:00 p.m.	Off-Site Field Experiences <ul style="list-style-type: none"> • Indian River Life-Saving Station Tour • Harriet Tubman Underground Railroad State Park Field Experience 	Delaware Seashore State Park Harriet Tubman State Park
	4:30 p.m. – 5:30 p.m.		Schooner’s
	5:30 p.m. – 6:45 p.m.	First Timer’s Social and Networking	Palmetto Ball Rooms
	6:45 p.m. – 7:00 p.m.	Happy Hour Hors d’oeuvres and Cash Bar	
	7:00 p.m. – 8:30 p.m.	GLOBE Presentation	Exhibit Hall
	8:30 p.m. – 9:30 p.m.	Conference Opening Keynote Address by Ali Smith	
		Exhibit Hall Open – Cash Bar and Dessert Silent Auction Opens!	
Saturday, Feb. 8, 2020	6:45 a.m. – 7:45 a.m.	Yoga Class	Atrium – 2 nd Floor
	7:30 a.m. – 2:00 p.m.	Registration	Princess Royale
	7:30 a.m. – 8:30 a.m.	Breakfast MAEOE PLT/ Green Center Meeting	Exhibit Hall Eleuthera/Dominica
	7:30 a.m. – 4:30 p.m.	Saturday Exhibit Hall Hours: 7:30 am. – 4:30 p.m. Silent Auction ends at 4:15 p.m. Pick up 5:45 p.m. – 6:15 p.m.	Exhibit Hall
	8:30 a.m. – 12:00 p.m. 12:00 p.m. – 1:00 p.m.	Concurrent Workshops – sessions 1 thru 3 Lunch	Princess Royale - Check Schedule Atrium – 2 nd Floor
	1:00 p.m. – 1:45 p.m.	Community Meetings	Princess Royale –

	12:45 p.m. – 1:15 p.m.	Purposeful Pause	Check Schedule Atrium – 2 nd Floor
	1:00 p.m. -1:45 p.m.	Networking	Exhibit Hall
	1:45 p.m. – 4:00 p.m.	Concurrent Workshops - sessions 4 and 5	Princess Royale
	4:00 p.m. – 4:30 p.m.	Snack Break	Exhibit Hall
	4:15 p.m.	Silent Auction Ends	Exhibit Hall
	4:45 p.m. – 5:45 p.m.	Concurrent Workshops - session 6	Princess Royale
	4:45 p.m. – 5:45 p.m.	Green Schools Application Review	Exhibit Hall
	5:45 p.m. – 6:15 p.m.	Pick up and Pay for Auction Items	Exhibit Hall
		Dinner – On your Own in O.C.	
	8:00 p.m. – 12:00 a.m.	Conference Social and Costume Party with DJ, Dancing, Networking, Fun	Palmetto Ballrooms
Sunday, Feb. 9, 2020	8:00 a.m. – 12:00 p.m.	Field Experiences Birding- Wayne Bell & George Radcliff	Check program for locations
	9:00 a.m. – 10:00 a.m.	Ocean Bathing (You will not be getting wet!)	

LODGING INFORMATION

Take advantage of the low rates provided by the Princess Royale! Please contact the Princess Royale to reserve your room by January 17, 2020 for special conference pricing. The conference costs are directly linked to the number of hotel rooms that are used for our conference; support MAEOE by staying at the Princess Royale. Mention the MAEOE conference to get your very special conference rate or use the Group Code 5050 when you book online!

Princess Royale
9100 Coastal Hwy, Ocean City, MD 21842
1-800-476-9253

<https://www.princessroyale.com/groups/>

CONFERENCE DETAILS

A Greener Conference

- Paper Source – All conference materials are printed on recycled paper stock.
- Book Swap – Bring a book/take a book. We've done this for many years and still get a tremendous variety of books. At the end of the conference any unclaimed texts will be donated to a local charity.
- Carbon Offsets – A portion of the registration fee will be used to offset estimated carbon emissions associated with the conference.

- Carpooling/Room Sharing – Reduce your carbon footprint and CARPOOL! Plus save more and share a room. Check the MAEOE website for more information on these two options.
- Bring your own mug and water bottle – Reduce your footprint at the conference. Bring your own reusable mug and water bottle!
- Save paper – Register Online! – Use your Visa, American Express or MasterCard to register on line at www.maeoe.org through February 5, 2020
- BYOL – Bring your own Lanyard – we all have them lying around so why not reduce waste and bring your own nametag lanyard!
- Bag Swap – Tired of using the same old reusable totes? Bring one of your old ones and trade it for a new one!

Community Service Project

This year MAEOE is supporting a local non-profit that is helping the community; HALO's Center of Hope (Haloministry.org). We will be collecting donations that will go toward their mission. Halo runs a women's and children's' shelter, a youth at risk program, parenting classes and employment training, men's shelter and other important programs in Salisbury and surrounding areas. The following are items needed: New socks for children and adults; new or gently worn hats, gloves, coats for children and adults; sleeping bags, blankets and sleeping pads; non-perishable food for the food bank. Please bring items and place them in the boxes marked "HALO's Center of Hope" in the Exhibit Hall. Money in the form of checks made out to: Hope And Life Outreach and sent to: P.O. Box 2227, Salisbury, MD 21802-2227. MAEOE should be recorded in the notes section of check. By supporting these children and families we are also helping the future and the environment.

REGISTRATION INFORMATION

SORRY, NO ON-SITE REGISTRATION.

Save Paper. Register Online! Use your Visa, American Express or MasterCard to register online at <http://www.maeoe.org> through February 5, 2020.

To Register by Mail

Complete ALL FIVE PAGES of the registration form. Mail it with a check for payment to the address provided on the form by January 21, 2020. Please complete a separate form for each person registering. Please note that a processing fee of \$50 is required for each paper registration. To set up payment using a Purchase Order, please contact us at conference@maeoe.org.

Deadlines: Save Money!

Early Bird Registration for the lowest pricing; or save more by going two or three days with our Conference Bundles, only available until January 10, 2020.

Membership Matters!

Being a MAEOE member saves you even more money this year. As an Organizational Member up to five staff can receive discounted rates. Be sure to check out membership benefits at <http://www.maeoe.org> before registering.

Standard Registration- Includes Friday Happy Hour, Conference Opening & Keynote, Exhibit Hall Reception, Saturday Breakfast, All Saturday Sessions, Saturday Lunch, and Saturday Social.

NOTE: Thursday/Friday Workshops and Field Experiences can be added to any Standard Registration.

Check out our CONFERENCE PACKAGE options for Members Only during the “Early Bird” registration period! This promotion is only valid through the January 6, 2020.

Thursday (full or half day), Friday (full or half day) plus Sat registration and lunches: \$400 = \$80 savings!!

Thursday, Friday (full or half day) plus Sat registration and lunches Student Member: \$370 = \$80 savings!!

Friday (full or half day) and Sat registration and lunches: \$275 = \$45 savings!!!

Student Registration- \$150 (non-member)/\$120 (member), available to full-time students only (Proof of full-time schedule is required)

Presenter Registration- *Be sure to register during the early bird period to get your special presenter discount.* Thank you for presenting at the MAEOE Conference, your contribution ensures that we are offering current and relevant workshops enhancing the conference experience for all attendees. NOTE: Only two presenters per session are eligible for the Presenter Registration Rate. Additional Thursday/Friday presenters may purchase lunch as a guest. Additional Saturday presenters must be registered.

Refunds?

Cancel by January 6, 2020 and you will receive a full refund less a \$50 processing fee. Refunds requests received by January 21, will receive a 50% refund. Sorry, no refunds after January 20.

Unless highways are closed by local government due to inclement weather, the conference will take place and no refunds will be given.

Registration Questions?

Check out FAQs first [FAQ](#)

Call the MAEOE office at 410-777-9530 ext. 164. You may leave messages at any time and we will return your call. You can also email your questions to conference@maeoe.org. Be sure to visit the MAEOE website, www.maeoe.org/professional-development/maeoe-conference-2020, for updated and detailed information.

Promote Yourself!

Want to reach over 600 environmental educators? MAEOE will place your business or organization's promotional materials in our conference folder/bag for the modest fee of just \$90! You can also put an advertisement in our Conference Programs! Quarter, half and full size pages available. The more visibility you have the more business you get! For rates and more information on Conference Program ads or folder stuffing, please see our website www.maeoe.org/professional-development/maeoe-conference-2020

Volunteer at the Conference!

Are you an educator looking to become more involved in environmental education on the state level? Do you want to support MAEOE and the success of the conference? Please visit <https://www.signupgenius.com/go/20f0c48aaa929a31-2020> for more information and to reserve your spot to help at the conference.

Scholarships!

The Maryland Association for Environmental and Outdoor Education has established a Conference Scholarship program to assist high school and college students, classroom teachers, and beginning (1-2 years experience) outdoor center educators attend the annual conference.

We raise scholarship funds with the Silent Auction, the amount of funds varies every year. Full and partial scholarships are available.

The scholarship covers the cost of standard conference registration fee only. Thursday and Friday workshops, transportation, and accommodations are not included.

To apply, follow the scholarship link in the conference part of the [MAEOE.org website](http://MAEOE.org).

Important Dates

Scholarship Opens: October 23rd

Scholarship Closes: November 24th

Scholarship will be announced by December 10th

Awardees will need to register by early bird deadline, January 6th

EXHIBITOR INFORMATION

Exhibitor Registration Package: Includes one (1) 6' exhibit table, free Wi-Fi and one (1) standard conference registration (Friday breakfast and lunch, Friday Happy Hour, Opening Ceremony, Keynote Presentation, Exhibit Opening & Social, Saturday sessions, lunch, closing & social). Additional staff or volunteers must register separately and purchase the standard registration package if they want to attend conference sessions/events. There is a guest registration option for volunteers wishing to join in meals and select events. Reserve your space early to take advantage of registration savings. Register on-line at: www.maeoe.org. **Non-profit, Government and For-profit organization rates apply. Register by January 10, 2020, to be listed in the conference program.**

Exhibitor Schedule:

Thursday, February 6, 2020

- Set up in the Exhibit Hall: 12:00 p.m. – 3:00 p.m.
- Sneak Peek and Networking: 4:00 p.m. – 5:30 p.m.

Friday, February 7, 2020:

7:45 a.m. – 9:00 a.m.

11:00 a.m. – 1:30 p.m.

4:00 p.m. – 5:00 p.m.

8:30 p.m. - 9:30 p.m. Exhibit Hall Social – Cash Bar & Dessert: 8:30 p.m.– 9:30 p.m.

Saturday, February 8, 2020

- Exhibit Hours: 7:45 a.m. – 4:30 p.m.
- Exhibitor Break-Down: 4:30 p.m.

Note: Wi-Fi is available in the exhibit hall. Electricity is available in select booths. Exhibit space is limited and subject to availability. For questions relating to Exhibitors please contact: smcquinn@aacps.org

FIELD EXPERIENCES

FRIDAY FIELD EXPERIENCE

Delaware Seashore State Park 1:00PM – 4:00PM

Hop over the state line and visit Delaware Seashore State Park to get an in depth look at how environmental education programs are blended with local heritage. Hike to the top of the Indian River Inlet bridge for some wildlife viewing, followed by a tour of the historic Indian River Life-Saving Station. If conditions allow, park staff will fire the Lyle gun, a small cannon used in 19th century shipwreck rescues! Then sit down with park staff to learn and discuss how interpretive programs are funded, staffed, and marketed in the park. If time allows, enjoy a short, guided hike of Burton Island Nature Preserve. Limit of 25 participants.

Maryland Park Service - Harriet Tubman Underground Railroad State Park 1:00PM – 4:00 PM

Join us for an off-site visit to Harriet Tubman Underground Railroad State Park, located outside of Cambridge, MD in Dorchester County! (This may be on your way down to Ocean City for the Conference!) The 17-acre Harriet Tubman Underground Railroad State Park Center invites visitors to experience Tubman's world through exhibits that are informative and emotive, providing an in depth understanding of Tubman's early years spent in Maryland's Choptank River region and her legacy as a leader, liberator and humanitarian in the resistance movement of the Underground Railroad. The exhibits illustrate how the landscape of the Choptank River region shaped Tubman's early years as well as her emancipation from slavery, her time as a conductor on the Underground Railroad and her continuous advocacy for justice. During your visit, you will receive a guided tour, and have the opportunity to participate in the Junior Rangers and Park Quest programs. In addition, the 15,000 square-foot LEED silver rated center includes state-of-the-art green elements including: a green roof, recycled materials, energy efficient lighting and water conservation devices.

SUNDAY FIELD EXPERIENCES

Birding with Wayne Bell & George Radcliff

Meet in the parking lot at Ocean City Inlet (North jetty) at 8:00 AM. The walk will end at 12 noon. Open to all. You should dress according to the weather, normally in layers with good wind-breaking clothing on top. No special footwear other than warm shoes is needed. Please bring binoculars.

Ocean Bathing with Katelin Frase

At the MAEOE Conference, join Katelin Frase on a session of “Forest bathing” or shinrin - yoku on the beach. Listen to the sounds of the waves crashing on the beach, take in the scent of the saltwater and the marvelous life along the ocean as we mindfully reset using the wonders of nature. Bring your blankets and wear your layers for this “brisk” adventure! You will not be getting wet. Meet at the Princess Royale Hotel beach at 9:00 a.m. A limit of only 25 participants for this one...so sign up early!



Consider purchasing a sponsorship to increase visibility and make an impression within the environmental/outdoor education community. This is a great way to support the MAEOE Conference and to promote your organization to the Environmental Education and Environmental Literacy professional audience that will be attending. We offer sponsors at various levels starting at just \$250. For more information please contact MAEOE’s Executive Director, Laura Johnson Collard, at director@maeoe.org.

THIS IS A TENTATIVE LIST OF ALL THURSDAY, FRIDAY AND SATURDAY OFFERINGS.

THURSDAY Workshops

Please note, workshops may be cancelled due to lack of enrollment. Should this occur you will be notified the week prior to the conference for alternate choices.

Leopold Education Project – (Full Day)

Peggy Eppig, Maryland Agricultural Education Foundation

Strand: Natural History & In-depth Science

Audience: Secondary, College/University, Adult, General, Limit of 30 participants

The Leopold Education Project is a hands-on, conservation literature-based curriculum that focuses on Aldo Leopold's land ethic, his legacy, and his writings. LEP is aligned with Maryland's E-Lit and NGSS for middle through high school levels and can easily be adapted for post-secondary and upper elementary grades. Participants receive a teacher's curriculum guide, a copy of A Sand County Almanac, and the Aldo Leopold Foundation journal. Plan on being outside!

Welcome to Port Project WET! – (Full Day)

Maggie Cavey, Senior Outreach and Education Specialist Maryland Environmental Service (MES)

Strand: Natural History & In-depth Science

Audience: Early Childhood Education, Elementary, Secondary, General, Limit of 25 participants

Participants will ship out of Port Project WET and learn to navigate an award-winning environmental education program designed for teachers and non-formal educators, parents, and community leaders working with youth from preschool through grade twelve. This thematic Project WET workshop will focus on how the Maryland Department of Transportation Maryland Port Administration (MDOT MPA) and the Port of Baltimore are benefiting the environment in a major way here in Maryland. Participants will engage in multi-disciplinary Project WET activities that promote awareness, appreciation, knowledge and management of water resources with a port twist.

Fungal relationships: the curious case of benefactors, friends, and zombies Half

Serenella Linares, School Programs Manager. Audubon Naturalist Society

Strand: Greening Schools

Audience: Early Childhood Education, Elementary, General Audience, Limit of 35 participants

Have you heard about insect zombies roaming the forests? How about the plants that are sucking nutrients from fungi? Do you know about the network of fungi that trees communicate through? All these questions and more will be answered through this workshop. Expand your knowledge about the Kingdom Fungi and learn crafts to be done with your students.

Studying Climate Change with NASA missions – (Half Day)

Dorian Janney, Education and Outreach Coordinator NASA/GSFC

Strand: Hot Topic

Audience: Early Childhood Education, Elementary, Secondary, College/University, Adult, General, Special Education, Limit of 30 participants

During this session, participants will do a series of different activities to learn about how and why NASA missions study climate change, as well as to understand the research results of many of these missions. After a presentation focused on how NASA Earth observing satellites study various environmental parameters, we will use a combination of hands-on activities and computer-based activities using NASA data to explore some of the content. We will finish with a group discussion to share ways this information could be shared with various audiences.

THIS IS A TENTATIVE LIST OF ALL THURSDAY, FRIDAY AND SATURDAY OFFERINGS

Friday Workshops

Please note, workshops may be cancelled due to lack of enrollment. Should this occur you will be notified the week prior to the conference for alternate choices.

Down by the Bay, Where Little Brains Grow (Full Day)

Liz Wist, Maryland Coastal Bays Program

Amy Barra, NASA Wallops Flight Facility

Strand: Hot Topic

Audience: Early Childhood Education, Elementary, Secondary, Limit of 30 participants

Calling all field educators and formal teachers who embrace the awesomeness of outdoor learning! Our session will focus on how to better engage students with watershed science in an outdoor setting. In addition to partaking in hands-on activities, attendees will learn best practices for discussion, reflection, and creating student-driven outdoor learning experiences using resources from the BEETLES Project (www.beetlesproject.org). Come join us for an enjoyable day of active learning and sharing of effective teaching techniques!

Project Learning Tree (Full Day)

Juliann Dupuis, Notre Dame of Maryland University

Sarah Haines, Towson University

Strand: Tip, Tricks and Lessons from the field

Audience: General

Investigate environmental education concepts through activities from the *Project Learning Tree Activity Guide*. *Project Learning Tree* is an award-winning, multi-disciplinary curriculum for educators of students in grades Pre-K through 8. Participants in this workshop receive a copy of the *Project Learning Tree Environmental Education Activity Guide*.

From Dairy Farm to Cafeteria: Teach Ag and Food Waste in Schools (Full Day)

Peggy Eppig & Shannon Brown, Maryland Agricultural Education Foundation

Strand: Greening Schools

Audience: Early Childhood Education, Elementary, Secondary, College/University, Adult, General, Limit of 25 participants

Travel with a great team of ag educators as we explore the farmlands of Worcester County to discover how milk makes the journey from pasture to school. Along the way we focus on issues of animal husbandry, soil stewardship, school nutrition, and food waste using hands-on activities, deep dive discussions with farmers, and education specialists. You'll come away with an armload of great resources and a dynamic network to help you teach important concepts of conservation from cow to carton. Lunch is provided!

Margaret A Davidson Coastal Career Development Program (Full Day)

Trystan Sill, Maryland DNR

Tom Bigford, The Coastal Society

Strand: Hot Topic

Audience: College/University, Adult, General, Limit of 30 participants

Drawing on its long-term emphasis on the next generation of coastal practitioners, and inspired by the late Margaret A. Davidson, The Coastal Society honors Margaret's legacy through career development workshops to benefit students and early- and mid-career professionals. There is a \$25 additional fee for this workshop.

The Environmental Mystery, Student Discovery of the Collectively Mightiest of Organisms: Plankton (Full Day)

Colin Stebbins, Talbot County Public Schools

Jemima Clark, Center for Environment & Society at Washington College

Strand: Natural History & In-depth Science

Audience: Elementary, Secondary, Limit of 27 participants

Explore a full Problem-Based Learning Unit based on a mystery in the Bering Sea of Alaska. Explore the connections between Earth's systems, model food webs, collect & analyze data, become stake-holders, and research plankton & it's uniquely important role in ecosystems globally. Throughout the day- teachers become the student- immersed in questions, investigations, and engineering methods of plankton collection- with re-used materials attached to Aquabotz Remotely Operated Vehicles. Culminate the day with moving from claims to action- in our local estuarine ecosystem- connecting global impacts of a changing world to your own backyard.

Green Schools: How to earn State, National, and International Recognition (Half Day)

Holly Gallagher, National Wildlife Federation

Mary Westlund, MAEOE

Strand: Greening Schools

Audience: Early Childhood Education, Elementary, Secondary, General

Are you already a Green School or maybe you're just getting started? This session is designed for newbies and experts alike to learn more about three state, national, and international recognition programs that Maryland PreK-12 schools are eligible to apply for -- Maryland Green Schools, Green Ribbon Schools, and Eco-Schools USA. Attendees will learn about program objectives, benefits, and application processes of each as well as how the programs are aligned. Presentations will be interspersed with hands-on activities and discussion to help Green Team members identify concrete next steps to pursue one or more of these programs.

Play to Learn, Learn to Play (Half Day)

Tania Gale, Calvert County Natural Resource Division

Kim Curren, Calvert County Natural Resources

Strand: Healthy Body, Healthy Mind, More effective Educators

Audience: General, Limit of participants

Playing games is hard work – especially if you are trying to create positive environmental change. Games can be relevant and powerful tools for anyone in environmental education. Come dressed to go outside and be prepared to play hard!

Guidelines for Excellence: Community Engagement – (Half Day)

Dr. Rebecca Franzen etc., University of Wisconsin, Stevens Point

Strand: Greening Schools

Audience: Elementary, Secondary, Limit of 30 participants

This set of guidelines focuses on community wellness and is designed to help environmental educators create inclusive environments that support effective partnerships and collaborations. The guidelines were developed using a process of critique and consensus, similar to the process used to develop all of the other Guidelines for Excellence publications. The public review process involved gathering input from hundreds of educators, including focused feedback collected from content experts representing a variety of fields (e.g., diversity, community partnership building), a 16-person National Advisory Team, a wide range of stakeholders, and a Professional Learning Community (PLC). Many of the case studies were researched and drafted by members of the Professional Learning Community. Finally, a 25-item toolkit augments the guidelines. Toolkit resources help users dive more deeply into aspects of environmental education and community engagement that may be unfamiliar to some practitioners.

Mindfulness and Nature Based Multisensory Activities for Students (Half Day)

Cherl Fisher, Alliant International University/Private Practice

Stephanie Linden, Infinite Rainbows

Strand: Healthy Body, Healthy Mind, More effective Educators

Audience: Early Childhood Education, Elementary, Secondary, General, Special Education

The increased demands on children's attention and the additional stressors placed on teachers often results in a climate that is less than optimal for learning. As a result, the need for strategies that promote self-regulation are desperately needed. Multisensory based mindfulness approaches offer opportunities to promote self-regulation that are afforded by simply engaging in movement and with nature. Our bodies are naturally attuned to move and connect with nature, and mindfulness helps bring the body and mind back to its more optimal state. Dr. Cheryl Fisher and Stephanie Linden will guide you through Sensory-Based Mindfulness activities in this experiential workshop.

Citizen Science and GLOBE (Half Day)

Dorian Janney & Todd Toth, NASA Goddard Space Flight Center

Strand: Hot Topic

Audience: Early Childhood Education, Elementary, Secondary, College/University, Adult, General, Special Education, Limit of 30 participants

The Global Learning and Observations to Benefit the Environment (GLOBE) Program is an international science and education program that provides students and the public with the opportunity to participate in data collection and the scientific process. We will share information about both The GLOBE Program and the GLOBE Observer Citizen Science app and tools. Come dressed to go outside for at least 15 to 30 minutes to do some environmental observations- clouds, mosquito breeding habitats, tree height, and land cover- and see how simple it is to use this free app to collect and submit valuable data. This program is funded by NASA, and participants will learn how and why NASA scientists are interested in their data.

Low-cost, High Reward: Community-based Air Quality Monitoring for Environmental Justice(Half Day)

Jan-Michael Archer & Sacoby Wilson, Community Engagement, Environmental Justice, and Health (CEEJH) Lab

Strand: Hot Topic

Audience: Secondary, College/University, Adult, Limit of 30 participants

It is a fact that constant exposure to air pollution presents a high cost to human health. It is also a fact that, on average, low-wealth communities and communities of color are regularly exposed to the highest concentrations of polluted air. Historically, these populations have not had access to data that prove they are suffering environmental injustices. With the rise of community science and low-cost air quality monitoring sensors, though, EJ communities can now collect their own data and use it to advocate for change. Participants in this workshop will use a variety of low-cost stationary and personal air quality monitors and learn how to apply them inside and out of the classroom.

Natural Plant Dyes: Linking Chemistry & Crafts (Half Day)

Sunshine Brosi, Frostburg State University

Strand: Natural History & In-depth Science

Audience: Secondary, College/University, Adult, Limit of 30 participants

In this workshop we will use plants to dye a piece of fabric. You will learn the various learning objectives that can be taught during a workshop that involves natural dyes. Participants will learn about plants used for natural dyes through hands-on demonstrations and be taught the proper process of collecting and cultivating the material. We will focus on safety, traditional uses of plants by people, sustainability, plant chemistry, and specific characteristics of plants. We will discuss linking learning objectives to activities and assessments and creating a craft. Each participant will bring home their own hand-dyed item.

The Itsy Bitsy Spider: A PBL Approach to Biodiversity (Half Day)

Elaine Davis, Allegany County Public Schools

Kerry Wixted, Maryland DNR

Strand: Tip, Tricks and Lessons from the field

Audience: Secondary, Limit of 25 participants

Spiders are fascinating and beneficial organisms that offer us an exceptional lens to view biodiversity. Learn about local spiders while taking an in-depth tour of a project-based learning unit centered on biodiversity and aligned with NGSS middle school standards. This unit also includes cross-curricular connections and provides a natural pathway to student action for the Maryland Green School Program. Participants will access free resources and newly updated and differentiated lesson plans designed with the Gradual Release of Responsibility (GRR) and Universal Design for Learning (UDL) models.

THIS IS A TENTATIVE LIST OF ALL THURSDAY, FRIDAY AND SATURDAY OFFERINGS

Saturday Workshops

Lunch Out of Landfills (Double Session)

*Joseph Richardson, Mountainside Education and Enrichment/ Bar-T inc
Meghan McKeever & Elizabeth McCook, Urbana/ Sugarloaf Elementary/ UHS
Strand: Greening Schools
Audience: Elementary, Secondary*

Lunch out of Landfills is reducing landfill designated waste in 19 schools in Frederick and Montgomery County public schools. We have successfully diverted between 75 to 85% of the waste from cafeterias. Learn how the program was started and initially funded. How the programs were set up in each school, review the data that has been collected and how the project ties into curriculum and how to bring this program to your school

The second part of the presentation will feature a panel discussion of students, teachers, administrators on the issues with funding and implementation. Panelists will include Dr. Sydney Conyers from PGCPS, Mike Bunitsky school board member from FCPS, Elisabeth McCook and Meghan McKeever teachers in FCPS, Kathleen Osbourne building services FCPS, Shristi Amala 8th grader from Roberto Clemente Middle School, Kate Quigley Junior Churchill High School, a representative from The World Wildlife Fund's Food Waste Warriors program.

Life In Miniature: Celebrating Maryland's Invertebrates (Double Session)

*Kerry Wixted, Maryland Department of Natural Resources, Wildlife and Heritage Service
Strand: Natural History & In-depth Science
Audience: Early Childhood Education, Elementary, General*

Maryland is home to over 18,000 species, the majority of which lack backbones. Dive into the world of invertebrates by learning about their many roles and interconnections in food webs. This session will cover both common and rare species as well ways to incorporate positive messaging about misunderstood invertebrates like wasps. Participants will get a chance to breakout into stations to examine local invertebrates as well as try out learning resources and activities to teach about our world in miniature. Activities will be most suitable for elementary grade bands but all are welcome to learn.

Discovering Diamonds in the Sand (Double Session)

Mary Chiarella, Maryland Environmental Service (MES) on behalf of Maryland Department of Transportation Maryland Port Administration (MDOT MPA)

Strand: Natural History & In-depth Science

Audience: Early Childhood Education, Elementary, Secondary, General

Become a student and get your hands in the sand while learning about Maryland's state reptile! You'll be doing some truly hands-on learning about diamondback terrapins, including working through a practical simulation of terrapin nest research. You'll work on some data modeling, discuss ways that the session's activities can be adapted for use with different age groups, and have an opportunity to study a live juvenile terrapin! Participants will leave the session prepared to lead terrapin-themed lessons with their own groups, and knowledgeable about other opportunities for terrapin education that the Port of Baltimore can help provide to groups throughout the state.

Exploring Scientific Concepts through Children's Literature (Double Session)

Dawn Little & Maria McClure, Montgomery County Public Schools

Strand: Tip, Tricks and Lessons from the field

Audience: Elementary

Are you interested in adding more lessons to your scientific toolbox? Would you like to deepen your own understanding of one of the crosscutting concepts? Explore a series of lessons that integrate children's literature with the cross-cutting concept of Structure and Function. Through read alouds and model lessons, participants will take part in hands-on activities, while simultaneously learning how students can think like a scientist, talk like a scientist, and read like a scientist.

The Art Lens, providing a platform for creative inquiry (Double Session)

Kathleen Davis, Chesapeake Bay Foundation

Kathy Cochran, Anne Arundel County Public Schools

Strand: Healthy Body, Healthy Mind, More effective Educators

Audience: Early Childhood Education, Elementary, Secondary, College/University, Adult, General, Special Education

In what ways can art complement scientific investigation and interpretation? How can artistic observation enhance our understanding of the Watershed? Join us as we answer these questions and dive into arts integration through hands-on learning. While exploring artistic perspectives, we will develop techniques to apply these creative integration concepts in the classroom and beyond!

Social and Emotional Learning Mindfulness and Preservice Teachers (Double Session)

Rebecca Franzen, University of Wisconsin, Stevens Point

Strand: Healthy Body, Healthy Mind, More effective Educators

Audience: Adult, Limit of 25 participants

Mindful practice has the ability to enhance our experience in nature and help reduce stress. However, can nature, specifically our ability to connect with nature, be seen as a component of mindful practice, not just a location for it? This session will share research related to using such

mindfulness practices with pre-service teachers in the hopes of reducing the rising stress levels of teachers.

Green School Application Review

MAEOE staff and volunteers

Strand: Greening Schools

Audience: General

Is your school or center working on an application to become a Maryland Green School or Green Center in 2019? Regardless of how far along you are in the process, consider attending the review session for an informal chat with application reviewers. Then learn what your school or center needs to do to receive this prestigious recognition. Bring any documentation that you would like us to review and then provide you with feedback to take you to the next step.

Teaching Environmental Education to Pre-K Students in a Digital Age

Juliann Dupuis, Notre Dame of Maryland University

Ashley Demski, Baltimore City Schools

Strand: Best Practices In Program Management

Audience: Early Childhood Education, Elementary

Participate in lively discussion as we explore strategies for engaging early childhood students in environmental education. This presentation will include innovative ideas for connecting technology to outdoor learning spaces, techniques for engaging students across economic and cultural boundaries, and strategies for connecting literacy and technology standards with nature.

Show me the Money – Funding Sources for Environmental Projects

Tara Drennan, Chesapeake Bay Trust (CBT)

Jennifer Wolfe, Maryland Department of Natural Resources (DNR)

Krysta Hougen, National Oceanic and Atmospheric Administration (NOAA)

Strand: Best Practices In Program Management

Audience: Early Childhood Education, Elementary, Secondary

Are you chalk-full of ideas to improve your environmental education programs? Thinking about applying for your first federal or state grant? This session will provide an overview of some of the funding pots available to support Meaningful Watershed Educational Experiences (MWEEs). Join the Chesapeake Bay Trust, Maryland DNR, and NOAA during this informational and interactive session to think through developing your program and proposal using the newly updated environmental literacy model (ELM). Presenters will include Tara Drennan (CBT), Krysta Hougen (NOAA), and Jen Wolfe (DNR).

The Benefits of Building an Urban Garden at Your School

Nicole Veltre-Luton, Baltimore City Public Schools- Digital Harbor

Virginia Sherman, BCPSS- Digital Harbor High School

Strand: Greening Schools

Audience: Elementary, Secondary, General

Thinking about trying an urban school gardening project with students? What are you waiting for? This presentation will walk participants through 7 years of creating and sustaining an urban garden and structures for a variety of pollinator species. Participants will learn how garden-based learning can be incorporated into the Biology curriculum at the secondary level, with ESL students and how cultivating community partnerships is important for success. Get ready to get your hands a little dirty too!

Connecting Environmental Education to Green Career Pathways: Youth and the Chesapeake Bay Landscape Professional Program

Jerry Arrey Etta, M-NCPPC: Department of Parks and Recreation

Beth Ginter, Chesapeake Bay Landscape Professional

Strand: Greening Schools

Audience: Secondary, College/University, Adult, General

Environmental educators seek to connect students to natural resource and conservation careers. Learn how the Chesapeake Bay Landscape Professional program's new "Associate" certification connects youth to careers in conservation landscaping and stormwater management. Presenters will discuss how the CBLP-A program can serve a wide range of students and create partnerships with employers seeking staff to design, install, and maintain stormwater management infrastructure.

The Story of Mindfulness. History and Traditions, Science and Research. Key concepts. Learning how to Practice and connecting it to the Environmental Education Context.

Phillip McKnight, Self Employed

Strand: Healthy Body, Healthy Mind, More effective Educators

Audience: Elementary, Secondary, College/University, Adult, General

Come explore the story of Mindfulness. Learn its History and Traditions and how it arrived here at the MAEOE conference. What is the key Science and Research and how will it help me and my student? How does one begin a practice? Finally, what are the connections between mindfulness and Environmental Education?

Therapeutic Uses of the Outdoors in an Urban Setting

Marian Denning & Mariah Ginebra, Harlem Park Elementary Middle School

Strand: Healthy Body, Healthy Mind, More effective Educators

Audience: Early Childhood Education, Elementary, Secondary, Special Education

Are you looking for ways to engage students with nature while teaching in an urban setting? Studies show that learning beyond the classroom walls has many benefits - increased student empathy, reduced discipline problems and higher student achievement! This session will explore the therapeutic use of the outdoors, with an emphasis on trauma informed care. We will explore practices such as gardening, the outdoor classroom, and schoolyard mindfulness activities. Come outside to learn with us!

Bringing the Earth's Heart into your Life's Work

*Tara Muenz, Stroud Water Research Center
George Radcliffe, Maryland Ornithological Society
Strand: Healthy Body, Healthy Mind, More effective Educators
Audience: Early Childhood Education, Elementary, Secondary, College/University, Adult, General,
Special Education*

Do you love the healing qualities of being in nature, and wish you could share them in your life's work? Do you know what it feels like to rest inside the heart of the earth? To feel her love, joy, peace, and harmony? Learn simple and creative approaches to bringing the earth's therapeutic, healing and harmonizing qualities into your programs while also fostering supportive mutual relationships with the natural world. Experiences include meditations, silent and sensory actions, grounding, as well as self-care techniques for EE professionals who may be finding it difficult to find a positive light with what we see happening on the planet.

Creating Equitable Access to Nature in Baltimore City

*Atiya Wells, BLISS Meadows
Strand: Hot Topic
Audience: General*

How do we move past the rhetoric, and get to direct action to increase equitable access to nature? I have found the solution to be a fairly simple one. This workshop will discuss our work, how we began, and how we have launched BLISS Meadows, an initiative to conserve 10 acres of green space in our neighborhood and our plans to develop this area into an educational farm and outdoor education center in East Baltimore.

Our Pervasive Plastic Problem: Investigating Microplastics in Stream Water

*Steven Pearce, Audubon Naturalist Society
Laura Barnitz, One Montgomery Green
Strand: Hot Topic
Audience: Elementary, Secondary, College/University*

Plastic is everywhere, but what can you do about it? Learn how Audubon Naturalist Society educators are engaging K-12 students in sampling and measuring microplastic pollution in streams. This is a powerful way to inspire students and communities to take action on reducing plastic consumption.

Farming Practices for Water Quality

*Leroy Bupp, Pennsylvania No Till Alliance
Ron Ohrel, American Dairy Association North East
Strand: Hot Topic
Audience: Secondary, College/University, Adult, General*

Learn what farmers in the region are doing to improve soil health—and by extension, protect local waterways and the Chesapeake Bay. This session will demonstrate emerging and increasingly popular practices that improve crop production, reduce surface runoff of stormwater, encourage the development of a diverse biological system, and in some cases, reduce the need for pesticides. Many aspects of the demonstration can be replicated in the classroom.

From Student Data to Stewardship; Letting Technology Lead the Way

Amanda Sullivan & Ashley Satterfield, Howard County Conservancy

Strand: Tip, Tricks and Lessons from the field

Audience: Elementary, Secondary

Take students directly from data they collect in the field to environmental action!! Learn how to use ArcGIS and the Collector App to gather and then analyze student data so that students can effectively choose a greening project that benefits the needs of their school grounds. In this session we will share with you elements the Howard County Conservancy's 5th grade Bioblitz program, explore effective mapping technology and save you time by sharing what we've learned on how best to write data collection questions that clearly lead to student stewardship projects. Please bring a phone and other device you'd like to use for ArcGIS map practice.

Bringing the Stream Inside: Classroom Options for Teaching Stream Assessments

Connor Roessler, Cacapon Institute

Amy Moore, Potomac Valley Audubon Society

Strand: Tip, Tricks and Lessons from the field

Audience: Elementary, Secondary, College/University, General

Want to prepare students for a stream study while still in the classroom? Interested in indoor options for stream science learning? In this workshop, Cacapon Institute and Potomac Valley Audubon Society will share our Potomac Highland Watershed e-school and several activities and resources for educators to teach the concepts of stream sampling in a classroom setting. We will demonstrate how real-world data can be investigated before students get outdoors. Options will be given for elementary through high school age. Emphasis will be on integrating these activities to existing lesson plans or MWEE frameworks.

"It's as Cold as ICE;" but not if global warming has anything to say about it.

Bess Caplan, Baltimore Ecosystem Study

Strand: Tip, Tricks and Lessons from the field

Audience: Secondary

Explore the local phenomena of Urban Heat Islands through a hands-on investigation using infrared thermometers, an examination of real local temperature data and an in-depth look at how one local school system is bringing environmental education into its secondary chemistry course.

Inclusion in the Outdoor Classroom

Dean Mann & Andrew Cunningham, Carroll County Outdoor School

Strand: Tip, Tricks and Lessons from the field

Audience: Elementary, Secondary, Special Education

In this session participants will explore methods to include special needs students in an outdoor educational setting. Interactive lesson examples about Eastern Bluebirds and stream macroinvertebrates will be shown. These example lessons will then serve as a model for

participants to construct their own inclusion activities that meets the needs of diverse populations. A question and answer session will enable participants to brainstorm solutions to logistical challenges unique to the participant's location.

Watershed Watch: a 7th grade MWEE program

Beth Lenker, Sultana Education Foundation
Heidi Usilton, Radcliffe Creek School
Strand: Tip, Tricks and Lessons from the field
Audience: Secondary

Have you ever asked yourself: How do I achieve a MWEE without reinventing the wheel? Can I utilize my current resources? Build partnerships and get teacher buy-in? Don't worry - you are not alone! Join Kent County teachers and Sultana Education Foundation staff to learn how we answered these questions (and more) through the development and implementation of our Watershed Watch program. Walk with us through the Watershed Watch program and discuss successes and challenges faced along the way. You will see the resources developed to align with Kent County's 7th grade curriculum and take part in engaging activities used throughout the program.

How to Increase teacher PD using kids

Jim Pritchard, Southampton Middle School
Strand: Greening Schools
Audience: Elementary, Secondary

Is it tough to get your teachers to give up their time to go to Environmental Ed. Professional Development? Teachers are the worst students at PD. My faculty is tired of hearing me preach the benefits of outdoor ed, so I turned PD on its head. My students and I developed a series of forestry lessons. Then, the students presented it to the teachers. 29 of Southampton's 100 teachers volunteered to come out during a planning period to hear them present their forestry curriculum. It turns out teachers love kids just as much as they hate Professional Development! (Maybe even more.)

Green Infrastructure as Outdoor Environmental Laboratories: Lesson Plans for Grades 3-12

Christopher Ellis & Byoung-Suk Kweon, University of Maryland
Strand: Greening Schools
Audience: Elementary, Secondary, General

You will be given a free US EPA lesson plan booklet of water quality treatment appropriate for schoolyards. Topics cover green roofs, rain barrels, rain gardens, rain garden plants, soils, permeable pavement and hydrology. Students learn to analyze schoolyards and successfully implement water quality treatment projects. Each lesson lists all related Maryland Environmental Literacy and Next Generation Science standards. Easy step-by-step procedures, study questions, worksheets, vocabulary lists, and activity resources accompany each lesson plan. The instructor and author is a college professor with practical experience designing and building each facility type covered in the lesson plans.

Dipping Your Toes in the Green School Application Process

Katie Hancock & Allyson Sealfon, Carroll County Public Schools

Strand: Greening Schools

Audience: Early Childhood Education, Elementary, Secondary

Feeling overwhelmed by the application process? Do you need a Green School sherpa? We're here to help! Participants will gain an overview of the Green School application process and objectives. Presenters who just received certification and recertification will share their experiences and tips for successfully simplifying and navigating the application process, as well as different formats and an application template. Participants may wish to bring laptops to explore creating an application. Additional support will be available from presenters following conference as participants return to their schools and communities and climb into the process of creating their own applications!

Forest to Fitness- A Year of Health Conscious Programming

Jennifer Scully, Montgomery Parks-MNCPPC

Strand: Healthy Body, Healthy Mind, More effective Educators

Audience: Early Childhood Education, Adult, General

Can teachers, park staff, and environmental educators be health workers too? Come hear how Black Hill Visitor Center and Nature Programs offered a year of health and wellness themed programming in order to become more connected to their local community. We'll also do some yoga and brain storming too!

Creating Nature Mindfulness in an Urban Environment

Trystan Sill, Maryland DNR

Strand: Healthy Body, Healthy Mind, More effective Educators

Audience: General

Urban or "nature limited" environments can still offer daily nature connections. Not a substitute for nature immersion, but a way to supplement or introduce nature to those new to the practice. Come learn ways to incorporate scents, sounds, visualization exercise, and "flora mindfulness" as ways to bring the healthy benefits of nature into your home, office, classroom, or commute.

Channeling Pete Seeger: Music and Stewardship

Jeff Holland, Arundel Rivers Federation

Strand: Healthy Body, Healthy Mind, More effective Educators

Audience: General

Among this folk hero's many accomplishments, Pete Seeger was one of the founders of the environmental movement, starting with cleaning up the Hudson River. He used his music as a means of advocacy and public education, and you can, too! Prepare to join in on crowd-writing a new Chesapeake Bay-themed song of inspiration based upon a traditional folk tune and, of course, get ready to sing!

Teaching Mindfulness through an Environmental Lens

Michelle Weisgerber & Melissa Quigley, AACPS-Broadneck High School
Strand: Healthy Body, Healthy Mind, More effective Educators
Audience: Secondary, College/University, General

Presenters Michelle Weisgerber, Melissa Quigley, and Jennifer Sweeney will share strategies for implementing mindfulness techniques using an environmental lens. Examples in this session will include the use of biophilia in the classroom, using nature space as a learning environment, and incorporating mindfulness within classroom structures. In addition, Sweeney, a Certified Yoga Instructor, will lead participants in mindfulness practice and breathing techniques.

Teaching the Human Dimensions of Climate Change

Kathleen Doyle, Population Connection
Strand: Hot Topic
Audience: Secondary

Discover online resources and innovative, hands-on activities to connect climate change with the history of industrialization, current energy use and projected risks to vulnerable communities around the globe. Engage in a group simulation modeling comparative resource use and vulnerabilities to sea level rise, extreme weather and changes in food production for communities around the globe. Receive lesson plans and background materials in an electronic format, all matched to state standards.

#WeGotThis - Supporting Student Voices through Youth Summits

Aurelio Giannitti, Ward Museum, Salisbury University
Elise Trelegan, NOAA Chesapeake Bay Office
Strand: Hot Topic
Audience: Elementary, Secondary, College/University, General

From the #FridaysForFuture movement to the students of Parkland, young people are leading the charge in tackling complex environmental and social issues - and they're changing adult attitudes along the way. Youth summits are a popular and relatively novel approach to convening, energizing, and mobilizing youth to take action on a variety of topics. Learn about the Youth Environmental Action Summit, a collaborative, youth-adult-led event that debuted on the Lower Eastern Shore in April 2019. Participants will hear about successes, challenges, and opportunities to create events that authentically embrace the ideas and voices of young people to more communities across the state.

Increasing Equitable Access to Nature

Anika Richter, Baltimore City Office of Sustainability
Andrea Van Wyk, The National Aquarium
Strand: Hot Topic
Audience: Early Childhood Education, Elementary, Secondary, General

The benefits of providing children with access to nature extends far beyond the inherent enjoyment of playing outdoors--access to nature is an issue of equity, justice, and can be a vehicle for combatting even larger systemic disparities that run along socioeconomic and racial lines. This

session will discuss Baltimore's Cities Connecting Children to Nature (CCCN) initiative within this larger context of increasing equitable nature access, outlining what is being done, what we hope to accomplish, and how our attendees can be involved in this work.

Nature Is for Everyone: Outdoor Recreation for Individuals with Disabilities

Mary Bowie, M-NCPPC Department of Parks & Recreation

James Roberson, Prince George's County Public Schools, William S. Schmidt Outdoor Education Center

Strand: Hot Topic

Audience: General, Special Education

Learn to engage individuals with disabilities in outdoor recreation and environmental education programming throughout the year. Presenters lead a summer camp for teens with disabilities, including hikes, service learning and art projects, kayaking, ropes courses, campfires, and much more! They will discuss strategies to engage individuals with disabilities and how to collaborate with inclusion support so that all individuals can benefit from a strong connection to the natural world.

The New and Improved MD EJSCREEN: A tool of mapping environmental justice throughout the state

Jan-Michael Archer & Sacoby Wilson, CEEJH Lab @ UMD School of Public Health

Strand: Hot Topic

Audience: General

Many communities of color and low-wealth populations are impacted by environmental injustice in the state of Maryland. To understand and address these issues through new regulations, enforcement, and zoning changes, and community investments, we need tools--including data visualization tools. The CEEJH Lab recently updated the Maryland Environmental Justice Screening Tool (MD EJSCREEN) to improve user experience and functionality. New features include viewing park and green space equity throughout the state, side-by-side viewing of two communities at once, drawing buffers, and generating reports.

Maryland's Marvelous Black Bears

Kerry Wixted, Maryland Department of Natural Resources, Wildlife and Heritage Service

Strand: Natural History & In-depth Science

Audience: Elementary, Secondary, Adult, General

Black bears have a storied history in Maryland. Once roaming across much of the state, Maryland's black bears almost disappeared before significantly rebounding. This session will cover the biology, ecology, and history of these large land mammals as well as adaptations that help black bears succeed. In addition, we'll discuss current management practices in Maryland and how to incorporate learning about black bears into classrooms. Participants will be given handouts and lesson plan ideas at the end of the session.

Bird Detectives: Documenting Bird Breeding on School/Center Properties

George Radcliffe, Maryland Ornithological Society

Strand: Natural History & In-depth Science
Audience: General

Maryland will be monitoring its breeding birds from 2020 – 2024 in every section of the state as a part of the 3rd Maryland/DC Breeding Bird Atlas Project, and every school/center is within one of these atlas blocks. This is a great opportunity to involve students in a significant research project as students collect evidence of breeding birds in the study area. Learn the simple techniques for documenting the presence of breeding birds on your property where simple behavioral observations can determine the probability of breeding. Participants will receive training and all required materials needed. Multiple door prizes will be awarded.

Trees are Terrific!

Sean McGuinn, Arlington Echo
Strand: Natural History & In-depth Science
Audience: Early Childhood Education, Elementary, Secondary, College/University, Adult, General, Special Education

Trees are Terrific! and in more ways than most people imagine. Trees can talk. Trees can feel. Trees can hear. Trees are part of a tight-knit community supporting each other and even taking care of sick or dying trees. Trees have witnessed some of the greatest moments in history, some which still stand today. Trees can be binge drinkers! Is this not reason enough to attend this session? You are guaranteed to learn something new about trees and why they are TERRIFIC!

Using Satellite Data of Chesapeake Bay for Understanding the Environment and for Addressing Environmental Issues

Ron Vogel & Bart Merrick, NOAA Chesapeake Bay Office
Marvin Li, Bennett HS
Strand: Natural History & In-depth Science
Audience: General

Oceanographic satellite data are used in research and environmental management of Chesapeake Bay. Water temperature, turbidity, suspended matter and phytoplankton pigments (i.e. chlorophyll) are all measurable by satellite instruments and are all collected on a daily basis, providing detailed images on the state of Chesapeake Bay. This data is used in scientific research to understand the Bay as an estuarine ecosystem. In addition, environmental issues that affect society guide questions for which satellite data may help in providing management solutions. Examples discussed include monitoring sediment plumes after storms, the impact of temperature on fish populations, and understanding changes in the clarity of the Bay's water. During this session we will also highlight a local High School student and how he has worked with satellite data and developed environmental science literacy through this process. Tools to view or work with the data and images will also be presented.

What Does it Take to Bring Oyster Populations Back in the Chesapeake Bay

Stephanie Westby, NOAA Restoration Center
Bart Merrick, NOAA Chesapeake Bay Office
Strand: Natural History & In-depth Science
Audience: General

There is more to restoring oysters in the Chesapeake Bay than you might think. Join NOAA restoration experts to learn about the status of oyster populations and current efforts to build healthy oyster reefs in tributaries throughout the Bay and get a glimpse at what success looks like.

What's the Buzz? Using an App to Help Reduce the Threat of the World's Most Dangerous Animal!

Dorian Janney, NASA/GSFC

Strand: Tip, Tricks and Lessons from the field

Audience: Early Childhood Education, Elementary, Secondary, College/University, Adult, General, Special Education

The mosquito is the world's most dangerous animal. Come find out why this is true, and learn how citizen scientists around the world are engaging their audiences in reducing the threat of mosquito-transmitted disease. We will discuss the species of mosquitoes which are found in Maryland as well as learn which mosquito-transmitted diseases are being contracted in our region. You will find out how to download and use the NASA-sponsored GLOBE Observer "Mosquito Habitat Mapper" tool. I am the Campaign Coordinator and Education Lead for the GLOBE Mission Mosquito effort, and I will describe the many ways in which we can support your efforts to help your audiences become involved.

Student-driven MWEEs, A Case Study in Professional Development and Classroom Examples

Emily Leedy & Kayla David, Alice Ferguson Foundation

Strand: Tip, Tricks and Lessons from the field

Audience: Elementary, Secondary

Are you looking to increase student engagement? Is your goal to guide students toward community action? Have you started to think about using a MWEE in your classroom but are not sure where to begin? This session will provide you with examples of how other teachers have reached all these goals through student driven MWEEs and provide you with lessons that can serve as a starting point to do all of those things. We will look at how teachers have set up investigations and supported a variety of student actions from food share tables to community cleanups to native plant gardens.

Exploring Nature with Letter Boxing

Courtney Hebert & Stephanie Lee, MCPS OEEP

Strand: Tip, Tricks and Lessons from the field

Audience: Elementary, Secondary, Special Education

Do you need a way to guide exploration outside? Letterboxing is a great way to lead students on a hike outside while meeting objectives from the classroom.

OMG Becky!!! Was it the carrot or the stick that got you to sign up for that? (Understanding what drives teachers to attend professional development)

Coreen Weilmister, Chesapeake Bay National Estuarine Research Reserve -- MD DNR

Bart Merrick, NOAA Chesapeake Bay Office

Strand: Hot Topic

Audience: General

You plan this AMAZING week of professional development. Set up credits, substitute teachers, stipends, freebies, tools, food (GOOD food), and rock star presenters who are out there slinging cutting edge pedagogy around NGSS, STEAM and ELit. You advertise it far and wide...and three teachers sign up. Teacher professional development is an essential aspect of building capacity towards environmentally literate students. But what works in recruitment? Join this panel of seasoned teachers, admins and EE professionals to discuss best practices to boosting attendance for teacher PD. If you teach, and attend this session to share your motivations for signing up for PDs...we promise to have carrots. And sticks.

Living Rivers: Cultural and Ecological Interactions Throughout History

Lisa Moyer & Isaac Maxwell, Stevenson University

Strand: In-depth Science & Natural History

Audience: General

A hands-on collaborative workshop delving into natural, man-made, and historical river changes that educators can use for a river or tributary near them.

Stop Talking! – How to Create Deeper Connections to Nature

Carly Miller, Carroll County Outdoor School

Strand: Tip, Tricks and Lessons from the field

Audience: Early Childhood Education, Elementary, Secondary, College/University, Adult, General

Learn how to STOP TALKING and then START SINGING in order to help students to make meaningful and lasting connections to the natural world. The first part of the session will teach you how to facilitate solitary experiences where groups of students can each engage with the environment in their own individual way. Part two of the session will explain how using music to enhance the retention of content and reworking the lyrics to popular songs can engage students at a new level. Come work collaboratively in groups to develop new lyrics and sing!

Grasstops: How working focusing on the mission catalyzes change.

Emily Beck, The Gunston School

Megan Fink, Chesapeake Bay Foundation

Strand: Best Practices In Program Management

Audience: Elementary, Secondary, College/University, General

How can we catalyze change in our schools to accelerate the adoption of environmental mission statements, further embrace the guidelines set forth by the EE standards, and help educate environmentally literate citizens? The Gunston School and the Chesapeake Bay Foundation have been exploring this work every summer in the Environmental Leadership for Independent School

Leaders conference and are eager to share insights gained from helping three successive cohorts of leaders drive change at their schools. Our grasstops approach focuses on the importance of incorporating environment into the school's mission statement and engaging leaders within the school.

The Mindfulness of Being Comfortable Getting UNcomfortable in the Great Outdoors!

Bryan Gomes, Clear Shark H2O

Strand: Tip, Tricks and Lessons from the field

Audience: Elementary, Secondary, College/University, Adult, General, Special Education

When is the last time you were on a field trip with your students? How engaged were you with your students? Were you taking a break from teaching since you had an informal educator/naturalist leading the program? Or maybe you were leading and/or engaged ... until Johnny picked up a muddy wet oyster or a slimy frog and you said something like "Put that down - that's wet/dirty!" When your student put the animal down they also dropped their sense of wonder and a mentor to share that excitement with! Learn the dos and don'ts of getting comfortable being uncomfortable in the great outdoors - and projecting your new confidence on to your students!

Nature Rocks! Why it's important for students to spend time outdoors

Dr. Stacey Stryer, University of Wisconsin

Dr. Melanie Parker, Anne Arundel County Public Schools

Strand: Healthy Body, Healthy Mind, More effective Educators

Audience: Early Childhood Education, Elementary, Secondary, College/University, Adult, General, Special Education

In this session, we will discuss mental and physical problems that are on the rise from spending too little time in nature, which is the norm today, and how spending time outside during and after the school day benefits students in multiple ways. Research shows that outdoor time and increased greenspace decreases depression, anxiety and behavioral problems; and increases a sense of well being, creativity, socialization, concentration and test scores. Outdoor time can also reduce the risk of medical conditions, such as obesity and diabetes. We will also talk about how counselors and teachers in Maryland are beginning to find ways to increase time outside for their students without sacrificing academics, and the effects they have seen.

Gardening, It's for the Birds

Heather Zindash, The Soulful Gardener, LLC

Strand: Hot Topic

Audience: General

Learn how to create a garden that attracts our beautiful local and migratory birds. Learn how to "think globally and act locally" while reestablishing much-needed habitats for our feathered friends using plants that provide year-round food and shelter right in your own backyard. I'll give you a few

very simple steps that you can implement now, as well as an overview of how you might plan your garden & landscape to attract and support birds year round. Attracting and watching birds is entertaining and educational for the whole family, while also providing an important eco-service for our environment. My presentation will have lots of good and practical information along with beautiful photos and videos of birds from our own Certified Wildlife Habitat. Which means, they could be guests and residents of your yard, too.

The science behind how we know the warming world is human driven: interpreting and applying the data.

*Jenna B. Linhart & Cassie Doty, UMCES Appalachian Lab
Strand: Natural History & In-depth Science
Audience: Elementary, Secondary, General*

When is climate change happening? How is it happening? What can we do about it? How can I TEACH it? During the first portion of this double session, we'll focus on the first two questions as we answer the bigger question, "how do we know climate change is human driven?" In the second part of this session, participants will put that understanding into practice with hands-on lessons they can take back to their education audiences.

Sit Spot and Journaling with Families

*Sara Smith, The Gifts of Trees
Strand: Tip, Tricks and Lessons from the field
Audience: Early Childhood Education, Elementary, Secondary, Adult*

You want them to sit still for how long??? In this workshop, I will share the inspiration and the evolution of a family nature club in its 5th year of outings. During our outings, families with kids of all ages get out in to nature, hike, participate in the practice of sit spot, journal, and share observations in mixed age groups. Each outing we return to the same spot so that over the course of the year we are also practicing the science of Phenology (observing changes in nature over time).

Bees and Wannabees

*Clare Walker, Irvine Nature Center
Strand: Natural History & In-depth Science
Audience: General*

On a sunny day, flowers are buzzing with insects and there is a lot more drama than you might think. Some flower visitors are beneficial, but others are on the hunt, and looks can be deceiving. Explore the interconnected lives of predators and prey. Practice identifying some of our most common native bees, wasps and bee mimics on insect specimens. Receive a guide to bee identification and to a simple pollinator garden. You will never look at flowers in the same way again!

Lessons from the Field - Developing a MWEE Field Investigation

Heather Rebstad & Elizabeht Czaplicki, Camp Puh'tok for Boys and Girls, Inc.

Strand: Tip, Tricks and Lessons from the field

Audience: Secondary

Learn lessons from the field for developing a successful field-study supporting the Meaningful Watershed Educational Experience (MWEE). In 2019, Puh'tok in the Pines (Camp Puh'tok) collaborated with Baltimore County Public Schools Office of Science in order to create a 2 night/3 day hands-on ecosystem investigation experience for 6th grade BCPS students. Learn how participating students become citizen scientists as they complete eight hands-on ecosystem investigations in order to answer the Essential Question: In what ways do the natural resources at Puh'tok support a native wildlife population? And Driving Question: How can we improve biodiversity in our schoolyard system?