47TH ANNUAL CONFERENCE
Oct. 10-13

15TH ANNUAL RESEARCH SYMPOSIUM
Oct. 9-10

Environmental Education:
A Force for the Future
Schedule at a Glance. Check daily schedules (starting on page 49) for detailed information.

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WELCOME

On behalf of the board, staff, and conference planning team, welcome to the 47th Annual NAAEE Conference in beautiful Spokane, Washington.

We’re thrilled you can be here and hope you enjoy everything the conference and eastern Washington have to offer. This year’s theme, EE: A Force for the Future, focuses on the power of education to create positive change leading to a more equitable and sustainable future.

This program is designed to help you navigate the conference and find the workshops, field trips, poster sessions, symposia, keynotes, and other presentations that best meet your needs and interests. You can also get the NAAEE 2018 conference app on your mobile device: download the free “CrowdCompass AttendeeHub” from your app store and then search for NAAEE. You’ll also see dozens of volunteers, wearing bright blue NAAEE T-shirts, who can help answer any questions you might have. And if you need anything else, please come to the registration area for personal assistance.

We are delighted to come together for the 47th Annual NAAEE Conference on the ancestral homelands of the Spokane Tribe of Indians. We acknowledge the important historical significance of the Spokane Tribe as we meet this week in the city that bears the name of its original people, Spokane. We also take this time to recognize the Coeur d’Alene Tribe. The Coeur d’Alene Tribe is a neighboring Tribe to the Spokane Tribe. Both Tribes have worked hand in hand on many critical issues together for their people. We are honored to gather in what’s been a traditional meeting place for tribal families, friends, and neighbors here along the Spokane River.
Here are some highlights of the week:

- **The welcome reception**, the prelude to an exciting opening night featuring Brady Piñero Walkinshaw, the CEO of Grist media, the leading national environmental media organization (Wednesday)
- **Our annual Research Symposium**, highlighting current research in the field (Tuesday and Wednesday)
- **The Exhibit Fair**, showcasing new resources and programs in environmental education. We’ll celebrate with a buffet luncheon on Thursday, which will also include the conference poster presentations and the Affiliate Welcome.
- Engaging and provocative plenary sessions on Democracy, Civic Engagement, and Environmental Education moderated by David Orr (Thursday), and a series of flash talks, facilitated by Paul Baribault from Disney, that will give you a taste of how five creative and passionate leaders are thinking about the future (Friday)
- **Our annual gala and auction** on Friday evening, at the incredible Marlin Woldson Theater at the Fox—bring your dancing shoes!
- NAAEE’s annual business meeting on Saturday morning, where you can learn more about the Association and have a chance to provide input
- **An Awards Luncheon** featuring the presentation of the Jeske Award, NAAEE’s highest honor, and an inspiring panel of young leaders selected from NAAEE’s “EE 30 Under 30” honorees

Thanks to everyone who has made this conference possible—our committee chairs, the NAAEE board, Advisory Council, and staff, our amazing Affiliate network, hundreds of volunteers, our funders, and so many other supporters. We also want to thank E3, NAAEE’s Washington Affiliate and partner, and we especially appreciate the dedicated work of our conference co-chairs, Lisa Eschenbach and Jami Ostby-Marsh.

A final thank you goes to all of you for attending—we know it’s a big commitment. We hope you develop long-lasting personal and professional relationships and a chance to engage in many meaningful conversations throughout the week. When you bring a committed group together, magic happens—and we are looking forward to creating that magic together in Spokane!

With warm regards from your conference leadership team:

Charlotte Clark  
Board Chair

Judy Braus  
Executive Director

Christiane Maertens  
Deputy Director

Lori Mann  
Conference Manager
Proclamation

WHEREAS, the magnificence of Washington's natural resources – from the shores of the Puget Sound to the majestic Spokane Valley must be protected for future generations; and

WHEREAS, to sustain the diverse land and waterways of our great state requires the stewardship of every person, as well as future generations; and

WHEREAS, stewardship is not possible without a strong sense of connection to the natural world and an understanding of our individual and collective responsibilities to protect it; and

WHEREAS, environmental education increases student engagement in science, improves student achievement in core subject areas, and increases student awareness about how they can help restore the health of the natural environment; and

WHEREAS, there is a need to engage individuals and organizations in all communities throughout the state to sustain a high-quality of life through education, conservation, and the restoration and protection of natural resources; and

WHEREAS, Washington is a national and global leader in protecting our land, water, and air and addressing the impacts of climate change;

NOW, THEREFORE, I, Jay Inslee, Governor of the state of Washington, do hereby proclaim October 8-12, 2018, as

Environmental Education Week

in Washington, and I encourage all people in our state to join me in this special observance.

Signed this 11th day of September, 2018

Governor Jay Inslee
THANK YOU
Sponsors of the 47th Annual NAAEE Conference and supporters of environmental education.
Welcome to Spokane, Washington, the hub of the Pacific Northwest Inland Empire.

*National Geographic Traveler* magazine recently named Spokane one of 29 “Cities on the Rise,” noting that the region is “hipster friendly” and “caffeinated.” Spokane has shown up on numerous other rankings of cool cities in recent years, too.

We are so excited to have the North American Association for Environmental Education’s Annual Conference held in our city. Spokane’s name honors the Spokane tribe. For thousands of years, tribes from around the area have gathered when the salmon return to the falls. Where the Riverfront Park (and the convention center) is now located was once home to numerous railroad companies. However, in the ’60s, some local people dreamed of cleaning up the river and reclaiming the falls in hopes of hosting the 1974 World’s Fair. Expo ’74 was the first environmentally themed World’s Fair, and Native American heritage was its focus.

We hope you enjoy your visit to Spokane, and hope that you can experience a little of what we have to offer. Set on the eastern edge of Washington, where the desert meets the Rockies, Spokane lives up to its motto: “Near nature and near perfect.” Within minutes of downtown, you can paddle past moose on the Little Spokane River. You can soar over the falls on the SkyRide, one of the city’s most popular tourist activities, and rated one of the best gondolas in the world. Kids can feed the Garbage-Eating Goat sculpted by Sister Paula Turnbull, a local nun and leading figure in the Inland Northwest art scene, or slide down the giant Radio Flyer Red Wagon in Riverfront Park.

We hope you’ll take full advantage of the conference, Spokane, and the Pacific Northwest. And please stop by and say hi at E3 Washington’s exhibit booth or our Friday sessions.

Lisa Eschenbach  
Conference Co-Chair  
E3 Washington

Jami Ostby-Marsh  
Conference Co-Chair  
West Valley Outdoor Learning Center
INNOVATIVE EDUCATION AWARD
POWERING A SUSTAINABLE TOMORROW

Recognizing outstanding nonprofits advancing environmental and STEM education (ESTEM) through youth empowerment and sustainable community development

INSPIRING THE NEXT GENERATION OF:
ENGINEERS, BUSINESS LEADERS, INVENTORS, SCIENTISTS, & RESEARCHERS

A FIRST-OF-ITS-KIND Educational Award Program

ELIGIBILITY: 501(c)(3) Nonprofits or Canadian equivalent serving K–12 audience

Learn more and sign up for our mailing list:
ulinnovationeducation.naaee.net

Stay tuned for an INFORMATIONAL WEBINAR coming soon!

In collaboration with

Introducing the 2018 UL INNOVATIVE EDUCATION AWARD WINNERS:

Learn about the winners at ulinnovationeducation.naaee.net/winners

GRAND PRIZE

SWEET WATER FOUNDATION
There grows the neighborhood

2nd TIER

OCEAN DISCOVERY INSTITUTE

3rd TIER

SAN DIEGO ZOO GLOBAL
The ‘Alalà Reintroduction Community Inquiry Program

Groundswell
Education we need for the world we want.

There has never been a greater need for environmental education—or a greater opportunity. The world is facing unprecedented environmental, social, and economic challenges—from a changing climate and loss of species and habitats, to decreasing access to nature, the unequal distribution of resources, and other threats to our well-being. Environmental education has the potential to transform lives and society by addressing these challenges through helping to create a motivated and committed citizenry. Environmental education informs, inspires, and enlightens. It builds human capacity, influences attitudes, and can lead to action. And most importantly, it can help people make informed decisions about the environment that lead to informed stewardship and a more sustainable society.
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For almost five decades, the North American Association for Environmental Education has worked to strengthen and expand the field of environmental education, with a growing network of support including:

- **Annual Conference**: NAAEE has convened an annual conference for environmental education professionals since 1972. Averaging more than 1,000 participants each year, the event is designed to promote innovation, networking, learning, and dissemination of effective practices.

- **Early Childhood and Environmental Education**: In 2013, NAAEE launched the Natural Start Alliance—a coalition of educators, parents, and organizations focused on linking early childhood education with EE to connect young children with nature and enhance opportunities for creative play and learning.

- **The Global Environmental Education Partnership**: In 2014, in partnership with US EPA and the Taiwan Environmental Protection Administration, NAAEE has helped create a vibrant learning network designed to build capacity for environmental education and leadership around the world. NAAEE serves as the Secretariat of this growing network, and works with leading educators in all parts of the globe.

**Strengthening the Field**

**EE Advocacy**: Since its inception, NAAEE has helped lead policy and outreach efforts on behalf of the field. NAAEE sponsors a monthly Action Network Call to highlight key opportunities to get involved in supporting EE at all levels, from advocating for federal legislation and State Environmental Literacy Plans to implementing local, state, provincial, and regional strategies to strengthen public support for environmental education.

**EE Resources**: NAAEE’s National Project for Excellence in EE has produced the Guidelines for Excellence series, the most widely accepted guidelines for effective practice in environmental education around the world. NAAEE’s website, including eePRO, provides up-to-date environmental education research, curriculum guides, monthly webinars, professional development opportunities, job postings, and more.

**Research and Practice**: NAAEE and Stanford University are working with several partners to highlight existing research that demonstrates the impact of EE and helps translate research into practice.

**Inspiring Innovation**

**Building STEM Skills**: Through a partnership between UL and NAAEE, the UL Innovative Education Award is a first-of-its-kind initiative, investing $250,000 annually in recognition grants to increase the impact of innovative nonprofit programs that use the environment as a pathway for STEM learning, creating more sustainable communities, and empowering youth.

**Broadening the Conversation**: ee360 supports innovative environmental education across the country. NAAEE, through a cooperative agreement with US EPA and seven partner organizations, is leading an ambitious five-year initiative to support a diverse cadre of environmental education leaders who are better prepared to increase environmental literacy and advance civic engagement.

Connect with NAAEE today and join the movement to create a more sustainable future together.
FOR STEVE, HIS WORLD ISN’T ALL BLACK AND WHITE.

DisneyNature

Penguins

CELEBRATE EARTH DAY – IN THEATRES APRIL 17

#DisneyNaturePenguins
The Cal Water H₂O Challenge is coming back for YEAR 5!

A FREE, educational competition tackling California’s water issues

In addition to our annual project-based learning classroom competition for grades 4-6, Cal Water is excited to announce a NEW challenge:

**A media competition about caring for water**

Open to students in grades 4-12 and accepting:

- Visual Art
- Photography
- and Video

Learn more at calwater.com/challenge
Join BioInteractive and NAAEE for
HHMI Night at the Movies
Featuring Special Guest Dr. Manuel Leal, University of Missouri

How Lizards Find Their Way Home

Thursday, 5:45 PM, Centennial Ballroom
Refreshments will be served

Join BioInteractive for this Interactive Session:
Phenomena, Data, and Design with HHMI BioInteractive
Thursday, 2:30–4:00 PM, Room 302B
# Conference Basics

## Registration & Check-In Hours

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**Location:** Riverside Lobby

## Information Station

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Have questions about the conference? Volunteers are here to help. The Information Station is located near the registration counters in the Riverside Lobby.

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# General Information

## Auction Items

Please bring auction items to Room 103, where volunteers will be ready to accept your donation. (If the office is not open, please leave donations at the registration desk.)

Bidding on silent auction items begins during the opening reception on Wednesday evening in Exhibit Hall A. The live auction will be held and the silent auction will close during the gala on Friday evening.

## Audio-Visual Equipment Problems

If presenters experience any audio-visual issues during your sessions, please ask the volunteer room monitor to report it to any staff member or the registration desk. Any staff member will help connect you with our audio-visual experts as quickly as possible.

## Authors’ Corner

Authors will be available to discuss writing and sign and sell books during the opening reception on Wednesday evening. See page 41 for more information.

## Breakfast & Lunch

Grab and go concessions will be available at the convention center on Thursday, Friday, and Saturday mornings from 7:30 AM to 10:30 AM, and on Friday from 12:00 PM to 2:00 PM.

## Coffee Breaks

There will be 30-minute coffee breaks at 10:00 AM on Thursday, Friday, and Saturday mornings in Exhibit Hall A.

## Community Service Project

Each year, NAAEE participates in a Community Service Project to give back to our host community. This year, we will be helping to build a nature therapy garden at West Valley Outdoor Learning Center. See page 25 for details, and sign up to volunteer at the registration desk.

## Exhibit Fair

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See page 134 for a list of exhibitors.
Field Trips
If you are registered for a field trip on Wednesday, meet your bus at the main entrance to the convention center. If you are registered for a field trip on Sunday, meet your transportation at the front entrance to the Davenport Grand Hotel. See pages 53 and 125 for start times.

Gender Neutral/Family Restrooms
Private restrooms are available in Exhibit Hall D and near Room 111.

Jobs and Resumes
You can upload your resume, build your eePROfile, search for jobs, or post job listings in eePRO, NAAEE’s online hub for professional development in EE. Visit NAAEE’s exhibit in Exhibit Hall A for more information or a demonstration.

Mobile App
Our conference mobile app allows you to search the conference program, build your own schedule, network with other attendees, and more. Download “CrowdCompass AttendeeHub” from your app store and then search for “NAAEE.” Need support? Ask at the Information Station.

Nursing Mothers
Show Office 1 is available for nursing mothers. There is a refrigerator in the room.

Continuing Education Units (CEUs)
NAAEE has partnered with the University of Wisconsin–Stevens Point (UWSP) to offer CEUs for attending the Annual Conference and Research Symposium. Participants can receive a certificate documenting their continuing education units by completing an application form that verifies session attendance and submitting the form, along with a $30 processing fee, to UWSP Continuing Education and Outreach. You can pick up an application form at the Information Station. Ten contact hours of professional development equals one CEU.

For more information, contact Haley Frater, Haley.Frater@uwsp.edu

Ticketed Events
These events are included with conference registration with an RSVP. If space allows, you can add an RSVP or purchase guest tickets at the registration desk until the deadlines noted.

Opening Reception and Ceremony, Wednesday, 5:00 PM–8:30 PM. Includes hors d’oeuvres, exhibits, Share Fair, Authors’ Corner, and Brady Walkinshaw’s keynote. Add by Sunday 11:30 AM.

Exhibit Fair Luncheon, Thursday, 12:45 PM–2:15 PM. Includes a full buffet luncheon, exhibits, poster presentations, and the Affiliate Welcome. Add by Monday 11:30 AM.

Annual Gala and Stapp Auction at the Marlin Woldson Theater at the Fox, Friday, 6:30 PM–9:30 PM. Includes dinner, dancing to the Good Company, and our annual auction. Add by Tuesday 11:30 AM.

Awards Luncheon and Closing Plenary, Saturday, 12:00 PM–2:30 PM. Includes luncheon, awards ceremony, and the inspiring EE 30 Under 30 plenary panel. Add by Wednesday at 11:30 AM.

Volunteer Check-In
The Volunteer Office is in Room 301. Registered volunteers should check in at the office 15 minutes prior to the start of their shifts.

Wi-Fi Access
Free Wi-Fi is available in the convention center’s public areas and meeting rooms. Take advantage of the access to send a few tweets using #NAAEE2018 to share your favorite session or let folks know what you think of the conference!

Bing Crosby
Harry Lillis “Bing” Crosby, Jr. was born on May 3, 1903 in Tacoma, and in 1906 moved to Spokane. His home sits on the campus of Gonzaga University, his alma mater, and functions as a museum housing over 200 artifacts from his life and career.
Conference Strands

Six cutting-edge thematic strands characterize this year’s conference:

- **Building Leadership for Environmental Literacy**: Strategies for building leadership and infrastructure to further EE on the state and provincial levels, and for advancing efforts to motivate the public to take informed actions on environmental and other civic issues.
  
  **Strand Leader**: Dave Chase, DRC Consulting, LLC

- **Connecting with Nature**: Cultivating partnerships and providing universally accessible outdoor education experiences that connect people of all ages and backgrounds to nature.
  
  **Strand Leader**: Candice Dickens-Russell, TreePeople

- **Conservation and Environmental Education**: Achieving conservation goals through education, communication, social marketing, and ecotourism strategies, including public participation in scientific research (PPSR) and place-based community action.
  
  **Strand Leader**: Michelle Eckman, Connecticut Audubon Society

- **Educating for Sustainable Communities**: Creating sustainable, equitable, and resilient communities through partnership building, informed civic engagement and personal decision making, systems thinking, connecting community and environment, and understanding historical impacts on communities of color.
  
  **Strand Leader**: Lee Frankel-Goldwater, University of Colorado–Boulder

- **Green Schools and Career-Connected Learning**: Using environmental education to transform education, enhance student achievement, conserve resources, prepare students for green careers, conserve resources, support national and international education trends, link schools and communities, and build support for environmental education in formal education.
  
  **Strand Leader**: Jennifer Ortega, Humboldt State University

- **Linking Research and Practice to Increase Impact**: Using research to inform how we design, develop, refine, and promote environmental education programs for maximum effectiveness, and using practice to inform research.
  
  **Strand Leaders**: Justin Hougham, University of Wisconsin-Extension and Steve Kerlin, Stroud Water Research Center

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**15th Annual Research Symposium**

**October 9-10**

NAAEE’s annual Research Symposium brings the academic community together to explore the current state and future directions of environmental education research and to advance the use of practices proven to be effective. Join new and experienced researchers from around the globe to converse on emerging and traditional areas of environmental education research. The keynote events and concurrent sessions of the 2018 Research Symposium are organized around three themes:

1. **New Horizons in EE Research**: Explore ideas and challenges of the age that might inspire and drive the next generation of EE research.

2. **Intergenerational Conversations**: Focus on new opportunities and challenges for researchers, research, and the Research Symposium, using an intergenerational conversation format.

3. **Stories from Research**: Discuss works in progress, the stories behind research, and how what we have learned might guide or prepare us for future research.

**Chair**: Alan Reid, Monash University

**Co-Chair**: Marcia McKenzie, University of Saskatchewan
Concurrent Session Formats

Conference participants will see a wide variety of session types listed in the conference program. The different formats help us maximize the diversity and number of presenters. Session formats vary in length and degree of depth and interaction.

Workshop (full or half day)
Workshops are in-depth sessions that actively develop specific professional competencies and have widespread potential for implementation. Workshops are scheduled on Wednesday, prior to the formal start of the conference. Onsite registration is accepted as space allows; fees apply.

Symposium (90 minutes)
Symposia are panel discussions presenting different perspectives on a topic or question related to one of the focus points for each strand. Panels generally include at least three panelists and a moderator.

Hands-on Presentation (90 minutes)
Hands-on sessions provide participants with an opportunity to engage in teaching activities and interactive discussions about a particular topic.

Traditional Presentation (40 minutes)
Traditional presentations focus on a single topic or program, typically including a talk or media presentation followed by a short discussion.

Roundtable Discussion (40 minutes)
Roundtable discussions emphasize spirited discussion between the presenter(s) and session attendees. Presenters briefly introduce the baseline question they wish to explore, and then open the discussion for input and exchange of ideas. Multiple roundtable discussions occur simultaneously in one large room.

Poster Presentation (40 minutes)
Posters are two-dimensional printed presentations illustrating research studies, programs, or other work. Posters are fixed to bulletin boards for conference participants to review at leisure. In addition, all presenters will be available during the Exhibit Fair Luncheon on Thursday to share their posters, answer questions, and interact with attendees.

Bright Spot (10 minutes)
Bright spots are succinct talks that celebrate specific triumphs and showcase things that work. Each presenter has 10 minutes to highlight important research findings, and successful and innovative family programs, school programs, community partnerships, conservation achievements, and more. Two or three loosely related bright spots are presented back-to-back during each 40-minute time block.

Finding Sessions of Interest

Diversity, Equity, and Inclusion
NAAEE strives to dedicate at least 15 percent of our concurrent sessions within each strand to advancing diversity, equity, and inclusion in EE. These sessions explore ways to strengthen our field through strategies and programs that, among others, help diversify our audiences as well as our workforce, build cultural competence, support environmental justice, engage with new audiences, forge new and lasting partnerships, honor traditional knowledge, and increase our reach and relevance throughout society.

Sessions marked with this icon have been identified using criteria developed by a team from NAAEE’s Diversity and Inclusion eePRO group as helping to meet this goal.

Young Professionals
NAAEE has planned several sessions specifically targeted to the needs of those who are in the early stages of their career. These include a skill-building clinic, presentations by NAAEE’s EE 30 Under 30 honorees, and sessions about or for young professionals, as identified by their presenters.

Sessions marked with this icon are suggested for early career professionals. See page 28 for more information.

Affiliate Network
Sessions marked with this icon are offered by and for leaders and members of the state and provincial organizations that comprise the NAAEE Affiliate Network. See page 26 for more information.

ee360 Partners
Sessions marked with this icon are offered by NAAEE and our partner organizations in the ee360 initiative, a cooperative agreement between NAAEE and US EPA. See page 24 for more information.

Keywords
In addition, search on these tags in the mobile app to find sessions of particular interest in these areas:

Adult education  
Affiliates  
Arts  
Capacity building  
Early childhood  
ee360  
Elementary school programs  
Gardening  
International EE  
Middle & high school programs  
NGSS/Common Core  
Spirituality  
STEM  
Traditional knowledge  
Underserved audiences  
Young professionals
Networking Opportunities

Stay Connected through eePRO!

NAAEE’s professional development hub, eePRO, is the online place to connect, share, and learn! You can find resources, learn about new ideas and professional development opportunities, connect with people with similar interests, and continue the inspiring conversations that get started here at the conference. You can also attend NAAEE’s monthly webinars, and discover new workshops and other training opportunities, the latest research, and much more.

eeJOBS: Leading EE Job Listing Service

eeNEWS: Latest News from NAAEE and the EE Community

eeLEARN: Online Learning Modules

eeRESEARCH: Connecting Research and Practice

eeWEBINARS: Bringing New Ideas and Innovation to the Field of EE

eeWORKS: Research Reviews and Communication Tools

Sign up today at naaee.org/eePRO/join-eePRO.

PRO Picks

As part of ee360, NAAEE is continuing to ensure that educators are aware of and have access to outstanding resources through a new initiative called PRO Picks. We’ve tapped our network of experts to collect their recommendations for the finest materials in specific subject areas like Early Childhood EE and E-STEM. Check it out at https://naaee.org/eeapro/resources/pro-picks.

ee360

Apple Country

Washington State produces more apples than any other state in the union.
Join the Discussion: eePRO Groups

At the center of eePRO’s group discussion platform are the 14 eePRO Groups—special interest groups created by and for our members and supporters. These forums offer the opportunity to discuss important subjects with experts, peers, budding environmentalists, and more. Enthusiastic moderators keep the discussions active, positive, inclusive, and informative.

Several of the eePRO groups will meet during Friday’s lunch break and—whether you’re a current member or want to develop new networking opportunities—you are encouraged to bring your lunch and join in! You can pick up a quick “to go” lunch at the concession stand at the convention center. You can also sign up for any of the eePRO groups at the NAAEE exhibit booth.

Brown Bag Lunch Meetings: Friday, 1:00 PM-2:00 PM

- Climate Change Education
  Room 206B
- Diversity, Equity, and Inclusion
  Room 206CD
- Early Childhood Education
  Room 207
- E-STEM
  Room 102D
- Global EE
  Room 303B
- Guidelines for Excellence
  Room 401A
- Higher Education
  Room 402A
- K-12 Environmental Education
  Room 303A
- Research and Evaluation
  Room 302B

Thanks to the US Environmental Protection Agency for supporting eePRO maintenance and enhancements through ee360.
Meetings & Gatherings

Affiliate Network Annual Meeting
Thursday, 7:15 AM–8:15 AM, Room 202A
State and provincial EE association leaders are invited to network, learn about upcoming opportunities for involvement, and discuss Affiliate business.
Coordinator: Katie Navin

Affiliates Network Dinner
Tuesday, 7:00 PM–9:30 PM, Luigi’s Italian Restaurant (245 W. Main Avenue)
Informal networking dinner for Affiliate leaders; pre-registration and payment required.
Coordinator: Brenda Metcalf

Cal Water H2O Challenge Winners Meeting
Thursday, 8:30 AM–10:30 AM, Room 101
By invitation.
Coordinator: Mayesha Choudhury

Chinese Environmental Educators Welcome Session
Tuesday, 5:00 PM–7:00 PM, Room 202A
Everyone is welcome to join the second hour of this meeting (6:00 PM) to meet and talk with environmental educators from China.
Coordinator: Yue Li

E3-EEAO-IDEE-ANROE Planning Meeting
Friday, 12:30 PM–2:15 PM, Room 202A
By invitation.
Coordinator: Lisa Eschenbach

E3 Washington Reception: Building a Resilient and Connected PNW Network
Friday, 5:00 PM–6:00 PM, Room 102ABC
Calling all Pacific Northwest attendees for a social hour with light appetizers and drinks. Let’s build a strong regional EE team, supporting innovative green economy and climate literacy education.
Coordinator: Lisa Eschenbach

eePRO Group Meetings
Friday, 1:00 PM–2:00 PM
Several eePRO Groups are meeting over a brown bag lunch. See page 21 for groups and locations.

Environmental Professionals of Color Business Meeting
Thursday, 3:20 PM–4:00 PM, Room 206CD
The Environmental Professionals of Color (EPOC) annual business meeting is open to current and potential EPOC members. We will build community connections, discuss lessons learned, and identify potential priority areas for the next year. EPOC is a program of the Center for Diversity & the Environment.
Coordinator: Queta González

Environmental Education Research Editors Meeting
Thursday, 4:15 PM–5:45 PM, Room 304
Working meeting for journal editors. By invitation.
Coordinator: Alan Reid

Making the Most of the NAAEE Conference
Wednesday, 4:45 PM–5:15 PM, Room 111C
Young professionals and first-time conference participants are welcome to join this brief orientation to the NAAEE conference, including keys to selecting sessions of interest, scheduling, networking opportunities, and more.
Coordinator: Lori Mann

NAAEE 2019: Share Your Ideas!
Saturday, 10:30 AM–11:10 AM, Room 201B
How can we improve on this year? We’d love to hear your thoughts. Come share your ideas and suggestions for our 48th annual conference, scheduled for October 15–19 in Lexington, Kentucky.
Coordinator: Lori Mann

NAAEE Business Meeting
Saturday, 9:20 AM–10:00 AM, Room 203
Join NAAEE’s board chair, executive director, board, and staff for a discussion on the current state of the organization and future directions for NAAEE. Topics will include strategic planning, a financial report, and your questions. We welcome your input!
Coordinators: Charlotte Clark, Judy Braus
Ocean Education Social  
**Thursday, 5:45 PM–7:00 PM, Room 102ABC**
Please join Ocean Wise, the Coastal Ecosystems Learning Centers, and NOAA for an ocean education social: make new friends passionate about ocean education and share your ideas and resources that support learning and conservation of our ocean. Enjoy hors d’oeuvres and a cash bar. Everyone welcome.

**Student Conservation Association Gathering**  
**Thursday, 6:30 PM–7:30 PM, O’Doherty’s Irish Grille (525 W. Spokane Falls Boulevard)**
Prior to the NAAEE Suds Stroll, SCA will be hosting a free happy hour at O’Doherty’s Irish Grille (the first venue on the stroll) for SCA alumni attending the conference or who live in the Spokane area. SCA will be recognizing its four EE 30 under 30 honorees at this event as well. Enjoy beer, cocktails, light fare, and great conversation. Pre-registration required.

**Southeastern Environmental Education Alliance Meeting**  
**Friday, 5:00 PM–6:00 PM, Room 207**
Members of the southeast state Affiliates will meet to discuss current activities and opportunities for collaboration. Member states include Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, and Tennessee.  
Coordinator: Ashley Hoffman

**UL Innovative Education Award Business Meeting**  
**Friday, 8:30 AM–4:00 PM, Room 101**
By invitation.  
**Coordinators:** Christiane Maertens, Chris Hutton

**University of Michigan School for Environment and Sustainability Gathering**  
**Thursday, October 11th, 7:00 PM–9:00 PM, Zola (22 W. Main Avenue)**
University of Michigan SEAS alumni are invited to attend a casual happy hour with drinks and appetizers at Zola. This is a great opportunity to connect and catch up with fellow alumni. Current and prospective students are welcome.

**Young Professional Networking Dinner & Drinks**  
**Thursday, October 11th, 7:00 PM, Zola (22 W. Main Avenue)**
Network with other young professionals over dinner and drinks at Zola, a historic venue with inspired food and beverages. Meet at the restaurant.

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Stay connected!  
Want the latest on all things #NAAEE2018? Follow @NAAEEStaff on social media!  
Follow us on Facebook to stay connected to #EnviroEd trends and events!  
Follow @naaeestaff on Instagram for NAAEE2018 photos and videos!  
Access our conference mobile app via your app store: Download “CrowdCompass AttendeeHub” and search for “NAAEE”!
ee360 at the Conference

ee360 supports innovative environmental education across North America. NAAEE, through a cooperative agreement with US EPA and seven partner organizations, is leading an ambitious five-year initiative to support a diverse cadre of environmental education leaders who are better prepared to increase environmental literacy for everyone in their communities.

NAAEE is strengthening the field, advancing environmental literacy, and building a more inclusive movement that we hope will have both short- and long-term impacts. Together with our partners and advisors, NAAEE is bringing more than four decades of expertise to our effort to grow, strengthen, and diversify the field of environmental education.

ee360 builds on 25 years of US EPA’s long-standing commitment to support a nationwide effort to strengthen the field and support professional development. This effort supports innovative leaders in the environmental education field through leadership training, state-of-the-art education materials and research, networking opportunities, and an online hub where educators can share new approaches and best practices.

ee360 is powered by collaboration, and we couldn’t do this work without the support of our amazing partners and advisors. As we near the end of the second year of this project, we’re excited to share what we’ve collectively learned so far. To find out more about ee360’s work, we invite you to participate in one or more of these sessions and visit ee360.org.
Friday

An Introduction to Community Engagement: Guidelines for Excellence
8:30 AM-10:00 AM, Room 402B

Stakeholders and Community Engagement: Key Environmental Education Connections
10:30 AM-11:10 AM, Room 206CD

eePRO Group Meetings
1:00 PM-2:00 PM
- Climate Change, Room 206B
- Diversity, Equity, and Inclusion, Room 206CD
- Early Childhood EE, Room 207
- E-STEM, Room 102D
- Global EE, Room 303B
- Guidelines for Excellence, Room 401A
- Higher Education, Room 402A
- K-12 Environmental Education, Room 303A
- Research and Evaluation, Room 302B

Certification Clinic: The Nuts and Bolts of Certification
2:15 PM-3:45 PM, Room 206CD

Identify and Practice Interrupting Micro/Macro Aggressions
2:15 PM-3:45 PM, Room 302B

NAAEE’s Nationwide Effort to Strengthen the Field: ee360
4:00 PM-4:40 PM, Room 401B

Saturday

Using Social Enterprise As an Environmental Education Tool
9:20 AM-10:00 AM, Room 401C

A Conversation on Higher Education Accreditation
10:30 AM-12:00 PM, Room 402B

Equity and Inclusion Through Nature Play
11:20 AM-12:00 PM, Room 302A

Place-Based Teaching and Learning: Empowering Educators to Increase Student Outcomes
11:20 AM-12:00 PM, Room 401B

Community Service Project
Friday, 12:30 PM-2:45 PM
Transportation and box lunch provided. Meet at the Registration Desk.

West Valley Outdoor Learning Center Nature Therapy Garden Construction
Each year, NAAEE works with a local organization to organize a community service project through which conference participants can give back in a meaningful way to our host community. This year we will be helping the West Valley Outdoor Learning Center (WVOLC) build a nature therapy garden.

The WVOLC has been a valuable nature-based learning center for the West Valley School District for 14 years. WVOLC has developed a dynamic and successful environmental education program, but with the increase of student population with special needs, primarily autism, the center’s outdoor space needs to evolve beyond current programming.

Project participants will help modify the current outdoor environment to function additionally as a nature therapy garden for students with unique needs like Autism Spectrum Disorder. The group will construct a sensory pathway to enable children to explore various sensory experiences, build communication and social skills, and support speech, physical, and occupational therapies. Participation will involve physical work such as shoveling sand and gravel.

Conference participants will work with landscape architecture professionals, local students, volunteers from the West Valley School District, and program partners from the Court Appointed Special Advocates (CASA) to complete the project. CASA volunteers advocate for the rights of abused and neglected children between the ages of birth and 17. CASA facilitates a summer program for children called the Bee Kind Garden each year; this therapy garden will be an incredible addition to their programs. Participation is limited to the first 18 people to sign up at the Information Station.
NAAEE and the Affiliates:
A Force for Nature

NAAEE’s Affiliate Network is a powerful collective for environmental education and capacity building in the field. The network represents 56 organizations, each affiliated with NAAEE, that work together to support environmental education professionals through the United States, Canada, and Mexico. Since the partnership began in 1998, NAAEE and the Affiliates have created a more unified voice for EE on all levels, promoting collaborative learning, professional development, and resource development.

Throughout the conference, a number of sessions focus on strengthening Affiliate organizations, sharing best practices, and building capacity at all levels of the field. Check out these sessions to learn more.

Look for this symbol marking Affiliate sessions in the daily listings.

Affiliate Sessions

Wednesday

NAAEE Affiliates’ Workshop
8:30 AM-4:30 PM, Room 302AB
(Registration required)

Thursday

Affiliate Network Annual Meeting
7:15 AM-8:15 AM, Room 202A

You Can Do It! Accomplishing Strategic Goals with an All-Volunteer Board
9:20 AM-10:00 AM, Room 203

EE Associations: Making the Most of Membership
10:30 AM-11:10 AM, Room 203

Updating Your EE Affiliate for 2018 Without Losing Traditions
10:30 AM-11:10 AM, Room 201B

Affiliate Strategies: Building a More Diverse, Equitable, and Inclusive Field
4:15 PM-5:45 PM, Room 302B

Friday

A Systems Approach to Environmental Literacy in Your Community
9:20 AM-10:00 AM, Room 201A

Fine Tune Your Message for EE Organizations and Affiliates
10:30 AM-11:10 AM, Room 206CD

So You’re Ready to Hire?
10:30 AM-11:10 AM, Room 206CD

Certification Clinic: The Nuts and Bolts of Certification
2:15 PM-3:45 PM, Room 206CD

Creating a Fund Development Plan
4:00 PM-4:40 PM, Room 203

Now What? Challenges and Successes of Strong Statewide EE Support
4:00 PM-4:40 PM, Room 206CD

Saturday

Green Play to Green Pay: Fostering Green Career Pathways
10:30 AM-11:10 AM, Room 201A

LOCAL CULTURE

Bloomsday Race
Spokane’s Bloomsday race is the largest timed running race in the United States.

Credit: Matthew Staben, CC BY 3.0
Fifth Annual Environmental Education Evaluation Clinic  
Friday, 8:30 AM–10:00 AM, Room 206CD  
Do you have questions about evaluation or assessment? Bring them to NAAEE’s fifth annual Evaluation Clinic, where you can ask questions of the experts and contribute your own relevant experience. Learn from evaluation experts as well as peers through informal, roundtable conversations. See page 92 for the list of expert participants.

The New Network Leader  
Friday 2:15 PM-3:15 PM, Room 304 Boardroom  
Following Friday’s plenary session (see pages 37–38), Jane Wei-Skilern will continue the conversation during this special small-group session. She will bring participants through four network principles: (1) Focus on mission before organization; (2) Manage through trust, not control; (3) Promote others, not yourself; and (4) Build constellations, not stars. (Limited to 14 participants, selected by lottery)

Fundraising Coaching  
Thursday-Saturday; Times and locations vary  
Need advice to help address a fundraising challenge? Sign up for a private 30-minute consultation with fundraising and strategic planning experts Lea Harvey and Krishna Roy. Briefly explain the issue you’d like to discuss, and Lea and Krishna will decide who is best suited to work with you. A limited number of slots are available throughout the conference. Sign up at the Information Station.

Lea Harvey is passionate about the capacity of the nonprofit sector to be a force for positive change and has focused her career on fundraising and outreach for environmental, educational, and policy organizations. Lea is the Founder and Principal of LLH Strategy Advisors, LLC, an independent consultancy, and is also the Director of Foundation and Corporate Relations for her alma mater, Sweet Briar College. Lea began her career as Associate Director of The Council of Growing Companies, an association for chief executives of fast-growth firms, transitioning to Senior Associate with The Greenway Group, a management consulting firm.

Lea held key positions at World Wildlife Fund, including Director of Foundation and Corporate Relations from 1998 to 2005. From 2005 to 2008, she was Vice President for Development at BoardSource, an organization dedicated to strengthening nonprofit governance and leadership, and from 2008 to 2017, Lea was Vice President for Development and Corporate Secretary for Resources for the Future, a leading environmental policy research organization.

She holds a BA in art history, with a certificate in arts/nonprofit management from Sweet Briar College.

Krishna K. Roy is a conservationist and social activist. She has worked in the nonprofit sector for three decades as a grant maker, consultant and in senior management positions specializing in capacity building, strategic planning, development, marketing, event planning, and public relations. She has worked at the US Fish and Wildlife Service, Island Press, San Diego Zoo, The Nature Conservancy, and the National Fish and Wildlife Foundation among other assignments.

From 2010 to 2015, Krishna was the US government representative to the Ramsar Wetlands of Importance Convention. She was instrumental in the adoption of a migratory bird conservation plan at the Convention of Migratory Species Conference of Parties. She has raised more than $85 million and developed groundbreaking environmental media and marketing partnerships with Discovery Communications, Black Entertainment Television, Telemundo, Anheuser-Busch Companies, and Exxon, among others.

Krishna has a BA (Honors) in Political Science from Jadavpur University in India and an MA in Comparative History and Television Production and Direction from the University of Michigan. She serves on many nonprofit boards.
Especially for Young Professionals

NAAEE has planned several sessions specifically targeted to the needs of those who are in the early stages of their career. These include a skill-building clinic, presentations by NAAEE’s EE 30 Under 30 honorees, sessions identified by presenters as appropriate for young professionals, and the awe inspiring closing keynote panel on Saturday.

YP Look for this symbol marking sessions for young professionals in the daily listings.

Young Professionals Clinic
Thursday, 8:30 AM-10:00 AM, Room 206CD

Whether you’re a student, just getting started on your career path, or in your first professional position, this clinic will help build essential skills that will help you now and in the future. Choose from the following four mini-courses on networking, resumes and cover letters, using social media, and fundraising basics at NAAEE’s first-ever young professionals clinic.

• Networking Do’s and Don’ts
Does networking make you wanna hide? We’ll talk about some do’s and don’ts to get you over the hurdle and maybe even love it! Bring your ideas to share and some questions to ask.
Presenter: Chuck Lennox, Principal/Consultant, Lennox Insites, began his career in environmental education and interpretation as a volunteer in love with the natural world. His professional path has included the National Park Service, a zoo, and a regional park system. He started his own consulting practice 15+ years ago with a commitment to exceptional visitor experiences.

• Preparing Standout Cover Letters and Résumés
During this session, participants will receive a crash course in the current trends for making your résumé and cover letter stand out to recruiters. This will include a general overview of best practices, as well as some quick tips that can help make your application more successful.
Presenter: Brittany Leland, Associate Director of Gonzaga University’s Career & Professional Development office, supports and coaches students and graduates as they prepare for their future endeavors. She teaches classes and workshops for students, as well as meets with them one-on-one to define their professional goals and develop strategies for success. She also specializes in career assessment facilitation and educating professional career coaches on industry best practices.

• Effective Use of Social Media
Join NAAEE’s Communications Specialist to learn how to secure and promote your professional brand to help kick off your career and job search! Learn the do’s and don’ts of managing your professional brand on social media, from privacy settings to messaging etiquette.
Presenter: Sai Muddasani has managed NAAEE’s digital presence for over three years, working with all staff to amplify the organization’s work through social media, naaee.org and eePRO, as well as through more traditional communications work. She loves connecting people with ideas and each other, by building community online and in person.
Fundraising Essentials: Message, Momentum, and Mindset
Like it or not, every nonprofit employee is also a fundraiser and must build the relationships that enable their organizations to thrive. In this session, you’ll learn how to craft fundraising messages, create the connections and energy that make gifts happen—and to do it all with confidence.

Presenters: A social activist and strategist, Krishna Roy designs and implements laser-focused nonprofit management, fundraising, and communications programs to support social causes. She has created groundbreaking campaigns, produced award-winning videos, built unlikely partnerships, and raised millions of dollars. Krishna serves on several boards including the Oceangate Foundation, Trust for Architectural Easements, and Sound Principles.

With a background that spans environmental, higher education, and policy organizations, Lea Harvey is committed to building the capacity of the nonprofit sector to be a force for positive change. Across more than two decades, Lea has held fundraising and senior management roles at organizations like World Wildlife Fund, BoardSource, and Resources for the Future. She currently leads her own fundraising consultancy, LLH Strategy Advisors, LLC, based in Northern Virginia, and also serves as Director of Foundation and Corporate Relations for her alma mater, Sweet Briar College.

Young Professional Networking Dinner & Drinks
Thursday, October 11th, 7:00 PM, Zola (22 W. Main Avenue)
Network with other young professionals over dinner and drinks at Zola, a historic venue with inspired food and beverages. Meet at the restaurant.

EE 30 Under 30 Bright Spots
Eleven of NAAEE’s 2018 EE 30 Under 30 honorees are presenting bright spots about their inspiring work. Look for the daily sessions marked “EE 30 Under 30 Honorees.”

EE 30 Under 30: Young Leaders Making a Difference
12:00 PM-2:30 PM, Centennial Ballroom
To close the conference on a high note, four inspiring young leaders from our EE 30 Under 30 honorees will share their stories and perspectives on how to develop leadership in the field of environmental education.

Sessions About Washington State Initiatives by and for Washington Environmental Educators
Climate Change Education: Building Networks, Plans, and Resources
8:30 AM-10:00 AM, Room 302B
Washington needs all hands on deck to address climate change and other environmental challenges. How can high school and college students apply their academic skills and ingenuity to improve our environment and economic sustainability? E3 has been working with scientists and other specialists to develop a toolkit tied to NGSS and project-based learning.

Washington State Next Generation Education: Green Jobs—Building Skills for the Future
10:30 AM–11:10 AM, Room 205
The Pacific Education Institute will present their new report on Green Jobs and the skills those careers require. We will discuss connecting K-12 education with higher education, and, ultimately, future “green” jobs. We will also tie in Next Generation Science and Common Core standards and removing barriers to access among under-resourced and underrepresented communities.

Washington State Students Present Their EE and Climate Change Projects
2:15 PM–3:45 PM, Room 205
Students from around Washington State will present their science, climate, and environmental projects, followed by a gallery walk. Learn about developing successful NGSS and career-connected learning projects. Student projects support Governor Jay Inslee’s work to combat climate change and develop the new Green Economy.

E3 Washington Reception: Building a Resilient and Connected PNW Network
5:00 PM–6:00 PM, Room 102ABC
Calling all Pacific Northwest attendees for a social hour with light appetizers and drinks. Let’s build a strong regional EE team.
NAAEE Partners & Supporters

Thank you.

This conference wouldn’t be possible without the dedication of all the people on this list, as well as their employers and families. They gave generously of their time and talents. There are also hundreds of others, not listed here, who pitched in to help along the way.

Thanks to all of you for your hard work and willing spirits. You’ve brought this conference to life!

Conference Co-Chairs

Lisa Eschenbach
Strategic Advisor
E3 Washington

Jami Ostby-Marsh
Director, West Valley
Outdoor Learning Center

Conference Committees

Auction
Tiffany Bailey

Awards
Brenda Metcalf

Diversity, Equity,
and Inclusion
Charissa Jones
Darryl Ramos-Young
Tia Watkins

Field Trips
Jami Ostby-Marsh

Program Production
Kathy McGlaunlin

Research Symposium
Alan Reid
Marcia McKenzie

Scholarships
Brook Beeler
Yash Bhagwanji
Cheryl Calustro
Dave Chase
Sylvia Hadnot
Sharon Jaye
Doreen Keller
Darryl Ramos-Young
Adam Ratner
Tammie Schrader
Dottie Shuman
Dennis Sterner
Elena Takaki
Cindy Thomashow
Rachel Sowards Thompson
Luise Woelflein

Volunteers
Courtney Sullivan
And our incredible team of more than 75 onsite volunteers!

Strand Leaders

● Building Leadership for Environmental Literacy
  Dave Chase

● Connecting with Nature
  Candice Dickens-Russell

● Conservation and Environmental Education
  Michelle Eckman

● Educating for Sustainable Communities
  Lee Frankel-Goldwater

● Green Schools and Career-Connected Learning
  Jennifer Ortega

● Linking Research and Practice to Increase Impact
  Justin Hougham
  Steve Kerlin

Young Professionals Initiative

Maya Alexander
Mayesha Choudhury
Olivia Griset
Nina Hamilton
Charissa Jones
Lori Mann
Drew Price
Melissa Hopkins Taggart
Elise Trelegan

Conference Proposal Reviewers

Thank you to 104 colleagues who diligently reviewed more than 600 proposals submitted for this year’s conference, helping to shape the conference program. To volunteer to review the 2019 proposals, watch for announcements in eeNEWS, NAAEE’s email bulletin. We look forward to working with you to create another outstanding program in Lexington!
Conference Scholarships

NAAEE is proud to have provided funds to help enable more than 225 professionals and students attend the 2018 conference in Spokane. Our deepest thanks go to the following organizations, whose support made this possible.

We are especially grateful to conference participants who contribute to NAAEE scholarships through their Stapp Scholarship Auction purchases and as part of their conference registration.

The Environmental Education Scholarship for Academic Study is awarded to a college or university student in each year’s conference host state. Recipients are selected based on their understanding of and commitment to environmental education and their potential for future contributions to the field. This year, NAAEE recognizes David Strich, a Curriculum Studies major at University of British Columbia.

The Columbia Sportswear Teacher/Administrator Scholarship recognizes a teacher’s achievement in environmental education in the classroom and the administrator who supported his or her endeavors. This year’s recipients are second grade teacher Aïdé Villalobos of Evergreen Elementary School in Shelton, Washington, and Sally Brownfield, Shelton School District Board Member. Nearly 90% of the students at Evergreen qualify for free or reduced lunch and over half are English Language Learners. Aïdé believes that science education and the skills gained through applied environmental science are critical, and she uses an active-learning science program to engage students in outdoor investigations, observations, and data collection.

The Young Professionals Scholarship helps young professionals advance their careers by attending the 2018 NAAEE Conference. Join NAAEE and the US Forest Service, who share the important goal of increasing diversity, equity, and inclusion in the field, in congratulating these outstanding scholarship recipients: Ghaith Al-Taie, Rebecca Au, Monika Frazier, Mason Neil, Abel Olivo, Barbara Spiecker, Lauren Wiggins.

Cal Water H₂O Challenge

NAAEE has joined with the California Water Service to create the 5th Annual Cal Water H₂O Challenge, a project-based competition for schools seeking to enhance fourth, fifth, and sixth grade students’ understanding of water-based science principles.

We are proud to recognize Mr. Mike Buckley’s fifth-grade class at Murdock Elementary in Willows, California as the 2018 grand prize winner for their project titled “Protect Our Drinking Water.”

Mr. Buckley’s students researched and measured the safety of local drinking water, established a plan to protect the water supply, and educated the community on how and why they should help. The students installed 25 storm drain markers to reduce littering in highways and presented their findings to 16 other classrooms. Mr. Buckley’s class received a $3,500 classroom grant and a science field trip to the Santa Monica Mountains with NatureBridge.

Fly, Dragon, Fly

Washington’s state insect is the green darner dragonfly.
The UL Innovative Education Award

In partnership with Underwriters Laboratories Inc. (UL), NAAEE has announced the five recipients (pictured above) of the fourth annual UL Innovative Education Award (ULIEA). The award recognizes and supports nonprofits using science and technology as a pathway to engage students in addressing environmental concerns. Please join us in congratulating these extraordinary programs.

Grand Prize Winner:
$100,000 Recognition Grant

Techbridge Girls
Techbridge Girls is an award-winning nonprofit whose mission is to excite, educate, and equip girls from low income communities to achieve economic mobility and better life chances through opportunities in science, technology, engineering, and math (STEM). Their yearlong ChangeMakers program provides impactful and social/emotional skills to participants and makes an impact in their communities by identifying local or environmental challenges affecting their lives.

Second Tier Winners
$50,000 Recognition Grants

Sweet Water Foundation
Chicago, Illinois-based Sweet Water Foundation’s Apprenticeship & Outreach Program engages systemically disconnected youth into STEM-based programming, STEM higher education, and career pathways. Their workforce development approach uses hands-on, project-based learning experiences marrying centuries old practices with 21st century digital media, tools, and technology to address pressing urban problems. While doing so, participating youth tackle real-world problems investigating environmental issues, generating community and youth-driven solutions, and working to bring those solutions to life.

Ocean Discovery Institute
Ocean Discovery Institute uses science to empower students from a single urban community to transform their lives and ultimately our world as E-STEM leaders. Based in San Diego, California, Ocean Discovery uses marine environments as a platform for teaching all disciplines of STEM, and consists of programs that follow young people from elementary school through college, and into careers in E-STEM. Programming includes access to mentors and other tools students need to overcome challenges they face growing up in underserved communities and to develop solutions that will make a real difference in our world.

Third Tier Winners
$25,000 Recognition Grants

The ‘Alalā Reintroduction Community Inquiry Program by The San Diego Zoo Institute for Conservation Research
The ‘Alalā Reintroduction Community Inquiry Program provides Hawaii Island students the opportunity to examine firsthand the ecological significance of the ‘Alalā (Hawaiian crow) through the process of conservation inquiry. Students engage with San Diego Zoo Global researchers at the Keauhou Bird Conservation Center before designing and conducting their own ‘Alalā -enhanced native seed growing experiments on their campus. The program includes comprehensive professional development in open inquiry for Hawaii Island science teachers and fits with Hawaii’s recent adoption of the NGSS.

Groundswell Michigan by Grand Valley State University
Groundswell is a place-based environmental education program in the College of Education at Grand Valley State University in Allendale, Michigan. The program models and supports effective teaching pedagogy through community-based projects that address real environmental needs. Groundswell helps teachers incorporate inquiry-based education and Next Generation Science Standards into their practice and also connects schools to community organizations and provides funding for student-led stewardship projects.

For more information, visit naaee.org/ulinnovativeeducation
Protecting Human Health and the Environment through Education

Visit us at booth #400 in the Exhibit Hall
The Global Environmental Education Partnership, NAAEE, Wells Fargo, and US Forest Service are recognizing 30 young leaders from around the world as the top young change-makers in environmental education for 2018.

Since 2016, the EE 30 Under 30 program has highlighted the work of 90 young professionals using environmental education to forge a sustainable future. They are champions of energy, water, climate resilience, the Arctic, environmental health, and more. Through approaches including journalism, music, and gardening, they are working to create change in their communities and on the global stage. Four of these young leaders will share their stories and perspectives on developing leadership in the field at the closing luncheon on Saturday, and eleven additional honorees will present their work in Bright Spots throughout the conference.

For more information, go to: naaee.org/our-work/programs/ee-30-under-30
Keynote Speakers

Brady Piñero Walkinshaw
CEO, Grist.org
6:30 PM–8:30 PM
Centennial Ballroom

Brady Walkinshaw is the CEO of the Seattle-based Grist media, the leading national environmental media organization. Brady is a former Washington State Legislator, and served two terms representing central Seattle, championing housing, mental health, environmental, and criminal justice reforms. In 2016, Brady ran for US Congress endorsed by dozens of local leaders and the Seattle Times, and described as “gutsy and effective” by local columnist Dan Savage. Before joining the Legislature, Brady spent five years at the Bill & Melinda Gates Foundation working on food and agriculture in developing countries.

Before returning home to the Northwest, Brady lived and worked in Tegucigalpa, Honduras, on a Fulbright and founded a small nonprofit, Proyecto Villa Nueva, focused on youth leadership development in urban slums. The organization celebrated its 10th anniversary in 2017, and was recognized by the Organization of American States for its contribution to violence prevention. Brady is a graduate of Princeton University, where he later served on the University’s Board of Trustees. He serves on the boards of United Way of King County, the Washington Progress Alliance, the Trust for Public Land, and the Latino Victory Project. Brady lives in Seattle’s Capitol Hill neighborhood with his husband, Micah, a marine biologist.

The distinguished group of keynote speakers for our 2018 conference includes the organizer of the effort to design the first substantially green building on a US college campus, a holder of the Keys to the City of Seattle, an educator who has held onto a 1988 Newsweek article claiming that people finally understood the need to do something about climate change, an athlete who narrowly missed earning a spot on the 1994 US Olympic luge team, and a singer/songwriter who uses music as a tool to raise awareness of contemporary economic, social, cultural, and environmental justice issues.

In keeping with our conference theme—EE: A Force for the Future—each of these compelling speakers will help us think creatively about using the power of education to meet today’s challenges and create a more sustainable future. They have inspired and empowered countless individuals, and you will find yourselves among them.

Wednesday

Spokane Tribe

The name Spokane originated from the Native American Indian tribe of the same name. The name means “Children of the Sun” in the local native language.
Thursday

PLENARY PANEL

Timothy Egan, Kei Kawashima-Ginsberg, Janet Tran

Moderated by David Orr

Democracy, Civic Engagement, and Environmental Education

11:30 AM–12:45 PM, Centennial Ballroom

Timothy Egan is an op-ed columnist for the New York Times, writing an opinion piece once a week—with a Western perspective. Prior to that, Egan worked as a national correspondent for the Times, roaming the West. As a Times correspondent, he shares a Pulitzer Prize with a team of reporters for their series, “How Race is Lived in America.” He is the author of eight books. His most recent book, The Immortal Irishman, was a New York Times bestseller. His book on Edward Curtis, Short Nights of the Shadow Catcher—The Epic Life and Immortal Photographs of Edward Curtis, was awarded the Carnegie Award for best nonfiction. His account of the Dust Bowl, The Worst Hard Time, won the 2006 National Book Award, considered one of the nation’s highest literary honors, and he was featured prominently in the 2012 Ken Burns film on the Dust Bowl.

Kei Kawashima-Ginsberg is the director of the Center for Information and Research on Civic Learning and Engagement (CIRCLE) at Tisch College of Civic Life at Tufts University. CIRCLE is a nonpartisan national research institute that focuses on youth civic learning and engagement. Kei manages CIRCLE’s expansive portfolio of research initiatives, tools for educators and policymakers, and reports that influence policy and practice in civic learning. With a background in positive youth development and interest in diverse and marginalized youth, she sees research as a powerful tool to address inequity by affecting policies and practice.

Janet Tran is the Director of Learning and Leadership for the Ronald Reagan Presidential Library Foundation, where she designed and launched Leadership and the American Presidency, an experiential leadership program for university students through the lens of the American Presidency. She also established the inaugural Reagan Institute Summit on Education, an initiative dedicated to elevating the national conversation on education. In her prior role as the Foundation’s Associate Director of Education, Janet helped to create the Foundation’s national portfolio of nonpartisan civic learning programs and opportunities. Janet began her career as a social studies teacher in inner city high schools within the Los Angeles Unified School District in California. She is currently a doctoral candidate in learning technologies at Pepperdine University.

Moderator David Orr, the recipient of NAAEE’s 2018 lifetime achievement award, is Paul Sears Distinguished Professor of Environmental Studies and Politics, Emeritus and Special Assistant to the President of Oberlin College. Orr is the author of eight books, including Dangerous Years: Climate Change and the Long Emergency (Yale, 2016) and Down to the Wire: Confronting Climate Collapse (Oxford, 2009) and co-editor of three others. He has authored over 220 articles, reviews, book chapters, and professional publications.

In the past twenty-five years, David has served as a board member or adviser to ten foundations and on the boards of many organizations including the Rocky Mountain Institute, Bioneers, and the Aldo Leopold Foundation. He is currently a Trustee of the Alliance for Sustainable Colorado, Children & Nature Network, and the WorldWatch Institute. He has been awarded nine honorary degrees and a dozen other awards including a Lyndhurst Prize, a National Achievement Award from the National Wildlife Federation, leadership awards from the US Green Building Council (2014) and from Second Nature (2012), and lifetime achievement awards from Green Energy Ohio and the North American Association for Environmental Education.

David has lectured at hundreds of colleges and universities throughout the United States, Europe, Latin America, and Asia. He headed the effort to design, fund, and build the Adam Joseph Lewis Center, which was named by an AIA panel in 2010 as “the most important green building of the past thirty years,” as “one of thirty milestone buildings of the twentieth century” by the US Department of Energy, and as one of “52 game-changing buildings of the past 170 years” by the editors of Building Design + Construction in January 2016. He was also instrumental in the design and funding of the Peter B. Lewis Gateway Center, and is the founder of the Oberlin Project and of the journal Solutions. His current work is on the state of American democracy (www.stateofamericandemocracy.org).
Friday

PLENARY SESSION
Paul Baribault, Kevin Chang, Shaun Martin, Sheila Williams Ridge, Jane Wei-Skillern Facilitated by Paul Baribault

EE: A Force for the Future
11:30 AM-12:30 PM, Centennial Ballroom
From climate resiliency to community engagement, early childhood, media, and networks, this series of flash talks will give you a taste of how these experts are thinking about the next decade and beyond. The session will end with a preview of Disney’s new Disneynature film focused on penguins! This is never-before seen footage, and it’s amazing!

Paul Baribault is a Vice President at Walt Disney Studios. He leads Studio Marketing Operations & Strategy for Pixar and Disney Animation Studios. Paul also leads Disneynature, a nature brand for the Walt Disney Company, which brings the stories of the natural world to life as never before. He oversees Disneynature Feature Production, Marketing, and Brand Development.

The Disneynature films released theatrically, which include Earth, Oceans, African Cats, Chimpanzee, Bears, Monkey Kingdom, and Born in China, are seven of the eight highest grossing nature films in industry history. Paul has made nature conservation a key pillar, turning audiences into partners, by tying opening week attendance to innovative and significant conservation programs working with leading organizations. Millions of acres have been conserved and countless threatened and endangered species have been protected as a result of these initiatives. Disneynature’s next film is Penguins, coming to theatres nationwide April 19, 2019.

Paul is on the Board of Directors of The Jane Goodall Institute, the Jackson Hole Wildlife Film Festival and Conservation Summit (Executive Committee), and the BLUE Ocean Film Festival and Conservation Summit. Paul graduated with a BA from Stanford University and an MBA from the University of Southern California, Marshall School of Business.

Kevin Chang is the Executive Director of Kua‘āina Ulu ‘Auamo (KUA), a nonprofit organization in Hawaii with a mission to increase the capacity of community-based resource management initiatives with a vision of ‘āina momona (abundant land). KUA advances its mission through the facilitation of grassroots, community-driven learning networks and also serves as a liaison to assist in the development of equitable collaborations between communities, agencies, and larger conservation initiatives. Prior to KUA, Kevin was a Land Manager for the Office of Hawaiian Affairs, a Field Representative for the Trust for Public Lands’ Hawaiian Islands Program, and practiced law as a solo practitioner in the field of entertainment law. Kevin is married to Alma Siria and is a member of a band called Kupā‘āina.

Shaun Martin is the senior director for climate change adaptation and resilience at World Wildlife Fund and has more than 25 years’ experience in capacity building, training, and leadership development. In his current role, he helps influence policy and practice by bringing climate change dimensions into the fields of conservation and sustainable development. He also provides guidance to WWF programs on becoming “climate-smart,” making sure they are prepared to address the inevitable consequences of climate change and their effects on biodiversity, people, and the ecosystem services they rely upon. He has designed and delivered training on climate change and adaptation to more than 1,500 people across the globe. He is also a member of the boards of directors for the School for Field Studies and Emerging Wildlife Conservation Leaders, an advisor to ee360 for the North American Association for Environmental Education, and serves on the technical reference group on ecosystem-based adaptation for the Convention on Biological Diversity. Prior to joining WWF, he worked at the Institute of International Education managing exchange programs for working professionals and university students. Shaun has a bachelor’s degree in chemistry and a master’s degree in social and economic development from the University of Pittsburgh.
Sheila Williams Ridge is the Director of the Shirley G. Moore Laboratory School at the University of Minnesota. Sheila is passionate about encouraging and promoting nature-based play and education with children and adults. Sheila has a BA in Biology as well as an MA in Education. She began in early childhood education as one of the founding staff of Dodge Nature Preschool, a nature-based preschool program in West Saint Paul, Minnesota. Sheila is a facilitator for the NAEYC Nature Interest Forum, a member of the Council of Nature-Based Preschools, a founding board member for a new urban nature-based preschool opening this fall in Minneapolis, and a founding advisory board member for the Natural Start Alliance. She is also a co-author of the new book *Nature-Based Learning for Young Children: Anytime, Anywhere, on Any Budget.*

Jane Wei-Skillern is a Senior Fellow at the Haas School of Business at University of California–Berkeley. Previously, she has served on the faculty at the Stanford Graduate School of Business, Harvard Business School, and London Business School. She is the author and coauthor of dozens of Harvard Business School case studies, book chapters, and journal articles. She is the lead author of the casebook, *Entrepreneurship in the Social Sector* (Sage Publications, 2007). Her research on the leadership and management of social enterprises focuses on nonprofit networks. This research examines how nonprofit leaders who focus less on building their own institutions and instead invest to build strategic networks beyond their organizational boundaries can achieve dramatic gains in mission impact with the same or fewer resources. Wei-Skillern earned a bachelor’s degree in business from the Haas School of Business at UC Berkeley, a master’s degree in business research, and a doctorate in organizational behavior, both from the Graduate School of Business at Stanford University.

**Local Culture**

**Grand Coulee Dam**

One of the largest structures humans have ever built lies just 90 miles west of Spokane. The Grand Coulee Dam is a mass of concrete standing 550 feet high and 5,223 feet long, or just short of a mile. It contains 12 million cubic yards of concrete—enough to build a highway from Seattle to Miami!

**Saturday**

**PLENARY PANEL**

**Jared Hiakita, Denise Lee, Taiji Nelson, Barbara Spiecker**

*Co-moderated by Quilen Blackwell and Stephanie Ung*

**EE 30 Under 30: Young Leaders Making a Difference**

12:00 PM–2:30 PM, Centennial Ballroom

To close the conference on a high note, NAAEE has brought together four inspiring young leaders from our EE 30 Under 30 honorees to share their stories and perspectives on how to develop leadership in the field of environmental education.

**Jared Hiakita,** 30, is a Kaiārahi (Waste Advisor) with Para Kore (Zero Waste) in the Far North District of New Zealand. With a background in community development, arts, and education, Jared travels throughout indigenous Māori communities and provides education and resources to allow them to tread more lightly on Papatūānuku (Mother Earth). Para Kore offers a range of workshops that are informative, fun, and enable people to take action immediately, including activities that offer a deep understanding of the detrimental life cycles of resources, from extraction to disposal, and how communities can move toward closed-loop systems. All the workshops and resources are offered for free, and to-date they have reached nearly 200,000 people from over 250 communities in New Zealand. Both personally and professionally, Jared is fueled by a desire to reclaim a sense of autonomy and equilibrium with Mother Earth, and hopes that the people he connects with in all walks of his life may be inspired in a similar way. Jared’s advice for the next generation of young leaders in EE: “be strong, young one, and be bold.”
Denise Lee, 19, is a sophomore at the University of Toronto, double majoring in economics and environmental science. She is the co-founder of Our Poles Our Planet, a youth-focused educational initiative dedicated to ensuring the sustainability of the polar regions. She was inspired by an expedition to the Eastern Canadian and Greenlandic Arctic, where she and her co-founder realized there was a lack of young Canadians working to preserve the Arctic region. As a result, they ran a national campaign with conferences in four cities across Canada, engaging hundreds of youth. Denise also previously chaired the Vancouver School Board Sustainability Conference, bringing together hundreds of students from ten school districts to learn about environmental issues and solutions, cross-collaborate on ideas and initiatives, and network with community organizations and groups. Denise’s advice for the next generation of young leaders in EE: “have the courage and persistence to voice your thoughts.”

Taiji Nelson, 30, is a Naturalist Educator with the Pittsburgh Parks Conservancy. He is passionate about getting young people outside to explore and connect with nature in cities, and his education philosophy prioritizes first-hand experiences in nature and strong peer-mentor relationships. Taiji works primarily with middle and high school students, studying urban ecosystems and undertaking hands-on restoration projects to improve the health of parks. Through his work, he hopes to share his enthusiasm about nature and science, to connect in-school and out-of-school learning, and to help kids follow their interests. Originally from rural Pennsylvania, Taiji’s experiences highlighted the importance of community when learning, and motivated him to design programs that engage students, parents, teachers, and mentors to form meaningful relationships with other nature-minded people. He strives to build community among people of diverse backgrounds and perspectives who share an interest in the outdoors. Taiji’s advice for the next generation of young leaders in EE: “the most powerful tool environmental educators have is their own connection with nature and their drive to explore and ask questions.”

Barbara Spiecker, 29, is a STEM consultant at the Center for Research and Training (CRT) at the Learning Center for the Deaf, working to develop an online STEM conceptual dictionary entirely in American Sign Language (ASL) to further close language hurdles that Deaf students face in STEM learning. In partnership with an estuarine research reserve, and the National Oceanic Atmospheric Administration, she also helps with designing a new accessible curriculum and providing workshops to Deaf students, in-service and pre-service teachers, and educational interpreters. With CRT, she also consults teachers at several Deaf schools on effective bilingual strategies (ASL and English) and STEM instructional practices that are highly collaborative and specifically tailored to Deaf students. Barbara is also a PhD candidate studying Marine Ecology at Oregon State University, where she has brought over 30 volunteers to the coast to help with her research, gaining field research skills and learning about the ecology of the rocky intertidal system. Barbara’s advice for the next generation of young leaders in EE: “take the time to communicate, in a way that transcends educating.”

Co-Moderator Quilen Blackwell is the president and founder of the Chicago Eco House, whose mission is to train inner-city youth in sustainable social enterprises to alleviate poverty. He believes that this approach can help to expand the EE audience to underrepresented communities while also using EE to solve real-world problems that youth from poor families face every day. Quilen is working to expand the Chicago Eco House flower farm social enterprise, which repurposes vacant lots into productive urban agricultural spaces that provide hands-on environmental education for youth while also spurring economic development.

Co-Moderator Stephanie Ung serves as a Naturalist for Seattle Parks and Recreation, building relationships with community leaders to co-develop educational programming that reflects the community’s environmental priorities. Stephanie is collaborating with the Environmental Professionals of Color (EPOC)-Seattle to develop and implement a workshop series for EPOC members and Seattle Parks & Recreation (SPR) colleagues, focused on community-based environmental education programming that is accountable to those most impacted by climate change and environmental injustice.

Co-moderators Quilen Blackwell and Stephanie Ung are both 2018 ee360 Community EE Fellows.
Welcome! Whether this is your first NAAEE conference or your thirty-first, it starts here! Meet new colleagues and greet returning ones as you enjoy substantial hors d’oeuvres and a cash bar at the opening reception of the conference.

Our annual Exhibit Fair kicks off during the reception—your first opportunity to chat with exhibitors and explore wonderful resources and programs. A variety of nonprofit organizations will also share their inspiring efforts at the tabletop displays comprising this year’s Share Fair, and NAAEE members and other writers will be in the Authors’ Corner to discuss, sign, and sell their newest publications and chat about writing and publishing for the environmental education field.

“Making the Most of the Conference,” a half-hour orientation for anyone new to the NAAEE conference, will be held at 4:45 PM in Room 111C.

NAAEE Board and staff members will be there to greet you, too, and answer any questions about NAAEE and the 2018 conference. And it’s a great time to begin bidding on your favorite items in the silent auction. Come connect with colleagues and begin to foster relationships that we hope will continue far beyond the conference.

Home state highlights include three ambassadors from Spokane’s own West Valley Outdoor Learning Center—a Harris’s Hawk, a Great Horned Owl, and an American Kestrel.

And be sure to meet Jax, Indy, and Cash and their handlers, Keith Kirsch and Rich Beausoleil, and learn about Washington Department of Fish & Wildlife’s unusual and highly successful Karelian Bear Dog program, which provides a non-lethal option for handling conflicts between wildlife and humans.
Share Fair

- Artist Boat
- Cooperative Institute for Research in Environmental Sciences (CIRES Education & Outreach)
- The Endangered Species Coalition
- The GLOBE Program
- Hurricane Island Foundation
- Lennox Insites
- Missouri Environmental Education Association
- National Geographic
- National Great Rivers Research & Education Center
- National Park Service
- NorthBay Education
- Northwest Aquatic and Marine Educators
- Recreation and Conservation Office
- Southern Oregon University
- Stroud Water Research Center
- Think Green Zambia
- Upstream Alliance
- West Valley Outdoor Learning Center
- The Wild Center

Apes Like Us

Will great apes survive the 6th extinction?

What does great ape survival say about our own?

The *Apes Like Us* photo exhibit by award-winning photographer/filmmaker Gerry Ellis is a visual journey into the hope and future of ape survival.

On Display in the Centennial Lobby
Thursday

**Exhibit Fair Luncheon and Poster Session**

**12:45 PM-2:15 PM, Exhibit Hall A**

The Exhibit Fair will be open from Wednesday evening through Friday afternoon for you to explore innovative programs, dynamic practices, and effective products. And you can help us celebrate by joining us for this great buffet luncheon.

During this special event, you can chat with exhibitors eager to connect you with the latest and greatest in environmental education products and services; our exhibitors are listed on page 134. In addition, many of our colleagues will be in Exhibit Hall A to share their poster presentations and discuss their work. With thanks to Spokane’s popular independent bookstore, Auntie’s Bookstore, you can purchase the best and newest environmentally oriented books at our book sale. Following the plenary panel, the sale will feature titles by David Orr and Timothy Egan, who will be available to sign books.

The NAAEE Affiliates will also be on hand to welcome you and share information about the many services they offer to their members on the state and provincial levels. Learn how the Affiliates are helping to develop state environmental learning plans, find out which states have environmental educator certification programs, and check out other professional development opportunities in your area.

The luncheon is also a great time to bid on fabulous finds in the silent auction or drop a couple of tickets into a raffle item bucket. Take advantage of this opportunity for networking and enjoying a good meal—it’s included with your Thursday or full conference registration with an RSVP in advance. Additional tickets can be purchased as space allows; check for details at the registration desk.

**HHMI BioInteractive Movie Night**

**5:45 PM-7:00 PM, Centennial Ballroom**

HHMI BioInteractive develops educational media to inspire students to understand and care about the living world. HHMI’s films tell real science stories that capture the essence of scientific thinking and the thrill of scientific discovery. Come enjoy some of HHMI’s newest films highlighting ecology and conservation biology, including a short feature on the work of Dr. Manuel Leal, who studies the behavioral ecology of lizards in Puerto Rico. Enjoy light hors d’oeuvres, the screening, and a discussion session with Dr. Leal. This event is free, but advance registration is required. Check for available space at the registration desk. See the movie advertisement on page 15.

**Ocean Education Social**

**5:45 PM-7:00 PM, Room 102ABC**

Please join Ocean Wise, the Coastal Ecosystems Learning Centers, and NOAA for an Ocean Education Social. Make new friends who are passionate about ocean education and share your ideas and resources that support learning and conservation of our ocean. Enjoy hors d’oeuvres and a cash bar. Everyone welcome.

**Spokane Suds Stroll**

**7:00 PM-10:00 PM, Meet at the Registration Desk**

What better way to meet new colleagues than to spend your open evening networking over a few drinks? Join the Suds Stroll and visit three nearby Spokane nightspots to enjoy beer, cocktails, classic appetizers, and great conversation at each location. The venues—O’Doherty’s Irish Grille, Durkin’s Liquor Bar, and the Onion—were selected for their local flavor. Some emphasize organic and locally sourced ingredients. Meet at the Registration Desk at 7:00 PM to check in and pick up your drink tickets. This is a walking event; the group will move together to each venue. Registration in advance is required.
Friday

**Annual Gala and Stapp Scholarship Auction**

7:00 PM-9:30 PM, Martin Woldson Theater at the Fox. Transportation provided.

Dust off your flapper duds and grab your festive gear! Enter the Roaring ’20s and ’30s when you swing into Spokane’s beautiful art deco Martin Woldson Theater at the Fox.

The evening’s entertainment will include a live performance by The Good Company, an electro-swing band based in Washington—so bring your dancing shoes because it’s going to be a party!

On the evening of September 3, 1931, 30,000 people celebrated Spokane’s Golden Jubilee and the grand opening of the Fox Theater. Originally built in 1931 and restored in 2007, this incredible venue is listed on the National Register of Historic Places, the Spokane Register, and the Washington Heritage Register.

It was definitely the Place to Go for many years, but by the 1970s, as audiences moved to suburban movie theaters, the theater began a period of decline, showing budget and second-run movies. By 2000, after 70 years of continuous operation, the theater was slated for demolition to make way for a parking lot.

But, Spokane Symphony to the rescue! The Symphony purchased the building, raised the funds needed for renovations, and saved the theater. The Fox reopened in 2007 and is once again the Place to Go.

Along with your dancing shoes, bring your wallet and get ready to bid on your favorite items in the energetic live auction, which features special treasures in all price ranges, including a **fabulous trip to the Galapagos Islands** donated by Lindblad Expeditions, **handcrafted pottery** made by NAAEE’s very own Martha Monroe, a **guided tour of Puerto Rico** with our friends at Para la Naturaleza, and more! The silent auction will culminate at the reception as well. Be there to slip in your final bid and snatch up a great variety of arts and crafts, jewelry, clothing, pottery, and much more.

Every auction purchase helps support scholarships that enable students to attend the conference. The scholarship fund was established in honor of Dr. William Stapp (1930-2001), one of the founders of the field of environmental education. Bill was a huge supporter of NAAEE and introduced many of his students to the association and the conference. Many “Stapplings” have gone on to fill leadership roles in the organization.

This action-packed, fun-filled evening is included with Friday or full conference registration with RSVP in advance. You’ll need to show your name badge for entry. Additional tickets can be purchased as space allows; check for details at the registration desk.

The first buses will depart from the entrance of the Spokane Convention Center at 6:45 PM.
Saturday

**NAAEE Awards Luncheon & Closing Panel**

**EE 30 Under 30: Young Leaders Making a Difference**

Jared Hiakita, Denise Lee, Taiji Nelson, Barbara Spiecker. Co-moderated by Quilen Blackwell and Stephanie Ung

12:00 PM–2:30 PM, Centennial Ballroom

Join us as we recognize the NAAEE award recipients at the annual Awards Luncheon. We will honor individuals and organizations for their laudable work on behalf of the environment at the local, regional, national, and international levels. The awards ceremony includes presentation of the President’s Award and NAAEE’s highest honor, the Jeske Award.

Following the awards, four exceptional young leaders will share their stories and perspectives on how to develop leadership in the field of environmental education. Coming from the US, Canada, and New Zealand, the speakers are four of NAAEE’s 2018 EE 30 Under 30, recognizing top young change-makers in EE.

Each year, the program shines a spotlight on the work of young professionals representing diverse backgrounds, cultures, and disciplines, who are using EE to create change in their communities and on the global stage to forge a sustainable future. The program is made possible by the Global Environmental Education Partnership, the US Forest Service, and Wells Fargo.

The Awards Luncheon is included with Saturday or full conference registration with RSVP in advance. Additional tickets can be purchased as space allows; check for details at the registration desk.

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**2018 NAAEE Annual Award Recipients**

Please join us in extending warmest congratulations to the 2018 NAAEE award recipients, individuals and organizations demonstrating exemplary leadership in our field.

The award ceremony includes presentation of the Walter E. Jeske Award, the highest honor NAAEE bestows. The award was established to honor Walt Jeske, Chief of the Education and Publications Unit with the US Soil Conservation Service. Walt was a dedicated member of the NAAEE Board of Directors and an outstanding environmental educator until his untimely death in 1983. The award is given to recognize the highest level of service to NAAEE and leadership within the field of environmental education.

**Walter E. Jeske Award**

Who will it be? Tradition calls for each year’s recipient to present the award in the following year and to keep the recipient secret until the unveiling at the Saturday awards luncheon.

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**The Santa Barbara Zoo is a proud sponsor of NAAEE 2019**

“When you have seen one ant, one bird, one tree, you have not seen them all.”

– E.O. Wilson
Sunup in Spokane

Get started early with these special early-morning opportunities.

Thursday

A Morning Welcome from the Spokane Tribe
7:45 AM–8:15 AM, Room 102D

Our convention this year is being held upon the ancestral homelands of the Spokane Tribe. Joining us today for a very special welcome is Carol Evans, Spokane Tribal Business Council Chair. Carol is the first woman to serve as Tribal Chair; prior to her election in 2013, she worked as Chief Financial Officer for the Spokane Tribe of Indians for 28 years. Carol resides on the Spokane Indian Reservation, with her husband of 41 years, Terry Evans.

Carol truly believes that the Spokane Tribal spiritual tradition shows us the way to live in harmony, balance, and respect. One must respect self, our earth, and each other. Each and every matter of creation has a purpose and one purpose is as important as another.

Thursday and Friday

Morning Yoga
7:30 AM–8:15 AM, Room 102ABC

A yoga practice that will help you feel grounded, centered, calm, and cared for. Gentle movements, mindful breathing, and space at the end for quiet contemplation. Join Tamara Milliken from the Mellow Monkey Yoga Studio for a practice of self-care to start your day!

Friday

Bird Walk
7:00 AM–8:15 AM, Meet at the Registration Desk

Discover a breathtaking variety of local birds on a morning walk along the beautiful Spokane River waterfront with resident birder, Tina Penny. Bring bird field guides and binoculars if you have them. Wear comfortable shoes and appropriate clothing for a crisp fall morning.

Interested?

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#CLIMATECHAMPIONS WANTED

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When a group of people comes along who have the courage and vision to turn dreams into reality, they make the future bright for everyone.

We proudly celebrate the achievements of the 2018 NAAEE 30 Under 30 award winners.
#optoutside
Sunday & Monday

Sunday 1:00 PM

**Connection to Nature Assessment Workshop**
1:00 PM–8:00 PM, Room 402A
By invitation.

Monday 7:00 PM

**Research Symposium Networking Dinner**
7:00 PM–9:30 PM, Saranac Public House
Network with colleagues and mentors for a casual evening of food, fun, and conversation focused on EE research. The group will dine at Saranac Public House, a local favorite within easy walking distance of the Spokane Convention Center. (Pre-registration required.)

Monday 7:30 AM

**Connection to Nature Assessment Workshop**
7:30 AM–5:00 PM, Room 402A
By invitation.

Monday 8:30 AM

**GEEP Meeting**
8:30 AM–5:30 PM, Room 402B
By invitation.

Monday 2:00 PM

**EE Research Field Session**
Place Matters for Research in EE
2:00 PM–5:30 PM, Room 401C
Meander along an ADA accessible trail following the Spokane River while you creatively and critically consider the significance of “place” in EE research. Asking, “How does place matter for how we do our research?” the group will move along the river, stopping to learn from local researchers, practitioners, and community members grappling with the intense complexities of place. Participants will consider how place matters in a diversity of EE research and, through a facilitated culminating activity, how place matters in your own research context. (Pre-registration required.)

Coordinators: John Lupinacci, Washington State University; Jenne Schmidt, Washington State University

The only academic journal devoted to early childhood environmental education is available exclusively from NAAEE. Download your free copy at naaee.org.
Tuesday 9:00 AM
Research Symposium
9:00 AM–4:00 PM, Room 111AB
NAAEE’s annual Research Symposium brings the academic community together to explore the current state and future directions of environmental education research and to advance the use of practices proven to be effective. The 2018 Research Symposium will provide a range of opportunities to examine the mainstays and innovations in research initiatives, and engage in boundary-pushing conversations about the goals of EE research, and this event. This year’s themes address ongoing needs to explore new horizons in EE research, participate in intergenerational dialogs about the evolution and challenges of our field, and cultivate fresh and compelling stories from and about research. (Separate registration fee required.)
Chair: Alan Reid, Monash University
Co-Chair: Marcia McKenzie, University of Saskatchewan

Tuesday 3:00 PM
Global Environmental Education Partnership Meeting
3:00 PM–5:00 PM, Room 402B
By invitation.
Coordinator: Melissa Hopkins Taggart, NAAEE

Tuesday 4:00 PM
Research Symposium Reception
4:00 PM–6:00 PM, Room 111AB
For Research Symposium participants only.

Tuesday 5:00 PM
Chinese Environmental Educators Welcome
5:00 PM–7:00 PM, Room 102D
The second hour of this session (6:00 PM–7:00 PM) is open to anyone who would like to meet with environmental educators from China.
Coordinator: Yue Li, Cornell University

Lilac City
Spokane’s official nickname is the “Lilac City.” A pink, double flower lilac variety known as Syringa ‘Spokane’ is named for the city. The annual Spokane Lilac Festival, honoring the military, celebrating youth, and showcasing the region, has been a spring tradition since 1938.
Wednesday

Wednesday 7:30 AM

Research Symposium Graduate Student Breakfast
7:30 AM-9:00 AM, Room 111C

Wednesday 8:00 AM

NOAA Pacific Northwest B-WET Meeting
8:00 AM-6:00 PM, Room 206B
By invitation.
Coordinator: Jacqueline Laverdure, National Oceanic and Atmospheric Administration

Wednesday 8:30 AM

Workshops
Note: Workshops require an additional registration fee. Onsite registration will be accepted as space allows; check at the registration desk. There are full day, morning, and afternoon options. Lunch is included with full day workshops.

Full Day Workshops
8:30 AM-4:30 PM

The Road to NAAEE Higher Education Accreditation: A Map for Success
8:30 AM-4:30 PM, Room 401C
This workshop provides critical information for universities interested in becoming an NAAEE Distinguished College and University Program. It includes an in-depth review of standards, strategies for incorporating them into curriculum, sample assessments, and models with faculty members who have completed applications. Participants should bring laptops and documents to begin the process.
Presenters: Rebecca Franzen, University of Wisconsin-Stevens Point; Linda Hilligoss, Southern Oregon University; Billy Bennett, Kentucky Environmental Education Council; Stewart Janes, Southern Oregon University; Dottie Shuman, Montreat College; Melinda Wilder, Eastern Kentucky University

ee360 Community EE Fellows Leadership Workshop
8:30 AM-4:30 PM, Room 401B
By invitation.
Presenters: Anne Umali, NAAEE; Judy Braus, NAAEE

NAAEE Affiliates’ Workshop
8:30 AM-4:30 PM, Room 302AB
Join other leaders of NAAEE’s Affiliates—the 56 state, regional, and provincial associations that support EE professionals and organizations throughout North America. Focusing on building capacity, sharing successful practices, and learning innovative strategies, the workshop will help Affiliates’ staff and board members raise their impact on EE in their state and region.
Coordinators: Adrian Ayson, eeMatters Consulting; Sarah Bodor, NAAEE

Key
- Building Leadership for Environmental Literacy
- Connecting with Nature
- Conservation and Environmental Education
- Educating for Sustainable Communities
- Green Schools and Career-Connected Learning
- Linking Research and Practice to Increase Impact
- Diversity, Equity, and Inclusion
- Young Professionals
- NAAEE Affiliate Network
- ee360

Cougars
Cougars can be found across Washington from the Olympic Peninsula to the Palouse. They are rarely seen and do most of their hunting in the dark.

WASHINGTON WILDLIFE
Train-the-Trainer Workshop: NAAEE’s Environmental Education Guidelines for Community Engagement 8:30 AM–4:30 PM, Room 206D
Participants in this all-day workshop will receive training in the use of NAAEE’s newest Environmental Education Guidelines for Community Engagement and will begin to develop preliminary plans to provide Guidelines training in their respective regions and professional communities.
Presenter(s): Jean Kayira, Antioch University New England; Libby McCann, Antioch University New England; Anne Umali, NAAEE; Cynthia Espinosa Marrero, Pulegium Consulting; Luciana Ranelli, Antioch University New England; Bora Simmons, National Project for Excellence in Environmental Education

Morning Workshops
8:30 AM–12:00 PM

Building a Stronger More Inclusive Movement 8:30 AM–12:00 PM, Room 303A
Equity, diversity, and inclusion work is a rewarding, iterative process that includes building awareness, gathering information, developing visions, planning, and acting. This workshop offers a safer space for deep learning, honest exploration, open dialogue, and exploration of dimensions of equity, diversity, and inclusion in our lives, our relationships, and our work.
Presenter(s): Queta González, Center for Diversity & the Environment; Traci Price, 3 Ways to Change; Gladys Ruiz, Center for Diversity & the Environment/ Gladys Ruiz Consulting

Environmental Ethics as Everyday Action 8:30 AM–12:00 PM, Room 303B
Environmental ethics is a process requiring ongoing attention, and such values deliberations should be part of environmental education leadership. Together in this session, participants will engage in pedagogical dialogue and activities focusing on ethical aspects of people with environmental relations, with the aim of fostering sustainable communities and developing global citizens.
Presenter(s): Bob Jickling, Lakehead University; Blair Niblett, Trent University

Teaching Instructors to Use Evidence and Explanations 8:30 AM–12:00 PM, Room 206C
When outdoor science is taught as discovering mysteries around us and attempting to explain them, it ignites curiosity about interacting with nature. We’ll model how to teach instructors to lead inquiry outdoors, to evaluate the strength of evidence, and how teaching the language of science can contribute to social justice.
Presenter(s): Craig Strang, Lawrence Hall of Science; Jedd Foreman, Lawrence Hall of Science

The GLOBE Program and Eco-Schools: Intersections in Science and Sustainability 8:30 AM–12:00 PM, Room 402B
Hear from a local school driving campus sustainability by doing science through The GLOBE Program. Learn about GLOBE science and Eco-Schools at this interactive presentation. Conduct a GLOBE field investigation using the Eco-Schools Watersheds audit and develop an action plan to engage the entire school community.
Presenter(s): Jennifer Hammonds, National Wildlife Federation; Kim Martinez, National Wildlife Federation; Morgan Parks, National Wildlife Federation; Jamie Repasky, Metro Regional Government

Porcupines
Porcupines are mammals, more specifically, rodents. They are terrific climbers because of their long claws, and have excellent balance. Porcupines are mainly solitary and nocturnal but sometimes forage during the day. They can live from 10 to 20 years. Historically, Native Americans used the animal’s quills to make boxes, jewelry, and other works of art throughout the centuries.
– Pacific Northwest National Laboratory, pnpl.gov
Wednesday 8:30 AM

Field Trips

Refuge Explorations
8:30 AM-12:30 PM
Turnbull National Wildlife Refuge, Cheney
The Channeled Scablands—Turnbull National Wildlife’s predominant ecosystem—are called one of the seven wonders of Washington state. Join refuge staff on a hike exploring this unique wetlands habitat, which is home to more than 200 bird species. You’ll also participate in a hands-on aquatic macroinvertebrate investigation and learn about the refuge’s educational programs. Lunch is not included.

Ridges to Rivers: Extremes of the Pacific Northwest
8:30 AM-4:00 PM
Mount Spokane State Park, Mead and Riverside State Park, Spokane
Experience Washington’s rich cultural and natural history in the state’s two largest state parks. Start with a guided hike along the heavily forested trails of Mount Spokane and end the day with a visit to the Spokane House Interpretive Center in Riverside State Park. Learn the story of Eastern Washington’s early fur trade and the changes it brought to the lives of the Spokane Indians.

Spokane Riverside by Boat and Boot
8:30 AM-4:00 PM
Spokane River and Riverside State Park, Spokane
Start your day on the water, floating down the spectacular Spokane River from Spokane Falls into Washington’s second largest state park, Riverside State Park with Spokane’s Riverkeeper, Jerry White. Then, for a different perspective, strap on your boots and hike along some of the most beautiful and dramatic sections of the river with naturalist/author Jack Nisbet.

See Sunday for additional Field Trips.

Wednesday 9:00 AM

Research Symposium continues
9:00 AM-5:00 PM

Wednesday 12:00 PM

Lunch
12:00 PM-1:30 PM, Room 111C
Lunch is included for registered participants in the Research Symposium and all full day workshops. The meal is self-service and available any time between 12:00 PM and 1:30 PM. Lunch is not provided with half day workshops.

Wednesday 1:00 PM

Afternoon Workshops
1:00 PM-4:30 PM

Climate Change Community Level Solutions: Moving from “Me” to “We”
1:00 PM-4:30 PM, Room 303A
Join the National Network for Ocean and Climate Change Interpretation as we demonstrate how to dive into the most important part of the climate change discussion—solutions! Learn research-based techniques that move concerned citizens from individual actions to community-level solutions that help us solve climate change together.
Presenter(s): Adam Ratner, The Marine Mammal Center; Lauren Watkins, White Oak Conservation/University of Florida

Designing for Change: Connecting Environmental Education Research and Practice
1:00 PM-4:30 PM, Room 402A
We use design-thinking approaches to explore avenues for connecting EE research and practice. The workshop emphasizes action and implementation by working directly with participants’ programs and providing a suite of take-home tools. It also includes a train-the-trainer element for those interested in coaching others to integrate research into their EE programming.
Presenter(s): Mele Wheaton, Stanford University; Stephanie Rafanelli, Stanford University; Nicole Ardoin, Stanford University
Integrating Civic Action into Environmental Education: The Earth Force Process
1:00 PM–4:30 PM, Room 303B
Join Earth Force to learn practical steps to easily incorporate student-led civic action into your organization’s environmental education programming. This one-day workshop provides hands-on training in Earth Force’s Community Action & Problem-Solving Process, a six-step framework that combines the best of civic engagement, environmental education, and project-based learning.
Presenter(s): Vince Meldrum, Earth Force; Porsche Ray, Earth Force; Grace Scarsella, Earth Force

Moving the Field Forward: Equitable and Inclusive Workforce Development
1:00 PM–4:30 PM, Room 402B
The Outdoor Educators Institute was developed in 2012, to ensure that young adults from traditionally underrepresented communities had access to employment opportunities in environmental education. We will share our findings, explore challenges and successes, and discuss moving the environmental education field forward, through equitable and inclusive workforce development programs.
Presenter(s): Rena Fidelia Payan, Youth Outside; Jodie Darensbourg, Youth Outside

Using Citizen Science and Food Webs to Ask Ecological Questions
1:00 PM–4:30 PM, Room 206C
Scientists in Panama are tracking jaguars and their prey using trail cameras in the tropical rainforest of Darién. Use free resources from HHMI BioInteractive to model how to use food webs, trail camera photos, and real data to make observations and ask testable scientific questions about the Darién ecosystem. Participants are encouraged to bring a laptop or tablet to the session.
Presenter(s): Amy Fassler, Howard Hughes Medical Institute

Wednesday 4:45 PM
Making the Most of the NAAEE Conference
4:45 PM–5:15 PM, Room 111C
Young professionals and first-time conference participants are welcome to join this brief orientation to the NAAEE conference, including keys to selecting sessions of interest, scheduling, networking opportunities, and more.
Coordinator: Lori Mann, NAAEE

Wednesday 5:00 PM
Opening Reception with Exhibits, Share Fair, and Authors’ Corner
5:00 PM–6:30 PM, Exhibit Hall A
Welcome! Whether this is your first NAAEE conference or your thirty-first, it starts here! Meet new colleagues and greet returning ones as you enjoy substantial hors d’oeuvres and a cash bar at the opening reception of the conference. Visit with nonprofit organizations at the Share Fair, and with NAAEE members in the Authors’ Corner. Raptors from West Valley Outdoor Learning Center and Karelian bear dogs from Washington Department of Fish & Wildlife will also be on hand. See page 40 for more information.

Wednesday 6:30 PM
Conference Opening
6:30 PM–8:30 PM, Centennial Ballroom
Immediately following the reception, we’ll officially get started with opening remarks from Executive Director Judy Braus and Board Chair Charlotte Clark. Our featured speaker is Brady Piñero Walkinshaw, who is the new CEO of Grist, bringing fresh leadership to this irreverent and provocative online news organization, which was founded in 1999 to change the way journalists cover the environment. Brady has been described as exceedingly qualified, sharp, and delightful and he’s committed to telling the story of a sustainable, just future and to inspire the action needed to get us there. See page 35 for more information.

Taylor’s Checkerspot
Taylor’s checkerspot is a butterfly native to an area of the northwestern United States and is listed as state-endangered in Washington.
The River Mile Network
An Education Program of the National Park Service

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Thursday

Sunup in Spokane

Affiliate Network Annual Meeting
7:15 AM–8:15 AM, Room 202A
State and provincial EE association leaders are invited to join us to network, learn about upcoming opportunities for involvement, and discuss Affiliate business.
Coordinator: Katie Navin, Colorado Alliance for Environmental Education

Elder Welcome
7:30 AM–8:15 AM, Room 102D
Our convention this year is being held upon the ancestral homelands of the Spokane Tribe. Joining us today for a very special welcome is Carol Evans, Spokane Tribal Business Council Chair. Carol is the first woman to serve as Tribal Chair; prior to her election in 2013, she worked as Chief Financial Officer for the Spokane Tribe of Indians for 28 years.

Morning Yoga
7:30 AM–8:15 AM, Room 102ABC
A yoga practice that will help you feel grounded, centered, calm, and cared for. Gentle movements, mindful breathing, and space at the end for quiet contemplation. Join Tamara Milliken from the Mellow Monkey Yoga Studio for a practice of self-care to start your day!

Thursday 8:30 AM

Cal Water H₂O Challenge Winners Meeting
8:30 AM–10:30 AM, Room 101
By invitation.
Coordinator: Mayesha Choudhury, NAAEE

Special Session
8:30 AM–10:00 AM
Young Professionals Clinic
8:30 AM–10:00 AM, Room 206CD
Whether you’re a student, just getting started on your career path, or in your first professional position, this clinic will help build essential skills that will help you now and in the future. Participate in mini-courses on networking, resumes and cover letters, using social media, and fundraising basics at NAAEE’s first-ever young professionals clinic. (See page 28 for more information.)
Presenter(s): Lea Harvey, LLH Strategy Advisors and Sweet Briar College; Brittany Leland, Gonzaga University; Chuck Lennox, Lennox Insites; Sai Muddasani, NAAEE; Krishna Roy, Consultant Strand: YP

Champion Trees

The American Forests Champion Trees national register tracks native, non-native, or naturalized trees that naturally occur in the United States and ranks them using a system that combines three measurements (trunk circumference, height, and crown spread). Check out the database online at americanforests.org.

- The Spokesman-Review

© Walter Siegmund

Key

- Building Leadership for Environmental Literacy
- Connecting with Nature
- Conservation and Environmental Education
- Educating for Sustainable Communities
- Green Schools and Career-Connected Learning
- Linking Research and Practice to Increase Impact
- Diversity, Equity, and Inclusion
- Young Professionals
- NAAEE Affiliate Network
- ee360
Symposia
8:30 AM-10:00 AM

Advancing K-12 Environmental Education Through Nonformal Education Partnerships
8:30 AM-10:00 AM, Room 205
How do we bridge formal and nonformal education? What are the strengths of each and how are they best used together? Join state leaders from Kentucky, Maryland, Oregon, Washington, and Washington, DC to explore these questions through a variety of approaches to equitably advance environmental literacy through formal and nonformal education partnerships.
Presenter(s): Donna Balado, Maryland State Department of Education; Ashley Hoffman, Southeastern Environmental Education Alliance; Laura Johnson Collard, Maryland Association for Environmental and Outdoor Education; Grace Manubay, DC Office of the State Superintendent of Education; Jenna Mendenhall, Oregon Environmental Literacy Program
Moderator: Sarah Bodor, NAAEE
Strand: ☄️

Global Ocean Literacy: Join the Rising Tide
8:30 AM-10:00 AM, Room 206A
Public interest and engagement with ocean health is increasing along with great opportunities for environmental education. Leading organizations from around North America share their perspectives and opportunities for collaboration. NOAA, Ocean Wise, Seattle Aquarium, Aquarium of the Pacific and New England Aquarium will present what is working and facilitate a dialogue on how to get involved.
Presenter(s): James Bartram, Ocean Wise; David Bader, Aquarium of the Pacific; Jim Wharton, Seattle Aquarium; Christos Michalopoulos, National Oceanic and Atmospheric Administration
Strand: ☄️ 🌍

Hands-On Presentations
8:30 AM-10:00 AM

Creating Meaningful Watershed Educational Experiences in the Pacific Northwest
8:30 AM-10:00 AM, Room 302B
The Pacific Northwest B-WET program is administered by NOAA Olympic Coast National Marine Sanctuary. Come learn about how this program addresses the unique environmental challenges of the region through locally relevant, experiential, and hands-on activities that include learning both outdoors and in the classroom.
Presenter(s): Jacqueline Laverdure, to NOAA Olympic Coast National Marine Sanctuary/Pacific Northwest BWET Program; Bronwen Rice, National Oceanic and Atmospheric Administration; Jaime Frungillo, National Oceanic and Atmospheric Administration
Strand: ☄️

Environmental Justice + Environmental Education: Case Study from Portland, Oregon
8:30 AM-10:00 AM, Room 303A
Environmental Education Association of Oregon, Native American Youth and Family Center, and Center for Diversity & the Environment engaged 25 partners from 2015–2017 to co-develop a shared regional vision for inclusive environmental education that supports environmental justice. Hear about our process and recommendations, and integrate our learnings into your work.
Presenter(s): Traci Price, 3 Ways to Change; Queta González, Center for Diversity & the Environment
Strand: ☄️ 🌍

Project Feed 1010: Environmental Education and Citizen Science Using Aquaponics
8:30 AM-10:00 AM, Room 402A
Food security and sustainability are complex, global concerns that require systems thinking when developing a solution. Project Feed 1010’s open-access, NGSS-aligned curriculum guides students through designing and engineering a solution using aquaponics and citizen science. Learn how to use and adapt this curriculum and maintain an aquaponic system in this session.
Presenter(s): Jessica Day, Institute for Systems Biology; Claudia Ludwig, Institute for Systems Biology
Strand: ☄️

Wyatt Earp in the Spokane Area
According to the book, Manito Park, A Reflection of Spokane’s Past, the original Wyatt of Tombstone Arizona fame speculated in several businesses in the Coeur D’Alene mining district, and in 1884 became a deputy sheriff for Kootenai County, east of Spokane.
Returning to the Source: Creation Stories as Tools for Equity and Climate Justice  
8:30 AM–10:00 AM, Room 303B  
This session considers climate action from a perspective of unity through the collective human experience and the network of global life. A hands-on community depiction and storytelling of life on Earth will be used as a platform for open dialogue to reflect on diversity, equity, inclusion, and climate justice.  
Presenter(s): Belinda Chin, City of Seattle Department of Parks and Recreation; Cait McHugh, University of Washington Botanic Gardens  
Strand: ●

Sustainable Cities: A Framework for 21st Century Learning  
8:30 AM–10:00 AM, Room 402B  
Calling all Urban Engineers: Our citizens need your help designing their future. The sustainability and resilience of our cities depend on how we decide to shape them! This session proposes a hands-on, systems-thinking framework for engaging youth with the built environment.  
Presenter(s): Maureen Ferry, HouseStories, Inc.  
Strand: ●

Welcome to AWAY!  
8:30 AM–10:00 AM, Room 401A  
Whether we throw it, recycle it, or flush it AWAY, how do we inspire people to think about solid waste? In this hands-on workshop, we will connect participants to proven techniques in teaching about solid waste issues and the importance of saving our natural resources.  
Presenter(s): Brian Elkins, Solid Waste Authority of Palm Beach County; Catie Sprague, Solid Waste Authority of Palm Beach County  
Strand: ●

Traditional Presentations  
8:30 AM–9:10 AM

Climate Change and Global Forests  
8:30 AM–9:10 AM, Room 201A  
Rainforest Alliance shares lessons to help students discover the relationship between CO₂ and Earth’s climate, the carbon cycle, and the important role of forest communities.  
Presenter(s): Maria Ghiso, Rainforest Alliance  
Strand: ●

Cornell University Online Courses for Environmental Educators  
8:30 AM–9:10 AM, Room 401C  
In this session, we will present Cornell University’s online professional development courses for environmental educators. The design and content of these courses are guided by the following ideas: solving wicked problems, action for the public good, social learning, intercultural understanding, equal access, and fostering innovation in environmental education.  
Presenter(s): Alex Kudryavtsev, Cornell University; Marianne Krasny, Cornell University; Yue Li, Cornell University; Anne Armstrong, Cornell University  
Strand: ● YP

Education for Sustainability in Washington’s K-12 STEM Teacher Preparation Programs  
8:30 AM–9:10 AM, Room 201B  
This presentation will discuss the vision, goals, and framework of the Education for Sustainability working group in Washington. This group uses a collaborative model to combine expertise statewide and improve STEM teacher preparation programs for environmental and sustainability education.  
Presenter(s): Kathryn Baldwin, Eastern Washington University  
Strand: ●

Landscapes for Autism: How Nature-Based School Environments Benefit ASD  
8:30 AM–9:10 AM, Room 401B  
Autism rates are rising dramatically. PreK–12 schools are in a powerful position to effectively respond to this childhood health trend and provide outdoor environments, informed by research, that provide valuable play and experiential learning opportunities, connection with nature, and therapeutic value for children on the spectrum.  
Presenter(s): Jena Jauchius, SPVV Landscape Architects  
Strand: ● 🌿

Moving from Words to Practice: Diversifying Environmental Leadership  
8:30 AM–9:10 AM, Room 302A  
The Antioch University Urban Environmental Education Master’s program offers a robust approach to advancing a diverse cadre of environmental leaders. This session will present new approaches to professional development that focus on the power of diversity in environmental leadership and the necessity of integrating social justice into environmental education.  
Presenter(s): Sue Byers, IslandWood  
Strand: ● 🌿 YP
TEAB: Teaching Environmental Awareness in Baltimore
8:30 AM–9:10 AM, Room 201C
Learn about a partnership between a university teacher-preparation program and the National Aquarium that allowed preservice teachers and middle-level students to experience watershed science in a nonformal setting.
Presenter(s): Sarah Haines, Towson University; Chelsea McClure, Towson University

Strand: 

Tools for Advocating for Green Schoolyards in Your School District
8:30 AM–9:10 AM, Room 203
Green schoolyards are not new, yet they are still not the norm. In this session, you’ll learn more about green schoolyards and how to advocate for them in your school district. We’ll share tools and resources to support you in connecting children and communities to nature every day in schoolyards.
Presenter(s): Jaime Zaplatosch, Children & Nature Network
Strand: 

Bright Spots
8:30 AM–9:10 AM
Learn about two or three successful and loosely related programs in each 40-minute Bright Spots session. Sessions are presented in the order listed.

GROUP A
8:30 AM–9:10 AM, ROOM 202B
Cultivating Change: Climbing the Environmental Literacy Ladder
You may offer great opportunities for people of all ages and abilities to learn and love the environment—but what do they do when they leave? Learn how to align your programs and curriculum with the Awareness to Action Framework for maximum environmental literacy impact!
Presenter(s): Erin E. Anderson, Audubon Center of the North Woods, Charter School Division
Strand: 

TIME Platform for Encouraging Activism and Lifelong Engagement
We will demonstrate how, using the equal and democratic interactive powers of this-is-my-earth.org (TIME, a new international NGO), we engage K–12 classes in conservation dilemmas and learn basic conservation concepts. We will demonstrate how with TIME the class becomes actively involved in protecting some of the world’s most endangered species.
Presenter(s): Jen Fox, This is My Earth
Strand: 

ADAPTATION: A Game to Learn How to Adapt to Climate Change
ADAPTATION. A fun and practical teaching tool that helps local communities recognize and adapt to climate change. This game was developed and employed in programs with indigenous communities in the high Andes of Ecuador. The game has since been expanded to demonstrate different alternatives for adaptation in a range of ecosystems.
Presenter(s): Xiomara Izurieti, ECOPAR; Stephen Hopkins, ECOPAR
Strand: 

Thursday 9:20 AM

Traditional Presentations
9:20 AM–10:00 AM

From Public Deliberation to Action: Developing a Learning Agenda
9:20 AM–10:00 AM, Room 401B
Through a partnership with the Kettering Foundation, NAAEE has been developing materials that foster community-level deliberation of critical issues. But, what do you do after a great deliberative discussion? What do we need to do to move towards community-based solutions? Come and join the discussion.
Presenter(s): Laura Downey, Kansas Association for Conservation and Environmental Education; Jennison Kipp Searcy, University of Florida; Sarah Johnson, Wild Rose Education; Jeremy Solin, ThinkWater, University of Wisconsin–Extension; Bora Simmons, National Project for Excellence in Environmental Education; Nick Felts, Kettering Foundation
Strand: 

Highlights from Research Symposium & Linking Research to Practice Strand
9:20 AM–10:00 AM, Room 401C
Coordinators of the Research Symposium and the Linking Research to Practice conference strand will highlight emerging EE research and application to practice in a panel discussion.
Presenter(s): Steve Kerlin, Stroud Water Research Center; Robert Justin Hougham, University of Wisconsin–Extension; Alan Reid, Monash University; Marcia McKenzie, Sustainability Education Research Institute, University of Saskatchewan

Introducing the ee360 Community EE Fellows
9:20 AM–10:00 AM, Room 201A
In 2018, NAAEE convened 25 community EE leaders for a year-long leadership and professional development fellowship program. All fellows are using innovative EE practices to address local environmental issues and are receiving training and mentoring on community engagement, project design, strategic communication, and more. Come meet and learn from our 2018 fellows cohort!
Presenter(s): Judy Braus, NAAEE; Anne Umali, NAAEE

Nature Play: Recent Research Findings and Strategies to Increase Access
9:20 AM–10:00 AM, Room 201B
Recent research is revealing new findings about the best practices and benefits of nature-based play and learning for children. However, many children lack the opportunity to play in natural environments. Join us for a presentation and discussion on nature play and potential strategies for increasing access for underserved populations.
Presenter(s): Qing Ren, PEER Associates

The Universal Accessibility of Loose Parts Nature Play
9:20 AM–10:00 AM, Room 201C
The opening of Chicago Botanic Garden’s new Regenstein Learning Campus created an opportunity to put long-standing successful programs under the microscope. This presentation recaps the first two years after transitioning children and family programming from traditional take-home projects to loose parts nature play. Evaluation criteria and critical insights will be shared.
Presenter(s): Jessica Prescott-Smith, Chicago Botanic Garden

WDFW’s Karelian Bear Dog Program
9:20 AM–10:00 AM, Room 302A
The Washington Department of Fish & Wildlife’s Karelian Bear Dogs (KBDs) are tasked with providing a non-lethal option for handling conflicts between wildlife and humans. Primarily this work involves bears, moose, and cougars. The KBDs are used for the tracking, capturing, and aversive conditioning of wildlife. Learn more about this unique program.
Presenter(s): Keith Kirsch, Washington Department of Fish & Wildlife Police; Rich Beausoleil, Washington Department of Fish & Wildlife Police

You Can Do It! Accomplishing Strategic Goals with an All-Volunteer Board
9:20 AM–10:00 AM, Room 203
Many NAAEE Affiliates operate with an all-volunteer board of directors and no paid staff members. Through idea sharing and discussion, this session will lead you through steps the boards in North Carolina and Arizona have taken to complete key priorities, move their organizations forward, and build capacity.
Presenter(s): Renee Strnad, North Carolina State University; Shannon Culpepper, Environmental Educators of North Carolina; LoriAnne Barnett, USA National Phenology Network

Collective Impact in Communities: Gardens as Hubs
9:20 AM–10:00 AM, Room 202C
In cities around the world, botanic gardens are stepping up as energizing, momentum-building forces of nature. Learn about BiodiverseCity St. Louis, a Missouri Botanical Garden-led network of organizations promoting a culture of active, outdoor, and nature-rich living; advancing citizen science; employing teens in stewardship jobs; and restoring local lands and waters.
Presenter(s): Kerri Kelley, Missouri Botanical Garden

Now That’s Good Coffee
Washington is known for taking coffee seriously. After all, it’s the only state with coffee listed as an official drink. Spokane offers every format of coffee shop—drive-throughs, walk-up stands, lounges, and roasters.
Bright Spots  
9:20 AM–10:00 AM  
Learn about two or three successful and loosely related programs in each 40-minute Bright Spots session. Sessions are presented in the order listed.

GROUP A  
9:20 AM–10:00 AM, ROOM 202B  
Encouraging Preschool Teachers to Become Change Agents: Delivering Effective Inservice Education  
This session highlights the development, delivery, and outcomes of an inservice model focused on encouraging preschool teachers to bring about changes and enhance early childhood environmental education within their school programs.  
Presenter(s): Yash Bhagwanji, Florida Atlantic University  
Strand: ●

Improving EE in Teacher Education: A Statewide Effort in Wisconsin  
K-12 teachers are a critical link in developing environmentally literate citizens, and teacher education programs can build leadership in teachers. Wisconsin teacher educators are working to improve environmental education in their programs by engaging in place-based environmental education workshops and developing curriculum resources for other faculty.  
Presenter(s): Scott Ashmann, University of Wisconsin–Green Bay; Michael Beeth, University of Wisconsin–Oshkosh; Rebecca Franzen, University of Wisconsin–Stevens Point  
Strand: ●

Primary Nature Experiences  
Young children are often more aware of their surroundings than adults and simply need us to join in their wonder of the natural world (Carson, 1954). In this session, participants will learn how we develop constructivist lessons using 20 phenomena-based inquiry activities that link to NGSS standards.  
Presenter(s): Melissa Wilson, Harvard University  
Strand: ●

GROUP B  
9:20 AM–10:00 AM ROOM 202C  
Creating Shared Community: Linking Residents and Places  
The municipal government of Kunming, a city in southwestern China, purchases services from social organizations to provide community services for residents. As a local, environmental education NGO, we will share the experience of creating an ecologically shared community.  
Presenter(s): Wen Luo, Zaidi Nature Education Center  
Strand: ● ●

How Fostering Caring Communities Increases Program Impact  
Learn how to create a caring community amongst your students and empower your group to achieve ongoing success and optimal advancement.  
Presenter(s): Kate Hagner, Student Conservation Association  
Strand: ●

Thursday 10:00 AM  
Coffee Break  
10:00 AM–10:30 AM, Exhibit Hall A

Thursday 10:30 AM  
Traditional Presentations  
10:30 AM–11:10 AM

Anchored Inquiry for Environmental Learning  
10:30 AM–11:10 AM, Room 402A  
How can we design environmental learning experiences that motivate young people and support environmental learning aligned with the Next Generation Science Standards? In this session, we will share our research-based, anchored-inquiry instructional framework, unpack an example unit, and offer tools for how to design relevant and meaningful environmental learning experiences.  
Presenter(s): Emily Harris, BSCS Science Learning  
Strand: ●
Best Practices for Nature-Based Preschools
10:30 AM–11:10 AM, Room 401B
Nature preschools and forest kindergartens are expanding rapidly. NAAEE's Natural Start Alliance worked with education leaders to develop a best practice guidebook for nature-based preschools in the United States. Learn about this education sector and NAAEE’s new resource to help ensure nature preschools are safe, effective, and inclusive.
Presenter(s): Christy Merrick, NAAEE

BirdNote: Impactful Storytelling for and by Students
10:30 AM–11:10 AM, Room 401C
Join us and the 1.7 million people already listening to BirdNote’s inspirational, science-based stories as we share what we know about impactful audio and video storytelling, illustrated with examples and resources from the BirdNote archives. We can’t wait to hear the next generation of student stories about our environment.
Presenter(s): Jason Saul, BirdNote; Lisa Eschenbach, E3 Washington

Building Climate Action Communities Project
10:30 AM–11:10 AM, Room 302B
A collaborative of organizations developed and tested a teaching model that integrates principles of communications and psychology with climate change science. The model provides opportunities for participants to think critically about local climate change impacts and connects them with relevant actions that promote climate change solutions at home and in their larger communities.
Presenter(s): Michelle Eckman, Connecticut Audubon Society; Kristen Scopinich, Mass Audubon

Cleaner Air Tree by Tree: Student-Led Investigation
10:30 AM–11:10 AM, Room 303A
Learn about an initiative in Washington, DC developed by Clean Air Partners and Casey Trees that provides an entry point into the scientific inquiry of air quality. Participants collect real time air quality data to gain an understanding of the benefits of trees, such as greenhouse gas mitigation, air quality improvement, and storm water interception.
Presenter(s): Rebecca Davis, District of Columbia Environmental Education Consortium

Climate Change Teachers on the Estuary Training for Resilient Communities
10:30 AM–11:10 AM, Room 201A
National Estuarine Research Reserves are ideal places to train teachers in climate change education with a scientific phenomena-based approach because of the integration of research and education as a sentinel site for climate change. Learn how Tijuana River Reserve encourages relevant learning experiences, with its Climate TOTE, through promotion of civic-based solutions and students’ emotional resilience.
Presenter(s): Anne Marie Tipton, California State Parks

Climate Literacy and Action for All: The Thurston County, WA Story
10:30 AM–11:10 AM, Room 201C
For climate literacy and action to take hold globally, integrated local and state leadership must accelerate policies and funding in the next 2–10 years. Come learn how Thurston County in Washington is becoming an exemplar of sub-national education for greenhouse gas reduction and a sustainable, green-energy economy.
Presenter(s): Abby Ruskey, US Partnership for Education for Sustainable Development; Kathryn Kurtz, Pacific Education Institute; Mark McCaffrey, ECOS

Connecting the Classroom with the Outdoors Through Children’s Literature
10:30 AM–11:10 AM, Room 402B
Are you a classroom teacher looking for ways to incorporate EE into your language arts curriculum? Using high-interest, environmentally themed children’s books can capture students’ attention and promote learning. This session features children’s books, from early childhood through upper elementary school, that include hands-on and outdoor activities. Take away classroom-ready ideas and handouts.
Presenter(s): Ginger Reasonover, Lipscomb Academy Elementary School
EE Associations: Making the Most of Membership
10:30 AM-11:10 AM, Room 203
Join us to learn about new membership strategies and directions from the Kentucky and Colorado Affiliates. Discuss membership trends and brainstorm ideas to help generate revenue and increase member engagement.
Presenter(s): Katie Navin, Colorado Alliance for Environmental Education; Ashley Hoffman, Southeastern Environmental Education Alliance

Improving Environmental, Nutritional, and Agricultural Literacy in Title 1 Schools
10:30 AM-11:10 AM, Room 206A
The University of Maryland Extension’s 4-H Program is reaching underserved audiences through field trips for Title 1 youth in 3rd and 4th grades focused on the intersection of environmental, agricultural, and nutrition literacy. You’ll learn how the program scaffolds instruction, meets CCSS, and engages students in experiential education that drives behavior change.
Presenter(s): Rachel Bayer, University of Maryland

Investigating the Links Between Program Characteristics, Student Engagement, and Outcomes
10:30 AM-11:10 AM, Room 401A
Which characteristics of an environmental educator are important? Are certain pedagogies more effective in engaging diverse students? Does student engagement influence outcomes? These questions and more will be discussed as we explore a novel case study investigating the links between the characteristics of EE lessons, student engagement, and environmental literacy.
Presenter(s): Troy Frensley, University of North Carolina-Wilmington

The Development of Social and Emotional Learning in Environmental Education
10:30 AM-11:10 AM, Room 302A
NatureBridge is studying the role of Social and Emotional Learning (SEL) in residential environmental education settings. Join us as we present current research and discuss instructional best practices that support the development of SEL as a means towards increasing the environmental literacy of our nation’s youth.
Presenter(s): Estrella Risinger, NatureBridge; Kathleen M. O’Connor, NatureBridge; Deanna Butcher, NatureBridge

Updating Your EE Affiliate for 2018 Without Losing Traditions
10:30 AM-11:10 AM, Room 201B
LEEF was losing ground as the EE professional organization in Florida. In order to expand and renovate our capacity, a multi-faceted approach for renewal is being undertaken, including board restructuring, technology upgrades, strategic planning, using contracted expertise, and re-establishing statewide EE connections. Plans for these sweeping changes will be shared.
Presenter(s): Sarah West Davis, University of Florida IFAS Extension, Sarasota County; Vicki Crisp, LEEF

Using an Inventory of Current Practices to Improve Environmental Education
10:30 AM-11:10 AM, Room 205
Learn about Rhode Island’s statewide survey of K-12 educators and the successful partnerships that were informed by the results. Development and implementation of the tool will be shared. Consider how to conduct a similar inventory of current practices and leave with access to the survey for your own organization.
Presenter(s): Jeanine Silversmith, RI Environmental Education Association; Kelly Shea, University of Rhode Island

Using STEM to Cultivate Youth Environmental Literacy and Foster Community Resilience
10:30 AM-11:10 AM, Room 303B
Learn strategies for engaging high school youth in place-based, interactive environmental investigations to build their capacity to address climate change and foster resilience among individuals, families, and communities.
Presenter(s): Kathleen Gray, UNC Institute for the Environment

Rubber Snakes
The rubber boa, Charina bottae, is a member of the same family as the world’s largest snakes—including the boa constrictor, python, and anaconda. This local species only measures 14 to 30 inches.
-Washington Department of Fish and Wildlife
Bright Spots
10:30 AM-11:10 AM
Learn about two or three successful and loosely related programs in each 40-minute Bright Spots session. Sessions are presented in the order listed.

GROUP A
10:30 AM-11:10 AM, ROOM 202B

Canopy Connections: Celebrating 10 Years of Transformative Place-Based Education
How do we foster environmental literacy, instill a sense of wonder and awe, and nurture an ethic of stewardship? This presentation highlights lessons learned from a ten-year collaborative, community-based project called Canopy Connections, which brings together university undergraduates, an experimental forest, and a climbing company to do just that.
Presenter(s): Kathryn Lynch, Environmental Leadership Program, University of Oregon
Strand: Learn and Refine the Moral Framework for Animals in EE

Learn and Refine the Moral Framework for Animals in EE
Animal encounters—both wild and captive—are one of the most powerful ways to attract and inspire learners. As SeaWorld has learned, however, our impacts are increasingly under scrutiny. This session will describe a moral framework and tools to help make more sophisticated ethical decisions and justifications for our programs.
Presenter(s): Bryan Nichols, Florida Atlantic University
Strand: Off-Site Education: Mobile Games in Natural Settings

Off-Site Education: Mobile Games in Natural Settings
Getting kids outside can fortify classroom knowledge and experiences in authentic environments. Bringing students to the farm they studied in class allowed them to make connections and transfer knowledge between situations. This augmented reality game allowed students to explore their natural environment, ask questions, solve problems, and learn through gameplay.
Presenter(s): Farah Vallera, Lehigh University
Strand: Meet with SCA on Thursday!

Meet with SCA on Thursday!
SCA alums are welcome to join us at O’Doherty’s from 6:30 - 7:30pm for a FREE PRE-PUB CRAWL HAPPY HOUR. Attend for your chance to win SCA swag and network with other alums in the field.
Please RSVP to pmalizia@thesca.org.

Also, be sure to find the SCA table near the convention registration desk to get your SCA ALUM RIBBON to add to your name badge and other FREE SWAG!
GROUP B
10:30 AM-11:10 AM, ROOM 202C

“For the Community by the Community”—Nature Kids Lafayette Program
Project Learning Tree (PLT) Green Schools is a perfect match to integrate STEM into our critical relationship to climate change and our reduced support for public education. Our experiences with Detroit, Pontiac, and Flint are promising. It is our intention to assist others with key communication steps while establishing working relations with urban school districts and staff.
Presenter(s): Carlos Lerma, Nature Kids Lafayette; Rafael Salgado, Cal-Wood Education Center

A Model for Building Resilient Communities and Transforming Young Lives
Ocean Discovery’s model has proven that with science and environmental education, mentorship, and the tools to overcome challenges, students of color from high-poverty communities can build self-efficacy, achieve in school, pursue career goals, and engage civically. We will share our model and its expansion to various communities.
Presenter(s): Carla Camacho, Ocean Discovery Institute

Waskowitz Environmental Leadership and Service: An Innovative High School
Re-engage disenfranchised students through Environmental Education. This presentation describes an environmental science-themed program supporting an interdisciplinary, field- and project-based curriculum. Learn about a unique program for high school students working and learning as integral partners in educating elementary youth at a residential outdoor environmental education program.
Presenter(s): Roberta McFarland, Highline Public Schools

Roundtable Discussions
10:30 AM-11:10 AM, Room 206CD

“Sense of Wonder” Nature Journaling
Table 1
Through the use of Nature Journals, rekindle your “sense of wonder” by making your own and learning innovative ways to reconnect with nature by using trade books, technology, and nature quotes within journaling activities.
Presenter(s): Molina Walters, Arizona State University

Accelerating EE in the Digital Age: Successes and Needs
Table 2
Online tools can help us extend our reach and increase our impact. From webinars to social media, we’re taking stock of our digital presence at NAAEE, and we want to hear from you! How are you engaging with NAAEE online? How can NAAEE’s digital offerings better support your work?
Presenter(s): Kristen Kunkle, NAAEE; Sai Muddasani, NAAEE; Mary Ocwieja, NAAEE

Advancing EE in School Systems
Table 3
We will discuss the most effective ways to advance environmental education within school districts. What are the best models of partnerships, planning, and implementation for systemic integration of EE within formal education? How can EE providers work with district leadership to make significant impacts within school systems and increase access for all students?
Presenter(s): Don Baugh, Upstream Alliance; Erica Baugh, Upstream Alliance; Kaylee Mulligan, Pisces Foundation; Kathy McGlauflin, Upstream Alliance; Sarah Bodor, NAAEE; Esther Cowles, Project Learning Tree/Sustainable Forestry Initiative

Near Nature, Near Perfect
Spokane is within a one-hour drive of 76 lakes, including the gorgeous Lake Coeur d’Alene, and dozens of rivers.
Connecting Environmental Literacy Research and Practice

Table 4
Come discuss the different ways researchers study environmental literacy and its various outcomes, and discover what other organizations do to foster environmental literacy. Are there “best” pathways for fostering environmental literacy? How can learning and developmental progressions be applied to environmental literacy? How do we cultivate environmental literacy for all students?
Presenter(s): Nicole Ardoin, Stanford University; Archana Kannan, Stanford University
Strand: ⚡️

Experiential Climate Change Education: How and Why

Table 5
Preparing the next generation of decision makers to advance climate change solutions is an imperative of US public education. Delivering effective instruction is a challenge highlighted in recent evaluations of US climate change education. This roundtable discusses experiential climate change curriculum and seeks to foster collaboration between researchers and practitioners.
Presenter(s): Alana Siegner, UC Berkeley Energy and Resources Group; Danielle Alexis Lawson, NC State University; Jenna Hartley, ASPPH Environmental Health Fellow hosted by the US EPA Office of Research & Development
Strand: ⚡️

NGSS and STEM Within the US Fish & Wildlife Service: Building Environmental Literacy

Table 6
During this session, we will demonstrate how correlating to NGSS and STEM builds environmental literacy that supports both the Service mission and formal and nonformal educators. We’ll also share best practices and examples of curriculum throughout the Service that correlate to STEM and NGSS.
Presenter(s): Michelle Donlan, US Fish & Wildlife Service
Strand: ⚡️

What’s in Your Community? Appreciative Inquiry & Asset Mapping 101

Table 7
Rather than focusing on problems or needs, appreciative inquiry and asset mapping leverage organizational, individual, and/or community strengths as a starting place to inform strategic directions and seek inclusive solutions. Come share your stories and learn about these strengths-based tools highlighted in the NAAEE Community Engagement: Guidelines for Excellence.
Presenter(s): Cynthia Espinosa Marrero, Pulegium Consulting; Luciana Ranelli, Antioch University New England; Anna Mooney, YMCA Camp Thunderbird; Jean Chimbirimba Kayira, Antioch University New England; Anne Umali, NAAEE; Bora Simmons, National Project for Excellence in Environmental Education; Libby McCann, Antioch University New England
Strand: ⚡️

Thursday 11:30 AM
PLENARY PANEL
Timothy Egan, Kei Kawashima-Ginsberg, Janet Tran
Moderated by David Orr
Democracy, Civic Engagement, and Environmental Education
11:30 AM–12:45 PM, Centennial Ballroom
Book signing with Timothy Egan and David Orr immediately follows the session.
See page 36 for more information.

Thursday 12:45 PM
Exhibit Fair Luncheon, Poster Sessions, Affiliates’ Welcome, and Book Sale
12:45 PM–2:15 PM, Exhibit Hall A
Chat with exhibitors, explore new products and services, or pick up a new book at the sale presented by Auntie’s Bookstore, Spokane’s own independent bookseller. Learn more about NAAEE’s Affiliates and the many services they offer to their members on the state and provincial level. And many of our colleagues will be sharing their poster presentations and discussing their work. The luncheon is included with Thursday or full conference registration with RSVP in advance.
Exhibitors are listed on page 134.
Thursday 1:15 PM

Poster Presentations
1:15 PM-2:15 PM, Exhibit Hall A

1) 4-H Naturally Connects to EE
Join 4-H agents for a discussion about the 4-H program and the many environmental education connections youth develop through their various projects in STEM, gardening, and livestock. Learn how you or your organization could partner with your local 4-H program.
Presenter(s): Sarah West Davis, University of Florida IFAS Extension, Sarasota County
Strand:

2) Action Research: The Impact of Urban EE on Students, Teachers, School
Through an action research study in a Greek elementary school, we collected and will present data on the impact of an urban EE project on student relationships, teachers’ perceptions of urban EE, the school environment (schoolyard), and the nearby urban environment.
Presenter(s): Marianna Kalaitsidaki, University of Crete
Strand:

3) Assessing Sustainability Knowledge, Attitudes, and Behaviors on a College Campus
This research assesses the trends in sustainability attitudes, knowledge, and behavior across Georgia Southern University’s campus. Students are given an electronic survey with focus topics, such as biodiversity, energy, and waste. Following this research, a sustainability program, informed by the survey results, will be implemented on campus.
Presenter(s): Bailey Chandler, Georgia Southern University
Strand:

4) The Birds and the Bees and the Pollinator Trees
No money? No time? No problem! Join a former AmeriCorps VISTA as she discusses developing a native pollinator and crop garden on a budget. This presentation will profile the garden at Sequoyah High School, a Title I vocational school in Tennessee.
Presenter(s): Samantha Eubanks, Tennessee Aquarium
Strand:

5) Building a Sustainable Urban Environmental Education Collaborative for K-8 Learners
In this session, we will share student-led projects and a research brief summarizing the work of a two-year, EPA-funded grant focused on creating a sustainable urban environmental education collaborative in Indianapolis. Learn how K-8 students succeeded in blending environmental literacy and civic engagement with support from museums, nonprofits, community leaders, and their schools’ staff.
Presenter(s): Brian Plankis, The Children’s Museum of Indianapolis; Catherine Bhathena, Indiana University Purdue University, Indianapolis
Strand:

6) Building Student Teachers’ EE Teaching Capacity Through Pedagogical Practices
Integrating EE into preservice teacher education has been emphasized in Taiwan for several years. A two-credit EE course offers three-stage practices to enhance students’ environmental literacy, cultivate their sustainable behaviors, and create their experiences of teaching EE. In terms of capacity building, the student teachers gave highly positive feedback.
Presenter(s): Shun-Mei Wang, Graduate Institute of Environmental Education, National Taiwan Normal University
Strand:

7) Building Sustainable Communities Through Zero-Waste Education
Zero-waste environmental education can help reduce waste and build sustainable communities, especially when focused on local disposal of organic garbage and waste sorting.
Presenter(s): Wei Wei, Chengdu Roots & Shoots; Yuan Liang, Chengdu Roots & Shoots
Strand:

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Building Leadership for Environmental Literacy  Connecting with Nature  Conservation and Environmental Education  Educating for Sustainable Communities  Green Schools and Career-Connected Learning
Linking Research and Practice to Increase Impact  Diversity, Equity, and Inclusion  Young Professionals  NAAEE Affiliate Network  ee360
8) Buzz Power: Harnessing the Power of the Science Classroom for Outreach Education

The Mosquito Education program is a cooperative effort, spanning thirty years, between Lee County Mosquito Control and the local school system. Programs are designed for grades five and seven, as well as high school chemistry and biology classes. Participants will discover ways to integrate environmental programs into their local public school districts.

Presenter(s): Wendy Samz, Lee County Mosquito Control/School District of Lee County; Jenifer McBride, Lee County Mosquito Control/School District of Lee County; Mark McCreary, Lee County Mosquito Control/School District of Lee County

9) Camp Teacher: Summer Camp for Environmental Education Professional Development

Testing, behavior, and fear are just a sampling of words from Atlanta public school teachers describing why nature wasn’t in their classrooms. To counter these challenges, Blue Heron Nature Preserve created an immersive professional development experience where teachers become nature camp instructors. Learn how teachers from the program used the hands-on experience to incorporate nature into their classrooms.

Presenter(s): Amy Zvonar, Blue Heron Nature Preserve; Lauren Reynolds, Blue Heron Nature Preserve

10) Capacity Building Network for China Campus Environmental Groups

The Capacity Building Network (CaBuN!) for China Campus Environmental Groups initiated by campus environmental groups is committed to enhancing themselves via strengthening individual members and their belief in their groups as significant to their positive development and future achievement.

Presenter(s): Yueyang Yu, Sand County Academy

11) The Canoe as a Vessel for Exploring Cultures

Our poster will highlight the work of 4th-grade students in building a David Thompson-style canoe as a vessel for learning about the confluence of cultures throughout the Pacific Northwest. Students will present their experiences building the canoe and reflections about its meaning for their learning and personal growth.

Presenter(s): Brant Miller, University of Idaho

12) Caterpillars Count! Citizen Scientists Tracking the Phenology of Bird Food

Looking for a new way to engage your students or visitors in hands-on science learning? Or to contribute valuable information to research about insects and birds? In this session, we’ll introduce participants to the Caterpillars Count! citizen science project and share strategies for tracking the phenology of bird food.

Presenter(s): Sarah Yelton, UNC Institute for the Environment

13) Climate Lab: Engaging Students Through Relevant Climate Change Research

Climate Lab is a program designed to engage middle-school students in relevant climate change research. Utilizing an engaging curriculum that integrates 50 years of migratory bird banding data, teachers are equipped with the tools they need to get their students collecting meaningful data on local phenology.

Presenter(s): Evan Dalton, Manomet Inc.

14) Collaborative Partnerships for Education Policy in Research in Asia

Monitoring and evaluation (M&E) is an important policy tool for strengthening the implementation of education for sustainable development (ESD). This poster provides a practical instance of M&E in seven Asian countries working to collaborate around evidence-based policy making in the field of ESD.

Presenter(s): Paul Ofei-Manu, SOSAf LLC/IGES, Japan

15) Community-University Partnership for Sustainability and Resilience: A Case from Japan

How can a community resiliently transform itself when it faces a critical change? How can university research contribute to orienting such a transformation process toward sustainability? This presentation reports the ongoing challenge in a Japanese suburban community for transformation toward sustainability and resilience through a community-university partnership.

Presenter(s): Sachi Ninomiya-Lim, Tokai University
16) Connecting Contexts: Pre-K Programs for the Whole Family
For pre-K learners, knowledge is assimilated through formative experiences in the home with family members and caregivers. Young children embody the environmental values and attitudes of these role models. Pre-K programs can increase the impact of environmental education by connecting the nature center and home contexts through intentional adult engagement.
Presenter(s): Stephanie Potts, Montana Natural History Center
Strand: ●

17) Connecting to the Outdoors: Informal Science Education
Citizen science is an innovative tool to engage visitors of all ages in relevant and meaningful educational activities that promote conservation and stewardship.
Presenter(s): Yogani Govender, Inter American University of Puerto Rico-Metro Campus
Strand: ●

18) Conservation Pathway to Leadership: Establishing a High School Mentorship Program
With the goal of engaging the community in actions that ensure the health and well-being of their watershed, we provide opportunities for high school students to have positive experiences in nature, learn from experts, take action to promote watershed health, and inspire others to do the same.
Presenter(s): Elayna Flanders, San Elijo Lagoon Conservancy
Strand: ●

19) A Content Analysis of Environmental Literacy in K–16 Research Studies in Saudi Arabia
The study reviewed components of environmental literacy (EL) in K–16 studies in Saudi Arabia. Nineteen studies sampled and assessed one or more EL components among those students. The domain of knowledge was examined most often, followed by the affective dispositions. Cognitive skills and behavior received little attention.
Presenter(s): Adel Althubyani, Florida Institute of Technology
Strand: ●

20) Creating Meaningful Play: Game Design for Environmental Education
The Chicago Botanic Garden embraces unstructured play and nonformal games as pedagogic designs. By reviewing our approach to game design and learning goals, we will share our experience fostering meaningful conversations about environmental science from game collaborations developed with educators and ecologists.
Presenter(s): Drew Wehrle, Chicago Botanic Garden
Strand: ●

21) Cultivation of Young Environmental Educators in Taiwan
Youth were trained to make informational materials, primarily about marine plastics and incense burning, to share with elementary students. The youth learned how to integrate resources from institutions of higher learning, which deepened its partnership with the school and wider community.
Presenter(s): Ya-Fen Wang, Chung Yuan Christian University
Strand: ●

22) Dive into Your Watershed!
Immerse yourself in watershed education! This poster will share best practices for success from three watershed education programs that have engaged thousands of students in southwest Washington State for more than 25 years.
Presenter(s): Stephanie Bishop, Thurston Conservation District; Rachel Stendahl, Educational Service District 113; Sheila Wilson, Nisqually River Foundation
Strand: ●

23) Diversity and Inclusion in the Outdoor Classroom
Create an appreciation and an acceptance of diverse learners in the outdoor classroom.
Presenter(s): Zakiya Jackson, Detroit Public Schools Community District
Strand: ●

24) Do Role Models Matter? Exploring Their Influence on Student Outcomes
Which role models have the greatest potential to help students reach environmental literacy and positive youth development outcomes? Can a residential environmental education program influence who students view as their role models? We will discuss findings from a study investigating role models and outcomes at a residential EE program.
Presenter(s): Troy Frensley, University of North Carolina-Wilmington
Strand: ●
25) Ecological, Cultural, and Social Values of Important Natural Places
Few doubt that values we assign to important natural places drive personal decisions on resource use. If local community members hold personal values and knowledge of place, conservation, and forest management can be informed by using biocultural methods to better understand these locally important natural places.

Presenter(s): Jill Korach, Miami University
Strand: ●

26) Effectiveness of Various Interpretive Materials in Communicating Science with the Public
A public understanding of scientific research is imperative to fostering informed citizens. However, communication efforts can falter if experts don’t understand what their audience needs in order to efficiently and accurately digest messages. This project looked at various interpretive media styles and evaluated their effectiveness in engaging adult audiences.

Presenter(s): Allison Rhanor, National Great Rivers Research and Education Center
Strand: ●

27) Effects of Forest Education Program for Probation Youth in Korea
This study, sponsored by the Korea Forest Service and Ministry of Justice, confirms that forest education programs are effective in changing the mood, flexibility, and self-esteem of adolescents. Therefore, forest education can be helpful for the healthy development and social adaptation of youth facing multiple risk factors.

Presenter(s): Seong Yeop Jeong, National Institute of Forest Science; Jeonghee Lee, National Institute of Forest Science
Strand: ●

28) Effects of Teacher Inservice Training Programs in Forest Education
This study proves that the inservice training programs for teachers in forest education have positive effects on teachers’ sensitivity to environmental issues and can change their teaching attitudes.

Presenter(s): Seong Yeop Jeong, National Institute of Forest Science; Jeonghee Lee, National Institute of Forest Science
Strand: ●

29) Encouraging Science Literacy: Students’ Use of Evidence When Solving Socio-Environmental Issues
Structured decision-making frameworks have been proposed to encourage people to make objective and informed decisions. We incorporate our framework in the context of socio-environmental issues and showcase how undergraduate STEM and non-STEM majors have difficulties interpreting and applying scientific information to their decision making over these issues.

Presenter(s): P. Citlally Jimenez, University of Nebraska–Lincoln
Strand: ●

30) Engaging Youth in Urban Ecology Through Place-Based Field Experiences
The Nature Museum’s Monarchs Clubs and Chicago Rivers programs engage upper elementary and middle school students from across Chicago in local ecology through educator workshops, field trips, and outdoor experiences. Learn how these programs have impacted youth and educators and how these models can be replicated in various contexts.

Presenter(s): Dee White, Chicago Academy of Sciences/Peggy Notebaert Nature Museum
Strand: ●

31) Enhancing Local Water Quality Education Through Environmental Stewardship
This research study investigated the effect of place-based water quality lessons, developed for a middle school classroom, on the student outcomes and the health of the school campus’s retention pond. The impact of the curriculum implementation included an increase in student learning, engagement, and willingness to take environmental actions to help promote place-based environmental and conservation stewardship.

Presenter(s): Molly Nation, Florida Gulf Coast University
Strand: ●

32) Environmental Knowledge and Environmental Education Teaching Efficacy of Preservice Teachers
The preliminary reported results examine the environmental knowledge (EK) and personal environmental education teaching efficacy (PEETE) of preservice teachers across Wisconsin’s teacher education programs. The research compared preservice teachers’ EK scores to other students with different licensure levels, in addition to the correlation between an individual’s EK score and their total PEETE scores.

Presenter(s): Caroline Blake, Central Wisconsin Environmental Station
Strand: ●
33) Everyone Is a Conservation Scientist: Citizen Science in Nature Reserves
Since 2015, young students and enterprise employees have been participating in biodiversity monitoring projects in giant panda habitats in Sichuan. The public has the opportunity to participate in conservation activities and obtain firsthand data, making a real contribution to biodiversity conservation.
Presenter(s): Naiqian Luo, Shan Shui Conservation Center; Lingdi Tan, Shan Shui Conservation Center
Strand:

34) Exploring Data Literacy Using Local Environmental Data for NGSS-Aligned Curricula
In this data literacy-focused activity, participants will explore a case study of data on PCBs in fish from the Hudson River Superfund Site. We will analyze trends across time, space, and species in a student-friendly, inquiry-based format.
Presenter(s): Michelle Forster, Cary Institute of Ecosystem Studies
Strand:

35) Field Courses for Teachers: Fostering Community Engagement, Personal, and Professional Growth
The Great Lakes Watershed Field Course is presented as an exemplar of the transformative power of field-based professional development for teachers. Benefits included growth in professional learning communities, extension of collaborative networks, enaction of community engagement work, and improved instructional outcomes through student connection to place.
Presenter(s): Krista Surratt-Damery, Michigan State University
Strand:

36) Finding Communities of Practice in an Environmentally Focused Teen Internship
This poster will report the results and subsequent program revisions of an observational study to evaluate the engagement of a group of teenagers during their first semester in an internship program aimed at building their inquiry skills through a community of practice around conservation-focused, learner-centered experiences.
Presenter(s): Heather Skaza Acosta, Florida Gulf Coast University; Michelle Marinangel, The Conservancy of Southwest Florida; Kelsie Rybak, Florida Gulf Coast University
Strand:

37) Framework for Thought: Teaching Causality within Ecosystems
Understanding the concept of causality can help students to appreciate the consequences of various events, as well as their actions. This session focuses on introducing middle schoolers to causality as a framework for better recognizing patterns and relationships within ecosystems in order to achieve a deeper understanding of life sciences.
Presenter(s): Katelynn Reeder, Miami University
Strand:

38) Green Share Application: Sharing and Instructing Our Green Life
The Green Share app provides a public platform for people to post their environmental behavior and engage more people to go green. It updates stimulating online courses to teach people how to reuse and recycle, keep fit with a green lifestyle, eat green, and select environmental education programs in their cities.
Presenter(s): Zijia Wang, Nanfang College, Sun Yat-sen University; Yutong Feng, Nanjing University
Strand:

39) Greening Communities Through Place-Based Education: Sustaining Partnerships, Taking Action
This presentation shares strategies that can be applied to any community to create sustained opportunities for children to participate in city design and planning and see their contributions produce results, including greening playgrounds and public places. Learn creative methods to engage children from underrepresented groups in civic decision making.
Presenter(s): Louise Chawla, University of Colorado Boulder
Strand:

40) Impact of a Sustainability Course on Student Environmental Connection and Behavior
University Colloquium is an undergraduate non-majors experiential discussion course aimed at developing students’ sense of place and ability to address current issues regarding a sustainable future. The purpose of our research was to investigate the impact that the course has on students’ connectedness to nature and environmentally responsible behaviors.
Presenter(s): Alessia Lopardo, Florida Gulf Coast University; Steven Jackson, North Carolina State University
Strand: YP
41) Impact of an Environment-Based Education Program on Academic Achievement
Environment-based education is a philosophy and practice that utilizes the natural environment as an integrating context to teach academic standards in traditional subject areas. This session will explore the principles and tenets of this approach while also examining original research that employed an experimental design to measure academic achievement.
Presenter(s): Daniel Bowan, Colorado State University–Pueblo
Strand: ●

42) iNaturalist Provides Local Biodiversity Context to Introductory Organismal Biology Concepts
iNaturalist provides an accessible and scalable platform to engage students in learning about their local biodiversity, a goal of place-based education. Our curriculum for a large introductory college biology class used students’ iNaturalist observations as examples for course-specific activities, resulting in positive learning gains and attitudinal shifts.
Presenter(s): Kevin Floyd, University of Texas–El Paso
Strand: ●

43) Influencing Behavior Change Toward Sustainable Food Consumption
The impact of food choices on environmental sustainability has become an important issue in recent years. This research investigates the effectiveness of various arguments on individual food attitudes and behaviors. The findings are of great interest to environmental educators who can use this information to promote more sustainable eating habits.
Presenter(s): Garrett Lentz, University of Otago
Strand: ●

44) Inside the EE Classroom: Linking Nonformal and Formal Education
Drawing upon experience working with majority-minority Title 1 schools through hands-on STEM and place-based field experiences, we will examine ways that Salisbury University’s Ward Museum has created deep ties between their informal education practices and the needs for formal education in local public schools.
Presenter(s): Aurelio Giannitti, Ward Museum, Salisbury University
Strand: ●

45) Integrating Academic and Professional Opportunities for EE Graduate Student Success
Florida Atlantic University Pine Jog Environmental Education Center complements the academic learning in the FAU MEd in EE with a two-year Graduate Assistantship Program (GAP). Attendees will be offered insight into the effectiveness, highlights, and challenges of the program from the academic professor, GAP coordinator, and graduate student participants.
Presenter(s): Christopher Andrew Hill, Florida Atlantic University Pine Jog Environmental Education Center; Emily Howard, Florida Atlantic University Pine Jog Environmental Education Center; Bryan Nichols, Florida Atlantic University
Strand: ● YP

46) It’s More Than Fidgets and Gak: Multi-Sensory Approaches to Education
Have you ever wondered what all the fuss over fidgets is about? Remember making Gak as a kid? The goal of this poster presentation is to inspire and empower conference goers to create a more inclusive educational environment by learning how to incorporate a multi-sensory approach to interpretation of their facility.
Presenter(s): Alanna Frick, Audubon Nature Institute
Strand: ●

47) Jerusalem Gazelle Valley Park: A Community Collaboration
The newly created Gazelle Valley Park is a result of community collaborations and activism—saving the valley from development and creating an amazing urban park dedicated to the Dorcas gazelles that live there. Learn how the community made a difference and how the park continues to build community resilience.
Presenter(s): Alena Kacal, Jerusalem Bird Observatory, Society for the Protection of Nature in Israel
Strand: ●
48) Learning Outside: Building Teacher Capacity to Connect Students and Nature
Teachers cite a number of barriers to teaching students outdoors, which can be mitigated through effective inservice professional development in place-based environmental education. Gain insights into one successful program in which teachers integrate watershed-focused outdoor experiences into their curriculum, fostering opportunities to connect children with nature while meeting learning objectives.
Presenter(s): Sarah Yelton, UNC Institute for the Environment
Strand:

49) Linking Schools, Colleges, and Communities with Agro-Food Education
Agro-food education is becoming more and more popular in Taiwan. Schools, universities, and communities in south Taipei have collaborated on related issues in recent years. It was found that students’ performance improved in terms of core sustainability competencies. More and more linkages are being established, domestically and internationally.
Presenter(s): Shin-Cheng Yeh, Graduate Institute of Environmental Education, National Taiwan Normal University
Strand:

50) Making EE Accessible for All Students: A Special Education Investigation
Gain an inside look into best practices for engaging students with special needs from urban communities in outdoor education. Engage in conversation about how student behaviors and outlooks on EE shift as a result of interventions.
Presenter(s): Juliann Dupuis, Notre Dame of Maryland University; Dawn Martin, Notre Dame of Maryland University; Kimberly Chrystal, Baltimore City Public Schools
Strand:

51) Mammoth Cave After Dark: A Family Adventure
In this poster presentation, you will learn how the Mammoth Cave National Park Environmental Education rangers brought inner-city students and their families to the Mammoth Cave for an evening of fun and education.
Presenter(s): Jennifer Button Shackelford, National Park Service; Jeanine Huss, Western Kentucky University
Strand:

52) Moms, Pops, & Tots: A Program for Parents and Their Infants and Toddlers
The BLM Campbell Creek Science Center in Anchorage, Alaska launched a program for parents of infants and toddlers called “Moms, Pops, & Tots.” Come learn more about this innovative program that gets parents and young children outside exploring together in a place with winter half the year!
Presenter(s): Luise Woelflein, BLM Campbell Creek Science Center
Strand:

53) Needs Assessments: Designing Relevant Programs for Reaching Underserved Audiences
In order to successfully engage diverse audiences, environmental educators should assess community needs as part of their program development process. Come learn how Maryland 4-H is using a tri-county needs assessments to ascertain community needs and develop programs that expand 4-H’s reach to new and underserved communities.
Presenter(s): Rachel Bayer, University of Maryland
Strand:

54) One Thing Leads to Another: Growing Programs, Partnerships, and Patronage
By improving the quality and reach of its educational programs, the Agua Hedionda Lagoon Foundation has seen a marked increase in community awareness, partnerships, and donations. A visual representation of this growth includes more than 20 examples of often serendipitous opportunities for building capacity and maximizing community involvement and impact.
Presenter(s): Robyn Hill, National University
Strand:

55) Opportunities and Challenges of Incorporating Citizen Science into Microplastics Sampling
Plastics represent the most prevalent type of marine debris found in ocean, but we have almost no data about the abundance or presence of microplastics in freshwater systems. This session will share some opportunities and challenges of incorporating citizen science to investigate microplastics in Florida’s springs.
Presenter(s): Hannah Van Horn, AmeriCorps/Florida Conservation Corps
Strand:
56) Partnering with Extension to Gain Community Involvement in Environmental Initiatives
University of Florida IFAS Extension works with partners to engage nontraditional audiences in environmental education and conservation programs such as Extension-led citizen science projects. Several of these programs will be highlighted to show how you can work with your local Extension program on conservation and environmental education.
Presenter(s): Andrea Lazzari, University of Florida/IFAS Extension Brevard County; Holly Abeels, University of Florida/IFAS Extension

57) Perspectives from Graduate Students on Climate Change Mitigation and Adaptation
This session focuses on climate vulnerability and climate change mitigation and adaptation. The session will engage participants in interactive survey-style and role-playing activities to explore their environmental perspectives. I will also share findings of an environmental education research study, based on the same activities, focused on the environmental perspectives of 16 graduate students.
Presenter(s): Kristy Franks, Concordia University

58) Pioneering Program Evaluation: Do Parents Value an Ocean Stewardship Program?
NOAA’s Ocean Guardian School program awards small grants to K–12 schools to carry out hands-on ocean stewardship projects. In a pioneering program evaluation, parents of these students were surveyed to find out what they valued most about the program and how much it was worth to them.
Presenter(s): Bronwen Rice, National Oceanic and Atmospheric Administration

59) Pride in the Desert
What do you think of when you picture the Sonoran Desert? A brown, dry, barren landscape? Yeah, me too. Or at least that’s what I used to think. That all changed when I used the RARE pride campaign model to build pride for the desert in my first-grade classroom.
Presenter(s): Mary Gilmore, Graduate Student

60) Promoting a Conservation Area Community’s Development Through Environmental Education
One of our hypotheses is that environmental education can promote a conservation area community’s development. We plan to (1) cultivate the community’s cultural pride and the sense of responsibility, (2) help promote their ecological industry, and (3) support community activity outcomes.
Presenter(s): Xue Xia, Beijing Qiaonyu Foundation

61) (Re)Building and Sustaining Indigenous Communities: A Constellational Approach for a Decolonial Praxis
I describe and operationalize a “constellational” approach to (re)building and sustaining Indigenous communities that works toward community sovereignty, self-determination, decolonization, and socio-ecological resilience. Building from the dimensions of sustainability, individuals and communities, beyond-human relationships, and commitment, this approach allows one to address Indigenous socio-ecological issues in a more dynamic, multidimensional, and just fashion.
Presenter(s): Austin Cruz, University of Arizona

62) Reducing Invasive Species Releases by Engaging Visitors and Monks in Education Programs
Animal release is a prevalent activity in Chinese Buddhist temples, often based on goodwill and including the release of invasive species. Botanical garden educators used a theory of change framework to conduct and evaluate programs about scientifically sound animal releases. The results suggest changes in attitudes, self-efficacy, social norms, and release behaviors among garden visitors and temple monks.
Presenter(s): Shan Li, Fairylake Botanical Garden

63) Research on Partner Promotion and Performance Evaluation
This study attempts to use a logic model to construct the steps and tools of performance evaluation. In 2016, two action plans “Empower Workshop” and “Environment Education Training of Student Associations” were implemented by the Kao-Ping Environmental Education Regional Center.
Presenter(s): Kuo shuh Fan, National Kaohsiung University of Science and Technology

64) Rural Women’s Influence in the Sustainable Development of GIAHS
The Honghe Hani Rice Terraces are a culturally important World Heritage Site and a Globally Important Agricultural Heritage System (GIAHS). Women are the main labor force in the villages, employing their ecological awareness, skills, and lifestyle. With local ecotourism and environmental protection, the sustainable agricultural development of the local community can be promoted.
Presenter(s): Min Liu, Arts and Sciences College of Yunnan Normal University; Xue Xia, Beijing Qiaonyu Foundation
Strand: ●

65) Saying YES! to Nontraditional Environmental Education
The Youth Ecology & Conservation Series (YES!) is a unique University of Florida’s Institute of Food and Agricultural Sciences (UF/IFAS) Extension Brevard County 4-H program for youth ages 8-12. The mission of YES! is to teach and inspire underserved youth audiences to learn about and conserve their natural resources using a combination of classroom and field activities.
Presenter(s): Andrea Lazzari, University of Florida/IFAS Extension Brevard County
Strand: ● ●

66) School-Based Outdoor Teaching: A Tale of Three Exemplary Teachers
A Tale of Three Teachers: this poster will discuss applications of research into how and why accomplished teachers incorporate school-based outdoor teaching in their classroom pedagogy, with the goal of sparking ideas about how to increase teachers’ use of outdoor science education in their school campuses and surrounding areas.
Presenter(s): Rose Vallor, Montana State University
Strand: ●

67) “Soil Sisters” Farming Sustainably at a Catholic Women’s College
Created to address the imperatives set out by Pope Francis in Laudato Si: On Care for Our Common Home, the new organic farm at Saint Mary’s College at Notre Dame serves as a model of sustainability for the local food system and as a learning lab for the liberal arts.
Presenter(s): Amy Larrison Gillan, Saint Mary’s College at Notre Dame
Strand: ●

68) Situating Canadian Environmental and Sustainability Preservice Teacher Education in the International Scene
An examination of Canadian environmental sustainability preservice teacher education is long overdue. An international framework examining environmental sustainability preservice teacher education programming, rationale, pedagogical approach, benefits, and challenges will be used to identify future research priorities in the Canadian context.
Presenter(s): Douglas Karrow, Brock University
Strand: ●

69) Student Agency and Teacher Confidence in Outdoor Learning: A Pilot Program
We know ‘why’ schools must work to increase outdoor learning capacity...what’s the ‘how’? #cbeEarthPlay is an environmental education teacher-training pilot program for the 250+ schools within the Calgary Board of Education. We will briefly explore its vision to build student agency and teacher confidence while reducing roadblocks to design instruction and outdoor joy for students.
Presenter(s): Paul Kelba, Calgary Board of Education
Strand: ●

70) Student Learning Outcomes of an International CURE in Environmental Policy
Despite prevalence, few pedagogical frameworks and objective assessment methods exist to develop, implement, and assess short-term study abroad programs. The learning outcomes of an embedded program in Cuba that allowed students to engage in authentic environmental policy research were assessed. Results indicate improvement in students’ intercultural awareness and presentation skills.
Presenter(s): Jacqueline Shea McLaughlin, Pennsylvania State University-Lehigh Valley; David Esparza, University of Texas-El Paso
Strand: ●

Great Horned Owl
Great horned owls, one of the most common owls in North America, are easily identified by their large ear tufts, or “horns.” Their large eyes don’t move in their sockets, but owls can swivel their heads to look in any direction. With their poorly developed sense of smell, great horned owls are the primary predator of striped skunks.

Photo: © Greg Hume
71) Summer Camp 101: What We Have Learned in 10 Years
In this poster presentation, you will learn how the Mammoth Cave National Park Environmental Education Rangers grew their summer day camp program by providing students with opportunities as endless as the longest known cave in the world. Participants will leave with elementary and middle school camp itinerary that correlates to NGSS standards.
Presenter(s): Jennifer Button Shackelford, National Park Service; Jeanine Huss, Western Kentucky University
Strand: ● ● ●

72) Sustainability Education in Nursing: A Scoping Review
As the most trusted and largest group of healthcare professionals, nurses have significant potential to contribute to a sustainable future. However, the state of environmental and sustainability education in nursing is unclear. The objective of this review is to describe the state of sustainability education in nursing and to identify gaps in the research & opportunities for advancement.
Presenter(s): Megan Czerwinski, University of Michigan
Strand: ● ● ●

73) Teaching Science with Technology: Using EPA’s EnviroAtlas in the Classroom
US EPA’s EnviroAtlas provides a collection of web-based interactive tools and resources for exploring ecosystem goods and services. This session introduces a K–12 educational curriculum that has been designed for use with the tools in EnviroAtlas, takes kids outside, and empowers anyone with the internet to be informed environmental decision-makers.
Presenter(s): Jenna Hartley, ASPPH Environmental Health Fellow hosted by the US EPA Office of Research & Development
Strand: ● ● ●

74) There Is a Better Way: Linking Educational Experiences to Active Citizenship
This presentation addresses educational processes that have resulted in citizens who embrace environmental stewardship and are active contributors to a healthy, sustainable society. The presentation has been framed around the current research of two integrated curriculum programs that have demonstrated long-term learning outcomes related to active citizenship.
Presenter(s): Gordon Sturrock, Douglas College; Bob Sharp, Yukon Education (retired)
Strand: ● ● ●

75) Today and Future–The Launch Forum of Chinese Nature Education
The China Nature Education Forum shares the experiences and challenges of entrepreneurs of nature education from the Chinese mainland. Current status and future improvements to the growth of the nature education network will be presented, based on various ecological environments, educational policies, and social foundations of the Chinese mainland.
Presenter(s): Haiqiong Yu, SWNE Center; Xie Min, Huxiang Nature Science Center
Strand: ● ● ●

76) Urban Sustainability in Action: Professional Development from the Inside Out
Antioch University’s MA of Education in Urban Environmental Education offers a robust approach to advancing the diversity of environmental leaders who focus educational practice in urban communities to build capacity for sustainable practice and resilience in a way that includes multiple perspectives and voices of the people who live there.
Presenter(s): Sue Byers, IslandWood
Strand: ● ● ●

77) Using Games to Teach Biodiversity
This presentation reviews how we utilize a commonly known board game to help students comprehend the concept of biodiversity. As students engage in the game, they are exposed to the interconnectedness of ecosystems and the implications of biodiversity loss. This game can be adapted for a variety of aptitude levels.
Presenter(s): Jessica Marcolini, Florida Gulf Coast University; Steven Jackson, North Carolina State University
Strand: ● ● ●

Outstanding Resources in the Field of EE

PRO Picks
a new initiative of ee360
naaee.org/eepro/resources/pro-picks
78) Using Mindfulness Training to Counteract Teacher Stress and Burnout
This session is focused upon the systematic design of a professional development workshop that infuses mindfulness training with environmental science content as a means to counteract teacher stress and burnout. The presentation will share the workshop’s evolution, the mindfulness strategies used, and the benefits of nature to heal and protect.
Presenter(s): Terri Hebert, Indiana University–South Bend
Strand: ●

79) What Makes a “Strong Town”? Sustainable Communities Through Walking Audits
Sustainable development focused in the areas of transportation, land use, design, and economic development not only fosters a vibrant community but also has a profound impact on ecological literacy and sense of place. Join us to explore the social, ecological, and economic challenges and opportunities of urban America through walking audits.
Presenter(s): Jessica Marcolini, Florida Gulf Coast University
Strand: ●

80) What Makes an Effective Environmental Educator: A Values-Based Assessment
As our field evolves and develops amidst a challenging world, rethinking the qualities that educators embody is a meaningful effort. This poster presentation explores a values-based assessment conducted by emerging educators and their instructors, to determine the abilities that are most important to meaningful environmental education.
Presenter(s): Jordan King, University of Wisconsin–Stevens Point, Central Wisconsin Environmental Station
Strand: ● VP

81) Working to Eliminate Barriers to the Outdoors for Young Children
This session builds on existing research by the authors which deals with perceptions and practices of risky nature-based outdoor play for young children. This interactive poster exhibit will ask participants to explore the research and then identify their own barriers for creating these experiences for young children in their own lives.
Presenter(s): Shelby Gull Laird, Stephen F. Austin State University; Kelly Hoke, Center for Research on Lifelong STEM Learning, Oregon State University
Strand: ●

82) Youth Engagement with Natural Resource Issues Using Digital Mobile Tools
This session will be about DOTS, an environmental education project that engages K-12 students across Wisconsin in water quality monitoring activities. The session will highlight successes and learning opportunities from year one of the project, based on evaluation results and will discuss their significance for best EE practice.
Presenter(s): Robert Justin Hougham, University of Wisconsin–Extension; Marc Nutter, University of Wisconsin–Extension; Joey Zocher, Escuela Verde
Strand: ●

Thursday 2:30 PM
Meeting
2:30 PM–3:10 PM
Introduction to EPOC (Environmental Professionals of Color)
2:30 PM–3:10 PM, Room 206CD
Interested in learning more about the Center for Diversity & the Environment’s (CDE) Environmental Professionals of Color (EPOC) network? Join EPOC members and CDE to learn more about the movement, meet the coalition, and be inspired to start your own EPOC chapter in your community.
Coordinator: Queta González, Center for Diversity & the Environment; Christiane Maertens, NAAEE
Strand: ●

Symposium
2:30 PM–4:00 PM
Environmental Literacy for All: California’s Path Towards Systemic Change
2:30 PM–4:00 PM, Room 205
California’s Environmental Literacy Steering Committee has embarked on a statewide initiative focused on scale, equity of access and cultural relevance, and school districts as the unit of change. Speakers representing a variety of levels of California’s public education system will describe how their work supports achieving environmental literacy for all.
Presenter(s): Jedda Foreman, Lawrence Hall of Science; Joey Scott, Monterey Bay Aquarium; Amity Sandage, Santa Cruz County Office of Education; Jessica Brown, Pajaro Valley Unified School District
Strand: ●
**Hands-on Presentations**  
2:30 PM–4:00 PM

**Career-Connected Learning Through Field STEM Experiences**  
2:30 PM–4:00 PM, Room 401A
Nine grantees across Washington State engaged educators, professionals, and youth in career-related exploration through field STEM experiences, focusing on youth typically underrepresented in STEM. This session will share the resulting outcomes, replicable strategies, and useful resources for implementation. Programs include forestry, fishery management, green building, environmental engineering, and water resource management.
Presenter(s): Gilda Wheeler, Washington STEM; Rebecca Benjamin, North Olympic Salmon Coalition; Vickei Hrdina, Elementary School District 112; Toni Taylor, Spokane County Water Resources

**Drumming for a Difference: Nonverbal Communication Strategies for EE**  
2:30 PM–4:00 PM, Room 303B
Through traditional African drumming, we will introduce strategies to help environmental educators build focus, foster group cohesion, and facilitate connection with the environment through listening and observation.
Presenter(s): Ian Signer, Intelligent Play

**National Geographic’s Geo-Inquiry Process in Action!**  
2:30 PM–4:00 PM, Room 303A
National Geographic invites you to join other like-minded educators empowering students to think like explorers and make a difference in the world. In this highly interactive session, participants learn about the Geo-Inquiry Process—an integrated, project-based process that connects students to real world questions, National Geographic explorers, and components of civic action.
Presenter(s): Brenda Barr, National Geographic Society; Mary Ford, National Geographic Society

**Once Upon a Milltown Dreary: Novel Ecosystems for Interdisciplinary Teaching**  
2:30 PM–4:00 PM, Room 402A
This hands-on field trip will feature a walk along the Spokane River to the Gonzaga campus where we detail a multi-year interdisciplinary project of how novel ecosystems can integrate humanities and science courses and provide opportunities for student activism in ecological restoration.
Presenter(s): Greg Gordon, Gonzaga University

**Phenomena, Data, and Design with HHMI BioInteractive**  
2:30 PM–4:00 PM, Room 302B
Investigate seed dispersal and habitat fragmentation using free resources from HHMI BioInteractive. This workshop will feature authentic data, short videos, and a design challenge to help participants explore factors impacting tropical forests. Participants will also experience strategies for inclusion of all learners in collaborative classrooms or informal settings.
Presenter(s): Kim Parfitt, Central High School

**Shifting the Education System by Widening Points of View**  
2:30 PM–4:00 PM, Room 402B
Joanna Macy designed a dynamic experiential process adapted to articulate and transform the systemic challenges blocking the widespread uptake of socio-ecological, integrated, place-based, authentic, critical thinking, emotionally engaged, imaginative, holistic, environmental education in today’s public school system. Hear from other educators, more-than-human, and future student voices who are ready for change.
Presenter(s): Maureen Jack-LaCroix, Be The Change Earth Alliance

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**Strand:** Building Leadership for Environmental Literacy
**Strand:** Connecting with Nature
**Strand:** Conservation and Environmental Education
**Strand:** Educating for Sustainable Communities
**Strand:** Green Schools and Career-Connected Learning
**Strand:** Linking Research and Practice to Increase Impact
**Strand:** Diversity, Equity, and Inclusion
**Strand:** Young Professionals
**Strand:** NAAEE Affiliate Network
**Strand:** ee360
Traditional Presentations
2:30 PM–3:10 PM

Bring, Do, Take: Useful Tools for Practitioners
2:30 PM–3:10 PM, Room 206A
In this session, we will share what we know from a project that explores the degree to which the conservation education missions of zoos and aquariums align with visitors’ expectations and agendas. We will engage practitioners in active discussions around the implications of these findings for their institutions.
Presenter(s): Kelly Riedinger, Oregon State University Center for Research on Lifelong STEM Learning; Rupu Gupta, New Knowledge Organization; Elaine Horr, Lifelong Learning Group/COSI

Confronting the Unspoken Place of Environmental Violence in Environmental Education
2:30 PM–3:10 PM, Room 201A
Environmental education is a field that responds to violence against nature and people, and yet “violence” virtually never appears in the field’s literature or conferences. In this session, we offer an analysis of violence in the context of EE and activities that educators can use to understand and reduce our environmental violence.
Presenter(s): Richard Kool, Royal Roads University

EE21: Crosscutting Outcomes for Evaluating EE in the 21st Century
2:30 PM–3:10 PM, Room 302A
What should all environmental education programs aspire to achieve? Debating this question has resulted in the development of an evaluation instrument that can be used across a diverse set of programs. Come learn about this new evaluation tool designed to measure consensus-based outcomes for programs serving grades five and up.
Presenter(s): Robert Powell, Clemson University; Marc Stern, Virginia Tech; Tori Kleinbort, Clemson University

Forestry Internships: Career Connected Learning for Youth at Risk
2:30 PM–3:10 PM, Room 206B
STEM and Career Connect intersect to bring out-of-school youth opportunities to re-engage with a hands-on dynamic approach to exploring living wage natural resource careers. Students from the first session of programming will share their experience, including their FieldSTEM investigation data.
Presenter(s): Dana Bowers, Stevens County Conservation District

Moving the Needle Together: A Discussion of Lessons Learned from PLT’s ee360 Work
2:30 PM–3:10 PM, Room 401C
How do you help educators effectively teach students important concepts in environmental education? Project Learning Tree partnered with NAAEE to strategically deliver training to 2,692 formal and nonformal educators, and 65 preservice educators through the ee360 program. We discuss what worked well, challenges, and how we’ve improved the program for 2018.
Presenter(s): Esther Cowles, Project Learning Tree/Sustainable Forestry Initiative

State Parks as Outdoor Classrooms: Creating a New Model
2:30 PM–3:10 PM, Room 201C
After 20+ years of successful Wildlife Camps at the University of Iowa, it was time to take our model on the road to help Iowa’s Department of Natural Resources State Parks. This is the story of a partnership that is reshaping environmental education in Iowa.
Presenter(s): Jay Gorsh, University of Iowa

The Walk: Place Lends Context and Relevance
2:30 PM–3:10 PM, Room 203
Practicing integrated environmental and sustainability education for all students requires a walkable, accessible, open space to support a steady diet of year-round field studies. This tool equips budding naturalists to engage with interpretive stations along the path as they pause to deepen practice and appreciation.
Presenter(s): Jenny Rieke, Friends of Mid-Columbia River Wildlife Refuges

THURSDAY

Updated and Revised—K–12 Environmental Education: Guidelines for Excellence 2:30 PM–3:10 PM, Room 401B
NAAEE’s K–12 Environmental Education: Guidelines for Excellence, part of the Guidelines for Excellence series, describe a framework and a set of student performance indicators for environmental literacy that are benchmarked at 4th, 8th, and 12th grades. We’re in the process of updating them. Come and get a sneak peak!
Presenter(s): Bora Simmons, National Project for Excellence in Environmental Education; Jaclyn Stallard, Project Learning Tree/Sustainable Forestry Initiative; Billy Bennett, Kentucky Environmental Education Council; Kathayoon Azra Khalil, Seattle Aquarium

Through Their Lenses: Bridging Gaps Between Leaf Monkey Conservation and Education
Learn about Langur Project Penang’s (LPP) work to conserve the leaf monkeys of Peninsular Malaysia, as the voice of non-human primates through research, conservation, and education. Using scientific research and nature education to create public awareness for primate conservation, LPP works to develop comprehensive conservation strategies in Penang, Malaysia.
Presenter(s): Jo Leen Yap, Langur Project Penang

GROUP A

EE 30 UNDER 30 HONOREES 2:30 PM–3:10 PM, ROOM 202B

Art, Design, and Creativity: EE Policy and Practice in Taiwan
This session will highlight the power of creativity to raise awareness and enhance the impact of EE, drawing from experiences working with EE policy makers and educators in Taiwan. Learn some tips and resources to use this approach in your work, featuring illustrations, photographs, and video.
Presenter(s): Ya-Ling Chang, Global Environmental Enhancement Incorporation
Strand:

Empowering People and Communities through the SDG Junior Ambassador Programme
The Sustainable Development Goals Junior Ambassador Programme introduces students to environmental, health, and well-being issues through the Sustainable Development Goals, and since 2017 has trained over 3,000 youth in Hong Kong, Japan, and The Philippines. This session highlights the programme’s successes and an upcoming partnership with the Hong Kong Girl Guides Association.
Presenter(s): Wing Man Samantha Kong, Sustainable Development Goals Junior Ambassador Programme
Strand:

GROUP B

Building Sustainable Communities: A Project-Based Learning Approach to the Building Industry
“Started with a hammer, now we’re here.” Utilizing the cohort model, teacher researchers pilot a course in the wake of an old shop class. Sustainability and environmental justice permeate the curriculum of the course. Students learn more than carpentry as they grapple with Virtual Design and Construction’s key tenets of buildability, sustainability, and operability.
Presenter(s): Jonathan Lee Montoya, East Side Union High

From Online to Outside: E-Learning to Support Field-Based Education
Whether you’re hosting a teacher professional development workshop or an immersive field experience for K–12 students, online learning provides environmental educators with the opportunity to reach new audiences, extend meaningful contact with users, and prioritize investigation over lectures during the outdoor field experience.
Presenter(s): Elise Trelegan, National Oceanic and Atmospheric Administration

Smartboard + Webcam x Nature = Unlimited Opportunity
Environmental educators have long puzzled over how to bring 21st-century learning to rural, underserved areas. Using smartboards and webcams, we bring naturalists and hands-on lessons to classrooms, virtually. In this session, we explore new frontiers in distance-learning technology and share our experience of becoming virtual educators.
Presenter(s): Kelli Van Noppen, Montana Natural History Center; Lisa Bickell, www.montananaturalist.org
Strand:
Thursday 3:20 PM

Meeting
3:20 PM-4:00 PM
Environmental Professionals of Color Business Meeting
3:20 PM-4:00 PM, Room 206CD
The Environmental Professionals of Color (EPOC) annual business meeting is open to EPOC members and potential members. We will build community connections, discuss lessons learned, and identify potential priority areas for the next year. EPOC is a program of the Center for Diversity & the Environment.
Coordinator: Queta González, Center for Diversity & the Environment

Traditional Presentations
3:20 PM-4:00 PM
Curriculum Principles for a Nature-Based Preschool: Case Study from Wisconsin
3:20 PM-4:00 PM, Room 201A
A nature-based kindergarten program was established in 2013 at the Bay Beach Wildlife Sanctuary in Green Bay, Wisconsin. This tuition-free program is a partnership between the Sanctuary, the Green Bay Area Public School District, and the University of Wisconsin–Green Bay. We will describe the evolution of the curriculum.
Presenter(s): Scott Ashmann, University of Wisconsin–Green Bay
Strand: 🌳

EE Advocacy 101
3:20 PM-4:00 PM, Room 401C
Important advances for environmental education can be achieved through policies at the federal and state levels. NAAEE works with local Affiliates and other partners to monitor opportunities to shape EE policy, develop strategy for advancing key initiatives, and build capacity within the EE community for advocacy. This session will cover advocacy basics and showcase new tools.
Presenter(s): Sarah Bodor, NAAEE
Strand: 🌳

Global Environmental Education Partnership: Results From a Call for Action Survey
3:20 PM-4:00 PM, Room 401B
Representatives from the Global Environmental Education Partnership (GEEP) will share results and next steps of a global Call for Action survey that we launched in October 2017 to get input from educators on priorities for EE over the next 10 years. After six months of data collection, we received 400 responses from around the world.
Presenter(s): Melissa Hopkins Taggart, NAAEE; Alan Reid, Monash University; Ginger Potter, US EPA; Judy Braus, NAAEE; Justin Harris, US EPA; Alex Kudryavtsev, Cornell University
Strand: 🌳

Heritage Education: Connecting People to Public Lands
3:20 PM-4:00 PM, Room 203
The Bureau of Land Management (BLM) oversees some of our nation’s most outstanding cultural and paleontological resources. For anyone interested in learning and teaching about this rich cultural legacy, we’ll explore how BLM’s heritage education program engages the public in the shared conservation stewardship of these irreplaceable treasures.
Presenter(s): Derrick Baldwin, Bureau of Land Management; Jeanne Moe, Bureau of Land Management
Strand: 🌳

Learn to Use Citizen Science to Engage Students in EE
3:20 PM-4:00 PM, Room 201B
Come learn how to use wildlife camera citizen science projects to engage K–16 students in EE. You will experience the full cycle of scientific investigation from observations to data reporting. Then, we will debrief our experiences. You will leave with access to lesson plans and student work samples as resources.
Presenter(s): Heather Scott, Georgia Southern University; Lacey Denise Huffling, Georgia Southern University
Strand: 🌳

Moose
It's estimated that about 3,000 moose live in Washington State. The majority of these are in the Selkirk Mountains (Pend Oreille, Stevens, Ferry, and Spokane counties.)
School Grounds for Learning: Habitat and Urban Education in Baltimore
3:20 PM-4:00 PM, Room 302A
The National Wildlife Federation and the Maryland Association for Environmental and Outdoor Education (MAEOE), an NAAEE Affiliate, will share the innovative program they recently launched in Baltimore to support green schools, create native habitats in an urban environment, and empower teachers to use school grounds as a venue for outdoor, place-based learning.
Presenter(s): Laura Johnson Collard, Maryland Association for Environmental and Outdoor Education; Holly Gallagher, National Wildlife Federation
Strand: ●

Stewardship Education: A Big Task for a Short Program
3:20 PM-4:00 PM, Room 201C
Environmental Volunteers’ Educate 4 Action project is improving stewardship education in our curriculum and incorporating best practices for English language learners. Learn more about our journey, the evaluation and research that guide us, our results, and how you can do this too.
Presenter(s): Brittany Joy Sabol, Environmental Volunteers
Strand: ●

Nature For All: Program Access to Serve the Underserved
Many zoos find themselves preaching to the choir and/or serving a mostly white, middle to upper middle class program clientele. By creating a program access fund and becoming an AmeriCorps service site, we are blowing up this model, building community, and diversifying the face of environmental education at the Cincinnati Zoo & Botanical Garden.
Presenter(s): Courtney Ryan, Cincinnati Zoo & Botanical Garden
Strand: ●

Reaching Refugees: The Eco-Explorers Program for Youth
Learn about the Bureau of Land Management’s (BLM) Campbell Creek Science Center’s efforts to welcome and acclimate refugee youth to their new home through a special environmental education program. You’ll also find out about the partnerships that made the program possible and plans for its future.
Presenter(s): Luise Woelflein, BLM Campbell Creek Science Center
Strand: ●

GROUP B
3:20 PM-4:00 PM, ROOM 202C
Evaluation of Environmental Education Programs Using Student Artwork
Pre- and post-program student surveys are a tool of the past. They can be stressful for students, and often do not provide useful feedback. As an alternative, we are implementing a qualitative document review of student artwork and thank you letters to measure the success of our programs.
Presenter(s): Suzie Fortner, Friends of the Dunes
Strand: ●

Program Evaluation Partnerships: Findings from NCSU and Muddy Sneakers
Researchers at North Carolina State University partnered with Muddy Sneakers to evaluate their EE program for elementary students. Learn about the program, the partnership, the research results, and their implications. Particular emphasis will be placed on program effects in regard to traditionally low-achieving students.
Presenter(s): Kathryn Stevenson, North Carolina State University; Renee Strnad, North Carolina State University; Steven Jackson, North Carolina State University; Ryan Olson, Muddy Sneakers, Inc.
Strand: ●
Thursday 4:15 PM

Meeting
4:15 PM-5:45 PM

Environmental Education Research Editors Meeting
4:15 PM-5:45 PM, Room 304 Boardroom
By invitation.
Coordinator: Alan Reid, Monash University

Symposium
4:15 PM-5:45 PM

Enhancing Community Resilience to Climate Change Through Education
Frequent natural disasters are the new normal, and communities are struggling to be resilient to climate change impacts. Come learn about five ongoing education projects, conducted by geographically and institutionally diverse organizations, that are developing children and youth as advocates for community resilience to a range of climate change impacts.
Presenter(s): Robin Dunbar, The Elizabeth River Project; Betsy Wilkening, Arizona Project WET, University of Arizona; Sheila Wilson, Nisqually River Foundation; Caroline Pechuzal, Canyon del Oro High School
Moderators: Jaime Frungillo, National Oceanic and Atmospheric Administration; Sarah Schoedinger, National Oceanic and Atmospheric Administration
Strand:

Hands-on Presentations
4:15 PM-5:45 PM

Affiliate Strategies: Building a More Diverse, Equitable, and Inclusive Field
4:15 PM-5:45 PM, Room 302B
Join NAAEE Affiliates from around the country in exploring diversity, equity, and inclusion efforts. Participants will engage in conversations around the challenges and opportunities for organizational culture shift and field transformation. Share your own experiences building equity and inclusion in Affiliate conferences, strategic planning, hiring practices, board development, and communications.
Presenter(s): Maya Alexander, Arlington Echo Outdoor Education Center; Shannon Culpepper, Environmental Educators of North Carolina; Eileen Everett, Environmental Education Association of New Mexico; Olivia Griset, Maine Environmental Education Association; Charissa Jones, Oregon State University-Extension, Outdoor School Program; Traci Price, 3 Ways to Change; Shannon Whitney, Environmental Education Association of New Mexico; Joey Zocher, Escuela Verde
Strand:

Building a Foundation in Environmental Justice in Your EE Practice
4:15 PM-5:45 PM, Room 401A
Are you interested in weaving issues of social justice into your classroom curriculum but unsure about how to begin? Start your journey with a self-reflective poem and art project to help think about place and build a foundation for environmental justice work for yourself and your students.
Presenter(s): Beatriz Canas, Chicago Botanic Garden; M’Lis Bartlett, University of Michigan School for Environment and Sustainability
Strand:

Climate Change Education Through a Focus on Local Wildlife Species
4:15 PM-5:45 PM, Room 303B
Participants will gain knowledge, skills, and resources for integrating climate change education, through wildlife-themed activities, into middle- and high-school curricula as well as nonformal education programming.
Presenter(s): Marc LeFebre, Association of Fish & Wildlife Agencies/Project WILD; Elena Takaki, Association of Fish & Wildlife Agencies; Kelly Elizabeth Reynolds, Association of Fish & Wildlife Agencies
Strand:

Western Wood-Pewee
The Little Spokane River is an important area for riparian breeding species such as Hooded Merganser, Osprey, Bald Eagle, Northern Pygmy-Owl, Red-naped Sapsucker, Downy, Hairy, and Pileated Woodpeckers, and this Western Wood-Pewee.
- birdweb.org

© Jerry Friedman
Creating Your Own Climate and Energy Education Units with CLEANet.org
4:15 PM-5:45 PM, Room 303A
Finding credible climate and energy educational resources is challenging. The online Climate Literacy and Energy Awareness Network (CLEAN) collection of 700+ peer-reviewed, classroom-ready, and standards-aligned resources and the CLEAN Get Started Guide support educators in developing and instructing engaging and science-rich units focused on climate and energy topics and current issues.
Presenter(s): Jennifer Taylor, University of Colorado-Boulder Cooperative Institute for Research in Environmental Sciences; Frank Niepold III, National Oceanic and Atmospheric Administration Climate Program Office
Strand: ●

Energy Resources and Climate Change: Pathways to a Sustainable Future
4:15 PM-5:45 PM, Room 402A
How does science help us understand the human impacts causing climate change? How can alternative sources of energy help us find solutions? Engage in investigations from MassAudubon and MIT’s alternative energy/climate change workshop. Build a solar fountain, experiment with windmill blade design, and design a working energy grid for a future community.
Presenter(s): Sandra Ryack-Bell, Museum Institute for Teaching Science (MITS, Inc.); Kristen Scopinich, Mass Audubon
Strand: ●

What We Are Learning: NAAEE’s Environmental Issues Forums
4:15 PM-5:45 PM, Room 402B
What do community members gain from participating in deliberative forums? As part of NAAEE’s partnership with the Kettering Foundation, we’ve been holding deliberative forums, focusing on climate change and local water issues, across the country. Come hear what we’ve been learning about forum participants’ motivations, expectations, and sense of efficacy.
Presenter(s): Christine Jie Li, University of Missouri; Jennison Kipp Searcy, University of Florida; Melinda Wilder, Eastern Kentucky University; Holly Abeels, University of Florida IFAS Extension; Bora Simmons, National Project for Excellence in Environmental Education; Nick Felts, Kettering Foundation
Strand: ●

Traditional Presentations
4:15 PM-4:55 PM

A Quantum Vision for Environmental Literacy and Leadership
4:15 PM-4:55 PM, Room 201A
Environmental literacy is essential for sustainability, yet its development and definition are often narrow. This session shows the impact of breakthroughs in physics and cultural studies on environmental education. We will explore a new vision for environmental literacy, founded on the strength of diversity and inclusion, with the goal of empowering current and future leaders.
Presenter(s): Jordan King, University of Wisconsin-Stevens Point, Central Wisconsin Environmental Station
Strand: ●

Assessing Connection to Nature
4:15 PM-4:55 PM, Room 401C
Many EE programs are designed to connect people to nature. Come find out how practitioners and researchers are measuring connection to nature and which tools might be useful for you. Results from a survey of members and literature review will be shared.
Presenter(s): Martha C. Monroe, University of Florida; Nicole Ardoin, Stanford University; Lauren Watkins, White Oak Conservation/University of Florida
Strand: ●

Citizen Science: Framework for More Inclusively Engaging Students in Making Real-World Impacts
4:15 PM-4:55 PM, Room 401B
Discover how citizen science can scaffold opportunities for students to make a difference in the real world! This short course is for educators who want to engage students in field investigations that contribute to authentic research and empower a broader array of students to become the next generation of environmental decision-makers.
Presenter(s): Karan Wood, Captain Planet Foundation
Strand: ●
Fostering Sustainable Communities Through Place-Based Education and Innovative Networking
4:15 PM–4:55 PM, Room 203
What role can educational networks play in fostering a sustainable future? Come learn about the Greater Burlington Sustainability Education Network, our work fostering healthy social-ecological systems, and our connection to the United Nations’ global network promoting the achievement of the Sustainable Development Goals in places around the world.
Presenter(s): Walter Poleman, Universty of Vermont; Jennifer Cirillo, Shelburne Farms and Vermont SWEEP

Partnering to Develop and Implement a Community-Based Science Unit
4:15 PM–4:55 PM, Room 302A
Have you considered a community partnership? Learn about Community Waters, a fourth grade stormwater engineering science unit developed and implemented by IslandWood and Seattle Public Schools for classroom teachers. See how we connected it to each school’s neighborhood and explore each partner’s perspective on the benefits, outcomes, and lessons learned.
Presenter(s): Brad Street, IslandWood

Promoting Model-Based Climate Literacy in Secondary Geo-Science Classrooms
4:15 PM–4:55 PM, Room 205
We’ll share the conception, design, and some activities from a curriculum based on the use of global climate model EzGCM, in secondary geoscience classrooms. Implemented through the NSF-funded CLiMES (Climate Literacy through Modeling and Epistemology of Science) project, this curriculum facilitated an in-depth understanding of climate literacy concepts through model-based reasoning.
Presenter(s): Cory Forbes, University of Nebraska-Lincoln

Spruce Chickens, Yup’ik Citizen Science, and the Meaning of Life
4:15 PM–4:55 PM, Room 201C
The delightful spruce grouse is a locus for integrating science education, traditional Yup’ik (Eskimo) values of Alaska, and professional wildlife management. I report on a multi-year project with high school students to study, hunt, and eat spruce grouse, all in the service of invigorating indigenous values and generating scientific data.
Presenter(s): Nathan Coutsoubos, White Pass School District

Superintendents’ Environmental Education Collaborative
4:15 PM–4:55 PM, Room 201B
Do you work with schools or school systems? Join us to discuss partnerships and model programs for EE in formal education. As partners of the Superintendents’ Environmental Education Collaborative, we would like to discuss opportunities to advance EE in your community through your local superintendents.
Presenter(s): Don Baugh, Upstream Alliance; Esther Cowles, Project Learning Tree/Sustainable Forestry Initiative; Sarah Bodor, NAAEE; Kathy McGlauplin, Upstream Alliance

Bright Spots
4:15–4:55 PM
Learn about two or three successful and loosely related programs in each 40-minute Bright Spots session. Sessions are presented in the order listed.

GROUP A
4:15 PM–4:55 PM, ROOM 202B
Connect Learning with Local and Global Sustainability Issues
Explore Education for Sustainability (Efs) principles and practices and their connection to school curriculum and campus culture. Empower children to become sustainable students and globally-minded citizens. Learn systems thinking approaches that reinforce collaboration and foster a shift in perspectives to activate school change.
Presenter(s): Vicky Garufi, Children’s Environmental Literacy Foundation; Lisa Mechaley, Children’s Environmental Literacy Foundation

Developing Sustainable Leadership Skills and EE in Rural Costa Rica
EE faces unique challenges when directed to students in developing rural areas. This study incorporates quantitative and qualitative data to understand an informal place- and community-based EE program for underserved rural students. We analyze the program from a community-as-pedagogy framework, built largely from Paulo Freire’s concept of a problem-posing education.
Presenter(s): Austin Cruz, University of Arizona
Watershed Education for Incarcerated Youth
A new program in Washington State focuses on including incarcerated youth in a local watershed education program. This traditionally underserved group of students is particularly rewarding and impactful to work with, and this session will talk about the trials and tribulations of working with this unique population.
Presenter(s): Rachel Stendahl, Educational Service District 113
Strand: ●

GROUP B
4:15 PM-4:55 PM, ROOM 202C

Connecting Young Scientists to Their Place Through Nature Journaling
Come join a kindergarten teacher and science teacher to learn about their journey in developing a nature journaling program that reaches K-5 students. Explore nature journaling techniques that will allow students to slow down and use their senses to investigate, observe, and connect to the natural world around them.
Presenter(s): Libby Bode, The Meridian School; Kelsey Vollmer, The Meridian School
Strand: ●

CRE8 Community Resource Emporium “Imagination Outfitters”
An empty coffee shop turned reuse center is home to a bustling, low-tech makerspace. Discarded materials, clean clutter, project tailings, and donated resources are organized and labeled for easy access. Tools, adhesives, worktables, and a reference library make this a destination for people to explore and redefine their relationship with trash.
Presenter(s): Jenny Rieke, Friends of Mid-Columbia River Wildlife Refuges
Strand: ●

Play in Every Park: Tinkergarten and Nature Learning in Every Community
Discover the power of bringing nature-based play to otherwise nature-starved communities. We will support educators in taking outdoor learning, early STEM, creative thinking, and problem-solving into municipal parks and public and private green spaces large and small to facilitate learning in all neighborhoods, for all children.
Presenter(s): Amanda Worsley, Tinkergarten
Strand: ●

Roundtable Discussions
4:15 PM-4:55 PM, Room 206CD

2018 EE Policy Briefing
Table 1
Environmental education advocates have been essential to protecting a variety of federal programs and policies that support the field. This session provides an annual update to the range of federal regulatory and legislative issues of highest priority to EE. Come for updates on 2018 EE policy priorities and how you can get involved.
Presenter(s): Brock Morris Adler, Environmental Educator
Strand: ●

EE Certification: The Benefits of Being Certified
Table 2
Whether you are new to the field or have years of experience, EE certification programs can help you grow as an environmental educator and develop your professional credentials. Find out more about certification, talk with certified environmental educators, and explore opportunities available across the country.
Presenter(s): Maya Alexander, Arlington Echo Outdoor Education Center; LoriAnne Barnett, USA National Phenology Network; Katie Navin, Colorado Alliance for Environmental Education
Strand: ●

Every Kid in a Park: Building a Force for Change
Table 3
As National Parks across the United States continue to increase relevancy for schools and local communities through the Every Kid in a Park program, learning collaboratives in nine focus cities leverage parks as a force for change in student learning, wellness, awareness, and connection.
Presenter(s): Karen Lee, National Park Foundation
Strand: ●

STRANDS

- Building Leadership for Environmental Literacy
- Connecting with Nature
- Conservation and Environmental Education
- Educating for Sustainable Communities
- Green Schools and Career-Connected Learning
- Linking Research and Practice to Increase Impact
- Diversity, Equity, and Inclusion
- Young Professionals
- NAAEE Affiliate Network
- ee360
Having Positive Impacts on Stewardship by Incorporating Civics into Environmental Programs

Table 4
Join Earth Force in a session to discuss how long-term student behavior is positively impacted by incorporating civic action in environmental programming. This has been shown through Earth Force evaluation data and scientific literature. We welcome a discussion on integrated civic action and tactics to increase impact on stewardship behavior.
Presenter(s): Grace Scarsella, Earth Force; Porsche Ray, Earth Force
Strand: 🟢

How Do We Effectively Evaluate Behavior Change in EE Programming?

Table 5
With the goal of getting students to take actions on behalf of watershed health, it’s important to measure students’ environmental literacy, and whether or not they are engaging in conservation practices. We will explore a variety of evaluation instruments used to assess program success and attitudes towards environmental issues.
Presenter(s): Tara Fuad, San Elijo Lagoon Conservancy
Strand: 🟢

Strategic Planning That Works: An Affiliate’s Story

Table 6
MAEE will share our transformative story of how effective strategic planning is guiding us to better support EE. We applied evaluative techniques and principles to create a highly-usable plan. We will share our process, products, and tips on how to make strategic planning more helpful.
Presenter(s): Molly Phipps, Minnesota Association for Environmental Education; Wendy Tremblay, Minnesota Association for Environmental Education
Strand: 🟢

The New Napa

Studies suggest that by 2100, Washington state could unseat Northern California as the most diverse wine-producing region in the western United States.
- American Geophysical Union

Thursday 5:05 PM

Traditional Presentations

5:05 PM–5:45 PM

Break The Divide
5:05 PM–5:45 PM, Room 201A
Break The Divide connects youth from communities worldwide to talk about climate change through personal perspectives. Learn how to get youth involved in environmental education to take real action by changing the way we communicate the realities of climate change. Also, find out how to get involved in our international network.
Presenter(s): Abhayjeet Sachal, Break The Divide Foundation
Strand: 🟢

Comp Hydro: Water Science Through Physical, Conceptual, and Computational Modeling
5:05 PM–5:45 PM, Room 205
We’ll introduce the NSF-funded Comp Hydro project and demonstrate activities that develop hydrologic and computational knowledge as well as practice through NGSS-aligned instruction. Using the East Helena Superfund Site as a context, students become groundwater scientists, through connected experiences with phenomena, data, and modeling, then develop a plan for remediation of groundwater contamination.
Presenter(s): Beth Covitt, University of Montana; Agatha Podrasky, University of Montana
Strand: 🟢

Earth Day 2020: SAVE the Earth!
5:05 PM–5:45 PM, Room 401B
Earth Day 2020 marks the 50TH anniversary of the event that changed the environmental movement in the United States and worldwide. For our golden anniversary, we have big plans to mobilize the globe to help save the Earth! Come learn about our programs, resources, and how you can be involved.
Presenter(s): Tracey Ann Ritchie, Earth Day Network
Strand: 🟢

LOCAL CULTURE

The New Napa

Studies suggest that by 2100, Washington state could unseat Northern California as the most diverse wine-producing region in the western United States.
- American Geophysical Union
Healthy Outdoor Play and Early Childhood Education
5:05 PM–5:45 PM, Room 201C
The National Wildlife Federation and partners have developed policy and program strategies supporting the healthy growth and development of young children by creating outdoor learning environments. Participants will learn about research that created this strategy, as well as some simple design steps that they can take to improve outdoor play.
Presenter(s): Josh Falk, National Wildlife Federation; Emilian Geczi, NAAEE
Strand:

High Needs and High Opportunity: Connecting Partners to High-Needs Schools
5:05 PM–5:45 PM, Room 203
High-needs schools face unique challenges. Therefore, forming productive relationships with them may not be so simple. Learn best outreach and programmatic practices from Washington Green Schools on how to leverage local expertise through developing mutually beneficial partnerships, while being sensitive to a school community and their particular needs.
Presenter(s): Becky Bronstein, Washington Green Schools
Strand:

Macroinvertebrates.org: An Open Educational Tool and Training Resource
5:05 PM–5:45 PM, Room 302A
Explore the incredible world of freshwater macroinvertebrates through enhanced digital images at macroinvertebrates.org! This NSF-funded project has recently evolved into a more robust resource for education and training, now including over 150 taxa. Dive deep with us as we experience hands-on time with the tools and supplemental activities. A smart device is recommended but not necessary.
Presenter(s): Tara Muenz, Stroud Water Research Center
Strand:

Natural Resource Volunteer Education: Utilizing an Environmental Education Framework
5:05 PM–5:45 PM, Room 201B
The Arizona Master Naturalist program bridges content area knowledge with valuable critical thinking skills, providing volunteers with tools to lead rather than simply engage in volunteer service. This presentation offers a discussion of training concepts and evaluation and invites contributions from other like-minded programs designed to create well-rounded volunteers.
Presenter(s): LoriAnne Barnett, USA National Phenology Network
Strand:

State & Federal Policy for Climate Education
5:05 PM–5:45 PM, Room 401C
Climate education is more important than ever! In this session, we’ll share information about federal and state policy proposals that would provide funding for climate education. Hear from two state EE leaders about advocacy efforts around this issue and find out how you can apply what they learned in your own state.
Presenter(s): Sarah Bodor, NAAEE; Susan Carlson, Susan Carlson Associates; Jeanine Silversmith, RI Environmental Education Association
Strand:

Bright Spots
5:05 PM–5:45 PM
Learn about two or three successful and loosely related programs in each 40-minute Bright Spots session. Sessions are presented in the order listed.

GROUP A
5:05 PM–5:45 PM, ROOM 202B

Authentic Community Participation for Local and Global Conservation Action
The environmental field has experienced major participation successes in citizen science and hands-on learning. How can we create authentic, important, and locally relevant environmental projects that are created collaboratively with community members? We will discuss methods to authentically engage individuals in local and global communities and best practices for collaboration in conservation.
Presenter(s): Jill Korach, Miami University; Katie Remine, Woodland Park Zoo
Strand:

National SnowSchool: Winter Snow Science Activities for Diverse Communities
Are you wondering how to best connect students to nature during those cold and sedentary winter months? The national SnowSchool program has answers! This hands-on presentation will demonstrate proven activities to engage K-12 students in your community in snow science. Also learn how your organization can become a SnowSchool site.
Presenter(s): Kerry McClay, Winter Wildlands Alliance; Dennison Webb, Selkirk Outdoor Leadership & Education (SOLE), Inc.
Strand:
Yellowstone Citizen Science Initiative: Projects for the People

The Yellowstone Citizen Science Initiative is a collaboration between Yellowstone Forever and Yellowstone National Park. This program engages youth and adults of all backgrounds to collect essential data that will help park scientists and management officials better understand how the Yellowstone ecosystem is responding to changing environmental conditions.

Presenter(s): Robert Petty, Yellowstone Forever

Roundtable Discussions

5:05 PM-5:45 PM, Room 206CD

Becoming Better Educators: Connecting Research to Planning and Practice

Table 1

How do educators integrate available research into the practice of planning and implementing environmental education programs? Join us to learn how a zoo and an aquarium have addressed this challenge and to share your experiences bridging the gap between research and practice. Challenges, potential solutions, and useful resources will be discussed.

Presenter(s): Lauren Terwilliger, Lincoln Park Zoo; Sue Magdziarz, John G. Shedd Aquarium

Can Virtual Communities Work?: A Case Study of the Wisconsin Water Thinkers Network

Table 2

ThinkWater has led the development of the Wisconsin Water Thinkers Network as a strategy to build a “committed minority” of water educators who are integrating systems thinking into their programs and organizations. Join the discussion to share tools, tips, successes, and failures in building virtual communities.

Presenter(s): Jeremy Solin, ThinkWater, University of Wisconsin-Extension

Case Studies That Inspire Environmental Education

Table 3

Environmental education case studies can inspire us as well as highlight successful stories for increasing impact. In this session, we will discuss several frameworks to present and analyze case studies and use them to advance your own work. We will also discuss how to develop your own case study.

Presenter(s): Judy Braus, NAAEE; Melissa Hopkins Taggart, NAAEE; Alex Kudryavtsev, Cornell University

Do Eighth Graders Get It After One STEM Station?

Table 4

Are eighth graders really equipped to change the world after one 45-minute station on the carbon cycle? Join the discussion about the impact of STEM in a middle-school program about cycles in the biosphere and how we can best evaluate impact.

Presenter(s): Sarah West Davis, University of Florida IFAS Extension, Sarasota County

Understanding the Anthropogenic Impact Homeostasis Model

Using photovoice, telling a story through photography, students described anthropogenic impact. This information led to the development of the Anthropogenic Impact Homeostasis Model as a way to define the public’s connections with nature and the importance of taking into account their social and cultural perspectives of the environment.

Presenter(s): Patricia Patrick, Columbus State University

GROUP A

GROUP B

5:05 PM-5:45 PM, ROOM 202C

Connecting College Students to Climate Change Locally

Learn about a general education class where college students are taught the connection between culture and climate change. The course culminates with students creating a product that highlights what they have learned by connecting ideas about climate change to a local issue. This session will share some of the products created by students.

Presenter(s): Jeanine Huss, Western Kentucky University

Research Translation: From Climate Change Communication Research to Environmental Education Practice

This session will use recent research on the application of climate change communication research in environmental education as a jumping off point to address the pathways between research and practice, the characteristics of translatable research, and the barriers and opportunities related to research translation on an international scale.

Presenter(s): Anne Armstrong, Cornell University

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Presenter(s): Patricia Patrick, Columbus State University
Investigating Climate Change Through Hands-On Science

Table 5
Climate Lab engages students through hands-on phenology studies linked with longterm bird banding data to study the effect of climate change on organisms at a regional level. Join us to explore and share together different ways that teachers and students can get involved in climate change science while building research skills and scientific literacy.

Presenter(s): Alena Kacal, Jerusalem Bird Observatory, Society for the Protection of Nature in Israel; Evan Dalton, Manomet Inc.
Strand:

Teaching Outdoors at School Campuses: How Do Teachers Accomplish It?

Table 6
Join a discussion to explore ways teachers overcome challenges and incorporate school-based outdoor teaching in their classroom pedagogy. Findings of multiple case studies of exemplary outdoor teachers will serve as a basis for sharing experiences and generating ideas to help teachers get their kids outside to learn.

Presenter(s): Rose Vallor, Montana State University
Strand:

Thursday 5:45 PM
Receptions
5:45 PM–7:00 PM

HHMI BioInteractive Movie Night
5:45 PM–7:00 PM, Centennial Ballroom
HHMI BioInteractive develops educational media to inspire students to understand and care about the living world. HHMI’s films tell real science stories that capture the essence of scientific thinking and the thrill of scientific discovery. Come enjoy some of HHMI’s newest films highlighting ecology and conservation biology, including a short feature on the work of Dr. Manuel Leal, who studies the behavioral ecology of lizards in Puerto Rico. Enjoy light hors d’oeuvres, the screening, and a discussion session with Dr. Leal. This event is free, but advance registration is required. Check for available space at the registration desk. See the movie advertisement on page 15.

Ocean Education Social
5:45 PM–7:00 PM, Room 102ABC
Please join Ocean Wise, the Coastal Ecosystems Learning Centers, and NOAA for an Ocean Education social. Make new friends who are passionate about ocean education and share your ideas and resources that support learning and conservation of our ocean. Enjoy hors d’oeuvres and a cash bar. Everyone welcome.

Thursday 7:00 PM
Informal Gatherings

Young Professionals Networking Dinner & Drinks
Thursday, October 11th, 7:00 PM, Zola (22 W. Main Avenue)
Network with other young professionals over dinner and drinks at Zola, a historic venue with inspired food and beverages. Meet at the restaurant.

Spokane Suds Stroll
7:00 PM–10:00 PM, Meet at the Registration Desk
What better way to meet new colleagues than to spend your open evening networking over a few drinks? Join the Suds Stroll and visit three nearby Spokane nightspots to enjoy beer, cocktails, classic appetizers, and great conversation at each location. The venues—O’Doherty’s Irish Grille, Durkin’s Liquor Bar, and the Onion—were selected for their local flavor. Some emphasize organic and locally sourced ingredients. Meet at the Registration desk at 7:00 PM to check in and pick up your drink tickets. This is a walking event; the group will move together to each venue. Advance registration is required; this event is sold out.

Ponderosa Cone & Seeds
Ponderosa cones have a nasty sharp prickle at the tip of each scale. The seeds, which are released from the cone and descend on inch-long wings, were used as food by the local tribes. Squirrels and birds are partial to them.

– The Spokesman-Review
WILD PEDAGOGIES

Touchstones for Re-Negotiating Education and the Environment in the Anthropocene

PALGRAVE MACMILLAN

- Examines the concept of wild pedagogies as the geological epoch shifts to the Anthropocene
- Analyses the potential of wild pedagogy for the present and future
- Proposes six touchstones that can help educators and practitioners incorporate wild pedagogies into learning

“An antidote to the steady drumbeat of environmental decline, Wild Pedagogies invites readers on a wilderness-soaked journey of hope, connection, and joy. This thought-provoking, edited volume is a clarion call for the (re)wilding of education. Through beautifully crafted prose, it offers a vision for learning that leads with the landscape, de-centers the human, and positions educators as “agents of discovery.” Essential reading for anyone who has looked longingly out of a classroom window and wondered “what if…?”

—Nicole M. Ardoin, Stanford University

SPECIAL OFFER: Get 20% off the printed book or eBook! Use the following token on palgrave.com: PM18TWENTY4 (Valid October 2, 2018 - December 6, 2018)
Friday

Sunup in Spokane

Bird Walk
7:00 AM-8:15 AM, Meet at the Registration Desk
Discover a breathtaking variety of local birds on a morning walk along the beautiful Spokane River waterfront with resident birder, Tina Penny. Bring bird field guides and binoculars if you have them. Wear comfortable shoes and appropriate clothing for a crisp fall morning.

Morning Yoga
7:30 AM-8:15 AM, Room 102ABC
A yoga practice that will help you feel grounded, centered, calm, and cared for. Gentle movements, mindful breathing, and space at the end for quiet contemplation. Join Tamara Milliken from the Mellow Monkey Yoga Studio for a practice of self-care to start your day!

Friday 8:30 AM

Meeting
8:30 AM-4:00 PM
UL Innovative Education Award
8:30 AM-4:00 PM, Room 101
By invitation.
Coordinator: Christiane Maertens, NAAEE

Special Session
8:30 AM-10:00 AM

NAAEE Evaluation Clinic
8:30 AM-10:00 AM, Room 206CD
Interested in learning more about evaluation? Do you have evaluation questions you would like help with? Come to this interactive workshop to meet with evaluation experts to ask your questions.
Coordinator: Kathryn Stevenson, North Carolina State University
Presenter(s): Nicole Ardoin, Stanford University; Steven Braun, Consultant; K.C. Busch, North Carolina State University; Dave Chase, DRC Consulting, LLC; Louise Chawla, University of Colorado Boulder; Charlotte Clark, Duke University; Beth Covitt, University of Montana; Ruth Kermish-Allen, Maine Mathematics and Science Alliance; Christine Jie Li, University of Missouri; Thomas Marcinkowski, Florida Institute of Technology; Libby McCann, Antioch University New England; Kathleen O’Connor, NatureBridge; Robert Powell, Clemson University; Tracey Ann Ritchie, Earth Day Network; Marc Stern, Virginia Tech
Strand: ●

Key

- Building Leadership for Environmental Literacy
- Connecting with Nature
- Conservation and Environmental Education
- Educating for Sustainable Communities
- Green Schools and Career-Connected Learning
- Linking Research and Practice to Increase Impact
- Diversity, Equity, and Inclusion
- Young Professionals
- NAAEE Affiliate Network
- ee360
Symposium
8:30 AM-10:00 AM

23 Watershed Education Allies Collaborate Toward an Equitable Watershed Movement
8:30 AM-10:00 AM, Room 205
Once so polluted they caught fire, Delaware River waterways rebounded after the 1972 Clean Water Act. Today, how do we reconnect our communities with our stigmatized rivers? An aquarium, an urban wildlife refuge, a Citgo fuel-storage island, and 20 other education centers ally to engage watershed communities by leveraging trails and waterways.
Presenter(s): Sarun Chan, Audubon Pennsylvania; Robin Irizarry, Tookany/Tacony-Frankford Watershed Partnership; Michele Perch, William Penn Foundation; Maggie McCann Johns, Camden County Parks; Tykee James, Pennsylvania House of Representatives; Amy Weidensaul, Audubon Pennsylvania
Moderators: Don Baugh, Upstream Alliance; Genevieve Leet, Environmental Leadership Strategies

Hands-on Presentations
8:30 AM-10:00 AM

An Introduction to Community Engagement: Guidelines for Excellence
8:30 AM-10:00 AM, Room 402B
As environmental educators, we work in and with communities ranging from workplace teams and neighborhoods to regional partnerships and beyond. During this hands-on session, participants will learn the structure and development process of NAAEE’s Community Engagement: Guidelines for Excellence, explore key characteristics, and apply tools in their own context.
Presenter(s): Luciana Ranelli, Antioch University New England; Cynthia Espinosa Marrero, Pulegium Consulting; Anna Mooney, YMCA Camp Thunderbird; Jean Chimbirima Kayira, Antioch University New England; Libby McCann, Antioch University New England; Bora Simmons, National Project for Excellence in Environmental Education

Building Bridges: Bringing Social Studies into the Climate Revolution
8:30 AM-10:00 AM, Room 401A
Think climate change is just a science issue? Think again! Social studies topics like geography, economics, and civics are essential to understanding and addressing climate change. Learn how science teachers, museum educators, and naturalists can engage social studies teachers and students in cross-curricular climate investigations.
Presenter(s): Natalie Stapert, Lowell School

Climate Change Education: Building Networks, Plans, and Resources
8:30 AM-10:00 AM, Room 302B
Washington State needs all hands on deck to address climate change and other environmental challenges. How can high school and college students apply their academic skills and ingenuity to improve our environment and economic sustainability? E3 has been working with scientists and other specialists to develop a toolkit tied to NGSS and project-based learning.
Presenter(s): Lisa Eschenbach, E3 Washington

Evaluating Nonformal Learning: Applying Research to Practice
8:30 AM-10:00 AM, Room 402A
Understanding the impact your nonformal program has on learners is essential for operational growth and development, and for communicating the broader impact of your efforts on your visitors. This session will provide a toolbox of ideas that will enable you to take your evaluation practices to the next level.
Presenter(s): Michael Dentzau, Columbus State University; Erin Anderson, Audubon Center of the North Woods, Charter School Division

Outdoor Teaching Mistakes: A Dialectical Approach for Training Staff
8:30 AM-10:00 AM, Room 303B
This workshop will identify over 30 common outdoor teaching mistakes and offer solutions for them. Most of the mistakes deal with professionalism, pace and group position, and/or delivery. The workshop begins with either a skit or video illustrating the mistakes, followed by discussion and personal application of solutions.
Presenter(s): Brad Daniel, Montreat College
Raising the Bar: Advancing EE at the State Level
8:30 AM–10:00 AM, Room 303A
What can states do to advance environmental literacy? Maryland’s experience over the past 10 years is one example of growth and lessons learned. We’ll share elements of a structure that can be built upon, and engage participants in exchanging ideas to generate new practices for all of us.
Presenter(s): Britt Slattery, Maryland Department of Natural Resources; Donna Balado, Maryland State Department of Education
Strand: Traditional Presentations

Traditional Presentations
8:30 AM–9:10 AM

Building a More Inclusive Environmental Sector Through Multi-Generational, Collaborative Leadership
8:30 AM–9:10 AM, Room 401B
Thoughtfully designed partnerships between youth change-makers, conservationists, and environmental education organizations can amplify impact. The Maine Chapter of The Nature Conservancy and the Maine Environmental Education Association are collaborating with youth leaders—from diverse backgrounds—to build a statewide, multi-generational environmental youth empowerment network. Find out how you can pursue similar capacity-building strategies.
Presenter(s): Olivia Griset, Maine Environmental Education Association; Tamara Lee Pinard, The Nature Conservancy; Paige Nygaard, Maine Environmental Education Association
Strand: Case Study Pedagogy: Practicing Analytical Skills with Environmental Cases
8:30 AM–9:10 AM, Room 201A
Come to learn about resources related to case study pedagogy. This session will showcase two environmental cases (sea turtle conservation and carbon emissions) used in college-level courses to engage students in learning and practicing analytical skills. Lots of ready-to-use case study collections will be shared!
Presenter(s): Yen-Chu Weng, University of Washington
Strand: Cultural Competence and Community Engagement Through Environmental Education in Haiti
8:30 AM–9:10 AM, Room 201B
The need for environmental education programs focused on gardening, farming, and forestry led to a unique partnership between a university and an NGO working in Haiti. This partnership included multiple lessons in cultural competency and community engagement for university students.
Presenter(s): Shelby Gull Laird, Stephen F. Austin State University
Strand: Evaluating Life Skills Development Through 4-H Challenge Course Outcomes
8:30 AM–9:10 AM, Room 201C
Washington State University Extension and the Department of Human Development at WSU have developed and implemented a program evaluation of the challenge course at Camp Long in Seattle, Washington. This workshop will present the methods and findings of this study, to assist others in the development of their own evaluations.
Presenter(s): Scott VanderWey, Washington State University; Robby Cooper, Washington State University
Strand: Grant Writing Tips for NOAA Proposals
8:30 AM–9:10 AM, Room 401C
Funding your program can be a challenge. This session will present an introduction to applying for National Oceanic and Atmospheric Administration grants. Program officers from NOAA’s Environmental Literacy and Bay-Watershed Education and Training (B-WET) Programs will provide an overview of what makes a strong grant proposal, for NOAA and in general.
Presenter(s): Jim Foley, National Marine Sanctuary Foundation; Bronwen Rice, National Oceanic and Atmospheric Administration; Jaime Frungillo, National Oceanic and Atmospheric Administration; Sarah Schoedinger, National Oceanic and Atmospheric Administration
Strand: Strand: Strand:
Learning in and Through Practice Using Practical Measures  
**8:30 AM–9:10 AM, Room 206A**  
Practical measures offer strategies for creating short, straightforward data collection tools that are embedded in everyday learning activities. This session will explore how practical measures can be created to quickly and easily assess changes in learning, behaviors, and equity goals for educators and learners, and help collaborators set priorities for partnership work.  
Presenter(s): Shelley Stromholt, Aspect Research + Evaluation  
Strand: Pathways to Place-Based Stewardship and Civic Engagement

Pathways to Place-Based Stewardship and Civic Engagement  
**8:30 AM–9:10 AM, Room 203**  
Place-based education is a key instructional approach in environmental education, yet how it is implemented can vary from program to program. This session explores two approaches, digital modeling and local community restoration, as tools to building sense of place and civic engagement with secondary school teachers and youth.  
Presenter(s): Jennifer Klein, Lesley University; Kristen Scopinich, Mass Audubon  
Strand: Bright Spots

Bright Spots  
**8:30 AM–9:10 AM**  
Learn about two or three successful and loosely related programs in each 40-minute Bright Spots session. Sessions are presented in the order listed.

GROUP A  
**8:30 AM–9:10 AM, ROOM 202B**

Making Global Connections from Universal Issues: Swarovski Waterschool USA Program  
Our newly established Swarovski Waterschool program on the Mississippi River and the first in North America joins global programs in six countries. One goal is to empower youth as global citizens to have tangible, positive impacts on how their communities make decisions about their watershed.  
Presenter(s): Natalie Marioni, National Great Rivers Research & Education Center  
Strand: The Marion County Florida-Friendly Landscaping™ Program: Strengths, Challenges, and Opportunities

The Marion County Florida-Friendly Landscaping™ Program: Strengths, Challenges, and Opportunities  
The University of Florida/IFAS Extension’s Marion County Florida-Friendly Landscaping™ program educates the public on landscaping practices to reduce water usage and protect water quality. This presentation will discuss how partnerships with multiple stakeholders are both an asset and a challenge to the program. Potential opportunities to expand the program will also be identified.  
Presenter(s): Amanda Marek, UF/IFAS Extension Service Marion County  
Strand: ThinkWater: Building a Movement of People Who Think Deeply and Care About Water

ThinkWater: Building a Movement of People Who Think Deeply and Care About Water  
ThinkWater is a national movement of educators, students, managers, stewards, scientists, and citizens who think and care deeply about water. The presentation will highlight the ThinkWater systems-thinking framework and the core state and national-level strategies and resources ThinkWater is using to build the movement of water thinkers across the country.  
Presenter(s): Jeremy Solin, ThinkWater, University of Wisconsin—Extension  
Strand: GROUP B  
**8:30 AM–9:10 AM, ROOM 202C**  
Foster Student Innovation and Environmental Literacy with Biomimicry!  
Learn how educators are using nature-inspired design (biomimicry) to increase student engagement in STEM classrooms while promoting environmental literacy.  
Presenter(s): Abby Randall, EcoRise  
Strand: Vanishing Species: Endangered Species Coalition Educational Programs

Vanishing Species: Endangered Species Coalition Educational Programs  
Participate in Endangered Species Coalition Vanishing campaign projects using educational resources, supplemental materials, and reports. This session will center on endangered species conservation engagement, place-based learning, and student-led initiatives. We’ll look at ways to involve new audience participation in species protection and stewardship of nature through research, visual arts, and habitat restoration.  
Presenter(s): Jeanne Dodds, The Endangered Species Coalition  
Strand:
Wild Oysters: Engaging Underserved Students in Restoration and Citizen Science
Each year 400+ underserved high school students engage in citizen science at the The Watershed Project’s community-built oyster reef at Point Pinole in the San Francisco Bay. Discover how the Wild Oysters program uses oysters as a teaching tool to inspire youth to become leaders in building climate-resilient ecosystems.
Presenter(s): Nicole Muench, The Watershed Project
Strand:

Friday 9:00 AM
Meeting
9:00 AM-11:00 AM
NAAEE Board Meeting
9:00 AM-11:00 AM, Room 304 Boardroom
By invitation.
Coordinators: Judy Braus, NAAEE; Charlotte Clark, Duke University

Friday 9:20 AM
Traditional Presentations
9:20 AM-10:00 AM
A Systems Approach to Environmental Literacy in Your Community
9:20 AM-10:00 AM, Room 201A
Are you working on systemic environmental literacy or looking for ways to implement environmental literacy plans? Join us to explore a model where EE organizations, school districts, and government agencies apply cutting-edge research to work collaboratively, build capacity, engage the public, and improve quality of life for diverse community members.
Presenter(s): Katie Navin, Colorado Alliance for Environmental Education; Erin Saunders, Thorne Nature Experience; Angela Myers, Thorne Nature Experience
Strand:

Building Culture and Structure to Support Program Evaluation & Learning
9:20 AM-10:00 AM, Room 401B
How does developing a culture of built-in structures for reflection support educational programming within an organization? Learn about the Student Conservation Association’s evaluation and reflection processes while engaging in discussion focused on why these are important for success within EE.
Presenter(s): Laurel Ady, Student Conservation Association
Strand:

Incorporating Youth Voice Into Environmental Education with Community Mapping
9:20 AM-10:00 AM, Room 401C
Empower students to connect with their environment by tackling local conservation challenges using a tool called community mapping. Attendees will leave with the Jane Goodall Institute’s 4-step formula to motivate students, identify a need that THEY care about, implement a service project to address that need, and celebrate their success.
Presenter(s): Erin Viera, Jane Goodall’s Roots & Shoots
Strand:

Inspiring Stewardship: Elevating Your Field Experiences and Organization Through Evaluation
9:20 AM-10:00 AM, Room 201C
Come learn how embedded evaluation can make your program stronger, help your fundraising efforts, and show the impact your organization is making. Teacher surveys indicated that 73% of their students were very much inspired in environmental stewardship and action after participating in the ASK (Applied Science for Kids) Field Experiences.
Presenter(s): Raja Byrnside King, Nature Center Shaker Lakes
Strand:

Sweet Sides
The Walla Walla sweet onion is the designated state vegetable of Washington.
Leading with Equity: Engaging Underrepresented Youth in Decision Making
9:20 AM-10:00 AM, Room 203
Through meaningful leadership and decision-making opportunities, historically underrepresented youth become civic leaders with the knowledge, skills, capacity, and support needed to shape the decisions that impact their lives, families, and communities. Attendees will explore best practices and evidence-based regional, state, and national programs helping youth become champions for their future.
Presenter(s): Jonathan Mayer, Metro Regional Government; Kimberly Taylor, Metro Regional Government; Lake Thelen, Metro Regional Government; Seng Saechao, Oregon State University Extension Service 4-H; Yaquelin Garcia, Metro Regional Government

Critical Look at Barriers to Diversity, Equity, and Inclusion: Insight into Accessing Outdoors
Take a critical look at barriers that keep the most crucial communities from getting outside or working in EE. Drawing from experience developing the Changemakers Network and Gathering in Maine, learn about ways for individuals and organizations to move forward with accessibility and their journeys to diversity, equity, and inclusion.
Presenter(s): Bea Trumann, Maine Environmental Education Association

GROUP B
9:20 AM-10:00 AM, ROOM 202C
Activating Youth: Building Core Capacities to Create Sustainable Community Leaders
Ecology Project International-Mexico implements a holistic approach that cultivates students’ ability to play an active role in creating sustainable communities. We strengthen students’ capacity for critical thinking through mentorship, environmental education experiences, and project development so they can communicate, develop, and collaborate on projects that address their concerns.
Presenter(s): Heidi Porras, Ecology Project International-Mexico; Maria Robledo, Ecology Project International-Mexico

Standardized Recycling Education in America: Lessons from Rhode Island
9:20 AM-10:00 AM, Room 206A
Why does all recycling bin signage in America look so different? Prior to the 1930s, every traffic sign looked different, too. Now, a red octagon speaks for itself. Yesterday’s traffic signs are today’s recycling bins. Learn how Rhode Island is teaming up with Recycle Across America to change things.
Presenter(s): Krystal Noiseux, Rhode Island Resource Recovery

Empowering Students to Advocate for Federal Climate Policy
Climate change is a children’s issue. School board members are the only elected officials with a singular focus on children’s well-being and future success, so their voices are influential on climate action. Learn how students, parents, and teachers can convince school boards, and even members of Congress, to endorse carbon pricing.
Presenter(s): Amelia Donahey, Citizens Climate Lobby

Bright Spots
9:20 AM-10:00 AM
Learn about two or three successful and loosely related programs in each 40-minute Bright Spots session. Sessions are presented in the order listed.

GROUP A
EE 30 UNDER 30 HONOREES
9:20 AM-10:00 AM, ROOM 202B
Changing the Face of Environmental Stewardship and Science in Chicago
Drawing from experience with multiple environmental education programs around the city of Chicago, from green jobs restoring trails and natural areas to high school programs exploring local to global environmental issues, learn about the efforts being made to keep Chicago the “City in a Garden.”
Presenter(s): Kyle Reid, Project Exploration

Raising socially- and environmentally-conscious children leads to lifelong stewardship of nature and community. This session explores how incorporating social emotional learning best practices in youth engagement at outdoor science centers creates transformative change in programs, individuals, and community.
Presenter(s): Nancy Patterson, Bureau of Land Management
Friday 10:00 AM

Coffee Break
10:00 AM-10:30 AM, Exhibit Hall A

Friday 10:30 AM

Traditional Presentations
10:30 AM-11:10 AM

“Outdoor Core”: Implementing the NGSS Through a Districtwide EE Approach
10:30 AM-11:10 AM, Room 203
Imagine a county where ALL students are immersed in the NGSS and Common Core Standards through a comprehensive series of outdoor learning experiences every year from K-12. Learn about this award-winning, place-based approach entitled “Outdoor Core,” and how you can use this model in your own school districts.
Presenter(s): Rob Wade, Plumas Unified School District; Anne Kinney Stephens, California State University–Chico
Strand: ●

A Picture is Worth 1,000 Words: Visual Literacy and EE
10:30 AM-11:10 AM, Room 402A
Visuals can reveal the depth and complexity of nature in unparalleled ways. They are also more accessible to a wider audience than written materials. Learn the characteristics of high-quality visuals, test your visual literacy skills, evaluate visuals for their effectiveness, and generate ideas for your own teaching.
Presenter(s): Jan Weaver, Missouri Environmental Education Association
Strand: ●

Activating Nature: Keeping Natural Spaces in a City Park
10:30 AM-11:10 AM, Room 201A
Blue Heron Nature Preserve is part of the City of Atlanta Public Parks System. We accepted the challenge of “activating” our park without building traditional playgrounds, ball fields, or large amphitheaters. Learn how we creatively activated nature to grow our community’s connection to the outdoors.
Presenter(s): Amy Zvonar, Blue Heron Nature Preserve; Lauren Reynolds, Blue Heron Nature Preserve
Strand: ●

Climate Watch, Audubon’s New Community Science Program
10:30 AM-11:10 AM, Room 401B
Audubon’s *Birds and Climate Change Report* predicts that over half of North American bird species will lose more than 50% of their current climatic range by 2080. Learn about Audubon’s Climate Watch, which aims to test these predictions by having volunteers look for birds where models project they should be in the 2020s.
Presenter(s): Zach Slavin, National Audubon Society
Strand: ●

Decolonizing the Dialogue: Improving Watershed Science Outcomes with Underrepresented Student Groups
10:30 AM-11:10 AM, Room 401C
This talk showcases proven practices for environmental education with Native American students on the Wind River Reservation in Wyoming and with underrepresented student groups attending New Mexico Highlands University. Educational technology, outdoor classrooms, and traditional ecological knowledge support decolonizing approaches to experiential science learning.
Presenter(s): Jennifer Wellman, Wyoming EPSCoR at Wind River; Julie Helen Tsatsaros, Natural Resources Management Department, New Mexico Highlands University
Strand: ●

Engaging Citizen Scientists to Monitor Water Storage in Lakes
10:30 AM-11:10 AM, Room 201B
Lakes are an important source of freshwater. The Lake Level Monitoring Project engages citizen scientists to help researchers learn how the amount of water in lakes changes over time. We’ll discuss strategies for engaging citizen scientists and share lessons learned in connecting broad audiences with their local natural resources.
Presenter(s): Grant Parkins, UNC Institute for the Environment; Sarah Yelton, UNC Institute for the Environment
Strand: ●
Learning About and Improving Your Watershed with Model My Watershed  
10:30 AM–11:10 AM, Room 302B  
Successes and innovative educational tools of the National Science Foundation-funded Teaching Environmental Sustainability: Model My Watershed project will be showcased. Teachers and students can use a customizable online curriculum, SensorTag environmental sensor, Runoff Simulation, and Model My Watershed GIS to learn about and improve their local watersheds.  
Presenter(s): Steve Kerlin, Stroud Water Research Center; Nanette Ivory Marcum-Dietrich, Millersville University of Pennsylvania  
Strand:  
Meet Them Where They Are: Increasing Participation Through Spontaneous Programming  
10:30 AM–11:10 AM, Room 303A  
New York City Park’s Urban Park Rangers offer free Pop Up Adventures, programs that are spontaneous in nature and go to the people, meeting them in their community parks. The Rangers will share their strategies, successes, and challenges with workshop attendees to encourage further discussion.  
Presenter(s): Bonnie McGuire, New York City Parks Urban Park Rangers; Bonnie Marie Ralston, New York City Parks  
Strand:  
People and Place: Content and Context for Indigenous Knowledge in EE  
10:30 AM–11:10 AM, Room 206A  
Diverse cultural perspectives can broaden the outreach and deepen the meaning of EE programs, yet often practitioners struggle with including different points of view in reflective, respectful ways. Through a partnership with Montana’s Indian Education for all, Montana Audubon’s education program includes a shift in both information and pedagogical approach to bridge the divide.  
Presenter(s): Carolyn Sevier, Montana Audubon Center  
Strand:  
Protecting Wildlife Begins in Our Kitchen: Changing Behavior Through Games  
10:30 AM–11:10 AM, Room 402B  
Learn about Zoo Quest, a fun, multi-layered approach to teaching environmentally responsible behaviors to families and volunteers at the Oregon Zoo. We will explore methods used to tackle our food waste problem, examine its impact on wildlife, and share how partnering with the Zoo’s volunteer program reached a diverse audience.  
Presenter(s): Nicole Hernandez-Marrs, Metro Regional Government; Kimm Fox-Middleton, Oregon Zoo  
Strand:  
Science Strikes Back: Engaging Communities in Scientific Inquiry and Action  
10:30 AM–11:10 AM, Room 303B  
This session will discuss “Science Strikes Back” (SSB), an annual, all-ages community science fair held in Milwaukee, Wisconsin. SSB increases access to environmental education for diverse students in urban settings through place-based, community-oriented programming. The session will highlight SSB’s successes and suggestions for best practices in environmental education.  
Presenter(s): Robert Justin Hougham, University of Wisconsin–Extension; Marc Nutter, University of Wisconsin–Extension; Joey Zocher, Escuela Verde; Isabelle Herde, University of Wisconsin/Upham Woods  
Strand:  
Using GIS and Niche to Diversify Statewide Environmental Education Programs  
10:30 AM–11:10 AM, Room 401A  
Learn how program data, Geographic Information Systems, and the concept of niche helped the California Naturalist program identify important gaps in coverage and prioritize areas for expansion. The session highlights the reflective action research process used to systematically address participation from underrepresented populations and increase access, inclusion, and equity.  
Presenter(s): Gregory Ira, UC California Naturalist Program  
Strand:  
Places, Spaces, and Faces: Case Studies in the Evaluation of Place-Based Learning Environments  
10:30 AM–11:10 AM, Room 201C  
This presentation will share a “proof of concept” for future educator-directed studies on place-based and classroom-based learning programs. Several field-tested surveys that educators can use to self-evaluate their practices and programs will also be shared.  
Presenter(s): David Bryan Zandvliet, Simon Fraser University  
Strand:
Washington State Next Generation Education: Green Jobs—Building Skills for the Future
10:30 AM–11:10 AM, Room 205
The Pacific Education Institute will present their new report on Green Jobs and the skills those careers require. We will discuss connecting K-12 education with higher education, and, ultimately, future “green” jobs. We will also tie in Next Generation Science and Common Core standards and removing barriers to access among under-resourced and under-represented communities.
Presenter(s): Kathryn Kurtz, Pacific Education Institute; Susan Carlson, Susan Carlson Associates
Strand: Bright Spots

Bright Spots
10:30 AM–11:10 AM
Learn about two or three successful and loosely related programs in each 40-minute Bright Spots session. Sessions are presented in the order listed.

GROUP A
10:30 AM–11:10 AM, ROOM 202B

Designing with Fungus: Conversations on Bio Materials and Conservation
How might fungus engage a broad public cross section in conversations about bio-design? Pressing fungus-seeded bark into lamp shade molds is an inexpensive way to blend art and sustainability discussions. The Mycelium Chandelier Grow Project transformed a Tech Museum of Innovation activity into a free and accessible workshop.
Presenter(s): Corinne Takara, Okada Design
Strand: Bright Spots

Gain S.T.E.A.M. by Communicating Data with Art
Integrate art and science, promote critical thinking, and address controversial issues using art. Learn new strategies to communicate the meaning of complex climate change data by creating an interpretative water color painting. Interpretative art uses a systems-thinking approach to engage students in the causes, consequences, and solutions to contemporary environmental issues.
Strand: Bright Spots

GROUP B
10:30 AM–11:10 AM, ROOM 202C

Engaging and Empowering Teens Through Community Conservation
Learn about the Teen Ocean Stewards program at the North Carolina Aquarium at Fort Fisher. Teen Ocean Stewards meet monthly to plan and implement community stewardship projects. This year, teens focused on planting salt marsh grass to help mitigate climate change and increase important marsh habitat.
Presenter(s): Marissa Blackburn, North Carolina Aquarium at Fort Fisher
Strand: Bright Spots

Engaging Millions of Students in Ocean Acidification Research and Systems Thinking
Ocean acidification is a global, systemic, environmental issue that lends itself to student-derived STEM projects involving multiple stakeholders. Learn how we were able to bring hands-on, research-based curriculum that allows students to act as ocean acidification scientists, innovators, and delegates to millions of high school students across the world.
Presenter(s): Claudia Ludwig, Institute for Systems Biology
Strand: Bright Spots

Schools Conservation of Oceans Programme of Education (SCOPE)
SCOPE aims to build a new generation of environmental conservation champions through ocean literacy. This ocean literacy programme targets schools and colleges by organising awareness and public outreach campaigns covering species survival, ocean knowledge, and understanding of ocean-specific species. The next generation of ocean champions will be tutored, supported, and mentored through SCOPE.
Presenter(s): Wanjohi Kabukuru, Indian Ocean Observatory
Strand: Bright Spots

Parks in Focus: Connecting Youth to Nature Through Photography
Learn how the Stewart L. Udall Parks in Focus® Program uses photography as a tool to promote environmental learning. Leave with curriculum and resources honed over 20 years of experience that will inspire you to develop your own nature photography activities. No photography experience or camera is necessary to participate.
Presenter(s): Bret Muter, Udall Foundation Parks in Focus Program
Strand: Bright Spots
Roundtable Discussions  
10:30 AM-11:10 AM, Room 206CD

Fine Tune Your Message for EE Organizations and Affiliates  
Table 1
How do we better communicate about the benefits of EE while promoting our Affiliate organizations to potential supporters and community members? Learn new tools for developing effective messaging as we broaden the circle of who we reach while learning to better market our organizations.  
Presenter(s): Eileen Everett, Environmental Education Association of New Mexico; Olivia Griset, Maine Environmental Education Association; Katie Navin, Colorado Alliance for Environmental Education; Renee Strnad, North Carolina State University; LoriAnne Barnett, USA National Phenology Network; Sarah Bodor, NAAEE  
Strand: ● (A)

Motivating College Students for the Environmental Education Profession  
Table 2
How do we motivate college students to engage in the profession of environmental education? Join this group of faculty members for a discussion on assignments, activities, and college student organizations that get participants excited to teach environmental education, whether it is in a K-12 or nonformal education setting.  
Presenter(s): Kimberly Yates, Northern Kentucky University; Rebecca Franzen, University of Wisconsin-Stevens Point, Wisconsin Center for Environmental Education; Terri Hebert, Indiana University South Bend; Lucy McClain, Shaver’s Creek Environmental Center-Penn State University; Fletcher Brown, University of Montana; Molina Walters, Arizona State University  
Strand: ● (P)

Navigating Ocean Education on Dry Land  
Table 3
Seattle Aquarium, NOAA, and Ocean Wise will lead a discussion on activating land-locked communities to participate in ocean conservation. Through innovative digital, in-person, and service-learning initiatives guided by the seven Ocean Literacy principles, discover how connecting with diverse non-coastal cultures can provide opportunities for protecting our oceans.  
Presenter(s): Kathayoon Azra Khalil, Seattle Aquarium; Sarah Schoedinger, National Oceanic and Atmospheric Administration; Danika Strecko, Ocean Wise  
Strand: ●

So You’re Ready to Hire?  
Table 4
Join other affiliate leaders for a roundtable discussion on how to prepare for, recruit, and hire qualified staff for your organization. Learn from other affiliates who have successfully hired staff and find out about peer coaching opportunities in the Affiliate network. This session is geared toward affiliates that are run by volunteers that are looking to expand their capacity and those who have recently made that transition.  
Presenter(s): Ashley Hoffman, Southeastern Environmental Education Alliance; Laura Downey, Kansas Association for Conservation and Environmental Education  
Strand: ● (A)

Stakeholders and Community Engagement: Key Environmental Education Connections  
Table 5
Stakeholders and community members inform successful environmental education programs. During this roundtable, we will (1) introduce and review parts of the NAAEE Community Engagement: Guidelines for Excellence, (2) focus discussion on acknowledging, valuing, and incorporating all relevant perspectives and voices, and (3) explore tools to critically examine your organization’s practice.  
Presenter(s): Anna Mooney, YMCA Camp Thunderbird; Cynthia Espinosa Marrero, Pulegium Consulting; Luciana Ranelli, Antioch University New England; Libby McCann, Antioch University New England; Jean Chimbirima Kayira, Antioch University New England; Anne Umali, NAAEE; Bora Simmons, National Project for Excellence in Environmental Education  
Strand: ● (P)

Using PLT and Citizen Science to Impact Underserved Communities  
Table 6
Project Learning Tree (PLT) curriculum design educates and empowers communities to take action on environmental issues. Join us to learn more about how to reach underserved communities with PLT curriculum. We will explore how citizen science can be used by ordinary people to achieve conservation results.  
Presenter(s): Jaclyn Stallard, Project Learning Tree/Sustainable Forestry Initiative; Rachel Lang, Project Learning Tree/Sustainable Forestry Initiative  
Strand: ●
Friday 11:30 AM

PLENARY SESSION

Paul Baribault, Kevin Chang, Shaun Martin, Sheila Williams Ridge, Jane Wei-Skillern
Facilitated by Paul Baribault
EE: A Force for the Future
11:30 AM-12:30 PM, Centennial Ballroom
See page 37 for more information.

Friday 12:30 PM

Lunch—On Your Own
12:30 PM-2:00 PM
Concessions available for quick purchase before eePRO Group meetings.

Community Service Project
12:30 PM-2:45 PM, Meet at Registration Desk
Volunteer for NAAEE's annual community service project helping our conference partner, West Valley Outdoor Learning Center, build a nature therapy garden. Sign up at the Information Station. Transportation and box lunch provided. See page 25 for more information.

Meeting

E3-EEAO-IDEE-ANROE Planning Meeting
12:30 PM-2:15 PM, Room 202A
By invitation.
Coordinator: Lisa Eschenbach, E3 Washington

Friday 1:00 PM

eePRO Group Brown Bag Lunch Meetings
1:00 PM-2:00 PM
Whether you're a current member or want to develop new networking opportunities, bring your lunch and join one of NAAEE's eePRO Group meetings. See page 21 for more information. (Lunch available for purchase at the convention center concession station.)

Climate Change, Room 206B
Diversity, Equity, and Inclusion, Room 206CD
Early Childhood EE, Room 207
e-STEM, Room 102D
Global EE, Room 303B
Guidelines for Excellence, Room 401A
Higher Education, Room 402A
K-12 Environmental Education, Room 303A
Research and Evaluation, Room 302B

Friday 2:15 PM

Special Sessions
2:15 PM-3:45 PM

The New Network Leader with Jane Wei-Skillern
2:15 PM-3:15 PM, Room 304 Boardroom
Continuing the conversation Jane Wei-Skillern started during the plenary session, this special interactive workshop will bring participants through four network principles: (1) Focus on mission before organization; (2) Manage through trust, not control; (3) Promote others, not yourself; and (4) Build constellations, not stars. Following these principles can lead organizations toward solutions that connect us more deeply to our peers, partners, and the people we are trying to serve.

Participation in this special session is limited to 14 people, selected by lottery. If you’re interested, complete an entry slip at the Information Station no later than 1:00 PM Friday. Names will be drawn at random, and a participant list will be posted at the Information Station by 1:30 PM.

Presenter(s): Jane Wei-Skillern, Haas School of Business at University of California, Berkeley

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Male Ponderosa Pine Cones

Most conifers, including the ponderosa pine, bear both male and female cones. The smaller male cones called strobili produce pollen while the larger, more familiar female cone produces seeds. The female cone receives pollen by way of the wind.
Certification Clinic: The Nuts and Bolts of Certification
2:15 PM-3:45 PM, Room 206CD
Whether you’re thinking about developing a state EE certification program, piloting one, or facing challenges in your program, this interactive clinic will help you explore and address your questions. Join us for a brief overview of existing programs, followed by breakout sessions where you can discuss your questions and work through specific challenges with colleagues from other states.
Coordinator: Sue McGuire, Wyoming Alliance for Environmental Education
Strand: ● A ●

Symposia
2:15 PM-3:45 PM

Mentee to Colleague: Pathways to Environmental Careers
2:15 PM-3:45 PM, Room 206A
Ever wonder what the youth you worked with are doing now? Do you want to better equip youth to be successful in life after your program? Then this session is for you. Learn how conservation educators working with diverse urban youth prepare them to become engaged alumni and track outcomes.
Presenter(s): Amaris Alanis Ribeiro, North Park Village Nature Center; Xian Viteri, Field Museum of Natural History; Katty Regalado, Sierra Club
Moderator: Aasia Castaneda, Field Museum of Natural History
Strand: ● YP ●

Washington State Students Present Their EE and Climate Change Projects
2:15 PM-3:45 PM, Room 205
Students from around Washington State will present their science, climate, and environmental projects, followed by a gallery walk. Learn about developing successful NGSS and career-connected learning projects. Student projects support Governor Jay Inslee’s work to combat climate change and develop the new green economy.
Presenter(s): Susan Carlson, Susan Carlson Associates; Kathryn Kurtz, Pacific Education Institute
Moderator: Lisa Eschenbach, E3 Washington
Strand: ●

Hands-on Presentations
2:15 PM-3:45 PM

Building Organizational Capacity for Improvement
2:15 PM-3:45 PM, Room 401A
Improving organizations is a surprisingly challenging undertaking. Even when we know what needs to change, it can be immensely difficult to implement the changes we seek. This session outlines a process for organization leaders to “get better at getting better” by systematically assessing seven research-based capacities for improvement.
Presenter(s): Jedda Foreman, Lawrence Hall of Science; Craig Strang, Lawrence Hall of Science
Strand: ●

Foster Interest in Green Careers Through Design and Systems Thinking
2:15 PM-3:45 PM, Room 402A
Join EcoRise and USGBC for a hands-on session to discover how you can empower students to work collaboratively in integrative teams to propose sustainable solutions for communities and neighborhoods. Hear from an experienced teacher and a LEED practitioner, and walk away with ready-to-use educational tools to engage and inspire students.
Presenter(s): Abby Randall, EcoRise
Strand: ●

Hiring for Equity
2:15 PM-3:45 PM, Room 402B
Three years ago, IslandWood began an organization-wide Diversity, Equity, and Inclusion Initiative. This session will delve into one specific area of this work: our efforts to revamp hiring practices with a social justice lens. We will transparently share our challenges, successes, next steps, and tools/resources we used in this work.
Presenter(s): Sapna Sopori, IslandWood
Strand: ● ●

Identify and Practice Interrupting Micro/Macro Aggressions
2:15 PM-3:45 PM, Room 302B
Interrupting racist, sexist, homophobic, classist, ablest, etc. comments in an immediate manner helps create an environment that respects all people at all times and works towards dismantling complex systems of oppression. This session will be packed with practice in stepping up and into a safer and more inclusive space.
Presenter(s): Queta González, Center for Diversity & the Environment; Traci Price, 3 Ways to Change; Gladys Ruiz, Center for Diversity & the Environment/Gladys Ruiz Consulting
Strand: ● ● ●
Integrating Engineering into Environmental Education: Future City Competition’s Successful Model
2:15 PM-3:45 PM, Room 303A
Discover how to incorporate engineering concepts into your classroom curriculum or afterschool organization using a program model that challenges middle school participants (and session attendees!) to imagine, design, and create cities of the future as they learn about engineering, citizenship, and the environment, develop 21st century skills, and have FUN!
Presenter(s): Maggie Dressel, DiscoverE
Strand: 🌱

Phenomenon-Based Learning: A New Approach with EE
2:15 PM-3:45 PM, Room 303B
What is phenomenon-based learning and how does it promote EE? Learn how to apply this cutting-edge approach to teaching about environmental issues and conservation. Leave with a new tool to use with teachers integrating EE into the classroom.
Presenter(s): Brenda Weiser, University of Houston-Clear Lake; Sarah Wall, Texas Association for Environmental Education
Strand: 🌱

Traditional Presentations
2:15 PM-2:55 PM

Collaborative Rain Garden Design and Research: Enhancing Student Learning
2:15 PM-2:55 PM, Room 201A
Looking for ways to integrate STEM into hands-on learning experiences that successfully address a wide range of science and environmental studies curriculum objectives? Come hear how a partnership between a university, public schools, and the city of Omaha, Nebraska is combining service learning, summer research, and rain gardens to enhance science learning and research awareness.
Presenter(s): Rachael Arens, Omaha Public Schools; Steven Rodie, University of Nebraska at Omaha
Strand: 🌱

Connecting Latinx Families to Nature Through Experiential STEM Education
2:15 PM-2:55 PM, Room 401C
Explore an innovative youth development model focused on creating equitable access to STEM education. This model comes from work with Latinx families in rural Oregon in a program aimed at enhancing cultural identity, sense of place, and belonging as well as removing barriers to entry into STEM-related fields.
Presenter(s): Rodrigo Corona, Oregon State University Extension Service; Janet Nagele, Oregon State University Extension Service
Strand: 🌱

Designing an Environmental Education AmeriCorps Program
2:15 PM-2:55 PM, Room 201B
Interested in finding innovative ways to bring more educators into the field of environmental education? Learn more about how Kentucky has undergone the process of developing an AmeriCorps program to build the capacities of environmental education providers on a statewide scale through unique partnerships.
Presenter(s): Billy Bennett, Kentucky Environmental Education Council; Wesley Bullock, Kentucky Environmental Education Council; Ashley Hoffman, Southeastern Environmental Education Alliance
Strand: 🌱

Greenway Case Study Puts Students in the Decision-Making Role
2:15 PM-2:55 PM, Room 203
Students build their capacity as change agents when they generate an opinion and justification for whether they support a proposed community greenway route using maps and web-based interactive tools from an EPA tool, EnviroAtlas. The activity has been done recently in conjunction with local officials to make real, community-level change.
Presenter(s): Jenna Hartley, ASPPH Environmental Health Fellow hosted by the US EPA Office of Research & Development
Strand: 🌱
Growing Up Wild: Connecting the Next Generation to Nature  
2:15 PM-2:55 PM, Room 201C  
“Knowledge without love will not stick,” wrote John Burroughs, “but if love comes first, knowledge is sure to follow.” Author and outdoor educator Jeff Rennicke shows us how love can lead to learning in our efforts to connect a whole new generation to the natural world.  
Presenter(s): Jeff Rennicke, Conserve School  
Strand:  

Red State, Blue State Language: What’s in a Word?  
2:15 PM-2:55 PM, Room 401B  
Are you unknowingly using partisan, polarizing language? The Kettering Foundation has been compiling information on everyday language that others hear as signifying red state/blue state allegiances. Using this language may be limiting your ability to promote civic engagement around polarizing issues.  
Presenter(s): Judy Braus, NAAEE; Bora Simmons, National Project for Excellence in Environmental Education  
Strand:  

Bright Spots  
2:15 PM-2:55 PM  
Learn about two or three successful and loosely related programs in each 40-minute Bright Spots session. Sessions are presented in the order listed.  

GROUP A  

EE 30 UNDER 30 HONOREES  
2:15 PM-2:55 PM, ROOM 202B  

Baltimore City Teens on the Pathway to Green Careers  
Branches is an after-school and summer job program providing meaningful paid employment to high school students in Baltimore City. Learn how Branches integrates social-emotional learning, experiential education, and 21st century skills into activities such as monitoring water quality, community-managed open space revitalization, kayaking, and climate change action projects.  
Presenter(s): Sam Little, Parks and People Foundation  
Strand:  

Camp, Clubs, and Citizen Science: Engaging Teens in Conservation  
In environmental education, reaching teenagers can be a challenge. From school schedules to extracurricular activities, teenage hormones to the newest technology, this age group is not as accessible as younger students. This presentation focuses on how the Topeka Zoo has overcome these obstacles to engage teens in conservation and community.  
Presenter(s): Rachel Rost, Topeka Zoo and Conservation Center  
Strand:  

The W.I.L.D. Garden Project: Transforming Teen Mental Health Through Gardening  
This presentation will highlight The W.I.L.D. Garden Project, which uses gardening and plant conservation to promote positive mental health practices in teens in Jacksonville, Florida. Learn more about the project’s positive, transformational impact, using environmental literacy to improve mental health and reinvigorate the community’s youth.  
Presenter(s): Chris Nixon, Jacksonville Zoo and Gardens  
Strand:  

GROUP B  
2:15 PM-2:55 PM, ROOM 202C  

Inspiring and Measuring Positive Conservation Behavior Change in Informal Settings  
Do you care about conservation behavior change? Join us to relive the journey of our first field trip behavior change study, complete with starry-eyed optimism during survey design, unanticipated logistical hurdles, and surprising results! Teaser: Students don’t like it when you ask them to take shorter showers.  
Presenter(s): Lauren Gibson, National Oceanic and Atmospheric Administration Office of Education; Maggie Reinbold, San Diego Zoo Global  
Strand:  

In 1974, Spokane was the smallest city to host a world’s fair, and the first with an environmental theme: Celebrating Tomorrow’s Fresh New Environment. The Expo ’74 logo design was based on the Möbius strip. The original impetus of the fair was to clean up and reclaim land alongside the falls of the Spokane River. After the fair closed, the site was revamped to become Riverfront Park, and the Washington Pavilion converted into the Spokane Convention Center.
Little Hands on the Land: Involving Youth in Conservation Strategies
For over 20 years, the Field Museum’s Action Center has engaged more than 100,000 students in conservation work throughout Chicago. Staff will share lessons learned from their community-based model. Attendees will gain insight into building stakeholder partnerships, measuring outcomes, working with volunteers, and ensuring that students make contributions to conservation.
Presenter(s): Colleen McVeigh, Field Museum of Natural History; Ylanda Wilhite, Field Museum of Natural History
Strand:

What Motivates Zoo Educators to Talk About Conservation?
Zoo educators play an important role in encouraging zoo guests to engage in environmental interventions and the effectiveness of their dialogue with guests can either make or break the success of their message. It is therefore important to understand the different factors that influence how educators communicate conservation messages to guests during educational programming.
Presenter(s): Katheryn Zelak, Ohio State University
Strand:

Friday 3:05 PM
Traditional Presentations
3:05 PM–3:45 PM
Creating Effective Sustainability Programming in Schools Using Data Analytics
3:05 PM–3:45 PM, Room 201A
How do you move from planning for sustainability into the actual implementation of effective energy and resource-reduction strategies? How do you ensure administrator, teacher, and student buy-in? This presentation empowers participants to collect data using powerful technology and to utilize that data to drive school change for sustainability.
Presenter(s): Ryder Delaloye, Whitefish School District; Brian Seitz, Buddy
Strand:

EcoTeachers: Elementary Teacher Teams Leading the Change in Environmental Education
3:05 PM–3:45 PM, Room 201B
This presentation describes a professional development effort for school-based elementary teacher teams focused on strategies for incorporating EE across the curriculum. Each participating team developed a school-specific project to share their experiences with their school community. We will share a framework for the PD model and highlights from each school’s project.
Presenter(s): Louise Ammentorp, The College of New Jersey
Strand:

Experiential Learning Through Citizen Science in National Parks
3:05 PM–3:45 PM, Room 203
Taking classroom learning to the field enhances engagement for middle and high school programs. Employing citizen science as a vehicle for hands-on learning serves to augment education outcomes while providing data for local national park units. Hear what we’ve learned from our pilot projects across the country.
Presenter(s): Alexander Terango, National Park Foundation
Strand:

International Collaboration Matters: Studying EE Researchers Across Nations
3:05 PM–3:45 PM, Room 201C
Is it worth surveying EE researchers across nations? While introducing the results of our pilot test, a group of Japanese, Taiwanese, and Korean researchers is going to discuss the potential of such an international study toward not only increasing research capacities but also promoting communication with practitioners.
Presenter(s): Kimiharu To, Aomori University; Shinichi Furihata, Tokyo University of Agriculture and Technology; Tzuchau Chang; Chankook Kim, Korea National University of Education; Sachi Ninomiya-Lim, Tokai University
Strand:
Latino Earth Partnership: Community Connections for Environment and Education
3:05 PM-3:45 PM, Room 401C

Latino Earth Partnership (LEP) builds collaborations among schools, organizations, and communities to address needs of English language learners, improve ecological literacy, and build leadership capacity. LEP weaves Latino cultural perspectives with ecological restoration education to create experiences reflecting Latino history, language, assets, and environmental justice.

Presenter(s): Cheryl Bauer-Armstrong, University of Wisconsin-Madison Arboretum; Maria Moreno, University of Wisconsin-Madison Arboretum, Earth Partnership; Anne Henderson, Florida Atlantic University Pine Jog Environmental Education Center

State Policies to Advance Environmental Literacy
3:05 PM-3:45 PM, Room 401B

Our current political climate may limit near-term opportunities to advance federal policy for EE. But exciting things are happening at the state level! Across the country, many states are adopting innovative policies to increase access to environmental and outdoor education. Come learn about successful state advocacy efforts, model policies, and the partnerships that support them.

Presenter(s): Sarah Bodor, NAAEE

Bright Spots
3:05 PM-3:45 PM

Learn about two or three successful and loosely related programs in each 40-minute Bright Spots session. Sessions are presented in the order listed.

GROUP A
3:05 PM-3:45 PM, ROOM 202B

Constructing Environmental Citizenship by Reframing Community Values: A Taiwanese Case
This study explores how middle-school students conceptualize their roles as environmental citizens by having them discuss a controversial wetland policy in their community, a remote coastal area in Taiwan. We found that students’ framing in community values is connected to their perspectives on how people should work together toward a common good.

Presenter(s): Yun-wen Chan, University of Wisconsin-Madison

Cultivating a Conservation Ethic: The Galveston Bay Report Card
The Galveston Bay Report Card is a citizen-driven, scientific analysis of the overall health of Galveston Bay, Texas’ largest estuary. This unique project explains science to diverse communities in an easy-to-digest format leading to advocacy and action in efforts to preserve this priceless natural resource.

Presenter(s): T’Noya Thompson, Galveston Bay Foundation

Our Pond: Civic Engagement in Wetland Restoration in Beijing
Wetland habitats around Beijing, China are becoming rare and precious. Since 2017, a group of volunteers has been participating in the reconstruction of such a habitat: a pond. Learn how local volunteers help restore a wetland ecosystem, and how this process helps enhance the community’s environmental and social connections.

Presenter(s): Lingdi Tan, Shan Shui Conservation Center

GROUP B
3:05 PM-3:45 PM, ROOM 202C

E-CORP: Educational Connections to Ongoing Research Projects, Florida Atlantic University
FAU Pine Jog Educational Connections to Ongoing Research Projects (E-CORP) introduces students to the world of scientific research. Through collaboration with university research departments and by incorporating education elements into grant proposals, E-STEM research education is made available to middle- and high-school students for both classroom and field-based learning.

Presenter(s): Christopher Andrew Hill, Florida Atlantic University Pine Jog Environmental Education Center; Emily Howard, Florida Atlantic University Pine Jog Environmental Education Center

Jazzed about Birds! Citizen Science in Alaska’s Schools
Citizen science prepares youth to become more versed and knowledgeable in migratory and local birds around Alaska, and with this information, participate more fully in decision making in relation to significant changes associated with climate. We describe how birding habitats at schools throughout the state engage kids in monitoring climate changes.

Presenter(s): Erin Alexander Ingle, University of Alaska Anchorage; Mike Mueller, University of Alaska Anchorage
**Wild Pedagogies: Renegotiating Education in the Anthropocene**

We are traversing new terrain as Earth moves between geological epochs—between the Holocene and the Anthropocene. Humans have never before witnessed this kind of shift. No one knows how we will need to respond; uncertainty is part of today’s reality. Wild Pedagogies suggests that a re-negotiated education is key in responding to this ecological uncertainty.

Presenter(s): Bob Jickling, Lakehead University; Michael Sitka-Sage, Simon Fraser University

Strand: Friday 4:00 PM

**Traditional Presentations 4:00 PM–4:40 PM**

**Billy B and the Salish Sea**

4:00 PM–4:40 PM, Room 402B

Join Billy B. as he presents songs, funny poems, and audience participation activities from his new show inspired by the Salish Sea, which surrounds his new home in Port Townsend, Washington. Attendees can expect a large visual backdrop, salmon jumping, orca vocalizations, keystone species, sea stars, and hip-hop tidal zones to all be represented in this show.

Presenter(s): Bill Brennan, Do Dreams Music

**Creating a Fund Development Plan**

4:00 PM–4:40 PM, Room 203

Let’s move beyond just talking about fundraising tips and tricks. Join us for an interactive session focused on creating an actionable plan that diversifies your funding streams. Learn how to include grants, contracts, individual donors, revenue generation activities like fee for service, peer to peer fundraising, donor events, EE events and sponsorships to expand the pipeline of support for Affiliates.

Presenter(s): Laura Downey, Kansas Association for Conservation and Environmental Education

**Cultivating Compassion: Encouraging and Measuring Children’s Empathy Toward Animals**

4:00 PM–4:40 PM, Room 201A

Empathy toward animals is a learned mental and emotional process cultivated throughout a person’s life. In this session, we will discuss how we can support empathy development to encourage conservation action and compassionate behavior toward animals and wildlife. We will also present tools we have developed for evaluating empathy as an educational outcome.

Presenter(s): Kathayoon Azra Khalil, Seattle Aquarium; Kathryn Owen, Kathryn Owen Consulting

**Empowerment and Networking of Environmental Educators at Schools in Taiwan**

4:00 PM–4:40 PM, Room 201B

The network created by the Green Schools Partnership program, the Environmental Education Act, the Global Environmental Education Program, and other environmental education groups empowers environmental educators at schools in Taiwan. This integrated network assists EE teachers in developing their school-based EE curriculum and connecting the partnership to their communities.

Presenter(s): Ya-Fen Wang, Chung Yuan Christian University

**Inquiry, Exploration, and Service Learning in the Sagebrush Ecosystem**

4:00 PM–4:40 PM, Room 402A

Explore hands-on strategies to help grade 4–12 students think critically about the sagebrush ecosystem—the largest in the US, with 350+ diverse species. Free curriculum, posters, and hands-on trunks developed by over 50 diverse stakeholders, including the US Fish and Wildlife Service, Engaging Every Student, and Audubon Rockies will be shared.

Presenter(s): Jacelyn Downey, Audubon Rockies

**Mentoring High School Students Toward Sustainability-Related Careers**

4:00 PM–4:40 PM, Room 201C

With the goal of strengthening the future sustainability of our region, Merry Lea Environmental Learning Center of Goshen College offered an immersion-style program for high school students interested in the conservation of natural resources. Participants developed leadership skills and environmental content knowledge through interdisciplinary relationship-building experiences in natural and managed ecosystems.

Presenter(s): Kaitlyn Stoltzfus, Merry Lea Environmental Learning Center of Goshen College
More Than a Metaphor: Human Impact, Drowned Cities, and Social Justice
4:00 PM–4:40 PM, Room 303A
Gain an inside look into an interdisciplinary English/science unit that explores both environmentalism and social justice. Engage in conversation and activities illustrating how students can be immersed in interdisciplinary discussions that center on human impact, drowned cities, and social justice, asking the essential question: How does humankind survive and transform when a city drowns?
Presenter(s): Juliann Dupuis, Notre Dame of Maryland University; Kelly Bull, Notre Dame of Maryland University
Strand: ●

NAAEE’s Nationwide Effort to Strengthen the Field: ee360
4:00 PM–4:40 PM, Room 401B
Come learn about NAAEE’s initiative to support innovative environmental education across the country. NAAEE, through a cooperative agreement with U.S. EPA and seven partner organizations, is leading a nationwide effort to strengthen the field, support professional development, and build a more inclusive movement. Hear exciting highlights from the first two years of this collaborative effort.
Presenter(s): Judy Braus, NAAEE; Anne Umali, NAAEE; Drew Price, NAAEE
Strand: ● ● ●

Outdoor School for All! Diverse Programming and Impacts in Oregon
4:00 PM–4:40 PM, Room 303B
Oregon’s legislative charge, providing Outdoor School for All, has begun! Every fifth- or sixth-grade student in Oregon will ultimately attend—75% attended in 2017/2018. Who is missing and why? How does outdoor school vary statewide? What are the common outcomes across diverse programs serving diverse audiences?
Presenter(s): Steven Braun, Consultant; Kristopher Elliott, Oregon State University Extension Service
Strand: ● ●

Preparing Future Teachers to Integrate Environmental Education Across the Curriculum
4:00 PM–4:40 PM, Room 401A
Future teachers are motivated to be environmental educators but need practice learning how to address state and national standards across the curriculum in their daily work. In this session, teacher educators will share effective lessons and assignments from their courses that help pre-service teachers (pre-K–12) make interdisciplinary connections.
Presenter(s): Sarah Haines, Towson University; Eileen Merritt, Arizona State University; Rebecca Franzen, University of Wisconsin–Stevens Point; Patty Born Selby, Hamline University School of Education; Yash Bhagwanji, Florida Atlantic University; Kimberly Yates, Northern Kentucky University; Fletcher Brown, University of Montana
Strand: ●

Recognizing the Importance of Gender in Environmentalism
4:00 PM–4:40 PM, Room 205
Learn why empowering women to not just engage in environmentalism, but also participate in environmental leadership can advance conservation goals. This session discusses the gender skew in environmental leadership, how men and women think about the environment differently, and how gender-inclusive decision making provides real benefits to environmental management.
Presenter(s): Nadia Tenouri, University of Otago
Strand: ●

4:00 PM–4:40 PM, Room 401C
The NOAA Bay-Watershed Education and Training (B-WET) program is implementing a national evaluation system designed to inform seven diverse regional programs, annually serving approximately 2,500 educators and 48,000 students. Learn about how evaluation results are used to understand best practices for Meaningful Watershed Educational Experiences.
Presenter(s): Bronwen Rice, National Oceanic and Atmospheric Administration; Jaime Frugillo, National Oceanic and Atmospheric Administration; Jacqueline Laverdure, National Oceanic and Atmospheric Administration Olympic Coast National Marine Sanctuary/Pacific Northwest BWET Program; Jim Foley, National Marine Sanctuary Foundation
Strand: ●
What Leads to Better Outcomes in Environmental Education?
4:00 PM-4:40 PM, Room 206A
What approaches lead to better outcomes in EE? We will share the results from an unprecedented national study of EE for youth designed to identify what practices actually lead to better outcomes. We will conclude by providing practical lessons for those interested in improving environmental education and enhancing outcome achievement.
Presenter(s): Marc Stern, Virginia Tech; Robert Powell, Clemson University; Hannah Lee, Virginia Tech; Daniel Pratson, Virginia Tech

Widening the Frame: Diversity and Inclusion in College Nature Writing
4:00 PM-4:40 PM, Room 302B
Traditional nature writing courses often place an emphasis on the contributions of white male writers without a critical approach that uses a lens of settler colonialism, indigenous knowledge, and critical race theory to broaden what is considered nature and place and who writes about nature and place.
Presenter(s): Nini Hayes, Western Washington University

Bright Spots
4:00 PM-4:40 PM
Learn about two or three successful and loosely related programs in each 40-minute Bright Spots session. Sessions are presented in the order listed.

GROUP A
4:00 PM-4:40 PM, ROOM 202B
Leveraging Research to Build Bioenergy Literacy in Grades 6-12
This presentation will highlight the USDA-funded Bioenergy Alliance Network of the Rockies project’s education team, whose mission is to increase bioenergy literacy of K-12 students. We will share teacher-developed education products including NGSS-aligned frameworks for forest ecology, biochar, and biofuels; instructional materials; and assessments that incorporate project data and research.
Presenter(s): Agatha Podrasky, University of Montana; Beth Covitt, University of Montana

Science Journals Support NGSS Scientific and Engineering Practices
Science journals are wonderful tools for students with different learning styles to record data, observations, and reflections as they develop knowledge and skills. This Bright Spot session will present how our science journals support science and engineering practices from the Next Generation Science Standards, along with some successes and challenges.
Presenter(s): Becca Kedenburg, Mountains to Sound Greenway Trust

GROUP B
4:00 PM-4:40 PM, ROOM 202C
Certified Local Phenology Leaders: Creating Successful Communities Through Citizen Science
Learn more about becoming a Nature’s Notebook Certified Local Phenology Leader! The certification links educators with new audiences, such as natural resource managers who study climate change through citizen science. It also promotes community engagement through long-term program planning. This hands-on discussion will share an overview of certification requirements and course activities.
Presenter(s): LoriAnne Barnett, USA National Phenology Network

The Canadian National Roundtable for Environmental Sustainability Education in Teacher Education
Educating teachers for environmental and sustainability education is a top priority for Canadian faculties of education. The grassroots efforts of several faculties of education across Canada to make environmental and sustainability education a top priority for teacher education will be described through the conference proceedings of its first National Roundtable.
Presenter(s): Douglas Karrow, Brock University

Trailblazers: Environmental and Vocational Education Converge for Developmentally Disabled Adults
This presentation will describe the Conservancy of Southwest Florida’s partnership with Trailblazer Academy to support vocational training for developmentally disabled adults, how the program evolved to include environmental education for its participants, and how we elicited participants’ perceptions of their experience to begin to tailor the program to their individual abilities and interests.
Presenter(s): Heather Skaza Acosta, Florida Gulf Coast University; Darian Lee, Conservancy of Southwest Florida; Katie Ferron, Conservancy of Southwest Florida
Roundtable Discussions
4:00 PM-4:40 PM, Room 206CD

Coexisting with Urban Wildlife: Reaching Diverse Audiences Through Educational Messaging
Table 1
How can we effectively engage residents about the environment in the 21st century with so many competing, critical interests? Coexisting with urban wildlife is one concept New York City Parks is sharing by using tools ranging from educational messaging to billboard advertising. Collectively, let’s share strategies and discuss new avenues to reach communities traditionally not engaged in EE.
Presenter(s): Bonnie Marie Ralston, New York City Parks
Strand: ●

EE Evaluation Toolkit Prototype Feedback Needed
Table 2
Would you like to do more program evaluation, but your organization lacks the capacity to do so? Researchers at Duke University will share a prototype EE evaluation toolkit and seek input on potential collective measures and outcomes. Your feedback will inform training and resources for EE Evaluators and practitioners.
Presenter(s): Charlotte Clark, Duke University
Strand: ●

MS4 = More $ for You
Table 3
Under the US Clean Water Act, more than 7,500 cities have permits for their stormwater systems. The first required component of such an “MS4” (municipal separate storm sewer system permit) is “education and outreach.” Many cities could use more help from professional environmental educators. This is a primer on MS4s.
Presenter(s): Donny Roush, Denver Public Works
Strand: ●

Now What? Challenges and Successes of Strong Statewide EE Support
Table 4
Oregon has adopted an Environmental Literacy Plan; a statewide STEM Network; an EE Accredited university; a robust Equity, Diversity, and Inclusion movement; and Outdoor School For All. We’ll have rousing discussion on the successes and challenges of building the future of EE through the perspective of what’s happening in Oregon.
Presenter(s): Charissa Jones, Oregon State University-Extension, Outdoor School Program; Gerard Gonzales, Environmental Education Association of Oregon; Jenna Mendenhall, Oregon Environmental Literacy Program; Emily Anderson, Oregon State University Extension
Strand: ●

Opportunities for EE in the Every Student Succeeds Act
Table 5
This school year marks the first for full implementation of the Every Student Succeeds Act in many states. EE programs are eligible for funds through grant programs within ESSA. Come for a discussion of how the grant programs work and how to take advantage of the opportunities provided by ESSA.
Presenter(s): Sarah Bodor, NAAEE
Strand: ●

Where’s My Backyard? Applying an Equity Lens to Conservation Education
Table 6
Why study composting if I don’t have a backyard? When environmental education lessons fail to reflect diverse student experiences, many participants disengage and their voices are lost in the conservation conversation. In this collaborative roundtable, we’ll share examples and discover strategies for designing more equitable environmental education opportunities for all.
Presenter(s): Lake Thelen, Metro Regional Government; Darwin Eustaquio, Metro Regional Government; Jamie Repasky, Metro Regional Government
Strand: ●
Friday 5:00 PM

Meetings
5:00 PM–6:00 PM

E3 Washington Reception: Building a Resilient and Connected PNW Network
5:00 PM–6:00 PM, Room 102ABC
Calling all Pacific Northwest attendees for a social hour with light appetizers and drinks. Let’s build a strong regional EE team.
Coordinator: Lisa Eschenbach, E3 Washington

Southeastern Environmental Education Alliance
5:00 PM–6:00 PM, Room 207
Members of the southeast state affiliates will meet to discuss current activities and opportunities for collaboration. Member states include AL, FL, GA, KY, MS, NC, SC and TN.
Coordinator: Ashley Hoffman, Southeastern Environmental Education Alliance

Friday 7:00 PM

Annual Gala and Auction
7:00 PM–9:30 PM

Martin Woldson Theater at the Fox
This year’s gala reception and Stapp Scholarship Auction is at the historic art deco Martin Woldson Theater at the Fox. Enjoy dinner and dancing to Washington’s own electro-swing band, The Good Company.

Bid on your favorite items in the always-entertaining live auction, and slip in your final bid to snatch up a great variety of treasures as the silent auction concludes. Will you win the REI gift card or registration for the 2019 conference? A $1 ticket gives you a chance!

Transportation is provided. Meet at the front entrance to the convention center. The first buses depart at 6:45 PM

Please note:
Your conference nametag is required for admittance to all meals and special events. While the gala is included with Friday or full conference registration, you must have signed up during the online registration process in order to attend.
Together with SFI, we are furthering our commitment to getting kids outside, connecting youth to forests, and building sustainable communities.

Come to one of our sessions.
Visit our booth #302 in the exhibit hall.
Learn more: plt.org & sfiprogram.org

PLT has reached 135 million students in over 4 decades.

PLT is an initiative of SFI.
Saturday

Saturday 8:30 AM

Hands-on Presentations
8:30 AM–10:00 AM

Building the STEM Pipeline: Hands-On Activities and Best Practices for Partnerships
8:30 AM–10:00 AM, Room 303A
Partnerships are a powerful tool to promote increased diversity in STEM and environmental fields. Join this session to explore the collaborative youth programs run by the Northeastern University Marine Science Center, discuss partnership best practices, and try activities that engage youth in meaningful STEM and environmental education experiences.
Presenter(s): Valerie Perini, Northeastern University Marine Science Center
Strand: ●

Models of Collaboration Between Environmental Education Providers and Indigenous Communities
8:30 AM–10:00 AM, Room 402A
Learn best practices of collaborative tribal and higher education efforts in professional development, youth programs, and community engagement using Native science integrated with Western STEAM. These partnerships build capacity for teachers to teach culturally, enhance college readiness, and build reciprocal relationships with nature and between diverse communities.
Presenter(s): Cheryl Bauer-Armstrong, University of Wisconsin-Madison Arboretum; Maria Moreno, University of Wisconsin-Madison Arboretum, Earth Partnership; Priya Pugh, University of Washington; Nikki McDaid-Morgan, Northwestern University
Strand: ●

Using Models to Understand Climate Change
8:30 AM–10:00 AM, Room 402B
Create and use models to internalize the causes and effects of climate change and to inspire environmental stewardship. Learn the power of modeling and NGSS as you enhance learning for English language learners and nontraditional learners, and engage all. Join us for this hands-on workshop. Come play to learn!
Presenter(s): Kottie Christie-Blick, South Orangetown CSD/University of San Diego; Jacob Tanenbaum, South Orangetown Central Schools
Strand: ●

Olympic Marmot
The Olympic marmot is a rodent in the squirrel family. It occurs only in the US state of Washington, on the middle elevations of the Olympic Peninsula. In 2009, it was declared the official endemic mammal of Washington.
Traditional Presentations
8:30 AM-9:10 AM

For Educators, By Educators: Training for a Team
8:30 AM-9:10 AM, Room 201A
National Park Service educators work to create meaningful learning opportunities. Join Katie Phillips, Education Specialist at Rocky Mountain National Park, to explore tips and resources during an in-depth review of staff training that develops a cohesive team. We will review example training agendas, team building activities, and detailed session outlines.
Presenter(s): Katie Phillips, Rocky Mountain National Park
Strand: ● YP

The Impact of Climate Education Across the Commonwealth of Kentucky
8:30 AM-9:10 AM, Room 202C
The Kentucky University Partnership for Environmental Education (KUPEE) collaborative worked over a two-year period providing professional development and community workshops focused on climate education. Through this partnership, 500+ individuals (preservice/inservice teachers and community members) received climate literacy training. The results of the overall impact on participants will be shared.
Presenter(s): Kimberly Yates, Northern Kentucky University; Melinda Wilder, Eastern Kentucky University; Jennifer Hubbard-Sanchez, Kentucky State University; Jeanine Huss, Western Kentucky University; Billie Hardin, KCTCS
Strand: ●

Land Trusts and K-12 Education: Creating Outdoor Learning Landscapes
8:30 AM-9:10 AM, Room 205
Learn how land trusts can work with schools and community partners to create outdoor classrooms for all youth in both rural and urban settings. We will share tools and lessons learned from Learning Landscapes, a place-based education and stewardship program established in northeastern California.
Presenter(s): Rob Wade, Plumas Unified School District; Anne Kinney Stephens, California State University, Chico
Strand: ●

STEM and Sustainability for the 21st Century Learner
8:30 AM-9:10 AM, Room 201C
EPA Presidential Award Winner and STEAM educator Mary Ann Settlemyre and EcoRise Program Director Abby Randall will present best practices for integrating STEM and sustainability through a fast-paced, hands-on session. Learn how to leverage your school building, data collection tools, technology, and community support to empower students to tackle sustainability challenges in their communities.
Presenter(s): Mary Ann Settlemyre, Centreville Elementary School, Fairfax County Public Schools; Abby Randall, EcoRise
Strand: ●

Visiting Naturalist in the Schools: Connecting to Nature Through Mentors and Role Models
8:30 AM-9:10 AM, Room 302A
Visiting Naturalist in the Schools (VNS) connects 4th- and 5th-graders to nature through role models and hands-on experiences, allowing them to envision themselves among a diversity of naturalists and stewards. We will discuss how VNS uses mentorships and some of the challenges and solutions that we’ve encountered along the way.
Presenter(s): Stephanie Potts, Montana Natural History Center
Strand: ●

What Works: Research-Based Approaches for Engaging Adolescents in Climate Action
8:30 AM-9:10 AM, Room 401C
Are you interested in a new story of climate change? Do you want to engage youth in research-based climate lessons framed by hope, consensus, equity, and opportunity for action? Join our interactive overview of Metro’s dynamic classroom presentation and gain knowledge, skills, and resources for implementing innovative climate change lessons.
Presenter(s): Ken Pitts, Metro Regional Government; Lake Thelen, Metro Regional Government; Kimberly Taylor, Metro Regional Government
Strand: ●

When Buildings Can Be Teachers: Living Building Challenge and Sustainable Living
8:30 AM-9:10 AM, Room 201B
Living Building Challenge (LBC) is the highest green certification in the building industry. It is dedicated to creating a future where the built environment is restorative to the natural world. Learn about how Wolf Ridge Environmental Learning Center is embracing LBC and using our dormitory as a teaching tool.
Presenter(s): Pete Smerud, Wolf Ridge Environmental Learning Center
Strand: ●
Wings Over Water: An Osprey-Based E-STEM Program Engaging Underrepresented Youth  
8:30 AM–9:10 AM, Room 401B  
The Wings Over Water (WOW) program uses the life history of the Osprey as an anchoring phenomenon to excite student interest in E-STEM. In the WOW program, we combine several innovative best practices in teaching to increase STEM engagement, preparedness, and positive science identity in female, rural, and tribal students.  
Presenter(s): Lisa Bickell, www.montananaturalist.org; Caitlin Webb, Dixon School  
Strand: ☐ ☐ ☐

Zoo and Community Partnerships Catalyzing Action for Sustainable Communities  
8:30 AM–9:10 AM, Room 203  
How can a community sustain healthy populations of people and wildlife? What role can zoos play as community catalysts for sustainable coexistence? Join Woodland Park Zoo (Seattle, WA) and our partners to learn about two emerging projects that engage communities in aligning healthy human populations with environmental integrity.  
Presenter(s): Katie Remine, Woodland Park Zoo; Lisa Keith, Mercer Slough Environmental Learning Center  
Strand: ☐ ☐ ☐ ☐

Bright Spots  
8:30 AM–9:10 AM  
Learn about two or three successful and loosely related programs in each 40-minute Bright Spots session. Sessions are presented in the order listed.  

GROUP A  
8:30 AM–9:10 AM, ROOM 202B  

Careers on Wheels  
The Magic School Bus plus a municipality equals Careers on Wheels! This bi-weekly program circulates to elementary schools across the Denton School District in Texas and exposes students to service-based careers. Students gain perspective on how core subjects such as math, reading, and science come to life within these fields. Ms. Frizzle would approve!  
Presenter(s): Vanessa Ellison, City of Denton  
Strand: ☐ ☐ ☐

Revitalizing Natural Resources Curriculum  
The Rubenstein School of Environment and Natural Resources prepares students for environmental careers by focusing on technical and leadership competencies. We will share our leadership learning outcomes (for example, problem-solving, critical thinking, working across difference) and offer tools, assessments, and resources. Participants will discuss and design for their own learning community.  
Presenter(s): Margaret Burke, University of Vermont, Rubenstein School of Environment and Natural Resources  
Strand: ☐ ☐ ☐ ☐

Student Empowerment Through Action-Oriented Learning  
Student Empowerment through Action-Oriented Learning features students from the Delta School District sharing their sustainability-focused learning experiences, programs, and innovative projects. Several of these students have been recognized as being Canada’s top 25 under 25 and were featured at the 2017 World Environmental Education Congress. Sit back and let the students be the teachers!  
Presenter(s): Kisa Naqvi, Delta School District  
Strand: ☐

Saturday 9:20 AM  
Meeting  
9:20 AM–10:00 AM  
NAAEE Business Meeting  
9:20 AM–10:00 AM, Room 203  
Join NAAEE’s board chair, executive director, board, and staff for a discussion on the current state of the organization and future directions for NAAEE. Topics will include strategic planning, a financial report, and your questions. We welcome your input!  
Presenter(s): Judy Braus, NAAEE; Charlotte Clark, Duke University
Traditional Presentations 9:20 AM-10:00 AM

Bridging the Gap: Different Perspectives on Equity and Inclusion 9:20 AM-10:00 AM, Room 401B
Equity and inclusion is a “hot topic” in environmental education, yet there is little common understanding of what it looks like in practice. This presentation will showcase the perspectives of organizational leaders and educators of colors, identify patterns, and share insights on how to bridge the gap.
Presenter(s): Jedda Foreman, Lawrence Hall of Science; Craig Strang, Lawrence Hall of Science
Strand: ●

Changing the Model—Community- and School-Based Sustainability Education Programming 9:20 AM-10:00 AM, Room 201A
A school district joining forces with the city government to create a multifaceted, responsive, and engaging Climate Action Plan is partnership at its best. Hear how Whitefish School District and the City of Whitefish, Montana have united to create a powerful partnership that builds capacity to achieve community-wide sustainability goals.
Presenter(s): Ryder Delaloye, Whitefish School District; Brian Seitz, Buddy
Strand: ●

Creating Constructive Climate Conversations 9:20 AM-10:00 AM, Room 206A
There is no silver bullet for communicating climate change, but there are best practices that have been tested and utilized for different audiences. Join us to hear from a panel of educators around tried-and-true tactics for engaging different ages and audiences around climate science.
Presenter(s): Adam Ratner, The Marine Mammal Center; Jennifer Hubbard-Sanchez, Kentucky State University; Jennifer Alldredge, Alliance to Save Energy; Fletcher Brown, University of Montana
Strand: ●

Districtwide Place-Based Education: Lessons from Case Study Research 9:20 AM-10:00 AM, Room 201B
This session will share research that explored how students experience their outdoor learning center. Findings suggested that the program, practicing a combination of place-based and environmental education pedagogies, had lasting impacts that helped students become more connected to nature and advocate for the sustainability of their community.
Presenter(s): Doreen Keller, Whitworth University
Strand: ●

Going Primitive for Future Success 9:20 AM-10:00 AM, Room 302B
Watch the 15-minute version of our documentary, Earth Seasoned #Gap Year, which follows five young women living semi-primitively in the Oregon wilderness for a year. Then create fire with a personal bow drill kit you will get to keep. When the smoke has cleared, explore our primitive skills curriculum.
Presenter(s): Molly Kreuzman, Coyote Trails/Earth Seasoned...#GapYear a documentary; Joe Kreuzman, Coyote Trails School of Nature; Eirik Moergen, Coyote Trails School of Nature; Sandra Reed, Coyote Trails School of Nature
Strand: ●

Peer Influence: Lessons on Leveraging Role Models in K-12 Science 9:20 AM-10:00 AM, Room 201C
Near-peer role models can be an effective way to boost student interest in STEM learning and encourage conservation behaviors at school and at home. This session will explore lessons learned from pilot programs in which university and professional STEM role models visited K-12 classrooms in Wisconsin and Louisiana.
Presenter(s): Nathan Conroy, STEMhero; Annie Baker, Wisconsin K-12 Energy Education Program
Strand: ●

Snorkeling to Connect People to Rivers and Streams 9:20 AM-10:00 AM, Room 302A
The underwater world of our rivers and streams is unexpected, and the life in Puerto Rican rivers is mind blowing! Getting people to experience this incredible world establishes powerful connections to rivers. This presentation will share the underwater world of Puerto Rican rivers and will review a river snorkeling curriculum.
Presenter(s): Keith Williams, NorthBay Education Foundation
Strand: ●

Using Social Enterprise As an Environmental Education Tool 9:20 AM-10:00 AM, Room 401C
Social enterprises are commonly known in the business world as a for-profit model that also solves a social problem. However, social enterprises can also be a great learning tool that makes EE “real” to students by solving real-world problems in the community. Learn how social enterprise can boost your students’ EE experience.
Presenter(s): Quilen Blackwell, Chicago Eco House
Strand: ●
**GROUP A**

**EE 30 UNDER 30 HONOREES**

**9:20 AM-10:00 AM, ROOM 202B**

**Empowering Young Leaders: The Youth Climate Summit Program**  
Youth are not just the leaders of tomorrow, they are the leaders of today. This session highlights the Wild Center’s Youth Climate Program, which convenes students worldwide to educate and empower young people to take action in their schools and communities through the creation of powerful Climate Action Plans.  
**Presenter(s): Gina Fiorile, The Wild Center**  
**Strand:** Voices of Nature: Eco Leadership for Sustainable Futures

**Voices of Nature: Eco Leadership for Sustainable Futures**  
Voces de la Naturaleza (Voices of Nature) is an environmental education program dedicated to training the next generation of eco-leaders. Focusing on the three C's—Curiosity, Creativity and a Connection to Nature—the program inspires the children of Paraguay to take positive action to benefit their communities, environment, and future.  
**Presenter(s): Joseph Sarvary, Fundacion Para La Tierra Pilar**  
**Strand:** How to Resonate with Youth: Mobilizing the Next Generation

**How to Resonate with Youth: Mobilizing the Next Generation**  
Want to learn how to resonate with youth, making them excited to learn about the environment? Moreover, do you want to mobilize young people to become environmental advocates? With the future being more uncertain than ever, it is essential that youth take action. Learn how to inspire the next generation.  
**Presenter(s): Benjamin May, ThinkOcean**  
**Strand:**

**GROUP B**

**9:20 AM-10:00 AM, ROOM 202C**

**Return the City Kids to Nature**  
Based on the project “Public Life Lecture in the Parks,” we will share insights about how to promote children’s physical and spiritual health in nature, how to rebuild the links between city children and nature, and how to stimulate celebrities, gardeners, nature educators, and schoolteachers to participate in nature or environmental education.  
**Presenter(s): Keying Guo, WuHan City Park Association; Wen Tang, Park and Square Management Office of Wuhan City Park and Forestry Bureau**  
**Strand:**

**Unplugged in the Outdoors**  
Cottonwood Gulch has been running ‘unplugged’ expeditions in the Southwest since 1926. Participants will share strategies for getting new populations comfortable in nature without their devices and learn how Cottonwood Gulch is bridging the access gap to take new students outdoors in New Mexico.  
**Presenter(s): Cass Landrum, Cottonwood Gulch Expeditions**  
**Strand:**

**Roundtable Discussions**

**9:20 AM-10:00 AM, Room 206CD**

**An Innovative Approach to Connecting Youth with Nature**

**Table 1**  
Are you trying to figure out a way to engage youth with no formal background in nature and the environment and keep them engaged? Participate in this roundtable discussion with environmental educators and learn how they manage to keep youth participants interested and engaged in their programs.  
**Presenter(s): Nina Baki, Forest Preserves of Cook County**  
**Strand:**

**Climate Change EE: Sharing Proven Practices and Addressing Challenges**

**Table 2**  
Join colleagues involved in climate change education to share ideas, compare frustrations, and build alliances that facilitate improvement, as we all push to build a citizenry with understandings and skills for confronting this existential challenge. Discuss what works and brainstorm ways to use the eePro platform to enhance our efforts.  
**Presenter(s): Karen Hollweg, Fulbright Specialist**  
**Strand:**
Examining K–12 Teacher Learning through Place-Based Education Professional Development

This session showcases the results of a yearlong study focused on a regional, place-based education, K–12 professional development program. Case studies illustrate the importance of working with community partners in rural, suburban, and urban settings and centering outcomes on K–12 student learning to address and solve local environmental issues.

Presenter(s): Erica Hamilton, Grand Valley State University

Freelancing in Environmental Education

Freelance educators are uniquely positioned to connect the public to history, culture, and nature in a variety of informal learning environments. The contributions freelance educators make to lifelong learning is unknown. Who are freelance educators? How do they create change? If you’re a freelance educator, share your story.

Presenter(s): Tania Marien, The Freelance Condition & Lifelong Learning in Communities

Weather/Climate Strand Map: Next Generation Science Standards and Interdisciplinary Links

Climate change is a great challenge of our time. Come inspect a weather/climate strand map that links standards across preK-12 grades and across the disciplines. Engage with others in a lively discussion about how this map can transform relationships within the school and between the school and the community.

Presenter(s): Jane Ann Heinze-Fry, Museum Institute for Teaching Science; Natalie Stapert, Lowell School

Saturday 10:00 AM

Coffee Break

10:00 AM-10:30 AM, Exhibit Hall A

Saturday 10:30 AM

Meeting

10:30 AM-11:10 AM

NAAEE 2019: Share Your Ideas!

10:30 AM-11:10 AM, Room 201B

How can we improve on this year? We’d love to hear your thoughts. Come share your ideas and suggestions for our 48th annual conference, scheduled for October 15-19, 2019 in Lexington, Kentucky.

Coordinator: Lori Mann, NAAEE

Symposium

10:30 AM-12:00 PM

Patterns of Reweaving with Embodied Biomimicry for Cultural Resurgence

10:30 AM-12:00 PM, Room 206A

A dynamic session bringing research to the field: engaging the remaking of ancient and embodied technologies to move toward sustainability futures through dance, feminist materialisms, gestural studies, radical interconnectedness pedagogies, Indigenous methods, fractal geometries, and the embodied turn of place in sustainability STEAM. We dynamically explore braiding, weaving, and resurging biocultures of flourishing.

Presenter(s): Susan Gail GeroFSky, University of British Columbia; Mandisa Amber Wood, Napa Valley College; Molly Bigknife Antonio, Prescott College

Moderator: Marna Hauk, Institute for Earth Regenerative Studies & Prescott College

SIGN THE PLEDGE

Shape the future

ActNowforEE.org

BUILDING LEADERSHIP FOR ENVIRONMENTAL LITERACY
CONNECTING WITH NATURE
CONSERVATION AND ENVIRONMENTAL EDUCATION
EDUCATING FOR SUSTAINABLE COMMUNITIES
GREEN SCHOOLS AND CAREER-CONNECTED LEARNING
LINKING RESEARCH AND PRACTICE TO INCREASE IMPACT
DIVERSITY, EQUITY, AND INCLUSION
YOUNG PROFESSIONALS
NAAEE AFFILIATE NETWORK
EEO360
Hands-on Presentations
10:30 AM-12:00 PM

A Conversation on Higher Education Accreditation
10:30 AM-12:00 PM, Room 402B
Come and meet faculty representing programs that have earned NAAEE’s Accreditation: Distinguished College and University Programs. Hear about their programs and network with other faculty interested in environmental education program development and assessment.
Presenter(s): Dottie Shuman, Montreat College; Stewart Janes, Southern Oregon University; Libby McCann, Antioch University New England; Billy Bennett, Kentucky Environmental Education Council; Patty Born Selly, Hamline University School of Education; Melinda Wilder, Eastern Kentucky University; Rebecca Franzen, University of Wisconsin-Stevens Point
Strand:

Breathing Easier: Advancing Environmental Justice Through Air Quality Education
10:30 AM-12:00 PM, Room 302B
The diverse community of Auburn-Algona, Washington has long struggled with air pollution. In partnership with the school district and the local clean air agency, Washington Green Schools created a curriculum around this environmental justice issue. Students gain the knowledge and skills to take action towards making their community a healthier place.
Presenter(s): Nayiri Haroutunian, Washington Green Schools
Strand:

Collaborate, Ignite, Learn: Inspiring Authentic Engagement in the Natural World
10:30 AM-12:00 PM, Room 303A
This authentic, problem-based learning project ignites curiosity and invites students to grapple with information and meaningfully engage in their work. Session participants explore a successful virtual platform and an innovative, interactive model for informed student involvement in environmental issues across their communities and the world.
Presenter(s): Kathleen Dent, Inspired Classroom
Strand:

Conducting an Outdoor Learning Resource Inventory at Your School
10:30 AM-12:00 PM, Room 303B
Exploring outdoor experiential learning theory by venturing outdoors to conduct an audit of outdoor places, participants will practically consider how outdoor places tie into local curriculum. Workshop participants should feel prepared to return to their own schools and begin an outdoor learning resource inventory with students, teachers, and administrators.
Presenter(s): Hartley Banack, University of British Columbia
Strand:

Driven to Discover: Using Citizen Science to Spark Scientific Investigations
10:30 AM-12:00 PM, Room 401A
Learn to use citizen science experiences as a springboard into science research projects for youth ages 10-16. The free Driven to Discover curriculum provides the teaching tools and program design that engage youth in real-world science. Come try sample activities suitable for formal classrooms and afterschool/nonformal settings.
Presenter(s): Lisa Curtis, University of Minnesota Extension; Katie-Lyn Bunney, University of Minnesota Monarch Lab; Sarah Weaver, Monarch Lab, University of Minnesota
Strand:

Increasing Impact: Linking Research to Practice Through Logic Models
10:30 AM-12:00 PM, Room 402A
Using research findings to inform practice can be challenging. Developing a logic model can facilitate the incorporation of research into program planning. Activities and discussions will be used to introduce logic models, highlight staff capacity building, and share strategies for how to incorporate research findings into program design.
Presenter(s): Sue Magdziarz, John G. Shedd Aquarium; Renee Elizabeth Birk, John G. Shedd Aquarium
Strand:
Traditional Presentations
10:30 AM-11:10 AM

Disneynature Penguins: Conservation Education Through Media
10:30 AM-11:10 AM, Room 202C
Disneynature brings stories of the natural world to life as never before seen, while driving nature conservation and an appreciation for our planet. Our standards aligned educator’s guide and family activity packet inspires an understanding of the Arctic, the Adelie Penguins, and the challenges they face as our climate is changing. Experience an exciting lesson from the new Disneynature Penguins Educator’s Guide.
Presenter(s): Lizabeth Fogel, University of Southern California; Kyle Huetter, Disney Parks and Resorts
Strand: Green Play to Green Pay: Fostering Green Career Pathways
10:30 AM-11:10 AM, Room 201A
How do we build pathways for young adults to pursue environmental and natural resource careers? Join us to explore network models and innovative tools for affiliates and other organizations. Discuss opportunities to increase your state and regional capacity for career development across environmental education and conservation fields.
Presenter(s): Katie Navin, Colorado Alliance for Environmental Education; Lisa Eadens, Colorado Alliance for Environmental Education; Brenda Metcalf, Environmental Education Council of Ohio
Strand: Interdisciplinary Approaches to Improve Climate Literacy at Community Colleges
10:30 AM-11:10 AM, Room 203
A community college system implemented a climate literacy initiative, providing interdisciplinary professional development workshops for educators and classroom instruction for students. Benefits included forming new partnerships and introducing EE to community college instructors. A summary of the project and workshop agendas tailored to target audiences will be shared and discussed.
Presenter(s): Billie Hardin, KCTCS; Justin Weiss, Maysville Community and Technical College; Jennifer Adler, Maysville Community and Technical College; Diane Gibson, KCTCS Hazard
Strand: Nurturing Informal Science Educators from Within Your Community
10:30 AM-11:10 AM, Room 401B
How do we engage urban families in relevant experiences? How can we truly embed museums’ resources into the fabric of a community? The Communities of Learning for Urban Environments and Science project demonstrates a uniquely focused professional development model for training ISE Apprentices to teach in their own community venues.
Presenter(s): Angela Wenger, Center for Aquatic Sciences
Strand: Playing for Pennies: Creating Nature Play Spaces on a Budget
10:30 AM-11:10 AM, Room 201C
Want to build a nature play space, but don’t have loads of money, staff, or space? Learn from North Carolina! We’ll share success stories, tips, and resources from several facilities. We’ll also cover some basics for inclusive design, so everyone can come out and play!
Presenter(s): Lauren Pyle, Environmental Educators of North Carolina
Strand: School Learning Environments and Long-Term Outcomes Related to Community and Civic Engagement
10:30 AM-11:10 AM, Room 401C
This presentation shares research describing features of the learning environment linked to the long-term learning outcome of active citizenship. It tells the story of how the learning environment in a high school integrated studies program contributed to the development of citizens that embrace environmental stewardship and are active contributors to a healthy, sustainable society.
Presenter(s): Gordon Sturrock, Douglas College; David Bryan Zandvliet, Simon Fraser University
Strand: Think, Feel, Do: Promoting Conservation Leadership Development in Programming
10:30 AM-11:10 AM, Room 302A
This session will share a model for conservation leadership development in adolescents and young adults, based on an exploration of Student Conservation Association participants. Gain insights into how to intentionally promote the development of conservation leadership during a period that is widely recognized as critical for developing an environmental identity.
Presenter(s): Kate Hagner, Student Conservation Association
Strand: ● YP
Bright Spots
10:30 AM–11:10 AM
Learn about two or three successful and loosely related programs in each 40-minute Bright Spots session. Sessions are presented in the order listed.

GROUP A
10:30 AM–11:10 AM, ROOM 202B

Civic Engagement Live: Empowering Students to Create Climate Action Projects
This session highlights three place-based, youth-leadership water and climate action programs across three states including The Confluence Project (ID), Youth Water Leadership Program (CO), and Youth Climate Summits (NY). Attendees will leave with effective strategies (“the special sauce”) for integrating community engagement, leadership development, and authentic student-centered learning.
Presenter(s): Brant Miller, University of Idaho; Jen Kretser, The Wild Center; Marie Schmidt, University of Idaho Coeur d’Alene; Sarah Johnson, Wild Rose Education
Strand: Colorado River SCAPE

SCAPE (Sustainable Communities and Place-Based Education) is an EPA-funded environmental education program linking high-school students and teachers along the Colorado River watershed from Wyoming to Arizona to focus locally on water sustainability projects and connect regionally via web-based mapping programs.
Presenter(s): Monica Elser, Flathead Lake Biological Station
Strand: UPRIVER: A Story Map Curriculum for Global Water Citizenship

The UPRIVER curriculum is a multidisciplinary inquiry into what it means to be global water citizens. The curriculum shows students the power and influence they have when they operate from the mindset of living upriver. Students who live “UPRIVER” take informed action to positively impact what happens downstream.
Presenter(s): Kathy Chambliss, NorthBay Education Foundation; Keith Williams, NorthBay Education Foundation; Jeremy Monroe, Freshwaters Illustrated
Strand: SATURDAY

Roundtable Discussions
10:30 AM–11:10 AM, Room 206CD

Investigating Socio-Environmental Issues with Data: A Case Study Approach

Table 1
Join a roundtable discussion about the use of case studies to engage students in practicing data analysis skills. The panelists are participants of the QUBES-SESYNC faculty mentoring network and will guide a lively discussion session about best practices and challenges of the case study approach in teaching college-level environmental courses.
Presenter(s): Yen-Chu Weng, University of Washington
Strand: Leveraging Evaluation Data as a Force for Telling Our EE Stories

Table 2
Ecology Project International has developed an evaluation system that analyzes program impacts on participants’ scientific process competencies, dispositions, and behaviors. During this roundtable, we will share our evaluation system and facilitate a generative dialogue in exploration of this question, “How can we leverage evaluation data to share compelling impact stories with target audiences?”
Presenter(s): Rachel Garwin, Ecology Project International
Strand: Planting Roots: Regaining Traditional Visions of Land Use

Table 3
Indigenous cultures are perceived as having close ties to the land. Modern technologies have removed many native peoples from traditional land use practices. This project, created in part by Native American students, modernizes traditional values to benefit tribes and their communities and is transferable to the environmental education classroom.
Presenter(s): Robert Galin, University of New Mexico at Gallup
Strand: SATURDAY
Saturday 11:20 AM

**Traditional Presentations**

**11:20 AM-12:00 PM**

**Connecting Your City and Citizens Through a Green School Program**

*11:20 AM-12:00 PM, Room 201B*

Learn about a Green Schools program that partners schools with their local government to increase environmental literacy in the community. It provides educators with resources to connect classroom concepts with the city where students live. Partners will share strategies to increase local environmental education opportunities and offer advice for collaborating with local schools.

*Presenter(s):* Stacy Smith, Keep Athens-Clarke County Beautiful; Stacee Farrell, Keep Athens-Clarke County Beautiful

**Equity and Inclusion Through Nature Play**

*11:20 AM-12:00 PM, Room 302A*

Developmentally and culturally appropriate EE in early childhood, including playing in nature, is vital for children’s well-being. However, not all ECEE & nature play is accessible and inclusive of all children. Come learn about equity considerations for designing a nature play site and practical ways to make programming more inclusive.

*Presenter(s):* Amaris Alanis Ribeiro, North Park Village Nature Center; Ellen Bashor, Prescott College Center for Nature and Place-based Early Childhood Education; Sarah Foglesong, Center for Nature and Place-based ECE; Erin Saunders, Thorne Nature Experience

**Place-Based Teaching and Learning: Empowering Educators to Increase Student Outcomes**

*11:20 AM-12:00 PM, Room 401B*

The Hurricane Island Center for Science and Leadership is designing a suite of opportunities to empower educators and students as environmental changemakers and leaders. Come learn about our innovative approach to environmental education and join us in a conversation about addressing barriers to place-based learning across the entire education landscape.

*Presenter(s):* Jennifer Page, Hurricane Island Center for Science and Leadership; Phoebe Jekielek, Hurricane Island Center for Science and Leadership

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**Serving Under-Resourced Schools Through a Revenue Generating College Partnership**

*11:20 AM-12:00 PM, Room 401C*

Learn how the Chewonki Foundation leveraged a college-level, skills-based workshop to support programming for under-resourced elementary students. Through a collaborative partnership with Unity College, career-bound seniors receive authentic program development and teaching experience in the field of wildlife education, broadening the reach of environmental education in a rural community.

*Presenter(s):* Emma Balazs, Chewonki Foundation; Cheryl Frederick, Unity College

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**Team Science: Empowering Youth Through Citizen Science in School Communities**

*11:20 AM-12:00 PM, Room 203*

Learn about a research-based collaborative approach to Education for Sustainability (EfS) through “Team Science.” Discover strategies from CELF and Mount Sinai PEHSU used with NYC schools to collect data and create air pollution remediation plans to promote and incorporate real-world learning experiences into teaching practices and student advocacy.

*Presenter(s):* Vicky Garufi, Children’s Environmental Literacy Foundation; Luz Guel, Mount Sinai Transdisciplinary Center on Early Environmental Exposures; Lisa Mechaley, Children’s Environmental Literacy Foundation

**Bright Spots**

*11:20 AM-12:00 PM*

Learn about two or three successful and loosely related programs in each 40-minute Bright Spots session. Sessions are presented in the order listed.

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**GROUP A**

*11:20 AM-12:00 PM, ROOM 202B*

**Empowering Young People to Take a Stand: Reporting for a Resilient Future**

Journalism or traditional forms of writing? Join us as we dive into environmental journalism, engaging young people in telling their stories about their community, world, and environment. We will become Young Reporters for the Environment—our backdrop, the UN’s Sustainable Development Goal 13: Climate Action, and our theme, resiliency.

*Presenter(s):* Jennifer Hammonds, National Wildlife Federation
Podcast Your Way to a More Environmentally Just and Sustainable Future
The impact of words has become more powerful than ever. Podcasts now provide a way to convey messages that can reach both diverse and very specific audiences. Portland Community College’s podcast “PCC Sustain Me!” has used this medium to examine the role of higher education in the sustainability and environmental justice movements.
Presenter(s): Joe Culhane, Portland Community College
Strand: ● YP

GROUP B
11:20 AM–12:00 PM, ROOM 202C

Cultivating Environmental Literacy and Sustainable Food Through a Community Ambassador Program
The Project Feed 1010 ambassador program has trained and empowered high-school students to use newfound knowledge, skills, and confidence to take action and develop EE programs and sustainable food systems in their communities. Get motivated to implement similar strategies in your community and realize the power of cultivating local leaders!
Presenter(s): Jessica Day, Institute for Systems Biology
Strand: ●

Service Learning as a Powerful Pedagogy for Environmental and Sustainability Education
This session will emphasize lessons learned from our collective experience utilizing service-learning as a powerful pedagogy at Slippery Rock University to enhance community-campus partnerships and student learning outcomes for courses focused on natural resources and sustainability.
Presenter(s): Rebecca Thomas, Slippery Rock University; Samantha Laurence, Robert A. Macoskey Center for Sustainable Systems, Education, and Research; Jacob Smith, Robert A. Macoskey Center for Sustainable Systems, Education, and Research; Paul Hedzik, Robert A. Macoskey Center for Sustainable Systems, Education, and Research
Strand: ● YP

Roundtable Discussions
11:20 AM-12:00 PM, Room 206CD

Data Jam! Enhancing Data Literacy and Communicating Ecology Through Art
Table 1
Ecology research sites around the country, including multiple Long-Term Ecological Research (LTER) sites, have developed an innovative method for engaging students in authentic ecology learning. Through Data Jam competitions, middle- and high-school students analyze and interpret data to communicate their findings to the public through original art.
Presenter(s): Michelle Forster, Cary Institute of Ecosystem Studies
Strand: ●

Language: Empowering Marginalized High School Students to Transform Communities.
Table 2
Latino voters have a strong commitment to conservation, and yet the environmental field has been lagging to engage this growing community. Learn from educators from Escuela Verde, an urban environmental high school, as they share stories about successes and challenges to engaging marginalized youth in this discourse.
Presenter(s): Cynthia Lorena Gonzalez, Escuela Verde; Zaynab Baalbaki, Escuela Verde (TransCenter for Youth)
Strand: ●

What Makes a Green School a Green School?
Table 3
Join us for a robust roundtable discussion about how different recognition programs have come to evaluate what makes a green school a green school—and how we might retool our frameworks across the spectrum of district, state, and national programs for greater effectiveness, alignment, and inclusiveness for participating schools.
Presenter(s): Lauren Butcher, Florida Atlantic University Pine Jog Environmental Education Center; Anne Henderson, Florida Atlantic University Pine Jog Environmental Education Center
Strand: ●
Saturday 12:00 PM

NAAEE Awards Luncheon and Closing Panel
12:00 PM–2:30 PM, Centennial Ballroom
Join us in congratulating the 2018 NAAEE award recipients, individuals and organizations demonstrating exemplary leadership in our field. Included is the presentation of the Jeske Award, considered the organization’s highest honor.

PLENARY PANEL
Jared Hiakita, Denise Lee, Taiji Nelson, Barbara Spiecker
Co-moderated by Quilen Blackwell and Stephanie Ung
EE 30 Under 30: Young Leaders Making a Difference
See pages 38 and 39 for more information.

Sunday 9:00 AM

Post-Conference Field Trips
Meet your transportation at the front entrance of the Davenport Hotel 15 minutes before the listed departure time.

Note: Field trips require pre-registration and an additional fee.

Urban Kayaks
9:00 AM–12:00 PM, Spokane River, Spokane
As city sounds and bird songs serenade, you’ll paddle single sit-on-top kayaks from the upriver dam to downtown Spokane. This 3½-mile paddle will take you past towering cottonwood trees, train trestles, and arched bridges—an amazing adventure through the heart of the city. This is mostly a flatwater paddle with two small rapids.

Riverside on Horseback
12:15 PM–3:30 PM, Riverside State Park Equestrian Area
Experience Riverside State Park the way it was viewed by early explorers: on horseback! This two-hour ride with True West will guide you through scenic trails at a leisurely pace that will allow you to enjoy expansive views as well as the native plants and animals of the park’s ponderosa pine forest and open steppe habitats.
We lost our dear, dear friend Pepe Marcos-Iga a few weeks ago due to complications from cancer. Pepe was a force in the field of environmental education for more than two decades, working to protect the planet, build community, create a more equitable and inclusive society, mentor a new generation of leaders, and add laughter to our lives. Pepe was brilliant, kind, creative, and so giving. He was a master storyteller and a wonderful writer. He was the best friend and colleague we could ever have wished for.

If you would like to honor Pepe’s legacy and help support his family at this difficult time, visit the “Celebrate Pepe Marcos-Iga” page on the GoFundMe platform.

Join us in celebrating Pepe’s life by sharing stories and remembering our wonderful friend who left us far too soon. We know that his spirit lives on in the work that everyone in the NAAEE family does every day to create a better world.
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NAAEE Affiliate Network
From Alberta, Canada to Coyoacán, Mexico

- Environmental Education Association of Alabama
- Alberta Council for Environmental Education
- Alaska Natural Resources and Outdoor Education Association
- Arizona Association for Environmental Education
- Arkansas Environmental Education Association
- California Association for Environmental and Outdoor Education
- Canadian Network for Environmental Education and Communication (EECOM) /Le réseau canadien pour d’éducation et de communication relatives à l’environnement
- Colorado Alliance for Environmental Education
- Delaware Association for Environmental Education
- District of Columbia Environmental Education Consortium
- League of Environmental Educators in Florida
- Environmental Education Alliance of Georgia
- Hawaii Environmental Education Alliance
- Idaho Environmental Education Association
- Environmental Education Association of Illinois
- Environmental Education Association of Indiana
- Iowa Conservation Education Coalition
- Kansas Association for Conservation and Environmental Education
- Kentucky Association for Environmental Education
- Louisiana Environmental Education Association
- Maine Environmental Education Association
- Maryland Association for Environmental & Outdoor Education
- Massachussetts Environmental Education Society
- Mexico Centro de Información y Comunicación Ambiental de Norte América
- Michigan Alliance for Environmental and Outdoor Education
- Minnesota Association for Environmental Education
- Mississippi Environmental Education Alliance
- Missouri Environmental Education Association
- Montana Environmental Education Association
- Nebraska Alliance for Conservation and Environmental Education
- New England Environmental Education Alliance
- New Hampshire Environmental Educators
- Alliance for New Jersey Environmental Education
- Environmental Education Association of New Mexico
- New York State Outdoor Education Association
- Environmental Educators of North Carolina
- North Dakota Coalition for Conservation and Environmental Education
- Environmental Education Council of Ohio
- Oklahoma Association for Environmental Education
- Environmental Education Association of Oregon
- Pennsylvania Association of Environmental Educators
- Rhode Island Environmental Education Association
- Saskatchewan Outdoor and Environmental Education Association
- Environmental Education Association of South Carolina
- Environment Education Connections of South Dakota
- Southeastern Environmental Education Alliance
- Tennessee Environmental Education Association
- Texas Association for Environmental Education
- Utah Society for Environmental Education
- Vermont Statewide Environmental Education Programs
- Virginia Association for Environmental Education
- E3 Washington
- West Virginia Environmental Education Association
- Wisconsin Association for Environmental Education
- Wyoming Association for Environmental Education
Going Green with NAAEE

Reduce Your Impact!

NAAEE is working with Renewable Choice Energy to reduce the environmental impact of our conference. You can purchase verified emission reductions (VERs) at the registration desk to help balance the carbon dioxide emissions associated with your travel to the conference and use of resources during your stay in Spokane. Renewable Choice Energy supports a variety of domestic and international carbon projects that conform to leading standards.

Let’s aim for a record year!

Environmental Sustainability at the LEED Silver Certified Spokane Convention Center

The Spokane Convention Center’s recent expansion is one of the first buildings in the greater Spokane area to be awarded the US Green Building Council’s Leadership in Environmental and Energy Design (LEED) silver rating, becoming only the third Convention Center in the United States to achieve this award.

The Spokane Public Facilities District has adopted an environmental policy to operate its venues in an environmentally friendly manner, taking every available opportunity to reduce waste by conserving essential resources, recycling and using recycled materials, and utilizing renewable energy sources whenever possible. Procedures have been developed and communicated in various ways to engage all employees, clients, and guests in participating in sustainable practices.

Here are some of the ways the Spokane Convention Center supports sustainable practices:

- 100% wind power operated
- Water reclamation, filtration, and separation
- Use of recycled materials during expansion/construction projects
- Use of local building resources to help reduce emissions and carbon footprint
- Green housekeeping (GS-37 compliant, low VOC cleaning products, recycled containers, reusable cloths)
- Campus-wide recycling program (both public and service areas)
- Energy management (natural light, non-event day reductions, motion sensors)
- HVAC efficiency management (programmable temperature control and lighting devices have reduced energy consumption by 40%, saving over $100,000 annually)
- Indigenous, drought-resistant landscaping
- Purchasing local fare from nearby farms and businesses whenever available
- Donation of excess food and beverages to local shelters and soup kitchens
- Responsible purchasing (effort made to purchase reusable, responsible, and recycled products)
- Composting
- Responsible office procedures and practices (recycling, energy efficient products, email)

Going Green with NAAEE

This program is printed on FSC post-consumer-waste recycled paper with environmentally friendly inks.

Ponderosa Pine

Scottish botanist-explorer David Douglas named the tree (in Latin) *Pinus ponderosa* while botanizing along the Spokane River in 1826. He chose the word “ponderosa,” meaning ponderous or heavy, because of its sheer bulk. The Latin name eventually became--unusual among trees--the common name.

– The Spokesman-Review

This program is printed on FSC post-consumer-waste recycled paper with environmentally friendly inks.
It’s easy to see why Spokane’s motto is “Near nature. Near perfect.” Spokane offers a unique combination of outdoor activities, great dining, and a multitude of cultural and historic experiences. Explore and enjoy the variety while you’re in town; here are a few easy-to-access opportunities.

**Places to Eat & Drink**

**Boots Bakery and Lounge**
A kitschy, artistic restaurant, offering food from different inspirations; meets dietary needs well
24 W. Main Avenue, Spokane
(509) 703-7223
https://www.facebook.com/bootsbakerylounge/

**Central Food**
A new restaurant with great breakfast/brunch menus, a beautiful view, and tons of vegetarian, gluten-free, and dairy-free options
1335 W. Summit Parkway, Spokane
(509) 315-8036
http://eatcentralfood.com/

**Chicken-n-More**
This affordable and casual Southern-style restaurant, with a long menu, has been listed in the Best of the Northwest. Make sure you try Bob’s famous sauce!
414½ W. Sprague Avenue, Spokane
(509) 838-5071
http://chicken-n-more.com/index.html

**Cochinito**
Mexican food with responsibly-sourced ingredients in a casual setting
10 N. Post Street, Spokane
(509) 474-9618
http://cochinitotaqueria.com/

**Community Pint**
A craft beer bar with an inviting atmosphere where dogs are welcomed
120 E. Sprague Avenue, Spokane
(509) 624-1631
http://www.communitypint.com/

**Durkin’s Liquor Bar**
A new-American eatery with many different influences and cocktails adored by locals
415 W. Main Avenue, Spokane
(509) 863-9501
http://www.durkinsliquorbar.com/

**Inland Pacific Kitchen**
This restaurant pulls inspiration from all over the world and creates menus that are exciting and vegan, vegetarian, and gluten-free friendly
304 W. Pacific Avenue, Spokane
(509) 464-6541
http://ipkspokane.com/

**Iron Goat Brewing**
A brewery and bar in a historic setting with classic brewery food to go along with the in-house, craft beers
1302 W 2nd Avenue, Spokane
(509) 474-0722
http://www.irongoatbrewing.com/
Gilded Unicorn
This modern American eatery has a diverse menu with “magical” and flavorful foods, all in a beautiful building 110 S. Monroe Street, Spokane
(509) 309-3698
http://www.gildedunicorn.com/

Left Bank Wine Bar
A casual wine bar with a focus on regional drinks featuring live music many nights of the week
108 N. Washington St #105, Spokane
(509) 315-8623
http://www.leftbankwinebar.com/

Mizuna
With a focus on vegetarian food, this restaurant has a fabulous list of cocktails
214 N. Howard, Spokane
(509) 747-2004
https://www.mizuna.com/

Rocky Rococos Pizza
This classic Italian restaurant offers pizza and pasta, plus a few other items, with free delivery
W520 Main Street, Spokane
(509) 747-1000
https://rockyroccocos.com/

Ruins
This casual but exciting spot offers eclectic, new-American food on a weekly rotating menu
825 N. Monroe Street, Spokane
(509) 443-5606
https://www.facebook.com/ruins.spokane/

Steam Plant
An inventive restaurant and brewery with unique architecture that has been a Spokane highlight for over 100 years.
159 South Lincoln, Spokane
(509) 777-3900
http://steamplantspokane.com/

Sushi.com
A sushi joint, with fresh fish brought in daily and a fun atmosphere
430 W Main Avenue, Spokane
(509) 838-0630
http://experiencespokane.com/sushicom/

Wild Sage Bistro
Intimate, award-winning bistro with many local ingredients and a gluten-free menu available
916 W. 2nd Avenue, Spokane
(509) 456-7575
http://www.wildsagebistro.com/

Zola
This industrial, historic venue with an inspired menu and live music seven nights a week caters well to dietary restrictions
22 W. Main Avenue, Spokane
(509) 624-2416
http://www.zolainspokane.com/

Places to Visit

Auntie’s Bookstore
Make sure to check out this independent bookstore! They have new books, used books, T-shirts, and specialty Spokane items that you can even take home as gifts. Auntie’s will host an environmental book sale during the Exhibit Luncheon on Thursday.
402 W. Main, Spokane
(509) 838-0206
https://www.auntiesbooks.com/

Bowl & Pitcher Hike
This 2.1-mile hike will take you through beautiful scenery in and around Spokane. Whether you choose to go upstream or downstream, the trail will circle back around and you’ll see great views. Don’t miss the Swinging Bridge! You’ll need a Discover Pass hiking permit.
4427 N. Aubrey L. White Parkway, Spokane
(509) 465-5064
https://www.wta.org/go-hiking/hikes/riverside-state-park

Centennial Trail
This trail is paved for 37 miles in Washington State, and it continues through Idaho. Designated as a National Recreation Trail, run, walk, or bike through gorgeous landscape. You’ll need a Discover Pass if you will be using the trailheads inside of Riverside State Park.
https://www.spokanecounty.org/1386/Centennial-Trail

Green Bluff Farm
Formed in 1902, the Green Bluff Farming Community is an association of small family farms and food stands offering a wide variety of fruits and vegetables (picked or U-Pick), libations, and specialty products. The annual Apple Festival is held over several fall weekends. About 30 minutes north of the Convention Center.
Greenbluff Road/Day-Mt. Spokane Road, Mead
http://greenbluffgrowers.com/
Looff Carrousel
Riverfront Park's 1909 Looff Carrousel is one of America's most beautiful and well preserved hand-carved wooden carrousels. There are 54 horses, 1 giraffe, 1 tiger, and 2 Chinese dragon chairs and a brass ring to catch. Wheelchairs welcome. $2 per ride. 507 N. Howard Street, Spokane
https://spokanecarrousel.org

Manito Park
This 90-acre park in Spokane boasts five unique parks within it, including a Japanese Garden with beautiful fall flowers, a conservatory and a duck pond. 1702 S. Grand Boulevard, Spokane
http://www.manitopark.org/

Mobius Science Center
Free Admission for Conference Registrants
This museum inspires interest in science through exhibits and programs that engage people throughout the learning process. Designed to stimulate learning for all ages. Show your conference nametag for free admission, Thursday through Saturday. 331 N. Post Street, Spokane (509) 321-7133
http://mobiusspokane.org/mobius-science-center

Museum of Arts and Culture (MAC)
Associated with the Smithsonian Institute, this museum focuses on American Indian cultures, visual art, and history of the region. Artifacts and primary sources exclusive to this museum are on display. 2316 W. 1st Avenue, Spokane (509) 456-3931
https://www.northwestmuseum.org/

Riverfront Park
Stroll through Riverfront Park or see it from above in a gondola! This 100-acre park boasts many of Spokane's points of pride, including the urban waterfall and the clocktower. One-quarter mile from the Convention Center. 507 N. Howard Street, Spokane (509) 625-6600
https://my.spokanecity.org/riverfrontpark/

SkyRide Over the Falls
Enjoy front-row views of the spectacular Spokane Fall during this 15-minute ride in an “all weather” enclosed cabin. Wheelchairs welcome. Riverside Park, Spokane (509) 625-6601
https://my.spokanecity.org/riverfrontpark/attractions/skyride/

Spokane Tribal Gathering Place
The Gathering Place is a monument and park with kiosks that provide historical information and stunning views of Huntington Park and the majestic Spokane Falls. Also known as the “Place Where Salmon is Prepared,” the river and falls below the plaza served as a gathering place for native peoples for thousands of years. 353-367 N. Post Street, Spokane
http://downtownspokane.org/directory/tribal-gathering-place/

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Exhibit Fair Hours

Wednesday, 5:00 PM–6:30 PM
Thursday, 9:00 AM–5:00 PM
Friday, 9:00 AM–2:30 PM

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