### At-A-Glance Schedule

Check daily schedules (starting on page 4) for detailed information.

<table>
<thead>
<tr>
<th>TIME</th>
<th>THURSDAY</th>
<th>FRIDAY</th>
<th>SATURDAY</th>
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<tbody>
<tr>
<td>7:30 AM</td>
<td>Registration</td>
<td>Registration, Breakfast</td>
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<tr>
<td>8:00 AM</td>
<td>Interactive Breakfast</td>
<td>8:00-9:30 AM</td>
<td>8:00-9:30 AM Breakfast &amp; Morning Keynote</td>
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<tr>
<td>8:30 AM</td>
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<td>Welcome &amp; Morning Keynote</td>
<td>Morning Panel Discussion</td>
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<td>9:00 AM</td>
<td>9:00 AM-12:00 PM</td>
<td>15-Minute Break</td>
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<tr>
<td>9:30 AM</td>
<td>Pre-Conference Workshops</td>
<td>9:45 AM-12:30 PM</td>
<td>Concurrent Sessions with Breaks</td>
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<tr>
<td>9:45 AM</td>
<td>Concurrent Sessions (see page 4 for options)</td>
<td>Concurrent Sessions with Breaks (see page 6 for options)</td>
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<tr>
<td>12:30 PM</td>
<td>Networking Lunch</td>
<td>Lunch &amp; Learn</td>
<td>Lunch, Arizona Green Chamber Panel &amp; Closing Remarks</td>
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<td>12:45 PM</td>
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<td>15-Minute Break</td>
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<td>1:30 PM</td>
<td>Pre-Conference Workshops</td>
<td>2:00-3:45 PM</td>
<td>2:00-5:00 PM</td>
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<tr>
<td>1:45 PM</td>
<td>Concurrent Sessions (see page 5 for options)</td>
<td>Concurrent Sessions (see page 9 for options)</td>
<td>Field Trip Experiences (see page 14 for options)</td>
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<tr>
<td>4:00 PM</td>
<td>AAEE Committee Meetings</td>
<td>Dialogue Session</td>
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<td>5:00 PM</td>
<td>30-Minute Break</td>
<td>Happy Hour – Share Fair – Visit Exhibitors and Posters</td>
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<td>5:30 PM</td>
<td>5:30-8:30 PM</td>
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<tr>
<td>6:00 PM</td>
<td>Welcome Reception Hosted at Natural History Institute</td>
<td>6:00-9:00 PM</td>
<td>Keynote Speaker, Awards Dinner, &amp; Silent Auction Winners Announced</td>
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Please note that some concurrent sessions are longer than others and are denoted **105 Min Session**

### Welcome

The Arizona Association for Environmental Education (AAEE) has been active in Arizona for almost 50 years. We are excited to convene our first conference in 10 years and hope that we can grow stronger in years to come.

The 2019 AAEE conference is an opportunity to bring together environmental education (EE) professionals to share impacts and best practices and participate in professional development, so that collectively we can increase environmental literacy in our communities. So much great work is happening in Arizona and we are excited to provide this venue to connect and enrich what we do.

Environmental education programs in Arizona should be as representative of our communities and inclusive as possible. With that in mind, it’s our goal to bring together as many different voices as possible and we are so glad you’re one of them.

### Some of the broad goals the AAEE board has identified for hosting include:

1. To bring attention to AAEE and its mission (Actively and responsibly engage in our communities ecologically, socially, and civically.)
2. To demonstrate that EE is not just for K-12 formal educators in a classroom
3. To highlight the diversity of ways that people in Arizona conduct EE
4. To begin to address inclusivity issues in the work that we do.
Thank you to our sponsors of the AAEE 2019 Conference and supporters of environmental education.

Thank You to Our Sponsors & Supporters

Prescott College

Sonoran

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Nature Play Learning

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We'd also like to thank our friends and family who participated in our Facebook campaign to help us raise $500 dedicated to offset conference costs.

Visit pinkadventuretours.com/aaee2019 and use code AAEE2019 for a special discount on the Sunday after the conference.

The Arizona Association for Environmental Education (AAEE) is an Affiliate of the North American Association for Environmental Education (NAAEE).
Prescott College

Classrooms Don't Need Four Walls

TAKE IT OUTSIDE

Get your M.A. with emphasis area in Environmental Education, or choose from our amongst our comprehensive programs for educators including Certificates, BA, MA, MEd and PhD programs.

APPLY TODAY, CHANGE THE WORLD TOMORROW!

prescott.edu
THURSDAY, SEPTEMBER 12th, 2019

7:30 am - 8:00 am
REGISTRATION

8:00 am - 9:00 am
Interactive Breakfast

9:00 am - 12:00 pm
CONCURRENT SESSIONS

9:00 am - 12:00 pm
Project Learning Tree

**Project Learning Tree**

9:00 am - 12:00 pm: Project Learning Tree

Project Learning Tree (PLT) is an award-winning environmental education curriculum designed for teachers, parents, community leaders and non-formal educators. The focus of the curriculum is to make learning about trees and forests fun and engaging while also teaching critical thinking skills. PLT’s main goal is to teach children how to think, not what to think. This half day workshop will focus on hands-on lessons that can be utilized both indoors and outdoors with a variety of audiences.

**Presenter(s): Cheryl Miller**, Centennial Forest Manager, School of Forestry, Northern Arizona University

Arizona Project WET

9:00 am – 12:00 pm:

How to Activate a Field Day Using the Lawrence Hall of Science BEETLES Program

The Arizona Project WET (APW) team applied for and attended the 2019 BEETLES (http://beetlesproject.org) Leadership Institute and came away with innovative approaches for creating meaningful outdoor experiences that align with the vision of the Arizona Science Standards (AZSS). The new standards represent a significant shift in teaching and learning — a shift from memorizing and recalling facts to focusing on thinking, meaning making, and deep conceptual understanding. Students are asked to use the tools of science to explore and investigate phenomena and to try to figure out how the natural world works just like they would in any environmental education program. In summary, environmental education is back and APW is excited to share the research-based instructor resources and student learning opportunities that we learned about. Together we have an unprecedented opportunity to advocate for the increasing relevance of environmental education, and the role it can play in supporting national goals to improve formal science education. Come experience the wonder of discovery with Arizona Project WET as we activate learning at a field day!

**Presenter(s): Kerry Schwartz**, Director, Arizona Project WET; **Betsy Wilkening**, **Sandra Hurlbut**; and **Pearl Lam**, Arizona Project WET

Project WILD

9:00 am – 12:00 pm: Project WILD

Project WILD is an interdisciplinary conservation and environmental education program that focuses on wildlife and habitat. The mission is to help students in formal, informal, and non-formal situations learn how to think, not what to think, about wildlife and the environment. All curriculum materials are backed by sound educational practices and theory. The Project WILD! Terrestrial book has over 400 activities that can easily be integrated into any environmental education program.

**Presenter(s): Kalman Mannis**, Arizona Project WILD Coordinator

Earth Education

9:00 am – 12:00 pm: An Introduction to Earth Education

**Earth Education** is, “the process of helping people live more harmoniously and joyously with the natural world.” It accomplishes this goal by developing exciting programs for children and adults, composed of skillfully crafted, sequential, cumulative, interactive, and dynamic learning experiences which focus on specific outcomes. Join us as we explore this approach through hands-on conceptual encounters and immersive experiences!

**Presenter(s): Colin Waite**, Director, Cooper Center for Environmental Learning

** Denotes AAEE Certified Environmental Educator
**Denotes AAEE Certified Environmental Educator

12:00 pm - 1:00 pm
NETWORKING LUNCH

1:00 pm - 4:00 pm
CONCURRENT SESSIONS

1:00 pm - 4:00 pm
Project Learning Tree

Project Learning Tree (PLT) is an award-winning environmental education curriculum designed for teachers, parents, community leaders and non-formal educators. The focus of the curriculum is to make learning about trees and forests fun and engaging while also teaching critical thinking skills. PLT’s main goal is to teach children how to think, not what to think. This half day workshop will focus on hands-on lessons that can be utilized both indoors and outdoors with a variety of audiences.

Presenter(s): Cheryl Miller, Centennial Forest Manager, School of Forestry, Northern Arizona University

Arizona Project WET

1:00 pm – 4:00 pm: Digging in to Increased Heat and Extreme Weather Events to Build Community Resilience

Engaging community members in building resilience to extreme weather events starts with climate literacy that leads to actions. Participants in this workshop will explore hands-on lessons, data resources, instructional practices, actions to reduce carbon, and citizen science initiatives that can be used with a variety of audiences. Bring laptops with Excel or Google Sheets available.

Presenter(s): Kerry Schwartz, Director, Arizona Project WET; Betsy Wilkening, Education Coordinator, Tucson Program, Arizona Project WET

Project WILD

1:00 pm – 4:00 pm: Growing Up WILD

Growing Up WILD takes the best of the Project WILD curriculum and adapts it to learners from ages 5-10. The book is structured with 27 complete STEM lessons including background information for the teacher and activities that can be sent home. This is a great resource for those trying to conceptualize what a STEM Unit can look like for young learners and how to implement it.

Presenter(s): Kalman Mannis, Arizona Project WILD Coordinator

Arizona Association for Environmental Education

1:00 – 4:00 pm: Introduction to the NAAEE Guidelines for Excellence in Environmental Education

The NAAEE Guidelines for Excellence Series is a framework for delivering sound environmental education in formal, non-formal, and non-traditional settings. Focused on best practices, this hands-on three-hour workshop will provide an overview to the tools available for creating stellar programs for your organization. It will offer opportunities for collaboration with participants in similar fields and for programs to work together and apply the Guidelines in their work. It is also an introduction to our Arizona Association for Environmental Education Basic Certification.

Presenter(s): Gabrielle Hebert**, Director of Education, Arizona Center for Nature Conservation; Lisa Herrmann**, Education Manager, Arizona State University

4:00 pm - 5:00 pm
AAEE COMMITTEE MEETINGS
ALL ARE WELCOME TO ATTEND!

5:00 pm - 8:30 pm
EVENING EVENTS

5:00 pm - 5:30 pm
BREAK - ENJOY A WALK OR DRIVE TO THE NATURAL HISTORY INSTITUTE

5:30 pm - 8:30 pm
WELCOME RECEPTION AT THE NATURAL HISTORY INSTITUTE

** Denotes AAEE Certified Environmental Educator
FRIDAY, SEPTEMBER 13th, 2019
Room 1: Citizen Science
Room 2: Engaging Partners & Community
Room 3: Fresh Ideas for Formal Educators
Room 4: Place-Based Education
Room 5: Connecting with Nature

7:30 am - 8:00 am
REGISTRATION - BREAKFAST

8:00 am - 9:30 am
WELCOME & MORNING KEYNOTE
- Opening & Welcome, Land Acknowledgement, AAEE Overview & Approach to Inclusivity - AAEE President, LoriAnne Barnett
- Keynote: Executive Director of the Natural History Institute, Tom Fleischner – “The Heart and Soul of Environmental Education”

9:30 am - 9:45 am
BREAK

9:45 am - 12:25 pm
CONCURRENT SESSIONS

9:45 am - 10:35 am
Engaging Youth through Citizen Science in Southern Arizona’s National Parks
Strand: Citizen Science
Room: 1
The National Park Service is integrating youth citizen scientists into cutting-edge natural and cultural research efforts across southern Arizona’s national parks. Youth are supporting wildlife studies, vegetation monitoring, hydrological surveys, and cultural resource preservation experiments. Learn about the National Park Service’s Desert Research Learning Center and Sonoran Desert Network and ways they are engaging youth through science.

Presenter(s): Elise Dillingham, Biologist / Program Coordinator of the Desert Research Learning Center, US National Park Service

9:45 am - 10:35 am
Teaching Controversial Community Topics: Teaching about open pit mine concepts in a pro-mine school district
Strand: Engaging Partners & Community
Room: 2
The presenter, a teacher in southern Arizona (now retired), found himself on the periphery of a community debate about new open pit mines near his school district. Staying within Common Core standards, the presenter created lessons about precious metals and earth processes, and also utilized original artwork, parent classroom presentations, field trips to a local mining operation, and a “pro” and “con” student debate with local political leaders in attendance.

Presenter(s): Dave DeGroot, Retired Teacher, Arizona. Certified Arizona Master Naturalist

9:45 am - 11:30 am | 105 Min Session
Activities on the Anthropocene
Strand: Fresh Ideas for Formal Educators
Room: 3
Explore the impacts of human population growth on environmental systems with hands-on and minds-on activities. Discover how population pressures intersect with carrying capacity, resource distribution, environmental justice, and eco-ethics. Participants will leave with a library of activities, background readings, and other resources for students in grades 6-12.

Presenter(s): John Jung, Instructor, Arizona State University, School of Sustainability
9:45 am - 11:30 am | 105 Min Session
The Art of Paying Attention
Strand: Place-Based Education
Room: 4
If you practice the art of paying attention, you will find that grand adventures await you wherever you are. Come explore our integrated place in nature with award-winning wildlife artist, writer, and radio commentator Beth Surdut, creator of the illustrated *The Art of Paying Attention* NPR radio series and *Listening to Raven* drawings and stories. Storytelling and science combine in an amble around campus with this certified environmental educator. Sit by a stream as we exercise our particular senses during this indoor-outdoor workshop. We will examine the different ways we take in and impart information.

**Presenter(s): Beth Surdut**, Professional Writer and Artist [www.bethsurdut.com](http://www.bethsurdut.com)

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9:45 am - 11:30 am | 105 Min Session
School Gardens as Educational Tools: Creating Living Laboratories with Your School or Community Gardens
Strand: Connecting with Nature
Room: 5
Gardens can be amazing tools for learning! This workshop will demonstrate different techniques for using a community or school garden to meet environmental education learning objectives. Members of the University of Arizona’s Community and School Garden Program will engage participants in hands-on station activities that can be adapted for many audiences and contexts. Topics will include: using worms to teach the scientific method, food webs and ecology in the garden, and garden literacy, as well as a group discussion on other ways garden learning can be implemented.

**Presenter(s): Jessie Rack**, Environmental Education Program Coordinator, University of Arizona; **Blue Baldwin**, Ecology Program Coordinator, Manzo Elementary; and **Tammy Larson**, Gardening and Urban Ecology Program Coordinator, University of Arizona.

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10:35 am - 10:40 am
BREAK

10:40 am - 11:30 am
Crowdsourcing Phenology Observations with Middle School Citizen Scientists
Strand: Citizen Science
Room: 1
Citizen science is not just for birds! This presentation will outline strategic steps in collaborating with schools and other public and private organizations to crowdsource the collection of phenology data on six key Sonoran desert native plants.

**Presenter(s): Stephen Spikes**, Volunteer Coordinator and Education Specialist, Tohono Chul Park

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10:40 am - 11:30 am
Mastering effective and ongoing curriculum design in order to support cultural change
Strand: Engaging Partners & Community
Room: 2
Change is hard. For decades the McDowell Sonoran Conservancy has developed education offerings ensuring that our volunteers understand the region they live in. Championing the need to adapt to cutting edge curriculum design, this presentation allows participants to learn about best practices used to develop curriculum after decades of programs.

**Presenter(s): Jen Jenkin**, Education Manager, McDowell Sonoran Conservancy

11:30 am - 11:35 am
BREAK
Integrating Citizen Science in Park Landscape Architecture Design
Room: 1
This presentation will introduce the idea that citizen science can be integrated into landscape design practices for schools and parks to create an informal educational setting. Citizen science will be emphasized as a tool and framework for how landscape designers, planners, and school administrators can program public spaces into informal educational opportunities. We will provide a database of citizen science projects that planners and designers can use for public park projects and for school administrators to use for school garden projects. We will provide examples of how citizen science can be, and has been used in the past, and where we see citizen science being used for future projects.

Presenter(s): Dionna Hatch, Community Outreach Associate/Coverdell Peace Corps Fellow, USA National Phenology Network

Biosphere 2 - Earth Systems Education for Students and the Public at an Active Research Facility
Room: 2
Biosphere 2 is a bold science and education resource, helping us all better understand the fundamentals of complex earth systems. Determining how to approach environmental protections that facilitate ongoing ecosystem services on which we all rely requires large-scale, controlled research, under future climate scenarios. We use the >3-acre facility, multiple biomes, and interdisciplinary research to engage students and the public in myriad ways.

Presenter(s): Kevin Bonine, Director of Education and Outreach, University of Arizona, Biosphere 2

How Does the Arizona Water Cycle Rule My World?
Room: 3
The Southwest’s regional hydrologic cycle makes our lives and our quest for a sustainable water supply vastly different from other parts of the world. Participants will develop and use models to understand our interconnected natural systems and to demonstrate how Arizona’s water management systems are driven by energy (gain or loss) and the force of gravity. With themselves at the center of their own regional water cycle, participants will construct explanations and design solutions as water managers and stewards of water resources. They will walk away with internationally acclaimed lessons applied to our region.

Presenter(s): Kerry Schwartz, Director, Arizona Project WET; Sandra Hurlbut, Pearl Lam, Arizona Project WET

It’s Raining, It’s Pouring, It’s Flooding!
Room: 4
Learn about monsoon storms in urban and rural areas. Come see a preview of resources that are available to supplement instruction on Earth’s water, weather, and preparing for disasters.

Presenter(s): Ellen Spielman, Outreach Coordinator Liaison, Flood Control District of Maricopa County
11:35 am - 12:25 pm
Project-Based Learning in Environmental Education
Strand: Connecting with Nature
Room: 5
Join Josh Ruddick, science educator and master naturalist, to hear his experiences in designing and implementing project-based learning units in the environmental education space. This talk will focus on the critical elements of project-based learning and how they can be implemented in outdoor education units. Josh will present a case study to illustrate the considerations, potential pitfalls and rewards of outdoor project-based learning.
**Presenter(s): Josh Ruddick, Science Educator, Changemaker High School. Certified Arizona Master Naturalist.**

12:30 pm - 1:45 pm
LUNCH AND LEARN: EE AND YOU
Pick a topic and join us at the lunch tables for dynamic small group discussions.

1:45 pm - 2:00 pm
BREAK

2:00 pm - 3:45 pm
CONCURRENT SESSIONS

2:00 pm - 2:50 pm
Bridging Schools and Parks Through Citizen Science
Strand: Citizen Science
Room: 1
Presenters share the unflinching successes and challenges of the Bridging Schools and Parks (BS&P) through a citizen science project, a three-year collaborative effort between Saguaro National Park, Sunnyside School District, National Phenology Network, Sonoran Desert Monitoring Network, and Ironwood Tree Experience.
**Presenter(s): Suzanne Dhruv, Executive Director, Ironwood Tree Experience**

2:00 pm - 2:50 pm
Partnerships & Research in EE
Strand: Engaging Partners & Community
Room: 2
Effectiveness is measured by impact. Learn more about two strategies that work.
**Presenter(s): Colin Waite, Director, Cooper Center for Environmental Learning**

2:00 pm - 3:45 pm | 105 Min Session
Kids Making Sense of Air Pollution
Strand: Fresh Ideas for Formal Educators
Room: 3
Kids Making Sense (KMS) is a global environmental education program. Developed by Sonoma Technology, Inc., KMS uses STEM to empower the next generation of citizen scientists. We’ll take science outdoors and record real air quality data in real time using portable sensors and cell phones. Data collection sessions will be saved and uploaded onto an online map for analysis and discussion.
**Presenter(s): Jenny Frank** | Education Outreach Coordinator, Maricopa County Air Quality Department; Katrece Swenson, Education Outreach Associate, Maricopa County Air Quality Department

2:00 pm - 3:45 pm | 105 Min Session
Putting EE in Its Place
Strand: Place-Based Education
Room: 4
Utilizing the power of outdoor and place-based education to engage EE learning.
**Presenter(s): Treven Hooker, Youth Outreach and Education Coordinator, Arizona Trail Association**
2:00 pm - 3:45 pm | 105 Min Session
CYAN: Connecting Youth to Art and Nature
Strand: Connecting with Nature
Room: 5
This workshop will provide an opportunity to engage in activities and discussions about the intersection of art & nature, and its place in education; will address the need to cultivate diverse K-20 partnerships; will explore emergent opportunities that connect youth of all ages, abilities, & socio-economic backgrounds to experiences of creativity and ecological connection.

Presenter(s): Bahne Kuehne, Agent of Creative Advocacy, Educator, Facilitator Self-employed, CYAN

2:55 pm - 3:45 pm
Enhancing the New Arizona Science Standards with Phenology and Technology
Strand: Citizen Science
Room: 1
To solve today’s environmental challenges, interdisciplinary teams must work with petabytes of data to understand complex Earth systems. Never before has there been free, unfettered access to real, scientific data to the public at such as scale. Tomorrow’s STEM workforce may lack experience with activities that introduce “big data,” or large datasets, and how big data may be used to address community challenges in the face of change.

Presenter(s): Blake Steiner, Research Assistant, University of Arizona School of Natural Resources

2:55 pm - 3:45 pm
What’s Crackin’ Over at the Department of Forestry? Education, That’s What!
Strand: Engaging Partners & Community
Room: 2
With a relatively new program dedicated to outreach and education, the Department of Forestry and Fire Management’s Urban and Community Forestry team has been building resources to raise awareness about community trees, forests, and the reasons we need both. Current offerings include trainings for municipal staff, lesson plans for teachers, outdoor youth projects, in-classroom guest presentations, grants, homeowner workshops, and free online resources. These will be outlined along with challenges to building a program, including keeping resources relevant for various audience types across a wide geography. Our mission is state-wide but needs vary from community to community. Keeping our eye on that prize requires that we be thoughtful about how we build the program and where we put our limited resources. The presentation will culminate in audience feedback about what needs exist and how the Department’s resources can be used to fill gaps.

Presenter(s): Cori Dolan, Conservation Education Coordinator, Urban and Community Forestry, Arizona Department of Forestry and Fire Management

3:45 pm - 4:00 pm
BREAK

4:00 pm - 5:00 pm
DIALOGUE SESSION
Moving forward with EE: Join the movement to expand EE in these dynamic small group discussions built upon the Lunch and Learn.

5:00 pm - 6:00 pm
HAPPY HOUR - SHARE FAIR
VISIT EXHIBITORS & POSTERS

6:00 pm - 9:00 pm
KEYNOTE SPEAKER & AWARDS DINNER
Keynote: Director of Professional Preparation Programs at Prescott College, Dr. Centäe Richards - “Evolving Mindsets: Expanding the Cultural Reach of Environmental Education”
SATURDAY, SEPTEMBER 14TH, 2019
Room 1: Place-Based Education
Room 2: EE in Early Childhood
Room 3: Ideas at Work for EE
Room 4: Inquiry-Based Learning
Room 5: Connecting with Nature

7:30 am - 8:00 am
REGISTRATION

8:00 am - 9:30 am
BREAKFAST & MORNING PANEL DISCUSSION
How Do You EE? - An interactive sharing and learning session designed to explore the many ways EE is applied in fields beyond K-20 formal education, featuring a discussion of the intersectionality of inclusivity in working with diverse communities in Arizona.

Panelists include:
- **Sharlot Hart** - Archaeologist, National Park Service
- Tiffany Sprague - Parsons Field Institute Manager, McDowell Sonoran Conservancy
- Katy Prudic - Asst Research Professor, UA, Co-director, eButterfly
- Jeff Schalau - Cooperative Extension Agent, Natural Resources Yavapai County
- Colin Waite - Director, Cooper Center for Environmental Learning (UA College of Education)
- Jared McKinley and Katy Gierlach - Co-Owners, Spadefoot Nursery
- Suzanne Dhruv - Co-Director, Ironwood Tree Experience
- Jessie Rack - Herpetologist, Master Naturalist, School Garden Program Coordinator
- Kevin Bonine - Biosphere 2, Director of Education and Outreach, Researcher
- Elise Dillingham - Biologist, National Park Service
- Yajaira Gray - PCNRPR, Environmental Educator

9:30 am - 9:45 am
BREAK

9:45 am - 12:40 pm
CONCURRENT SESSIONS

9:45 am - 10:35 am
**Prescott College Kino Bay Center**
Strand: Place-Based Education
Room: 1
Since 2000, the Prescott College Kino Bay Center has implemented its Environmental Education and Community Leadership Program in Sonora, Mexico. This presentation describes the program’s unique philosophy and deep impacts in preparing young people to be agents of change in a community facing a variety of socio-economic and environmental challenges.

**Presenter(s): Martha Veronica Maldonado, Environmental Educator, Prescott College; Lorayne Meltzer, Prescott College**

9:45 am - 10:35 am
Strand: EE in Early Childhood
Room: 2
An introduction to Nature Play. What it is, why it is important, and how to incorporate it both inside and outside the classroom / learning environment. Also, how to take what you already doing in the classroom and “tweaking” it to fit the Nature Play approach.

**Presenter(s): Cheryl McCaw**, Preschool Teacher / Adjunct Faculty Arizona State University and Prescott College

9:45 am - 10:35 am
**Lightning Session - Ideas at Work**
Strand: Ideas at Work for EE
Room: 3

**Presenter(s):**
**Beth Surdut** - “Implementing the Desert to Desert Environmental Exchange Program” - The Desert to Desert (D2D) Environmental Exchange Education Program pairs classes in different locales to actively monitor and compare species activity in various desert micro-climates. Integrating science, arts, history, language, and site-specific cultural elements, participants learn the details of the natural life with which they share their particular desert territories.
Angel Breault - “The Value of Stipend Internships as a Model for Engaging Youth in Partnership Programs” - An overview of the benefits and value of stipend internships as a model for engaging youth in partner programs that have products and deliverables as outcomes.

Jenny Frank** - “Engage Your Community!” - Education is key to improving our air and creating a healthy environment. In this session, you will learn how the Maricopa County Air Quality Department has shared their clean air message with the public through school outreach and community events.

Julia Colbert, Sandra Abbott, Lisa Espinosa, Angelyn Chasse, and McKensie Gation - “Exploring Literacy in School Gardens” - Do you have a school or community garden that you want to use to get students interested in writing and curious about the natural world? Learn about tools and techniques for how to use nature journaling to engage students in describing what they notice in the world around them.

Andrea Hoerr - “Stewardship for the Homeowner and Homeowner’s Association” - Call to action for HOAs and homeowners to increase biodiversity on their properties.

9:45 am - 11:30 am | 105 Min Session
Incorporating Small-Group Inquiry Projects into Environmental Education
Strand: Inquiry-Based Learning
Room: 4
This extended workshop will prepare you to support students through the entire scientific inquiry process: from observations, to question formulation, to study design, to presentation, etc. You will design and carry out a mini-inquiry project with the support of our staff while we model how to facilitate with students.

Presenter(s): Rebecca Lipson, Assistant Director for Education, UA Science: Sky School

9:45 am - 11:30 am | 105 Min Session
Embracing the “TEM” in STEM for Outdoor/Experiential Education Programs
Strand: Connecting with Nature
Room: 5
Life science and earth/space science are the bread and butter of outdoor education. We can have insects crawl in our hands, smell the plants around us, hear the birds in the trees. We can bang rocks together, dig in the soil, and gaze at the stars and planets. But what about the rest of STEM? This workshop will attempt to share simple activities to broaden the toolbox of educators, traditional and non-traditional. These activities will be model examples of how to incorporate the standards for technology, engineering, and mathematics in a way that is accessible, hands-on, and designed for an outdoor setting. By lifting up the “TEM” in STEM, educators can connect and inspire a more diverse group of learners in not just the science, but other fields of study and work where many people are under-represented.

Presenter(s): Sarah Vincent, Director of STEM Outreach, Embry-Riddle Aeronautical University

10:35 am - 10:40 am
BREAK

10:40 am - 11:30 am
One-Half of the Sonoran Desert is Water!
Strand: Place-Based Education
Room: 1
An overview of topics related to the Gulf of California with suggestions on how they can (or should) be incorporated into Arizona Natural History discussions and instruction.

Presenter(s): Franklin Lane, Oceanography Technician, Certified Arizona Master, Naturalist Member, Biosphere 2
10:40 am - 11:30 am
What Does Nature Play in the Desert Look Like?
Strand: EE in Early Childhood
Room: 2
Many models for nature play emerge from places with green forests and abundant water. How can young learners safely explore our arid lands complete with spines, stings, scorpions, and snakes? This session will look at models in Tucson, AZ and explore designs and activities that celebrate our natural desert environment.
Presenter(s): Melissa Mundt, Permaculture Designer, Mom, Garden PlaySpace

10:40 am - 11:30 am
EE and the Well-Rounded Student: Accessing Title IV-A Funds to Support Programs
Strand: Ideas at Work for EE
Room: 3
Through group discussions and an interactive presentation, learn how to access Title IV-A funds for EE programs in K-12 settings. Participants will also contribute to a discussion on how EE providers can collaborate to improve access to EE in Arizona’s classrooms.
Presenter(s): Gabrielle Hebert**, Director of Education, Arizona Center for Nature Conservation; Lisa Herrmann**, Education Manager, Arizona State University, Auriane Koster, PhD, Sustainability Manager, Pierce Energy Planning

11:35 am - 12:25 pm
“Oh, no! You’re gonna get hurt! Oh, wait, you’re fine.”: Risk Assessment and Hazard Management in Nature-based Programs with Young Children
Strand: EE in Early Childhood
Room: 2
What’s the difference between risk and hazard? How do I allow my students to have perceived and appropriate risks while preventing real injuries? In this presentation, you will learn how to perform a risk assessment, manage for hazards, and why it’s important to give children the benefits of healthy risky experiences and not just eliminate these from your nature-based or outdoor program.
Presenter(s): Sarah Fogelsong, Director Center for Nature and Place-based Early Childhood Education; Ellen Bashor**, Program Coordinator, Center for Nature and Place-based Early Childhood Education

11:35 am - 12:25 pm
Ecology Explorers: Collaborate in Locally Relevant Learning about our Phoenix Area
Strand: Ideas at Work for EE
Room: 3
For over 20 years, Ecology Explorers has been developing lessons about our local Urban Ecology for Phoenix area K-12 students. We're looking for ways to make these lessons even more relevant and accessible through collaborative approaches with other EE-based organizations. Join me to discuss.
Presenter(s): Lisa Herrmann**, Education Manager, Arizona State University

*Denotes AAEE Certified Environmental Educator
11:35 am - 12:25 pm
**Nature in a Crate**
*Strand: Inquiry-Based Learning*
*Room: 4*
See how easy it is to turn your 3-6th graders into “ECOSYSTEM EXPLORERS” with this exciting hands-on program. Students collect data from five ecosystems which leads them to make decisions on what they can do to support such ecosystems, no matter where they are located. (Arizona contains all five!) With just a few materials, this becomes a realistic scientific adventure you can carry out in your classroom! Use our journal or make your own.

**Presenter(s): Diane Vaszily, Volunteer Education Coordinator, DESERT EYE, Science and Environmental Education Specialist**

11:35 am - 12:25 pm
**I Speak for the Trees: What Does It Mean to Interpret our Heritage?**
*Strand: Connecting with Nature*
*Room: 5*
Interpretation has a lot in common with environmental education with some distinctive techniques. Learn how this communication process can forge emotional connections between your audience and your resource at this overview of what it means to speak for the trees (or the canyons or the plants or the wildlife...).

**Presenter(s): Nikki Julien**, **Certified Interpreter Guide Trainer, National Association for Interpretation**

12:30 pm - 1:45 pm
**LUNCH, ARIZONA GREEN CHAMBER PANEL: CONNECTING GREEN BUSINESS AND EE & CLOSING REMARKS**

Arizona Green Chamber Panelists include:
- **Jennifer Johnson** - *Witnessing Food in Nature*
- **Tammy Bosse** - *Boss Properties*
- **Dane Aye-Englert** - *US Green Building Council*
- **Dorie Morales** - *Green Living Magazine*
- **Auriane Koster** - *Fusebox*
- **Maren Mahoney** - *ASU Energy Policy Innovation Council*

**Break**

1:45 pm - 2:00 pm
**FIELD TRIP EXPERIENCES**
Meet in the Crossroads plaza to catch a ride!

2:00 pm - 5:00 pm
**Field Trip to Natural History Institute**
*Site Contact: Bob Ellis*
*AAEE Lead: LoriAnne Barnett*

2:00 pm - 5:00 pm
**Field Trip to Watson Lake - Kayaking**
*Site Contact/AAEE Lead: Ellen Bashor*
*Fills at 20 people | Cost $20*

2:00 pm - 5:00 pm
**Field Trip to Heritage Park Zoo**
*Site Contact: Leah Wacks*
*AAEE Lead: Gabby Hebert*

2:00 pm - 5:00 pm
**Field Trip to Embry-Riddle STEM Center**
*Site Contact: Sarah Vincent*
*AAEE Lead: Lisa Ristuccia*

2:00 pm - 5:00 pm
**Tour of Community & School Gardens in Prescott**
*Site Contact/AAEE Lead: Sarah Fogelsong*

2:00 pm - 5:00 pm
**Tour of Highland's Center Nature Playscape**
*Site Contact/AAEE Lead: Nikki Julien*
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- Enjoy professional development sessions
- Hone your skills in environmental education
- Receive new grant and job opportunity alerts
- Connect with other environmental educators
- Help shape environmental literacy in Arizona

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