



**PLACE-BASED  
EDUCATION  
CONFERENCE**



**GREAT LAKES**  
Stewardship Initiative

SESSION

**1**

**Friday**

9:00 AM - 9:45 AM

**The Process of Reflection in Place-based Education (Forum) | ROOM 208 Auditorium**

Reflection about learning, experience, and growth are critical to ensure that students get the most out of their work in place-based education. Join us for thoughtful, fun, and engaging ways to support your students in reflection. *Sarah Coleman and Erica Johnson (West Michigan Great Lakes Stewardship Initiative, Muskegon Regional Math Science Center).*

**NOAA Great Lakes Bay-Watershed Education and Training Program Highlights | ROOM 300**

Be inspired by some of the most exciting place-based education programs around the region in this session highlighting the current NOAA Great Lakes Bay-Watershed Education and Training (B-WET) Program grantees. Learn how NOAA and the Great Lakes Restoration Initiative is supporting innovative programs that engender partnerships, support stewardship, impart knowledge, and inspire teachers and students through year-round Meaningful Watershed Educational Experiences (MWEEs) about the Great Lakes watershed. Two back-to-back sessions feature 10 of the 11 grantees in the current cohort of projects around the Great Lakes. Is your organization ready to B-WET? Come test the waters. *Cheryl Bauer-Armstrong (University of Wisconsin-Madison), Ryan Feldbrugge (The Rivers2Lake Program at the Lake Superior National Estuarine Research Reserve), Yu Man Lee (Michigan Natural Features Inventory, MSU Extension), Cora Lee-Palmer (Milwaukee Metropolitan Sewerage District) and Jeanie Williams (Inland Seas Education Association).*

**Ypsilanti's Black History  
Traveling Dialogue (Pre-registration Required)  
ROOM 302**

Between roughly the Civil War and World War I, Ypsilanti had the highest percentage of African-Americans of any Michigan city. We will take a bus tour to look at the rich

history of African-American Ypsilanti. We will explore Ypsilanti's south side, where we will see historic homes, churches, schools, and social halls. We will see the impact of urban renewal and the highway system, and explore the continuing costs of environmental racism and the social divisions in our landscape that have been formed and reformed over time. *Matt Siegfried, Historian (Southeast Michigan Stewardship Coalition)*

**Student Voice, Agency and Identity in Learning (3 Hour Workshop) | ROOM 310A**

This presentation will summarize the findings of participatory action research across three unique sites in Michigan. During the workshop, participants will explore identity and agency in learning as it relates to Delpit's assertion that "the teacher cannot be the only expert in the classroom. To deny students their own expert knowledge is to disempower them." (1988, p. 19). Participants will explore participatory structures and techniques (i.e., design thinking) and their impacts on adults and students. *Simeon Frang (Orchard View Schools) and Judy Walton (Forrest Hills Schools)*

**Phenomenal Science: An Exploration of Place-based K-5 Units | ROOM 310B**

Phenomenal Science is a complete elementary science curriculum designed to facilitate three-dimensional science instruction aligned to the Michigan Science Standards. Participants will learn about place-based units along with the needs met for elementary schools, teachers and students through use of the units and ongoing needs for professional learning to ensure proper implementation of three-dimensional curriculum as called for by the Michigan Science Standards. Opportunities for involvement in the Phenomenal Science project will be shared. *Darcy McMahon, Matthew Samocki and Jennel Martin-Powell (Central Michigan Science, Mathematics and Technology Center at CMU).*

**Community History Inspired Art Education: Ypsilanti African American Mural Project** | ROOM 320

Learn how a classroom art project expanded into the community bringing the Visual Arts curriculum alive and connecting to community history through the painting of murals based on H. P. Jacobs, the Women of Ypsilanti, the Underground Railroad, and local farmers, farming and agriculture. You will hear from youth about the true power of the arts, the important impact of meaningful teacher-student relationships, and the amazing things that happen when the bridge is built between schools and communities! *Lynne Settles, Cieara Freeman, Maximilian Harper, Iyana Morgan and Bennie Williams (Ypsilanti Community High School).*

**When Kids Go to City Hall: Design Thinking as a Vehicle for Change (2 Hour Workshop)** | ROOM 330

At the crossroads of place-based education and local activism, lies design thinking. As children encounter the history and present state of their community, they grow to care for it. They may seek to improve it. Using the design thinking model, follow the journey preK-3rd graders took to make connections in their community and work to change it. From brainstorming to speaking at City Hall, students can use a place-based model for social action. *Brandi Cartwright (Raintree School)*

**From One to Many: The Exponential Growth of Place-based Stewardship Education in an Urban School** | ROOM 350

Saving mallard ducks began the journey for one teacher in an urban school in Flint. This launched a multi-year journey that evolved into a cross-curricular collaboration involving all middle school students. This session will highlight how teachers and community organizations became involved, active participants in this place-based stewardship education effort, that allowed students to become key stakeholders, advocates and active partners in advancing the city's green infrastructure goals. *Kim Hatfield (Flint Southwestern Classical Academy)*

**Starting a Meaningful Math Place-based Education Unit** | ROOM 352

This session presents three ways to make meaningful place-based learning units for mathematics, and specifically covers how to create a place-based education unit that will juggle the three specific hang-ups that math teachers have: time, standards, and authenticity. This will be especially relevant to anyone who often hears the phrase "except in math" when it comes to place-based education implementation. *Andrew Russo (Former teacher and SE Michigan Stewardship Coalition Staff – Eastern Michigan University) and Jessica Krueger (Ypsilanti Community Schools)*

**Doing the Thing: Challenges and Rewards of Creating Experiential Professional Learning Environments in Place-based Learning (Forum)** | ROOM 208 Auditorium

Amy Demarest, author of the book *Place-Based Curriculum Design*, and Ethan Lowenstein, Director of the Southeast Michigan Stewardship Coalition, will discuss why and how to create powerful learning environments in place-based education for teachers that go beyond typical “professional development.” Amy and Ethan will introduce thinking tools and strategies to help participants think deeply about professional learning designs in place-based education and lead participants in activities that will help them apply new learnings to their own practice. *Amy Demarest (Our Curriculum Matters) and Dr. Ethan Lowenstein (Southeast Michigan Stewardship Coalition)*

**NOAA Great Lakes Bay-Watershed Education and Training Program Highlights** | ROOM 300

Be inspired by some of the most exciting place-based education programs around the region in this session highlighting the current NOAA Great Lakes Bay-Watershed Education and Training (B-WET) Program grantees. Learn how NOAA and the Great Lakes Restoration Initiative is supporting innovative programs that engender partnerships, support stewardship, impart knowledge, and inspire teachers and students through year-round Meaningful Watershed Educational Experiences (MWEEs) about the Great Lakes watershed. Two back-to-back sessions feature 10 of the 11 grantees in the current cohort of projects around the Great Lakes. Is your organization ready to B-WET? Come test the waters. *Rebecca Nielsen (Southeast Michigan Stewardship Coalition), Katie Larson (Alliance for the Great Lakes), Matthew Kadow (Wisconsin Maritime Museum), Erica Johnson and Sarah Coleman (Muskegon Area ISD) and David S. Karpovich (Saginaw Bay Environmental Science Institute at Saginaw Valley State University).*

**A Land Ethic & Ecosystem Services: How Land Conservation Has Evolved** | ROOM 310B

Land conservation and stewardship have evolved to include design standards for protecting and enhancing the benefits nature provides that are considered ecosystem services. But, while many decision makers now embrace the value that ecosystem services provide, it's important for students to understand that historically

the idea of protecting natural resources was not a priority. The heart and soul of the discipline and field of study was really defined by one prophetic individual, Aldo Leopold. Seventy years after his death his words are as relevant as ever and provide the greater goal of having a land ethic that guides how we live on this earth. *Rebecca Marquardt (Revery)*

**How Do Youth Leaders Define Youth Leadership?**  
ROOM 320

This presentation is a conversation between 8th grade students and their school principal in an attempt to understand what youth leadership means to the young people who are asked to demonstrate this skill. This will be the Principal presenting her wonderings and asking students to guide her thinking: What makes young people feel like leaders? Where and when do they believe their leadership is needed? How is the school promoting (or not) the leadership skills and leadership opportunities students feel they need and as it pertains to leadership as they perceive it? What are the barriers and constraints to true youth leadership? How are adults getting in the way? How can we be better advocates for youth? Through this conversation, we hope to model how to grapple with the contradictions and possibilities of shared leadership in an intergenerational setting. *Julia Putnam, Ajani DeFreece, Kamari Ray, Zora Kuu Flourner, Diondre Hunter and Sharon Johnson (The James and Grace Lee Boggs School).*

**Understanding Observation: A Lesson in Play-Doh (2 Hour Workshop)** | ROOM 350

Any observation is shaped and informed by the subjectivity of the observer. If pre-service teachers are to not only learn about place, but also learn from and be transformed by place, then it is imperative for them to explore and interrogate their subjectivities. In this workshop the presenters will guide participants through an interactive, hands-on activity designed to introduce pre-service teachers to the art of careful observation and the concept of subjectivity. *Suzanne Knight and Jing Fu (University of Michigan-Flint)*

**Engaging High School Students in Authentic Ecological Research** | ROOM 352

Despite today's science curricula demanding real-world inquiry-type lessons and experiences, many

teachers are unprepared to hand the reigns over to their students, who lack a full understanding of the process of science and outdoor research experience. Hence the development of the Houghton High School Forest Research Program where students build authentic science research projects from the ground up, becoming intimate with the ecology of their surroundings and valuing and taking ownership of their place! *Lauri Davis (Houghton High School)*

**Understanding the Urban Watershed: Locally-sourced Watershed Education Works** | ROOM 208 Auditorium

Learn how Philadelphia's public water utility is leading the way in watershed education. The Fairmount Water Works, the Education Center of the Philadelphia Water Department, will share a new middle years curriculum developed by classroom teachers. It connects students with a local watershed experience through hands-on, experiential learning—in the classroom, the schoolyard, the neighborhood and even local waterways when possible. See how Philadelphia teachers along with their students are becoming responsible environmental stewards. *Ellen Freedman Schultz (Fairmount Water Works Interpretive Center)*

**Practicing Mindfulness for a Deeper Connection with Self, Others, and Place** | ROOM 300

Mindfulness, the practice of bringing our attention to the present moment, is a simple and transformative skill. Studies show that practicing mindfulness can lead to improvements in self-awareness, compassion for others, and care for the natural world. In this workshop, participants will learn what mindfulness is, why it works, and how to practice it in our daily lives for deeper connection with self, others, and our communities. *Grace Helms Kotre (Power to Be, LLC)*

**Grass River and the Field Guide to Northwest Michigan** | ROOM 310B

James Dake, author of "Field Guide to Northwest Michigan," will take you on a tour of Michigan flora and fauna while discussing how this guide is being used by classroom teachers as a "local science" textbook. This photographic & interactive presentation will inspire you to get outdoors, wherever you live! *James Dake (Grass River Natural Area)*

**We Are The Forest & The Ypsi/Arbor Student Forest Project** | ROOM 320

We Are The Forest is a place-STEAM education platform that trains K-12 students in Ecosystem Services, Bio-mimicry and Green Infrastructure. Launched in 2016, The Ypsi-Arbor Student Forest Project brings together diverse schools and students, creating opportunities for new stories, new forests, and student led green infrastructure projects.

*Nathan Ayers (Founder/Director – We Are The Forest), Jessica Kreuger (Ypsilanti Community Schools), Chris Swinko, Clara Freeth and Eliza Braunschneider (Summers-Knoll School), Sakinah and Zakiyyah Rahman (Eastern Michigan University).*

**Amazing Field Trips** | ROOM 330

Explore how to create, deliver and experience amazing field trips. Discover how to make your field trips promote curiosity and wonder and change how kids see and interact with our world. Gain new knowledge about field trips and tools to make your field trips amazing. *Norm Lownds (Michigan State University)*

**Resources for School-Community Stewardship Projects** | ROOM 352

How can I enhance student learning by connecting with people in the community? Where can I find the people, agencies, and organizations for help with stewardship projects and place-based learning? This presentation tells stories of successful school-community partnerships and provides contacts and background information to connect with statewide resources. *Shari Dann and Margaret Holtschlag (MSU, GRAND Learning Network)*

# poster session

# Friday

1:00 PM - 1:30 PM

2ND FLOOR MEZZANINE HALLWAY

## **The Center for Great Lakes Literacy: A Collaboration Led by the Great Lakes Sea Grant Network**

This poster showcases the Center for Great Lakes Literacy (CGLL), a successful collaboration among Great Lakes Sea Grant Educators. Learn how aquatic educators in the Great Lakes states mobilized to bring relevancy and awareness to Great Lakes literacy. CGLL builds a community of educators, scientists, and citizens committed to a Great Lakes sustainability and stewardship through place-based professional development, educational resources, hands-on experiences, and networking opportunities. *Lyndsey Manzo (Ohio Sea Grant)*

## **Creating Undergraduate Research Opportunities through Links to Volunteer Monitoring Organizations**

We will present several examples of undergraduate research opportunities that arose in connection with the work of local environmental monitoring organizations. *Margitta Rose, Thomas Tisue (Muskegon Community College)*

## **Educational Opportunities Abound at Sleeping Bear Dunes National Lakeshore!**

Explore curriculum-based education with the National Park Service. Learn about ranger-led field trips, teacher-led field trips, virtual programs, and professional development opportunities. Discover how to bring a ranger to your classroom, teach your students about stewardship through service learning projects, and more! *Katie Fredericks (National Park Service-Sleeping Bear Dunes National Lakeshore)*

## **Detroit Outdoors! Youth Camping in Detroit's Rouge Park**

Overnight camping experiences can create deep connections with place while strengthening interpersonal relationships at the same time. Come learn about a collaborative effort that is reactivating Detroit's only campground, Scout Hollow. Rouge Park is the city's largest, and adding a fully outfitted gear library, a teacher training program, and dedicated youth campsites will enable hundreds, and eventually thousands, of urban youth to experience camping right in the city. *Garrett Dempsey (Detroit Inspiring Connections Outdoors, Sierra Club)*

**New Policy and Governance for Advancing K-12 Great Lakes Literacy, Sense of Place and Stewardship (Forum)** | ROOM 208 Auditorium

Take part in this deliberative dialogue to provide input into state-level policy approaches for K-12 Great Lakes literacy, sense of place, and stewardship. Hear about summaries of 11 diverse dialogues from across the state, and share your thoughts about viable policies, governance processes, and new incentives to strengthen the already-excellent work in Great Lakes education. *Shari Dann (MSU, GRAND Learning Network)*

**How the Rock Connects Us** | ROOM 300

Consider for a moment your connection to landscape: what shapes your sense of place? This presentation explores the concept of geoheritage, peeling back the layers revealing how our geologic underpinnings shape the diverse ways we value and connect to our landscape. Using examples from the Keweenaw Peninsula, we'll explore the many educational opportunities geoheritage presents for formal and informal learners. *Dr. Erika Vye (Education Program Assistant - Center for Science and Environmental Outreach, MTU)*

**Divisions in Ypsilanti's Landscape Traveling Dialogue (Pre-registration Required)**  
ROOM 302

Before the conquest of Michigan by the United States, the place Ypsilanti now occupies was a Potawatomi village. We will take a bus and walking tour to visit sites that illuminate the varied Native American landscapes and history of the area. We will explore the differences in tenure of the Potawatomi and Americans, and the relationship each group had with the land. We will look at the new market-driven property divisions brought to Michigan by the Americans and how our landscape continues to be defined by them. *Matt Siegfried (Southeast Michigan Stewardship Coalition)*

**Youth-Adult Partnerships: Providing Youth Authentic Voice and Participation (2 Hour Workshop)**  
ROOM 310A

Through the youth-adult partnership (Y-AP) model, young people have authentic voice-sharing power with adult collaborators. Y-AP both facilitates the development of autonomy for adolescents and serves as a powerful approach to lead positive community change.

Through this active session, participants will be deepening their understanding of the components and elements of Y-AP and be introduced to an observational tool which outlines Y-AP standards that can be used for enhancing programs and professional development. *John Weiss (Neutral Zone)*

**The Role of Place-based Education in Creating a New America (2 Hour Workshop)**  
ROOM 310B

Creating community is the greatest challenge of the 21st century. Determining the role of education toward that end requires a deep commitment to re-defining "success" and the "American Dream." Fifty years ago, Dr. Martin Luther King called for a radical revolution in values denouncing racism, materialism and militarism. We will explore values that will "grow our souls" and discuss how PBE can help in creating an inclusive community movement and a new America. *Richard Feldman (The James and Grace Lee Boggs Center to Nurture Community Leadership)*

**America's Largest Classrooms: What We Learn from Our National Parks** | ROOM 320

Place-based programming at U.S. National Park sites is increasingly sophisticated and rigorously evaluated. We compiled 25 case studies of learning and research for a forthcoming book (available December 2017). We summarize insights from practitioners and scholars working with NPS sites to enhance place-based education, STEM, digital technology and collaborative partnerships across the country. This presentation is for educators, managers and partners interested in the landscape of place-based education at America's national parks. *Jessica Thompson (Northern Michigan University), Ana Houseal (University of Wyoming) and Abigail Cook (Northern Michigan University).*

**Forum: Engaging Students in 3D Learning Through Place-based Education** | ROOM 330

The Next Generation Science Standards(NGSS) calls for teaching and learning that engages students in key ideas in science through the science and engineering practices. Place-based education provides a unique opportunity for this type of learning to occur in the context of students' community. This forum will provide a brief overview of three-dimensional learning as indicated by NGSS fol-

lowed by collegial discourse on how to engage students in this type of learning through place-based education. *Shawn Oppliger (Lake Superior Stewardship Initiative)*

**Students Leading Change to Protect the Grand River (Forum)** | ROOM 350

Groundswell, a hub of the Great Lakes Stewardship Initiative, just completed a three year federal grant focused on reducing pollution to the Grand River. The Lower Grand River Education Initiative (LGREI) successfully improved education and awareness about stormwater pollution through teacher professional development and student stewardship activities in the community. We will discuss how we engaged students, teachers, and community members, and present educational resources developed through this project, including videos, lesson plans, and other materials. *Joanna Allerhand and Clay Pelon (Groundswell)*

**Humanizing Schooling in Detroit** | ROOM 352

Learn how People in Education (PIE) is humanizing schooling in Detroit. Educators, students, and media artists from PIE will share their lessons and experiences working in schools in Detroit. Starting off with a lively debate, we will share our media projects including the Out-of-School Project and our work within schools. Participants will leave with practices and resources for thinking about community issues in their classrooms. *Nate Mullen (People in Education)*



**Partnerships to Deepen Place-based Learning (Forum)**

ROOM 208 Auditorium

It is no surprise that to connect learning more closely to community that partnerships between community members and educators are essential to success. One of our principles of place-based education is “communities serve as learning ecosystems for schools where local and regional experts, experiences, and places are part of the expanded definition of a classroom”. In this group discussion, come prepared to share your successes and challenges in place-based partnerships. Facilitators are part of a long-term partnership between higher education, nonprofits, and school districts.

*Leslie Cook (Teton Science Schools) and Dr. Kate Muir Welsh (University of Wyoming)*

**Sustaining Stewardship in Washington Middle School**

ROOM 300

Join Washington Middle School’s Lake Superior Stewardship Initiative Team as members describe the evolution of place-based stewardship projects that have become firmly embedded in the school’s culture over the past 10 years. *Kristin Svoke, John Larson, Julie Goldsworthy, Carl Arko, Darrell Hendrickson (Public Schools of CLK, Washington MS)*

**Nurturing Youths’ Commitments to the Environmental Commons through Youth Environmental Stewardship, Activism and Place-Based Education | ROOM 320**

This presentation summarizes study results of a place-based stewardship education (PBSE) model with elementary through high school students from rural and urban communities. The study concentrates on how PBSE can support STEM learning and the development of civic capacities for engendering democratic, sustainable communities. We’ll examine the potential for community based youth activism and progressive school-based pedagogical practices to nurture youths’ dispositions, commitments, and connection to nature and community, in resistance to the enclosure of the commons. *Erin Gallay (University of Wisconsin, Madison)*

**Seventh Generation Sustainability: An Interdisciplinary Environmental Perspective**

ROOM 330

An interdisciplinary look ahead seven generations (140yrs); this session will offer a timeline that projects what seven generation sustainability could look like. Concepts from “The Great Binding Law” are used to show current sustainability timelines and how we can address sustainability to benefit the seventh generation and elevate environmental education and sustainability. *Tom Occhipinti (MI Department of Environmental Quality)*

**Great Lakes, Great Lessons (2 Hour Workshop)**

ROOM 350

Looking for unique strategies to teach about the Great Lakes? Wanting to reach your kinesthetic learners? Ohio Sea Grant has many lessons (aligned to NGSS and Great Lakes Literacy Principles) appropriate for grades 5 – 8, and usable in formal and nonformal educational settings. Focusing on impacts of population growth, beach litter and pollution, as well as general basin characteristics, participants will practice and receive three lessons that can be implemented the next week. *Lyndsey Manzo (Ohio Sea Grant)*

**The Crystal Lake “Walkabout”: Musings of a Serendipitous Saunterer - From Observational Monitoring & Environmental Exploring to Place-based Environmental Education & STEM | ROOM 352**

The Crystal Lake “Walkabout” has enhanced awareness of its watershed community since 1993 by providing interactive “hands-on” activities of observational monitoring and environmental exploring of selected interpretive sites for more than 5,000 participants. Site interpreters provide context and activities associated with hydrology, water quality, land use, invasive species, atmospheric deposition, sediment chemistry, lake levels, and watershed management. The “Walkabout” concept can be compared with current trends in place-based environmental education within interdisciplinary STEM programs. *Dr. Stacy Leroy Daniels (Benzie Co. River Improvement Co.)*

### Discovering the Historical Context of Place through Primary Source Analysis (Forum)

ROOM 208 Auditorium

Through an artifact inquiry program, we will explore how primary sources can be analyzed to help students develop historical contexts of place. Historical relics from the Grand Rapids Public Museum collection reveal how the Grand River impacted the lives of Grand Rapids residents between 1850-1910. We will aim to discover the story of how the city's predecessors interacted with the Grand River and how this history influenced Grand Rapids as we experience it today. *Erin Koren (Grand Rapids Public Museum)*

### Place-based Learning on the Wai`anae Coast

ROOM 300

Participants in this session will present a collaboration with community to develop and implement place-based curriculum for schools along the Wai`anae Coast on the island of O`ahu Hawai`i. PLACES (Place-based Learning and Community Engagement in School) supports place-based learning during the regular instructional day. Participants will provide an example of work with teachers, students and community, and discuss strengths, challenges, and lessons being learned. *Dr. Kay Fukuda, Tammy Jones & Loke Wakinekona (PLACES – University of Hawai`i)*

### Right Under Our Noses: Finding the Social Studies in Flint | ROOM 310A

In this presentation, I will describe how I introduced a place-based project to my elementary social studies methods students in the elementary teacher preparation program at UM-Flint. Attendees will learn how I adapted the traditional "write a lesson plan" assignment for a more locally-focused project—the "Right Under Our Noses" inquiry. Elementary methods students explored local historical sites in Flint, drew maps of the city, and interviewed Flint residents as a way to learn more about the intersection of teaching history, geography, civics, and economics. Attendees will see examples of students' inquiries and what they learned about Flint and teaching social studies in Flint. I will also give examples of other "local" ways to teach social studies to elementary students. *Annie Whitlock (University of Michigan-Flint)*

### Engaging Students with Community to Create a Community Park | ROOM 310B

In 2005 parents and neighbors at Neinas Elementary raised concerns about neighboring blighted buildings. This presentation will share the story of how students, teachers, parents and community partners worked to re-envision the space and create the Alayna Elabed Community Park. We will share reflections on how students were engaged in the planning and building process, how we cultivated community buy in and how that lead to volunteers, funding, and a sense of shared ownership. *Christopher Burke (University of Michigan, Dearborn) and Amy Lazarowicz (Neinas Dual Language Learning Academy)*

### North Woods Kids: a Multi-disciplinary Bridge to Place-based Learning | ROOM 320

The North Woods Kids art and writing exhibition and competition for K-12 students encourages integration of content areas (i.e., art and science) and diverse modes of expression (i.e., poetry and painting) generating place-based art, reading, and writing projects for a six-month exhibition series of student work. Join us in critical thought and discussion regarding PBE's potential to build relationships to community and appreciation for place, and how PBE can avoid the potential to reify provincialism. *Evelyn Johnson (Michigan Technological University)*

### School to Sanctuaries and Beyond (Forum) ROOM 330

The Michigan Nature Association's (MNA) School to Sanctuary program connects teachers and students to nature for place-based, experiential and service-learning opportunities in both the classroom and field, and we are seeking new school partners. Learn about the benefits to both teachers and students with stories and examples from our existing School to Sanctuary partnerships. With over 170 MNA nature sanctuaries statewide, there may be one near your school! *Julie Stoneman (Michigan Nature Association) and Aaron Wesche (Addison High School)*

### Institutionalization: How to Make Place-based Education a Natural Part of Your School's Culture and Organization (Forum) | ROOM 352

What would it take to make place-based education

(PBE) part of every student's education experience? Join us as we take you through a process to start thinking about how to institutionalize and sustain PBE in your school. There is no single route to institutionalization, but by looking at five critical components, we can work together to start creating a plan for sustaining this work in your school. *Sarah Coleman and Erica Johnson (West Michigan Great Lakes Stewardship Initiative, Muskegon Regional Math Science Center)*

### **Transforming Teacher Education through Community Space (Forum) | ROOM 208 Auditorium**

When teacher candidates are provided the opportunity to learn through culturally relevant and place-based practices, drastic improvements in classroom teaching occur. Teacher education programs should seek opportunities for teacher candidates to connect with the local community in order to encourage the cultivation of welcoming, impactful, and productive learning environments for their students. In this way, teacher candidates gain a holistic understanding of what it means to be a culturally and socially responsive educator. *Kaitlin Popielarz (Wayne State University)*

### **Nature Connection: Strengthening Student Motivation and Deepening Connections to Place | ROOM 300**

Discover how to create lesson plans that engage the curiosity and creativity of K – 8 students through meaningful activities outside the classroom - activities that incorporate identification, art, data collection, and getting dirty! *Susan McCaskey (The Hill School)*

### **Modeling in Placed-based Education | ROOM 302**

Learn how the Washington Middle School's seventh grade science class undertakes a yearlong project that integrates modeling with place-based stewardship in the CLK School Forest at Calumet Township Park. See how the class collects then analyzes data with a model, using this information to write a management plan for future harvests in the CLK School Forest. *Darrell Hendrickson, (Public Schools of CLK, Washington MS)*

### **Who Is Not at the Table? A Community That Excludes One of Its Members Is No Community at All! (2 Hour Workshop) | ROOM 310A**

Can we discuss place-based, project-based education and the importance of community without folks with disabilities and the related conversations? Not asking "Who is not at the table?" makes some community members Ghosts. Join us in "Breaking the Silence" as we discuss the relationship of place-based education to full inclusion. "A Community that Excludes even one of its members is no Community at All" - Dan Wilkins. *Richard Feldman (The James and Grace Lee Boggs*

*Center to Nurture Community Leadership), Janice Fialka (Dance of Partnership), Kim Sherobbi (Birwood Community House)*

### **Got Dirt? Helping Students Connect to Their Place ROOM 310B**

It can be challenging for place-based educators to help students understand the concept of place particularly if the school site doesn't have much "nature" to offer. This session will expose attendees to creative ways to connect to young people to their school campus, nature center, etc. Spending part of the session outdoors, attendees will participate in an activity they can replicate at any site with access to soil. *Lea Sevigny (Forest Hills Public Schools)*

### **Consumerism and Its Root Causes (Forum) ROOM 320**

Serious environmental issues have complex causes including our own belief systems and values. Through a NOAA B-WET grant, we have been exploring how to use NOAA curriculum materials in combination with other thinking tools, videos, and activities to get at the root causes of issues like marine debris. In this session, we involve participants in a root cause analysis and provide participants with concrete lessons, activities, and resources that can be used with students. *Bill Boyle (Southeast Michigan Stewardship Coalition) and Dr. Ethan Lowenstein (Southeast Michigan Stewardship Coalition)*

### **What Difference Does Doing Field Research Make? Comparing Outcomes from Inquiry Research, Citizen Science, and Adventure Hike Experiences for Middle/High School Students | ROOM 330**

This study compares student growth in their attitudes about science, self-efficacy, and understanding of nature of science principles after a week-long residential program that included specific instruction in a 1-day experience in either open inquiry research, citizen-science research, or an adventure hike (no research). Students from the Columbia School District, MO (n=442) visited Teton Science Schools for a week during the summer of 2016 or 2017 and were randomly assigned one of these three experiences. In this presentation, preliminary results comparing student growth across these treatments and trade-offs associated with

instructional activity choices will be discussed. Kevin Krasnow (*Teton Science Schools*)

**Asking Questions and Discovering Answers:  
Engaging Youth in Science (2 Hour Workshop) |  
ROOM 350**

What is the answer? Who cares? You don't need all the answers to teach science. You simply need an inquisitive mind and a willingness to investigate. It's all about the questions! Use this series of ready-to-go lesson plans to start teaching inquiry-based science to youth. The purpose is to teach the process of science – asking questions and discovering answers. These activities encourage young people to try to figure things out for themselves rather than just read an answer on the internet or in a book. *Tracy D'Augustino (Michigan State University Extension)*

**Catching Waves Through Your Watershed-  
Environmental STEM Education aboard a Tall Ship  
ROOM 352**

Explore ways that students use the NGSS framework to navigate through watershed issues facing the Saginaw River and Saginaw Bay while being transported along this main artery to the Great Lakes in true place-based fashion. This is a truly anchoring phenomenon in STEM! *Autumn Mitchell (BaySail)*

### **Building the Detroit Independent Freedom Schools Movement (Forum)** | ROOM 208 Auditorium

In this presentation we offer reflections on the history and present work of the Detroit Independent Freedom Schools Movement (DIFS), which currently operates four freedom school sites throughout the city. We consider the relationship between our mission to “create free, African-centered, loving educational experiences for Detroit children and families...” and a much longer tradition of place-based educational initiatives focused on nurturing community strength and self-determination. *Dr. Michael D. Doan (Eastern Michigan University)*

### **Finding Your Place: Strategies from the PLACE Program (2 Hour Workshop)** | ROOM 300

In this hands-on workshop, presenters will facilitate a mapping and a journaling activity to explore participants’ personal connection to place and will share key learnings and place-based principles from the Place Learning and Civic Engagement program. Participants will: experience two sense of place activities, discuss how connection to place blended with science content can promote student learning and civic engagement, and learn more about place-based principles that promote successful collaboration and inclusivity in rural communities. *Leslie Cook (Teton Science Schools) and Dr. Kate Muir Welsh (University of Wyoming)*

### **Ripple Effect: Using Water to Connect Our Community** | ROOM 310B

This year, Nichols School, an independent 5-12 school in Buffalo, NY, committed to a school-wide theme of “Water and Community” to encourage and facilitate innovative, collaborative, interdisciplinary and cross-divisional connections through the context of place and local resources. We began the school year with a day of meetings that put faculty and staff on or near the water and engaged them with community partners and worked toward creating a technology platform for the sharing of curriculum and connections. We’ve had a dynamic school-wide sharing of exciting curriculum, both inspired by this theme and recognizing work that folks have been doing before and are now intentionally connecting. In just a few short weeks, we are already rippling beyond our classes and classrooms to share curriculum with others that we may not have before, and more faculty

than ever are taking students off campus and into our community. This presentation will describe a fluid model that Nichols School is using to transition into a culture that connected and aware of the place they are from. *Sandy Smith (Nichols School)*

### **Milkweed to Monarchs: A Winter-sowing Collaborative Gardening Project** | ROOM 320

Milkweed Buddies is a winter-sowing project teaching about the special needs of Monarch butterflies, attributes of milkweed, seed dispersal, recycling, and science concepts such as migration, camouflage, needs of plants, and more. At the tip off the Keweenaw Peninsula, where average annual snowfall is 250 inches, Kindergarten students from one district worked in collaboration with students from a one-room school 36 miles away, extending the school garden season and gaining more outdoor learning time. *Barb Kinnunen-Skidmore (KCLK Elementary School) and Lloyd Wescoat (Lake Superior Stewardship Initiative)*

### **Community Access for All: Disability and Place-based Education** | ROOM 330

Disabled people are too often removed from or segregated in civic and educational communities through institutionalized ableism, audism, and sanism. Traditional special education fails to meet the needs of disabled students and their families. Place-based education that ignores disability can’t adequately explore real, local communities. Drawing on our backgrounds in disability and mad studies, we’ll talk about our experiences building inclusive schools and communities, and describe tools and attitudes that can make that happen.

*Dr. Phil Smith (Brehm Center for Special Education Scholarship and Research- Eastern Michigan University) and Jacquie St. Antoine (Eastern Michigan University)*

### **Engaging Community Partners through Shared Benefits** | ROOM 352

This workshop, co-led by a teacher and a community partner, will discuss how to develop partnerships that exhibit true reciprocity. Community partners sometimes engage in place-based education activities out of a sense of altruism, but those partnerships won’t last long-term without eventual tangible benefits. Using

our partnership as a case study, we will discuss how to develop place-based collaborations that result in academic gains, solutions to real-world problems, and measurable benefits to community partners.

*Eileen Boekestein (Lower Grand River Organization of Watersheds) and Brenda Perry (Kent Innovation High School)*

**Incorporating Play into Environmental Inventorying: Games and Activities You Can Do Outdoors with Your Class (2 Hour Workshop) | 2nd Floor Lounge**

Let's get moving! In this participatory workshop we partake in activities and games aimed at engaging different learning styles in outdoor exploration. These activities can be performed at a school campus or in the field and are a good way for students to compare different areas, habitat types or seasonal variations.

We will also discuss ways to safely incorporate play and reflection into data collection and environmental inventorying. (\*part of this workshop will be outside\*)

*Jac Kyle (Detroit Audubon), Sarah Halson (SEMIS Coalition) and Dorothy McLeer (UM-Dearborn Environmental Interpretive Center)*

**Got Hope? Building Supportive Teacher Teams (Forum)** | ROOM 208 Auditorium

As educators we care deeply about our students, our communities and our natural environment, but the pressures of work can leave us feeling discouraged. We need a place to talk about the difficulties that interfere with our enjoyment of teaching. This interactive session will provide educators with a set of tools to avoid burnout and build reliable relationships where our joy and worries can be shared so that we can support change in our communities. *Dr. M'Lis Bartlett (Discovering Place)*

**Vernal Pool Patrol** | ROOM 310A

Vernal pools are a unique and exciting type of wetland! We will share results of our Vernal Pool Patrol Program where we trained and engaged a network of 17 middle and high school teachers, over 350 students and several community partners in northern Michigan from 2015–2017 to map and monitor vernal pools. We will share lessons learned and discuss opportunities for initiating a Vernal Pool Patrol at your school or within your local community. *Yu Man Lee and Daria Hyde (Michigan Natural Features Inventory)*

**Plastic: A Tool for Student Learning and Community Engagement** | ROOM 310B

Come learn ways to connect student learning with marine debris, plastic in particular! From community awareness campaigns to reducing waste in schools, resources will be shared that connect classroom learning goals with strategies to protect our Great Lakes from the impact of marine debris. Beyond these tools, participants will also gain a better understanding of the impact of single-use plastics on our Great Lakes and how to refuse to single use. *Meaghan Gass (Northeast Michigan Great Lakes Stewardship Initiative)*

**Structuring Inquiry about Privilege, Place, and Race**  
ROOM 320

The presentation will help participants connect race, privilege, and the policies that affect the demographics and environment of a community. With a focus on teaching this in secondary classrooms, the presentation will show how to scaffold instruction to build up to an understanding of privilege, rather than starting there and igniting the typical resistance. *Susan Santone (Creative Change Educational Solutions)*

**Choosing to Collaborate: Two Universities Share Their Place-based Teacher Preparation Stories (Forum)** | ROOM 330

University of Michigan-Flint redesigned their teacher preparation program as a place-based program several years ago. Eastern Michigan University is in the process of creating a place- and community-based teacher preparation pathway. Faculty from both universities share how they have uniquely adapted the place-based framework to reflect their individual communities and discuss why they choose to collaborate rather than compete with each other. *Dr. Iman Grewal, Dr. Wendy Burke, Dr. Ethan Lowenstein (Eastern Michigan University) and Dr. Suzanne Knight (University of Michigan-Flint)*

**Incorporating Environmental Justice into Student Stewardship (Forum)** | ROOM 350

Groundswell, a hub of the Great Lakes Stewardship Initiative, is expanding to include more students from underrepresented populations. Communities with lower socioeconomic status often are overlooked in environmental protection efforts. Participants in this session will learn how to provide schools and students with tools to make change and become the next generation of environmental stewards. They also will discuss environmental justice issues and how to include underrepresented populations in environmental protection projects. *Joanna Allerhand (Grand Valley State University - College of Education) and Kimberly Pawelka, (Grand Valley State University - College of Education).*

**A Research Project to Ignite Students' Interest in Science through Field Trips at the Belle Isle Aquarium**  
ROOM 352

This NSF-funded project is designed to increase student interest, knowledge and activity choices in ways that promote science education and STEM career choices among diverse youth related to fisheries, wildlife, conservation and aquatic sciences. Teachers will participate in a Summer Institute designed to enhance science content knowledge, assist with integrating the BIA field trip into their curriculum, provide resources to support student engagement in BIA, establish a BIA-centered Community of Learners, and promote STEM careers. *Dr. Jeff Ram (Wayne State University), Joan Chadde (Center for Science & Environmental Outreach - Michigan Technological University) and Nicole Samuel (John R. King Academy).*