



# PLACE-BASED EDUCATION CONFERENCE

November 9–11, 2023  
Grand Rapids, Michigan



**GREAT LAKES**  
STEWARDSHIP INITIATIVE



# Fostering a deep connection between communities and the Great Lakes

We provide funding for projects that increase awareness and understanding of Great Lakes ecology. The next request for proposals will be released in winter 2025.



Learn more about our grant programs at [glft.org/stewardship](https://glft.org/stewardship).

Photo credit: SEMIS Coalition and Leisa Thompson

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# AGENDA AT A GLANCE

## THURSDAY November 9, 2023

8 am–6 pm  
**Registration Open**  
*Eberhard Center 1<sup>st</sup> Floor*

9 am–3:30 pm  
**PBE Immersion Experiences**

4–6 pm  
**Climate Change Colloquium**  
*DeVos Center – Loosemore Auditorium*

7:30–9:30 pm  
**Welcome Reception**  
*Grand Rapids Brewing Company*

View the  
[\*\*Conference Matrix\*\*](#)

## FRIDAY November 10, 2023

7 am–5 pm  
**Registration Open**  
*Eberhard Center 2<sup>nd</sup> Floor*

8:30–9:15 am  
**Opening Session**  
*Eberhard Center 2<sup>nd</sup> Floor*

9:25–10:10 am  
**Session 1 – Concurrent Sessions**

10:20–11:05 am  
**Session 2 – Concurrent Sessions**

11:15 am–12 pm  
**Session 3 – Concurrent Sessions**

12–1:05 pm  
**Lunch with Optional Roundtable Discussions**

1:15–2:00 pm  
**Session 4 – Concurrent Sessions & Workshops**

2:10–2:55 pm  
**Session 5 – Concurrent Sessions & Workshops**

3–3:30 pm  
**Open Space Networking + Documentary Screening**  
*Eberhard Center 2<sup>nd</sup> Floor*

3:35–4:20 pm  
**Concurrent Sessions**  
*Eberhard Center 2<sup>nd</sup> Floor*

6–9 pm  
**Dragonfly Awards Banquet & Monique Gray Smith Keynote**  
*Grand Rapids Public Museum*

## SATURDAY November 11, 2023

7:30 am–12 pm  
**Registration Open**  
*Eberhard Center 2<sup>nd</sup> Floor*

8:45–9:15 am  
**Opening Session**  
*Eberhard Center 2<sup>nd</sup> Floor*

9:25–10:10 am  
**Session 7 – Concurrent Sessions**

10:20–11:05 am  
**Session 8 – Concurrent Sessions & Workshops**

11:15 am–12 pm  
**Session 9 – Concurrent Sessions & Workshops**

12–1:05 pm  
**Lunch with Optional Roundtable Discussions**

1:15–2:00 pm  
**Session 10 – Concurrent Sessions**

2:10–3:30 pm  
**Reflect to Connect: Finding Relevance, Making Meaning**  
*Eberhard Center 2<sup>nd</sup> Floor*

# WEST MICHIGAN IMMERSION EXPERIENCES

When it comes to connecting with a locality's history, culture, and environment, there's nothing quite like an "in place" experience. In fact, such outings are at the very core of place-based education. Our Immersion Experiences offer you a chance to explore the many treasures of West Michigan and to see place-based education in action. What makes this region unique? What can you learn here about "place" and "stewardship"? How could you apply what you learn in your own community?

## **Pre-registration required.**

*Place-based immersion experiences are integral components to every PBE Conference as we strive to engage you in the various conference locations' communities and regions. If you didn't sign up this year, you can look forward to the opportunity in 2025!*

## **THURSDAY**

(Meet at the Eberhard Center registration desk on the first floor.)

### **River Rewilding: Connecting Classrooms and Communities**

9:00 am–12:00 pm

### **The Immersive Learning Sandbox**

9:00 am–12:00 pm

### **Michigan's Dunes: Like No Place on Earth!**

9:00 am–3:00 pm

### **The Possibilities of Summer Camp Partnerships**

9:00 am–3:00 pm

### **Learn WILD with John Ball Zoo**

12:30 pm–3:00 pm

### **Harm/Harmony Tour of Silver Creek Drain**

1:00 pm–3:30 pm

## **FRIDAY**

(Meet at the Eberhard Center registration desk on the second floor.)

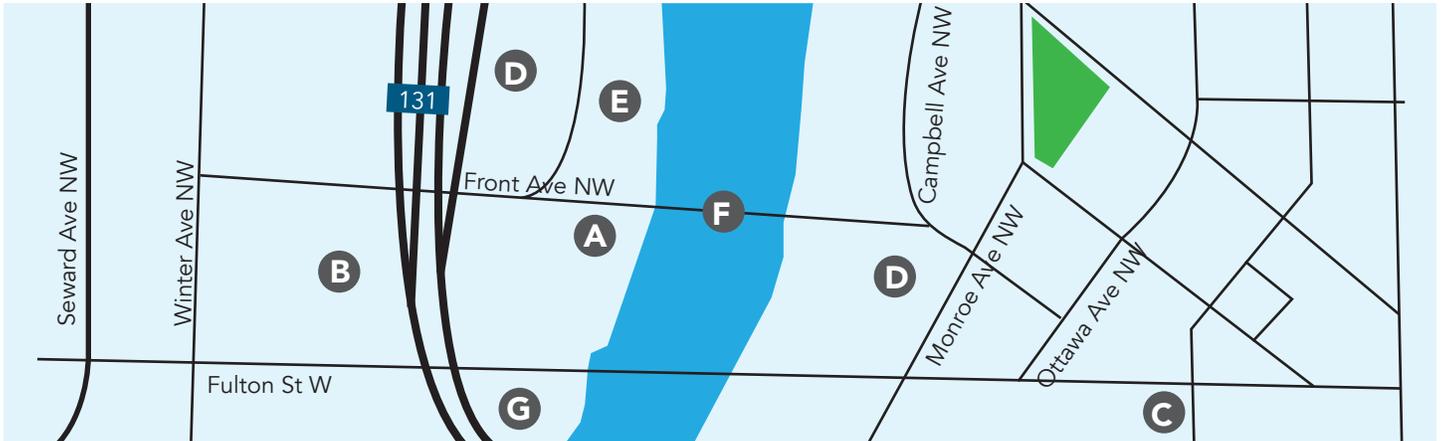
### **Lapping the Landmarks**

10:20 am–12 pm

### **Experience the Grand Rapids Public Museum School!**

1:15–2:55 pm

# MAP



**A** **GVSU's Eberhard Center**  
301 Fulton Street W  
All concurrent sessions, workshops,  
immersion experiences, and lunches.  
November 9-11

**B** **Richard M. DeVos Center**  
401 Fulton Street W  
Climate Change Colloquium  
Thursday, November 9, 4-6 pm

**C** **Grand Rapids Brewing Company**  
1 Ionia Ave SW  
Welcome Reception  
Thursday, November 9, 7:30-9:30 pm

**D** **Conference Hotels**  
The Holiday Inn  
310 Pearl St NW  
  
Courtyard Grand Rapids Downtown  
1 Monroe NW

**E** **Grand Rapids Public Museum**  
272 Pearl Street NW  
Dragonfly Awards Banquet & Keynote  
Friday, November 10, 6-9 pm

**F** **The Blue Bridge**  
A pedestrian-only bridge. The Fulton Street  
Bridge to the south is also safe for walking.

**G** **GVSU Fulton Lot**  
312 Fulton St. W  
Free parking for all conference attendees.

Link to Conference  
Story Map

<https://arcg.is/L4yb9>



# Thursday

NOVEMBER 9, 2023

## Conference Registration

Eberhard Center First Floor Lobby

Beginning at 8 am

Be sure to complete your registration for the conference by checking in and receiving your nametag lanyard, along with other conference materials. We'll also be on hand to answer your questions. Michigan educators, be sure to check-in each morning prior to the start of sessions to ensure you receive the maximum number of SCECH credits!

## Climate Change Colloquium

4–6 pm

**GVSU's Richard M. DeVos Center –  
Loosemore Auditorium**

(6-minute walk or 2-minute drive/ride from the Holiday Inn)

Join us for a conference first! This event will feature an incredible panel of interdisciplinary experts from across west Michigan, each of whom is working to address various aspects and impacts of a rapidly changing planetary climate. The event will begin with a panelist discussion moderated by WVGU Producer/Host Shelley Irwin. We'll then transition to a reception with light refreshments for roundtable discussions amongst both panelists and attendees, focusing on the roles we can play in preparing ourselves and our communities to be resilient, sustainable, and resourceful in a changing world. This event is free and open to the public.

## Conference Connections Welcome Reception

7:30–9:30 pm

**Grand Rapids Brewing Company**

(13-minute walk or 3-minute drive/ride from the Holiday Inn, and a 6 min walk or 2 min drive/ride from the Marriott Courtyard)

Connect with friends new and old as we gather to celebrate the beginning of the 8<sup>th</sup> National Place-Based Education Conference! We'll come together in the private event space of Grand Rapids Brewing Company, which is a short walk across the river from The Holiday Inn and Eberhard Center. Enjoy a tasty selection of complimentary hors d'oeuvres and drinks while you get to know your fellow conference attendees! We'll also have access to the Game Room, featuring skee-ball, pool, classic arcades, air hockey, and more — let's have some fun! This event is free and does not require pre-registration.



# Friday

NOVEMBER 10, 2023

## Registration & SCECH Check-In

Eberhard Center Second Floor Lobby

Beginning at 7 am

Be sure to complete your registration for the conference by checking in and receiving your nametag lanyard, along with other conference materials. We'll also be on hand to answer your questions. Michigan educators, be sure to check-in each morning prior to the start of sessions to ensure you receive the maximum number of SCECH credits!

## Welcome & Conference Opening

8:30–9:15 am  
Room 215

*Great Lakes Stewardship Initiative, Groundswell Stewardship Initiative, Grand Valley State University, Melissa Isaac*

Welcome to the 2023 Place-Based Education Conference! Prepare for the adventure ahead with important updates and logistics from your conference hosts. We'll set the tone by grounding our shared experience with respect, intention and purpose, as we seek to learn from one another and broaden our connections within the PBE community. We'll then hear from our morning keynote presenter, Melissa Isaac. Melissa is a member of the Saginaw Chippewa Indian Tribe and currently leads the Indigenous Education Initiative for the Michigan Department of Education.



**Creative Insubordination and the Politics of Teaching (Forum/Discussion)***Grace Tukurah and Kara Haas, Michigan State University***9:25–10:10 am | Room 203**

Foundational PBE

Audience: Formal Educators, Non-Formal Educators, Administrators, Curriculum Specialists, Policymakers

Level: Elementary, Secondary, University, Community

In this session, we will discuss the politics and power dynamics related to teachers using near school outdoor spaces for learning and recreation. Most associate outdoor school spaces, particularly those near elementary schools, with recess, play, and recreation. However, these spaces can also be used for academic learning. Through our work to encourage and equip urban elementary school teachers to embrace the outdoors as a useful and necessary tool for teaching, science in particular, we found that many children's access to outdoor spaces was restricted. While mandatory recess for students is a board policy in the district where we study, implementation is uneven. School level policies deny students recess for a variety of reasons. Reasons for restrictions on students' access to recess and outdoor spaces include a lack of staff to supervise students, union stipulations stating that teachers should not be assigned recess duty responsibilities during their lunch time, and concerns about safety of the students in their respective schoolyards. Teachers with whom we have interacted say they know that having unstructured playtime is physically and emotionally beneficial to students and helps students to learn better when they are indoors. Therefore, denying students access to recess not only makes it more difficult for them to learn in the classroom, it also denies them healthier bodies and minds.

**PBSE Meets MICIP: Explorations on Embedding Practices into District Plans (Forum/Discussion)***Jennifer Lynn, Copper Country Intermediate School District | Rachel Kent, Muskegon Area Intermediate School District***9:25–10:10 am | Room 204**

Foundational PBE

Audience: Formal Educators, Administrators, Curriculum Specialists

Level: Elementary, Secondary

MICIP was built to serve the Whole School, Whole Community, Whole Child [WSCC] framework. Facilitators will share two stories of how their ISDs partnered with GLSI Hubs as the Michigan Continuous Improvement Process [MICIP] was rolling out. Participants will reflect on and share their own stories and assets as the group assumes an inquiry based lens through which to view their conference experience.

In the Copper Country, school place-based stewardship education (PBSE) teams from the Lake Superior Stewardship Initiative (LSSI) formed Students to Stewards. This professional learning community explored connections between PBSE and the WCSS model alongside specialists (General Education, Literacy Coach, MTSS Specialist) from the Copper Country ISD. LSSI teams were selected based on attributes such as their strength in school improvement, whole district involvement over time, and holistic team approach.

Muskegon Intermediate School District in collaboration/ coordination with the West Michigan GLSI will share examples of how PBSE has been integrated and implemented through local MICIP plans. In response to these plans, the ISD has deepened their commitment to providing professional learning opportunities resulting in a reciprocal relationship between continuous improvement and intentional 3P learning integration.

Session participants will:

- connect the MICIP Process to the WCSS Model and PBSE,
- engage in conversation connecting their stories to continuous improvement,
- receive reflective tools to effectively bring PBE Conference conversation home to local continuous improvement discussions.

### **Place-Based Neighborhood Connections Between Classrooms and Business Partners (Traditional)**

*Ginger Rohwer, MiSTEM Network's Greater West Michigan Region | Nancy Manglos, Chamber of Commerce Grand Haven*

#### **9:25–10:10 am | Classroom 510**

PBE in West Michigan

Audience: Formal Educators, Non-Formal Educators, Administrators, Curriculum Specialists, Community Partners, Business Members

Level: Elementary

How can we connect K-8 classrooms with business and community partners to co-create place-based learning experiences? In this session, we will share details of an elementary school that has developed local neighborhood business partnerships with every grade level. The school chose to implement Essential Practice #10 of the School-Wide and Center-Wide Essential Practices in Literacy and Mathematics: *A network of connections in the community provides authentic purposes and audiences for children's work and helps facilitate use of quality out-of-school programming.* Students are taking part in a variety of real-world activities that are connected to grade-level academic outcomes and whole child outcomes. Students have learned more about the jobs and careers associated with each local business, while developing employment skills and abilities. Students and local businesses have become partners who learn, explore, brainstorm, ask questions, and understand service and stewardship within our local community.

### **Making Climate Change Real in Middle School Science (Traditional)**

*Jennie Sola, Richfield Public School Academy | Nicole Ferguson, Genesee County Parks ForMar Nature Preserve and Arboretum | Diana Bowman, Kearsley Community Schools*

#### **9:25–10:10 am | Classroom 511**

Climate Change and PBE

Audience: Formal Educators, Non-Formal Educators, Administrators, Curriculum Specialists, Community Partners

Level: Elementary, Secondary, Community

The United Nations has called climate change “the defining issue of our time.” We are posed with the challenge of teaching a complex topic in a way that makes it real and relevant to our students while empowering them to understand and address a challenge that can seem overwhelming, unmanageable, and distant from their everyday lives. Our session will address how climate change communication and stewardship action was integrated into 8<sup>th</sup> grade middle school classrooms with the support of local partners

and place-based education (PBE) adaptations into MiSTAR science curriculum for Unit 8.7: Global Climate Change. Join teachers from Kearsley's Armstrong Middle School and Richfield Public Academy, both located in Genesee County, Michigan, who, along with their community partner, Genesee County Park's ForMar Nature Preserve and Arboretum, will share how they incorporated locally relevant climate change data and meaningful community action into their climate change units. Learn how their students have become engaged citizens and climate change educators for their peers and community. Partners from the Great Lakes Stewardship Initiative's (GLSI) Discovering PLACE hub will share what unit adaptations were utilized, developed through a partnership between the GLSI and Michigan Technological University with support from the MiSTEM Network. Examples and resources you can adapt for your own climate change projects will be shared.

### **Equitable and Accessible Place-Based Education PK-12 (Traditional)**

*Stephanie Nielsen, Shawmut Hills Academy | Nicole Durso, Grand Rapids Public Schools*

#### **9:25–10:10 am | Classroom 512**

Ecological and Social Justice & PBE

Audience: All

Level: Early Childhood, Elementary, Secondary

This presentation will focus on how place-based education creates equitable access to high-quality, rigorous cross-curricular learning opportunities. Presenters will outline the varied ways in which scholars in urban settings can engage in their schoolyards and communities throughout the PK-12 grade levels. Presenters will also address the inequities that are sometimes present in education settings and how place-based education provides a space to empower scholars as active members of their communities.

### **Unlocking Potential: Harnessing Community Assets with the Place Prism for Innovative School Partnerships and Community-Centered Learning (Traditional)**

*Kelly Gaskins and Alex Sivitskis, Teton Science Schools*

#### **9:25–10:10 am | Classroom 514**

Foundational PBE

Audience: Formal Educators, Non-Formal Educators, Administrators, Curriculum Specialists, Community Partners

Level: Early Childhood, Elementary, Secondary, University, Community

Discover how to map and leverage community assets effectively to create engaging learning experiences that

go beyond the traditional classroom walls. We will share practical strategies, success stories, and best practices to guide you through the process of establishing community partnerships. We will show you how to turn your entire community into a learning playground, where every local economic, ecological, and cultural resource becomes a valuable learning opportunity for students of all ages. Whether you're an educator seeking to enrich your curriculum or a community leader aiming to strengthen ties with local schools, this session is your guide to unlock the potential of your community and create a place-based ecosystem, where schools thrive and communities flourish.

### **Modeling Intergenerational Place-Based Education in the Huron River Watershed (Traditional)**

*Lisa Voelker, The Southeast Michigan Stewardship (SEMIS) Coalition / Pam Krebs, Dexter Community School*

#### **9:25–10:10 am | Classroom 515**

PBE in Action!

Audience: Formal Educators, Non-Formal Educators, Administrators, Curriculum Specialists, Community Partners, Policymakers

Level: Elementary

Join two members of this project team of teachers and students, from two southeast Michigan schools, who came together to share a place-based inquiry on socio-environmental history in the theme of freshwater literacy. With the support of the Southeast Michigan Stewardship (SEMIS) Coalition, we set out to find often untold stories of our watershed through an interdisciplinary STEM-Social Studies effort. This project launched with cross-school teacher reflection sessions around key components of problem-, project-, and place-based learning (3-P), including teaching moves, mindsets, role perceptions, and actions that can deepen the impact of place-based learning. We explored how working in an adult team to make sense of this process can deepen student experiences. This effort was made possible by The Michigan Department of Environment, Great Lakes and Energy (EGLE), Michigan Department of Labor and Economic Opportunity's MiSTEM Network (Region 2), and the Washtenaw County Intermediate School District, as well as the commitment and willingness of these teachers giving their time to deepen PBE pedagogy and practice in our region. We hope attendees leave with insights about the importance of group reflection, ideas for interdisciplinary STEM efforts focused on the freshwater spaces where our students live, and an appreciation for the critical role that learning the 'untold histories' of our places can play to move us into a more intentionally 'place-based' future in education.

### **Activating a Community of Lake Superior Educators (Traditional)**

*Emma Holtan, Superior Rivers Watershed Association / Luciana Ranelli, Lake Superior National Estuarine Research Reserve*

#### **9:25–10:10 am | Classroom 710**

Great Lakes Literacy

Audience: Formal Educators, Non-Formal Educators, Administrators, Curriculum Specialists, Funders/Investors  
Level: Elementary, Secondary, University

When program participants, funders, community partners, and program facilitators all converge on dreams for potential—you find a way! Come live the story of how the Rivers2Lake Education Program approached responses to inquiries to engage teachers over multiple years, expand geographic range of participants to Wisconsin's Lake Superior basin, and potentially increase participant numbers. Since the story is just beginning, join to hear the vision for teachers to help determine the response to these objectives.

Over ten years, Lake Superior National Estuarine Research Reserve staff engaged over a hundred regional educators in Rivers2Lake, integrating the Lake Superior watershed into classrooms through place-based and outdoor learning. Rivers2Lake provides professional development for teachers through outdoor experiences, yearlong mentoring, and co-teaching. Their students are engaged through outdoor and inquiry-based learning, and the program provides Lake Superior resources, networking, and support to classrooms. In 2022, the program served nearly 2,000 PK-12 students. An award from National Oceanic Atmospheric Administration's (NOAA) Great Lakes Bay Watershed Education Program extends multiple year support for Rivers2Lake alumni teachers in a learning community that sustains Lake Superior education. The grant funds education efforts in partnership with Great Lakes Indian Fish & Wildlife Commission and their educational publications, and the Superior Rivers Watershed Association based in Ashland, WI, Northland College's Educator Preparation Program.

**Incorporating PBE Activities Into Student-Led Environmental Science Research and Ecological Restoration Projects. (Traditional)**

*Dave Kraff, Grand Rapids Public Schools*

**9:25–10:10 am | Classroom 716**

STEM-Rich PBE

Audience: Formal Educators, Non-Formal Educators, Administrators, Curriculum Specialists, Community Partners, Funders/Investors, Policy Makers

Level: Elementary, Secondary

Students are natural explorers who want to discover and own new knowledge about their surroundings. Learn ways to harness that energy, getting K-12 students both focused and enthusiastic about learning outdoors. You will leave this session with a model for how to incorporate PBE activities into student-led scientific investigations. You will also learn about implementing ecological restoration projects, and how to use those projects to house long-term, original research in your classes. Most importantly, learn how these activities can inspire your students to take care of our precious planet.

**B-WET and Get Wild! (Traditional)**

*Shari Insley, North Olmsted City Schools / Lesley Baker, St. John School*

**10:20–11:05 am | Room 203**

STEM-Rich PBE

Audience: Formal Educators

Level: Elementary, Secondary

The Lake Erie Volunteer Science Network (LEVSN) is a program of the Gelfand STEM Center at Case Western Reserve University. LEVSN (formerly Smart Citizen Science) aims to build a connection to, and sense of stewardship for, the Lake Erie watershed among students and teachers. Participating students expressed new attitudes and changed beliefs about Lake Erie and freshwater resources as a result of the LEVSN program. This session, following the LEVSN model, will help you use the outdoors as your classroom to provide Meaningful Watershed Educational Experiences (MWEEs) for your students! Show students what real-world science is, and get outside to collect and work with real water quality data using the Hydrolab with the Limno Loan Program, GaiXus water quality sensors, and Trout in the Classroom. Hear teacher testimonials about how students are able to collect and analyze water quality data from the field with actual equipment used by scientists. Get your students outside and grow the next generation of Great Lakes aquatic scientists!

**The Messy Sandwich: Bite Size Pieces to PBE Design (Forum/Discussion)**

*Lisa Voelker, Southeast Michigan Stewardship (SEMIS) Coalition / Leyla Sanker, Discovering PLACE / Meag Schwartz, Northeast Michigan Great Lakes Stewardship Initiative*

**10:20–11:05 am | Room 204**

Foundational PBE

Audience: Formal Educators, Administrators, Curriculum Specialists, Community Partners, Pre-service Students

Level: Elementary, Secondary, University, Community

Teachers and hub representatives from the Great Lakes Stewardship Initiative (GLSI) will join together in a fun, supportive conversation about the moving parts of place-based education inquiry. At the center of place-based education you can find a team—teachers, students, community partners, instructional leaders and more—sharing ideas for planning, implementing, and assessing PBE efforts and projects. Coordinating these

moving parts can feel messy! This session shares field stories from experienced PBE practitioners as we take a 'bite-size' look at how to do this work intentionally and at your speed. Bring your PBE implementation questions for K-12 teachers from Ann Arbor, Alpena, Detroit, Dexter, Flint, and Ypsilanti. Attendees can expect a highlight of instructional and design strategies that support PBE and tools that engage learners such as using inquiry, encouraging students' voice and choice, learning outdoors, and developing school-community partnerships. You will leave this session with perspectives on building a place-based practice and ideas on how to get started in your community.

**Water Resources Outreach and Education at the Annis Water Resources Institute (Traditional)**

*Christina Catanese and Amanda Syers - Annis Water Resources Institute, Grand Valley State University*

**10:20–11:05 am | Classroom 510**

PBE in West Michigan

Audience: Formal Educators, Non-Formal Educators, Curriculum Specialists, Community Partners

Level: Elementary, Secondary, University, Community

The Annis Water Resources Institute (AWRI) is a multidisciplinary research organization within Grand Valley State University with a mission to integrate research, education, and outreach to enhance and preserve freshwater resources. AWRI's outreach program delivers hands-on, investigative education about water to the public, with special emphasis on youth. Our floating learning laboratories and landside programming connect people in West Michigan with local water resources through experiential learning about water chemistry, lake-based food webs, human impacts on water quality, and more. Participants aboard an educational cruise have an opportunity to serve as freshwater scientists, collecting data and observations about the water bodies they sail through. Offered aboard GVSU's research and education vessels—the D.J. Angus (docked in Grand Haven) and the W.G. Jackson (docked in Muskegon)—the program serves school groups as well as other organizations. AWRI offers primarily outdoor landside programs on our Muskegon campus for K-12 students to explore the connection of land and water, has a long history of hosting teacher professional development opportunities around the topics of aquatic science and environmental education, and has served as the Michigan State Coordinator for Project WET since 2001.

This presentation will provide an overview of AWRI's pioneering work offering place-based aquatic science education since 1986.

**Acting Now: Classroom Strategies to Channel Elementary Students' Eco-Anxiety Into Eco-Action (Traditional)**

*Nicole Forsyth, Earth Rangers USA*

**10:20–11:05 am | Classroom 511**

Climate Change and PBE

Audience: Formal Educators, Non-Formal Educators, Administrators, Curriculum Specialists, Community Partners, Funders/Investors

Level: Elementary

More and more children are coming to school worried about the environment. A survey of children ages 6-11 found 72% of U.S. children experience worry over climate change (Earth Rangers and Ipsos, 2023). Even the most prepared caregivers and educators might struggle to help kids cope with feeling scared, angry, and overwhelmed. According to the 2022 NAAEE State of Climate Education Report, 74% of teachers believe it is irresponsible to not address climate concerns in school, but 56% of teachers say they only have the resources to do so some of the time or never, and 47% of elementary teachers don't feel confident teaching climate change. This presentation addresses this confidence gap by providing tips to teach climate resiliency while keeping in mind how the information may impact students emotionally and how local environmental stewardship projects can help. Learn how talking about eco-anxiety may be an important first step to eco-action and walk away with tips on how to guide discussions and student-centered projects, especially place-based activities for ages 6-11, to alleviate eco-anxiety. Session participants will:

- understand how eco-anxiety might show up in a classroom and how to address it,
- learn about Earth Rangers' eco-anxiety index and how the 5 E's framework (Empathy, Education, Environmental Stewardship, Excitement and Empowerment) can inspire hope and drive eco-action, and
- take away sample lesson plans and place-based activities for your students.

**GCST 1970 Environmental Justice and Nature Immersion: A Credit-Bearing Collaboration Between Higher Education, K-12, the YMCA of the North, and the Three Rivers Park District (Traditional)**

*Ana Munro, North Hennepin Community College*

**10:20–11:05 am | Classroom 512**

Ecological/Social Justice and PBE

Audience: Formal Educators, Non-Formal Educators, Administrators, Community Partners, Funders/Investors, Policymakers

Level: Secondary, University, Community

Founded in 2021, GCST 1970 is a partnership between higher education, five K-12 school districts, a YMCA camp, and a local park district to create place-based learning opportunities for students. This award-winning, nature-based, credit-bearing collaboration brings underrepresented urban high school and college students to a wilderness camp to engage in environmental justice topics and learn about issues of equity, access, and inclusion in nature and outdoor spaces. Program goals include supporting the transformation of equity and power in outdoor spaces; helping create vibrant, healthy, and livable communities; fostering an appreciation for the natural environment; and engaging students, changing lives. We'll discuss developing GCST 1970— including building community between team members and among diverse students—designing curriculum, identifying funding, recruiting student participants, aligning program goals with organizations' missions and strategic plans, and creating career, internship, and educational pathways. Our audience will understand the process and can use our program as a model for their own institutions.

**If You Build It, They Will Come... Eventually: Insights From a Scientist Building an Educational Program (Traditional)**

*Monica Caves, Upstate Freshwater Institute*

**10:20–11:05 am | Classroom 514**

Foundational PBE

Audience: Formal Educators, Non-Formal Educators, Community Partners

Level: Secondary, Community

The Upstate Freshwater Institute (UFI) is a not-for-profit research organization in Syracuse, NY, dedicated to freshwater research and education. In 2021, staff at UFI began developing the "LOOOP", an interdisciplinary educational program for local educators and middle to high school students that focuses on lakes Onondaga, Oneida and Ontario and their connections to the greater Great Lakes watershed. Since its inception, over 30 teachers have participated in professional development workshops and nearly 200 students have

had the opportunity to monitor local streams through the program's unique equipment loan program. In this presentation, hear from the program coordinator about the successes and challenges faced by this group of non-formal educators following the pandemic, in addition to lessons learned and future plans for the program. The presentation will also describe how several key community collaborators helped bring opportunities to local teachers that allowed their students to participate in stream monitoring, connect their classroom learning to things and people within their watershed, and explore scientific careers.

**Cities Are Watersheds, Too: How a Philadelphia Watershed Curriculum Succeeds (Traditional)**

*Ellen Schultz, Fairmount Water Works Interpretive Center*

**10:20–11:05 am | Classroom 515**

PBE in Action!

Audience: Formal Educators, Non-Formal Educators, Administrators, Curriculum Specialists, Community Partners

Level: Elementary, Secondary

The Philadelphia School District serves over 200,000 students, manages over 300 facilities, and is the 8th largest public school system in the nation. Implementing a watershed curriculum district-wide that is place-based, hands-on, and student-focused can be a daunting task. Yet, despite the magnitude and scope of the work, the Fairmount Water Works Interpretive Center (FWWIC)—the education center for the Philadelphia Water Department—has persevered. Learn about the evolution of the FWIC's "Understanding the Urban Watershed" Curriculum Project and how it is successfully being implemented in partnership with the district in grades four through high school across the city. The facilitator will share challenges and successes, and will highlight hands-on, interdisciplinary classroom activities, meaningful locally-based field experiences, successful community partnerships, teaching resources, and action-planning strategies.

Participants will get a deeper look into sample Learning Experiences on Climate Resiliency and Student Action planning, and sample meaningful watershed education experience (MWEE) opportunities using weather sensing equipment, trees, and freshwater mussels.

**Big Lake, Big Experiences: Place-Based Learning for Increased Climate, Earth Science, and Local Literacy on Lake Superior (Forum/Discussion)**

*Erika Vye - Great Lakes Research Center, Michigan Tech  
Lloyd Wescoat, Lake Superior Stewardship Initiative  
Jennifer Lynn, Copper Country Intermediate School District/Lake Superior Stewardship Initiative*

**10:20–11:05 am | Classroom 710**

Great Lakes Literacy

Audience: Formal Educators, Non-Formal Educators, Community Partners, Funders/Investors

Level: Elementary, Secondary, University, Community

The Lake Superior Stewardship Initiative (LSSI) brings together schools and community partners to prepare K-12 students to become knowledgeable citizens concerned about the Lake Superior watershed and actively engaged in stewardship projects in their community. LSSI supports local educators and community partners by facilitating annual place-based professional development field experiences. The current focus of these experiences is designed to improve teachers' climate, Earth science, and local literacy through the intersection of braided knowledge systems—Traditional Ecological Knowledge (TEK) and western scientific knowledge related to Earth systems processes—to understand more deeply the climate impacts on communities in the Lake Superior watershed. This session will:

- share a brief presentation describing the intention of, and motivation behind, these professional learning experiences,
- highlight digital resources to support this place-based learning, and
- describe how this supports the implementation of student-led stewardship projects in the Lake Superior Watershed.
- The session will also model some hand-on activities used to deepen local literacy that can be applied in any place!

**Fish Habitats and Underwater Remote Operated Vehicles: How a Rural Upper Peninsula School Is Applying Their Knowledge to Help Their Local Watersheds (Traditional)**

*Amy Pihlainen-Gabler, AuTrain-Onota Public Schools*

**10:20–11:05 am | Classroom 716**

STEM-Rich PBE

Audience: Formal Educators, Non-Formal Educators, Administrators

Level: Secondary

In July 2022, Amy Pihlainen-Gabler participated in a Square One Education Network Training and learned how to construct, wire, and test an underwater remote operated vehicle (ROV). Square One Education Network is a nonprofit organization that uses their Innovative Vehicle Design (IVD) Challenges to promote engaging and hands-on learning while addressing the Next Generation Science Standards Engineering Practices. Square One's Underwater IVD Design project challenges students to engineer for an aquatic environment. During the 2022-23 school year, her class of 10 students, in three groups, constructed three different underwater ROVs. During this inquiry based project, the students used designs of their own choosing, did their own wiring, and documented their progress with the goal of competing in a spring underwater ROV competition at Lake Superior State University. In early 2023, Amy discovered the Fish Sticks project, a joint project of the Alger Conservation District and the Michigan Department of Natural Resources (MDNR) to increase Au Train Lake's fish population. Volunteers, including Amy's students, created stick bundles to place on the lake ice and which later fell in to become fish habitat. Amy's students used their newly constructed underwater ROVs to capture footage before the stick bundles fell in and in the fall after the bundles had been there all summer. The student footage and observations were shared with the Alger Conservation District and the MDNR.

**Designing for Community Partner Collaborations in Place-Based Learning STEM Environments (Forum/Discussion)***Devon Riter, University of Michigan***11:15 am–12 pm | Room 203**

STEM-Rich PBE

Audience: Formal Educators, Non-Formal Educators, Community Partners

Level: Secondary, University, Community

Involving community partners in place-based education provides a wealth of exciting opportunities and practical challenges for STEM classroom teachers and out-of-school educational facilitators. In this forum, we will explore some of the scholarly literature on the challenges and opportunities around community partnerships in STEM education. What are the barriers to connecting high school science teachers with nonprofit environmental leaders? What's needed to ensure those collaborations can help teachers design more authentic place-based learning units? Where are there opportunities to build more connections between STEM out-of-school learning environments and local STEM professionals? Can those collaborations help engage youth in understanding how STEM businesses impact their local environment? After exploring these types of questions, we will use design frameworks to bring these topics into the contexts of our own experiences by working to answer a central design question: How might we support more community partner collaborations in our STEM place-based learning environments? This design-based forum aims to support participants in reimagining the intersections of STEM education and community-engagement, with hopes of spawning transformative ideas, frameworks, and tools for their own place-based STEM education efforts. This forum will be highly interactive, conversational, and generative as we wrestle to put scholarship into conversation with our real-world experiences, and share with one another how that might practically inform our future efforts to bring community partnerships to more STEM place-based learning spaces.

**Shared Operating Space: Cultivating Relationships in Local Food and Environmental Education (Traditional)***Abbey Palmer, MSU Extension | Rachael Pressley, Western Upper Peninsula Planning and Development Region | Lloyd Wescoat, Lake Superior Stewardship Initiative***11:15 am–12 pm | Room 204**

Foundational PBE

Audience: Formal Educators, Non-Formal Educators, Curriculum Specialists, Community Partners, Funders/Investors, Policymakers

Level: Elementary, Secondary, University, Community

Agricultural education and environmental education share a concern for the relationship people have with land. Place-based education depends on cultivating meaningful connections with the places we live and meaningful connections with one another. This session shares what we have learned about reciprocity and relationship building in the context of local food projects in Michigan's Upper Peninsula. Farm to School has offered opportunities in K-12 education to build school gardens, provide nutrition education, and source local food for the cafeteria. These activities have significant ties to knowledge held in the community by farmers, food producers, foragers, and gardeners. Local food activities that are centered in schools also engage students and teachers in defining their school food culture. We will identify strategies for building teams that investigate how agricultural education and environmental education work together -- and ideas for how to maintain those relationships over time. Participants will identify key connection points in their food system and create a plan for initiating and maintaining relationships with farmers and food producers.

**3P Learning Got You Confused? What Is All the Fuss? (Traditional)***Erica Johnson, Muskegon Area Intermediate School District***11:15 am–12 pm | Classroom 510**

PBE in West Michigan

Audience: Formal Educators, Administrators, Curriculum Specialists

Level: Elementary, Secondary, Community

3P (Place-, Project-, and Problem-Based) Learning is gaining steam across the country. So what is all the hype about? More importantly, what is 3P learning and why engage students in this work? What attributes are

consistent across all three and what is unique about each approach? Learn how one local school district is addressing these questions around 3P learning, see examples of this work in action, and more.

### **The Meaning Crisis and Place-Based Education (Traditional)**

*Kevin Holohan, Grand Valley State University*

**11:15 am–12 pm | Classroom 511**

Climate Change and PBE

Audience: Formal Educators, Non-Formal Educators, Curriculum Specialists, Community Partners, Youth

Level: Secondary, University, Community

If, as Vervaeke et al. (2017) argue, 'domicide' or the deliberate destruction of home is the term best suited to characterize the "meaning crisis," then it follows that the crisis can most holistically be addressed through unified efforts at homemaking. Vervaeke et al. (2017) "extend the definition of home into a metaphor for the canopy of worldview, the cultural and cosmic domiciles that coordinate our beliefs and behavior." Similarly, drawing upon Ken Wilber's (2014) integral bio-psycho-socio-cultural model of social reality, we can think about the different aspects of home as represented in four distinct yet interrelated quadrants: subjective, objective, intersubjective, and interobjective. This, in turn, entails considering not only the making or re-ordering of the exterior and collective (place, culture) but also the interior and individual (body, psyche). Literature on place, place-making, bioregionalism, and place-based education have gone a long way in providing concepts, tools, and practices for helping people recognize their connection with and responsibility to the human and more-than-human inhabitants of particular places and will be explored. These connections and responsibilities can go a long way in providing one with a sense of belonging, purpose, and meaning in life. What is given less attention in the aforementioned literature is one's relationship to oneself and the conditions or qualities necessary for mental, physical and spiritual well-being and full self-actualization.

### **The Detroit River Story Lab: Experiments in Re-Storying a Local Waterway Through Place-Based Experiential Learning (Traditional)**

*David Porter, University of Michigan*

**11:15 am–12 pm | Classroom 512**

Ecological/Social Justice and PBE

Audience: All

Level: Secondary, University

The University of Michigan's Detroit River Story Lab is an interdisciplinary, grant-funded initiative that

partners with regional organizations to reconnect communities with the river and its stories. Through collaborative research, education, and engagement projects, our partnerships amplify marginalized voices and foreground the role of the river and its shores as sites of connection, stewardship, and healing. This presentation will introduce the Detroit River Skiff & Schooner Program, a Story Lab initiative launched in 2021 that provides place-based, experiential learning opportunities to high school students in districts up and down the Detroit River. Tall ship outings and boat-building workshops offer engaging, hands-on activities that center the river's rich cultural and environmental heritage. The program's deliberate focus on the Detroit River invites regional youth to rediscover the bounty of this waterway not only as a vital natural resource but also as a cornerstone of community heritage through its roles as the homeland of the People of the Three Fires, a center of anti-slavery resistance, an industrial powerhouse, and a site of effective community mobilization for environmental justice. By providing fun and memorable interdisciplinary learning opportunities on the river and its shores, our programs invite local youth to connect its stories to their own lives and lay claim to their place in shaping their region's future.

### **Education Founded in Place - A Guidebook for Implementation (Traditional)**

*Sally Triant, Grow Wise Learning*

**11:15 am–12 pm | Classroom 514**

Foundational PBE

Audience: Formal Educators, Non-Formal Educators, Administrators, Curriculum Specialists

Level: Elementary

Sally Triant designed a guidebook as her thesis project to serve as a tool to help answer a common question with place-based education, "Where do I start?" Developed as a scaffold of seven core concepts that align learning through place and link content connections to cross-curricular explorations, it offers an entry point - no matter your level of prior experience with education founded in place. The core concepts are: developing student sense of place, practicing nature study and phenology, mapmaking, learning water fluency, creating cross-curricular connections, allowing for an emphasis on inquiry-led investigations, and acknowledging that teachers are the "keystones" to success in place-based learning. The guidebook aims to enable students to address issues that often have a global scale on a local level, emboldening civic action that is accessible and meaningful, while encouraging students to steward the places where they live and learn. With an emphasis on elementary learning, but adaptable to all grade levels, this guidebook is intended to serve as a resource full of resources!

There are cross-curricular content connections, book recommendations, tips for outdoor teaching, and surveys for staff and administrators to assess the impact of place-based education in the classroom and school setting. The guidebook is accessible at <https://www.growwiselearning.com/learning>.

**Project RAW: A Place-Based, Student-Led, and Teacher-Supported Learning Approach (Traditional)**

*Kathrin Luce, Alcona High School*

**11:15 am–12 pm | Classroom 515**

PBE in Action!

Audience: Formal Educators, Non-Formal Educators, Administrators, Community Partners, Funders/Investors  
Level: Secondary, University, Community

Project RAW (Restoring Alcona’s Watersheds) is a student-led initiative that aids in restoration of riparian areas close to home. Students enrolled in the Alcona High School Environmental Science class participate in the implantation of a local rain garden. They research soil quality, analyze and calculate stormwater runoff, investigate and monitor invasive species, and implement solutions for invasive spread. They furthermore study marine debris and research solutions for water pollution issues in our local watersheds. For this study we are working closely with community partners; consulting Huron Pines for invasive species education, benefiting from MSU Extension’s knowledge about the implementation of the place-based learning framework, supporting US Fish and Wildlife in their endeavors to keep our local waters clean, and engaging with partners that illustrate Great Lakes Literacy integration as a basis of our local studies. We are happy and honored to work closely with the Harrisville Harbor, which offers a site for field investigations and community outreach efforts in all things water pollution. Come and join my presentation to learn about how my students are attempting to restore the natural ecosystem of local marine areas, increase the natural biodiversity of our beautiful waters close to home, and help us decrease all aspects of pollution.

**Supporting Stewardship Action Projects by Utilizing Place-Based Learning Opportunities with Local Stream Data (Traditional)**

*Kirsten Hindy and Drew Heckman, Center for Freshwater Research and Education*

**11:15 am–12 pm | Classroom 710**

Great Lakes Literacy  
Audience: Formal Educators  
Level: Secondary

During the 2022-23 academic year, students in the Eastern Upper Peninsula Natural Resources Career and Technical Education class identified an alarming

spike in stream conductivity in their local watershed. After observing the phenomenon, students practiced fundamental data science skills by considering potential drivers of elevated conductivity, determining how to investigate the phenomenon, and collecting relevant data. Students used data analysis tools such as tables, graphs, and maps to further investigate and communicate the issue. After compiling the evidence and analysis, students wrote a scientific report which was sent to Michigan’s Department of Environment, Great Lakes, and Energy as the culmination of their stewardship action project. This place-based project implementation served as a platform that provided opportunities for students to develop their personal values toward the watershed and their community. Participating in this process strengthened students’ Great Lakes Literacy skills by encouraging them to explore and communicate the connectedness of humans and their watersheds. Through this case study, presentation attendees will learn how place-based investigations support data science education and student stewardship action. Discover how this process can be used to leverage place-based learning with your students.

**A Protocol for Students to Provide a Long-Term Solution to Local Restoration Monitoring (Traditional)**

*Karina White, Jenison High School*

**11:15 am–12 pm | Classroom 716**

STEM-Rich PBE

Audience: Formal Educators, Non-Formal Educators, Administrators, Curriculum Specialists, Community Partners

Level: Secondary, University, Community

Though many of our school districts are in close proximity to universities and research facilities, access to authentic research is very rare in grades 7-12 education. This protocol was developed to help classroom teachers in grades 7–12 find a local natural area and start long term monitoring of the biodiversity present, providing valuable information to local conservation groups, while also involving students in the process of science. If you are looking for a way to help students understand the process of science and the steps of scientific research, involving them in a project like this would be incredible. I will describe my use of this protocol with my students at an Ottawa County Park, Grand Ravines North and South, and will provide access to the protocol and accompanying materials.

# Lunch & Optional Roundtable Chats

12-1:05pm | Second Floor East Lobby

Time to fuel up! Enjoy tasty tacos and great company during our lunch break, conveniently catered on the second floor. We'll have a variety of tables designated for various group types and discussion topics in case you'd like to connect with peers in similar roles or explore a particular PBE topic. Need a mental break? Don't worry, there will be plenty of dining tables not designated for discussion topics or group meetups.



SESSION

# 4

## Friday

1:15-2 pm\*

\*unless noted

### **Bridging Algebra and Art: Unleashing Creativity and Change Through Data (\*Note: This workshop extends through Session 5 until 2:55pm)**

*Andrea Stanczyk and Abigail Woodman, Ypsilanti Community Schools*

**1:15–2:55 pm | Room 203**

STEM-Rich PBE

Audience: Formal Educators

Level: Secondary

In a world increasingly driven by data, the intersection of mathematics and art offers a unique and captivating approach to understanding algebraic concepts. Join seasoned educators in this innovative session to explore the fusion of art and local data in the realm of algebra. Through hands-on activities and practical examples, you'll discover how to:

**Visualize Abstract Algebraic Concepts:** Witness algebraic abstractions come to life as you explore creative visualizations that simplify complex equations and functions.

**Analyze Data Creatively:** Presenters will demonstrate a unique approach for extracting and interpreting meaningful data patterns using artistic techniques, which not only deepens data analysis skills but also makes algebraic analysis more engaging and accessible.

**Inspire Mathematical Curiosity:** Tap into the intrinsic human connection between art and mathematics by incorporating artistic elements that spark curiosity and enthusiasm for algebra among students of all levels.

**Promote Cross-Disciplinary Learning:** Explore how integrating art and algebra can foster collaboration between math and art teachers, enriching both subjects and providing students with a holistic educational experience that transcends traditional classroom boundaries.

This session is ideal for educators seeking fresh and engaging approaches to teaching algebra and/or using local scientific data. Whether you're in a traditional classroom or an art studio, prepare to be inspired and equipped with innovative tools to transform your curriculum and unleash creativity in your classroom.

### **Learning Locally, Transforming Globally: Realizing the Promise of the UN SDGs in Youth-Led Community-Based Action (\*Note: This workshop extends through Session 5 until 2:55pm)**

*Courtney Mulcahy and Emily Schaller, Shelburne Farms Institute for Sustainable Schools*

**1:15–2:55 pm | Room 204**

Foundational PBE

Audience: Formal Educators, Non-Formal Educators, Community Partners

Level: Elementary, Secondary, Community

The UN Sustainable Development Goals (SDGs) provide a framework to build on youth-adult and community partnerships, civic action, and engagement in multiple perspectives on our places. Through engagement in a youth participatory action research model, educators will gain tools for their practice and activities ready to

implement in their classrooms and communities. This interactive workshop will first engage participants in an activity focused on quality of life in communities. We'll then explore and connect the UN SDGs to understand how our local wants and needs are connected to global issues. The second part of the session helps educators consider place as the context for building relationships, understanding the interconnectedness of places and issues, and how they can support building youths' sense of agency. We'll wrap up with examples from the field illustrating how youth and adults are transforming their local communities with the UN SDGs in mind. Participants attending this workshop will:

- examine the UN's Sustainable Development Goals as a tool for visioning, planning, & action;
- deepen their sense of place as they use the local context to understand issues of sustainability and justice to frame learning; and
- hear about practical examples from other projects and experience strategies to elevate youth and community voices through a civic engagement and action process.

### **3P Learning Using EL Education Language Arts Curriculum (Traditional)**

*Rachel Kent, Muskegon Area Intermediate School District*

#### **1:15–2 pm | Classroom 510**

PBE in West Michigan

Audience: Formal Educators, Non-Formal Educators, Administrators, Curriculum Specialists, Community Partners, Funders/Investors

Level: Elementary, Secondary

This presentation will discuss how to bring more 3P (Project-, Place-, Problem-Based) learning into your curriculum using the EL Education Language Arts curriculum (K-8<sup>th</sup>) as an example. EL Education, formerly known as Expeditionary Learning, is a school reform model that emphasizes high achievement through active learning, character growth, and teamwork. EL Education grew out of a partnership between Harvard Graduate School of Education and Outward Bound, USA. The Muskegon Area Intermediate School District utilizes the following EL Education modules:

- Secret World of Pollination (students build research skills and science knowledge of plants and pollinators)
- Providing for Pollinators (students deepen their literacy skills and build citizenship to take action to help pollinators)
- A 3<sup>rd</sup>-grade Freshwater module utilizing Salmon in the Classroom (students can persuade others to take action by explaining an issue with researched facts and evidence and by providing realistic, manageable solutions).
- Animal Adaptation (students become experts on a frog's adaptations that help them survive and put

their researched learning into action improving local habitats for animal survival).

- A 4<sup>th</sup>-grade 19<sup>th</sup> Amendment module focused on using your voice to make a change
- Animal Defense Mechanisms focused on Michigan animals.

Come see examples of how to build a 3P learning experience using a viable curriculum, while still teaching required content and meeting standards.

### **Principles of Eco-Socio-Cultural Change for Place-Based Education (\*Note: This workshop extends through Session 5 until 2:55 pm)**

*Sarah Anderson and Sean Blenkinsop, Simon Fraser University*

#### **1:15-2:55pm | Classroom 511**

Climate Change and PBE Audience: Formal Educators, Non-Formal Educators, Curriculum Specialists, Policymakers

Level: Early childhood, Elementary, Secondary, University, Community

The current environmental crisis stems from a particular way of being human in the world. Place- and community-based education strives to better connect people with their local histories and environments, but if we primarily center the well-being of humans within our approach, we are in danger of perpetuating world views that ultimately harm the Earth. In this session, you will learn about six principles of eco-social-cultural change. These principles, drawn from an 18-month research project, seek to respond educationally to the challenge of "living within the Earth's carrying capacity." This work dove deeply into literature in the areas of social change and innovation, critiques of mainstream education, and transformative (both formal and informal) educational practices. We coupled this with a series of interviews with organizations and small communities engaged in systemic social change and generative resilience projects, including Indigenous communities, eco-villages, community-based support organizations, non-traditional school projects, and others. In this workshop, we will explore the six principles of eco-social-cultural change—All My Relations, Abundant Time, Mystery/Unknowability, Embeddedness/Integration, Ancient Futures, (Re) creative Dissonance—including what they entail, where they came from and why they might be important to place-based education. We will work collaboratively, allowing the principles to act as guides in shifting/ expanding our lenses as place-based educators as we rethink and recreate familiar activities for participants' future practice.

**Empowering Place-Based Education with Public Media: A Path to Enriched Student Engagement**  
 (\*Notes: This workshop extends through Session 5 until 2:55 pm.)

*Kristyn Bomberg, Rachel Cain, and Mallory Patterson - WGVU Public Media*

**1:15–2:55pm | Classroom 512**

Ecological/Social Justice and PBE

Audience: Formal Educators, Non-Formal Educators, Administrators, Curriculum Specialist

Level: Early childhood, Elementary, Secondary

Join us for a presentation that marries the principles of Place-Based Education with the extensive resources from PBS, equipping educators to elevate their teaching practices and bring immersive, locally grounded learning experiences to their classrooms. Place-Based Education immerses students in their immediate surroundings, harnessing local heritage, cultures, landscapes, and opportunities as a vibrant canvas for multidisciplinary learning. In this session, we'll explore how PBS LearningMedia, Michigan Learning Channel, and StoryMaker—which all offer a trove of free, high-quality, standards-aligned resources for PreK–12 educators and students—can work within PBE's core tenets.

Discover how to amplify student engagement by connecting with your local public media education team and leveraging PBS LearningMedia's vast collection of content, specially designed to meet the diverse needs of your classroom. We'll guide you through the process of finding and integrating these resources into your curriculum to supplement classroom instruction, creating meaningful connections to local communities and fostering a deeper understanding of diverse perspectives. This presentation will also emphasize the importance of responsiveness to current events and trends, ensuring that your place-based education remains dynamic and relevant. Join us as we equip you with the tools to promote effective teaching and learning practices, all while immersing students in the rich tapestry of their local environments.

**Bring your laptop – this session is interactive, and you will leave with the foundations of a lesson.**

**Humans of Ypsilanti: Oral History and Authentic Stories**  
 (\*Note: This workshop extends through Session 5 until 2:55 pm)

*Lauren Fardig-Diop, Ypsilanti Community Schools*

**1:15–2:55 pm | Classroom 514**

Foundational PBE

Audience: Formal Educators, Non-Formal Educators, Community Partners

Level: Elementary, Secondary, University, Community

Humans of Ypsi is a multi-year project where English,

History, and advisory classes focus on storytelling and hyperlocal history - the stories we have to tell and those we have to learn from others. In this workshop, we will share the process we use for interviewing and gathering stories from members of our communities, share some of our stories, and bring artifacts of our work. We will also spend time in circle, hearing stories from each other and writing our own stories down!

**Why Waste? Get Growing and Create a Schoolwide Compost System (Traditional)**

*Janet Staal, West Side Christian School*

**1:15–2 pm | Classroom 515**

PBE in Action!

Audience: Formal Educators, Administrators, Curriculum Specialists

Level: Early childhood, Elementary

Why let all those banana peels go to waste when you could empower students and engage with the community to drive positive change? The journey began with a driving question: "How can we use our understanding of the composting process to boost our community's composting efforts?" In this exciting session, you can expect to:

- gain a clear understanding of composting fundamentals, including what materials are suitable for composting and the science behind the process;
- discover innovative ways to seamlessly integrate composting into the educational framework, promoting hands-on learning and nurturing sustainability awareness;
- explore strategies for involving students in every aspect of the composting process, from forming composting teams to conducting interactive experiments;
- build community via success stories and insights on garnering support from teachers, parents, and students, while addressing common challenges in building a culture of sustainability;
- receive a step-by-step guide, including equipment needs and troubleshooting tips, on how to empower students to lead, set up, and maintain a schoolwide composting system.

By the end of this session, you'll not only know how to empower students to lead community sustainability efforts, you'll also have the inspiration to kickstart a schoolwide composting program. Imagine the impact: reduced waste, students educated about sustainability, and a profound sense of environmental responsibility echoing throughout your school community - all led by the students.

**Where’s My Watershed? Let’s Build Watershed and Climate Literacy in Urban Schools and Communities (Traditional)**

*Laura Florence and Sarah Halson, Southeast Michigan Stewardship (SEMIS) Coalition*

**1:15–2 pm | Classroom 710**

Great Lakes Literacy

Audience: All

Level: Elementary, Secondary

Since 2007, the Southeast Michigan Stewardship (SEMIS) Coalition has worked in some of Michigan’s most vibrant and challenged school and community urban environments. We empower young people and their teachers to transform themselves and their communities through place-based stewardship education (PBSE). For several years, southeast Michigan communities have experienced disruptions from climate change, the COVID-19 pandemic, severe storms, flooding, and power outages. Many are still disconnected from school-based watershed explorations and field trips, leading to the question, “Where’s my watershed?” SEMIS is partnering with the National Oceanic and Atmospheric Administration (NOAA) through its Bay Watershed Education and Training (B-WET) program to provide Meaningful Watershed Educational Experiences (MWEEs) for elementary and middle school students and teachers in southeast Michigan. We take an ecojustice approach and draw on the NOAA Environmental Literacy Program’s Theory of Change to examine how watersheds are connected to community and climate resilience within the context of racial injustice and other issues of equity. This approach provides the context for students to understand how they and their communities are connected to and dependent on others for their health and wellbeing. Join us to learn how southeast Michigan students and teachers gain knowledge of climate effects in their watersheds, connect these issues to related environmental problems in their communities, and take civic actions that address the resulting human and ecological challenges.

**Wading Into Stream Ecology with The R.A.I.L. Project Aquatic Macroinvertebrate App (\*Note: This workshop extends through Session 5 until 2:55 pm)**

*Keith Piccard, Allendale Public Schools/Grand Valley State University*

**1:15–2:55 pm | Classroom 716**

STEM-Rich PBE

Audience: All

Level: Elementary, Secondary, University, Community

In this workshop, participants delve into the RAIL Project app’s role in identifying live aquatic macroinvertebrates, fostering an engaging, inquiry-based educational experience. Macroinvertebrates serve as vital biological indicators, reflecting varied sensitivity to in-stream disturbances and allowing for effective assessment of stream health, providing valuable insights into intricate stream ecosystems. The app produces a thorough report, calculating key indices like the Stream Condition Index (Total Taxa, EPT Taxa, Biotic Index, % EPT Abundance, % Tolerant, and % Dominance), and the Water Quality Index based on the Hilsenhoff Biotic Index. Furthermore, it evaluates the stream’s adherence to natural hydrologic variability by scrutinizing the five Stream Ecosystem Attributes. Additionally, the app identifies critical stream ecology metrics such as Ephemeroptera Taxa, Plecoptera Taxa, Trichoptera Taxa, and more. This encompassing approach empowers participants to gather data, instigate localized changes, and make informed decisions for the conservation and management of stream ecosystems.

**Reimagining A Nature Based Education (Traditional)***Ted Malefyt, Outdoor Discovery Center Network***2:10–2:55 pm | Classroom 510**

PBE in West Michigan

Audience: All

Level: Early Childhood, Elementary, Secondary, University, Community

The idea of ‘what is best for kids’ can quickly and inspirationally lead to amazing place-based opportunities that change outcomes for students, teachers, and families. In this presentation, the story and insights of the Outdoor Discovery Center (ODC) education network will bring to life a blueprint that helps reimagine a nature-based education. At the core are three anchors to the work that will be shared and discussed: Change Where Learning Happens, Change The Types of Experiences, and Change the Relationships. The presentation will share the progression of place-based education, as well as the impacts on behavior, literacy, and wellness in students impacted through ODC partnerships.

**Foraging Through the School Year: A Place-Based Connection to the Natural World (Traditional)***Lea Sevigny, Joyful Wildcrafting***2:10–2:55 pm | Classroom 515**

PBE in Action!

Audience: Formal Educators, Non-Formal Educators, Community Partners

Level: Early childhood, Elementary, Secondary, University, Community

Humans crave relationships with the natural world. In “Foraging Through the School Year,” participants will learn ways to satiate students’ cravings to connect with plants for food and creativity at their unique place. Participants will leave with a calendar of plants to forage as well as recipes and activities to connect their students with place during each month of the school year, whether it be on campus, at a nature center, or at another location for learning. Tips for safe, ethical, and sustainable foraging practices will also be stressed.

**Get Hooked on Ichthyology! (Traditional)***Paige Wigren, Girl Scouts of Southeastern Michigan***2:10–2:55 pm | Classroom 710**

Great Lakes Literacy

Audience: Formal Educators, Non-Formal Educators, Community Partners

Level: All

Immersing youth in authentic aquatic ecology practices and recreational fishing opportunities helps foster a curiosity and appreciation for animals, science, and nature they may not have known they had. Staff from the Girl Scouts of Southeastern Michigan Council partnered with staff from the U.S. Fish & Wildlife Service Alpena Fish and Wildlife Conservation Office - Detroit River Substation and staff from the U.S. Fish & Wildlife Service Detroit River International Wildlife Refuge to develop two outreach programs with funding from the Great Lakes Restoration Initiative. These programs were designed to give youth from greater Detroit communities an opportunity to learn about what a Fisheries Biologist does and gain a new recreational hobby. Thus, the ‘A Day in the Life of a Fish Biologist’ and the ‘DRYFT: Detroit River Youth Fishing Team’ outreach programs were created. Supporting young scientists and anglers by inspiring conservation stewardship is essential to ensure our natural resources will be around for future generations to appreciate. These events allow us to educate youth in the greater Detroit area about aspects of nature that they otherwise might not be familiar with, giving them an appreciation for what’s in their backyard, and potentially even creating a path for future fisheries biologists and expert anglers.



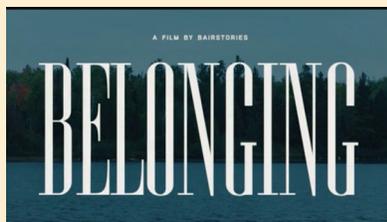
TAKE TIME TO  
MAKE A NEW CONNECTION

REFRESHMENTS, FELLOWSHIP, REJUVENATION!

## Networking Break & Documentary Screening

3-3:30 pm, Second Floor East Lobby

Conferences can be overwhelming! With the wave of new information, new faces, new ideas, and new experiences, we need time to slow down and connect the dots. Use this session to refuel and connect with your peers around ideas, programs, networks, resources, and more. Take in a documentary film screening, visit the Rapid Reflections booth to share a reflection about the importance of PBE and/or the conference, learn more about networks and organizations connected to PBE, or connect one-on-one while taking in the beautiful urban scenery of the Grand River! Refreshments will be served, along with a few surprises, so don't wander too far away!



### ***Belonging***

Ana Munro, North Hennepin Community College

**3:10-3:30 pm, Room 215**

Audience: All | Level: All

Belonging is a 20-minute documentary of students' experiences during the 2023 Cohort of GCST 1970, Environmental Justice and Nature Immersion Program. GCST 1970 is a partnership between higher education, five K-12 school districts, a YMCA camp, and a local park district to create place-based learning opportunities for students. This award-winning, nature-based, credit-bearing collaboration brings underrepresented urban high school and college students to a wilderness camp to engage in environmental justice topics and learn about issues of equity, access, and inclusion in nature and outdoor spaces. Program goals include supporting the transformation of equity and power in outdoor spaces; helping create vibrant, healthy, and livable communities; fostering an appreciation for the natural environment; and engaging students, changing lives.

**Shared Ways of Knowing to Support Enriched Local Literacy and Deepened Relationships with Place (Forum/Discussion)**

*Nigora Erkaeva, The Southeast Michigan Stewardship (SEMIS) Coalition | Sarah Anderson, Simon Fraser University | Erika Vye, Michigan Technological University/ Lakes Superior Stewardship Initiative*

**3:35–4:20 pm | Room 203**

Foundational PBE

Audience: Formal Educators, Non-Formal Educators, Curriculum Specialists, Community Partners, Funders/ Investors

Level: Elementary, Secondary, University, Community

Join three place-based educators from different land-based organizations in a guided discussion on the importance of elevating diverse cultures and ways-of-knowing to help inform educational practices with formal and informal learners. Place-based education presents a meaningful way to acknowledge and learn about the dynamic and interconnected stories, practices, and knowledge that serve as the foundation of our landscape's past, present, and future. This supports opportunities for enriched local literacy and deepened relationships with place. Braided or bridged knowledge approaches to teaching and learning support pathways for equitable knowledge exchange and the integration of cultural, historical, and anthropological relationships with place. Each presenter will share experiences in creating place-based, inclusive, and culturally-appropriate education programs and curriculum. The session will also include prompts for inclusive and safe group reflection and discussion on shared ways of knowing and place-based education.

**Getting Outside the Box: Adolescent Mental Well-Being and the Transformative Power of Place-Based Environmental Education (Traditional)**

*Delaney Sall, Plaster Creek Stewards (Calvin University)*

**3:35–4:20 pm | Room 204**

Foundational PBE

Audience: Formal Educators, Non-Formal Educators, Administrators, Community Partners

Level: University, Community

In the face of ongoing challenges to adolescent mental health, it is imperative to identify effective programs and resources that can safeguard and bolster the well-being of adolescents. The Plaster Creek Stewards Green Team is one such program. Green Team seeks

to empower high school students to make positive changes in their communities, enhancing their self-esteem and emotional well-being through the use of place-based classroom learning and hands-on watershed restoration work. This presentation explores the powerful impacts of green space access and place-based education via the discussion of a 2023 mixed-methods study investigating the mental well-being benefits experienced by adolescent participants in the Green Team program. A unique aspect of this presentation is its examination of social justice, the overlapping factors that influence students' needs coming into such programs, and the varying benefits they may draw from their participation. Specifically, we will discuss students' scores on a 'cultural access' index—which encompasses the influences of teachers, family, and community on students' connections to nature and place—as well as the demographic variables that may contribute to variation in these scores.

Attendees will:

- gain insight into how demographic factors and green space access influence mental well-being;
- understand the specific mental well-being benefits of place-based environmental education; and
- identify key components of place-based education that improve students' mental well-being.

**Middle Vision: Connecting Students to Purpose and Career Pathways (Traditional)**

*Kathy Van Til, Muskegon Area Intermediate School District  
Annlyn McKenzie, Muskegon Career Tech Center*

**3:35–4:20 pm | Classroom 510**

PBE in West Michigan

Audience: Formal Educators, Non-Formal Educators, Administrators, Community Partners

Level: Elementary, Secondary

Educators designed an after school program for sixth graders that focused on solving problems with exposure to real world opportunities. Hear how a team uses the design thinking process to teach, engage, and connect students to purpose and careers. This unique after-school program utilized a collaboration between the Muskegon Career Tech Center, Muskegon Middle School, and Orchard View Middle School.

### **Tackling Misconceptions in Climate Change: The Power of Place-Based Activities (Traditional)**

Wendy Johnson, National Center for Science Education

**3:35–4:20 pm | Classroom 511**

Climate Change and PBE

The National Center for Science Education (NCSE) has developed free, place-based NGSS-aligned lessons to help overcome student misconceptions about climate change. By studying climate change in the context of a student's local community or region — often referred to as place-based learning — the science of climate change can become much more accessible. Complex issues are broken down into relevant topics with a familiar context for students. Come preview NCSE's Climate Change in Your Own Backyard lesson set where students begin by analyzing the global impacts of extreme weather events and then narrow their focus through various national, regional, and community lenses. By examining these different levels of climate impact, students can more accurately assess the relationship between severe weather events and current climate trends as well as design potential mitigation solutions for the future of their community. This session will provide an opportunity for you to think about how you might utilize these resources in your area.

### **Connecting Students to Place Through Goal Area 10: Gidibendaagozim in Akiing/Gidinawedaamin Aki (We Are Part of the Land/the Land Is a Part of Us) (Traditional)**

Erika Bailey-Johnson and Crystal Kastl, Bemidji State University | Ana Munro, North Hennepin Community College

**3:35–4:20 pm | Classroom 512**

Ecological/Social Justice and PBE

Audience: Formal Educators, Curriculum Specialists, Community Partners

Level: Secondary, University

Bemidji State University and North Hennepin Community College received funding to create a multi-campus collaboration to work towards more inclusive place-based education. Research has consistently shown for decades that racial and ethnic minority groups do not have equal access to outdoor recreational areas. These gaps are also apparent in Minnesota, as highlighted in recent studies by the YMCA of the North and the University of Minnesota (2021) and the 2014 research by the Metropolitan Council. With an increasingly diverse U.S. population, equitable opportunity for connection with nature will prove critical for individual health and the wellbeing of the planet. The research team just finished their first year of grant work and are excited to share results with

session participants. The goals of the Collaborative are to develop and expand a network of faculty, students, and community members to engage in place-based learning and equity-focused environmental programming. During the first year, the Collaborative worked on the development of a disaggregated Minnesota State Goal Area 10 student survey which will assist in determining process and future objectives. Another goal is to create a resource hub that will help Minnesota State faculty connect to place-based pedagogy and community partners, providing an opportunity for more colleges and universities to meet student learning outcomes and Minnesota State Equity 2030 goals.

### **Environmental Civic Science: Youth Claiming a Voice on Water Issues in Their Communities (Traditional)**

Erin Gallay - School of Environment and Sustainability, University of Michigan | Lisa Voelker, Southeast Michigan Stewardship (SEMIS) Coalition | Audra Carson, Izzie LLC

**3:35–4:20 pm | Classroom 514**

Foundational PBE

Audience: Formal Educators, Non-Formal Educators, Administrators, Curriculum Specialists, Community Partners, Policymakers

Level: Secondary, Community

Attendees will learn about the elements and activities comprising the PBE curriculum we have been developing in collaboration with teachers, community partners (CPs), and students in southeast Michigan. Classes of students work with CPs to learn about their local watershed, the impacts of humans and local decision-makers including government on it, and how youth can have a voice. Working collaboratively, students map their watershed, determine a water issue that concerns them, collect data on it, learn from CPs about ways to have an impact, and craft a "call to action" that they communicate in a public venue. Core elements in this "civic science" curriculum, which we contend should also figure in education to deal with the climate crisis are: interdependence of humans and nature (water); impact of local people, policies, practices on water; collective/team learning and action; and community partnerships as venues for effecting change. Project goals include demystifying: 1) "science" by emphasizing the capacities of community members to determine issues and engage in science for public good; 2) "government" by emphasizing the range of decision makers responsible for protecting water resources (e.g., from the facilities department and groundskeepers at school to community members who serve in local government); and 3) ways that youth can have a voice in public decisions. This work is funded by the U.S. Department of Education's Institute of Education Sciences.

**“Are We Going Outside Today?” Exploring Neighborhood Nature in an After-School Program in Detroit With Students From the Downtown Boxing Gym (Traditional)**

*Luke Grange and Ryan Vance, Detroit Zoological Society*

**3:35–4:20 pm | Classroom 515**

PBE in Action!

Audience: Formal Educators, Non-Formal Educators, Community Partners

Level: Elementary, Community

A boxing gym and a nature center may seem like unlikely after-school partners. This session will detail the rich, surprising, and rewarding Detroit partnership between the staff of the Belle Isle Nature Center and youth from the Downtown Boxing Gym as they explore the surrounding neighborhood rich with urban flora and fauna. As the Belle Isle Nature Center was being renovated, staff pivoted and used the nature thriving in Detroit, Michigan, as the basis for their “Neighborhood Nature Explorers” after-school series. The Downtown Boxing Gym in eastside Detroit provides free transportation, programming, meals, and academic and athletic support to its youth members. The Belle Isle Nature Center was able to partner with the Gym’s STEAM Lab to provide seasonal, weekly, hour-long place-based education classes on topics such as neighborhood birds, seeds, and local pollinators. This session is designed for educators interested in on-site schoolyard and urban investigations, and will detail the goals and processes of the after-school partnership between the Belle Isle Nature Center and the Downtown Boxing Gym from 2021 to present. Participants will get to experience some of the more successful place-based activities in a downtown setting. Activities will include urban bird-watching, seed collection and investigation, and place-based nature art.

**Pennsylvania Weavers : How the Commonwealth is Advancing Environmental Literacy (Forum/Discussion)**

*Ellen Schultz, Fairmount Water Works Interpretive Center  
Michelle Niedermeier, Pennsylvania Sea Grant College Program*

**3:35–4:20 pm | Classroom 710**

Great Lakes Literacy

Audience: Formal Educators, Non-Formal Educators, Community Partners, Business Members, Funders/Investors, Policymakers

Level: Community

Learn how Pennsylvania is advancing Environmental Literacy statewide. This session will focus on how our stakeholder network is structured—its evolution, and its mission and vision. Facilitators will share the Network’s

development of a communications plan and how its regional hub infrastructure is helping us figure out how to be hyper-responsive to the local context (urban, suburban, rural) as a place for learning and make sure everyone has a “seat at the table”. The Networks we are cultivating aim to bring together the informal and formal educators to advance student-driven, experiential, and meaningful watershed education where they live. Through interactive conversation, participants and facilitators will share experiences and have an open dialogue about barriers and solutions that aim to bridge a myriad of divides (e.g., between the urban and suburban watershed and/or between the agricultural and forested context) as we strive for collective impact and systemic change.

**More than a Village - Connecting Community and Science Instruction (Traditional)**

*Nicole Andreas and Will Lepech, Kent City Elementary*

**3:35–4:20 pm | Classroom 716**

STEM-Rich PBE (PBE in West Michigan)

Are you missing the real life connection to science in your classroom? Can your students see the application of their learning? The Kent City Elementary team will share how creating community partnerships has ignited student engagement and boosted science achievement. This session will highlight how to develop partnerships, plan experiences that support student objectives, and provide opportunities for students to see how what they are learning has application beyond the classroom. Participants will leave feeling inspired and motivated to make connections that will help young scientists discover a talent and develop interest in a STEM related field that sparks passion and purpose early on.



## Dragonfly Award Banquet & Keynote Address

Grand Rapids Public Museum  
(1-minute walk or 0-minute drive/ride from The  
Holiday Inn. 7-minute walk or 2 minute drive/ride  
from the Marriott Courtyard.)

\*Note: Museum parking is \$15.

6–9 pm

We hope you're ready for a special evening of celebration and inspiration at the wondrous Grand Rapids Public Museum! Enjoy happy hour as you explore the museum with friends new and old from 6–7 pm. The famous 1928 Spillman Carousel will be open for rides! The dinner buffet line will open at 7 pm, and the Dragonfly Awards Ceremony will begin at approximately 7:30pm. The GLSI's Dragonfly Award honors a person who has made a significant contribution to the field of place-based stewardship education. It's our way of recognizing PBSE colleagues for their efforts and achievements. Past awardees include K–12 teachers, non-formal educators, scholars, scientists, authors, and philanthropists. After the ceremony, we'll transition upstairs to the theater for our conference keynote address with Monique Gray Smith from 8–9 pm. Dinner is included and there will be a cash bar. Pre-registration for this event is required!





# Saturday

NOVEMBER 11, 2023

## Registration & SCECH Check-In

Eberhard Center Second Floor Lobby

Beginning at 7:30 am

Be sure to complete your registration for the conference by checking in and receiving your nametag lanyard, along with other conference materials. We'll also be on hand to answer your questions. Michigan educators, be sure to check-in each morning prior to the start of sessions to ensure you receive the maximum number of SCECH credits!

## Welcome & Conference Opening

8:45–9:15 am

Room 215

*Great Lakes Stewardship Initiative, Groundswell Stewardship Initiative, Grand Valley State University*

Coffee...lots of coffee, please! Welcome back for the final day of the conference! We'll recap Friday, announce any important updates and schedule adjustments, and preview the day ahead.



**Innovative Approaches for Measuring Impact in Place-Based Education (Forum/Discussion)***Alex Sivitskis and Sharon Laidlaw, Teton Science Schools***9:25–10:10 am | Room 203**

Foundational PBE

Audience: Formal Educators, Non-Formal Educators, Administrators, Community Partners, Funders/Investors, Policymakers

Level: Early Childhood, Elementary, Secondary, University, Community

Place-Based Education has the potential to positively transform students, schools, and communities, but effectively capturing its multifaceted impact can be elusive. This is especially true when program evaluators rely on traditional data collection methods. Recent projects across multiple fields like social-work and complexity science have identified approaches that may help to better document alternative forms of impact. In this forum, we'll explore strategies like Critical Participatory Action Research (CPAR) and Social Network Analysis (SNA), which can enable stakeholders to contribute their unique narratives, going beyond conventional metrics. By equipping PBE practitioners with these tools and examining their intersection with traditional research methods, we hope to build our collective capacity to tell the impactful stories of PBE. Whether you're an educator, program designer, academic, or community member, this discussion promises to inspire fresh ideas and narratives, enabling you to authentically document the outcomes and impact of PBE in your respective place.

**Great Lakes Stewardship Initiative: Reflecting on 15 Years of the Initiative & A Vision for the Future (Discussion/Forum)***Caleb Carlton and GLSI Leaders***9:25–10:10 am | Room 204**

Foundational PBE

Audience: Formal Educator, Non-Formal Educators, Administrators, Curriculum Specialists, Community Partners

Level: Elementary, Secondary, University, Community

Join Great Lakes Stewardship Initiative (GLSI) leaders as we reflect on lessons learned and successes in our 15-year effort to establish access to place-based stewardship education for educators, students, and communities across the entire state of Michigan (and beyond). We'll highlight each of the GLSI regional

hubs and how they've connected and leveraged the unique resources and opportunities of their regions to establish approaches to place-based education that are relevant to, and meet the needs of, the communities they serve. We'll also explore how the hubs interact and support one another as part of the GLSI, and detail what we are trying to achieve together as a broad network. After mapping the initiative's past and present, GLSI's new executive director, Caleb Carlton, will share some of the organization's vision and goals for moving forward, including how you can get involved with GLSI through our plans to create universal access to place-based educator professional development, coaching/mentorship, educator communities of practice, and regional student exchanges!

**Empowering Students to Advocate for Healthy Environments: A Middle School Introduction to Environmental Health, Research, and Action. (Traditional)***Aresha Nadeem, University of Michigan School of Public Health/Environmental Health Research to Action | Kelly Cibasek, Dearborn Public Schools***9:25–10:10 am | Classroom 511**

Climate Change and PBE

Audience: Formal Educators, Non-Formal Educators, Administrators, Curriculum Specialists, Community Partners

Level: Secondary

What does a healthy environment look like? How do we shape our environments? How do our environments support or harm our health? As environmental crises continue to make headlines globally, the urgency grows to equip the next generation with the tools they need to understand and respond to environmental health and justice issues. In this presentation, we share our middle school curriculum, which has been developed by and with a variety of educational, community, university, and government leaders. The curriculum encourages learners to think critically about environmental health in their own communities, take ownership of their experiences, and strategize how to advocate for change. Lesson topics include: environmental justice, water pollution and access, air pollution, mapping for change, and more. The interactive, adaptable, and scaffolded curriculum is designed in alignment with Michigan State Academic Standards and Next Generation Science Standards. In this presentation, we will give an overview of the

curriculum, talk about the gaps and challenges it aims to address, and share opportunities for incorporating it into the classroom. We are currently piloting the curriculum and welcome discussion about its content and use in classrooms.

**Eastern Michigan University NEXT Scholars Series  
9:25–10:10 am | Classroom 512**

Ecological/Social Justice and PBE

*\*This session features connected presentations in Sessions 7, 8, and 9. While these sessions are independent, they have been planned to tell a story. Participants are encouraged, but not expected, to attend all of the sessions if possible.*

**Series Part 1: Hope Demands Action (Traditional)**

*Hannah Bollin and Aleksei Alward - Eastern Michigan University NEXT Scholars*

Audience: All

Level: University, Community

Many of us feel a sense of “doomerism” when thinking about the future of our society as we know it. Feeling as though we have pushed our planet to its brink with pollution and ecological devastation, our lens often can easily become obstructed by both pessimism and resignation. We, the NEXT Scholars, challenge these feelings of doom and we refuse to give up hope. We maintain that the acceptance of climate change as a “simple fact of life” ultimately represents the acceptance and perpetuation of oppression of our natural world and those who inhabit it. In line with Freirean thought, we call for those committed to PBE to teach youth about the work that is already being done to heal our world and, in doing so, give them hope for the future. Join us for a conversation on the importance of hope in sustainability work, the impact of community on one’s world view, and the interplay between hope and action in ecological work. In this session, attendees will:

- discuss the harms of accepting ecological devastation, and
- learn strategies to incite ecological hope in youth.

**Series Part 2: “You Tell Me Your Story and I’ll Tell You Mine”: Modeling Reciprocity in Learning (Traditional)**

*Hannah Bollin, Rose Castilla, and Isabel Romero-Castilla - Eastern Michigan University NEXT Scholars*

Audience: Formal Educators, Non-Formal Educators, Administrators, Curriculum Specialists, Community Partners

Level: Early Childhood, Elementary, Secondary, University, Community

In asking youth to engage in communal storytelling and reflection, we as educators ask them for a great deal of vulnerability, which often goes unreciprocated on our part. We, The NEXT Scholars, contend that educational spaces can never be truly safe if vulnerability is not both given and received. In thinking about how educators can engage learners with their peers, their places, and their communities, we call for educators to build communities founded on transformation, justice, and equity through the modeling of reciprocity and storytelling. Join us for a conversation on mutual vulnerability and its power both individually and collectively in learning spaces. In this session, participants will:

- reflect upon their own experiences of reciprocity between learners and educators, and
- learn techniques to create humanized spaces for communal vulnerability, storytelling, engagement, and healing.

**Developing Place-Powerful Outdoor Experiences in Detroit Schoolyards (Traditional)**

*Kara Haas, Michigan State University | Shirley Brezzell, Detroit Public Schools Community District | Emma Howland-Bolton, Detroit Public Schools*

**9:25–10:10 am | Classroom 514**

Foundational PBE

Audience: Formal Educators, Non-Formal Educators, Administrators, Curriculum Specialists, Community Partners, Policymakers

Level: Early Childhood, Elementary, Community

Detroit is unique in its abundance of outdoor spaces and as an epicenter of urban farming. Outdoor spaces exist in Detroit school-yards and in nearby parks. However, students and teachers face barriers to using them for play and learning. The benefits of time outdoors for learning and playing have been extensively documented, and there have been national calls for science learning to be place-based. The Teaching Science Outdoors - Urban Partnerships, NSF DRK12 grant #1907506, program has been supporting Detroit upper elementary teachers to use their schoolyards or near-school outdoor spaces for science instructional time. Through this work, we’ve identified barriers to the work of teaching science outdoors and worked individually and collectively to understand and overcome them. Join us to hear the stories of two of these school-yards directly from the Detroit teachers who have been creatively using and improving them as learning spaces. They will share about challenges faced and overcome through leveraging partnerships, community assets, and an ethic of love and care for students and families. Questions and discussion will be encouraged. We hope you will be inspired to explore nature in urban areas, and to reflect on the possibility of partnerships within your community.

**To Infinity and Beyond: A Math Teachers Journey in Starting and Sustaining Place-Based Education (Traditional)**

*Kim Hatfield, Flint Community Schools*

**9:25–10:10 am | Classroom 515**

PBE in Action!

Audience: Formal Educators, Administrators, Curriculum Specialists, Community Partners

Level: Secondary

How do you make a place-based education project last for more than a year? Five years? Ten years? Until you retire? This presentation will discuss how a secondary mathematics teacher engaged her students over the past 12 years on multiple projects from creating a habitat for ducks to planting trees to macroinvertebrates and beyond. Over the years, she gained the trust of colleagues to involve them in cross-curricular and cross-grade level efforts. Each year, the students' inquiry identified new opportunities for projects. Centering student voice required an open mind and flexibility. No matter the challenges faced, the students were able to find ways to make connections not only within the school, but also within their community by making numerous mathematical connections. You may ask: How did she do that when we have standards that need to be followed? What kind of challenges did she face? Was it easy coming up with projects? Did you know this project was going to take on a mind of its own? How were you able to get kids outside in their new shoes? These questions, and more, will be answered to help you move your projects to infinity and beyond.

**GLLee: Self-Paced Educator Training to Engage Youth in Great Lakes Stewardship (Traditional)**

*Meaghan Gass, Michigan State University Extension/MI Sea Grant | Brandon Schroeder, Michigan State University Extension/MI Sea Grant/Northeast Michigan Great Lakes Stewardship Initiative | Michelle Niedermeier, Pennsylvania Sea Grant College Program*

**9:25–10:10 am | Classroom 710**

Great Lakes Literacy

Audience: Formal Educators, Non-Formal Educators, Curriculum Specialists, Community Partners

Level: Elementary, Secondary, Community

Great Lakes Literacy education exploration (GLLee) is a short and engaging virtual course(s) centered on single Great Lakes topics and offered free for teachers and students to explore together. This session shares design and delivery strategies which allow for easy access and a user-friendly experience driven by the educators who participate in this virtual professional learning opportunity. The course format is conveniently digital, accessible at any time throughout the school

year, and at the pace convenient for each learner. First, educators meet Great Lakes scientists and experts who introduce each topic or issue (and their related career). Second, educators gain access to curated, exemplary resources and learning materials for both students and teachers. Third, examples of student engagement and place-based stewardship education opportunities offer a launching pad of pathways and partners where learners can dive more deeply into each issue or topic. GLLee's connect new teachers among the Center for Great Lakes Literacy network, support veteran educators exploring new topics, and engage students and teachers in Great Lakes literacy and learning. Presented as a series of different topic modules, learners can choose to participate in any or all topics of interest, growing their digital library of learning over time.

**What's in the Creek? Stream Monitoring in Your Community (Traditional)**

*Melanie Block, Ravenna High School | Dr. Amanda Buday, Grand Valley State University*

**9:25–10:10 am | Classroom 716**

STEM-Rich PBE

Audience: Formal Educators, Non-Formal Educators, Administrators, Community Partners, Funders/Investors

Level: Secondary, University, Community

Ravenna High School (RHS) is situated in the heart of the Crockery Creek watershed. Crockery Creek is the largest tributary of the lower Grand River watershed, serving as the drainage basin for over 102,300 acres in western Michigan. Approximately two thirds of the watershed is agricultural. By comparing social science data collected by Grand Valley State University to natural science data collected by RHS students and then making water quality monitoring data available to the public, RHS students engaged the community around the issue of watershed health. Public engagement was a critical component, so in addition to building a data dashboard, RHS students brought together diverse stakeholder groups to present their research to and with whom to discuss their experiences, concerns, and vision regarding the past, present, and future of Crockery Creek. Attend this session to learn:

- how you can collaborate with other teachers, administrators, and non-teaching staff to support place-based education in your district;
- how student voice is addressed in the selection, development, or implementation of your project;
- specific roles that students can carry out during a project; and
- how to identify community partners who can be involved in the planning and implementation of the project.

**Discover, Explore, Connect: Transforming Middle School Learning Through No-Walled Exploration**  
 (\*Note: This workshop extends through Session 9 until 12 pm)

*Jimmy McCue and Brian Hyosaka, Embark Education*

**10:20 am–12 pm | Room 204**

Foundational PBE

Audience: Formal Educators, Non-Formal Educators, Administrators, Community Partners, Business Members, Funders/Investors, Policymakers

Level: Secondary, Community

Join us for an innovative workshop that will reshape your approach to education and community engagement. This session focuses on cultivating partnerships with community organizations, fostering authentic and relevant out-of-classroom learning, and empowering students to develop their growth mindset and autonomy. You will:

- learn how to collaborate with local businesses, experts, and community leaders to create meaningful learning experiences;
- explore strategies to expand the circle of educators beyond teachers, including community members, business leaders, and local knowledgeable adults;
- dive into techniques for instilling autonomy and agency in students;
- witness the impact of project-based learning through real-world projects as evidenced by our school's collaboration with two local businesses.

Participants will hear from one of our learner alumni and experience a design sprint of the tangible results of our strategy, as students develop life skills, self-management abilities, and reflective thinking - all of which complements and improves their more traditional, academic pursuits. As educators, you will participate in an engaging two-way street into learner-centered instruction, establish authentic community connections, and create sustainable practices that redefine education. By embracing our approach, you'll not only enhance students' academic growth but also equip them with the skills and mindset to thrive in the real world. Join us in reshaping education through collaboration, relevance, and empowerment. To learn more, check out this Getting Smart article.

**Little Mussel, Big City—Teaching Sustainability and Civic Engagement Through the Grand Rapids Whitewater Summer Science and Leadership Program (Traditional)**

*David Koning, Grand Rapids WhiteWater*

**10:20–11:05 am | Classroom 510**

PBE in West Michigan

Audience: Formal Educators, Non-Formal Educators, Administrators, Curriculum Specialists, Community Partners, Business members

Level: Elementary, Secondary, University

What do high school students need most? Answer: to develop a sustainability mindset, to see themselves as part of a larger community, and to believe they are capable of making positive change in the world. Grand Rapids WhiteWater Summer Science and Leadership is a 2-week summer program that draws from a diverse group of area high schools. The city and the Grand River itself become both classroom and teacher as students meet community leaders and experts working on the River Restoration Project. This session will cover:

- how place becomes both classroom and teacher;
- how a sustainability mindset can help prepare young people for the great challenges of the 21st century;
- how to locate, engage, and partner with community organizations;
- how to create student agency and voice;
- practical strategies for managing students outside the four walls of the classroom.

Whether you are just beginning your journey to get students away from their desks or if you are looking for additional ideas and tools to help make your existing program even better—come. If you are an administrator wondering how to keep students engaged and give teachers the tools they need to succeed in non-traditional settings—come. If you work with an organization that already does or would like to work with student groups—come. The future is waiting for these kids.

**Using Doom as Fuel for the Future (Traditional)**

Liam Fries and Rachel Ratliff, *Inland Seas Education Association*

**10:20–11:05 am | Classroom 511**

Climate Change and PBE

Audience: Formal Educators, Non-Formal Educators, Community Partners

Level: Community

The ever-renewing cycle of bad climate news and bumper clickbait can lead to a feeling of “climate anxiety” in today’s students. Climate anxiety, or climate doom, is the result of being informed about the subject of climate change, alongside the keen awareness of one’s inability to effect change in a meaningful way. Climate doom can result in feelings of hopelessness, anxiety, and depression, and has been indicated in creating apathy towards solving our global climate crisis. We are interested in exploring tools to sublimate climate doom with positive action that comes from participating in citizen science organizations. Citizen science projects can impart valuable skills that individuals can apply in the future to give them agency and increase the likelihood of future action. Attendees will leave this session with a greater understanding of and empathy for students experiencing climate doom and evidence of how citizen science can help renew faith in science-based learning.

**Eastern Michigan University NEXT Scholars Series  
9:25–10:10 am | Classroom 512**

Ecological/Social Justice and PBE

*\*This session features connected presentations in Sessions 7, 8, and 9. While these sessions are independent, they have been planned to tell a story. Participants are encouraged, but not expected, to attend all of the sessions if possible.*

**Series Part 3: Do I Make You Uncomfortable? I Am Not Taboo. (Forum/Discussion)**

Jessica Swan, *Eastern Michigan University* | Patricia (Risha) Olds, and Amory Zhou-Kourvo - *Eastern Michigan University NEXT Scholars*

Audience: All

Level: Early Childhood, Elementary, Secondary, University, Community

Do I make you uncomfortable? Who has to ask this question for you to say, “yes?” Join us for a fast-paced, deeply impactful session focused on the role and value of bold, but necessary conversations addressing issues of identity, assumptions, biases, and belonging in building and maintaining the places, spaces, and communities in which PBE is lived out. Recognizing the challenge of educating and being educated in an inequitable and often hostile society, we ask you to join

us in problematizing the notion of place-based education in communities in which our existences are consistently characterized as other, taboo, and unwelcome. Together, we will unpack and confront the question: Do I Make You Uncomfortable? NEXT Scholars will share experiences, thoughts, and recommendations for building the sense of community, belonging, and safety that is necessary to foster connection to place (Lowenstein et al., 2018). You are invited to explore the self, others, and our collective humanity, while challenging the notion of a human being as taboo in the context of PBE. Participants will:

- explore the relationship between identity, assumptions, biases, belonging, safety and connection to place as a critical dimension of PBE;
- discuss ways to disrupt existing schemas/mental models that lead to othering and alienation of community members with non-normative identity statuses;
- identify actionable recommendations for fostering a sense of belonging and connectedness in PBE communities.

**Series Part 4: I Told My Story. Now What? (Traditional)**

Jessica Swan, Aisha Tahir, and Sarah Shafi - *Eastern Michigan University NEXT Scholars*

Audience: All

Level: Early childhood, Elementary, Secondary, University, Community

Across contexts, storytelling is used to foster a sense of belonging and connectedness, build community, and increase awareness of diversity. But what do we do after the stories are told? The NEXT Scholars continue to share stories of their lives and experiences, and they are consistently left asking: Now what? The truth is that hearing a story and claiming increased awareness is not enough to honor and respect those who take on the vulnerability of storytelling; their stories are not meant to be passively listened to and then left without any action. We call those committed to PBE to criticize the practice of passive listening, which turns storytelling into a performative self-display. The stories told by those with whom we are in community should inspire action and genuine social change, and it is through such action that the act of storytelling is made meaningful and worthwhile for the storyteller. Join us to examine the impact of storytelling without action; reconceptualize the post-storytelling experience; and challenge ourselves to move beyond listening for awareness toward imagining realistic and concrete ways in which we can honor storytellers, emphasizing shared respect, responsibility, and a moral obligation to act. Participants will:

- explain their responsibility to engage in informed civic action in response to stories that are told; and
- discuss concrete, actionable ways to engage in intentional reflection and responsiveness.

**Community Engagement: Guidelines for Excellence Workshop (\*Note: This workshop extends through Session 9 until 12 pm)**

*Lauren Westerman, Prescott College | Luciana Ranelli, Lake Superior National Estuarine Research Reserve*

**10:20 am–12 pm | Classroom 514**

Foundational PBE

Audience: All

Level: Secondary, University, Community

As place-based educators, we work in and with communities ranging from classrooms, to workplace teams, to neighborhood or regional partnerships. This interactive workshop introduces practices of authentic community engagement, compiled in the *Community Engagement: Guidelines for Excellence* from the North American Association of Environmental Education. Participants will explore key characteristics like “collaboration and inclusion” or “long term investment in change,” share how they already approach their work in a community-centered way, learn from the group, and gain tools to apply in their own context.

**Invading Classrooms and Communities: Empowering Student Stewards Toward Community Action While Addressing Invasive Species Concerns (\*Note: This workshop extends through Session 9 until 12 pm)**

*Elizabeth Christiansen, Lake Superior State University Center for Freshwater Research and Education | Rebecca Heckman, Inland Lakes Secondary School | Carla Gipson, Benzie Central Schools*

**10:20 am–12 pm | Classroom 515**

PBE in Action!

Audience: Formal Educators, Non-Formal Educators, Curriculum Specialists

Level: Elementary, Secondary, Community

Experience how place-based stewardship education is transforming student learning and plan for similar action in your community. Teachers implementing this powerful education process with their students will guide you with specific ways to inspire students to educate the public and initiate community action. To date, with funding from the Michigan Invasive Species Grant Program, 29 Northern Michigan teachers have inspired over 800 students toward civic action as leaders in their schools and communities. Students have designed, built, and installed educational signs and boot brushes; planted native gardens; surveyed and assessed school yards and local natural areas; presented at public forums and to school administrators and fellow students; and supported removal of invasive species. The workshop begins with an outdoor survey of plants and animals using technology to both identify organisms and map the surveyed space. We’ll continue

with activities you can use to connect students with their place. To initiate an action plan, participants will use web resources to explore species of concern in their local area; learn of local natural resources support organizations; and have individualized planning time with master teachers who have developed and implemented these educational experiences with their own students. Come away from this workshop inspired and prepared to transform student learning into stewardship through place-based experiences.

**From Burning River to Burning Questions: Engaging Historically Excluded Students in Place-Based Investigations (\*Note: This workshop extends through Session 9 until 12 pm)**

*Jacki Zevenbergen and Timothy Becker, Cuyahoga Soil & Water Conservation District*

**10:20 am–12 pm | Classroom 710**

Great Lakes Literacy

Audience: Formal Educators, Non-Formal Educators, Administrators, Curriculum Specialists, Community Partners

Level: Secondary

Cuyahoga Soil & Water Conservation District (CSWCD), seeks not only to reach learners from historically excluded communities but to engage them as leaders with a voice in shaping educational experiences and conservation actions. In this session, formal educators, non-formal educators, and community organizations can learn the approaches that helped us connect with youth from these communities and facilitate the successful completion of their environmental action projects. Participants will experience the Question Formulation Technique (QFT) and learn how to engage learners in generating their own research questions. Then they will explore a wetland determination activity we used with The First Rings First Fellowship (FRFF) and reflect on how they could bring this or a similar activity back to their own setting. Created by educators at CSWCD with funding from Bay Watershed Education and Training (B-WET), FRFF empowered youth to identify problems in their watershed and enact solutions. We recruited teachers from the First Ring Schools Collaborative, a regional association of school districts that addresses the challenges faced by students living in poverty. We incentivized teachers to participate with immersive professional development, research equipment and stipends. CSWCD and fellows engaged students in developing questions about their watershed using the QFT, connected them to opportunities to investigate their questions, and supported them as they planned action projects. Students presented their investigations and action projects at a symposium.

**Watersheds as Collective Impact - Teacher Stories from a Systemic Approach to the Community as an Extension of the Classroom (Traditional)**

*Scot Martin, Wayne Memorial High School | Avril Wiers, Careerline Tech Center | Eric Zay, Eaton Rapids Public Schools*

**10:20–11:05 am | Classroom 716**

STEM-Rich PBE

Audience: Formal Educators, Non-Formal Educators, Community Partners, Business Members, Policymakers

Level: Elementary, Secondary, University, Community

Join educators who have transformed their watersheds into outdoor laboratories and their youth into engaged citizens. With support from community partners, seed grant money, and funded field trips—and despite setbacks unique to each district—learn how these educators have supported their students in place-based learning by identifying local watershed issues and effectuating change. Wherever we are, we are in a watershed, regardless of proximity to a water source or campus natural area. Because of this, there are issues on every campus that our students can investigate. Complement natural curiosity with scaffolded support from the Earth Force model to lead meaningful discussions and identify the root cause of an issue, and the results so far are astounding. This session will showcase examples of youth environmental civic action in their watersheds, including: combating Great Lakes microplastics and flooding in urban spaces, building awareness and litter collection stations, engaging in citizen science and volunteerism efforts, writing letters to stakeholders, and integrating virtual learning for authentic community impact. We'll also share tools and resources, and, as time allows, do hands-on activities to help session participants see how they can transform their watershed into a meaningful learning experience for their students.

**Your Free Teacher Assistant: Tying Core Curriculum to Place Using AI and Other Tools (Traditional)***Sharon Laidlaw and Kelly Gaskins, Teton Science Schools***11:15 am–12 pm | Room 203****(Note: Come with a laptop and a standard or standards you might typically teach.)**

Foundational PBE

Audience: Formal Educators, Non-Formal Educators, Administrators, Curriculum Specialists

Level: Early Childhood, Elementary, Secondary, University

Does your drive to implement a place-based approach bump up against the limits of state standards and/or a required curriculum? If so, this session is for you! With the right prompts and a little persistence, your free, always-on, always-enthusiastic AI teacher assistant can help turn any standards or curriculum requirement into an engaging, place-based experience that is perfect for your specific learners. In this hands-on session, you'll use the Teton Science Schools' interdisciplinary place-prism planning tools to generate lesson, unit, or project ideas. Then, we'll share some recommended prompts, and you'll have time to experiment with developing lessons, units, and projects using the free version of ChatGPT. Finally, we'll open it up for folks to share their successes and challenges.

**Unlocking Creativity and Impact with Design Thinking and Place-Based Education (Traditional)***Patty Tolly, Forest Hills Public Schools***11:15 am–12 pm | Classroom 510**

PBE in West Michigan

Audience: Formal Educators

Level: Elementary, Secondary

In our rapidly evolving world, nurturing innovative thinking and a profound connection to our environment are essential for personal development and societal advancement. Join us in exploring the impactfulness of Design Thinking and Place-Based Education (PBE). Design Thinking is a problem-solving method centered on human needs. It empowers individuals to tackle challenges by embracing creativity, empathy, and iterative processes. In this session, we will delve into the fundamental principles of Design Thinking and its application in the context of PBE. Witness how Design Thinking inspires individuals to think beyond boundaries by promoting collaboration and empathy to craft innovative solutions. Place-Based Education immerses learners in their local surroundings. It bridges classroom knowledge with the real world,

nurturing a profound connection to place and a deep understanding of ecological and community systems. Our presentation will shed light on the merits of PBE, showcasing how it motivates students to become active community members, stewards of the environment, and critical thinkers. We will present concrete examples of PBE in practice, underscoring its ability to engage students in authentic, meaningful learning experiences that transcend traditional classroom boundaries. By examining case studies, offering practical insights, and fostering interactive discussions, you'll depart with a solid grasp of how Design Thinking and PBE can ignite creativity, champion sustainability, and equip individuals of all ages with the skills necessary to confront the challenges of our ever-evolving world.

**Students Are Wowed by the Lake Superior Youth Symposium (Traditional)***Joan Chadde, MTU Center for Science & Environmental Outreach***11:15 am–12 pm | Classroom 511**

Foundational PBE

Audience: Formal Educators, Non-Formal Educators, Community Partners, Funders/Investors, Policymakers

Level: Secondary

The biennial Lake Superior Youth Symposium has inspired youth and educators to become better stewards of the Lake Superior Watershed since 1995. This presentation will showcase some of the history that has helped this 3-day biennial event stand the test of time. The symposium rotates around the Lake Superior watershed, hosted by an educational institution - university, high school, or non-profit organization in Michigan, Minnesota, Wisconsin, or Ontario. The event is unique in that it is truly place-based. Each host institution forms a planning committee and a youth committee to ensure youth voice and choice are incorporated into planning efforts, similar to the Great Lakes Stewardship Initiative stewardship project. The event is also interdisciplinary and embodies many Place-Based Education and Great Lakes Literacy Principles, perhaps most specifically: the Great Lakes are socially, economically and environmentally significant to the region, nation and planet. Join me to hear what students who attend these symposiums have to say about their experience, and to learn from my 22 years of helping to plan this long-running, successful program. You'll leave inspired to create and customize a similar sort of educational experience for your students.

**Eastern Michigan University NEXT Scholars Series**  
**11:15 am–12 pm | Classroom 512**

Ecological/Social Justice and PBE

*\*This session features connected presentations in Sessions 7, 8, and 9. While these sessions are independent, they have been planned to tell a story. Participants are encouraged, but not expected, to attend all of the sessions if possible.*

**Series Part 5: Decolonization of Food (Forum/Discussion)**

*Johnnetta Ricks, and Kamaljit Kaur, Eastern Michigan University NEXT Scholars | Imandeep Kaur Grewal, PhD - Eastern Michigan University*

Audience: All

Level: Early Childhood, Elementary, Secondary, University, Community

Food is a major part of our identity—individual identity, family identity, and community identity. Despite our polarizing political climate and its effects on education, food continues to bring people together resulting in positive cultural connections and relationship building. During our session, we will share how food is centered as an equal and necessary component in our place-based mentoring programs, NEXT Scholars and Hope Partners. One of the ways that our programs have decolonized food is by increasing food access for our students with respect to all program meeting requirements and shared program common spaces. Session participants will share their individual, family, and community food identities along with their cultural and personal significance.

According to Seiler (2012), NEXT Scholars and Hope Partners are engaging in food sovereignty by controlling our food cultures and environments. Join us in a discussion on decolonizing food as the impetus for building positive relationships across cultures. Resource: Seiler, A. (2012). Food Sovereignty: Reconnecting Food, Nature and Community: Edited by Hannah Wittman, Annette Aurélie Desmarais and Nettie Wiebe. Food, Culture, and Society, 15(1), 151–154. <https://doi.org/10.2752/175174412x13190510222228>

**Series Part 6: W\*\*A\*\*P\*\*\*\* And Formula 734: Black Music and the Experience of Black Students and Educators (Forum/Discussion)**

*Johnnetta Ricks, Antonio (Queso Tone) Byrd, and Roderick Wallace - Eastern Michigan University NEXT Scholars*

Audience: All

Level: Secondary, University, Community

There are no teachers of color in 48.6% of Michigan schools. In fact, the number of black educators actually decreased in Michigan over the last five years. Contrasting this disturbing statistic with family demographics of cities across Michigan causes us to pause and question why so many of the students across Michigan do not have the opportunity to learn from teachers who look like them, have stories similar to theirs, or share their zip code? As place-based educators, we are committed to both examining root-causes that sustain this harmful teacher under-representation as well as offer solutions. Music has played a central and impactful role in each of our - the presenters - personal and professional lives. We then naturally turn to music to highlight the impact that the evolution of black music has, and can have, on black students and teachers. W\*\*A\*\*P\*\*\*\* is used to highlight root-problems, and Formula 734, a Ypsilanti-based community music collaborative, offers solutions.

**Random Acts of STEM (Traditional)**

*Tracy D'Augustino, Michigan State University Extension*

**1:15 pm–2 pm | Classroom 716**

STEM-Rich PBE

Audience: Formal Educators, Non-Formal Educators, Curriculum Specialists, Community Partners

Level: Early Childhood, Elementary, Secondary, Community

As an informal science educator, I've witnessed and participated in random acts of STEM. While great for building interest and excitement, random acts of STEM do little to really increase STEM literacy, and they often lack a connection to our communities and Great Lakes. This session will show you ways to enrich traditional science lessons and develop your science engagement portfolio, through a partnership in and with your community while meeting educational standards. You can take random acts of STEM to the next level, transforming them into Great Lakes Environmental Literacy and Stewardship opportunities using place-based stewardship education.

# Lunch & Optional Roundtable Chats

12:00-1:05 pm | Second Floor East Lobby

Time to fuel up! Enjoy hot soup, fresh wraps, and great company during our lunch break, conveniently catered on the second floor. We'll have a variety of tables designated for various group types and discussion topics in case you'd like to connect with peers in similar roles or explore a particular PBE topic. Need a mental break? Don't worry, there will be plenty of dining tables not designated for discussion topics or group meetups.



SESSION

# 10

## Saturday 1:15–2 pm

### **Is There a Place for Virtual Schools in Place-Based Education? (Forum/Discussion)**

*Johnnetta Ricks, Eastern Michigan University*

**1:15–2 pm | Room 203**

Foundational PBE

Audience: Formal Educators, Non-Formal Educators, Administrators, Community Partners, Funders/Investors, Policymakers

Level: Secondary, University, Community

Is there a place for virtual schools in place-based education? According to the National Center for Education Statistics, 293,717 students opted to attend 100% virtual K-12 schools during the 2019-2020 school year (pre-Covid 19 pandemic). Students attending virtual schools experience challenges associated with building community and their sense of place both physically/face-to-face and virtually. Johnnetta will share her experiences transitioning from teaching in a traditional brick-and-mortar high school to teaching in a 100% virtual high school as a math interventionist. After sharing her experiences, Johnnetta will facilitate a discussion focused on understanding the families AND teachers who choose virtual schools and whether there is a place for them in place-based education.

### **From the Teachers: A Decade of District Commitment to Place-Based Learning (Traditional)**

*Dawn Braden and Victoria Kalscheuer, Port Townsend School District*

**1:15–2 pm | Room 204**

Foundational PBE

Audience: Formal Educators, Non-Formal Educators, Administrators, Curriculum Specialists, Community Partners

Level: Early Childhood, Elementary, Secondary, Community

A teacher and a principal from the Port Townsend School District, located in rural Washington State, will share their experiences leading and teaching place-based learning in their classrooms. For a decade, Port Townsend Schools has had a district-wide emphasis on place-based learning. Teachers have participated in professional learning and curriculum development supported by district leadership and local community partners. Learn how a watershed and salmon education program has evolved in an elementary school. A middle school principal will share about the joys and challenges of implementing place-based learning where students and teachers are often out of the building and learning in the community. In Port Townsend, teachers collaborate with multiple community partners each year and aim to implement at least three place-based learning experiences throughout the year as a part of all curriculum in preK–12<sup>th</sup> grade. Projects range from environmental stewardship to entrepreneurship that help students “learn through a sense of place.”

**Learning for Good: How to Deepen Learning by Empowering Students to Impact Their Communities (Traditional)**

*Ben Talsma, Van Andel Institute*

**1:15–2 pm | Classroom 510**

PBE in West Michigan

Audience: Formal Educators, Administrators

Level: Elementary, Secondary

Most of us went into education because we believe that learning can make a positive difference in the world. But often, making a positive impact feels like a distant goal instead of an immediate reality. In this session, participants will learn a valuable frame for developing projects that empower students to make a difference, today. They'll see examples of purpose-based projects in action, and will begin to develop their own ideas for how to bring these ideas to life in their classrooms.

**Taking A Bite Out of Lunchroom Waste (Traditional)**

*Tracy D'Augustino, Michigan State University Extension  
Meag Schwartz, Northeast Michigan Great Lakes Stewardship Initiative | Jenny Schroeder, Alcona Community Schools*

**1:15–2 pm | Classroom 511**

Foundational PBE

Audience: Formal Educators, Non-Formal Educators, Administrators, Curriculum Specialists

Level: Early Childhood, Elementary, Secondary

Taking a Bite out of Lunchroom Waste is a NGSS aligned K-12 curriculum designed to provide you and your students with information and tools to help prevent marine debris at a system level. Explore these hands-on activities with the designers after three years of use with students. Leave with free access to the curriculum! This curriculum will help your students discover they have the power to make a difference in their school and community. The place-based stewardship education process developed through this curriculum will introduce students to trash/marine debris and its impact. After students explore the problem of marine debris and how humans contribute to it, we provide a way for them to be part of the solution. After a youth driven audit of the waste produced in their school lunchroom and analysis of the waste, students will select and research how to reduce an item. Students may learn about the rules or laws that must be followed by school lunchrooms. Students will then design a plan to reduce their targeted waste item. Finally, students will advocate for change through a plan they present to their school. Taking a Bite out of Lunchroom Waste is designed to engage your students every year in preventing marine debris by reducing lunchroom waste one bite at a time.

**How Our Student-Led Environmental Justice Teams Organized the First Annual Boggs Earth Day Event (Traditional)**

*Jacinda Bowman and students, The James and Grace Lee Boggs School*

**1:15–2 pm | Classroom 512**

Ecological/Social Justice and PBE

Audience: Formal Educators, Administrators, Curriculum Specialists

Level: Elementary, Secondary

During the 2022-23 school year, three middle school classes used criteria-based decision making to choose an environmental justice issue to learn about, connected with community partners, and planned an action to address their chosen issue. The three classes chose water issues, deforestation, and food insecurity. Students met with community partners at school and visited nearby spaces like Belle Isle and Arboretum Detroit's Circle Forest to learn more about their issues. As a culmination of their work, students planned and facilitated a school-wide event in which younger students attended sessions to learn about their environmental justice issues, sang songs while planting a tree, and enjoyed homemade smoothies! Join Ms. Jacinda and some of her students as they tell you about their process and reflect on lessons learned.

**Can Every Schoolyard Serve as a Tool for Learning? (Traditional)**

*Sally Triant, Grow Wise Learning*

**1:15–2 pm | Classroom 514**

Foundational PBE

Audience: Formal Educators, Non-Formal Educators, Administrators, Community Partners

Level: Early Childhood, Elementary, Secondary, Community

What if the solution to cultivating the next generation of stewards is hidden in plain sight in every schoolyard in our community? In an effort to realize the mission of the Grand Rapids Environmental Education Network (GREEN) and the vision of Grand Rapids Public Schools (GRPS) to provide equitable access to environmental learning to every scholar, The Schoolyard Features Inventory was designed to uncover the potential that every schoolyard has to serve as a tool for learning. As a method to address the "lack of an outdoor classroom" reported as a barrier preventing educators from taking lessons outside, all forty-three campuses in the district were surveyed. Surveyors worked in a purposeful and uniform manner with the intent to inventory the existing features that provide opportunities for environmental learning experiences, and at the same time offering suggestions for the potential to create more. Additionally, every

schoolyard was rated for its capacity to study habitat and biodiversity, as a living laboratory for community science, and as a resource for watershed education. If you are a teacher curious about the potential of your own schoolyard, or an administrator wanting a comprehensive assessment of the campuses in your district through the lens of stewardship, this inventory will serve as a powerful tool to grow your scholars to become stewards of the places where they live and learn.

### **The Power of Youth Voice: Making a Difference in Our Environment (Forum/Discussion)**

*Darren Bagley, MSU Extension | Kelly Sanborn and Leyla Sanker, Discovering PLACE | Flint River Youth Environmental Leadership Council members*

**1:15–2 pm | Classroom 515**

PBE in Action!

Audience: Formal Educators, Non-Formal Educators, Administrators, Curriculum Specialists, Community Partners, Policymakers

Level: Elementary, Secondary, University, Community

Join us to learn about an exciting program working to advance environmental leadership in Flint River watershed communities in mid-Michigan. Learn from participants in the Flint River Youth Environmental Leadership Council (YELC) as they share their perspectives on how educators and partners can support and cultivate youth engagement, grow youth leaders, and empower environmental stewardship action during this interactive panel discussion. In 2022, Flint River Watershed Coalition (FRWC), in partnership with MSU Extension and the Great Lakes Stewardship Initiative's Discovering PLACE, established the Flint River Environmental Leaders (FREL) program. The FREL brought together student leaders, educators, and community partners into a cohort that would ultimately serve to guide environmental learning and engagement throughout the Flint River watershed. Youth-adult partnerships were forged through participation in immersive watershed learning, environmental leadership development, and coordination and implementation of stewardship activities. Youth participants who formed the FREL Youth Environmental Leadership Council (YELC) continue to inform stewardship decisions at classroom, district, community, and watershed levels and are working to expand and support the next cohort of youth environmental leaders. Formation of this program was made possible thanks to funding received from the National Oceanic and Atmospheric Administration's (NOAA) Great Lakes Bay Watershed and Education Training (B-WET) program and was established with the goal of facilitating Meaningful Watershed Education Experiences (MWEEs) for educators and students.

### **Great Lakes - Great Place: Utilizing the Great Lakes as the Centerpiece for Your PBE (Traditional)**

*Stephanie Dege, Posen High School*

**1:15–2 pm | Classroom 710**

Great Lakes Literacy

Audience: Formal Educators, Non-Formal Educators, Administrators, Curriculum Specialists

Level: Elementary, Secondary, University

Using the world's largest freshwater resource as a focus point, you can build a short project or a long term place-based education program with your students. Planning meaningful place-based educational experiences for students based around the Great Lakes can be as simple as a one-day field trip or a long-term project spanning one or several school years. Learn from a fellow educator who started small and expanded PBE experiences for her students over time. Interspersed throughout the presentation will be images of students in the field along with videos documenting past projects allowing you to hear directly from students and community partners about the impact PBE has on their education and on the community. Takeaways include why the Great Lakes provide a relevant focus for PBE, weaving Great Lakes concepts into curriculum, incorporating student voice and choice, leveraging science and community partners, choosing PBE sites, organizing field visits, harnessing professional development opportunities, and securing project funding. While the projects highlighted in the presentation were completed with secondary students, the protocols laid out in the presentation can easily be adapted to lower age levels. The presenter encourages questions about PBE and Great Lakes education in addition to tips and advice from attendees. Let's learn from each other about creating experiential learning experiences which foster a sense of community and stewardship in our students.

### **Neighborhood Explorers: Building and Strengthening Community Partnerships Through Nature and STEAM (Forum/Discussion)**

*Zahraa Aljebori and Melanie Henry, Detroit Zoological Society*

**1:15–2 pm | Classroom 716**

STEM-Rich PBE

Audience: Formal Educators, Non-Formal Educators, Curriculum Specialists, Community Partners

Level: Elementary

Students from three community-based organizations in Metro Detroit—the Boys and Girls Club of Southeast Michigan, the Arab Community Center for Economic and Social Services, and the American Institutional Management Services—meet weekly with the Detroit Zoo's education team. This program supports after-

## SATURDAY : SESSION 10

school staff by increasing their comfort and interest in STEAM programming and creating a program model that incorporates after-school staff as co-facilitators. Community-based organizations are empowered to expand STEAM programming beyond our partnership by including STEAM activities regularly, expanding them to additional sites, or hosting family STEAM nights to include the community.

By taking a place-based approach, students' ties to their neighbors are strengthened, and their ability to create positive change is cultivated and reinforced. In their neighborhoods, they are the experts. They can share information about where to see the most plants and animals or what changes can be expected as the weather changes. Attendees of this session will learn how lessons were adapted to the dynamic learning environments at each of the eleven sites. Attendees will hear how Zoo staff worked with community-based partners to deliver the same level of programming for Arabic and Spanish-speaking students. This session will end by asking attendees to reflect on their partnerships and consider the techniques they've used to create strong relationships.

# Thank you for attending the 2023 Place-Based Education Conference!

*We wish you safe travels home!*



## SESSION

# 11

## Saturday

2:10–3:30 pm

## Reflect to Connect: Finding Relevance, Making Meaning

*Clay Pelon, Vicky Wright, and Kevin Holohan – Grand Valley State University | Caleb Carlton,  
Great Lakes Stewardship Initiative*

2:10-3:30 pm | Room 215

Foundational PBE | Audience: All | Level: All

You're tired, we're tired, but you'll want to attend this powerful final session to intentionally reflect on and process the conference experience. Oh, and there will be a surprise tasty treat, conference parting gift, and the chance to win free registration to the 2025 PBE Conference! The conference experience is a whirlwind of newness—bring it all together with your fellow attendees through reflection tools facilitated by conference leaders. Just as in the PBE learning process, intentional reflection and sharing your experience are key to identifying the relevance to your context and forming personal meaning. Additionally, we'll use this session to look forward to 2024 and 2025, including announcing the location of the 2025 PBE Conference and exciting opportunities for us all to remain in community and collaborative virtual learning space between now and then! Join us and, together, we will bring this amazing gathering to an inspiring and aspirational close!

# PRESENTER BIOGRAPHIES

## **Zahraa Aljebori**

Curator of Education | Detroit Zoological Society  
zaljebori@dzs.org

*Zahraa Aljebori is a curator of education for the Detroit Zoological Society, where she oversees community partnerships, after-school programming and teen programs. Zahraa has a bachelor's degree in biology from Wayne State University. Her immigration to the United States as a young child inspired her passion to bring play-based science education to community organizations.*

## **Aleksei Alward**

Undergraduate Student | Eastern Michigan University  
aalward1@emich.edu

*Aleksei is an undergraduate student of secondary education biology with a minor in philosophy. Aleksei has a fascination with the places of study in which what we consider natural and manmade intersect and he has a passion to break down that border. In his work, Aleksei wants to help students care about the ecology of their world and to understand that they are an active part of it with connections and responsibilities to the other species within it.*

## **Sarah Anderson**

Doctoral Student | Simon Fraser University  
bringingschooltolife@gmail.com

*Sarah Anderson is an educator and author specializing in place-based education and curriculum design. Previously a middle school teacher, Sarah most recently served as the Place-Based Education Coordinator at the Cottonwood School in Portland, Oregon. She is the author of the book *Bringing School to Life: Place-based Education across the Curriculum* and has written for *Learning for Justice*, *Education Week*, and *Educational Leadership*. Sarah is currently a doctoral student at Simon Fraser University.*

## **Nicole Andreas**

STEM Teacher | Kent City Elementary  
nicole.andreas@kentcityschools.org

*Nicole Andreas has been teaching for 20 years. Nicole received her undergraduate degree from Western Michigan University and she completed her master's in Education Technology at Grand Valley State University. Nicole has been with Kent City Elementary for the last 14 years. She and her partner teacher, Billie Freeland, helped to develop KCE's STEM program by piloting curriculum from Michigan State University and the University of Michigan. They won a Mi-STEM grant in 2021 to support their program.*

## **Darren Bagley**

4-H Youth Development Educator | Michigan State University Extension  
bagleyda@msu.edu

*Darren Bagley has been with MSU Extension in Genesee County since 1998. As part of his 4-H responsibilities, Darren has taken part in exciting adventures, including putting stinky lake mud on the faces of teenagers and tromping through swamps full of carnivorous plants. Darren is a part of many statewide programs, including Capitol Experience, Great Lakes Camp, science programming for preschoolers, and other programs related to leadership and science.*

## **Erika Bailey-Johnson**

Sustainability Director | Bemidji State University  
erika.bailey-johnson@bemidjistate.edu

*Erika Bailey-Johnson has served as the Sustainability Director at Bemidji State University in Bemidji, Minnesota for 15 years. She was appointed the Coordinator of the People and the Environment academic program in 2016 and teaches one class per semester. She speaks at regional and national conferences on BSU's unique sustainability model which includes a wellness component and an emphasis on integrating Indigenous voices. Erika is an enrolled member of the Red Lake Band of Ojibwe.*

## **Lesley Baker**

Science Educator | St. John School  
sbaker@sjheralds.org

*Lesley Baker is an outdoor & sports enthusiast who teaches JH Science and Environmental Science and facilitates Trout in the Classroom and the Environmental Club. Lesley has been teaching indoor and outdoor education for 20+ years going back to the 1st Captain of Nautical Nature at Moraine State Park. Lesley was involved with an Osprey Reintroduction Program and designing water quality, wetland, and geology educational programs. Her environmental science class works with ODNR's Stream Quality Monitoring.*

## **Timothy Becker**

Education Program Specialist | Cuyahoga Soil & Water Conservation District  
tbecker@cuyahogawcd.org

*Timothy Becker is an environmental educator focused on designing and implementing experiences that empower all the students of Cuyahoga County to become leaders in caring for their watersheds and advocating for their environmental interests. He is an NAAEE Certified Environmental Educator and a Project WET facilitator. Previously, Tim worked as a bilingual educator in Title I schools. He has an MEd in bilingual education from Bank Street College of Education.*

## **Sean Blenkinsop**

Professor of Education | Simon Fraser University  
sean\_blenkinsop@sfu.ca

*Dr. Sean Blenkinsop is an Education Professor at Simon Fraser University. He has published widely in the fields of outdoor, environmental, and ecological education. Recent work has focused on creating and researching two K-7 outdoor public schools which focus on changing the culture of education to one that seeks to build relationships with the natural world, understands local places and its inhabitants to be co-teachers, and recognizes the outdoors as a significant place of learning.*

**Melanie Block**

Agriscience Teacher | Ravenna High School  
mblock@ravennaschools.org

*Melanie Block is a passionate advocate for career & technical education and hands-on learning. She serves as an agriculture, food and natural resources educator at Ravenna High School, where she has dedicated her career to shaping the next generation of leaders for the industry. Melanie was honored as the National Agriscience Teacher of the Year and has led the Ravenna FFA Chapter, where she serves as advisor, to be recognized as National Outstanding Program.*

**Eileen Boekestein**

Environmental Education Coordinator | Michigan Department of Environment, Great Lakes, and Energy  
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*Eileen Boekestein is the Environmental Education Coordinator for the Michigan Department of Environment, Great Lakes, and Energy and has over 17 years of experience working in environmental education and community engagement. Eileen is passionate about creating opportunities for youth to build authentic connections to their communities through place-based learning, stewardship action, and civic engagement. She loves to build connections between people, places, and resources and to bridge perceived gaps between scientific communication and the general public.*

**Hannah Bollin**

Doctoral Fellow | Eastern Michigan University  
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*Hannah Bollin is a Ph.D. student in the Educational Studies program at EMU, a doctoral fellow, and a site coordinator in the after-school Project BIG Mentoring Program. Her research interests include intersectional mentorship and queer theory in the curricula. Being a first generation high school graduate from rural Appalachia, Hannah's research is very personal to her and her passion for education stems from the many great educators who have supported her along the way.*

**Kristyn Bomberg**

Educational Services Manager | WGUV Public Media  
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*Kristyn is the Educational Services Manager at WGUV Public Media and previously worked in preschool and K-12 classrooms, community-based youth programs, and higher education. Through trusted relationships within the ecosystem in which children learn, the WGUV Education Team actively works alongside partners, parents, and educators in support of community needs and equitable access. Our current initiatives include: curating PreK-12 educational content, resources and experiences; and elevating youth voice through media literacy and student journalism programming.*

**Diana Bowman**

Middle School Science Teacher & K-12 Family Engagement Educator | Kearsley Community Schools  
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*Diana Bowman is in her 25th year as a middle school science teacher for Kearsley Community Schools, teaching 8th grade Integrated Science. She has a Bachelor's in Animal Science/Biology from Virginia Tech and a Master's in Education from UofM-Ann Arbor. Continually striving to make science concepts relevant to her students, she partnered with the GLSI's Discovering PLACE and For-Mar Nature Preserve two years ago to bring Place Based Education to Armstrong.*

**Jacinda Bowman**

Middle School Science Teacher | The James and Grace Lee Boggs School  
jacinda@boggsschool.org

*Jacinda Bowman grew up in Grand Rapids, Michigan, and got her education degree from Northern Michigan University in Da U.P. She met her husband, Dan, while serving as a Peace Corps Volunteer in The Gambia, West Africa. She and Dan currently live in Detroit with their toddler, Ryn, and their dogs, Honor and Elsie. This is Jacinda's eighth year teaching science at The James and Grace Lee Boggs School in Detroit, MI. Jacinda loves biking, camping and searching for moose bones in the summer, and playing board games all winter.*

**Dawn Braden**

Elementary Teacher | Port Townsend School District  
dbraden@ptschools.org

*Dawn Braden is a first grade teacher at Salish Coast Elementary in Port Townsend, Washington. She has been working with community partners to bring Salmon in the Classroom to school for 8 years. She also works together with her team to lead first graders through a place-based learning unit where all students help build a town model and solve real world problems within the community.*

**Shirley Brezell**

Fourth and Fifth Grade Science Teacher | Detroit Public Schools Community District  
Shirley.brezzell@detroitk12.org

*Shirley Brezell has been in the educational arena since 1998 and is teaching science for Detroit Public Schools Community District (DPSCD). Her passion is bringing awareness to her school community about resilience and sustainability. Her first project included the planting of 60 trees on the school property, renovating the school's hoop house and gardens, and reconnecting with the DPSCD Garden Project so students can grow, eat, and learn about fresh vegetables.*

**Dr. Amanda Buday**

Professor | Grand Valley State University

*Professor Buday is a rural sociologist whose research focuses on people's relationship with and management of natural resources. A native Hoosier from Elkhart, Indiana, Buday studied energy development in rural communities at Southern Illinois University before working at Fort Hays State in northwest Kansas from 2016-2019. At GVSU, Buday serves as project coordinator for the Social Science Lab, assisting area watershed and conservation organizations with gathering input from community members regarding water quality concerns and management of water resources.*

**Antonio (Queso Tone) Byrd**

NEXT Scholar, undergraduate EMU student, rapper, singer, songwriter, and producer | Eastern Michigan University  
abyrd17@emich.edu

*Antonio Byrd (Queso Tone) is a NEXT Scholar, undergraduate EMU student, rapper, singer, songwriter, and producer. He identifies as an African American and looks forward to his future as a social studies teacher and a leader in the music industry.*

**Rachel Cain**

Education Engagement Coordinator | WGVSU Public Media  
cainra@gvsu.edu

*Rachel Cain is a former high school teacher and current Education Engagement Coordinator at WGVSU Public Media. In the role, she acts as the West Michigan liaison for the Michigan Learning Channel and crafts educational content for PBS LearningMedia. Rachel also assumes the position of EdTech Coordinator, working closely with educators and community partners in the community. Additionally, she's the author of the children's book "These Boundaries Are Mine," which equips children with words to protect their personal autonomy.*

**Audra Carson**

Chief Beautification Strategist | Izzie LLC  
info.izziellc@gmail.com

*Audra Carson can be described as an urban steward, environmentalist, Detroit lover and chief beautification strategist. She has been an Environmental Justice leader since 2009 when she founded De-tread as a solution to the global issue of tire waste/blight. Currently, Audra leads Izzie LLC which provides climate action, sustainability, and beautification Services. Audra is a University of Olivet Distinguished Alumni and Board of Trustees member, Joe Louis Greenway Leadership team member and Spirit of Detroit awardee.*

**Rose Castilla**

Undergraduate Student | Eastern Michigan University  
vcastill@emich.edu

*Rose is a non-traditional student and studies Secondary Education Emotional Impairment/ Cognitive Impairment with a teaching Spanish Minor. She is currently working at a Detroit High School as a Spanish teacher. She is a NEXT Scholar and a first generation college student. Her family comes from Texas & Mexico, and like many families, first came to work in Michigan's agricultural fields and later the auto factories. Rose's passions included educational equity and social justice.*

**Christina Catanese**

Education Specialist | Annis Water Resources Institute, Grand Valley State University  
catanesc@gvsu.edu

*Christina Catanese is the Education Specialist at the Annis Water Resources Institute (AWRI) at Grand Valley State University. She leads aquatic science education and outreach programs, including onboard AWRI's two research vessels. Christina especially enjoys using her interdisciplinary background in environmental education, hydrology, and the arts to connect people with nature and water resources. She has a Masters in Applied Geosciences and a BA in Environmental Studies and Political Science from the University of Pennsylvania.*

**Monica Caves**

Research Scientist | Upstate Freshwater Institute  
mamatt@upstatefreshwater.org

*Monica Caves may be a limnologist by trade, but she is a science communicator and informal educator by choice! Monica wears many hats in her role at a not-for-profit freshwater research organization in central New York, including coordinating her organization's fieldwork program and leading its education and outreach efforts. Through her professional experiences as a scientist, she has connected with a range of audiences and taught others about their local waterways.*

**Joan Chadde**

Center Director, retired | MTU Center for Science & Environmental Outreach  
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*Joan Chadde is passionate about promoting Lake Superior and Great Lakes stewardship through a myriad of outreach and education programs. She is the former Director of the Michigan Tech Center for Science & Environmental Outreach and a founding partner in the creation of the Lake Superior Stewardship Initiative (LSSI) in 2008. One of her longest running successes is the biennial Lake Superior Youth Symposium for students in grades 8-12 that began in 1995.*

**Elizabeth Christiansen**

Great Lakes Education and Outreach Specialist | Lake Superior State University Center for Freshwater Research and Education  
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*Elizabeth is a certified environmental educator with Lake Superior State University's Center for Freshwater Research and Education. She is passionate about Great Lakes stewardship, helping people connect with their place and appreciate the inherent value of the natural world. After 15 years as a secondary science educator, Elizabeth now designs and facilitates non-formal education programs for learners of all ages and teacher professional development focused on empowering students toward civic action through place-based stewardship education.*

**Kelly Cibasek**

Curriculum Teacher Leader | Dearborn Public Schools  
cibasek@dearbornschools.org

*Kelly Cibasek has fifteen years of experience in public education and has taken on a vast array of roles with the Dearborn Public Schools. Starting as a student, she now works alongside her former teachers as an Elementary STEAM Coach and most recently realigned to the role of Curriculum Teacher Leader. She works with her district's Curriculum Department to support initiatives and professional learning communities within her new capacity.*

**Tracy D'Augustino**

MSU Extension Educator | Michigan State University Extension  
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*Tracy D'Augustino is a self-proclaimed science geek!! Even better, she gets paid by Michigan State University Extension to be a Science Geek and engages youth in science through place-based education. Recognized by MSTA as the 2017-2018 Informal Educator of the Year, Tracy feels the best part of science is helping others become excited about asking questions and discovering answers. "When youth ask questions about their place and are excited about discovering the answers, we all win!"*

**Stephanie Dege**

Teacher | Posen High School  
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*Stephanie Dege is a 20-year educator teaching secondary science with a strong focus on the Great Lakes and place-based education. Dege has earned multiple awards and unique opportunities teaching in both Indiana and Michigan due to her innovative approaches to environmental education including the 2018 Indiana Governor's Award for Environmental Excellence, a position with the 2023 Shipboard Science program, and a recent nomination for the 2023 MSTA High School Teacher of the Year.*

**Nicole Durso**

High School Biology Teacher | Grand Rapids Public Schools  
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*Nicole Durso is an ESL certified Biology teacher and Science Department Head at Union High School in GRPS. A Grand Valley State University alumna, she obtained a Bachelor's in Earth Science and Biology and a Master's in Literacy Studies with an emphasis on Teaching English to Speakers of Other Languages. Durso received the inaugural Jean Hamilton Cope Teacher of the Year award in 2021-2022, and has developed and maintained a high school Garden Club.*

**Nigora Erkaeva**

Postdoc Researcher | The Southeast Michigan Stewardship (SEMIS) Coalition  
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*Nigora Erkaeva is a postdoctoral researcher for the SEMIS Coalition. As an international scholar who is indigenous to Central Asia, she identifies herself as an ecofeminist, ecojustice, decolonizing, and place-based scholar. Nigora graduated with her PhD in Educational Studies from Eastern Michigan University in 2021. Her research focuses on ecojustice education, place-based education, ecofeminism, settler colonialism, postcolonial theory, social justice, indigenous wisdom, and connection of local to global situation.*

**Lauren Fardig-Diop**

Culture and Climate Coach | Ypsilanti Community Schools  
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*Lauren Fardig-Diop is a teacher coach and restorative practitioner at ACCE High School, an alternative, project- and place-based small learning community in Ypsilanti, Michigan. Her task and mission is to help students fall in love with learning through a study of themselves, their community, and their culture. Humans of Ypsilanti, running since 2021, began as an effort to reconnect during COVID through oral and written history told through interviews with family and community members.*

**Nicole Ferguson**

Park Naturalist | Genesee County Parks ForMar Nature Preserve and Arboretum  
nferguson@gcparks.org

*Nicole Ferguson has worked as the Genesee County Parks' Chief Park Naturalist at For-Mar Nature Preserve since 2012. She and her team are responsible for the GCParks environmental education efforts. Nicole has been an environmental educator since 2004. She has a Bachelor's in Environmental Biology from MSU and a Master's in Education from the UofM-Flint. Nicole prides herself on building partnerships within her community to create unique experiences that bring people together in their Parks.*

**Laura Florence**

Education Specialist | Southeast Michigan Stewardship (SEMIS) Coalition  
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*Laura Florence is a Place-Based Educator at SEMIS Coalition, specializing in Great Lakes and STEM education. Laura provides science and educational expertise in watershed ecology and climate resilience, and she stewards partnerships with state and federal agencies, community organizations, and informal and K-12 educators. Prior to joining the SEMIS coalition, Laura worked at the NOAA Great Lakes Environmental Research Lab and Michigan Sea Grant doing research, outreach and education.*

**Nicole Forsyth**

Managing Director | Earth Rangers USA  
nforsyth@earthrangers.com

*Nicole Forsyth is the Managing Director for Earth Rangers, a nonprofit committed to instilling environmental knowledge, positivity, and the confidence to take action in every child in Canada and now the United States. Holding master's degrees in Animal Biology and Communication and a BA in English and Education, Nicole previously worked for the animal nonprofit RedRover and as a classroom teacher for grades K-12 and was the development director for a habitat conservation organization.*

**Liam Fries**

Great Lakes Educator | Inland Seas Education Association  
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*Liam Fries is a graduate of Kalamazoo College and worked previously with the Michigan DNR. He joined the Inland Seas Education Association at the beginning 2023 as their Great Lakes Educator and leads delivery of schoolship programs on two tall ship schooners, maintains fish and turtle exhibits, and works closely with formal and informal educators of northwest Michigan in outdoor education. In his spare time, Liam likes to prowl for owls, kayak, sail, and mountain bike.*

**Erin Gallay**

Ph.D. Student | School of Environment and Sustainability, University of Michigan  
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*Erin Gallay is a Ph.D. candidate in the School of Environment and Sustainability at the University of Michigan. Her scholarship and practice focus on K-12 students' engaging in environmental civic science in their local communities. Environmental civic science is grounded in PBE and refers to science conducted by community members to improve the health of the environments where they live. Gallay documents the learning/ action of young people engaged in such projects.*

**Kelly Gaskins**

Professional Learning Coach | Teton Science Schools  
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*Kelly Gaskins taught 9-12 Social Studies and currently serves as a Teton Science Schools Professional Learning Coach coaching educators across North America in Place-Based Education. She has a BS in Social Studies Education and a MEd in Learning, Teaching, and Curriculum from the University of Missouri. She loves to get outside with her husband and dog going on hikes, gardening, and venturing to the mountains as often as possible.*

**Meaghan Gass**

Sea Grant Extension Educator | Michigan State University Extension, MI Sea Grant  
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*Meaghan Gass is an Extension Educator with Michigan Sea Grant working with the coastal communities surrounding Lake Huron's Saginaw Bay to address Great Lakes issues. Her efforts involve biodiversity conservation, community resilience, and Great Lakes education and stewardship. Meaghan is co-chair of the Sea Grant Center for Great Lakes Literacy team and supports place-based stewardship education regionally surrounding Saginaw Bay. Gass is a board member of Huron Pines and Michigan Alliance for Environmental and Outdoor Education.*

**Carla Gipson**

Director of Curriculum | Benzie Central Schools  
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*Carla Gipson has over 30 years of experience in education both abroad and in the U.S. In addition to her current position as Curriculum Director at Benzie Schools, she has served as a leader in curriculum, learning, and assessment in Hong Kong and the Middle East. Most recently, she was an instructor of Biology and Ecology at Interlochen Arts Academy, inspiring students to take ownership of their natural space.*

**Luke Grange**

Senior Education Specialist, Detroit Zoological Society  
lgrange@dzs.org

*Luke Grange is a Senior Education Specialist at the Belle Isle Nature Center in Detroit, Michigan, with the Detroit Zoological Society. He has 18 years of informal education experience, including time teaching at residential and day environmental education sites and science centers. He has a Master of Arts in Biology from Miami University and is a Certified Interpretive Guide. He believes in the importance of curiosity and wonder and loves cultivating that in his work.*

**Imandeep Kaur Grewal, PhD**

Assistant Professor, Director of Office for Place-Based Education, Director for NEXT Scholars and HOPE Partners | Eastern Michigan University  
igrewal@emich.edu

*Dr. Imandeep Grewal is an Assistant Professor at Eastern Michigan University and the Director of the Office for Place-Based Education. She is also the Director for NEXT Scholars and HOPE Partners, a qualitative researcher and educator, and identifies as Asian Indian American.*

**Kara Haas**

Program Coordinator and Doctoral Student | Michigan state university  
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*Kara Haas is an outdoor, nature-based educator from SW Michigan. She coordinates the science teaching professional learning program, K-12 Partnership, at MSU's Kellogg Biological Station. She is also a MSU doctoral student in Teacher Education. Through research-practice partnerships, such as the Teaching Science Outdoors program, she supports teachers in using the outdoors as a learning space and critically examining the process of expanding classrooms beyond physical structures.*

**Sarah Halson**

Education Specialist | Southeast Michigan Stewardship Coalition  
shalson@emich.edu

*Sarah Halson is a place-based educator with the SEMIS Coalition, specializing in curriculum planning and outdoor learning. Sarah has over 20 years of experience in field-based and school-based environmental education program development and management at several Metro Detroit nature centers. She served as the Environmental Education Director at the Greening of Detroit and was selected as the Informal Science Educator of the Year by the Michigan Science Teachers Association in 2012.*

**Kim Hatfield**

Math Teacher | Flint Community Schools  
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*Kim Hatfield is a secondary math teacher at Flint Southwestern Classical Academy. She has more than 20 years' experience in the classroom and has been embedding place-based education in her teaching practice for the past twelve years. She's been supported in this work through partnerships with multiple community organizations and with Discovering Place, the Flint area hub of the Great Lakes Stewardship Initiative.*

**Drew Heckman**

Research Technician I Center for Freshwater Research and Education  
dheckman@lssu.edu

*Drew Heckman is a research technician working for LSSU's Center for Freshwater Research and Education (CFRE). Drew's work on CFRE's MiWaterNet initiative uses autonomous stream monitoring to support regional STEM and place-based learning opportunities with locally relevant watershed data. Through NOAA B-WET grant projects and partners like the EUP MiSTEM Region, Drew has developed and led numerous professional development sessions for teachers that promote the integration of data science and place-based learning in the classroom.*

**Rebecca Heckman**

Middle School Science Teacher | Inland Lakes Secondary School  
bheckman@inlandlakes.org

*Rebecca Heckman is an education professional with 20 years of experience as a secondary-level teacher, specializing in place-based education and environmental studies. Her master's thesis, focusing on the role of information and communication technologies in developing student environmental identities, reflects her dedication to and passion for innovative environmental education practices. Rebecca's expertise extends to training and consulting for universities and organizations where she influences curriculum development and teaching methods.*

**Melanie Henry**

Education Specialist I Detroit Zoological Society  
mhenry@dzs.org

*Melanie Henry is an Education Specialist with the Detroit Zoological Society. She holds a B.S. in Biology from Oakland University and an M.A. in Biology from Miami University through the Project Dragonfly Advanced Inquiry Program. She is a Certified Interpretive Guide through the National Association of Interpretation. She enjoys sharing the wonder and discovery of the natural world with youth through informal education.*

**Kirsten Hindy**

Outreach and Education Specialist I Center for Freshwater Research and Education, Lake Superior State University  
khindy@lssu.edu

*Kirsten Hindy works for LSSU's Center for Freshwater Research and Education as an Outreach and Education Specialist. She teaches the Natural Resources Career and Technical Education class for Eastern U.P. high school juniors and seniors interested in natural resources careers. Kirsten is passionate about place-based education and creates opportunities for students to connect with professional mentors to experience their careers firsthand. With these experiences, students engage in nature-based stewardship projects throughout the year.*

**Kevin Holohan**

Professor | Grand Valley State University  
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*Kevin Holohan is an associate professor of educational foundations in GVSU's College of Education and Community Innovation.*

**Emma Holtan**

Rivers2Lake Education Coordinator I Superior Rivers Watershed Association  
emma@superiorrivers.org

*Emma Holtan works at the Superior Rivers Watershed Association to build connections between community members, teachers, students and the water and environment around them. In partnership with the Lake Superior National Estuarine Research Reserve, Emma is working to reconnect with Rivers2Lake alumni teachers and work with them to build a mentorship network that will grow the program.*

**Emma Howland-Bolton**

4th Grade Teacher | Detroit Public Schools  
emma.howland-bolton@detroitk12.org

*Emma Howland-Bolton is a 14-year educator in Detroit Public Schools, originally from Upstate New York. At her current school, her students have been planting gardens with the help of neighbors, local organizations, and Emma's soccer team. She believes, as bell hooks has pointed out, that "education is the practice of freedom."*

**Brian Hyosaka**

Head of School | Embark Education  
brianh@embarkeducation.org

*Brain Hyosaka has used his Chicago upbringing and global outlook to craft a journey of educational exploration. From bilingual classrooms in Denver to the cultural tapestry of Guatemala, he's harnessed the power of place-based education. Since his time as an assistant principal at Academia Ana Marie Sandoval, and now, as the Head of School at Embark, Brian has driven student-centered initiatives and strengthened community ties. He's excited to share insights at the conference, focusing on student engagement, community partnerships, and the impactful fusion of learning with local contexts.*

**Shari Insley**

Teacher | North Olmsted City Schools  
shari.insley@nolmsted.org

*Shari Insley is a 5th grade math and science teacher in the North Olmsted City Schools with a B.S. in Middle Childhood Education and a master's degree in Curriculum and Teaching. A longtime freshwater advocate, Shari has worked with the Ohio Sea Grant at Stone Laboratory, the R/V Lake Guardian, the Captain Thomas M. Kelly Biological Station, and the Old Woman Creek National Estuarine Research Reserve to enrich her classroom content.*

**Erica Johnson**

Place-Based Education Specialist I Muskegon Area Intermediate School District  
ejohnson@muskegonisd.org

*Erica Johnson is the current hub leader of the West Michigan Great Lakes Stewardship Initiative and a place-based education specialist at the Muskegon Area Intermediate School District for the past 11 years. Before all of this, she taught high school biology and chemistry for 10 years.*

**Victoria Kalscheuer**

Principal | Port Townsend School District  
vkalscheuer@ptschools.org

*Victoria Kalscheuer has been the principal for Blue Heron Middle School in Port Townsend for three years. She has deep roots in Wisconsin where she lived and worked as a school administrator and teacher. She has over 25 years of experience as a school and district leader and a classroom teacher.*

**Crystal Kastl**

Graduate Student | Bemidji State University  
crystal.kastl@live.bemidjistate.edu

*Crystal Kastl is a graduate student at Bemidji State University in the Center for Sustainability Studies where she currently instructs a section of People of the Environment: Sustainability Perspective. Her previous work has been in writing center tutorship and pedagogy, online higher education theory, and environmental ethics. Her current research focuses on rights beyond present-day humans, synthesizing rights of nature, future generations, and artificial life. Crystal is a former McNair Scholar.*

**Kamaljit Kaur**

Undergraduate student | Eastern Michigan University  
kkaur1@emich.edu

*Kamaljit Kaur identifies as an Asian American undergraduate teacher education student studying social studies. She is currently culminating her student teaching semester and will graduate with a Bachelor of Arts in social studies.*

**Rachel Kent**

Project-Based Learning Coach | Muskegon Area Intermediate School District  
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*Rachel Kent was a classroom teacher for 25 years. For the past 2 years, she has been the Project-Based Learning Coach for the Muskegon Area ISD. Rachel is a Science Modeling instructor for the American Modeling Teachers Association as well as a professional learning facilitator for MI-Star Science Curriculum. She has worked with the West Michigan Great Lakes Stewardship Initiative as both a teacher implementing projects with her students and as an instructor for summer workshops for GLSI and Groundswell.*

**David Koning**

Educational Consultant | Grand Rapids WhiteWater  
davidkoning73@gmail.com

*David Koning has 30 years in education having taught ELA at a high-performing high school for 20 years before his passion drew him into experiential and place-based education. He designed, built, and led the short-lived but beautiful Ecology School semester program in Grand Rapids and team-taught at the STREAM School in Hamilton, MI. He is the designer and director of the GRWW Summer Science and Leadership Program.*

**Dave Kraff**

Teacher | Grand Rapids Public Schools  
kraffd@grps.org

*Dave Kraff teaches high school environmental science courses at C.A. Frost Middle/High School, which is a public, environmental science themed school in Grand Rapids, Michigan. Dave's teaching method aligns PBE activities with student-led scientific investigations. His students also implement ecosystem restoration projects both on and off campus. Dave hopes to share ways to inspire students to take care of our precious planet.*

**Pam Krebs**

Instructional Coach | Dexter Community School

*Pam Krebs's work is focused on project-based and place-based learning through the lens of science and social studies. Pam, a lifelong learner, earned a Bachelor of Arts degree from the University of Michigan-Dearborn, a second bachelor's degree in Elementary Education from Eastern Michigan University, and her master's degree in Curriculum, Assessment, and Instruction. Pam has taught in a variety of settings, starting her career as a corporate trainer before realizing her passion working with elementary students.*

**Sharon Laidlaw**

Director of Place Network | Teton Science Schools  
Sharon.Laidlaw@TetonScience.org

*Sharon Laidlaw has taught K-12 English, served as an Instructional Coach, and is now the Director of the Place Network of Teton Science Schools. The experiences of the 1,000+ students from her own classrooms drive her work. She has a BA in English from Boston College and a MEd from the University of Georgia in Learning Technologies. She loves to venture out in nature with her sons—rock climbing, van camping, and backpacking.*

**Will Lepech**

Assistant Principal | Kent City Elementary  
will.lepech@kentcityschools.org

*Will Lepech holds a bachelor's degree from Aquinas College with a focus in science and a master's degree in educational leadership from Michigan State University. This is currently his 13th year as a school administrator in Kent City serving as elementary assistant principal and director of multilingual and migrant education. Prior to that he was a classroom educator for 12 years at Rockford Public Schools. Will has presented at the MDE Special Populations and MSTA conferences.*

**Kathrin Luce**

High School Science Teacher | Alcona High School  
KathrinLuce1188@gmail.com

*Kathrin Luce was born in Germany and moved to the United States in 2009. She bravely embarked on her academic journey in a foreign language and in 2019 received her M.S. in education from Texas A&M. She knows what it means to take risks and step outside of her comfort zone, which is exactly what we ask students to do when we take a community-based approach to exploring and enjoying science.*

**Jennifer Lynn**

3P/ Continuous Improvement Consultant at the Copper Country ISD | Copper Country ISD  
jlynn@copperisd.org

*Jennifer Lynn, EdD, serves as a 3P/ Continuous Improvement Consultant at the Copper Country ISD. Over the last 30+ years, Jennifer has served in Upper and Lower Peninsula rural, town, and urban school districts. She believes in the power of place and intentional improvement processes for healthy communities, schools, and children. She believes that the essentials of education can live, breathe, and thrive within the principles of place-based stewardship education as a core instructional framework.*

**Ted Malefyt**

Education Network Manager | Outdoor Discovery Center Network  
ted@outdoordiscovery.org

*Ted Malefyt is the education network manager for the Outdoor Discovery Center Network where he supports the instructional services the organization offers within its partnerships. Ted is a strong advocate for meaningful and engaging learning opportunities that extend beyond the walls of the classroom. Additionally, Ted is a National Faculty member for the Buck Institute of Education (PBLWorks) where he provides PBL training and support for schools across the country.*

**Nancy Manglos**

Director of Talent and Leadership Development | Chamber of Commerce Grand Haven  
nmanglos@outlook.com

*Nancy Manglos recently retired as the Director of Talent & Leadership Development with the Chamber of Commerce, Grand Haven, Spring Lake, and Ferrysburg. Nancy's responsibilities included working with employers on workforce development needs such as assessing training needs, coordinating training, facilitating training, and securing grants from the state. Nancy has developed and managed programs for educators and students to experience the world of work. Nancy's passion is to provide resources to prepare the Workforce of the Future!*

**Scot Martin**

Teacher | Wayne Memorial High School  
martins@wwcsd.net

*Scot Martin is an English teacher at Wayne Memorial High School. He combines reading, writing, and hands-on ecology to get students to know, respect, and care for their watershed.*

**Jimmy McCue**

Educator+ | Embark Education  
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*Jimmy McCue is an educator passionate about learner-centered education, competency-based learning, and empathy! At Embark Education, he curates transformative experiences based on trust and relationships. As an Instructional and Leadership Coach at Open Way Learning, he promoted racial equity through learner-centered strategies. Advisory roles at What School Could Be and Mathkind allows Jimmy to impact education globally. Beyond education, Jimmy enjoys running, vegetarian cooking, writing, and family time.*

**Annlyn McKenzie**

Curriculum Coordinator | Muskegon Area Career Tech Center  
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*Annlyn McKenzie is the Curriculum Coordinator for the Muskegon Area Career Tech Center. Her role is to support teachers with instructional strategies and curriculum implementation. Since 2014, Annlyn has served as a lead coach for MDE's Formative Assessment for Michigan Educators (FAME). Prior to working in career and technical education, Annlyn was a secondary ELA teacher.*

**Courtney Mulcahy**

School Program Coordinator & Professional Learning Facilitator | Shelburne Farms Institute for Sustainable Schools  
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*Courtney Mulcahy partners with other educators, the community, and the Land to work with students and adults to explore sustainability and to deepen our relationships with each other and the natural world. Courtney uses her experiences in a variety of educational settings in and out of the classroom, as well as academic and nonacademic philosophies to learn alongside participants in programs. She gets excited for the "a-ha!" and perspective-shifting moments both for herself and learners! Outside of work you can find her cloud-spotting, hanging out near some sort of body of water, or traveling to places near and far.*

**Ana Munro**

English & Global and Cultural Studies Faculty | North Hennepin Community College  
ana.munro@nhcc.edu

*Ana Munro has a bachelor's degree in French from Kings College London, a Masters in Creative Writing, and is a graduate of Harvard University Graduate School of Education's Closing the Achievement Gap Institute. She is currently completing her Doctoral Degree on the impact of place-based, immersive educational experiences on students' academic success and identity. Ana coordinates GCST 1970, a new nature-based immersion program designed to bring college and high school students into the wilderness.*

**Aresha Nadeem**

Research Associate | University of Michigan School of Public Health  
aresha@umich.edu

*Aresha Nadeem, MPH is a research associate at the University of Michigan School of Public Health. She works on developing environmental health education materials and has previously worked as a science educator. She aims to make environmental health concepts accessible so that residents can advocate for their health and safety. Aresha is part of a team of teachers and researchers working to build a middle school curriculum that will bring concepts in environmental health and justice to classrooms.*

**Michelle Niedermeier**

Education Lead | Pennsylvania Sea Grant College Program  
mxn14@psu.edu

*Michelle Niedermeier is the education lead for the Pennsylvania Sea Grant College Program. She is responsible for planning, developing, implementing, and evaluating education programs with a focus on ocean, river, and Great Lakes environmental literacy, stewardship, and sustainability topics across Pennsylvania. Additionally, she builds partnerships and nurtures relationships with educators, workforce development specialists, industry, researchers, and other experts to provide lifelong formal and informal place-based educational opportunities for the Commonwealth's diverse coastal and watershed communities.*

**Stephanie Nielsen**

Kindergarten Teacher | Shawmut Hills Academy  
nielsens@grps.org

*Stephanie Nielsen is a kindergarten teacher at Shawmut Hills Academy in GRPS where she serves on leadership teams. She obtained a bachelor's degree in Education from Ferris State University and a master's degree in Curriculum and Instruction from Grand Valley State University, both emphasizing early childhood. Stephanie was recently named GRPS Teacher of the Year 2022-23, and Michigan's Region 3 Teacher of the Year 2023-24. Nielsen has chaired the garden committee for Shawmut Hills Friendship Garden since 2017.*

**Patricia (Risha) Olds**

Student | Eastern Michigan University  
polds@emich.edu

*Risha is an undergraduate student who is neurodivergent and a member of the LGBTQ+ Community. They are a NEXT Scholar at Eastern Michigan University who has "stepped out" of teacher education with plans to return to professional teacher preparation post-masters.*

**Abbey Palmer**

Community Food Systems Educator | Michigan State University Extension  
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*Abbey Palmer is a Community Food Systems Educator with MSU Extension who connects schools and farms in the Upper Peninsula. She coordinates educational activities for people of all ages at MSU's Upper Peninsula Research and Extension Center and visits classrooms to support teachers in agricultural education, school gardens, and sourcing local food for the cafeteria. She has worked in food systems since 2011, including time spent in diversified vegetable production using off-grid farming methods.*

**Mallory Patterson**

Student Reporting Labs Coordinator | WGUVU Public Media  
pattmall@gvsu.edu

*Mallory is the Student Reporting Labs Coordinator at WGUVU Public Media where she previously implemented grant projects, developed curriculum, and produced the TV show, Kalamazoo Lively Arts, while being a 3-time Michigan Emmy nominee and award-winning producer with her company, Wrinkle Creative. She embeds herself in the community providing storytelling experiences to youth, coordinating summer, afterschool, and in-classroom program workshops focused on experiential learning, career preparedness, and video creation.*

**Keith Piccard**

Science Teacher / Biology Professor, Allendale Public Schools / Grand Valley State University  
piccarke@gvsu.edu

*Keith Piccard is a dedicated educator and biology professor with an impressive 22-year career in the field. His expertise spans inquiry-based citizen science, stream ecology, and aquatic entomology. Keith firmly believes that as an educator, he plays a crucial role in shaping individuals' experiences and attitudes toward science education. Keith employs inquiry-based teaching methods to motivate students, allowing them to not only explore new horizons but also take ownership of their own learning.*

**Amy Pihlainen-Gabler**

Teacher (Grades 6-8, all subjects, self-contained classroom) | AuTrain-Onota Public Schools  
pihlainen@autrainonota.com

*Amy Pihlainen-Gabler is a middle school teacher at AuTrain-Onota Public School, a rural school in the Upper Peninsula of Michigan. She has a Bachelor of Elementary Education, with minors in math, science and art, and a Master of Science in Education. Amy is project-based, creating fun and engaging lessons that show students the relevance of what they are learning. Her favorite thing is "tricking kids into learning."*

**David Porter**

Professor | University of Michigan  
dporter@umich.edu

*David Porter is a faculty member at the University of Michigan and director of the Detroit River Story Lab, a role to which he brings his scholarly expertise in narrative and transcultural studies and his experience in academic leadership and innovative, public-facing program building. Previous projects have included the creation of U-M's new MA program in Transcultural Studies; the Great Lakes Arts, Cultures, and Environments summer program; a campus-wide Great Lakes Theme Semester; and the presidentially funded Great Lakes Writers Corps.*

**Rachael Pressley**

Senior Regional Planner | Western Upper Peninsula Planning and Development Region  
rpressley@wuppdr.org

*Rachael Pressley is a Senior Regional Planner with the Western Upper Peninsula Planning & Development Region. From her work with the Western U.P. Food Systems Collaborative to the foundation of the From the Ground Farmer's Market Collective, Rachael builds sustainable food systems connections throughout the region. The Western U.P. Farm to School program aims to connect regional schools with fresh, local foods, ensuring equity and resilience in the Western U.P.'s agriculture and nutrition sectors.*

**Luciana Ranelli**

Education Coordinator | Lake Superior National Estuarine Research Reserve  
luciana.ranelli@wisc.edu

*Luciana Ranelli fosters relationships among people, sees connections between ideas, and invests in connection to “where we are.” At the Lake Superior Reserve, Luciana mentors classroom educators in incorporating local examples and outdoor learning in their teaching through the Rivers2Lake Program. Nationally, Luciana trains environmental educators on practices for authentic community engagement as part of the Antioch University New England ee360+ team and contributes to culturally responsive and equitable evaluation projects.*

**Rachel Ratliff**

Volunteer Coordinator | Inland Seas Education Association  
rratliff@schoolship.org

*Rachel Ratliff has been with Inland Seas Education Association since 2018. During those five years she has been an Intern, a lead educator, and now the volunteer coordinator. Each of these roles have presented the opportunity to enjoy the Great Lakes as an active learner and an enthusiastic teacher. Rachel’s passion lies in providing a unique experience to each participant. Outside of work she is busy trying to get her two cats to be friends.*

**Johnnetta Ricks**

University Student Teaching Supervisor and High School Math Interventionist | Eastern Michigan University  
jricks@emich.edu

*Johnnetta Ricks (Ms. J) served as a traditional brick-and-mortar high school math teacher for more than 10 years but currently works as a full-time virtual high school math interventionist/hype teacher. She also serves as a program advisor/administrator to the EMU NEXT Scholars program with the mission of developing transformative educators. Before running out of hours, Ms. J supervises student teachers, travels to understand, and loves being an ever evolving educator.*

**Devon Riter**

PhD Candidate, Science Education | University of Michigan  
driter@umich.edu

*Devon Riter is a PhD candidate in Educational Studies at the University of Michigan. Devon’s research work is concerned with exploring pedagogical practices that link classrooms with communities and the potential for community partnerships to enhance educational outcomes for K-12 students and STEM teachers. This research focus stems from Devon’s time teaching science on the Kul Wicasa Oyate Tribal Nation where he worked to link classroom science learning with community building efforts.*

**Ginger Rohwer**

Regional Director | MiSTEM Network’s Greater West Michigan Region  
rohwer@gvsu.edu

*Ginger Rohwer is the Regional Director of the MiSTEM Network’s Greater West Michigan Region. She directs and leads the work of this six-county region through identifying and coordinating resources to support regional STEM stakeholders; building collaborative partnerships among education, community, and business; and leading improvement efforts through developing equitable and innovative systems. Prior to joining the MiSTEM Network, Ginger worked for over 20 years in higher education as a mathematics educator.*

**Isabel Romero-Castilla**

Undergraduate Student and EMU Tour Guide | Eastern Michigan University  
iromeroc@emich.edu

*Isabel Romero-Castilla is a 20-year-old sophomore at Eastern Michigan University. She is studying secondary education with a concentration in social studies/history. Her goal is to become a high school history teacher. She is a Chicana and has lived in Michigan her whole life. She is active in a lot of different organizations on and off campus.*

**Delaney Sall**

Undergraduate Student Researcher | Plaster Creek Stewards (Calvin University)  
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*Delaney Sall is an undergraduate student at Calvin University working under Dr. David Warners and majoring in Sociology, Environmental Studies, and Spanish. They first fell in love with ecological restoration work and place-based education during the summer of 2021, when they joined the Plaster Creek Stewards curb-cut rain garden crew. Since then, their work in the field has expanded to include dimensions of environmental engineering, social research, and youth mentorship.*

**Kelly Sanborn**

PBE Teacher | Discovering PLACE  
Sanbornx4@aol.com

*Kelly Sanborn is a certified teacher with 32+ years of experience. She served for 21 years as a middle school science teacher in the Montrose Community School District and is experienced in implementing place-based learning in the classroom and community. Kelly is a practicing Mi-STAR educator and Professional Learning Facilitator. She now works with the GLSI Discovering PLACE as an educational coach and is the former Interim Education Manager for the Flint River Watershed Coalition.*

**Leyla Sanker**

Program Manager | Discovering PLACE  
leyla@greatlakesstewardship.org

*Leyla Sanker coordinates Discovering PLACE, the Flint-area hub of the Great Lakes Stewardship Initiative, working to support and advance place-based education. Leyla has more than 18 years supporting urban-regional planning, environmental education, and community engagement. Leyla also serves as an Embedded Consultant at the Community Foundation of Greater Flint aligning collective impact with UN Sustainable Development Goals. She holds a BS in Resource Planning from UM–Flint and a master’s in Environmental Management from Duke University.*

**Emily Schaller**

Professional Learning Facilitator |  
Shelburne Farms Institute for Sustainable  
Schools  
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*Emily supports professional learning programs offered through Shelburne Farms' Institute for Sustainable Schools, focusing sustainability, climate education, and food systems education. She is passionate about connecting people to the natural world and inspiring action to sustain it. Emily earned her MS in Ecological Leadership and Education with Lesley University's Audubon Expedition Institute. She also holds a B.F.A. with a concentration in illustration and enjoys finding ways to connect art and creativity to her work.*

**Brandon Schroeder**

Sea Grant Extension Educator | Michigan  
State University Extension, MI Sea Grant  
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*Brandon Schroeder serves Lake Huron coastal communities as an Extension Educator with the Michigan Sea Grant and Michigan State University Extension. His expertise and efforts involve fisheries science, biodiversity conservation, sustainable coastal tourism development, and Great Lakes education. Brandon serves regionally with the Sea Grant Center for Great Lakes Literacy education team and provides local leadership for the Northeast Michigan Great Lakes Stewardship Initiative, a regional place-based stewardship education network and partnership.*

**Jenny Schroeder**

Science Facilitator | Alcona Community  
Schools  
Schroederj@alconaschools.net

*Jenny Schroeder has been working in the environmental education field for over 25 years. She now brings this unique perspective to the Alcona Elementary in order to provide students and teachers with opportunities to experience and engage in real world problem solving through place-based stewardship learning. Students connect their classroom to their community through conservation and student voice.*

**Ellen Schultz**

Director of Strategic Partnerships |  
Fairmount Water Works Interpretive  
Center  
Ellen.Schultz@phila.gov

*Ellen Freedman Schultz and Water are often found in the same sentence. Since 2004, she has been dedicated to developing and managing environmental education programs related to water quality, watershed management, and the history of Philadelphia's municipal water system for the Fairmount Water Works Interpretive Center. Her most recent project is the development and implementation of a watershed curriculum, now being implemented in partnership with the School District of Philadelphia.*

**Meag Schwartz**

Network Coordinator | Northeast  
Michigan Great Lakes Stewardship  
Initiative  
meag.nemiglsi@gmail.com

*Meag Schwartz serves as the Network Coordinator for the Northeast Michigan Great Lakes Stewardship Initiative where she helps get students' hands in the dirt, feet in the water, and hearts in the community through place-based stewardship education. Meag takes pride in knowing her community and the people in it and in being a catalyst for connection among the NEMIGLSI partner-educator network. She also founded Great Lakes Great Responsibility, a marine debris cleanup organization, in 2020.*

**Lea Sevigny**

Environmental Educator & Wildcrafter |  
Joyful Wildcrafting  
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*Lea Sevigny brought her loves of cooking and connecting with nature together 15 years ago to create place-based experiences for middle school students. It started with making garlic mustard pesto and autumn olive jam and has expanded over the years. Now retired from teaching, Lea guides people of all ages to embrace nature through wildcrafting for food, herbal remedies, and creativity. A Certified Environmental Educator, Lea also works with teachers and nature centers through her business, Joyful Wildcrafting.*

**Sarah Shafi**

Student | Eastern Michigan University  
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*Sarah is an Honors student at EMU studying K-12 Visual Art Education and K-12 Spanish Education and a student teacher intern in the Novi Community School District. Her research interests include educational statistics, museum education, and cultural exchange programs. She has received accolades/scholarships from EMU's School of Art and Design, Department of World Languages, College of Education, and Honors College, and has been involved in many educational groups, research endeavors, and art exhibitions.*

**Alex Sivitskis**

Education Research Faculty and  
Professional Learning Coach | Teton  
Science Schools  
Alex.Sivitskis@Tetonscience.org

*Alex Sivitskis is an educator and researcher focused on documenting the practice and outcomes of place-based education (PBE). He's had the opportunity to work with a variety of organizations committed to PBE, from nonprofits and schools in the North American Rockies to colleges and NGOs in the Bhutanese Himalaya. He has a BA in Earth Sciences from Johns Hopkins University and a MS in Natural Science Education from the University of Wyoming. Alex currently serves as an Education Research Faculty Member and Professional Learning Coach with Teton Science Schools.*

**Jennie Sola**

Science Teacher (8th Grade)/New Tech  
Mentor | Richfield Public School Academy  
jsola@richfieldpsa.org

*Jennie Sola is a 2009 graduate of the University of Michigan Flint education program. She has been teaching science for 10 years at Richfield Public School Academy, 6th-8th grades. Jennie implemented MiSTAR 5 years ago and was an implementing teacher in the New Tech Network. Jennie has since become a teacher coach who focuses on project-based learning with a community service approach.*

**Janet Staal**

Director of Nature-Based/Outdoor Education | West Side Christian School  
jstaal@wschristian.org

*Janet Staal, a dedicated educator with a deep-rooted love for the natural world, brings a wealth of experience and a lifelong commitment to place-based education. Her early explorations in the enchanting woods of West Michigan ignited a lifelong passion for learning and teaching. As the Director of Nature-Based/Outdoor Education at West Side Christian, she realizes her dream of creating immersive, nature-infused classrooms, inspiring educators to guide students toward skill development through place-based learning.*

**Andrea Stanczyk**

High School Math Teacher | Ypsilanti Community Schools  
astanczyk4@yocschools.us

*Andrea Stanczyk, an accomplished high school math teacher with eight years of experience, is dedicated to transforming math education. She is proud to be a part of the vibrant and diverse community at Ypsilanti Community Schools (YCS). Her innovative teaching methods ignite students' passion for math. She deeply values YCS's unwavering commitment to place-based education, understanding and appreciating the unique joys and struggles of the Ypsilanti community. Andrea fosters inclusivity, uses technology effectively, and encourages real-world applications.*

**Jessica Swan**

Assistant Professor of Educational Psychology | Eastern Michigan University  
jswan4@emich.edu

*Dr. Jessica L. Swan is an assistant professor of education at Eastern Michigan University with 15 years of experience as an educator in urban dropout prevention, intervention, and recovery. She is a humanist who seeks to restore dignity, respect, and protection from harm through an education grounded in love, care, joy, and our shared humanity.*

**Amanda Syers**

Science Education Specialist | Annis Water Resources Institute of Grand Valley State University  
syersam@gvsu.edu

*Amanda Syers is a science education specialist at the Annis Water Resources Institute of Grand Valley State University. She specializes in topics and curricula related to the Great Lakes. Amanda is also the state coordinator for Michigan Project WET (Water Education Today) and an adjunct instructor at GVSU. Amanda has a M.Ed. from GVSU and is a doctoral candidate at Arkansas State University seeking an Ed.D. in Educational Leadership.*

**Aisha Tahir**

Part-time Lecturer | Eastern Michigan University  
aisha.tahir97@gmail.com

*Aisha is a graduate of the Eastern Michigan University's NEXT Scholars program. She identifies as a Pakistani American Muslim. She has recently returned to EMU as a part-time lecturer, having spent 3 years working as a classroom teacher in the Metro-Detroit area.*

**Ben Talsma**

Learning Specialist | Van Andel Institute  
ben.talsma@vai.org

*Ben is a fun and fabulous teacher who has served in education for over twenty years. He taught students from kindergarten through sixth grade over the course of his career before creating a STEAM program for his school. He brings his passion for innovation to his role as a Learning Specialist at Van Andel Institute, where he supports teachers in creating thriving classrooms centered around curiosity, creativity, and critical thinking.*

**Patty Tolly**

Teacher | Forest Hills Public Schools  
ptolly@fhps.net

*Patty Tolly, a dedicated 6<sup>th</sup> grade teacher at Forest Hills Public Schools, boasts 29 years of teaching experience. Patty's teaching has been passionately driven by her commitment to environmental education, leading her to join the Groundswell Stewardship Initiative and secure the 2023 "Ground SWELL" Teacher of the Year award. Patty's dedication extends beyond the classroom, as she was chosen for the 2023 Civic and Environmental Education-Change Fellowship by NAAEE.*

**Sally Triant**

Founder | Grow Wise Learning  
growwiselearning@gmail.com

*Sally Triant founded Grow Wise Learning to incorporate her education in the fine arts and the sciences, her training in the classroom, her experience as a naturalist, and her passion to connect individuals of all ages to their local environment. She aims to assess barriers and encourage opportunities to explore the places where we live and learn in every season through rich connections to community and relevant opportunities for stewardship and civic engagement.*

**Grace Tukurah**

Doctoral Student | Michigan State University  
tukurahg@msu.edu

*Grace Tukurah is a science educator with over a decade of experience in K-12 science teaching. She is also a doctoral student and research assistant at Michigan State University. In her work with Teaching Science Outdoors - Urban Partnerships, she has worked with the research team to equip and support urban elementary teachers in using outdoor school spaces to teach science. Grace is especially interested in culturally relevant science education and science education for social justice.*

**Ryan Vance**

Nature Center Supervisor | Detroit Zoological Society  
rvance@dzs.org

*Ryan Vance is the Supervisor of the Belle Isle Nature Center, a satellite location of the Detroit Zoological Society. In his role, Ryan leads a team of educators, seasonal employees, and front desk staff as the guest-engaging side of the Nature Center team. Ryan grew up in Royal Oak, Michigan, and attended Wayne State University where he received his bachelor's degree. Outside of work, he enjoys time with family, dog walks, and travel.*

**Kathy Van Til**

Design Thinking Coach | Muskegon Area Intermediate School District  
kvantil@muskegonisd.org

*Kathy VanTil has been with the Muskegon Area ISD for the past 10 years as an instructor at the Career Tech Center. She has recently joined the 3P Learning team as the Design Thinking Coach.*

**Lisa Voelker**

Assistant Director | The Southeast Michigan Stewardship (SEMIS) Coalition  
lvoelker@emich.edu

*Lisa Voelker is the Assistant Director for the Southeast Michigan Stewardship (SEMIS) Coalition, a hub of the Great Lakes Stewardship Initiative. She assists with coordinating daily operations, overseeing coaching and Professional Learning with Coalition members, and facilitating school-community partnerships. Areas of expertise include EcoJustice Education, Visual Arts Education, Social Foundations of Education, and STEAM – helping STEM teachers to incorporate the arts, and connecting artists and scientists to the classroom. Her undergraduate and master's degrees are from Eastern Michigan University.*

**Erika Vye**

Geosciences Research Scientist | Great Lakes Research Center, Michigan Tech  
ecvye@mtu.edu

*Erika Vye is a Geosciences Research Scientist and part of the leadership team for the Lake Superior Stewardship Initiative. She believes that we have strong relationships with rocks and landscapes that connect us and shape our sense of place. Erika works with many valued community partners as a geoheritage educator and outreach specialist focused on formal and informal place-based education initiatives that help broaden Earth science and Great Lakes literacy through shared ways of knowing.*

**Roderick Wallace**

rwallac5@emich.edu

*Rod Wallace is an educator with vast experience in the operation, administration, and cultural development of urban schools. In addition to teaching and directing federal grant programs at Eastern Michigan University, Wallace is a doctoral candidate studying Hip Hop as a teaching tool and the use of music technology to enrich STEM content and academic resilience. Wallace coordinates educational programs at Grove Studios in Ypsilanti, MI, and serves as executive producer for the critically acclaimed Formula 734 hip-hop documentary for men of color in conjunction with Washtenaw County My Brother's Keeper. In 2020, Wallace co-founded The Amplify Project.*

**Lloyd Wescoat**

LSSI Leadership Team and Teacher Mentor | Lake Superior Stewardship Initiative  
lwescoat@mtu.edu

*Lloyd Wescoat has served on the Lake Superior Stewardship Initiative leadership team since 2008, providing support to teachers, administrators, and community partners while bolstering local efforts to advance place-based education. With a background in elementary education specializing in Social Studies and Language Arts, she enjoys promoting cross-curricular approaches to learning. In her spare time, Wescoat strives to connect readers of all ages with the perfect book at the bookstore she owns with her husband.*

**Lauren Westerman**

Doctoral Student | Prescott College  
laurenEwesterman@gmail.com

*Lauren Westerman is a second year doctoral student studying Sustainability Education through Prescott College. She is an experienced educator with a history of working in sustainable materials management and place-based environmental education. Lauren is a member of the North American Association for Environmental Education (NAAEE) Guidelines Trainers' Bureau and has facilitated various Guidelines for Excellence trainings in Michigan as part of her work to encourage high-quality environmental education practices.*

**Karina White**

Teacher | Jenison High School  
kcwhite@jpsonline.org

*Karina White has been teaching science at Jenison High School for 19 years. She just recently received her Master of Biology from GVSU, an experience which allowed entry into the authentic research world again. That ongoing experience has livened her classroom and renewed her excitement for the privilege of teaching about the process of science.*

**Avril Wiers**

Environmental Field Studies Instructor | Careerline Tech Center

*Avril Wiers is passionate about inspiring the next generation of outdoor leaders through science and recreation.*

**Paige Wigren**

Lead Outdoor Education Program Specialist | Girl Scouts of Southeastern Michigan  
pwigren@gsssem.org

*Paige Wigren is an Outdoor and Environmental Educator with over fifteen years of experience in the field. She has worked in federal, state and non-profit positions throughout her career, covering a wide range of topics and specialties. Her passion for fisheries has led to several opportunities to work towards making fishing and aquatic ecology accessible and interesting to all communities.*

**Abigail Woodman**

High School Math Teacher | Ypsilanti Community Schools  
awoodman7@yicschools.us

*Abigail Woodman is a dedicated educator with four years of teaching experience. She is proud to be a part of the vibrant and diverse community at Ypsilanti Community Schools (YCS). Abigail's teaching approach harnesses the power of technology to engage her students actively. She deeply values YCS's unwavering commitment to place-based education, understanding and appreciating the unique joys and struggles of the Ypsilanti community. Her passion lies in fostering meaningful connections between her students and their surroundings.*

**Kevin Zak**

Director, Educator Preparation Program & Associate Professor of Teacher Education | Northland College  
kzak@northland.edu

*Kevin Zak teaches at Northland College, engaging future teachers in how to teach math, science and environmental education through authentic experiential learning using the outdoor classroom. As a past elementary and middle school science and environmental education teacher with experience leading professional development opportunities in regional schools, Kevin brings these perspectives to help support the development of a sustainable alumni network of Rivers2Lake teachers and resources.*

**Eric Zay**

Science Teacher

*Eric Zay is dedicated to helping young people develop an appreciation for the natural world and to understand the challenges they face in a changing world.*

**Jacki Zevenbergen**

Stormwater Education Program Manager  
Cuyahoga Soil & Water Conservation  
District

[jzevenbergen@cuyahogawcd.org](mailto:jzevenbergen@cuyahogawcd.org)

*Jacki is a long-time environmental activist and volunteer, with a background in formal and non-formal education. She manages the district's school programs, offers graduate level environmental education professional development, and works with teachers and students to meet the ever-expanding need for place-based, hands-on learning. Jacki organizes action projects such as stream cleanups, native plant installations, and storm drain stenciling. Jacki holds BS/MS degrees in biology and a graduate certificate in environmental studies.*

**Amory Zhou-Kourvo**

Student I Eastern Michigan University  
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*Amory is an undergraduate student in the process of teacher preparation, a biracial community activist, and a member of the LGBTQ+ Community. He is a NEXT Scholar at Eastern Michigan University who is preparing to begin work as a secondary science educator.*





[greatlakesstewardship.org](http://greatlakesstewardship.org)