

Michigan Alliance for Environmental and Outdoor Education



Tustin, Michigan

Many Thanks to the Conference Planners

2019 Ketunen
Conference
Core Planning Team:

- Bridget Booth
- Brittany Burgess
- Cindy Fitzwilliams-Heck
- Kevin Frailey

Extended Planning Team:

- Elaine Kampmueller
- Marilena Burlacu,
Silent Auction
- Natalie Elkins,
Awards
- Ashlie Smith,
Sponsorships
- Misty Klotz,
Exhibitors
- Mike LeValley,
Scholarships
- Amanda Gort,
Marketing
- Becky Durling,
Technology

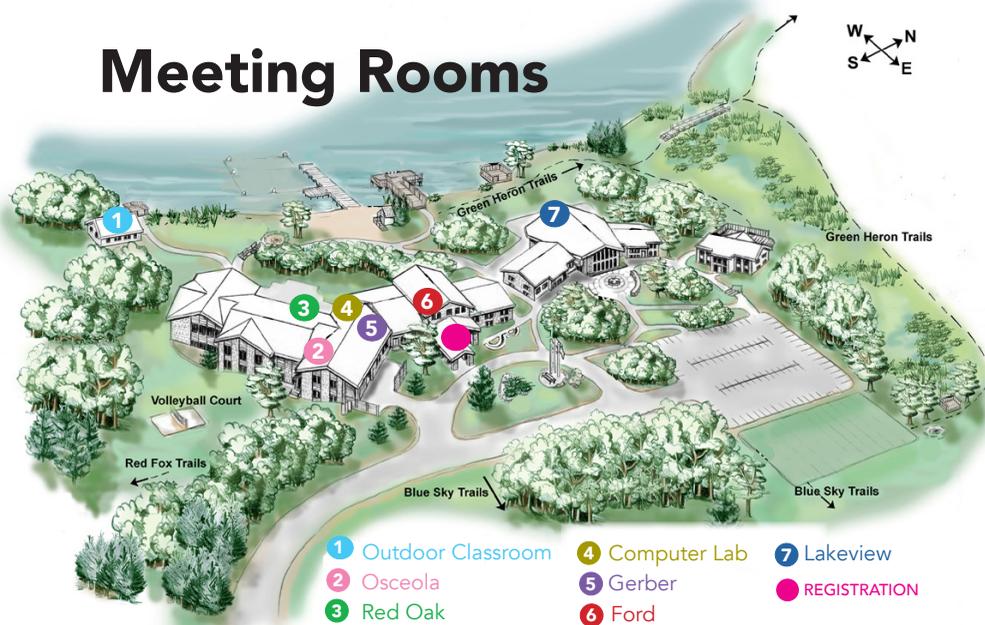


REGISTER HERE

Lodging



Meeting Rooms





Conference-at-a-Glance

Friday, September 27, 2019

7:30- a.m. - 8:00 a.m.	Breakfast (Dining Hall)
8:00 a.m. - 11:30 a.m.	Professional EE Workshops
Noon	Exhibit area open (Gerber)
	Lunch: Dining Hall
1:00 p.m.	Conference Opening Assembly (Lakeview-Mawby Learning Center)
2:00 p.m. - 4:45 p.m.	Breakout Sessions (45 minutes)
6:00 p.m. - 9:00 p.m.	MAEOE MASH – American Chestnut/Outdoor Classroom

Saturday, September 28, 2019

7:30- a.m. - 8:30 a.m.	Breakfast (Dining Hall)
8:30 a.m. - 8:45 a.m.	Morning Announcements (Dining Hall)
9:00 a.m. - 10:45 a.m.	Extended Breakout Sessions (105 minutes)
9:00 a.m. - 9:45 a.m.	Breakout Sessions (45 Minutes)
10:00 a.m. - 10:45 a.m.	Breakout Sessions (45 minutes)
11:00 a.m. - 11:45 a.m.	Keynote Speaker (Lakeview-Mawby Learning Center)
Noon	Lunch: Dining Hall
12:45 p.m.	Silent Auction & Exhibitor Alley Closes
1:00 p.m. - 4:30 p.m.	Field Trips commence
5:30 p.m. - 6:00 p.m.	Past-President & Board Reception (Library Terrace)
6:00 p.m. - 6:45 p.m.	Pre-Banquet Reception - Everyone invited (Library Terrace)
7:00 p.m. - 8:00 p.m.	MAEOE Banquet (Dining Hall)
8:00 p.m. - 9:00 p.m.	Award Presentations (Lakeview-Mawby Learning Center)
9:00 p.m. - 11:00 p.m.	MAEOE Meltdown (Lakeview Terrace)

Sunday, September 29, 2019

7:30- a.m. - 8:30 a.m.	Breakfast (Dining Hall)
8:30 a.m. - 9:45 a.m.	Coffee with the Board
	Morning Announcements
	State-of-the-State's Natural Resources
	Preview of Beaver Island Conference 2020
10:00 a.m. - 10:45 a.m.	Breakout Session
10:00 a.m. - 11:45 a.m.	Extended Breakout Sessions
11:00 a.m. - 11:45 a.m.	Breakout Session



Welcome to the 2019 MAEOE Conference!

Rural, Rustic and Real. MAEOE has gone back to its roots for our annual conference held this year at the beautiful Kettunen Center. The Conference Planning Committee has been working hard to bring you yet another great conference experience!

In addition to engaging, hands-on general sessions on Friday and Saturday, two of this year's pre-conference opportunities on Thursday include a pheasant hunt and salmon fishing, while field trips on Saturday highlights many of the local areas around the Kettunen Center including a unique visit to an Amish Homestead to learn about sustainable lifestyle practices in their community. I hope that you are able to take advantage of these exciting EE experiences!

The new EEC Strand 1 workshop is being offered this year. This in-person workshop will get you started on your EEC journey, and will also include access to the new online portal that is full of resources to help guide you through the process. You will also have the opportunity to sit in on 4 capstone presentations by our 2019 Environmental Educator Certification candidates.

In addition to the conferences' engaging workshops and field trips, please take advantage of the daily updates and insights at our general assembly meetings, and the fun evening networking events. You also won't want to miss Sunday morning's Coffee with the Board to learn what is going on on in EE and Outdoor Education around the state. Check out the Conference at a Glance to see the entire lineup for the weekend.

It has been a great year serving as your President and working on the conference planning team. If you see other board members or conference planning team members this weekend be sure to say "Thank you!". I hope you will consider becoming more involved with MAEOE by either serving on a committee or running for the board!

Thank you for joining us at the 2019 Conference!

Brittany

Brittany Burgess
2019 MAEOE President

Special Events

Noon Friday - 12:45 p.m. Saturday (Gerber)

MAEOE Book Fair

Here is a great opportunity to pick up classroom or nature center resources. Dozens and dozens of nature related topics and titles can be found with proceeds going to MAEOE.

Silent Auction

An annual favorite! Bring your treasures to donate and find others to purchase. All proceeds go to fund MAEOE grant and scholarship programs. Winners will be posted by evening Awards Banquet Reception in Lakeview Room.

Exhibit Alley

Stop by and learn about programs from Michigan EE/OE partners. Pick up free posters and materials. A great way to network with Michigan outdoor lovers.



Pre-Conference Events

Thursday, September 26, 2019

9:00 a.m. – 12:00 p.m. Pheasant Hunt Outdoor Skills Clinic

A time held tradition in the Michigan autumn is an upland game bird hunt. Staff from the DNR's Carl T Johnson Hunt and Fish Center will take up to 10 participants on a guided hunt which includes shotgun, ammunition, a guide and a dog. Participants will learn shotgun basics and have an opportunity to practice with sporting clays before the guided hunt. Easily a \$250 value, this is a special offer for the MAEOE conference for only \$25 person. Since the hunt is on a private preserve, no hunting license is required. Up to two birds can be harvested but additional birds can be added. MAEOE would like some harvested birds to be donated to the MAEOE MASH welcome event on Friday evening. Twenty-minute travel time each way via carpool. This is an extremely rare field-to-table opportunity for the novice or experienced hunter. **Clinic Fee: \$25**

9:00 a.m. – 2:00 p.m. Salmon Fishing Outdoor Skills Clinic

The fall salmon run is a sight to behold and should be on everyone's Nature Bucket List. At Tippy Dam State Park, you will experience the salmon run in all its glory. Staff from the DNR's Carl T Johnson Hunt and Fish Center will take up 10 participants on a guided fishing experience at one of the world's premier salmon fisheries. A fishing license is required but all gear will be provided. This is another incredible guided value for only \$25/person (plus fishing license). MAEOE would like some harvested salmon to be donated to the MAEOE MASH welcome event on Friday evening. Forty minutes travel time each way via car pool. Lunch at Tracks and Grill (on your own \$). This is an extremely rare fin-to-table opportunity for the novice or experienced angler. **Clinic Fee: \$25**

1:45 p.m. – 3:45 p.m. Pere Marquette National Scenic River Kayak Trip

Kayak through an exclusive portion of the Huron Manistee National Forest on an afternoon jaunt. Leave the Kettunen Center at 1:00 and caravan 45 minutes to Baldwin Canoe Rental. You have the option of a single or a double kayak (let us know your partner!). The 2-hour trip will take you through stunning landscapes along the Pere Marquette River that is not open to other recreation companies. Following the trip, we will caravan back to the Kett, or head out to dinner on your own. **Single kayaks are \$37, or tandems are \$52** (425lb total weight limit). Registration on the conference webpage is required but payment is due individually at the livery.

Landfills teach students the importance of the 3 R's – Reduce, Reuse, Recycle

Waste Management teaches them the 4th R – recovering the resources from waste.

Find out more at ThinkGreen.com



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Friday-at-a-Glance

September 27, 2019

Start Time	End Time	Activity	Room
7:30 a.m.	5:00 p.m.	Registration/Check-in	Kettunen Center Lobby
7:30 a.m.	8:00 a.m.	Breakfast	Dining Hall
8:00 am.	11:30 a.m.	Workshops	
		EE Certification - Strand One	Red Oak
		Project Wet	Osceola
		Regional High Priority Invasive Species	Ford A
		Master Recycling Education Program	Ford B
Noon	5:00 p.m.	Silent Auction and Exhibit Alley Opens	Gerber
Noon	1:00 p.m.	LUNCH	Dining Hall
1:00 p.m.	1:45 p.m.	Conference Opening Assembly	Lakeview/Mawby LC
1:45 p.m.	2:00 p.m.	BREAK	
2:00 p.m.	2:45 p.m.	Breakout Sessions	
		EEC Capstone Presentations	Red Oak
		What's Fuzzy and Comes Out at Night, Part 1	Ford A
		Interactions with Ecosystems	Ford B
2:00 p.m.	3:45 p.m.	Meeting Graduation Requirements Outdoors	Osceola
2:45 p.m.	3:00 p.m.	BREAK	
3:00 p.m.	3:45 p.m.	Breakout Sessions	
		EEC Capstone Presentations	Red Oak
		Does EE Work?	Ford A
		Nature Makerspace Boxes	Ford B
3:45 p.m.	4:00 p.m.	BREAK	
4:00 p.m.	4:45 p.m.	Breakout Sessions	
		STEM-ulating Activities on Human Ecology	Red Oak
		Flipping MEECS	Osceola
		Interpreting Weather	Ford A
		5-Minutes of Fame	Ford B
6:00 p.m.	9:00 p.m.	Pizza Party followed by MAEOE MASH	Outdoor Classroom

Friday Highlights

Welcome and Opening Assembly 1:00 p.m. – 1:45 p.m. Lakeview

Come kick off the MAEOE conference with introductions and a hearty welcome from the MAEOE President Brittany Burgess. Learn about conference highlights and MAEOE accomplishments as this session officially kicks off the 2019 event.

MAEOE MASH 6:00 p.m. - 9:00 p.m. Outdoor Classroom

Don't miss this opportunity to meet, greet and eat with friends, old and new. Onsite this year but far off the beaten path, the MAEOE MASH will feature snacks from the Kett Kitchen and hopefully a few surprises. Some beverages will be provided. Mingle with guests and enjoy the nearby waterfront.



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A S S O C I A T I O N



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Friday EE Workshops

8:00 -11:30 a.m.

EEC Strand 1 - Knowledge, Skills, and Know-How of a Certified Environmental Educator (Red Oak)

MAEOE 's Environmental Educator Certification (EEC) program allows new educators and career professionals the opportunity to develop professional credentials and to pursue your goals. The certification program sets specific standards of knowledge, skills, and experience that all highly qualified environmental educators in Michigan should demonstrate. The completion of this in-person Strand 1 professional development will put you another step closer to earning your EEC. Payment of \$75 will include the day's experiences and online access to resources, networking, remaining Strand 1 activities, and guidance throughout the program. More details will be provided during the workshop.

Project WET 2.0 - New and Improved (Osceola)

Michigan Project WET Coordinator, Janet Vail, will lead you through the recently revised Project WET educators' guide. Water Education for Teachers (WET) is nationally renowned and one of the most popular supplemental natural resources curriculums in America. The new guide is yours as part of the workshop. This professional development workshop also fulfills a Strand 2 requirement for the Michigan Environmental Educator Certification (EEC). Whether you are a currently trained WET educator or participating for the first time, you will enjoy this chance to learn about our planet's most precious resource. Pre-registration Required: \$35

High Priority Invasive Species - Identification and Control (Ford A)

Take part in an actual service-learning project on the grounds of the Kettunen Center while learning about high priority invasive plants. The Kettunen Center collaborates with the North Country Cooperative Invasive Species Management Area (NCCISMA) to prevent and control the spread of high priority invasives in a habitat restoration project. Come spend the morning with Vicki Sawicki, NCCISMA Program Director and learn about the statewide CISMA network, in-class presentations and service learning projects You will spend plenty of time outside on the Kettunen Center grounds identifying invasive species and how to eradicate them. Pre-registration Required: \$10

Introduction to Master Recycling Educator Program (Ford B)

The Ecology Center of Ann Arbor has created a new program to educate community partners and K-12 educators about recycling and waste issues. If your last recycling update/education was even five years ago, you have a lot to learn in the everchanging landscape (and landfill) of waste management. Participants will walk through examples of the program, experience hands-on activities and learn the process to set up a training in your community. Ecology Center Education Director Katy Adams and Education Program Coordinator MacKenzie Munro will update your IQ on the three R's. Pre-registration Required: \$10





Environmental Educator Capstone Projects

MAEOE's Environmental Educator Certification (EEC) has more than 150 candidates on their journey to achieving their credentials. This year, four candidates have completed four of the five necessary Strands required for the MAEOE certification. Those four will complete their journey by presenting their Capstone Project – the last requirement, at this year's MAEOE Conference. Whether you are interested in beginning the journey yourself or are curious about these topics, feel free to stop in any of these presentation blocks this Friday.

Friday Afternoon, September 27, 2019

Red Oak

- 2:00 p.m. **Creating Environmentally Literate Citizens in Outdoor Learning Spaces**
This session will summarize the steps taken in an action project that focused on creating an outdoor classroom to increase cross-curricular learning opportunities for students in a pre K-8th grade school setting. Learn how student and teacher input were used to create outdoor classroom designs and how the new learning space was introduced to the school community with cross-curricular lessons and activities intended to increase environmental literacy. *Bridget Booth*
- 2:30 p.m. **The Clarkston Family Farm - Reasons, Route, and Results**
The creation of the Clarkston Family Farm is a direct result of habitat loss, green space, and a marked decrease in the amount of time young adults spend in a natural environment. The farm has had a positive effect in community. We are intentional about creating hands-on learning experiences that cultivate empathy and engagement and interest in Michigan plants and animals and soil. We do this in synergy with local educators and farmers and student advisors. We offer relevance to the rigor in the classroom and we do it through inquiry-based learning outside. *Chelsea O'Brien*
- 3:00 p.m. **What Happens Upstream Affects us Downstream: Changing the Perception of the Flint River and How we Treat It**
Changing the image of the Flint River and its tributaries is a major goal in restoring our river. Students need to understand and learn that what goes in the river upstream generally ends up downstream. With the Flint Water Crisis affecting many of our students, we looked at ways to help improve and monitor our local watershed. Students conducted water quality testing with the Flint River Watershed Coalition and led a survey to determine the attitudes and beliefs of the Flint River water. They gained awareness and become actively involved in why it is important to keep our watersheds and waterways clean. *Tammy Wylie*
- 3:30 p.m. **Where is the Fresh Food in Flint?**
Many of our community members and students have been affected by the Flint Water crisis causing health issues of many varieties. A program was developed to raise awareness of the environmental topic of lead poisoning in the water in Flint and how certain foods will prevent the absorption of lead in the body. Through our partnerships, we educated, identified, and grew fruits and vegetables to help combat this serious issue. *Arleatha Bryant*

Friday Breakout Session Descriptions

2:00 – 2:45 p.m.

EEC Capstone Projects (Red Oak)
Bridget Booth and Chelsea O'Brien

Session description can be found on page 8.

What's Fuzzy and Comes Out at Night? Part 1

Bill Hodges, Holt High School (Ford A)

Set a game camera on your school grounds with scent posts to lure in local creatures. Meet NGSS engineering standards, get your students outside and see what lurks in your schoolyard, camp or nature center. Posts will be re-checked Saturday morning.

Interactions with Ecosystems: Teaching NGSS/MI Science Standards with MI-STAR
Kari Keith, White Pine Middle School (Ford B)

Explore how students confront the problem of invasive species by learning about various Michigan ecosystems and making predications. How does an invasive species affect organisms and ecosystems? How do you identify appropriate management strategies?

Did You Know that ALL Michigan Graduation Requirements can be Met Outdoors?
Rashell Bowerman, Michigan Department of Education (Osceola)

The Michigan Merit Curriculum (MMC) graduation requirements are flexible and provide various pathways to enable students to be career and college ready. This session will provide information about MMC, and misconceptions about student requirements taking part in non-traditional courses.

NOTE: THIS AN EXTENDED SESSION AND RUNS TO 3:45 pm

3:00 – 3:45 p.m.

EEC Capstone Projects (Red Oak)
Tammy Wylie and Arleatha Bryant

Session description can be found on page 8.

Does EE Work? From Environmental Education to Environmental Impact
James Dake, Grass River Natural Area (Ford A)

Many studies have shown that gaining knowledge about the environment does not lead to adoption of environmental behaviors. Using research, models, and interactive exercises, participants will create a framework to ensure your programs make an environmental impact.

Nature Makerspace Boxes

Bonnie Hollander, Farmington Hills Nature Center (Ford B)

Nature Makerspace Boxes give students exciting opportunities to design, create, and invent using nature as inspiration. We share tips and tricks for creating Nature Makerspace boxes using primarily loose nature items. Participants will get a sample box to take home.

4:00 – 4:45 p.m.

STEM-ulating Activities on Human Ecology
Vanessa Wyss, Ferris State University (Red Oak)

Discover innovative ways to teach middle school students about human-environmental interactions while also building STEM skills through problem solving, mathematical modeling, interactive technology and more. Population, land and ocean use, climate change and biodiversity topics. E-lesson plans available.

Flipping MEECS: Using Existing Curriculum as a Cornerstone to Place Based Ed.

Gabrielle Likavek, Michigan Geographic Alliance (Osceola)

The three R's of Instruction are Reduce worksheets, Reuse materials and Recycle the MEECS water quality unit to build a NEW unit that will engage students in hands-on learning perfectly suited to the NEXT GEN classroom. Big changes are online for the Michigan EE Curriculum Support (MEECS) Program. Come learn about the new and exciting changes.

Interpreting Weather

Dave Chapman, Okemos High School (Ford A)

Using simple observation, learn how to interpret weather and make forecasts. Explore weather folklore and how to make simple tools for students to facilitate weather observations. Information useful for field trips, wilderness hiking, boating, farming and more.

Five Minutes of Fame

Kelie Wasikowski, Thunder Bay National Marine Sanctuary (Ford B)

Film and cinematography is a powerful medium to relay messages. You can empower your students to be scientific communicators by teaching them to make short films which can be submitted to the Thunder Bay International Film Festival's Student Film Competition



Saturday-at-a-Glance

September 28, 2019

Start Time	End Time	Activity	Room
7:30 a.m.	12:00 p.m.	Conference Registraion	Kettunen Center Lobby
7:30 a.m.	8:30 a.m.	Breakfast	Dining Hall
8:30 a.m.	8:45 a.m.	Morning Announcements	Dining Hall
8:45 a.m.	9:00 a.m.	BREAK	
9:00 a.m.	12:45 p.m.	Silent Auction and Exhibitor Alley	Gerber
9:00 a.m.	10:45 a.m.	Extended Breakout Sessions (105-minutes)	
		STEM to STREAM	Ford A
		Great Lakes Across the Curriculum	Ford B
9:00 a.m.	9:45 a.m.	Breakout Sessions (45-minutes)	
		Using Superheroes to Connect Literacy	Red Oak
		What's Fuzzy and Comes Out at Night, Part 2	Osceola
10:00 a.m.	10:45 a.m.	STREAM School	Red Oak
		Come to Your Senses	Osceola
10:45 a.m.	11:00 a.m.	BREAK	
11:00 a.m.	11:45 a.m.	Keynoter Speaker: Brad Kik	Lakeview/Mawby LC
Noon	1:00 p.m.	LUNCH	Dining Hall
1:00 p.m.	4:30 p.m.	Field Trips	
		Carl T. Johnson Hunting and Fishing Center	
		Return of the King: Manistee Weir Salmon Run	
		Low Ropes and High Hopes	
		Amish Homestead Tour	
5:30 p.m.	6:00 p.m.	Past Presidents Board Reception	Library Terrace
6:00 p.m.	6:45 p.m.	Pre-Banquet Reception	Library Terrace
7:00 p.m.	8:00 p.m.	MAEOE Banquet	Dining Hall
8:00 p.m.	9:00 p.m.	Award Presentations	Lakeview/Mawby LC
9:00 p.m.	11:00 p.m.	MAEOE Meltdown	Lakeview Terrace

Saturday Highlights

Keynote Presentation

11:00 a.m. – 11:45 a.m.

Lakeview

Environmental Education in the Context of Climate Change



An increasingly anti-science culture and a disconnect from the non-human world makes our work more challenging every day. Brad Kik will offer his insight into some ways to reconsider environmental and outdoor education programs

and STEM education in the face of spiraling ecological devastation. His fierce love of both nature and culture drove him to establish Crosshatch Center for Art and Ecology in 2005. Brad is the co-founder and co-director of Crosshatch, a non-profit organization that connects the lines between art, agriculture, local economy and ecology. Brad's varied background in environmental activism, film study, graphic design, community organizing, traditional music, writing, ecology and permaculture plays a key role in shaping the cross-disciplinary work of Crosshatch.

Past-President & Board Reception

5:30 p.m. - 6:00 p.m. Library Terrace

(Followed by open reception)



Past Presidents in Port Huron , 2018.

MAEOE Awards

8:00 p.m. - 9:00 p.m. Lakeview/Mawby LC

MAEOE Meltdown (hospitality)

9:00 p.m. - 11:00 p.m. Lakeview Terrace



The Great Lakes and their connecting channels form the largest surface fresh water system on earth.

Michigan Sea Grant is at the heart of that system. We are dedicated to the protection and sustainable use of the Great Lakes and coastal resources.



michiganseagrants.org

Saturday Breakout Session Descriptions

9:00 a.m. - 10:45 a.m.

**STEM to STREAM,
Ellen Boekestein, Grand Valley Metro
Council (Ford A)**

Stream Girls engages middle school girls in STEM Education plus Recreation and Arts. They explore watersheds as scientists, artists and anglers. EE and fly fishing come together to promote STEM-related learning while connecting girls to their local watershed

**Great Lakes Across the Curriculum,
Mike Mansour, Hawkwoods Nature
Center (Ford B)**

Participants interact with ropes, maps, toys to learn and challenge their memories of the rivers, history, culture and wildlife of the Great Lakes. Come share your knowledge in this hands-on, Powerpoint-less presentation.



9:00 a.m. - 9:45 a.m.

**Using Superheroes to Connect Literacy
and Nature,
Courtney Prout, For-Mar Nature Preserve
(Red Oak)**

Explore the creative process of designing a comic book character story and lesson plans to deliver stewardship messages for urban communities. Learn about our program in Genesee County, travel the trail and try some activities.

**What's Fuzzy and Comes Out at Night? Part 2
Bill Hodges, Holt High School (Osceola)**

Learn the excitement and outcomes of setting a game camera in your school setting with scent posts to lure in local creatures. Part 2 investigates what fuzzy creatures visited our lures Friday night.

10:00 a.m. - 10:45 a.m.

**STREAM School,
Tom Kelly, Outdoor Discovery Center
(Red Oak)**

This engaging program is interactive and exciting. Come learn how you can get a STREAM school started. Project-based learning activities used for students in grades 4-8.

**Come to Your Senses,
Dorothy McLeer, U of M - Dearborn
Environmental Interpretive Center
(Osceola)**

Sensory exploration makes learning come to life and allows the learner to create lasting memories based on their personal experiences. Take advantage of the "tools" humans carry around each day and use multi-sensory learning modalities to reinforce learning.



Department of Geography,
Environment, and Spatial Sciences
MICHIGAN STATE UNIVERSITY

Saturday Field Trip Descriptions (pre-registration required)

1:00 p.m. - 4:30 p.m.

Carl T. Johnson Hunt and Fish Center

Travel 20 minutes to Cadillac and explore the Carl T. Johnson Hunt and Fish Center and inject some outdoor education into your conference experience. Get a tour of the center and try your hand at the shooting sports on both the archery and pellet gun ranges. The center is the hub of local school field trips in the fall and spring while catering to campers at Mitchell State Park in the summer months. The Carl T. also established the DNR's popular Outdoor Skills Clinics for people longing to learn, and be proficient in hunting, angling and other outdoor skills. **Method of Transportation: Cadillac Trolley. Trolley leaves promptly from Kettunen Center Parking Lot at 1:00 p.m. Travel Time: 20-minutes. Field Trip Fee: \$10**

Return of the King: Manistee Weir Salmon Run

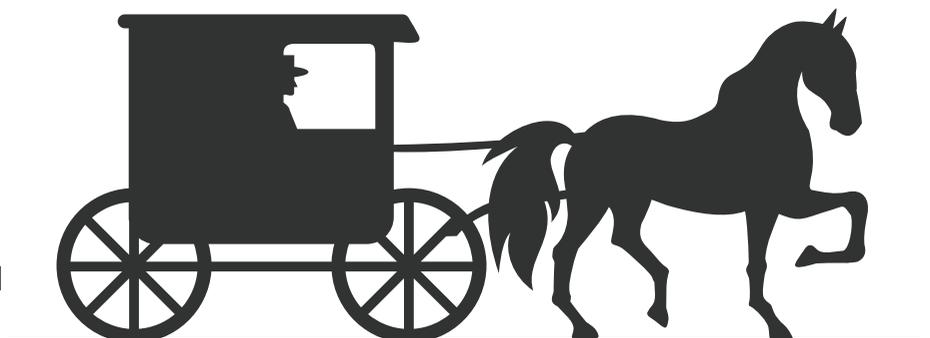
Thousands of Pacific King, or Chinook Salmon, returns up the Manistee River each fall to spawn. The Manistee weir enables the Michigan DNR to direct some of them to their egg take facility. This field trip offers a chance to see one of Michigan's most spectacular sights as Chinook begin their journey upriver. Participants will observe, and perhaps assist, biologists sort salmon and "spawn" them. As the salmon run continues in the coming weeks, thousands of eggs will be captured, fertilized and sent to hatcheries for later stocking in Michigan watersheds. **Method of Transportation: Carpool. Leave promptly from Kettunen Center Parking Lot at 1:00 p.m. Travel Time: 70-minutes. Field Trip Fee: \$10**

Low Ropes and High Hopes

Stay close to Kettunen Center and learn the ups and downs of running a low ropes course, a great addition to any school program or nature center. Unlike their high risk relative, the high ropes course, low ropes courses are inexpensive and staff efficient but still encourage powerful learning. Participants learn team building, trust building, problem solving and even STEM concepts. This session will also explain how to construct a low ropes course, best practices and the many benefits of placing one at your site. Long before there were "Escape Rooms," the low ropes course was building problem solving and teamwork solutions AND they were all outside! **NO travel time or transportation needed! Fee: \$10**

Amish Homestead Tour

Don't miss this rare opportunity to learn sustainable lifestyle practices from the Amish community near the Kettunen Center. Beginning at the Yoder Store, only 15 minutes from the Center, this field trip will learn the sustainable ways of the Amish, their methods for low impact, sustainable agriculture and simple living. A culture that has adapted without the modern conveniences of technology, Amish populations and influence continue to grow across much of America. What you probably thought you knew about the culture best known for the continued use of the horse and buggy, is most likely skewed with misinformation. Come learn the true ways of the Amish in this unique conference experience. **Method of Transportation: Carpool. Carpool leaves promptly from Kettunen Center Parking Lot at 1:00 p.m. Travel Time: 15-minutes. Field Trip Fee: \$10**





Sunday-at-a-Glance

September 29, 2019

Start Time	End Time	Activity	Room
8:30 a.m.	9:45 a.m.	Coffee with the Board	Lakeview
10:00 a.m.	10:45 a.m.	Bear Necessities	Osceola
10:00 a.m.	11:45 a.m.	Nat Geo: Geo Inquiry Process	Red Oak
		What Lies Beneath: Michigan's Subsurface	Ford A
11:00 a.m.	11:45 a.m.	Invasion Meltdown	Osceola



ASSOCIATION of
FISH & WILDLIFE
AGENCIES



SAVE THESE DATES!!

Waterloo and Cranes Too!

Saturday, October 26th, 2019
2:00 until dusk

Waterloo Recreation Area and
Haehnle Sanctuary

Join us for a guided Waterloo Hike
followed by Sandhill Crane viewing.

For more information contact:

Elaine Kampmueller,
malachite16@msn.com or
Kathleen Dougherty,
kad8186@msn.com

MAEOE Wildlife Weekend

January 31-February 2, 2020
RAM Center on Higgins Lake

Choose one Course:

Feathered Frenzy

The Bear Facts

Winter Omnibus

Look for more information soon at:

www.maeoe.com

Sunday Highlights

Coffee with the Board

8:30 a.m. SHARP* Lakeview/Mawby



*All those in attendance by 8:30 a.m. will receive a special gift.
Don't be late!

- Morning Announcements with MAEOE President and introduction of new MAEOE Board.
- State-of-the-State with DNR
- Beaver Island 2020 Conference Presentation

Sunday Breakout Session Descriptions

10:00 a.m. – 10:45 a.m.

Bear Necessities,
Tori Frailey, Ionia Conservation District (Osceola)

Forget about your worries and your strife in this session about Michigan black bear populations and how to safely live and recreate in our state's expanding bear country. The program includes an outdoor portion with bear spray demonstration.

10:00 a.m. – 11:45 a.m.

National Geographic Geo-Inquiry Process,
Fay Gore, National Geographic Society (Red Oak)

National Geographic's Geo-Inquiry Process prepares youth to become advocates for change in their community. Through this project, youth gain a better understanding of our planet by asking questions, collecting and visualizing data, creating compelling stories and inspiring others.

What Lies Beneath: Exploring Michigan's Subsurface,
Luke Bowman, Michigan Technological University (Ford A)

Learn how geophysical tools help "see" underground and monitor groundwater and mitigate hazards. Hands-on demonstrations enable participants to explore way to bring geophysics, geosciences and engineering into the classroom.

11:00 a.m. - 11:45 a.m.

Invasion Meltdown,
Meredith Zettlemoyer, Kellogg Biological Station (Osceola)

Explore a hands-on game where students act as invasive and native insects collecting resources. Students will be introduced to the adaptations and effects invasive species have on local habitats including resource limitation and native species' declines.



**Check out of your room by
10:00 a.m.**

The Best Classroom in Michigan is OUTSIDE



Academy of Natural Resources



Field Trips



Salmon in the Classroom



SAVE THE DATE



CMU
Biological
Station



2020 MAEOE Conference
September 24 - 28, 2020

Beaver Island
America's Emerald Isle

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P. O. BOX 51235
Livonia, MI 48151

admin@maeoe.com
www.maeoe.com