



Environmental Education Council of Ohio

Summer 2023

Salt in the Water?

By Juliella Hankinson, ODNR Stream Quality Monitor & Isaak Walton League Salt Watch Volunteer

In the winter of 2021 at Lake Varuna, in Gaithersburg, Maryland, Carl Van Neste found dead fish floating in the water. He decided to test the chloride levels. Using his testing strip, he found the levels were so high, they reached the maximum testing ability of the strip (1,000 parts per million). For reference, levels above 100 ppm are elevated above fresh water. Levels above 230 parts per million for long periods of time or short exposures of 860 parts per million are lethal to fish. He found above lethal levels. But how did the salt get into the water to begin with?

As snow blows in drifts over roads, large trucks, full of salt, drive slowly and carefully over them, laying down salt as they do so. Road salt is often applied to roads in winter to lower freezing levels of precipitation, causing ice and snow to melt, clearing off the roads. However, only a limited amount of salt is necessary to lower the freezing



temperature and melt the snow. Unfortunately, people are unaware of this and add more salt than necessary, sometimes until it is crunchy underfoot or large piles are left on the roadside. When this much salt is on the roads, the reaction that occurs to melt the snow is no longer happening; the reaction limit has been reached. Afterwards, salt is washed off roads into soil and nearby waterways.

Over the course of two years (2021-2023), I studied the chloride levels of Wolf Run, a tributary of the Kokosing River in Knox County, Ohio and the area downstream from where the tributary feeds into the river. My focus was on how chloride levels in Wolf Run were affected by the roads being salted in winter, the depth of the stream, and precipitation levels. I compared tributary levels to river levels. I also looked at whether the average chloride load maintained similar levels from one year to another based on precipitation, water levels, and road salt applications or if the chloride levels were elevated beyond the initial testing year. *Continues on next page*.

Save the Date

Educators Week WorkshopJune 4-9, Shawnee State Park
https://educatorsweek.com/

NatStart23: Online
July 24-28
https://conference.naturalstart.org/

OEEF Letter of Intent Deadline
July 10
www.epa.ohio.gov/oee

OEEF Grant Submission Deadline
July 17
www.epa.ohio.gov/oee

101 Alternatives to the Chalkboard Conference
Oct 1, Camp Kern, Oregonia
https://eeco.wildapricot.org/

NAAEE23: Together We Thrive
Virtual, various dates throughout October
https://conference.naaee.org/about

I discovered when there has been a large amount of rainfall and the tributary rises, creating more water in the salt to water ratio, the chloride levels drop. Likewise, when the levels of the tributary fall, chloride levels were higher. The stream consistently had higher results than the river. Tributaries, such as Wolf Run, with lower levels of water than rivers may be the first to exhibit signs that the overall water system is in danger of becoming overloaded. Ideally, testing smaller bodies of water for chloride could provide more accurate information on the real danger of



chloride in an area rather than only testing on a large body of water.

With each snowfall, when the roads were being salted, readings were higher than previous readings. Additionally, the amount of salt in the water did not diminish from season to season or year to year. In fact, the second year of testing had consistently higher amounts of chloride than the previous year despite less salt being applied. If this trend continues, the chloride levels will reach an amount that could do serious damage to the ecology of the stream.

While road salt is important for road safety in winter, overuse can be detrimental to the ecology of waterways. Salt is a chemical, so it should not be used without a complete understanding of how it will affect the area. My

hope is to contribute to the spread of awareness about the safe use of road salt.

Juliella presented her research during the 2023 Student Wildlfe Research Symposium at Deer Creek State Park.



Educators' Week: Life Beyond the Glacier

June 4-9, 2023

Shawnee State Park

Are you an educator? Do you want to connect with other educators who have a passion for their work? Join formal and non-formal educators in their quest for new knowledge and teaching techniques during Educators' Week in beautiful Scioto County, Ohio. Educators' Week provides opportunities

to gain an understanding of topics related to state academic standards by being immersive in a natural setting and creating a supportive learning environment. Attend sessions that will explore hands-on best practice strategies for introducing people to the natural world. Learn from top experts on a wide range of cross curricular topics and explore new methods that will enhance your skills as an educator. By the conclusion of this unique, retreat-like conference, you will come away with a renewed sense of wonder, a feeling of community and kinship, and the confidence to share your new knowledge with others.

Cost: \$525. A deposit of \$50.00 is required with registration. This depost is applied to the total conference cost.

Scholarship: 2023 Scholarship application period will open March 1st and end March 31st. See https://educatorsweek.com/ for details.

Lodging is included with the cost of registration for the conference. We have reserved a block of cabins so that we can all be together and retain the community atmosphere that is fundamental to the success of Educators' Week

Graduate Credit: Up to 3 hours of graduate credit are available from Ashland University.

Registation and more information: Please go to https://educatorsweek.com/ to register!



SAVE THE DATE!

Wild about Research

EDUCATOR SYMPOSIUM REGISTRATION OPEN SOON!

August 8 & 9, 2023

Granville High School Granville, Ohio

Provided by Ohio Division of Wildlife, The Environmental Education Council of Ohio. The Ohio Academy of Science, Granville Schools and Denison University.







A Modest Proposal: Can eBird **Help Choose Better State Birds?**

The Cornell Lab All About Birds From the Spring 2023 issue of Living Bird magging

By Matt Smith and **Marc Devokaitis**

Living Bird magazine

We love cardinals, mockingbirds, and meadowlarks, too—but do these 3 species have to represent 18 separate states? We turned to eBird to find alternative state birds with data to back them up. Read the entire article at



Image: David Frampton

https://www.allaboutbirds. org/news/a-modest-proposal-can-ebird-helpchoose-better-state-birdspart-1/?utm_source=Cornell+Lab+eNews&utm campaign=72c2e8c05a-Cornell-Lab-eNews-April-2023&utm_medium=email&utm_term=0 47588b5758-72c2e-8c05a-308493281#

Permaculture Design **Certificate**

Antioch College, **Yellow Springs three** weekends from July 14-30

Join Antioch College in partnership with Cincinnati Permaculture Institute (CPI) for their first Permaculture Design Certification course. Permaculture is Ecological Design: a system of ethics, principles, tools and skills that integrates the patterns of nature as guides for creating resilient and holistic landscapes, homes, communities, and habitats. Learn about the role humans play in the ecosystems we inhabit and how to make choices to affect those ecosystems for the better protecting, preserving, and healing the earth even as we harvest from it.

This course is accessible to beginners as well as experienced home gardeners, farmers, homesteaders, artisans, nature enthusiasts, and more. We welcome members of the public as well as Antioch students.

Dates: Full 72 hour course – July 14 -16, 21 - 23, 28 - 30, 2023

- Fridays: 4 hr online lecture/ discussion sessions (4 pm - 8 pm)
- Saturdays & Sundays: 8 hours lecture/discussions/ interactivity on the Antioch College campus MicroFarm (10 am - 6 pm)
- Plus 12 hours of supplemental reading and videos.

For more information please contact: Eric Miller at emiller@antiochcollege.edu.

Please register at https:// antiochcollege.edu/academics/ permaculture-design-certification/

Cost: \$950 if paid by May 31 and \$1,000 starting on June 1.

2023 EECO Award Winners

Please join us in congratulating these amazing individuals, organizations, and businesses for all they do.



Carolyn Watkins for receiving the Lifetime Achievement Awardgiven to an individual who has made a significant contribution to Environmental Education in Ohio.



Miranda Cain received the Christy Dixon Award - given to a young professional who has contributed significantly to environmental education in Ohio.



Alli Shaw received the Finlay Johnson Award. This award is in honor of two men, Carl Johnson and Bob Finlay, who were instrumental to the creation, as well as a lifetime of dedication, to the Environmental Education Council of Ohio. The award is presented to an EECO member for making a significant or outstanding contribution to the organization.



Jessica Niemantsverdriet received the EECO President's Award by Amanda Kriner.



Grace Gordon received the Outstanding Environmental Educator in the Field of Formal Education. The award recognizes a preschool, elementary, middle school, high school, or college teacher, administrator or curriculum specialist for outstanding contributions to environmental education in Ohio.



Mary Gordon received the Outstanding Environmental Educator in the Field of Nonformal Education. Each year, EECO presents a nonformal educator for outstanding contributions to environmental education in Ohio.



Project Wild - Climate and Wildlife Curriculum received the Publications Award - given to a publication that has made a significant contribution to the public understanding of an environmental issue(s).



FLOW- Friends of the Lower Olentangy Watershed received the Organization Award - given to a business or organization that has made a significant contribution to environmental education in Ohio Accepting the award are Sara Gallaugher and Laura Fay from FLOW.



Advance Drainage Systems, Inc. received the Ohio Alliance for the Environment Award – given to a business or industry that is dedicated to fostering a climate of cooperation for resolving environmental problems.

Accepting the award is Heather Schreiber



Kate Peresie received the Outstanding Volunteer Award. The award is given to a volunteer who has made a significant or outstanding contribution to environmental education in Ohio.



Matty Watkins of Metroparks
Toledo received the Charley Harper
Award. Charley Harper was a
Cincinnati based artist known
for his wildlife prints, posters
and illustrations. In his honor,
EECO recognizes artists who have
made a significant or outstanding
contribution to environmental
education in Ohio through various
forms of art.



Shane Allison received the Diana Hunn Scholarship The scholarship is given to a Pre-Service Educator who is in the environmental education field so that they can attend the EECO Annual Conference and see firsthand what it is like to part of the EECO Family.



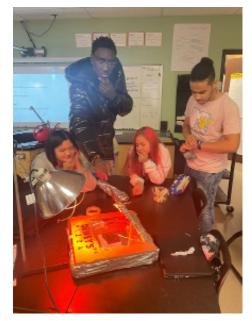
Nichole Lopez received the William David Wright Scholarship. The scholarship is given to a person of color who is in the environmental education field so that they can attend the EECO Annual Conference and see firsthand what it is like to part of the EECO Family.

Green Teens are up for the CHALLENGE!

By Kaela Kahn & Mary Dudley, Civic Garden Center of Greater Cincinnati

At the Civic Garden Center, we recognize that human influenced climate change is at our doorstep. This fact can be overwhelming to adolescents who are faced with short-sighted systems, environmental degradation, and pollution handed down from previous generations. How can we empower youth to tackle the challenges in today's world and work towards a more sustainable future? Our response to this question was the development of our Green Teens Challenge, a new initiative aimed at workforce development and individual capacity for adolescents eager to make a difference. The Green Teens Challenge launched as a pilot program through the Civic Garden Center for the 2023 spring semester. Starting in eight Cincinnati Public high schools, we were able to engage hundreds of students and a dozen educators in sustainability research and community improvement.

Inspired by the Fairchild Challenge program facilitated by Fairchild Tropical Botanic Garden in Coral Gables, Florida; the Civic Garden Center Green Teens Challenge is a multidisciplinary competition designed to engage students of every ability, skill, and interest level in aspects of urban agriculture and environmental sustainability. As students investigate complex local and global environmental issues, they're empowered to become change makers in their communities.



For its full debut in the fall of 2023, the Green Teens Challenge will include eight themed monthly challenges starting in September and ending in April that align to Greater Cincinnati's local seasonality. Monthly topics include urban agriculture, utilizing renewable energy, water conservation and community activism. Winners of each challenge are awarded prizes from our sponsors, and the school who earns the most points by the end of the school year will be awarded \$1,000 to further their environmental education programs. Within each month's topic, there are four different challenges students may enter submissions for. Once the submissions are received they are judged by volunteers and awarded points according to a rubric shared with teachers and students.

Civic Garden Center staff members visit each school to present the challenges for the month and provide resources as needed to ensure that the teachers and students have the support they need to be successful. This program has been met with great enthusiasm by the teachers and students involved. We have received more than 200 entries this semester and have made 60 visits to schools since January. We are inspired by the dedication of the students and teachers participating in the Green Teens Challenge as

they commit to solving environmental issues. Below are reflections of two teachers and two students we had the pleasure of working with this spring. Their work is a reminder that we are all walking on this journey together and each of us has something unique to contribute. What will yours be?

Crystal, student - "My experience in all projects of these months was amazing. I learned and figured out more

things that I didn't know about the topics I was focusing on. I also enjoyed doing the posters and expressing myself on them to show people the benefits and the effects of things, and animals around our environment. The environment is important to us humans so let's help each other inform and bring out the best."

Denali, student - "This project was one of the most handson projects I've done and was actually fun. I learned about how different seeds grow in different temperatures and how the soil plays a big part. A friend and I also made a rainwater harvesting system, so it was overall fun."

Akshayaa, teacher - "The Green Teens Challenge brought our Environmental Science curriculum to life with real-world



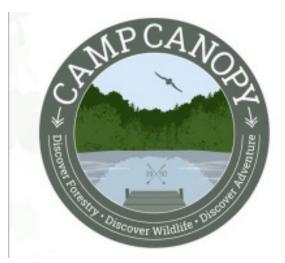
challenges and gave students an element of fun by competing with other schools. I loved how excited students were to work with Mary, and how students got to show their care and



compassion for the environment in meaningful ways in our community."

Aaron, teacher - "Green Teens via Civic Garden Center of Greater Cincinnati has been more than a program for our students to learn about the natural world. Green Teens has provided opportunities for our students to interact with green industry professionals in our community through consistent engagement with creatively challenging projects that complement and enhance our Agriculture Career Tech Pathway curriculum. Green Teens proved that our young people can make positive impacts on the mindsets of the community by speaking out about the consideration of green solutions to the problems of today."

We invite all interested schools to join the Green Teens Challenge and welcome environmental organizations to partner with us as we strive to build capacity for youth in the region to be change makers. Contact Mary Dudley at mdudley@civicgardencenter.org to participate and learn more.



June 11- 16, 2023 At FFA Camp Muskingum on Leesville Lake

Registration is open at https://campcanopy.com/ Students who have completed the eigth grade through high school seniors graduating in 2023 are eligible to attend.

> Camp Canopy 2023 will explore forests and creeks with sessions focused on **tree** ID, insects, fungi, and amphibians.

Summer EECO Tour: Climate Art Walk

16 June 2023, 4:30 pm - 8:00 pm

Downtown Columbus, Short North Arts District

ArtSpot Tour: The Greater Columbus Arts Council (GCAC) presents Art Spot, a collection of 13 window installations designed by Columbus-area artists, on display around downtown Columbus and the Short North Arts District from mid-December through June 2023. As part of GCAC's ongoing mission to connect art with the people and places of Columbus, Art Spot is designed to highlight the city's artists while promoting engagement between residents, visitors, and downtown businesses.

Lazarus Building Tour: A LEED Gold rating means that renovation of the century-old Lazarus department store achieved a high level of environmental sustainability in site development, water savings, energy efficiency, materials selection, and indoor environmental quality. A "living" roof reduces summer heat buildup and slows water runoff. This pre-tour is free but due to space considerations will be limited to 20 people.

Register: https://eeco.wildapricot.org/event-5280927 Map and flyer are also on this webpage.

Cost: \$25.00 (your food and drinks will be extra)

Questions? Contact Frances. Boyens@lm.doe.gov

Contact hours and college credit: EECO offers contact hour certificates to use for CEUs with professional development committees. For credit hours you will need to attend at least 3 EECO Tours. 4 are offered per year.

Ohio Environmental Education Fund



The OEEF was created by the General Assembly in 1990 to enhance Ohio citizens' awareness and understanding of environmental issues. It is administered by the Director of the Ohio Environmental Protection Agency (Ohio EPA) and provides approximately \$1 million annually in grants to support environmental education efforts within the state of Ohio. The OEEF derives its funds from one-half of the civil penalties collected from violations of Ohio's air and water pollution control regulations. https://epa.ohio.gov/oee/

Grant Applications

The Ohio Environmental Education Fund (OEEF) invites applications for mini grants (\$500 - \$5,000) and general grants (\$5,000 - \$50,000) for education projects targeting pre-school through university students and teachers, the general public, and the regulated community. Prospective applicants can start the application process by opening an account in Ohio EPA's eBusiness Center at

https://ebiz.epa.ohio.gov/

Ohio EPA encourages OEEF applicants to discuss their proposal ideas with OEEF staff members before completing their applications. OEEF staff members will be happy to provide a pre-review of draft applications as they are under development in the online grant service.

Electronic Letter of Intent Deadline is due by 5:00 p.m. on Thursday July 10th.

Application Deadline is 5:00 p.m on Thursday July 17th.

Grant Writing Workshops

The Ohio EPA Office of Environmental Education typically offers grant writing workshops around the state throughout the year. If interested in finding out more, please contact Dennis Clement at dennis.clement@epa.ohio.gov

- Grant Writing 101: Finding the Right Funder. Prospecting tips to help you identify foundations, corporations, and government grant programs, and how to approach different kinds of grantmakers.
- Grant Writing 102: Writing a Winning Proposal. How to avoid common mistakes applicants make, and develop realistic objectives, activities, and budgets. OEEF will be referred to during this session.

Upcoming Grant Writing Workshops

Registration is required for these FREE workshops at <u>dennis.clement@epa.ohio.gov</u> or call 614-644-2048 for additional information. *Registration is by e-mail only*. When registering, please include your name and contact information (e.g., phone number) where you can best be reached.

The deadline to register will be the Friday before each workshop or until the workshop is full at 30 participants.

Lunch will not be provided.

April 27, 10:00 AM - 4:00 PM Johnny Appleseed Metropolitan Park District 1682 Slabtown Rd, Lima, OH 45801

May 25, 2023, 10:00 AM - 4:00 PM Ohio EPA, Northeast District Office 2110 E. Aurora Rd. Twinsburg, Ohio 44087

Thursday, September 14, 2023 10:00 AM - 4:00 PM Pickaway Soil and Water Conservation District, Pickaway County Service Center 110 Island Rd. Circleville, OH 43113

October 5, 2023, 10:00 AM - 4:00 PM Muskingum County Public Library 220 N. Fifth St. Zanesville, OH 43701

Ohio Environmental Education Fund

New General Grant Awards Spring 2023

For the spring 2023 grant cycle, Ohio EPA awarded eight general grants for a total of \$207,993.

Antwerp Local Schools, "Nature's Water Treatment Process," \$23G-017, \$20,000.

Paulding County, Audience: Pre-school to University (PreK-6-12); General Public (secondary audience). Contact: Martin Miller, *miller_m@antwerpschools.org*, 419-860-5490.

The school has invested in an aquaponic center and has built learning activities around that facility. Nature's Water Treatment Process project has two foci. The first set of activities educates students about the importance of healthy rivers, streams, and large bodies of water as it relates to the health and wellbeing of humans, animals, plants, and aquatic life. The second focus allows students to have hands-on experience designing, implementing, and evaluating natural water treatment processes with emphasis on aquaponic systems and sharing their ideas in a public forum.

Specific activities include, but are not limited to:

- A one-day project-based learning professional development for staff;
- Project WET professional development training for 30 staff;
- Student/teacher water quality-related field trips; and
- Water quality instruction and testing for students in the aquaponics lab.

Ohio Energy Project, "e3: energy efficiency environment," \$23G-021, \$24,950.

Franklin County, Audience: Pre-school to University (Primary). Contact: Shauni Nix, *snix@ohioenergy.org*, 614-785-1717.

This program will bring energy creation concepts to 15 teachers across 15 classrooms in the 2023-2024 school year. e3 is an energy conservation program designed to illustrate to elementary teachers, students, and their communities, the environmental impacts of energy creation. The e3 program connects textbook science concepts to real-world experiences. In the classroom, students learn all about energy and environmental science, efficiency principles, and conservation practices through hands-on labs and activities designed to promote teamwork, develop critical/creative thinking, and spark curiosity for a lifetime of sustainable learning.

Activities include, but are not limited to:

- Training teachers about the curriculum; and
- Providing interactive classroom presentations.

Foundation for Ohio River Education "RiverREACH Floating Classroom," \$23G-023, \$25,000.00.

Hamilton County, Audience: Pre-school to University (Grades 3 and up). Contact: Nicholas Callahan, *ncallahan@orsanco.org*, 513-231-7719.

The Ohio River Valley Water Sanitation Commission (ORSANCO), through its Foundation for River Education, plans to renew aging and broken program supplies and to cover program costs for its existing floating classroom program. The program offers free programs to schools with a 75 percent free and reduced lunch rate. This grant will support 12 boat programs and three canoe programs for roughly 450 students. Of that, 30 will be non-traditional students from an environmental sampling course at Cincinnati State Technical and Community College, with the rest targeting underserved third through 12th graders in Ohio. Over the past 20 years, RiverREACH has boasted an average 19.7 percent improvement on content knowledge from pre to post test,

Activities include, but are not limited to:

- Providing 15 floating classroom programs in underserved schools; and
- Conducting pre- and post-tests about topics such as the Ohio River and water quality which are included in both the National and Ohio State Standards.

Defiance City Schools, "Environmental Education and STEAM Programming and Professional Development," S23G-022, \$35,000.00.

Defiance County, Audience: Pre-school to University.

Contact: Julie Houck, jhouck@defianceschools.net, 419-785-2260.

Defiance City Schools, working with local, county, and state partners, are focusing science education on water quality and the Maumee Watershed in particular. Through an integrated management plan, the City of Defiance is working with the H2Ohio program to improve water quality in the Maumee River Watershed. This program prepares students to understand the challenges faced by their community as it works to improve water quality. Environmental Education and STEAM Programing for students through three main events.

These events include, but are not limited to:

- River Fest the Defiance City and schools community event;
- Summer camp more than 500 third-grade students will have the opportunity to participate in Environmental Science and STEAM Summer Camp, Defiance College Math Education students and Environmental Science Students; and
- Teacher training will be trained in GLOBE protocols and PBL to use hands-on environmental science activities.
 - Professional Development by Xcite Learning will be provided to third through fifth grade science teachers, middle and high school STEAM teachers, and high school environmental science teachers.
 - Any teacher at Defiance City Schools will be trained in Project WET and provided curriculum.

Village of Plain City Parks and Recreation, "Student Restoration of Big Darby Creek Floodplain Habitat," S23G-018. \$31.130.

Madison County, Audience: Pre-school to University.

Contact: Denton Kitts, dkitts@plain-city.com, 614-873-3527.

The historic Village of Plain City, situated along Big Darby Creek is experiencing historic growth. This project will give students the opportunity to assist with the restoration of 22.97 acres of forest and prairie floodplain habitat. This restoration project will be completed in conjunction with environmental science professionals from several organizations, providing insight to students about the various tasks they undertake as part of their profession. This project will also increase students' understanding of the importance of the watershed ecosystem, habitat restoration, water quality, invasive and native species. In addition, this project allows for the involvement of community members in service-learning efforts that build awareness, appreciation, and ownership of resources.

Activities include, but are not limited to:

- Educational programming for students and the general public focusing on water quality monitoring, stream biodiversity/creeking programs, and native plants and wildlife;
- Website creation about the flood plain restoration project;
- Environmental career exploration that will address the science concepts underlying the restoration and help foster an interest in those fields of work; and
- Design and fabrication of interpretive signage to provide information on the habitat restoration that took place and the importance of functioning floodplains.

Midwest BioDiversity Institute, "MBI Community/Citizen Science Initiative: Community Stream Habitat Assessment," S23G-026, \$21,295.

Franklin County/statewide, Audience: General Public.

Contact: Ed Rankin, erankin@mwbinst.com, 614-457-6000.

This project will build upon current environmental education efforts by creating a broad, sustainable network of engaged citizen scientists who are collecting sound ecological data in their communities. Staff will train individuals throughout Ohio on the Citizen Qualitative Habitat Evaluation Index (cQHEI), an environmental tool that will enable them to understand how to evaluate, protect, and improve local water quality and be able to train others on cQHEI within their communities. Partnerships include: nonprofit groups, government agencies such as soil and water conservation districts, and other organizations.

Coninutation of the Midwest BioDiversity Institute grant

Activities include, but are not limited to:

- Developing a network of Citizen Qualitative Habitat Evaluation Index (cQHEI) trainers;
- Training facilitators to expand knowledge of how to perform activities in the cQHEI;
- Assisting facilitators with initial outreach trainings; and
- Increasing the number of people who apply for and receive Ohio EPA Credible Data I certifications.

Miami University - Chemical, Paper, and Biomedical Engineering, "Renewable Energy Student Project," S23G--027, \$15,000.

Butler County, Audience: Pre-school to University (Primary).

Contact: Catherine Almquist, *almquic@miamioh.edu*, 513-529-0767.

The project will develop and incorporate renewable energy labs into existing kindergarten through 12th grade outreach programs and university-level courses. The renewable energy labs will enhance the educational impact of both K-12 outreach activities and undergraduate experiences at Miami. An estimated 120 students per year (60 K-12, 60 undergraduate students) will be impacted by this project. Students will work with classroom lab equipment including fuel cells, solar panels, and wind turbines. On campus, the equipment will support undergraduate coursework in environmental and energy systems engineering, both enhancing interest in renewable energy fields and supporting hands-on learning. In surrounding communities.

Activities include, but are not limited to:

- Creating academic modules for university students and activities for kindergarten through 12th grade students. For these students, standalone activities will be accompanied by age-appropriate handouts; and
- At the university level, academic modules will be developed so that students can see common attributes among the various power-generation technologies.

Bowling Green State University - Firelands campus - Natural and Social Sciences, "Enhancing environmental science education in high schools through watershed monitoring," \$23G-028, \$35,618.

Erie County, Audience: Pre-school to University,

Contact: Subhalakshmi Nagarajan, nsubhal@bgsu.edu, 419-372-0646.

College students from Bowling Green – Firelands campus – and the Erie Soil and Water Conservation District will collaborate to provide an experiential learning through watershed monitoring to a total of 150 students from three area high schools. Students participating in this project will gain science knowledge through applied learning of monitoring protocols, data management, analysis, and communication. This project comes at critical time when students are considering future career paths, and the experiential learning model proposed here will provide the opportunity for motivation and skill-building in the environmental science field.

Activities include, but are not limited to:

- Adult partners identifying and procuring access to safe water quality sampling sites;
- Pre- and post- testing students to identify knowledge, skills and abilities learned; and
- Teaching high school students proper water quality sampling techniques; and
- Implementing those techniques through ongoing water quality sampling.

Meet EECO

Join us to welcome our new Board Member Melissa Proffitt.



Melissa Proffitt, M.A., Warren County SWCD, Education & Communications Specialist

Melissa earned her BA in Zoology and MA in Biology from Miami University, with a focus on Conservation Education. Her master thesis incorporated entertainment and theatrical elements into education programming to increase engagement and retention of information.

She previously was a wildlife educator for a local museum and presented programs for classrooms and family groups. Melissa is passionate about working with all age groups and conducts classroom programs, community workshops, scout programs, STEM projects and initiatives, and more! As a workshop facilitator for Ohio Project WILD, Aquatic WILD, Growing Up WILD, Curious KIDSS, and Project Learning Tree, Melissa also collaborates with and provides professional development to other local educators around Warren County. She also serves as the Naturalist for Bull's Run Nature Sanctuary & Arboretum where she leads public programs, youth programs, and land stewardship projects.

Melissa is excited to join EECO's Board of Directors to expand her outreach and partnerships in the environmental education community.

Join UsBy joining EECO, you will receive:

- A network of professional educators exchanging new ideas, resources, and techniques in EE
- An informative quarterly EECO newsletter
- Periodic email newsletters with links to events, job opportunities, and updates about EE in Ohio
- Outstanding EE publications and resources
- Annual statewide and regional conferences
- Regional professional development workshops
- Special member rates for conferences, workshops, and publications as specified
- An opportunity to participate in a variety of committees & activities to promote innovative EE in Ohio
- Peer recognition of professional efforts through EECO's Awards program

https://eeco.wildapricot.org/joinus

How Service-Learning Can Address Mental Health

The National Youth Leadership Council

Mental Health Awareness Month is observed during the month of May. This year, the National Alliance on Mental Illness is celebrating with the "More Than Enough" campaign! #MoreThanEnough

In support of raising awareness about mental health, we're sharing some important resources like our Teen Guide to Addressing Mental Health in your School/ Community. Written by our Youth Advisory Council, this mental health handbook is designed to engage teens across the country to create change.

https://t.e2ma.net/click/ riqoqf/becybatj/zgqx2m





The Environmental Education Council of Ohio is in search of leadership for various committees and tasks. We also are looking for Environmental Career Professionals that can "chat" with students about their careers. If you would like more information please contact the EECO Executive Director at director@eeco-online.org



Environmental Career Ambassadors

Environmental Career Ambassadors are environmental professionals willing to make classroom or school career fair presentations for middle and high school grades about their careers and/or provide shadowing, internship, field trip, and scholarship opportunities to Ohio students. https://eeco.wildapricot.org/eca

For Schools- If you would like to have a Career Ambassador come to your classroom or event, please contact the EECO Executive Director director@eeco-online.org.

For Environmental Professionals - If you would like to be more involved by volunteering to be a Career Ambassador, please contact the EECO Executive Director director@eeco-online.org. You can also check out the the Environmental Professionals Network (EPN) hosted by the School of Environment and Natural Resources at The Ohio State University. https://epn.osu.edu/.



Ohio Department of Education Seeking Applicants for Ohio Green Ribbon Schools

Applications due November 17, 2023

The U.S. Department of Education Green Ribbon Schools recognizes schools where staff, students, officials and communities have come together to produce energy efficient, sustainable and healthy school environments and to ensure the sustainability and environmental literacy of graduates.

For more information, visit https://education.ohio.gov/Topics/Data/Report-Card-Resources/Awards-and-Recognition/Ohio-Green-Ribbon-Schools or contact Brenda Metcalf at (740) 653-2648 or director@eeco-online.org

Contact EECO

Partnerships strengthen EE in Ohio, leading to a more environmentally literate population and a healthier environment. You are welcome to become a partner and friend to EECO. Please contact any of our regional directors, officers, adivisors, and board members to find out more about becoming a part of EECO.

Regional Directors

Region 1 - Central Ohio

Linda Pettit, Franklin SWCD lpettit@franklinswcd.org

Region 2 - NW Ohio

Jennifer Elsworth, Metro Parks of the Toledo Area <u>jennifer.elsworth@</u> <u>metroparkstoledo.com</u>

Region 3 - NE Central Ohio

Sheila Cubick

SheilaC@zoominternet.net

Region 4 - SW Central Ohio

Vacant

Region 5 - SW Ohio

Errin Howard, Riverworks Discovery errin@riverworksdiscovery.org

Region 5 - SW Ohio

Gia Giammarinaro, Cincinnati Parks *gia.giammarinaro@cincinnati-oh. gov*

Region 6 - N Central Ohio

Karen Prior

kpryor@richlandcountyoh.gov

Region 7 - S Central Ohio

Joe Brehm, Rural Action joe@ruralaction.org

Region 8 - NE Ohio

Dawn Wrench, Yavne High School sunnywrench@att.net



Officers & Advisors

Executive Director

Brenda Metcalf director@eeco-online.org

President 2021-22

Amanda Kriner

akriner@richlandcountyoh.us

Past President 2021-22

Josh Dyer

jdyer@crawdordparkdistrict.org

Vice President 2021-22

Jeff Montavon

jeff.montavon@epa.ohio.gov

Treasurer

Vacant

Secretary

Jenny Adkins

jennya@madscientistassociates.net

Advisor- OEE, OEPA

Carolyn Watkins

carolyn.watkins@epa.ohio.gov

Advisor-ODE

Lvdia Hunter

Lydia.Hunter@education.ohio.gov

Advisor- ODNR

Ien Dennison

Jen.Dennison@dnr.state.oh.us

Anne Drake

drake@brookvilleschools.org

Kassie Charnley

kcharnely09@gmail.com

Denise Natoli Brooks

denise.natoli.brooks@gmail.com

Rhonda Reda

rrhonda711@aol.com

Bill Troy

bill@trovresearch.com

Lvnn White

whitelr@butlercountyohio.org

Advisory Council

Chairs

Paul Kaacherian

khachp@hotmail.com

Allison Shaw

allison.shaw@gmail.com

Webmaster

Josh Flory

administrator@eeco-online.org

Newsletter

Lynn White

whitelr@butlercountyohio.org

Social Media

Brenda Metcalf

director@eeco-online.org