

Thirteenth Annual Chapter Meeting
Virtual – March 23, March 25, & March 28, 2022
In-Person at Manakiki Golf Course, Willoughby, Ohio - April 1 to April 3, 2022

Please join us for the thirteenth annual meeting of the SER Midwest-Great Lakes Chapter. Our goal for the meeting is to critically assess the foundations and paradigms of the science and practice of ecological restoration in the Midwestern U.S.

The virtual component of our meeting will include:

- **A virtual discussion forum on *The Role of Ecological Restoration in Climate Change Adaptation in the Midwestern United States*.** Presentations by Stephanie Frischie (The Xerces Society), Nina Hill (The Nature Conservancy), Christian Lenhart (University of Minnesota and Barr Engineering), and Daniel Volk (Cleveland Metroparks) will highlight how ecological restoration is contributing to climate change adaptation in terrestrial and aquatic ecosystems in the Midwestern United States.
- **A virtual discussion forum on *Exploring Diversity, Equity, and Inclusion in Ecological Restoration in the Midwest*.** Presentations by Julie Brokaw (University of Minnesota), Laura Capponi (Society for Ecological Restoration), Peter C. Smiley Jr. (USDA Agricultural Research Service), and Rebecca Swab (Ohio State University) will highlight regional considerations of diversity, equity, and inclusion to promote discussion of this issue among participants.
- **A virtual contributed oral presentation session.** We have nine presenters from New York, Ohio, Michigan, and Minnesota and their presentation topics range from restoration of rare pollinator food sources to crayfish habitat relationships to vegetative roof germination of native coastal plant species and more!

The in-person component of our meeting will include:

- **A special plenary session on *Finding, Protecting, Managing, and Restoring Threatened and Endangered Species*.** Presentations by Kate Parsons (Ohio Department of Natural Resources), Paul Pira (Geauga Park District), Jon Cepek (Cleveland Metroparks), Mike Selig (Cleveland Metroparks Zoo), Rick Gardner (Ohio Department of Natural Resources), John Reinier (Cleveland Metroparks), Ryan Trimboth (Cuyahoga Valley National Park), and Michael Liptak (EnviroScience) will share stories of success, struggles, and controversy related to protecting, managing, and restoring threatened and endangered plants and animals within terrestrial and aquatic ecosystems in Ohio.
- **Dedicated poster session:** We currently have 15 poster presentations from presenters from Ohio, Illinois, and Michigan who will share their experiences involving prairie, forest, oak savanna, and urban restoration. Presentation topics include long term temporal dynamics of plants in restored forests, effects of mined soils on plant restoration, prioritizing culverts to replace to promote fish passage in streams, and more!
- **A workshop on *Performance-based Decision Making in Ecological Restoration Project Planning and Assessment***
- **Contributed oral presentation sessions:** We currently have 15 presenters from Indiana, Iowa, Michigan, Minnesota, Ohio, Pennsylvania who will share their experiences involving prairie, forest restoration, stream, and wetland restoration. Presentation topics include effects of dam removal, human benefits of restoration, effects of forest management on moths, stormwater basin design and more!
- **A Meeting Host field tour titled *From Upland Forest to Stream Restoration and Everything in Between*.** Our meeting hosts Cleveland Metroparks have organized a guided field tour to visit a historic upland forest, a recent stream restoration effort, and the North Chagrin Nature Center located in Cleveland Metropark's North Chagrin Reservation.
- **Choice of one from among four field trips and one service project:** 1) Worked over but working: transforming post-industrial sites to functional landscapes; 2) Valley View restoration – 100 years in the making; 3) Rehabilitating landscape legacies to restore ecosystem resilience for the future; 4) Coastal wetland restoration at Mentor Marsh; and 5) Behind the scenes at Acacia Reservation
- **Social events:** Several social events are scheduled that include a sponsorship reception on Friday April 1, breakfast on Friday April 1 and Saturday April 2, and a boxed lunch on Friday April 1 and Saturday April 2

Meeting updates will be periodically posted on our Twitter and Instagram accounts and our Chapter website (<https://chapter.ser.org/midwestgreatlakes/annual-meetings/2022-annual-chapter-meeting/>). We encourage everyone to join us to learn about recent research findings, novel restoration techniques, and the chance to socialize with your colleagues.

SPECIAL PLENARY SESSION – APRIL 1, 2022

Finding, Protecting, Managing, and Restoring Threatened and Endangered Species

Welcome & Opening Remarks

- 9:45-10:00 am Jenn Grieser and Christian Lenhart

Wildlife

- 10:00-10:30 am Kate Parson (Terrestrial Wildlife Diversity Program Administrator, Ohio Department of Natural Resources – Division of Wildlife). *Endangered Species and Land Management*
- 10:30-11:00 am Paul Pira (Wildlife Biologist, Geauga Park District). *Protecting Ohio's Rare Native Brook Trout through Stream Restoration*
- 11:00-11:30 am Jon Cepek (Wildlife Ecologist, Cleveland Metroparks). *The Value of Rare Wildlife Species in Natural Resource Management*
- 11:30-Noon Mike Selig (Head of Veterinary Program, Cleveland Metroparks Zoo). *Spotted Turtles – Reintroduction Potential from Rescued Pet Trade*
- Noon-12:30 pm **Panel Discussion**

Plants

- 1:30-2:00 pm Rick Gardner (Chief Botanist, Ohio Department of Natural Resources – Division of Natural Areas & Preserves). *Rare Plant Recovery, Collection, and Propagation*
 - Are threatened and endangered species appropriate to include in restoration projects?
- 2:00-2:30 pm John Reinier (Wetland Ecologist, Cleveland Metroparks). *Monitoring and Managing Rare Plants in Cleveland Metroparks*
- 2:30-3:00 pm Speaker To be announced (Holden Forests & Gardens). *Rare Native Shrub Collection, Propagation, Preservation*
- 3-3:30 Ryan Trimbath (Biologist, Cuyahoga Valley National Park) and Michael Liptak (Senior Ecologist, EnviroScience). *Rare Plant Survey in Cuyahoga Valley National Park*
- 3:30-4:00 pm **Panel Discussion**

SATURDAY APRIL 2 WORKSHOP INFORMATION

Fevold, Brick¹, Craig J. Palmer¹, Timothy Lewis¹, and Louis Blume². **Performance-based decision making in ecological restoration project planning and assessment.** ¹General Dynamics Information Technology, Alexandria, VA. ²U.S. Environmental Protection Agency, Great Lakes National Program Office, Chicago, IL. Email: brick.fevold@gdit.com; craig.j.palmer@gdit.com; timothy.lewis2@gdit.com; blume.louis@epa.gov

Defining ecological restoration project success is often an elusive concept. To operationalize the definition of project success, we advocate for the development of goals and objectives that are specific, measurable, achievable, results-oriented, and time-bound. And, where the assessment of project success is then evaluated based on evidence in the form of monitoring data thoughtfully collected, this information can be used to support unbiased assessment and decision making. A principal challenge in determining whether a project's goals and/or objectives have been achieved successfully involves the need to obtain data that are not only accurate and reproducible but also complete, representative, and comparable across space and time. In collaboration with the U.S. EPA Great Lakes National Program Office, and an interagency committee, we published guidance entitled "*Application of Quality Assurance and Quality Control Principles to Ecological Restoration Project Monitoring*" (EPA-905-K19-001, 2019). The goal of the guidance is to inform scientists and practitioners on quality best practices fundamental to effective ecological restoration planning and oversight, and informed decision making. A critical planning component is to establish clear and relevant project goals, specific and measurable objectives, and data quality acceptance criteria for data quality indicators (DQIs) such as precision, bias and accuracy, detectability (sensitivity), completeness, representativeness, and comparability. In this workshop, attendees will work with exercises to practice developing project goals and objectives, and acceptance criteria for DQIs based on a real case study. Speakers will provide brief oral presentations followed by exercises and group discussions.

SATURDAY APRIL 2 MEETING HOST FIELD TOUR INFORMATION

Grieser, Jenn, Connie Hausman, Josh Phillips, and Dan Volk. **From upland forest to stream restoration and everything in between.** Cleveland Metroparks, Cleveland, Ohio. Email: jmg2@clevelandmetroparks.com

The event will consist of a guided tour by Cleveland Metroparks staff to two different segments of the North Chagrin Reservation that is 10 minutes from Manakiki Golf Course. Participants will have the opportunity to visit both segments that consist of AB Williams Woods and Beecher's Brook/Foster's Run. AB Williams Woods is a historic setting that contains mature beech maple and hemlock hardwood forest. Participants will have the opportunity to view and earn about 225+ year old Moses Cleveland Trees, AB Williams' historic records and modern comparison, and the ways that Cleveland Metroparks is managing these aging forests in light of various pests, such as Elongate Hemlock Scale and Beech Leaf Disease. The walk for this portion of the fieldtrip is ~1 mi on flat, unpaved terrain. Beecher's Brook / Foster's Run is located on the southern terminus of North Chagrin Reservation and participants will have the opportunity to view a recently completed stream restoration project, which includes removal of a fish migration barrier and installation of habitat/grade control structures and a variety of bioengineering methods. Additionally, participants will visit an aged stream daylighting project on Foster's Run and evaluate whether or not the project was successful and we another area slated for infrastructure removal and stream restoration funded through Ohio Department of Natural Resources H2Ohio program. The final half hour of this field tour will allow participants to explore interpretive exhibits and owl aviary at North Chagrin Nature Center and the ponds, wetlands and boardwalk that surround it. Amphibian breeding season should be in full swing and this area will provide ample opportunity for observation through sight and sound.

SYNOPSIS OF SUNDAY OFFSITE FIELD TRIPS AND SERVICE PROJECT

Worked Over but Working: Transforming Post-industrial Sites to Functional Landscapes Field Trip. This guided field trip will visit several green infrastructure projects in the Cleveland, Ohio area that were implemented through Northeast Ohio Regional Sewer District's Project Clean Lake Combined Sewer Overflow Control and Infrastructure Grant programs. The visited projects were all designed to remove stormwater before it enters the combined sewer system. Given the urban nature of the area, many sites have a legacy of industrial or residential use, and required considerable work to remove abandoned infrastructure, buildings, and trash before functioning green infrastructure facilities could be constructed. While none of the sites are "restored" from a traditional sense, they now provide valuable ecosystem services such as pollinator habitat and the capture and filtration of stormwater runoff.

Valley View Restoration – 100 years in the Making Field Trip. Valley View Conservation Area is the newest acquisition of the Summit Metro Parks. This former 0.8 km² golf course is being restored to a natural area. When completed, the project will restore > 610 m of headwater streams, nearly 1.6 km of the mainstem of the Cuyahoga River, 0.3 km² of floodplain, and 0.1 km² of wetlands. The majority of the site will be forested, but will also include some open area habitats. In addition to the ecological restoration, the site is being planned for outdoor recreational use. Portions of the project have been completed via a Clean Ohio Grant from Ohio Public Works. The remainder of the site is under design and being funded by the National Oceanic Atmospheric Association and the Great Lakes Commission. This field trip will begin with a presentation that will discuss project planning and ecological design, cultural resource preservation, funding, public participation, project implementation, and monitoring and will conclude with a guided walking tour of the restoration areas.

Rehabilitating Landscape Legacies to Restore Ecosystem Resilience for the Future Field Trip. This guided tour by staff from the Cleveland Metroparks and Chagrin River Watershed Partners will feature two restoration projects that provide natural resource resilience from the impacts of climate change. Both projects are located at South Chagrin Reservation in the Sulphur Springs subwatershed of the Chagrin River. The first legacy site was a private runway surrounded by mature, forest and wetland mosaic. After acquisition, the partners worked with a consultant to disrupt unnatural drainage ways and daylight a small stream. The second legacy site was a former cattle pasture that had converted to a mature dense red maple forest. Recent timber harvest treatments were applied to stimulate young tree regeneration and to promote increase biodiversity and structural diversity. Field trip participants will learn about ongoing monitoring and invasive plant control that will enhance the forest management activities.

Coastal Wetland Restoration at Mentor Marsh Field Trip. This field trip will provide a guided tour of Mentor Marsh, which is a National Park Service-designated National Natural Landmark and a National Audubon Society Important Birding Area that is one of most species-rich sites on the Great Lakes shoreline. This 3.3 km² wetland suffered dramatically in 1966 when salt-mine tailings leached into Blackbrook Creek that led to the replacement of native plants and trees by the invasive reed grass (*Phragmites australis*). The Cleveland Museum of Natural History began the large-scale restoration of Mentor Marsh in 2015 that involved spraying the *Phragmites* monoculture with an aquatic-safe herbicide and then physically mashing it flat to allow native plants to grow. Participants will learn about the restoration successes and challenges while visiting the western part of the site that should reach "maintenance mode" in 2020 and the eastern part of the site where restoration was recently initiated and is mid-recovery.

Behind the Scenery at Acacia Reservation (volunteer workday) After spending time at Acacia Reservation, would you like to participate in the ongoing restoration activities for this meaningful project? Come join Natural Resource Manager Josh Philipps behind the scenes at Acacia Reservation of Cleveland Metroparks, which is a former golf course transformed into a natural area and park. Volunteer activities may include assisting with installing live stakes around constructed wetlands and/or repairing cages that protect young trees from deer. We will walk through a few different areas and discuss the opportunities, challenges, and lessons learned from the day-to-day management of golf course restoration in an urban environment. Participants should dress accordingly for the weather and be prepared to travel off trail.

THANK YOU TO OUR GENEROUS MEETING HOST & SPONSORS

MEETING HOST



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Meeting Location and Lodging Information

The Chapter Meeting is being held in the Manakiki Golf Course at the North Chagrin Reservation in Willoughby, Ohio. The physical address is 35501 Eddy Road Willoughby, Ohio 44094.

Information on Discounted Hotel Block Rates:

For those of you are traveling from out of town we have secured a block of rooms at the Courtyard Willoughby (<https://www.marriott.com/en-us/hotels/clewb-courtyard-cleveland-willoughby/overview/>) with discounted rates of \$139 plus tax for a room with a king or queen sized bed. The information on the block is below:

Website for Block Reservation Discount Code: <https://www.marriott.com/event-reservations/reservation-link.mi?id=1645043490836&key=GRP&app=resvlink>

Discount Code for Discounted Prices: SER2022

Phone for Reservations: Call 440-530-1100 and provide SER 2022 as the group name and dates 3/31/2022 to 4/3/2022

Deadline for Discounted Prices: March 10, 2022