

Welcome to the 34th annual Michigan Native Plant Conference

BIODIVERSITY: STRENGTHENING NATIVE PLANT COMMUNITIES

Webinar Presentation

March 7 and 8, 2021

\$50 for Two-Day Event

Discounts available for WAM Members and Students

Conference Agenda

Sunday, March 7, 2021

9:50 - 10:00 Enter the Zoom waiting room

10:00 – 10:05 Greeting and announcements

10:05 – 11:05 Keynote presentation

HEATHER HOLM had an avid interest in natural history and botany at a young age and spent much of her childhood exploring the woodlands and prairie on the family property, established by her great great grandfather in the 1850s. She studied horticulture and biology at the University of Guelph and later web programming and digital design at Seneca College, Canada.

Heather Holm is a biologist, pollinator conservationist, and award-winning author. In addition to assisting with native bee research projects, she informs and educates audiences nationwide, through her writing and many presentations, about the fascinating world of native pollinators and beneficial insects, and the native plant communities that support them.

Her first book, *Pollinators of Native Plants*, was published in 2014, and her second book, *Bees*, published in 2017, has won six book awards including the 2018 American Horticultural Society Book Award. Her forthcoming book, *Wasps*, will be available in January 2021. Heather's expertise includes the interactions between native pollinators and native plants, and the natural history and biology of native bees and predatory wasps occurring in the Upper Midwest and Northeast.

Presentation: Restoring Ecosystem Functionality and Biodiversity

How can humans benefit from green infrastructure and ecological landscape restorations? Heather will discuss ways we can achieve a sustainable coexistence with the rest of life on earth. Models of restorative landscaping including residential and community opportunities will be highlighted as well as thoughtful plant selection, ecosystem functionality, and how biodiversity can be maximized. A focus on pollinator habitat and outcomes, trouble shooting and monitoring of restorations, and funding opportunities will also be included in the presentation.

Please Note: Breakout session schedules are subject to change

11:10 – 12:10 Breakout sessions

Session One)

DON DRIFE has been studying native vegetation in Michigan for over 45 years and is a longtime member of the Michigan Botanical Club, and a life member of the Michigan Audubon Society. He blogs as the MichiganNatureGuy and presents programs about the natural world for local nature groups. Don also serves as the botanist for the Royal Oak Nature Society, identifying plants in the city's two nature parks.

Presentation: How to Identify Some of Michigan's Invasive Plants

Don will explain how to identify some invasive plant species in Michigan. This talk does not address treatment techniques. Invasive species that he has come across most often and seen volunteer groups working on are the ones he selected for this talk. Native species that can be confused with invasive species are also covered. Additional resources mentioned in the talk are found at <http://www.michigannatureguy.com/blog/2020/11/29/notes-on-some-michigan-invasive-plants/>

(Session Two)

DR. JEN OWEN is an Associate Professor in the Departments of Fisheries and Wildlife and Large Animal Clinical Sciences at Michigan State University. She is also the Director of the Michigan State Bird Observatory as well as the Center Coordinator for the Corey Marsh Ecological Research Center. Dr. Owen leads an interdisciplinary research program that addresses issues at the interface of wild bird, human, and environmental health. She and her students are currently studying how variation in habitat quality and access to adequate food affects a bird's ability to meet the demands of the migratory period. Additionally, Owen investigates the role of birds in the spread and maintenance of zoonotic pathogens.

Presentation: Birds and Native Plants vs. Invasive Plant Diets

(Description of talk to be provided)

12:10 – 1:00 Lunch Break

Be sure to check out the video for information on our vendors, sponsors and 2020 WAM Grant Winners

1:00 - 2:00 Breakout sessions

Session One)

JACQUELINE COURTEAU, Ph.D., is a plant ecologist and ecological consultant who has researched and monitored deer impacts in southeast Michigan for park systems including Ann Arbor, Washtenaw County, Huron-Clinton Metroparks, and others. She led development of the Huron River Watershed Council's field assessment for their Bioreserve project and developed landscape forest stewardship plan for Washtenaw County for Michigan DNR. She has taught field ecology, restoration ecology, and other classes at UM and EMU and now manages her consulting business, NatureWrite LLC.

Presentation: White-tailed Deer and Michigan's Trees, Wildflowers and Natural Communities: Monitoring and Managing Impacts

This presentation will offer a brief overview of the history and role of white-tailed deer in Michigan ecosystems, and will explore deer impacts on Michigan trees, wildflowers, and natural communities. I will outline different methods of monitoring deer impacts and summarize results from various studies I've done over the past 25 years in southeast Michigan. I will outline possible strategies for responding to deer impacts.

(Session Two)

SUSAN LEOPOLD, PhD. is an ethnobotanist and passionate defender of biodiversity. She is the Executive Director of United Plant Savers [www.unitedplantsavers.org]. She currently serves on the Board of Directors for Botanical Dimensions and the Center for Sustainable Economy, Board member of the AHPA Herb Research Foundation, an advisory board member of ABC, and a member of the IUCN medicinal plant working group. She is a proud member of the Patawomeck Indian Tribe of Virginia. She lives on and manages a productive farm, the Indian Pipe Botanical Sanctuary with her three children in Virginia, where she raises goats, peacocks, and herbs.

Presentation: The Underground World of Native Medicinal Plants in Trade in North America

A 6-billion-dollar herbal supplement industry in the US is dependent in part on native medicinal plants that are harvested from the wild in a completely unregulated network of diggers and dealers. It is fascinating to contrast these native medicinal plants in trade against the native medicinal plants in the nursery trade. Trillium, goldenseal, ginseng, false unicorn, slippery elm, cohosh, bloodroot, are just some of the plants that are impacted by compounding habitat loss, climate change and stress of harvesting. United Plant Savers is a non-profit organization that celebrated 25 years in 2019 with the opening of its Center for Medicinal Plant Conservation in Rutland Ohio. This talk will share important information on the underground and unregulated trade of medicinal plants in North America and provide information on the Forest Grown Verified program that is working to support growers who are cultivating native medicinal plants to take the pressure off wild harvesting. United Plant Savers is a membership organization that produces an annual Journal of Medicinal Plant Conservation and is unique in its advocacy for sustainable plant trade that encourages reciprocity between people and plants.

2:05 – 3:05 Breakout sessions

(Session One)

NATHAN HAAN is a conservation ecologist with a research focus on insect ecology and agroecology. He tries to orient his research to create practical knowledge that can be used for conservation practice and agricultural sustainability. Nate completed his PhD at the University of Washington where he studied an endangered butterfly, Taylor's checkerspot, and worked with conservation agencies to plan for its recovery. He has been a research associate at Michigan State University since 2018. As part of the Great Lakes Bioenergy Research Center, he studies how the structure of agricultural landscapes affects insect communities and ecosystem services. He also researches monarch butterfly conservation, including coordinating the ReGrow Milkweed for Monarchs community science project.

Presentation: Monarch Butterfly Conservation: Roles of Predators and Ecological Disturbance

(Description of talk to be provided)

Session Two)

DR. MARY JAMIESON (Biography to be provided)

Presentation: Insect/Plant Interactions

(Description of talk to be provided)

3:10 – WAM Annual Meeting

Hear about WAM’s year, finances, and accomplishments. Meet the new Board Members. Discuss concerns and goals.

Monday, March 8, 2021

9:50 - 10:00 Enter the Zoom waiting room

10:00 – 10:05 Greeting and announcements

10:05 – 11:05 Keynote presentation

NEIL DIBOLL received his degree in Environmental Sciences from the University of Wisconsin – Green Bay in 1978. He attended the University of Michigan Biological Station in Pellston, MI (“Boot Camp for Biologists”) during the summer of 1977. He has since worked for the U.S. Park Service in Virginia, the U.S. Forest Service in Colorado, and the University of Wisconsin. In 1982, Neil began his involvement with Prairie Nursery, producing native plants and seeds and designing native landscapes. He has since devoted his efforts to championing the use of prairie plants, as well as native trees, shrubs and wetland plants, in contemporary American landscapes.

In addition to helping popularize the use of native plants long before they were “cool,” Neil developed the first scientific methodology for designing prairie seed mixes. By calculating the relative numbers of seeds per square foot for each species in a seed mix, the resultant prairie plant community could be more accurately predicted. Neil also worked to set industry standards for seed purity and germination to assure customers receive quantifiable, viable seed.

Neil’s work includes designs for residential, commercial, and public spaces throughout the Midwest and Northeast United States. The essence of Neil’s philosophy is that we, as stewards of the planet, must work to preserve and increase the diversity of native plants and animals, with which we share our world. The protection of our natural heritage and our soil and water resources is essential to maintaining a high quality of life for today, and for the children of future generations to come.

Presentation: Genetic Diversity and Plant Preservation

The fields of agriculture, silviculture, and horticulture have historically focused on selecting “superior” plants to serve the needs of food production, lumber and fiber production, and the human fascination with bigger, longer-blooming, and more colorful ornamental plants. Only recently has the discipline of ecology entered into mainstream gardening. Ecological gardeners

tend to be more concerned with creating low maintenance, sustainable, native gardens that provide not only enjoyment for the gardener, but also preserve native plant gene pools while creating habitat for birds, butterflies, pollinators, and other creatures.

Properly designed and installed, native plant landscapes require little if any watering, fertilizing, or pesticides. With increasing concern over water usage in the landscape, excessive toxins and nutrients in the environment, and the decline of pollinators, diverse native plant gardens can serve as attractive alternatives to higher maintenance, more expensive traditional landscapes.

Neil will share his 40 years of experience in providing native plants and seeds to Midwestern gardeners and restorationists. He will explain why preserving a broad gene pool for each plant species is good stewardship of the planet, and how it applies to gardening in a time of changing climates. Neil will also show examples of how native prairie meadows have been successfully installed in the Upper Midwest in USDA Plant Hardiness Zones 4 and 5, similar to those in Wyoming, although with significantly higher annual rainfall. Plants that are native to both the Midwestern prairies and the state of Wyoming will also be highlighted.

Please Note: Breakout session schedules are subject to change

11:10 – 12:10 Breakout sessions

Session One)

LOGAN ROWE is a Conservation Associate with Michigan Natural Features Inventory and MSU Extension. He works primarily with at-risk species of insects in Michigan where he studies population statuses, habitat associates, and conservation management techniques. Prior to starting at MNFI in 2018, Logan completed his MS in Entomology from Michigan State University, where he studied pollinator ecology and habitat selection to support bees in managed landscapes.

Presentation: Rare and Declining Insects in Michigan and Habitat Associations

(Description of talk to be provided)

Session Two)

ERICH ELGIN is an aquatic ecologist and water resources educator with Michigan State University Extension. His main responsibilities are to promote and research the wise use, protection, and restoration of our freshwater systems. Erick has a M.S. in aquatic ecology from the University of Calgary and a B.S. in natural resources management and water resources management from the University of Minnesota. Erick's recent efforts focus on aquatic plants, natural shorelines, and lake ecology. Erick also coordinates MiCorps Cooperative Lakes Monitoring Program and is the vice chair of the Michigan Natural Shoreline Partnership.

Presentation: Rebuilding Plant Diversity Above and Below the Water Line

(Description of talk to be provided)

12:10 – 1:00 Lunch Break

Be sure to check out the video for information on our vendors, sponsors and 2020 WAM Grant Winners

1:00 - 2:00 Breakout sessions

Session One)

RYAN PANKAU (Biography to be provided)

Presentation: Wildlife Value of Native Plants vs. Nativars

(Description of talk to be provided)

Session Two)

MITCH LETTOW works at the Southwest Michigan Land Conservancy as their Stewardship Director. In this role, he spends his time taking care of, and connecting the local community to, a network of diverse and publicly accessible nature preserves. This work includes everything from trail design, invasive plant management, endangered species surveys, prescribed burning, prairie restorations, and lots of work with volunteers. Previously Mitch has worked at MSU doing research, Michigan Wildflower Farm in the business world, and the Kalamazoo Nature Center in the non-profit world - all focusing on ecological restoration and bird conservation. Mitch has a M.S. in Entomology and a B.S. in Environmental Biology/Zoology both from Michigan State University.

Presentation: Stories from the Understory and Overstory: Lessons Learned about Restoration from our Plant Partners

(Description of talk to be provided)

2:05 – 3:05 Breakout sessions

Session One)

STEVE BAKER is a retired Veterinarian from Indian River with an interest of all things in nature. Fifty years of birding passion has expanded into botany after seeing a Striped Coralroot for the first time. He now enjoys exploring the Mackinac Straits region for birds, ferns, and native orchids and has never met a bog he didn't love. Other interests include kayaking, birding (especially hawk watching), foraging wild foods, and photography.

Presentation: A Superior Wildflower Adventure. Looping Lake Superior in Search of Native Orchids

In July of 2018, a group of 7 botany friends met in Michigan's eastern upper peninsula to embark on a circumnavigation of Lake Superior, botanizing and camping along the route. Native orchid habitats were the priority as we explored bogs, forests, rocky shorelines, and coastal dunes, often in National, Provincial, and State Parks. 36 native orchid species were found as well as a host of other wildflowers, ferns, sedges, waterfalls, and mosquitos. All this in the rugged beauty that surrounds this greatest of lakes. The incredible richness of the orchid flora of this area will be further shown by sharing the June flowering species as well. All the orchids without the ticks, black flies, and mosquitos.

Session Two)

DR. EMILY GRMAN obtained a BS in Biology from Beloit College in Beloit, WI. She then earned a PhD from Michigan State University studying relationships between grasses and arbuscular mycorrhizal fungi. That background, combined with her postdoctoral research (also at MSU) in prairie restoration, has led to her current focus on understanding the recovery of plant and soil communities in restored Michigan prairies. In her lab at Eastern Michigan University, she and her students and collaborators are currently working to understand relationships between difficult-to-establish prairie plants (especially legumes) and the beneficial microbes they depend on (especially rhizobia) with an aim to develop tools to encourage recovery of microbes and therefore plants in restored prairie

Presentation: Soil Microbes and Prairie Restoration

In this talk, we will explore the recovery of plant and soil microbial communities in restored prairies in Michigan, and whether they might be related.