



Aten Nancy

Learning and practicing wetland restoration: Lessons from the Land Restoration School

Our Rationale: The restoration of degraded habitats is critical to the Earth's health. Ecological restoration is a societal need, a generational obligation and a viable career path. There is first-person responsibility for the challenges we face, and the opportunity to launch careers and expand the community of effective professionals. But not always through traditional pathways. Our Approach: Founded in 2021, the Land Restoration School seeks participants from varied experiences who can then create new ways to approach this work and to work within community. Pathways toward these careers are varied. LRS creates an immersive alternative; a paid, collaborative, transformative experience, teaching the principles, practice and planning of ecological restoration. Forty days over eleven weeks blends classroom and fieldwork. A mix of guest faculty from universities, scientists and practitioners work to touch and connect all the topics; to break down all the silos. Our Findings: Elements found to be effective include: (1) embedding Wisconsin Master Naturalist certification; (2) provide pay for participants in order to enable career pivots; (3) ongoing professional mentoring relationships with alumni including joint project work; (4) teaching field methods fills a gap; (5) multifaceted learning tools like Timed Meander surveys work beautifully; (6) the importance of distinguishing restoration planning and implementation as a viable life-long career. Cohort and faculty assessments guide refinements, and as we look to the future, we add wetland delineation, and continue to help structure the gig framework quite common among consulting professionals doing this work.

Poster Session, Second Floor Atrium

Wednesday, February 25, 5:00pm-6:30pm

Nancy Aten is a Certified Ecological Restoration Practitioner (CERP), licensed landscape architect and principal of Landscapes of Place, offering ecological restoration services. This is her fifth year as director of the Land Restoration School and an instructor. Additionally, she has taught college courses and field courses in environmental literacy and native plant communities.

Bart David

Chris Noll (UW-Madison)

Patterns of plant invasions in Wisconsin wetlands

Understanding why some high-quality wetlands are more susceptible to plant invasions than others is important to management and restoration, yet we still have little idea why some intact systems have higher invasive plant richness and cover than others. This study predicts levels of invasion in over 700 WI wetlands (from the Wisconsin DNR Wetland Benchmark Survey) with measures of pH, physiognomy, hydrology, and nutrients. By any measure, forested floodplains and wet-mesic prairies had the highest invasion levels, while bogs, poor fens, and central poor fens were lowest. Acidic and saturated/flooded systems showed lower invasion levels, with lowest levels in systems with both conditions, suggesting that maintaining these conditions is vital for managing these systems. Relationship between invasion levels and nutrients was varied and often negative, suggesting that maintaining acidic and saturated conditions in appropriate systems counteracts some impacts of higher nutrients. Acid systems, saturated systems, flooded systems, and systems without any of these stressors had distinct sets of indicators, suggesting that these stressors can be used to predict sets of species that are likely to be restricted from systems with these conditions. These results suggest that more invasive species

management will be required in neutral-alkaline systems, systems with fluctuating hydrology, or both even in the absence of major disturbances.

Wetland Challenges, Lower Dells D

Wednesday, February 25, 4:20 pm-4:40 pm

David Bart received a PhD in Ecology and Evolution from Rutgers, the State University of New Jersey in 2003. He has been a faculty member in the Department of Planning and Landscape Architecture since 2006. His research focuses on invasive species in wetlands and the impacts of groundwater extraction on fens.

Bart David

Why do we do this? Communicating our love of wetlands

When asked to explain why we should care about wetlands, we relate why they are important rather than why we fell in love with them. In short, we explain why they are important in a material sense, but not why we care about them. I will suggest that a narrative approach focusing on natural history and personal stories should be part of how we communicate to the public. For many of us, wetlands are special places full of some of the most interesting tales in all of natural history, as well as the locations of some of our most beloved memories. These stories and memories are what inspired many of us to do what we do, and communicating these narratives might do more to excite people about wetlands than assertions of importance. I provide examples from my own experiences to demonstrate why these stories are important.

Wetlands and people, Lower Dells B

Wednesday, February 25, 1:50 pm-2:10 pm

David Bart received a PhD in Ecology and Evolution from Rutgers, the State University of New Jersey in 2003. He has been a faculty member in the Department of Planning and Landscape Architecture since 2006. His research focuses on invasive species in wetlands and the impacts of groundwater extraction on fens.

Baughman Sarah

Keir Wefferling (UW-Green Bay)

Place-based peatland community trailside guide development

Funded by the Freshwater Collaborative of Wisconsin, researchers at UW-Green Bay and UW-Madison are collaborating on a two-year project (2025-27) focused on bringing peat-accumulating wetlands, or peatlands, into focus for students of a diversity of ages and backgrounds. We are working with a number of regional partners (The Ridges Sanctuary, The Land Restoration School) to develop educational resources including: 1) a Peatland Primer (with descriptions of peatland plant communities, species lists of bryophytes and vascular plants, maps, notes on access), 2) Trailside Guides (with information about specific points and species along a trail, maps, photos, illustrations, etc.), and 3) Educational outreach activities (e.g., bryophyte workshops, ArcGIS StoryMaps, and guided walks for community). We are piloting the Trailside Guides at Toft Point State Natural Area (SNA) and a publically-accessible trail on private land in Door County; the Trailside Guides allow users to take self-guided walks, learning about the more cryptic members of the peatland plant community and considering ecological dynamics that drive the formation and maintenance of these communities. For example, at Toft Point SNA, starting in 2024, we began developing, writing, and illustrating a trailside guide featuring the bryophytes growing along the main trails at the site. This guide features 10 points of interest and 28 species of moss. As

we develop other guides, undergraduate and graduate students will create site-specific resources for these locations that can be used by visitors to identify the plants (and other biota) and gain a better understanding of the importance and ecological dynamics of peatlands and their freshwater.

Poster Session, Second Floor Atrium

Wednesday, February 25, 5:00pm-6:30pm

Sarah Baughman is a graduate student at UW-Green Bay studying biodiversity conservation and management. She works at the Cofrin Center for Biodiversity as the project coordinator for the Oneida Bird Monitoring Program and as the peatland education ambassador and technician for the Gary A. Fewless Herbarium.

Beilfuss Katie

Tina Van Zile, Nathan Podany (Sokaogon Chippewa Environmental Dept)

Promoting tribal wetland conservation leadership in Wisconsin through short videos

Wisconsin Wetlands Association (WWA) is collaborating with the Wisconsin Tribal Conservation Advisory Council and the USDA Natural Resources Conservation Service as part of a many-year commitment to produce short videos documenting and promoting Tribal engagement in wetland conservation in Wisconsin. The videos promote examples of good wetland conservation by Tribes in Wisconsin; help Tribal decision-makers and land managers understand how wetlands function and how they can care for them; motivate and guide others toward wetland protection and care; and encourage broad-based understanding of wetlands and watersheds among the Tribal and general public. In this presentation, I will preview the latest video in this series, which will not publicly debut until spring 2026, that highlights the Sokaogon Chippewa Community Mole Lake Band of Lake Superior Chippewa. The video shares how approaching wetland restoration and management with a landscape and cultural perspective provides multiple benefits and how cultural values are an important driver for wetland and landscape conservation. I will also discuss how the partners will build on distribution and marketing plans used in recent years to distribute and promote the videos to target audiences.

Wetlands and people, Lower Dells D

Wednesday, February 25, 3:40 pm-4:00 pm

Katie Beilfuss is the Outreach Programs Director at Wisconsin Wetlands Association, where she coordinates outreach and communications and donor relations. Katie has a master's degree in land resources from UW-Madison and more than twenty years of nonprofit and conservation experience.

Beilfuss Richard

A 10-year vision for cranes, wetlands, and communities: insights from Wisconsin to the world

In a fractured world that has lost 35% of wetlands and 3 billion birds over the past 50 years, crane conservation is a beacon of hope. Cranes serve as important indicators for the health of wetlands and their watersheds. They are powerful flagships for protecting wetlands and the many lesser-known species that share these lands. They are global ambassadors uniting conservation action across borders and political divides. The International Crane Foundation's new 10-Year Strategic Vision (2025–2035) is an ambitious plan to secure all 15 crane species through integrated approaches that blend biodiversity conservation with community development and climate-resiliency. Our vision is about much more than cranes: it is about revitalizing wild and working landscapes in collaboration with the people who depend on wetland

resources. We share lessons learned from the past decade of conservation effort and scan the horizon for emerging challenges and opportunities. We explore the model projects through which we learn, adapt, and scale-up our impact for—and through—abundant Sandhill Cranes, endangered Whooping Cranes, and other rare and threatened crane species. Climate-smart land use bolsters wetland resilience, safeguards biodiversity, and builds community adaptability. Nature-based solutions provide viable alternatives to wetland conversion, ensuring communities and governments gain from increased employment, improved livelihoods, and natural resources directly connected with conservation. One Health strategies link people, wildlife, and our environment to mitigate avian influenza, now a rising threat to cranes and many bird species worldwide. We draw insights for wetland conservation in Wisconsin and beyond.

Symposium: Wetlands benefit from many levels of crane conservation, Lower Dells A

Wednesday, February 25, 11:00 am-11:20 am

Dr. Richard Beilfuss is President & CEO of the International Crane Foundation, overseeing conservation programs across Asia, Africa, and North America. Over his 35-year career, Beilfuss has engaged in wetland management, environmental flows research, and community-based conservation efforts in over 20 countries, as well as restoration of thousands of acres of wetland, prairie, and savanna landscape in Wisconsin.

Bradshaw Lauren

Public attitudes and opinions regarding beaver and beaver management in Wisconsin

The Wisconsin DNR used a statewide household survey to measure public opinions about beavers and beaver management. Public input has informed the state's current Beaver Management Plan, but the current study is the first random sample survey on this topic and will inform an update to the Management Plan. Results demonstrate that most Wisconsinites are aware that beavers occur throughout the state and have seen a beaver or signs of a beaver; experience with property damage caused by beaver is less common. Experience with beaver damage, however, influences both attitudes toward beaver, recognition of beaver impacts, and opinions about beaver management. Those who live in rural environments and/or identify as trappers, foresters/timber producers, or agricultural producers are less likely than the average Wisconsinite to hold favorable attitudes and more likely to recognize potential negative impacts of beaver. In contrast, those living in suburban or urban environments, Native American tribal members, and environmental advocates are more likely to hold favorable attitudes and slightly less likely to recognize potential negative impacts. Results suggest that some Wisconsinites care about how beavers and beaver habitat are managed, but may have limited awareness of specific management programs and practices. Overall, Wisconsinites place highest importance on educational-focused management priorities. Monitoring beaver numbers, research on reducing conflicts, and creating refuge areas are also of high importance. If conflicts with beaver occur, Wisconsinites are supportive of DNR providing information about how to coexist with beaver and divided over the use of lethal control to address conflicts.

Symposium: Beavers and wetlands, Lower Dells A

Thursday, February 26, 2:10 pm-2:30 pm

Lauren Bradshaw is a natural resources sociologist with the Wisconsin DNR. Her applied social science research explores the relationships between people and natural resources. She holds a bachelor's degree in Ecology and Evolutionary Biology from the University of Michigan and a master's degree in Environment & Resources with an emphasis on plant community ecology.

Brooks Kara

Wetland hydrology 101

In this presentation, I will discuss how to determine if a sample plot meets the technical standards for wetland hydrology. I will cover topics including wetland hydrology field indicators, drier-than-normal and wetter-than-normal conditions, naturally problematic hydrology conditions, and monitoring for wetland hydrology.

Symposium: Wetlands 101, Lower Dells D

Wednesday, February 25, 11:40 am-12:00 pm

Kara Brooks is the Wetland Identification Program Coordinator at Wisconsin DNR since 2019. She administers the Assured Delineator Program statewide and acts as the wetland specialist in the southeast and south-central areas of the state. She has delineated or confirmed tens of thousands of wetland boundaries in the Midwest.

Caplan Stacey

Rebecca Hillman, Bradly Fumtow (Merjent, Inc.)

Restoring the headwaters: Early hydrologic and vegetation response in the Little Plover River

Construction of the Little Plover River Headwater Restoration Project was completed in April 2025. Initial monitoring results of the project offer an early snapshot of how the river and wetlands are responding post construction. Stream monitoring compares current conditions to both pre-restoration conditions and target performance standards to evaluate early progress toward restoration goals. Year One monitoring results indicate that both reaches of the stream have increased functionality from pre-construction conditions and most parameters have met target standards outlined for Year 1. For nearly every parameter that did not meet the target standard, the post-construction functionality score is an improvement over the pre-construction score. Wetland monitoring focused on initial groundwater levels and vegetation establishment, providing insight into early hydrologic response and plant community development. Monitoring data indicate site-wide increases in groundwater elevations attributable to hydrologic modifications, and all monitoring wells have achieved the target hydrology performance standards established for their respective wetland communities. Vegetation monitoring shows early successional species are dominant within the proposed communities. The distribution and abundance of these species is expected to decrease as perennial native species become established. Overall, the stream function has improved significantly as a result of transforming the straight ditch to a meandering stream that is more representative of natural conditions. Wetland monitoring results indicate a progression toward restoration objectives. These findings offer early evidence of system response and help inform adaptive management as the project moves forward.

Poster Session, Second Floor Atrium

Wednesday, February 25, 5:00pm-6:30pm

Stacey Caplan is a Wetland Scientist with 12 years of experience completing wetland delineation and waterway assessments, wetland mitigation bank assessments, design and monitoring, regulatory permitting, rare species habitat assessments, and GIS. Ms. Caplan has managed numerous wetland bank monitoring and management projects including data collection, analysis, reporting, GIS analysis, and IRT coordination.

Cary Tawnya

Strengthening undergraduate science identity through the Dragonfly Mercury Project

Student learning and science identity, or ‘seeing oneself situated as a member within the sciences,’ can be impacted positively when students participate in the investigation of novel research questions. Because of this, I engaged undergraduates in a community science project investigating mercury (Hg) bioaccumulation. Since 2011, the Dragonfly Mercury Project (DMP), a public engagement effort led by the U.S. National Park Service and USGS, has collected and analyzed dragonfly larvae for Hg bioaccumulation from >500 sites. From these data, researchers have determined that Hg levels in dragonfly larvae are positively correlated with levels in fish and amphibians, making them effective biosentinels for aquatic systems, including wetlands. Students read primary literature about Hg, including the scientific findings of the DMP team, and gained valuable insights about how wetlands play an important role in Hg methylation. Students applied their knowledge of aquatic systems with the available Hg data, generated research questions, and developed and tested their hypotheses to explain patterns of Hg accumulation. Also, students were invited to collect dragonfly larvae as part of the course. In response to this project, 100% of students (n=14) reported an increase in their process-of-science skills, 93% appreciated environmental science more and how it can relate to the general public, and 86% of students indicated that they are more confident in their ability to “think like a scientist.” Environment-focused community-science projects are an effective strategy to engage students in an authentic scientific endeavor with hands-on experiences that support their sense of science identity and appreciation of land stewardship.

Wetlands and people, Lower Dells D

Wednesday, February 25, 4:00 pm-4:20 pm

Tawnya Cary is an Associate Professor of Biology at Beloit College. She earned her bachelor's degree in biology at Iowa State University, Master's degree at the University of South Carolina, and PhD at UW-Madison studying aquatic ecotoxicology. Her research includes investigating how pollutants affect immune function in frogs and how students learn biology and develop a science identity.

Casper Gary

Amphibians and reptiles in the Lower Wisconsin Riverway

The Lower Wisconsin Riverway is a Ramsar Wetland of International Importance. In addition to being an important historical, cultural, recreational, and aesthetic resource, it is rich in biodiversity. It supports the highest diversity of amphibians and reptiles in Wisconsin, including most of Wisconsin's rarest species. This species richness is a result of its history as a glacial refuge during the Pleistocene epoch and the diversity of habitats offered. Its role as a climate refuge continues today, as it supports species from more southern climates reaching the northern limit of their range in Wisconsin (i.e., Timber Rattlesnake). Many of these species, especially reptiles adapted to warmer winters, may benefit from the warming climate. However, other challenges such as invasive species, new diseases, changing hydrologic dynamics, chemical contamination, altered flood regimes, and rapid habitat change pose continuing threats. Habitat connectivity and barriers to movement are challenges to many amphibians and reptiles as well. I will review the amphibian and reptile species richness in the Riverway and the environmental challenges and opportunities these creatures face in the region.

Symposium: Lower Wisconsin Riverway, Lower Dells A

Wednesday, February 25, 3:40 pm-4:00 pm

Gary has over 45 years experience in wildlife conservation, biodiversity, and monitoring. His research focuses mainly on bioacoustics and wildlife conservation in the western Great Lakes region. His most recent book is a Field Guide to Amphibian Eggs and Larvae of the Western Great Lakes.

Caven Andrew

Wetland restoration to ensure flyway connectivity for migratory cranes

One of the primary drivers of biodiversity decline is the reduction in the extent and quality of habitat. The Great Plains of North America are no exception and represent one of the most transformed landscapes in the world. The region is facing sustained developmental pressure that is leading to the continued loss of herbaceous wetlands and grasslands. Moreover, surface and groundwater resources in the region continue to be divided and overappropriated, further degrading wetland ecosystems. The Whooping Crane is one of the most iconic endangered species in North America and, with intensive and targeted effort, the Aransas Wood Buffalo Population has recovered from a low of 16 individuals in the winter of 1941 to an estimated ~560 individuals today. Nonetheless, we are seeing signs of stress in this population as indicated by altered behavior and movement patterns in migration. Protecting the integrity of the Whooping Crane migration corridor can benefit a host of other species such as other migratory waterbirds including the Red Knot as well as aquatic and terrestrial invertebrates such as the Regal Fritillary. We have used Whooping Crane habitat needs to direct restoration work at the stopover and flyway scale with broad coalitions, which have included >10 organizations at times for individual projects. It is very challenging for a single conservation NGO, state agency, federal agency, or well-meaning private interest to affect habitat conditions at the scale necessary to ensure resilience and connectivity across wetland and grassland communities in the Great Plains. However, together we can significantly scale up our impacts. We contend that the Whooping Crane migration corridor can serve as a starting point in the Great Plains.

Symposium: Wetlands benefit from many levels of crane conservation, Lower Dells A

Wednesday, February 25, 11:20 am-11:40 am

Andy Caven's work focuses on conservation policy, delivery, and research regarding Whooping Cranes, Sandhill Cranes, and their habitats. His overarching goal is to bring diverse interests together to solve intractable conservation problems. Previous to coming to International Crane Foundation in 2022 he worked for the Crane Trust as well as the US National Park Service's Inventory and Monitoring Program.

Corder Brandon

Holly M. Johnson, Sara G. Niemuth (UW-Madison); Tony Klingert (UW-Green Bay); Mary Ann Feist (Wisconsin State Herbarium)

Bridging the gap: Historical insights from 185 years of sphagnum moss collections in Wisconsin peatlands

Peat mosses (Sphagnum) are foundational components of peatlands, shaping hydrology, nutrient cycling, and carbon storage while serving as sensitive indicators of wetland integrity. However, despite their ecological importance, Sphagnum mosses have been historically under-collected and understudied in Wisconsin. Much of our early knowledge comes from the work of Lellen S. Cheney, whose four decades of fieldwork from 1892 to 1932 established the foundation for our understanding of the state's moss flora. Later collectors such as Frank Bowers and Rudy Koch contributed important surveys in the latter half of the 20th century, but a substantial gap in sustained Sphagnum collections persists, reflecting both the taxonomic challenges of the genus and a broader decline in bryological fieldwork. This poster presents

a temporal and spatial analysis of Sphagnum collections from 1840 to 2025 across Wisconsin and neighboring states, revealing long-term trends and significant regional gaps in documentation. By visualizing these patterns, we highlight the need for renewed collecting and taxonomic study to update our understanding of regional Sphagnum diversity and distribution in a changing climate. Ongoing surveys through the Students and Water in Wisconsin's Peatland Plant Communities project are helping to fill these gaps, providing contemporary data that support wetland monitoring, conservation, and restoration. Together, these efforts highlight the scientific value of natural history collections, community engagement, and the importance of continued, targeted study of these keystone peatland organisms.

Poster Session, Second Floor Atrium

Wednesday, February 25, 5:00pm-6:30pm

Brandon Corder is a PhD botanist and research technician at the Wisconsin State Herbarium specializing in Great Lakes orchids and peatland bryophytes.

Crystal VonHoldt

Trailblazers: Projects that have used the Hydrologic Restoration General Permit to achieve their goals

The hydrologic restoration general permit (HRGP) provides a new, efficient pathway for government agencies, non-government organizations, and private landowners to complete wetland, stream, and floodplain restoration projects that will improve hydrologic conditions, connections, and functions. These types of projects can range from very simple to those that require complicated engineering and studies. I will provide an overview of projects that have used the HRGP to date, with the aim of demonstrating the breadth of restoration activities that can be authorized through its use.

Wetlands as solutions in watersheds and communities, Lower Dells B

Thursday, February 26, 2:10 pm-2:30 pm

Crystal vonHoldt is the Waterways Policy Coordinator. This role provides statewide staff support, policy development, and other tasks that arise to keep the program functioning. She's worked in the program since 2008. Before working for the state, Crystal received a BS degree in Psychology and MS degree in Environmental Science & Policy. She is an avid traveler and outdoor enthusiast!

Cupp Mark

The Lower Wisconsin State Riverway: A riparian corridor with wetlands of international importance

The Lower Wisconsin State Riverway encompasses nearly 100,000 acres of public and private lands along the final 92 miles of this beautiful state's namesake river. I have served as Executive Director of the Lower Wisconsin State Riverway Board since inception of the project in 1989. I will provide a description of the project's creation and purpose and a brief overview of the social history of the lower Wisconsin River valley. I also will discuss my personal observations regarding changes to the landscape, to the river, and to the associated wetlands on both public and private lands. Additionally, I will provide insights on changes in attitudes toward climate change and land stewardship in both the public and private sectors and will conclude with thoughts about challenges facing natural resources professionals and landowners in the future.

Symposium: Lower Wisconsin Riverway, Lower Dells A

Wednesday, February 25, 1:50 pm-3:10 pm

Mark Cupp has served as Executive Director of the Lower Wisconsin State Riverway Board since inception of the project in 1989. Cupp also is Chair of the Wisconsin Land & Water Conservation Board, having served on that body since 2000. He holds leadership positions in other organizations related to protection of important archeological and historical sites in the Riverway and Upper Midwest.

Dean Courtney

Beavers at work: Boosting biodiversity through habitat engineering here, there, and everywhere

Biodiversity increases from beaver activity result from their physical modification of ecosystems—both terrestrial and aquatic. Beaver construction of dams and ponds, as well as in-stream excavation activity, create lentic habitats within lotic systems, increase aquatic habitat complexity, enhance groundwater connectivity, and increase the extent of hydric soils. Beaver tree harvesting serves as a form of ecological disturbance by opening forest canopies, increasing the availability of snag trees, promoting early successional species, and enhancing edge habitat. Each of these beaver-mediated changes boost gamma diversity across trophic levels within affected biomes. This synthesis of local research in northwestern Wisconsin and research from the US and Europe highlights the mechanics and magnitude of beaver impacts to biodiversity as well as the specific species and life cycles that are supported by beavers. Documented impacts include increases in zooplankton and insect diversity and biomass, increased prevalence of wetland obligate plants and animals, increased bat foraging activity, and the establishment of thermal refugia during extreme weather. Beaver-modified habitats also play critical roles for specific species, with evidence of waterfowl use of beaver ponds as preferred nesting and brooding habitat. Beaver dams serve as travel corridors for terrestrial species; provide early successional habitats for migratory game birds, support bats through pre-hibernation and migration, and provide juvenile trout nursery habitat. Understanding how and when to leverage beavers as conservation and habitat management tools can benefit both game species and species of conservation concern in Wisconsin.

Symposium: Beavers and wetlands, Lower Dells A

Thursday, February 26, 1:30 pm-1:50 pm

Courtney Dean is a conservation biologist and independent researcher focusing on the large-scale ecosystem impacts of beaver impounded streams in northwestern Wisconsin. Her work focuses on beaver impacts to biodiversity, specifically bats, breeding & migratory birds, and insect communities, as well as how water quality is impacted by beaver dams.

Driscoll Adam

Assessing Behaviors of Trout Anglers Related to Aquatic Invasive Species in the Upper Mississippi Basin

This presentation will be an overview of our research project surveying trout anglers in the Driftless Region about their attitudes, beliefs, and behaviors regarding invasive species prevention. Wading anglers are water users that may accidentally move aquatic invasive species into streams in the Upper Mississippi River Basin. We are currently surveying anglers from Iowa, Minnesota, and Wisconsin to understand what prevention actions they are currently performing while gathering information that can better target prevention messages to these anglers. Natural resource managers will be able to use this information to create and implement better aquatic invasive species outreach programs, while wading anglers will benefit from this information through the adoption of more sustainable fishing activities.

Poster Session, Second Floor Atrium

Wednesday, February 25, 5:00pm-6:30pm

Adam Driscoll is an associate professor at the University of Wisconsin-La Crosse. His work has focused on the environmental impacts of industrial animal agriculture, specifically examining North Carolina's hog industry. His more recent work has examined the human dimensions of aquatic invasive species.

Dunn Isabel

Joel Hoffman, Annie Bracey, Alexis Grinde, Chris Filstrup, Kris Johnson (Natural Resources Research Institute)

Impact of Great Lakes coastal wetland restoration on seasonal bird assemblages

Assessing large-scale restoration outcomes is critical for evaluating progress toward global sustainability goals, yet methods for measuring ecosystem recovery across varying spatial and temporal scales remain challenging. The Great Lakes Restoration Initiative (GLRI) is the leading large-scale restoration program targeting the ecological health of the Laurentian Great Lakes; since 2010, 530,000 acres of coastal wetland and nearshore habitats, as well as other habitats, have been protected and restored. Great Lakes coastal wetlands provide critical ecosystem services, including wildlife habitat, and support a diversity of bird species throughout their life histories, from migration and foraging to nesting and rearing young. However, the impact of coastal wetland restoration on bird assemblages has not yet been widely assessed in the context of GLRI. Our research goal is to investigate how coastal wetland habitat restoration activities impact bird species richness, diversity, and assemblage integrity (via functional metrics). Using indexed breeding season survey data from the GLRI-funded Coastal Wetland Monitoring Program (2011-2025), we evaluate changes in avian assemblages at more than 20 restoration sites spread throughout all five Great Lakes using a Before-After-Control-Impact (BACI) design. The analysis explicitly tests hypotheses linking changes in bird taxonomic and functional diversity to restoration activities in the context of factors such as wetland size, change in wetland vegetation quality, change in extent of open water and emergent vegetation, and time since restoration. To our knowledge, this is the first spatially extensive assessment of bird assemblage response to Great Lakes coastal wetland restoration.

Wetland restoration and management techniques, Lower Dells B

Wednesday, February 25, 4:20 pm-4:40 PM

Isabel Dunn is a current master's student in the Water Resources Science program at University of Minnesota Duluth. Prior to graduate school, she was an Oak Ridge Institute for Science and Education research participant at the Environmental Protection Agency Great Lakes National Program Office. She graduated in 2021 from UW-Stevens Point with a bachelor's degree water resources.

Feggestad Aaron

A case study on the stormwater and economic benefits of wetland restoration in an urban landscape

The protection and restoration of urban wetlands offer benefits for stormwater management and climate resiliency. Deer Grove Forest Preserve, located on 585 acres of publicly accessible lands in the heavily urbanized northwestern suburbs of Chicago, was the site of an intensive ecosystem restoration project sponsored by Openlands. Over the course of 17 years, the project provided wetland restoration, wetland enhancement, and expansive wetland buffers to enhance watershed function. I will briefly review the project purpose, site background, and long-term restoration process. I will then detail the hydrologic and economic studies we completed to assess benefits from the wetland and buffer restoration, highlighting the study methods and providing a summary of the study outcomes. For the hydrologic study, we utilized site monitoring data and readily available data and input these into a stormwater model, quantifying the reduction in site discharge that

occurred with the removal of hydrologic impairments and restoration of native plant communities. We conducted the economic study to quantify both the short-term economic impacts and the long-term value provided by enhanced ecosystem services. This study projected long-term returns of 6:1 over a 20-year period due to enhanced recreational experiences, hydrologic restoration, and other co-benefits of native plant communities. I will discuss how the results can be used to promote the ecosystems services benefits of habitat restoration.

Wetlands and water management, Lower Dells B

Thursday, February 26, 11:00 am-11:20 am

Aaron Feggstad has been a practicing wetland professional for the past 20+ years, working in Wisconsin and throughout the Great Lakes Region as a consulting ecologist, volunteer, and educator. His primary expertise lies in the assessment and restoration of wetlands and other natural communities. He calls Oconomowoc and the Southern Kettle Moraine landscape home.

Feist Mary Ann

Keir Wefferling, Sarah Baughman (UW-Green Bay); Brandon Corder, Holly Johnson (UW-Madison)

Students and water in Wisconsin's peatland plant communities: A project funded by UW's Freshwater Collaborative

Peatlands are a special type of wetland that store large amounts of carbon and thus provide resilience to the effects of climate change. We believe Wisconsin's peatlands have been underappreciated and understudied and we are hoping to change that. Our mission is two-fold: 1) provide educational materials to students and the public to create a general appreciation for peatlands and an understanding of their extreme importance, and 2) train the next generation of peatland scientists to fill gaps in our knowledge about Wisconsin's peatlands and find pathways for their restoration and conservation. We are working with students who are using art as well as science to create Trailside Guides and a Peatland Primer. The Trailside Guides will be available at select sites with boardwalks to be used by visitors to explore the peatland and learn about the plants, animals, and other biota that live there. The Peatland Primer will be used by undergraduate course instructors to introduce students to peatlands—what they are, why they're important, and the threats they face. We are also involving students in research by training them to collect water quality data and to perform floristic quality assessments in peatlands based on vascular and non-vascular flora. These data will be used to investigate whether floristics and water quality are correlated. Our efforts are currently focused on Door County due to the nutrient-rich groundwater associated with the calcareous bedrock, diverse bryophyte flora, site accessibility, and strong community partnerships, but we plan to expand to other sites in Northern Wisconsin in the future and are looking for additional partners with peatlands for which we can develop Trailside Guides or do surveys.

Lightning Round Presentation, Upper Dells Ballroom

Thursday, February 26, 9:30am-10:15am

Mary Ann Feist has been the research curator of the Wisconsin State Herbarium at UW - Madison since 2013. Before this, she worked as a Wetland Botanist at the Illinois Natural History Survey for 15 years. Her research is now focused on peatlands and peat mosses, and she has conducted numerous floristic surveys in Northern Wisconsin. She is currently a co-PI on a grant, Students and Water in Wisconsin's Peatland Plant Communities.

Garrity Mickki

Exploring the eco-cultural relationships of beaver and wild rice: Hydrological and cultural perspectives

As ecosystem engineers, North American beaver (*Castor canadensis*; Amik in Ojibwemowin) build wetland habitats that fulfill their own needs for food and safety and contribute to wetland biodiversity for countless other species. Historically, beaver and other cultural keystone species such as wild rice (*Zizania palustris*, *Z. aquatica*; manoomin in Ojibwemowin) have coexisted with the Anishnaabeg and other Indigenous peoples. Contemporary land management regimes intended to benefit wild rice and other species, however, have evolved such that beaver are routinely removed from wild rice waters. In partnership with the Great Lakes Indian Fish and Wildlife Commission, the Fairfax Beaver Lab at the University of Minnesota / St. Anthony Falls Laboratory is researching the hydrological impact of beavers on wild rice waters to characterize how these species impact one another and inform the direction of natural resource management related to beavers and wild rice. Additionally, our research seeks to contextualize our quantitative research (using monitoring data, remote sensing, and hydrological modeling) within a greater understanding of the ongoing relationships between beaver, wild rice, and the Anishinaabeg peoples of the Great Lakes.

Symposium: Beavers and wetlands, Lower Dells A

Thursday, February 26, 11:40 am-12:00 pm

Mickki Garrity is Bodewadmikwe and enrolled in the Citizen Potawatomi Nation. She has over fifteen years' experience in business and non-profit management and a background as a storyteller and writer. She holds a B.S. in Native Environmental Science from Northwest Indian College and is pursuing a PhD at the University of Minnesota to explore the eco-cultural relationships between Mnomen (*Zizania*, wild rice) and Mek (*Castor canadensis*, North American Beaver), in partnership with the Great Lakes Indian Fish and Wildlife Commission.

Gordon Nicki

Hillary Thompson, Annika Poitras, Alicia Ward (International Crane Foundation)

Whooping crane nest site selection in Wisconsin wetlands

The reintroduction of Whooping Cranes (*Grus americana*) in Wisconsin as part of the Eastern Migratory Population began in 2001 with the release of captive-reared juveniles at Necedah National Wildlife Refuge (NWR). In 2011, project partners established additional reintroduction sites in eastern Wisconsin to reduce nest abandonment associated with avian-feeding black flies. While Whooping Crane nest site selection at Necedah NWR has been studied previously, we aim to describe and compare habitat characteristics at all breeding areas throughout Wisconsin and assess how wetland habitat influences hatching success. We measured habitat characteristics at 67 nests in 7 counties between 2021-23 and compared used nest sites to random locations to assess nest site selection. Preliminary results indicate that Whooping Cranes chose nest sites in open areas with high visibility and a low density of woody vegetation. This study will provide guidance for wetland management and selection of release sites for captive-reared cranes.

Symposium: Wetlands benefit from many levels of crane conservation, Lower Dells A

Wednesday, February 25, 12:00 pm-12:20 pm

Nicki Gordon grew up in northwest Ohio and earned her bachelor's degree in biology from Bowling Green State University. She completed her master's degree in wildlife ecology at UW-Madison, focusing on predator occupancy on the breeding grounds of the Eastern Migratory Population of Whooping Cranes.

Hutnik Brad

The past, present, and future of the Lower Wisconsin State Riverway's bottomland hardwood forests

Floodplain or bottomland hardwood forests along the Lower Wisconsin State Riverway (LWSR) are unique and globally significant repositories of habitat and diversity. Today's forests, however, are significantly different from historic forests, and these forests will change again in response to altered disturbance regimes, invasive species, and societal needs. I will delve into the LWSR's past and current forests and identify trends and issues that will define future forests.

Symposium: Lower Wisconsin Riverway, Lower Dells A

Wednesday, February 25, 4:00 pm-4:20 pm

Brad Hutnik is a Wisconsin DNR Forest Ecologist / Silviculturist stationed in Boscobel but working Statewide on forest management issues. Brad is a member of the Wisconsin Initiative on Climate Change Impacts (WICCI) Forestry Working Group, past chair of The Wisconsin Society of American Foresters, and co-host of UWSP's SilviCast podcast. Brad lives in Spring Green, WI with his wife and family.

Jeninga-Nehls Anya

Ellen Voss (River Alliance); Sara Walling (Clean Wisconsin)

Impacts of neonicotinoid pesticides on wetland ecosystems

Neonicotinoids (neonics) are among the most widely used pesticides around the world. An estimated 95% of all corn seeds and more than 50% of all soybean seeds planted in the state of Wisconsin are treated with neonics, and an estimated 90% of the pesticide washes off and is not taken up by the plants. Neonics were made popular by their broad-spectrum activity, simple application, and perceived low toxicity to mammals, however, there are emerging concerns of damage they cause to aquatic ecosystems. Neonics are highly soluble in water and can move through the environment, impacting organisms beyond their areas of application, including wetlands, rivers, and lakes. Aquatic invertebrates are at risk of exposure to neonics and their degradants, putting their populations at risk and potentially impacting the wider food chain. At present, work on this issue is not being shared in an integrated manner and it appears that important information gaps are preventing a comprehensive understanding and approach to this situation. I will provide an introduction to neonics, their uses, and their impacts. If you want to discuss how to get involved, there will be a neonic roundtable Thursday afternoon at which we will discuss resources for community outreach.

Wetland challenges, Lower Dells B

Wednesday, February 25, 2:10 pm-2:30 pm

Anya Jeninga-Nehls is the Emerging Contaminant Outreach Specialist for the UW-Madison Division of Extension, focused on connecting communities, academics, and governments regarding emerging contaminants. She began her career at UW as a Water Resources Science Policy Fellow with Sea Grant. She began her current position in 2023.

Kalscheur Maureen

Shelby Adler, Amy Kretlow, Tyler Mesalk, Matthew Puz, Patrick Siwula Amanda Smith, Jamie Vandenlangenberg (Wisconsin DNR); Emily Heald (UW-Madison Division of Extension); Paul Skawinski (UW-Stevens Point Extension Lakes)

Keeping rare invasive species rare in Wisconsin waters

Wisconsin DNR needs your help to report occurrences of rare invasive species. Wisconsin Administrative Code NR 40, the Identification, Classification, and Control rule, lists invasive species as either Prohibited (not established) or Restricted (established) and regulates invasive species possession, transfer (sale), and introduction in Wisconsin. Classification as Restricted or Prohibited will subject a species to different legal requirements. While this rule has reduced invasive species introductions, they still occur. In this presentation, we provide an overview on the identification and distribution of some rare aquatic and facultative wetland invasive species that have been detected in limited locations within the state that we suspect may be evading detection. We will also acknowledge our statewide network, provide links on how to report invasive species, and discuss how to clean gear after being in the field to prevent the spread of invasive species. Additionally, we will cover regulations related to control of invasive species in surface water and wetlands. Whether you're completing a wetland restoration or are simply a wetland enthusiast, by identifying and reporting invasive species, you can help us protect Wisconsin's wetlands.

Symposium: Wetlands 101, Lower Dells D

Wednesday, February 25, 2:10 pm-2:30 pm

Maureen Kalscheur is the Wisconsin DNR Statewide Aquatic Invasive Species Monitoring Lead, a position she's held since 2013. She earned a master's degree from UW-Stevens Point Cooperative Fishery Research Unit. She previously worked for Wisconsin DNR in the Lake Superior Basin, was the Invasive Species Program Manager for Florence County, and conducted rare plant survey for the Forest Service and land managers in NE Wisconsin and Michigan's UP.

Kitchel Lisie

Native mussels of the Lower Wisconsin Riverway

The Lower Wisconsin Riverway is home to 40 of the 50 mussel species known statewide. This diversity of mussels is directly related to the diversity of aquatic habitats in the river, from riverine channels to side channels to backwaters and their associated wetlands. Thirteen species, or roughly 33% of the mussels in the lower riverway, are state or federally listed as threatened, endangered, or special concern. A critical link for the future of these mussels is the fishes of the river, as mussels require a host fish to complete their life cycle. For example, a very special mussel in the lower riverway--the salamander mussel--uses the mudpuppy as its only host. The fish species that mussels rely on for their continued existence require a diversity of habitats, including adjacent wetlands, for critical life stages. Increased flooding, followed by droughts and declining water quality in the river and adjacent wetlands, impacts both the fish species and the mussel populations. Although mussels have learned to survive 'normal' flooding by digging in, they don't do as well when the entire bedload is picked up and moved by large and continuous flood events. Droughts are something mussels can't readily avoid, and recent droughts have resulted in thousands of mussels left high and dry and dead. These changing conditions in the riverway and their wetlands directly impact both fish and mussel populations.

Symposium: Lower Wisconsin Riverway, Lower Dells A

Wednesday, February 25, 2:30 pm-2:50 pm

Lisie Kitchel works in the Bureau of Natural Heritage Conservation of the Wisconsin DNR, where she has been for over 25 years. She is trained as an aquatic ecologist and spends most of her time working with our native freshwater mussels throughout the lakes, rivers, and streams of Wisconsin. Her passion is enlightening folks to the world of the freshwater mussel.

Klimesh Derrick

Joshua Brown (Wisconsin DNR); Tyler Raeder (Wisconsin NRCS)

Wisconsin DNR and USDA agricultural mitigation banking progress and updates

The Wisconsin DNR (WDNR) and the US Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) have developed Wisconsin's first Agricultural Wetland Mitigation Bank (WAMB) for USDA participants. The NRCS WAMB Program provides financial assistance and oversight for the development and establishment of mitigation banks. Wetland banking provides a mechanism by which a USDA participant may purchase offsetting wetland "credits" from WAMB bank sponsors that have previously created or restored wetlands. The credits represent acres of wetlands that have been previously approved for wetland replacement, subsequently restored, and deposited in the bank. The WAMB provides opportunities strictly for USDA agricultural participants with wetlands subject to the compliance provisions of the 1985 Food Security Act (as amended). To date, the WAMB has completed three mitigation projects in Dane, Ozaukee, and Milwaukee Counties totaling more than 55 acres. There are currently 10.4 credits available for purchase by USDA participants, with more expected to be available later this year. I will describe these existing projects and provide information on how to get involved with this program. The WAMB has grant funding available for additional mitigation projects across Wisconsin and interested landowners or public property stewards can work with the WDNR and NRCS to become bank sponsors to help create or restore wetlands on their properties.

Wetlands as solutions in watersheds and communities, LowerDells B

Thursday, February 26, 1:30 pm-1:50 pm

Derrick Klimesh started with the Iowa NRCS in 2011, working in North Dakota, Wisconsin, and Illinois. He is currently the Assistant State Conservationist for Compliance in Madison. Derrick manages NRCS staff who complete certified wetland determinations for Wisconsin farm program participants. He has a bachelor's degree in Conservation Management from Upper Iowa University and a master's degree in Watershed Ecology from Louisiana State University.

Krellwitz Mike

Ryan Sorrells (Forest Preserves District of Will County); Michael Ostrowski (Illinois Natural History Survey)

Wetland floristics of Illinois Beach State Park

In Illinois, nearly 90% of the Lake Michigan shoreline has been developed; the 10% of undeveloped shoreline can be found at Illinois Beach State Park (IBSP), south of Kenosha, WI. IBSP is part of a globally significant system of coastal wetlands and prairies that has been recognized as a Ramsar Wetland of International Importance. This site contains critical habitat for endangered plant and animal species. However, historic land use changes, such as dredging ditches and building infrastructure, have disrupted the natural hydrology and species composition of this site. Simultaneously, shoreline alteration has disrupted the natural processes of beach erosion and accretion. Therefore, active management,

such as beach rejuvenation and habitat restoration, is essential to maintaining this complex ecosystem. I will talk about a unique project going on at IBSP using nature-based solutions. In particular, I will focus on surveys to assess the re-vegetation of the beach after new sand was artificially deposited and evaluate floristics of the different types of wetlands on site including marshes, sedge meadows, and pannes.

Lightning Round Presentation, Upper Dells Ballroom

Thursday, February 26, 9:30am-10:15am

Mike Krellwitz is a botanist with the Illinois Natural History Survey and the vice president of the Botanical Club of Wisconsin. He graduated from the University of Wisconsin in 2021 and has conducted botanical field work in Wisconsin, Illinois, Oregon, California, and Montana.

Lane Carter

Amanda Little (UW-Stout)

Black ash decline in two Western Wisconsin swamps: Changes in forest structure and hydrology

The emerald ash borer (*Agrilus planipennis*, EAB) poses a significant threat to black ash (*Fraxinus nigra*) populations across the United States, leading to widespread wetland impacts. This study investigates the effects of emerald ash borer infestation on forest structure and composition over time in two Western Wisconsin ash swamps by analyzing canopy cover, size class distributions, and successional dynamics. Muddy Creek swamp (MC) is a successional older, more diverse, peat-based system located in eastern Dunn County, while Gilbert Creek (GC) is younger, with silt loam soils, in western Dunn County. Tree inventory data were collected in 2023 and 2025 and compared across years. At GC, 29% of ash trees were alive and healthy, while 68% were diseased and 3% were dead. At MC, only 3% were healthy, 50% were diseased and 47% were dead. We suspect the higher mortality at MC is because MC was a later-successional forest with larger trees and became invaded earlier as EAB invasion spread. There was a significant decline in canopy cover across both sites from 2023 to 2025 ($P < 0.001$), with a larger decline at MC ($P < 0.001$), despite its higher tree diversity. GC exhibited roughly 25 cm higher water tables in 2024 and 2025 than in 2023. Precipitation was also about 12 cm higher in 2024 and 2025. These findings highlight the ongoing impact of EAB on forest structure and wetland ecosystems. Management practices could consider the impacts of higher water tables when planning for tree replacements in these systems.

Poster Session, Second Floor Atrium

Wednesday, February 25, 5:00pm-6:30pm

Carter is an environmental science student at UW-Stout in his senior year. He is interested in wetland conservation, especially after an internship working in stream restoration, lake monitoring, and black ash swamp research.

Lund Kaitlyn

Billie Harrison, Emily Latch (UW-Milwaukee)

Is newer always better?: A comparison of two methods for collecting and analyzing canopy cover data

Time and money are limiting resources when conducting field research, making more efficient and cost-effective methods to collect and analyze data a common goal for many researchers. App-based methods are rising in popularity because they

are often free or cheap and claim to be more user-friendly. These new tools can be attractive when older methods are frustrating to use, like the densiometer, a device traditionally used to measure tree canopy cover. Since canopy cover plays an important role in wetland ecosystems due to its influence on water temperature regulation, habitat, biodiversity, etc., it is important to have trustworthy methods when assessing this biotic factor. In this study, we compared a new app-based method (CanopyApp) to the traditional densiometer to see whether the app is a suitable replacement in terms of accuracy and time saved in data collection and analysis. We visited sixteen research sites, using both methods to collect and then analyze data while timing data gathering and analysis. Using canopy cover percentage, time to collect data, and time to analyze data as the main variables, a statistical analysis found CanopyApp was not as accurate as the densiometer and its analysis time was significantly slower. In its current form, CanopyApp is not yet a suitable replacement. So, while many researchers may be eager to abandon the densiometer, our research shows that this one newer method did not equal a better one.

Poster Session, Second Floor Atrium

Wednesday, February 25, 5:00pm-6:30pm

Kaitlyn Lund is a Junior at UW-Milwaukee studying conservation, environmental science, and geography. In 2025, she participated in a National Science Foundation-funded research trip to Grenada to study the critically endangered Grenada Frog (*Pristimantis euphonides*) and conduct a canopy cover methods comparison, research she's presenting at this conference.

Lyons John

David Marshall (Underwater Habitat Investigations, LLC)

The future of the fishes of the Lower Wisconsin River floodplain

The Lower Wisconsin River (LWR) is one of the highest-quality large-river ecosystems remaining in the Midwest. It has a largely intact floodplain with extensive riverine wetlands (backwaters, sloughs, floodplain lakes and ponds, marshes, and seasonally flooded forests) that support a diverse fish community of more than 30 species, distinct from the diverse fish community found in the flowing water of the river channel. Several of the floodplain species are otherwise uncommon in Wisconsin, most notably the state endangered starhead topminnow (*Fundulus dispar*). However, the wetland fish community is threatened by intensive agriculture in the sandy terraces adjacent to the floodplain. Excessive nitrate that leaches from these heavily fertilized crop fields readily enters the shallow groundwater and rapidly moves into the wetlands. This has led to huge summer blooms of filamentous algae and duckweed that have shaded out essential native macrophytes and degraded water quality to the point that many localized fish populations have declined sharply or been eliminated. Alarming, no effective regulatory mechanism is available to curtail this ongoing biodiversity loss. On the positive side, an ongoing effort has successfully established new populations of the starhead topminnow and another uncommon species, the lake chubsucker (*Erimyzon sucetta*), from the LWR floodplain into non-agricultural floodplain habitats upstream of the Prairie du Sac Dam. Looking forward, the possible effects of climate change on LWR floodplain fishes, particularly milder temperatures and increased flooding, are highly uncertain but could be positive, if more water on the floodplain means more wetland habitat and better water quality.

Symposium: Lower Wisconsin Riverway, Lower Dells A

Wednesday, February 25, 2:50 pm-3:10 pm

John Lyons is the Curator of Fishes of the UW Zoological Museum in Madison, a position he has held since retiring in 2017 after nearly 33 years as a fisheries research scientist and supervisor for the Wisconsin DNR. He has studied the

fishes of the Lower Wisconsin River for more than 40 years. He holds a PhD from UW-Madison with an emphasis on fish ecology.

Martin Mark

Susan Foote-Martin (Southern Wisconsin Bird Alliance)

Fifty years of water level, flora, and fauna changes at Goose Pond, Columbia Co., and what the future may hold

Goose Pond is an isolated 60-acre prairie pothole surrounded by thousands of acres of cropland, formerly mesic prairie. Southern Wisconsin Bird Alliance purchased the first tract in 1968, and, in 1970, it was designated a State Natural Area due to its high number of wetland bird species and individuals. The watershed comprises about 3,000 acres, and significant overland runoff from major storm events is the main water source, as the water table is far below the pond itself. Due to their shallow depth, most prairie potholes have historically held significant water for around nine of 10 years, dried up during drought for a year or two, and refilled. These conditions provide excellent habitat for diving ducks, dabbling ducks, marsh birds, and amphibians in most years, but climate change seems to be destabilizing this rhythm at Goose Pond, especially over the last decade. By far the highest water level was observed in 2019, but no water or low water was the norm from 2021 to 2025. Low water often trades diving ducks for an increase in dabbling ducks and shorebirds, but waterbirds of all kinds vacate Goose Pond if it dries completely. Although frog and toad populations appear stable, the eastern tiger salamander population has greatly decreased. Muskrats have been extirpated, and this has probably negatively impacted species that nest on their houses, like Sandhill Cranes and Canada Geese. River bulrush, a persistent emergent that provides quality nesting structure (though only if water is present), has been expanding in the past five years. Changing precipitation patterns and warming temperatures (especially in winter) will continue to impact water levels, flora, and fauna, unless strategic management actions are taken.

Wetland restoration and management techniques, Lower Dells B

Wednesday, February 25, 3:40 pm-4:00 pm

Mark Martin worked for the Wisconsin DNR as a wildlife research technician for 11 years and as a conservation biologist for 29 years with the State Natural Areas program. He is a certified wildlife biologist. Mark and his wife Susan have been the managers at Goose Pond since 1979 and were inducted into the Wisconsin Conservation Hall of Fame in 2023. Mark holds a bachelor's degree in wildlife management from UW-Stevens Point.

Melchior Martin

Large scale urban river and wetland restoration: The Don River Portlands Flood Protection Project

The Don River Portlands Flood Protection Project is a \$1.2 billion dollar megaproject involving the reclamation of 250 acres of contaminated waterfront property along the Don River in Toronto. The project restored more than a mile of the Don River mouth and included the construction of 120 acres of riparian wetlands, aquatic estuary habitat, and park space in the heart of a major city. The project opened as Biidaasigae Park in July of 2025, the product of more than 30 years of planning and 5 years of active construction. Construction featured lake filling, installation of more than 3,000 pieces of large wood, protection of off-channel and lake-connected wetlands from carp, and installation of more than 1 million native plants. I will discuss the history of the project, the motivation for the design, and the design and construction process from 2015 to 2025.

Wetlands and water management, Lower Dells B

Thursday, February 26, 10:40 am-11:00 am

Marty Melchior has more than 30 years of experience in designing river restoration projects across the US and Canada. His areas of expertise include wildland and urban river design, cranberry bog restoration, dam removal, and fish habitat.

Meyer Ben

Three parameters for identifying wetlands

Wetlands are complex ecosystems and are highly regulated across the US. Wetlands are defined by both federal and state regulations as requiring the presence of hydrology, hydric soils, and hydrophytic vegetation. This is known as the 3-parameter method. In this presentation, I will introduce you to the specifics of the three parameters, how the method relates to identifying wetlands on the landscape, and how this method is used to fill out a Corps of Engineers data sheet to complete wetland delineations. Further talks in the Wetlands 101 symposium will go into greater detail on each of the parameters.

Symposium: Wetlands 101, Lower Dells D

Wednesday, February 25, 11:00 am-11:20 am

Ben Meyer is a Wetland Specialist with the Minnesota Board of Water and Soil Resources (BWSR). His work includes oversight of the Minnesota Wetland Conservation Act and acting as co-coordinator of the Minnesota Wetland Professional Certification Program. He has been with BWSR for more than 11 years after 13 years of wetland consulting. Ben earned a bachelor's degree in biology from Northland College and a master's degree in Soils from the University of Minnesota.

Mitro Matthew

The effects of beaver dams on Wisconsin trout streams and fisheries

Beavers (*Castor canadensis*) play a complex role in the hydrologic connectivity and dynamics of low-gradient streams of the Upper Midwest, especially where dams alter important habitat for trout. For this reason, the control of beaver to maintain free-flowing conditions in select coldwater streams has been a core part of the Wisconsin DNR's management of brook trout (*Salvelinus fontinalis*), brown trout (*Salmo trutta*), and other salmonids in inland streams and Great Lakes tributaries. However, effects of beaver control on trout streams and surrounding habitats are often misunderstood, with deeply divided opinions among both the public and managers, leaving many unanswered questions concerning the science behind the control program. I will discuss recent statewide research on the impacts of beavers and beaver dams on Wisconsin trout streams, including (1) physical changes to streams and the creation of wetlands in trout stream floodplains, (2) effects of these changes on trout population dynamics and fish assemblages, and (3) evidence that beaver dams are barriers to trout movement.

Symposium: Beavers and wetlands, Lower Dells A

Thursday, February 26, 11:00 am-11:20 am

Matthew Mitro is a coldwater fisheries research scientist with the Wisconsin DNR's Office of Applied Science. Based in Madison, Matt has worked for the Wisconsin DNR on statewide fisheries issues since 2003 with a focus on trout in Wisconsin's inland streams. Matt has also worked for the EPA's Atlantic Ecology Division and the Atlantic States Marine Fisheries Commission.

Mossman Mike

Changes in breeding-bird communities of the Lower Wisconsin Riverway and the effects of climate

The diverse plant-animal communities of the Lower Wisconsin Riverway, the transitions between them, and the connections with adjacent landscapes support a rich array of breeding birds. Bird populations further respond to habitat changes associated with the dynamics of hydrology, water quality, weather, succession, management, habitat conversion and connectivity, disease, and invasive plants, as well as factors outside the riverway, like range expansions. I overview these population responses and Riverway-scale trends based on several sources, including periodic week-long canoe-surveys of the entire riverway conducted between 1984 and 2025. Climate change is an increasingly dominant driver of bird habitat dynamics and longterm habitat change in the river floodplain. Extensive summer floods kill trees, converting many tracts of floodplain forest and scattered trees into expanses of snag-studded marsh, open water, and buttonbush swamp—or, where the flooding is shallow, into beds of reed-canary grass that inhibit tree regeneration. This loss of floodplain forest is exacerbated by the ravages of tree diseases. Forest birds such as Red-shouldered Hawk have declined, and although cavity nesters like Red-headed Woodpecker and Prothonotary Warbler have benefitted, they may decline as snags collapse. Forest birds are not simply replaced by marsh birds, because riverway marshes open to strong flooding accumulate little residual plant material upon which many marsh birds and their prey breed and feed. These changes should be evaluated in light of others in and near the floodplain, e.g., where floodplain forest might expand, adapt, or convert to other habitats; and considering projected increases in flood and drought events.

Symposium: Lower Wisconsin Riverway, Lower Dells A

Wednesday, February 25, 4:20 pm-4:40 pm

Mike Mossman is a retired Wisconsin DNR research ecologist. He continues to work on land management and study conservation, wildlife and history in the Driftless Area, especially Sauk County. He has worked on Lower Wisconsin River ecology and management issues since the 80s, and co-wrote applications for its Important Bird Area and Ramsar designations.

Moya Alex

Sylvia Troost (The Pew Charitable Trusts)

Mapping US peatlands: A new tool to conserve and restore carbon sinks

The Pew Charitable Trusts, in collaboration with the US Forest Service (USFS), Greifswald Mire Centre, and Michigan Tech Research Institute, is developing the first national peatlands map for the United States. The map, expected in June 2026, will display current and historic extent of peatlands, with an emphasis on the continental US, but with additional data for Hawaii, Alaska, and U.S. territories, where available. The map will be used to identify intact areas where further protection is needed for these irrecoverable carbon sinks, as well as restoration opportunities for degraded peatlands that could reduce carbon pollution and restore other ecosystem services like flood mitigation. By refining existing USFS mapping efforts with data from under-represented peatlands (forested, coastal, and floodplain) and incorporating new advancements in remote sensing, we aim to improve the accuracy and utility of a national peatlands map for protecting and restoring these carbon sinks in the US.

Lightning Round Presentation, Upper Dells Ballroom

Thursday, February 26, 9:30am-10:15am

Moya advances coastal blue carbon and peatland conservation in state climate policies for Pew's US conservation project. Before Pew, Moya worked on nonpoint source pollution and Columbia River salmon issues for the US EPA and served in the Peace Corps in Nepal. Moya holds master's degrees in public policy and natural resources and environment from the University of Michigan.

Nedland Tom

Approving channel-spanning structures for habitat and hydrologic restoration projects

Channel spanning structures are commonly used to improve habitat conditions in streams and to restore hydrologic connections and processes between streams, floodplains, and adjacent wetlands. The Wisconsin DNR recently developed a document that builds upon and clarifies existing policies related to channel spanning structures. The document will be used to promote a consistent review process for projects that propose these structures. In this poster presentation, I will share information on the considerations that Wisconsin DNR will use when determining how channel spanning structures will be regulated. The poster will highlight examples of channel spanning grade control or channel aggradation practices (i.e., log vanes, rock vanes, engineered log jams, vortex or rock weirs, pool-riffle system, etc.) that are commonly and effectively used in stream habitat and hydrologic restoration projects.

Poster Session, Second Floor Atrium

Wednesday, February 25, 5:00pm-6:30pm

Tom has more than 20 years of experience in the wetland science and regulatory realm. During his time with the Wisconsin DNR, Tom has held positions conducting wetland and waterway permitting and serving as Wisconsin DNR's wetland delineation and wetland mitigation expert. Tom is currently the section manager for the Waterways Program's Policy and Professional Services Section.

Noll Christopher

David Bart (UW-Madison)

Cross examining Wisconsin's herbaceous wetland community types against hundreds of high-quality site surveys

Many are familiar with the archetypical wetland community types described in *The Vegetation of Wisconsin* (Curtis, 1959) and later refined in *The Ecological Landscapes of Wisconsin. Part I* (Wisconsin DNR, 2015, Ch7), but how do these constructs fare when tested against hydrogeologic, morphologic, and floristic survey data from hundreds of real-world sites? I will discuss results of an exploratory multivariate analysis examining factors influencing floristic composition in herbaceous wetlands across Wisconsin, what they say about our current understanding of community types, and ways in which these community models might be improved.

Wetland challenges, Lower Dells B

Wednesday, February 25, 2:50 pm-3:10 pm

Chris Noll has been exploring, documenting, and studying Wisconsin's wetlands for over a decade. Since 2015, he has inventoried vegetation at more than 400 sites, overhauled the Wisconsin DNR's wetland mapping methods, published

hundreds of square miles of wetland maps, and planned wetland restorations. He is currently finishing an master's degree in landscape architecture at UW-Madison studying the flora of herbaceous wetlands.

O'Brien Erin

Jennifer Western Hauser, Kyle Magyera, Stephanie Rockwood (Wisconsin Wetlands Association)

The importance of state agency collaborations

Wisconsin Wetlands Association's policy priorities emphasize building the enabling conditions needed to implement wetland conservation across the state. While our legislative work may have the highest profile, in recent years we have also invested heavily in building collaborations that help state and local agencies integrate wetland priorities into existing programs. I will share the objectives of our state agency program work, provide a high-level overview of projects, and invite reflection on how these efforts translate into more opportunities for the wetland professional community to plan and implement successful projects.

Lightning Round Presentation, Upper Dells Ballroom

Thursday, February 26, 9:30am-10:15am

Erin O'Brien joined the staff of Wisconsin Wetlands Association in 2004. Her current work focuses on strengthening state laws and regulations governing wetland management, building capacity to help integrate wetland conservation into state-sponsored programs, and providing support to communities interested in restoring wetlands to solve problems.

O'Connor Ryan

Intro to wetland plant communities

Wetland conservation, management, and research in Wisconsin is predicated on an understanding of the different types of wetlands that occur in the state. While many experienced practitioners have a strong working knowledge of wetland communities, others who are newer to the field may be less familiar with them. In this session, I will help both beginners and seasoned professionals enhance their understanding of wetland natural communities of Wisconsin. I will provide a brief introduction to key ecological, hydrologic, and vegetative characteristics, distribution in the state, how to know what type you are in, and helpful resources for deeper learning. I will provide crosswalks between different classification systems (e.g., Wisconsin DNR, Eggers and Reed, etc.) to enhance understanding and preparedness for professionals in any setting.

Symposium: Wetlands 101, Lower Dells D

Wednesday, February 25, 2:30 pm-2:50 pm

Ryan O'Connor is the lead natural community ecologist for the Wisconsin DNR's Natural Heritage Conservation program where he conducts biotic inventory in support of conservation and maintains the DNR's natural community classification. He helps natural resource professionals make informed conservation decisions through inventory, monitoring, and enhancing understanding of plant communities.

Olson Mari

Madeline Opie (GEI Consultants, Inc.)

Beneath the surface: Designing wetland restorations to protect crayfish and snake habitat

Wetland restoration projects often emphasize hydrology and vegetation but may overlook the fine-scale habitat features that support wildlife. At Havenwoods State Forest in Milwaukee, Wisconsin, a wetland restoration project included the design and implementation of a shallow pool as part of a 237-acre restoration project within the Milwaukee Estuary Area of Concern (AOC). The intent of the restoration was to increase wetland extent and habitat diversity while maintaining ecological functions critical to burrowing crayfish and the snake species that rely on their burrows for overwintering and refuge. Protecting these subsurface microhabitats became a key design consideration as the project sought to expand habitat without degrading existing use areas. Field investigations mapped active burrows, and spatial analyses in ArcGIS Pro identified high-density clusters that informed excavation limits and slope refinements; these geospatial methods are highlighted in a related poster at this conference that complements this presentation by focusing on data analysis approaches. Construction sequencing and timing were planned to reduce disturbance to overwintering individuals and promote recolonization following excavation. I will highlight the design evolution, agency coordination, and adaptive strategies used to balance restoration objectives with species-specific needs. By going “beneath the surface,” the project demonstrates how spatial data and ecological insight can guide habitat expansion that supports both biodiversity and resilience.

Wetland restoration and management techniques, Lower Dells B

Wednesday, February 25, 4:00 pm-4:20 pm

Mari Olson is a project manager and wetland ecologist at GEI Consultants. She specializes in wetland delineation, habitat restoration, and endangered species assessments across the Midwest, integrating ecological science with practical design to restore resilient, wildlife-supporting habitats. She has a bachelor's degree in wildlife ecology from UW-Madison.

Opie Madeline

Olson Mari (GEI Consultants, Inc.)

Burrow by burrow: Using microhabitats to inform wetland restoration

Restoration projects typically target landscape-scale goals such as improving hydrology, vegetation, and ecosystem processes, but small-scale features offer opportunities to enhance microhabitats for species that rely on them. At Havenwoods State Forest in Milwaukee, Wisconsin, we implemented a wetland restoration project incorporating a shallow scrape as part of an Area of Concern (AOC) project addressing the fish and wildlife population beneficial use impairment. The project specifically considered burrowing crayfish and snake species inhabiting the site. Crayfish burrows—subsurface microhabitats—serve as essential overwintering and refuge habitat for snakes, making their preservation critical to project success. We analyzed field-collected burrow locations in ArcGIS Pro using Average Nearest Neighbor and Kernel Density tools to evaluate spatial clustering and identify high-density areas. The design process balanced excavation objectives with habitat protection by refining the restoration footprint to reduce disturbance and applying burrow distribution data to guide placement of snake exclusion fencing. This poster presents geospatial methods for integrating species-specific habitat requirements into wetland restoration design to inform restoration placement while minimizing habitat disturbance. By “going beneath the surface,” this approach demonstrates a replicable

framework for integrating fine-scale microhabitat distribution data to enhance landscape-scale restoration and benefit wildlife.

Poster Session, Second Floor Atrium

Wednesday, February 25, 5:00pm-6:30pm

Madeline Opie is a wetland ecologist with GEI Consultants, Inc., specializing in AOC habitat restoration design, wetland delineations, GIS mapping, and field surveys—including rare species, habitat, and FQA—for municipal and state clients. She holds a master's degree in biological sciences from UW-Milwaukee and a bachelor's degree in environmental science from UW-Madison.

Peterson Chelsea

Jeffrey Matthews (U of Illinois Urbana-Champaign)

When is restoration win-win? Evaluating plant diversity and carbon storage tradeoffs across restored floodplains

The simultaneous recovery of plant diversity and carbon (C) storage in restored wetlands is uncertain due to tradeoffs among primary productivity, vegetation composition, and soil organic carbon (SOC) accrual. In this study, we compared these tradeoffs across eight Illinois wetland sites with paired restored and reference floodplain forests by conducting vegetation surveys and collecting soil cores. After analyzing cores for total C (TC) and SOC concentrations, we quantified C storage in multiple ecosystem pools along with tree and herbaceous layer species richness. To explain variation in SOC, we also measured two SOC fractions and multiple soil edaphic properties. Although inorganic and particulate organic C stocks were somewhat lower in restored than reference wetlands, high mineral-associated organic C stocks in restored wetlands led to TC and SOC stocks only marginally below reference levels. Despite having nearly recovered soil C storage, however, restored wetlands ultimately had much less ecosystem C storage due to their limited woody material. Conversely, plant species richness was only lower than reference levels at younger restored sites (<20 years), which had less canopy cover and more invasive species biomass than older restored sites (>20 years). Thus, beyond hydrology, tree density could be an important secondary factor influencing long-term plant diversity and ecosystem C storage in restored forested floodplains.

Peatlands and carbon, Lower Dells B

Wednesday, February 25, 11:40 am-12:00 pm

Chelsea Peterson is a PhD candidate studying wetland ecology and restoration in the Department of Natural Resources and Environmental Sciences at the University of Illinois Urbana-Champaign. She earned her bachelor's degree in environmental engineering at Cornell University and master's degree in agricultural engineering at University of Illinois Urbana-Champaign.

Pfost Mark

Brad Strobel (U.S. Fish & Wildlife Service, Necedah National Wildlife Refuge)

A community of conservation: Restoring a watershed in the heart of "Sand County"

A century ago, "steam shovels sucked dry the marshes of central Wisconsin," leaving the landscape ecologically and economically poorer. For the past 5 years, our group of conservation partners has leveraged their skills to restore the

ecosystem services and ecological benefits that these wetlands provided. Federal, state, and local governments, non-governmental organizations (NGOs), and community leaders worked together to plan, fund, permit, and implement a novel wetland restoration in the headwaters of this HUC (hydrologic unit code) 10 watershed. The landscape of this project is awash with cultural and conservation history from the generations of Ho-Chunk people living here to the inspiration it offered Aldo Leopold. To restore this landscape, we are employing concepts straight from the pages of Leopold's writing. We are releasing a river from the ditches and dams that confined it and restoring thousands of wetland acres by disabling miles of arterial ditches. We are seeing immediate, dramatic, and lasting changes to surface and groundwater. We have initiated research to better understand this project's impact on carbon storage and sequestration and have implemented novel road construction techniques to create flood resilient roads that facilitate water storage and decrease downstream flooding. We will describe our methods, successes, and, importantly, our lessons learned to date. We believe these methods are applicable in other nearby watersheds, but recognize that the conditions that have allowed us to be successful may not exist everywhere. While we have made substantial progress, we are gaining momentum and undoubtedly will be sharing a more complete report at the 2027 Wetland Science Conference.

Wetlands as solutions in watersheds and communities, Lower Dells B

Thursday, February 26, 2:30 pm-2:50 pm

Mark Pfof worked for the US Fish & Wildlife Service for twenty-two years, the last twelve as a private-lands biologist, helping restore wildlife habitat on private lands across nine central Wisconsin counties. After retiring, he was hired by the Wisconsin Waterfowl Association as a wetland ecologist to search out and conduct wetland restorations on Wisconsin DNR-owned and -managed lands.

Remus Kate

Difficult scenarios in wetland delineation

Wetland delineations can be challenging in areas of recent or past disturbances, current land use, or due to natural settings or processes, which may limit observable wetland indicators. In this session, we will discuss some common problematic or atypical situations seen in Wisconsin and methods for interpretation in line with Chapter 5 of the Northcentral-Northeast and Midwest Regional Supplements to the Corps Manual. Example sites will be used to collectively evaluate and illustrate the intricacies of this practice.

Symposium: Wetlands 101, Lower Dells D

Wednesday, February 25, 12:00 pm-12:20 pm

Kate Remus is a registered Professional Wetland Scientist and Wisconsin DNR Assured Wetland Delineator who received her master's degree in water resources management from UW-Madison and bachelor's degree in ecosystem restoration and soil science from UW-Stevens Point. At Stantec, Kate works with a variety of clients, providing wetland/waterway, rare species, and mitigation support.

Reynolds Allissa

Wisconsin wetland regulatory programs 101

Wisconsin water laws, including wetland regulations, can be complex and daunting to navigate. In this presentation, I will offer an introduction to the wetland permit and exemption processes for attendees who are new to Wisconsin wetland

regulations or want to refresh their knowledge with more recent changes. I will focus on the State of Wisconsin permitting pathways for wetland projects and projects in wetlands. I will also cover considerations and elements necessary for a complete permit application to facilitate a smooth permitting process, highlighting the “avoid and minimize” components of the Practicable Alternatives Analysis (PAA).

Symposium: Wetlands 101, Lower Dells D

Wednesday, February 25, 2:50 pm-3:10 pm

Allissa Reynolds is the Wetland Policy and Program Coordinator within the Wisconsin DNR Bureau of Waterways. Allissa has worked across the western and Great Lakes states in a wide range of natural resource roles, with a primary focus on disturbance ecology. She holds a bachelor's degree in biology/ecology from Western Washington University and a master's degree in resource management from the University of Montana.

Rosnow Joe

Wisconsin springs inventory

Springs provide critical connections between groundwater and surface water and support unique ecosystems. In Wisconsin, springs are defined as groundwater discharge features and are protected through water quality, water quantity, and wetland regulations. Wisconsin spring ecosystems are characterized by stable cold temperatures and consistent groundwater chemistry, which sustain specialized, groundwater-dependent biological communities. These conditions provide important habitat and thermal refuge and influence downstream wetlands and streams. Springs play a key role in sustaining wetlands and coldwater trout streams by contributing to baseflow, thermal regulation, and ecological resilience. The previous spring survey conducted by the Wisconsin Geological and Natural History Survey focused primarily on hydrogeologic research. In contrast, the Wisconsin DNR Springs Inventory is management-based and designed to support water resource protection, water use regulation, and applied conservation. Led by the Wisconsin DNR Water Use Section in collaboration with agency partners, local experts, and landowners, the inventory compiles standardized information on spring location, discharge, hydrogeologic setting, and ecological context statewide. It integrates historical records, targeted field surveys, existing datasets, and landowner-reported information. To date, nearly 500 springs have been documented, with landowner participation essential for site access, data verification, and identification of previously undocumented springs. The inventory provides a practical tool for identifying groundwater inputs, supporting site assessments, and informing wetland delineation and is designed for continual updates as new data become available.

Wetlands and water management, Lower Dells B

Thursday, February 26, 11:40 am-12:00 pm

Joe Rosnow is a Water Resource Management Specialist with the Wisconsin DNR, focusing on statewide water quantity monitoring, GIS analysis, fieldwork, and public outreach. He previously worked in wetland invasive species, fish propagation, and fish management. He continually supports conservation goals and collaborative resource management across Wisconsin.

Rosler Shawn

Following the process: Updating Wisconsin's Beaver Management Plan

Beavers can be a polarizing species with differing opinions about how the species should be managed. Considered a keystone species by many, beavers can modify habitat to the benefit or detriment of other species. Beaver activity can negatively impact infrastructure, agriculture, and property due to flooding caused by dam building and felling of trees. Alternatively, beaver and beaver activity can increase biodiversity and provide other ecosystem services via the creation of dams, ponds, and wetland complexes. Managing beavers requires finding a healthy balance between the positive ecological and habitat benefits of beaver and public tolerance for beaver and beaver activity. To seek that balance, the Wisconsin DNR has initiated a public engagement process to update the state's beaver management plan. The existing Wisconsin Beaver Management Plan was finalized in 2015 and targeted a 10-year period through 2025. The department's goal is to implement an updated plan as soon as practicable following the time period of the existing plan. I will present an overview of the process to engage the public, stakeholders, and partners in developing an updated beaver management plan.

Symposium: Beavers and wetlands, Lower Dells A

Thursday, February 26, 2:30 pm-2:50 pm

Shawn Rossler is a furbearer specialist with the Wisconsin DNR. Rossler currently oversees the furbearer program leading the cooperative management of 18 furbearer species and the state's mandatory trapper education program. He holds a master's degree in conservation biology and bachelor's degree in biology/natural resources, both from Central Michigan University.

Stasko Abby

Matthew Hudson, Sarah Johnson, Erik Olson (Burke Center for Ecosystem Research)

Eurasian watermilfoil invasion and macrophyte community change in the Turtle-Flambeau Flowage

Impoundment lakes and flowages created by dams alter natural water-level regimes, reshaping the composition and dynamics of aquatic biotic communities. Due to elevated susceptibility to invasion, capacity to support multiple aquatic invasive species, and potential to act as sources of aquatic invasive species to nearby natural lakes, impoundments warrant enhanced monitoring. The Turtle-Flambeau flowage in Northern Wisconsin is a species-rich impoundment system with long-term macrophyte data and a recent invasion of Eurasian watermilfoil (*Myriophyllum spicatum*; EWM). Our study quantified the distribution, rate, and magnitude of EWM spread in the flowage and evaluates impact on native macrophytes. In summer 2025, we conducted a system-wide survey using standard point-intercept methods at 1,445 points surveyed once prior in 2014-2019 and within additional finer-scale grids of 698 points established in 2024. We recorded water depth, substrate type, and the presence of all macrophyte species using rake fullness metrics. Surveyed points supporting at least one macrophyte species increased by 13% compared to baseline data from 2014-2019 and occurred at deeper water depths, indicating the flowage became more vegetated. Across the flowage, native community composition remains diverse (68 species) and of high floristic quality (Mean C = 7.1, FQI = 52.1). This community is at risk, as EWM has spread rapidly, affecting 20% more locations between 2024 and 2025. We will present additional metrics of community composition and dynamics. The Turtle-Flambeau flowage provides a valuable opportunity to explore environmental drivers and rates of change in aquatic macrophyte communities within a large, annually managed impoundment system.

Poster Session, Second Floor Atrium

Wednesday, February 25, 5:00pm-6:30pm

Abby Stasko is a first-year graduate student in the biology program at Grand Valley State University in Allendale, MI. Her primary area of study is plant community ecology, and she is currently working on a project focused on the aquatic macrophyte community in the Turtle-Flambeau Flowage near Mercer, WI. Abby graduated from Northland College in 2023 with bachelor's degrees in biology and natural resources.

Stenglein Jennifer

Paul Frater (Wisconsin DNR)

Beaver monitoring in Wisconsin

Beaver have existed and changed landscapes in what is now Wisconsin for centuries. Concurrently, beaver have been harvested for their meat and fur, first by Native Americans and then—likely in much higher numbers—by Europeans as part of the fur trade. In this talk, we discuss the past and present monitoring of beaver in Wisconsin as conducted by Wisconsin DNR (WDNR), the state entity charged with managing and monitoring beaver and other furbearer species. Since 1930, WDNR has collected statewide metrics of beaver harvest pressure from annual harvest estimates along with pelt price records. For the last 35 years, WDNR has surveyed fur trappers to obtain finer-scale information about the estimated number of beaver trappers, beaver harvest data, and catch-per-unit-effort metrics to infer beaver population abundance. Within the last 10 years, WDNR has initiated a community science statewide trail camera project called Snapshot Wisconsin, and from this now produces spatial and temporal trends for beaver that are updated annually. Snapshot Wisconsin has provided increasingly comprehensive data on the distribution and direction of beaver populations in the state, and methodological advances in harvest estimation allow us to dial in harvest monitoring efforts. These data sources combined help fine-tune knowledge about beaver populations and harvest in the state and drive better usage of information to manage this important keystone species.

Symposium: Beavers and wetlands, Lower Dells A

Thursday, February 26, 10:40 am-11:00 am

Jennifer Stenglein is a research scientist at Wisconsin DNR. She has worked there on the Snapshot Wisconsin project for 12 years, seeing the project from its beginning to now having 100+ million photos. Jennifer earned her PhD from UW-Madison and master's degree from the University of Idaho, both projects working on wolves.

Strobel Brad

Classic blunders: Managing wetlands alongside rodents of unusual size

Natural resource managers are often working to manipulate conditions over which they only have partial control. When drought prevents us from meeting our objectives, we are disappointed, but when beavers are actively and aggressively working against you, it becomes personal. It can feel like a battle of wits where hubris is as fatal as Iocane powder. Necedah National Wildlife Refuge staff have managed wetlands in the Central Sands region for more than 80 years; they have fallen for many classic blunders and learned many successful techniques along the way. Trapping and dam removal are effective methods, but can be as prolonged as a land war in Asia. More recently, Refuge staff have expanded our toolbox to mitigate or prevent conflicts with beavers. In this presentation, we will explore practical strategies for managing beaver-related wetland conflicts while sharing some lessons learned and hard-won successes that were once inconceivable.

Symposium: Beavers and wetlands, Lower Dells A

Thursday, February 26, 1:50 pm-2:10 pm

Brad Strobel has always found a way to keep his feet wet. He has worked on diving ducks in Minnesota, puddle ducks in North Dakota, spectacled eider in Alaska, woodcock in Wisconsin, and whooping crane in Texas. For the past 13 years he's been topping his boots in the sedges and sphagnum of Necedah National Wildlife Refuge where he has been working on wetland management and restoration in Wisconsin's central sands.

Swope Maya

Partnerships for peatland restoration in Minnesota

Peatland protection, restoration, and re-wetting have been identified as critically important land-based climate mitigation strategies (aka "Natural Climate Solutions"), given the disproportionate carbon stores of peatlands relative to their footprint on the landscape as well as the large contribution of drained and degraded peatlands to greenhouse gas (GHG) emissions, both globally and in Minnesota. Peatlands and/or peat soils comprise more than 10% of Minnesota by area, and, historically, the state (across multiple agencies and authorities) has played a major role in successive eras of peatland drainage, management, conservation/protection, and wetland restoration. Most recently, under the state Climate Action Framework, state local, federal, and Tribal agencies and partners have come together to develop initiatives designed to address science, policy, financing, and capacity needs to advance peatland restoration and protection at scale within a complex social, institutional, administrative and ecological landscape. In this presentation, we will discuss the role that public and private sector partners have played in advancing this work (including financing) and share successes, challenges, and lessons learned.

Peatlands and carbon, Lower Dells B

Wednesday, February 25, 11:00 am-11:20 am

Maya Swope is a Climate Project Manager at The Nature Conservancy of Minnesota, North Dakota, and South Dakota. In their work, they focus on building partnerships for peatland restoration in Minnesota and beyond. They are part of a team working to quantify, communicate, and promote peatland restoration and protection as a natural climate solution.

Tandon Avani

Michelle Hess, Lacey Goodrich, Avarie Daly (UW-Milwaukee)

Dumkes Lake land management plan: Milwaukee and Waukesha Counties, Wisconsin

Dumkes Lake, part of the Big Muskego Lake Wildlife Area in Southeastern Wisconsin, comprised of a former row-crop agricultural land and a small lake was recently acquired by the Wisconsin DNR. Efforts to transform the Wildlife Area are underway, including the restoration of mesic prairie, wet-mesic prairie, and emergent wetland habitats. Restoration will require short and long-term adaptive management planning as well as cooperation of Wisconsin DNR and community stakeholders. Other improvement goals are focused on making the Wildlife Area more accessible, such as rebuilding the existing dock, establishing and maintaining a trail, and adding structures like benches and an observation deck for the enjoyment of visitors.

Poster Session, Second Floor Atrium

Wednesday, February 25, 5:00pm-6:30pm

Avani Tandon is attending her undergraduate schooling at UW-Milwaukee. She is in her fifth and final year, majoring in conservation and environmental science. She is completing minors in biology, geoscience, and geographic information systems, as well as a certificate in peace and conflict. This past summer she enrolled in an internship at UW-Milwaukee, in partnership with the Milwaukee Metropolitan Sewerage District.

Teeple Angela

Neutron activation of Tribal waters

Neutron activation analysis (NAA) is a nuclear analytical technique capable of quantifying trace elemental concentrations in water at parts-per-billion levels without chemical digestion or matrix-dependent calibration. We will examine the application of NAA to surface water, groundwater, and wetland-connected samples collected in collaboration with multiple Tribal Nations in the Upper Midwest. Wetlands are emphasized as hydrologic and geochemical integrators that reflect both upstream land use and natural background processes, making them critical systems for evaluating cumulative water quality impacts. Elemental results reveal distinct chemical fingerprints associated with water source and landscape context. Municipal and treated waters exhibited expected levels of sodium, while wetland-adjacent and surface waters in northern Michigan showed elevated phosphorus, sodium, manganese, bromine, and gadolinium, indicating a combination of natural geochemical variation and anthropogenic influence. Comparisons between wetland-connected waters and municipal sources demonstrate how high-resolution elemental data can be used to distinguish background conditions from human-derived inputs and to support baseline wetland characterization. I will focus on how NAA data are interpreted and applied in partnership with Tribal governments, including use in long-term wetland monitoring, identification of emerging contaminants, and support for community-directed environmental health assessments. This work illustrates how nuclear analytical techniques can complement wetland science by providing defensible, high-sensitivity data for environmental monitoring and decision-making.

Wetlands and people, Lower Dells D

Wednesday, February 25, 4:40 pm-5:00 pm

Angela is Anishinaabe from Bay Mills in the UP of Michigan. She obtained her bachelor's degree in nuclear engineering from Kansas State University, master of legal studies degree in Indigenous People's Law from University of Oklahoma, and is working on a PhD in Medical Physics at University of Minnesota on a novel portable MRI system. She is also the Founder of Nibi-Clear, a water testing service that uses neutron activation analysis.

Thompson Hillary

Andrew Caven, Nicole Gordon, Alicia Ward (International Crane Foundation)

Threat mitigation to protect critical wetland habitat for Whooping Cranes

In the early 1900s, the endangered Whooping Crane population was restricted to ~16 individuals in one migratory population. Due to conservation efforts throughout their range, we have seen a slow increase of Whooping Cranes in the wild. The establishment of the reintroduced Eastern Migratory Population (EMP) is one such contribution to the recovery of the species. The EMP consists primarily of captive-reared and released Whooping Cranes who are now reproducing in the wild; however, the population is not yet self-sustaining. The International Crane Foundation and our partners are working together to improve demographic rates for the EMP through a variety of strategies. Our goal is to increase

survival in the population by releasing captive-reared cranes that are trained to recognize and respond to predators, as well as by mitigating anthropogenic threats like powerline collisions and poaching. Additionally, we aim to reduce predation by managing wetlands on the breeding grounds to have suitable water levels for nesting cranes and limited ambush cover for predators. Through our applied research, adaptive management, and targeted outreach efforts, we hope to see increased rates of survival and reproduction for this iconic endangered species and support wetland habitat for a variety of other wildlife.

Symposium: Wetlands benefit from many levels of crane conservation, Lower Dells A

Wednesday, February 25, 11:40 pm-12:00 pm

Hillary Thompson is the whooping crane project manager for the International Crane Foundation (ICF). Hillary has been at ICF since 2012 and completed her master's degree at Clemson University. She coordinates field research and outreach for Whooping Cranes in the eastern flyway. Hillary is also the Co-Chair for the Reintroduction Group's Field Team and the President of the North American Crane Working Group.

Thompson Alice

Wetland soils 101 for wetland delineation and restoration

Wetland delineation uses three wetland parameters--a three legged stool--to determine if wetland conditions exist. The examination of soils is a sturdy leg of that stool, combined with vegetation and hydrology. Furthermore, a soil pit reveals a record of time and disturbance, both natural and human caused. The more pits you unearth, the better you can read the record. In this talk, I will show the elements of a wetland delineator's soil pit, common Midwest hydric soil indicators, and how to evaluate some human disturbances.

Symposium: Wetlands 101, Lower Dells D

Wednesday, February 25, 11:20 pm-11:40 pm

Alice Thompson is a Senior Professional Wetland Scientist and a Wisconsin DNR assured wetland delineator since 2006. Thompson has twenty seven years experience in wetland ecology, delineation, restoration, and management. She authored Wetland Restoration Handbook for Wisconsin Landowners and teaches a field workshop "Wetland Delineation for Beginners" at the UW-Milwaukee Field Station annually.

Toczydlowski Rachel

Shay Keretz (Odum School of Ecology University of Georgia); Sadie Stevens (USDA Forest Service Eastern Region); Wendell Haag (USDA Forest Service Southern Research Station); Deahn Donner (USDA Forest Service Northern Research Station)

Creating a standardized protocol for mussel surveys in the Great Lakes' National Forests

Native, freshwater mussels (i.e., unionids) contribute numerous services to ecosystems – including water filtration, nutrient cycling, and sediment stabilization – but are highly imperiled in North America. In the Great Lakes, coastal wetlands are well-known refuges for unionids and often serve as source populations for surrounding waters. A major barrier to implementing a Great Lakes basin-wide conservation strategy is the lack of information on unionid distributions and health, including on National Forests. National Forests represent ~5% of the land-base in the Great Lakes Basin but little is known about unionids in these areas due to a set of multifaceted challenges: (1) Lack of a standardized

methodology for conducting unionid surveys in National Forests; (2) A massive area to assess (Great Lakes National Forests encompass >3.7 million acres and >7,500 km of rivers); and (3) Lack of clear guidelines and infrastructure to support data access and sharing. We are developing a standardized protocol to assess unionid assemblages and health in the National Forests of the Great Lakes. The protocol will include site selection guidelines that target a diversity of streams, survey methods that cover large areas robustly but efficiently, and methods to survey targeted areas for management activities. This standardization will increase knowledge-sharing among partners and agencies to support monitoring and restoring unionids. We are also working to ensure that these data can be archived into a searchable, public database under development in a large interagency collaborative effort. We are pilot testing our protocol this summer (2026); therefore, we welcome both feedback and input at this stage in our protocol development.

Poster Session, Second Floor Atrium

Wednesday, February 25, 5:00pm-6:30pm

Dr. Rachel Toczydlowski is a Research Scientist with the USDA Forest Service Northern Research Station. She uses a suite of genetic tools to understand where species are on the landscape and how the landscape and management actions influences levels and spatial patterns of genetic diversity. Dr. Toczydlowski works on a diversity of species in terrestrial and freshwater aquatic systems.

Uhelski Dominic

Dominic Uhelski, Rod Chimner (Michigan Technological University); Erik Lilleskov (US Forest Service)

PeatRestore: Providing knowledge and tools needed to make informed decisions about peatland restoration

Peatland conservation and restoration are globally important goals because of peatlands' potential to sequester and store carbon for millennia, provide habitat for plants and wildlife, regulate hydrology, and emit greenhouse gases (GHGs) when degraded. The PeatRestore network seeks to provide the knowledge and resources needed to manage peatland ecosystems sustainably. Our work includes developing map resources, restoration guides, and decision support/planning tools for managers and policymakers. We will present our recently developed peatland condition map for the conterminous US and Hawaii, which is intended to provide information that can be used to identify possible targets for restoration. Of the 94,750 km² of histosols and 13,533 km² of histic epipedons (HE) analyzed, 7% (7709 km²) were under agricultural use. Based on IPCC tier 1 emission factors, the greatest potential reduction for CO₂-e emissions is achievable by rewetting peatlands under agriculture. Wisconsin is in the top five states ranked by peatland area and by emissions from agriculture on peatlands. We will also present briefly on the tradeoffs and co-benefits of inundation, topsoil removal, and slow rewetting restoration strategies tailored to address restoration of post-agricultural peatlands. In summary, we will review our peatland condition map, the need for peatland restoration in Wisconsin, and the strategies that might be employed. We are also holding a working group on Wednesday afternoon that will address the needs and opportunities for peatland restoration in Wisconsin specifically. You are invited to join us!

Peatlands and carbon, Lower Dells B

Wednesday, February 25, 11:20 am-11:40 am

Dominic Uhelski is an applied wetland ecologist who uses biogeochemistry to understand how ecosystem properties and restoration design drive carbon and nutrient cycles, which in turn shape successional trajectories and restoration outcomes. His favorite scientific topics include restoration design, greenhouse gas flux, water quality impacts, and disturbance ecology, particularly fire.

Unmuth Jean

Feast and famine: Effects of droughts and floods in the Lower Wisconsin River basin

The Lower Wisconsin River (LWR) along with 45,000 acres of Ho-Chunk, federal, and state lands, is now a Ramsar Wetland of International Importance. Covering the longest free-flowing stretch of river in the Midwest, the site harbors twenty natural communities found along different gradients of topography, from bluffs on down to floodplain wetlands that border the river. These habitats support a vast array of plants and animals facing threats from climate change. Scientists have documented an astonishing array of native plants, birds, mussels, mammals, and herptiles, including rare, threatened, and endangered species within the riverway. This high ecological diversity, combined with a riverine landscape steeped in cultural heritage and history of native peoples followed by Europeans, are what gives this unique site its claim to Ramsar wetland fame. The site falls within the larger LWR basin encompassing 4,940 square miles of land and containing a vast network of 3,800 miles of streams. Fed by stormwater runoff and groundwater from the watershed, these streams flow through forests, fields, farmlands, and floodplain wetlands before ending up in the LWR. Recent droughts in the basin have reduced river water levels to the lowest recorded in a 111-year period. Yet, we have also seen 8 of the top 10 rainfall events occur within the past 25 years. In 2008, the LWR basin was hit hard, with some areas flooded for weeks to months. This had catastrophic consequences for humans, infrastructure, and natural ecosystems. After exploration of basin-wide floods and droughts, we're faced with finding ways to either adapt to or mitigate the effects of climate change.

Symposium: Lower Wisconsin Riverway, Lower Dells A

Wednesday, February 25, 2:10 pm-2:30 pm

Jean Unmuth worked 30 years as a Wisconsin DNR water quality and fisheries scientist. She's on the Lowery Creek Watershed Initiative Team and leads a stream monitoring team. Working with Wisconsin Wetlands Association, she chaired the team for the nomination of the Lower Wisconsin Riverway (LWR) as a Ramsar Wetland of International Importance. She investigates LWR slough quality and helps reintroduce and monitor rare fish with Friends of the Lower Wisconsin's Science Team.

Volkening Aaron

A spatial model for wetland plant migration and pike spawning habitat in Great Lakes coastal restoration

In this presentation, I will introduce a rule-based spatial model that simulates how annual water level changes influence vegetation migration and transition in Great Lakes coastal wetlands, with an extension to fish spawning habitat suitability. Natural coastal wetlands on the Great Lakes are resilient to multi-year lake level fluctuations of one to two meters (three to six feet). However, human efforts to restore, manage, or create Great Lakes coastal wetlands can be challenged by large hydrologic changes that can flood or dry out intended vegetation communities, promote invasive species, and hinder the establishment of suitable habitat for native fish, birds, and other wildlife. To address these challenges, a grid-based spatial model was developed to predict how six distinct wetland vegetation communities respond to water level changes. The model incorporates bathymetry, current and historical water levels and vegetation patterns, and the ability of plant communities to spread or re-establish via seed banks and vegetative growth. The model was applied to the Burnham Canal in Milwaukee, Wisconsin—a dredged industrial waterway undergoing planning for coastal wetland re-establishment. Because northern pike (*Esox lucius*) spawning habitat is a key restoration goal for the Burnham Canal project, the model was extended to evaluate spawning suitability by assigning numeric scores to combinations of vegetation types and water depths. This approach provides a new tool for water resource and ecological managers, planners, and designers, by

providing model-based spatial predictions of coastal wetland plant community dynamics and fish habitat suitability under variable hydrologic conditions.

Wetland restoration and management techniques, Lower Dells B

Wednesday, February 25, 4:40 pm-5:00 pm

Aaron Volkening is a water resources engineer at Stantec specializing in wetland and stream restoration, flood management, stormwater quality, and watershed planning. He enjoys collaborating with diverse teams and stakeholders to contribute engineering and hydrology expertise to address environmental challenges. He lives in the Milwaukee area.

Wefferling Keir

Sarah Baughman, Tony Klingert, Alex Powell (UW-Green Bay Cofrin Center for Biodiversity)

Floristic quality assessment in WI rich fens using bryophytes and vascular plants

Since 2022, we have been working on floristic quality assessments (FQAs) of minerotrophic peat-accumulating wetlands (including Northern Wet-mesic Forests, Boreal Rich Fens, Great Lakes Shore Fens) in northern Wisconsin. Our FQAs integrate percent-coverage estimates for both vascular and non-vascular plants (mosses and liverworts) and coefficients of conservatism (CCs) for our region's bryophytes. We've developed draft CC values for 160 peatland bryophyte species of the Western Great Lakes region, gathering the expertise of bryologists from across the region. This work provides an important advancement for FQAs in Western Great Lakes peatlands, as bryophytes are important ecological indicators and frequently dominate peatlands in our region. To better understand the influence of integrating bryophytes into FQAs, we're exploring different approaches to measure diversity, integrity, and quality of peatland sites. In this presentation, we will focus on preliminary data for Wisconsin's Boreal Rich Fens, mainly in Door County, WI.

Peatlands and carbon, Lower Dells B

Wednesday, February 25, 12:00 pm-12:20 pm

Dr. Keir Wefferling is Curator of the Gary A. Fewless Herbarium and Assistant Professor of Biology at UW-Green Bay, positions he has held since 2020. His training is mainly in plant systematics and cyto geography, but increasingly Keir studies peatland bryophytes and peatland communities in the western Great Lakes region.

Western Hauser Jennifer

Erin O'Brien (Wisconsin Wetlands Association); Tom Nedland, Crystal Von Holdt (Wisconsin DNR)

Hydrologic Restoration General Permit: Why bother and how to be successful

Working to restore wetland, stream, and floodplain systems just got a tick easier with the availability of a new statewide general permit for hydrologic restoration (HRGP). This permit provides an efficient pathway for wetland, stream, and floodplain restoration projects that improve hydrologic conditions, connections, and functions. Work authorized under the HRGP includes reconnecting streams and floodplains, re-establishing healthy channel form and condition, removing or reducing wetland drainage, restoring or improving natural flow and movement of water and sediment, and re-establishing site stability to help manage flow and infiltration. Learn more about when this permit may be a good avenue for regulatory approval for both complex and simple projects, and the types of efficiencies it offers, as well as key tips for navigating the

application process. We encourage attendees interested in this presentation to also attend the talk by Tom Nedland entitled, “Trailblazers: Projects that have used the Hydrologic Restoration General Permit to achieve their goals.”

Wetlands as solutions in watersheds and communities, Lower Dells B

Thursday, February 26, 1:50 pm-2:10 pm

Jennifer supports the development and growth of Wisconsin Wetlands Association’s policy programs and serves as a resource for policy makers, partners, and agency staff. Jennifer has a combined fourteen years of experience working in state government and five years in her current role at Wisconsin Wetlands Association.

Wied Joshua

Lamparek Creek: Voluntary stream restoration in a rapidly urbanizing Southeast Wisconsin watershed

Historic agricultural practices often straightened streams and disconnected streams from floodplains, reducing wetland function and habitat complexity. Voluntary stream restoration can reconnect floodplains, expand wetland habitat, create habitat for fish, and diversify vegetation communities, providing a practical model for ecological resilience in changing landscapes. I will describe a voluntary stream restoration project within the Pike River watershed impacted by ongoing development, where large impervious areas are now present across the landscape. Project objectives included restoring natural stream morphology, reconnecting the floodplain, and enhancing wetland and aquatic habitat to improve ecological functions in a Lake Michigan tributary. Pre-restoration assessments included channel geometry surveys, groundwater monitoring wells, temperature and flow loggers, and invasive species documentation. Based on these data, the project design incorporated a re-meandered channel and strategic grading to restore floodplain connectivity and create wetland areas with backwater zones for hydrologic complexity and vegetation diversity. The restored reach now functions as a headwater system with diverse habitat where ecological diversity was previously limited. Post-restoration monitoring will evaluate groundwater interaction, stream temperature, flow dynamics, vegetation establishment, and invasive species response. Expected outcomes include improved floodplain connectivity, expanded wetlands, enhanced fish habitat, and increased ecological resilience. I will discuss how this project demonstrates the feasibility of voluntary restoration in highly altered watersheds and provides a model for integrating stream and wetland restoration in developing landscapes.

Wetlands and water management, Lower Dells B

Thursday, February 26, 11:20 am-11:40 am

Joshua Wied is a wetland scientist and stream ecologist at Stantec specializing in wetland and stream restoration, ecological surveys, environmental permitting, construction oversight, and environmental monitoring. He enjoys collaborating with multidisciplinary teams and stakeholders to integrate engineering and hydrology expertise into solutions that address complex environmental challenges.

Williams Evelyn

Ben Yahr (Resolution Studios LLC); Ben Lee (Fish Creek Restoration LLC); Alice Thompson (Thompson and Associates); Mike Healy (Adaptive Restoration LLC); Tom Bernthal (Friends of Pheasant Branch Conservancy)

Tackling aquatic invasive species with surveys, drones, and soil cores in the Pheasant Branch Conservancy

Our ability to control Aquatic Invasive Species (AIS) is improved when we have multiple types of data, both current and historical. In this talk, we'll discuss some of the types of data used to develop an AIS plan for Pheasant Branch Conservancy. The Conservancy comprises more than 600 acres of remnant and restored habitat managed by the City of Middleton, Dane County, and the Friends of Pheasant Branch Conservancy (FOPBC). In 2025, FOPBC received a grant from the Wisconsin DNR to write a plan for invasive species management on more than 275 acres in the southern portion of the Conservancy. Our team of five professionals from four companies gathered data using vegetation surveys, unmanned aerial vehicle (UAV, "drone") high-definition and IR imagery, and soil cores and compared these data to historic surveys and imagery. The northern portion of the project area contains high-density invasive cattail stands mixed with higher-quality Sparganium and tussock sedge communities. The southern portion is dominated by reed canary grass. Common buckthorn and sandbar willow are common throughout. The current vegetation is particularly influenced by human-made structures such as a levy that channels nutrients and sediments into the southern portion of the Conservancy. Using these different data sources, we then created an AIS management plan that prioritized high-quality areas and provided short- and long-term management recommendations for the three stakeholders.

Wetland challenges, Lower Dells B

Wednesday, February 25, 2:30 pm-2:50 pm

Evelyn has been a restoration ecologist with Adaptive Restoration since 2021 and works with diverse private, municipal, and not-for-profit landowners to restore health, robust native ecosystems. She earned her PhD from UW-Madison in botany and worked for many years at the Chicago Botanic Garden on projects in conservation genetics and prairie diversity impacts on restoration success.

Willman Allison

Wetland delineation vegetation sampling

In this talk, we will cover how the delineation of wetlands for regulatory purposes requires recording observations of vegetation to determine if the existing plant community would be considered hydrophytic, or "water loving." Methods established in the 1987 US Army Corps of Engineers Wetlands Delineation Manual and later in regional supplements articulate how a delineator should sample for the vegetation parameter. The National Wetland Plant List was established to distinguish which species of plants prefer certain wetland plant communities over others. I will discuss these key documents and how they direct and inform a determination if a site is hydrophytic for regulatory purposes.

Symposium: Wetlands 101, Lower Dells D

Wednesday, February 25, 1:50 pm-3:10 pm

Allison Willman's current role specializes in providing wetland technical expertise to the DNR's waterways program, wetland delineation reviews and trainings, and botanical trainings. Previously, she served as a Wetland Identification Specialist for the DNR and spent several years working in the private sector.
