

Wetland Science Conference

2017

Wisconsin Wetlands
ASSOCIATION

Wetland Connections

FEBRUARY 28–MARCH 2, 2017 | STEVENS POINT, WI



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About Wisconsin Wetlands Association

Wisconsin Wetlands Association is dedicated to the protection, restoration, and enjoyment of wetlands and associated ecosystems through science-based programs, education, and advocacy. We envision a state where wetlands are healthy and plentiful and support ecological and societal needs, and where citizens care for, appreciate, and interact with these natural resources. We are a non-profit, non-partisan, member-supported conservation organization.

If you are not yet a member of Wisconsin Wetlands Association, we encourage you to show your support for wetlands and for our wetland conservation programs by becoming a member today!

Learn more and join online at wisconsinwetlands.org

World Wetlands Day

February 2nd is World Wetlands Day, the annual worldwide celebration of wetlands that commemorates the signing of the Ramsar Convention on Wetlands on February 2, 1971, in the



Iranian city of Ramsar. On World Wetlands Day, government agencies, non-governmental organizations, and groups of citizens around the world take action to raise public awareness of wetland values. WWA's Wetland Science Conference is held in celebration of World Wetlands Day 2017. Learn more about World Wetlands Day at ramsar.org.

Make it Social



Like us on Facebook or follow us on Twitter [@WIWetlandsAssoc](https://twitter.com/WIWetlandsAssoc).

Share your conference experience using **#WWAconference!**

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In 2012, Wisconsin Wetlands Association became the first U.S.-based entity to win the Wetlands Conservation Award for Education from the Ramsar Convention. We were honored for our work to promote and increase the number of designated Ramsar Wetlands of International Importance in Wisconsin and the United States as well as for our outreach and education programs that promote the ideals of the Ramsar Convention. We continue to work with Wisconsin wetland professionals and enthusiasts to nominate worthy Wisconsin wetlands for Ramsar designation, including the Kakagon and Bad River Sloughs (designated in 2012), the Door Peninsula Coastal Wetlands (designated in 2014), Chiwaukee Illinois Beach Lake Plain (designated in 2015), and the Lower Wisconsin River.



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Welcome to Wetland Connections, Wisconsin Wetlands Association's 22nd Annual Wetland Science Conference

WETLANDS ARE PLACES OF CONNECTIONS.

They occur where land meets water, connecting the places that are “always dry” and the places that are “always wet.” They can be places where surface water and groundwater connect, whether replenishing groundwater or releasing groundwater through seeps and springs. They are central to the concept and function of watersheds, helping manage the flow of water from the top of a watershed to the bottom.

Wetlands also connect people with nature and the landscape. They connect communities with natural solutions to important issues like flooding and clean water. They are favorite go-to spots for birders, wildlife-watchers, paddlers, and hunters, providing places for solace, respite, exercise, learning, and fun.

The Wetland Science Conference offers wetland connections too: people connected with new information about wetlands to help us all work better; improved understanding of the role wetlands play in our watersheds and our communities; and new and enriched relationships between people who love and work for wetlands.

We gather together the wetland community—scientists, managers, students, regulators, and others—to share and discuss wetland science, management, restoration, and protection issues. We gather to contribute to the growing regional collaboration for protecting and conserving Wisconsin's wetlands. And we gather to network, because some of the best learning comes through conversation and beer.

We thank you for being here and for sharing your ideas and connections. We also thank our conference advisors whose expertise and ideas ensure that this conference is high quality, effective, and fun.

Conference Advisory Panel

Tom Bernthal WDNR

Eric Epstein retired WDNR

Patrice Eyers WDNR

Rebecca Graser USACE

Anna Haines UW-Stevens Point

Kyle Herman UW-Stevens Point

Tod Highsmith WWA Board of Directors

Jonathan Hill UW-Stevens Point student

Kaira Kamke UW-Stevens Point student

Kelly Kearns WDNR

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Paul McGinley UW-Stevens Point

Nick Miller The Nature Conservancy

Lyle Nauman Wetlands Conservation League

Eric Olson UW Extension Lakes Program

Travis Olson UW Extension

Randy Poelma Ho-Chunk Nation

Ethan Robers UW-Stevens Point student

Jim Ruwaldt WWA Board of Directors

Chuck Schellin Wetlands Conservation League

Paul Skawinski UW Extension Lakes Program

Jacob Straub UW-Stevens Point

Pat Trochlell WDNR

Dreux Watermolen WDNR

WWA staff and interns supporting these advisors: Katie Beilfuss and Linn Jennings. Logistical support provided by Fiorella Neira of IMPACT Virtual Services.

Legislative Update—Wednesday, March 1, 1:00–1:30pm

Location: Woodland Room

Join WWA policy staff for a briefing on wetland issues and how you can help. Expected topics include the latest from the state Capitol, prospects for wetlands under a new EPA, an introduction to WWA's new Policy Liaison, and WWA's efforts to help Wisconsin adopt more pro-active and comprehensive strategies to protect, restore, and manage wetlands and watersheds.

Keynote Address

Wednesday, March 1, 9:20–10:10am

Location: Expo 3-4

Thank you to We Energies for their generous sponsorship of this session.



Groundwater, wetlands, and geology: The invisible links

Kenneth Bradbury

Director and State Geologist, Wisconsin Geological and Natural History Survey, University of Wisconsin-Extension

Although most people understand that Wisconsin's wetlands are usually related to groundwater systems, these connections are often difficult to see. Why do wetlands occur where they do? Where does their water come from? How are they connected to the groundwater systems around them? Are they at risk from nearby groundwater extraction or other land-use changes? Hydrogeology helps answer these questions. Wisconsin's geology, landscape, and climate are fundamental controls on the state's groundwater flow systems, which in turn are intimately linked to wetland hydrology. Using examples from three decades of research in Wisconsin, Ken Bradbury will illustrate the invisible links between wetlands, groundwater, and geology.

ABOUT THE SPEAKER Kenneth Bradbury became the director of the Wisconsin Geological and Natural History Survey, University of Wisconsin-Extension in 2015. Prior to this, Ken had been a research hydrogeologist with the Survey since 1982. His research interests include virus transport in groundwater, groundwater flow in fractured media, aquitard hydrogeology, groundwater recharge processes, wellhead protection, regional groundwater simulation, and the hydrogeology of glacial deposits. Ken is a Fellow in the Geological Society of America, a former chair of the National Research Council Committee on Water Resources Research for the U.S. Geological Survey, and a former member of the National Research Council's Water Science and Technology Board. He earned his PhD in hydrogeology from UW-Madison.

Plenary Presentation

Thursday, March 2, 8:40–9:30am

Location: Expo 3-4

Thank you to Midwest Access Solutions for their generous sponsorship of this session.



Connecting history, wildlife, and wetlands: A story of the Mead Wildlife Area

Thomas I. Meier

Wetland and Wildlife Biologist, Land Management Solutions, LLC

Meier will share the early history of the wetlands of the George W. Mead Wildlife Area, including their drainage, restoration efforts of past managers, and management efforts during Meier's 30-year stint as project supervisor. As both a wetland and wildlife biologist, Meier had the unique opportunity to observe, assess, and manage the Mead wetlands from sometimes conflicting viewpoints, as wetland preservation and wildlife management are not always considered to be compatible approaches to wetland management and protection. Meier will explain the sometimes conflicting approaches and the common thread between intact, degraded, restored, and created wetlands. He will add his perspective to the issues we all face as wetlands continue to be altered and lost throughout Wisconsin.

ABOUT THE SPEAKER Growing up in Madison, Meier spent countless hours as a youngster on the city's lakes and adjacent wetlands. Although his mother wanted her son to be a world renowned brain surgeon, he broke from that path after 4 years of pre-med to follow his dream of becoming a wetland and wildlife biologist. His career began in 1976 as wildlife biologist with the Wisconsin Department of Natural Resources. In 1981 he became the Property Supervisor for the 40,000 acre Mead-McMillan Wildlife Area in Central Wisconsin. It proved to be a vocation rather than just a job, and he remained there for 30 years. After retirement, Meier formed, with his son, the natural resources company Land Management Solutions, which works on issues ranging from wetland management to timber sale set-up and administration.

Banquet Presentation

Wednesday, March 1, 6:30–9:30pm

Location: Expo 3-4

Thank you to Stantec for their generous sponsorship of this event.



The Surly Surveyor: Connecting today's landscape with Wisconsin's past

Rob Nurre, Landscape Historian

Wearing period costume and carrying an old-time surveyor's compass, Rob Nurre will step out from the pages of historic field notebooks as the "Surly Surveyor" to share the story of Wisconsin's first public land survey. Nurre will explain how the first surveys were completed in the 1800s and what their findings can tell us as we seek to protect and restore wetlands in our modern landscape.

ABOUT THE SPEAKER Rob Nurre is a landscape historian whose work focuses on the interactions of natural and cultural history. Nurre uses character portrayals in his educational presentations to illustrate these interactions. Along with portraying an original General Land Office surveyor, Nurre also portrays Increase A. Lapham, Wilson "Snowflake" Bentley, and bird's-eye-view artists. He lives in Baraboo.

Note: The Banquet is a ticketed event open to conference participants and the general public who purchased tickets in advance. If you did not purchase a ticket, please see the conference registration desk for information about ticket availability.

Program Highlights: Symposium

Biodiversity Conservation: Amphibians, Reptiles, and Wetlands

Wednesday, March 1, 2016, 10:40am–5:00pm

Location: Spruce

This symposium was organized by Dreux Watermolen (WDNR) and Josh Kapfer (UW-Whitewater).

A variety of types of wetlands provide critical habitats for many species of amphibians and reptiles. These species play important roles as insect and rodent predators and as valuable prey for various birds, mammals, fishes, and invertebrates. Population declines and disappearances of amphibians and reptiles, however, have led to widespread scientific and public concern. While not fully understood, the causes for these declines appear to be complex and numerous and include habitat destruction, degradation, and fragmentation. More recently, emerging infectious diseases have garnered attention. Citizens are now actively engaged in programs to monitor and conserve populations. This symposium will explore the current status of Wisconsin's amphibians and reptiles, discuss ongoing research and work to address emerging threats/diseases, and highlight recent amphibian and reptile conservation/management efforts in the Upper Midwest.

Symposium Presenters

Laura Adamovicz University of Illinois

Andrew Badje WDNR

Tara Bergeson WDNR

Rebecca Christoffel Snake Conservation Society
& Christoffel Conservation

Robert Hay Turtles For Tomorrow

Josh Kapfer UW-Whitewater

Michael Lannoo Indiana University

Michael Mossman WDNR (retired)

John Peterson UW-Platteville

James Schulte Beloit College

Christopher Smith HerpMapper, Inc.

Richard Staffen WDNR

Dreux Watermolen WDNR

Program Highlights: Field Trips

Thursday, March 2nd, 1:30–4:30pm

Field trip sign-up is at conference check-in and field trips will fill on a first-come, first-served basis. Please dress warmly and wear sturdy boots. Field trips will run in almost any weather (with the exception of hazardous conditions). All field trips will depart by bus at 1:30pm from the Conference Center entrance. *Please arrive 10 minutes early to board the appropriate bus.*

Connecting Wetlands for Wildlife at Mead Wildlife Area

Trip leaders: Patrice Eyers, WDNR wildlife technician

Thank you to the Fund for Lake Michigan for their generous sponsorship of this field trip.

The Mead Wildlife Area is a 33,000 acre property with more than 13,000 acres of wetlands. This field trip will provide an opportunity to learn about the history of this property, the management strategies that are used to improve wildlife habitat diversity, and the education and outreach programs that work to improve understanding of the value of this natural resource. We will also discuss the creation of impoundments, infrastructure issues, continuing wetland projects, and management strategies to combat invasive species, reduce sedimentation, and provide ideal habitat for wildlife.

This is an outdoor field trip and limited to 30 participants.

UW-Stevens Point Freckmann Herbarium and Museum of Natural History

Trip leaders: Robert Freckmann and Ray Reser, UW-Stevens Point

Thank you to Midwest Natural Resources for their generous sponsorship of this field trip.

This field trip will offer a unique opportunity to tour two renowned collections: The Freckmann Herbarium and the Museum of Natural History at UW-Stevens Point. The herbarium houses a collection of 220,000 specimens, including a large representation of grasses, sedges, and aquatic plants from Wisconsin. On the tour, you will see the herbarium library and collection and the plant specimen preparation area, where you will learn about specimen collection and the preparation process. The Museum of Natural History focuses primarily on the Upper Great Lakes and adjacent Great Plains and has more than 400,000 curated specimens. Learn about the unique resources of these collections and how they can contribute to your continuing wetland education and conservation efforts.

This is an indoor field trip and limited to 32 participants.

Wetland Restoration at Schmeekle Reserve, UW-Stevens Point

Trip leaders: Jim Buchholz, Schmeekle Reserve, and Paul Skawinski, UW-Extension Lakes Program

Thank you to J. Koski Company for their generous sponsorship of this field trip.

Schmeekle Reserve is a 280-acre nature preserve on the UW-Stevens Point campus with diverse habitats and wildlife. This field trip will focus on two wetland restoration projects in the Reserve. Jim Buchholz will discuss the restoration of a 17-acre wetland and stream channel in the Moses Creek corridor, a drainage ditch restored to historic conditions through a Wisconsin DOT mitigation project in 2010. Paul Skawinski will discuss a restoration project involving the removal of non-native *Phragmites* and narrow-leaf cattail in several depressions. The restoration involved planting native plant plugs and seeds into several areas and leaving others unplanted in order to evaluate the natural ability to re-establish a native plant community.

This is an outdoor field trip and limited to 20 participants.

WEDNESDAY, March 1, 9:00 am - 9:30 pm

9:00 - 10:10 9:00	Plenary Session (Expo 3-4) Welcome & Opening comments	Sponsored by We Energies	
9:20	Conference Keynote: Groundwater, wetlands, and geology: The invisible links Kenneth Bradbury, Director and State Geologist, Wisconsin Geological and Natural History Survey, University of Wisconsin-Extension		
10:10 - 10:40 10:40 - 12:00	Break (Expo 1-2) Concurrent Sessions	Sponsored by the Wisconsin Coastal Management Program	
	Location: Spruce SYMPOSIUM: Amphibians, Reptiles, & Wetlands: Current Status Moderator: Dreux Watermolen	Location: Evergreen Wetland Connections Moderator: Randy Poelma	Location: Stonefield Native Wetland Flora & Plant Communities Moderator: Patrice Eyers
10:40	The Wisconsin Frog and Toad Survey: What’s up, down, old, and new with a 35-year-old citizen science program Bergeson	Nature-based solutions to flood risk reduction Lulloff	“Pterrified” of Pteridophytes? An intro to wetland fern and fern ally identification Noll
11:00	HerpMapper.org: An innovative citizen science project for amphibian and reptile observations Smith	Bringing green back to the Bay: Identifying the restoration potential of a degraded aquatic ecosystem Kupsky	An ecological site classification system for wetland forests of Northern Wisconsin Kotar
11:20	Acoustic monitoring of state-endangered Blanchard’s cricket frogs at different wetland sites Peterson	Mukwonago River headwater restoration via removal of two small dams: Reflecting on 8 years of lessons learned Ziegler	An assessment of aquatic vegetation in Duck Creek Delta before and after construction of the Cat Island Chain Houghton
11:40	The status of eastern massasauga rattlesnake populations in Wisconsin Staffen	Connections between human caused stress, wetland setting, and vegetation in the St. Louis River estuary Danz	Does plant species composition and diversity affect below-ground carbon dynamics in experimental wetlands? Schultz
12:00 - 1:30 1:00 - 1:30 1:30 - 3:10	Lunch (provided - Expo 3-4) Legislative/Policy Updates (Woodland) Concurrent Sessions	Sponsored by ATC	
	Location: Spruce SYMPOSIUM: Amphibians, Reptiles, & Wetlands: Emerging Threats Moderator: Josh Kapfer	Location: Evergreen Wetland Restoration & Management Case Studies Moderator: Pat Trochlell	Location: Stonefield Special Sessions
1:30	A conservation program to address wood turtle recruitment on rivers in northern Wisconsin Hay	Wetland restoration in organic peat/muck soil: DOT mitigation site year 5 Henderson	Career Development & Continuing Education in Wetland Science
1:50	Amphibians shift wetland occupancy with hydrologic cycle Lannoo	Streambank stabilization, floodplain creation, and stream re-alignment of Pheasant Branch in Middleton, WI Steber	Moderated by Susan Schumacher
2:10	Bsal: An emerging threat to North American salamanders Watermolen	Twenty years of restoration and community-building at Pheasant Branch Conservancy Bernthal	Tribal Wetland Programs Working Group
2:30	Ranavirus in amphibians and reptiles Adamovicz	Results of storm water modeling pre- and post-restoration at Deer Grove East Preserve in Palatine, IL Roth	Moderated by Randy Poelma (By invitation only)
2:50	Using water snakes to understand genetic patterns of reproductive and morphological development Schulte	Wetland restoration at Midewin National Tallgrass Prairie, Will County, IL Feggstad	
3:10 - 3:40 3:40 - 5:00	Break (Expo 1-2) Concurrent Sessions	Sponsored by Cardno	
	Location: Spruce SYMPOSIUM: Amphibians, Reptiles, & Wetlands: Management Approaches Moderator: Dreux Watermolen	Location: Evergreen Wetland Assessment Moderator: Tom Bernthal	Location: Stonefield Wetlands and People Moderator: Travis Olson
3:40	Reservoir waterdogs: Neotenic tiger salamanders of the former Badger Army Ammunition Plant Mossman	Developing a decision support tool to guide restoration and protection of Great Lakes coastal wetlands Cooper	Engaging municipalities and citizens in the battle against against Phragmites Hagenow
4:00	Turtle conservation: Road mortality prevention Badje	Development of soil indicators for assessment of wetland condition and disturbance Rossi	Making connections for rapid response to new wetland invasive plants Putnam
4:20	Survival of headstarted and non-headstarted hatchling Blanding’s turtles in southern Wisconsin Kapfer	Connections between soil physicochemistry and wetland condition in Wisconsin’s Southern Lake Michigan Basin Marti	Working from the ground up: Engaging families and communities in wetland conservation Williamson
4:40	Snake Conservation Society, Inc.: Using information, communication, and psychology to conserve snakes Christoffel	Performance standards for target hydrology at wetland compensatory mitigation sites Eggers	Wetland connections between science and poetry Highsmith
5:00 - 6:30 6:30 - 9:30 7:30	Poster Session & Cash Bar (Expo 1-2) Banquet & Presentation (Ticketed event - Expo 4) Banquet Presentation: The Surly Surveyor: Connecting today’s landscape with Wisconsin’s past Rob Nurre, Landscape Historian	Sponsored by UW-Stevens Point College of Natural Resources Sponsored by Stantec	

THURSDAY, March 2, 8:30 am - 4:30 pm

8:30-9:20 8:30	Plenary Session (Expo 3-4) Welcome	<i>Sponsored by Midwest Access Solutions</i>
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8:40 **Plenary Address:** Connecting history, wildlife, and wetlands: A story of the Mead Wildlife Area
Thomas I. Meier, Wetland and Wildlife Biologist, Land Management Solutions, LLC

9:30-10:30	Concurrent Sessions
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	Location: Spruce Wetlands & Groundwater Moderator: Rachel Schultz	Location: Evergreen Wetland Wildlife I Moderator: Paul Skawinski	Location: Stonefield Wetland Invasive Species Moderator: Kelly Kearns
9:30	Using geophysics to better understand wetland hydrogeology Streiff	Effects of drawdown history and vegetation type on aquatic invertebrate metrics in a managed wildlife area Kamke	What you can do to slow the spread of invasive plants in wetlands Trochlell
9:50	A multi-instrument stream survey through Mukwonago River Basin wetlands Hart	No more guessing: Perfecting frog detections in wetlands through automated acoustic monitoring Casper	Extinction by hybridization: A probable fate for a native cattail species Geddes
10:10	Missing the water before the well runs dry: The impacts of high capacity wells on Wisconsin calcareous fens Bart	Wood turtle conservation methods in Wisconsin Bougie	Facilitating natural succession in heavily invaded ecosystems Miller-Adamany

10:30 - 11:00 11:00 - 12:00	Break (Expo 1-2) Concurrent Sessions	<i>Sponsored by GEI Consultants</i>
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	Location: Spruce Wetland Mitigation Moderator: Nick Miller	Location: Evergreen Wetland Wildlife II Moderator: Jacob Straub	Location: Stonefield Special Session
11:00	The Wisconsin Wetland Conservation Trust: Strategies, partnerships, and lessons learned Brown	Plans with benefits: Fish & wildlife habitat recovery in the Milwaukee Estuary Area of Concern Casper	Toward More Effective Invasive Species Management: Feedback Cycles and Systems Approaches
11:20	Successful compensatory wetland mitigation: Upper French Creek wetland mitigation site Kraszewski	Let's start here: Spatial decision making to prioritize management units for habitat management at Horicon NWR Salas	Facilitated by Craig Annen
11:40	"Set it and Forget it": Evaluating a forested wetland mitigation site 10 years after planting Stamer	Food webs representing wetland connections: The role of parasite diversity and land use change Orlofske	

12:00 - 1:30	Lunch (provided - Expo 3-4)
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1:30 - 4:30	Working Groups, Workshops, and Field Trips
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Working Groups

Location: Spruce
Practitioners Working Group
Moderator: Dan Salas

This session offers an opportunity for wetland practitioners — including consultants, federal, state, and local regulators, land managers, and others — to discuss current issues relevant to their daily work. The agenda will be set with the input of those who participated in similar working groups at recent WWA conferences. Topics covered will likely include what's new with state wetland policies, including how they have or will change the review and approval of wetland development permits and associated compensatory mitigation requirements.

Location: Evergreen
Aerial Identification of Invasive Plants Workshop
Moderator: Jason Granberg

Wetland invasive species are a common threat throughout Wisconsin. Early detection of these species using aerial imagery is a cost effective approach to discovering new populations, allowing for efficient, targeted searches within vast wetlands. This workshop will provide an introduction to aerial imagery identification of common wetland invasive species using freely accessible imagery and software. Participants should bring a laptop, tablet, or mobile device with GoogleEarth already installed.

Location: Stonefield
What Would Aldo Say? A Reflective Discussion of the Land Ethic in Wetland Conservation
Moderators: Renee Wahlen, Debbie Hinchcliffe, and Jerry Sanders

Aldo Leopold was known for his ability to weave reflections on history, social trends, and ethics into discussions of ecological issues. This session will include an introduction of Leopold's Land Ethic and a participatory reading of a Leopold essay, followed by a collective exploration and discussion of the ideas and perspectives gleaned from the reading.

Field Trips

All field trips will depart from the Holiday Inn Convention Center main entrance at 1:30. Sign up for field trips at the registration desk.

Connecting Wetlands for Wildlife at Mead Wildlife Area

Field Trip Leader: Patrice Evers

Thank you to the Fund for Lake Michigan for their generous sponsorship of this trip.

UW-Stevens Point Freckmann Herbarium and Museum of Natural History

Field Trip Leaders: Robert Freckmann and Ray Reser

Thank you to Midwest Natural Resources for their generous sponsorship of this trip.

Wetland Restoration in Schmeeckle Reserve, UW-Stevens Point

Field Trip Leaders: Jim Buchholz and Paul Skawinski

Thank you to J. Koski Company for their generous sponsorship of this trip.



We want your feedback!

Please complete the conference evaluation coming to your email inbox. Thank you!

Program Highlights: Special Sessions

Career Development & Continuing Education in Wetland Science

Wednesday, March 1

1:30–2:10pm

Location: Stonefield

Facilitator: Susan Schumacher, We Energies

Wetland scientists from a variety of backgrounds will address challenges and opportunities facing students, young professionals, and people considering a change in the direction of their career in fields related to wetland science. We'll discuss "lessons learned" and the role of networks to support discovery and learning. Moderator Susan Schumacher will allow ample time for questions and discussion of solutions and strategies to help support advancement in satisfying wetland science careers.

Toward More Effective Invasive Species Management

Thursday, March 2

11:00am–12:00pm

Location: Stonefield

Facilitator: Craig Annen, Integrated Restorations

Reed canarygrass, narrow-leaved and hybrid cattail, and Phragmites are among the most problematic herbaceous invaders of wetlands throughout North America. Current suppression approaches too often are restricted to the search for the ideal herbicide, application rate, and/or timing window. This workshop will present background information on developing cost-effective, long-term ecosystem-based approaches to invasive plant management. In this one-hour session, you'll learn how to recognize, understand, and redirect feedback cycles, hear case-studies of how this systems approach has worked to successfully reverse invasions, and engage in a directed discussion on the application of a systems approach to invasive plant management.

What Would Aldo Say? A Reflective Discussion of the Land Ethic in Wetland Conservation

Thursday, March 2

1:30–4:30pm

Location: Stonefield

Facilitators: Renee Wahlen, Director Marsh Haven Nature Center, and Debbie Hinchcliffe and Jerry Sanders, International Wolf Center

Aldo Leopold was known for his ability to weave reflections on history, social trends, and ethics into discussions of ecological issues. This session will include an introduction of Leopold's Land Ethic and a participatory reading of a Leopold essay, followed by a collective exploration and discussion of the ideas and perspectives gleaned from the reading.

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Please note that the above session is held concurrent with the conference field trips on Thursday afternoon.



Program Highlights:
Working Groups

Tribal Wetland Program
Working Group

Wednesday, March 1
2:10–3:10pm
Location: Stonefield
Facilitator: Randy Poelma, Ho-
Chunk Nation

*Thank you to Forest County
Potawatomi Foundation for their
generous sponsorship of this session.*

This session will provide tribal wetlands staff with the opportunity to more formally interact, share ideas and best practices, and identify opportunities for collaboration and growth. The first meeting of this group was held at the conference in 2016. This working group contributes to efforts to foster long-term collaboration, dialogue, and exchange of information that supports and encourages strategic, effective efforts to restore and care for wetlands in Wisconsin. All tribal wetlands staff are encouraged to attend. (By invitation only.)

Practitioners Working
Group

Thursday March 2
1:30–4:30pm
Location: Spruce
Facilitator: Dan Salas, Cardno

This session offers an opportunity for wetland practitioners—including consultants, federal, state, and local regulators, land managers, and others—to discuss current issues relevant to their daily work. The agenda will be set with the input of those who participated in similar working groups at recent WWA conferences. Topics covered will likely include what’s new with state wetland policies, including how the review and approval of wetland development permits and associated compensatory mitigation requirements have changed or may change in the near future.

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*Please note that the above session is
held concurrent with the conference
field trips on Thursday afternoon.*



Aerial Identification of
Invasive Plants Workshop

Thursday March 2, 1:30–4:30pm
Location: Evergreen
Facilitator: Jason Granberg,
WDNR

Wetland invasive species are a common threat throughout Wisconsin. Early detection of these species by using aerial imagery is a cost effective approach to discovering new populations, allowing for efficient, targeted searches within vast wetlands. This workshop will provide an introduction to aerial imagery identification of common wetland invasive species using freely accessible imagery and software. Participants should bring a laptop, tablet, or mobile device with GoogleEarth already installed.

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*Please note that the above session is
held concurrent with the conference
field trips on Thursday afternoon.*

Program Highlights: Poster Session

Posters will be available for viewing from 8:00am on Wednesday through 12:00pm on Thursday in Expo 1-2. The Poster Session (when authors will be present to discuss their posters) will be held Wednesday, 5:00–6:30pm. *Thank you to the College of Natural Resources, UW-Stevens Point, for their generous sponsorship of this event, including UW Extension Lakes for providing the poster display boards.* **The code following the authors name is the location where the presenter's poster can be found in the Expo 1-2. Asterisks indicate the presenter is a participant in the student presentation competition.**

Arnold, Christopher	P6	Understanding the other side of wetland treatment: The legacy of phosphorus storage
Arnold, Kathi*	P1	Evaluating the seed bank of the Lower Bay of Green Bay to determine re-establishment potential
Barger, Michael*	P14	Implementing and analyzing replicated point counts as measures of abundance in Glacial Lake Grantsburg
Carpenter, Crystal*	P10	The effects of invasive macrophytes on turtle community structure in the Kinnickinnic watershed
Chung-Gibson, Melissa	P4	A floristic quality calculator for Wisconsin wetland communities
Dugan, Hilary	P7	Ice formation and the risk of chloride toxicity in shallow wetlands
Hamerla, Chris	P11	Wisconsin trappers: Invasive species partners on land, in water, and at all points in-between
Helmuegger, Greta*	P8	High chloride concentrations in and around a shallow wetland: Seasonality and sources
Ibach, Andrew*	P15	Spatial ecology and habitat use of headstarted Blanding's turtles in southern Wisconsin
Little, Amanda	P22	Ephemeral pond plant communities: Unique and worthy of conservation
Marti, Aaron	P9	Bridging connections among <i>Phalaris arundinacea</i> , plant communities, and soil physicochemistry
Martinez-Soto, Kayla*	P12	The use of microsatellites to genetically identify a potential invader, <i>Typha domingensis</i> , in the Midwest
McClenon, Marci*	P18	Land-usage as a predictor for <i>Ribeiroia ondatrae</i> infection in amphibians through intermediate host prevalence
Murphy, Lynnette*	P2	Estimating hybridization rates of native <i>Typha latifolia</i> in Volo Bog, Illinois
Noll, Christopher	P23	Mapping seventy-two years of change in the Lower Wisconsin River
Salas, Dan	P24	Managing Horicon for the future: Defining the direction and priorities for future management of Horicon NWR
Sande, Bill	P21	Target hydrology in wet meadow wetlands in the Lake Superior clay plain
Scherer, Jeanne	P3	Play your part in slowing the spread of aquatic invasive species: Equipment
Schulte, Collin*	P16	Patterns in water tigers (Dytiscidae) and phantom midge (Chaoboridae) abundance in Wisconsin ephemeral ponds
Stein, Shelly*	P13	Developing a baseline assessment undergraduate study for effects of a fire regime on invasive wetland flora
Waechter, Zach	P20	Wetland delineations in riparian environments: Using additional data sources for hydrologic analysis
Wiley, Chandra*	P19	Effects of macroinvertebrate biodiversity on the size of wood frogs (<i>Lithobates sylvaticus</i>)
Willman, Allison	P5	Comparing floristic quality resulting from contrasting wetland restoration techniques
Zillen, Zak*	P17	Using diatom algae to infer environmental change in sphagnum bogs

Thank you!

More than 100 experts and enthusiasts have contributed to the planning and content of this conference. We would like to thank all of the presenters, field trips leaders, and working group leaders for sharing their expertise with the regional wetland and water resource professional community. While it is not feasible to acknowledge every contributor individually, we offer special thanks below to individuals who have made especially important contributions to this event.

Moderators

Thank you to the following partners for moderating conference sessions:

Tom Bernthal WDNR
Patrice Eyers WDNR
Jason Granberg WDNR
Debbie Hinchcliffe International Wolf Center
Josh Kapfer UW-Whitewater
Kelly Kearns WDNR
Nick Miller The Nature Conservancy
Travis Olson UW-Extension
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Pat Trochlell WDNR
Renee Wahlen Marsh Haven Nature Center
Dreux Watermolen WDNR
Craig Annen Integrated Restorations, LLC
Susan Schumacher We Energies

Field Trip Leaders

Thank you to the following individuals for their assistance planning, coordinating, and leading our conference field trips to sites in and around Stevens Point:

Patrice Eyers WDNR wildlife technician
Robert Freckmann Professor Emeritus at UW-Stevens Point
Ray Reser Director of UW-Stevens Point Museum of Natural History
Jim Buchholz Director of Schmeckle Reserve
Paul Skawinski UW-Extension Lakes Program

Student Presentation Competition

Thank you to Dreux Watermolen, WDNR, for initiating and organizing the student presentation competition, to everyone who judged the student oral and poster presentations, and to the students who participated.

Student Scholarship Program Sponsors

Generous contributions made by The Nature Conservancy and J.F. Brennan Company, Inc. allow us to provide financial support to many students who are attending our conference. Students receiving conference scholarships are denoted with a * in the list of volunteers below.



Volunteers

We thank the following volunteers for assisting us with the many and varied aspects of conference logistics (* denotes student scholarship recipient):

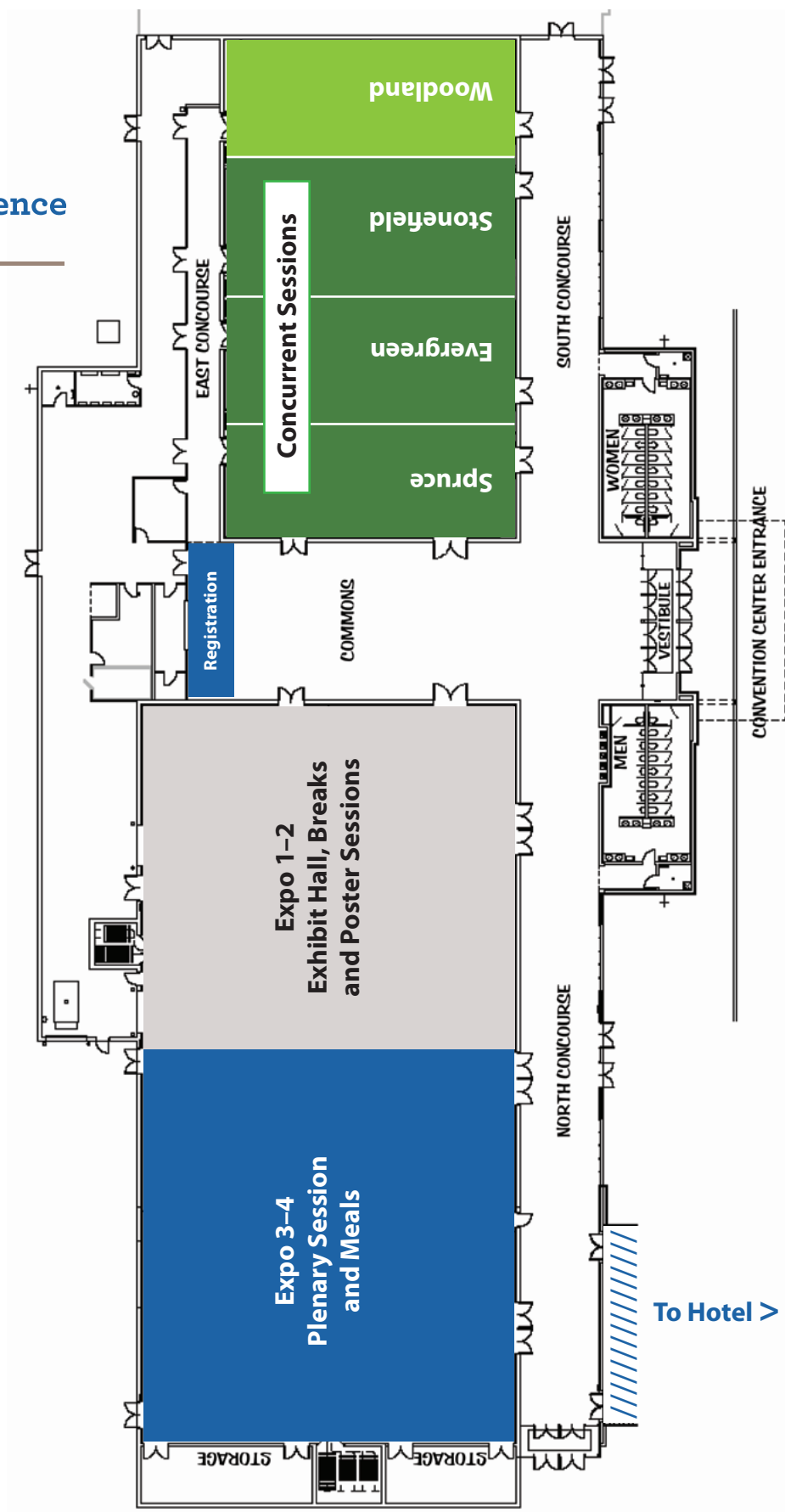
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2017

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