

Minding Our Waters

Annual Wisconsin Lakes **Partnership Convention**



in conjunction with the Water Action Volunteers Symposium

Lakes Partnership

39th



Welcome

to the 39th Annual Wisconsin Lakes Partnership Convention



Minding our waters, and water on our minds. Our 2017 Lakes Partnership Convention is taking a real hard look at this mind-water connection, for good reasons. In describing the value of lakes and rivers, we do an incomplete job whenever we leave out the cognitive, emotional, psychological and social benefits we derive from healthy water. The true value of those benefits, unpriced in the marketplace, may very well exceed all known market values for water. When something is undervalued, it is overused and often abused. We need to better understand and advocate for these benefits or we will always find ourselves defending lakes from a relatively small corner.

These cognitive, emotional, psychological and social benefits also open doors to entirely new audiences for our efforts to protect and restore surface waters. The discussion is no longer limited to those

who are fortunate enough to own a lakeside home or cabin. Anyone who spends time in a canoe floating down a gentle stretch of water, or falling asleep at the beach to the rhythm of lapping waves, knows well the "blue mind" effect of water. When we all learn about and understand how water influences us individually and collectively, we realize the importance of ensuring access for all to our shared lakes and rivers. We need water, and water needs us. Thank you for joining us in minding our waters!

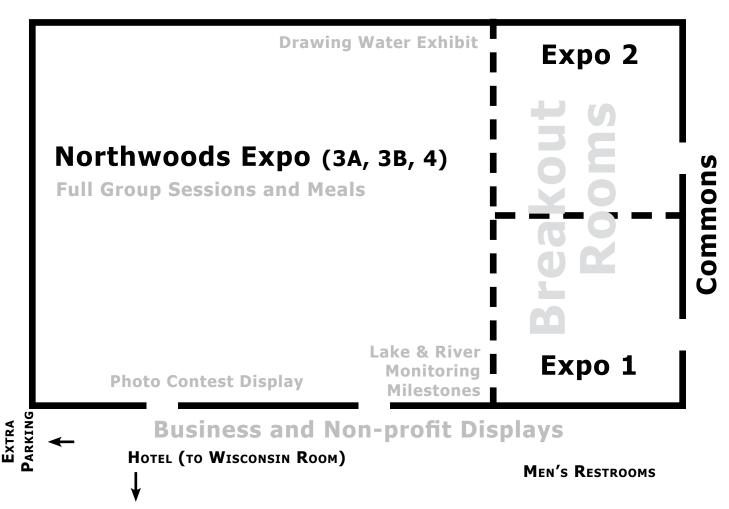
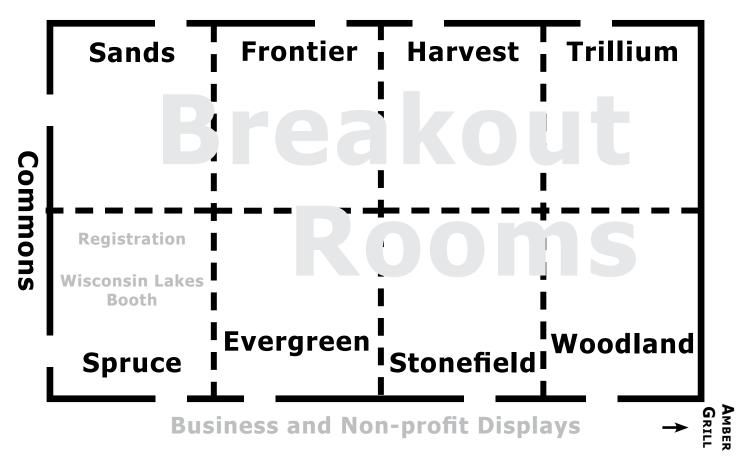


Table of Contents



Map of Convention Center	2-3
Wednesday Agenda	
Streams	5
Thursday Agenda	6-7
Friday Agenda	8-10
Wednesday Special Technical Session Descriptions	11
Wednesday Evening Welcome Reception	11
Thursday Concurrent Session Descriptions	
Thursday Speaker Biographies	14, 18
Thursday Poster Session Titles/Presenters	
Thursday Evening Events	
Displays in Northwoods Expo	25
Friday Concurrent Session Descriptions	
Friday Speaker Biography	
Wisconsin Lakes Partnership	
Post-convention Online Archive, Save the Date-2018, Partners	



WOMEN'S RESTROOMS



Wednesday Agenda

April 5, 2017

Registration Open 8:00 AM-5:00 PM

		Due no disturbie p. D.	Spruce	
	Morning Workshops	- Pre-registration Ke	Derluped	
Room	Ехро І	Ехро 2	Evergreen	
9:00 AM-12:00 PM	Lake District Commissioner Training Eric Okson	Healthy Lakes Initiative Pamela Toshner Tom Onofrey Scott Van Egeren John Haack Dave Ferris Patrick Goggin	Systems and Scenarios: New Ways of Engaging Your Community in Water Sustainability Jeremy Solin Jenny Seifert	
10:15-10:45 AM	Refreshment Break in Commons			
12:00-1:30 PM	Lunch on your	own (or pre-registered lunch in No	orthwoods Expo)	

Afternoon Workshops - Pre-registration Required						
Room	Expo I	Ехро 2	Wisconsin	Evergreen		
1:30-4:30 PM	Lake Organization Advanced: Capacity Techniques Mike Engleson Aaron Thompson	Techniques for Controlling Shoreland Erosion Quita Sheehan Stacy Dehne David Hon Kelsey Brown	Working with WordPress Websites Larry Bresina	Lake District Treasurer Training Bo DeDeker Andrew Baraniak		
3:00-3:30 PM		Refreshment Break in Commons				

Special Technical Sessions					
Room	Ехро І	Ехро 2	Sands		
4:45-5:45 PM	Aquatic Plant Management: Emerging Issues Scott Provost Michelle Nault	County-wide Lake Associations Round Table Facilitator: Mike Engleson	Wisconsin DNR Decontamination and Disinfection Protocol Maureen Ferry		
5:45-7:00 PM	page 11 page 11 page 11 page 11 page 11				
7:00-11:00 PM	Wisconsin Lakes Partnership Convention Welcome Reception Woodland Room and Amber Grill page 15				

6:30-7:

Sunrise Yoga

Thurs/Fri Mornings

Thursday and Friday, 6:30-7:15 AM - Wisconsin Room

Sunrise Yoga

Quita Sheehan will lead participants through basic yoga poses in a mellow and relaxed environment. Participants should bring a yoga mat or bath towel with them. Comfortable clothing is recommended. Free and welcome to all ages and levels of interest.

Wednesday Agenda



Exhibits Open 12:00-6:00 PM

April 5, 2017

Morning Workshops - Pre-registration Required					
Room>	Sands	Frontier	Trillium		
9:00 AM-12:00 PM	Lake Associations: The Beginning Mike Engelson Melissa Scholz	Citizen Lake Monitoring Network Training <i>Kris Larsen</i> <i>Rachel Sabre</i> <i>Sandy Wickman</i>	Aquatic Plant Identification Susan Knight Michelle Nault Paul Skawinski		
10:15-10:45 AM		Refreshment Break in Commons	3		
12:00-1:30 PM	Lunch on your	own (or pre-registered lunch in No:	rthwoods Expo)		
Afternoon Workshops - Pre-registration Required					

Afternoon Workshops - Pre-registration Required						
Room>	Sands	Frontier	Harvest	Stonefield		
1:30-4:30 PM	Therapeutic Horticulture: How the Plants Around the Lake Contribute to Your Personal Wellbeing Barbara Kreski	Introduction to Lake Eutrophication Modeling and Using the Wisconsin Lake Modeling Suite (WiLMS) Paul McGinley	Introduction to Blue-green Algae: Identification and Ecology Gina LaLiberte	Spirituality and Water: How Faith Communities Connect with Water and How Lake Groups Can Connect with Faith Communities Kirsten Shead		
3:00-3:30 PM		Refreshment Break in Commons				

Follow your Blue Mind and Create your Convention Journey

Your convention includes blocks of concurrent sessions arranged by the following topics, which we call "Streams." Follow your blue mind... set your course on one Stream as it winds through the convention or "Stream jump" to catch a little of everything.

Thursday Only Streams

- Water on Our Minds Social and Psychological Connections to Water
- Minding the Science of Water Research

Thursday and Friday Streams

- Mindful Management of Aquatic Invasive Species
- Citizens Minding Our Waters
- Bringing Policy Makers to the Water Table People, Policy and Politics
- Mindful Connections Rivers, Lakes, Groundwater and Watersheds

Friday Only Streams

- Ecology Learning How to Live Mindfully with Our Aquatic Neighbors
- Grants and Codes The Making of Healthy Lakes



Minding	T T T T	ay Agen		gistration Oper
III VVATOrs	30-7:15 AM	pril 6, 2017		30 AM-5:00 PM
W	Visconsin Room	current Sessions		Spruce
Room Stream	Expo I Mindful Management of Aquatic Invasive Species	Expo 2 Bringing Policy Makers to the Water Table - People, Policy and Politics	Evergr Minding the S Water Res	cience of
8:00-8:50 AM	Control of Non-native Phragmites within the Great Lakes Basins: A Case Study Brock Woods Jason Granberg	State Budget and Legislative Update Mike Engelson	Revealing a Lake's its Sediments Paul Garrison Eutrophication Dr Clarity Responses Variation in Lake I Pete Lisi	History in ives Water to Decadal
9:00-10:45 AM	Kickoff	Plenary Session - Northwo	ods Expo	
	Go	Deeper:The Seven Ages of <i>Mike Wiza</i> Kick-off Keynote Speal	Nater	s page 14
11:00 AM- 12:00 PM	Evaluation of Management Techniques for Starry Stonewort <i>Scott Van Egeren</i>	Public Trust Doctrine and Lakes <i>David A. Strifting</i>	Inland Fisheries H Management Greg Sass	labitat
	The Science Behind the So- called Super Weed: Effects of EWM on Wisconsin Lakes Chelsey Blanke Michelle Nault		Long-term Trends Natural Production Andrew Rypel Understanding Cis Tim Parks	n of Walleye
	page 15	page 15		page 16
12:15-1:30 PM		woods Expo ~ Speaker Sharon Gayan		page 18
1:45-2:25 PM	Asian Carp and Round Goby Status Bob Wakeman	Understanding the State and Local Legislative Process Mike Engelson	Techniques for Sh Restoration in the Highlands Ecolog Landscape Michael Meyer Dan Haskell	Northern
	page 18	page 18		page 18
2:35-3:15 PM	How Are We Attempting to Control Invasives in the Marketplace? Mary Bartkowiak	The Feds in Wisconsin: The Crucial Role of the U.S. Government in AIS Prevention and Control Bob Wakeman	Monitoring Lake S Why Do It and Ho Results! Katie Hein	w to Use the
	A Network for Prevention: Expanding Resources for Rehoming Exotic Pets Korin Doering		Psychological Barr Unintended Conse in Outreach Camp Promoting Natura Bret Shaw	equences paigns 1 Shorelines
3:30-5:00 PM	page 20 Poster Sessio	page 20 on in Commons - Refreshment Break fr	rom 3:15-3:45	page 20 page 22-23
5:00-6:00 PM		ction Volunteers (WAV) Coordina		. 0
5:30-8:00 PM	Wisconsin Lake Stewar	rdship Banquet & Awards Ceremo letworking ~ 6:00 PM Banquet Di	ony - Northwoods E	xpo
8:00-11:00 PM		ship After Hours with Tuck Pence		page 24

ĺ

Thursday Agenda





Friday Morning Agenda

	Iorning Yoga 30-7:15 AM	pril 7, 2017	Registration Open 7:30 AM-1:30 PM
W	Visconsin Room Conc	urrent Sessions	Spruce
Room Stream	Expo I Mindful Management of Aquatic Invasive Species	Expo 2 Bringing Policy Makers to the Water Table - People, Policy and Politics	Evergreen Grants and Codes - The Making of Healthy Lakes
8:00-9:00 AM	Online Resources to Help Prevent the Spread of AIS <i>Tim Campbell</i> How Citizens Can Help Stop Aquatic Hitchhikers Jenny Seifert	Hot Topic Update #1: Water and Legislation Mike Engleson	Wisconsin DNR Aquatic Plant Management Strategic Analysis Scott Provost Scott Van Egeren What Citizens, Volunteers, and Natural Resource Managers in Wisconsin Value in an AIS Management Program Tim Campbell
0.15.10.15 AM	page 26	page 26	page 26
9:15-10:15 AM	In Pursuit of Boat Wash Stations: Styles, Questions to Consider, and Steps to Take <i>Krista Kamke</i> Forming Partnerships to Support the Battle Against AIS in Washington and Waukesha	Hot Topic Update #2: Shoreland Zoning Lynn Markham Kay Lutze	Wisconsin DNR Surface Water Grants Updates Carroll Schaal
	Counties Brad Steckart		
	page 28	page 28	page 28
10:15-10:45 AM		Refreshment Break in Common	
10:45-11:35 AM	Two Stories of Aquatic Plant <u>Management</u> Eradication of EWM in Blackhawk Lake, Iowa County Donna Sefton Laura Spears	Getting Legislators to Engage: Panel of Former Legislators Moderator: Mike Engleson Legislators to be named	Looking Forward: New Water Quality Standards for Lakes Kristi Minahan
	Archibald Lake Flowering Rush Control, 1990-present Brenda Nordin Steve Fleming page 30	page 30	page 30
11:45 AM -	Luncheo	n Plenary Session - Northw	oods Expo
1:15 PM	Dip	ping Into Landscape and Wil ental Health Into the Healin	dlife:
	Water Action Volunteers (WAV) Av Luncheon Keynote Speaker ~ Ana		
	Luncheon Reynole Speaker ~ Ana		page 32

Friday Morning Agenda



April 7, 2017

Exhibits Open
8:00 AM-1:30 PM
Commons

ommons	Concurrent Sessions				
Room Stream	Stonefield/Woodland Mindful Connections - Rivers, Lakes, Groundwater & Watersheds	Sands/Frontier Citizens Minding Our Waters	Harvest/Trillium Ecology - Learning How to Live Mindfully with Our Aquatic Neighbors		
8:00-9:00 AM	Watershed Planning: Understanding and Incorporating the Nine Key Elements Andrew Craig	Introduction to Citizen-based Monitoring Projects that Mind Our Waters Eva Lewandowski Wisconsin's Lake Sturgeon Barbara Helmick	Invasive Snails as Potential and Realized Hosts for Parasites in the Midwest Greg Sandland, PbD		
9:15-10:15 AM	A Watershed Approach to the Future of Lakes and Waterways Jenny Seifert Eric Booth	page 27 Citizens Engaging Elected Officials Laura DeGolier Send Your Legislator Down the River Patricia Cicero The Shawano Lake Story Brenda Nordin Tim Day Ray Zuelke Colspan="2">Colspan="2" Colspan="2">Colspan="2" Colspan="2" Colspan="2" Colspan="2" Colspan="2" Colspan="2"	page 27 Wood Turtles: Life History and Research Carly Lapin Martens: Their Dependence on Wetlands and the Iron County Student Project Zach Wilson		
10.15.10.45.434	page 28	page 29	page 29		
10:15-10:45 AM 10:45-11:35 AM	How Water Quality Shapes the Ecology of the Mississippi River: Where We've Been, Where We Are, and Where We Need to Be Shawn Giblin	Refreshment Break in Commo Next Steps for AIS Monitoring in Wisconsin: Citizens and Staff Combining Efforts Maureen Ferry Amanda Perdzock Paul Skawinski Peggy Compton	Beavers: Life History and the New Management Plan Shawn Rossler		
11:45 AM - 1:15 PM	Dip A Journey from M Water Action Volunteers (WAV) A		ildlife: ng Power of Nature		
	Luncheon Keynote Speaker ~ And	drew Fusek Peters	page 32		



10

Friday Afternoon Agenda

April 7, 2017

11:45 AM - 1:15 PM	Luncheon Plenary Session - Northwoods Expo Dipping Into Landscape and Wildlife: A Journey from Mental Health Into the Healing Power of Nature					
	Luncheon Keynote Speaker ~ Andrew Fusek PetersWater Action Volunteers (WAV) Awardspage 32					
	A	fternoon Co	ncurre	nt Sess	sions	
Room Stream	- Stonefield/Woodland Sands/Frontier Mindful Connections - Rivers, Lakes, Groundwater & Watersheds Citizens Minding Our Waters					
1:30-2:30 PM	Communicating Phosphorus TMDL Goals on Agricultural Lands Aaron Ruesch A Plan to Improve Water Quality in Castle Rock and Petenwell Reservoirs Matt Diebel			How Citizen Data Can Affect Local Decision Making John Delaney Shelly Brenneman County Conservation Panel Jayne Jenks Chase Cummings Catherine Higley		
2 20 2 00 DM		D. (page 33			page 33
2:30-3:00 PM 3:00-4:00 PM	Using Citizen Labo		eshment B			
5.00-4.00 PM	Action Volunteer Programs as Tools for Watershed Planning Reesa Evans Long-term Water Quality Trends in			Two Guys in Waders: Preserving the Ten Mile Creek Rob Borski Brian Hamm Incorporating Monitoring into Your Association: Why or How an Established Organization gets		
	Wisconsin Lakes <i>Katie Hein</i>			Members Involved in Stream Monitoring Bob Jozwowski		
			page 34	100 90240430	SF	page 34
	Afternoon	<u> Workshops -</u>	<u>Pre-re</u>	egistra	tion Require	d
Room —	Expo 2	Evergreen	Har	vest	Trillium	Wisconsin
1:30-4:30 PM	Story-telling as Science Communication: Using Story to Communicate Clearly and Effectively Jessica Courtier Holly Walter Kerby	SWIMS and the Lakes and AIS Map Viewer Dennis Wiese Dave Winston Jake Dickmann	Introduct Blue-gree Identifica Ecology Gina LaLibe	en Algae: ation and rte	Loon Watch Erica LeMoine	Project RED: AIS Identification Amanda Perdzock
2:30-3:00 PM		Refre	shment B	reak in Co	mmons	

The Wisconsin Lakes Partnership Convention and WAV Symposium conclude at 4:30 PM on Friday, April 7, 2017.

Wed. Technical Sessions

Wednesday, April 5, 4:45-5:45 PM

<u>4:45-5:45PM – Expo 1 Room</u>

Aquatic Plant Management: Emerging Issues

Discussion will include the Aquatic Plant Management (APM) Strategic Analysis currently being comprised by the Department of Natural Resources, emerging issues in APM, and long term 2,4-D Eurasian Watermilfoil research points.

Presenters: Scott Provost, Statewide Aquatic Plant Management Coordinator, Wisconsin DNR and Michelle Nault, Water Resource Management Specialist, Wisconsin DNR

<u>4:45-5:45PM – Expo 2 Room</u>

County-wide Lake Associations Round Table

Join us for a round table exchange with representatives of county lakes and rivers associations. Others involved in county matters or interested in learning more about countywide association operations are welcome too. This round table is an opportunity to network with your peers in an informal setting and bring forward topics that you would like to discuss. Does your organization have an exciting project, success story, or helpful resources to share? We'd also like to hear your perspectives on current issues and challenges your county's lakes and rivers face. Plus, we'll explore ways to collaborate regionally on issues that affect our waters. *Facilitator: Mike Engelson, Director, Wisconsin Lakes*

<u>4:45-5:45PM – Sands Room</u>

Wisconsin Department of Natural Resources Decontamination and Disinfection Protocol

This special technical session will provide guidance to DNR employees, agents, service providers and affected permitees on the Wisconsin Department of Natural Resources Boat, Gear, and Equipment Decontamination and Disinfection Manual Code. We will review the code, demonstrate accepted cleaning methods, and provide an opportunity to answer your questions. Members of the public are welcome to attend, but we remind you that you are only required to Inspect, Remove, Drain, and Never Move.

Presenter: Maureen Ferry, Statewide AIS Monitoring Lead, Wisconsin DNR

Wednesday Evening

7:00-11:00 PM

Wednesday, 7:00-11:00 PM - Woodland Room

Lakes Partnership Welcome Reception

You are invited to the 2017 Wisconsin Lakes Partnership Convention Welcome Reception on Wednesday evening. Join us in a relaxed environment where we will serve up a few tasty appetizers and beverages. This informal gathering of lake lovers is a great way for newcomers to "get their feet wet," and for seasoned convention attendees to reconnect. There will be citizens and professionals who have graduated from The Wisconsin Lake Leader Institute - and trust us, you will want to know what they've been up to! You will also have the opportunity to mingle with speakers from the Blue Mind 7 Summit. So stop down and join the conversation. *(Included as part of your Thursday registration.)*



Sponsored by:





CLEAN LAKES MIDWEST



Thursday Sessions

8:00-8:50 AM

<u>8:00-8:50 AM — Expo 1 Room</u>

Mindful Management of Aquatic Invasive Species

Control of Non-native Phragmites within the Great Lakes Basins: A Case Study in Invasive Species Strategic Planning and Implementation

Non-native Phragmites is an invasive species that can be found throughout the eastern half of Wisconsin. This presentation will discuss topics such as statewide reconnaissance, mapping, strategic planning, developing partnerships at various governmental levels, permit coordination, and landowner interaction and outreach. We will also discuss contracting, aspects that lead to successful control, restoration paths, and the next steps in maintaining controlled populations. This presentation will be of interest to those considering large scale invasive plant control projects.

Presenters: Brock Woods, Purple Loosestrife and Wetland Invasive Plant Program Coordinator, UW-Extension and Wisconsin DNR and Jason Granberg, Water Resource Management Specialist, Wisconsin DNR

<u>8:00-8:50 AM — Expo 2 Room</u>

Bringing Policy Makers to the Water Table - People, Policy and Politics

State Budget and Legislative Update

Wisconsin just seated a brand new legislature, and it is time for a new state budget! If the recent past is any indication, changes to water policy will continue to be proposed and enacted. Wisconsin Lakes presents this annual update of what's already passed, what's already introduced, and maybe a bit of what is yet to come. Join us for lively reporting and analysis on state-level water policy in the budget and in stand-alone legislation as well. *Presenter: Mike Engleson, Director, Wisconsin Lakes*

8:00-8:50 AM — Evergreen Room

Minding the Science of Water Research

Revealing a Lake's History in its Sediments

Much about a lake's water quality history is preserved in its sediments. This talk will summarize the types of information found in the sediments. Sediment cores have been collected from over 200 lakes throughout Wisconsin. Information including changes in the lake's sedimentation rate, watershed erosion, deep water oxygen levels, and phosphorus concentrations can be determined from the sediments. Examples of common watershed practices that have impacted a lake's ecology will be described. These include early and recent agricultural practices, logging, and lakeshore development. Other influences on lake ecology, such as changes in a lake's water level because of drought, will be discussed.

Presenter: Paul Garrison, Paleoecologist, Onterra LLC.

Eutrophication Drives Water Clarity Responses to Decadal Variation in Lake Level

Water clarity is an important attribute of lakes, but understanding how clarity will respond to changes in climate remains obscure because physical and chemical conditions generate complex responses at local scales. Results of 28 years of monitoring lake phosphorus concentrations across 24 lakes in northwest Wisconsin and what this means in relationship with hydrology will be discussed.

Presenter: Pete Lisi, Post-doctoral Scientist, UW-Madison Center for Limnology

Thursday Sessions, cont.

8:00-8:50 AM

8:00-8:50 AM - Stonefield/Woodland Room

Mindful Connections - Rivers, Lakes, Groundwater & Watersheds

Where Did That Water Come From?

Most of the water in Wisconsin lakes starts as precipitation on land. The story of how that water gets to our lakes is important to the character and long-term health of our lakes. In this session, we'll introduce ideas about watersheds and water movement and consider how that can help us understand our lake. *Presenter: Paul McGinley, Research Scientist, Center for Watershed Science and Education, UW-Stevens Point and UW-Extension*

Who Are the Stakeholders? Engaging Communities

This presentation will highlight the strategies used in doing social science watershed assessment in an interdisciplinary and community-engaged manner. Research from the LAKES REU (Linking Applied Knowledge in Environmental Sustainability Research Experience for Undergraduates), a National Science Foundation funded project, was conducted over the last three years to study phosphorus pollution in the Red Cedar Watershed. Studies ranging from economic impacts to farmer social networks to ethnographic work on government agency efforts (and more) informed our results, and these all coalesced around the theme of evaluating community capacity. This presentation will highlight some results, propose some best practices for social science research on watersheds, and discuss the idea of working as an interdisciplinary team and engaging the community being studied as the research is conducted.

Presenter: Alyssa Quilling, LAKES Research Coordinator, UW-Stout

8:00-8:50 AM - Sands/Frontier Room

Citizens Minding Our Waters

Making Healthy Lakes Together: The Church-Pine, Round & Big Story

Interested in getting property owners on your lake to "just do something"? Come learn about Healthy Lakes – a statewide initiative providing technical assistance and funding for simple habitat and water quality improvement projects on lakeshore properties. We will share an overview of the Healthy Lakes initiative followed by a local lake champion's experience, including the hurdles and hints they discovered and conquered to complete eight projects in 2016 with more on the way.

Presenters: Pamela Toshner, Lake Biologist, Wisconsin DNR and Mike Reiter, Committee Chair and Commissioner of The Church-Pine, Round, and Big Lake Protection and Rehabilitation District

8:00-8:50 AM — Harvest/Trillium Room

Water On Our Minds - Social and Psychological Connections to Water

In a New Light: Water Photography is Medicine for Teens in Mental Health Treatment

Northwest Passage is a residential mental health provider for youth located in northwest Wisconsin. Since 2014, teachers and staff at Northwest Passage have been taking young men and women around, on, and under the water to take amazing nature photographs. The process of learning photography and spending time in or near water has had many unexpected, positive impacts on the participants. They have used photography to share their perspectives on life and the world. They have experienced deep therapeutic impacts in part due to water's calming effects, from rivers and lakes to recent experiences in the Florida Keys. This award-winning program now has a photography gallery in Webster, Wisconsin and has touched the lives of thousands through news stories and exhibits as the young photographers reveal a rarely seen side of our waters. Join us in this session to learn more about this real world example of how lakes and waterways provide immense emotional services to people and society.

Presenters: Ian Karl, Experiential Programming Coordinator, Northwest Passage and Anglea Frederickson, Clinical Director and Therapist, Northwest Passage



Thursday Keynote

9:00-10:45 AM



Thursday Welcome - Northwoods Expo - 9:00 AM

Mike Wiza, Mayor, Stevens Point

Mayor Wiza has lived in the Stevens Point area his whole life and has been active in the community for most of those years. He attended the Stevens Point Area High School and University of Wisconsin-Stevens Point. Prior to becoming Mayor, Wiza worked in the IT field.

Wiza served as a City Alderman for over ten years and a Portage County Supervisor for over nine years. He has also been very active in outdoor and conservation groups including the Izaak Walton League, Prime Water Anglers, and others.

Wiza believes we need to be responsible stewards of the world around us and has focused on sustainable initiatives both before and since being elected Mayor of Stevens Point in April of 2015.



Thursday Kick-off Keynote - Northwoods Expo - 9:00-10:45 AM

Go Deeper: The Seven Ages of Water Wallace J. Nichols, Marine Biologist, Author

Our Thursday morning keynote speaker will be Dr. Wallace J. Nichols, a marine biologist who has synthesized much of the science on this topic in his 2015 best selling book <u>Blue Mind</u>.

In his morning keynote, Nichols will explore the cognitive, emotional, psychological, social and spiritual benefits of healthy waterways and oceans via each of the seven ages of our lives

- from birth through death. The Seven Ages of Water form the backbone of our conversation as we plunge into our evolving, rich and complex lifelong relationship with water. The Seven Ages are overlapping, and the edges are not sharp, but this framework is robust and makes the cutting-edge research on water and people compelling, fun and immediately applicable to our lives.

Nichols has been an outspoken advocate for celebrating these connections, and he asks everyone he meets to recognize that water is vital to our well-being in many ways. For the most part, our society doesn't capture the wellness-related values of water in our economic equations. Undervaluing the importance and impact of lakes and rivers makes it easier to degrade them, and to quote the old saying "you don't know what you've got 'til it's gone." We will use this Lakes Partnership Convention to identify new ways that we can highlight and communicate such hidden values of water and ensure that policy makers consider them in their decision making.



Thursday Sessions



1:00 AM-12:00 PM

<u>11:00 AM-12:00 PM — Expo 1 Room</u>

Mindful Management of Aquatic Invasive Species

Evaluation of Management Techniques for Starry Stonewort in Wisconsin

Little is known about the efficacy and impacts of management techniques used to attempt to control starry stonewort. A variety of management techniques have been used in small scale trials on a handful of Wisconsin lakes in 2015 and 2016. The efficacy and impacts associated with the management trials will be presented, and research from around the Midwest will be discussed.

Presenter: Scott Van Egeren, Statewide Lake and Reservoir Ecologist, Wisconsin DNR

The Science Behind the So-called Super Weed: A Decade's Worth of Studies Helps to Understand the Effects of Eurasian Watermilfoil on Wisconsin Lakes

In the early 1990s, Eurasian watermilfoil (*Myriophyllum spicatum*; EWM) was described in a report to the legislature as: "A super weed capable of stopping a speeding boat [which] has a chokehold on Wisconsin lakes". In order to better understand the impacts of EWM in Wisconsin, Department of Natural Resources staff compiled a decade's worth of data collected on hundreds of waterbodies across the state. Specifically, this presentation will discuss the current statewide distribution, abundance, and genetics of non-native milfoil in Wisconsin, the results of a long-term Eurasian watermilfoil monitoring project, as well as a discussion on the efficacy and selectivity of currently utilized management techniques. The results may surprise you, and challenge some commonly-held beliefs about this invasive aquatic plant species.

Presenters: Chelsey Blanke, Research Scientist, Wisconsin DNR and Michelle Nault, Water Resource Management Specialist, Wisconsin DNR

<u>11:00 AM-12:00 PM — Expo 2 Room</u>

Bringing Policy Makers to the Water Table - People, Policy and Politics

Public Trust Doctrine and Lakes

Rooted in the Wisconsin Constitution, the Public Trust Doctrine has guided the development of water law in this state for over 150 years. Through this session, you will learn what the Public Trust Doctrine is, how it has evolved over time, and what role it will likely play in deciding some of our current debates over water use. With this understanding, you can help your neighbors and fellow lake lovers appreciate the legacy of law and court decisions that gives all people a stake in clean, healthy water bodies.

Presenter: David A. Strifling, P.E. Director, Water Law and Policy Initiative, Marquette University

(Continued on pages 16-17)





Thurs. Sessions, cont.

:00 AM-12:00 PM

11:00 AM-12:00 PM — Evergreen Room

Minding the Science of Water Research

Inland Fisheries Habitat Management: Lessons Learned from Wildlife Ecology and a Proposal for Change

The habitat concept in inland fisheries has been less studied than wildlife ecology. Since 1950, the cumulative number of publications about "freshwater or inland habitat and fisheries management" has been 60-95% less than those considering "habitat and wildlife management." We provide a perspective comparing inland fish and wildlife habitat management systems and highlight lessons from wildlife ecology that could benefit inland fisheries. We reason that wildlife habitat management has become widespread and accepted because humans share habitats with wildlife and positive/negative responses to habitat restorations/loss are directly observable. We recommend that inland fisheries habitat studies and restorations include opportunities for humans to directly observe the ecological benefits of such practices. Although aquatic habitat conservation and restoration may not solve management issues as rapidly, it will promote long-term sustainability and resiliency of diverse inland fish populations.

Presenter: Greg Sass, Natural Resource Program Supervisor, Wisconsin DNR

Trouble in Paradise: Long-term Trends in the Natural Production of Wisconsin Walleye

Walleye are an iconic fish species throughout Wisconsin and the upper Midwest. This talk will present results from a recent analysis showing a long-term decline in the natural production of Wisconsin walleye. Similar trends are being observed in nearby regions including Minnesota, Michigan, and Ontario. The specific causes for walleye declines remain largely unknown, however a myriad of hypothesized and interacting drivers have been identified including: lakeshore development, warmer lake temperatures leading to increased abundances of warm-water species (like bass), pollutants, and harvest. Summaries of recent results on these topics highlight several ongoing research efforts in the state aimed at understanding and managing walleye through this emerging challenge. Strong collaborative research among managers, the public, different states and nations, and scientists that addresses natural resource problems that are regional in scope and lack simple solutions, like declining walleye, is highly important.

Presenter: Andrew Rypel, Natural Resource Research Scientist, Wisconsin DNR

Understanding Cisco Decline in Wisconsin's Inland Lakes

Ciscoes (*Coregonus artedi*) are a cold-water fish species of high social and ecological importance in the lake ecosystems they occupy. Ciscoes typically occur in Wisconsin's deepest inland lakes that contain high quality oxythermal habitat. Unfortunately, cisco populations appear to be declining throughout the Midwest due to habitat loss. The goal of our research was to determine what primary abiotic factors are contributing to the statewide decline in cisco occurrence. We used historical and contemporary occurrence data to model cisco persistence. The model exhibited an overall classification rate of 71% and showed high relative importance of growing degree days, maximum depth, and percent forest cover in watersheds. Because multiple biotic and abiotic factors differentially contributed to the extirpation of cisco, it was difficult to model cisco persistence. Despite this limitation, we were able to identify factors that biologists can realistically manage, such as natural land use, to prolong cisco persistence.

Presenter: Tim Parks, Research Scientist, Wisconsin DNR

Thurs. Sessions, cont.



11:00 AM-12:00 PM

11:00 AM-12:00 PM — Stonefield/Woodland Room

Mindful Connections - Rivers, Lakes, Groundwater & Watersheds

Community Capacity Assessment: Preparing for Planning

Watershed plans and projects can't be implemented without the cooperation and involvement of community members. Often the capacity for a community to be involved at the levels needed is not adequate for successful implementation. What is community capacity, and how can it be assessed, developed and cultivated? Join us to learn more about this very successful process.

Presenter: Daniel Zerr, Natural Resource Educator, Lower Chippewa Basin, UW-Extension

Farmer-led Councils

This session will discuss producer-led water quality improvement efforts happening throughout the state, why and how they're effective, and provide an update of what these groups have accomplished so far. *Presenter: Rachel Rushmann, Producer-Lead Watershed Protection Grants Program Coordinator, WI Department of Agriculture, Trade and Consumer Protection*

11:00 AM-12:00 PM - Sands/Frontier Room

Citizens Minding Our Waters

Healthy Lakes: Marketing, Planning & Implementing Projects on Lake Minnesuing, Douglas Co. Join us to learn how to ensure your lake project will be successful! We'll discuss the step by step process of marketing/merchandising to your lake stakeholders as a sponsor, packaging your grant application, and everything in between. Discussion and question/answer session will follow.

Presenter: Jim Giffin, Treasurer of both the Lake Minnesuing Association and the Lake Minnesuing Sanitary District & Lake Leader Crew 11

Creating a Healthy Lakes Rain Garden

In this session, we will share the adventure of designing, building, and planting a 250 sq. ft. rain garden at our home on Beaver Dam Lake. The effort is supported by a 2016 Healthy Lakes Initiative grant sponsored by the Beaver Dam Lake Improvement Association. In addition to rainwater, the garden is irrigated by run-off from a roof downspout 40 ft away. Guidelines for site selection and rain garden size are reviewed. The challenges of excavating a less-than-perfect site, backfilling with amended soil, hardscaping for water dispersal, and berm construction will be described. Native plant selection to achieve diversity of both root system and bloom time is then discussed. Lastly, we will show how the rain garden integrates with mature moist prairie and woodland gardens on the property to provide nectar, nest, and larval sites for a diverse population of indigenous invertebrate species at a time when their global habitats are shrinking.

Presenter: Carolyn Aita, Professor Emeritus UW-Milwaukee and summer resident of Beaver Dam Lake

11:00 AM-12:00 PM — Harvest/Trillium Room

Water On Our Minds - Social and Psychological Connections to Water

A Peace of Mind: Mental Restoration in Urban Outdoor Settings

Today, about half of all health care consultations are related to stress and serious stress-caused illnesses. Although stress can be the result of many different factors, it is known that unhealthy urban environments are a contributing factor in worsening mental health, including living spaces that are deprived of life and exposure to the natural world. However, high quality urban environments can also provide opportunities for people seeking ways to find balance in their lives, whether consciously or unconsciously. This presentation will review the state of knowledge on the associations between mental restoration and the physical environment and discuss design principles aimed at increasing contact with nature in the built environment.

Presenter: Kristin Thorleifsdottir Ph.D., MLA, assistant professor in Landscape Architecture, College of Agriculture and Life Sciences and Design Studies, School of Human Ecology, UW-Madison



Thursday Lunch

2:15-1:30 PM

-2:25 PM

•4



Thursday Lunch Speaker - Northwoods Expo - 12:45 PM

Sharon Gayan, Bureau Director, Water Quality, Wisconsin DNR Sharon Gayan became the new Water Quality Bureau Director for the Wisconsin Department of Natural Resources (DNR) last October. Sharon brings over 31 years of experience to the position, having served in a wide array of water programs. She began her career with the Department as a program planning analyst developing and implementing five non-point source and integrated resource management plans for the Milwaukee River Basin. She loves everything outdoors – especially recreational activities like kayaking, camping and hiking. Sharon will share highlights of recent agency accomplishments related

to water protection and restoration and provide an update on recent organizational alignment efforts in the DNR including new initiatives for lakes and rivers and the challenges and opportunities she sees ahead.

Thursday Sessions

<u>1:45-2:25 PM — Expo 1 Room</u>

Mindful Management of Aquatic Invasive Species

Asian Carp and Round Goby Status

Participants will learn the current status of Asian carp and round goby in the region and Wisconsin, and what federal and state agencies are doing to prevent their expansion. The message remains the same - PREVENTION is the key, and everyone can play a role in our success. Presenter: Bob Wakeman, Aquatic Invasive Species Coordinator, Wisconsin DNR

<u>1:45-2:25 PM — Expo 2 Room</u>

Bringing Policy Makers to the Water Table - People, Policy and Politics

Understanding the State and Local Legislative Process

An understanding of how laws and ordinances get made is an important piece of understanding the everchanging world of water policy in Wisconsin. It helps inform when is the best time to contact a government official on a certain topic or what key stages to look for as an idea works its way through the process. In this session, you'll learn the basic process and timeline used to develop state laws, the state budget, agency rules, and local ordinances.

Presenter: Mike Engleson, Director, Wisconsin Lakes

1:45-2:25 PM — Evergreen Room

Minding the Science of Water Research

Techniques for Shoreland Restoration in the Northern Highlands Ecological Landscape

From 2008 – 2015, the Wisconsin Department of Natural Resources Division of Science Services, Michigan Technological University, Vilas County Land and Water Conservation Department, WI Department of Agriculture, Trade, and Consumer Protection, and private nurseries and landscapers worked with 26 property owners on five lakes in Vilas County to develop the best management practices for shoreland restoration in that lake region. We will describe methods proven to be successful, including cost-effective planting recommendations, necessary irrigation and herbivore protection practices, use of rain-gardens and biomaterials to manage run-off, and expected benefits for landowners.

Presenters: Michael Meyer, Scientist, NOVA Ecological Services and Dan Haskell, Field Scientist, Michigan Tech University

Thursday Sessions, cont.

1:45-2:25 PM

1:45-2:25 PM - Stonefield/Woodland Room

Mindful Connections - Rivers, Lakes, Groundwater & Watersheds

Lake and Watershed Management Plans: Where We've Been and Where We Are Heading

The connection between lake and watershed management plans, the status of current planning efforts and proposed changes to grant funding and Wisconsin DNR requirements will be discussed. *Presenter: Carroll Schaal, Lakes and Rivers Section Chief, Wisconsin DNR*

1:45-2:25 PM - Sands/Frontier Room

Citizens Minding Our Waters

Spring Lake, Waushara County Citizens Projects

Spring Lake Management District in Waushara County has been using member volunteers and supporting organizations to help improve and stabilize Spring Lake's health. Learn how they reach out to the people around their lake to discuss status/concerns about their water resource and engage them in efforts. See how they take advantage of the educational and supporting professionals that can help them identify and work on specific lake issues. Find ways to expand the contributions of your neighbors, community, local organizations, and grant-funded professionals through collaborative activities to benefit yours and fellow water groups. Success can happen! *Presenters: Marty and Arnie Wilke, Spring Lake Management District, Waushara County Watershed Lakes Council*

Successfully Building a Citizen-led Management Program

Finding that one or more invasive species has taken up residence in your lake can be a traumatic experience. Then, trying to identify how to best deal with the problem quickly becomes overwhelming. This presentation will provide an overview of how one Fond du Lac County lake association pulled together a local team, secured support of property owners, worked with the WI Department of Natural Resources to address any regulations, utilized outside resources, and financed an ongoing project to control aquatic invasive species in their lake. *Presenter: Mark Patton, President, Long Lake Preservation Association in Fond du Lac County*

1:45-2:25 PM — Harvest/Trillium Room

Water On Our Minds - Social and Psychological Connections to Water

Art, Science, River, Lake

Come hear a team of artists and scientists present their work on two projects inspired by Wisconsin freshwater ecosystems. <u>Voices of the Namekagon</u> is a web-based natural biography of the Namekagon River and its watershed, born of a unique partnership between artist Jojin VanWinkle and scientist Alison Mikulyuk. The project focuses on building relationships and engaging the public in the outdoors by exploring the Namekagon River as a figurative and literal thread connecting people to the land and to each other. They will show several film excerpts related to topics like eco-tourism, watershed management, and how people feel about the river. The biography uses multiple media, blending scientific and filmmaking practices to present film, audio, photography and scientific data. We hope that <u>Voices of the Namekagon</u> combines images, conversation, space, place, and ecology to present ever-expanding epistemology of one of Wisconsin's much-loved natural areas.

Similarly, storyteller Helen J. Bullard and ecologist Chelsey Blanke developed <u>Restless</u>; a celebration of Lake Michigan's cultural, ecological, and industrial histories. The project uses stories, video, still-imagery, animation, nature sounds, and music to reflect upon questions such as "What might it be like to be a lake?" and "What would a lake know?". Excerpts shown will explore deep time, native American folklore, fisheries history, personal experiences, and other topics, with the aim of inspiring personal connections to and reflections about one of Wisconsin's Great Lakes.

Presenters: Alison Mikulyuk, Scientist, Wisconsin DNR, Jojin VanWinkle, Filmmaker and Visual Artist, Chelsey Blanke, Scientist, Wisconsin DNR and Helen J. Bullard, Research-Based Storyteller, University of Wisconsin-Madison



Thursday Sessions

2:35-3:15PM

<u>2:35-3:15 PM — Expo 1 Room</u>

Mindful Management of Aquatic Invasive Species

How Are We Attempting to Control Invasives in the Marketplace?

Aside from accidentally, how are invasive species entering Wisconsin? Many are sold in pet shops, nurseries, the internet, and even on social media like Facebook. Unfortunately, the buyers and sellers of these products are often not aware of Wisconsin's NR 40 Rule. Efforts are underway to reach out to these various markets. This presentation will discuss the Wisconsin Department of Natural Resources' actions to suppress the presence of invasive species in the marketplace; aka organisms in trade (OIT).

Presenter: Mary Bartkowiak, Invasive Species Outreach Coordinator, Wisconsin DNR

A Network for Prevention: Expanding Resources for Rehoming Exotic Pets

The release of unwanted exotic pets into the environment is a pathway of concern for new invasive species. The Habitattitude Rehoming Network was created for Green Bay and the Fox Cities to serve as a rehoming resource for pet owners that have unwanted pets and no other options for rehoming. The Network plans to create outreach materials and partner with additional exotic animal rescues to fill the needs identified in a 2016 survey of pet stores and animal rescues. Providing a convenient alternative to release and educating pet owners about area rehoming resources will reduce the frequency of release of unwanted exotic pets and protect our waters from new invasive species.

Presenter: Korin Doering, Winnebago Waterways Program Coordinator, Fox-Wolf Watershed Alliance

<u>2:35-3:15 PM — Expo 2 Room</u>

Bringing Policy Makers to the Water Table - People, Policy and Politics

The Feds in Wisconsin: The Crucial Role of the U.S. Government in AIS Prevention & Control Aquatic invasive species (AIS) have captured the attention of everyone that uses water for fun or business. The Federal government has been instrumental in bringing AIS to the United States and has been instrumental in their control and prevention as well. What Federal agencies are involved in the AIS issue, and what role do they play in helping Wisconsin prevent, contain, and control AIS? From financial contributions to policies and regulations, the Federal government is a partner against AIS.

Presenter: Bob Wakeman, Statewide Aquatic Invasive Species Coordinator, Wisconsin DNR

2:35-3:15 PM — Evergreen Room

20

Minding the Science of Water Research

Monitoring Lake Shore Habitat: Why Do It and How to Use the Results!

The Wisconsin Department of Natural Resources developed a consistent, statewide protocol for monitoring the health of near shore lake habitat. This session will provide an overview of the protocol and discuss the goals of habitat monitoring and the basic elements of a healthy shoreline. Green Lake County will then present their habitat survey results from a variety of lakes and share how they plan to use this information for lake management.

Presenter: Katie Hein, Water Resources Management Specialist, Wisconsin DNR

Psychological Barriers and Unintended Consequences in Outreach Campaigns Promoting Natural Shorelines with Property Owners

Despite the benefits of natural shorelines to lake health, encouraging property owners to modify their landscaping practices can be challenging. This session will describe social science research that revealed some challenges and potentially unintended consequences of these outreach programs and will offer recommendations about how to communicate more effectively with lakeshore property owners.

Presenter: Bret Shaw, Professor in the Department of Life Sciences Communication, UW-Madison and Environmental Communication Specialist, UW-Extension

Thursday Sessions, cont

2:35-3:15PM

2:35-3:15 PM — Stonefield/Woodland Room

Mindful Connections - Rivers, Lakes, Groundwater & Watersheds

Water Quality Models to Support Watershed Planning

Nonpoint implementation efforts in lake watersheds must be efficiently planned to best utilize the staff and financial resources of watershed managers. The planning process involves locating sources of nonpoint pollution, determining appropriate BMPs, and calculating the resulting load reductions. This session will describe how the Wisconsin Department of Natural Resources' (WDNR) PRESTO-Pollutant Load Ratio Estimation Tool, the WDNR's EVAAL-Erosion Vulnerability Assessment for Agricultural Lands, and the U.S. Environmental Protection Agency's STEPL-Spreadsheet Tool for Estimating Pollutant Load can assist watershed managers in this planning process.

Presenter: Theresa Nelson, Water Resource Engineer, Wisconsin DNR

2:35-3:15 PM - Sands/Frontier Room

Citizens Minding Our Waters

Kangaroo Lake Preservation and Restoration

Our presenter learned about Fish Sticks at the Lakes Partnership Convention four years ago. See how the Kangaroo Lake Association (KLA) received a small planning grant from the Wisconsin Department of Natural Resources (WDNR), which initiated a Fish Sticks program, as well as a bulrush restoration program, in their shallow, healthy, 1,122 acre lake near Baileys Harbor, Door County. In three years, they placed 65 trees (35'-50') harvested from The Nature Conservancy land. Communication with volunteers, members, hosts, and the media educated landowners and the public about the value of "wood in the water." This past year, the KLA received a WDNR Regional Partnership Award for KLA's 20+ year history of partnering and working collaboratively to study and improve the water quality, plant life, and fishing.

Presenter: Tom Schneider, President, Kangaroo Lake Association in Door County

A Citizen-led Success Story to Improve Water Quality and Battle Aquatic Invasive Species

Over multiple decades, the English Lake District in Manitowoc County has successfully dealt with a discharging barnyard, agricultural drain tiles, eroding steep cropland and winter application of animal waste in their lake's small watershed. Most recently, a herbicide resistant hybridized Eurasian watermilfoil is being battled with numerous herbicide and mechanical treatments. Through multiple lake planning grants and a persistent volunteer, the watershed has been able to implement a number of abatement practices in the watershed. Tom will share the methods to this success.

Presenter: Tom Ward, Invasive Species Coordinator, Manitowoc County Lakes Association

2:35-3:15 PM — Harvest/Trillium Room

Water On Our Minds - Social and Psychological Connections to Water

Water Is Life

Students at Point of Discovery School have been studying water sustainability, fresh water management, and the significance of water "Then and Now" in Stevens Point. Several students will share their findings with the community through art, poetry, charts, reports, and essays. This session will share the process and outcomes. *Presenter: Cathy Barbier, Language Arts Teacher, Point of Discovery School, Stevens Point, WI*



Thursday Lakes Posters

<u>Commons</u>

3:30-5:00PM

Listed by topic, then alphabetically

<u>TOPIC: Aquatic Invasive Species</u> Best Management Practices to Slow the Spread of AIS Jeanne Scherer, Wisconsin DNR

Effects of 2, 4-D Herbicide Treatments Used to Control Eurasian Watermilfoil on Fish and Zooplankton in Northern Wisconsin Lakes Nick Rydell, Wisconsin Cooperative Fisheries Research Unit

The Efficacy and Efficiency of a Portable Steam Cleaner for New Zealand Mudsnail Disinfection/Decontamination Kevin Olson, Wisconsin DNR

Evaluating Aquatic Invasive Species: Disinfection and Decontamination Methods by Species Kevin Olson, Wisconsin DNR

Evaluation of Large-scale Low-dose 2,4-D treatments for Eurasian and Hybrid Watermilfoil Control Across Multiple Wisconsin Lakes Michelle Nault, Wisconsin DNR

From Dock to Database: Tips for Formatting Aquatic Plant Surveys Meghan Williams, Wisconsin DNR

Frozen Down Under Stephanie Boismenue, Oneida County Land and Water Conservation Department

Genetic and Ecological Research of the Aquatic Invasive Japanese Hop Yields Practical Recommendations That Will Aid Management Decisions and Educate Citizen Volunteers Ryan Haasl, UW-Platteville

Poster descriptions and author contact information will be available on the online convention archive.

Invasive Species Prevention through Clean Trapping Practices

Chris Hamerla, Golden Sands Resource Conservation and Development Council, Inc.

Mapping on the Web with the Lakes & AIS Viewer David Winston, Wisconsin DNR

New Invasive Species Archive Can Guide Species Priorities and Control in Your Area Jason Granberg and Brock Woods, Wisconsin DNR

Rapid Response Actions Following the Discovery of Round Gobies in Little Lake Butte des Morts Michelle Nault, Wisconsin DNR

Rapid Response Actions Following the Discovery of Starry Stonewort (*Nitellopsis obtusa*) in Wisconsin *Michelle Nault, Wisconsin DNR*

Reed Manna Grass (*Glyceria maxima*): A new Riparian/Wetland Invader Brock Woods and Jason Granberg, Wisconsin DNR

Trends in Herbicide Application in the Northwoods Carol Warden, UW-Trout Lake

WDNR Aquatic Plant Management Strategic Analysis: Perspectives, Approaches, and the Future of Aquatic Plant Management in Wisconsin Chelsey Blanke, Wisconsin DNR

WDNR Lakes Pages Dennis Wiese, Wisconsin DNR



Thursday Lakes Posters, cont.

3:30-5:00PM

<u>Commons</u>

<u>TOPIC: Citizen Volunteers</u> **Citizen Lake Level Monitoring** *Katie Hein and Justin Chenevert, Wisconsin DNR*

Dane County Water-related Community Engagement Program

Susan Sandford, Dane County Land and Water Resources Department

Fox River Tributaries - Volunteer Monitoring *Scott Heinritz, Fox Valley Technical College*

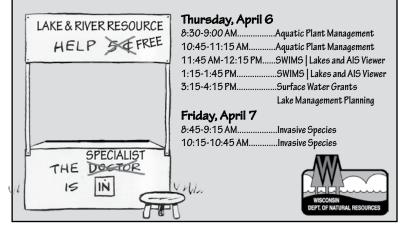
Volunteer Road Salt Monitoring in the Milwaukee River Basin Zac Driscoll, Milwaukee Riverkeeper

TOPIC: Ecology

Identifying Long-term Lake Thermal Structure in Islands Lakes within the Great Lakes; Implications for Biota in a Changing Climate Krista Slemmons, UW-Stevens Point

The Specialist in IN

Check out the Wisconsin Department of Natural Resources table to get your questions answered!



TOPIC: Healthy Lakes

A Second Life for Trees in Lakes Lynn Markham, UW-Extension Center for Land Use Education

Developing and Sustaining a Lakeshore Habitat Restoration Training for Professionals in Wisconsin Patrick Goggin, UW-Extension Lakes

Wisconsin's New Healthy Lakes Initiative: Technical Assistance and Funding for Lakeshore Best Practices

Pamela Toshner, Wisconsin DNR and Patrick Goggin, UW-Extension Lakes

TOPIC: Physical Science

Management of Cold-water Fish Habitat in Wisconsin Inland Lakes Madeline Magee, Center for Limnology, UW-Madison

Observed Changes in Water Chemistry at 13 Lakes in Wisconsin over the Past 25 Years

Joan Bunbury, UW-La Crosse Geography and Earth Science

Rates of Nutrient Cycling

D. K. Button, Big Sand Lake Association and University of Alaska Emeritus

TOPIC: Policy & Politics

The Impact of Water Clarity on Home Prices in Northwestern Wisconsin Thomas Kemp, UW- Eau Claire Department of Economics

TOPIC: Social Science

Central Wisconsin Water Walk 2016 Reesa Evans, Adams County Land and Water Conservation Department



Thursday Evening

5:30-8:00PM – Northwoods Expo

Wisconsin Lake Stewardship Banquet & Awards Ceremony

5:30 PM - Socializing/Networking 6:00 PM - Banquet dinner (awards to follow)

Please join us in celebrating the 2017 Wisconsin Lake Stewardship Award winners and new nominees at our banquet and awards ceremony on Thursday evening. The Wisconsin Lakes Partnership presents the annual Lake Stewardship Awards to recognize the extraordinary volunteer and professional efforts of individuals and groups who protect and improve our lakes. People are nominated for Stewardship Awards by their peers - what

Want to attend, but didn't sign up? \$25 at the door

Congratulations 2017 Wisconsin Lake Stewardship Award Winners!

Citizen: Ray Zuelke Group: Petenwell and Castle Rock Stewards Business: Onterra, LLC Public Service: Jennifer Filbert Lifetime service to the Partnership: Dr. Robert Freckmann

a meaningful way to say, "Thank you!" to the people in your community who work so hard to care for our lakes. Winners of these awards join a select group of women, men, students and organizations whose unmatched dedication, vision and commitment ensure Wisconsin's legacy of lakes will be safe and secure for generations to

30-year CLMN Volunteers

William Flader, Witters Lake, Waushara County Loren Swanson, Big Hills Lake, Waushara County

These volunteers have collected 646 water clarity readings on these two lakes in Waushara County!

come. We will also be recognizing two individuals who have dedicated 30 years of volunteer service to the Citizen Lake Monitoring Network.

If you pre-registered for the banquet and awards ceremony, the word "Banquet" will appear on your name tag. If you haven't registered, but would like to attend, you are welcome to pay \$25 at the door.

<u>8:00-11:00PM - Amber Grill</u>

Lakes Partnership After Hours with Tuck Pence It's time to unwind the mind! Relax and enjoy the sounds of a friend of our waters and a local celebrity. Tuck Pence, singer/songwriter, musician and entertainer will be joining us for some fun!





Music has been my passion from childhood, I have been in the music industry for 35 years. I have written approximately 30 songs and currently have 3 CD's available, a 4th on the way. I am a solo artist but like none other you've seen before. I play my originals plus have a repertoire of approximately 2500 songs from a variety of genres and era's, country, folk, classic rock, country rock. I enjoy entertaining a crowd and love playing music that makes people feel and smile! I play all over Wisconsin and a few area's beyond. Not only does playing music make me and others smile, it helps support my fishing hobby, otherwise I'd have to get a real job! Hope you enjoy my songs.

Northwoods Expo



Images in Your Blue Mind

Check out the west wall in the Northwoods Expo and admire the beautiful, striking and fun images that were submitted to our 15th Annual Lakes Partnership Photo Contest!

VOTE FOR YOUR FAVORITE!

Tell us which photo you think is the best by voting for your favorite image. A ballot box and paper slips are next to the photo display – we will count the ballots and award a ribbon for the People's Choice. We will also reveal the winners selected by our panel of professional photographers.









Lake and River Monitoring Milestones

Volunteering as a citizen scientist is a big deal! Recording data on water quality and native plant communities, completing watercraft inspections and looking for invasive species are some of the ways citizens help protect and preserve our water resources. In many cases, volunteer data are the only data that exist for a specific waterbody. These baseline data are extremely important in helping natural resource specialists manage our public waters.

So, to each volunteer, from all of us, we would like to extend a heartfelt THANK YOU!

Check out the southwest corner of the Northwoods Expo for our lake and river monitoring milestones.



Drawing Water Display

Henry David Thoreau said, lakes are "Earth's eye; looking into which the beholder measures the depth of his own nature." For many people, lakes are a touchstone. Few people feel this connection as intimately as those

who dedicate their lives to studying lake ecosystems. The collaboration between artists and scientists at UW-Trout Lake Station in <u>Drawing Water</u> seeks to explore the relationships between aquatic ecosystems and changing biophysical setting, climate, and land use. The <u>Drawing</u> <u>Water</u> program includes an artist-in-residency along with periodic exhibitions, a website and wayside signs. This display will share some of the work of the artists and scientists and give you a deeper understanding of the complex, beautiful systems of the Northern Highland lakes. *Trout Lake Station is part of the UW-Madison Center for Limnology*.

Please check out the display along the east wall of the Northwoods Expo.



watercolor by Mindy Schnell



Friday Sessions

8:00-9:00 AM

<u>8:00-9:00 AM — Expo 1 Room</u>

Mindful Management of Aquatic Invasive Species

Online Resources to Help Prevent the Spread of Aquatic Invasive Species

Over the past five years, the Wisconsin AIS Partnership has been producing videos and other media that is available online to help citizens and aquatic invasive species (AIS) professionals alike prevent the spread of AIS. Come learn about what online media currently exists, how to access it, and how you can use it to stop aquatic hitchhikers in your community.

Presenter: Tim Campbell, AIS Outreach Specialist, UW-Extension and Wisconsin DNR

How Citizens Can Help Stop Aquatic Hitchhikers!

In addition to citizen monitoring opportunities, volunteers that want to help stop the spread of aquatic invasive species can help implement a number of outreach programs with the help of UW-Extension, the Wisconsin DNR, and a local AIS coordinator. These efforts can range from events like the Landing Blitz and the Drain Campaign, to more regular efforts like the Clean Boats, Clean Waters Watercraft Inspection Program or the Bait Shop Initiative. Join UW-Extension staff to learn more about how volunteers can be engaged in their area. *Presenter: Jenny Seifert, AIS Outreach Specialist, UW-Extension and Wisconsin DNR*

<u>8:00-9:00 AM — Expo 2 Room</u>

Bringing Policy Makers to the Water Table - People, Policy and Politics

Hot Topic Update #1: Water and Legislation

In the fast-paced world of the Wisconsin Legislature, policy initiatives can arise at any moment. To keep you as informed and up-to-date as possible, the focus of this session will be determined at the last moment possible! It might cover a specific matter in the state budget, a new piece of legislation released in early 2017, or if nothing new is on the horizon, maybe a repeat of the general budget and policy update presented on Thursday. Check in with the Lakes Partnership Convention website, or the Wisconsin Lakes booth at Convention, for updates! *Presenter: Mike Engleson, Director, Wisconsin Lakes*

8:00-9:00 AM — Evergreen Room

Grants and Codes - The Making of Healthy Lakes

Wisconsin DNR Aquatic Plant Management Strategic Analysis

The last environmental review of Wisconsin's Aquatic Plant Management Program was in 1988. Since then, there have been many changes in aquatic plant management (APM) due to advances in science, newer technologies and invasive species. In 2014, the Department conducted a program review in the first step to update the program. This review recommended a strategic analysis of the program to be completed under NR 150.10. The analysis will evaluate factual information to help inform future discussion and decisions on the issue of APM in the state of Wisconsin, such as revision to the state Administrative Rules NR 107 and NR 109. We will share where we are in the process, and the direction we are going with our partners. Your input is needed and we hope you attend. *Presenters: Scott Provost, Statewide Aquatic Plant Management Coordinator, Wisconsin DNR and Scott Van Egeren, Statewide Lake and Reservoir Ecologist, Wisconsin DNR*

What Citizens, Volunteers, and Natural Resource Managers in Wisconsin Value in an Aquatic Invasive Species Management Program

The Wisconsin Department of Natural Resources (DNR) makes \$6 million available yearly to local entities for lake and river management activities through its surface water grants program. In 2016, the DNR began a process to revise the surface water grants program, including its aquatic invasive species (AIS) grants program, to better align it with public needs. One tool the DNR will use to revise the AIS grants program is a statistical approach called conjoint analysis. While it is commonly used in market research to determine what people value

Friday Sessions, cont.



8:00-9:00 AM

in a potential product, it is a more novel approach in a policy setting. The advantage of this technique is that it not only allows researchers to determine what attributes are important, but also how important they are by using choice-based tasks. The DNR worked with the University of Wisconsin-Extension and a consultant to develop a survey tool that asked respondents to make choices between hypothetical AIS grants programs. The resulting utilities of what different stakeholders value in an AIS grants program will be used in conjunction with feedback from focus groups and interviews to optimize the AIS grants program.

Presenter: Tim Campbell, AIS Outreach Specialist, Wisconsin DNR and UW-Extension

8:00-9:00 AM — Stonefield/Woodland Room

Mindful Connections - Rivers, Lakes, Groundwater & Watersheds

Watershed Planning: Understanding and Incorporating the Nine Key Elements

What are nine element plans? How do they differ from lake management or other watershed plans? What advantages do they provide, and what information and methods are needed to create a nine element plan? Come find the answers and guidance for a successful plan.

Presenter: Andrew Craig, Water Resource Management Specialist, Wisconsin DNR

8:00-9:00 AM — Sands/Frontier Room

Citizens Minding Our Waters

Introduction to Citizen-based Monitoring Projects that Mind Our Waters

The Wisconsin Citizen-based Monitoring Network is a collaboration of over 180 projects and organizations that monitor natural resources in Wisconsin. Partners monitor species and habitats in order to better understand and protect our natural resources. Find out about the network, its history, and the resources it offers to projects, organizations, and volunteers. Learn about volunteer opportunities monitoring bats, birds, frogs, turtles, mussels, and more!

Presenter: Eva Lewandowski, Conservation Biologist, Wisconsin DNR

Wisconsin's Lake Sturgeon

Lake sturgeon (Acipenser fulvescens) first appeared when dinosaurs roamed the earth, and they retain many of their primitive characteristics. In recent history, commercial fishermen first considered them a nuisance, slaughtered them, and tossed them on shore to rot. Later, they saw sturgeon as valuable for their flesh and eggs and harvested them by the ton. Today, the Winnebago sturgeon population is the world's largest and most intensely managed and studied. An all-volunteer Sturgeon Guard plays a key role in protecting this ancient species. Learn fun facts about this unique fish and how you can help ensure its future.

Presenter: Barbara Helmick, Sturgeon Guard Coordinator, Wisconsin DNR

8:00-9:00 AM — Harvest/Trillium Room

Ecology - Learning How to Live Mindfully with Our Aquatic Neighbors

Invasive Snails as Potential and Realized Hosts for Parasites in the Midwest

Invasive species have important impacts on the ecology and economics of regions throughout North America. Snails are an important group of aquatic invaders as they have the potential to transmit parasites that are problematic for both wildlife and people. As part of this talk, you will learn about some of the common invasive snails found in freshwater systems throughout the Midwest and will discuss their known and potential roles in parasite transmission. Dr. Sandland will identify some of the key findings from our research on host-parasite interactions which may help to explain the success of invasive snails in the area. Finally, the current work involving the development of predictive models to better understand the factors contributing to parasite-based issues (such as trematodiasis and swimmer itch) in the Midwest with be discussed.

Presenter: Greg Sandland, PhD, Professor of Biology, UW-La Crosse



Friday Sessions

9:15-10:15 AM

<u>9:15-10:15 AM — Expo 1 Room</u>

Mindful Management of Aquatic Invasive Species

In Pursuit of Boat Wash Stations: Styles, Questions to Consider, and Steps to Take

Many organizations are looking to pair additional action with the Clean Boats, Clean Waters message to protect their waters from aquatic invasive species. Boat wash stations often come to mind and have been a contested topic for several years. This session will help inform if a wash station is the right action for your group. Listen as we present information gathered from numerous agencies throughout the region that have successfully paired this type of boater contact with the state AIS message. You will leave knowing the basic questions to answer before investing your own time and money into these projects.

Presenter: Krista Kamke, Code Enforcement Officer, Green Lake County

Forming Partnerships to Support the Battle Against AIS in Washington and Waukesha Counties

The battle against AIS is in full force in Southeast WI. Bordering Lake Michigan and having the largest population density in the State make the task to control AIS daunting. Brad Steckart, Washington and Waukesha AIS Coordinator will describe how he has managed to work with many local partners to secure a strong foothold in the fight against aquatic hitchhikers and share some success stories.

Presenter: Brad Steckart, Aquatic Invasive Species Coordinator, Washington and Waukesha Counties

<u>9:15-10:15 AM — Expo 2 Room</u>

Bringing Policy Makers to the Water Table - People, Policy and Politics

Hot Topic Update #2: Shoreland Zoning

The Wisconsin Legislature has made major changes in recent years to shoreland zoning that applies to waterfront properties located outside of cities and villages. The Legislature required that the state minimum standards became one-size-fits-all standards, essentially eliminating the higher standards that over 40 counties had adopted. Counties were required to update their ordinances to reflect the one-size-fits-all standards by October 1, 2016. Come hear what counties have done, any further changes by the Legislature in 2017, and what you can do. *Presenters: Lynn Markham, Shoreland and Land Use Specialist, Center for Land Use Education, UW-Stevens Point and Kay Lutze, Shoreland Zoning Policy Coordinator, Wisconsin DNR*

9:15-10:15 AM — Evergreen Room

Grants and Codes - The Making of Healthy Lakes

Wisconsin DNR Surface Water Grants Updates

The WI Department of Natural Resources is in the process of revising the rules that govern the lake, river, and aquatic invasive species grants. Come learn about the proposed updates to this surface water grant program. *Presenter: Carroll Schaal, Lakes and Rivers Section Chief, Wisconsin DNR*

9:15-10:15 AM — Stonefield/Woodland Room

Mindful Connections - Rivers, Lakes, Groundwater & Watersheds

A Watershed Approach to the Future of Lakes and Waterways

Creating a desirable future for our lakes, waterways, and communities requires taking a watershed approach. The Water Sustainability and Climate project at UW-Madison took a watershed approach to understand possible futures for the Yahara Watershed and what could be done to build resilience. The implications of their findings have relevance to many Wisconsin watersheds, where people depend on their lands and waters for many different things. In this presentation, members of the project team will present some of their major implications and how they might inform efforts by lake associations. We will also discuss applications for watershed planning. *Presenters: Jenny Seifert, AIS Outreach Specialist, UW-Extension and Wisconsin DNR and Eric Booth, Department of Agronomy & Department of Civil & Environmental Engineering, UW-Madison*

Friday Sessions, cont.



9:15-10:15 AM

9:15-10:15 AM - Sands/Frontier Room

Citizens Minding Our Waters

Citizens Engaging Elected Officials

Laura will provide an overview of her involvement in the Water Action Volunteers (WAV) Stream Monitoring program, how she has engaged her elected officials in water quality issues, and offer tips and techniques for how best to do this important work.

Presenter: Laura DeGolier, Water Action Volunteers Citizen Monitor, Team Water Warriors

Send Your Legislator Down the River

The Rock River Coalition hosts an event titled "Send Your Legislator Down the River" that features a river town hall meeting in which citizens and their local, state, and federal elected officials talk about river and watershed issues in the Rock River Basin. Afterwards, participants paddle a section of a river in the Rock River Basin. The presenter will explain how this event has engaged legislators and citizens alike. Lessons learned after 13 events, including how to gain attendance by legislators, scheduling considerations, and other tips to maintaining a signature event will also be discussed.

Presenter: Patricia Cicero, Water Resource Management Specialist, Jefferson County Land and Water Conservation Department

The Shawano Lake Story

Shawano Area Waterways Management's Ray Zuelke and Tim Day are joined by Brenda Nordin of our Wisconsin's Department of Natural Resources to share their story of engaging elected officials. You will be interested to hear how representatives from many levels of government became comfortable championing an extremely successful Lake Management Plan.

Presenters: Brenda Nordin, Water Resource Management Specialist, Wisconsin DNR, Tim Day, Board Member, Shawano Area Waterways Management Association & Lake Leader Crew 10 and Ray Zuelke, Board Member, Shawano Area Waterways Management Association & Lake Leader Crew 10

9:15-10:15 AM — Harvest/Trillium Room

Ecology - Learning How to Live Mindfully with Our Aquatic Neighbors

Wood Turtles: Life History and Research

The wood turtle (*Glyptemys insculpta*) is a state-listed threatened species found in forested streams and rivers in Wisconsin. Learn how biologists are investigating the species' ecology and conservation strategies in northern Wisconsin since 2014. Their project has focused on the wood turtle's life history and movement patterns and identifying nesting sites and locations where road crossings put individuals at risk. See how they have experimented with creating and restoring nesting sites, nest protection strategies, and barriers to prevent turtles from entering roadways where they are at risk of mortality. Current project results (population estimates, survival, nest success and hatching rates, and home range analysis), feedback on several different conservation strategies, and new ideas for the project as it moves forward will be shared as well.

Presenter: Carly Lapin, Conservation Biologist, Wisconsin DNR

Martens: Their Dependence on Wetlands and the Iron County Student Project

Deep in the heart of Iron County in Northern Wisconsin, the Iron County Land and Water Conservation Department, along with local high school students, are investigating the linkage between forest types, soils, water, and wildlife. Through hands-on research, the team has been studying Wisconsin's state endangered American marten and its habitat, home range, and behavior. This session will introduce you to the fascinating natural history of the American marten, as well as a sharing of data collected about marten habitat and the importance of forested wetlands.

Presenter: Zach Wilson, Conservation Specialist, Iron County Land and Water Department



Friday Sessions

10:45-11:35 AM

<u>10:45-11:35 AM — Expo 1 Room</u>

Mindful Management of Aquatic Invasive Species

Two Stories of Aquatic Plant Management

Eradication of Eurasian Watermilfoil in Blackhawk Lake, Iowa County

Three colonies of Eurasian watermilfoil (*Myriophyllum spicatum*; EWM) were found in Blackhawk Lake, a 220-acre recreational impoundment, in 2006. By 2007, EWM had spread around the lake. An aquatic plant management plan was prepared and implemented using a Department of Natural Resources (DNR) Early Detection/Rapid Response grant. Chemical and manual procedures have been used over the years. Learn how DNR aquatic invasive species and Clean Boats, Clean Waters grants have supported biweekly aquatic plant surveys and watercraft inspection and education activities since 2012.

Presenters: Donna Sefton, Drinking Water Specialist, Wisconsin DNR and Citizen Volunteer and Laura Spears, Stormwater Specialist, Wisconsin DNR and Citizen Volunteer

Archibald Lake Flowering Rush Control, 1990-present

Archibald Lake has experimented with a variety of control methods for flowering rush since the middle 1990s. Most recently, they have used a variety of chemicals to scientifically detect the most effective chemical control method. Join us to find out more about flowering rush management and what's been learned.

Presenters: Brenda Nordin, Lake Biologist, Wisconsin DNR and Steve Fleming, Flowering Rush Project Leader, Archibald Lake Association

<u>10:45-11:35 AM — Expo 2 Room</u>

Bringing Policy Makers to the Water Table - People, Policy and Politics

Getting Legislators to Engage: Panel of Former Legislators

You're full of passion, ready with facts and persuasive arguments, but just don't know how to get through to your elected officials. Sound familiar? We'll ask a panel of former legislators and elected officials just what made them listen when contacted by their constituents and others. Staying away from the issues themselves, we'll talk frankly about what works, what doesn't, and the ways different legislators react to different types of communication. Join us for a lively conversation!

Moderated by Mike Engleson, Executive Director, Wisconsin Lakes. Legislators to be named.

<u>10:45-11:35 AM — Evergreen Room</u>

Grants and Codes - The Making of Healthy Lakes

Looking Forward: New Water Quality Standards for Lakes

The Wisconsin Department of Natural Resources (DNR) is in the process of updating the state's water quality standards for lakes. The DNR is proposing two new lake protection metrics that may be the first of their kind in the nation: biological criteria to assess lake health using aquatic plants packaged into an easy-to apply metric and protection of cold-water fish in two-story lakes using a metric that combines both dissolved oxygen and temperature. Additionally, the DNR proposes to codify previous guidance on chlorophyll criteria to protect recreation and aquatic life. Learn about these new directions for protecting lake health, and get a head start on understanding the rules before the public comment period in 2017.

Presenter: Kristi Minahan, Water Quality Standards Specialist, Wisconsin DNR

Friday Sessions, cont.



0:45-11:35 AM

10:45-11:35 AM — Stonefield/Woodland Room

Mindful Connections - Rivers, Lakes, Groundwater & Watersheds

How Water Quality Shapes the Ecology of the Mississippi River: Where We've Been, Where We Are, and Where We Need to Be

This presentation walks the viewer through the beauty, wonder, and mystery of the Mississippi River Ecosystem. It explains where we have been, where we are currently, and where we need to be to unlock the potential of this world-class ecosystem.

Presenter: Shawn Giblin, Water Resources Management Specialist, Wisconsin DNR

10:45-11:35 AM - Sands/Frontier Room

Citizens Minding Our Waters

Next Steps for AIS Monitoring in Wisconsin: Citizens and Staff Combining Efforts

For more than a decade, Wisconsin's aquatic invasive species (AIS) monitoring program has been supported by a strong network of volunteers and partners. Following completion of robust sampling efforts on lakes and streams, the Department of Natural Resources (DNR) and partners now have tools to improve monitoring strategies and expand AIS monitoring support for staff and citizens to increase early detections and enable quicker response. Come hear about what we've learned and how DNR and citizens can work together to monitor for AIS through Project Riverine Early Detectors, AIS Snapshot Day, Wisconsin's Citizen Lake Monitoring Network, and the Water Action Volunteer program. You can be a part of the early detection team! *Presenters: Maureen Ferry, Aquatic Invasive Species Monitoring Lead, Wisconsin DNR, Amanda Perdzock, Aquatic Invasive Species Program Director, River Alliance of Wisconsin, Paul Skawinski, Statewide Citizen Lake Monitoring Network Coordinator, UW-Extension Lakes, Peggy Compton, Natural Resources Educator and Volunteer Stream Monitoring Coordinator, UW-Extension*

10:45-11:35 AM — Harvest/Trillium Room

Ecology - Learning How to Live Mindfully with Our Aquatic Neighbors Beavers: Life History and the New Management Plan

Learn the life history of beavers, the largest rodent in North America. Beavers (*Castor canadensis*) are native to Wisconsin and can be polarizing. Find out how these interesting critters can be significant ecosystem engineers as they manipulate water levels through building dams and diverting water around lake edges. Highlights will include the 2015–2025 Wisconsin Beaver Management Plan which continues to emphasize resource protection, but does so with concern and care for various user groups. The plan takes into consideration the importance of beaver populations and the value they provide to lakes.

Presenter: Shawn Rossler, Wildlife Biologist, Wisconsin DNR

Who are Wisconsin's Lake Leaders?

We all do important work to help our lakes, but these folks have kicked it up a notch after graduating from the Wisconsin Lake Leaders Institute. Over 300 graduates from eleven crews are doing great work across the state. To find out more about Lake Leaders, pick up a brochure at the UWEX Lakes educational table near registration, or ask someone wearing a button that looks like this!



KE LEADS



Friday Luncheon

1:45 AM-1:15 PM

<u>11:45 AM – Northwoods Expo</u>

2017 Wisconsin Volunteer Stream Monitoring Awards The University of Wisconsin-Extension and the Wisconsin Department of Natural Resources are pleased to announce the recipients of the 2017 Wisconsin Volunteer Stream Monitoring Awards. Please join us as we recognize four individuals and one group for their efforts leading to increased participation in stream monitoring, collecting stream data, and sharing their knowledge and data. The awards will be presented during the Friday luncheon plenary, just prior to the closing keynote.

Congratulations to the 2017 Wisconsin Volunteer Stream Monitoring Award Winners!

Milwaukee River Keepers Jean Abreu, Wausau Dick Tripp, Brodhead Dick and Judi Oehler, Eagle River



Friday Luncheon Keynote – Northwoods Expo – 11:45 AM-1:15 PM Dipping Into Landscape and Wildlife:

A Journey from Mental Health Into the Healing Power of Nature Andrew Fusek Peters, Author, Poet, Playwright, Nature Photographer

Andrew Fusek Peters is an author, poet, playwright, and nature photographer residing in rural England. His recent memoir, <u>Dip: Wild Swims from the Borderlands</u>, recounts his experience with depression and the role of swimming in the outdoors in aiding his recovery. Andrew has been developing a deeper relationship with the countryside around his home,

known as the Shropshire Hills Area of Outstanding Natural Beauty, through nature photography. His images of the region have been published in the British press and in two books, <u>Wilderland: Wildlife and Wonder from the Shropshire Borders</u> and <u>Upland: Shropshire's Long Mynd and the Stiperstones</u>. Just before the lakes convention, Andrew will spend time with the students at Wisconsin's Northwest Passage program discussing photography, poetry and mental health. His talk will reflect on his personal evolution and the importance of collective actions to protect the lands and waters we love.

Thank YOU!

Chris Anderson Tim Asplund Kim Becken Tim Campbell Peggy Compton Mike Engleson Reesa Evans Maureen Ferry Patrick Goggin Ilana Haimes Katie Hein Kirsten James Amy Kowalski Maud LaMarche Lynn Markham Erin McFarlane Eric Olson Amanda Perdzock

2017

Wisconsin Lakes Partnership Convention Planning Team

Scott Provost Carolyn Scholl Jenny Siefert Paul Skawinski Elizabeth Spry Shelly Thomsen Aaron Thompson Pamela Toshner Nancy Turyk Scott Van Egeren Bob Wakeman Ethan Wandersee Sandy Wickman

Photo by Michelle Harrison



Friday Sessions

1:30-2:30 PM

1:30-2:30 PM - Stonefield/Woodland Room

Mindful Connections - Rivers, Lakes, Groundwater & Watersheds

Communicating Phosphorus TMDL Goals on Agricultural Lands

Total Maximum Daily Loads (TMDLs) are developed to outline how to meet water quality goals. When a TMDL is developed, a load allocation is established for every stream reach that flows into an impaired waterbody. This load allocation is split among point and non-point pollutant sectors, and the non-point sector in phosphorus TMDLs is often linked with agriculture. Agricultural load allocations have always been challenging to communicate due to 1) the inherent uncertainty associated with efficiencies of best-management practices and 2) the dependency of non-point phosphorus loading on weather conditions that vary widely in space and time. The Wisconsin Department of Natural Resources is developing a framework for communicating agricultural load allocations by translating watershed models to field-scale models that are well understood by the agricultural community, ultimately putting the TMDL tools in the hands of producers to enhance their ability to estimate the downstream benefits of best-management practices on their own fields. *Presenter: Aaron Ruesch, Water Resources Management Specialist, Wisconsin DNR*

Tresenter. Maron Ruesch, water Resources ivianagement Specialist, wisconsin Divik

A Plan to Improve Water Quality in Castle Rock and Petenwell Reservoirs

Castle Rock and Petenwell Reservoirs are the two largest reservoirs in the Wisconsin River basin, and are the main focus of a Total Maximum Daily Load (TMDL) analysis for the entire basin. This analysis is based on extensive water quality monitoring and land use evaluation throughout the basin and on a complex set of models that predict water quality response to phosphorus load reductions. Phosphorus load allocations were developed to fairly distribute the responsibility for water quality improvement amongst all contributing sources, including urban and agricultural runoff and wastewater discharges. This presentation will provide an overview of the Wisconsin River Basin TMDL, highlighting unique challenges of this large watershed and innovative approaches in the areas of modeling and stakeholder engagement.

Presenter: Matt Diebel, Water Resources Management Specialist, Wisconsin DNR

1:30-2:30 PM - Sands/Frontier Room

Citizens Minding Our Waters

How Citizen Data Can Affect Local Decision Making

Valley Stewardship Network is working to utilize the help of local Water Action Volunteers and Wisconsin Master Naturalists in an organized effort to collect data from over 25 sub-watersheds within the Kickapoo River watershed. This multi-year effort is designed to categorize these sub-watersheds based upon their water quality attributes and other factors, such as land-cover, in order to guide future conservation planning. Learn how this work will help to quantify the success of a recently announced Mississippi River Basin Healthy Watersheds Initiative that is bringing \$5.3 million in Environmental Quality Incentives Program cost-share funding from the Natural Resources Conservation Service. This funding is to be used for on-farm conservation practices designed to improve water quality in ten sub-watersheds in the Kickapoo River watershed.

Presenters: John Delaney, Agroecologist & Water Quality Program Manager, Valley Stewardship Network and Shelly Brenneman, Executive Director, Valley Stewardship Network

County Conservation Panel

Our panel will discuss how and why citizen monitoring data is used in their counties, the implications of this data for future management decisions, creation of "lake report cards," programming, and how funding will be distributed to areas of need.

Presenters: Jayne Jenks, Waukesha County Department of Parks and Land Use, Chase Cummings, County Conservationist, Pepin County and Catherine Higley, Invasive Species Coordinator, Vilas County Land and Water Conservation Department



Friday Sessions

3:00-4:00 PM

3:00-4:00 PM — Stonefield/Woodland Room

Mindful Connections - Rivers, Lakes, Groundwater & Watersheds Using Citizen Lake Monitoring and Water Action Volunteer Programs as Tools for Watershed Planning

The Citizen Lake Monitoring Network and Water Action Volunteers are two free programs that require only volunteer participation to gather important information that can be used in watershed planning. This presentation will focus on explaining the programs, engaging volunteers, and using the information in planning. Presenter: Reesa Evans, Lake Specialist, Adams County Land and Water Department

Long-term Water Quality Trends in Wisconsin Lakes

Has water quality in Wisconsin lakes changed over time? Water quality should improve with watershed management efforts, but could still degrade due to land development, intensive agriculture, and extreme precipitation. The Wisconsin Department of Natural Resources (WDNR) and citizen volunteers have collected water quality data from 1500 lakes for up to 34 years on a single lake. I tested for linear trends in phosphorus, nitrogen, alkalinity, calcium, magnesium, and color.

Presenter: Katie Hein, Lakes Monitoring Technical Lead - Bureau of Water Quality, Wisconsin DNR

3:00-4:00 PM — Sands/Frontier Room

Citizens Minding Our Waters

Two Guys in Waders: Preserving the Ten Mile Creek

As Level 3 Water Action Volunteer monitors, we conduct monthly tests at 11 locations in the Ten Mile Creek watershed, which leads into the head waters of Lake Petenwell. All data collected is loaded into the Wisconsin Department of Natural Resources (DNR) database and is currently being used in the preparation of an Environmental Impact Statement. For the preservation of any watershed, we believe that it is essential for a program to require the involvement of local government, citizen volunteers, and DNR biologists. After four years, we have evolved from waterfront property owners to highly-trained, competent scientific data collectors. If we can do it...we know that you can, too.

Presenters: Rob Borski, Water Action Volunteer Citizen Monitor and Brian Hamm, Water Action Volunteer Citizen Monitor

Incorporating Monitoring into Your Association: Why or How an Established Organization gets Members Involved in Stream Monitoring

Recruiting volunteer stream monitors and matching them up with monitoring sites has been challenging. Sometimes a site is selected to match the desires and proximity of the volunteer without a strategic need for data at that particular site. In the Central Sands Region, target sites are selected in consultation with the Department of Natural Resources' Streams Biologist, where data gathered will provide the best picture of watershed health. Teams are then recruited to monitor at these specific locations. A few of these examples will be presented. Presenter: Bob Jozwowski, Coordinator, Central Wisconsin Chapter of Trout Unlimited River Keepers

Water Action Volunteers (WAV) Water Action Volunteers Stream Monitoring Program



The Water Action Volunteers (WAV) Stream Monitoring Program is a statewide program for Wisconsin citizens who want to learn about and improve the quality of Wisconsin's Streams and rivers. The program is coordinated through a partnership between the Wisconsin Department of Natural Resources and the University of Wisconsin - Cooperative Extension. There are three levels of monitoring for citizens who participate in the WAV Program. As the levels increase, monitoring responsibilities and quality assurance and control measures are more intensive, and data uses shift from educational to addressing management and research needs.



Wisconsin Lakes Partnership



Since its genesis in the early 1970s, the Wisconsin Lakes Partnership has become a national model of a true partnership. Three groups form the core of this unique team:

Wisconsin Department of Natural Resources

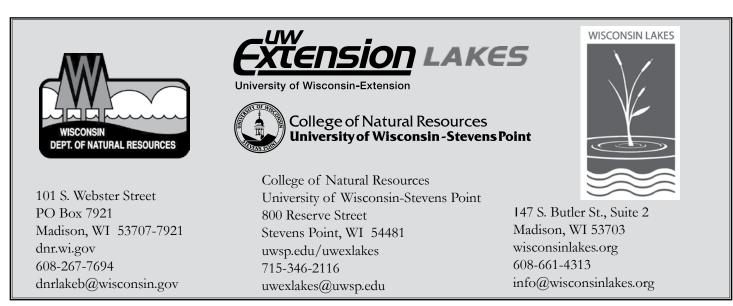
Provides technical and financial assistance and regulatory authority.

University of Wisconsin-Extension Lakes

Designs and delivers educational materials and community outreach.

Wisconsin Lakes

Advocates for local lake people and organizations at the state level.



The partnership is a statewide, multi-faceted effort that has reaches far beyond the core groups to include regional, county, tribal, non-profit, and federal partners. Our goal is to continue to protect and preserve our state waters and support those meeting the challenges that come with the management and stewardship of Wisconsin's lakes.

Partnership activities include:

- Lake science and research
- Citizen volunteer lake monitoring
- Leadership development for lake groups
- Native aquatic plant protection
- Invasive species prevention, education, and management
- Pollution prevention
- Water recreation planning
- Land and water regulation
- Stable funding for lake programs statewide
- Coalition building and organizational development
- Classifying lakes for protection and restoration

Wisconsin has a long history of women and men stepping forward and engaging in the work of protecting and restoring our lakes. People from all walks of life – citizens and professionals – are teaming up and making a difference.

Thank you for being a part of the Wisconsin Lakes Partnership!

Protecting in Partnership Our Legacy of Lakes

Convention Archives

Not able to attend all of the sessions you'd like? Want to view a specific presentation in depth? You're in luck! Convention archives will be available on the UW-Extension Lakes web site and will include items such as:

- Minding Our Waters
- Presentation Materials
- Exit Survey
- Speaker List
- Convention Packet Materials (agenda, stewardship awards, business partner guide, etc.)
- Photo Contest Winners

Check out the 2017 Wisconsin Lakes Partnership Convention Archives

uwsp.edu/uwexlakes

then click Convention 2017 under Events in the left navigation column.

Save the Date

2018 Lakes Convention

SAVE THE DATE

for next year's Wisconsin Lakes Partnership Convention held in conjunction with the Midwest Great Lakes chapter of the Society for Ecological Restoration (SER) annual conference and the Water Action Volunteers (WAV) Symposium.

HEEDING THE CALL Wednesday through Friday, April 18-20, 2018 Holiday Inn and Convention Center, Stevens Point, WI













College of Natural Resources University of Wisconsin - Stevens Point

uwsp.edu/uwexlakes